



February 8, 2021

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

**Re: Release Characterization and Reclamation Work Plan  
ConocoPhillips  
EVGSAU 3127-002 Flowline Release  
Unit Letter K, Section 32, Township 17 South, Range 35 East  
Lea County, New Mexico  
1RP-1251  
Incident ID nPAC0708024675**

Sir or Madam:

Tetra Tech, Inc. (Tetra Tech) was contacted by ConocoPhillips (COP) to assess a historical release that occurred from a flowline associated with the East Vacuum Grayburg-San Andres Unit (EVGSAU) well #3127-002 (API No. 30-025-02961). The release footprint is located in Public Land Survey System (PLSS) Unit Letter K, Section 32, Township 17 South, Range 35 East, in Lea County, New Mexico (Site). The approximate release point occurred at coordinates 32.788387°, -103.482421°, 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 February 27, 2007. According to the C-141, the release occurred due to a leak resulted from external corrosion to a 3-inch steel flowline. The release consisted of 5 barrels (bbls) of oil and 19.18 bbls of produced water and affected a 35-foot (ft) by 75-ft pasture area. During immediate response actions, a vacuum truck recovered 4.2 bbls of oil and 15.8 bbls of produced water. The New Mexico Oil Conservation District (NMOCD) received the C-141 report form for the release on March 19, 2007. The release was subsequently assigned Remediation Permit (RP) number 1RP-1251 and the Incident ID nPAC0708024675. The 1RP-1251 release is included in an Agreed Compliance Order-Releases (ACO-R) between COP and the NMOCD signed on May 7 and 9, 2019, respectively.

## SITE CHARACTERIZATION

A site characterization was performed and no watercourses, sinkholes, residences, schools, hospitals, institutions, churches, springs, private domestic water wells, springs, playa lakes, wetlands, incorporated municipal boundaries, subsurface mines, or floodplains are located within the distances specified in 19.15.29 New Mexico Administrative Code (NMAC). The Site is in an area of low karst potential.

According to the New Mexico Office of the State Engineers (NMOSE) reporting system, there is one water wells within 800 meters of the release footprint. The average depth to groundwater for that well is 85 ft below ground surface. However, there are thirty-seven (37) water wells within 1,600 meters (approximately 1 mile) of the Site. The average depth to groundwater for those wells is 84 ft below ground surface (bgs). The site characterization data is included in Appendix B.

Tetra Tech

901 West Wall St., Suite 100, Midland, TX 79701

Tel 432.682.4559

Fax 432.682.3946

www.tetrattech.com

## 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 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 in accordance with Table I of 19.15.29.12 NMAC, the remediation RRALs for the Site are as follows:

Constituent	Remediation RRAL
Chloride	10,000 mg/kg
TPH	2,500 mg/kg
BTEX	50 mg/kg

Additionally, in accordance with the NMOCD guidance *Procedures for Implementation of the Spill Rule (19.15.29 NMAC)* (September 6, 2019), the following reclamation RRALs for surface soils (0-4 ft bgs) outside of active oil and gas operations are as follows:

Constituent	Reclamation RRAL
Chloride	600 mg/kg
TPH	100 mg/kg
BTEX	50 mg/kg

## SITE ASSESSMENT

On behalf of COP, Tetra Tech personnel visited the Site in June of 2020 to visually inspect the reported release extent. During this Site visit, the release footprint was observed to lack uniform vegetative cover. Photographic documentation of the June 2020 Site visit is included in Appendix C. It was unclear from the site inspection whether the Site had been previously remediated.

Based on the site inspection observations, at the request of COP, Tetra Tech returned to the Site in November 2020 to conduct soil sampling to achieve vertical and horizontal delineation of the release extent. A total of five (5) borings (BH-1 through BH-5) were installed using an air rotary drilling rig. One (1) boring (BH-1) was installed to a depth of 30 ft bgs inside the release extent. One (1) boring was installed to a depth of 30 ft and three (3) borings (BH-3 through BH-5) were installed to depths of 4 ft bgs along the perimeter of the release extent to the north, south, and east. One (1) hand auger boring (AH-1) was advanced to a depth of 2 ft bgs to complete horizontal delineation of the release extent to the west. Soils at the Site consist of approximately 1.5 ft of brown silty clay underlain by a caliche cap rock. Figure 3 depicts the release extent and the November 2020 soil boring locations, and GPS coordinates for the boring locations are presented in Table 1.

Soils were field screened for salinity using an ExTech EC400 ExStik and for volatile organics using a photoionization detector (PID) to determine sampling intervals. A total of twenty-six (26) samples were collected from the six (6) borings (BH-1 through BH-5 and AH-1) and submitted to Pace Analytical National Center for Testing & Innovation (Pace) in Nashville, Tennessee to be 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 D.

## SUMMARY OF SAMPLING RESULTS

Results from the November 2020 soil sampling event are summarized in Table 2. The analytical results associated with all samples collected from the (5) borings (BH-1 through BH-5) and AH-1 were below the

Site reclamation RRALs for chloride (600 mg/kg), BTEX (50 mg/kg) and TPH (100 mg/kg). Sampling results imply that previous remediation work has occurred at the Site.

### SITE RECLAMATION AND RESTORATION PLAN

Based on the results of the Site assessment, no additional soil remediation is necessary at the Site. However, as this is an off-pad release, Site reclamation and restoration activities are warranted in order to establish vegetative cover that reflects a life-form ratio of plus or minus fifty percent of pre-disturbance levels and a total percent plant cover of at least seventy percent of pre-disturbance levels. Bare soils in the former release footprint will be ripped, blended with clean topsoil, and contoured to promote drainage and root penetration. The mixing of topsoil with underlying subsoil will promote revegetation.

Unvegetated areas in the former release footprint will be seeded in Spring 2021 (or the first favorable growing season) to aid in revegetation. Based on 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 E.

### CONCLUSION

ConocoPhillips proposes to begin reclamation activities at the Site within 1 year of NMOCD plan approval. The EVGSAU 3127-002 Flowline Release (1RP-1251) is included in an Agreed Compliance Order-Releases (ACO-R) between COP and the NMOCD signed on May 7 and 9, 2019, respectively. COP is dedicated to addressing and closing all historical releases included in the ACO-R, and given the number of releases to be addressed, 1 year is anticipated to be a practicable timeline. Upon completion of the proposed work, a final closure report detailing the reclamation activities will be submitted to NMOCD.

If you have any questions concerning the soil assessment or the proposed reclamation activities for the Site, please call me at (512) 739-7874 or Christian at (512) 338-2861.

Sincerely,  
**Tetra Tech, Inc.**



Samantha K. Abbott, P.G.  
Senior Staff Geologist



Christian M. Llull, P.G.  
Project Manager

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

## LIST OF ATTACHMENTS

### Figures:

- Figure 1 – Site Location Map
- Figure 2 – Topographic Map
- Figure 3 – Release Extent and Site Assessment
- Figure 4 – Proposed Reclamation Extent

### Tables:

- Table 1 – Boring Location Coordinates
- Table 2 – Summary of Analytical Results – Soil Assessment


### Appendices:

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

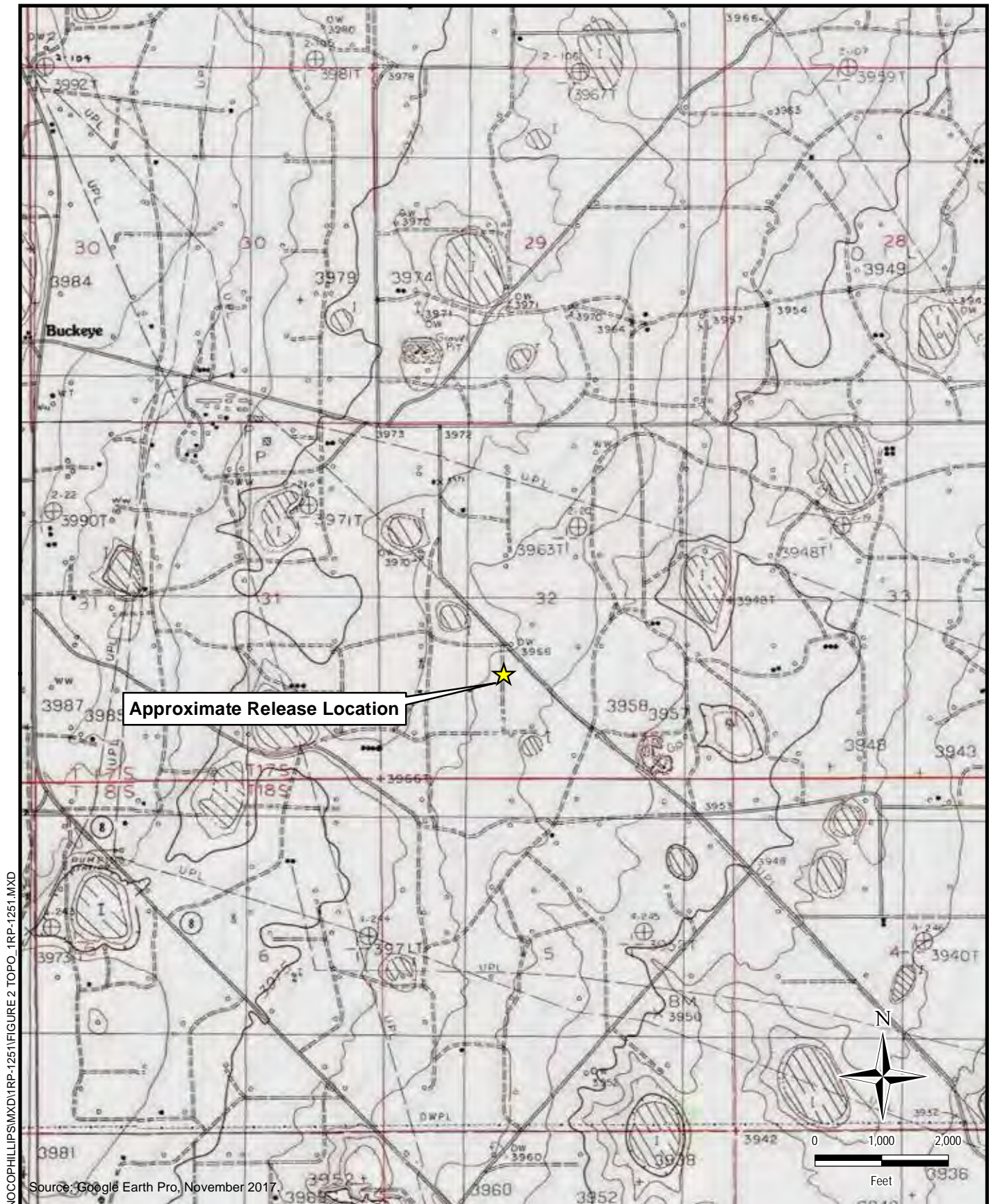
## **FIGURES**



DOCUMENT PATH: D:\CONOCOPHILLIPS\MXD\1RP-1251\FIGURE 1 SITE LOCATION\_1RP-1251.MXD

 <p><b>TETRA TECH</b></p> <p>www.tetrattech.com</p> <p>901 West Wall Street, Suite 100 Midland, Texas 79701 Phone: (432) 682-4559 Fax: (432) 682-3946</p>	<p><b>CONOCOPHILLIPS</b></p> <p>1RP-1251 (32.788387°, -103.482421°) LEA COUNTY, NEW MEXICO</p> <p><b>EVGSAU 3127-002 FLOWLINE RELEASE SITE LOCATION MAP</b></p>	<p>PROJECT NO.: 212C-MD-02334</p> <p>DATE: DECEMBER 17, 2020</p> <p>DESIGNED BY: AJW</p> <p>Figure No. <b>1</b></p>
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DOCUMENT PATH: D:\CONOCOPHILLIPS\1RP-1251\FIGURE 2 TOPO. 1RP-1251.MXD


**TETRA TECH**
[www.tetrattech.com](http://www.tetrattech.com)

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

**CONOCOPHILLIPS**

 1RP-1251  
 (32.788387°, -103.482421°)  
 LEA COUNTY, NEW MEXICO

**EVGSAU 3127-002 FLOWLINE RELEASE  
 TOPOGRAPHIC MAP**

PROJECT NO.: 212C-MD-02334

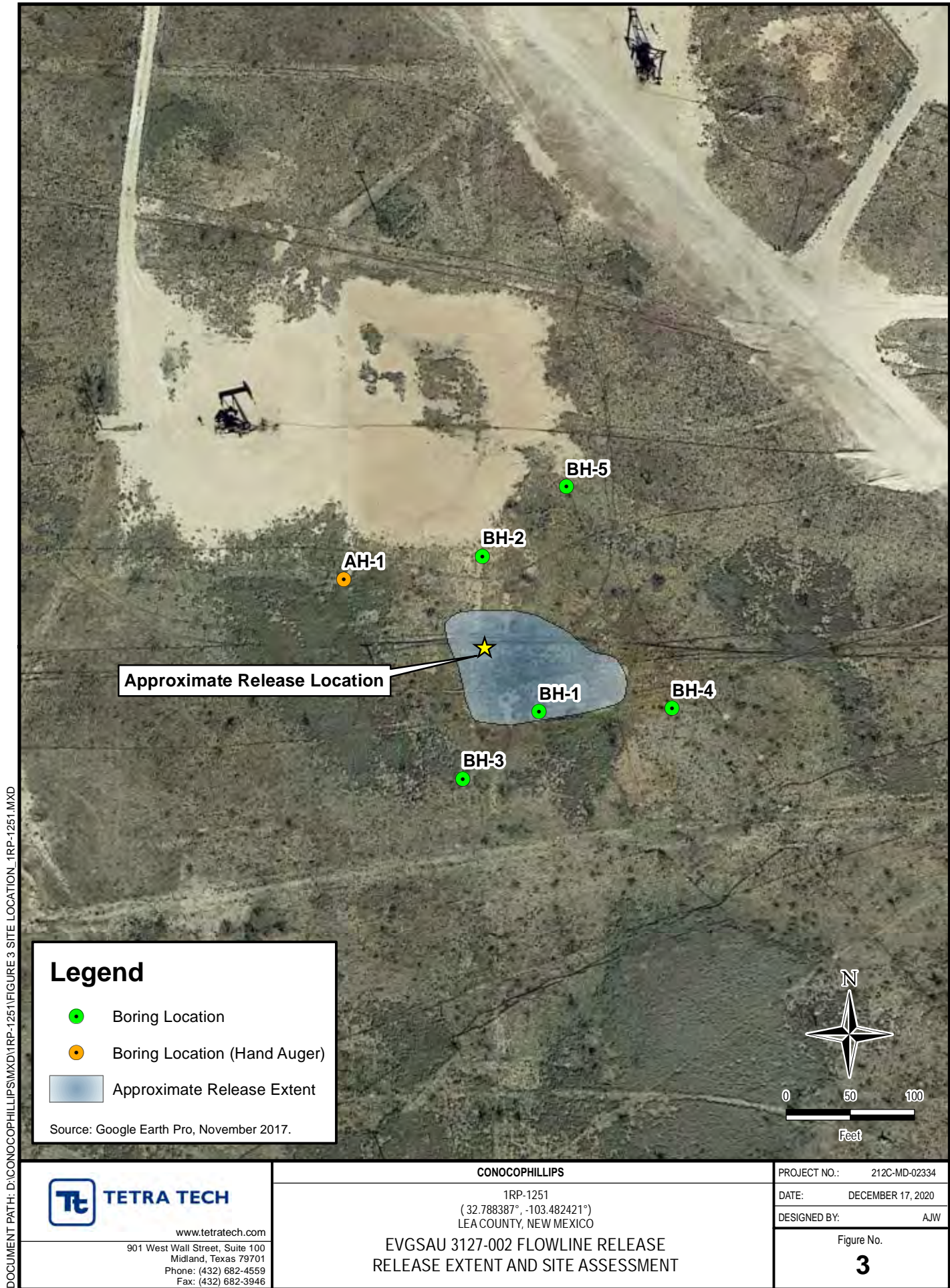
DATE: DECEMBER 17, 2020

DESIGNED BY: AJW

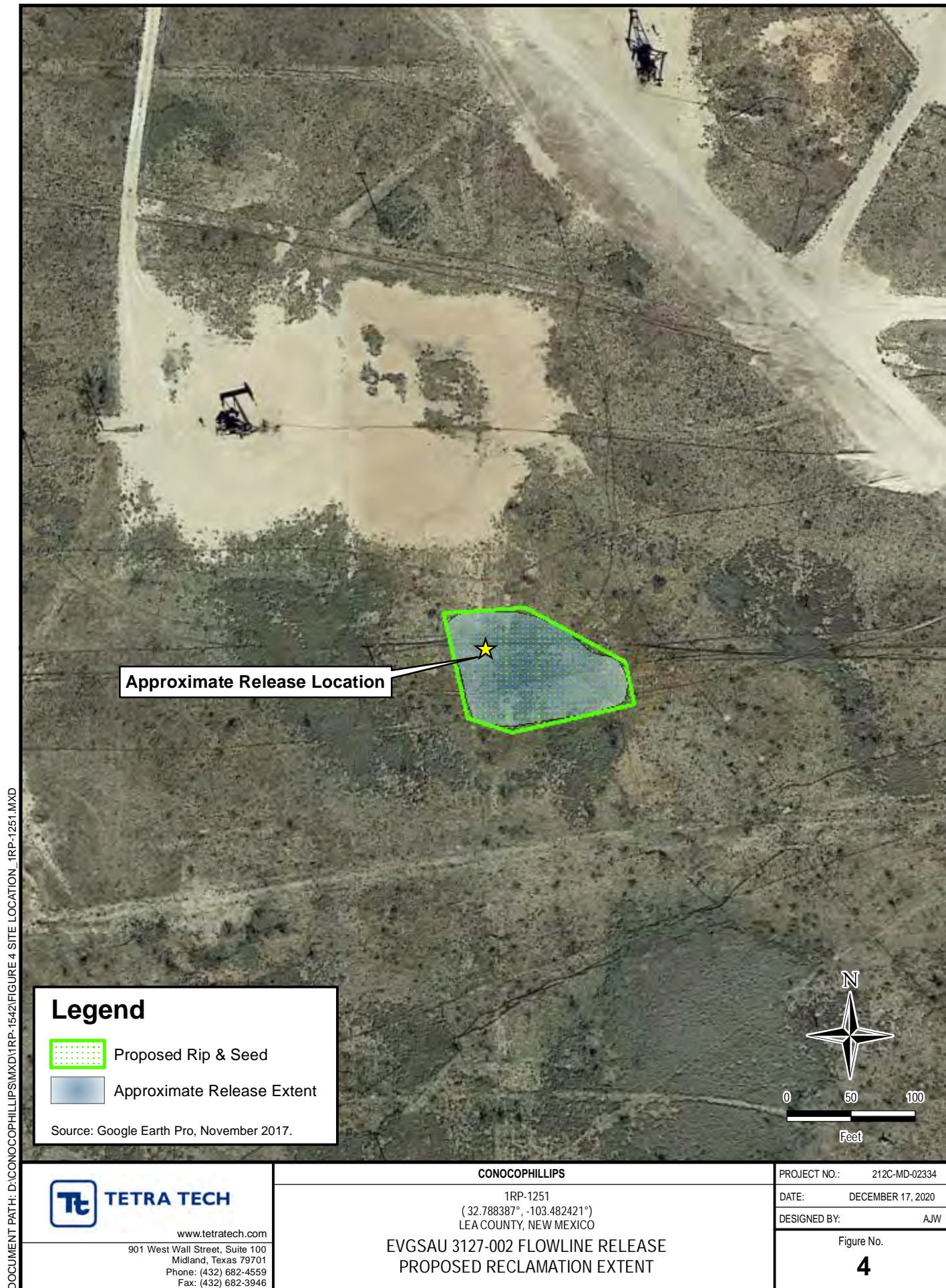
Figure No.

**2**









## **TABLES**

TABLE 1  
BORING LOCATION COORDINATES  
SOIL ASSESSMENT - 1RP-1251  
CONOCOPHILLIPS  
EVGSAU 3127-002 FLOWLINE RELEASE  
LEA COUNTY, NM

Boring ID	Latitude	Longitude
AH-1	32.788533	-103.482776
BH-1	32.788248	-103.482283
BH-2	32.788580	-103.482425
BH-3	32.788105	-103.482478
BH-4	32.788253	-103.481946
BH-5	32.788728	-103.482209



TABLE 2  
SUMMARY OF ANALYTICAL RESULTS  
SOIL ASSESSMENT - 1RP-1251  
CONOCOPHILLIPS  
EVGSAU 3127-002 FLOWLINE RELEASE  
LEA COUNTY, NM

Sample ID	Sample Date	Sample Depth Interval	Field Screening Results		Chloride <sup>1</sup>		BTEX <sup>2</sup>								TPH <sup>3</sup>							
							Benzene		Toluene		Ethylbenzene		Total Xylenes		Total BTEX		GRO <sup>4</sup>		DRO		ORO	
			C <sub>3</sub> - C <sub>10</sub>														C <sub>10</sub> - C <sub>28</sub>		C <sub>28</sub> - C <sub>40</sub>			
			ft. bgs	ppm			mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q
BH-1	11/2/2020	0-1	-	-	< 20.4		< 0.00104		< 0.00520		< 0.00260		< 0.00675		-	< 0.102		14.7		32.6		47.3
		2-3	-	-	37.6		< 0.00107		< 0.00536		< 0.00268		< 0.00697		-	< 0.104		< 4.15		0.357	J	0.357
		4-5	-	-	47.2		< 0.00114		< 0.00570		< 0.00285		< 0.00741		-	< 0.107		3.55	J	5.21		8.76
		6-7	-	-	43.1		< 0.00111		< 0.00553		< 0.00277		< 0.00719		-	< 0.105		2.95	J	6.68		9.63
		9-10	-	-	49.7		< 0.00124		< 0.00619		< 0.00310		< 0.00805		-	0.0260	B J	< 4.48		0.368	J	0.394
		14-15	-	-	49.3		< 0.00119		< 0.00596		< 0.00298		< 0.00775		-	< 0.110		< 4.38		0.385	J	0.385
		19-20	-	-	31.6		< 0.00115		< 0.00577		< 0.00289		< 0.00750		-	0.0235	B J	< 4.31		< 4.31		0.0235
		24-25	-	-	44.1		< 0.00113		< 0.00565		< 0.00282		< 0.00734		-	< 0.106		< 4.26		< 4.26		-
29-30	104	0.2	36.5		< 0.00112		< 0.00562		< 0.00281		< 0.00730		-	< 0.106		< 4.25		< 4.25		-		
BH-2	11/2/2020	0-1	-	-	120		< 0.00107		< 0.00536		< 0.00268		< 0.00696		-	< 0.104		3.70	J	8.12		11.8
		2-3	-	-	151		< 0.00109		< 0.00543		< 0.00272		< 0.00706		-	< 0.104		< 4.17		2.71	J	2.71
		4-5	-	-	241		< 0.00111		< 0.00557		< 0.00278		< 0.00724		-	0.0231	B J	< 4.23		< 4.23		0.0231
		6-7	-	-	50.5		< 0.00111		< 0.00553		< 0.00277		< 0.00719		-	< 0.105		< 4.21		< 4.21		-
		9-10	-	-	< 21.1		< 0.00111		< 0.00556		< 0.00278		< 0.00723		-	< 0.106		< 4.23		< 4.23		-
		14-15	-	-	< 21.1		< 0.00111		< 0.00554		< 0.00277		< 0.00721		-	< 0.105		< 4.22		< 4.22		-
		19-20	-	-	< 20.6		< 0.00106		< 0.00531		< 0.00266		< 0.00691		-	0.0226	B J	< 4.13		< 4.13		0.0226
		24-25	-	-	< 21.4		< 0.00114		< 0.00568		< 0.00284		< 0.00738		-	< 0.107		< 4.27		< 4.27		-
29-30	86.1	0.3	< 21.2		< 0.00112		< 0.00560		< 0.00280		< 0.00728		-	< 0.106		< 4.24		< 4.24		-		
BH-3	11/2/2020	0-1	121	0.4	< 20.9		< 0.00109		< 0.00544		< 0.00272		< 0.00707		-	0.0253	B J	3.90	J	11.0		14.9
		3-4	96.1	0.1	< 20.3		< 0.00103		< 0.00517		< 0.00259		< 0.00672		-	< 0.102		< 4.07		0.856	J	0.856
BH-4	11/2/2020	0-1	101	0.9	85.3		< 0.00106		< 0.00529		< 0.00265		< 0.00688		-	0.0255	B J	2.70	B J	4.51	B	7.24
		3-4	109	0.4	69.5		< 0.00107		< 0.00536		< 0.00268		< 0.00696		-	< 0.104		< 4.14		1.86	B J	1.86
BH-5	11/2/2020	0-1	64.1	0.2	55.9		< 0.00114		< 0.00568		< 0.00284		< 0.00738		-	< 0.107		5.35	B	14.8	B	20.2
		3-4	69.8	0.1	34.5		< 0.00103		< 0.00515		< 0.00257		< 0.00669		-	< 0.101		< 4.06		3.04	B J	3.04
AH-1	11/9/2020	0-1	157	-	24.1		< 0.000537		< 0.00537		< 0.000537		< 0.00161		-	0.0452	J	11.3		76.6		87.9
		1-2	142	-	23.6		< 0.000535		< 0.00535		< 0.000535		< 0.00161		-	< 0.107		8.36		73.1		81.5

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  
ORO Oil 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.  
J The identification of the analyte is acceptable; the reported value is an estimate.

## **APPENDIX A C-141 Forms**

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, 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  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-141  
Revised October 10, 2003

Submit 2 Copies to appropriate  
District Office in accordance  
with Rule 116 on back  
side of form

## Release Notification and Corrective Action

### OPERATOR

☒ Initial Report

☐ Final Report

Name of Company <b>ConocoPhillips Company</b>	Contact <b>Mickey D. Garner</b>
Address <b>3300 North A St. Bldg 6, Midland, TX 79705-5406</b>	Telephone No. <b>505.391.3158</b>
Facility Name <b>EVGSAU 3127-002</b>	Facility Type <b>Oil and Gas</b>
Surface Owner <b>State of New Mexico</b>	Mineral Owner <b>State of New Mexico</b>
Lease No <b>API# 30-025-02961-00-00</b>	

### LOCATION OF RELEASE

Unit Letter <b>I</b>	Section <b>31</b>	Township <b>17S</b>	Range <b>35E</b>	Feet from the	North/South Line	Feet from the	East/West Line	County <b>Lea</b>
-------------------------	----------------------	------------------------	---------------------	---------------	------------------	---------------	----------------	----------------------

Latitude **32.78850 N** Longitude **103.48244 W**

### NATURE OF RELEASE

Type of Release <b>Crude Oil and Produced Water</b>	Volume of Release <b>24.18bbl (5oil, 19.18water)</b>	Volume Recovered <b>(4.2oil, 15.8water)</b>
Source of Release <b>3" Steel Flowline</b>	Date and Hour of Occurrence <b>02-27-2007 9:00 am</b>	Date and Hour of Discovery <b>02-27-2007 11:00 am</b>
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? <b>N/A</b>	
By Whom? <b>N/A</b>	Date and Hour <b>N/A</b>	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. <b>N/A</b>	

If a Watercourse was Impacted, Describe Fully.\*  
**N/A**



Describe Cause of Problem and Remedial Action Taken.\*

**Leak resulted from external corrosion to a 3" steel flowline. MSO shut in well and called vacuum truck to pick up free liquids.**

Describe Area Affected and Cleanup Action Taken.\*

**A 35' X 75' area of pasture was affected. No cows were present. The spill site will be delineated and remediated in accordance with NMOCD guidelines.**

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD 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 NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with other federal, state, or local laws and/or regulations.

Signature: 	OIL CONSERVATION DIVISION	
Printed Name: <b>Mickey D. Garner</b>	Approved by District Supervisor: 	
Title: <b>HSER Lead</b>	Approval Date: <b>3-19-07</b>	Expiration Date: <b>6-19-07</b>
E-mail Address: <b>Mickey.D.Garner@conocophillips.com</b>	Conditions of Approval: <b>Final C-141 w/DECONTAMINATION OF SITE &amp; DISPOSAL</b>	Attached <input type="checkbox"/>
Date: <b>03-02-2007</b> Phone: <b>505.391.3158</b>		

- Attach Additional Sheets If Necessary

OF AFFECTED SOILS.

incident - nPAC0708024675  
applicant - nPAC0708024886

RP#1251



Incident ID	
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?	_____ (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input type="checkbox"/> 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)?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input type="checkbox"/> 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?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input type="checkbox"/> 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.

State of New Mexico  
Oil Conservation Division

Page 4

Incident ID	
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: \_\_\_\_\_ Title: \_\_\_\_\_

Signature: Charles R. Beauvais II Date: \_\_\_\_\_

email: \_\_\_\_\_ Telephone: \_\_\_\_\_

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

Incident ID	
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: \_\_\_\_\_ Title: \_\_\_\_\_

Signature: Charles R. Beauvais II Date: \_\_\_\_\_

email: \_\_\_\_\_ Telephone: \_\_\_\_\_

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

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

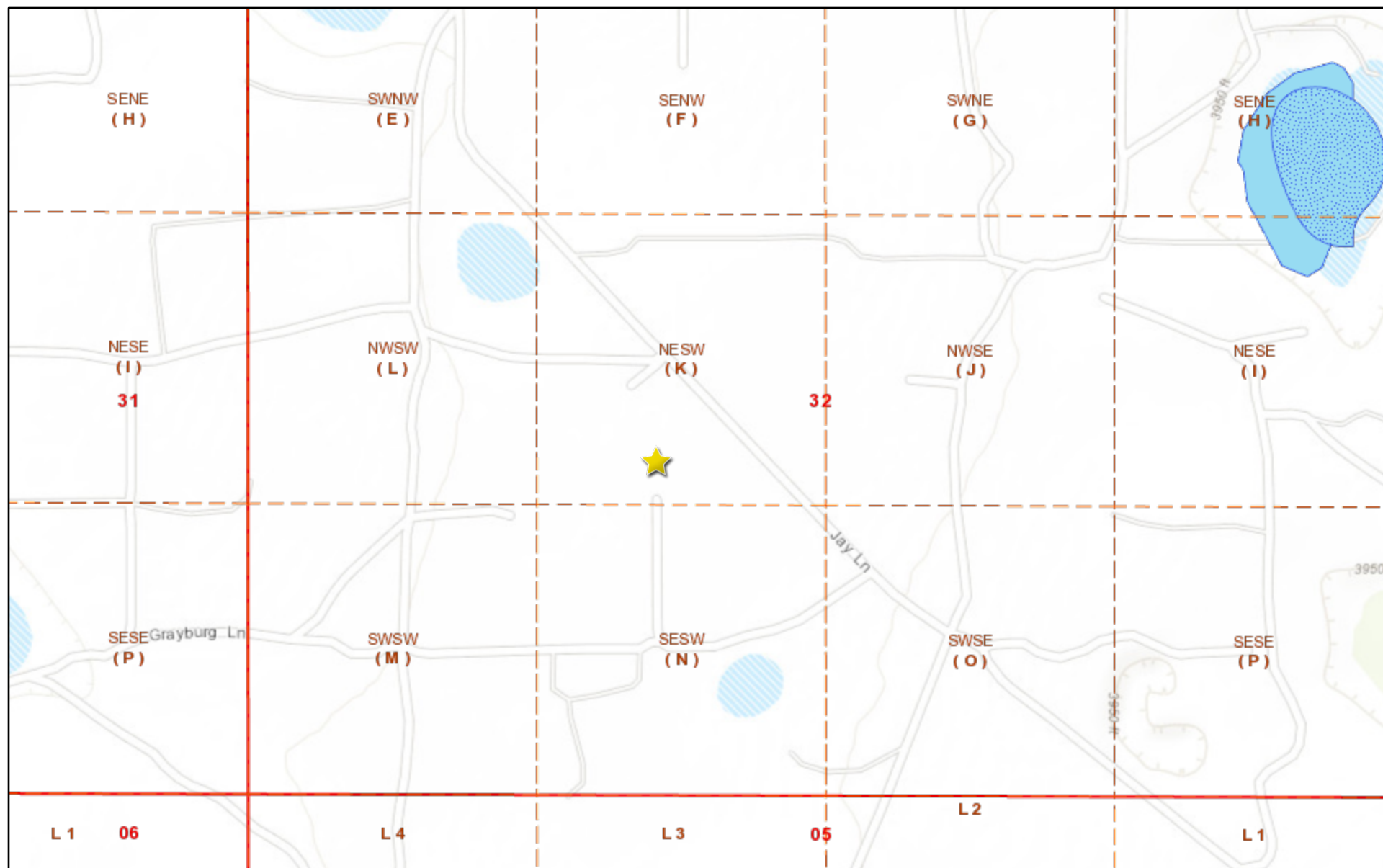
Signature: \_\_\_\_\_ Date: \_\_\_\_\_






## **APPENDIX B**




### **Site Characterization Data**


1RP-1251



2/8/2021, 1:52:33 PM

 Override 1
  PLSS First Division
  PLJV Probable Playas

 OCD District Offices
  PLSS Second Division
  OSE Streams

 OSE Water-bodies

1:9,028

Bureau of Land Management, Texas Parks & Wildlife, Esri, HERE, Garmin,

New Mexico Oil Conservation Division

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

# KARST POTENTIAL MAP

1RP-1251



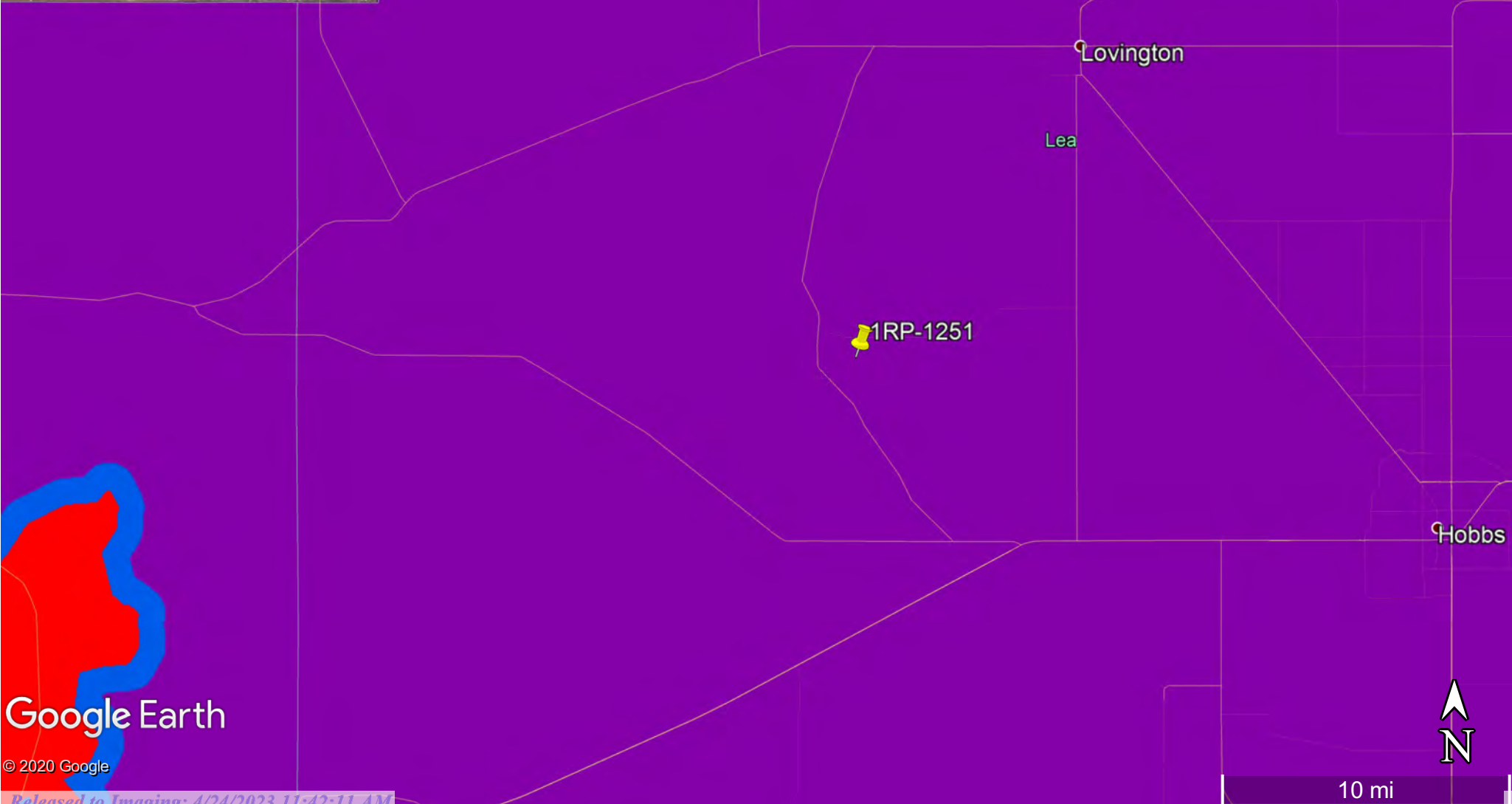
Legend

 1RP-1251

 High

 Low

 Medium



Google Earth

© 2020 Google





# 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 Code	Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	DepthWell	DepthWater	Water Column
<a href="#">L 04829 S</a>		L	LE	3	4	32	17S	35E		642554	3628586*	513	198	85	113
<a href="#">L 04931</a>		L	LE	1	2	05	18S	35E		642561	3628183*	801	237	70	167
<a href="#">L 14183 POD2</a>		L	LE	3	2	2	31	17S	35E	641304	3629691	1168	227	105	122
<a href="#">L 14183 POD1</a>		L	LE	3	2	2	31	17S	35E	641266	3629667	1177	229	106	123
<a href="#">L 03875 S2</a>	R	L	LE		2	31	17S	35E		641131	3629576*	1221	120	95	25
<a href="#">L 03875 S4</a>		L	LE		2	31	17S	35E		641131	3629576*	1221	120		
<a href="#">L 13392 POD19</a>		L	LE	3	2	2	06	18S	35E	641155	3628080	1225	138		
<a href="#">L 13392 POD12</a>		L	LE	4	1	2	06	18S	35E	641148	3628085	1227			
<a href="#">L 13392 POD2</a>		L	LE	4	1	2	06	18S	35E	641151	3628069	1234			
<a href="#">L 13392 POD13</a>		L	LE	4	1	2	06	18S	35E	641128	3628091	1240			
<a href="#">L 13392 POD4</a>		L	LE	4	1	2	06	18S	35E	641152	3628054	1244			
<a href="#">L 13392 POD1</a>		L	LE	4	1	2	06	18S	35E	641125	3628069	1255			
<a href="#">L 14183 POD3</a>		L	LE	3	2	2	31	17S	35E	641213	3629731	1260	227	104	123
<a href="#">L 13041 POD1</a>		L	LE		2	2	06	18S	35E	641152	3628026	1261	130		
<a href="#">L 13041 POD2</a>		L	LE		2	2	06	18S	35E	641152	3628026	1261	140		
<a href="#">L 13041 POD3</a>		L	LE		2	2	06	18S	35E	641152	3628026	1261	140		
<a href="#">L 13041 POD4</a>		L	LE		2	2	06	18S	35E	641152	3628026	1261	140		
<a href="#">L 13392 POD6</a>		L	LE	4	1	2	06	18S	35E	641144	3628032	1264			
<a href="#">L 13392 POD3</a>		L	LE	4	1	2	06	18S	35E	641126	3628050	1266			
<a href="#">L 13392 POD7</a>		L	LE	4	1	2	06	18S	35E	641149	3628017	1269			
<a href="#">L 13392 POD16</a>		L	LE	3	2	2	06	18S	35E	641171	3627989	1272	138		
<a href="#">L 13392 POD18</a>		L	LE	4	1	2	06	18S	35E	641143	3628014	1276	138		
<a href="#">L 13392 POD15</a>		L	LE	4	1	2	06	18S	35E	641119	3628041	1277	137		
<a href="#">L 13392 POD9</a>		L	LE	4	1	2	06	18S	35E	641147	3628002	1281			
<a href="#">L 13392 POD5</a>		L	LE	4	1	2	06	18S	35E	641123	3628029	1282			
<a href="#">L 13392 POD17</a>		L	LE	4	1	2	06	18S	35E	641149	3627992	1286	138		
<a href="#">L 13392 POD8</a>		L	LE	4	1	2	06	18S	35E	641131	3628001	1293			
<a href="#">L 13392 POD11</a>		L	LE	4	1	2	06	18S	35E	641147	3627980	1295			
<a href="#">L 13392 POD14</a>		L	LE	4	1	2	06	18S	35E	641118	3628007	1300	133		
<a href="#">L 04250</a>		L	LE			05	18S	35E		642378	3627565*	1309	112	60	52
<a href="#">L 13392 POD10</a>		L	LE	4	1	2	06	18S	35E	641124	3627980	1313			
<a href="#">L 13392 POD20</a>		L	LE	4	1	2	06	18S	35E	641081	3628000	1333	138		
<a href="#">L 04829 S5</a>		L	LE	3	1	33	17S	35E		643347	3629400*	1354	220	90	130

Average Depth to Water:	84 feet
Minimum Depth:	60 feet
Maximum Depth:	106 feet

**Radius:** 1600

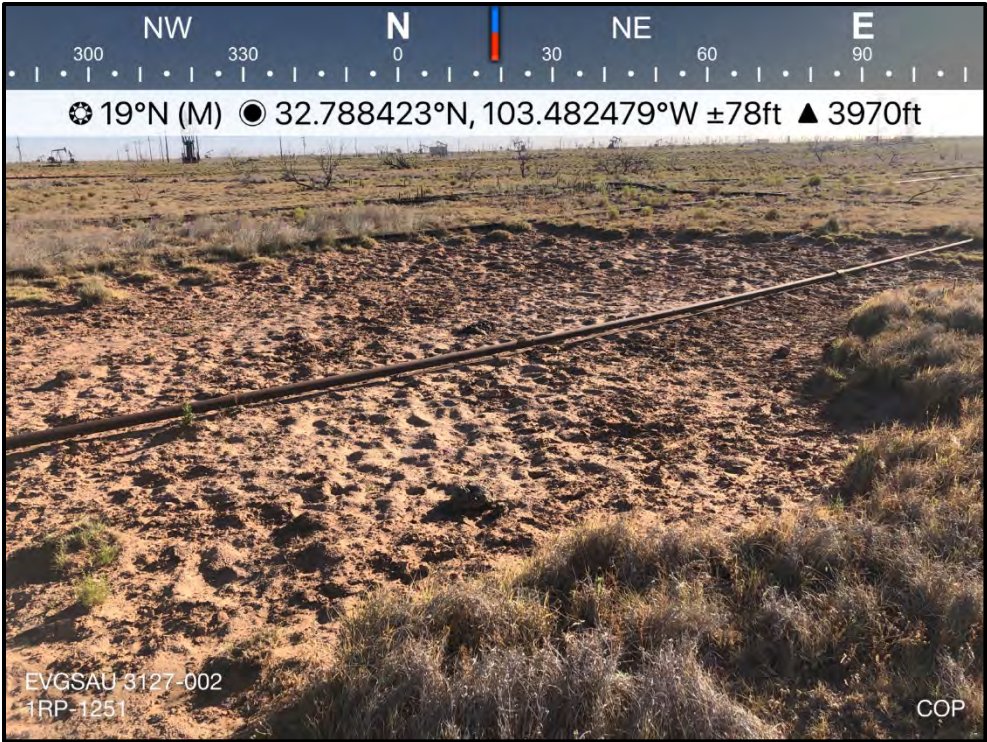
The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

WATER COLUMN/ AVERAGE DEPTH TO WATER

## **APPENDIX C**

# **Photographic Documentation**





TETRA TECH, INC. PROJECT NO. 212C-MD-02152	DESCRIPTION	View facing northeast of release area.	1
	SITE NAME	EVGSAU 3127-002 Flowline Release	6/9/2020

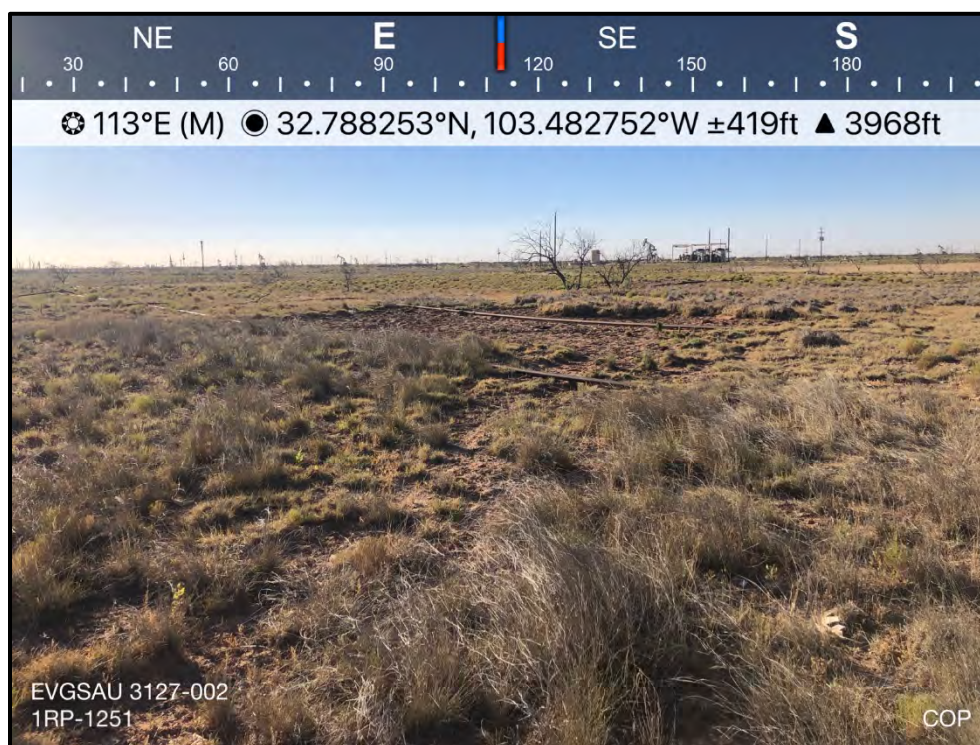


TETRA TECH, INC. PROJECT NO. 212C-MD-02152	DESCRIPTION	View facing west of release area.	2
	SITE NAME	EVGSAU 3127-002 Flowline Release	6/9/2020





TETRA TECH, INC. PROJECT NO. 212C-MD-02152	DESCRIPTION	View facing southwest of release area.	3
	SITE NAME	EVGSAU 3127-002 Flowline Release	6/9/2020



TETRA TECH, INC. PROJECT NO. 212C-MD-02152	DESCRIPTION	View facing southeast of release area.	4
	SITE NAME	EVGSAU 3127-002 Flowline Release	6/9/2020

## **APPENDIX D**

### **Laboratory Analytical Data**



## ANALYTICAL REPORT

November 19, 2020

**ConocoPhillips - Tetra Tech**

Sample Delivery Group: L1283239  
Samples Received: 11/07/2020  
Project Number: 212C-MD-02334  
Description: EVGSAU 3127-002 Flowline Release (IRP-1251)

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

Entire Report Reviewed By:

Chris McCord  
Project Manager

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





<b>Cp: Cover Page</b>	<b>1</b>
<b>Tc: Table of Contents</b>	<b>2</b>
<b>Ss: Sample Summary</b>	<b>3</b>
<b>Cn: Case Narrative</b>	<b>8</b>
<b>Sr: Sample Results</b>	<b>9</b>
BH-1 (0-1') L1283239-01	9
BH-1 (2-3') L1283239-02	10
BH-1 (4-5') L1283239-03	11
BH-1 (6-7') L1283239-04	12
BH-1 (9-10') L1283239-05	13
BH-1 (14-15') L1283239-06	14
BH-1 (19-20') L1283239-07	15
BH-1 (24-25') L1283239-08	16
BH-1 (29-30') L1283239-09	17
BH-2 (0-1') L1283239-10	18
BH-2 (2-3') L1283239-11	19
BH-2 (4-5') L1283239-12	20
BH-2 (6-7') L1283239-13	21
BH-2 (9-10') L1283239-14	22
BH-2 (14-15') L1283239-15	23
BH-2 (19-20') L1283239-16	24
BH-2 (24-25') L1283239-17	25
BH-2 (29-30') L1283239-18	26
BH-3 (0-1') L1283239-19	27
BH-3 (3-4') L1283239-20	28
BH-4 (0-1') L1283239-21	29
BH-4 (3-4') L1283239-22	30
BH-5 (0-1') L1283239-23	31
BH-5 (3-4') L1283239-24	32
<b>Qc: Quality Control Summary</b>	<b>33</b>
Total Solids by Method 2540 G-2011	33
Wet Chemistry by Method 300.0	36
Volatile Organic Compounds (GC) by Method 8015D/GRO	38
Volatile Organic Compounds (GC/MS) by Method 8260B	41
Semi-Volatile Organic Compounds (GC) by Method 8015	45
<b>Gl: Glossary of Terms</b>	<b>47</b>
<b>Al: Accreditations &amp; Locations</b>	<b>48</b>
<b>Sc: Sample Chain of Custody</b>	<b>49</b>

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

## BH-1 (0-1') L1283239-01 Solid

Collected by  
Joe Tyler

Collected date/time  
11/02/20 12:00

Received date/time  
11/07/20 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1575498	1	11/14/20 03:51	11/14/20 04:02	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1576526	1	11/17/20 09:26	11/18/20 10:46	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1576843	1	11/11/20 22:38	11/16/20 03:58	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1575666	1	11/11/20 22:38	11/13/20 04:37	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1576773	1	11/15/20 09:08	11/16/20 02:31	JN	Mt. Juliet, TN

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn

## BH-1 (2-3') L1283239-02 Solid

Collected by  
Joe Tyler

Collected date/time  
11/02/20 12:10

Received date/time  
11/07/20 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1575498	1	11/14/20 03:51	11/14/20 04:02	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1576526	1	11/17/20 09:26	11/18/20 11:14	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1576843	1	11/11/20 22:38	11/16/20 04:19	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1575666	1	11/11/20 22:38	11/13/20 04:56	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1576773	1	11/15/20 09:08	11/15/20 22:01	JN	Mt. Juliet, TN

<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> Gl<sup>8</sup> Al

## BH-1 (4-5') L1283239-03 Solid

Collected by  
Joe Tyler

Collected date/time  
11/02/20 12:20

Received date/time  
11/07/20 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1575498	1	11/14/20 03:51	11/14/20 04:02	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1576526	1	11/17/20 09:26	11/18/20 11:24	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1576843	1	11/11/20 22:38	11/16/20 04:40	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1575666	1	11/11/20 22:38	11/13/20 05:15	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1576773	1	11/15/20 09:08	11/16/20 01:53	JN	Mt. Juliet, TN

<sup>9</sup> Sc

## BH-1 (6-7') L1283239-04 Solid

Collected by  
Joe Tyler

Collected date/time  
11/02/20 12:30

Received date/time  
11/07/20 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1575498	1	11/14/20 03:51	11/14/20 04:02	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1576526	1	11/17/20 09:26	11/18/20 11:33	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1575709	1	11/11/20 22:38	11/13/20 18:36	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1575666	1	11/11/20 22:38	11/13/20 05:34	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1576773	1	11/15/20 09:08	11/16/20 02:06	JN	Mt. Juliet, TN

## BH-1 (9-10') L1283239-05 Solid

Collected by  
Joe Tyler

Collected date/time  
11/02/20 12:40

Received date/time  
11/07/20 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1575499	1	11/14/20 03:31	11/14/20 03:44	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1576526	1	11/17/20 09:26	11/18/20 12:02	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1575709	1	11/11/20 22:38	11/13/20 18:57	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1575666	1	11/11/20 22:38	11/13/20 05:53	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1576773	1	11/15/20 09:08	11/15/20 22:39	JN	Mt. Juliet, TN

## BH-1 (14-15') L1283239-06 Solid

Collected by  
Joe Tyler

Collected date/time  
11/02/20 12:50

Received date/time  
11/07/20 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1575499	1	11/14/20 03:31	11/14/20 03:44	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1576526	1	11/17/20 09:26	11/18/20 12:12	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1575709	1	11/11/20 22:38	11/13/20 19:16	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1575666	1	11/11/20 22:38	11/13/20 06:12	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1576773	1	11/15/20 09:08	11/15/20 22:51	JN	Mt. Juliet, TN

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn

## BH-1 (19-20') L1283239-07 Solid

Collected by  
Joe Tyler

Collected date/time  
11/02/20 13:00

Received date/time  
11/07/20 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1575499	1	11/14/20 03:31	11/14/20 03:44	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1576526	1	11/17/20 09:26	11/18/20 12:21	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1575925	1	11/11/20 22:38	11/13/20 23:14	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1575666	1	11/11/20 22:38	11/13/20 06:31	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1576773	1	11/15/20 09:08	11/15/20 23:04	JN	Mt. Juliet, TN

<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> Gl<sup>8</sup> Al

## BH-1 (24-25') L1283239-08 Solid

Collected by  
Joe Tyler

Collected date/time  
11/02/20 13:10

Received date/time  
11/07/20 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1575499	1	11/14/20 03:31	11/14/20 03:44	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1576526	1	11/17/20 09:26	11/18/20 12:31	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1575925	1	11/11/20 22:38	11/13/20 23:35	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1575946	1	11/11/20 22:38	11/13/20 12:01	AV	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1576773	1	11/15/20 09:08	11/15/20 23:17	JN	Mt. Juliet, TN

<sup>9</sup> Sc

## BH-1 (29-30') L1283239-09 Solid

Collected by  
Joe Tyler

Collected date/time  
11/02/20 13:30

Received date/time  
11/07/20 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1575499	1	11/14/20 03:31	11/14/20 03:44	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1576526	1	11/17/20 09:26	11/18/20 12:40	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1575925	1	11/11/20 22:38	11/13/20 23:56	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1575946	1	11/11/20 22:38	11/13/20 12:20	AV	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1576773	1	11/15/20 09:08	11/15/20 23:34	JN	Mt. Juliet, TN

## BH-2 (0-1') L1283239-10 Solid

Collected by  
Joe Tyler

Collected date/time  
11/02/20 14:00

Received date/time  
11/07/20 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1575499	1	11/14/20 03:31	11/14/20 03:44	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1576526	1	11/17/20 09:26	11/18/20 12:50	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1575925	1	11/11/20 22:38	11/14/20 00:16	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1575946	1	11/11/20 22:38	11/13/20 13:17	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1576773	1	11/15/20 09:08	11/16/20 02:18	JN	Mt. Juliet, TN

## BH-2 (2-3') L1283239-11 Solid

Collected by  
Joe Tyler

Collected date/time  
11/02/20 14:10

Received date/time  
11/07/20 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1575499	1	11/14/20 03:31	11/14/20 03:44	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1576526	1	11/17/20 09:26	11/18/20 12:59	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1575925	1	11/11/20 22:38	11/14/20 00:37	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1575946	1	11/11/20 22:38	11/13/20 13:36	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1576773	1	11/15/20 09:08	11/16/20 01:28	JN	Mt. Juliet, TN

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn

## BH-2 (4-5') L1283239-12 Solid

Collected by  
Joe Tyler

Collected date/time  
11/02/20 14:20

Received date/time  
11/07/20 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1575499	1	11/14/20 03:31	11/14/20 03:44	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1576526	1	11/17/20 09:26	11/18/20 13:09	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1575925	1	11/11/20 22:38	11/14/20 00:58	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1575946	1	11/11/20 22:38	11/13/20 13:55	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1576773	1	11/15/20 09:08	11/15/20 23:46	JN	Mt. Juliet, TN

<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> Gl<sup>8</sup> Al

## BH-2 (6-7') L1283239-13 Solid

Collected by  
Joe Tyler

Collected date/time  
11/02/20 14:30

Received date/time  
11/07/20 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1575499	1	11/14/20 03:31	11/14/20 03:44	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1576526	1	11/17/20 09:26	11/18/20 13:18	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1575925	1	11/12/20 09:26	11/14/20 01:18	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1575946	1	11/12/20 09:26	11/13/20 14:14	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1576773	1	11/15/20 09:08	11/15/20 23:59	JN	Mt. Juliet, TN

<sup>9</sup> Sc

## BH-2 (9-10') L1283239-14 Solid

Collected by  
Joe Tyler

Collected date/time  
11/02/20 14:40

Received date/time  
11/07/20 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1575499	1	11/14/20 03:31	11/14/20 03:44	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1576526	1	11/17/20 09:26	11/18/20 13:28	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1575925	1	11/12/20 09:26	11/14/20 01:39	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1575946	1	11/12/20 09:26	11/13/20 15:30	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1576773	1	11/15/20 09:08	11/16/20 00:12	JN	Mt. Juliet, TN

## BH-2 (14-15') L1283239-15 Solid

Collected by  
Joe Tyler

Collected date/time  
11/02/20 14:50

Received date/time  
11/07/20 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1575502	1	11/14/20 02:37	11/14/20 03:24	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1576526	1	11/17/20 09:26	11/18/20 13:56	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1575925	1	11/12/20 09:26	11/14/20 01:59	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1575946	1	11/12/20 09:26	11/13/20 15:49	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1576773	1	11/15/20 09:08	11/16/20 00:24	JN	Mt. Juliet, TN

## BH-2 (19-20') L1283239-16 Solid

Collected by  
Joe Tyler

Collected date/time  
11/02/20 15:00

Received date/time  
11/07/20 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1575502	1	11/14/20 02:37	11/14/20 03:24	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1576526	1	11/17/20 09:26	11/18/20 14:06	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1575925	1	11/12/20 09:26	11/14/20 02:20	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1575946	1	11/12/20 09:26	11/13/20 16:08	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1576773	1	11/15/20 09:08	11/16/20 00:37	JN	Mt. Juliet, TN

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn

## BH-2 (24-25') L1283239-17 Solid

Collected by  
Joe Tyler

Collected date/time  
11/02/20 15:10

Received date/time  
11/07/20 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1575502	1	11/14/20 02:37	11/14/20 03:24	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1576526	1	11/17/20 09:26	11/18/20 14:15	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1575925	1	11/12/20 09:26	11/14/20 02:41	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1575946	1	11/12/20 09:26	11/13/20 16:27	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1576773	1	11/15/20 09:08	11/16/20 00:50	JN	Mt. Juliet, TN

<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> Gl<sup>8</sup> Al

## BH-2 (29-30') L1283239-18 Solid

Collected by  
Joe Tyler

Collected date/time  
11/02/20 15:30

Received date/time  
11/07/20 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1575502	1	11/14/20 02:37	11/14/20 03:24	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1576526	1	11/17/20 09:26	11/18/20 14:25	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1575925	1	11/12/20 09:26	11/14/20 03:01	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1575946	1	11/12/20 09:26	11/13/20 16:46	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1576773	1	11/15/20 09:08	11/16/20 01:02	JN	Mt. Juliet, TN

<sup>9</sup> Sc

## BH-3 (0-1') L1283239-19 Solid

Collected by  
Joe Tyler

Collected date/time  
11/02/20 16:00

Received date/time  
11/07/20 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1575502	1	11/14/20 02:37	11/14/20 03:24	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1576526	1	11/17/20 09:26	11/18/20 14:34	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1575925	1	11/12/20 09:26	11/14/20 03:22	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1576826	1	11/12/20 09:26	11/16/20 11:04	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1576773	1	11/15/20 09:08	11/16/20 01:15	JN	Mt. Juliet, TN

## BH-3 (3-4') L1283239-20 Solid

Collected by  
Joe Tyler

Collected date/time  
11/02/20 16:10

Received date/time  
11/07/20 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1575502	1	11/14/20 02:37	11/14/20 03:24	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1576809	1	11/17/20 13:08	11/18/20 21:06	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1575925	1	11/12/20 09:26	11/14/20 03:43	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1576826	1	11/12/20 09:26	11/16/20 11:23	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1576773	1	11/15/20 09:08	11/16/20 01:40	JN	Mt. Juliet, TN



BH-4 (0-1') L1283239-21 Solid

Collected by  
Joe Tyler

Collected date/time  
11/02/20 16:30

Received date/time  
11/07/20 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1575502	1	11/14/20 02:37	11/14/20 03:24	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1576809	1	11/17/20 13:08	11/18/20 21:34	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1575925	1	11/12/20 09:26	11/14/20 04:03	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1575965	1	11/12/20 09:26	11/13/20 20:05	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1576774	1	11/16/20 20:42	11/17/20 00:00	JN	Mt. Juliet, TN

1Cp

2Tc

3Ss

4Cn

BH-4 (3-4') L1283239-22 Solid

Collected by  
Joe Tyler

Collected date/time  
11/02/20 16:40

Received date/time  
11/07/20 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1575502	1	11/14/20 02:37	11/14/20 03:24	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1576809	1	11/17/20 13:08	11/18/20 21:53	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1575925	1	11/12/20 09:26	11/14/20 04:24	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1575965	1	11/12/20 09:26	11/13/20 20:24	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1576774	1	11/16/20 20:42	11/17/20 00:13	JN	Mt. Juliet, TN

5Sr

6Qc

7Gl

8Al

BH-5 (0-1') L1283239-23 Solid

Collected by  
Joe Tyler

Collected date/time  
11/02/20 17:00

Received date/time  
11/07/20 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1575502	1	11/14/20 02:37	11/14/20 03:24	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1576809	1	11/17/20 13:08	11/18/20 22:03	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1575925	1	11/12/20 09:26	11/14/20 04:44	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1575965	1	11/12/20 09:26	11/13/20 20:43	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1576774	1	11/16/20 20:42	11/17/20 00:25	JN	Mt. Juliet, TN

9Sc

BH-5 (3-4') L1283239-24 Solid


Collected by  
Joe Tyler

Collected date/time  
11/02/20 17:10

Received date/time  
11/07/20 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1575502	1	11/14/20 02:37	11/14/20 03:24	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1576809	1	11/17/20 13:08	11/18/20 22:12	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1575925	1	11/12/20 09:26	11/14/20 05:05	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1575965	1	11/12/20 09:26	11/13/20 21:02	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1576774	1	11/16/20 20:42	11/17/20 00:38	JN	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

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

Collected date/time: 11/02/20 12:00

L1283239

## Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	98.1		1	11/14/2020 04:02	<a href="#">WG1575498</a>

## 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		9.38	20.4	1	11/18/2020 10:46	<a href="#">WG1576526</a>

## 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		0.0221	0.102	1	11/16/2020 03:58	<a href="#">WG1576843</a>
(S) a,a,a-Trifluorotoluene(FID)	108			77.0-120		11/16/2020 03:58	<a href="#">WG1576843</a>

## 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		0.000485	0.00104	1	11/13/2020 04:37	<a href="#">WG1575666</a>
Toluene	U		0.00135	0.00520	1	11/13/2020 04:37	<a href="#">WG1575666</a>
Ethylbenzene	U		0.000766	0.00260	1	11/13/2020 04:37	<a href="#">WG1575666</a>
Total Xylenes	U		0.000914	0.00675	1	11/13/2020 04:37	<a href="#">WG1575666</a>
(S) Toluene-d8	103			75.0-131		11/13/2020 04:37	<a href="#">WG1575666</a>
(S) 4-Bromofluorobenzene	100			67.0-138		11/13/2020 04:37	<a href="#">WG1575666</a>
(S) 1,2-Dichloroethane-d4	89.0			70.0-130		11/13/2020 04:37	<a href="#">WG1575666</a>

## 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	14.7		1.64	4.08	1	11/16/2020 02:31	<a href="#">WG1576773</a>
C28-C40 Oil Range	32.6		0.279	4.08	1	11/16/2020 02:31	<a href="#">WG1576773</a>
(S) o-Terphenyl	69.2			18.0-148		11/16/2020 02:31	<a href="#">WG1576773</a>

Collected date/time: 11/02/20 12:10

L1283239

## Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	96.5		1	11/14/2020 04:02	<a href="#">WG1575498</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Chloride	37.6		9.53	20.7	1	11/18/2020 11:14	<a href="#">WG1576526</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0225	0.104	1	11/16/2020 04:19	<a href="#">WG1576843</a>
(S) a,a,a-Trifluorotoluene(FID)	107			77.0-120		11/16/2020 04:19	<a href="#">WG1576843</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Benzene	U		0.000501	0.00107	1	11/13/2020 04:56	<a href="#">WG1575666</a>
Toluene	U		0.00139	0.00536	1	11/13/2020 04:56	<a href="#">WG1575666</a>
Ethylbenzene	U		0.000791	0.00268	1	11/13/2020 04:56	<a href="#">WG1575666</a>
Total Xylenes	U		0.000944	0.00697	1	11/13/2020 04:56	<a href="#">WG1575666</a>
(S) Toluene-d8	106			75.0-131		11/13/2020 04:56	<a href="#">WG1575666</a>
(S) 4-Bromofluorobenzene	97.8			67.0-138		11/13/2020 04:56	<a href="#">WG1575666</a>
(S) 1,2-Dichloroethane-d4	85.8			70.0-130		11/13/2020 04:56	<a href="#">WG1575666</a>

## Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	U		1.67	4.15	1	11/15/2020 22:01	<a href="#">WG1576773</a>
C28-C40 Oil Range	0.357	J	0.284	4.15	1	11/15/2020 22:01	<a href="#">WG1576773</a>
(S) o-Terphenyl	86.6			18.0-148		11/15/2020 22:01	<a href="#">WG1576773</a>

Collected date/time: 11/02/20 12:20

L1283239

## Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	93.4		1	11/14/2020 04:02	<a href="#">WG1575498</a>

## Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Chloride	47.2		9.85	21.4	1	11/18/2020 11:24	<a href="#">WG1576526</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0232	0.107	1	11/16/2020 04:40	<a href="#">WG1576843</a>
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	108			77.0-120		11/16/2020 04:40	<a href="#">WG1576843</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Benzene	U		0.000533	0.00114	1	11/13/2020 05:15	<a href="#">WG1575666</a>
Toluene	U		0.00148	0.00570	1	11/13/2020 05:15	<a href="#">WG1575666</a>
Ethylbenzene	U		0.000841	0.00285	1	11/13/2020 05:15	<a href="#">WG1575666</a>
Total Xylenes	U		0.00100	0.00741	1	11/13/2020 05:15	<a href="#">WG1575666</a>
(S) <i>Toluene-d8</i>	105			75.0-131		11/13/2020 05:15	<a href="#">WG1575666</a>
(S) <i>4-Bromofluorobenzene</i>	98.8			67.0-138		11/13/2020 05:15	<a href="#">WG1575666</a>
(S) <i>1,2-Dichloroethane-d4</i>	82.8			70.0-130		11/13/2020 05:15	<a href="#">WG1575666</a>

## Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	3.55	J	1.72	4.28	1	11/16/2020 01:53	<a href="#">WG1576773</a>
C28-C40 Oil Range	5.21		0.293	4.28	1	11/16/2020 01:53	<a href="#">WG1576773</a>
(S) <i>o</i> -Terphenyl	78.7			18.0-148		11/16/2020 01:53	<a href="#">WG1576773</a>



Collected date/time: 11/02/20 12:30

L1283239

## Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	95.0		1	11/14/2020 04:02	<a href="#">WG1575498</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Chloride	43.1		9.69	21.1	1	11/18/2020 11:33	<a href="#">WG1576526</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0229	0.105	1	11/13/2020 18:36	<a href="#">WG1575709</a>
(S) a,a,a-Trifluorotoluene(FID)	93.2			77.0-120		11/13/2020 18:36	<a href="#">WG1575709</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Benzene	U		0.000517	0.00111	1	11/13/2020 05:34	<a href="#">WG1575666</a>
Toluene	U		0.00144	0.00553	1	11/13/2020 05:34	<a href="#">WG1575666</a>
Ethylbenzene	U		0.000815	0.00277	1	11/13/2020 05:34	<a href="#">WG1575666</a>
Total Xylenes	U		0.000974	0.00719	1	11/13/2020 05:34	<a href="#">WG1575666</a>
(S) Toluene-d8	104			75.0-131		11/13/2020 05:34	<a href="#">WG1575666</a>
(S) 4-Bromofluorobenzene	101			67.0-138		11/13/2020 05:34	<a href="#">WG1575666</a>
(S) 1,2-Dichloroethane-d4	82.9			70.0-130		11/13/2020 05:34	<a href="#">WG1575666</a>

## Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	2.95	J	1.70	4.21	1	11/16/2020 02:06	<a href="#">WG1576773</a>
C28-C40 Oil Range	6.68		0.289	4.21	1	11/16/2020 02:06	<a href="#">WG1576773</a>
(S) o-Terphenyl	83.8			18.0-148		11/16/2020 02:06	<a href="#">WG1576773</a>

Collected date/time: 11/02/20 12:40

L1283239

## Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	89.4		1	11/14/2020 03:44	<a href="#">WG1575499</a>

## Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Chloride	49.7		10.3	22.4	1	11/18/2020 12:02	<a href="#">WG1576526</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0260	<a href="#">B J</a>	0.0243	0.112	1	11/13/2020 18:57	<a href="#">WG1575709</a>
(S) a,a,a-Trifluorotoluene(FID)	92.7			77.0-120		11/13/2020 18:57	<a href="#">WG1575709</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Benzene	U		0.000579	0.00124	1	11/13/2020 05:53	<a href="#">WG1575666</a>
Toluene	U		0.00161	0.00619	1	11/13/2020 05:53	<a href="#">WG1575666</a>
Ethylbenzene	U		0.000913	0.00310	1	11/13/2020 05:53	<a href="#">WG1575666</a>
Total Xylenes	U		0.00109	0.00805	1	11/13/2020 05:53	<a href="#">WG1575666</a>
(S) Toluene-d8	104			75.0-131		11/13/2020 05:53	<a href="#">WG1575666</a>
(S) 4-Bromofluorobenzene	98.4			67.0-138		11/13/2020 05:53	<a href="#">WG1575666</a>
(S) 1,2-Dichloroethane-d4	88.9			70.0-130		11/13/2020 05:53	<a href="#">WG1575666</a>

## Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	U		1.80	4.48	1	11/15/2020 22:39	<a href="#">WG1576773</a>
C28-C40 Oil Range	0.368	<a href="#">J</a>	0.307	4.48	1	11/15/2020 22:39	<a href="#">WG1576773</a>
(S) o-Terphenyl	82.7			18.0-148		11/15/2020 22:39	<a href="#">WG1576773</a>

Collected date/time: 11/02/20 12:50

L1283239

## Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.3		1	11/14/2020 03:44	<a href="#">WG1575499</a>

## 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	49.3		10.1	21.9	1	11/18/2020 12:12	<a href="#">WG1576526</a>

## 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	11/13/2020 19:16	<a href="#">WG1575709</a>
(S) a,a,a-Trifluorotoluene(FID)	84.4			77.0-120		11/13/2020 19:16	<a href="#">WG1575709</a>

## 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		0.000557	0.00119	1	11/13/2020 06:12	<a href="#">WG1575666</a>
Toluene	U		0.00155	0.00596	1	11/13/2020 06:12	<a href="#">WG1575666</a>
Ethylbenzene	U		0.000878	0.00298	1	11/13/2020 06:12	<a href="#">WG1575666</a>
Total Xylenes	U		0.00105	0.00775	1	11/13/2020 06:12	<a href="#">WG1575666</a>
(S) Toluene-d8	104			75.0-131		11/13/2020 06:12	<a href="#">WG1575666</a>
(S) 4-Bromofluorobenzene	100			67.0-138		11/13/2020 06:12	<a href="#">WG1575666</a>
(S) 1,2-Dichloroethane-d4	88.5			70.0-130		11/13/2020 06:12	<a href="#">WG1575666</a>

## 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		1.76	4.38	1	11/15/2020 22:51	<a href="#">WG1576773</a>
C28-C40 Oil Range	0.385	J	0.300	4.38	1	11/15/2020 22:51	<a href="#">WG1576773</a>
(S) o-Terphenyl	76.0			18.0-148		11/15/2020 22:51	<a href="#">WG1576773</a>

Collected date/time: 11/02/20 13:00

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## Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	92.8		1	11/14/2020 03:44	<a href="#">WG1575499</a>

## 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	31.6		9.91	21.5	1	11/18/2020 12:21	<a href="#">WG1576526</a>

## 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	0.0235	<a href="#">B J</a>	0.0234	0.108	1	11/13/2020 23:14	<a href="#">WG1575925</a>
(S) a,a,a-Trifluorotoluene(FID)	89.0			77.0-120		11/13/2020 23:14	<a href="#">WG1575925</a>

## 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		0.000539	0.00115	1	11/13/2020 06:31	<a href="#">WG1575666</a>
Toluene	U		0.00150	0.00577	1	11/13/2020 06:31	<a href="#">WG1575666</a>
Ethylbenzene	U		0.000851	0.00289	1	11/13/2020 06:31	<a href="#">WG1575666</a>
Total Xylenes	U		0.00102	0.00750	1	11/13/2020 06:31	<a href="#">WG1575666</a>
(S) Toluene-d8	105			75.0-131		11/13/2020 06:31	<a href="#">WG1575666</a>
(S) 4-Bromofluorobenzene	99.7			67.0-138		11/13/2020 06:31	<a href="#">WG1575666</a>
(S) 1,2-Dichloroethane-d4	85.2			70.0-130		11/13/2020 06:31	<a href="#">WG1575666</a>

## 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		1.73	4.31	1	11/15/2020 23:04	<a href="#">WG1576773</a>
C28-C40 Oil Range	U		0.295	4.31	1	11/15/2020 23:04	<a href="#">WG1576773</a>
(S) o-Terphenyl	78.6			18.0-148		11/15/2020 23:04	<a href="#">WG1576773</a>

Collected date/time: 11/02/20 13:10

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## Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	93.9		1	11/14/2020 03:44	<a href="#">WG1575499</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Chloride	44.1		9.80	21.3	1	11/18/2020 12:31	<a href="#">WG1576526</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0231	0.106	1	11/13/2020 23:35	<a href="#">WG1575925</a>
(S) a,a,a-Trifluorotoluene(FID)	94.9			77.0-120		11/13/2020 23:35	<a href="#">WG1575925</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Benzene	U		0.000528	0.00113	1	11/13/2020 12:01	<a href="#">WG1575946</a>
Toluene	U		0.00147	0.00565	1	11/13/2020 12:01	<a href="#">WG1575946</a>
Ethylbenzene	U		0.000833	0.00282	1	11/13/2020 12:01	<a href="#">WG1575946</a>
Total Xylenes	U		0.000994	0.00734	1	11/13/2020 12:01	<a href="#">WG1575946</a>
(S) Toluene-d8	114			75.0-131		11/13/2020 12:01	<a href="#">WG1575946</a>
(S) 4-Bromofluorobenzene	76.8			67.0-138		11/13/2020 12:01	<a href="#">WG1575946</a>
(S) 1,2-Dichloroethane-d4	95.5			70.0-130		11/13/2020 12:01	<a href="#">WG1575946</a>

## Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	U		1.71	4.26	1	11/15/2020 23:17	<a href="#">WG1576773</a>
C28-C40 Oil Range	U		0.292	4.26	1	11/15/2020 23:17	<a href="#">WG1576773</a>
(S) o-Terphenyl	77.5			18.0-148		11/15/2020 23:17	<a href="#">WG1576773</a>



Collected date/time: 11/02/20 13:30

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## Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	94.2		1	11/14/2020 03:44	<a href="#">WG1575499</a>

## Wet Chemistry by Method 300.0

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chloride	36.5		9.77	21.2	1	11/18/2020 12:40	<a href="#">WG1576526</a>

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0230	0.106	1	11/13/2020 23:56	<a href="#">WG1575925</a>
(S) a,a,a-Trifluorotoluene(FID)	93.6			77.0-120		11/13/2020 23:56	<a href="#">WG1575925</a>

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzene	U		0.000525	0.00112	1	11/13/2020 12:20	<a href="#">WG1575946</a>
Toluene	U		0.00146	0.00562	1	11/13/2020 12:20	<a href="#">WG1575946</a>
Ethylbenzene	U		0.000828	0.00281	1	11/13/2020 12:20	<a href="#">WG1575946</a>
Total Xylenes	U		0.000988	0.00730	1	11/13/2020 12:20	<a href="#">WG1575946</a>
(S) Toluene-d8	132	J1		75.0-131		11/13/2020 12:20	<a href="#">WG1575946</a>
(S) 4-Bromofluorobenzene	110			67.0-138		11/13/2020 12:20	<a href="#">WG1575946</a>
(S) 1,2-Dichloroethane-d4	94.8			70.0-130		11/13/2020 12:20	<a href="#">WG1575946</a>

## Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	U		1.71	4.25	1	11/15/2020 23:34	<a href="#">WG1576773</a>
C28-C40 Oil Range	U		0.291	4.25	1	11/15/2020 23:34	<a href="#">WG1576773</a>
(S) o-Terphenyl	81.2			18.0-148		11/15/2020 23:34	<a href="#">WG1576773</a>

Collected date/time: 11/02/20 14:00

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## Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	96.6		1	11/14/2020 03:44	<a href="#">WG1575499</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Chloride	120		9.53	20.7	1	11/18/2020 12:50	<a href="#">WG1576526</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0225	0.104	1	11/14/2020 00:16	<a href="#">WG1575925</a>
(S) a,a,a-Trifluorotoluene(FID)	93.2			77.0-120		11/14/2020 00:16	<a href="#">WG1575925</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Benzene	U		0.000500	0.00107	1	11/13/2020 13:17	<a href="#">WG1575946</a>
Toluene	U		0.00139	0.00536	1	11/13/2020 13:17	<a href="#">WG1575946</a>
Ethylbenzene	U		0.000790	0.00268	1	11/13/2020 13:17	<a href="#">WG1575946</a>
Total Xylenes	U		0.000943	0.00696	1	11/13/2020 13:17	<a href="#">WG1575946</a>
(S) Toluene-d8	114			75.0-131		11/13/2020 13:17	<a href="#">WG1575946</a>
(S) 4-Bromofluorobenzene	82.4			67.0-138		11/13/2020 13:17	<a href="#">WG1575946</a>
(S) 1,2-Dichloroethane-d4	85.3			70.0-130		11/13/2020 13:17	<a href="#">WG1575946</a>

## Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	3.70	J	1.67	4.14	1	11/16/2020 02:18	<a href="#">WG1576773</a>
C28-C40 Oil Range	8.12		0.284	4.14	1	11/16/2020 02:18	<a href="#">WG1576773</a>
(S) o-Terphenyl	69.7			18.0-148		11/16/2020 02:18	<a href="#">WG1576773</a>

Collected date/time: 11/02/20 14:10

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## Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	95.9		1	11/14/2020 03:44	<a href="#">WG1575499</a>

## Wet Chemistry by Method 300.0

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chloride	151		9.60	20.9	1	11/18/2020 12:59	<a href="#">WG1576526</a>

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0226	0.104	1	11/14/2020 00:37	<a href="#">WG1575925</a>
(S) a,a,a-Trifluorotoluene(FID)	91.1			77.0-120		11/14/2020 00:37	<a href="#">WG1575925</a>

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzene	U		0.000507	0.00109	1	11/13/2020 13:36	<a href="#">WG1575946</a>
Toluene	U		0.00141	0.00543	1	11/13/2020 13:36	<a href="#">WG1575946</a>
Ethylbenzene	U		0.000801	0.00272	1	11/13/2020 13:36	<a href="#">WG1575946</a>
Total Xylenes	U		0.000956	0.00706	1	11/13/2020 13:36	<a href="#">WG1575946</a>
(S) Toluene-d8	114			75.0-131		11/13/2020 13:36	<a href="#">WG1575946</a>
(S) 4-Bromofluorobenzene	77.4			67.0-138		11/13/2020 13:36	<a href="#">WG1575946</a>
(S) 1,2-Dichloroethane-d4	96.4			70.0-130		11/13/2020 13:36	<a href="#">WG1575946</a>

## Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	U		1.68	4.17	1	11/16/2020 01:28	<a href="#">WG1576773</a>
C28-C40 Oil Range	2.71	J	0.286	4.17	1	11/16/2020 01:28	<a href="#">WG1576773</a>
(S) o-Terphenyl	82.7			18.0-148		11/16/2020 01:28	<a href="#">WG1576773</a>

Collected date/time: 11/02/20 14:20

L1283239

## Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	94.6		1	11/14/2020 03:44	<a href="#">WG1575499</a>

## Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Chloride	241		9.72	21.1	1	11/18/2020 13:09	<a href="#">WG1576526</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0231	<a href="#">B J</a>	0.0229	0.106	1	11/14/2020 00:58	<a href="#">WG1575925</a>
(S) a,a,a-Trifluorotoluene(FID)	93.2			77.0-120		11/14/2020 00:58	<a href="#">WG1575925</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Benzene	U		0.000520	0.00111	1	11/13/2020 13:55	<a href="#">WG1575946</a>
Toluene	U		0.00145	0.00557	1	11/13/2020 13:55	<a href="#">WG1575946</a>
Ethylbenzene	U		0.000821	0.00278	1	11/13/2020 13:55	<a href="#">WG1575946</a>
Total Xylenes	U		0.000980	0.00724	1	11/13/2020 13:55	<a href="#">WG1575946</a>
(S) Toluene-d8	120			75.0-131		11/13/2020 13:55	<a href="#">WG1575946</a>
(S) 4-Bromofluorobenzene	106			67.0-138		11/13/2020 13:55	<a href="#">WG1575946</a>
(S) 1,2-Dichloroethane-d4	98.4			70.0-130		11/13/2020 13:55	<a href="#">WG1575946</a>

## Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	U		1.70	4.23	1	11/15/2020 23:46	<a href="#">WG1576773</a>
C28-C40 Oil Range	U		0.290	4.23	1	11/15/2020 23:46	<a href="#">WG1576773</a>
(S) o-Terphenyl	75.8			18.0-148		11/15/2020 23:46	<a href="#">WG1576773</a>

Collected date/time: 11/02/20 14:30

L1283239

## Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	94.9		1	11/14/2020 03:44	<a href="#">WG1575499</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Chloride	50.5		9.69	21.1	1	11/18/2020 13:18	<a href="#">WG1576526</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0229	0.105	1	11/14/2020 01:18	<a href="#">WG1575925</a>
(S) a,a,a-Trifluorotoluene(FID)	94.1			77.0-120		11/14/2020 01:18	<a href="#">WG1575925</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Benzene	U		0.000517	0.00111	1	11/13/2020 14:14	<a href="#">WG1575946</a>
Toluene	U		0.00144	0.00553	1	11/13/2020 14:14	<a href="#">WG1575946</a>
Ethylbenzene	U		0.000816	0.00277	1	11/13/2020 14:14	<a href="#">WG1575946</a>
Total Xylenes	U		0.000974	0.00719	1	11/13/2020 14:14	<a href="#">WG1575946</a>
(S) Toluene-d8	113			75.0-131		11/13/2020 14:14	<a href="#">WG1575946</a>
(S) 4-Bromofluorobenzene	93.8			67.0-138		11/13/2020 14:14	<a href="#">WG1575946</a>
(S) 1,2-Dichloroethane-d4	92.8			70.0-130		11/13/2020 14:14	<a href="#">WG1575946</a>

## Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	U		1.70	4.21	1	11/15/2020 23:59	<a href="#">WG1576773</a>
C28-C40 Oil Range	U		0.289	4.21	1	11/15/2020 23:59	<a href="#">WG1576773</a>
(S) o-Terphenyl	68.6			18.0-148		11/15/2020 23:59	<a href="#">WG1576773</a>



Collected date/time: 11/02/20 14:40

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## Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	94.7		1	11/14/2020 03:44	<a href="#">WG1575499</a>

## Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Chloride	U		9.72	21.1	1	11/18/2020 13:28	<a href="#">WG1576526</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0229	0.106	1	11/14/2020 01:39	<a href="#">WG1575925</a>
(S) a,a,a-Trifluorotoluene(FID)	94.1			77.0-120		11/14/2020 01:39	<a href="#">WG1575925</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Benzene	U		0.000520	0.00111	1	11/13/2020 15:30	<a href="#">WG1575946</a>
Toluene	U		0.00145	0.00556	1	11/13/2020 15:30	<a href="#">WG1575946</a>
Ethylbenzene	U		0.000820	0.00278	1	11/13/2020 15:30	<a href="#">WG1575946</a>
Total Xylenes	U		0.000979	0.00723	1	11/13/2020 15:30	<a href="#">WG1575946</a>
(S) Toluene-d8	111			75.0-131		11/13/2020 15:30	<a href="#">WG1575946</a>
(S) 4-Bromofluorobenzene	94.3			67.0-138		11/13/2020 15:30	<a href="#">WG1575946</a>
(S) 1,2-Dichloroethane-d4	95.1			70.0-130		11/13/2020 15:30	<a href="#">WG1575946</a>

## Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	U		1.70	4.23	1	11/16/2020 00:12	<a href="#">WG1576773</a>
C28-C40 Oil Range	U		0.289	4.23	1	11/16/2020 00:12	<a href="#">WG1576773</a>
(S) o-Terphenyl	77.6			18.0-148		11/16/2020 00:12	<a href="#">WG1576773</a>

Collected date/time: 11/02/20 14:50

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## Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	94.9		1	11/14/2020 03:24	<a href="#">WG1575502</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Chloride	U		9.70	21.1	1	11/18/2020 13:56	<a href="#">WG1576526</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0229	0.105	1	11/14/2020 01:59	<a href="#">WG1575925</a>
(S) a,a,a-Trifluorotoluene(FID)	93.5			77.0-120		11/14/2020 01:59	<a href="#">WG1575925</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Benzene	U		0.000518	0.00111	1	11/13/2020 15:49	<a href="#">WG1575946</a>
Toluene	U		0.00144	0.00554	1	11/13/2020 15:49	<a href="#">WG1575946</a>
Ethylbenzene	U		0.000817	0.00277	1	11/13/2020 15:49	<a href="#">WG1575946</a>
Total Xylenes	U		0.000976	0.00721	1	11/13/2020 15:49	<a href="#">WG1575946</a>
(S) Toluene-d8	116			75.0-131		11/13/2020 15:49	<a href="#">WG1575946</a>
(S) 4-Bromofluorobenzene	93.1			67.0-138		11/13/2020 15:49	<a href="#">WG1575946</a>
(S) 1,2-Dichloroethane-d4	96.6			70.0-130		11/13/2020 15:49	<a href="#">WG1575946</a>

## Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	U		1.70	4.22	1	11/16/2020 00:24	<a href="#">WG1576773</a>
C28-C40 Oil Range	U		0.289	4.22	1	11/16/2020 00:24	<a href="#">WG1576773</a>
(S) o-Terphenyl	81.1			18.0-148		11/16/2020 00:24	<a href="#">WG1576773</a>

Collected date/time: 11/02/20 15:00

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## Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	97.0		1	11/14/2020 03:24	<a href="#">WG1575502</a>

## Wet Chemistry by Method 300.0

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chloride	U		9.49	20.6	1	11/18/2020 14:06	<a href="#">WG1576526</a>

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0226	<a href="#">B J</a>	0.0224	0.103	1	11/14/2020 02:20	<a href="#">WG1575925</a>
(S) a,a,a-Trifluorotoluene(FID)	94.5			77.0-120		11/14/2020 02:20	<a href="#">WG1575925</a>

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzene	U		0.000496	0.00106	1	11/13/2020 16:08	<a href="#">WG1575946</a>
Toluene	U		0.00138	0.00531	1	11/13/2020 16:08	<a href="#">WG1575946</a>
Ethylbenzene	U		0.000783	0.00266	1	11/13/2020 16:08	<a href="#">WG1575946</a>
Total Xylenes	U		0.000935	0.00691	1	11/13/2020 16:08	<a href="#">WG1575946</a>
(S) Toluene-d8	114			75.0-131		11/13/2020 16:08	<a href="#">WG1575946</a>
(S) 4-Bromofluorobenzene	92.4			67.0-138		11/13/2020 16:08	<a href="#">WG1575946</a>
(S) 1,2-Dichloroethane-d4	91.9			70.0-130		11/13/2020 16:08	<a href="#">WG1575946</a>

## Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	U		1.66	4.13	1	11/16/2020 00:37	<a href="#">WG1576773</a>
C28-C40 Oil Range	U		0.283	4.13	1	11/16/2020 00:37	<a href="#">WG1576773</a>
(S) o-Terphenyl	86.0			18.0-148		11/16/2020 00:37	<a href="#">WG1576773</a>

Collected date/time: 11/02/20 15:10

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## Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	93.6		1	11/14/2020 03:24	<a href="#">WG1575502</a>

## Wet Chemistry by Method 300.0

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chloride	U		9.82	21.4	1	11/18/2020 14:15	<a href="#">WG1576526</a>

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0232	0.107	1	11/14/2020 02:41	<a href="#">WG1575925</a>
(S) a,a,a-Trifluorotoluene(FID)	93.8			77.0-120		11/14/2020 02:41	<a href="#">WG1575925</a>

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzene	U		0.000530	0.00114	1	11/13/2020 16:27	<a href="#">WG1575946</a>
Toluene	U		0.00148	0.00568	1	11/13/2020 16:27	<a href="#">WG1575946</a>
Ethylbenzene	U		0.000837	0.00284	1	11/13/2020 16:27	<a href="#">WG1575946</a>
Total Xylenes	U		0.00100	0.00738	1	11/13/2020 16:27	<a href="#">WG1575946</a>
(S) Toluene-d8	114			75.0-131		11/13/2020 16:27	<a href="#">WG1575946</a>
(S) 4-Bromofluorobenzene	93.1			67.0-138		11/13/2020 16:27	<a href="#">WG1575946</a>
(S) 1,2-Dichloroethane-d4	94.7			70.0-130		11/13/2020 16:27	<a href="#">WG1575946</a>

## Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	U		1.72	4.27	1	11/16/2020 00:50	<a href="#">WG1576773</a>
C28-C40 Oil Range	U		0.293	4.27	1	11/16/2020 00:50	<a href="#">WG1576773</a>
(S) o-Terphenyl	81.0			18.0-148		11/16/2020 00:50	<a href="#">WG1576773</a>

Collected date/time: 11/02/20 15:30

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## Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	94.4		1	11/14/2020 03:24	<a href="#">WG1575502</a>

## Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Chloride	U		9.75	21.2	1	11/18/2020 14:25	<a href="#">WG1576526</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0230	0.106	1	11/14/2020 03:01	<a href="#">WG1575925</a>
(S) a,a,a-Trifluorotoluene(FID)	93.9			77.0-120		11/14/2020 03:01	<a href="#">WG1575925</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Benzene	U		0.000523	0.00112	1	11/13/2020 16:46	<a href="#">WG1575946</a>
Toluene	U		0.00146	0.00560	1	11/13/2020 16:46	<a href="#">WG1575946</a>
Ethylbenzene	U		0.000825	0.00280	1	11/13/2020 16:46	<a href="#">WG1575946</a>
Total Xylenes	U		0.000985	0.00728	1	11/13/2020 16:46	<a href="#">WG1575946</a>
(S) Toluene-d8	114			75.0-131		11/13/2020 16:46	<a href="#">WG1575946</a>
(S) 4-Bromofluorobenzene	94.0			67.0-138		11/13/2020 16:46	<a href="#">WG1575946</a>
(S) 1,2-Dichloroethane-d4	96.0			70.0-130		11/13/2020 16:46	<a href="#">WG1575946</a>

## Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	U		1.71	4.24	1	11/16/2020 01:02	<a href="#">WG1576773</a>
C28-C40 Oil Range	U		0.290	4.24	1	11/16/2020 01:02	<a href="#">WG1576773</a>
(S) o-Terphenyl	74.5			18.0-148		11/16/2020 01:02	<a href="#">WG1576773</a>



Collected date/time: 11/02/20 16:00

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## Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	95.8		1	11/14/2020 03:24	<a href="#">WG1575502</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## Wet Chemistry by Method 300.0

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chloride	U		9.60	20.9	1	11/18/2020 14:34	<a href="#">WG1576526</a>

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0253	<a href="#">B J</a>	0.0227	0.104	1	11/14/2020 03:22	<a href="#">WG1575925</a>
(S) a,a,a-Trifluorotoluene(FID)	91.8			77.0-120		11/14/2020 03:22	<a href="#">WG1575925</a>

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzene	U		0.000508	0.00109	1	11/16/2020 11:04	<a href="#">WG1576826</a>
Toluene	U		0.00141	0.00544	1	11/16/2020 11:04	<a href="#">WG1576826</a>
Ethylbenzene	U		0.000802	0.00272	1	11/16/2020 11:04	<a href="#">WG1576826</a>
Total Xylenes	U		0.000957	0.00707	1	11/16/2020 11:04	<a href="#">WG1576826</a>
(S) Toluene-d8	102			75.0-131		11/16/2020 11:04	<a href="#">WG1576826</a>
(S) 4-Bromofluorobenzene	92.8			67.0-138		11/16/2020 11:04	<a href="#">WG1576826</a>
(S) 1,2-Dichloroethane-d4	94.9			70.0-130		11/16/2020 11:04	<a href="#">WG1576826</a>

## Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	3.90	<a href="#">J</a>	1.68	4.18	1	11/16/2020 01:15	<a href="#">WG1576773</a>
C28-C40 Oil Range	11.0		0.286	4.18	1	11/16/2020 01:15	<a href="#">WG1576773</a>
(S) o-Terphenyl	79.1			18.0-148		11/16/2020 01:15	<a href="#">WG1576773</a>

Collected date/time: 11/02/20 16:10

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## Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	98.3		1	11/14/2020 03:24	<a href="#">WG1575502</a>

## 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		9.36	20.3	1	11/18/2020 21:06	<a href="#">WG1576809</a>

## 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		0.0221	0.102	1	11/14/2020 03:43	<a href="#">WG1575925</a>
(S) a,a,a-Trifluorotoluene(FID)	93.0			77.0-120		11/14/2020 03:43	<a href="#">WG1575925</a>

## 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		0.000483	0.00103	1	11/16/2020 11:23	<a href="#">WG1576826</a>
Toluene	U		0.00134	0.00517	1	11/16/2020 11:23	<a href="#">WG1576826</a>
Ethylbenzene	U		0.000762	0.00259	1	11/16/2020 11:23	<a href="#">WG1576826</a>
Total Xylenes	U		0.000910	0.00672	1	11/16/2020 11:23	<a href="#">WG1576826</a>
(S) Toluene-d8	102			75.0-131		11/16/2020 11:23	<a href="#">WG1576826</a>
(S) 4-Bromofluorobenzene	93.0			67.0-138		11/16/2020 11:23	<a href="#">WG1576826</a>
(S) 1,2-Dichloroethane-d4	93.6			70.0-130		11/16/2020 11:23	<a href="#">WG1576826</a>

## 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		1.64	4.07	1	11/16/2020 01:40	<a href="#">WG1576773</a>
C28-C40 Oil Range	0.856	J	0.279	4.07	1	11/16/2020 01:40	<a href="#">WG1576773</a>
(S) o-Terphenyl	81.5			18.0-148		11/16/2020 01:40	<a href="#">WG1576773</a>

Collected date/time: 11/02/20 16:30

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## Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	97.2		1	11/14/2020 03:24	<a href="#">WG1575502</a>

## Wet Chemistry by Method 300.0

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chloride	85.3		9.47	20.6	1	11/18/2020 21:34	<a href="#">WG1576809</a>

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0255	<a href="#">B J</a>	0.0223	0.103	1	11/14/2020 04:03	<a href="#">WG1575925</a>
(S) a,a,a-Trifluorotoluene(FID)	93.3			77.0-120		11/14/2020 04:03	<a href="#">WG1575925</a>

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzene	U		0.000494	0.00106	1	11/13/2020 20:05	<a href="#">WG1575965</a>
Toluene	U		0.00138	0.00529	1	11/13/2020 20:05	<a href="#">WG1575965</a>
Ethylbenzene	U		0.000780	0.00265	1	11/13/2020 20:05	<a href="#">WG1575965</a>
Total Xylenes	U		0.000932	0.00688	1	11/13/2020 20:05	<a href="#">WG1575965</a>
(S) Toluene-d8	113			75.0-131		11/13/2020 20:05	<a href="#">WG1575965</a>
(S) 4-Bromofluorobenzene	97.4			67.0-138		11/13/2020 20:05	<a href="#">WG1575965</a>
(S) 1,2-Dichloroethane-d4	100			70.0-130		11/13/2020 20:05	<a href="#">WG1575965</a>

## Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	2.70	<a href="#">B J</a>	1.66	4.12	1	11/17/2020 00:00	<a href="#">WG1576774</a>
C28-C40 Oil Range	4.51	<a href="#">B</a>	0.282	4.12	1	11/17/2020 00:00	<a href="#">WG1576774</a>
(S) o-Terphenyl	70.7			18.0-148		11/17/2020 00:00	<a href="#">WG1576774</a>

Collected date/time: 11/02/20 16:40

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## Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.6		1	11/14/2020 03:24	<a href="#">WG1575502</a>

## 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	69.5		9.53	20.7	1	11/18/2020 21:53	<a href="#">WG1576809</a>

## 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		0.0225	0.104	1	11/14/2020 04:24	<a href="#">WG1575925</a>
(S) a,a,a-Trifluorotoluene(FID)	94.2			77.0-120		11/14/2020 04:24	<a href="#">WG1575925</a>

## 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		0.000500	0.00107	1	11/13/2020 20:24	<a href="#">WG1575965</a>
Toluene	U		0.00139	0.00536	1	11/13/2020 20:24	<a href="#">WG1575965</a>
Ethylbenzene	U		0.000790	0.00268	1	11/13/2020 20:24	<a href="#">WG1575965</a>
Total Xylenes	U		0.000943	0.00696	1	11/13/2020 20:24	<a href="#">WG1575965</a>
(S) Toluene-d8	110			75.0-131		11/13/2020 20:24	<a href="#">WG1575965</a>
(S) 4-Bromofluorobenzene	92.6			67.0-138		11/13/2020 20:24	<a href="#">WG1575965</a>
(S) 1,2-Dichloroethane-d4	95.9			70.0-130		11/13/2020 20:24	<a href="#">WG1575965</a>

## 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		1.67	4.14	1	11/17/2020 00:13	<a href="#">WG1576774</a>
C28-C40 Oil Range	1.86	<a href="#">B J</a>	0.284	4.14	1	11/17/2020 00:13	<a href="#">WG1576774</a>
(S) o-Terphenyl	64.0			18.0-148		11/17/2020 00:13	<a href="#">WG1576774</a>

Collected date/time: 11/02/20 17:00

L1283239

## Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	93.7		1	11/14/2020 03:24	<a href="#">WG1575502</a>

## Wet Chemistry by Method 300.0

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chloride	55.9		9.82	21.4	1	11/18/2020 22:03	<a href="#">WG1576809</a>

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0232	0.107	1	11/14/2020 04:44	<a href="#">WG1575925</a>
(S) a,a,a-Trifluorotoluene(FID)	91.3			77.0-120		11/14/2020 04:44	<a href="#">WG1575925</a>

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzene	U		0.000530	0.00114	1	11/13/2020 20:43	<a href="#">WG1575965</a>
Toluene	U		0.00148	0.00568	1	11/13/2020 20:43	<a href="#">WG1575965</a>
Ethylbenzene	U		0.000837	0.00284	1	11/13/2020 20:43	<a href="#">WG1575965</a>
Total Xylenes	U		0.000999	0.00738	1	11/13/2020 20:43	<a href="#">WG1575965</a>
(S) Toluene-d8	113			75.0-131		11/13/2020 20:43	<a href="#">WG1575965</a>
(S) 4-Bromofluorobenzene	93.4			67.0-138		11/13/2020 20:43	<a href="#">WG1575965</a>
(S) 1,2-Dichloroethane-d4	92.6			70.0-130		11/13/2020 20:43	<a href="#">WG1575965</a>

## Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	5.35	<a href="#">B</a>	1.72	4.27	1	11/17/2020 00:25	<a href="#">WG1576774</a>
C28-C40 Oil Range	14.8	<a href="#">B</a>	0.293	4.27	1	11/17/2020 00:25	<a href="#">WG1576774</a>
(S) o-Terphenyl	62.8			18.0-148		11/17/2020 00:25	<a href="#">WG1576774</a>



Collected date/time: 11/02/20 17:10

L1283239

## Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	98.6		1	11/14/2020 03:24	<a href="#">WG1575502</a>

## Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Chloride	34.5		9.33	20.3	1	11/18/2020 22:12	<a href="#">WG1576809</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0220	0.101	1	11/14/2020 05:05	<a href="#">WG1575925</a>
(S) a,a,a-Trifluorotoluene(FID)	93.6			77.0-120		11/14/2020 05:05	<a href="#">WG1575925</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Benzene	U		0.000481	0.00103	1	11/13/2020 21:02	<a href="#">WG1575965</a>
Toluene	U		0.00134	0.00515	1	11/13/2020 21:02	<a href="#">WG1575965</a>
Ethylbenzene	U		0.000758	0.00257	1	11/13/2020 21:02	<a href="#">WG1575965</a>
Total Xylenes	U		0.000906	0.00669	1	11/13/2020 21:02	<a href="#">WG1575965</a>
(S) Toluene-d8	113			75.0-131		11/13/2020 21:02	<a href="#">WG1575965</a>
(S) 4-Bromofluorobenzene	92.8			67.0-138		11/13/2020 21:02	<a href="#">WG1575965</a>
(S) 1,2-Dichloroethane-d4	96.9			70.0-130		11/13/2020 21:02	<a href="#">WG1575965</a>

## Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	U		1.63	4.06	1	11/17/2020 00:38	<a href="#">WG1576774</a>
C28-C40 Oil Range	3.04	<a href="#">B J</a>	0.278	4.06	1	11/17/2020 00:38	<a href="#">WG1576774</a>
(S) o-Terphenyl	68.4			18.0-148		11/17/2020 00:38	<a href="#">WG1576774</a>

Total Solids by Method 2540 G-2011 [L1283239-01,02,03,04](#)

Method Blank (MB)

(MB) R3593049-1 11/14/20 04:02

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

L1283239-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1283239-04 11/14/20 04:02 • (DUP) R3593049-3 11/14/20 04:02

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	%	%		%		%
Total Solids	95.0	94.8	1	0.149		10

Laboratory Control Sample (LCS)

(LCS) R3593049-2 11/14/20 04:02

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

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Total Solids by Method 2540 G-2011 [L1283239-05,06,07,08,09,10,11,12,13,14](#)

Method Blank (MB)

(MB) R3593048-1 11/14/20 03:44

	MB Result	<u>MB Qualifier</u>	MB MDL	MB RDL
Analyte	%		%	%
Total Solids	0.00100			

L1283239-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1283239-05 11/14/20 03:44 • (DUP) R3593048-3 11/14/20 03:44

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	%	%		%		%
Total Solids	89.4	90.9	1	1.70		10

Laboratory Control Sample (LCS)

(LCS) R3593048-2 11/14/20 03:44

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

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Total Solids by Method 2540 G-2011 [L1283239-15,16,17,18,19,20,21,22,23,24](#)

Method Blank (MB)

(MB) R3593046-1 11/14/20 03:24

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

L1283239-15 Original Sample (OS) • Duplicate (DUP)

(OS) L1283239-15 11/14/20 03:24 • (DUP) R3593046-3 11/14/20 03:24

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	%	%		%		%
Total Solids	94.9	94.9	1	0.0888		10

Laboratory Control Sample (LCS)

(LCS) R3593046-2 11/14/20 03:24

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

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Wet Chemistry by Method 300.0

L1283239-01,02,03,04,05,06,07,08,09,10,11,12,13,14,15,16,17,18,19

Method Blank (MB)

(MB) R3594575-1 11/18/20 09:58

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

L1283209-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1283209-08 11/18/20 10:27 • (DUP) R3594575-3 11/18/20 10:36

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

L1283239-19 Original Sample (OS) • Duplicate (DUP)

(OS) L1283239-19 11/18/20 14:34 • (DUP) R3594575-6 11/18/20 14:44

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) R3594575-2 11/18/20 10:08

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

L1283239-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1283239-01 11/18/20 10:46 • (MS) R3594575-4 11/18/20 10:55 • (MSD) R3594575-5 11/18/20 11:05

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 %
Chloride	510	U	504	502	98.8	98.4	1	80.0-120			0.350	20

Cp

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc



Wet Chemistry by Method 300.0

[L1283239-20,21,22,23,24](#)

Method Blank (MB)

(MB) R3594877-1 11/18/20 20:47

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

L1283239-21 Original Sample (OS) • Duplicate (DUP)

(OS) L1283239-21 11/18/20 21:34 • (DUP) R3594877-5 11/18/20 21:44

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	85.3	85.4	1	0.125		20

L1283245-15 Original Sample (OS) • Duplicate (DUP)

(OS) L1283245-15 11/19/20 01:13 • (DUP) R3594877-6 11/19/20 01:23

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) R3594877-2 11/18/20 20:56

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	200	206	103	90.0-110	

L1283239-20 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1283239-20 11/18/20 21:06 • (MS) R3594877-3 11/18/20 21:15 • (MSD) R3594877-4 11/18/20 21:25

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	509	U	524	523	103	103	1	80.0-120			0.121	20

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc

Volatile Organic Compounds (GC) by Method 8015D/GRO [L1283239-04,05,06](#)

Method Blank (MB)

(MB) R3592838-3 11/13/20 10:44				
	MB Result	<u>MB Qualifier</u>	MB MDL	MB RDL
Analyte	mg/kg		mg/kg	mg/kg
TPH (GC/FID) Low Fraction	0.0285	⌵	0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	96.9			77.0-120

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

(LCS) R3592838-1 11/13/20 09:38 • (LCSD) R3592838-2 11/13/20 09:59										
	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	%	%	%			%	%
TPH (GC/FID) Low Fraction	5.50	6.49	6.47	118	118	72.0-127			0.309	20
(S) a,a,a-Trifluorotoluene(FID)				114	113	77.0-120				

L1283234-21 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1283234-21 11/13/20 15:25 • (MS) R3592838-4 11/13/20 19:57 • (MSD) R3592838-5 11/13/20 20:18												
	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
TPH (GC/FID) Low Fraction	117	0.941	104	102	88.1	86.4	25	10.0-151			1.94	28
(S) a,a,a-Trifluorotoluene(FID)					110	108		77.0-120				

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc

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

[L1283239-07,08,09,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24](#)

Method Blank (MB)

(MB) R3593169-2 11/13/20 22:15

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	0.0255	⬇	0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	96.5			77.0-120

Laboratory Control Sample (LCS)

(LCS) R3593169-1 11/13/20 21:34

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.94	108	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			107	77.0-120	

L1283245-20 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1283245-20 11/14/20 06:31 • (MS) R3593169-3 11/14/20 06:52 • (MSD) R3593169-4 11/14/20 07:12

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	5.45	0.0246	4.16	4.10	75.9	77.2	1	10.0-151			1.45	28
(S) a,a,a-Trifluorotoluene(FID)					105	104		77.0-120				

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Volatile Organic Compounds (GC) by Method 8015D/GRO [L1283239-01,02,03](#)

Method Blank (MB)

(MB) R3593519-4 11/16/20 02:01

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)	112			77.0-120

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

(LCS) R3593519-2 11/16/20 00:05 • (LCSD) R3593519-3 11/16/20 01:29

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 %
TPH (GC/FID) Low Fraction	5.50	5.42	5.47	98.5	99.5	72.0-127			0.918	20
(S) a,a,a-Trifluorotoluene(FID)				97.5	105	77.0-120				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

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

L1283239-01,02,03,04,05,06,07

Method Blank (MB)

(MB) R3593172-3 11/13/20 00:11

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	104			75.0-131
(S) 4-Bromofluorobenzene	101			67.0-138
(S) 1,2-Dichloroethane-d4	82.5			70.0-130

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

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

(LCS) R3593172-1 11/12/20 22:55 • (LCSD) R3593172-2 11/12/20 23:14

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.125	0.115	0.117	92.0	93.6	70.0-123			1.72	20
Ethylbenzene	0.125	0.121	0.125	96.8	100	74.0-126			3.25	20
Toluene	0.125	0.121	0.123	96.8	98.4	75.0-121			1.64	20
Xylenes, Total	0.375	0.355	0.356	94.7	94.9	72.0-127			0.281	20
(S) Toluene-d8				103	104	75.0-131				
(S) 4-Bromofluorobenzene				97.9	98.6	67.0-138				
(S) 1,2-Dichloroethane-d4				92.8	95.6	70.0-130				

L1283233-13 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1283233-13 11/13/20 02:05 • (MS) R3593172-4 11/13/20 06:50 • (MSD) R3593172-5 11/13/20 07:09

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	0.129	U	0.0854	0.0836	66.3	64.8	1	10.0-149			2.21	37
Ethylbenzene	0.129	U	0.0999	0.0905	77.5	70.2	1	10.0-160			9.83	38
Toluene	0.129	U	0.0999	0.0911	77.5	70.7	1	10.0-156			9.14	38
Xylenes, Total	0.387	0.00129	0.291	0.264	74.9	67.9	1	10.0-160			9.74	38
(S) Toluene-d8					103	103		75.0-131				
(S) 4-Bromofluorobenzene					100	99.5		67.0-138				
(S) 1,2-Dichloroethane-d4					88.8	86.0		70.0-130				

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

[L1283239-08,09,10,11,12,13,14,15,16,17,18](#)

Method Blank (MB)

(MB) R3592788-1 11/13/20 06:09

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	113			75.0-131
(S) 4-Bromofluorobenzene	76.1			67.0-138
(S) 1,2-Dichloroethane-d4	92.6			70.0-130

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Laboratory Control Sample (LCS)

(LCS) R3592788-2 11/13/20 12:39

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.125	0.126	101	70.0-123	
Ethylbenzene	0.125	0.133	106	74.0-126	
Toluene	0.125	0.130	104	75.0-121	
Xylenes, Total	0.375	0.380	101	72.0-127	
(S) Toluene-d8			104	75.0-131	
(S) 4-Bromofluorobenzene			92.6	67.0-138	
(S) 1,2-Dichloroethane-d4			107	70.0-130	



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

L1283239-21,22,23,24

Method Blank (MB)

(MB) R3593185-2 11/13/20 19:18

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	113			75.0-131
(S) 4-Bromofluorobenzene	91.8			67.0-138
(S) 1,2-Dichloroethane-d4	97.2			70.0-130

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS)

(LCS) R3593185-1 11/13/20 18:21

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.125	0.134	107	70.0-123	
Ethylbenzene	0.125	0.134	107	74.0-126	
Toluene	0.125	0.134	107	75.0-121	
Xylenes, Total	0.375	0.375	100	72.0-127	
(S) Toluene-d8			107	75.0-131	
(S) 4-Bromofluorobenzene			96.5	67.0-138	
(S) 1,2-Dichloroethane-d4			103	70.0-130	

L1283239-21 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1283239-21 11/13/20 20:05 • (MS) R3593185-3 11/14/20 02:24 • (MSD) R3593185-4 11/14/20 02:43

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	0.132	U	0.0979	0.122	74.0	92.0	1	10.0-149			21.7	37
Ethylbenzene	0.132	U	0.107	0.123	80.8	92.8	1	10.0-160			13.8	38
Toluene	0.132	U	0.105	0.128	79.2	96.8	1	10.0-156			20.0	38
Xylenes, Total	0.397	U	0.331	0.389	83.5	97.9	1	10.0-160			15.9	38
(S) Toluene-d8					110	113		75.0-131				
(S) 4-Bromofluorobenzene					94.4	107		67.0-138				
(S) 1,2-Dichloroethane-d4					103	102		70.0-130				

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

L1283239-19,20

Method Blank (MB)

(MB) R3593534-2 11/16/20 09:45

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	92.7			67.0-138
(S) 1,2-Dichloroethane-d4	93.4			70.0-130

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS)

(LCS) R3593534-1 11/16/20 08:49

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.125	0.117	93.6	70.0-123	
Ethylbenzene	0.125	0.122	97.6	74.0-126	
Toluene	0.125	0.117	93.6	75.0-121	
Xylenes, Total	0.375	0.338	90.1	72.0-127	
(S) Toluene-d8			99.7	75.0-131	
(S) 4-Bromofluorobenzene			98.6	67.0-138	
(S) 1,2-Dichloroethane-d4			105	70.0-130	

Semi-Volatile Organic Compounds (GC) by Method 8015

[L1283239-01,02,03,04,05,06,07,08,09,10,11,12,13,14,15,16,17,18,19,20](#)

Method Blank (MB)

(MB) R3593316-1 11/15/20 21:10

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	85.6			18.0-148

Laboratory Control Sample (LCS)

(LCS) R3593316-2 11/15/20 21:23

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	42.9	85.8	50.0-150	
(S) o-Terphenyl			91.9	18.0-148	

L1283239-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1283239-02 11/15/20 22:01 • (MS) R3593316-3 11/15/20 22:14 • (MSD) R3593316-4 11/15/20 22:26

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	51.2	U	43.0	43.1	84.0	85.2	1	50.0-150			0.241	20
(S) o-Terphenyl					89.4	91.7		18.0-148				

1  
Cp

2  
Tc

3  
Ss

4  
Cn

5  
Sr

6  
Qc

7  
Gl

8  
Al

9  
Sc

Semi-Volatile Organic Compounds (GC) by Method 8015 L1283239-21,22,23,24

Method Blank (MB)

(MB) R3593741-1 11/16/20 23:35

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C10-C28 Diesel Range	2.40	⌋	1.61	4.00
C28-C40 Oil Range	2.42	⌋	0.274	4.00
(S) o-Terphenyl	72.2			18.0-148

Laboratory Control Sample (LCS)

(LCS) R3593741-2 11/16/20 23:47

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	40.3	80.6	50.0-150	
(S) o-Terphenyl			95.0	18.0-148	

L1283249-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1283249-01 11/17/20 03:19 • (MS) R3593741-3 11/17/20 03:32 • (MSD) R3593741-4 11/17/20 03:45

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	55.2	4.39	40.9	37.8	66.2	60.8	1	50.0-150			7.98	20
(S) o-Terphenyl					61.9	56.7		18.0-148				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

## Guide to Reading and Understanding Your Laboratory Report

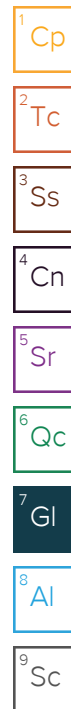
The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

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.



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.

## State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey-NELAP	TN002
California	2932	New Mexico <sup>1</sup>	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky <sup>1 6</sup>	90010	South Carolina	84004
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1 4</sup>	2006
Louisiana <sup>1</sup>	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas <sup>5</sup>	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

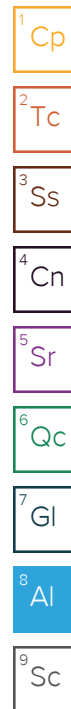
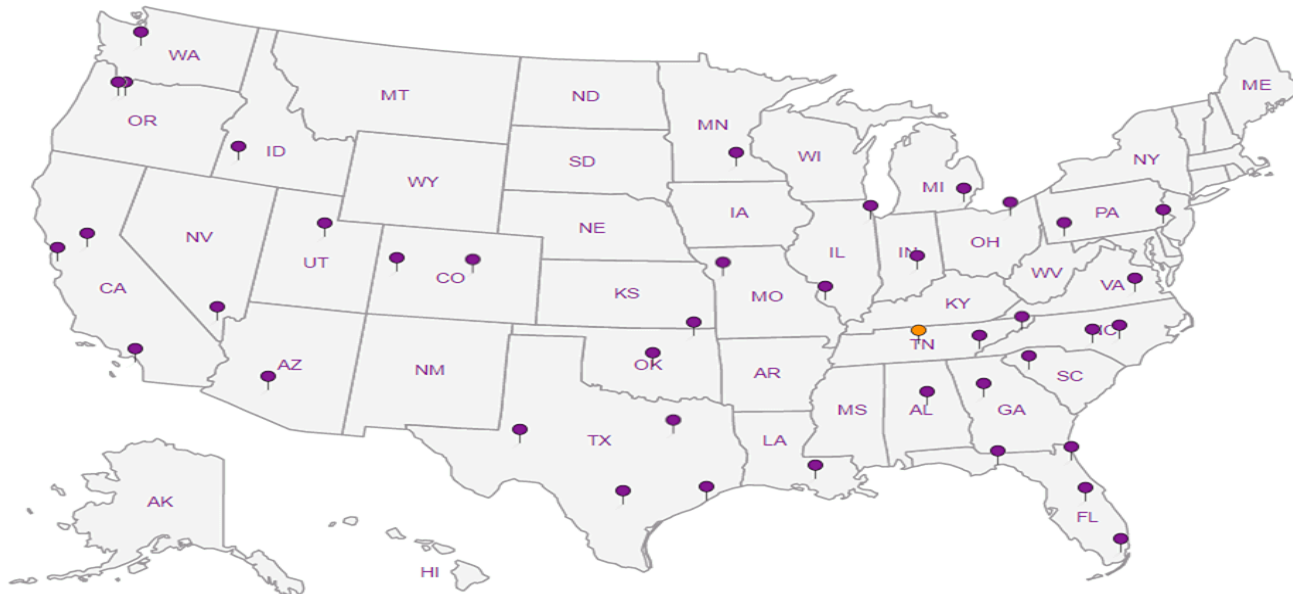
## Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP, LLC EMLAP	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

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

## Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.





(Circle) HAND DELIVERED FEDEX UPS Tracking #: \_\_\_\_\_

Released to Imaging: 4/24/2023 11:42:11 AM



*Released to Imaging: 4/24/2023 11:42:11 AM*

Pace Analytical National Center for Testing & Innovation  
Cooler Receipt Form

Client: <u>COPTETRA</u>		<u>11283239</u>	
Cooler Received/Opened On: <u>11 / 7 / 20</u>		Temperature: <u>1.8</u>	
Received By: <u>Billy Barras</u>			
Signature: <u>B. Barras</u>			
Receipt Check List	NP	Yes	No
COC Seal Present / Intact?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
COC Signed / Accurate?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Bottles arrive intact?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Correct bottles used?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sufficient volume sent?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
If Applicable			
VOA Zero headspace?			
Preservation Correct / Checked?			





## ANALYTICAL REPORT

November 24, 2020

**ConocoPhillips - Tetra Tech**

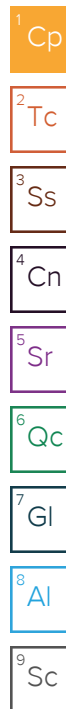
Sample Delivery Group: L1285443  
Samples Received: 11/13/2020  
Project Number: 212C-MD-02334 TASK10  
Description: EVGSAU 3127-002 (1RP-1251)

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

Entire Report Reviewed By:

Erica McNeese  
Project Manager

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



Cp: Cover Page	1	<sup>1</sup> Cp
Tc: Table of Contents	2	
Ss: Sample Summary	3	<sup>2</sup> Tc
Cn: Case Narrative	4	
Sr: Sample Results	5	<sup>3</sup> Ss
AH-1 (BH 3) (0-1') L1285443-01	5	
AH-1 (BH 3) (1-2') L1285443-02	6	<sup>4</sup> Cn
Qc: Quality Control Summary	7	<sup>5</sup> Sr
Total Solids by Method 2540 G-2011	7	
Wet Chemistry by Method 300.0	8	<sup>6</sup> Qc
Volatile Organic Compounds (GC) by Method 8015/8021	9	
Semi-Volatile Organic Compounds (GC) by Method 8015	10	<sup>7</sup> Gl
Gl: Glossary of Terms	11	
Al: Accreditations & Locations	12	<sup>8</sup> Al
Sc: Sample Chain of Custody	13	<sup>9</sup> Sc



AH-1 (BH 3) (0-1') L1285443-01 Solid

Collected by  
Adrian Garcia

Collected date/time  
11/09/20 12:00

Received date/time  
11/13/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1579627	1	11/20/20 09:22	11/20/20 09:33	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1580278	1	11/22/20 22:04	11/23/20 01:59	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015/8021	WG1579384	1	11/18/20 14:02	11/20/20 03:43	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1579244	1	11/20/20 01:54	11/20/20 19:04	JN	Mt. Juliet, TN

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

AH-1 (BH 3) (1-2') L1285443-02 Solid

Collected by  
Adrian Garcia

Collected date/time  
11/09/20 12:10

Received date/time  
11/13/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1579627	1	11/20/20 09:22	11/20/20 09:33	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1580278	1	11/22/20 22:04	11/23/20 02:08	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015/8021	WG1579384	1	11/18/20 14:02	11/20/20 04:04	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1579244	1	11/20/20 01:54	11/20/20 18:51	JN	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.



Erica McNeese  
Project Manager

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

Collected date/time: 11/09/20 12:00

L1285443

## Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.2		1	11/20/2020 09:33	<a href="#">WG1579627</a>

1 Cp

2 Tc

3 Ss

4 Cn

## 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	24.1		9.87	21.5	1	11/23/2020 01:59	<a href="#">WG1580278</a>

5 Sr

6 Qc

7 Gl

8 Al

## Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000129	0.000537	1	11/20/2020 03:43	<a href="#">WG1579384</a>
Toluene	U		0.000161	0.00537	1	11/20/2020 03:43	<a href="#">WG1579384</a>
Ethylbenzene	U		0.000118	0.000537	1	11/20/2020 03:43	<a href="#">WG1579384</a>
Total Xylene	U		0.000494	0.00161	1	11/20/2020 03:43	<a href="#">WG1579384</a>
TPH (GC/FID) Low Fraction	0.0452	J	0.0233	0.107	1	11/20/2020 03:43	<a href="#">WG1579384</a>
(S) a,a,a-Trifluorotoluene(FID)	107			77.0-120		11/20/2020 03:43	<a href="#">WG1579384</a>
(S) a,a,a-Trifluorotoluene(PID)	98.4			72.0-128		11/20/2020 03:43	<a href="#">WG1579384</a>

9 Sc

## 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	11.3		1.73	4.29	1	11/20/2020 19:04	<a href="#">WG1579244</a>
C28-C40 Oil Range	76.6		0.294	4.29	1	11/20/2020 19:04	<a href="#">WG1579244</a>
(S) o-Terphenyl	65.3			18.0-148		11/20/2020 19:04	<a href="#">WG1579244</a>

Collected date/time: 11/09/20 12:10

L1285443

## Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.4		1	11/20/2020 09:33	<a href="#">WG1579627</a>

1 Cp

2 Tc

3 Ss

4 Cn

## 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	23.6		9.85	21.4	1	11/23/2020 02:08	<a href="#">WG1580278</a>

5 Sr

6 Qc

7 Gl

8 Al

## Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000128	0.000535	1	11/20/2020 04:04	<a href="#">WG1579384</a>
Toluene	U		0.000161	0.00535	1	11/20/2020 04:04	<a href="#">WG1579384</a>
Ethylbenzene	U		0.000118	0.000535	1	11/20/2020 04:04	<a href="#">WG1579384</a>
Total Xylene	U		0.000492	0.00161	1	11/20/2020 04:04	<a href="#">WG1579384</a>
TPH (GC/FID) Low Fraction	U		0.0232	0.107	1	11/20/2020 04:04	<a href="#">WG1579384</a>
(S) a,a,a-Trifluorotoluene(FID)	107			77.0-120		11/20/2020 04:04	<a href="#">WG1579384</a>
(S) a,a,a-Trifluorotoluene(PID)	98.6			72.0-128		11/20/2020 04:04	<a href="#">WG1579384</a>

9 Sc

## 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	8.36		1.72	4.28	1	11/20/2020 18:51	<a href="#">WG1579244</a>
C28-C40 Oil Range	73.1		0.293	4.28	1	11/20/2020 18:51	<a href="#">WG1579244</a>
(S) o-Terphenyl	68.5			18.0-148		11/20/2020 18:51	<a href="#">WG1579244</a>

Total Solids by Method 2540 G-2011 [L1285443-01,02](#)

Method Blank (MB)

(MB) R3595765-1 11/20/20 09:33

	MB Result	<u>MB Qualifier</u>	MB MDL	MB RDL
Analyte	%		%	%
Total Solids	0.000			

L1285517-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1285517-01 11/20/20 09:33 • (DUP) R3595765-3 11/20/20 09:33

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	%	%		%		%
Total Solids	94.0	96.0	1	2.11		10

Laboratory Control Sample (LCS)

(LCS) R3595765-2 11/20/20 09:33

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

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Wet Chemistry by Method 300.0 L1285443-01,02

Method Blank (MB)

(MB) R3596338-1 11/22/20 23:33				
	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/kg		mg/kg	mg/kg
Chloride	U		9.20	20.0

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

L1285974-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1285974-03 11/23/20 02:56 • (DUP) R3596338-3 11/23/20 03:05

	Original Result (dry)	DUP Result (dry)	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	mg/kg	mg/kg		%		%
Chloride	94.8	94.5	1	0.375		20

L1285974-10 Original Sample (OS) • Duplicate (DUP)

(OS) L1285974-10 11/23/20 04:50 • (DUP) R3596338-6 11/23/20 05:00						
	Original Result (dry)	DUP Result (dry)	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	mg/kg	mg/kg		%		%
Chloride	1210	1250	5	3.10		20

Laboratory Control Sample (LCS)

(LCS) R3596338-2 11/22/20 23:42					
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/kg	mg/kg	%	%	
Chloride	200	218	109	90.0-110	

L1285974-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1285974-05 11/23/20 03:24 • (MS) R3596338-4 11/23/20 03:34 • (MSD) R3596338-5 11/23/20 03:43												
	Spike Amount (dry)	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec.	MSD Rec.	Dilution	Rec. Limits	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Chloride	521	22.7	572	576	106	106	1	80.0-120			0.736	20



Volatile Organic Compounds (GC) by Method 8015/8021

L1285443-01,02

Method Blank (MB)

(MB) R3595400-3 11/19/20 16:50

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000120	0.000500
Toluene	U		0.000150	0.00500
Ethylbenzene	U		0.000110	0.000500
Total Xylene	U		0.000460	0.00150
TPH (GC/FID) Low Fraction	U		0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	107			77.0-120
(S) a,a,a-Trifluorotoluene(PID)	100			72.0-128

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS)

(LCS) R3595400-1 11/19/20 15:48

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0500	0.0473	94.6	76.0-121	
Toluene	0.0500	0.0475	95.0	80.0-120	
Ethylbenzene	0.0500	0.0483	96.6	80.0-124	
Total Xylene	0.150	0.152	101	37.0-160	
(S) a,a,a-Trifluorotoluene(FID)			113	77.0-120	
(S) a,a,a-Trifluorotoluene(PID)			100	72.0-128	

Laboratory Control Sample (LCS)

(LCS) R3595400-2 11/19/20 16:08

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.80	105	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			99.8	77.0-120	
(S) a,a,a-Trifluorotoluene(PID)			104	72.0-128	

Semi-Volatile Organic Compounds (GC) by Method 8015 [L1285443-01,02](#)

Method Blank (MB)

(MB) R3595607-1 11/20/20 11:51

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	77.2			18.0-148

Laboratory Control Sample (LCS)

(LCS) R3595607-2 11/20/20 12:04

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	34.1	68.2	50.0-150	
(S) o-Terphenyl			85.0	18.0-148	

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

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.

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7G

8Al

9Sc

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.

## State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey-NELAP	TN002
California	2932	New Mexico <sup>1</sup>	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky <sup>1 6</sup>	90010	South Carolina	84004
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1 4</sup>	2006
Louisiana <sup>1</sup>	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas <sup>5</sup>	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

## Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP, LLC EMLAP	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

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

## Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



### Analysis Request of Chain of Custody Record

Page : 1 of 1

[illegible]



Pace Analytical National Center for Testing & Innovation  
Cooler Receipt Form

Client: <u>COPETRA</u>		<u>11285443</u>	
Cooler Received/Opened On: 11 <u>1/3</u> / 20		Temperature: <u>25°C</u>	
Received By: <u>Monica Rifenberrick</u>			
Signature: <u>[Signature]</u>			
Receipt Check List	NP	Yes	No
COC Seal Present / Intact?	<u>/</u>		
COC Signed / Accurate?		<u>/</u>	
Bottles arrive intact?		<u>/</u>	
Correct bottles used?		<u>/</u>	
Sufficient volume sent?		<u>/</u>	
If Applicable			
VOA Zero headspace?			
Preservation Correct / Checked?			

## **APPENDIX E**

### **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**

**1RP-1251**



December 22, 2020

# Preface

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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](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.

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## How Soil Surveys Are Made

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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

## Custom Soil Resource Report

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

## Custom Soil Resource Report

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



## Custom Soil Resource Report


## 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.

## Custom Soil Resource Report

## 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	1.0	100.0%
<b>Totals for Area of Interest</b>		<b>1.0</b>	<b>100.0%</b>

## 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.

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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.

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**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

## Custom Soil Resource Report

**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



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**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

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- 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>

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**NMSLO Seed Mix****Loamy (L)****LOAMY (L) SITES SEED MIXTURE:**

COMMON NAME	VARIETY	APPLICATION RATE (PLS/Acre)	DRILL BOX
<b>Grasses:</b>			
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
<b>Forbs:</b>			
Firewheel ( <i>Gaillardia</i> )	VNS, Southern	1.0	D
<b>Shrubs:</b>			
Fourwing saltbush	Marana, Santa Rita	1.0	D
Common winterfat	VNS, Southern	0.5	F
<b>Total PLS/acre</b>		<b>18.0</b>	

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 208272

**CONDITIONS**

Operator: Maverick Permian LLC 1111 Bagby Street Suite 1600 Houston, TX 77002	OGRID: 331199
	Action Number: 208272
	Action Type: [IM-SD] Incident File Support Doc (ENV) (IM-BNF)

**CONDITIONS**

Created By	Condition	Condition Date
jharimon	The proposed RESTORATION, RECLAMATION AND RE-VEGETATION plan has been approved with the following conditions. (1) The reclamation must contain a minimum of four feet of non-waste containing, uncontaminated, earthen material with chloride concentrations less than 600 mg/kg as analyzed by EPA Method 300.0, or other test methods approved by the division. The soil cover must include a top layer, which is either the background thickness of topsoil or one foot of suitable material to establish vegetation at the site, whichever is greater. (2) The responsible party must reseed disturbed area in the first favorable growing season following closure of the site.	4/24/2023
jharimon	(3) The division will consider reclamation of all disturbed areas complete when uniform vegetative cover has been established that reflects a life-form ratio of plus or minus fifty percent of pre-disturbance levels and a total percent plant cover of at least seventy percent of pre-disturbance levels, excluding noxious weeds. (4) For any major or minor release containing liquids, the responsible party must notify the division when reclamation and re-vegetation are complete.	4/24/2023