SITE INFORMATION

Report Type: Work Plan 1RP-5778

General Site Information:						
Site:	**Phillips E State 29 Flowline Release**					
Company:	**ConocoPhillips**					
Section, Township and Range	**Unit Letter P**	**Sec. 14**	**T 17S**	**R 33 E**		
Lease Number:	**Associated API No. 30-025-25434**					
County:	**Lea**					
GPS:	**32.82910°**			**-103.62790°**		
Surface Owner:	**State**					
Mineral Owner:	**State**					
Directions:	Depart from Hobbs. Head toward S Morris St on E Marland Blvd (US-62/US-180). 28 miles. Turn left onto Mescalero Road. Go 7.3 miles. Turn right onto Derby Road. Go 2 miles. Turn right. 0.1 miles. Arrive at location. Site is on the right side of the road.					

Release Data:		
Date Released:	10/4/2019	
Type Release:	Produced Water/Oil	
Source of Contamination:	Flowline leak	
Fluid Released:	6 bbl pw/o	
Fluids Recovered:	N/A	

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

Site Characterization	
Shallowest Depth to Groundwater:	*151' below surface*
Impact to groundwater or surface water:	*No*
Extents within 300 feet of a watercourse:	*No*
Extents within 200 feet of lakebed, sinkhole, or playa la	*No*
Extents within 300 feet of an occupied structure:	*No*
Extents within 500 horizontal feet of a private water we	*No*
Extents within 1000 feet of any water well or spring:	*No*
Extents within incorporated municipal well field:	*No*
Extents within 300 feet of a wetland:	*No*
Extents overlying a subsurface mine:	*No*
Karst Potential:	*Low*
Extents within a 100-year floodplain:	*No*
Impact to areas not on a production site:	*No*

Recommended Remedial Action Levels (RRALs)				
Benzene	***Total BTEX***	***TPH (GRO+DRO)***	***TPH (GRO+DRO+MRO)***	***Chlorides***
10 mg/kg	*50 mg/kg*	*1,000 mg/kg*	*2,500 mg/kg*	*10,000 mg/kg*

TETRA TECH

October 22, 2020

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

Re: Release Characterization and Remediation Work Plan
ConocoPhillips
Phillips E State #29 Flowline Release
Unit Letter P, Section 14, Township 17 South, Range 33 East
Lea County, New Mexico
1RP-5778
Incident Identification (ID) NRM1930943618

Sir or Madam:

Tetra Tech, Inc. (Tetra Tech) was contacted by ConocoPhillips (COP) to assess a release that occurred from the Phillips E State 29 well (API No. 30-025-25434) flowline. The release point is located approximately 50 feet (ft) west of the Phillips E State 29 lease pad, and approximately 40 feet north of the flowline header. The release footprint is located in the Public Land Survey System (PLSS) Unit Letter P, Section 14, Township 17 South, Range 33 East, in Lea County, New Mexico (Site). The approximate release point occurred at coordinates 32.82910°, -103.62790°, as shown on Figures 1 and 2.

BACKGROUND

According to the State of New Mexico C-141 Initial Report (Appendix A), the release was discovered on October 4, 2019. As documented on the C-141 form, a flowline from the Phillips E State 29 well ruptured causing the release of approximately 5 barrels (bbls) of produced water and 1 bbl of oil encompassing an area of approximately 281 square feet (Figure 3). During initial response no volume of liquid was reported recovered. The New Mexico Oil Conservation District (NMOCD) received the C-141 report form for the release on October 16, 2019, and subsequently assigned the Site the Remediation Permit (RP) number 1RP-5778 and Incident Identification (ID) NRM1930943618.

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 19.15.0029 New Mexico Administrative Code (NMAC). The Site is in an area of low karst potential.

The Site is within a New Mexico oil and gas production area. According to the New Mexico Office of the State Engineers (NMOSE) database, there are seven (7) water wells within a ½ mile (800-meter) radius of the Site with an average depth to groundwater at 151 feet (ft.) below ground surface (bgs). The site characterization data is included in Appendix B.

REGULATORY FRAMEWORK

Based upon the release footprint and in accordance with Subsection E of 19.15.29.12 NMAC, per 19.15.29.11 NMAC as well as the NMOCD *Procedures for Implementation of the Spill Rule (19.15.29 NMAC)* guidance document (September 6, 2019), 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, the RRALs for the Site are as follows:

Constituent	RRAL
Chloride (0-4 ft bgs)	600 mg/kg
Chloride (>4 ft bgs)	20,000 mg/kg
TPH (0-4 ft bgs)	100 mg/kg
TPH (>4 ft bgs)	2,500 mg/kg
BTEX	50 mg/kg
Benzene	10 mg/kg

INITIAL RESPONSE AND SITE ASSESSMENT

According to information provided by COP, the initial release footprint was reported as a visibly impacted area beneath the Phillips E State 29 well flowline near the header located approximately 50 feet west of the Phillips E State 29 lease pad. As a portion of initial response, in December 2019, COP personnel collected a total of eighteen (18) samples from seven (7) boring locations to attempt to achieve vertical and horizontal delineation. Four borings (SP-1 through SP-4) were installed within the release extent and samples were collected at the surface, at a depth of 1-foot bgs, and at a depth of 3 feet bgs. Additionally, three borings (BG-5 through BG-7) were completed around the release perimeter and soil samples were collected from surface and a depth of 1-foot bgs from each boring for total of six (6). The samples were submitted to Cardinal Laboratories in Hobbs, NM and analyzed for chlorides using EPA Method SM4500Cl-B, TPH using EPA Method 8015M, and BTEX using EPA Method 8021B. The initial release extent and sample locations are shown on Figure 3.

Analytical results associated with six of the seven boring locations exceeded the reclamation RRAL for TPH (100 mg/kg) in the surface samples. The only exception was at boring location BG-5. The analytical results associated with all the soil samples collected from the release interior exceeded the reclamation concentration for TPH (100 mg/kg) in the upper three feet. SP-1, located closest to the release point, exceeded the proposed RRAL for chloride (600 mg/kg) at a depth of 1-foot bgs, and exceeded the total BTEX RRAL in the surface sample (although the benzene specific RRAL was not exceeded). All other sample results were below the Site RRALs for BTEX and chloride. The laboratory analytical reports are included in Appendix C. Laboratory analytical results are summarized in Table 1.

INITIAL REMEDIAL ACTIVITIES

Based on the assessment data collected, evidence of historical impact was discovered outside of the identified release footprint. In accordance with 19.15.29.8. B. (4) NMAC that states “the responsible party may commence remediation immediately after discovery of a release”, ConocoPhillips elected to begin remediation of the impacted area. The footprint of the release was excavated by COP personnel with heavy equipment to approximately 1 to 1.5-feet below ground surface (bgs) to remove the visually impacted soils. Approximately 200 cubic yards of visually impacted soil was excavated from within the release footprint, as well as from areas surrounding the release extent. The approximate release extent, the December 2019 sampling locations, and the extents of the initial response activities are shown in Figure 3.

ADDITIONAL SITE ASSESSMENT

On March 10, 2020, Tetra Tech visited the release Site to visually inspect the release area, assess current conditions, and map the excavated extents from the initial response activities. During the visit, an approximate 80-ft by 50-ft area was observed to have been excavated to roughly 1.5 feet below the surrounding surface grade. (Figure 3).

In order to achieve horizontal and vertical delineation of the release extent, Tetra Tech personnel conducted soil sampling on May 12, 2020 on behalf of ConocoPhillips. A total of six (6) borings (BH-1 through BH-6) were installed using an air rotary drill rig. One boring (BH-2) was intended to capture the vertical extent of

contamination inside the original 1RP-5778 footprint, however, it was unclear to the field crew where the initial footprint was as a result of the existing excavation. However, BH-2 was completed just north of the original footprint. Thus, both borings BH-1 and BH-2 serve as vertical delineation for the historical impact outside of the 1RP-5778 footprint. These borings were completed within the excavated area to depths of 20 feet bgs. The remaining four (4) borings (BH-3 through BH-6) were installed around the perimeter (north, south, east, and west) of the excavated extent to horizontally delineate the both the 1RP-5778 release and the surrounding historical impact. Boring logs from the May 2020 assessment activities are included in Appendix D.

A total of thirty-two (32) samples were collected from the six (6) borings and submitted to Pace Analytical National Center for Testing & Innovation 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 C. Boring locations are shown in Figure 4. Photographic documentation of the site assessment is included in Appendix E.

ADDITIONAL SITE DELINEATION

To complete vertical delineation and achieve additional horizontal delineation of the release to the south and west, Tetra Tech personnel returned to the Site on September 17, 2020 to conduct soil sampling. A total of four (4) additional borings (BH-7 through BH-10) were installed with a combination of an air rotary rig and hand auger. Boring BH-7 was completed inside the original 1RP-5778 footprint (at a distance of 3 feet from the approximate release point) with the drilling rig. Boring BH-7 was completed at a total depth of 27' bgs.

The remainder of the borings were located along the perimeter of the excavated area and completed with a hand auger. A total of sixteen (16) samples were collected and submitted to Pace and again analyzed for chlorides via EPA Method 300.0, TPH via EPA Method 8015M, and BTEX via EPA Method 8021B. Copies of the laboratory analytical reports and chain-of-custody documentation are included in Appendix C. Boring locations are shown in Figure 4. Photographic documentation of the Site assessments is included as Appendix E.

SUMMARY OF SAMPLING RESULTS

Results from the May 2020 soil sampling event are summarized in Table 2. The analytical results associated with the BH-3 boring location exceeded the Site TPH RRAL of 100 mg/kg in the 0-1' sample interval. The analytical results associated with the BH-4 boring location also exceeded the Site TPH RRAL at the 0-1' and 2-3' intervals. Both BH-3 and BH-4 are outside the footprint of the release and are assumed represent historical legacy impact. The analytical results associated with the remainder of the samples analyzed were below the BTEX chloride or TPH Site RRALs of 50 mg/kg, 600 mg/kg and 100 mg/kg, respectively.

Results from the September 2020 sampling event are also summarized in Table 2. As noted, boring B-7 was completed to provide vertical delineation within the original release footprint. Analytical results associated with the BH-7 location exceeded the TPH RRAL of 100 mg/kg in the 0-1 and 2-3' sample intervals. Analytical results from both borings BH-8 and BH-10 were below Site RRALs and provided horizontal delineation east of BH-3. Analytical results from boring BH-9 were below Site RRALs and provided horizontal delineation to the south. Therefore, the release is fully delineated following the September 2020 additional assessment activities.

REMEDIATION WORK PLAN

Based on the analytical results, ConocoPhillips proposes to remove the impacted material in the release extent as depicted in Figure 5. Impacted soils will be excavated using heavy equipment (backhoes, hoe rams, and track hoes) to a maximum depth of 3 feet below the surrounding surface or until a representative sample from the walls and bottom of the excavation is below the RRALs. The release area around BH-7 (including SP #1, SP #2, SP #3, SP #4, BG-5 and BG-7), will be excavated an additional 1.5 - 2 feet to a total depth of 3 feet bgs. The areas west of the previously excavated extent around BH-3 will be excavated

to a depth of 1-foot bgs. The area around BH-4 will be excavated to a depth of 3 feet bgs as indicated in Figure 5.

Excavated soils will be transported offsite and disposed of at an NMOCD-approved or permitted facility. Confirmation floor and sidewall samples will be collected for verification of remedial activities, and analyzed for TPH, BTEX and chloride. Once the sample results are received, NMOCD will be notified and the excavation will then be backfilled with clean material to surface grade. The estimated volume of material to be remediated is 150 cubic yards.

ALTERNATIVE CONFIRMATION SAMPLING PLAN

In accordance with 19.15.29.12(D)(1)(b) NMAC, ConocoPhillips proposes the following alternative confirmation sampling plan to adhere with NMOCD requirements. The proposed confirmation sample locations are depicted in Figure 6. Nine (9) confirmation floor samples and eighteen (18) confirmation sidewall samples are proposed for verification of remedial activities. The proposed excavation encompasses an area of approximately 2,320 square feet.

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

SITE RECLAMATION AND RESTORATION PLAN

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

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

CONCLUSION

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

Sincerely,
Tetra Tech, Inc.

Christian M. Llull, P.G.
Project Manager

Greg W. Pope, P.G.
Program Manager

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

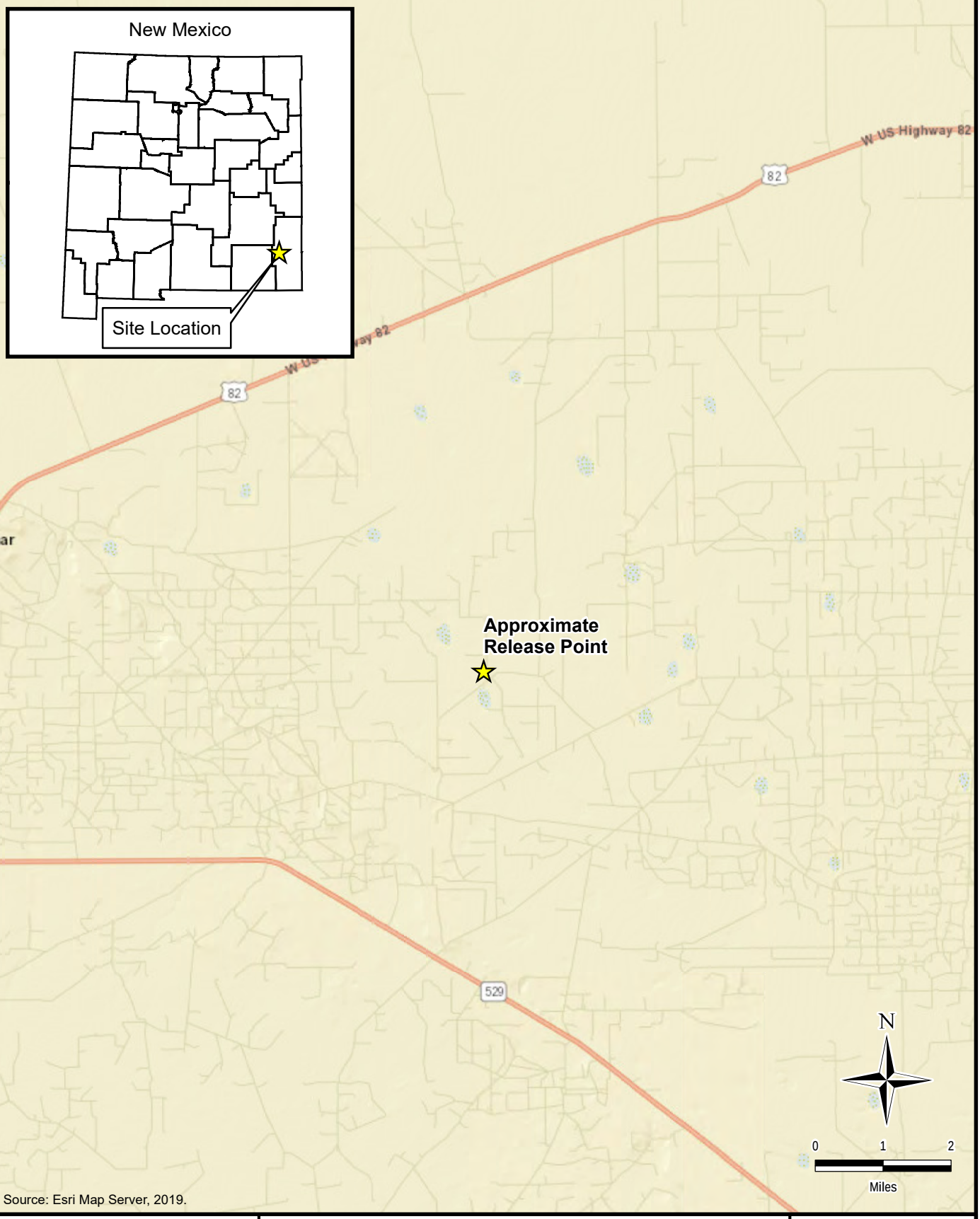
LIST OF ATTACHMENTS

Figures:

Tables:

Appendices:

FIGURES



Source: Esri Map Server, 2019.

DOCUMENT PATH: D:\CONOCOPHILLIPS\MXD\PHILLIPS_E_STATE29\FIGURE 1 SITE LOCATION_PHILLIPSE29.MXD

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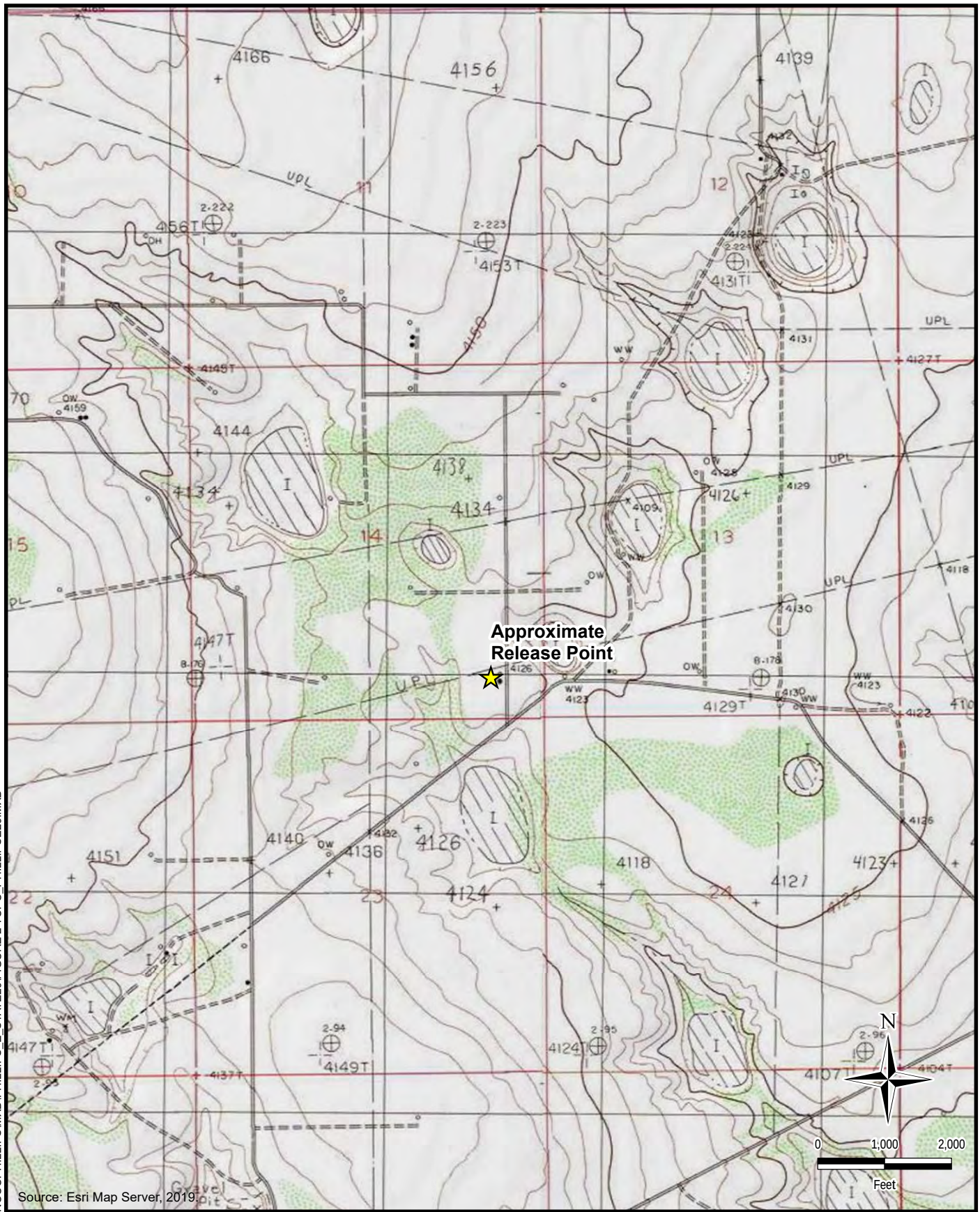
CONOCOPHILLIPS

1RP-5778
(32.82910°, -103.62790°)
LEA COUNTY, NEW MEXICO

PHILLIPS E STATE 29 FLOWLINE RELEASE
SITE LOCATION MAP

PROJECT NO.:	212C-MD-02180
DATE:	JUNE 02, 2020
DESIGNED BY:	AAM

Figure No.
1



DOCUMENT PATH: D:\CONOCOPHILLIPS\MXD\PHILLIPS_E_STATE29\FIGURE 2 TOPO_PHILLIPSE29.MXD

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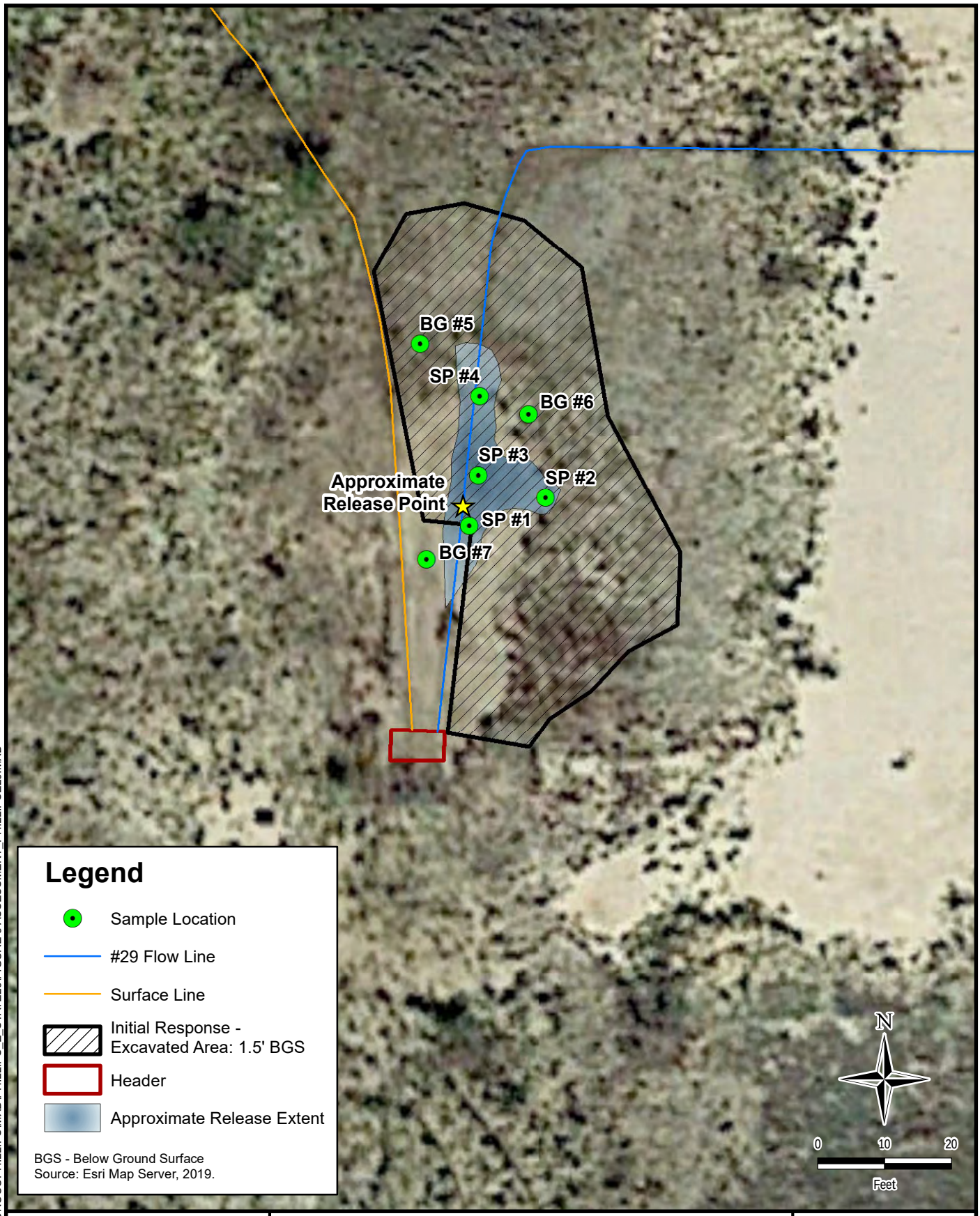
CONOCOPHILLIPS

1RP-5778
(32.82910°, -103.62790°)
LEA COUNTY, NEW MEXICO

PHILLIPS E STATE 29 FLOWLINE RELEASE
TOPOGRAPHIC MAP

PROJECT NO.:	212C-MD-02180
DATE:	JUNE 03, 2020
DESIGNED BY:	AAM

Figure No.
2



Legend

- Sample Location
- #29 Flow Line
- Surface Line
- Initial Response - Excavated Area: 1.5' BGS
- Header
- Approximate Release Extent

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

DOCUMENT PATH: D:\CONOCOPHILLIPS\MXD\PHILLIPS_E_STATE29\FIGURE 3 ASSESSMENT_PHILLIPSE29.MXD

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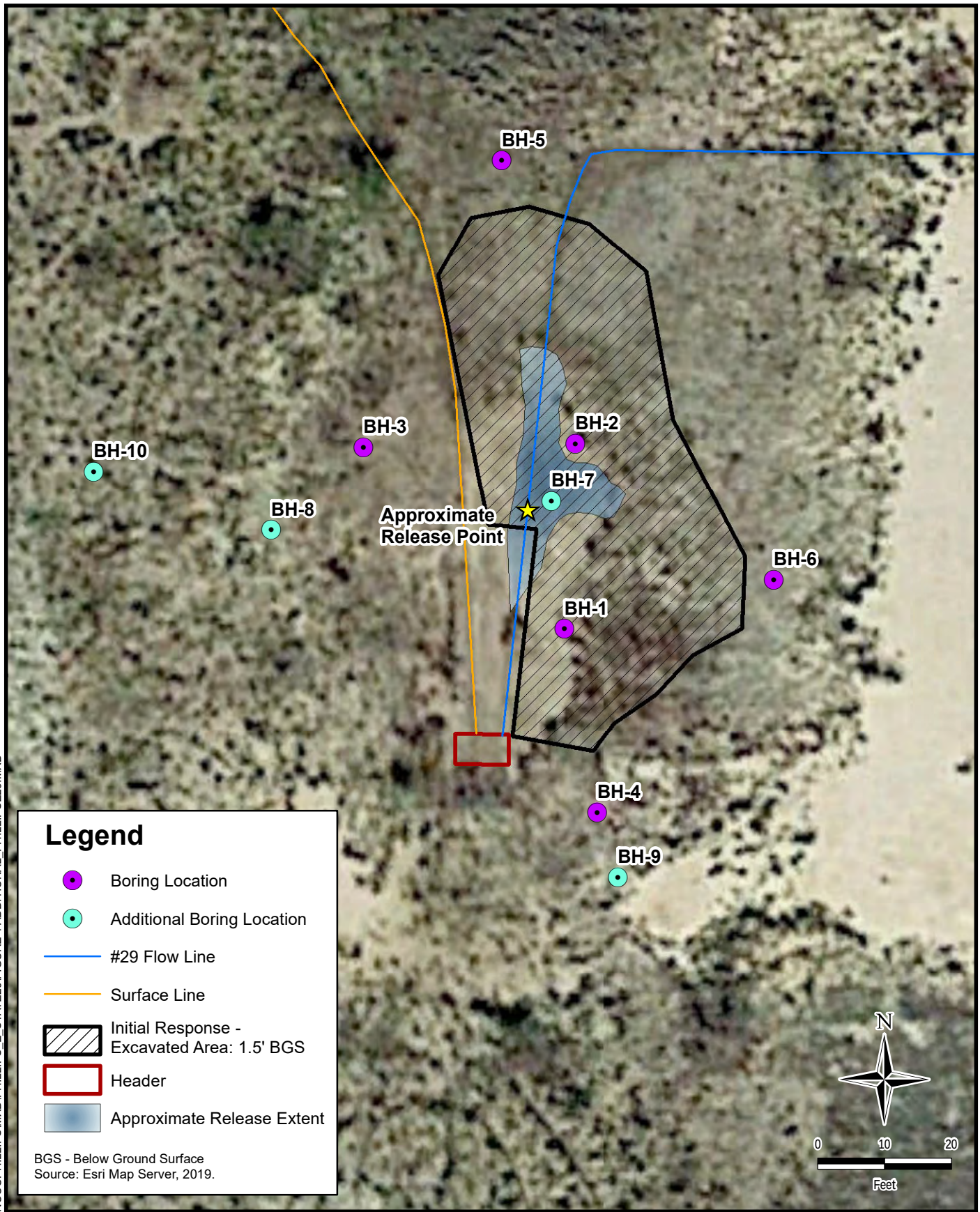
CONOCOPHILLIPS

1RP-5778
(32.829180°, -103.627891°)
LEA COUNTY, NEW MEXICO

PHILLIPS E STATE 29 FLOWLINE RELEASE
INITIAL SITE ASSESSMENT

PROJECT NO.:	212C-MD-02180
DATE:	AUGUST 25, 2020
DESIGNED BY:	AAM

Figure No.
3



Legend

- Boring Location
- Additional Boring Location
- #29 Flow Line
- Surface Line
- Initial Response - Excavated Area: 1.5' BGS
- Header
- Approximate Release Extent

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

DOCUMENT PATH: D:\CONOCOPHILLIPS\MXD\PHILLIPS_E_STATE29\FIGURE 4 ADDITIONAL_PHILLIPSE29.MXD

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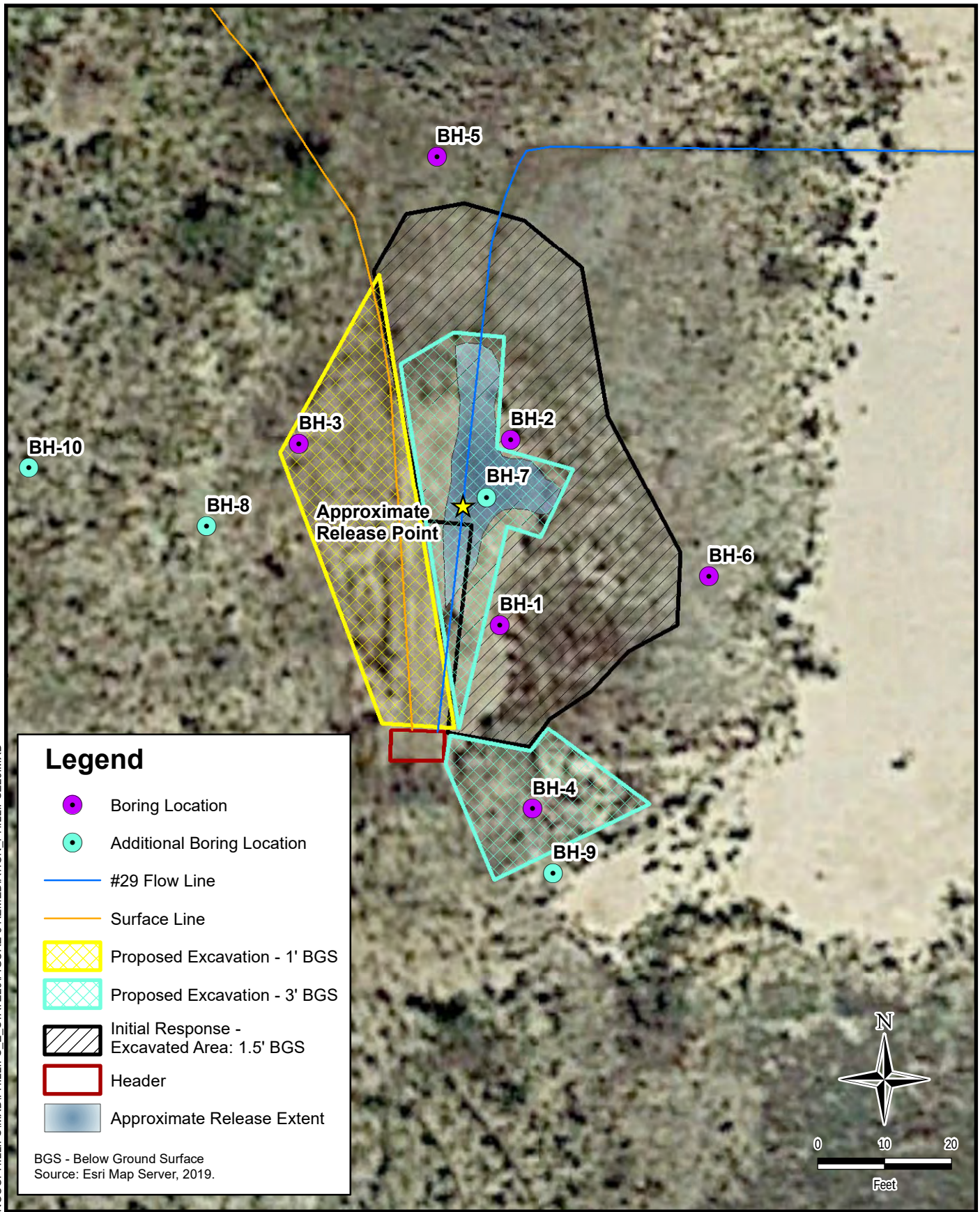
CONOCOPHILLIPS

1RP-5778
(32.829180°, -103.627891°)
LEA COUNTY, NEW MEXICO

PHILLIPS E STATE 29 FLOWLINE RELEASE
ADDITIONAL SITE ASSESSMENT

PROJECT NO.:	212C-MD-02180
DATE:	OCTOBER 14, 2020
DESIGNED BY:	AAM

Figure No.
4



Legend

- Boring Location
- Additional Boring Location
- #29 Flow Line
- Surface Line
- Proposed Excavation - 1' BGS
- Proposed Excavation - 3' BGS
- Initial Response - Excavated Area: 1.5' BGS
- Header
- Approximate Release Extent

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

DOCUMENT PATH: D:\CONOCOPHILLIPS\MXD\PHILLIPS_E_STATE29\FIGURE 5 REMEDIATION_PHILLIPSE29.MXD

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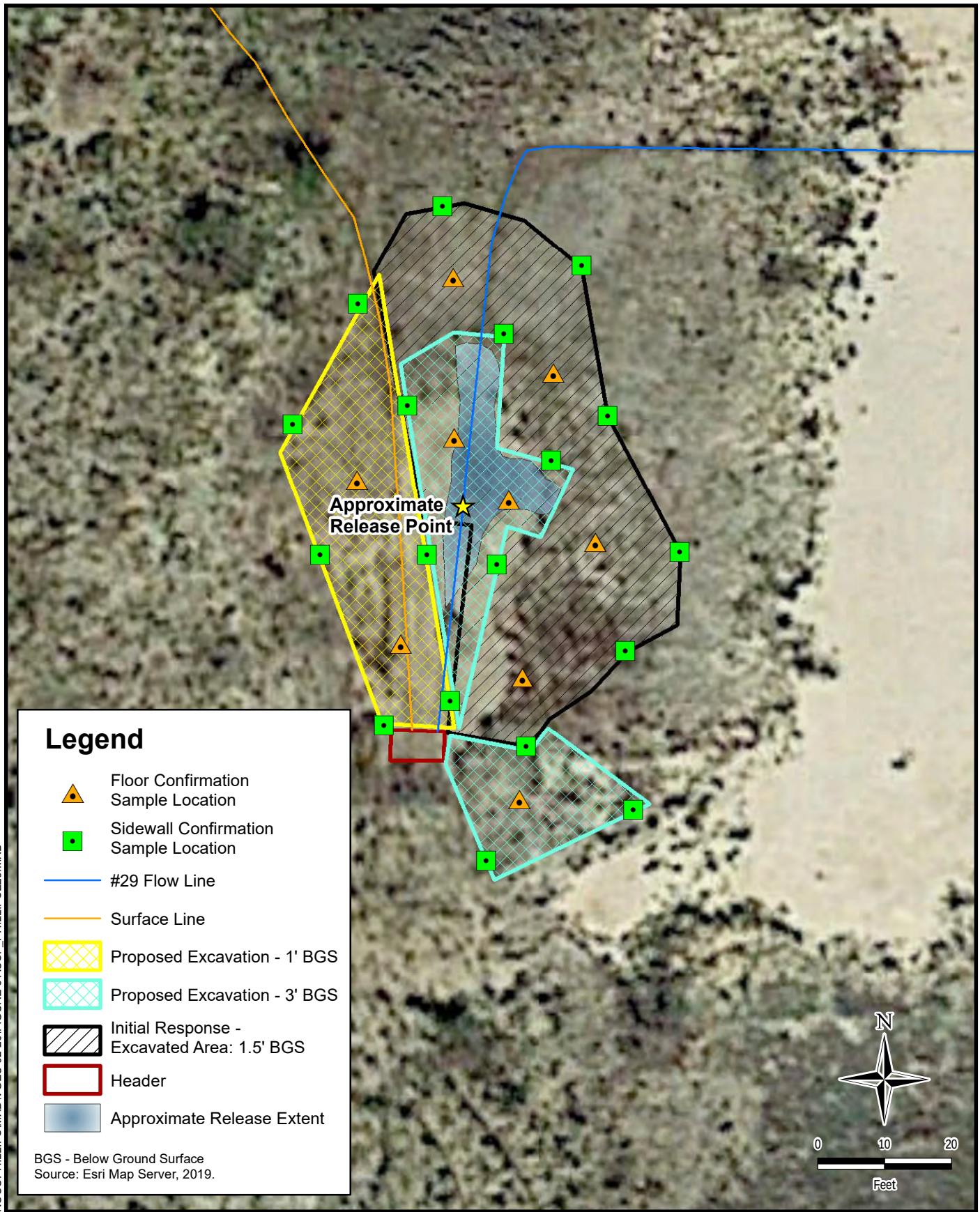
CONOCOPHILLIPS

1RP-5778
(32.829180°, -103.627891°)
LEA COUNTY, NEW MEXICO

PHILLIPS E STATE 29 FLOWLINE RELEASE
PROPOSED REMEDIATION EXTENTS

PROJECT NO.:	212C-MD-02180
DATE:	OCTOBER 15, 2020
DESIGNED BY:	AAM

Figure No.
5



DOCUMENT PATH: D:\CONOCOPHILLIPS\MXD\VGEU 02-20\FIGURE 6 ACSP_PHILLIPSE29.MXD

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CONOCOPHILLIPS

1RP-5778
(32.829180°, -103.627891°)
LEA COUNTY, NEW MEXICO

PHILLIPS E STATE 29 FLOWLINE RELEASE
ALTERNATIVE CONFIRMATION SAMPLING PLAN

PROJECT NO.:	212C-MD-02180
DATE:	OCTOBER 19, 2020
DESIGNED BY:	AAM

Figure No.
6

TABLES

TABLE 1
SUMMARY OF ANALYTICAL RESULTS
INITIAL SOIL ASSESSMENT - 1RP-5778
CONOCOPHILLIPS
PHILLIPS E STATE UNIT 29 FLOWLINE RELEASE
LEA COUNTY, NM

Sample ID	Sample Date	Sample Depth	Chloride[1]		BTEX[2]										TPH[3]						
					Benzene		Toluene		Ethylbenzene		Total Xylenes		Total BTEX		GRO[4] C_6 - C_{10}		DRO $>C_{10}$ - C_{28}		EXT DRO $>C_{28}$ - C_{36}		Total TPH
		ft. bgs	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg
SP #1	12/19/2019	SURFACE	416		4.65		63.6		56.0		156		***281***		4920		25700		5390		***36010***
		1	***1100***		< 0.050		0.167		0.386		1.13		1.68		52.3		1120		430		***1602***
		3	576		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		626		260		***886***
SP #2	12/19/2019	SURFACE	320		< 0.200		0.721		1.87		14.4		17.0		491		19500		4360		***24351***
		1	320		< 0.050		0.339		< 0.050		10.1		10.5		687		6890		1700		***9277***
		3	176		< 0.500		< 0.500		7.43	QM-07	14.8	QM-07	22.2		490		5900		1520		***7910***
SP #3	12/19/2019	SURFACE	80.0		< 0.050		< 0.050		0.433		1.36		1.79		239		27500		5780		***33519***
		1	64.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 50.0		11500		2700		***14200***
		3	64.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		106		38.0		***144***
SP #4	12/19/2019	SURFACE	32.0		< 0.200		< 0.200		2.04		4.60		6.64		387		38400		7310		***46097***
		1	32.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		13.8		1120		405		***1539***
		3	64.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		456		153		***609***
BG #5	12/19/2019	SURFACE	16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		12.2		15.9		28.1
		1	112		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		270		87.5		***358***
BG #6	12/19/2019	SURFACE	32.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		289		289		***578***
		1	48.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		<30.0
BG #7	12/19/2019	SURFACE	80.0		< 0.050		< 0.050		0.126		0.426		0.552		80.3		3320		745		***4145***
		1	< 16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		432		260		***692***

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
1 Method SM4500Cl-B
2 Method 8260B
3 Method 8015M

Bold and italicized values indicate exceedance of proposed RRALs

Shaded rows indicate depth intervals proposed for excavation and remediation

QUALIFIERS:

QM-07 The spike recovery was outside acceptance limits for MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

TABLE 2
SUMMARY OF ANALYTICAL RESULTS
ADDITIONAL SOIL ASSESSMENT - 1RP-5778
CONOCOPHILLIPS
PHILLIPS E STATE UNIT 29 FLOWLINE RELEASE
LEA COUNTY, NM

Sample ID	Sample Date	Sample Depth Interval	Field Screening Results		Chloride[1]		BTEX[2]									TPH[3]							
			Chloride	PID			Benzene		Toluene		Ethylbenzene		Total Xylenes		Total BTEX	GRO[4] C_3 - C_{10}		DRO C_{10} - C_{28}		ORO C_{28} - C_{40}		Total TPH (GRO+DRO+ORO)
		ft. bgs	ppm		mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg
BH-1	5/12/2020	2-3	195	2.8	69.3		< 0.00120		0.00168	J	< 0.00299		0.00195	J	0.00363	< 0.120		< 4.79		1.26	B J	1.26
		4-5	189	1.4	109		< 0.00105		< 0.00526		< 0.00263		< 0.00684		-	< 0.105		< 4.21		0.375	B J	0.375
		6-7	262	1.1	167		< 0.00108		< 0.00542		< 0.00271		< 0.00705		-	< 0.108		< 4.34		0.430	B J	0.430
		9-10	-	1.1	117		< 0.00107		< 0.00533		< 0.00266		< 0.00692		-	< 0.107		< 4.26		1.78	J	1.78
		14-15	-	1.3	-		-		-		-		-		-	-		-		-		-
		19-20	283	0.9	-		-		-		-		-		-	-		-		-		-
BH-2	5/12/2020	2-3	-	2.4	40.8		< 0.00107		< 0.00537		< 0.00268		< 0.00698		-	< 0.107		8.05		7.41		15.5
		4-5	188	2.1	34.3		< 0.00104		< 0.00522		< 0.00261		< 0.00678		-	< 0.104		< 4.17		0.862	J	0.862
		6-7	192	1.2	121		< 0.00113		< 0.00567		< 0.00283		< 0.00737		-	< 0.113		< 4.53		0.556	J	0.556
		9-10	141	1.4	81.4		< 0.00109		< 0.00545		< 0.00272		< 0.00708		-	< 0.109		1.90	J	1.83	J	3.73
		14-15	-	1.8	-		-		-		-		-		-	-		-		-		-
		19-20	-	1.9	-		-		-		-		-		-	-		-		-		-
BH-3	5/12/2020	0-1	394	3.4	43.7		< 0.00104		< 0.00520		< 0.00260		< 0.00675		-	0.0349	J	46.0		105		***151***
		2-3	201	0.9	121		< 0.00104		< 0.00521		< 0.00261		< 0.00678		-	0.0256	J	< 4.17		0.736	J	0.762
		4-5	169	1.1	99.8		< 0.00104		< 0.00521		< 0.00260		< 0.00677		-	0.0415	J	< 4.17		0.814	J	0.856
		6-7	180	1.4	48.0		< 0.00105		< 0.00527		< 0.00263		< 0.00685		-	< 0.105		< 4.22		1.49	J	1.49
		9-10	99.8	1.0	27.9		< 0.00106		< 0.00530		< 0.00265		< 0.00689		-	0.0578	B J	< 4.24		2.34	J	2.40
BH-4	5/12/2020	0-1	160	2.1	27.1		< 0.00104		0.00158	J	< 0.00259		< 0.00673		0.00158	0.118		52.3		117		***169***
		2-3	278	0.9	121		< 0.00131		< 0.00654		0.00366		0.0207		0.0244	0.111	B J	174		106		***280***
		4-5	212	1.8	283		< 0.00104		< 0.00522		< 0.00261		< 0.00679		-	0.0475	B J	5.51		6.46		12.0
		6-7	198	0.9	380		< 0.00104		< 0.00522		< 0.00261		< 0.00678		-	< 0.104		23.1		22.4		45.5
		9-10	181	1.1	239		< 0.00107		< 0.00534		< 0.00267		< 0.00695		-	< 0.107		2.26	J J3	1.92	J	4.18
BH-5	5/12/2020	0-1	212	2.4	33.0		< 0.00111		< 0.00553		< 0.00277		< 0.00719		-	< 0.111		6.29		10.5		16.8
		2-3	154	1.4	17.3	J	< 0.00105		< 0.00524		< 0.00262		< 0.00681		-	< 0.105		1.75	J	2.02	J	3.77
		4-5	109	1.1	22.2		< 0.00103		< 0.00515		< 0.00258		< 0.00670		-	< 0.103		< 4.12		1.05	J	1.05
		6-7	141	0.9	17.5	J	< 0.00107		< 0.00535		< 0.00267		< 0.00695		-	< 0.107		< 4.28		0.510	J	0.510
		9-10	210	1.5	91.2		< 0.00108		< 0.00541		< 0.00271		< 0.00704		-	< 0.108		< 4.33		< 4.33		-
BH-6	5/12/2020	0-1	125	1.1	< 20.6		< 0.00103		< 0.00515		< 0.00257		< 0.00669		-	< 0.103		6.43		16.0		22.4
		2-3	113	1.8	12.5	J	< 0.00103		< 0.00517		< 0.00259		< 0.00672		-	< 0.103		4.00	J	6.32	B	10.3
		4-5	101	2.1	16.3	J	< 0.00103		< 0.00516		< 0.00258		< 0.00670		-	< 0.103		< 4.13		1.58	B J	1.58
		6-7	97.3	1.2	29.0		< 0.00104		< 0.00518		< 0.00259		< 0.00674		-	< 0.104		< 4.15		1.35	B J	1.35
		9-10	91.7	0.9	37.4		< 0.00114		< 0.00570		< 0.00285		< 0.00741		-	0.0529	B J	2.66	J	0.841	B J	3.55

TABLE 2
SUMMARY OF ANALYTICAL RESULTS
ADDITIONAL SOIL ASSESSMENT - 1RP-5778
CONOCOPHILLIPS
PHILLIPS E STATE UNIT 29 FLOWLINE RELEASE
LEA COUNTY, NM

Sample ID	Sample Date	Sample Depth Interval	Field Screening Results		Chloride[1]		BTEX[2]								TPH[3]							
			Chloride	PID			Benzene		Toluene		Ethylbenzene		Total Xylenes		Total BTEX		GRO[4] C_3 - C_{10}		DRO C_{10} - C_{28}		ORO C_{28} - C_{40}		Total TPH (GRO+DRO+ORO)
		ft. bgs	ppm		mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg		mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg
BH-7	9/17/2020	0-1	-	-	168		< 0.00106		0.00157	J	0.00116	J	0.00682	J	0.00955		< 2.65		283		550		***833***
		2-3	-	-	108		0.00680	J	0.00215	J	0.00332		0.00965		0.02192		< 2.63		109		168		***277***
		4-5	-	-	20.1	J	< 0.00109		< 0.00544		< 0.00272		0.00213	J	0.00213		< 2.72		< 4.15		< 4.15		-
		6-7	154	16.4	74.2		< 0.00133		< 0.00666		< 0.00333		0.00210	J	0.00210		< 3.33		< 4.55		< 4.55		-
		9-10	87	35.3	39.1		< 0.00118		< 0.00588		< 0.00294		0.00126	J	0.00126		< 2.94		2.10	J	1.81	J	3.91
		14-15	298	8.8	34.1		< 0.00108		< 0.00540		< 0.00270		0.00177	J	0.00177		< 2.70		< 4.13		< 4.13		-
		17-18	320	3.6	-		-		-		-		-		-		-		-		-		-
		19-20	162	20.8	77.6		< 0.00130		0.00254	J	< 0.00326		0.00228	J	0.00482		< 3.26		2.48	J	1.79	J	4.27
		24-25	194	5.9	74.9		< 0.00114		< 0.00572		0.00106	J	0.00198	J	0.00304		< 2.86		< 4.29		< 4.29		-
		26-27	384	2.3	62.9		< 0.00183		< 0.00915		< 0.00458		< 0.0119		-		< 4.58		< 4.29		< 4.29		-
BH-8	9/17/2020	0-1	118	19.2	24.6		< 0.00113		< 0.00563		< 0.00281		0.00196	J	0.00196		< 2.81		2.84	J	11.3		14.14
		2-3	100	4.4	244		< 0.00108		< 0.00540		< 0.00270		< 0.00702		-		< 2.70		< 4.09		1.55	J	1.55
		3-4	141	6.2	171		< 0.00107		< 0.00537		< 0.00269		< 0.00698		-		< 2.69		< 4.10		< 4.10		-
BH-9	9/17/2020	0-1	155	5.4	< 21.3		< 0.00137		< 0.00684		< 0.00342		0.00249	J	0.00249		< 3.42		13.2		42.6		55.8
		2-3	158	9.8	68.5		< 0.00110		< 0.00549		< 0.00275		0.00131	J	0.00131		< 2.75		3.13	J	6.64		9.77
		3-4	55	11.4	10.3	J	< 0.00105		< 0.00527		< 0.00263		< 0.00685		-		< 2.63		< 4.10		1.07	J	1.07
BH-10	9/17/2020	0-1	45	180	< 21.4		< 0.00144		< 0.00722		< 0.00362		0.00133	J	0.00133		< 3.62		4.93		23.2		28.1

NOTES:

ft. Feet
bgs Below ground surface
ppm Parts per million
mg/kg Milligrams per kilogram
NS Interval not sampled
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

Shaded rows indicate depth intervals proposed for excavation and remediation

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.
J3 The associated batch QC was outside the established quality control range for precision.

APPENDIX A
C-141 Forms

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

State of New Mexico
Energy Minerals and Natural Resources Department

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

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

Incident ID	NRM1930943618
District RP	1RP-5778
Facility ID	fGRL0916228606
Application ID	pRM1930943884

Release Notification

Responsible Party

Responsible Party ConocoPhillips Company	OGRID 217817
Contact Name Gustavo Fejervary	Contact Telephone 432/210-7037
Contact email g.fejervary@cop.com	Incident # *(assigned by OCD)*
Contact mailing address 5735 SW 7000 Andrews, TX 79714	

Location of Release Source

Latitude 32.82910 Longitude -103.62790
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Phillips State Unit 29 Flowline leak	Site Type flowline
Date Release Discovered 10/4/19	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
P	14	17S	33E	Lea

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

Nature and Volume of Release

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

☑ Crude Oil	Volume Released (bbls) 1	Volume Recovered (bbls) 0
☑ Produced Water	Volume Released (bbls) 5	Volume Recovered (bbls) 0
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release Flowline rupture

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	NRM1930943618
District RP	1RP-5778
Facility ID	fGRL0916228606
Application ID	pRM1930943884

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☑ No	If YES, for what reason(s) does the responsible party consider this a major release?

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?

Yes, email sent to Bradford Billings, District 1 spill reporting email address and Dylan Rose-Coss

Initial Response

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

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

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

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

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

Printed Name: Gustavo Fejervary Title: Environmental Coordinator

Signature: Date: 10/16/19

email: g.fejervary@cop.com Telephone: 432/210-7037

OCD Only

Received by: Ramona Marcus Date: 11/05/2019

State of New Mexico
Oil Conservation Division

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

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

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

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

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

Form C-141 State of New Mexico
Page 4 Oil Conservation Division

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: _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

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: _____ 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

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	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
L 01880 POD8		L	LE	3	3	3	13	17S	33E	628772	3633188	343	320		
L 01881		L	LE	3	3	3	13	17S	33E	628778	3633100*	357	242		
L 01881	R	L	LE	3	3	3	13	17S	33E	628778	3633100*	357	242		
L 01880		L	LE	3	4	3	13	17S	33E	629181	3633106*	755	245		
L 01880 S2		L	LE	2	1	3	13	17S	33E	628972	3633702*	757	235	151	84
L 01884		L	LE	1	4	3	13	17S	33E	629181	3633306*	764	250		
L 01884	R	L	LE	1	4	3	13	17S	33E	629181	3633306*	764	250		

Average Depth to Water: **151 feet**

Minimum Depth: **151 feet**

Maximum Depth: **151 feet**

Record Count: 7

UTMNAD83 Radius Search (in meters):

Easting (X): 628428.37 **Northing (Y):** 3633174.39 **Radius:** 800

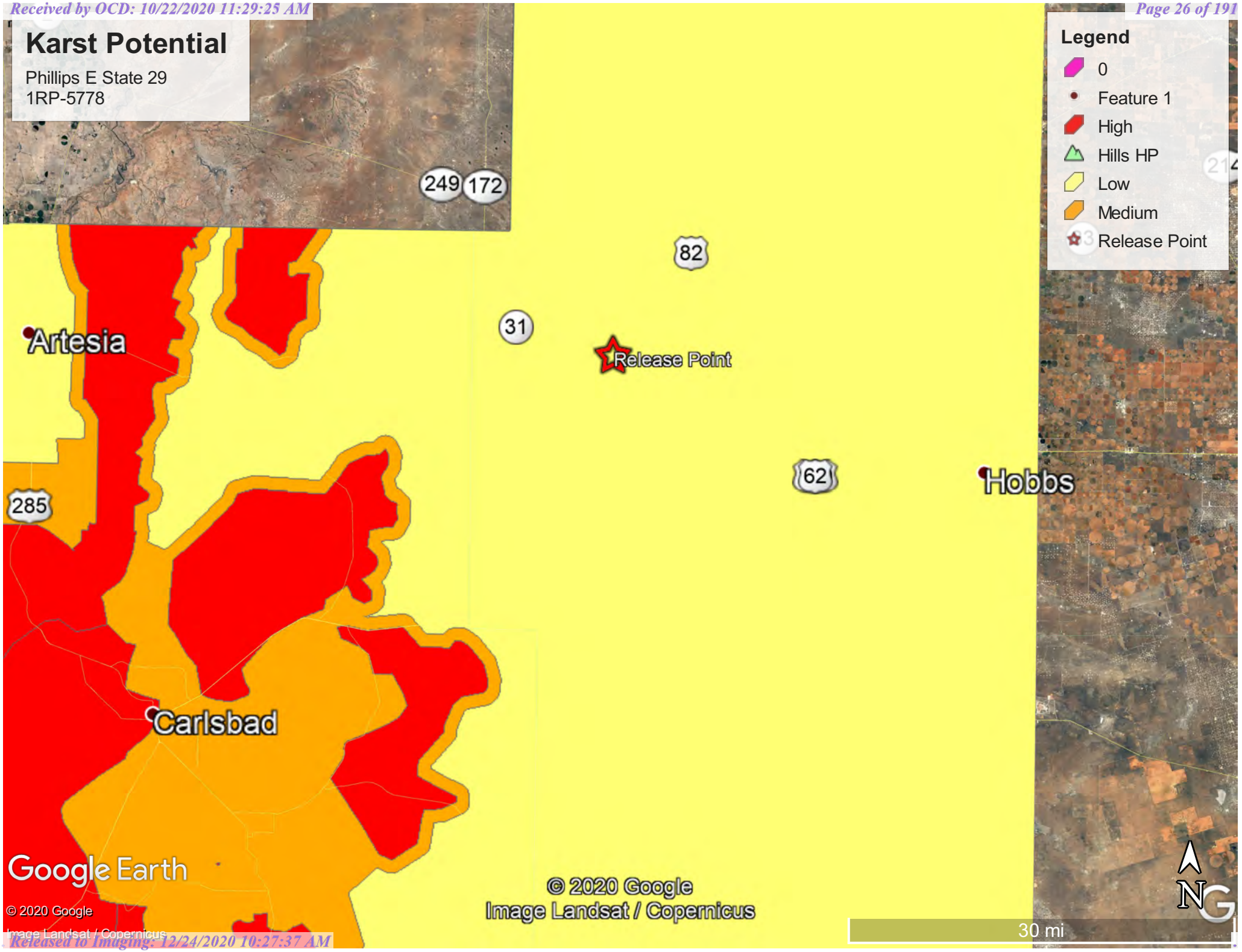
***UTM location was derived from PLSS - see Help**

9/30/20 4:16 PM

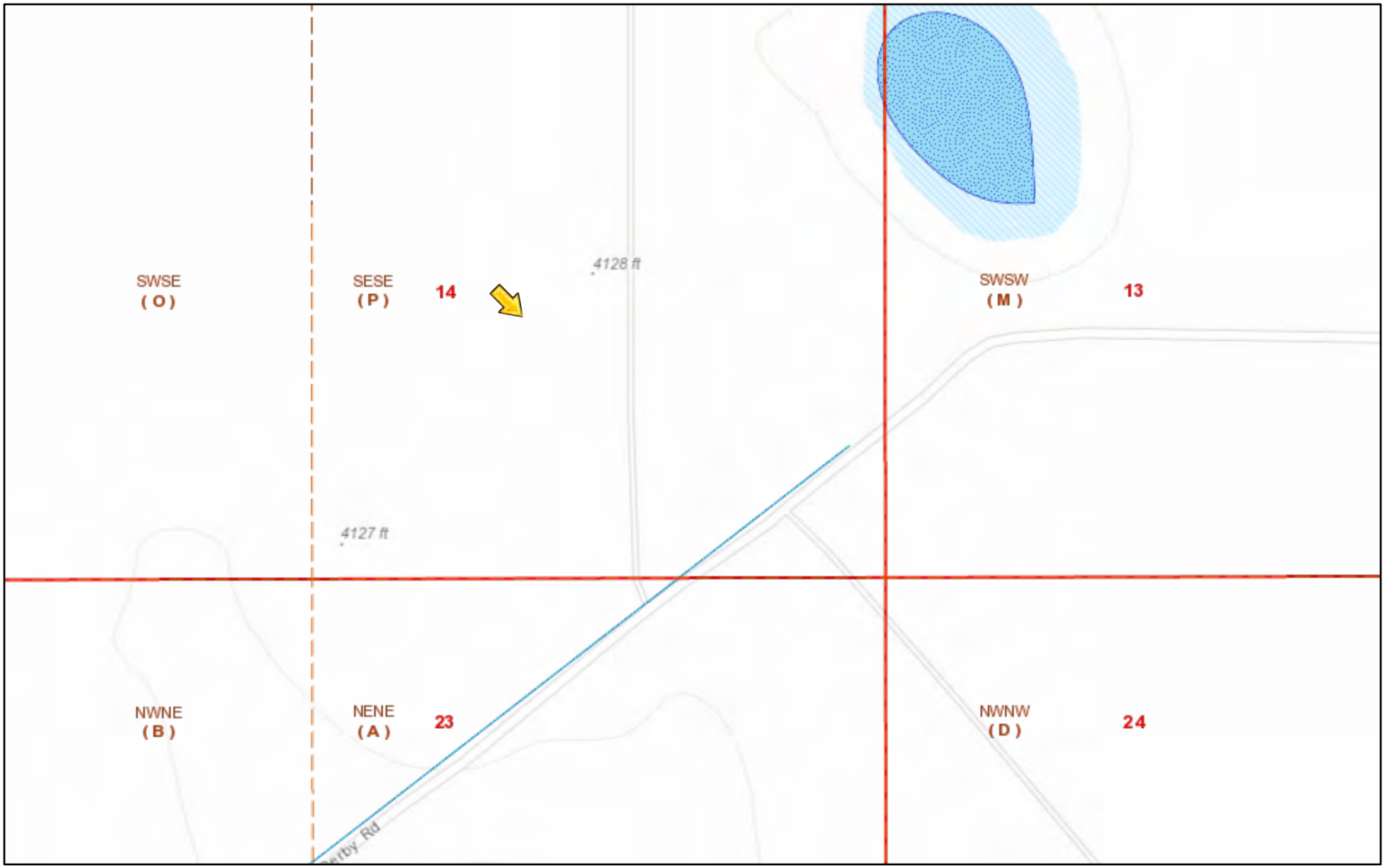
WATER COLUMN/ AVERAGE DEPTH TO WATER

Karst Potential

Phillips E State 29
1RP-5778



Water Bodies



9/30/2020, 5:29:39 PM

Override 1

OCD District Offices

PLSS First Division

PLSS Second Division

OSE Streams

OSE Water-bodies

PLJV Probable Playas

1:4,514

0 0.03 0.06 0.12 mi

0 0.05 0.1 0.2 km

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS,

New Mexico Oil Conservation Division

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

APPENDIX C
Laboratory Analytical Data

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

December 30, 2019

JUSTIN WRIGHT

Conoco Phillips - Hobbs

P. O. BOX 325

Hobbs, NM 88240

RE: PHILLIPS E STATE #29

Enclosed are the results of analyses for samples received by the laboratory on 12/20/19 13:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-19-12. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Conoco Phillips - Hobbs
JUSTIN WRIGHT
P. O. BOX 325
Hobbs NM, 88240
Fax To: (575) 297-1477

Received:	12/20/2019	Sampling Date:	12/19/2019
Reported:	12/30/2019	Sampling Type:	Soil
Project Name:	PHILLIPS E STATE #29	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COPC- LEA CO NM		

Sample ID: SP # 1 - SURFACE (H904261-01)

BTEX 8021B mg/kg Analyzed By: MS S-04

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	**4.65**	0.500	12/24/2019	ND	1.64	82.2	2.00	16.6	
Toluene*	**63.6**	0.500	12/24/2019	ND	1.65	82.4	2.00	17.3	
Ethylbenzene*	**56.0**	0.500	12/24/2019	ND	1.65	82.6	2.00	13.1	
Total Xylenes*	**156**	1.50	12/24/2019	ND	5.00	83.3	6.00	17.1	
Total BTEX	**281**	3.00	12/24/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID *174 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**416**	16.0	12/23/2019	ND	400	100	400	3.92	

TPH 8015M mg/kg Analyzed By: MS S-06

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	**4920**	50.0	12/23/2019	ND	199	99.6	200	1.36	
DRO >C10-C28*	**25700**	50.0	12/23/2019	ND	198	99.1	200	0.587	
EXT DRO >C28-C36	**5390**	50.0	12/23/2019	ND					

Surrogate: 1-Chlorooctane *308 %* *41-142*

Surrogate: 1-Chlorooctadecane *633 %* *37.6-147*

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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Analytical Results For:

Conoco Phillips - Hobbs
JUSTIN WRIGHT
P. O. BOX 325
Hobbs NM, 88240
Fax To: (575) 297-1477

Received:	12/20/2019	Sampling Date:	12/19/2019
Reported:	12/30/2019	Sampling Type:	Soil
Project Name:	PHILLIPS E STATE #29	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COPC- LEA CO NM		

Sample ID: SP # 1 - 1' (H904261-02)

BTEX 8021B mg/kg Analyzed By: MS S-04

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/24/2019	ND	1.64	82.2	2.00	16.6	
Toluene*	**0.167**	0.050	12/24/2019	ND	1.65	82.4	2.00	17.3	
Ethylbenzene*	**0.386**	0.050	12/24/2019	ND	1.65	82.6	2.00	13.1	
Total Xylenes*	**1.13**	0.150	12/24/2019	ND	5.00	83.3	6.00	17.1	
Total BTEX	**1.68**	0.300	12/24/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID *155 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1100**	16.0	12/23/2019	ND	416	104	400	0.00	QM-07

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	**52.3**	10.0	12/23/2019	ND	199	99.6	200	1.36	
DRO >C10-C28*	**1120**	10.0	12/23/2019	ND	198	99.1	200	0.587	
EXT DRO >C28-C36	**430**	10.0	12/23/2019	ND					

Surrogate: 1-Chlorooctane *105 %* *41-142*

Surrogate: 1-Chlorooctadecane *125 %* *37.6-147*

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Analytical Results For:

Conoco Phillips - Hobbs
JUSTIN WRIGHT
P. O. BOX 325
Hobbs NM, 88240
Fax To: (575) 297-1477

Received:	12/20/2019	Sampling Date:	12/19/2019
Reported:	12/30/2019	Sampling Type:	Soil
Project Name:	PHILLIPS E STATE #29	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COPC- LEA CO NM		

Sample ID: SP # 1 - 3' (H904261-03)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/24/2019	ND	1.64	82.2	2.00	16.6	
Toluene*	<0.050	0.050	12/24/2019	ND	1.65	82.4	2.00	17.3	
Ethylbenzene*	<0.050	0.050	12/24/2019	ND	1.65	82.6	2.00	13.1	
Total Xylenes*	<0.150	0.150	12/24/2019	ND	5.00	83.3	6.00	17.1	
Total BTEX	<0.300	0.300	12/24/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID *99.1 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**576**	16.0	12/23/2019	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/23/2019	ND	199	99.6	200	1.36	
DRO >C10-C28*	**626**	10.0	12/23/2019	ND	198	99.1	200	0.587	
EXT DRO >C28-C36	**260**	10.0	12/23/2019	ND					

Surrogate: 1-Chlorooctane *97.9 %* *41-142*

Surrogate: 1-Chlorooctadecane *121 %* *37.6-147*

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Analytical Results For:

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JUSTIN WRIGHT
P. O. BOX 325
Hobbs NM, 88240
Fax To: (575) 297-1477

Received:	12/20/2019	Sampling Date:	12/19/2019
Reported:	12/30/2019	Sampling Type:	Soil
Project Name:	PHILLIPS E STATE #29	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COPC- LEA CO NM		

Sample ID: SP # 2 - SURFACE (H904261-04)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.200	0.200	12/24/2019	ND	1.64	82.2	2.00	16.6	
Toluene*	**0.721**	0.200	12/24/2019	ND	1.65	82.4	2.00	17.3	
Ethylbenzene*	**1.87**	0.200	12/24/2019	ND	1.65	82.6	2.00	13.1	
Total Xylenes*	**14.4**	0.600	12/24/2019	ND	5.00	83.3	6.00	17.1	
Total BTEX	**17.0**	1.20	12/24/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID *118 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**320**	16.0	12/23/2019	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS S-06

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	**491**	50.0	12/23/2019	ND	199	99.6	200	1.36	
DRO >C10-C28*	**19500**	50.0	12/23/2019	ND	198	99.1	200	0.587	
EXT DRO >C28-C36	**4360**	50.0	12/23/2019	ND					

Surrogate: 1-Chlorooctane *142 %* *41-142*

Surrogate: 1-Chlorooctadecane *561 %* *37.6-147*

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Analytical Results For:

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JUSTIN WRIGHT
P. O. BOX 325
Hobbs NM, 88240
Fax To: (575) 297-1477

Received:	12/20/2019	Sampling Date:	12/19/2019
Reported:	12/30/2019	Sampling Type:	Soil
Project Name:	PHILLIPS E STATE #29	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COPC- LEA CO NM		

Sample ID: SP # 2 - 1' (H904261-05)

BTEX 8021B mg/kg Analyzed By: MS S-04

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/24/2019	ND	1.64	82.2	2.00	16.6	
Toluene*	**0.339**	0.050	12/24/2019	ND	1.65	82.4	2.00	17.3	
Ethylbenzene*	<0.050	0.050	12/24/2019	ND	1.65	82.6	2.00	13.1	
Total Xylenes*	**10.1**	0.150	12/24/2019	ND	5.00	83.3	6.00	17.1	
Total BTEX	**10.5**	0.300	12/24/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID *369 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**320**	16.0	12/23/2019	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS S-06

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	**687**	50.0	12/24/2019	ND	199	99.6	200	1.36	
DRO >C10-C28*	**6890**	50.0	12/24/2019	ND	198	99.1	200	0.587	
EXT DRO >C28-C36	**1700**	50.0	12/24/2019	ND					

Surrogate: 1-Chlorooctane *145 %* *41-142*

Surrogate: 1-Chlorooctadecane *203 %* *37.6-147*

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Analytical Results For:

Conoco Phillips - Hobbs
JUSTIN WRIGHT
P. O. BOX 325
Hobbs NM, 88240
Fax To: (575) 297-1477

Received:	12/20/2019	Sampling Date:	12/19/2019
Reported:	12/30/2019	Sampling Type:	Soil
Project Name:	PHILLIPS E STATE #29	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COPC- LEA CO NM		

Sample ID: SP # 2 - 3' (H904261-06)

BTEX 8021B mg/kg Analyzed By: ms S-04

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.500	0.500	12/26/2019	ND	2.12	106	2.00	3.21	
Toluene*	<0.500	0.500	12/26/2019	ND	2.13	107	2.00	2.84	
Ethylbenzene*	**7.43**	0.500	12/26/2019	ND	2.14	107	2.00	3.17	QM-07
Total Xylenes*	**14.8**	1.50	12/26/2019	ND	6.38	106	6.00	4.07	QM-07
Total BTEX	**22.2**	3.00	12/26/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID *142 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**176**	16.0	12/23/2019	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS S-06

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	**490**	50.0	12/24/2019	ND	199	99.6	200	1.36	
DRO >C10-C28*	**5900**	50.0	12/24/2019	ND	198	99.1	200	0.587	
EXT DRO >C28-C36	**1520**	50.0	12/24/2019	ND					

Surrogate: 1-Chlorooctane *140 %* *41-142*

Surrogate: 1-Chlorooctadecane *211 %* *37.6-147*

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Analytical Results For:

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JUSTIN WRIGHT
P. O. BOX 325
Hobbs NM, 88240
Fax To: (575) 297-1477

Received:	12/20/2019	Sampling Date:	12/19/2019
Reported:	12/30/2019	Sampling Type:	Soil
Project Name:	PHILLIPS E STATE #29	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COPC- LEA CO NM		

Sample ID: SP # 3 - SURFACE (H904261-07)

BTEX 8021B mg/kg Analyzed By: ms S-04

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/28/2019	ND	2.12	106	2.00	3.21	
Toluene*	<0.050	0.050	12/28/2019	ND	2.13	107	2.00	2.84	
Ethylbenzene*	**0.433**	0.050	12/28/2019	ND	2.14	107	2.00	3.17	
Total Xylenes*	**1.36**	0.150	12/28/2019	ND	6.38	106	6.00	4.07	
Total BTEX	**1.79**	0.300	12/28/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID *186 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**80.0**	16.0	12/23/2019	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS S-06

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	**239**	50.0	12/24/2019	ND	199	99.6	200	1.36	
DRO >C10-C28*	**27500**	50.0	12/24/2019	ND	198	99.1	200	0.587	
EXT DRO >C28-C36	**5780**	50.0	12/24/2019	ND					

Surrogate: 1-Chlorooctane *266 %* *41-142*

Surrogate: 1-Chlorooctadecane *759 %* *37.6-147*

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Analytical Results For:

Conoco Phillips - Hobbs
JUSTIN WRIGHT
P. O. BOX 325
Hobbs NM, 88240
Fax To: (575) 297-1477

Received:	12/20/2019	Sampling Date:	12/19/2019
Reported:	12/30/2019	Sampling Type:	Soil
Project Name:	PHILLIPS E STATE #29	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COPC- LEA CO NM		

Sample ID: SP # 3 - 1' (H904261-08)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/28/2019	ND	2.12	106	2.00	3.21	
Toluene*	<0.050	0.050	12/28/2019	ND	2.13	107	2.00	2.84	
Ethylbenzene*	<0.050	0.050	12/28/2019	ND	2.14	107	2.00	3.17	
Total Xylenes*	<0.150	0.150	12/28/2019	ND	6.38	106	6.00	4.07	
Total BTEX	<0.300	0.300	12/28/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID *124 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**64.0**	16.0	12/23/2019	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS S-06

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<50.0	50.0	12/24/2019	ND	199	99.6	200	1.36	
DRO >C10-C28*	**11500**	50.0	12/24/2019	ND	198	99.1	200	0.587	
EXT DRO >C28-C36	**2700**	50.0	12/24/2019	ND					

Surrogate: 1-Chlorooctane *133 %* *41-142*

Surrogate: 1-Chlorooctadecane *382 %* *37.6-147*

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Analytical Results For:

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Received:	12/20/2019	Sampling Date:	12/19/2019
Reported:	12/30/2019	Sampling Type:	Soil
Project Name:	PHILLIPS E STATE #29	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COPC- LEA CO NM		

Sample ID: SP # 3 - 3' (H904261-09)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/26/2019	ND	2.12	106	2.00	3.21	
Toluene*	<0.050	0.050	12/26/2019	ND	2.13	107	2.00	2.84	
Ethylbenzene*	<0.050	0.050	12/26/2019	ND	2.14	107	2.00	3.17	
Total Xylenes*	<0.150	0.150	12/26/2019	ND	6.38	106	6.00	4.07	
Total BTEX	<0.300	0.300	12/26/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID *113 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**64.0**	16.0	12/23/2019	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/23/2019	ND	199	99.6	200	1.36	
DRO >C10-C28*	**106**	10.0	12/23/2019	ND	198	99.1	200	0.587	
EXT DRO >C28-C36	**38.0**	10.0	12/23/2019	ND					

Surrogate: 1-Chlorooctane *84.9 %* *41-142*

Surrogate: 1-Chlorooctadecane *97.1 %* *37.6-147*

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Received:	12/20/2019	Sampling Date:	12/19/2019
Reported:	12/30/2019	Sampling Type:	Soil
Project Name:	PHILLIPS E STATE #29	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COPC- LEA CO NM		

Sample ID: SP # 4 - SURFACE (H904261-10)

BTEX 8021B mg/kg Analyzed By: ms S-04

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.200	0.200	12/26/2019	ND	2.12	106	2.00	3.21	
Toluene*	<0.200	0.200	12/26/2019	ND	2.13	107	2.00	2.84	
Ethylbenzene*	**2.04**	0.200	12/26/2019	ND	2.14	107	2.00	3.17	
Total Xylenes*	**4.60**	0.600	12/26/2019	ND	6.38	106	6.00	4.07	
Total BTEX	**6.64**	1.20	12/26/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID *151 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	12/23/2019	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS S-06

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	**387**	50.0	12/24/2019	ND	199	99.6	200	1.36	
DRO >C10-C28*	**38400**	50.0	12/24/2019	ND	198	99.1	200	0.587	
EXT DRO >C28-C36	**7310**	50.0	12/24/2019	ND					

Surrogate: 1-Chlorooctane *167 %* *41-142*

Surrogate: 1-Chlorooctadecane *990 %* *37.6-147*

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Analytical Results For:

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Received:	12/20/2019	Sampling Date:	12/19/2019
Reported:	12/30/2019	Sampling Type:	Soil
Project Name:	PHILLIPS E STATE #29	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COPC- LEA CO NM		

Sample ID: SP # 4 - 1' (H904261-11)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/26/2019	ND	2.12	106	2.00	3.21	
Toluene*	<0.050	0.050	12/26/2019	ND	2.13	107	2.00	2.84	
Ethylbenzene*	<0.050	0.050	12/26/2019	ND	2.14	107	2.00	3.17	
Total Xylenes*	<0.150	0.150	12/26/2019	ND	6.38	106	6.00	4.07	
Total BTEX	<0.300	0.300	12/26/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID *122 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	12/23/2019	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS S-04

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	**13.8**	10.0	12/23/2019	ND	199	99.6	200	1.36	
DRO >C10-C28*	**1120**	10.0	12/23/2019	ND	198	99.1	200	0.587	
EXT DRO >C28-C36	**405**	10.0	12/23/2019	ND					

Surrogate: 1-Chlorooctane *98.0 %* *41-142*

Surrogate: 1-Chlorooctadecane *158 %* *37.6-147*

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Conoco Phillips - Hobbs
JUSTIN WRIGHT
P. O. BOX 325
Hobbs NM, 88240
Fax To: (575) 297-1477

Received:	12/20/2019	Sampling Date:	12/19/2019
Reported:	12/30/2019	Sampling Type:	Soil
Project Name:	PHILLIPS E STATE #29	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COPC- LEA CO NM		

Sample ID: SP # 4 - 3' (H904261-12)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/26/2019	ND	2.12	106	2.00	3.21	
Toluene*	<0.050	0.050	12/26/2019	ND	2.13	107	2.00	2.84	
Ethylbenzene*	<0.050	0.050	12/26/2019	ND	2.14	107	2.00	3.17	
Total Xylenes*	<0.150	0.150	12/26/2019	ND	6.38	106	6.00	4.07	
Total BTEX	<0.300	0.300	12/26/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID *116 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**64.0**	16.0	12/23/2019	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/23/2019	ND	199	99.6	200	1.36	
DRO >C10-C28*	**456**	10.0	12/23/2019	ND	198	99.1	200	0.587	
EXT DRO >C28-C36	**153**	10.0	12/23/2019	ND					

Surrogate: 1-Chlorooctane *92.7 %* *41-142*

Surrogate: 1-Chlorooctadecane *112 %* *37.6-147*

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Conoco Phillips - Hobbs
JUSTIN WRIGHT
P. O. BOX 325
Hobbs NM, 88240
Fax To: (575) 297-1477

Received:	12/20/2019	Sampling Date:	12/19/2019
Reported:	12/30/2019	Sampling Type:	Soil
Project Name:	PHILLIPS E STATE #29	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COPC- LEA CO NM		

Sample ID: BG # 5 - SURFACE (H904261-13)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/26/2019	ND	2.12	106	2.00	3.21	
Toluene*	<0.050	0.050	12/26/2019	ND	2.13	107	2.00	2.84	
Ethylbenzene*	<0.050	0.050	12/26/2019	ND	2.14	107	2.00	3.17	
Total Xylenes*	<0.150	0.150	12/26/2019	ND	6.38	106	6.00	4.07	
Total BTEX	<0.300	0.300	12/26/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID *111 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**16.0**	16.0	12/23/2019	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/23/2019	ND	199	99.6	200	1.36	
DRO >C10-C28*	**12.2**	10.0	12/23/2019	ND	198	99.1	200	0.587	
EXT DRO >C28-C36	**15.9**	10.0	12/23/2019	ND					

Surrogate: 1-Chlorooctane *78.3 %* *41-142*

Surrogate: 1-Chlorooctadecane *86.0 %* *37.6-147*

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Conoco Phillips - Hobbs
JUSTIN WRIGHT
P. O. BOX 325
Hobbs NM, 88240
Fax To: (575) 297-1477

Received:	12/20/2019	Sampling Date:	12/19/2019
Reported:	12/30/2019	Sampling Type:	Soil
Project Name:	PHILLIPS E STATE #29	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COPC- LEA CO NM		

Sample ID: BG # 5 - 1' (H904261-14)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/26/2019	ND	2.12	106	2.00	3.21	
Toluene*	<0.050	0.050	12/26/2019	ND	2.13	107	2.00	2.84	
Ethylbenzene*	<0.050	0.050	12/26/2019	ND	2.14	107	2.00	3.17	
Total Xylenes*	<0.150	0.150	12/26/2019	ND	6.38	106	6.00	4.07	
Total BTEX	<0.300	0.300	12/26/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID *113 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**112**	16.0	12/23/2019	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/23/2019	ND	199	99.6	200	1.36	
DRO >C10-C28*	**270**	10.0	12/23/2019	ND	198	99.1	200	0.587	
EXT DRO >C28-C36	**87.5**	10.0	12/23/2019	ND					

Surrogate: 1-Chlorooctane *92.0 %* *41-142*

Surrogate: 1-Chlorooctadecane *105 %* *37.6-147*

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CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Conoco Phillips - Hobbs
JUSTIN WRIGHT
P. O. BOX 325
Hobbs NM, 88240
Fax To: (575) 297-1477

Received:	12/20/2019	Sampling Date:	12/19/2019
Reported:	12/30/2019	Sampling Type:	Soil
Project Name:	PHILLIPS E STATE #29	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COPC- LEA CO NM		

Sample ID: BG # 6 - SURFACE (H904261-15)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/26/2019	ND	2.12	106	2.00	3.21	
Toluene*	<0.050	0.050	12/26/2019	ND	2.13	107	2.00	2.84	
Ethylbenzene*	<0.050	0.050	12/26/2019	ND	2.14	107	2.00	3.17	
Total Xylenes*	<0.150	0.150	12/26/2019	ND	6.38	106	6.00	4.07	
Total BTEX	<0.300	0.300	12/26/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID *116 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	12/23/2019	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/23/2019	ND	199	99.6	200	1.36	
DRO >C10-C28*	**289**	10.0	12/23/2019	ND	198	99.1	200	0.587	
EXT DRO >C28-C36	**289**	10.0	12/23/2019	ND					

Surrogate: 1-Chlorooctane *88.3 %* *41-142*

Surrogate: 1-Chlorooctadecane *107 %* *37.6-147*

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Conoco Phillips - Hobbs
JUSTIN WRIGHT
P. O. BOX 325
Hobbs NM, 88240
Fax To: (575) 297-1477

Received:	12/20/2019	Sampling Date:	12/19/2019
Reported:	12/30/2019	Sampling Type:	Soil
Project Name:	PHILLIPS E STATE #29	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COPC- LEA CO NM		

Sample ID: BG # 6 - 1' (H904261-16)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/26/2019	ND	2.12	106	2.00	3.21	
Toluene*	<0.050	0.050	12/26/2019	ND	2.13	107	2.00	2.84	
Ethylbenzene*	<0.050	0.050	12/26/2019	ND	2.14	107	2.00	3.17	
Total Xylenes*	<0.150	0.150	12/26/2019	ND	6.38	106	6.00	4.07	
Total BTEX	<0.300	0.300	12/26/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID *116 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	12/23/2019	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/24/2019	ND	212	106	200	0.968	
DRO >C10-C28*	<10.0	10.0	12/24/2019	ND	217	108	200	1.03	
EXT DRO >C28-C36	<10.0	10.0	12/24/2019	ND					

Surrogate: 1-Chlorooctane *87.9 %* *41-142*

Surrogate: 1-Chlorooctadecane *89.5 %* *37.6-147*

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CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Conoco Phillips - Hobbs
JUSTIN WRIGHT
P. O. BOX 325
Hobbs NM, 88240
Fax To: (575) 297-1477

Received:	12/20/2019	Sampling Date:	12/19/2019
Reported:	12/30/2019	Sampling Type:	Soil
Project Name:	PHILLIPS E STATE #29	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COPC- LEA CO NM		

Sample ID: BG # 7 - SURFACE (H904261-17)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/26/2019	ND	2.12	106	2.00	3.21	
Toluene*	<0.050	0.050	12/26/2019	ND	2.13	107	2.00	2.84	
Ethylbenzene*	**0.126**	0.050	12/26/2019	ND	2.14	107	2.00	3.17	
Total Xylenes*	**0.426**	0.150	12/26/2019	ND	6.38	106	6.00	4.07	
Total BTEX	**0.552**	0.300	12/26/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID *127 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**80.0**	16.0	12/23/2019	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS S-04

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	**80.3**	10.0	12/24/2019	ND	212	106	200	0.968	
DRO >C10-C28*	**3320**	10.0	12/24/2019	ND	217	108	200	1.03	
EXT DRO >C28-C36	**745**	10.0	12/24/2019	ND					

Surrogate: 1-Chlorooctane *124 %* *41-142*

Surrogate: 1-Chlorooctadecane *185 %* *37.6-147*

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CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Conoco Phillips - Hobbs
JUSTIN WRIGHT
P. O. BOX 325
Hobbs NM, 88240
Fax To: (575) 297-1477

Received:	12/20/2019	Sampling Date:	12/19/2019
Reported:	12/30/2019	Sampling Type:	Soil
Project Name:	PHILLIPS E STATE #29	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COPC- LEA CO NM		

Sample ID: BG # 7 - 1' (H904261-18)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/26/2019	ND	2.12	106	2.00	3.21	
Toluene*	<0.050	0.050	12/26/2019	ND	2.13	107	2.00	2.84	
Ethylbenzene*	<0.050	0.050	12/26/2019	ND	2.14	107	2.00	3.17	
Total Xylenes*	<0.150	0.150	12/26/2019	ND	6.38	106	6.00	4.07	
Total BTEX	<0.300	0.300	12/26/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID *116 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	12/23/2019	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/24/2019	ND	212	106	200	0.968	
DRO >C10-C28*	**432**	10.0	12/24/2019	ND	217	108	200	1.03	
EXT DRO >C28-C36	**260**	10.0	12/24/2019	ND					

Surrogate: 1-Chlorooctane *94.9 %* *41-142*

Surrogate: 1-Chlorooctadecane *110 %* *37.6-147*

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Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QR-02	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:	ConocoPhillips	BILL TO	
Project Manager:	Justin Wright	P.O. #:	
Address:		Company:	COPC
City:	Hobbs St NM Zip:	Attn:	
Phone #:	575-631-9092 Fax #:	Address:	
Project #:	Project Owner: COPC	City:	
Project Name:	Phillips E State #29	State: Zip:	
Project Location:	Lea County, NM	Phone #:	
Sampler Name:	Justin Wright	Fax #:	

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	ANALYSIS REQUEST: Chlorides	BTEX	TPH
H904261-1	SP#1- Surface	G				\					\		12-19		✓	✓	✓
2	SP#1- 1'	G				\					\		12-19		✓	✓	✓
3	SP#1- 3'	G				\					\		12-19		✓	✓	✓
4	SP#2- Surface	G				\					\		12-19		✓	✓	✓
5	SP#2- 1'	G				\					\		12-19		✓	✓	✓
6	SP#2- 3'	G				\					\		12-19		✓	✓	✓
7	SP#3- Surface	G				\					\		12-19		✓	✓	✓
8	SP#3- 1'	G				\					\		12-19		✓	✓	✓
9	SP#3- 3'	G				\					\		12-19		✓	✓	✓
10	SP#4- Surface	G				\					\		12-19		✓	✓	✓

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	Date: 12-20-19 Time: 1:00 pm	Received By:	Verbal Result: ☐ Yes ☐ No Add'l Phone #: All Results are emailed. Please provide Email address:
Relinquished By:	Date: Time:	Received By:	REMARKS:
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Observed Temp. °C -5.4 Corrected Temp. °C -5.0	Sample Condition Cool: ☐ Yes ☐ No Intact: ☐ Yes ☐ No	CHECKED BY: (Initials) TO
Turnaround Time: Standard ☑ Rush ☐ Thermometer ID #97 Correction Factor +0.4 °C	Bacteria (only) Sample Condition Cool: ☐ Yes ☐ No Intact: ☐ Yes ☐ No	Observed Temp. °C Corrected Temp. °C	

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com

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CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

Company Name:	ConocoPhillips	BILL TO	
Project Manager:	Justin Wright	P.O. #:	
Address:		Company:	COPC
City:	Hobbs St NM Zip:	Attn:	
Phone #:	575-631-9092 Fax #:	Address:	
Project #:	Project Owner: COPC	City:	
Project Name:	Phillips E State #29	State: Zip:	
Project Location:	Lea County	Phone #:	
Sampler Name:	Justin Wright	Fax #:	

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST											
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	Chlorides	BTEX	TPH									
H904261																									
11	SPH4-1'	G				\					\		12-19		✓	✓	✓								
12	SPH4-3'	G				\					\		12-19		✓	✓	✓								
13	BG#5-Surface	G				\					\		12-19		✓	✓	✓								
14	BG#5-1'	G				\					\		12-19		✓	✓	✓								
15	BG#6-Surface	G				\					\		12-19		✓	✓	✓								
16	BG#6-1'	G				\					\		12-19		✓	✓	✓								
17	BG#7-Surface	G				\					\		12-19		✓	✓	✓								
18	BG#7-1'	G				\					\		12-19		✓	✓	✓								
		G				\					\														
		G				\					\														

Relinquished By:	Date: 12-20-19 Time: 1:00 pm	Received By:	Verbal Result: ☐ Yes ☐ No Add'l Phone #:
Relinquished By:	Date: Time:	Received By:	All Results are emailed. Please provide Email address:
			REMARKS:
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Observed Temp. °C -5.4 Corrected Temp. °C -5.0	Sample Condition Cool: ☑ Yes ☐ No Intact: ☑ Yes ☐ No	CHECKED BY: (Initials) TB
			Turnaround Time: Standard ☑ Rush ☐ Thermometer ID #97 Correction Factor +0.4 °C
			Bacteria (only) Sample Condition Cool: ☐ Yes ☐ No Intact: ☐ Yes ☐ No Observed Temp. °C Corrected Temp. °C

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com

FORM-006 R 3.0

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

May 26, 2020

ConocoPhillips - Tetra Tech

Sample Delivery Group:	L1219552
Samples Received:	05/16/2020
Project Number:	212C-MD-02180
Description:	COP Phillips E State 29

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

Entire Report Reviewed By:

Chris McCord
Project Manager

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TABLE OF CONTENTS

BH-1 (2-3') L1219552-01 Solid

Collected by | Collected date/time 05/12/20 10:10 | Received date/time 05/16/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1480765	1	05/23/20 22:08	05/23/20 22:22	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1478255	1	05/19/20 16:37	05/19/20 18:13	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1480339	1	05/21/20 07:44	05/22/20 02:56	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1480180	1	05/21/20 07:44	05/21/20 12:01	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1480121	1	05/21/20 12:09	05/21/20 17:58	AEG	Mt. Juliet, TN

BH-1 (4-5') L1219552-02 Solid

Collected by | Collected date/time 05/12/20 10:20 | Received date/time 05/16/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1480765	1	05/23/20 22:08	05/23/20 22:22	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1478255	1	05/19/20 16:37	05/19/20 18:22	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1480339	1	05/21/20 07:44	05/22/20 03:16	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1480180	1	05/21/20 07:44	05/21/20 12:21	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1480121	1	05/21/20 12:09	05/21/20 18:37	FM	Mt. Juliet, TN

BH-1 (6-7') L1219552-03 Solid

Collected by | Collected date/time 05/12/20 10:30 | Received date/time 05/16/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1480765	1	05/23/20 22:08	05/23/20 22:22	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1478255	1	05/19/20 16:37	05/19/20 18:41	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1480339	1	05/21/20 07:44	05/22/20 03:37	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1480180	1	05/21/20 07:44	05/21/20 12:42	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1480121	1	05/21/20 12:09	05/21/20 18:51	FM	Mt. Juliet, TN

BH-1 (9-10') L1219552-04 Solid

Collected by | Collected date/time 05/12/20 10:40 | Received date/time 05/16/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1480765	1	05/23/20 22:08	05/23/20 22:22	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1478255	1	05/19/20 16:37	05/19/20 18:50	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1480339	1	05/21/20 07:44	05/22/20 03:58	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1480180	1	05/21/20 07:44	05/21/20 13:02	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1480278	1	05/21/20 20:45	05/22/20 17:06	FM	Mt. Juliet, TN

BH-2 (2-3') L1219552-05 Solid

Collected by | Collected date/time 05/12/20 11:20 | Received date/time 05/16/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1480765	1	05/23/20 22:08	05/23/20 22:22	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1478255	1	05/19/20 16:37	05/19/20 19:00	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1480339	1	05/21/20 07:44	05/22/20 04:18	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1480180	1	05/21/20 07:44	05/21/20 13:23	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1480278	1	05/21/20 20:45	05/22/20 21:30	FM	Mt. Juliet, TN

BH-2 (4-5') L1219552-06 Solid

Collected by | Collected date/time 05/12/20 11:30 | Received date/time 05/16/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1480765	1	05/23/20 22:08	05/23/20 22:22	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1478255	1	05/19/20 16:37	05/19/20 19:09	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1480339	1	05/21/20 07:44	05/22/20 04:39	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1480180	1	05/21/20 07:44	05/21/20 13:43	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1480278	1	05/21/20 20:45	05/22/20 19:31	FM	Mt. Juliet, TN

BH-2 (6-7') L1219552-07 Solid

Collected by | Collected date/time 05/12/20 11:40 | Received date/time 05/16/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1480767	1	05/23/20 21:44	05/23/20 22:02	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1478255	1	05/19/20 16:37	05/19/20 19:57	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1480339	1	05/21/20 07:44	05/22/20 05:00	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1480180	1	05/21/20 07:44	05/21/20 14:03	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1480278	1	05/21/20 20:45	05/22/20 19:44	FM	Mt. Juliet, TN

BH-2 (9-10') L1219552-08 Solid

Collected by | Collected date/time 05/12/20 11:50 | Received date/time 05/16/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1480767	1	05/23/20 21:44	05/23/20 22:02	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1478255	1	05/19/20 16:37	05/19/20 20:06	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1480339	1	05/21/20 07:44	05/22/20 05:20	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1480180	1	05/21/20 07:44	05/21/20 14:24	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1480278	1	05/21/20 20:45	05/22/20 17:19	FM	Mt. Juliet, TN

BH-3 (0-1') L1219552-09 Solid

Collected by | Collected date/time 05/12/20 12:20 | Received date/time 05/16/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1480767	1	05/23/20 21:44	05/23/20 22:02	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1478255	1	05/19/20 16:37	05/19/20 20:16	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1480339	1	05/21/20 07:44	05/22/20 05:41	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1480180	1	05/21/20 07:44	05/21/20 14:44	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1480278	1	05/21/20 20:45	05/22/20 22:44	FM	Mt. Juliet, TN

BH-3 (2-3') L1219552-10 Solid

Collected by | Collected date/time 05/12/20 12:30 | Received date/time 05/16/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1480767	1	05/23/20 21:44	05/23/20 22:02	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1478255	1	05/19/20 16:37	05/19/20 20:25	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1480339	1	05/21/20 07:44	05/22/20 06:02	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1480180	1	05/21/20 07:44	05/21/20 15:05	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1480278	1	05/21/20 20:45	05/22/20 18:12	FM	Mt. Juliet, TN

BH-3 (4-5') L1219552-11 Solid

Collected by | Collected date/time 05/12/20 12:40 | Received date/time 05/16/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1480767	1	05/23/20 21:44	05/23/20 22:02	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1478255	1	05/19/20 16:37	05/19/20 20:35	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1480339	1	05/21/20 07:44	05/22/20 06:22	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1480180	1	05/21/20 07:44	05/21/20 15:26	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1480278	1	05/21/20 20:45	05/22/20 18:25	FM	Mt. Juliet, TN

BH-3 (6-7') L1219552-12 Solid

Collected by | Collected date/time 05/12/20 12:50 | Received date/time 05/16/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1480767	1	05/23/20 21:44	05/23/20 22:02	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1478255	1	05/19/20 16:37	05/19/20 20:44	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1480339	1	05/21/20 07:44	05/22/20 06:43	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1480180	1	05/21/20 07:44	05/21/20 15:46	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1480278	1	05/21/20 20:45	05/22/20 20:24	FM	Mt. Juliet, TN

BH-3 (9-10') L1219552-13 Solid

Collected by | Collected date/time 05/12/20 13:00 | Received date/time 05/16/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1480767	1	05/23/20 21:44	05/23/20 22:02	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1478255	1	05/19/20 16:37	05/19/20 20:54	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1481102	1	05/21/20 07:44	05/22/20 21:21	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1480180	1	05/21/20 07:44	05/21/20 16:06	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1480278	1	05/21/20 20:45	05/22/20 20:10	FM	Mt. Juliet, TN

BH-4 (0-1') L1219552-14 Solid

Collected by | Collected date/time 05/12/20 13:10 | Received date/time 05/16/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1480767	1	05/23/20 21:44	05/23/20 22:02	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1478255	1	05/19/20 16:37	05/19/20 21:04	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1480342	1	05/21/20 07:44	05/22/20 02:51	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1480180	1	05/21/20 07:44	05/21/20 16:27	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1480278	1	05/21/20 20:45	05/22/20 22:31	FM	Mt. Juliet, TN

BH-4 (2-3') L1219552-15 Solid

Collected by | Collected date/time 05/12/20 13:20 | Received date/time 05/16/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1480767	1	05/23/20 21:44	05/23/20 22:02	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1478255	1	05/19/20 16:37	05/19/20 21:13	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1481834	1	05/21/20 08:01	05/26/20 12:58	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1480180	1	05/21/20 08:01	05/21/20 16:47	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1480278	1	05/21/20 20:45	05/22/20 22:18	FM	Mt. Juliet, TN

BH-4 (4-5') L1219552-16 Solid

Collected by | Collected date/time 05/12/20 13:30 | Received date/time 05/16/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1480767	1	05/23/20 21:44	05/23/20 22:02	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1478255	1	05/19/20 16:37	05/19/20 21:42	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1481834	1	05/21/20 08:01	05/26/20 13:37	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1480180	1	05/21/20 08:01	05/21/20 17:07	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1480278	1	05/21/20 20:45	05/22/20 21:43	FM	Mt. Juliet, TN

BH-4 (6-7') L1219552-17 Solid

Collected by | Collected date/time 05/12/20 13:40 | Received date/time 05/16/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1480769	1	05/23/20 21:29	05/23/20 21:43	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1478255	1	05/19/20 16:37	05/19/20 21:51	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1480342	1	05/21/20 08:01	05/22/20 03:53	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1480180	1	05/21/20 08:01	05/21/20 17:28	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1480278	1	05/21/20 20:45	05/22/20 21:56	FM	Mt. Juliet, TN

BH-4 (9-10') L1219552-18 Solid

Collected by | Collected date/time 05/12/20 13:50 | Received date/time 05/16/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1480769	1	05/23/20 21:29	05/23/20 21:43	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1478255	1	05/19/20 16:37	05/19/20 22:10	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1480799	1	05/21/20 08:01	05/22/20 12:58	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1480180	1	05/21/20 08:01	05/21/20 17:48	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1480278	1	05/21/20 20:45	05/22/20 20:50	FM	Mt. Juliet, TN

BH-5 (0-1') L1219552-19 Solid

Collected by | Collected date/time 05/12/20 14:00 | Received date/time 05/16/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1480769	1	05/23/20 21:29	05/23/20 21:43	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1478255	1	05/19/20 16:37	05/19/20 22:20	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1480799	1	05/21/20 08:01	05/22/20 13:19	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1480180	1	05/21/20 08:01	05/21/20 18:09	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1480278	1	05/21/20 20:45	05/22/20 20:37	FM	Mt. Juliet, TN

BH-5 (2-3') L1219552-20 Solid

Collected by | Collected date/time 05/12/20 14:10 | Received date/time 05/16/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1480769	1	05/23/20 21:29	05/23/20 21:43	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1478255	1	05/19/20 16:37	05/19/20 22:29	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1480799	1	05/21/20 08:01	05/22/20 13:40	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1480180	1	05/21/20 08:01	05/21/20 18:29	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1480278	1	05/21/20 20:45	05/22/20 19:57	FM	Mt. Juliet, TN

BH-5 (4-5') L1219552-21 Solid

Collected by | Collected date/time 05/12/20 14:20 | Received date/time 05/16/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1480769	1	05/23/20 21:29	05/23/20 21:43	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1478256	1	05/19/20 18:00	05/19/20 20:43	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1480799	1	05/21/20 08:01	05/22/20 14:00	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1480259	1	05/21/20 08:01	05/21/20 15:43	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1480278	1	05/21/20 20:45	05/22/20 17:32	FM	Mt. Juliet, TN

BH-5 (6-7') L1219552-22 Solid

Collected by | Collected date/time 05/12/20 14:30 | Received date/time 05/16/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1480769	1	05/23/20 21:29	05/23/20 21:43	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1478256	1	05/19/20 18:00	05/19/20 21:01	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1480799	1	05/21/20 08:01	05/22/20 14:21	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1480259	1	05/21/20 08:01	05/21/20 16:02	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1480278	1	05/21/20 20:45	05/22/20 17:45	FM	Mt. Juliet, TN

BH-5 (9-10') L1219552-23 Solid

Collected by | Collected date/time 05/12/20 14:40 | Received date/time 05/16/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1480769	1	05/23/20 21:29	05/23/20 21:43	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1478256	1	05/19/20 18:00	05/19/20 21:37	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1480799	1	05/21/20 08:01	05/22/20 14:42	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1480259	1	05/21/20 08:01	05/21/20 16:22	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1480278	1	05/21/20 20:45	05/22/20 17:59	FM	Mt. Juliet, TN

BH-6 (0-1') L1219552-24 Solid

Collected by | Collected date/time 05/12/20 14:50 | Received date/time 05/16/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1480769	1	05/23/20 21:29	05/23/20 21:43	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1478256	1	05/19/20 18:00	05/19/20 22:30	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1480799	1	05/21/20 08:01	05/22/20 15:02	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1480259	1	05/21/20 08:01	05/21/20 16:41	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1480281	1	05/22/20 08:41	05/23/20 14:26	JDG	Mt. Juliet, TN

BH-6 (2-3') L1219552-25 Solid

Collected by | Collected date/time 05/12/20 15:00 | Received date/time 05/16/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1480769	1	05/23/20 21:29	05/23/20 21:43	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1478256	1	05/19/20 18:00	05/19/20 22:48	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1480799	1	05/21/20 08:01	05/22/20 15:23	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1480259	1	05/21/20 08:01	05/21/20 17:00	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1480281	1	05/22/20 08:41	05/24/20 18:39	JDG	Mt. Juliet, TN

BH-6 (4-5') L1219552-26 Solid

			Collected by	Collected date/time	Received date/time
				05/12/20 15:10	05/16/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1480769	1	05/23/20 21:29	05/23/20 21:43	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1478256	1	05/19/20 18:00	05/19/20 23:06	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1480799	1	05/21/20 08:01	05/22/20 15:44	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1480259	1	05/21/20 08:01	05/21/20 17:19	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1480281	1	05/22/20 08:41	05/23/20 13:46	JDG	Mt. Juliet, TN

BH-6 (6-7') L1219552-27 Solid

			Collected by	Collected date/time	Received date/time
				05/12/20 15:20	05/16/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1480772	1	05/23/20 16:22	05/23/20 16:43	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1478256	1	05/19/20 18:00	05/19/20 23:24	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1480799	1	05/21/20 08:01	05/22/20 16:04	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1480259	1	05/21/20 08:01	05/21/20 17:38	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1480281	1	05/22/20 08:41	05/23/20 14:00	JDG	Mt. Juliet, TN

BH-6 (9-10') L1219552-28 Solid

			Collected by	Collected date/time	Received date/time
				05/12/20 15:30	05/16/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1480772	1	05/23/20 16:22	05/23/20 16:43	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1478256	1	05/19/20 18:00	05/19/20 23:42	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1481611	1	05/21/20 08:01	05/24/20 14:02	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1480259	1	05/21/20 08:01	05/21/20 17:58	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1480281	1	05/22/20 08:41	05/23/20 14:13	JDG	Mt. Juliet, TN

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

Chris McCord
Project Manager

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	83.5		1	05/23/2020 22:22	WG1480765

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	69.3		11.0	24.0	1	05/19/2020 18:13	WG1478255

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		0.0260	0.120	1	05/22/2020 02:56	WG1480339
(S) a,a,a-Trifluorotoluene(FID)	*101*			*77.0-120*		*05/22/2020 02:56*	WG1480339

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000559	0.00120	1	05/21/2020 12:01	WG1480180
Toluene	0.00168	J	0.00156	0.00599	1	05/21/2020 12:01	WG1480180
Ethylbenzene	U		0.000883	0.00299	1	05/21/2020 12:01	WG1480180
Total Xylenes	0.00195	J	0.00105	0.00779	1	05/21/2020 12:01	WG1480180
(S) Toluene-d8	*105*			*75.0-131*		*05/21/2020 12:01*	WG1480180
(S) 4-Bromofluorobenzene	*96.6*			*67.0-138*		*05/21/2020 12:01*	WG1480180
(S) 1,2-Dichloroethane-d4	*88.3*			*70.0-130*		*05/21/2020 12:01*	WG1480180

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.93	4.79	1	05/21/2020 17:58	WG1480121
C28-C40 Oil Range	1.26	B J	0.328	4.79	1	05/21/2020 17:58	WG1480121
(S) o-Terphenyl	*63.7*			*18.0-148*		*05/21/2020 17:58*	WG1480121

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.1		1	05/23/2020 22:22	WG1480765

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	109		9.68	21.0	1	05/19/2020 18:22	WG1478255

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		0.0228	0.105	1	05/22/2020 03:16	WG1480339
(S) a,a,a-Trifluorotoluene(FID)	*102*			*77.0-120*		*05/22/2020 03:16*	WG1480339

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		0.000491	0.00105	1	05/21/2020 12:21	WG1480180
Toluene	U		0.00137	0.00526	1	05/21/2020 12:21	WG1480180
Ethylbenzene	U		0.000775	0.00263	1	05/21/2020 12:21	WG1480180
Total Xylenes	U		0.000926	0.00684	1	05/21/2020 12:21	WG1480180
(S) Toluene-d8	*104*			*75.0-131*		*05/21/2020 12:21*	WG1480180
(S) 4-Bromofluorobenzene	*97.7*			*67.0-138*		*05/21/2020 12:21*	WG1480180
(S) 1,2-Dichloroethane-d4	*86.2*			*70.0-130*		*05/21/2020 12:21*	WG1480180

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		1.69	4.21	1	05/21/2020 18:37	WG1480121
C28-C40 Oil Range	0.375	B J	0.288	4.21	1	05/21/2020 18:37	WG1480121
(S) o-Terphenyl	*64.4*			*18.0-148*		*05/21/2020 18:37*	WG1480121

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	92.2		1	05/23/2020 22:22	WG1480765

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	167		9.98	21.7	1	05/19/2020 18:41	WG1478255

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		0.0235	0.108	1	05/22/2020 03:37	WG1480339
(S) a,a,a-Trifluorotoluene(FID)	*105*			*77.0-120*		*05/22/2020 03:37*	WG1480339

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		0.000506	0.00108	1	05/21/2020 12:42	WG1480180
Toluene	U		0.00141	0.00542	1	05/21/2020 12:42	WG1480180
Ethylbenzene	U		0.000799	0.00271	1	05/21/2020 12:42	WG1480180
Total Xylenes	U		0.000954	0.00705	1	05/21/2020 12:42	WG1480180
(S) Toluene-d8	*106*			*75.0-131*		*05/21/2020 12:42*	WG1480180
(S) 4-Bromofluorobenzene	*97.1*			*67.0-138*		*05/21/2020 12:42*	WG1480180
(S) 1,2-Dichloroethane-d4	*90.9*			*70.0-130*		*05/21/2020 12:42*	WG1480180

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		1.75	4.34	1	05/21/2020 18:51	WG1480121
C28-C40 Oil Range	0.430	B J	0.297	4.34	1	05/21/2020 18:51	WG1480121
(S) o-Terphenyl	*63.5*			*18.0-148*		*05/21/2020 18:51*	WG1480121

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.9		1	05/23/2020 22:22	WG1480765

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	117		9.80	21.3	1	05/19/2020 18:50	WG1478255

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		0.0231	0.107	1	05/22/2020 03:58	WG1480339
(S) a,a,a-Trifluorotoluene(FID)	*104*			*77.0-120*		*05/22/2020 03:58*	WG1480339

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		0.000497	0.00107	1	05/21/2020 13:02	WG1480180
Toluene	U		0.00138	0.00533	1	05/21/2020 13:02	WG1480180
Ethylbenzene	U		0.000785	0.00266	1	05/21/2020 13:02	WG1480180
Total Xylenes	U		0.000937	0.00692	1	05/21/2020 13:02	WG1480180
(S) Toluene-d8	*103*			*75.0-131*		*05/21/2020 13:02*	WG1480180
(S) 4-Bromofluorobenzene	*96.3*			*67.0-138*		*05/21/2020 13:02*	WG1480180
(S) 1,2-Dichloroethane-d4	*87.6*			*70.0-130*		*05/21/2020 13:02*	WG1480180

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		1.71	4.26	1	05/22/2020 17:06	WG1480278
C28-C40 Oil Range	1.78	J	0.292	4.26	1	05/22/2020 17:06	WG1480278
(S) o-Terphenyl	*61.1*			*18.0-148*		*05/22/2020 17:06*	WG1480278

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.2		1	05/23/2020 22:22	WG1480765

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	40.8		9.87	21.5	1	05/19/2020 19:00	WG1478255

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		0.0233	0.107	1	05/22/2020 04:18	WG1480339
(S) a,a,a-Trifluorotoluene(FID)	*104*			*77.0-120*		*05/22/2020 04:18*	WG1480339

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		0.000501	0.00107	1	05/21/2020 13:23	WG1480180
Toluene	U		0.00140	0.00537	1	05/21/2020 13:23	WG1480180
Ethylbenzene	U		0.000791	0.00268	1	05/21/2020 13:23	WG1480180
Total Xylenes	U		0.000945	0.00698	1	05/21/2020 13:23	WG1480180
(S) Toluene-d8	*106*			*75.0-131*		*05/21/2020 13:23*	WG1480180
(S) 4-Bromofluorobenzene	*96.3*			*67.0-138*		*05/21/2020 13:23*	WG1480180
(S) 1,2-Dichloroethane-d4	*93.2*			*70.0-130*		*05/21/2020 13:23*	WG1480180

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	8.05		1.73	4.29	1	05/22/2020 21:30	WG1480278
C28-C40 Oil Range	7.41		0.294	4.29	1	05/22/2020 21:30	WG1480278
(S) o-Terphenyl	*72.1*			*18.0-148*		*05/22/2020 21:30*	WG1480278

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.8		1	05/23/2020 22:22	WG1480765

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	34.3		9.60	20.9	1	05/19/2020 19:09	WG1478255

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		0.0226	0.104	1	05/22/2020 04:39	WG1480339
(S) a,a,a-Trifluorotoluene(FID)	*102*			*77.0-120*		*05/22/2020 04:39*	WG1480339

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		0.000487	0.00104	1	05/21/2020 13:43	WG1480180
Toluene	U		0.00136	0.00522	1	05/21/2020 13:43	WG1480180
Ethylbenzene	U		0.000769	0.00261	1	05/21/2020 13:43	WG1480180
Total Xylenes	U		0.000918	0.00678	1	05/21/2020 13:43	WG1480180
(S) Toluene-d8	*106*			*75.0-131*		*05/21/2020 13:43*	WG1480180
(S) 4-Bromofluorobenzene	*95.9*			*67.0-138*		*05/21/2020 13:43*	WG1480180
(S) 1,2-Dichloroethane-d4	*92.3*			*70.0-130*		*05/21/2020 13:43*	WG1480180

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		1.68	4.17	1	05/22/2020 19:31	WG1480278
C28-C40 Oil Range	0.862	J	0.286	4.17	1	05/22/2020 19:31	WG1480278
(S) o-Terphenyl	*70.4*			*18.0-148*		*05/22/2020 19:31*	WG1480278

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.2		1	05/23/2020 22:02	WG1480767

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	121		10.4	22.7	1	05/19/2020 19:57	WG1478255

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0246	0.113	1	05/22/2020 05:00	WG1480339
(S) a,a,a-Trifluorotoluene(FID)	*104*			*77.0-120*		*05/22/2020 05:00*	WG1480339

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		0.000529	0.00113	1	05/21/2020 14:03	WG1480180
Toluene	U		0.00147	0.00567	1	05/21/2020 14:03	WG1480180
Ethylbenzene	U		0.000835	0.00283	1	05/21/2020 14:03	WG1480180
Total Xylenes	U		0.000997	0.00737	1	05/21/2020 14:03	WG1480180
(S) Toluene-d8	*108*			*75.0-131*		*05/21/2020 14:03*	WG1480180
(S) 4-Bromofluorobenzene	*97.2*			*67.0-138*		*05/21/2020 14:03*	WG1480180
(S) 1,2-Dichloroethane-d4	*91.0*			*70.0-130*		*05/21/2020 14:03*	WG1480180

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.82	4.53	1	05/22/2020 19:44	WG1480278
C28-C40 Oil Range	0.556	J	0.311	4.53	1	05/22/2020 19:44	WG1480278
(S) o-Terphenyl	*76.5*			*18.0-148*		*05/22/2020 19:44*	WG1480278

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.8		1	05/23/2020 22:02	WG1480767

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	81.4		10.0	21.8	1	05/19/2020 20:06	WG1478255

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		0.0237	0.109	1	05/22/2020 05:20	WG1480339
(S) a,a,a-Trifluorotoluene(FID)	*103*			*77.0-120*		*05/22/2020 05:20*	WG1480339

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		0.000509	0.00109	1	05/21/2020 14:24	WG1480180
Toluene	U		0.00142	0.00545	1	05/21/2020 14:24	WG1480180
Ethylbenzene	U		0.000803	0.00272	1	05/21/2020 14:24	WG1480180
Total Xylenes	U		0.000959	0.00708	1	05/21/2020 14:24	WG1480180
(S) Toluene-d8	*101*			*75.0-131*		*05/21/2020 14:24*	WG1480180
(S) 4-Bromofluorobenzene	*100*			*67.0-138*		*05/21/2020 14:24*	WG1480180
(S) 1,2-Dichloroethane-d4	*97.9*			*70.0-130*		*05/21/2020 14:24*	WG1480180

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	1.90	J	1.75	4.36	1	05/22/2020 17:19	WG1480278
C28-C40 Oil Range	1.83	J	0.299	4.36	1	05/22/2020 17:19	WG1480278
(S) o-Terphenyl	*58.8*			*18.0-148*		*05/22/2020 17:19*	WG1480278

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.2		1	05/23/2020 22:02	WG1480767

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	43.7		9.56	20.8	1	05/19/2020 20:16	WG1478255

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	0.0349	J	0.0226	0.104	1	05/22/2020 05:41	WG1480339
(S) a,a,a-Trifluorotoluene(FID)	*99.1*			*77.0-120*		*05/22/2020 05:41*	WG1480339

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	05/21/2020 14:44	WG1480180
Toluene	U		0.00135	0.00520	1	05/21/2020 14:44	WG1480180
Ethylbenzene	U		0.000766	0.00260	1	05/21/2020 14:44	WG1480180
Total Xylenes	U		0.000915	0.00675	1	05/21/2020 14:44	WG1480180
(S) Toluene-d8	*108*			*75.0-131*		*05/21/2020 14:44*	WG1480180
(S) 4-Bromofluorobenzene	*103*			*67.0-138*		*05/21/2020 14:44*	WG1480180
(S) 1,2-Dichloroethane-d4	*93.4*			*70.0-130*		*05/21/2020 14:44*	WG1480180

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	46.0		1.67	4.16	1	05/22/2020 22:44	WG1480278
C28-C40 Oil Range	105		0.285	4.16	1	05/22/2020 22:44	WG1480278
(S) o-Terphenyl	*53.1*			*18.0-148*		*05/22/2020 22:44*	WG1480278

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.9		1	05/23/2020 22:02	WG1480767

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	121		9.59	20.9	1	05/19/2020 20:25	WG1478255

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	0.0256	J	0.0226	0.104	1	05/22/2020 06:02	WG1480339
(S) a,a,a-Trifluorotoluene(FID)	*98.2*			*77.0-120*		*05/22/2020 06:02*	WG1480339

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		0.000487	0.00104	1	05/21/2020 15:05	WG1480180
Toluene	U		0.00136	0.00521	1	05/21/2020 15:05	WG1480180
Ethylbenzene	U		0.000768	0.00261	1	05/21/2020 15:05	WG1480180
Total Xylenes	U		0.000917	0.00678	1	05/21/2020 15:05	WG1480180
(S) Toluene-d8	*104*			*75.0-131*		*05/21/2020 15:05*	WG1480180
(S) 4-Bromofluorobenzene	*93.8*			*67.0-138*		*05/21/2020 15:05*	WG1480180
(S) 1,2-Dichloroethane-d4	*90.0*			*70.0-130*		*05/21/2020 15:05*	WG1480180

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		1.68	4.17	1	05/22/2020 18:12	WG1480278
C28-C40 Oil Range	0.736	J	0.286	4.17	1	05/22/2020 18:12	WG1480278
(S) o-Terphenyl	*72.0*			*18.0-148*		*05/22/2020 18:12*	WG1480278

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.0		1	05/23/2020 22:02	WG1480767

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	99.8		9.58	20.8	1	05/19/2020 20:35	WG1478255

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	0.0415	J	0.0226	0.104	1	05/22/2020 06:22	WG1480339
(S) a,a,a-Trifluorotoluene(FID)	*97.9*			*77.0-120*		*05/22/2020 06:22*	WG1480339

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		0.000487	0.00104	1	05/21/2020 15:26	WG1480180
Toluene	U		0.00135	0.00521	1	05/21/2020 15:26	WG1480180
Ethylbenzene	U		0.000768	0.00260	1	05/21/2020 15:26	WG1480180
Total Xylenes	U		0.000917	0.00677	1	05/21/2020 15:26	WG1480180
(S) Toluene-d8	*103*			*75.0-131*		*05/21/2020 15:26*	WG1480180
(S) 4-Bromofluorobenzene	*96.9*			*67.0-138*		*05/21/2020 15:26*	WG1480180
(S) 1,2-Dichloroethane-d4	*91.2*			*70.0-130*		*05/21/2020 15:26*	WG1480180

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		1.68	4.17	1	05/22/2020 18:25	WG1480278
C28-C40 Oil Range	0.814	J	0.285	4.17	1	05/22/2020 18:25	WG1480278
(S) o-Terphenyl	*74.2*			*18.0-148*		*05/22/2020 18:25*	WG1480278

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	94.9		1	05/23/2020 22:02	WG1480767

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	48.0		9.70	21.1	1	05/19/2020 20:44	WG1478255

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		0.0229	0.105	1	05/22/2020 06:43	WG1480339
(S) a,a,a-Trifluorotoluene(FID)	*104*			*77.0-120*		*05/22/2020 06:43*	WG1480339

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		0.000492	0.00105	1	05/21/2020 15:46	WG1480180
Toluene	U		0.00137	0.00527	1	05/21/2020 15:46	WG1480180
Ethylbenzene	U		0.000777	0.00263	1	05/21/2020 15:46	WG1480180
Total Xylenes	U		0.000927	0.00685	1	05/21/2020 15:46	WG1480180
(S) Toluene-d8	*106*			*75.0-131*		*05/21/2020 15:46*	WG1480180
(S) 4-Bromofluorobenzene	*96.0*			*67.0-138*		*05/21/2020 15:46*	WG1480180
(S) 1,2-Dichloroethane-d4	*87.6*			*70.0-130*		*05/21/2020 15:46*	WG1480180

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		1.70	4.22	1	05/22/2020 20:24	WG1480278
C28-C40 Oil Range	1.49	J	0.289	4.22	1	05/22/2020 20:24	WG1480278
(S) o-Terphenyl	*58.8*			*18.0-148*		*05/22/2020 20:24*	WG1480278

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	94.4		1	05/23/2020 22:02	WG1480767

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	27.9		9.75	21.2	1	05/19/2020 20:54	WG1478255

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	0.0578	B J	0.0230	0.106	1	05/22/2020 21:21	WG1481102
(S) a,a,a-Trifluorotoluene(FID)	*90.5*			*77.0-120*		*05/22/2020 21:21*	WG1481102

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		0.000495	0.00106	1	05/21/2020 16:06	WG1480180
Toluene	U		0.00138	0.00530	1	05/21/2020 16:06	WG1480180
Ethylbenzene	U		0.000781	0.00265	1	05/21/2020 16:06	WG1480180
Total Xylenes	U		0.000933	0.00689	1	05/21/2020 16:06	WG1480180
(S) Toluene-d8	*107*			*75.0-131*		*05/21/2020 16:06*	WG1480180
(S) 4-Bromofluorobenzene	*95.7*			*67.0-138*		*05/21/2020 16:06*	WG1480180
(S) 1,2-Dichloroethane-d4	*83.6*			*70.0-130*		*05/21/2020 16:06*	WG1480180

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		1.71	4.24	1	05/22/2020 20:10	WG1480278
C28-C40 Oil Range	2.34	J	0.290	4.24	1	05/22/2020 20:10	WG1480278
(S) o-Terphenyl	*69.8*			*18.0-148*		*05/22/2020 20:10*	WG1480278

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.6		1	05/23/2020 22:02	WG1480767

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	27.1		9.53	20.7	1	05/19/2020 21:04	WG1478255

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	0.118		0.0225	0.104	1	05/22/2020 02:51	WG1480342
(S) a,a,a-Trifluorotoluene(FID)	*86.3*			*77.0-120*		*05/22/2020 02:51*	WG1480342

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		0.000484	0.00104	1	05/21/2020 16:27	WG1480180
Toluene	0.00158	J	0.00135	0.00518	1	05/21/2020 16:27	WG1480180
Ethylbenzene	U		0.000763	0.00259	1	05/21/2020 16:27	WG1480180
Total Xylenes	U		0.000911	0.00673	1	05/21/2020 16:27	WG1480180
(S) Toluene-d8	*105*			*75.0-131*		*05/21/2020 16:27*	WG1480180
(S) 4-Bromofluorobenzene	*95.1*			*67.0-138*		*05/21/2020 16:27*	WG1480180
(S) 1,2-Dichloroethane-d4	*89.1*			*70.0-130*		*05/21/2020 16:27*	WG1480180

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	52.3		1.67	4.14	1	05/22/2020 22:31	WG1480278
C28-C40 Oil Range	117		0.284	4.14	1	05/22/2020 22:31	WG1480278
(S) o-Terphenyl	*65.1*			*18.0-148*		*05/22/2020 22:31*	WG1480278

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	76.4		1	05/23/2020 22:02	WG1480767

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	121		12.0	26.2	1	05/19/2020 21:13	WG1478255

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	0.111	B J	0.0284	0.131	1	05/26/2020 12:58	WG1481834
(S) a,a,a-Trifluorotoluene(FID)	*91.0*			*59.0-128*		*05/26/2020 12:58*	WG1481834

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		0.000611	0.00131	1	05/21/2020 16:47	WG1480180
Toluene	U		0.00170	0.00654	1	05/21/2020 16:47	WG1480180
Ethylbenzene	0.00366		0.000964	0.00327	1	05/21/2020 16:47	WG1480180
Total Xylenes	0.0207		0.00115	0.00850	1	05/21/2020 16:47	WG1480180
(S) Toluene-d8	*106*			*75.0-131*		*05/21/2020 16:47*	WG1480180
(S) 4-Bromofluorobenzene	*96.6*			*67.0-138*		*05/21/2020 16:47*	WG1480180
(S) 1,2-Dichloroethane-d4	*90.3*			*70.0-130*		*05/21/2020 16:47*	WG1480180

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	174		2.11	5.23	1	05/22/2020 22:18	WG1480278
C28-C40 Oil Range	106		0.358	5.23	1	05/22/2020 22:18	WG1480278
(S) o-Terphenyl	*57.9*			*18.0-148*		*05/22/2020 22:18*	WG1480278

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.7		1	05/23/2020 22:02	WG1480767

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	283		9.61	20.9	1	05/19/2020 21:42	WG1478255

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	0.0475	B J	0.0227	0.104	1	05/26/2020 13:37	WG1481834
(S) a,a,a-Trifluorotoluene(FID)	*92.4*			*59.0-128*		*05/26/2020 13:37*	WG1481834

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		0.000488	0.00104	1	05/21/2020 17:07	WG1480180
Toluene	U		0.00136	0.00522	1	05/21/2020 17:07	WG1480180
Ethylbenzene	U		0.000770	0.00261	1	05/21/2020 17:07	WG1480180
Total Xylenes	U		0.000920	0.00679	1	05/21/2020 17:07	WG1480180
(S) Toluene-d8	*105*			*75.0-131*		*05/21/2020 17:07*	WG1480180
(S) 4-Bromofluorobenzene	*97.8*			*67.0-138*		*05/21/2020 17:07*	WG1480180
(S) 1,2-Dichloroethane-d4	*92.0*			*70.0-130*		*05/21/2020 17:07*	WG1480180

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	5.51		1.68	4.18	1	05/22/2020 21:43	WG1480278
C28-C40 Oil Range	6.46		0.286	4.18	1	05/22/2020 21:43	WG1480278
(S) o-Terphenyl	*50.2*			*18.0-148*		*05/22/2020 21:43*	WG1480278

Collected date/time: 05/12/20 13:40

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.8		1	05/23/2020 21:43	WG1480769

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	380		9.60	20.9	1	05/19/2020 21:51	WG1478255

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		0.0227	0.104	1	05/22/2020 03:53	WG1480342
(S) a,a,a-Trifluorotoluene(FID)	*89.2*			*77.0-120*		*05/22/2020 03:53*	WG1480342

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		0.000487	0.00104	1	05/21/2020 17:28	WG1480180
Toluene	U		0.00136	0.00522	1	05/21/2020 17:28	WG1480180
Ethylbenzene	U		0.000769	0.00261	1	05/21/2020 17:28	WG1480180
Total Xylenes	U		0.000919	0.00678	1	05/21/2020 17:28	WG1480180
(S) Toluene-d8	*104*			*75.0-131*		*05/21/2020 17:28*	WG1480180
(S) 4-Bromofluorobenzene	*95.3*			*67.0-138*		*05/21/2020 17:28*	WG1480180
(S) 1,2-Dichloroethane-d4	*90.0*			*70.0-130*		*05/21/2020 17:28*	WG1480180

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	23.1		1.68	4.18	1	05/22/2020 21:56	WG1480278
C28-C40 Oil Range	22.4		0.286	4.18	1	05/22/2020 21:56	WG1480278
(S) o-Terphenyl	*52.8*			*18.0-148*		*05/22/2020 21:56*	WG1480278

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.6		1	05/23/2020 21:43	WG1480769

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	239		9.83	21.4	1	05/19/2020 22:10	WG1478255

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		0.0232	0.107	1	05/22/2020 12:58	WG1480799
(S) a,a,a-Trifluorotoluene(FID)	*100*			*77.0-120*		*05/22/2020 12:58*	WG1480799

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		0.000499	0.00107	1	05/21/2020 17:48	WG1480180
Toluene	U		0.00139	0.00534	1	05/21/2020 17:48	WG1480180
Ethylbenzene	U		0.000788	0.00267	1	05/21/2020 17:48	WG1480180
Total Xylenes	U		0.000941	0.00695	1	05/21/2020 17:48	WG1480180
(S) Toluene-d8	*105*			*75.0-131*		*05/21/2020 17:48*	WG1480180
(S) 4-Bromofluorobenzene	*95.9*			*67.0-138*		*05/21/2020 17:48*	WG1480180
(S) 1,2-Dichloroethane-d4	*92.1*			*70.0-130*		*05/21/2020 17:48*	WG1480180

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	2.26	J J3	1.72	4.28	1	05/22/2020 20:50	WG1480278
C28-C40 Oil Range	1.92	J	0.293	4.28	1	05/22/2020 20:50	WG1480278
(S) o-Terphenyl	*58.7*			*18.0-148*		*05/22/2020 20:50*	WG1480278

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.4		1	05/23/2020 21:43	WG1480769

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	33.0		10.2	22.1	1	05/19/2020 22:20	WG1478255

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		0.0240	0.111	1	05/22/2020 13:19	WG1480799
(S) a,a,a-Trifluorotoluene(FID)	*105*			*77.0-120*		*05/22/2020 13:19*	WG1480799

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		0.000517	0.00111	1	05/21/2020 18:09	WG1480180
Toluene	U		0.00144	0.00553	1	05/21/2020 18:09	WG1480180
Ethylbenzene	U		0.000816	0.00277	1	05/21/2020 18:09	WG1480180
Total Xylenes	U		0.000974	0.00719	1	05/21/2020 18:09	WG1480180
(S) Toluene-d8	*106*			*75.0-131*		*05/21/2020 18:09*	WG1480180
(S) 4-Bromofluorobenzene	*95.5*			*67.0-138*		*05/21/2020 18:09*	WG1480180
(S) 1,2-Dichloroethane-d4	*90.6*			*70.0-130*		*05/21/2020 18:09*	WG1480180

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	6.29		1.78	4.43	1	05/22/2020 20:37	WG1480278
C28-C40 Oil Range	10.5		0.303	4.43	1	05/22/2020 20:37	WG1480278
(S) o-Terphenyl	*64.3*			*18.0-148*		*05/22/2020 20:37*	WG1480278

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.5		1	05/23/2020 21:43	WG1480769

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	17.3	J	9.63	20.9	1	05/19/2020 22:29	WG1478255

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		0.0227	0.105	1	05/22/2020 13:40	WG1480799
(S) a,a,a-Trifluorotoluene(FID)	*101*			*77.0-120*		*05/22/2020 13:40*	WG1480799

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		0.000489	0.00105	1	05/21/2020 18:29	WG1480180
Toluene	U		0.00136	0.00524	1	05/21/2020 18:29	WG1480180
Ethylbenzene	U		0.000772	0.00262	1	05/21/2020 18:29	WG1480180
Total Xylenes	U		0.000922	0.00681	1	05/21/2020 18:29	WG1480180
(S) Toluene-d8	*102*			*75.0-131*		*05/21/2020 18:29*	WG1480180
(S) 4-Bromofluorobenzene	*104*			*67.0-138*		*05/21/2020 18:29*	WG1480180
(S) 1,2-Dichloroethane-d4	*99.9*			*70.0-130*		*05/21/2020 18:29*	WG1480180

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	1.75	J	1.69	4.19	1	05/22/2020 19:57	WG1480278
C28-C40 Oil Range	2.02	J	0.287	4.19	1	05/22/2020 19:57	WG1480278
(S) o-Terphenyl	*71.5*			*18.0-148*		*05/22/2020 19:57*	WG1480278

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	97.1		1	05/23/2020 21:43	WG1480769

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	22.2		9.48	20.6	1	05/19/2020 20:43	WG1478256

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		0.0224	0.103	1	05/22/2020 14:00	WG1480799
(S) a,a,a-Trifluorotoluene(FID)	*101*			*77.0-120*		*05/22/2020 14:00*	WG1480799

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		0.000481	0.00103	1	05/21/2020 15:43	WG1480259
Toluene	U		0.00134	0.00515	1	05/21/2020 15:43	WG1480259
Ethylbenzene	U		0.000759	0.00258	1	05/21/2020 15:43	WG1480259
Total Xylenes	U		0.000906	0.00670	1	05/21/2020 15:43	WG1480259
(S) Toluene-d8	*112*			*75.0-131*		*05/21/2020 15:43*	WG1480259
(S) 4-Bromofluorobenzene	*94.1*			*67.0-138*		*05/21/2020 15:43*	WG1480259
(S) 1,2-Dichloroethane-d4	*100*			*70.0-130*		*05/21/2020 15:43*	WG1480259

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		1.66	4.12	1	05/22/2020 17:32	WG1480278
C28-C40 Oil Range	1.05	J	0.282	4.12	1	05/22/2020 17:32	WG1480278
(S) o-Terphenyl	*66.7*			*18.0-148*		*05/22/2020 17:32*	WG1480278

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.5		1	05/23/2020 21:43	WG1480769

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	17.5	J	9.84	21.4	1	05/19/2020 21:01	WG1478256

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		0.0232	0.107	1	05/22/2020 14:21	WG1480799
(S) a,a,a-Trifluorotoluene(FID)	*99.4*			*77.0-120*		*05/22/2020 14:21*	WG1480799

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	05/21/2020 16:02	WG1480259
Toluene	U		0.00139	0.00535	1	05/21/2020 16:02	WG1480259
Ethylbenzene	U		0.000788	0.00267	1	05/21/2020 16:02	WG1480259
Total Xylenes	U		0.000941	0.00695	1	05/21/2020 16:02	WG1480259
(S) Toluene-d8	*114*			*75.0-131*		*05/21/2020 16:02*	WG1480259
(S) 4-Bromofluorobenzene	*94.4*			*67.0-138*		*05/21/2020 16:02*	WG1480259
(S) 1,2-Dichloroethane-d4	*99.6*			*70.0-130*		*05/21/2020 16:02*	WG1480259

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		1.72	4.28	1	05/22/2020 17:45	WG1480278
C28-C40 Oil Range	0.510	J	0.293	4.28	1	05/22/2020 17:45	WG1480278
(S) o-Terphenyl	*67.5*			*18.0-148*		*05/22/2020 17:45*	WG1480278

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	92.3		1	05/23/2020 21:43	WG1480769

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	91.2		9.96	21.7	1	05/19/2020 21:37	WG1478256

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		0.0235	0.108	1	05/22/2020 14:42	WG1480799
(S) a,a,a-Trifluorotoluene(FID)	*105*			*77.0-120*		*05/22/2020 14:42*	WG1480799

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		0.000506	0.00108	1	05/21/2020 16:22	WG1480259
Toluene	U		0.00141	0.00541	1	05/21/2020 16:22	WG1480259
Ethylbenzene	U		0.000798	0.00271	1	05/21/2020 16:22	WG1480259
Total Xylenes	U		0.000953	0.00704	1	05/21/2020 16:22	WG1480259
(S) Toluene-d8	*110*			*75.0-131*		*05/21/2020 16:22*	WG1480259
(S) 4-Bromofluorobenzene	*91.1*			*67.0-138*		*05/21/2020 16:22*	WG1480259
(S) 1,2-Dichloroethane-d4	*99.6*			*70.0-130*		*05/21/2020 16:22*	WG1480259

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		1.74	4.33	1	05/22/2020 17:59	WG1480278
C28-C40 Oil Range	U		0.297	4.33	1	05/22/2020 17:59	WG1480278
(S) o-Terphenyl	*41.6*			*18.0-148*		*05/22/2020 17:59*	WG1480278

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	97.1		1	05/23/2020 21:43	WG1480769

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		9.47	20.6	1	05/19/2020 22:30	WG1478256

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		0.0223	0.103	1	05/22/2020 15:02	WG1480799
(S) a,a,a-Trifluorotoluene(FID)	*103*			*77.0-120*		*05/22/2020 15:02*	WG1480799

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		0.000481	0.00103	1	05/21/2020 16:41	WG1480259
Toluene	U		0.00134	0.00515	1	05/21/2020 16:41	WG1480259
Ethylbenzene	U		0.000759	0.00257	1	05/21/2020 16:41	WG1480259
Total Xylenes	U		0.000906	0.00669	1	05/21/2020 16:41	WG1480259
(S) Toluene-d8	*112*			*75.0-131*		*05/21/2020 16:41*	WG1480259
(S) 4-Bromofluorobenzene	*91.8*			*67.0-138*		*05/21/2020 16:41*	WG1480259
(S) 1,2-Dichloroethane-d4	*99.4*			*70.0-130*		*05/21/2020 16:41*	WG1480259

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	6.43		1.66	4.12	1	05/23/2020 14:26	WG1480281
C28-C40 Oil Range	16.0		0.282	4.12	1	05/23/2020 14:26	WG1480281
(S) o-Terphenyl	*75.6*			*18.0-148*		*05/23/2020 14:26*	WG1480281

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.7		1	05/23/2020 21:43	WG1480769

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	12.5	J	9.51	20.7	1	05/19/2020 22:48	WG1478256

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		0.0224	0.103	1	05/22/2020 15:23	WG1480799
(S) a,a,a-Trifluorotoluene(FID)	*102*			*77.0-120*		*05/22/2020 15:23*	WG1480799

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	05/21/2020 17:00	WG1480259
Toluene	U		0.00134	0.00517	1	05/21/2020 17:00	WG1480259
Ethylbenzene	U		0.000762	0.00259	1	05/21/2020 17:00	WG1480259
Total Xylenes	U		0.000910	0.00672	1	05/21/2020 17:00	WG1480259
(S) Toluene-d8	*110*			*75.0-131*		*05/21/2020 17:00*	WG1480259
(S) 4-Bromofluorobenzene	*91.1*			*67.0-138*		*05/21/2020 17:00*	WG1480259
(S) 1,2-Dichloroethane-d4	*96.4*			*70.0-130*		*05/21/2020 17:00*	WG1480259

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	4.00	J	1.67	4.14	1	05/24/2020 18:39	WG1480281
C28-C40 Oil Range	6.32	B	0.283	4.14	1	05/24/2020 18:39	WG1480281
(S) o-Terphenyl	*103*			*18.0-148*		*05/24/2020 18:39*	WG1480281

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	97.0		1	05/23/2020 21:43	WG1480769

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	16.3	J	9.49	20.6	1	05/19/2020 23:06	WG1478256

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		0.0224	0.103	1	05/22/2020 15:44	WG1480799
(S) a,a,a-Trifluorotoluene(FID)	*102*			*77.0-120*		*05/22/2020 15:44*	WG1480799

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		0.000482	0.00103	1	05/21/2020 17:19	WG1480259
Toluene	U		0.00134	0.00516	1	05/21/2020 17:19	WG1480259
Ethylbenzene	U		0.000760	0.00258	1	05/21/2020 17:19	WG1480259
Total Xylenes	U		0.000908	0.00670	1	05/21/2020 17:19	WG1480259
(S) Toluene-d8	*111*			*75.0-131*		*05/21/2020 17:19*	WG1480259
(S) 4-Bromofluorobenzene	*93.4*			*67.0-138*		*05/21/2020 17:19*	WG1480259
(S) 1,2-Dichloroethane-d4	*100*			*70.0-130*		*05/21/2020 17:19*	WG1480259

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		1.66	4.13	1	05/23/2020 13:46	WG1480281
C28-C40 Oil Range	1.58	B J	0.283	4.13	1	05/23/2020 13:46	WG1480281
(S) o-Terphenyl	*84.7*			*18.0-148*		*05/23/2020 13:46*	WG1480281

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.4		1	05/23/2020 16:43	WG1480772

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	29.0		9.54	20.7	1	05/19/2020 23:24	WG1478256

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	05/22/2020 16:04	WG1480799
(S) a,a,a-Trifluorotoluene(FID)	*105*			*77.0-120*		*05/22/2020 16:04*	WG1480799

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		0.000484	0.00104	1	05/21/2020 17:38	WG1480259
Toluene	U		0.00135	0.00518	1	05/21/2020 17:38	WG1480259
Ethylbenzene	U		0.000764	0.00259	1	05/21/2020 17:38	WG1480259
Total Xylenes	U		0.000912	0.00674	1	05/21/2020 17:38	WG1480259
(S) Toluene-d8	*108*			*75.0-131*		*05/21/2020 17:38*	WG1480259
(S) 4-Bromofluorobenzene	*90.8*			*67.0-138*		*05/21/2020 17:38*	WG1480259
(S) 1,2-Dichloroethane-d4	*104*			*70.0-130*		*05/21/2020 17:38*	WG1480259

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	4.15	1	05/23/2020 14:00	WG1480281
C28-C40 Oil Range	1.35	B J	0.284	4.15	1	05/23/2020 14:00	WG1480281
(S) o-Terphenyl	*75.9*			*18.0-148*		*05/23/2020 14:00*	WG1480281

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.7		1	05/23/2020 16:43	WG1480772

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	37.4		10.5	22.8	1	05/19/2020 23:42	WG1478256

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	0.0529	B J	0.0247	0.114	1	05/24/2020 14:02	WG1481611
(S) a,a,a-Trifluorotoluene(FID)	*92.1*			*77.0-120*		*05/24/2020 14:02*	WG1481611

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		0.000533	0.00114	1	05/21/2020 17:58	WG1480259
Toluene	U		0.00148	0.00570	1	05/21/2020 17:58	WG1480259
Ethylbenzene	U		0.000841	0.00285	1	05/21/2020 17:58	WG1480259
Total Xylenes	U		0.00100	0.00741	1	05/21/2020 17:58	WG1480259
(S) Toluene-d8	*112*			*75.0-131*		*05/21/2020 17:58*	WG1480259
(S) 4-Bromofluorobenzene	*91.9*			*67.0-138*		*05/21/2020 17:58*	WG1480259
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*05/21/2020 17:58*	WG1480259

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	2.66	J	1.84	4.56	1	05/23/2020 14:13	WG1480281
C28-C40 Oil Range	0.841	B J	0.312	4.56	1	05/23/2020 14:13	WG1480281
(S) o-Terphenyl	*81.9*			*18.0-148*		*05/23/2020 14:13*	WG1480281

Total Solids by Method 2540 G-2011

Method Blank (MB)

(MB) R3531288-1 05/23/20 22:22

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

Laboratory Control Sample (LCS)

(LCS) R3531288-2 05/23/20 22:22

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

Method Blank (MB)

(MB) R3531286-1 05/23/20 22:02

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

L1219552-10 Original Sample (OS) • Duplicate (DUP)

(OS) L1219552-10 05/23/20 22:02 • (DUP) R3531286-3 05/23/20 22:02

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	95.9	95.9	1	0.0373		10

Laboratory Control Sample (LCS)

(LCS) R3531286-2 05/23/20 22:02

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

Method Blank (MB)

(MB) R3531285-1 05/23/20 21:43

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

L1219552-21 Original Sample (OS) • Duplicate (DUP)

(OS) L1219552-21 05/23/20 21:43 • (DUP) R3531285-3 05/23/20 21:43

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	97.1	97.1	1	0.0283		10

Laboratory Control Sample (LCS)

(LCS) R3531285-2 05/23/20 21:43

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

Total Solids by Method 2540 G-2011

L1219552-27,28

Method Blank (MB)

(MB) R3531267-1 05/23/20 16:43

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

Laboratory Control Sample (LCS)

(LCS) R3531267-2 05/23/20 16:43

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

Method Blank (MB)

(MB) R3529783-1 05/19/20 17:40

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

L1219552-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1219552-02 05/19/20 18:22 • (DUP) R3529783-3 05/19/20 18:31

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	109	109	1	0.221		20

L1219552-17 Original Sample (OS) • Duplicate (DUP)

(OS) L1219552-17 05/19/20 21:51 • (DUP) R3529783-6 05/19/20 22:01

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	380	334	1	12.9		20

Laboratory Control Sample (LCS)

(LCS) R3529783-2 05/19/20 17:49

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	200	191	95.6	90.0-110	

Method Blank (MB)

(MB) R3529777-1 05/19/20 18:38

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

L1219552-22 Original Sample (OS) • Duplicate (DUP)

(OS) L1219552-22 05/19/20 21:01 • (DUP) R3529777-3 05/19/20 21:19

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	17.5	16.7	1	5.21	J	20

L1219885-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1219885-04 05/20/20 02:05 • (DUP) R3529777-6 05/20/20 02:23

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) R3529777-2 05/19/20 18:55

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	200	201	101	90.0-110	

L1219885-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1219885-01 05/20/20 00:00 • (MS) R3529777-4 05/20/20 00:18 • (MSD) R3529777-5 05/20/20 00:36

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	640	U	622	601	97.1	94.0	1	80.0-120			3.30	20

Method Blank (MB)

(MB) R3531305-3 05/21/20 22:51

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)	*107*			*77.0-120*

Laboratory Control Sample (LCS)

(LCS) R3531305-2 05/21/20 22:10

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.70	104	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*95.7*	*77.0-120*	

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

Method Blank (MB)

(MB) R3531433-3 05/22/20 01:09

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	U		0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	*93.1*			*77.0-120*

Laboratory Control Sample (LCS)

(LCS) R3531433-2 05/22/20 00:27

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.48	99.6	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*108*	*77.0-120*	

Method Blank (MB)

(MB) R3531236-2 05/22/20 11:56

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)	*105*			*77.0-120*

Laboratory Control Sample (LCS)

(LCS) R3531236-1 05/22/20 11:14

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	6.19	113	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*99.3*	*77.0-120*	

Method Blank (MB)

(MB) R3531066-3 05/22/20 16:46

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	0.0485	J	0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	*92.1*			*77.0-120*

Laboratory Control Sample (LCS)

(LCS) R3531066-2 05/22/20 16:02

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.27	95.8	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*98.6*	*77.0-120*	

Method Blank (MB)

(MB) R3531398-2 05/24/20 13:02

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	0.0473	J	0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	*93.0*			*77.0-120*

Laboratory Control Sample (LCS)

(LCS) R3531398-1 05/24/20 12:18

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	4.77	86.7	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*98.6*	*77.0-120*	

QUALITY CONTROL SUMMARY

L1219552-15,16

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

Method Blank (MB)

(MB) R3531738-3 05/26/20 11:51

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	0.0343	J	0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	*93.6*			*77.0-120*

Laboratory Control Sample (LCS)

(LCS) R3531738-2 05/26/20 11:06

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	4.93	89.6	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*99.2*	*77.0-120*	

Method Blank (MB)

(MB) R3531425-2 05/21/20 09:44

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
Ethylbenzene	U		0.000737	0.00250
Toluene	U		0.00130	0.00500
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	*107*			*75.0-131*
(S) 4-Bromofluorobenzene	*97.4*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*87.2*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3531425-1 05/21/20 08:43

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.125	0.115	92.0	70.0-123	
Ethylbenzene	0.125	0.116	92.8	74.0-126	
Toluene	0.125	0.114	91.2	75.0-121	
Xylenes, Total	0.375	0.326	86.9	72.0-127	
(S) Toluene-d8			*96.3*	*75.0-131*	
(S) 4-Bromofluorobenzene			*105*	*67.0-138*	
(S) 1,2-Dichloroethane-d4			*101*	*70.0-130*	

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

Method Blank (MB)

(MB) R3531330-2 05/21/20 12:07

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
Ethylbenzene	U		0.000737	0.00250
Toluene	U		0.00130	0.00500
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	*115*			*75.0-131*
(S) 4-Bromofluorobenzene	*94.6*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*98.6*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3531330-1 05/21/20 11:09

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.125	0.111	88.8	70.0-123	
Ethylbenzene	0.125	0.137	110	74.0-126	
Toluene	0.125	0.113	90.4	75.0-121	
Xylenes, Total	0.375	0.344	91.7	72.0-127	
(S) Toluene-d8			*104*	*75.0-131*	
(S) 4-Bromofluorobenzene			*92.9*	*67.0-138*	
(S) 1,2-Dichloroethane-d4			*108*	*70.0-130*	

Method Blank (MB)

(MB) R3530605-1 05/21/20 15:33

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	0.957	J	0.274	4.00
(S) o-Terphenyl	*75.2*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3530605-2 05/21/20 15:46

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	36.6	73.2	50.0-150	
(S) o-Terphenyl			*93.2*	*18.0-148*	

Method Blank (MB)

(MB) R3530981-1 05/22/20 11:31

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C10-C28 Diesel Range	U		1.61	4.00
C28-C40 Oil Range	U		0.274	4.00
(S) o-Terphenyl	*64.6*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3530981-2 05/22/20 11:44

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	36.9	73.8	50.0-150	
(S) o-Terphenyl			*78.5*	*18.0-148*	

Method Blank (MB)

(MB) R3531368-1 05/23/20 13:20

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	0.758	J	0.274	4.00
(S) o-Terphenyl	*81.1*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3531368-2 05/23/20 13:33

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	44.3	88.6	50.0-150	
(S) o-Terphenyl			*97.3*	*18.0-148*	

Guide to Reading and Understanding Your Laboratory Report

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

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

Abbreviations and Definitions

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

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.

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 [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas [5]	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

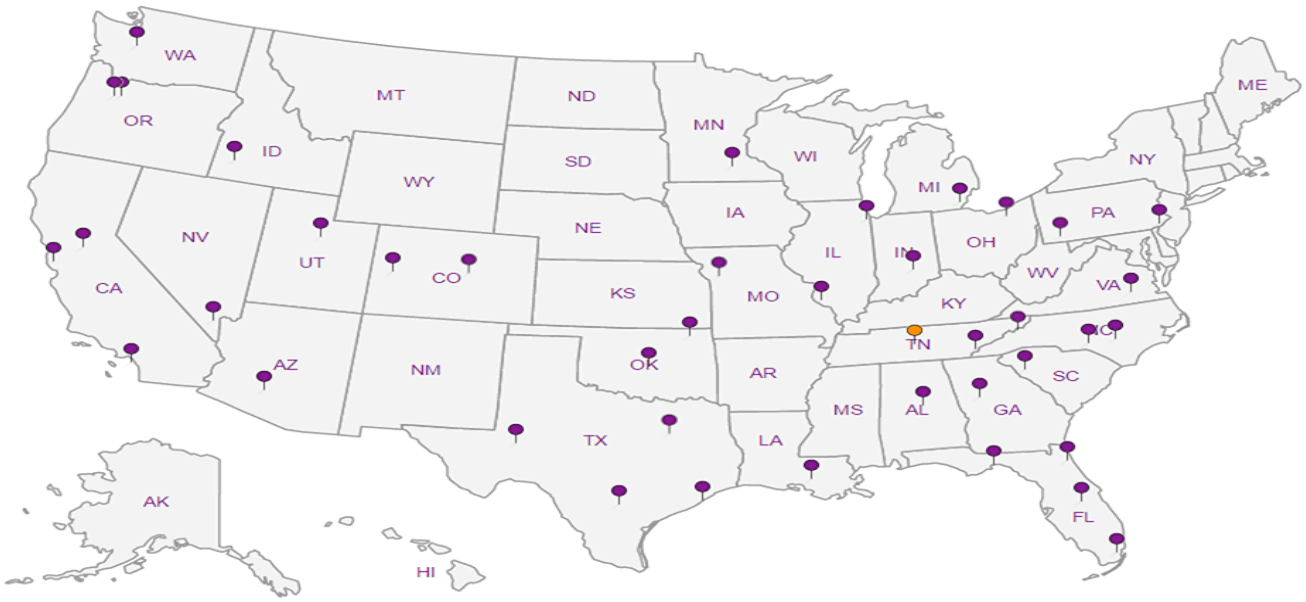
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

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

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 4

Tetra Tech, Inc.

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

Client Name:	Conoco Phillips	**Site Manager:**	Christian Llull
Project Name:	COP Phillips E State 29	**Contact Info:**	Email: christian.llull@tetratech.com Phone: (512) 338-1667
Project Location: (county, state)	Lea County, New Mexico	**Project #:**	212C-MD-02180
Invoice to:	Accounts Payable 901 West Wall Street, Suite 100 Midland, Texas 79701		
Receiving Laboratory:	Pace Analytical	**Sampler Signature:**	
Comments:	COPTETRA Acctnum		J085

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING YEAR: 2020 DATE	SAMPLING TIME	MATRIX: WATER	MATRIX: SOIL	PRESERVATIVE METHOD: HCL	PRESERVATIVE METHOD: HNO_3	PRESERVATIVE METHOD: ICE	PRESERVATIVE METHOD: NONE	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride 300.0	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	TPH 8015R		HOLD
~~L1214952-01~~	~~BH-1 (0'-1')~~	~~05/12/20~~ J	~~1000~~		~~X~~			~~X~~		~~1~~	~~N~~	~~X~~		~~X~~												~~X~~						
-01 02	BH-1 (2'-3')	05/12/20	1010		X			X		1	N	X		X												X						
02 03	BH-1 (4'-5')	05/12/20	1020		X			X		1	N	X		X												X						
03 04	BH-1 (6'-7')	05/12/20	1030		X			X		1	N	X		X												X						
04 05	BH-1 (9'-10')	05/12/20	1040		X			X		1	N	X		X												X						
	BH-1 (14'-15')	05/12/20	1050		X			X		1	N																					X
	BH-1 (19'-20')	05/12/20	1100		X			X		1	N																					X
	~~BH-2 (0'-1')~~	~~05/12/20~~ J	~~1110~~		~~X~~			~~X~~		~~1~~	~~N~~	~~X~~		~~X~~												~~X~~						
05 06	BH-2 (2'-3')	05/12/20	1120		X			X		1	N	X		X												X						
06 07	BH-2 (4'-5')	05/12/20	1130		X			X		1	N	X		X												X						

Relinquished by:	Date: 5-15-20	Time: 14:00	Received by: Date: 5-15-20 Time: 14:00
Relinquished by:	Date: 5-15-20	Time: 17:00	Received by: FedEx Date: 5-15-20 Time: 17:00
Relinquished by:	Date:	Time:	Received by: Date: 5/16/20 Time: 0900

ORIGINAL COPY

05-0158

LAB USE ONLY

Sample Temperature

REMARKS:

- [X] Standard
- [ ] RUSH: Same Day 24 hr. 48 hr. 72 hr.
- [ ] Rush Charges Authorized
- [ ] Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

1.6 - .2 = 1.4 uy AL

Analysis Request of Chain of Custody Record

Tetra Tech, Inc.

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

Client Name:	Conoco Phillips	**Site Manager:**	Christian Llull
Project Name:	COP Phillips E State 29	**Contact Info:**	Email: christian.llull@tetratech.com Phone: (512) 338-1667
Project Location: (county, state)	Lea County, New Mexico	**Project #:**	212C-MD-02180
Invoice to:	Accounts Payable 901 West Wall Street, Suite 100 Midland, Texas 79701		
Receiving Laboratory:	Pace Analytical	**Sampler Signature:**	Joe Tyler
Comments:	COPTETRA Acctnum		

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING YEAR: 2020 DATE	SAMPLING TIME	MATRIX WATER	MATRIX SOIL	MATRIX	PRESERVATIVE METHOD HCL	PRESERVATIVE METHOD HNO_3	PRESERVATIVE METHOD ICE	PRESERVATIVE METHOD NONE	PRESERVATIVE METHOD	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride 300.0	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	TPH 8015R		HOLD
L1219552																																		
07 ~~08~~	BH-2 (6'-7')	05/12/20	1140		X				X			1	N	X		X												X						
08 ~~09~~	BH-2 (9'-10')	05/12/20	1150		X				X			1	N	X		X												X						
	BH-2 (14'-15')	05/12/20	1200		X				X			1	N																					X
	BH-2 (19'-20')	05/12/20	1210		X				X			1	N																					X
09 ~~10~~	BH-3 (0'-1')	05/12/20	1220		X				X			1	N	X		X												X						
10 ~~11~~	BH-3 (2'-3')	05/12/20	1230		X				X			1	N	X		X												X						
11 ~~12~~	BH-3 (4'-5')	05/12/20	1240		X				X			1	N	X		X												X						
12 ~~13~~	BH-3 (6'-7')	05/12/20	1250		X				X			1	N	X		X												X						
13 ~~14~~	BH-3 (9'-10')	05/12/20	1300		X				X			1	N	X		X												X						
14 ~~15~~	BH-4 (0'-1')	05/12/20	1310		X				X			1	N	X		X												X						

Relinquished by: Joe Tyler	Date: 5-5-20	Time: 14:00	Received by: [signature]
Relinquished by: [signature]	Date: 5-15-20	Time: 17:00	Received by: FedEx
Relinquished by:	Date:	Time:	Received by:

Received by: [signature]	Date: 5-15-20	Time: 14:00	
Received by: FedEx	Date: 5-5-20	Time: 17:00	
Received by:	Date:	Time:	

LAB USE ONLY

Sample Temperature

REMARKS:

- [X] Standard
- [ ] RUSH: Same Day 24 hr. 48 hr. 72 hr.
- [ ] Rush Charges Authorized
- [ ] Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

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1.6-.2=1.4 LM LM

Analysis Request of Chain of Custody Record

Page : 3 of 4

Tetra Tech, Inc.

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

Client Name:	Conoco Phillips	**Site Manager:**	Christian Llull
Project Name:	COP Phillips E State 29	**Contact Info:**	Email: christian.llull@tetratech.com Phone: (512) 338-1667
Project Location: (county, state)	Lea County, New Mexico	**Project #:**	212C-MD-02180
Invoice to:	Accounts Payable 901 West Wall Street, Suite 100 Midland, Texas 79701		
Receiving Laboratory:	Pace Analytical	**Sampler Signature:**	Joe Tyler
Comments:	COPTETRA Acctnum		

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING DATE	SAMPLING TIME	MATRIX: WATER	MATRIX: SOIL	MATRIX:	PRESERVATIVE METHOD: HCL	PRESERVATIVE METHOD: HNO_3	PRESERVATIVE METHOD: ICE	PRESERVATIVE METHOD: NONE	PRESERVATIVE METHOD:	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride 300.0	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	TPH 8015R		HOLD
L1219552																																	
15 ~~17~~	BH-4 (2'-3')	05/12/20	1320		X				X			1	N	X		X											X						
16 ~~18~~	BH-4 (4'-5')	05/12/20	1330		X				X			1	N	X		X											X						
17 ~~19~~	BH-4 (6'-7')	05/12/20	1340		X				X			1	N	X		X											X						
18 ~~20~~	BH-4 (9'-10')	05/12/20	1350		X				X			1	N	X		X											X						
19 ~~21~~	BH-5 (0'-1')	05/12/20	1400		X				X			1	N	X		X											X						
20 ~~22~~	BH-5 (2'-3')	05/12/20	1410		X				X			1	N	X		X											X						
21 ~~23~~	BH-5 (4'-5')	05/12/20	1420		X				X			1	N	X		X											X						
22 ~~24~~	BH-5 (6'-7')	05/12/20	1430		X				X			1	N	X		X											X						
23 ~~25~~	BH-5 (9'-10')	05/12/20	1440		X				X			1	N	X		X											X						
24 ~~26~~	BH-6 (0'-1')	05/12/20	1450		X				X			1	N	X		X											X						

Relinquished by: Joe Tyler	Date: 5-15-20	Time: 14:00	Received by: [signature]
Relinquished by: [signature]	Date: 5-15-20	Time: 17:00	Received by: FedEx
Relinquished by:	Date:	Time:	Received by:

ORIGINAL COPY

LAB USE ONLY

Sample Temperature

REMARKS:

- [X] Standard
- [ ] RUSH: Same Day 24 hr. 48 hr. 72 hr.
- [ ] Rush Charges Authorized
- [ ] Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

1.6 - .2 = 1.4 MG

Analysis Request of Chain of Custody Record

Page : 4 of 4

Tetra Tech, Inc.

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

Client Name:	Conoco Phillips	**Site Manager:**	Christian Llull
Project Name:	COP Phillips E State 29	**Contact Info:**	Email: christian.llull@tetratech.com Phone: (512) 338-1667
Project Location: (county, state)	Lea County, New Mexico	**Project #:**	212C-MD-02180
Invoice to:	Accounts Payable 901 West Wall Street, Suite 100 Midland, Texas 79701		
Receiving Laboratory:	Pace Analytical	**Sampler Signature:**	Joe Tyler
Comments:	COPTETRA Acctnum		

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING DATE	SAMPLING TIME	MATRIX: WATER	MATRIX: SOIL	MATRIX:	PRESERVATIVE METHOD: HCL	PRESERVATIVE METHOD: HNO_3	PRESERVATIVE METHOD: ICE	PRESERVATIVE METHOD: NONE	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride 300.0	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	TPH 8015R		HOLD
25 27	BH-6 (2'-3')	05/12/20	1500		X				X		1	N	X		X												X						
26 28	BH-6 (4'-5')	05/12/20	1510		X				X		1	N	X		X												X						
27 29	BH-6 (6'-7')	05/12/20	1520		X				X		1	N	X		X												X						
28 30	BH-6 (9'-10')	05/12/20	1530		X				X		1	N	X		X												X						

Relinquished by: Joe Tyler	Date: 5-15-20	Time: 14:00	Received by: [signature]
Relinquished by: [signature]	Date: 5-15-20	Time: 17:00	Received by: FedEx
Relinquished by:	Date:	Time:	Received by:

ORIGINAL COPY

LAB USE ONLY

Sample Temperature

REMARKS:

- [X] Standard
- [ ] RUSH: Same Day 24 hr. 48 hr. 72 hr.
- [ ] Rush Charges Authorized
- [ ] Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

1.6 - .2 = 1.4 MM AG

Pace Analytical National Center for Testing & Innovation
Cooler Receipt Form

Client:	COPTETRA	L1219552
Cooler Received/Opened On: 5/6/20	Temperature:	1.4
Received By: Paul Minnich		
Signature:		

Receipt Check List	NP	Yes	No
COC Seal Present / Intact?	✓		
COC Signed / Accurate?		✓	
Bottles arrive intact?		✓	
Correct bottles used?		✓	
Sufficient volume sent?		✓	
If Applicable			
VOA Zero headspace?			
Preservation Correct / Checked?			

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

September 29, 2020

ConocoPhillips - Tetra Tech

Sample Delivery Group:	L1264198
Samples Received:	09/19/2020
Project Number:	212C-MD-02180
Description:	COP Phillips E State 29

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

Entire Report Reviewed By:

Chris McCord
Project Manager

TABLE OF CONTENTS

BH-7 (0-1') L1264198-01 Solid

Collected by: John Thurston | Collected date/time: 09/17/20 00:00 | Received date/time: 09/19/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1549369	1	09/27/20 00:36	09/27/20 00:56	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1548045	1	09/23/20 15:51	09/23/20 18:44	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1549977	25	09/17/20 00:00	09/27/20 08:12	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1549442	1	09/17/20 00:00	09/26/20 03:43	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1549651	20	09/27/20 17:19	09/28/20 03:23	DMG	Mt. Juliet, TN

BH-7 (2-3') L1264198-02 Solid

Collected by: John Thurston | Collected date/time: 09/17/20 00:00 | Received date/time: 09/19/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1549369	1	09/27/20 00:36	09/27/20 00:56	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1548045	1	09/23/20 15:51	09/23/20 18:53	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1549980	25	09/17/20 00:00	09/27/20 16:07	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1550224	1	09/17/20 00:00	09/28/20 14:44	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1549651	10	09/27/20 17:19	09/28/20 03:10	DMG	Mt. Juliet, TN

BH-7 (4-5') L1264198-03 Solid

Collected by: John Thurston | Collected date/time: 09/17/20 00:00 | Received date/time: 09/19/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1549370	1	09/26/20 19:23	09/26/20 19:37	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1548045	1	09/23/20 15:51	09/23/20 19:03	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1549980	25	09/17/20 00:00	09/27/20 16:30	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1550224	1	09/17/20 00:00	09/28/20 15:03	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1549651	1	09/27/20 17:19	09/28/20 00:45	DMG	Mt. Juliet, TN

BH-7 (6-7') L1264198-04 Solid

Collected by: John Thurston | Collected date/time: 09/17/20 00:00 | Received date/time: 09/19/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1549370	1	09/26/20 19:23	09/26/20 19:37	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1548045	1	09/23/20 15:51	09/23/20 19:12	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1549980	25	09/17/20 00:00	09/27/20 16:53	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1550224	1	09/17/20 00:00	09/28/20 15:44	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1549651	1	09/27/20 17:19	09/28/20 00:58	DMG	Mt. Juliet, TN

BH-7 (9-10') L1264198-05 Solid

Collected by: John Thurston | Collected date/time: 09/17/20 00:00 | Received date/time: 09/19/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1549370	1	09/26/20 19:23	09/26/20 19:37	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1548045	1	09/23/20 15:51	09/23/20 19:22	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1549980	25	09/17/20 00:00	09/27/20 17:17	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1550224	1	09/17/20 00:00	09/28/20 16:05	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1549651	1	09/27/20 17:19	09/28/20 12:44	DMG	Mt. Juliet, TN

BH-7 (14-15') L1264198-06 Solid

Collected by: John Thurston
Collected date/time: 09/17/20 00:00
Received date/time: 09/19/20 09:00

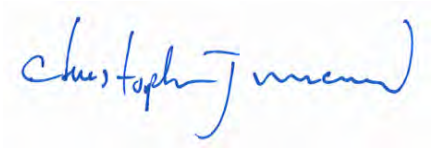
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1549370	1	09/26/20 19:23	09/26/20 19:37	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1548045	1	09/23/20 15:51	09/23/20 19:31	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1549980	25	09/17/20 00:00	09/27/20 17:40	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1550224	1	09/17/20 00:00	09/28/20 16:25	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1549651	1	09/27/20 17:19	09/28/20 01:37	DMG	Mt. Juliet, TN

BH-7 (19-20') L1264198-07 Solid

Collected by: John Thurston
Collected date/time: 09/17/20 00:00
Received date/time: 09/19/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1549370	1	09/26/20 19:23	09/26/20 19:37	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1548045	1	09/23/20 15:51	09/23/20 20:00	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1549980	29	09/17/20 00:00	09/27/20 18:03	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1550224	1.16	09/17/20 00:00	09/28/20 16:46	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1549651	1	09/27/20 17:19	09/28/20 01:51	DMG	Mt. Juliet, TN

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



Chris McCord
Project Manager

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	97.1		1	09/27/2020 00:56	WG1549369

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	168		9.48	20.6	1	09/23/2020 18:44	WG1548045

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		0.576	2.65	25	09/27/2020 08:12	WG1549977
(S) a,a,a-Trifluorotoluene(FID)	*101*			*77.0-120*		*09/27/2020 08:12*	WG1549977

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		0.000496	0.00106	1	09/26/2020 03:43	WG1549442
Toluene	0.00157	J	0.00138	0.00531	1	09/26/2020 03:43	WG1549442
Ethylbenzene	0.00116	J	0.000782	0.00265	1	09/26/2020 03:43	WG1549442
Total Xylenes	0.00682	J	0.000934	0.00690	1	09/26/2020 03:43	WG1549442
(S) Toluene-d8	*100*			*75.0-131*		*09/26/2020 03:43*	WG1549442
(S) 4-Bromofluorobenzene	*94.6*			*67.0-138*		*09/26/2020 03:43*	WG1549442
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*		*09/26/2020 03:43*	WG1549442

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	283		33.2	82.4	20	09/28/2020 03:23	WG1549651
C28-C40 Oil Range	550		5.65	82.4	20	09/28/2020 03:23	WG1549651
(S) o-Terphenyl	*81.7*	J7		*18.0-148*		*09/28/2020 03:23*	WG1549651

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	97.9		1	09/27/2020 00:56	WG1549369

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	108		9.39	20.4	1	09/23/2020 18:53	WG1548045

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		0.571	2.63	25	09/27/2020 16:07	WG1549980
(S) a,a,a-Trifluorotoluene(FID)	*97.5*			*77.0-120*		*09/27/2020 16:07*	WG1549980

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	0.000680	J	0.000491	0.00105	1	09/28/2020 14:44	WG1550224
Toluene	0.00215	J	0.00137	0.00526	1	09/28/2020 14:44	WG1550224
Ethylbenzene	0.00332		0.000775	0.00263	1	09/28/2020 14:44	WG1550224
Total Xylenes	0.00965		0.000926	0.00684	1	09/28/2020 14:44	WG1550224
(S) Toluene-d8	*103*			*75.0-131*		*09/28/2020 14:44*	WG1550224
(S) 4-Bromofluorobenzene	*102*			*67.0-138*		*09/28/2020 14:44*	WG1550224
(S) 1,2-Dichloroethane-d4	*93.6*			*70.0-130*		*09/28/2020 14:44*	WG1550224

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	109		16.4	40.8	10	09/28/2020 03:10	WG1549651
C28-C40 Oil Range	168		2.80	40.8	10	09/28/2020 03:10	WG1549651
(S) o-Terphenyl	*70.3*			*18.0-148*		*09/28/2020 03:10*	WG1549651

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.3		1	09/26/2020 19:37	WG1549370

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	20.1	J	9.55	20.8	1	09/23/2020 19:03	WG1548045

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		0.591	2.72	25	09/27/2020 16:30	WG1549980
(S) a,a,a-Trifluorotoluene(FID)	*96.4*			*77.0-120*		*09/27/2020 16:30*	WG1549980

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		0.000508	0.00109	1	09/28/2020 15:03	WG1550224
Toluene	U		0.00142	0.00544	1	09/28/2020 15:03	WG1550224
Ethylbenzene	U		0.000802	0.00272	1	09/28/2020 15:03	WG1550224
Total Xylenes	0.00213	J	0.000958	0.00708	1	09/28/2020 15:03	WG1550224
(S) Toluene-d8	*103*			*75.0-131*		*09/28/2020 15:03*	WG1550224
(S) 4-Bromofluorobenzene	*101*			*67.0-138*		*09/28/2020 15:03*	WG1550224
(S) 1,2-Dichloroethane-d4	*92.7*			*70.0-130*		*09/28/2020 15:03*	WG1550224

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	4.15	1	09/28/2020 00:45	WG1549651
C28-C40 Oil Range	U		0.284	4.15	1	09/28/2020 00:45	WG1549651
(S) o-Terphenyl	*71.4*			*18.0-148*		*09/28/2020 00:45*	WG1549651

Collected date/time: 09/17/20 00:00

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.0		1	09/26/2020 19:37	WG1549370

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	74.2		10.5	22.7	1	09/23/2020 19:12	WG1548045

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		0.723	3.33	25	09/27/2020 16:53	WG1549980
(S) a,a,a-Trifluorotoluene(FID)	*95.6*			*77.0-120*		*09/27/2020 16:53*	WG1549980

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		0.000622	0.00133	1	09/28/2020 15:44	WG1550224
Toluene	U		0.00173	0.00666	1	09/28/2020 15:44	WG1550224
Ethylbenzene	U		0.000981	0.00333	1	09/28/2020 15:44	WG1550224
Total Xylenes	0.00210	J	0.00117	0.00865	1	09/28/2020 15:44	WG1550224
(S) Toluene-d8	*105*			*75.0-131*		*09/28/2020 15:44*	WG1550224
(S) 4-Bromofluorobenzene	*100*			*67.0-138*		*09/28/2020 15:44*	WG1550224
(S) 1,2-Dichloroethane-d4	*86.7*			*70.0-130*		*09/28/2020 15:44*	WG1550224

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		1.83	4.55	1	09/28/2020 00:58	WG1549651
C28-C40 Oil Range	U		0.311	4.55	1	09/28/2020 00:58	WG1549651
(S) o-Terphenyl	*69.6*			*18.0-148*		*09/28/2020 00:58*	WG1549651

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

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.4		1	09/26/2020 19:37	WG1549370

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	39.1		9.85	21.4	1	09/23/2020 19:22	WG1548045

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		0.639	2.94	25	09/27/2020 17:17	WG1549980
(S) a,a,a-Trifluorotoluene(FID)	*96.1*			*77.0-120*		*09/27/2020 17:17*	WG1549980

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		0.000549	0.00118	1	09/28/2020 16:05	WG1550224
Toluene	U		0.00153	0.00588	1	09/28/2020 16:05	WG1550224
Ethylbenzene	U		0.000867	0.00294	1	09/28/2020 16:05	WG1550224
Total Xylenes	0.00126	J	0.00104	0.00765	1	09/28/2020 16:05	WG1550224
(S) Toluene-d8	*103*			*75.0-131*		*09/28/2020 16:05*	WG1550224
(S) 4-Bromofluorobenzene	*103*			*67.0-138*		*09/28/2020 16:05*	WG1550224
(S) 1,2-Dichloroethane-d4	*92.8*			*70.0-130*		*09/28/2020 16:05*	WG1550224

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	2.10	J	1.72	4.28	1	09/28/2020 12:44	WG1549651
C28-C40 Oil Range	1.81	J	0.293	4.28	1	09/28/2020 12:44	WG1549651
(S) o-Terphenyl	*75.2*			*18.0-148*		*09/28/2020 12:44*	WG1549651

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.8		1	09/26/2020 19:37	WG1549370

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	34.1		9.50	20.7	1	09/23/2020 19:31	WG1548045

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		0.586	2.70	25	09/27/2020 17:40	WG1549980
(S) a,a,a-Trifluorotoluene(FID)	*96.4*			*77.0-120*		*09/27/2020 17:40*	WG1549980

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		0.000504	0.00108	1	09/28/2020 16:25	WG1550224
Toluene	U		0.00140	0.00540	1	09/28/2020 16:25	WG1550224
Ethylbenzene	U		0.000796	0.00270	1	09/28/2020 16:25	WG1550224
Total Xylenes	0.00177	J	0.000950	0.00702	1	09/28/2020 16:25	WG1550224
(S) Toluene-d8	*107*			*75.0-131*		*09/28/2020 16:25*	WG1550224
(S) 4-Bromofluorobenzene	*97.4*			*67.0-138*		*09/28/2020 16:25*	WG1550224
(S) 1,2-Dichloroethane-d4	*85.1*			*70.0-130*		*09/28/2020 16:25*	WG1550224

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		1.66	4.13	1	09/28/2020 01:37	WG1549651
C28-C40 Oil Range	U		0.283	4.13	1	09/28/2020 01:37	WG1549651
(S) o-Terphenyl	*69.6*			*18.0-148*		*09/28/2020 01:37*	WG1549651

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.8		1	09/26/2020 19:37	WG1549370

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	77.6		9.81	21.3	1	09/23/2020 20:00	WG1548045

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		0.706	3.26	29	09/27/2020 18:03	WG1549980
(S) a,a,a-Trifluorotoluene(FID)	*96.8*			*77.0-120*		*09/27/2020 18:03*	WG1549980

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000609	0.00130	1.16	09/28/2020 16:46	WG1550224
Toluene	0.00254	J	0.00170	0.00651	1.16	09/28/2020 16:46	WG1550224
Ethylbenzene	U		0.000960	0.00326	1.16	09/28/2020 16:46	WG1550224
Total Xylenes	0.00228	J	0.00115	0.00847	1.16	09/28/2020 16:46	WG1550224
(S) Toluene-d8	*107*			*75.0-131*		*09/28/2020 16:46*	WG1550224
(S) 4-Bromofluorobenzene	*102*			*67.0-138*		*09/28/2020 16:46*	WG1550224
(S) 1,2-Dichloroethane-d4	*91.3*			*70.0-130*		*09/28/2020 16:46*	WG1550224

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	2.48	J	1.72	4.26	1	09/28/2020 01:51	WG1549651
C28-C40 Oil Range	1.79	J	0.292	4.26	1	09/28/2020 01:51	WG1549651
(S) o-Terphenyl	*68.5*			*18.0-148*		*09/28/2020 01:51*	WG1549651

Method Blank (MB)

(MB) R3575026-1 09/27/20 00:56

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

L1264192-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1264192-04 09/27/20 00:56 • (DUP) R3575026-3 09/27/20 00:56

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	80.2	79.6	1	0.717		10

Laboratory Control Sample (LCS)

(LCS) R3575026-2 09/27/20 00:56

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

Method Blank (MB)

(MB) R3574848-1 09/26/20 19:37

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

L1264199-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1264199-01 09/26/20 19:37 • (DUP) R3574848-3 09/26/20 19:37

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	93.3	93.6	1	0.328		10

Laboratory Control Sample (LCS)

(LCS) R3574848-2 09/26/20 19:37

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	99.9	85.0-115	

Method Blank (MB)

(MB) R3574142-1 09/23/20 17:57

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

L1263805-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1263805-01 09/23/20 18:25 • (DUP) R3574142-3 09/23/20 18:34

Analyte	Original Result mg/kg	DUP Result mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	987	939	5	5.00		20

L1264234-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1264234-01 09/23/20 22:13 • (DUP) R3574142-6 09/23/20 22:22

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) R3574142-2 09/23/20 18:06

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	200	208	104	90.0-110	

L1264199-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1264199-02 09/23/20 20:19 • (MS) R3574142-4 09/23/20 20:28 • (MSD) R3574142-5 09/23/20 20:38

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	536	62.9	617	633	103	106	1	80.0-120			2.70	20

Method Blank (MB)

(MB) R3575588-2 09/27/20 00:09

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	U		0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	*102*			*77.0-120*

Laboratory Control Sample (LCS)

(LCS) R3575588-1 09/26/20 23:24

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.43	98.7	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*105*	*77.0-120*	

QUALITY CONTROL SUMMARY

L1264198-02,03,04,05,06,07

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

Method Blank (MB)

(MB) R3575802-2 09/27/20 13:00

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	0.0467	J	0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	*97.5*			*77.0-120*

Laboratory Control Sample (LCS)

(LCS) R3575802-1 09/27/20 12:14

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.14	93.5	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*105*	*77.0-120*	

L1264198-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1264198-03 09/27/20 16:30 • (MS) R3575802-3 09/27/20 21:57 • (MSD) R3575802-4 09/27/20 22:20

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	114	U	54.1	57.7	47.3	50.5	25	10.0-151			6.43	28
(S) a,a,a-Trifluorotoluene(FID)					*102*	*102*		*77.0-120*				

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

Method Blank (MB)

(MB) R3575767-3 09/25/20 21:15

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	*101*			*75.0-131*
(S) 4-Bromofluorobenzene	*92.4*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*

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

(LCS) R3575767-1 09/25/20 20:00 • (LCSD) R3575767-2 09/25/20 20:18

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	0.103	0.0989	82.4	79.1	70.0-123			4.06	20
Ethylbenzene	0.125	0.109	0.110	87.2	88.0	74.0-126			0.913	20
Toluene	0.125	0.108	0.112	86.4	89.6	75.0-121			3.64	20
Xylenes, Total	0.375	0.320	0.329	85.3	87.7	72.0-127			2.77	20
(S) Toluene-d8				*101*	*108*	*75.0-131*				
(S) 4-Bromofluorobenzene				*96.3*	*83.3*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*109*	*98.9*	*70.0-130*				

Method Blank (MB)

(MB) R3575344-3 09/28/20 10:38

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	*93.3*			*70.0-130*

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

(LCS) R3575344-1 09/28/20 09:15 • (LCSD) R3575344-2 09/28/20 09:36

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	0.125	0.128	100	102	70.0-123			2.37	20
Ethylbenzene	0.125	0.127	0.125	102	100	74.0-126			1.59	20
Toluene	0.125	0.121	0.117	96.8	93.6	75.0-121			3.36	20
Xylenes, Total	0.375	0.386	0.367	103	97.9	72.0-127			5.05	20
(S) Toluene-d8				*101*	*99.2*	*75.0-131*				
(S) 4-Bromofluorobenzene				*105*	*101*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*108*	*107*	*70.0-130*				

Method Blank (MB)

(MB) R3575275-1 09/27/20 22:34

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C10-C28 Diesel Range	U		1.61	4.00
C28-C40 Oil Range	U		0.274	4.00
(S) o-Terphenyl	*76.9*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3575275-2 09/27/20 22:47

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	35.9	71.8	50.0-150	
(S) o-Terphenyl			*78.7*	*18.0-148*	

L1264192-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1264192-01 09/27/20 23:00 • (MS) R3575275-3 09/27/20 23:13 • (MSD) R3575275-4 09/27/20 23:26

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	58.6	U	27.0	28.0	46.1	47.7	1	50.0-150	J6	J6	3.54	20
(S) o-Terphenyl					*50.0*	*49.7*		*18.0-148*				

Guide to Reading and Understanding Your Laboratory Report

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

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

Abbreviations and Definitions

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

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

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 [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas [5]	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

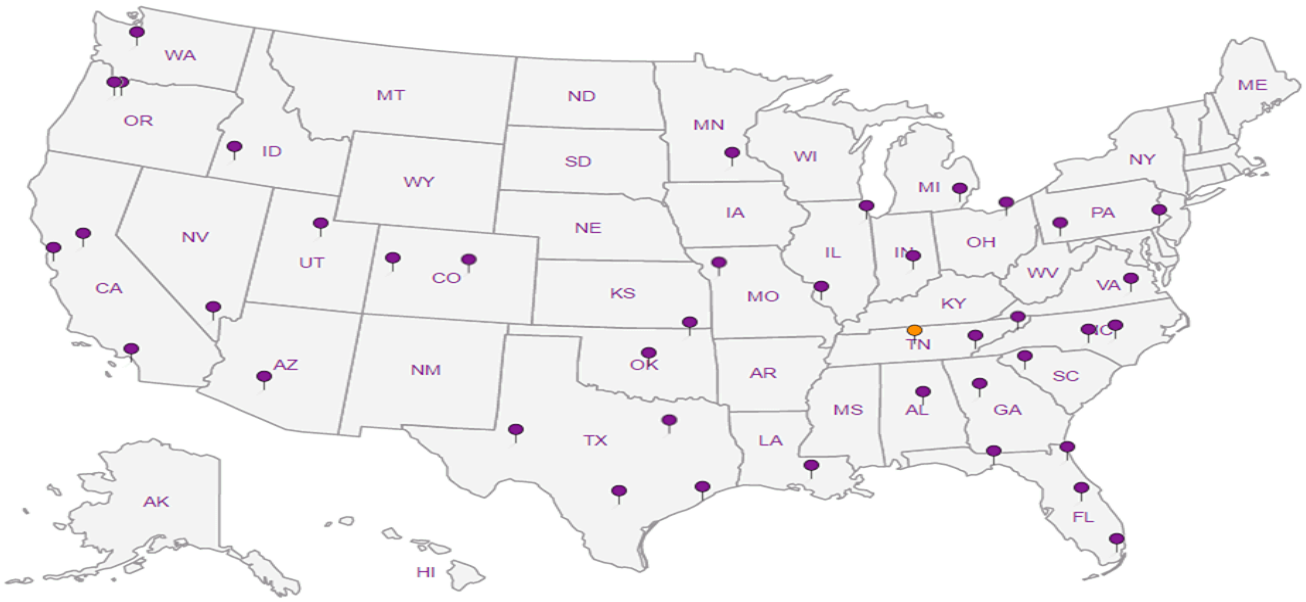
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

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

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

Tetra Tech, Inc.

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

J203

Client Name:	Conoco Phillips	**Site Manager:**	Christian Llull
Project Name:	Phillips E State 29 Flowline Release	**Contact Info:**	Email: christian.llull@tetratech.com Phone: (512) 338-1667
Project Location: (county, state)	Lea County, New Mexico	**Project #:**	212C-MD-02180
Invoice to:	Accounts Payable 901 West Wall Street, Suite 100 Midland, Texas 79701		
Receiving Laboratory:	Pace Analytical	**Sampler Signature:**	John Thurston
Comments:	COPTETRA Acctnum		

ANALYSIS REQUEST
(Circle or Specify Method No.)

L1264198 LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING DATE	SAMPLING TIME	MATRIX: WATER	MATRIX: SOIL	MATRIX:	PRESERVATIVE METHOD: HCL	PRESERVATIVE METHOD: HNO_3	PRESERVATIVE METHOD: ICE	PRESERVATIVE METHOD: NONE	PRESERVATIVE METHOD:	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride 300.0	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	TPH 8015R		HOLD
-01	BH-7 (0-1')	9/17/2020			X				X			1	N	X		X												X						
02	BH-7 (2-3')	9/17/2020			X				X			1	N	X		X												X						
03	BH-7 (4-5')	9/17/2020			X				X			1	N	X		X												X						
04	BH-7 (6-7')	9/17/2020			X				X			1	N	X		X												X						
05	BH-7 (9-10')	9/17/2020			X				X			1	N	X		X												X						
06	BH-7 (14-15')	9/17/2020			X				X			1	N	X		X												X						
07	BH-7 (19-20')	9/17/2020			X				X			1	N	X		X												X						

Relinquished by:	Date: 9/18/20	Time: 1500	Received by:
Relinquished by:	Date:	Time:	Received by:
Relinquished by:	Date:	Time:	Received by: Date: 09/19/2020 Time: 09:00

ORIGINAL COPY

8731 0130 7195

LAB USE ONLY

Sample Temperature

REMARKS:

- [X] Standard
- [ ] RUSH: Same Day 24 hr. 48 hr. 72 hr.
- [ ] Rush Charges Authorized
- [ ] Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

Sample Receipt Checklist

COC Seal Present/Intact: __Y__N
COC Signed/Accurate: Y__N
Bottles arrive intact: Y__N
Correct bottles used: Y__N
RAD Screen <0.5 mR/hr: Y__N

If Applicable
VOA Zero Headspace: __Y__N
Pres.Correct/Check: __Y__N

D.8+.1=0.9

RAD SCREEN: <0.5 mR

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

September 29, 2020

ConocoPhillips - Tetra Tech

Sample Delivery Group:	L1264199
Samples Received:	09/19/2020
Project Number:	212C-MD-02180
Description:	COP Phillips E State 29

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

Entire Report Reviewed By:

Chris McCord
Project Manager

TABLE OF CONTENTS

BH-7 (24-25') L1264199-01 Solid

Collected by: John Thurston | Collected date/time: 09/17/20 00:00 | Received date/time: 09/19/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1549370	1	09/26/20 19:23	09/26/20 19:37	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1548045	1	09/23/20 15:51	09/23/20 20:09	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1549980	25	09/17/20 00:00	09/27/20 18:27	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1550224	1	09/17/20 00:00	09/28/20 17:07	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1549651	1	09/27/20 17:19	09/28/20 02:04	DMG	Mt. Juliet, TN

BH-7 (26-27') L1264199-02 Solid

Collected by: John Thurston | Collected date/time: 09/17/20 00:00 | Received date/time: 09/19/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1549370	1	09/26/20 19:23	09/26/20 19:37	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1548045	1	09/23/20 15:51	09/23/20 20:19	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1549980	41	09/17/20 00:00	09/27/20 18:50	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1550224	1.64	09/17/20 00:00	09/28/20 17:27	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1549651	1	09/27/20 17:19	09/28/20 02:17	DMG	Mt. Juliet, TN

BH-8 (0-1') L1264199-03 Solid

Collected by: John Thurston | Collected date/time: 09/17/20 00:00 | Received date/time: 09/19/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1549370	1	09/26/20 19:23	09/26/20 19:37	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1548045	1	09/23/20 15:51	09/23/20 20:47	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1549980	25	09/17/20 00:00	09/27/20 19:13	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1550046	1	09/17/20 00:00	09/27/20 10:27	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1549651	1	09/27/20 17:19	09/28/20 02:30	DMG	Mt. Juliet, TN

BH-8 (2-3') L1264199-04 Solid

Collected by: John Thurston | Collected date/time: 09/17/20 00:00 | Received date/time: 09/19/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1549370	1	09/26/20 19:23	09/26/20 19:37	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1548045	1	09/23/20 15:51	09/23/20 20:57	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1549980	25	09/17/20 00:00	09/27/20 19:37	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1550046	1	09/17/20 00:00	09/27/20 10:46	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1549651	1	09/27/20 17:19	09/28/20 02:43	DMG	Mt. Juliet, TN

BH-8 (3-4') L1264199-05 Solid

Collected by: John Thurston | Collected date/time: 09/17/20 00:00 | Received date/time: 09/19/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1549370	1	09/26/20 19:23	09/26/20 19:37	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1548045	1	09/23/20 15:51	09/23/20 21:06	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1549980	25	09/17/20 00:00	09/27/20 20:00	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1550046	1	09/17/20 00:00	09/27/20 11:05	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1549651	1	09/27/20 17:19	09/28/20 02:57	DMG	Mt. Juliet, TN

BH-9 (0-1') L1264199-06 Solid

Collected by: John Thurston | Collected date/time: 09/17/20 00:00 | Received date/time: 09/19/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1549371	1	09/28/20 08:43	09/28/20 08:54	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1548045	1	09/23/20 15:51	09/23/20 21:16	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1549980	30.5	09/17/20 00:00	09/27/20 20:23	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1550046	1.22	09/17/20 00:00	09/27/20 11:24	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1549651	2	09/27/20 17:19	09/28/20 12:57	DMG	Mt. Juliet, TN

BH-9 (2-3') L1264199-07 Solid

Collected by: John Thurston | Collected date/time: 09/17/20 00:00 | Received date/time: 09/19/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1549371	1	09/28/20 08:43	09/28/20 08:54	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1548045	1	09/23/20 15:51	09/23/20 21:25	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1549980	25	09/17/20 00:00	09/27/20 20:46	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1550046	1	09/17/20 00:00	09/27/20 11:43	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1550232	1	09/27/20 17:24	09/28/20 10:46	DMG	Mt. Juliet, TN

BH-9 (3-4') L1264199-08 Solid

Collected by: John Thurston | Collected date/time: 09/17/20 00:00 | Received date/time: 09/19/20 09:00

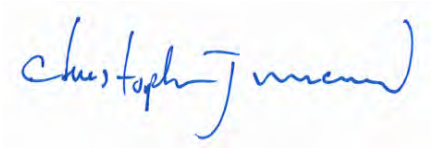
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1549371	1	09/28/20 08:43	09/28/20 08:54	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1548045	1	09/23/20 15:51	09/23/20 21:54	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1549980	25	09/17/20 00:00	09/27/20 21:09	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1550046	1	09/17/20 00:00	09/27/20 12:02	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1550232	1	09/27/20 17:24	09/28/20 07:42	DMG	Mt. Juliet, TN

BH-10 (0-1') L1264199-09 Solid

Collected by: John Thurston | Collected date/time: 09/17/20 00:00 | Received date/time: 09/19/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1549371	1	09/28/20 08:43	09/28/20 08:54	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1548045	1	09/23/20 15:51	09/23/20 22:03	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1549980	32.3	09/17/20 00:00	09/27/20 21:34	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1550046	1.29	09/17/20 00:00	09/27/20 12:21	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1550232	1	09/27/20 17:24	09/28/20 11:12	DMG	Mt. Juliet, TN

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



Chris McCord
Project Manager

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.3		1	09/26/2020 19:37	WG1549370

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	74.9		9.86	21.4	1	09/23/2020 20:09	WG1548045

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		0.621	2.86	25	09/27/2020 18:27	WG1549980
(S) a,a,a-Trifluorotoluene(FID)	*96.7*			*77.0-120*		*09/27/2020 18:27*	WG1549980

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		0.000534	0.00114	1	09/28/2020 17:07	WG1550224
Toluene	U		0.00149	0.00572	1	09/28/2020 17:07	WG1550224
Ethylbenzene	0.00106	J	0.000843	0.00286	1	09/28/2020 17:07	WG1550224
Total Xylenes	0.00198	J	0.00101	0.00743	1	09/28/2020 17:07	WG1550224
(S) Toluene-d8	*105*			*75.0-131*		*09/28/2020 17:07*	WG1550224
(S) 4-Bromofluorobenzene	*98.1*			*67.0-138*		*09/28/2020 17:07*	WG1550224
(S) 1,2-Dichloroethane-d4	*89.5*			*70.0-130*		*09/28/2020 17:07*	WG1550224

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	4.29	1	09/28/2020 02:04	WG1549651
C28-C40 Oil Range	U		0.294	4.29	1	09/28/2020 02:04	WG1549651
(S) o-Terphenyl	*59.2*			*18.0-148*		*09/28/2020 02:04*	WG1549651

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.3		1	09/26/2020 19:37	WG1549370

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	62.9		9.86	21.4	1	09/23/2020 20:19	WG1548045

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		0.993	4.58	41	09/27/2020 18:50	WG1549980
(S) a,a,a-Trifluorotoluene(FID)	*97.3*			*77.0-120*		*09/27/2020 18:50*	WG1549980

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		0.000855	0.00183	1.64	09/28/2020 17:27	WG1550224
Toluene	U		0.00238	0.00915	1.64	09/28/2020 17:27	WG1550224
Ethylbenzene	U		0.00135	0.00458	1.64	09/28/2020 17:27	WG1550224
Total Xylenes	U		0.00161	0.0119	1.64	09/28/2020 17:27	WG1550224
(S) Toluene-d8	*105*			*75.0-131*		*09/28/2020 17:27*	WG1550224
(S) 4-Bromofluorobenzene	*102*			*67.0-138*		*09/28/2020 17:27*	WG1550224
(S) 1,2-Dichloroethane-d4	*88.5*			*70.0-130*		*09/28/2020 17:27*	WG1550224

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	4.29	1	09/28/2020 02:17	WG1549651
C28-C40 Oil Range	U		0.294	4.29	1	09/28/2020 02:17	WG1549651
(S) o-Terphenyl	*53.8*			*18.0-148*		*09/28/2020 02:17*	WG1549651

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	94.6		1	09/26/2020 19:37	WG1549370

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	24.6		9.73	21.1	1	09/23/2020 20:47	WG1548045

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		0.611	2.81	25	09/27/2020 19:13	WG1549980
(S) a,a,a-Trifluorotoluene(FID)	*96.5*			*77.0-120*		*09/27/2020 19:13*	WG1549980

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		0.000525	0.00113	1	09/27/2020 10:27	WG1550046
Toluene	U		0.00146	0.00563	1	09/27/2020 10:27	WG1550046
Ethylbenzene	U		0.000829	0.00281	1	09/27/2020 10:27	WG1550046
Total Xylenes	0.00196	J	0.000990	0.00731	1	09/27/2020 10:27	WG1550046
(S) Toluene-d8	*96.1*			*75.0-131*		*09/27/2020 10:27*	WG1550046
(S) 4-Bromofluorobenzene	*93.2*			*67.0-138*		*09/27/2020 10:27*	WG1550046
(S) 1,2-Dichloroethane-d4	*96.3*			*70.0-130*		*09/27/2020 10:27*	WG1550046

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	2.84	J	1.70	4.23	1	09/28/2020 02:30	WG1549651
C28-C40 Oil Range	11.3		0.290	4.23	1	09/28/2020 02:30	WG1549651
(S) o-Terphenyl	*61.5*			*18.0-148*		*09/28/2020 02:30*	WG1549651

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	97.7		1	09/26/2020 19:37	WG1549370

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	244		9.42	20.5	1	09/23/2020 20:57	WG1548045

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		0.587	2.70	25	09/27/2020 19:37	WG1549980
(S) a,a,a-Trifluorotoluene(FID)	*95.8*			*77.0-120*		*09/27/2020 19:37*	WG1549980

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		0.000504	0.00108	1	09/27/2020 10:46	WG1550046
Toluene	U		0.00140	0.00540	1	09/27/2020 10:46	WG1550046
Ethylbenzene	U		0.000796	0.00270	1	09/27/2020 10:46	WG1550046
Total Xylenes	U		0.000951	0.00702	1	09/27/2020 10:46	WG1550046
(S) Toluene-d8	*99.8*			*75.0-131*		*09/27/2020 10:46*	WG1550046
(S) 4-Bromofluorobenzene	*91.4*			*67.0-138*		*09/27/2020 10:46*	WG1550046
(S) 1,2-Dichloroethane-d4	*85.2*			*70.0-130*		*09/27/2020 10:46*	WG1550046

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		1.65	4.09	1	09/28/2020 02:43	WG1549651
C28-C40 Oil Range	1.55	J	0.280	4.09	1	09/28/2020 02:43	WG1549651
(S) o-Terphenyl	*72.9*			*18.0-148*		*09/28/2020 02:43*	WG1549651

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	97.5		1	09/26/2020 19:37	WG1549370

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	171		9.44	20.5	1	09/23/2020 21:06	WG1548045

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		0.583	2.69	25	09/27/2020 20:00	WG1549980
(S) a,a,a-Trifluorotoluene(FID)	*96.6*			*77.0-120*		*09/27/2020 20:00*	WG1549980

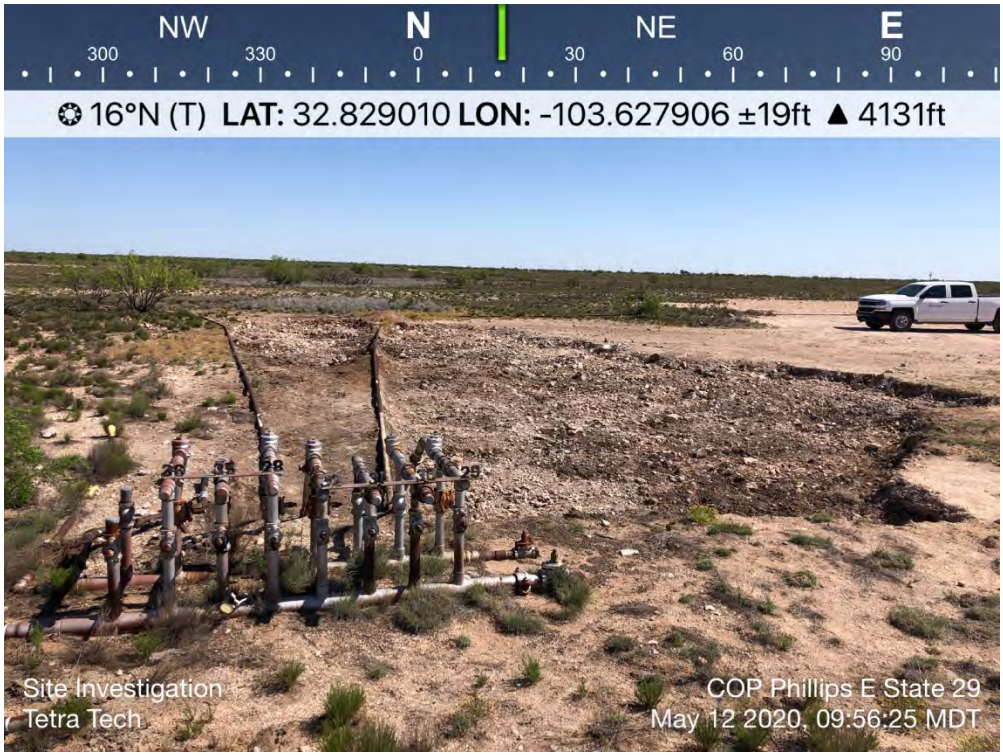
Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000502	0.00107	1	09/27/2020 11:05	WG1550046
Toluene	U		0.00140	0.00537	1	09/27/2020 11:05	WG1550046
Ethylbenzene	U		0.000792	0.00269	1	09/27/2020 11:05	WG1550046
Total Xylenes	U		0.000945	0.00698	1	09/27/2020 11:05	WG1550046
(S) Toluene-d8	*100*			*75.0-131*		*09/27/2020 11:05*	WG1550046
(S) 4-Bromofluorobenzene	*91.4*			*67.0-138*		*09/27/2020 11:05*	WG1550046
(S) 1,2-Dichloroethane-d4	*89.6*			*70.0-130*		*09/27/2020 11:05*	WG1550046

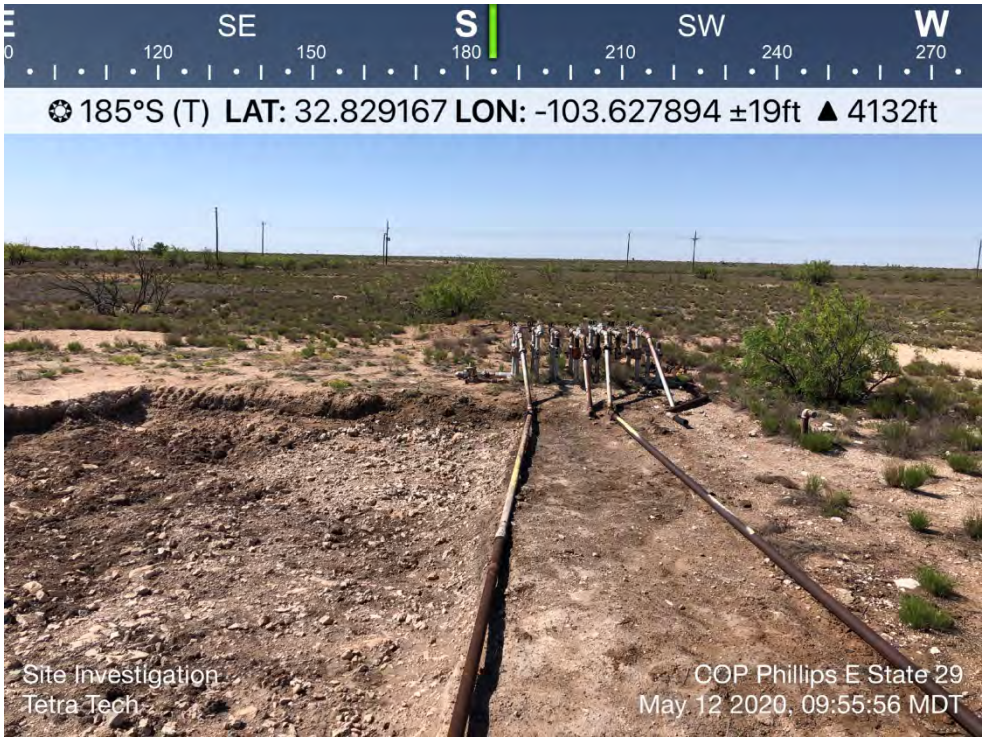
Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.65	4.10	1	09/28/2020 02:57	WG1549651
C28-C40 Oil Range	U		0.281	4.10	1	09/28/2020 02:57	WG1549651
(S) o-Terphenyl	*70.0*			*18.0-148*		*09/28/2020 02:57*	WG1549651

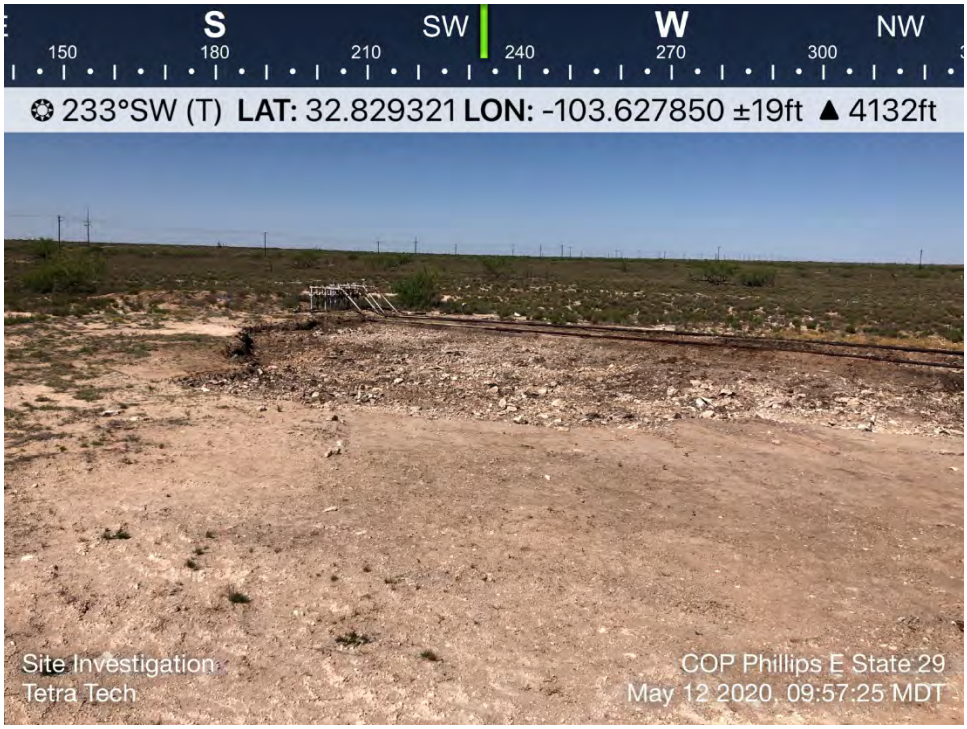
TETRA TECH, INC. PROJECT NO. 212C-MD-02180	DESCRIPTION	View east over excavation at the formerly impacted surface area. Excavated soils and Phillips E State 29 well in background. Site Coordinates: 32.82910°, -103.62790°	1
	SITE NAME	Phillips E State 29 Flowline Release	5/12/2020



TETRA TECH, INC. PROJECT NO. 212C-MD-02180	DESCRIPTION	View north over excavation at the formerly impacted surface area.	2
	SITE NAME	Phillips E State 29 Flowline Release	5/12/2020



TETRA TECH, INC. PROJECT NO. 212C-MD-02180	DESCRIPTION	View south of flowline header and excavation at the formerly impacted surface area.	3
	SITE NAME	Phillips E State 29 Flowline Release	5/12/2020



TETRA TECH, INC. PROJECT NO. 212C-MD-02180	DESCRIPTION	View southwest of flowline header and excavation at the formerly impacted surface area.	4
	SITE NAME	Phillips E State 29 Flowline Release	5/12/2020

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.8		1	09/28/2020 08:54	WG1549371

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		9.81	21.3	1	09/23/2020 21:16	WG1548045

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		0.742	3.42	30.5	09/27/2020 20:23	WG1549980
(S) a,a,a-Trifluorotoluene(FID)	*96.5*			*77.0-120*		*09/27/2020 20:23*	WG1549980

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		0.000639	0.00137	1.22	09/27/2020 11:24	WG1550046
Toluene	U		0.00178	0.00684	1.22	09/27/2020 11:24	WG1550046
Ethylbenzene	U		0.00101	0.00342	1.22	09/27/2020 11:24	WG1550046
Total Xylenes	0.00249	J	0.00120	0.00889	1.22	09/27/2020 11:24	WG1550046
(S) Toluene-d8	*98.5*			*75.0-131*		*09/27/2020 11:24*	WG1550046
(S) 4-Bromofluorobenzene	*90.1*			*67.0-138*		*09/27/2020 11:24*	WG1550046
(S) 1,2-Dichloroethane-d4	*91.2*			*70.0-130*		*09/27/2020 11:24*	WG1550046

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	13.2		3.43	8.53	2	09/28/2020 12:57	WG1549651
C28-C40 Oil Range	42.6		0.584	8.53	2	09/28/2020 12:57	WG1549651
(S) o-Terphenyl	*73.1*			*18.0-148*		*09/28/2020 12:57*	WG1549651

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.4		1	09/28/2020 08:54	WG1549371

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	68.5		9.54	20.7	1	09/23/2020 21:25	WG1548045

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		0.596	2.75	25	09/27/2020 20:46	WG1549980
(S) a,a,a-Trifluorotoluene(FID)	*96.8*			*77.0-120*		*09/27/2020 20:46*	WG1549980

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		0.000513	0.00110	1	09/27/2020 11:43	WG1550046
Toluene	U		0.00143	0.00549	1	09/27/2020 11:43	WG1550046
Ethylbenzene	U		0.000810	0.00275	1	09/27/2020 11:43	WG1550046
Total Xylenes	0.00131	J	0.000967	0.00714	1	09/27/2020 11:43	WG1550046
(S) Toluene-d8	*97.7*			*75.0-131*		*09/27/2020 11:43*	WG1550046
(S) 4-Bromofluorobenzene	*92.8*			*67.0-138*		*09/27/2020 11:43*	WG1550046
(S) 1,2-Dichloroethane-d4	*97.4*			*70.0-130*		*09/27/2020 11:43*	WG1550046

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	3.13	J	1.67	4.15	1	09/28/2020 10:46	WG1550232
C28-C40 Oil Range	6.64		0.284	4.15	1	09/28/2020 10:46	WG1550232
(S) o-Terphenyl	*69.9*			*18.0-148*		*09/28/2020 10:46*	WG1550232

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	97.5		1	09/28/2020 08:54	WG1549371

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	10.3	J	9.43	20.5	1	09/23/2020 21:54	WG1548045

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		0.572	2.63	25	09/27/2020 21:09	WG1549980
(S) a,a,a-Trifluorotoluene(FID)	*96.5*			*77.0-120*		*09/27/2020 21:09*	WG1549980

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		0.000492	0.00105	1	09/27/2020 12:02	WG1550046
Toluene	U		0.00137	0.00527	1	09/27/2020 12:02	WG1550046
Ethylbenzene	U		0.000777	0.00263	1	09/27/2020 12:02	WG1550046
Total Xylenes	U		0.000927	0.00685	1	09/27/2020 12:02	WG1550046
(S) Toluene-d8	*97.4*			*75.0-131*		*09/27/2020 12:02*	WG1550046
(S) 4-Bromofluorobenzene	*94.3*			*67.0-138*		*09/27/2020 12:02*	WG1550046
(S) 1,2-Dichloroethane-d4	*94.7*			*70.0-130*		*09/27/2020 12:02*	WG1550046

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		1.65	4.10	1	09/28/2020 07:42	WG1550232
C28-C40 Oil Range	1.07	J	0.281	4.10	1	09/28/2020 07:42	WG1550232
(S) o-Terphenyl	*69.0*			*18.0-148*		*09/28/2020 07:42*	WG1550232

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.7		1	09/28/2020 08:54	WG1549371

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		9.82	21.4	1	09/23/2020 22:03	WG1548045

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		0.785	3.62	32.3	09/27/2020 21:34	WG1549980
(S) a,a,a-Trifluorotoluene(FID)	*96.6*			*77.0-120*		*09/27/2020 21:34*	WG1549980

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		0.000674	0.00144	1.29	09/27/2020 12:21	WG1550046
Toluene	U		0.00188	0.00722	1.29	09/27/2020 12:21	WG1550046
Ethylbenzene	U		0.00106	0.00362	1.29	09/27/2020 12:21	WG1550046
Total Xylenes	0.00133	J	0.00128	0.00939	1.29	09/27/2020 12:21	WG1550046
(S) Toluene-d8	*98.4*			*75.0-131*		*09/27/2020 12:21*	WG1550046
(S) 4-Bromofluorobenzene	*91.4*			*67.0-138*		*09/27/2020 12:21*	WG1550046
(S) 1,2-Dichloroethane-d4	*92.6*			*70.0-130*		*09/27/2020 12:21*	WG1550046

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	4.93		1.72	4.27	1	09/28/2020 11:12	WG1550232
C28-C40 Oil Range	23.2		0.292	4.27	1	09/28/2020 11:12	WG1550232
(S) o-Terphenyl	*75.2*			*18.0-148*		*09/28/2020 11:12*	WG1550232

Method Blank (MB)

(MB) R3574848-1 09/26/20 19:37

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

L1264199-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1264199-01 09/26/20 19:37 • (DUP) R3574848-3 09/26/20 19:37

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	93.3	93.6	1	0.328		10

Laboratory Control Sample (LCS)

(LCS) R3574848-2 09/26/20 19:37

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	99.9	85.0-115	

Method Blank (MB)

(MB) R3575615-1 09/28/20 08:54

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

L1264199-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1264199-09 09/28/20 08:54 • (DUP) R3575615-3 09/28/20 08:54

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	93.7	94.0	1	0.382		10

Laboratory Control Sample (LCS)

(LCS) R3575615-2 09/28/20 08:54

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

Method Blank (MB)

(MB) R3574142-1 09/23/20 17:57

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

L1263805-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1263805-01 09/23/20 18:25 • (DUP) R3574142-3 09/23/20 18:34

Analyte	Original Result mg/kg	DUP Result mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	987	939	5	5.00		20

L1264234-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1264234-01 09/23/20 22:13 • (DUP) R3574142-6 09/23/20 22:22

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) R3574142-2 09/23/20 18:06

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	200	208	104	90.0-110	

L1264199-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1264199-02 09/23/20 20:19 • (MS) R3574142-4 09/23/20 20:28 • (MSD) R3574142-5 09/23/20 20:38

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	536	62.9	617	633	103	106	1	80.0-120			2.70	20

Method Blank (MB)

(MB) R3575802-2 09/27/20 13:00

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	0.0467	J	0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	*97.5*			*77.0-120*

Laboratory Control Sample (LCS)

(LCS) R3575802-1 09/27/20 12:14

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.14	93.5	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*105*	*77.0-120*	

L1264198-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1264198-03 09/27/20 16:30 • (MS) R3575802-3 09/27/20 21:57 • (MSD) R3575802-4 09/27/20 22:20

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	114	U	54.1	57.7	47.3	50.5	25	10.0-151			6.43	28
(S) a,a,a-Trifluorotoluene(FID)					*102*	*102*		*77.0-120*				

Method Blank (MB)

(MB) R3575793-2 09/27/20 09:29

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	*98.8*			*75.0-131*
(S) 4-Bromofluorobenzene	*91.0*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*92.1*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3575793-1 09/27/20 08:32

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.125	0.106	84.8	70.0-123	
Ethylbenzene	0.125	0.0997	79.8	74.0-126	
Toluene	0.125	0.0984	78.7	75.0-121	
Xylenes, Total	0.375	0.286	76.3	72.0-127	
(S) Toluene-d8			*93.1*	*75.0-131*	
(S) 4-Bromofluorobenzene			*92.6*	*67.0-138*	
(S) 1,2-Dichloroethane-d4			*98.8*	*70.0-130*	

Method Blank (MB)

(MB) R3575344-3 09/28/20 10:38

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	*93.3*			*70.0-130*

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

(LCS) R3575344-1 09/28/20 09:15 • (LCSD) R3575344-2 09/28/20 09:36

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	0.125	0.128	100	102	70.0-123			2.37	20
Ethylbenzene	0.125	0.127	0.125	102	100	74.0-126			1.59	20
Toluene	0.125	0.121	0.117	96.8	93.6	75.0-121			3.36	20
Xylenes, Total	0.375	0.386	0.367	103	97.9	72.0-127			5.05	20
(S) Toluene-d8				*101*	*99.2*	*75.0-131*				
(S) 4-Bromofluorobenzene				*105*	*101*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*108*	*107*	*70.0-130*				

Method Blank (MB)

(MB) R3575275-1 09/27/20 22:34

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C10-C28 Diesel Range	U		1.61	4.00
C28-C40 Oil Range	U		0.274	4.00
(S) o-Terphenyl	*76.9*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3575275-2 09/27/20 22:47

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	35.9	71.8	50.0-150	
(S) o-Terphenyl			*78.7*	*18.0-148*	

L1264192-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1264192-01 09/27/20 23:00 • (MS) R3575275-3 09/27/20 23:13 • (MSD) R3575275-4 09/27/20 23:26

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	58.6	U	27.0	28.0	46.1	47.7	1	50.0-150	J6	J6	3.54	20
(S) o-Terphenyl					*50.0*	*49.7*		*18.0-148*				

Method Blank (MB)

(MB) R3575276-1 09/28/20 06:24

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	*66.1*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3575276-2 09/28/20 06:37

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	36.8	73.6	50.0-150	
(S) o-Terphenyl			*82.3*	*18.0-148*	

L1264200-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1264200-01 09/28/20 06:50 • (MS) R3575276-3 09/28/20 07:03 • (MSD) R3575276-4 09/28/20 07:16

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
C10-C28 Diesel Range	48.6	1.90	40.6	39.4	79.6	76.7	1	50.0-150			3.00	20
(S) o-Terphenyl					*79.9*	*78.4*		*18.0-148*				

Guide to Reading and Understanding Your Laboratory Report

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

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

Abbreviations and Definitions

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

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.

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 [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas [5]	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

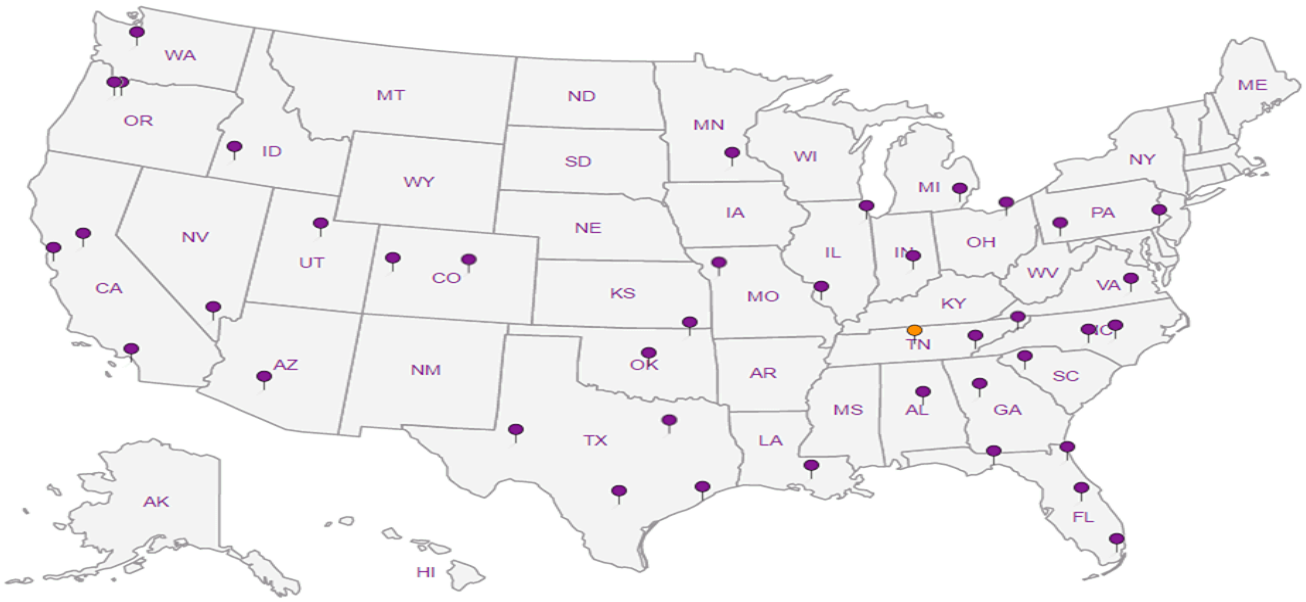
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

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

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

Tetra Tech, Inc.

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

J204

Client Name:	Conoco Phillips	**Site Manager:**	Christian Llull
Project Name:	Phillips E State 29 Flowline Release	**Contact Info:**	Email: christian.llull@tetratech.com Phone: (512) 338-1667
Project Location: (county, state)	Lea County, New Mexico	**Project #:**	212C-MD-02180
Invoice to:	Accounts Payable 901 West Wall Street, Suite 100 Midland, Texas 79701		
Receiving Laboratory:	Pace Analytical	**Sampler Signature:**	John Thurston
Comments:	COPTETRA Acctnum		

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING DATE	SAMPLING TIME	MATRIX: WATER	MATRIX: SOIL	MATRIX:	PRESERVATIVE METHOD: HCL	PRESERVATIVE METHOD: HNO_3	PRESERVATIVE METHOD: ICE	PRESERVATIVE METHOD: NONE	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride 300.0	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	TPH 8015R		HOLD
L1264199																																	
-01	BH-7 (24-25')	9/17/2020			X				X			1	N	X		X												X						
02	BH-7 (26-27')	9/17/2020			X				X			1	N	X		X												X						
03	BH-8 (0-1')	9/17/2020			X				X			1	N	X		X												X						
04	BH-8 (2-3')	9/17/2020			X				X			1	N	X		X												X						
05	BH-8 (3-4')	9/17/2020			X				X			1	N	X		X												X						
06	BH-9 (0-1')	9/17/2020			X				X			1	N	X		X												X						
07	BH-9 (2-3')	9/17/2020			X				X			1	N	X		X												X						
08	BH-9 (3-4')	9/17/2020			X				X			1	N	X		X												X						
09	BH-10 (0-1')	9/17/2020			X				X			1	N	X		X												X						

Relinquished by:	Date: 9/18/20	Time: 1500	Received by:
Relinquished by:	Date:	Time:	Received by:
Relinquished by:	Date:	Time:	Received by: Date: 09/19/2020 Time: 09:00

ORIGINAL COPY

8131 0130 2195

LAB USE ONLY

Sample Temperature

REMARKS:

- [X] Standard
- [ ] RUSH: Same Day 24 hr. 48 hr. 72 hr.
- [ ] Rush Charges Authorized
- [ ] Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

Sample Receipt Checklist

COC Seal Present/Intact: __Y__N
COC Signed/Accurate: __Y__N
Bottles arrive intact: __Y__N
Correct bottles used: __Y__N
RAD Screen <0.5 mR/hr: __Y__N

If Applicable
VOA Zero Headspace: __Y__N
Pres.Correct/Check: __Y__N

D.8+.1=0.9 #03

RAD SCREEN: <0.5 mR/hr

APPENDIX D
Boring Logs

212C-MD-02180 | TETRA TECH | **LOG OF BORING BH-1** | Page 1 of 1

Project Name: Phillips E State 29

Borehole Location: GPS Coordinates: 32.829130°, -103.627873° | Surface Elevation: 4131 ft

Borehole Number: BH-1 | Borehole Diameter (in.): 8 | Date Started: 5/12/2020 | Date Finished: 5/12/2020

WATER LEVEL OBSERVATIONS

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

Remarks:

DEPTH (ft)	OPERATION TYPE	SAMPLE	CHLORIDE FIELD SCREENING (ppm) ExStik	VOC FIELD SCREENING (ppm) PID	SAMPLE RECOVERY (%)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	LIQUID LIMIT LL	PLASTICITY INDEX PI	MINUS NO. 200 (%)	GRAPHIC LOG	MATERIAL DESCRIPTION	DEPTH (ft)	REMARKS
												-- 0'-1' has been previously excavated.	1	
			195	2.8								**-SC-** CLAYEY SAND: Brown, medium dense, no odor, no staining.	3.5	BH-1 (2-3')
5			189	1.4								**-ML-** SANDY SILT: White, dense, calcareous, moderately cemented, with some gravel, no odor, no staining. Interbedded with hard caprock calcrete.		BH-1 (4-5')
			262	1.1										BH-1 (6-7')
10				1.1										BH-1 (9-10')
15				1.3										
20			283	0.9									20	

Bottom of borehole at 20.0 feet.

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

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

Notes:

Surface elevation is an estimated value based on Google Earth. Laboratory analytical sample IDs and intervals are shown in the "Remarks" column.

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

PHILLIPS STATE 29.GPJ ` 7-9-20 ` TT_AUSTIN_GEOTECH_NOWELL3 ` 2015 TT TEMPLATE DECEMBER WELL.GDT ` ` `

Revised 5-16-12 (RHM)

212C-MD-02180 | TETRA TECH | **LOG OF BORING BH-2** | Page 1 of 1

Project Name: Phillips E State 29

Borehole Location: GPS Coordinates: 32.829206°, -103.627867° | Surface Elevation: 4131 ft

Borehole Number: BH-2 | Borehole Diameter (in.): 8 | Date Started: 5/12/2020 | Date Finished: 5/12/2020

WATER LEVEL OBSERVATIONS

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

Remarks:

DEPTH (ft)	OPERATION TYPE	SAMPLE	CHLORIDE FIELD SCREENING (ppm) ExStik	VOC FIELD SCREENING (ppm) PID	SAMPLE RECOVERY (%)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	LIQUID LIMIT LL	PLASTICITY INDEX PI	MINUS NO. 200 (%)	GRAPHIC LOG	MATERIAL DESCRIPTION	DEPTH (ft)	REMARKS
												-- 0'-1' has been previously excavated.	1	
				2.4								**-SC-** CLAYEY SAND: Brown, medium dense, no odor, no staining.	3.5	BH-2 (2-3')
5			188	2.1								**-ML-** SANDY SILT: White, dense, calcareous, moderately cemented, with some gravel, no odor, no staining. Interbedded with hard caprock calcrete.		BH-2 (4-5')
			192	1.2										BH-2 (6-7')
10			141	1.4										BH-2 (9-10')
15				1.8										
20				1.9									20	

Bottom of borehole at 20.0 feet.

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

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

Notes:

Surface elevation is an estimated value based on Google Earth. Laboratory analytical sample IDs and intervals are shown in the "Remarks" column.

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

PHILLIPS STATE 29.GPJ ` 7-9-20 ` TT_AUSTIN_GEOTECH_NOWELL3 ` 2015 TT TEMPLATE DECEMBER WELL.GDT ` ` `

Revised 5-16-12 (RHM)

212C-MD-02180 | TETRA TECH | **LOG OF BORING BH-3** | Page 1 of 1

Project Name: Phillips E State 29

Borehole Location: GPS Coordinates: 32.829205°, -103.627970° | Surface Elevation: 4131 ft

Borehole Number: BH-3 | Borehole Diameter (in.): 8 | Date Started: 5/12/2020 | Date Finished: 5/12/2020

WATER LEVEL OBSERVATIONS

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

Remarks:

DEPTH (ft)	OPERATION TYPE	SAMPLE	CHLORIDE FIELD SCREENING (ppm) ExStik	VOC FIELD SCREENING (ppm) PID	SAMPLE RECOVERY (%)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	LIQUID LIMIT LL	PLASTICITY INDEX PI	MINUS NO. 200 (%)	GRAPHIC LOG	MATERIAL DESCRIPTION	DEPTH (ft)	REMARKS
			394	3.4								**-SC-** CLAYEY SAND: Brown, medium dense, no odor, no staining.		BH-3 (0-1')
			201	0.9										BH-3 (2-3')
													3.5	
5			169	1.1								**-ML-** SANDY SILT: White, dense, calcareous, moderately cemented, with some gravel, no odor, no staining. Interbedded with hard caprock calcrete.		BH-3 (4-5')
			180	1.4										BH-3 (6-7')
10			99.8	1									10	BH-3 (9-10')

Bottom of borehole at 10.0 feet.

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

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

Notes:

Surface elevation is an estimated value based on Google Earth. Laboratory analytical sample IDs and intervals are shown in the "Remarks" column.

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

PHILLIPS STATE 29.GPJ ` 7-9-20 ` TT_AUSTIN_GEOTECH_NOWELL3 ` 2015 TT TEMPLATE DECEMBER WELL.GDT ` ` `

Revised 5-16-12 (RHM)

212C-MD-02180 | TETRA TECH | **LOG OF BORING BH-4** | Page 1 of 1

Project Name: Phillips E State 29

Borehole Location: GPS Coordinates: 32.829055°, -103.627858° | Surface Elevation: 4131 ft

Borehole Number: BH-4 | Borehole Diameter (in.): 8 | Date Started: 5/12/2020 | Date Finished: 5/12/2020

WATER LEVEL OBSERVATIONS

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

Remarks:

DEPTH (ft)	OPERATION TYPE	SAMPLE	CHLORIDE FIELD SCREENING (ppm) ExStik	VOC FIELD SCREENING (ppm) PID	SAMPLE RECOVERY (%)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	LIQUID LIMIT LL	PLASTICITY INDEX PI	MINUS NO. 200 (%)	GRAPHIC LOG	MATERIAL DESCRIPTION	DEPTH (ft)	REMARKS
			160	2.1								**-SC-** CLAYEY SAND: Brown, medium dense, no odor, no staining.		BH-4 (0-1')
			278	0.9									3.5	BH-4 (2-3')
5			212	1.8								**-ML-** SANDY SILT: White, dense, calcareous, moderately cemented, with some gravel, no odor, no staining. Interbedded with hard caprock calcrete.		BH-4 (4-5')
			198	0.9										BH-4 (6-7')
10			181	1.1									10	BH-4 (9-10')

Bottom of borehole at 10.0 feet.

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

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

Notes:

Surface elevation is an estimated value based on Google Earth. Laboratory analytical sample IDs and intervals are shown in the "Remarks" column.

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

PHILLIPS STATE 29.GPJ ` 7-9-20 ` TT_AUSTIN_GEOTECH_NOWELL3 ` 2015 TT TEMPLATE DECEMBER WELL.GDT ` ` `

Revised 5-16-12 (RHM)

212C-MD-02180 | TETRA TECH | **LOG OF BORING BH-5** | Page 1 of 1

Project Name: Phillips E State 29

Borehole Location: GPS Coordinates: 32.829322°, -103.627902° | Surface Elevation: 4131 ft

Borehole Number: BH-5 | Borehole Diameter (in.): 8 | Date Started: 5/12/2020 | Date Finished: 5/12/2020

WATER LEVEL OBSERVATIONS

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

Remarks:

DEPTH (ft)	OPERATION TYPE	SAMPLE	CHLORIDE FIELD SCREENING (ppm) ExStik	VOC FIELD SCREENING (ppm) PID	SAMPLE RECOVERY (%)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	LIQUID LIMIT LL	PLASTICITY INDEX PI	MINUS NO. 200 (%)	GRAPHIC LOG	MATERIAL DESCRIPTION	DEPTH (ft)	REMARKS
			212	2.4								**-SC-** CLAYEY SAND: Brown, medium dense, no odor, no staining.		BH-5 (0-1')
			154	1.4										BH-5 (2-3')
													3.5	
5			109	1.1								**-ML-** SANDY SILT: White, dense, calcareous, moderately cemented, with some gravel, no odor, no staining. Interbedded with hard caprock calcrete.		BH-5 (4-5')
			141	0.9										BH-5 (6-7')
10			210	1.5									10	BH-5 (9-10')

Bottom of borehole at 10.0 feet.

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

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

Notes:

Surface elevation is an estimated value based on Google Earth. Laboratory analytical sample IDs and intervals are shown in the "Remarks" column.

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

212C-MD-02180 | TETRA TECH | **LOG OF BORING BH-6** | Page 1 of 1

Project Name: Phillips E State 29

Borehole Location: GPS Coordinates: 32.829150°, -103.627771° | Surface Elevation: 4131 ft

Borehole Number: BH-6 | Borehole Diameter (in.): 8 | Date Started: 5/12/2020 | Date Finished: 5/12/2020

WATER LEVEL OBSERVATIONS

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

Remarks:

DEPTH (ft)	OPERATION TYPE	SAMPLE	CHLORIDE FIELD SCREENING (ppm) ExStik	VOC FIELD SCREENING (ppm) PID	SAMPLE RECOVERY (%)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	LIQUID LIMIT LL	PLASTICITY INDEX PI	MINUS NO. 200 (%)	GRAPHIC LOG	MATERIAL DESCRIPTION	DEPTH (ft)	REMARKS
			125	1.1								**-SC-** CLAYEY SAND: Brown, medium dense, no odor, no staining.		BH-6 (0-1')
			113	1.8										BH-6 (2-3')
													3.5	
5			101	2.1								**-ML-** SANDY SILT: White, dense, calcareous, moderately cemented, with some gravel, no odor, no staining. Interbedded with hard caprock calcrete.		BH-6 (4-5')
			97.3	1.2										BH-6 (6-7')
10			91.7	0.9									10	BH-6 (9-10')

Bottom of borehole at 10.0 feet.

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

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

Notes:

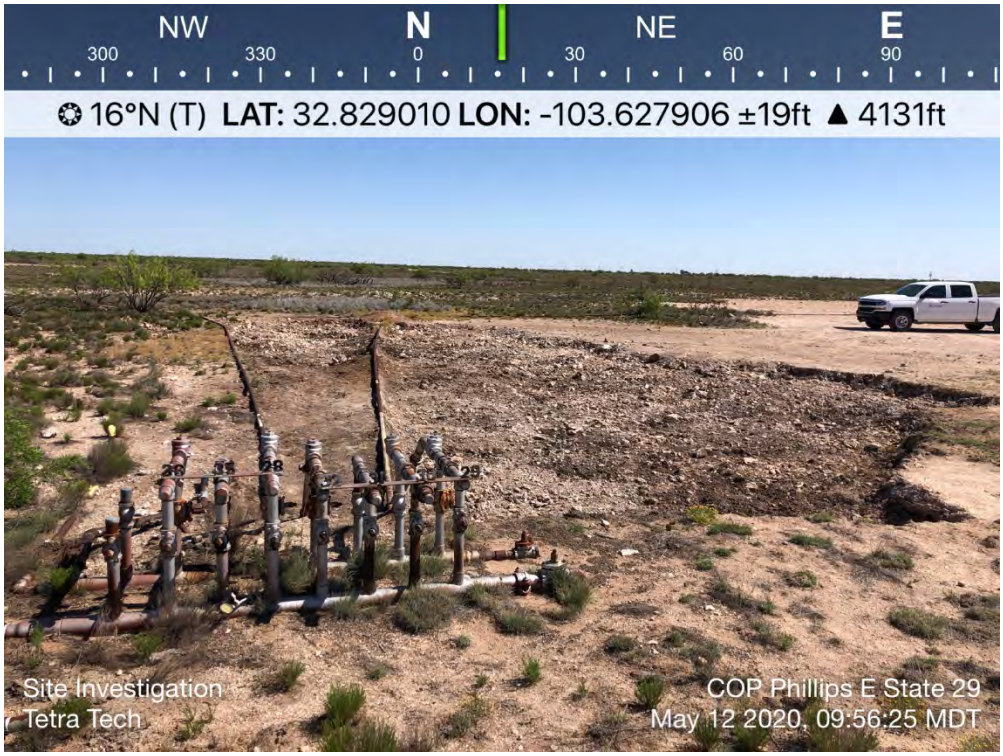
Surface elevation is an estimated value based on Google Earth. Laboratory analytical sample IDs and intervals are shown in the "Remarks" column.

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

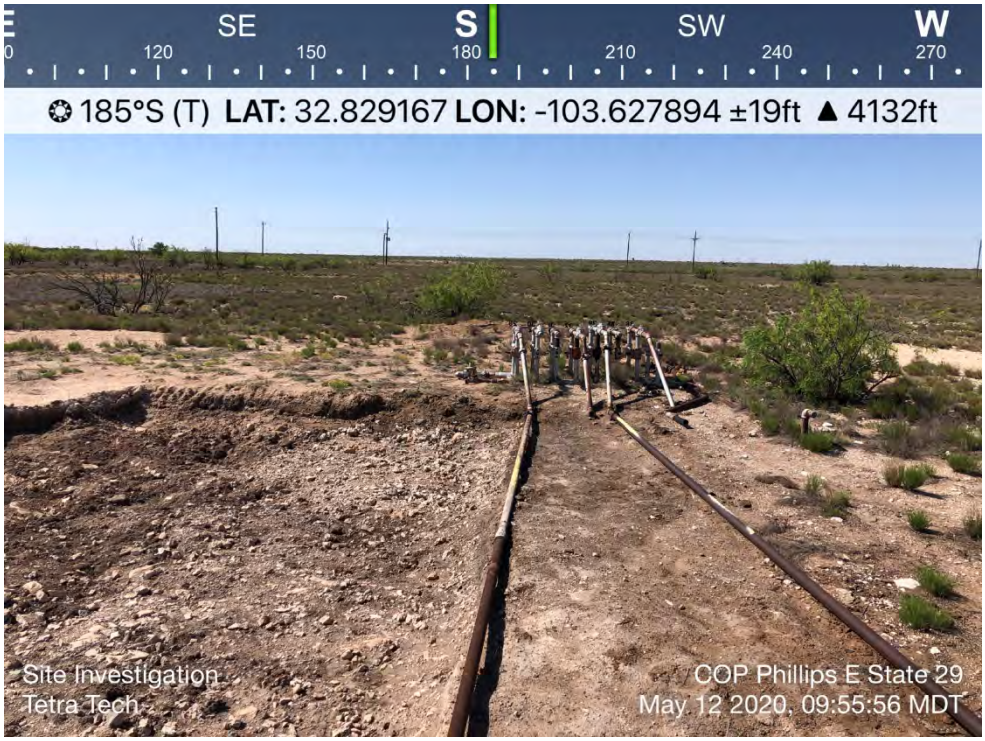
PHILLIPS STATE 29.GPJ `7-9-20`, TT_AUSTIN_GEOTECH_NOWELL3 `2015 TT TEMPLATE DECEMBER WELL.GDT`` Revised 5-16-12 (RHM)

APPENDIX E
Photographic Documentation

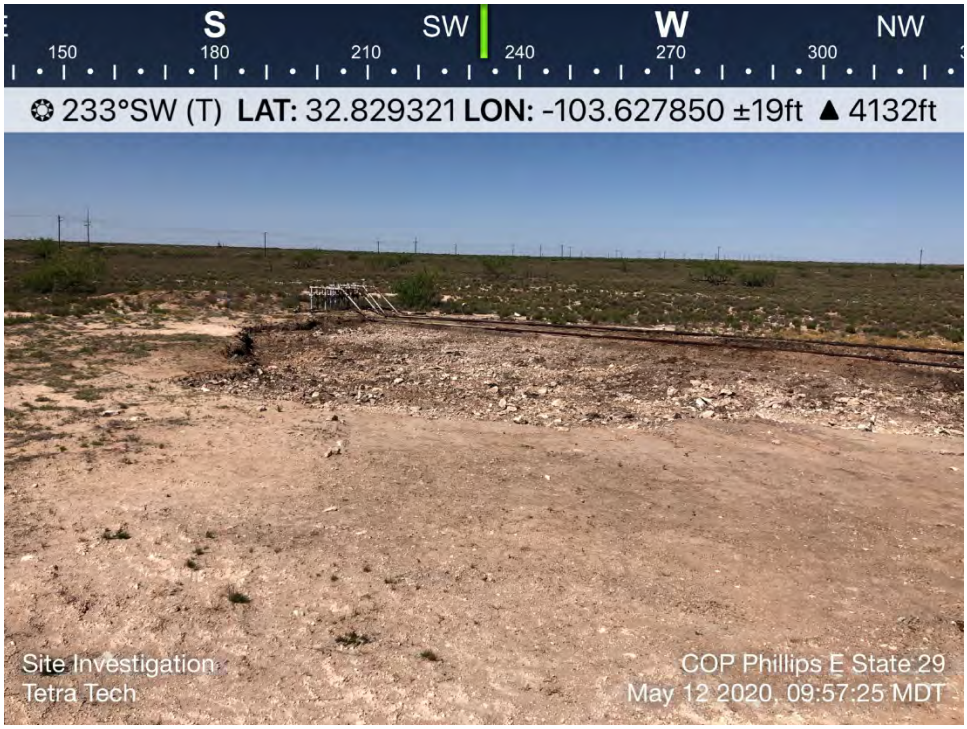
TETRA TECH, INC. PROJECT NO. 212C-MD-02180	DESCRIPTION	View east over excavation at the formerly impacted surface area. Excavated soils and Phillips E State 29 well in background. Site Coordinates: 32.82910°, -103.62790°	1
	SITE NAME	Phillips E State 29 Flowline Release	5/12/2020



TETRA TECH, INC. PROJECT NO. 212C-MD-02180	DESCRIPTION	View north over excavation at the formerly impacted surface area.	2
	SITE NAME	Phillips E State 29 Flowline Release	5/12/2020



TETRA TECH, INC. PROJECT NO. 212C-MD-02180	DESCRIPTION	View south of flowline header and excavation at the formerly impacted surface area.	3
	SITE NAME	Phillips E State 29 Flowline Release	5/12/2020



TETRA TECH, INC. PROJECT NO. 212C-MD-02180	DESCRIPTION	View southwest of flowline header and excavation at the formerly impacted surface area.	4
	SITE NAME	Phillips E State 29 Flowline Release	5/12/2020

APPENDIX F
NMSLO Seed Mixture Details

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Lea County, New Mexico

July 1, 2020

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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Contents

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map

Map Scale: 1:1,500 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 20 40 80 120

Feet: 0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 13N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features

- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Lea County, New Mexico
Survey Area Data: Version 17, Jun 8, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Sep 18, 2016—Nov 20, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
KO	Kimbrough gravelly loam, dry, 0 to 3 percent slopes	0.2	100.0%
Totals for Area of Interest		**0.2**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Lea County, New Mexico

KO—Kimbrough gravelly loam, dry, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2tw43
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, dry, and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kimbrough, Dry

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
Natural 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 in profile: 95 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 1.0
Available water storage in profile: 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: Very Shallow 12-17" PZ (R077DY049TX)
Hydric soil rating: No

Minor Components

Eunice

Percent of map unit: 10 percent
Landform: Plains
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: Very Shallow 12-17" PZ (R077DY049TX)
Hydric soil rating: No

Spraberry

Percent of map unit: 6 percent
Landform: Plains, playa rims
Down-slope shape: Linear, convex
Across-slope shape: Linear
Ecological site: Very Shallow 12-17" PZ (R077DY049TX)
Hydric soil rating: No

Kenhill

Percent of map unit: 4 percent
Landform: Plains
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: Clay Loam 12-17" PZ (R077DY038TX)
Hydric soil rating: No

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NMSLO Seed Mix Sandy Loam (SL)

SANDY LOAM (SL) SITES SEED MIXTURE:

COMMON NAME	VARIETY	APPLICATION RATE (PLS/Acre)	DRILL BOX
Grasses:			
Galleta grass	Viva, VNS, So.	2.5	F
Little bluestem	Cimmaron, Pastura	2.5	F
Blue grama	Hachita, Lovington	2.0	D
Sideoats grama	Vaughn, El Reno	2.0	F
Sand dropseed	VNS, Southern	1.0	S
Forbs:			
Indian blanketflower	VNS, Southern	1.0	D
Parry penstemon	VNS, Southern	1.0	D
Blue flax	Appar	1.0	D
Desert globemallow	VNS, Southern	1.0	D
Shrubs:			
Fourwing saltbush	VNS, Southern	2.0	D
Common winterfat	VNS, Southern	1.0	F
Apache plume	VNS, Southern	0.75	F
	Total PLS/acre	17.75	

S = Small seed drill box, D = Standard seed drill box, F = Fluffy seed drill box

- VNS, Southern – No Variety Stated, seed should be from a southern latitude collection of this species.
- Double above seed rates for broadcast or hydroseeding.
- If Parry penstemon is not available, substitute firecracker penstemon.
- If desert globemallow is not available, substitute scarlet globemallow or Nelson globemallow.
- If a species is not available, provide a suggested substitute to the New Mexico Land Office for approval. Increasing all other species proportionately may be acceptable.

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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 10801

CONDITIONS OF APPROVAL

Operator:	OGRID:	Action Number:	Action Type:
CONOCOPHILLIPS COMPANY P.O.Box 2197 Office SP2-12-W156 Houston, TX77252	217817	10801	C-141

OCD Reviewer	Condition
ceads	For areas around sample points SP #1-4 and BH-4, the minimum depth of excavation will be 3.5' below ground surface.
ceads	For the proposed 3' excavation area, samples will not represent more than 200 square feet.
ceads	Samples collected from the existing excavation will need to be collected from at least 6" from the surface for floor and sidewall samples.