



September 16, 2022

District Supervisor  
Oil Conservation Division, District 1  
1625 N. French Dr  
Hobbs, NM 88240

**Re: Closure Report - Revised  
ConocoPhillips (Heritage Concho)  
Phillips State #1 (Heater Treater Release)  
API # 30-025-30956  
Unit Letter O, Section 17, Township 21 South, Range 35 East  
Lea County, New Mexico  
Incident ID nOY1733235874  
1RP-4883**

Sir or Madam:

Tetra Tech, Inc. (Tetra Tech) was contacted by ConocoPhillips Company (ConocoPhillips) to complete remedial actions at the Phillips State #1 (API No. 30-025-30956) as a result of a of heater treater release (Site), located approximately fourteen miles west of Eunice in Lea County, New Mexico, as shown on Figures 1 and 2.

## BACKGROUND

The Heritage Concho Phillips State #1 is located at approximately 32.4744949°, -103.3875351° in Public Land Survey System (PLSS) Unit Letter O, Section 17, Township 21 South, and Range 35 East. Based on information provided by COP representatives, the well and associated lease pad are located on land leased by the Merchant Livestock Company (MLSCO). The well itself is plugged. A review of the online imaging database maintained by the NMOCD indicates that one open release incident is associated with the well. The C-141 for the open release is included in Appendix A.

According to the State of New Mexico Oil Conservation Division (NMOCD) C-141 Initial Report, the release occurred on November 26, 2017, due to a hole that developed on the bottom of the heater treater. Approximately 3 barrels (bbls) of oil and 13 bbls of produced water were released inside of the unlined earthen berms surrounding the heater treater, and no free liquids were recovered during initial response actions. The NMOCD approved the initial C-141 on November 28, 2017, and subsequently assigned the release the Incident ID nOY1733235874 and the Remediation Permit (RP) Number 1RP-4883.

Previous assessment and remediation work was conducted at the Heater Treater Release Site and documented in a *Remediation Summary and Risk-Based Site Closure Request* (Closure Request) that was submitted to NMOCD in September 2018. This Closure Request is documented as approved in the NMOCD imaging database for the incident. Remediation of a portion of the nOY1733235874 release extent immediately around the heater treater equipment was approved for deferral until abandonment of the facility. A copy of the closure request is included in Appendix B.

## 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

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municipal boundaries, subsurface mines, or floodplains are located within the distances specified in 19.15.09 New Mexico Administrative Code (NMAC). The Site is in an area of low karst potential.

According to the New Mexico Office of the State Engineers (NMOSE) reporting system, there is one (1) documented well within 800 meters (approximately ½ mile) of the Site that was drilled to 200 feet bgs with no groundwater encountered. The average depth to groundwater based on data from three (3) water wells located within 3,600 meters (approximately 2.25 miles) of the Site is 126 feet below ground surface (bgs). The site characterization data is included in Appendix C.

## REGULATORY FRAMEWORK

Based upon the release footprint location and in accordance with Subsection E of 19.15.29.12 NMAC, per 19.15.29.11 NMAC, the site characterization data was used to determine recommended remedial action levels (RRALs) for benzene, toluene, ethylbenzene, and xylene (collectively referred to as BTEX), total petroleum hydrocarbons (TPH), and chlorides in soil.

Based on the site characterization and in accordance with Table I of 19.15.29.12 NMAC, the remediation RRALs for the Site are as follows:

Constituent	RRAL
Chloride	10,000 mg/kg
TPH (GRO+DRO+ORO)	2,500 mg/kg
BTEX	50 mg/kg
Benzene	10 mg/kg

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

Constituent	Reclamation Requirements
Chloride	600 mg/kg
TPH (GRO+DRO+ORO)	100 mg/kg

## SUMMARY OF PREVIOUS ASSESSMENT AND REMEDIATION ACTIVITIES

On February 7, 2018, Concho Resources (COG) submitted via email a *Soil Investigation Summary and Proposed Remediation Workplan* dated January 23, 2018 (*Workplan*), to NMOCD, proposing remedial actions to address the release. The remedial actions proposed included excavating the impacted soil within the release extent and at sample location North @ 6" to a depth of 10 inches bgs, or until field tests indicated soil concentrations below the Site RRALs. Confirmation floor and sidewall samples were proposed for collection at approximate fifty-foot increments. The Workplan was approved via email dated February 19, 2018, with the condition that the additional delineation sample locations proposed for collection during the proposed excavation be collected at two depth intervals.

Remediation activities commenced at the Site on March 8, 2018, per the approved Workplan. A *Remediation Summary and Permission to Backfill Request* dated June 26, 2018, was submitted to NMOCD following the remedial actions taken at the Site between March and July 2018. In response, NMOCD requested additional sampling to complete delineation of the release in the vicinity of sample locations Floor 1 and Floor 2. On July 25, 2018, two (2) soil samples (SP #1b @ 2' and SP #2b @ 3.5') were successfully collected from the floor of the excavation.

The final confirmation sampling results were below the Site RRALs for all constituents except for the floor samples, which both exceeded the TPH RRAL of 100 mg/kg. An *Amended Remediation Summary and Permission to Backfill Request* dated August 7, 2018 was submitted to NMOCD, summarizing the



assessment and remediation activities taken at the Site. In this report, COG requested permission to backfill the open excavation and also requested deferral of the TPH impacts at the base of the excavation until abandonment of the facility, citing safety concerns for the onsite production equipment. These areas include the sample locations SP #1 @ 10"-R (5,337 mg/kg TPH and 1,520 mg/kg chloride), North @ 6" (687 mg/kg chloride), FL-1 (2,933.4 mg/kg TPH and 1,260 mg/kg chloride), FL-2 (1,125.6 mg/kg TPH and 968 mg/kg chloride), and ESWb (3,890.9 mg/kg TPH), as shown in the final closure report/deferral request in Appendix B. The NMOCD approved the report and granted permission to backfill on August 21, 2018. Concurrence from the New Mexico State Land Office (NMSLO) was provided via email dated August 29, 2018. Regulatory correspondence is found in the incident file on the NMOCD imaging database.

Thus, on August 30, 2018, the excavation was backfilled with locally sourced, non-impacted, like material and contoured to meet the needs of the facility. The final dimensions of the excavated area were approximately 45 feet in length by 35 feet in width, with depths ranging from 1 to 3 feet bgs. Approximately 120 cubic yards of contaminated soils were transported to R360 Halfway facility in Hobbs, NM for disposal.

In September 2018 the Closure Request summarizing the assessment and remediation activities performed at the Site was submitted to NMOCD (Appendix B). On November 6, 2018, NMOCD approved the site for closure, with remaining impacted soils to be left in place under the active production equipment until abandonment of the facility.

## REMEDATION ACTIVITIES AND CONFIRMATION SAMPLING

Based upon the NMOCD approval of the aforementioned *Remediation Summary and Risk-Based Site Closure Request*, the remaining Site impacts would be addressed at time of abandonment, retrofit or inactivity. From February 21 – March 2, 2022, Tetra Tech personnel were onsite to supervise the additional remediation activities at the former heater treater release area, including excavation, disposal, and confirmation sampling. Prior to confirmation sampling, in accordance with Subsection D of 19.15.29.12 NMAC, the NMOCD division district office was notified via email on February 25, 2022. Documentation of associated regulatory correspondence is included in Appendix D. Impacted soils were excavated until a representative sample from the walls and bottom of the excavation had a field screening value inferred as lower than the RRALs for the Site.

Once field screening was completed, confirmation floor and sidewall samples were collected for laboratory analysis to verify that the impacted materials were properly removed. Each confirmation sample laboratory analytical result was directly compared to the proposed RRALs to demonstrate compliance. Confirmation samples were collected from the former heater treater area such that each discrete sample (sidewall and floor) were representative of no more than 200 square feet of excavated area. A total of three (3) floor sample locations and six (6) sidewall sample locations were collected during the remedial activities. Confirmation sidewall sample locations were labeled with "SW"- "A"-# with preceding cardinal directions (N/S/E/W or C for central), and confirmation floor sample locations were labeled with "FS"- "A"-#. Excavated areas, depths and confirmation sample locations are shown in Figure 3.

Collected confirmation samples were placed into laboratory-provided sample containers, transferred under chain-of-custody, and analyzed within appropriate holding times by Cardinal Laboratories in Hobbs, New Mexico. The soil samples were analyzed for TPH (DRO and ORO) by EPA Method 8015, TPH Low Fraction (GRO) by EPA Method 8015D, BTEX by EPA Method 8260B, and chlorides by EPA Method SM4500Cl-B. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix E.

Based on the results of the prior assessment and remediation activities and confirmation sampling results, the previously deferred impacted heater treater area was excavated from 3 to 5 feet below existing grade. All confirmation soil samples (floor and sidewall) were below the respective RRALs and reclamation requirements for chloride, BTEX, and TPH. The results of the February 2022 confirmation sampling events are summarized in Table 1.

All the excavated material was transported offsite for proper disposal. Approximately 545 cubic yards of material from the former heater treater release area and other pad areas were transported to the R360

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facility in Hobbs, New Mexico. Photographs from the excavated areas prior to backfill are provided in Appendix F. Once confirmation sampling activities were completed and associated analytical results were below the RRALs, the excavated areas were backfilled with clean material to surface grade. Copies of the waste manifests are included in Appendix G.

## SITE RECLAMATION AND RESTORATION

Final pad reclamation activities were conducted at the Site from April 11-29, 2022 in coordination with the MLSCO. Approximately 1,989 CY of clean topsoil were brought in to grade the former pad site to conform to the surrounding landform, while controlling erosion. After the Site was backfilled and graded, it was seeded to establish vegetation. Based on the soils at the site, the New Mexico State Land Office (NMSLO) Loamy (L) Sites Seed Mixture was used for seeding and was planted in the amount specified in the pounds pure live seed (PLS) per acre.

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. Photographic documentation of the reclamation activities and final landform are presented in Appendix F.

## CONCLUSION

The well is plugged, and the facility is abandoned. The former heater treater release area and other pad areas identified in the October 2021 assessment were remediated following NMOCD guidelines and the former pad was reclaimed in coordination with the MLSCO in April, 2022.

NMOCD has previously granted closure for the remediation which occurred in 2018 for nOY1733235874/1RP-4883. The remaining impacts identified for deferral at that time were to be addressed at time of abandonment, retrofit, or inactivity. However, incident 1RP-4883 is still open due to the area deferred for remediation. This closure report details the final remediation of the deferred release site (former heater treater area) and the results of the confirmation sampling.

ConocoPhillips respectfully requests closure of this release based on the confirmation sampling results and remediation activities performed. The final C-141 forms are enclosed in Appendix A. If you have any questions concerning the remediation activities performed at the Site, please call me at (512) 739-7874 or Christian at (512) 338-2861.

Sincerely,  
**Tetra Tech, Inc.**



Samantha Abbott, P.G.  
Project Manager



Christian M. Llull, P.G.  
Program Manager

cc: Mr. Ike Tavaréz, RMR – ConocoPhillips

## LIST OF ATTACHMENTS

### Figures:

- Figure 1 – Overview Map
- Figure 2 – Topographic Map
- Figure 3 – Remediation Extent and Confirmation Sampling Map – Deferred Heater Treater Release Area

### Tables:

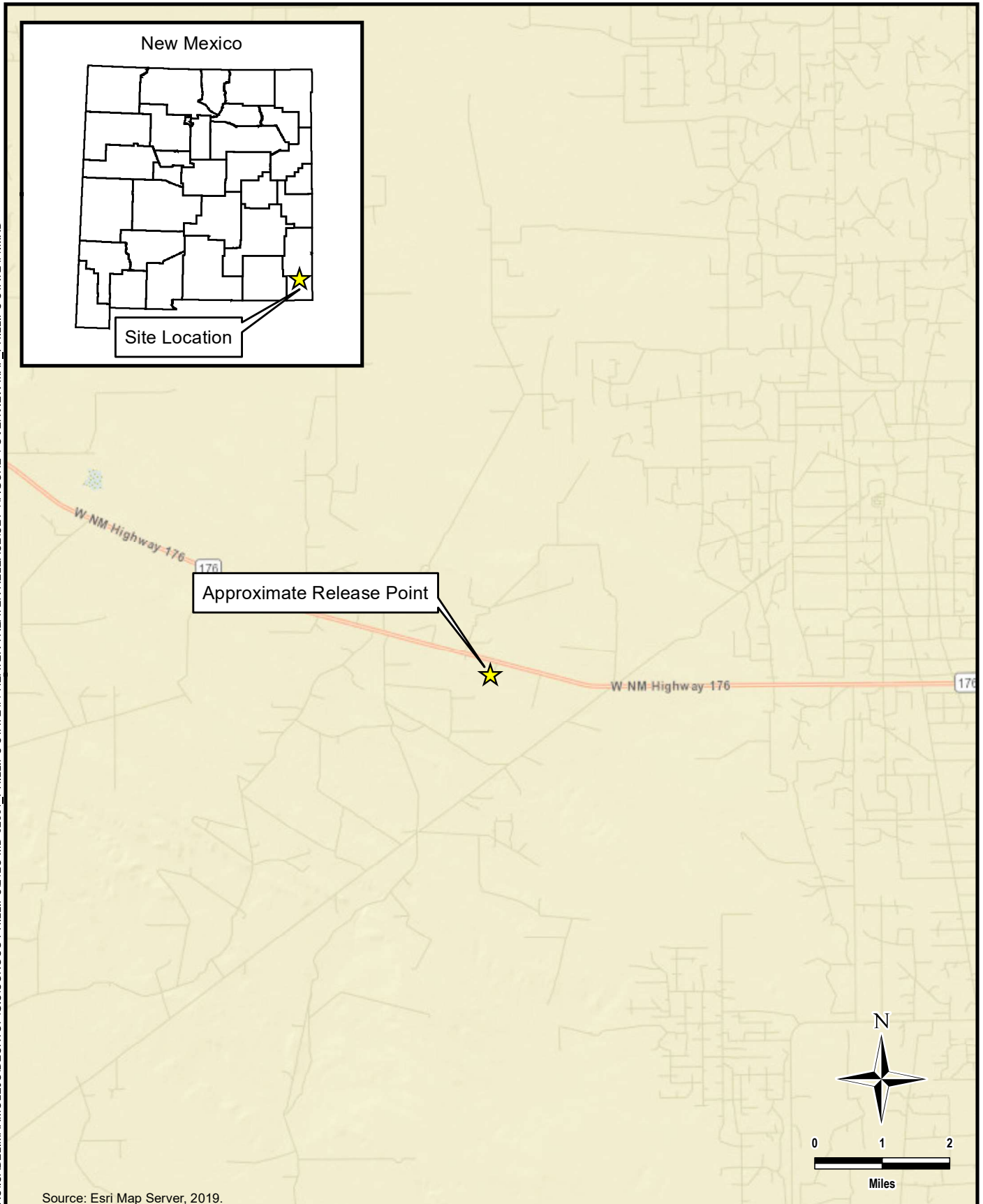
- Table 1 – Summary of Analytical Results – Site Remediation

### Appendices:

- Appendix A – C-141 Forms
- Appendix B – Closure Request (September 2018)
- Appendix C – Site Characterization Data
- Appendix D – Regulatory Correspondence
- Appendix E – Laboratory Analytical Data
- Appendix F – Photographic Documentation
- Appendix G – Waste Manifests

## **FIGURES**

DOCUMENT PATH: C:\USERS\ISABEL.MARMOLEJO\DESKTOP\GIS\CONOCO PHILLIPS\212C-MD-02601\_Phillips State #1 Heater Treater Release\SET 1\FIGURE 1 OVERVIEW MAP\_Phillips State #1.MXD

**TETRA TECH**

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**CONOCOPHILLIPS**

HERITAGE CONCHO / INCIDENT ID # NOY1733235874  
(32.4744949°, -103.3875351°)  
LEA COUNTY, NEW MEXICO

**PHILLIPS STATE #1 HEATER TREATER RELEASE  
OVERVIEW MAP**

PROJECT NO.: 212C-MD-02601

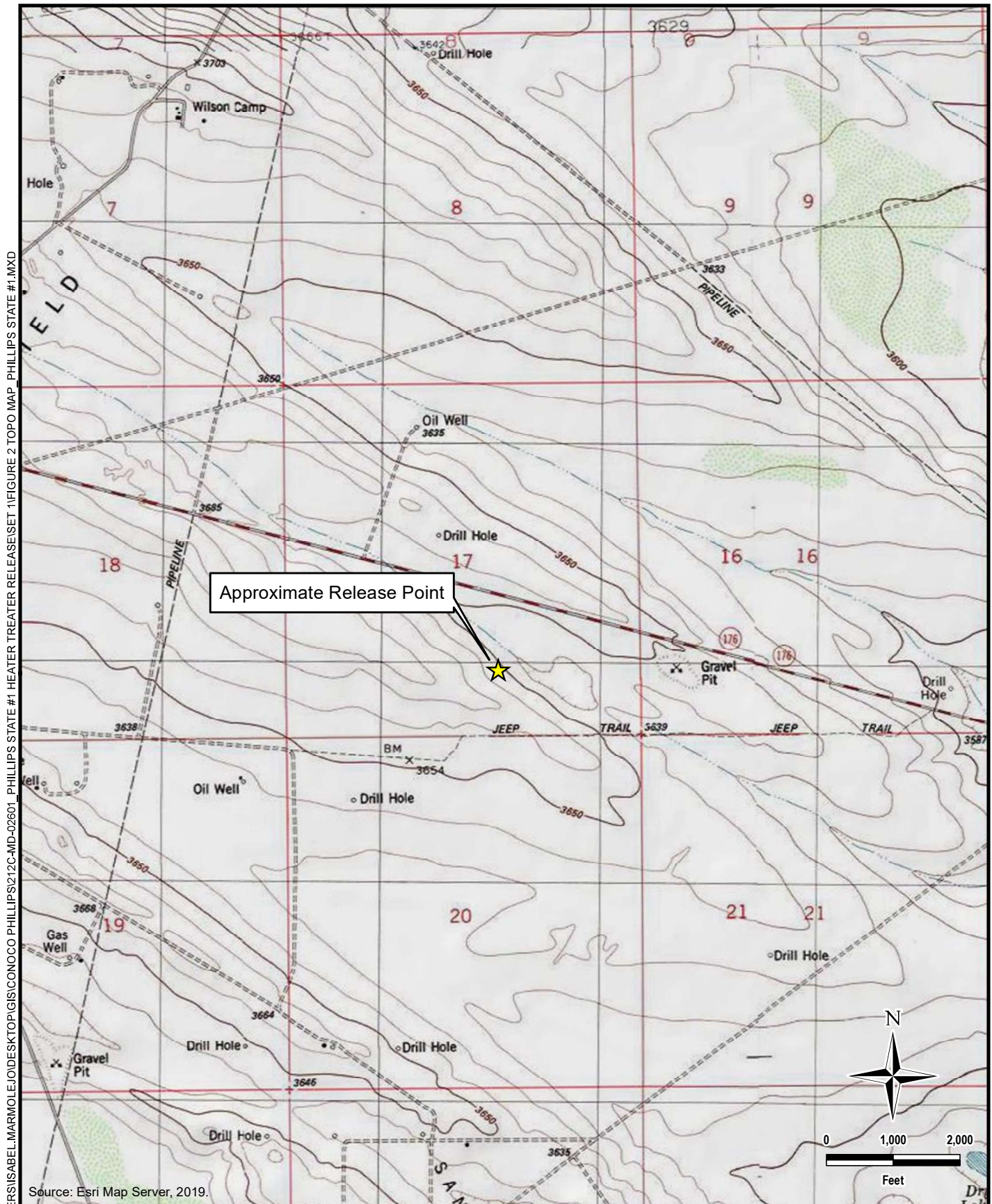
DATE: MARCH 09, 2022

DESIGNED BY: IM

Figure No.

**1**





**TETRA TECH**

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**CONOCOPHILLIPS**

HERITAGE CONCHO / INCIDENT ID # NOY1733235874  
(32.4744949°, -103.3875351°)  
LEA COUNTY, NEW MEXICO

**PHILLIPS STATE #1 HEATER TREATER RELEASE  
TOPOGRAPHIC MAP**

PROJECT NO.: 212C-MD-02601

DATE: MARCH 09, 2022

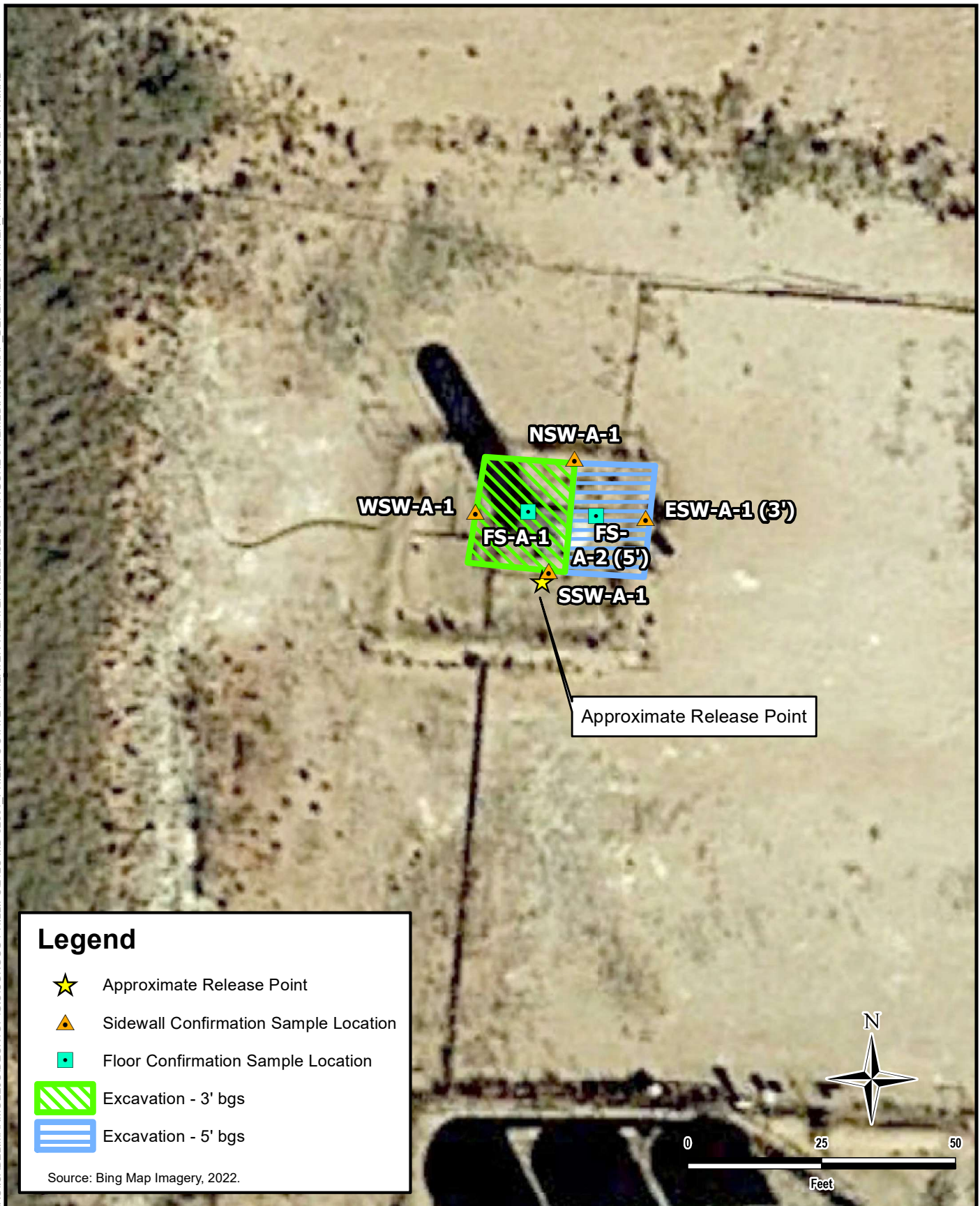
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Figure No.

**2**



DOCUMENT PATH: C:\USERS\ISABEL.MARMOLEJO\DESKTOP\GIS\CONOCO PHILLIPS\212C-MD-02601 - PHILLIPS STATE #1 HEATER TREATER RELEASE\SET 1\FIGURE 3 REMEDIATION MAP - DEFERRED HT AREA - PHILLIPS STATE #1 HT.MXD

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**CONOCOPHILLIPS**

HERITAGE CONCHO / INCIDENT ID # NOY1733235874  
(32.4744949°, -103.3875351°)  
LEA COUNTY, NEW MEXICO

**PHILLIPS STATE #1 HEATER TREATER RELEASE  
REMEDATION EXTENT AND CONFIRMATION SAMPLING MAP  
- DEFERRED HEATER TREATER RELEASE AREA**

PROJECT NO.: 212C-MD-02601

DATE: APRIL 05, 2022

DESIGNED BY: IM

Figure No.

**3**

## **TABLES**

TABLE 1  
SUMMARY OF ANALYTICAL RESULTS  
SOIL REMEDIATION - NOY1733235874  
HERITAGE CONCHO  
PHILLIPS STATE #1  
LEA COUNTY, NM

Sample ID	Sample Date	Sample Depth	Chloride <sup>1</sup>	BTEX <sup>2</sup>						TPH <sup>3</sup>						Total TPH (GRO+DRO+EXT DRO) mg/kg				
				Benzene		Toluene		Ethylbenzene		Total Xylenes		Total BTEX		GRO			DRO		EXT DRO	
				mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q		mg/kg	Q	mg/kg	Q
				FORMER HEATER TREATER DEFERMENT AREA																
FS-A-1	2/23/2022	3	528	<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		25.5		<10.0		25.5
FS-A-2	2/23/2022	3	704	<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		97.9		15.3		113
FS-A-2 (5)*	2/25/2022	5	32.0	<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		ND
NSW-A-1	2/23/2022	-	336	<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		ND
ESW-A-1	2/23/2022	-	576	<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		109		10.7		120
ESW-A-1 (3)*	2/25/2022	-	64.0	<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		ND
SSW-A-1	2/23/2022	-	352	<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		ND
WSW-A-1	2/23/2022	-	112	<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		ND
WSW-A-2	2/25/2022	-	64.0	<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		ND

## NOTES:

ft. Feet

bgs Below ground surface

mg/kg Milligrams per kilogram

TPH Total Petroleum Hydrocarbons

GRO Gasoline range organics

DRO Diesel range organics

1 Method SW4500C-B

2 Method 802.1B

3 Method 801.5M

ND Nondetect

**Bold and italicized values indicate exceedance of proposed Remediation RGLs and/or Reclamation Requirements.**

Gold highlight represents soil horizons that were removed during deepening of excavation floors.

Green highlight represents soil intervals that were removed during horizontal expansion of excavation sidewalls.

\* These iterative samples are located to encompass the original sample location that triggered removal, with further excavation in each area indicated in ( ).

## QUALIFIERS:

## **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

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

Form C-141  
Revised April 3, 2017

Submit 1 Copy to appropriate District Office in  
accordance with 19.15.29 NMAC.

## Release Notification and Corrective Action

### OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: <b>COG Operating, LLC (OGRID# 229137)</b>	Contact: <b>Robert McNeill</b>
Address: <b>600 West Illinois Avenue, Midland TX 79701</b>	Telephone No.: <b>432-683-7443</b>
Facility Name: <b>Phillips State #001</b>	Facility Type: <b>Tank Battery</b>

Surface Owner: <b>State</b>	Mineral Owner: <b>State</b>	API No.: <b>30-025-30956</b>
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### LOCATION OF RELEASE

Unit Letter <b>O</b>	Section <b>17</b>	Township <b>21S</b>	Range <b>35E</b>	Feet from the <b>990</b>	North/South Line <b>South</b>	Feet from the <b>1980</b>	East/West Line <b>East</b>	County <b>Lea</b>
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Latitude: 32.4744949 Longitude: -103.3875351 NAD83

### NATURE OF RELEASE

Type of Release: <b>Oil and Produced Water</b>	Volume of Release: <b>3bbls Oil &amp; 13bbls PW</b>	Volume Recovered: <b>0bbls oil &amp; 0bbls PW</b>
Source of Release: <b>Heater Treater</b>	Date and Hour of Occurrence: <b>11/26/2017</b>	Date and Hour of Discovery: <b>11/26/2017 9:00am</b>
Was Immediate Notice Given? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour:	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*

**RECEIVED**

**By Olivia Yu at 9:59 am, Nov 28, 2017**

Describe Cause of Problem and Remedial Action Taken.\*

The heater treater developed a hole in the bottom of the vessel. The vessel will be evaluated for repair or replacement.

Describe Area Affected and Cleanup Action Taken.\*

The release remained inside of the unlined earthen berms surrounding the heater treater. Concho will have the spill area evaluated for any possible impact from the release and we will present a remediation work plan to the NMOCD for approval prior to any significant remediation activities.

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

Signature: <i>Sheldon Hitchcock</i>		<b>OIL CONSERVATION DIVISION</b>	
Printed Name: <b>Sheldon L. Hitchcock</b>		Approved by Environmental Specialist: <i>oy</i>	
Title: <b>HSE Coordinator</b>		Approval Date: <b>11/28/2017</b> Expiration Date:	
E-mail Address: <b>slhitchcock@concho.com</b>		Conditions of Approval:	
Date: <b>11/27/2017</b> Phone: <b>575-746-2010</b>		Attached <input checked="" type="checkbox"/> <b>see attached directive</b>	

\* Attach Additional Sheets If Necessary

**1RP-4883**

**nOY1733235874**

**pOY1733236190**



Operator/Responsible Party,

The OCD has received the form C-141 you provided on \_11/27/2017\_ regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number \_1RP-4883\_ has been assigned. **Please refer to this case number in all future correspondence.**

It is the Division's obligation under both the Oil & Gas Act and Water Quality Act to provide for the protection of public health and the environment. Our regulations (19.15.29.11 NMAC) state the following,

*The responsible person shall complete division-approved corrective action for releases that endanger public health or the environment. The responsible person shall address releases in accordance with a remediation plan submitted to and approved by the division or with an abatement plan submitted in accordance with 19.15.30 NMAC. [emphasis added]*

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. **As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District \_1\_ office in \_\_Hobbs\_\_ on or before \_12/28/2017\_. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.**

The goals of a characterization effort are: 1) determination of the lateral and vertical extents along with the magnitude of soil contamination. 2) determine if groundwater or surface waters have been impacted. 3) If groundwater or surface waters have been impacted, what are the extents and magnitude of that impact. 4) The characterization of any other adverse impacts that may have occurred (examples: impacts on vegetation, impacts on wildlife, air quality, loss of use of property, etc.). To meet these goals as quickly as possible, the following items must, at a minimum, be addressed in the release characterization workplan and subsequent reporting:

- Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C<sub>6</sub> thru C<sub>36</sub>), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.
- Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C<sub>6</sub> thru C<sub>36</sub>), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.
- Nominal detection limits for field and laboratory analyses must be provided.
- Composite sampling is not generally allowed.
- Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted



for laboratory analysis from each borehole or test pit (highest observed contamination and deepest depth investigated). Copies of the actual laboratory results must be provided including chain of custody documentation.

- Probable depth to shallowest protectable groundwater and lateral distance to nearest surface water. If there is an estimate of groundwater depth, the information used to arrive at that estimate must be provided. If there is a reasonable assumption that the depth to protectable water is 50 feet or less, the responsible party should anticipate the need for at least one groundwater monitoring well to be installed in the area of likely maximum contamination.

- If groundwater contamination is encountered, an additional investigation workplan may be required to determine the extents of that contamination. Groundwater and/or surface water samples, if any, must be analyzed by a competent laboratory for volatile organic hydrocarbons (typically Method 8260 full list), total dissolved solids, pH, major anions and cations including chloride and sulfate, dissolved iron, and dissolved manganese. The investigation workplan must provide the groundwater sampling method(s) and sample handling protocols. To the fullest extent possible, aqueous analyses must be undertaken using nominal method detection limits. As with the soil analyses, copies of the actual laboratory results must be provided including chain of custody documentation.

- Accurately scaled and well-drafted site maps must be provided providing the location of borings, test pits, monitoring wells, potentially impacted areas, and significant surface features including roads and site infrastructure that might limit either the release characterization or remedial efforts. Field sketches may be included in subsequent reporting, but should not be considered stand-alone documentation of the site's layout. Digital photographic documentation of the location and fieldwork is recommended, especially if unusual circumstances are encountered.

**Nothing herein should be interpreted to preclude emergency response actions or to imply immediate remediation by removal cannot proceed as warranted. Nonetheless, characterization of impacts and confirmation of the effectiveness of remedial efforts must still be provided to the OCD before any release incident will be closed.**

**Jim Griswold**

OCD Environmental Bureau Chief  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505  
505-476-3465  
jim.griswold@state.nm.us

Incident ID	nOY1733235874
District RP	1RP-4883
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?	<u>126</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

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

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

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

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

State of New Mexico  
Oil Conservation Division

Page 4

Incident ID	nOY1733235874
District RP	1RP-4883
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: Ike Tavarez \_\_\_\_\_ Title: Program Manager, Remediation \_\_\_\_\_

Signature:  \_\_\_\_\_ Date: 5/31/2022 \_\_\_\_\_

email: Ike.Tavarez@conocophillips.com \_\_\_\_\_ Telephone: 432-701-8630 \_\_\_\_\_

**OCD Only**

Received by: Jocelyn Harimon \_\_\_\_\_ Date: 09/16/2022 \_\_\_\_\_

Incident ID	nOY1733235874
District RP	1RP-4883
Facility ID	
Application ID	


## Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

**Closure Report Attachment Checklist:** *Each of the following items must be included in the closure report.*

- ☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- ☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- ☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- ☒ Description of remediation activities


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. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Ike Tavaréz Title: Program Manager, Remediation  
Signature:  Date: 5/31/2022  
email: Ike.Tavaréz@conocophillips.com Telephone: 432-701-8630

**OCD Only**

Received by: Jocelyn Harimon Date: 09/16/2022

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by:  Date: 9/19/2022  
Printed Name: Brittany Hall Title: Environmental Specialist

## **APPENDIX B**

### **Closure Request (September 2018)**

**APPROVED**

**By Olivia Yu at 3:36 pm, Nov 06, 2018**

NMOCD grants closure to the remediated area for 1RP-4883 and deferral for the identified section to be addressed at time of abandonment, retrofit, or inactivity.

## **REMEDICATION SUMMARY AND RISK-BASED SITE CLOSURE REQUEST**

**COG Operating, LLC  
Phillips State #001  
Lea County, New Mexico  
Unit Letter "O", Section 17, Township 21 South, Range 35 East  
Latitude 32.4744949° North, Longitude 103.3875351° West  
NMOCD Reference No. 1RP-4883**

Prepared For:

**COG Operating, LLC  
600 W Illinois Avenue  
Midland, Texas 79701**

Prepared By:

**TRC Environmental Corporation  
10 Desta Drive, Suite 150E  
Midland, Texas 79705**

**September 2018**



Joel Lowry  
Senior Project Manager



Curt Stanley  
Senior Project Manager



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Appendix B – Photographs

Appendix C – Release Notification and Corrective Action (Form C-141)

## INTRODUCTION & BACKGROUND INFORMATION

TRC Environmental Corporation (TRC), on behalf of COG Operating, LLC (COG), has prepared this *Remediation Summary and Risk-Based Soil Closure Request* for the Site known as Phillips State #001. The legal description of the Site is Unit Letter "O", Section 17, Township 21 South, Range 35 East, in Lea County, New Mexico. The subject property is owned by the State of New Mexico and administered by New Mexico State Land Office (NMSLO). The GPS coordinates for the site are N 32.4744949° W 103.3875351°. Please reference Figure 1 for the Site Location Map and Figure 2 for the Site & Sample Location Map.

On November 26, 2017, COG discovered a release had occurred at the Phillips State #001. The release was attributed to the heater treater developing a hole in the bottom of the vessel, resulting in the release of approximately thirteen (13) barrels (bbls) of produced water and three (3) bbls of crude oil, with no recovery. The release affected an area within the earthen containment measuring approximately four hundred (400) square feet (sq. ft.) Upon discovering the release, the NMOCD and NMSLO were notified. A copy of the Form C-141 is provided in Appendix C.

A groundwater database maintained by The New Mexico Office of the State Engineer (NMOSE) did not identify any registered water wells in Section 17, Township 21 South, Range 35 East. A reference map utilized by the NMOCD Carlsbad District Office indicated groundwater should be encountered at approximately seventy-five (75) feet below ground surface (bgs.). Based on the NMOCD site classification system, ten (10) points will be assigned to the subject area ranking as a result of this criterion.

No water wells were observed within one-thousand (1,000) feet of the Release Site. Based on the NMOCD site classification system, zero (0) points will be assigned to the subject area ranking as a result of this criterion.

No surface water was observed within one-thousand (1,000) feet of the release. Based on the NMOCD site classification system, zero (0) points will be assigned to the subject area ranking as a result of this criterion.

The NMOCD guidelines indicate the Phillips State #001 Release Site has a ranking score of ten (10). Recommended Remediation Action Levels (RRAL) for a site with a ranking score of ten (10) points are as follows:

- Benzene – 10 mg/kg
- Benzene, toluene, ethylbenzene, and xylenes (BTEX) – 50 mg/kg
- Total Petroleum Hydrocarbons (TPH) – 1,000 mg/kg
- Chloride – 600 mg/kg

## INITIAL INVESTIGATION AND PROPOSED REMEDIATION WORKPLAN

On December 21, 2017, TRC conducted an initial investigation at the Release Site. During the initial investigation, a hand-augured soil bore (SP #1) was advanced within the release margins in an effort to determine the vertical extent of soil impacts. During the advancement of the soil bore an impenetrable rock layer was encountered at approximately the (10) inches bgs. One (1) soil

sample (SP #1 @ 10"-R) was collected and submitted to Xenco Laboratories in Lubbock, Texas for determination of TPH, BTEX, and chloride utilizing Method SW 846-8015M, Method SW 846-8021B, and Method 300/300.1. Laboratory analytical results indicated a TPH concentration of 5,337 mg/kg, a BTEX concentration of 56.03 mg/kg, and a chloride concentration of 1,520 mg/kg. TPH, BTEX, and chloride concentrations were above NMOCD Recommended Remediation Action Levels (RRAL). Collection of additional soil samples from deeper intervals was precluded due to presence of an impenetrable rock layer.

In addition, TRC collected four (4) soil samples (North @ 6", South @ 6", East @ 6" and West @ 6") from the edges of the inferred release margins and submitted them to the laboratory for analysis of BTEX, TPH and chloride. Laboratory analytical results indicated benzene, BTEX, TPH and chloride concentrations were less than NMOCD RRAL in each of the submitted soil samples with the exception of soil sample North @ 6", which exhibited a TPH concentration of 1.435 mg/kg and chloride concentration of 687 mg/kg. Soil sample locations are depicted in Figure 2 – Site and Sample Location Map. Laboratory analytical results are summarized in Table 1 - Concentrations of Benzene, BTEX, TPH and Chloride in Soil. Laboratory analytical reports are provided in Appendix A.

On February 7, 2018, COG submitted a *Soil Investigation Summary and Proposed Remediation Workplan (Workplan)* to the NMOCD and NMSLO, proposing the following remediation activities designed to advance the site toward an approved closure:

- Utilizing mechanical equipment, excavate impacted soil within the release margins to a depth of greater than ten (10) inches (in.) bgs., or until field test results indicate impacted soil affected above NMOCD RRAL has been removed.
- Advance the sidewall of the excavation in the area characterized by soil sample North @ 6" until field test indicates impacted soil affected above the NMOCD RRAL has been removed.
- Affected soil adjacent to and/or beneath active oil and gas equipment impacted above the NMOCD RRAL will be excavated to the maximum extent practicable, as necessary, in an effort to mitigate risks to human health and property.
- Upon excavating impacted soil from within the release margins, confirmation soil samples will be collected from the floor and sidewalls of the excavated area at approximately fifty (50) ft. increments and submitted to the laboratory for analysis of TPH, BTEX and chloride.
- Temporarily stockpile excavated soil on-site, atop an impermeable liner, pending final disposition at an NMOCD-approved disposal facility.
- Upon receiving laboratory analytical results from confirmation soil samples, transport impacted soil to an NMOCD-approved disposal facility and backfill the excavated area with locally sourced, non-impacted "like" material.
- Upon completion of remediation activities and receipt of laboratory analytical results from confirmation soil samples, TRC will prepare and submit a "Remediation Summary and Site Closure Request" to the NMOCD and NMSLO detailing remediation activities and laboratory analytical results from confirmation soil samples.

The *Workplan* was subsequently approved. Please reference the *Soil Investigation Summary and Proposed Remediation Workplan*, dated January 23, 2018, for additional details regarding the initial soil investigation.

## SUMMARY OF SOIL REMEDIATION ACTIVITIES

On March 8, 2018, remediation activities commenced at the Release Site. As per the approved *Workplan*, impacted soil was excavated and stockpiled on-site, atop an impermeable liner, pending final disposition. During the excavation of impacted soil, a resilient rock layer was encountered at depths ranging from ten (10) inches (in.) to three (3) ft. bgs. Additional excavation was precluded due to safety concerns associated with attempting to break the rock in close proximity to the active production equipment.

On March 30, 2018, TRC collected six (6) soil samples (FL-1, FL-2, NSW, SSW, ESW and WSW) from the floor and sidewalls of the excavated area and submitted the soil samples to an NMOCD-approved laboratory for analysis of BTEX and TPH concentrations. Laboratory analytical results indicated TPH concentrations ranged from 43.3 mg/kg in soil sample WSW to 2,933.4 mg/kg in soil sample FL-1. Soil samples FL-1 and FL-2 were also analyzed for concentrations of chloride, which were determined to be 1,260 mg/kg and 968 mg/kg, respectively. Chloride field test results suggested concentrations of chloride in sidewall soil samples exceeded the NMOCD RRAL.

On April 26 and 27, 2018, TRC revisited the Release Site with a backhoe equipped with a different set of “rock teeth”. Excavation sidewalls were advanced until chloride field test results indicated concentrations of chloride were below the NMOCD RRAL. Attempts to advance the floor of the excavation resulted in broken backhoe teeth and risked destabilizing the heater treater. Upon advancing the excavation sidewalls, four (4) soil samples (NSWb, ESWb, SSWb and WSWb) were collected and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations range from 121 mg/kg in soil sample NSWb to 524 mg/kg in soil sample WSWb. Soil sample ESWb was also analyzed for concentrations of TPH, which were determined to be 3,890 mg/kg.

On May 29, 2018, the backhoe was remobilized to the Release Site. The excavation sidewall was advanced in the area represented by soil sample ESWb and additional attempts were made to advance the floor of the excavation. Upon excavating impacted soil from the area represented by soil sample ESWb, one (1) soil sample (ESW\*) was collected and submitted to the laboratory for analysis of TPH and chloride. Laboratory analytical results indicated soil sample ESW\* exhibited a TPH concentration of less than the applicable laboratory reporting limit and a chloride concentration of 145 mg/kg.

On June 26, 2018, TRC submitted a *Remediation Summary and Permission to Backfill Request* to the NMOCD and NMSLO summarizing remediation activities conducted to date and requesting permission to backfill the excavated area. Upon review of the *Remediation Summary and Permission to Backfill Request* it was determined the further delineation in the areas characterized by soil samples FL-1 and FL-2 would be required.

On July 25, 2018, TRC revisited the Release Site with a backhoe equipped with a “hammerhoe” attachment. During the site visit, two (2) soil samples (SP #1b @ 2' and SP #2b @ 3.5') were collected and submitted to the laboratory for analysis of TPH and chloride. Soil sample SP #1 @ 2' was collected from the area characterized by soil sample FL-1. Laboratory analytical results indicated soil sample SP #1b @ 2' exhibited a TPH concentration of 175 mg/kg and chloride concentration of 212 mg/kg.

Soil sample SP #2b @ 3.5' was collected from the area characterized by soil sample FL-2. Laboratory analytical results indicated soil sample SP #2b @ 3.5' exhibited a TPH concentration of 112 mg/kg and chloride concentration of 181 mg/kg.

On August 7, 2018, TRC submitted an *Amended Remediation Summary and Permission to Backfill Request* to the NMOCD and NMSLO summarizing remediation activities conducted to date and laboratory analytical results from delineation soil samples. The permission to backfill request was subsequently approved.

On August 30, 2018, the excavation was backfilled with locally sourced, non-impacted, like material and contoured to meet the needs of the facility. The final dimensions of the excavated area were approximately forty-five (45) ft. in length, thirty-five (35) ft. in width and one (1) to three (3) ft. in depth. On August 1 and 2, 2018, approximately one hundred twenty (120) cubic yards of impacted soil was transported to R360 Halfway facility.

## **SITE CLOSURE REQUEST**

Remediation activities were conducted in accordance with the NMOCD. Impacted soil within the release margins was excavated and transported to an NMOCD-approved disposal facility. Impacted soil remaining in-situ in the floor of the excavated area and adjacent to the heater treater affected above the NMOCD RRAL for TPH and chloride will be further investigated and/or remediated at time of abandonment (TOA). Based on laboratory analytical results and field activities conducted to date, TRC recommends COG provide copies of this *Remediation Summary and Risk-Based Soil Closure Request* to the NMOCD and BLM and request closure status to the Phillips State #001.

## **LIMITATIONS**

TRC has prepared this *Remediation Summary and Risk-Based Site Closure Request* to the best of its ability. No other warranty, expressed or implied, is made or intended.

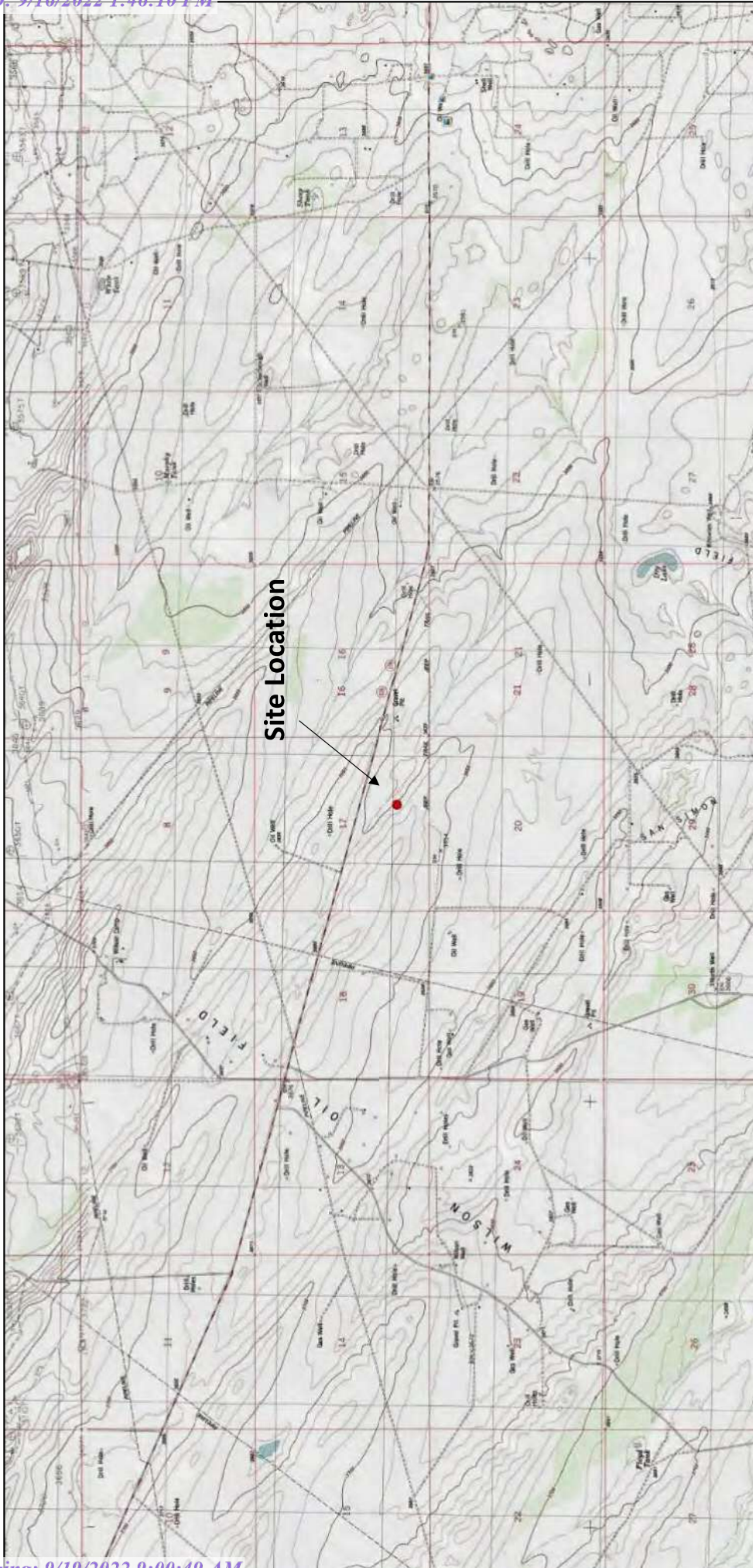
TRC has examined and relied upon documents referenced in the report and has relied on oral statements made by certain individuals. TRC has not conducted an independent examination of the facts contained in referenced materials and statements. We have presumed the genuineness of the documents and that the information provided in documents or statements is true and accurate. TRC has prepared this report, in a professional manner, using the degree of skill and care exercised by similar environmental consultants. TRC also notes that the facts and conditions referenced in this report may change over time and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

This report has been prepared for the benefit of COG Operating, LLC. The information contained in this report, including all exhibits and attachments, may not be used by any other party without the express consent of TRC and/or COG Operating, LLC.

## DISTRIBUTION

- Copy 1: Mike Bratcher  
New Mexico Energy, Minerals and Natural Resources Department  
Oil Conservation Division, District 2  
811 S. First Street  
Artesia, New Mexico 88210
- Copy 2: Ryan Mann  
Hobbs Field Office  
2827 N. Dal Paso, Suite 117  
Hobbs, New Mexico 88240
- Copy 3: Rebecca Haskell  
COG Operating, LLC  
600 W. Illinois Avenue  
Midland, Texas 79701
- Copy4: TRC Environmental Corporation  
10 Desta Drive, Suite 150E  
Midland, Texas 79705





Site Location

Figure 1

Site Location Map  
COG Operating, LLC  
Phillips State #001  
Lea County, New Mexico

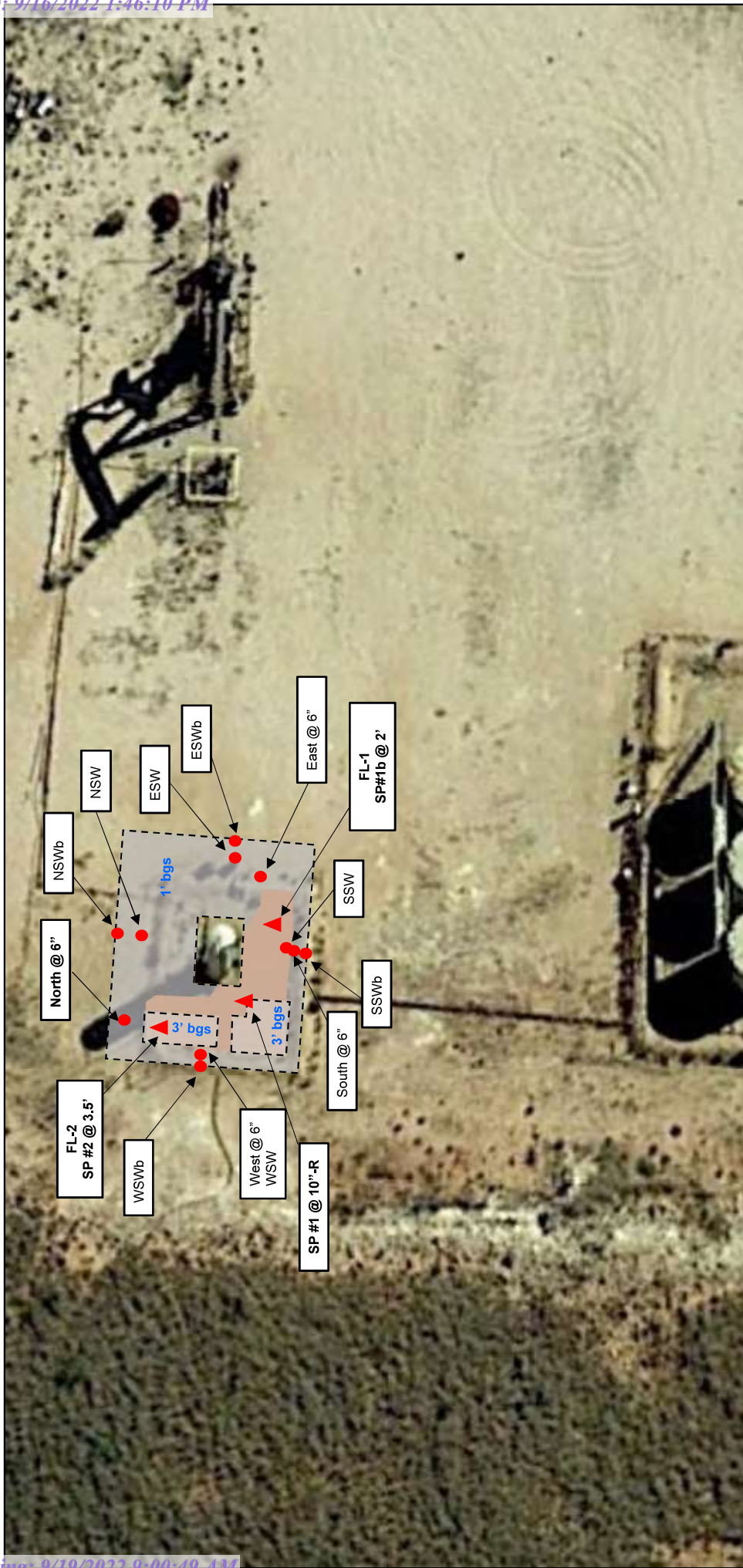
Scale 1" = ~4,500'



Drafted by: BC	Checked by: JL
Draft: August 5, 2018	
Lat. N 32.4744949 Long. W 103.3875351	
UL "O", Sec. 17, T21S, R35E	
TRC Proj. No.: 293168	



10 Dosta Drive Suite 150E  
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432.520.7720 PHONE  
432.520.7701 FAX  
www.ctrcsolutions.com





<b>LEGEND:</b>  ● Sidewall Sample Location ▲ Horizontal Sample Location --- Excavated Area ■ Affected Soil Remaining In-Situ	<b>Figure 2</b> Site & Sample Location Map COG Operating, LLC Phillips State #001  Lea County, New Mexico		Scale 1" = ~50'	
	Drafted by: BC	Checked by: JL		
	Draft: September 5, 2018			
	Lat. N 32.4744949 Long. W 103.3875351			
	UL "O", Sec. 17, T21S, R35E			
		TRC Proj. No.: 293168		
				
		10 Destia Drive Suite 150E Midland, TX 79705 432.520.7720 PHONE 432.520.7701 FAX www.itcsolutions.com		

**TABLE 1**  
**CONCENTRATIONS OF BENZENE, BTEX, TPH AND CHLORIDE IN SOIL**  
**COG OPERATING, LLC**  
**PHILLIPS STATE #001**  
**LEA COUNTY, NEW MEXICO**

All concentrations are reported in mg/kg

SAMPLE LOCATION	SAMPLE DATE	SOIL STATUS	SAMPLE DEPTH	METHODS: SW 846-8021b						METHOD: SW 8015M				METHOD E300	
				BENZENE	TOLUENE	ETHYL-BENZENE	m, p -XYLENE S	o -XYLENE	TOTAL XYLENE S	TOTAL BTEX	TPH GRO C <sub>6</sub> -C <sub>10</sub>	TPH DRO C <sub>10</sub> -C <sub>28</sub>	TPH ORO C <sub>28</sub> -C <sub>35</sub>		TOTAL TPH C <sub>6</sub> -C <sub>28</sub>
SP #1 @ 10"-R	12/21/2017	Excavated	10"	<0.0998	5.26	2.77	31.3	16.7	48	56.03	1,010	3,900	427	5,337	1,520
North @ 6"	12/21/2017	Excavated	6"	0.176	0.353	0.107	0.100	0.0337	0.1337	0.7697	10.8	982	442	1,435	687
East @ 6"	12/21/2017	In-Situ	6"	<0.00100	<0.00100	<0.00100	<0.00200	<0.00100	<0.001	<0.001	<4.95	<14.9	<14.9	<14.9	81.8
South @ 6"	12/21/2017	In-Situ	6"	0.00259	0.00238	<0.00100	<0.00201	0.00165	0.00165	0.00662	<4.96	16.0	<14.9	16.0	77.0
West @ 6"	12/21/2017	In-Situ	6"	<0.0248	0.157	0.0285	0.0894	0.0399	0.01293	0.3148	<4.95	15.9	<14.9	15.9	48.9
FL-1	3/30/2018	In-Situ	1'	<0.00201	<0.00201	<0.00201	<0.00402	<0.00201	<0.00201	<0.00201	<15.0	2,870	63.4	2,933.4	1,260
FL-2	3/30/2018	In-Situ	3'	<0.00202	<0.00202	<0.00202	<0.00404	<0.00202	<0.00202	<0.00202	<15.0	1,080	45.6	1,125.6	968
NSW	3/30/2018	Excavated	6"	<0.00200	<0.00200	<0.00200	<0.00401	<0.00200	<0.002	<0.002	<14.9	64.3	<14.9	64.3	-
SSW	3/30/2018	Excavated	6"	<0.00199	<0.00199	<0.00199	<0.00398	<0.00199	<0.00199	<0.00199	20.5	673	99.9	793.4	-
ESW	3/30/2018	Excavated	6"	<0.00200	<0.00200	<0.00200	<0.00399	<0.00200	<0.002	<0.002	36.8	2,130	336	2,502.8	-
WSW	3/30/2018	Excavated	6"	<0.00202	<0.00202	<0.00202	<0.00403	<0.00202	<0.00202	<0.00202	<15.0	43.3	<15.0	43.3	-
NSWb	4/26/2018	In-Situ	1'	-	-	-	-	-	-	-	-	-	-	-	121
ESWb	4/26/2018	Excavated	1'	-	-	-	-	-	-	-	119	3,740	31.9	3,890.9	450
SSWb	4/27/2018	In-Situ	1'	-	-	-	-	-	-	-	-	-	-	-	422
WSWb	4/27/2018	In-Situ	1'	-	-	-	-	-	-	-	-	-	-	-	524
ESW*	5/29/2018	In-Situ	1'	-	-	-	-	-	-	-	<15.0	<15.0	<15.0	<15	145
SP#1b @ 2'	7/25/2018	In-Situ	2'	-	-	-	-	-	-	-	<15.0	175	<15.0	175	212
SP #2b @ 3.5'	7/25/2018	In-Situ	3.5'	-	-	-	-	-	-	-	<15.0	112	<15.0	112	181
NMOCD Recommended Remediation Action Level				10	-	-	-	-	-	50	-	-	-	1,000	600

\* Denotes sample name has been used previously.

# Analytical Report 572225

for  
TRC Solutions, Inc

Project Manager: Joel Lowry

Phillips State #001

15-JAN-18

Collected By: Client



6701 Aberdeen, Suite 9 Lubbock, TX 79424

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-17-23), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)  
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab code: TX01468):

Texas (T104704295-17-15), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab code: TX00127): Texas (T104704221-17-12)

Xenco-Lubbock (EPA Lab code: TX00139): Texas (T104704219-17-16)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-17-13)

Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-17-3)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)



15-JAN-18

Project Manager: **Joel Lowry**  
**TRC Solutions, Inc**  
2057 Commerce  
Midland, TX 79703

Reference: XENCO Report No(s): **572225**  
**Phillips State #001**  
Project Address: Lea Co. NM

**Joel Lowry:**

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 572225. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 572225 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink, appearing to read 'Kelsey Brooks', is written over a horizontal line.

**Kelsey Brooks**

Project Manager

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Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America

**Sample Cross Reference 572225****TRC Solutions, Inc, Midland, TX**

Phillips State #001

<b>Sample Id</b>	<b>Matrix</b>	<b>Date Collected</b>	<b>Sample Depth</b>	<b>Lab Sample Id</b>
SP #1 @ 10"-R	S	12-21-17 14:25	10 In	572225-001
North @ 6"	S	12-21-17 14:50	6 In	572225-002
East @ 6"	S	12-21-17 14:55	6 In	572225-003
South @ 6"	S	12-21-17 15:00	6 In	572225-004
West @ 6"	S	12-21-17 15:05	6 In	572225-005



## CASE NARRATIVE

**Client Name: TRC Solutions, Inc**

**Project Name: Phillips State #001**

Project ID:

Work Order Number(s): 572225

Report Date: 15-JAN-18

Date Received: 12/28/2017

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### **Sample receipt non conformances and comments:**

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### **Sample receipt non conformances and comments per sample:**

None

### **Analytical non conformances and comments:**

Batch: LBA-3037445 BTEX by SW 8260B

SAMPLE 572225-005 IS ROCKS. CANNOT RUN ANY LOWER DILUTION.

Batch: LBA-3037542 BTEX by SW 8260B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.





**Certificate of Analysis Summary 572225**  
**TRC Solutions, Inc, Midland, TX**  
**Project Name: Phillips State #001**

**Project Id:** Joel Lowry  
**Contact:** Lea Co. NM  
**Project Location:**

**Date Received in Lab:** Thu Dec-28-17 05:12 pm  
**Report Date:** 15-JAN-18  
**Project Manager:** Kelsey Brooks

<i>Analysis Requested</i>	<i>Lab Id:</i>	572225-001	572225-002	572225-003	572225-004	572225-005
	<i>Field Id:</i>	SP #1 @ 10"-R	North @ 6"	East @ 6"	South @ 6"	West @ 6"
	<i>Depth:</i>	10- In	6- In	6- In	6- In	6- In
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Dec-21-17 14:25	Dec-21-17 14:50	Dec-21-17 14:55	Dec-21-17 15:00	Dec-21-17 15:05
<b>BTEX by SW 8260B</b> <b>SUB: TX104704215-17-23</b>	<i>Extracted:</i>	Jan-03-18 17:00	Jan-04-18 13:00	Jan-03-18 17:00	Jan-03-18 17:00	Jan-03-18 17:00
	<i>Analyzed:</i>	Jan-03-18 20:54	Jan-04-18 13:47	Jan-03-18 19:51	Jan-03-18 20:07	Jan-03-18 20:22
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
	Benzene	<0.0998 0.0998	0.176 0.0250	<0.00100 0.00100	0.00259 0.00100	<0.0248 0.0248
	Toluene	5.26 0.0998	0.353 0.0250	<0.00100 0.00100	0.00238 0.00100	0.157 0.0248
	Ethylbenzene	2.77 0.0998	0.107 0.0250	<0.00100 0.00100	<0.00100 0.00100	0.0285 0.0248
	m,p-Xylenes	31.3 0.200	0.100 0.0499	<0.00200 0.00200	<0.00201 0.00201	0.0894 0.0495
<b>Chloride by EPA 300</b> <b>SUB: TX104704215-17-23</b>	<i>Extracted:</i>	Jan-03-18 17:00	Jan-04-18 13:00	Jan-03-18 17:00	Jan-03-18 17:00	Jan-03-18 17:00
	<i>Analyzed:</i>	Jan-03-18 20:54	Jan-04-18 13:47	Jan-03-18 19:51	Jan-03-18 20:07	Jan-03-18 20:22
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
	o-Xylene	16.7 0.0998	0.0337 0.0250	<0.00100 0.00100	0.00165 0.00100	0.0399 0.0248
	Total Xylenes	48 0.0998	0.1337 0.025	<0.001 0.001	0.00165 0.001	0.1293 0.0248
	Total BTEX	56.03 0.0998	0.7697 0.025	<0.001 0.001	0.00662 0.001	0.3148 0.0248
	Chloride	1520 49.0	687 48.9	81.8 49.5	77.0 48.3	48.9 47.9
<b>DRO-ORO By SW8015B</b> <b>SUB: TX104704215-17-23</b>	<i>Extracted:</i>	Jan-03-18 10:42	Jan-03-18 10:45	Jan-03-18 10:48	Jan-03-18 10:51	Jan-03-18 10:54
	<i>Analyzed:</i>	Jan-04-18 02:18	Jan-05-18 04:51	Jan-04-18 17:59	Jan-03-18 18:38	Jan-03-18 18:59
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
	Diesel Range Organics (DRO)	3900 14.9	982 14.9	<14.9 14.9	16.0 14.9	15.9 14.9
	Oil Range Hydrocarbons (ORO)	427 14.9	442 14.9	<14.9 14.9	<14.9 14.9	<14.9 14.9
	TPH GRO by EPA 8015 Mod.	Jan-04-18 15:00	Jan-04-18 10:00	Jan-04-18 10:00	Jan-04-18 10:00	Jan-04-18 10:00
	SUB: TX104704215-17-23	Jan-04-18 16:29	Jan-04-18 11:44	Jan-04-18 12:16	Jan-04-18 12:50	Jan-04-18 13:23
TPH-GRO	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
	TPH-GRO	1010 99.8	10.8 4.95	<4.95 4.95	<4.96 4.96	<4.95 4.95

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Kelsey Brooks  
Project Manager





## Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

\*\* Surrogate recovered outside laboratory control limit.

**BRL** Below Reporting Limit.

**RL** Reporting Limit

**MDL** Method Detection Limit      **SDL** Sample Detection Limit      **LOD** Limit of Detection

**PQL** Practical Quantitation Limit      **SQL** Method Quantitation Limit      **LOQ** Limit of Quantitation

**DL** Method Detection Limit

**NC** Non-Calculable

+ NELAC certification not offered for this compound.

\* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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 5332 Blackberry Drive, San Antonio TX 78238  
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(432) 563-1800	(432) 563-1713
(602) 437-0330	



## Form 2 - Surrogate Recoveries

Project Name: Phillips State #001

Work Orders : 572225,

Project ID:

Lab Batch #: 3037397

Sample: 572225-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/03/18 18:38

## SURROGATE RECOVERY STUDY

DRO-ORO By SW8015B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	72.4	99.4	73	70-135	
o-Terphenyl	35.7	49.7	72	70-135	

Lab Batch #: 3037397

Sample: 572225-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/03/18 18:59

## SURROGATE RECOVERY STUDY

DRO-ORO By SW8015B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	74.6	99.0	75	70-135	
o-Terphenyl	38.5	49.5	78	70-135	

Lab Batch #: 3037445

Sample: 572225-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/03/18 19:51

## SURROGATE RECOVERY STUDY

BTEX by SW 8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0512	0.0500	102	74-126	
1,2-Dichloroethane-D4	0.0464	0.0500	93	80-120	
Toluene-D8	0.0532	0.0500	106	73-132	

Lab Batch #: 3037445

Sample: 572225-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/03/18 20:07

## SURROGATE RECOVERY STUDY

BTEX by SW 8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0512	0.0500	102	74-126	
1,2-Dichloroethane-D4	0.0469	0.0500	94	80-120	
Toluene-D8	0.0521	0.0500	104	73-132	

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

All results are based on MDL and validated for QC purposes.



## Form 2 - Surrogate Recoveries

Project Name: Phillips State #001

Work Orders : 572225,

Lab Batch #: 3037445

Sample: 572225-005 / SMP

Project ID:

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/03/18 20:22

## SURROGATE RECOVERY STUDY

BTEX by SW 8260B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
Dibromofluoromethane	0.0553	0.0500	111	74-126	
1,2-Dichloroethane-D4	0.0477	0.0500	95	80-120	
Toluene-D8	0.0499	0.0500	100	73-132	

Lab Batch #: 3037445

Sample: 572225-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/03/18 20:54

## SURROGATE RECOVERY STUDY

BTEX by SW 8260B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
Dibromofluoromethane	0.0510	0.0500	102	74-126	
1,2-Dichloroethane-D4	0.0504	0.0500	101	80-120	
Toluene-D8	0.0498	0.0500	100	73-132	

Lab Batch #: 3037397

Sample: 572225-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/04/18 02:18

## SURROGATE RECOVERY STUDY

DRO-ORO By SW8015B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	104	99.1	105	70-135	
o-Terphenyl	43.7	49.6	88	70-135	

Lab Batch #: 3037523

Sample: 572225-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/04/18 11:44

## SURROGATE RECOVERY STUDY

TPH GRO by EPA 8015 Mod.	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
4-Bromofluorobenzene	0.0269	0.0300	90	80-120	

Lab Batch #: 3037523

Sample: 572225-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/04/18 12:16

## SURROGATE RECOVERY STUDY

TPH GRO by EPA 8015 Mod.	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
4-Bromofluorobenzene	0.0277	0.0300	92	80-120	

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

All results are based on MDL and validated for QC purposes.



## Form 2 - Surrogate Recoveries

Project Name: Phillips State #001

Work Orders : 572225,

Project ID:

Lab Batch #: 3037523

Sample: 572225-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/04/18 12:50

## SURROGATE RECOVERY STUDY

TPH GRO by EPA 8015 Mod. Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0292	0.0300	97	80-120	

Lab Batch #: 3037523

Sample: 572225-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/04/18 13:23

## SURROGATE RECOVERY STUDY

TPH GRO by EPA 8015 Mod. Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0273	0.0300	91	80-120	

Lab Batch #: 3037542

Sample: 572225-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/04/18 13:47

## SURROGATE RECOVERY STUDY

BTEX by SW 8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0558	0.0500	112	74-126	
1,2-Dichloroethane-D4	0.0554	0.0500	111	80-120	
Toluene-D8	0.0431	0.0500	86	73-132	

Lab Batch #: 3037523

Sample: 572225-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/04/18 16:29

## SURROGATE RECOVERY STUDY

TPH GRO by EPA 8015 Mod. Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0295	0.0300	98	80-120	

Lab Batch #: 3037397

Sample: 572225-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/04/18 17:59

## SURROGATE RECOVERY STUDY

DRO-ORO By SW8015B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	70.1	99.6	70	70-135	
o-Terphenyl	35.1	49.8	70	70-135	

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

All results are based on MDL and validated for QC purposes.



## Form 2 - Surrogate Recoveries

Project Name: Phillips State #001

Work Orders : 572225,

Lab Batch #: 3037397

Sample: 572225-002 / SMP

Project ID:

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/05/18 04:51

## SURROGATE RECOVERY STUDY

DRO-ORO By SW8015B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	70.7	99.2	71	70-135	
o-Terphenyl	35.3	49.6	71	70-135	

Lab Batch #: 3037397

Sample: 7636876-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 01/03/18 11:56

## SURROGATE RECOVERY STUDY

DRO-ORO By SW8015B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	99.2	100	99	70-135	
o-Terphenyl	56.7	50.0	113	70-135	

Lab Batch #: 3037445

Sample: 7636978-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 01/03/18 18:33

## SURROGATE RECOVERY STUDY

BTEX by SW 8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0489	0.0500	98	74-126	
1,2-Dichloroethane-D4	0.0467	0.0500	93	80-120	
Toluene-D8	0.0558	0.0500	112	73-132	

Lab Batch #: 3037523

Sample: 7637012-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 01/04/18 11:10

## SURROGATE RECOVERY STUDY

TPH GRO by EPA 8015 Mod. Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0290	0.0300	97	80-120	

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

All results are based on MDL and validated for QC purposes.



## Form 2 - Surrogate Recoveries

Project Name: Phillips State #001

Work Orders : 572225,

Lab Batch #: 3037542

Sample: 7637024-1-BLK / BLK

Project ID:

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 01/04/18 12:32

## SURROGATE RECOVERY STUDY

BTEX by SW 8260B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
Dibromofluoromethane	0.0520	0.0500	104	74-126	
1,2-Dichloroethane-D4	0.0496	0.0500	99	80-120	
Toluene-D8	0.0495	0.0500	99	73-132	

Lab Batch #: 3037397

Sample: 7636876-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 01/03/18 11:15

## SURROGATE RECOVERY STUDY

DRO-ORO By SW8015B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	115	100	115	70-135	
o-Terphenyl	62.6	50.0	125	70-135	

Lab Batch #: 3037445

Sample: 7636978-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 01/03/18 16:25

## SURROGATE RECOVERY STUDY

BTEX by SW 8260B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
Dibromofluoromethane	0.0499	0.0500	100	74-126	
1,2-Dichloroethane-D4	0.0503	0.0500	101	80-120	
Toluene-D8	0.0520	0.0500	104	73-132	

Lab Batch #: 3037542

Sample: 7637024-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 01/04/18 10:07

## SURROGATE RECOVERY STUDY

BTEX by SW 8260B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
Dibromofluoromethane	0.0515	0.0500	103	74-126	
1,2-Dichloroethane-D4	0.0494	0.0500	99	80-120	
Toluene-D8	0.0503	0.0500	101	73-132	

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

All results are based on MDL and validated for QC purposes.





## Form 2 - Surrogate Recoveries

Project Name: Phillips State #001

Work Orders : 572225,

Project ID:

Lab Batch #: 3037523

Sample: 7637012-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 01/04/18 18:41

SURROGATE RECOVERY STUDY					
TPH GRO by EPA 8015 Mod.	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
4-Bromofluorobenzene	0.0290	0.0300	97	80-120	

Lab Batch #: 3037397

Sample: 7636876-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 01/03/18 11:36

SURROGATE RECOVERY STUDY					
DRO-ORO By SW8015B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	102	100	102	70-135	
o-Terphenyl	52.9	50.0	106	70-135	

Lab Batch #: 3037445

Sample: 7636978-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 01/03/18 17:29

SURROGATE RECOVERY STUDY					
BTEX by SW 8260B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
Dibromofluoromethane	0.0521	0.0500	104	74-126	
1,2-Dichloroethane-D4	0.0558	0.0500	112	80-120	
Toluene-D8	0.0454	0.0500	91	73-132	

Lab Batch #: 3037542

Sample: 7637024-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 01/04/18 11:28

SURROGATE RECOVERY STUDY					
BTEX by SW 8260B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
Dibromofluoromethane	0.0498	0.0500	100	74-126	
1,2-Dichloroethane-D4	0.0503	0.0500	101	80-120	
Toluene-D8	0.0520	0.0500	104	73-132	

Lab Batch #: 3037523

Sample: 7637012-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 01/04/18 19:13

SURROGATE RECOVERY STUDY					
TPH GRO by EPA 8015 Mod.	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
4-Bromofluorobenzene	0.0287	0.0300	96	80-120	

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

All results are based on MDL and validated for QC purposes.



## Form 2 - Surrogate Recoveries

Project Name: Phillips State #001

Work Orders : 572225,

Project ID:

Lab Batch #: 3037445

Sample: 572221-022 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/03/18 16:57

## SURROGATE RECOVERY STUDY

BTEX by SW 8260B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
Dibromofluoromethane	0.0496	0.0500	99	74-126	
1,2-Dichloroethane-D4	0.0500	0.0500	100	80-120	
Toluene-D8	0.0498	0.0500	100	73-132	

Lab Batch #: 3037542

Sample: 572221-024 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/04/18 11:08

## SURROGATE RECOVERY STUDY

BTEX by SW 8260B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
Dibromofluoromethane	0.0541	0.0500	108	74-126	
1,2-Dichloroethane-D4	0.0563	0.0500	113	80-120	
Toluene-D8	0.0459	0.0500	92	73-132	

Lab Batch #: 3037523

Sample: 572225-005 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/04/18 19:47

## SURROGATE RECOVERY STUDY

TPH GRO by EPA 8015 Mod.	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
4-Bromofluorobenzene	0.0270	0.0300	90	80-120	

Lab Batch #: 3037445

Sample: 572221-022 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/03/18 17:13

## SURROGATE RECOVERY STUDY

BTEX by SW 8260B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
Dibromofluoromethane	0.0496	0.0500	99	74-126	
1,2-Dichloroethane-D4	0.0498	0.0500	100	80-120	
Toluene-D8	0.0537	0.0500	107	73-132	

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

All results are based on MDL and validated for QC purposes.



## Form 2 - Surrogate Recoveries

Project Name: Phillips State #001

Work Orders : 572225,

Project ID:

Lab Batch #: 3037542

Sample: 572221-024 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/04/18 16:49

## SURROGATE RECOVERY STUDY

BTEX by SW 8260B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
Dibromofluoromethane	0.0538	0.0500	108	74-126	
1,2-Dichloroethane-D4	0.0576	0.0500	115	80-120	
Toluene-D8	0.0460	0.0500	92	73-132	

Lab Batch #: 3037523

Sample: 572225-005 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/04/18 20:19

## SURROGATE RECOVERY STUDY

TPH GRO by EPA 8015 Mod.	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
4-Bromofluorobenzene	0.0266	0.0300	89	80-120	

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

All results are based on MDL and validated for QC purposes.

Work Order #: 572225

Analyst: JTR

Lab Batch ID: 3037445

Units: mg/kg

Sample: 7636978-1-BKS

Batch #: 1

Date Prepared: 01/03/2018

Project ID:

Date Analyzed: 01/03/2018

Matrix: Solid

Units:	mg/kg	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY										
Analytes	BTEX by SW 8260B											
	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag	
	Benzene	<0.00100	0.100	0.0967	97	0.100	0.115	115	17	62-132	25	
	Toluene	<0.00100	0.100	0.103	103	0.100	0.0967	97	6	66-124	25	
	Ethylbenzene	<0.00100	0.100	0.0971	97	0.100	0.104	104	7	71-134	25	
	m,p-Xylenes	<0.00200	0.200	0.199	100	0.200	0.214	107	7	69-128	25	
	o-Xylene	<0.00100	0.100	0.0979	98	0.100	0.103	103	5	72-131	25	

Date Prepared: 01/04/2018

Date Analyzed: 01/04/2018

Analyst: JTR

Lab Batch ID: 3037542

Units: mg/kg

Sample: 7637024-1-BKS

Batch #: 1

Matrix: Solid

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY												
Units: mg/kg												
Analytes	BTEX by SW 8260B											
	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag	
	Benzene	<0.00100	0.100	0.102	102	0.100	0.114	114	11	62-132	25	
	Toluene	<0.00100	0.100	0.0920	92	0.100	0.0987	99	7	66-124	25	
	Ethylbenzene	<0.00100	0.100	0.0871	87	0.100	0.0998	100	14	71-134	25	
	m,p-Xylenes	<0.00200	0.200	0.181	91	0.200	0.204	102	12	69-128	25	
	o-Xylene	<0.00100	0.100	0.0869	87	0.100	0.101	101	15	72-131	25	

Relative Percent Difference RPD =  $200 * |(C-F)/(C+F)|$   
Blank Spike Recovery [D] =  $100 * (C)/[B]$   
Blank Spike Duplicate Recovery [G] =  $100 * (F)/[E]$   
All results are based on MDL and Validated for QC Purposes

Work Order #: 572225

Analyst: DHE

Lab Batch ID: 3037378

Units: mg/kg

Sample: 7636897-1-BKS

Batch #: 1

Date Prepared: 01/03/2018

Project ID:

Date Analyzed: 01/03/2018

Matrix: Solid

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY												
mg/kg												
Units:	Chloride by EPA 300	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes												
Chloride		<1.00	10.0	9.77	98	10.0	9.75	98	0	80-120	20	

Analyst: ARL

Lab Batch ID: 3037397

Units: mg/kg

Sample: 7636876-1-BKS

Batch #: 1

Date Analyzed: 01/03/2018

Matrix: Solid

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY															
Units:	mg/kg	DRO-ORO By SW8015B	Analytes	Blank Sample Result	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Blank Spike Duplicate Result	Blk. Spk Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag	
				[A]	[B]	[C]	[D]	[E]	[F]	[G]					
		Gasoline Range Hydrocarbons (GRO)		<15.0	1000	1000	100	1000	904	90	10	70-135	35		
		Diesel Range Organics (DRO)		<15.0	1000	1050	105	1000	1010	101	4	70-135	35		

Analyst: JTR

Lab Batch ID: 3037523

Units: mg/kg

Sample: 7637012-1-BKS

Batch #: 1

Date Analyzed: 01/04/2018

Matrix: Solid

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
mg/kg											
Analytes	TPH GRO by EPA 8015 Mod.										
	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
TPH-GRO	<5.00	25.0	20.9	84	25.0	20.1	80	4	75-135	35	

Relative Percent Difference RPD =  $200 * [(C-F)/(C+F)]$   
Blank Spike Recovery [D] =  $100 * (C)/[B]$   
Blank Spike Duplicate Recovery [G] =  $100 * (F)/[E]$   
All results are based on MDL and Validated for QC Purposes





# Form 3 - MS / MSD Recoveries

Project Name: Phillips State #001

Work Order #: 572225  
Lab Batch ID: 3037445  
Date Analyzed: 01/03/2018  
Reporting Units: mg/kg

Project ID:  
QC- Sample ID: 572221-022 S Batch #: 1 Matrix: Soil  
Date Prepared: 01/03/2018 Analyst: JTR

## MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by SW 8260B		Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes												
Benzene		<0.000098	0.0998	0.102	102	0.0996	0.0924	93	10	62-132	25	
Toluene		<0.000098	0.0998	0.102	102	0.0996	0.104	104	2	66-124	25	
Ethylbenzene		<0.000098	0.0998	0.110	110	0.0996	0.0925	93	17	71-134	25	
m,p-Xylenes		<0.00200	0.200	0.225	113	0.199	0.192	96	16	69-128	25	
o-Xylene		<0.000098	0.0998	0.109	109	0.0996	0.0932	94	16	72-131	25	

Lab Batch ID: 3037542  
Date Analyzed: 01/04/2018  
Reporting Units: mg/kg

QC- Sample ID: 572221-024 S Batch #: 1 Matrix: Soil  
Date Prepared: 01/04/2018 Analyst: JTR

## MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by SW 8260B		Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes												
Benzene		<0.000092	0.0992	0.125	126	0.0998	0.129	129	3	62-132	25	
Toluene		<0.000092	0.0992	0.0829	84	0.0998	0.0851	85	3	66-124	25	
Ethylbenzene		<0.000092	0.0992	0.0911	92	0.0998	0.0951	95	4	71-134	25	
m,p-Xylenes		<0.00198	0.198	0.196	99	0.200	0.198	99	1	69-128	25	
o-Xylene		<0.000092	0.0992	0.0984	99	0.0998	0.0992	99	1	72-131	25	

Matrix Spike Percent Recovery  $[D] = 100 \times (C-A)/B$   
Relative Percent Difference  $RPD = 200 \times [(C-F)/(C+E)]$

Matrix Spike Duplicate Percent Recovery  $[G] = 100 \times (F-A)/E$

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable  
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.





# Form 3 - MS / MSD Recoveries

Project Name: Phillips State #001

Work Order #: 572225  
Lab Batch ID: 3037378  
Date Analyzed: 01/04/2018  
Reporting Units: mg/kg

Project ID:

QC-Sample ID: 572194-001 S Batch #: 1 Matrix: Soil  
Date Prepared: 01/03/2018 Analyst: DHE

## MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
	4620	489	5130	104	489	5100	98	1	80-120	20	

Lab Batch ID: 3037378 QC-Sample ID: 572225-002 S Batch #: 1 Matrix: Soil  
Date Analyzed: 01/03/2018 Date Prepared: 01/03/2018 Analyst: DHE  
Reporting Units: mg/kg

## MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
	687	489	1180	101	489	1180	101	0	80-120	20	

Lab Batch ID: 3037523 QC-Sample ID: 572225-005 S Batch #: 1 Matrix: Soil  
Date Analyzed: 01/04/2018 Date Prepared: 01/04/2018 Analyst: JTR  
Reporting Units: mg/kg

## MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH GRO by EPA 8015 Mod. Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
	<5.00	25.0	22.5	90	25.0	23.4	94	4	75-135	35	

Matrix Spike Percent Recovery  $[D] = 100 \times (C-A)/B$   
Relative Percent Difference  $RPD = 200 \times [(C-F)/(C+E)]$

Matrix Spike Duplicate Percent Recovery  $[G] = 100 \times (F-A)/E$

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable  
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

# CHAIN OF CUSTODY

Page 1 Of 1

San Antonio, Texas (210-509-3334)  
Midland, Texas (432-704-5251)  
Phoenix, Arizona (480-355-0900)

[www.xepco.com](http://www.xepco.com)

57225

Client / Reporting Information						Project Information								Analytical Information				Matrix Codes	
Company Name / Branch: TRC Environmental Corporation						Project Name/Number: Phillips State #001													
Company Address: 2057 Commerce Drive Midland, TX 79703						Project Location: Lea Co, NM													
Email: <a href="mailto:jlowry@trcsolutions.com">jlowry@trcsolutions.com</a>						Phone No: 432-466-4450													
Project Contact: Joel Lowry						Invoice To: COG Operating C/O Becky Haskell													
Sampler's Name Joel Lowry						Invoice:													
No.	Field ID / Point of Collection	Sample Depth	Collection Date	Time	Matrix	# of bottles	HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	TPH 8015 M Ext	Chloride E 300	BTEX 8021B	Field Comments	
1	SP #1 @ 10"-R	10"	12/21/2017	2:45	S	1									X	X	X		
2	North @ 6"	6"	12/21/2017	2:50	S	1									X	X	X		
3	East @ 6"	6"	12/21/2017	2:55	S	1									X	X	X		
4	South @ 6"	6"	12/21/2017	3:00	S	1									X	X	X		
5	West @ 6"	6"	12/21/2017	3:05	S	1									X	X	X		
6																			
7																			
8																			
9																			
10																			
Turnaround Time (Business days)										Data Deliverable Information					Notes:				
<input type="checkbox"/> Same Day TAT <input type="checkbox"/> 5 Day TAT										<input type="checkbox"/> Level II Std QC <input type="checkbox"/> Level IV (Full Data Pkg (raw data))					<a href="mailto:jlowry@trcsolutions.com">jlowry@trcsolutions.com</a>				
<input type="checkbox"/> Next Day EMERGENCY <input type="checkbox"/> 7 Day TAT										<input type="checkbox"/> Level III Std QC+ Forms <input type="checkbox"/> TRRP Level IV					<a href="mailto:maskell@concho.com">maskell@concho.com</a>				
<input type="checkbox"/> 2 Day EMERGENCY <input checked="" type="checkbox"/> Contract TAT										<input type="checkbox"/> Level 3 (CLP Forms) <input type="checkbox"/> UST / RG -411					<a href="mailto:kblackburn@trcsolutions.com">kblackburn@trcsolutions.com</a>				
<input type="checkbox"/> 3 Day EMERGENCY										<input type="checkbox"/> TRRP Checklist					<a href="mailto:dneel2@concho.com">dneel2@concho.com</a>				
TAT Starts Day received by Lab, if received by 5:00 pm										FED-EX / UPS: Tracking #									
Relinquished by Sampler:										Relinquished By:					Received By:				
Date/Time: 12/27/17 3:08 PM										Date/Time: 12/27/17					Date/Time: 12/27/17				
Relinquished By:										Relinquished By:					Relinquished By:				
Date/Time: 12/27/17 3:14 PM										Date/Time: 12/27/17					Date/Time: 12/27/17				
Relinquished by:										Relinquished By:					Received By:				
Date/Time: 12/27/17 3:14 PM										Date/Time: 12/27/17					Date/Time: 12/27/17				
On Ice Cooler Temp. Thermo. Corr. Factor:										Preserved where applicable					On Ice Cooler Temp. Thermo. Corr. Factor:				

Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the Client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75 will be applied to each project. Xenco's liability will be limited to the cost of samples. Any samples received by Xenco but not analyzed will be invoiced at \$5 per sample. These terms will be honored unless previously negotiated under a fully executed client contract.



## Inter-Office Shipment

IOS Number **1053903**

Date/Time: 12/28/17 17:44

Created by: Brenda Ward

Please send report to: Kelsey Brooks

Lab# From: **Lubbock**

Delivery Priority:

Address: 6701 Aberdeen, Suite 9 Lubbock, TX 79424  
Phone:

Lab# To: **Houston**

Air Bill No.: 771105606137

E-Mail: kelsey.brooks@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
572225-001	S	SP #1 @ 10"-R	12/21/17 14:25	E300_CL	Chloride by EPA 300	01/04/18	01/18/18	KEB	CL	
572225-001	S	SP #1 @ 10"-R	12/21/17 14:25	SW8021B	BTEX by EPA 8021B	01/04/18	01/04/18	KEB	BR4FBZ BZ BZME EBZ X	
572225-001	S	SP #1 @ 10"-R	12/21/17 14:25	SW8015GRO	TPH GRO by EPA 8015 Mod.	01/04/18	01/04/18	KEB	PHCG	
572225-001	S	SP #1 @ 10"-R	12/21/17 14:25	SW8015B_DROORO	DRO-ORO By SW8015B	01/04/18	01/04/18	KEB	PHCC10C28 PHCC28C35	
572225-002	S	North @ 6"	12/21/17 14:50	E300_CL	Chloride by EPA 300	01/04/18	01/18/18	KEB	CL	
572225-002	S	North @ 6"	12/21/17 14:50	SW8015GRO	TPH GRO by EPA 8015 Mod.	01/04/18	01/04/18	KEB	PHCG	
572225-002	S	North @ 6"	12/21/17 14:50	SW8015B_DROORO	DRO-ORO By SW8015B	01/04/18	01/04/18	KEB	PHCC10C28 PHCC28C35	
572225-002	S	North @ 6"	12/21/17 14:50	SW8021B	BTEX by EPA 8021B	01/04/18	01/04/18	KEB	BR4FBZ BZ BZME EBZ X	
572225-003	S	East @ 6"	12/21/17 14:55	SW8021B	BTEX by EPA 8021B	01/04/18	01/04/18	KEB	BR4FBZ BZ BZME EBZ X	
572225-003	S	East @ 6"	12/21/17 14:55	SW8015B_DROORO	DRO-ORO By SW8015B	01/04/18	01/04/18	KEB	PHCC10C28 PHCC28C35	
572225-003	S	East @ 6"	12/21/17 14:55	E300_CL	Chloride by EPA 300	01/04/18	01/18/18	KEB	CL	
572225-003	S	East @ 6"	12/21/17 14:55	SW8015GRO	TPH GRO by EPA 8015 Mod.	01/04/18	01/04/18	KEB	PHCG	
572225-004	S	South @ 6"	12/21/17 15:00	SW8015GRO	TPH GRO by EPA 8015 Mod.	01/04/18	01/04/18	KEB	PHCG	
572225-004	S	South @ 6"	12/21/17 15:00	SW8021B	BTEX by EPA 8021B	01/04/18	01/04/18	KEB	BR4FBZ BZ BZME EBZ X	
572225-004	S	South @ 6"	12/21/17 15:00	E300_CL	Chloride by EPA 300	01/04/18	01/18/18	KEB	CL	
572225-004	S	South @ 6"	12/21/17 15:00	SW8015B_DROORO	DRO-ORO By SW8015B	01/04/18	01/04/18	KEB	PHCC10C28 PHCC28C35	
572225-005	S	West @ 6"	12/21/17 15:05	SW8015GRO	TPH GRO by EPA 8015 Mod.	01/04/18	01/04/18	KEB	PHCG	
572225-005	S	West @ 6"	12/21/17 15:05	SW8015B_DROORO	DRO-ORO By SW8015B	01/04/18	01/04/18	KEB	PHCC10C28 PHCC28C35	
572225-005	S	West @ 6"	12/21/17 15:05	E300_CL	Chloride by EPA 300	01/04/18	01/18/18	KEB	CL	
572225-005	S	West @ 6"	12/21/17 15:05	SW8021B	BTEX by EPA 8021B	01/04/18	01/04/18	KEB	BR4FBZ BZ BZME EBZ X	



Inter-Office Shipment

Page 2 of 2

IOS Number **1053903**

Date/Time: 12/28/17 17:44

Created by: Brenda Ward

Lab# From: **Lubbock**

Delivery Priority:

Lab# To: **Houston**

Air Bill No.: 771105606137

Please send report to: Kelsey Brooks

Address: 6701 Aberdeen, Suite 9 Lubbock, TX 79424  
Phone:

E-Mail: kelsey.brooks@xenco.com

Inter Office Shipment or Sample Comments:

12/29/17 DRO added to IOS. HT

Relinquished By

*Brenda Ward*

Brenda Ward

Received By:

*R.C. Vandenberghe*

Rene Vandenberghe

Date Relinquished: 12/28/2017

Date Received: 12/29/2017 10:00

Cooler Temperature: 3.6



# XENCO Laboratories

## Inter Office Report- Sample Receipt Checklist

**Sent To:** Houston

**IOS #:** 1053903

**Acceptable Temperature Range:** 0 - 6 degC

**Air and Metal samples Acceptable Range:** Ambient

**Temperature Measuring device used :** hou-068

**Sent By:** Brenda Ward

**Date Sent:** 12/28/2017 05:44 PM

**Received By:** Rene Vandenberghe

**Date Received:** 12/29/2017 10:00 AM

### Sample Receipt Checklist

### Comments

#1 *Temperature of cooler(s)?	3.6
#2 *Shipping container in good condition?	Yes
#3 *Samples received with appropriate temperature?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	No
#5 *Custody Seals Signed and dated for Containers/coolers	N/A
#6 *IOS present?	Yes
#7 Any missing/extra samples?	No
#8 IOS agrees with sample label(s)/matrix?	Yes
#9 Sample matrix/ properties agree with IOS?	Yes
#10 Samples in proper container/ bottle?	Yes
#11 Samples properly preserved?	Yes
#12 Sample container(s) intact?	Yes
#13 Sufficient sample amount for indicated test(s)?	Yes
#14 All samples received within hold time?	Yes

**\* Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

### NonConformance:

12/29/17 DRO added to IOS. HT

### Corrective Action Taken:

### Nonconformance Documentation

**Contact:** \_\_\_\_\_ **Contacted by :** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Checklist reviewed by:**

R. C. Vandenberghe  
Rene Vandenberghe

Date: 12/29/2017



## XENCO Laboratories

## Prelogin/Nonconformance Report- Sample Log-In

Client: TRC Solutions, Inc

Date/ Time Received: 12/28/2017 05:12:00 PM

Work Order #: 572225

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : IR-3

## Sample Receipt Checklist

## Comments

#1 *Temperature of cooler(s)?	1.1
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	N/A
#5 Custody Seals intact on sample bottles?	N/A
#6 *Custody Seals Signed and dated?	N/A
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	No
#18 Water VOC samples have zero headspace?	N/A

\* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst:

PH Device/Lot#:

Checklist completed by:

  
Brenda Ward

Date: 12/28/2017

Checklist reviewed by:

  
Kelsey Brooks

Date: 12/31/2017



# Analytical Report 581097

for  
**TRC Solutions, Inc**

**Project Manager: Joel Lowry**

**COG Phillips State**

**09-APR-18**

Collected By: Client



**1211 W. Florida Ave, Midland TX 79701**

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-18-24), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)  
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab code: TX01468):

Texas (T104704295-17-16), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab code: TX00127): Texas (T104704221-17-12)

Xenco-Lubbock (EPA Lab code: TX00139): Texas (T104704219-17-16)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-18-14)

Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-17-3)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco-Atlanta (LELAP Lab ID #04176)



09-APR-18

Project Manager: **Joel Lowry**  
**TRC Solutions, Inc**  
2057 Commerce  
Midland, TX 79703

Reference: XENCO Report No(s): **581097**  
**COG Phillips State**  
Project Address:

**Joel Lowry:**

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 581097. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 581097 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads 'Kelsey Brooks'.

**Kelsey Brooks**

Project Manager

***Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.***

*Certified and approved by numerous States and Agencies.*

*A Small Business and Minority Status Company that delivers SERVICE and QUALITY*

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America

**Sample Cross Reference 581097****TRC Solutions, Inc, Midland, TX**

COG Phillips State

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FL-1	S	03-30-18 14:00	1 ft	581097-001
FL-2	S	03-30-18 14:05	3 ft	581097-002
NSW	S	03-30-18 14:10	6 ft	581097-003
SSW	S	03-30-18 14:15	6 ft	581097-004
ESW	S	03-30-18 14:20	6 ft	581097-005
WSW	S	03-30-18 14:25	6 ft	581097-006



## CASE NARRATIVE

**Client Name:** TRC Solutions, Inc

**Project Name:** COG Phillips State

Project ID:

Work Order Number(s): 581097

Report Date: 09-APR-18

Date Received: 04/03/2018

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**Sample receipt non conformances and comments:**

None

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**Sample receipt non conformances and comments per sample:**

None

**Analytical non conformances and comments:**

Batch: LBA-3045814 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.



# Certificate of Analysis Summary 581097

TRC Solutions, Inc, Midland, TX

Project Name: COG Phillips State



Date Received in Lab: Tue Apr-03-18 10:18 am  
Report Date: 09-APR-18  
Project Manager: Kelsey Brooks

Project Id: Joel Lowry  
Contact:  
Project Location:

Analysis Requested	Lab Id:	581097-001	581097-002	581097-003	581097-004	581097-005	581097-006
	Field Id:	FL-1	FL-2	NSW	SSW	ESW	WSW
	Depth:	1- ft	3- ft	6- ft	6- ft	6- ft	6- ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	Mar-30-18 14:00	Mar-30-18 14:05	Mar-30-18 14:10	Mar-30-18 14:15	Mar-30-18 14:20	Mar-30-18 14:25
BTEX by EPA 8021B	Extracted:	Apr-05-18 10:00	Apr-05-18 10:00	Apr-05-18 10:00	Apr-05-18 10:00	Apr-05-18 10:00	Apr-05-18 10:00
	Analyzed:	Apr-05-18 17:24	Apr-05-18 17:46	Apr-05-18 18:06	Apr-05-18 18:44	Apr-05-18 19:04	Apr-05-18 19:23
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
	Benzene	<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202
	Toluene	<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202
Chloride by EPA 300	Extracted:	Apr-03-18 16:45	Apr-03-18 16:45				
	Analyzed:	Apr-03-18 23:28	Apr-03-18 23:33				
	Units/RL:	mg/kg RL	mg/kg RL				
	Chloride	1260 25.0	968 25.0				
	TPH by SW8015 Mod	Apr-03-18 16:00	Apr-03-18 16:00	Apr-03-18 16:00	Apr-05-18 12:00	Apr-05-18 12:00	Apr-05-18 12:00
TPH by SW8015 Mod	Extracted:	Apr-03-18 16:00	Apr-03-18 16:00	Apr-03-18 16:00	Apr-05-18 12:00	Apr-05-18 12:00	Apr-05-18 12:00
	Analyzed:	Apr-04-18 15:08	Apr-04-18 15:36	Apr-04-18 16:09	Apr-05-18 16:17	Apr-05-18 16:37	Apr-05-18 16:58
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
	Gasoline Range Hydrocarbons (GRO)	<15.0 15.0	<15.0 15.0	<14.9 14.9	20.5 15.0	36.8 15.0	<15.0 15.0
	Diesel Range Organics (DRO)	2870 15.0	1080 15.0	64.3 14.9	673 15.0	2130 15.0	43.3 15.0
Oil Range Hydrocarbons (ORO)	Extracted:	Apr-03-18 16:00	Apr-03-18 16:00	Apr-03-18 16:00	Apr-05-18 12:00	Apr-05-18 12:00	Apr-05-18 12:00
	Analyzed:	Apr-04-18 15:08	Apr-04-18 15:36	Apr-04-18 16:09	Apr-05-18 16:17	Apr-05-18 16:37	Apr-05-18 16:58
Total TPH	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
	Oil Range Hydrocarbons (ORO)	<15.0 15.0	<15.0 15.0	<14.9 14.9	99.9 15.0	336 15.0	<15.0 15.0
Total TPH	Extracted:	Apr-03-18 16:00	Apr-03-18 16:00	Apr-03-18 16:00	Apr-05-18 12:00	Apr-05-18 12:00	Apr-05-18 12:00
	Analyzed:	Apr-04-18 15:08	Apr-04-18 15:36	Apr-04-18 16:09	Apr-05-18 16:17	Apr-05-18 16:37	Apr-05-18 16:58
Total TPH	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
	Total TPH	2933.4 15	1125.6 15	64.3 14.9	793.4 15	2502.8 15	43.3 15

*Kelsey Brooks*

Kelsey Brooks  
Project Manager

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi



## Flagging Criteria



- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

**\*\*** Surrogate recovered outside laboratory control limit.

**BRL** Below Reporting Limit.

**RL** Reporting Limit

**MDL** Method Detection Limit      **SDL** Sample Detection Limit      **LOD** Limit of Detection

**PQL** Practical Quantitation Limit      **SQL** Method Quantitation Limit      **LOQ** Limit of Quantitation

**DL** Method Detection Limit

**NC** Non-Calculable

**SMP** Client Sample      **BLK** Method Blank

**BKS/LCS** Blank Spike/Laboratory Control Sample      **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

**MD/SD** Method Duplicate/Sample Duplicate      **MS** Matrix Spike      **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

\* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation





## Form 2 - Surrogate Recoveries

Project Name: COG Phillips State

Work Orders : 581097,

Project ID:

Lab Batch #: 3045685

Sample: 581097-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/04/18 15:08

## SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	94.3	99.9	94	70-135	
o-Terphenyl	64.1	50.0	128	70-135	

Lab Batch #: 3045685

Sample: 581097-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/04/18 15:36

## SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	99.9	99.7	100	70-135	
o-Terphenyl	63.9	49.9	128	70-135	

Lab Batch #: 3045685

Sample: 581097-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/04/18 16:09

## SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	90.4	99.6	91	70-135	
o-Terphenyl	47.6	49.8	96	70-135	

Lab Batch #: 3045830

Sample: 581097-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/05/18 16:17

## SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	98.7	99.7	99	70-135	
o-Terphenyl	48.5	49.9	97	70-135	

Lab Batch #: 3045830

Sample: 581097-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/05/18 16:37

## SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	98.5	99.7	99	70-135	
o-Terphenyl	45.4	49.9	91	70-135	

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

All results are based on MDL and validated for QC purposes.



## Form 2 - Surrogate Recoveries

Project Name: COG Phillips State

Work Orders : 581097,

Lab Batch #: 3045830

Sample: 581097-006 / SMP

Project ID:

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/05/18 16:58

## SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	98.2	99.9	98	70-135	
o-Terphenyl	50.6	50.0	101	70-135	

Lab Batch #: 3045814

Sample: 581097-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/05/18 17:24

## SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0300	0.0300	100	70-130	
4-Bromofluorobenzene	0.0304	0.0300	101	70-130	

Lab Batch #: 3045814

Sample: 581097-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/05/18 17:46

## SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0273	0.0300	91	70-130	
4-Bromofluorobenzene	0.0295	0.0300	98	70-130	

Lab Batch #: 3045814

Sample: 581097-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/05/18 18:06

## SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0308	0.0300	103	70-130	
4-Bromofluorobenzene	0.0282	0.0300	94	70-130	

Lab Batch #: 3045814

Sample: 581097-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/05/18 18:44

## SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0289	0.0300	96	70-130	
4-Bromofluorobenzene	0.0258	0.0300	86	70-130	

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

All results are based on MDL and validated for QC purposes.



## Form 2 - Surrogate Recoveries

Project Name: COG Phillips State

Work Orders : 581097,

Lab Batch #: 3045814

Sample: 581097-005 / SMP

Project ID:

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/05/18 19:04

## SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0292	0.0300	97	70-130	
4-Bromofluorobenzene	0.0263	0.0300	88	70-130	

Lab Batch #: 3045814

Sample: 581097-006 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/05/18 19:23

## SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0291	0.0300	97	70-130	
4-Bromofluorobenzene	0.0293	0.0300	98	70-130	

Lab Batch #: 3045685

Sample: 7641971-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04/04/18 02:48

## SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	99.3	100	99	70-135	
o-Terphenyl	50.5	50.0	101	70-135	

Lab Batch #: 3045814

Sample: 7642116-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04/05/18 11:19

## SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0269	0.0300	90	70-130	
4-Bromofluorobenzene	0.0256	0.0300	85	70-130	

Lab Batch #: 3045830

Sample: 7642101-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04/05/18 13:09

## SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	92.7	100	93	70-135	
o-Terphenyl	43.3	50.0	87	70-135	

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

All results are based on MDL and validated for QC purposes.



## Form 2 - Surrogate Recoveries

Project Name: COG Phillips State

Work Orders : 581097,

Lab Batch #: 3045685

Sample: 7641971-1-BKS / BKS

Project ID:

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04/04/18 03:19

## SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	124	100	124	70-135	
o-Terphenyl	54.4	50.0	109	70-135	

Lab Batch #: 3045814

Sample: 7642116-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04/05/18 09:22

## SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0313	0.0300	104	70-130	
4-Bromofluorobenzene	0.0314	0.0300	105	70-130	

Lab Batch #: 3045830

Sample: 7642101-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04/05/18 13:31

## SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.1	100	97	70-135	
o-Terphenyl	48.5	50.0	97	70-135	

Lab Batch #: 3045685

Sample: 7641971-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04/04/18 03:50

## SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	126	100	126	70-135	
o-Terphenyl	56.8	50.0	114	70-135	

Lab Batch #: 3045814

Sample: 7642116-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04/05/18 09:42

## SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0301	0.0300	100	70-130	
4-Bromofluorobenzene	0.0297	0.0300	99	70-130	

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

All results are based on MDL and validated for QC purposes.



## Form 2 - Surrogate Recoveries

Project Name: COG Phillips State

Work Orders : 581097,

Lab Batch #: 3045830

Sample: 7642101-1-BSD / BSD

Project ID:

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04/05/18 13:52

## SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	99.2	100	99	70-135	
o-Terphenyl	49.3	50.0	99	70-135	

Lab Batch #: 3045685

Sample: 581095-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/04/18 04:50

## SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	119	99.9	119	70-135	
o-Terphenyl	52.6	50.0	105	70-135	

Lab Batch #: 3045814

Sample: 581096-004 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/05/18 10:01

## SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0274	0.0300	91	70-130	
4-Bromofluorobenzene	0.0278	0.0300	93	70-130	

Lab Batch #: 3045830

Sample: 581096-005 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/05/18 15:36

## SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	109	99.8	109	70-135	
o-Terphenyl	53.5	49.9	107	70-135	

Lab Batch #: 3045685

Sample: 581095-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/04/18 05:21

## SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	121	99.7	121	70-135	
o-Terphenyl	53.2	49.9	107	70-135	

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

All results are based on MDL and validated for QC purposes.



# Form 2 - Surrogate Recoveries

Project Name: COG Phillips State

Work Orders : 581097,

Project ID:

Lab Batch #: 3045814

Sample: 581096-004 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/05/18 10:20

## SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0276	0.0300	92	70-130	
4-Bromofluorobenzene	0.0304	0.0300	101	70-130	

Lab Batch #: 3045830

Sample: 581096-005 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/05/18 15:57

## SURROGATE RECOVERY STUDY

TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	124	100	124	70-135	
o-Terphenyl	47.7	50.0	95	70-135	

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] =  $100 * A / B$

All results are based on MDL and validated for QC purposes.



Work Order #: 581097

Analyst: ALJ

Lab Batch ID: 3045814

Units: mg/kg

Sample: 7642116-1-BKS

Batch #: 1

Date Prepared: 04/05/2018

Project ID:

Date Analyzed: 04/05/2018

Matrix: Solid

### BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
BTEX by EPA 8021B											
Benzene	<0.00201	0.100	0.127	127	0.101	0.120	119	6	70-130	35	
Toluene	<0.00201	0.100	0.120	120	0.101	0.113	112	6	70-130	35	
Ethylbenzene	<0.00201	0.100	0.115	115	0.101	0.108	107	6	70-130	35	
m,p-Xylenes	<0.00402	0.201	0.238	118	0.202	0.223	110	7	70-130	35	
o-Xylene	<0.00201	0.100	0.117	117	0.101	0.111	110	5	70-130	35	

Date Prepared: 04/03/2018

Date Analyzed: 04/03/2018

Analyst: OJS

Lab Batch ID: 3045650

Sample: 7641966-1-BKS

Units: mg/kg

Batch #: 1

Matrix: Solid

### BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride by EPA 300											
Chloride	<5.00	250	241	96	250	236	94	2	90-110	20	

Relative Percent Difference RPD =  $200 * |(C-F)/(C+F)|$   
Blank Spike Recovery [D] =  $100 * (C)/[B]$   
Blank Spike Duplicate Recovery [G] =  $100 * (F)/[E]$   
All results are based on MDL and Validated for QC Purposes



Work Order #: 581097

Analyst: ARM

Lab Batch ID: 3045685

Units: mg/kg

Sample: 7641971-1-BKS

Date Prepared: 04/03/2018

Batch #: 1

Project ID:

Date Analyzed: 04/04/2018

Matrix: Solid

### BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH by SW8015 Mod	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	1000	100	1000	1000	100	0	70-135	20	
Diesel Range Organics (DRO)	<15.0	1000	1040	104	1000	1050	105	1	70-135	20	

Date Analyzed: 04/05/2018

Matrix: Solid

Date Prepared: 04/05/2018

Batch #: 1

Sample: 7642101-1-BKS

Analyst: ARM

Lab Batch ID: 3045830

Units: mg/kg

### BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH by SW8015 Mod	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	859	86	1000	897	90	4	70-135	20	
Diesel Range Organics (DRO)	<15.0	1000	910	91	1000	951	95	4	70-135	20	

Relative Percent Difference RPD =  $200 * |(C-F)/(C+F)|$   
Blank Spike Recovery [D] =  $100 * (C)/[B]$   
Blank Spike Duplicate Recovery [G] =  $100 * (F)/[E]$   
All results are based on MDL and Validated for QC Purposes

Work Order #: 581097  
 Lab Batch ID: 3045814  
 Date Analyzed: 04/05/2018  
 Reporting Units: mg/kg

Project ID:  
 QC- Sample ID: 581096-004 S Batch #: 1 Matrix: Soil  
 Date Prepared: 04/05/2018 Analyst: ALJ

### MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00202	0.101	0.0537	53	0.0994	0.0583	59	8	70-130	35	X
Toluene	<0.00202	0.101	0.0365	36	0.0994	0.0414	42	13	70-130	35	X
Ethylbenzene	<0.00202	0.101	0.0248	25	0.0994	0.0327	33	27	70-130	35	X
m,p-Xylenes	0.00869	0.202	0.0597	25	0.199	0.0707	31	17	70-130	35	X
o-Xylene	0.00436	0.101	0.0315	27	0.0994	0.0399	36	24	70-130	35	X

Lab Batch ID: 3045650 QC- Sample ID: 581087-014 S Batch #: 1 Matrix: Soil  
 Date Analyzed: 04/03/2018 Date Prepared: 04/03/2018 Analyst: OJS

### MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	264	250	504	96	250	514	100	2	90-110	20	

Lab Batch ID: 3045650 QC- Sample ID: 581087-017 S Batch #: 1 Matrix: Soil  
 Date Analyzed: 04/03/2018 Date Prepared: 04/03/2018 Analyst: OJS

### MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	41.0	250	283	97	250	280	96	1	90-110	20	

Matrix Spike Percent Recovery  $[D] = 100 \times (C-A)/B$   
 Relative Percent Difference  $RPD = 200 \times [(C-F)/(C+E)]$

Matrix Spike Duplicate Percent Recovery  $[G] = 100 \times (F-A)/E$

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable  
 N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Work Order #: 581097  
 Lab Batch ID: 3045685  
 Date Analyzed: 04/04/2018  
 Reporting Units: mg/kg

Project ID:  
 QC-Sample ID: 581095-001 S Batch #: 1 Matrix: Soil  
 Date Prepared: 04/03/2018 Analyst: ARM

### MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH by SW8015 Mod		Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes												
Gasoline Range Hydrocarbons (GRO)		<15.0	999	960	96	997	971	97	1	70-135	20	
Diesel Range Organics (DRO)		26.5	999	1000	97	997	1010	99	1	70-135	20	

Lab Batch ID: 3045830 QC-Sample ID: 581096-005 S Batch #: 1 Matrix: Soil  
 Date Analyzed: 04/05/2018 Date Prepared: 04/05/2018 Analyst: ARM

### MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH by SW8015 Mod		Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes												
Gasoline Range Hydrocarbons (GRO)		91.9	998	1020	93	1000	990	90	3	70-135	20	
Diesel Range Organics (DRO)		743	998	1860	112	1000	1880	114	1	70-135	20	

Matrix Spike Percent Recovery  $[D] = 100 \times (C-A)/B$   
 Relative Percent Difference  $RPD = 200 \times |(C-F)/(C+F)|$   
 ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable  
 N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Matrix Spike Duplicate Percent Recovery  $[G] = 100 \times (F-A)/E$





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Phoenix, Arizona (480-355-0900)

## CHAIN OF CUSTODY

Page 1 Of 1

[illegible]



## XENCO Laboratories

## Prelogin/Nonconformance Report- Sample Log-In

Client: TRC Solutions, Inc

Date/ Time Received: 04/03/2018 10:18:00 AM

Work Order #: 581097

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

## Sample Receipt Checklist

## Comments

#1 *Temperature of cooler(s)?	.1	
#2 *Shipping container in good condition?	Yes	
#3 *Samples received on ice?	Yes	
#4 *Custody Seals intact on shipping container/ cooler?	N/A	
#5 Custody Seals intact on sample bottles?	N/A	
#6 *Custody Seals Signed and dated?	N/A	
#7 *Chain of Custody present?	Yes	
#8 Any missing/extra samples?	No	
#9 Chain of Custody signed when relinquished/ received?	Yes	
#10 Chain of Custody agrees with sample labels/matrix?	Yes	
#11 Container label(s) legible and intact?	Yes	
#12 Samples in proper container/ bottle?	Yes	TPH received in bulk container
#13 Samples properly preserved?	Yes	
#14 Sample container(s) intact?	Yes	
#15 Sufficient sample amount for indicated test(s)?	Yes	
#16 All samples received within hold time?	Yes	
#17 Subcontract of sample(s)?	No	
#18 Water VOC samples have zero headspace?	N/A	

\* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst:

PH Device/Lot#:

Checklist completed by:

Katie Lowe

Date: 04/03/2018

Checklist reviewed by:

Jessica Kramer

Date: 04/03/2018



# Analytical Report 585254

for  
**TRC Solutions, Inc**

**Project Manager: Joel Lowry**

**Phillips State #1 IRP-4882**

**14-MAY-18**

Collected By: Client



**1211 W. Florida Ave, Midland TX 79701**

Xenco-Houston (EPA Lab Code: TX00122):  
Texas (T104704215-18-25), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)  
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):  
Texas (T104704295-17-16), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-17-12)  
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-17-16)  
Xenco-Odessa (EPA Lab Code: TX00158): Texas (T104704400-18-14)  
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-17-3)  
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)  
Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)  
Xenco-Atlanta (LELAP Lab ID #04176)  
Xenco-Tampa: Florida (E87429)  
Xenco-Lakeland: Florida (E84098)



14-MAY-18

Project Manager: **Joel Lowry**  
**TRC Solutions, Inc**  
2057 Commerce  
Midland, TX 79703

Reference: XENCO Report No(s): **585254**  
**Phillips State #1 IRP-4882**  
Project Address: Lea Co, NM

**Joel Lowry:**

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 585254. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 585254 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink, appearing to read 'Kelsey Brooks', written over a horizontal line.

**Kelsey Brooks**

Project Manager

***Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.***

*Certified and approved by numerous States and Agencies.*

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Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America

**Sample Cross Reference 585254****TRC Solutions, Inc, Midland, TX**

Phillips State #1 IRP-4882

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
NSW b	S	04-26-18 10:42	1 ft	585254-001
ESW b	S	04-26-18 14:12	1 ft	585254-002
SSW b	S	04-27-18 16:40	1 ft	585254-003
WSW b	S	04-27-18 11:05	1 ft	585254-004



## CASE NARRATIVE

**Client Name: TRC Solutions, Inc**

**Project Name: Phillips State #1 IRP-4882**

Project ID:

Work Order Number(s): 585254

Report Date: 14-MAY-18

Date Received: 05/08/2018

---

**Sample receipt non conformances and comments:**

None

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**Sample receipt non conformances and comments per sample:**

None

**Analytical non conformances and comments:**

Batch: LBA-3049874 Chloride by EPA 300

Lab Sample ID 585254-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 585254-001, -002, -003, -004.

The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.



**Certificate of Analysis Summary 585254**  
**TRC Solutions, Inc, Midland, TX**  
**Project Name: Phillips State #1 IRP-4882**


**Date Received in Lab:** Tue May-08-18 10:30 am  
**Report Date:** 14-MAY-18  
**Project Manager:** Kelsey Brooks

**Project Id:**  
**Contact:** Joel Lowry  
**Project Location:** Lea Co, NM

<i>Analysis Requested</i>		<i>Lab Id:</i>	<i>Field Id:</i>	<i>Depth:</i>	<i>Matrix:</i>	<i>Sampled:</i>	585254-001	585254-002	585254-003	585254-004	
<b>Chloride by EPA 300</b>							NSW b 1- ft SOIL Apr-26-18 10:42	ESW b 1- ft SOIL Apr-26-18 14:12	SSW b 1- ft SOIL Apr-27-18 16:40	WSW b 1- ft SOIL Apr-27-18 11:05	
Chloride	<i>Extracted:</i>		May-11-18 16:30				mg/kg	mg/kg	mg/kg	mg/kg	
	<i>Analyzed:</i>		May-11-18 22:14				RL	RL	RL	RL	
	<i>Units/RL:</i>		121	450	422	524	4.93	25.0	49.9	4.94	
<b>TPH by SW8015 Mod</b>											
Gasoline Range Hydrocarbons (GRO) Diesel Range Organics (DRO) Oil Range Hydrocarbons (ORO) Total TPH	<i>Extracted:</i>		May-08-18 16:00								
	<i>Analyzed:</i>		May-09-18 05:09								
	<i>Units/RL:</i>		mg/kg	mg/kg	mg/kg	mg/kg	RL	RL	RL	RL	
			119	3740	31.9	3890.9	15.0	15.0	15.0		

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

  
Kelsey Brooks  
Project Manager



## Flagging Criteria



- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

\*\* Surrogate recovered outside laboratory control limit.

**BRL** Below Reporting Limit.

**RL** Reporting Limit

**MDL** Method Detection Limit      **SDL** Sample Detection Limit      **LOD** Limit of Detection

**PQL** Practical Quantitation Limit      **SQL** Method Quantitation Limit      **LOQ** Limit of Quantitation

**DL** Method Detection Limit

**NC** Non-Calculable

**SMP** Client Sample      **BLK** Method Blank

**BKS/LCS** Blank Spike/Laboratory Control Sample      **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

**MD/SD** Method Duplicate/Sample Duplicate      **MS** Matrix Spike      **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

\* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation





## Form 2 - Surrogate Recoveries

Project Name: Phillips State #1 IRP-4882

Work Orders : 585254,

Project ID:

Lab Batch #: 3049423

Sample: 585254-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/09/18 05:09

## SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	98.3	99.8	98	70-135	
o-Terphenyl	62.0	49.9	124	70-135	

Lab Batch #: 3049423

Sample: 7644346-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 05/08/18 20:41

## SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	82.8	100	83	70-135	
o-Terphenyl	43.4	50.0	87	70-135	

Lab Batch #: 3049423

Sample: 7644346-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 05/08/18 21:08

## SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	100	100	100	70-135	
o-Terphenyl	47.8	50.0	96	70-135	

Lab Batch #: 3049423

Sample: 7644346-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 05/08/18 21:35

## SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	101	100	101	70-135	
o-Terphenyl	49.2	50.0	98	70-135	

Lab Batch #: 3049423

Sample: 585093-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/08/18 22:28

## SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	98.1	99.8	98	70-135	
o-Terphenyl	50.4	49.9	101	70-135	

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

All results are based on MDL and validated for QC purposes.



## Form 2 - Surrogate Recoveries

Project Name: Phillips State #1 IRP-4882

**Work Orders :** 585254,**Project ID:****Lab Batch #:** 3049423**Sample:** 585093-001 SD / MSD**Batch:** 1 **Matrix:** Soil**Units:** mg/kg**Date Analyzed:** 05/08/18 22:55**SURROGATE RECOVERY STUDY**

TPH by SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	99.3	99.9	99	70-135	
o-Terphenyl	48.9	50.0	98	70-135	

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] =  $100 * A / B$ 

All results are based on MDL and validated for QC purposes.

Work Order #: 585254

Analyst: SCM

Lab Batch ID: 3049874

Units: mg/kg

Sample: 7644562-1-BKS

Date Prepared: 05/11/2018  
Batch #: 1

Project ID:

Date Analyzed: 05/11/2018  
Matrix: Solid

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
mg/kg											
Units:	Chloride by EPA 300										
	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Chloride	<5.00	250	275	110	250	273	109	1	90-110	20	

Analyst: ARM  
Lab Batch ID: 3049423  
Units: mg/kg  
Sample: 7644346-1-BKS  
Date Prepared: 05/08/2018  
Batch #: 1

Date Analyzed: 05/08/2018  
Matrix: Solid

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY												
TPH by SW8015 Mod		Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes												
Gasoline Range Hydrocarbons (GRO)		<15.0	1000	924	92	1000	946	95	2	70-135	20	
Diesel Range Organics (DRO)		<15.0	1000	1020	102	1000	1050	105	3	70-135	20	

Relative Percent Difference RPD =  $200 * |(C-F)/(C+F)|$   
Blank Spike Recovery [D] =  $100 * (C)/[B]$   
Blank Spike Duplicate Recovery [G] =  $100 * (F)/[E]$   
All results are based on MDL and Validated for QC Purposes



# Form 3 - MS / MSD Recoveries

Project Name: Phillips State #1 IRP-4882

Work Order #: 585254  
Lab Batch ID: 3049874  
Date Analyzed: 05/11/2018  
Reporting Units: mg/kg

Project ID:

QC- Sample ID: 584965-012 S Batch #: 1 Matrix: Soil  
Date Prepared: 05/11/2018 Analyst: SCM

## MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
	<4.99	250	295	118	250	292	117	1	90-110	20	X

Lab Batch ID: 3049874 QC- Sample ID: 585254-001 S Batch #: 1 Matrix: Soil  
Date Analyzed: 05/11/2018 Date Prepared: 05/11/2018 Analyst: SCM  
Reporting Units: mg/kg

## MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
	121	247	405	115	247	410	117	1	90-110	20	X

Lab Batch ID: 3049423 QC- Sample ID: 585093-001 S Batch #: 1 Matrix: Soil  
Date Analyzed: 05/08/2018 Date Prepared: 05/08/2018 Analyst: ARM  
Reporting Units: mg/kg

## MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
	<15.0	998	912	91	999	929	93	2	70-135	20	
	<15.0	998	1020	102	999	1030	103	1	70-135	20	

Matrix Spike Percent Recovery  $[D] = 100 \times (C-A)/B$   
Relative Percent Difference  $RPD = 200 \times [(C-F)/(C+E)]$

Matrix Spike Duplicate Percent Recovery  $[G] = 100 \times (F-A)/E$

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable  
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.



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Stafford, Texas (281-240-4200)  
Dallas Texas (214-902-0300)

San Antonio, Texas (210-509-3334)  
Midland, Texas (432-704-5251)

Phoenix, Arizona (480-355-0900)

# CHAIN OF CUSTODY

Page 1 of 1

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Xenco Job #

585254

## Client / Reporting Information

## Project Information

## Analytical Information

## Matrix Codes

W = Water

S = Soil/Sed/Solid

GW = Ground Water

DW = Drinking Water

P = Product

SW = Surface water

SL = Sludge

OW = Ocean/Sea Water

WI = Wipe

O = Oil

WW = Waste Water

A = Air

Project Name/Number:

Project Location:

Invoice To:

Invoice:

Project Name/Number:

Project Location:

Invoice To:

Invoice:

Project Name/Number:

Project Location:

Invoice To:

Invoice:

Project Name/Number:

Project Location:

Invoice To:

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Project Name/Number:

Project Location:

Invoice To:

Invoice:

Project Name/Number:





Client: TRC Solutions, Inc

Date/ Time Received: 05/08/2018 10:30:00 AM

Work Order #: 585254

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

## Sample Receipt Checklist

## Comments

#1 *Temperature of cooler(s)?	1
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	N/A
#5 Custody Seals intact on sample bottles?	N/A
#6 *Custody Seals Signed and dated?	N/A
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	No
#18 Water VOC samples have zero headspace?	N/A

\* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst:

PH Device/Lot#:

Checklist completed by:

Katie Lowe

Date: 05/08/2018

Checklist reviewed by:

Kelsey Brooks

Date: 05/08/2018



# Analytical Report 587535

for  
**TRC Solutions, Inc**

**Project Manager: Joel Lowry**

**Phillips State**

**05-JUN-18**

Collected By: Client



**1211 W. Florida Ave, Midland TX 79701**

Xenco-Houston (EPA Lab Code: TX00122):  
Texas (T104704215-18-26), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)  
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):  
Texas (T104704295-17-16), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-17-12)  
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-17-16)  
Xenco-Odessa (EPA Lab Code: TX00158): Texas (T104704400-18-14)  
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-17-3)  
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)  
Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)  
Xenco-Atlanta (LELAP Lab ID #04176)  
Xenco-Tampa: Florida (E87429)  
Xenco-Lakeland: Florida (E84098)



05-JUN-18

Project Manager: **Joel Lowry**  
**TRC Solutions, Inc**  
2057 Commerce  
Midland, TX 79703

Reference: XENCO Report No(s): **587535**  
**Phillips State**  
Project Address: Lea County, NM

**Joel Lowry:**

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 587535. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 587535 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink, appearing to read 'Kelsey Brooks', written over a horizontal line.

**Kelsey Brooks**

Project Manager

***Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.***

*Certified and approved by numerous States and Agencies.*

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## Sample Cross Reference 587535

TRC Solutions, Inc, Midland, TX

Phillips State

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
ESW	S	05-29-18 08:00		587535-001



## CASE NARRATIVE

**Client Name: TRC Solutions, Inc**

**Project Name: Phillips State**

Project ID:

Work Order Number(s): 587535

Report Date: 05-JUN-18

Date Received: 05/30/2018

---

**Sample receipt non conformances and comments:**

None

---

**Sample receipt non conformances and comments per sample:**

None



**Certificate of Analysis Summary 587535**  
**TRC Solutions, Inc, Midland, TX**  
**Project Name: Phillips State**

**Date Received in Lab:** Wed May-30-18 10:30 am  
**Report Date:** 05-JUN-18  
**Project Manager:** Kelsey Brooks

**Project Id:**  
**Contact:** Joel Lowry  
**Project Location:** Lea County, NM

<i>Analysis Requested</i>	<i>Lab Id:</i>	587535-001					
	<i>Field Id:</i>	ESW					
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL					
	<i>Sampled:</i>	May-29-18 08:00					
Chloride by EPA 300	<i>Extracted:</i>	May-31-18 12:00					
	<i>Analyzed:</i>	Jun-01-18 10:16					
	<i>Units/RL:</i>	mg/kg RL 145 5.00					
TPH by SW8015 Mod	<i>Extracted:</i>	May-31-18 07:00					
	<i>Analyzed:</i>	May-31-18 19:57					
	<i>Units/RL:</i>	mg/kg RL <15.0 15.0					
Gasoline Range Hydrocarbons (GRO)		<15.0 15.0					
Diesel Range Organics (DRO)		<15.0 15.0					
Oil Range Hydrocarbons (ORO)		<15.0 15.0					
Total TPH		<15 15					

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Kelsey Brooks  
Project Manager



## Flagging Criteria



- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

\*\* Surrogate recovered outside laboratory control limit.

**BRL** Below Reporting Limit.

**RL** Reporting Limit

**MDL** Method Detection Limit      **SDL** Sample Detection Limit      **LOD** Limit of Detection

**PQL** Practical Quantitation Limit      **SQL** Method Quantitation Limit      **LOQ** Limit of Quantitation

**DL** Method Detection Limit

**NC** Non-Calculable

**SMP** Client Sample      **BLK** Method Blank

**BKS/LCS** Blank Spike/Laboratory Control Sample      **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

**MD/SD** Method Duplicate/Sample Duplicate      **MS** Matrix Spike      **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

\* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation





## Form 2 - Surrogate Recoveries

Project Name: Phillips State

Work Orders : 587535,

Project ID:

Lab Batch #: 3052046

Sample: 587535-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/31/18 19:57

## SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	85.8	99.7	86	70-135	
o-Terphenyl	44.5	49.9	89	70-135	

Lab Batch #: 3052046

Sample: 7655868-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 05/31/18 09:54

## SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	86.1	100	86	70-135	
o-Terphenyl	46.2	50.0	92	70-135	

Lab Batch #: 3052046

Sample: 7655868-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 05/31/18 10:15

## SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	126	100	126	70-135	
o-Terphenyl	59.6	50.0	119	70-135	

Lab Batch #: 3052046

Sample: 7655868-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 05/31/18 10:36

## SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	128	100	128	70-135	
o-Terphenyl	60.3	50.0	121	70-135	

Lab Batch #: 3052046

Sample: 587529-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/31/18 11:19

## SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	102	99.9	102	70-135	
o-Terphenyl	51.7	50.0	103	70-135	

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

All results are based on MDL and validated for QC purposes.



# Form 2 - Surrogate Recoveries

Project Name: Phillips State

Work Orders : 587535,

Project ID:

Lab Batch #: 3052046

Sample: 587529-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/31/18 11:41

## SURROGATE RECOVERY STUDY

TPH by SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	103	99.8	103	70-135	
o-Terphenyl	52.1	49.9	104	70-135	

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] =  $100 * A / B$

All results are based on MDL and validated for QC purposes.

Work Order #: 587535

Analyst: SCM

Lab Batch ID: 3052090

Units: mg/kg

Sample: 7655801-1-BKS

Batch #: 1

Date Prepared: 05/31/2018

Project ID:

Date Analyzed: 06/01/2018

Matrix: Solid

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
mg/kg											
Units:	Chloride by EPA 300										
	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Chloride	<5.00	250	275	110	250	274	110	0	90-110	20	

Date Prepared: 05/31/2018

Batch #: 1

Date Analyzed: 05/31/2018

Matrix: Solid

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY														
Units:	mg/kg	TPH by SW8015 Mod	Analytes	Blank Sample Result	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Blank Spike Duplicate Result	Blk. Spk Dup.	RPD %	Control Limits	Control Limits	Flag
				[A]	[B]	[C]	[D]	[E]	[F]	[G]	%R	%R	%RPD	
		Gasoline Range Hydrocarbons (GRO)		<15.0	1000	920	92	1000	953	95	4	70-135	20	
		Diesel Range Organics (DRO)		<15.0	1000	993	99	1000	1040	104	5	70-135	20	

Relative Percent Difference RPD =  $200 * |(C-F)/(C+F)|$   
Blank Spike Recovery [D] =  $100 * (C)/[B]$   
Blank Spike Duplicate Recovery [G] =  $100 * (F)/[E]$   
All results are based on MDL and Validated for QC Purposes



Work Order #: 587535  
 Lab Batch ID: 3052090  
 Date Analyzed: 06/01/2018  
 Reporting Units: mg/kg

Project ID:

QC-Sample ID: 587510-004 S Batch #: 1 Matrix: Soil  
 Date Prepared: 05/31/2018 Analyst: SCM

## MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
	30.9	246	313	115	246	318	117	2	90-110	20	X

Lab Batch ID: 3052090 QC-Sample ID: 587532-003 S Batch #: 1 Matrix: Soil  
 Date Analyzed: 06/01/2018 Date Prepared: 05/31/2018 Analyst: SCM  
 Reporting Units: mg/kg

## MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
	74.1	249	356	113	249	354	112	1	90-110	20	X

Lab Batch ID: 3052046 QC-Sample ID: 587529-001 S Batch #: 1 Matrix: Soil  
 Date Analyzed: 05/31/2018 Date Prepared: 05/31/2018 Analyst: ARM  
 Reporting Units: mg/kg

## MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
	<15.0	999	896	90	998	894	90	0	70-135	20	
	<15.0	999	979	98	998	980	98	0	70-135	20	

Matrix Spike Percent Recovery  $[D] = 100 \times (C-A)/B$   
 Relative Percent Difference  $RPD = 200 \times [(C-F)/(C+E)]$   
 ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable  
 N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Matrix Spike Duplicate Percent Recovery  $[G] = 100 \times (F-A)/E$





**XENCO**  
Laboratories

☐ 4143 Greenbriar Drive, Stafford, TX 77477 281-240-4200  
☐ 5332, Blackberry Drive, San Antonio, TX 78238 210-509-3334

<input type="checkbox"/>	9701 Harry Hines Blvd., Dallas, TX 75220	214-802-0300
<input type="checkbox"/>	12600 West 1-20 East, Odessa, TX 79765	432-563-1800

Serial #: 330916 Page of

## ANALYSIS REQUEST &amp; CHAIN OF CUSTODY RECORD

Company/City		Phone		Lab Only:	
Project Name-Location		Previously done at XENCO		Project ID	
Project State		Project Manager (PM)		TAT: ASAP 5h 12h 24h 48h 3d 5d 7d 10d 21d Standard TAT is project specific. It is typically 5-7 Working Days for level II and 10+ Working days for level III and IV data.	
E-mail Results to		E-mail Results to			
Invoice to		Invoice to			
Bill to		Bill to			
Quote/Pricing		P.O. No:			
Reg Program:		Reg Program:			
CAPP Per-Contract CLP AGCEE NAVY DOE DOD USACE OTHER:		CAPP Per-Contract CLP AGCEE NAVY DOE DOD USACE OTHER:			
Special DLs (GW DW CAPP MDLs RLS See Lab PM Included Call PM)		Special DLs (GW DW CAPP MDLs RLS See Lab PM Included Call PM)			
Sampler Name		Signature			
Sample ID		Sampling Date		Time	
Depth		ft' in" m		Matrix	
Composite		Grab		# Containers	
Container Size		Container Type		Preservatives	
VOA: Full-List BTEX-MTBE EtOH Oxyg VOA		VOA: PP TCL DW Appdx-1 Appdx-2 CALL Other:		PAHs SIM 8310 8270	
TX-1005 DRO GRO MAEPH MA VPH		SVOCs: Full-List DW BN&AE TCLP PP Appdx-2 CALL		OC Pesticides PCBs Herbicides OP Pesticides	
Metals: RCRA-8 RCRA-4 Pb 13PP 23TAL Appdx 1 Appdx2		SPLP - TCLP (Metals VOCs SVOCs Past. Herb. PCBs)		EDB / DBCP	
TATASAP 5h 12h 24h 48h 3d 5d 7d 10d 21d		Addn: PAH above mg/L W, mg/Kg S Highest Hit		Hold Samples (Surcharges will apply and are pre-approved)	
Sample Clean-ups are pre-approved as needed		Remarks			
Addn:		Date		Rcv. by:	
From:					

Matrix: Air (A), Product (P), Solid (S), Water (W), Liquid (L)

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Notice: Signature of this document and relinquishment of these samples constitutes a valid purchase order from client company to Xenoco Laboratories and its affiliates and assigns under Xenoco's standard terms and conditions of service unless previously negotiated under a fully executed client contract.



## XENCO Laboratories

## Prelogin/Nonconformance Report- Sample Log-In

Client: TRC Solutions, Inc

Date/ Time Received: 05/30/2018 10:30:00 AM

Work Order #: 587535

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

## Sample Receipt Checklist

## Comments

#1 *Temperature of cooler(s)?	1.1
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	N/A
#5 Custody Seals intact on sample bottles?	N/A
#6 *Custody Seals Signed and dated?	N/A
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	No
#18 Water VOC samples have zero headspace?	N/A

\* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst:

PH Device/Lot#:

Checklist completed by:

Katie Lowe

Date: 05/30/2018

Checklist reviewed by:

Kelsey Brooks

Date: 06/01/2018





# Certificate of Analysis Summary 593804

TRC Solutions, Inc, Midland, TX

Project Name: Phillips State #1 TB

Project Id:

Contact: Joel Lowry

Project Location: Lea Co, NM

Date Received in Lab: Fri Jul-27-18 10:35 am

Report Date: 02-AUG-18

Project Manager: Kelsey Brooks

<i>Analysis Requested</i>	<i>Lab Id:</i>	593804-001	593804-002			
	<i>Field Id:</i>	SP#1b @ 2'	SP#2b @ 3.5'			
	<i>Depth:</i>	2- ft	3.5- ft			
	<i>Matrix:</i>	SOIL	SOIL			
	<i>Sampled:</i>	Jul-25-18 10:00	Jul-25-18 10:05			
Chloride by EPA 300	<i>Extracted:</i>	Aug-01-18 15:30	Aug-01-18 15:30			
	<i>Analyzed:</i>	Aug-01-18 19:58	Aug-01-18 21:19			
	<i>Units/RL:</i>	mg/kg RL 212 4.97	mg/kg RL 181 4.96			
TPH by SW8015 Mod	<i>Extracted:</i>	Jul-27-18 16:00	Jul-27-18 16:00			
	<i>Analyzed:</i>	Jul-28-18 01:39	Jul-28-18 01:59			
	<i>Units/RL:</i>	mg/kg RL <15.0 15.0	mg/kg RL <15.0 15.0			
Gasoline Range Hydrocarbons (GRO)		175 15.0	112 15.0			
Diesel Range Organics (DRO)		<15.0 15.0	<15.0 15.0			
Oil Range Hydrocarbons (ORO)		175 15	112 15			
Total TPH						

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Kelsey Brooks  
Project Manager

# Analytical Report 593804

for  
TRC Solutions, Inc

Project Manager: Joel Lowry

Phillips State #1 TB

02-AUG-18

Collected By: Client



1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):  
Texas (T104704215-18-26), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)  
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):  
Texas (T104704295-17-16), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-17-12)  
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-17-16)  
Xenco-Odessa (EPA Lab Code: TX00158): Texas (T104704400-18-15)  
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-17-3)  
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)  
Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)  
Xenco-Atlanta (LELAP Lab ID #04176)  
Xenco-Tampa: Florida (E87429)  
Xenco-Lakeland: Florida (E84098)



02-AUG-18

Project Manager: **Joel Lowry**  
**TRC Solutions, Inc**  
2057 Commerce  
Midland, TX 79703

Reference: XENCO Report No(s): **593804**  
**Phillips State #1 TB**  
Project Address: Lea Co, NM

**Joel Lowry:**

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 593804. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 593804 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink, appearing to read 'Kelsey Brooks', written over a horizontal line.

**Kelsey Brooks**

Project Manager

***Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.***

*Certified and approved by numerous States and Agencies.*

*A Small Business and Minority Status Company that delivers SERVICE and QUALITY*

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America

**Sample Cross Reference 593804****TRC Solutions, Inc, Midland, TX**

Phillips State #1 TB

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SP#1b @ 2'	S	07-25-18 10:00	2 ft	593804-001
SP#2b @ 3.5'	S	07-25-18 10:05	3.5 ft	593804-002



## CASE NARRATIVE

**Client Name: TRC Solutions, Inc**

**Project Name: Phillips State #1 TB**

Project ID:

Work Order Number(s): 593804

Report Date: 02-AUG-18

Date Received: 07/27/2018

---

**Sample receipt non conformances and comments:**

None

---

**Sample receipt non conformances and comments per sample:**

None



# Certificate of Analytical Results 593804



## TRC Solutions, Inc, Midland, TX

Phillips State #1 TB

Sample Id: **SP#1b @ 2'**

Matrix: Soil

Date Received: 07.27.18 10.35

Lab Sample Id: 593804-001

Date Collected: 07.25.18 10.00

Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SCM

% Moisture:

Analyst: SCM

Date Prep: 08.01.18 15.30

Basis: Wet Weight

Seq Number: 3058608

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	212	4.97	mg/kg	08.01.18 19.58		1

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 07.27.18 16.00

Basis: Wet Weight

Seq Number: 3058101

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.28.18 01.39	U	1
<b>Diesel Range Organics (DRO)</b>	C10C28DRO	175	15.0	mg/kg	07.28.18 01.39		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.28.18 01.39	U	1
<b>Total TPH</b>	PHC635	175	15	mg/kg	07.28.18 01.39		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-135	07.28.18 01.39	
o-Terphenyl	84-15-1	90	%	70-135	07.28.18 01.39	





# Certificate of Analytical Results 593804



## TRC Solutions, Inc, Midland, TX

Phillips State #1 TB

Sample Id: **SP#2b @ 3.5'**

Matrix: Soil

Date Received: 07.27.18 10.35

Lab Sample Id: 593804-002

Date Collected: 07.25.18 10.05

Sample Depth: 3.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SCM

% Moisture:

Analyst: SCM

Date Prep: 08.01.18 15.30

Basis: Wet Weight

Seq Number: 3058608

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	181	4.96	mg/kg	08.01.18 21.19		1

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 07.27.18 16.00

Basis: Wet Weight

Seq Number: 3058101

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.28.18 01.59	U	1
Diesel Range Organics (DRO)	C10C28DRO	112	15.0	mg/kg	07.28.18 01.59		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.28.18 01.59	U	1
Total TPH	PHC635	112	15	mg/kg	07.28.18 01.59		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	86	%	70-135	07.28.18 01.59	
o-Terphenyl	84-15-1	86	%	70-135	07.28.18 01.59	



## Flagging Criteria



- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

**\*\*** Surrogate recovered outside laboratory control limit.

**BRL** Below Reporting Limit.

**RL** Reporting Limit

**MDL** Method Detection Limit      **SDL** Sample Detection Limit      **LOD** Limit of Detection

**PQL** Practical Quantitation Limit      **SQL** Method Quantitation Limit      **LOQ** Limit of Quantitation

**DL** Method Detection Limit

**NC** Non-Calculable

**SMP** Client Sample      **BLK** Method Blank

**BKS/LCS** Blank Spike/Laboratory Control Sample      **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

**MD/SD** Method Duplicate/Sample Duplicate      **MS** Matrix Spike      **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

\* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



**TRC Solutions, Inc**  
Phillips State #1 TB

**Analytical Method: Chloride by EPA 300**

Seq Number: 3058608

MB Sample Id: 7659579-1-BLK

Matrix: Solid

LCS Sample Id: 7659579-1-BKS

Prep Method: E300P

Date Prep: 08.01.18

LCSD Sample Id: 7659579-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<4.99	250	258	103	254	102	90-110	2	20	mg/kg	08.01.18 19:45	

**Analytical Method: Chloride by EPA 300**

Seq Number: 3058608

Parent Sample Id: 593804-001

Matrix: Soil

MS Sample Id: 593804-001 S

Prep Method: E300P

Date Prep: 08.01.18

MSD Sample Id: 593804-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	212	249	479	107	470	104	90-110	2	20	mg/kg	08.01.18 20:05	

**Analytical Method: Chloride by EPA 300**

Seq Number: 3058608

Parent Sample Id: 593866-001

Matrix: Soil

MS Sample Id: 593866-001 S

Prep Method: E300P

Date Prep: 08.01.18

MSD Sample Id: 593866-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	340	248	597	104	591	101	90-110	1	20	mg/kg	08.01.18 21:39	

**Analytical Method: TPH by SW8015 Mod**

Seq Number: 3058101

MB Sample Id: 7659283-1-BLK

Matrix: Solid

LCS Sample Id: 7659283-1-BKS

Prep Method: TX1005P

Date Prep: 07.27.18

LCSD Sample Id: 7659283-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	924	92	929	93	70-135	1	20	mg/kg	07.27.18 22:18	
Diesel Range Organics (DRO)	<15.0	1000	935	94	952	95	70-135	2	20	mg/kg	07.27.18 22:18	

**Surrogate**

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	88		123		123		70-135	%	07.27.18 22:18
o-Terphenyl	92		95		95		70-135	%	07.27.18 22:18

MS/MSD Percent Recovery  
Relative Percent Difference  
LCS/LCSD Recovery  
Log Difference

$[D] = 100 * (C - A) / B$   
 $RPD = 200 * |(C - E) / (C + E)|$   
 $[D] = 100 * (C) / [B]$   
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample  
 A = Parent Result  
 C = MS/LCS Result  
 E = MSD/LCSD Result

MS = Matrix Spike  
 B = Spike Added  
 D = MSD/LCSD % Rec



## TRC Solutions, Inc

Phillips State #1 TB

Analytical Method: TPH by SW8015 Mod

Seq Number: 3058101

Parent Sample Id: 593803-021

Matrix: Soil

MS Sample Id: 593803-021 S

Prep Method: TX1005P

Date Prep: 07.27.18

MSD Sample Id: 593803-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	999	862	86	881	88	70-135	2	20	mg/kg	07.27.18 23:18	
Diesel Range Organics (DRO)	<15.0	999	897	90	926	93	70-135	3	20	mg/kg	07.27.18 23:18	

## Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	121		123		70-135	%	07.27.18 23:18
o-Terphenyl	101		98		70-135	%	07.27.18 23:18

MS/MSD Percent Recovery  
Relative Percent Difference  
LCS/LCSD Recovery  
Log Difference

$[D] = 100 * (C - A) / B$   
 $RPD = 200 * |(C - E) / (C + E)|$   
 $[D] = 100 * (C) / [B]$   
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample  
A = Parent Result  
C = MS/LCS Result  
E = MSD/LCSD Result

MS = Matrix Spike  
B = Spike Added  
D = MSD/LCSD % Rec



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**Dallas Texas (214-902-0300)**

**San Antonio, Texas (210-509-3334)**  
**Midland, Texas (432-704-5251)**

[www.xenco.com](http://www.xenco.com)

**Phoenix, Arizona (480-355-0900)**

## CHAIN OF CUSTODY

Page 1 Of 1

[illegible]



## XENCO Laboratories

## Prelogin/Nonconformance Report- Sample Log-In

Client: TRC Solutions, Inc

Date/ Time Received: 07/27/2018 10:35:00 AM

Work Order #: 593804

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

## Sample Receipt Checklist

## Comments

#1 *Temperature of cooler(s)?	.3
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	N/A
#5 Custody Seals intact on sample bottles?	N/A
#6 *Custody Seals Signed and dated?	N/A
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	No
#18 Water VOC samples have zero headspace?	N/A

\* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst:

PH Device/Lot#:

Checklist completed by:

Connie Hernandez

Date: 07/27/2018

Checklist reviewed by:

Kelsey Brooks

Date: 07/30/2018





**Figure 1** - View of the affected area, facing northwest.



**Figure 2** - View of the affected area, facing west.





**Figure 3** - View of portion of the excavated area, facing southwest.



**Figure 4** - View of portion of the excavated area, facing north.





**Figure 5** - View of portion of the excavated area, facing west.



**Figure 6** - View of affected area after remediation activities, facing northwest.



**Figure 7** - View of affected area after remediation activities, facing south.

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

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

Form C-141  
Revised April 3, 2017

Submit 1 Copy to appropriate District Office in  
accordance with 19.15.29 NMAC.

## Release Notification and Corrective Action

### OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: <b>COG Operating, LLC (OGRID# 229137)</b>	Contact: <b>Robert McNeill</b>
Address: <b>600 West Illinois Avenue, Midland TX 79701</b>	Telephone No.: <b>432-683-7443</b>
Facility Name: <b>Phillips State #001</b>	Facility Type: <b>Tank Battery</b>

Surface Owner: <b>State</b>	Mineral Owner: <b>State</b>	API No.: <b>30-025-30956</b>
-----------------------------	-----------------------------	------------------------------

### LOCATION OF RELEASE

Unit Letter <b>O</b>	Section <b>17</b>	Township <b>21S</b>	Range <b>35E</b>	Feet from the <b>990</b>	North/South Line <b>South</b>	Feet from the <b>1980</b>	East/West Line <b>East</b>	County <b>Lea</b>
-------------------------	----------------------	------------------------	---------------------	-----------------------------	----------------------------------	------------------------------	-------------------------------	----------------------

Latitude: 32.4744949 Longitude: -103.3875351 NAD83

### NATURE OF RELEASE

Type of Release: <b>Oil and Produced Water</b>	Volume of Release: <b>3bbls Oil &amp; 13bbls PW</b>	Volume Recovered: <b>0bbls oil &amp; 0bbls PW</b>
Source of Release: <b>Heater Treater</b>	Date and Hour of Occurrence: <b>11/26/2017</b>	Date and Hour of Discovery: <b>11/26/2017 9:00am</b>
Was Immediate Notice Given? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour:	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	
If a Watercourse was Impacted, Describe Fully.*		

**RECEIVED**

**By Olivia Yu at 9:59 am, Nov 28, 2017**

Describe Cause of Problem and Remedial Action Taken.\*

The heater treater developed a hole in the bottom of the vessel. The vessel will be evaluated for repair or replacement.

Describe Area Affected and Cleanup Action Taken.\*

The release remained inside of the unlined earthen berms surrounding the heater treater. Concho will have the spill area evaluated for any possible impact from the release and we will present a remediation work plan to the NMOCD for approval prior to any significant remediation activities.

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

Signature: <i>Sheldon Hitchcock</i>		<b>OIL CONSERVATION DIVISION</b>	
Printed Name: <b>Sheldon L. Hitchcock</b>		Approved by Environmental Specialist: <i>oy</i>	
Title: <b>HSE Coordinator</b>		Approval Date: <b>11/28/2017</b>	Expiration Date:
E-mail Address: <b>slhitchcock@concho.com</b>		Conditions of Approval: <b>see attached directive</b>	Attached <input checked="" type="checkbox"/>
Date: <b>11/27/2017</b>	Phone: <b>575-746-2010</b>		

\* Attach Additional Sheets If Necessary

**1RP-4883**

**nOY1733235874**

**pOY1733236190**

Operator/Responsible Party,

The OCD has received the form C-141 you provided on \_11/27/2017\_ regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number \_1RP-4883\_ has been assigned. **Please refer to this case number in all future correspondence.**

It is the Division's obligation under both the Oil & Gas Act and Water Quality Act to provide for the protection of public health and the environment. Our regulations (19.15.29.11 NMAC) state the following,

*The responsible person shall complete division-approved corrective action for releases that endanger public health or the environment. The responsible person shall address releases in accordance with a remediation plan submitted to and approved by the division or with an abatement plan submitted in accordance with 19.15.30 NMAC. [emphasis added]*

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. **As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District \_1\_ office in \_\_Hobbs\_\_ on or before \_12/28/2017\_. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.**

The goals of a characterization effort are: 1) determination of the lateral and vertical extents along with the magnitude of soil contamination. 2) determine if groundwater or surface waters have been impacted. 3) If groundwater or surface waters have been impacted, what are the extents and magnitude of that impact. 4) The characterization of any other adverse impacts that may have occurred (examples: impacts on vegetation, impacts on wildlife, air quality, loss of use of property, etc.). To meet these goals as quickly as possible, the following items must, at a minimum, be addressed in the release characterization workplan and subsequent reporting:

- Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C<sub>6</sub> thru C<sub>36</sub>), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.
- Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C<sub>6</sub> thru C<sub>36</sub>), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.
- Nominal detection limits for field and laboratory analyses must be provided.
- Composite sampling is not generally allowed.
- Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted



for laboratory analysis from each borehole or test pit (highest observed contamination and deepest depth investigated). Copies of the actual laboratory results must be provided including chain of custody documentation.

- Probable depth to shallowest protectable groundwater and lateral distance to nearest surface water. If there is an estimate of groundwater depth, the information used to arrive at that estimate must be provided. If there is a reasonable assumption that the depth to protectable water is 50 feet or less, the responsible party should anticipate the need for at least one groundwater monitoring well to be installed in the area of likely maximum contamination.

- If groundwater contamination is encountered, an additional investigation workplan may be required to determine the extents of that contamination. Groundwater and/or surface water samples, if any, must be analyzed by a competent laboratory for volatile organic hydrocarbons (typically Method 8260 full list), total dissolved solids, pH, major anions and cations including chloride and sulfate, dissolved iron, and dissolved manganese. The investigation workplan must provide the groundwater sampling method(s) and sample handling protocols. To the fullest extent possible, aqueous analyses must be undertaken using nominal method detection limits. As with the soil analyses, copies of the actual laboratory results must be provided including chain of custody documentation.

- Accurately scaled and well-drafted site maps must be provided providing the location of borings, test pits, monitoring wells, potentially impacted areas, and significant surface features including roads and site infrastructure that might limit either the release characterization or remedial efforts. Field sketches may be included in subsequent reporting, but should not be considered stand-alone documentation of the site's layout. Digital photographic documentation of the location and fieldwork is recommended, especially if unusual circumstances are encountered.

**Nothing herein should be interpreted to preclude emergency response actions or to imply immediate remediation by removal cannot proceed as warranted. Nonetheless, characterization of impacts and confirmation of the effectiveness of remedial efforts must still be provided to the OCD before any release incident will be closed.**

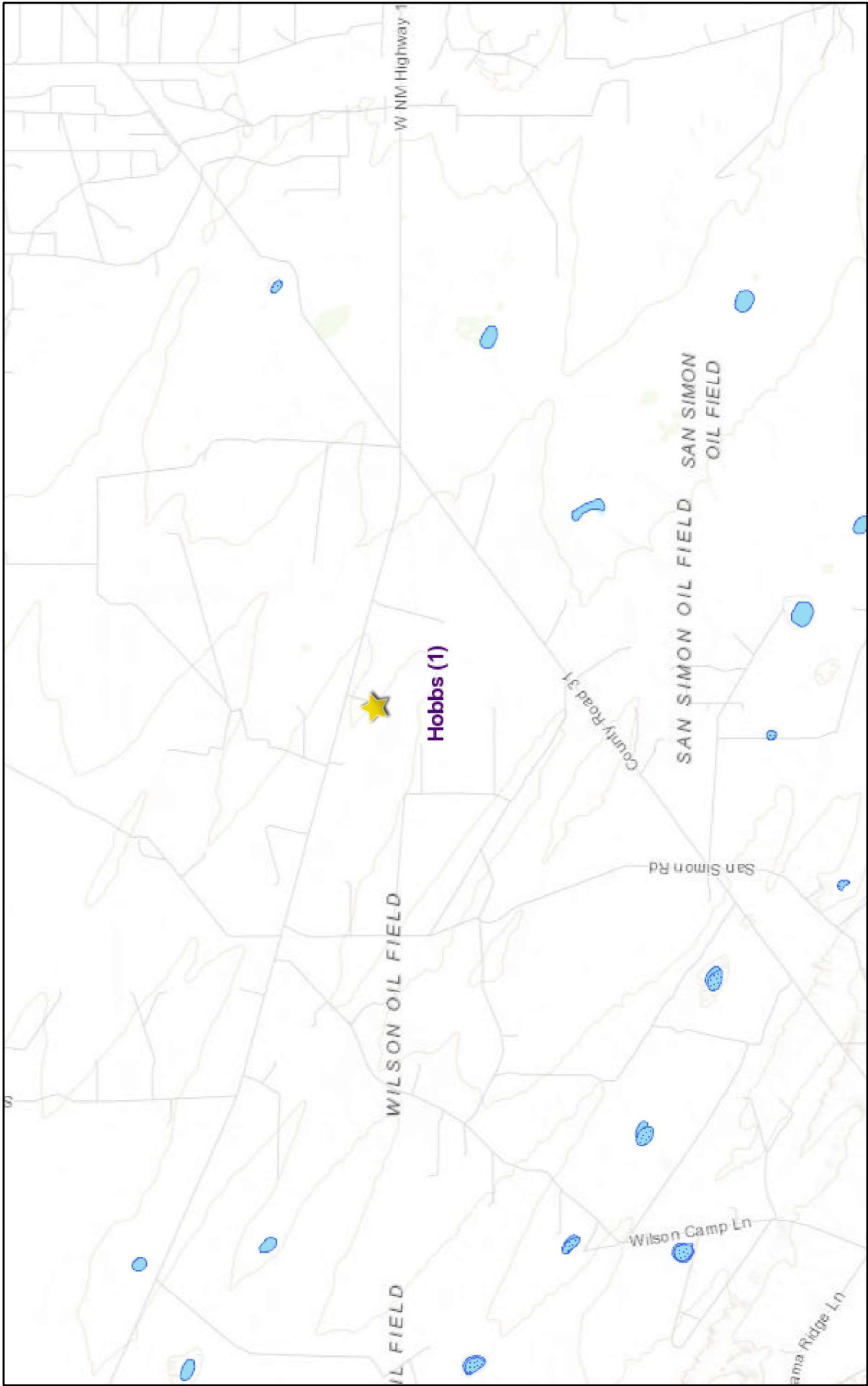
**Jim Griswold**

OCD Environmental Bureau Chief  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505  
505-476-3465  
jim.griswold@state.nm.us

## **APPENDIX C**

### **Site Characterization Data**

# Phillips State #1 - Water Bodies



11/8/2021, 9:48:32 AM

★

Override 1

★

OCD Districts

★

OCD District Offices

★

PLJV Probable Playas

★

OSE Water-bodies

★

OSE Streams

0 0.5 1 1.5 2 mi

0 0.75 1.5 3 km

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

New Mexico Oil and Gas Map. <http://nm-enmnd.maps.arcgis.com/apps/webappviewer/index.html?id=4d0172306164de29d2fb98f35ca75>

New Mexico Oil Conservation Division

Released to Imaging: 9/19/2022 9:00:49 AM



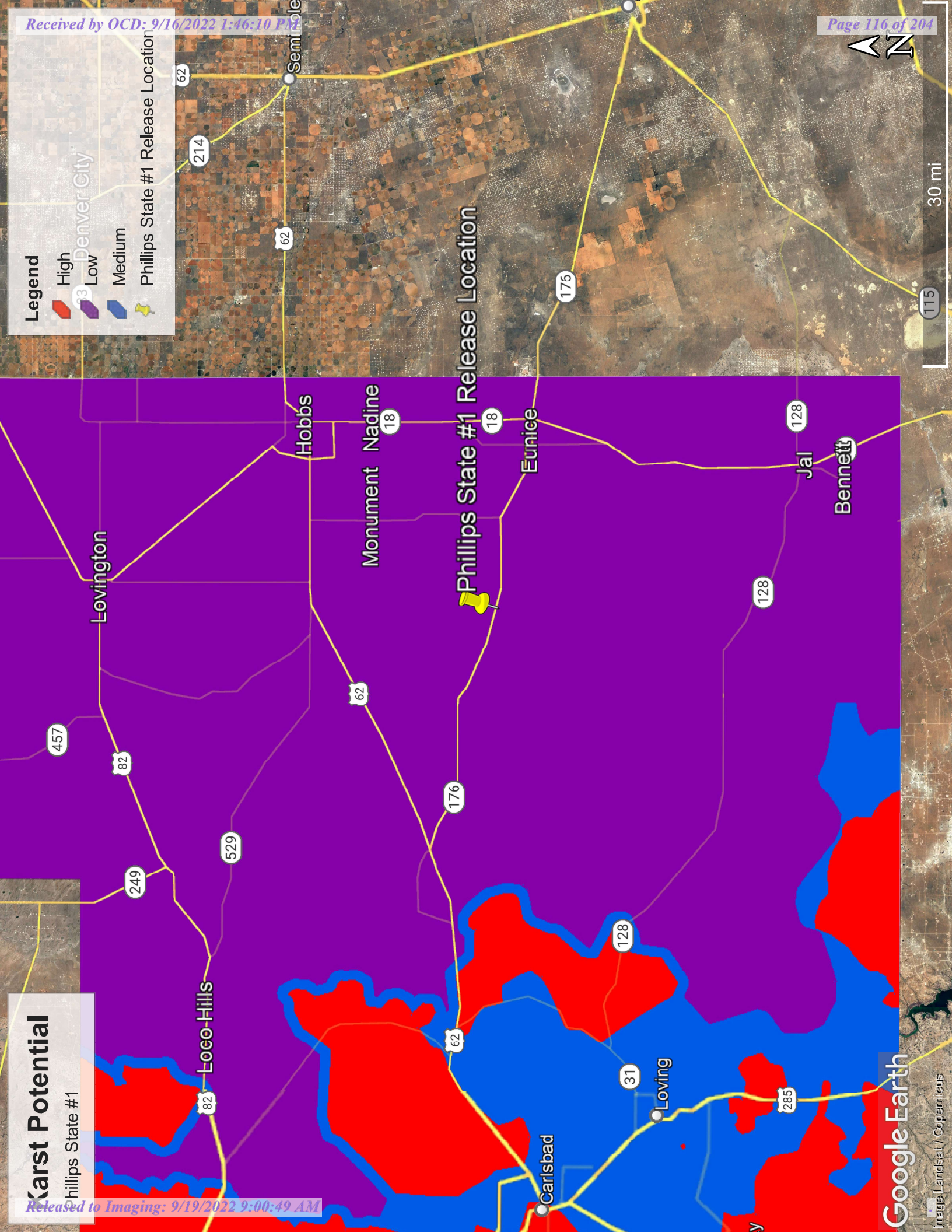
# Karst Potential

Phillips State #1

Released to Imaging: 9/19/2022 9:00:49 AM

## Legend

- High
- Low
- Medium
- Phillips State #1 Release Location





# New Mexico Office of the State Engineer

## Water Column/Average Depth to Water

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

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

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
<a href="#">CP 00755</a>	CP	LE		1	3	4	17	21S	35E	651427	3594168*	99	200		

Average Depth to Water: --

Minimum Depth: --

Maximum Depth: --

**Record Count: 1**

### UTMNAD83 Radius Search (in meters):

**Easting (X):** 651525.751

**Northing (Y):** 3594176.26

**Radius:** 800

\*UTM location was derived from PLSS - see Help

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

10/12/21 11:08 AM

Page 1 of 1

WATER COLUMN/ AVERAGE  
DEPTH TO WATER



# New Mexico Office of the State Engineer

## Water Column/Average Depth to Water

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

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

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
<a href="#">CP 00755</a>	CP	LE		1	3	4	17	21S	35E	651427	3594168*	99	200		
<a href="#">CP 00667</a>	CP	LE			2	3	20	21S	35E	651144	3592857*	1373	85		
<a href="#">CP 00939 POD1</a>	CP	LE		4	1	2	07	21S	35E	649974	3596760*	3013	400	165	235
<a href="#">CP 00940 POD1</a>	CP	LE		4	1	2	07	21S	35E	649974	3596760*	3013	400	165	235
<a href="#">CP 00585 POD1</a>	CP	LE			1	4	30	21S	35E	649963	3591230*	3335	50		
<a href="#">CP 01801 POD1</a>	CP	LE		3	3	1	30	21S	35E	649052	3591562	3598	140	48	92

Average Depth to Water: **126 feet**

Minimum Depth: **48 feet**

Maximum Depth: **165 feet**

Record Count: 6

UTMNAD83 Radius Search (in meters):

Easting (X): 651525.751

Northing (Y): 3594176.26

Radius: 3600

\*UTM location was derived from PLSS - see Help

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

10/12/21 11:10 AM

Page 1 of 1

WATER COLUMN/ AVERAGE  
DEPTH TO WATER



## **APPENDIX D**

### **Regulatory Correspondence**

**From:** [Abbott, Sam](#)  
**To:** [ocd.enviro@state.nm.us](mailto:ocd.enviro@state.nm.us)  
**Cc:** [Llull, Christian](#); [Tavarez, Ike](#); [MorenoFlores, Ezequiel](#)  
**Subject:** Remediation Confirmation Sampling Notification - nOY1733235874  
**Date:** Friday, February 25, 2022 10:03:00 AM  
**Attachments:** [image001.png](#)  
[image002.png](#)  
[image003.png](#)  
[image004.png](#)  
[image005.png](#)

---

Re: Incident ID (n#) **nOY1733235874**

To whom it may concern,

In accordance with Subsection D of 19.15.29.12 NMAC, the responsible party must notify the appropriate division district office prior to conducting confirmation sampling. Thus, on behalf of ConocoPhillips for the above referenced incident, Tetra Tech is duly providing this communication which serves as notification that confirmation sampling will be conducted at this site from February 23 through March 4, 2022. I apologize for the delay in the notification.

**NOTE:** If you have any questions regarding this sampling schedule, please contact me.

Thank you,

Sam

**Samantha Abbott, PG** | Senior Staff Geoscientist

Direct Mobile +1 (512) 739-7874 | Business +1 (512) 338-1667 | [Sam.Abbott@tetratech.com](mailto:Sam.Abbott@tetratech.com)

**Tetra Tech, Inc.** | *Leading with Science*® | OGA

8911 N Capital of Texas Hwy #2310 | Austin, TX 78759 | [tetratech.com](http://tetratech.com)

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## **APPENDIX E**

### **Laboratory Analytical Data**



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

---

February 24, 2022

SAM ABBOTT

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: PHILLIPS STATE #1

Enclosed are the results of analyses for samples received by the laboratory on 02/23/22 15:35.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-21-14. 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](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited 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,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing style.

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	02/23/2022	Sampling Date:	02/23/2022
Reported:	02/24/2022	Sampling Type:	Soil
Project Name:	PHILLIPS STATE #1	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-02601	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA CO NM		

**Sample ID: NSW - A - 1 (H220706-01)**

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	02/24/2022	ND	2.16	108	2.00	0.318	
Toluene*	<0.050	0.050	02/24/2022	ND	2.13	106	2.00	0.924	
Ethylbenzene*	<0.050	0.050	02/24/2022	ND	2.07	103	2.00	0.223	
Total Xylenes*	<0.150	0.150	02/24/2022	ND	6.42	107	6.00	0.794	
Total BTEX	<0.300	0.300	02/24/2022	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 102 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	336	16.0	02/24/2022	ND	416	104	400	3.77	

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	02/23/2022	ND	197	98.3	200	0.746	
DRO >C10-C28*	<10.0	10.0	02/23/2022	ND	203	101	200	4.30	
EXT DRO >C28-C36	<10.0	10.0	02/23/2022	ND					

Surrogate: 1-Chlorooctane 89.0 % 66.9-136

Surrogate: 1-Chlorooctadecane 90.7 % 59.5-142

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 02/23/2022  
 Reported: 02/24/2022  
 Project Name: PHILLIPS STATE #1  
 Project Number: 212C-MD-02601  
 Project Location: COP - LEA CO NM

Sampling Date: 02/23/2022  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: ESW - A - 1 (H220706-02)**

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	02/24/2022	ND	2.16	108	2.00	0.318		
Toluene*	<0.050	0.050	02/24/2022	ND	2.13	106	2.00	0.924		
Ethylbenzene*	<0.050	0.050	02/24/2022	ND	2.07	103	2.00	0.223		
Total Xylenes*	<0.150	0.150	02/24/2022	ND	6.42	107	6.00	0.794		
Total BTEx	<0.300	0.300	02/24/2022	ND						

Surrogate: 4-Bromofluorobenzene (PI) 104 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	576	16.0	02/24/2022	ND	416	104	400	3.77		

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	02/23/2022	ND	197	98,3	200	0.746	
DRO >C10-C28*	109	10.0	02/23/2022	ND	203	101	200	4.30	
EXT DRO >C28-C36	10.7	10.0	02/23/2022	ND					

Surrogate: 1-Chlorooctane 85.8 % 66.9-136

Surrogate: 1-Chlorooctadecane 93.1 % 59.5-142

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





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

**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 02/23/2022  
 Reported: 02/24/2022  
 Project Name: PHILLIPS STATE #1  
 Project Number: 212C-MD-02601  
 Project Location: COP - LEA CO NM

Sampling Date: 02/23/2022  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SSW - A - 1 (H220706-03)**

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	02/24/2022	ND	2.16	108	2.00	0.318		
Toluene*	<0.050	0.050	02/24/2022	ND	2.13	106	2.00	0.924		
Ethylbenzene*	<0.050	0.050	02/24/2022	ND	2.07	103	2.00	0.223		
Total Xylenes*	<0.150	0.150	02/24/2022	ND	6.42	107	6.00	0.794		
Total BTEx	<0.300	0.300	02/24/2022	ND						

Surrogate: 4-Bromofluorobenzene (PI) 104 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	352	16.0	02/24/2022	ND	416	104	400	3.77		

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	02/23/2022	ND	197	98,3	200	0.746	
DRO >C10-C28*	<10.0	10.0	02/23/2022	ND	203	101	200	4.30	
EXT DRO >C28-C36	<10.0	10.0	02/23/2022	ND					

Surrogate: 1-Chlorooctane 86.6 % 66.9-136

Surrogate: 1-Chlorooctadecane 87.9 % 59.5-142

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 02/23/2022  
 Reported: 02/24/2022  
 Project Name: PHILLIPS STATE #1  
 Project Number: 212C-MD-02601  
 Project Location: COP - LEA CO NM

Sampling Date: 02/23/2022  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: WSW - A - 1 (H220706-04)**

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	02/24/2022	ND	2.16	108	2.00	0.318		
Toluene*	<0.050	0.050	02/24/2022	ND	2.13	106	2.00	0.924		
Ethylbenzene*	<0.050	0.050	02/24/2022	ND	2.07	103	2.00	0.223		
Total Xylenes*	<0.150	0.150	02/24/2022	ND	6.42	107	6.00	0.794		
Total BTEx	<0.300	0.300	02/24/2022	ND						

Surrogate: 4-Bromofluorobenzene (PI) 103 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	02/24/2022	ND	416	104	400	3.77		

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	02/24/2022	ND	197	98,3	200	0,746	
DRO >C10-C28*	<10.0	10.0	02/24/2022	ND	203	101	200	4.30	
EXT DRO >C28-C36	<10.0	10.0	02/24/2022	ND					

Surrogate: 1-Chlorooctane 81.4 % 66.9-136

Surrogate: 1-Chlorooctadecane 81.8 % 59.5-142

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 02/23/2022  
 Reported: 02/24/2022  
 Project Name: PHILLIPS STATE #1  
 Project Number: 212C-MD-02601  
 Project Location: COP - LEA CO NM

Sampling Date: 02/23/2022  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: FS- A - 1 (H220706-05)**

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	02/24/2022	ND	2.16	108	2.00	0.318		
Toluene*	<0.050	0.050	02/24/2022	ND	2.13	106	2.00	0.924		
Ethylbenzene*	<0.050	0.050	02/24/2022	ND	2.07	103	2.00	0.223		
Total Xylenes*	<0.150	0.150	02/24/2022	ND	6.42	107	6.00	0.794		
Total BTEx	<0.300	0.300	02/24/2022	ND						

Surrogate: 4-Bromofluorobenzene (PI) 104 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	528	16.0	02/24/2022	ND	416	104	400	3.77		

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	02/24/2022	ND	197	98,3	200	0.746	
DRO >C10-C28*	25.5	10.0	02/24/2022	ND	203	101	200	4.30	
EXT DRO >C28-C36	<10.0	10.0	02/24/2022	ND					

Surrogate: 1-Chlorooctane 84.9 % 66.9-136

Surrogate: 1-Chlorooctadecane 87.2 % 59.5-142

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 02/23/2022  
 Reported: 02/24/2022  
 Project Name: PHILLIPS STATE #1  
 Project Number: 212C-MD-02601  
 Project Location: COP - LEA CO NM

Sampling Date: 02/23/2022  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: FS - A - 2 (H220706-06)**

BTX 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	02/24/2022	ND	2.16	108	2.00	0.318		
Toluene*	<0.050	0.050	02/24/2022	ND	2.13	106	2.00	0.924		
Ethylbenzene*	<0.050	0.050	02/24/2022	ND	2.07	103	2.00	0.223		
Total Xylenes*	<0.150	0.150	02/24/2022	ND	6.42	107	6.00	0.794		
Total BTX	<0.300	0.300	02/24/2022	ND						

Surrogate: 4-Bromofluorobenzene (PI) 102 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	704	16.0	02/24/2022	ND	416	104	400	3.77		

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	02/24/2022	ND	197	98,3	200	0,746	
DRO >C10-C28*	97.9	10.0	02/24/2022	ND	203	101	200	4.30	
EXT DRO >C28-C36	15.3	10.0	02/24/2022	ND					

Surrogate: 1-Chlorooctane 87.4 % 66.9-136

Surrogate: 1-Chlorooctadecane 96.6 % 59.5-142

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Celey D. Keene, Lab Director/Quality Manager



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### Notes and Definitions

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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A handwritten signature in black ink, appearing to read "Celey D. Keene".

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Celey D. Keene, Lab Director/Quality Manager

## Analysis Request of Chain of Custody Record



## Tetra Tech, Inc.

901W Wall Street, Ste 100  
Midland, Texas 79705  
Tel (432) 682-4559  
Fax (432) 682-3946

Client Name: Conoco Phillips		Site Manager: Sam Abbott	
Project Name: Phillips State #1		Contact Info: Email: <a href="mailto:Sam.Abbott@tetratech.com">Sam.Abbott@tetratech.com</a> Phone: (512) 739-7874	
Project Location: Lea County, New Mexico		Project #: 212C-MD-02801	
Invoice to: Tetra Tech, Inc.		Sampler Signature: <i>Sam Abbott</i>	
Receiving Laboratory: Cardinal Labs		Comments:	

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX		PRESERVATIVE METHOD		# CONTAINERS	FILTERED (Y/N)	ANALYSIS REQUEST (Circle or Specify Method No.)		
		DATE	TIME	WATER	SOIL	HCL	HNO <sub>3</sub>				ICE	None
1	NSW-A-1	2/23/2022		X				X		X		
2	ESW-A-1	2/23/2022		X				X		X		
3	SSW-A-1	2/23/2022		X				X		X		
4	WSW-A-1	2/23/2022		X				X		X		
5	FS-A-1	2/23/2022		X				X		X		
6	FS-A-2	2/23/2022		X				X		X		

Relinquished by: <i>Erin Moore</i>	Date: 2/23/22	Time: 1534	Received by: <i>Sam Abbott</i>	Date: 2-23-22	Time: 1535
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:

LAB USE ONLY	REMARKS:
<input type="checkbox"/> STANDARD <input checked="" type="checkbox"/> RUSH: Same Day <span style="border: 1px solid red; border-radius: 50%; padding: 2px;">24 hr</span> 48 hr 72 hr <input type="checkbox"/> Rush Charges Authorized <input type="checkbox"/> Special Report Limits or TRRP Report	Sample Temperature 6.3°C 6.0.5°C 5.8°C #13

(Circle) HAND DELIVERED	FEDEX	UPS	Tracking #
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February 24, 2022

SAM ABBOTT

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: PHILLIPS STATE #1

Enclosed are the results of analyses for samples received by the laboratory on 02/23/22 15:35.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-21-14. 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](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited 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,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing style.

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	02/23/2022	Sampling Date:	02/23/2022
Reported:	02/24/2022	Sampling Type:	Soil
Project Name:	PHILLIPS STATE #1	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-02601	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA CO NM		

**Sample ID: NSW - B - 1 (H220707-01)**

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	02/24/2022	ND	2.16	108	2.00	0.318	
Toluene*	<0.050	0.050	02/24/2022	ND	2.13	106	2.00	0.924	
Ethylbenzene*	<0.050	0.050	02/24/2022	ND	2.07	103	2.00	0.223	
Total Xylenes*	<0.150	0.150	02/24/2022	ND	6.42	107	6.00	0.794	
Total BTEX	<0.300	0.300	02/24/2022	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 104 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	336	16.0	02/24/2022	ND	400	100	400	3.92	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*	<10.0	10.0	02/24/2022	ND	197	98.3	200	0.746	
DRO >C10-C28*	<10.0	10.0	02/24/2022	ND	203	101	200	4.30	
EXT DRO >C28-C36	<10.0	10.0	02/24/2022	ND					

Surrogate: 1-Chlorooctane 86.9 % 66.9-136

Surrogate: 1-Chlorooctadecane 89.5 % 59.5-142

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 02/23/2022  
 Reported: 02/24/2022  
 Project Name: PHILLIPS STATE #1  
 Project Number: 212C-MD-02601  
 Project Location: COP - LEA CO NM

Sampling Date: 02/23/2022  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: ESW - B - 1 (H220707-02)**

BTX 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	02/24/2022	ND	2.16	108	2.00	0.318		
Toluene*	<0.050	0.050	02/24/2022	ND	2.13	106	2.00	0.924		
Ethylbenzene*	<0.050	0.050	02/24/2022	ND	2.07	103	2.00	0.223		
Total Xylenes*	<0.150	0.150	02/24/2022	ND	6.42	107	6.00	0.794		
Total BTX	<0.300	0.300	02/24/2022	ND						

Surrogate: 4-Bromofluorobenzene (PI) 104 % 69.9-140

Chloride, SM4500CI-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	02/24/2022	ND	400	100	400	3.92		

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	02/24/2022	ND	197	98,3	200	0,746	
DRO >C10-C28*	<10.0	10.0	02/24/2022	ND	203	101	200	4.30	
EXT DRO >C28-C36	<10.0	10.0	02/24/2022	ND					

Surrogate: 1-Chlorooctane 97.4 % 66.9-136

Surrogate: 1-Chlorooctadecane 99.7 % 59.5-142

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 02/23/2022  
 Reported: 02/24/2022  
 Project Name: PHILLIPS STATE #1  
 Project Number: 212C-MD-02601  
 Project Location: COP - LEA CO NM

Sampling Date: 02/23/2022  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SSW - B - 1 (H220707-03)**

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	02/24/2022	ND	2.16	108	2.00	0.318		
Toluene*	<0.050	0.050	02/24/2022	ND	2.13	106	2.00	0.924		
Ethylbenzene*	<0.050	0.050	02/24/2022	ND	2.07	103	2.00	0.223		
Total Xylenes*	<0.150	0.150	02/24/2022	ND	6.42	107	6.00	0.794		
Total BTEx	<0.300	0.300	02/24/2022	ND						

Surrogate: 4-Bromofluorobenzene (PI) 103 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	704	16.0	02/24/2022	ND	400	100	400	3.92	

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	02/24/2022	ND	197	98,3	200	0.746	
DRO >C10-C28*	132	10.0	02/24/2022	ND	203	101	200	4.30	
EXT DRO >C28-C36	22.3	10.0	02/24/2022	ND					

Surrogate: 1-Chlorooctane 88.6 % 66.9-136

Surrogate: 1-Chlorooctadecane 98.8 % 59.5-142

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 02/23/2022  
 Reported: 02/24/2022  
 Project Name: PHILLIPS STATE #1  
 Project Number: 212C-MD-02601  
 Project Location: COP - LEA CO NM

Sampling Date: 02/23/2022  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: WSW - B - 1 (H220707-04)**

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	02/24/2022	ND	2.16	108	2.00	0.318		
Toluene*	<0.050	0.050	02/24/2022	ND	2.13	106	2.00	0.924		
Ethylbenzene*	<0.050	0.050	02/24/2022	ND	2.07	103	2.00	0.223		
Total Xylenes*	<0.150	0.150	02/24/2022	ND	6.42	107	6.00	0.794		
Total BTEx	<0.300	0.300	02/24/2022	ND						

Surrogate: 4-Bromofluorobenzene (PI) 104 % 69.9-140

Chloride, SM4500CI-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	02/24/2022	ND	400	100	400	3.92		

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	02/24/2022	ND	197	98,3	200	0.746	
DRO >C10-C28*	<10.0	10.0	02/24/2022	ND	203	101	200	4.30	
EXT DRO >C28-C36	<10.0	10.0	02/24/2022	ND					

Surrogate: 1-Chlorooctane 93.1 % 66.9-136

Surrogate: 1-Chlorooctadecane 94.9 % 59.5-142

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 02/23/2022  
 Reported: 02/24/2022  
 Project Name: PHILLIPS STATE #1  
 Project Number: 212C-MD-02601  
 Project Location: COP - LEA CO NM

Sampling Date: 02/23/2022  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: FS- B - 1 (H220707-05)**

BTX 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	02/24/2022	ND	2.16	108	2.00	0.318		
Toluene*	<0.050	0.050	02/24/2022	ND	2.13	106	2.00	0.924		
Ethylbenzene*	<0.050	0.050	02/24/2022	ND	2.07	103	2.00	0.223		
Total Xylenes*	<0.150	0.150	02/24/2022	ND	6.42	107	6.00	0.794		
Total BTX	<0.300	0.300	02/24/2022	ND						

Surrogate: 4-Bromofluorobenzene (PI) 103 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	560	16.0	02/24/2022	ND	400	100	400	3.92		

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	02/24/2022	ND	197	98,3	200	0.746	
DRO >C10-C28*	19.3	10.0	02/24/2022	ND	203	101	200	4.30	
EXT DRO >C28-C36	<10.0	10.0	02/24/2022	ND					

Surrogate: 1-Chlorooctane 84.7 % 66.9-136

Surrogate: 1-Chlorooctadecane 86.4 % 59.5-142

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 02/23/2022  
 Reported: 02/24/2022  
 Project Name: PHILLIPS STATE #1  
 Project Number: 212C-MD-02601  
 Project Location: COP - LEA CO NM

Sampling Date: 02/23/2022  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: FS - B - 2 (H220707-06)**

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	02/24/2022	ND	2.16	108	2.00	0.318		
Toluene*	<0.050	0.050	02/24/2022	ND	2.13	106	2.00	0.924		
Ethylbenzene*	<0.050	0.050	02/24/2022	ND	2.07	103	2.00	0.223		
Total Xylenes*	<0.150	0.150	02/24/2022	ND	6.42	107	6.00	0.794		
Total BTEx	<0.300	0.300	02/24/2022	ND						

Surrogate: 4-Bromofluorobenzene (PI) 104 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	96.0	16.0	02/24/2022	ND	400	100	400	3.92		

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	02/24/2022	ND	197	98,3	200	0.746	
DRO >C10-C28*	<10.0	10.0	02/24/2022	ND	203	101	200	4.30	
EXT DRO >C28-C36	<10.0	10.0	02/24/2022	ND					

Surrogate: 1-Chlorooctane 84.1 % 66.9-136

Surrogate: 1-Chlorooctadecane 84.3 % 59.5-142

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 02/23/2022  
 Reported: 02/24/2022  
 Project Name: PHILLIPS STATE #1  
 Project Number: 212C-MD-02601  
 Project Location: COP - LEA CO NM

Sampling Date: 02/23/2022  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: NSW - C - 1 (H220707-07)**

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	02/24/2022	ND	2.16	108	2.00	0.318		
Toluene*	<0.050	0.050	02/24/2022	ND	2.13	106	2.00	0.924		
Ethylbenzene*	<0.050	0.050	02/24/2022	ND	2.07	103	2.00	0.223		
Total Xylenes*	<0.150	0.150	02/24/2022	ND	6.42	107	6.00	0.794		
Total BTEx	<0.300	0.300	02/24/2022	ND						

Surrogate: 4-Bromofluorobenzene (PI) 104 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	96.0	16.0	02/24/2022	ND	400	100	400	3.92		

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	02/24/2022	ND	197	98,3	200	0.746	
DRO >C10-C28*	77.5	10.0	02/24/2022	ND	203	101	200	4.30	
EXT DRO >C28-C36	14.6	10.0	02/24/2022	ND					

Surrogate: 1-Chlorooctane 83.1 % 66.9-136

Surrogate: 1-Chlorooctadecane 90.2 % 59.5-142

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 02/23/2022  
 Reported: 02/24/2022  
 Project Name: PHILLIPS STATE #1  
 Project Number: 212C-MD-02601  
 Project Location: COP - LEA CO NM

Sampling Date: 02/23/2022  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: ESW - C - 1 (H220707-08)**

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	02/24/2022	ND	2.16	108	2.00	0.318		
Toluene*	<0.050	0.050	02/24/2022	ND	2.13	106	2.00	0.924		
Ethylbenzene*	<0.050	0.050	02/24/2022	ND	2.07	103	2.00	0.223		
Total Xylenes*	<0.150	0.150	02/24/2022	ND	6.42	107	6.00	0.794		
Total BTEX	<0.300	0.300	02/24/2022	ND						

Surrogate: 4-Bromofluorobenzene (PI) 103 % 69.9-140

Chloride, SM4500CI-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	02/24/2022	ND	400	100	400	3.92	

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	02/24/2022	ND	197	98,3	200	0.746	
DRO >C10-C28*	<10.0	10.0	02/24/2022	ND	203	101	200	4.30	
EXT DRO >C28-C36	<10.0	10.0	02/24/2022	ND					

Surrogate: 1-Chlorooctane 101 % 66.9-136

Surrogate: 1-Chlorooctadecane 102 % 59.5-142

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 02/23/2022  
 Reported: 02/24/2022  
 Project Name: PHILLIPS STATE #1  
 Project Number: 212C-MD-02601  
 Project Location: COP - LEA CO NM

Sampling Date: 02/23/2022  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SSW - C - 1 (H220707-09)**

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	02/24/2022	ND	2.16	108	2.00	0.318		
Toluene*	<0.050	0.050	02/24/2022	ND	2.13	106	2.00	0.924		
Ethylbenzene*	<0.050	0.050	02/24/2022	ND	2.07	103	2.00	0.223		
Total Xylenes*	<0.150	0.150	02/24/2022	ND	6.42	107	6.00	0.794		
Total BTEx	<0.300	0.300	02/24/2022	ND						

Surrogate: 4-Bromofluorobenzene (PI) 103 % 69.9-140

Chloride, SM4500CI-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	02/24/2022	ND	400	100	400	3.92		

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	02/24/2022	ND	197	98,3	200	0.746	
DRO >C10-C28*	<10.0	10.0	02/24/2022	ND	203	101	200	4.30	
EXT DRO >C28-C36	<10.0	10.0	02/24/2022	ND					

Surrogate: 1-Chlorooctane 91.6 % 66.9-136

Surrogate: 1-Chlorooctadecane 94.7 % 59.5-142

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 02/23/2022  
 Reported: 02/24/2022  
 Project Name: PHILLIPS STATE #1  
 Project Number: 212C-MD-02601  
 Project Location: COP - LEA CO NM

Sampling Date: 02/23/2022  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: WSW - C - 1 (H220707-10)**

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	02/24/2022	ND	2.16	108	2.00	0.318		
Toluene*	<0.050	0.050	02/24/2022	ND	2.13	106	2.00	0.924		
Ethylbenzene*	<0.050	0.050	02/24/2022	ND	2.07	103	2.00	0.223		
Total Xylenes*	<0.150	0.150	02/24/2022	ND	6.42	107	6.00	0.794		
Total BTEx	<0.300	0.300	02/24/2022	ND						

Surrogate: 4-Bromofluorobenzene (PIE) 103 % 69.9-140

Chloride, SM4500CI-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	02/24/2022	ND	400	100	400	3.92	

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	02/24/2022	ND	197	98,3	200	0,746	
DRO >C10-C28*	54.9	10.0	02/24/2022	ND	203	101	200	4.30	
EXT DRO >C28-C36	<10.0	10.0	02/24/2022	ND					

Surrogate: 1-Chlorooctane 88.3 % 66.9-136

Surrogate: 1-Chlorooctadecane 94.6 % 59.5-142

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 02/23/2022  
 Reported: 02/24/2022  
 Project Name: PHILLIPS STATE #1  
 Project Number: 212C-MD-02601  
 Project Location: COP - LEA CO NM

Sampling Date: 02/23/2022  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: FS- C - 1 (H220707-11)**

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	02/24/2022	ND	2.16	108	2.00	0.318		
Toluene*	<0.050	0.050	02/24/2022	ND	2.13	106	2.00	0.924		
Ethylbenzene*	<0.050	0.050	02/24/2022	ND	2.07	103	2.00	0.223		
Total Xylenes*	<0.150	0.150	02/24/2022	ND	6.42	107	6.00	0.794		
Total BTEX	<0.300	0.300	02/24/2022	ND						

Surrogate: 4-Bromofluorobenzene (PIE) 103 % 69.9-140

Chloride, SM4500CI-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	02/24/2022	ND	400	100	400	3.92	

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	02/24/2022	ND	197	98,3	200	0,746	
DRO >C10-C28*	22.1	10.0	02/24/2022	ND	203	101	200	4.30	
EXT DRO >C28-C36	<10.0	10.0	02/24/2022	ND					

Surrogate: 1-Chlorooctane 93.2 % 66.9-136

Surrogate: 1-Chlorooctadecane 101 % 59.5-142

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 02/23/2022  
 Reported: 02/24/2022  
 Project Name: PHILLIPS STATE #1  
 Project Number: 212C-MD-02601  
 Project Location: COP - LEA CO NM

Sampling Date: 02/23/2022  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: FS- C - 2 (H220707-12)**

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	02/24/2022	ND	2.16	108	2.00	0.318		
Toluene*	<0.050	0.050	02/24/2022	ND	2.13	106	2.00	0.924		
Ethylbenzene*	<0.050	0.050	02/24/2022	ND	2.07	103	2.00	0.223		
Total Xylenes*	<0.150	0.150	02/24/2022	ND	6.42	107	6.00	0.794		
Total BTEx	<0.300	0.300	02/24/2022	ND						

Surrogate: 4-Bromofluorobenzene (PI) 103 % 69.9-140

Chloride, SM4500CI-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	02/24/2022	ND	400	100	400	3.92		

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	02/24/2022	ND	197	98,3	200	0,746	
DRO >C10-C28*	<10.0	10.0	02/24/2022	ND	203	101	200	4.30	
EXT DRO >C28-C36	<10.0	10.0	02/24/2022	ND					

Surrogate: 1-Chlorooctane 86.0 % 66.9-136

Surrogate: 1-Chlorooctadecane 90.8 % 59.5-142

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 02/23/2022  
 Reported: 02/24/2022  
 Project Name: PHILLIPS STATE #1  
 Project Number: 212C-MD-02601  
 Project Location: COP - LEA CO NM

Sampling Date: 02/23/2022  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: FS- C - 3 (H220707-13)**

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	02/24/2022	ND	2.16	108	2.00	0.318		
Toluene*	<0.050	0.050	02/24/2022	ND	2.13	106	2.00	0.924		
Ethylbenzene*	<0.050	0.050	02/24/2022	ND	2.07	103	2.00	0.223		
Total Xylenes*	<0.150	0.150	02/24/2022	ND	6.42	107	6.00	0.794		
Total BTEx	<0.300	0.300	02/24/2022	ND						

Surrogate: 4-Bromofluorobenzene (PI) 102 % 69.9-140

Chloride, SM4500CI-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	02/24/2022	ND	400	100	400	3.92	

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	02/24/2022	ND	197	98,3	200	0.746	
DRO >C10-C28*	21.9	10.0	02/24/2022	ND	203	101	200	4.30	
EXT DRO >C28-C36	<10.0	10.0	02/24/2022	ND					

Surrogate: 1-Chlorooctane 86.4 % 66.9-136

Surrogate: 1-Chlorooctadecane 93.6 % 59.5-142

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 02/23/2022  
 Reported: 02/24/2022  
 Project Name: PHILLIPS STATE #1  
 Project Number: 212C-MD-02601  
 Project Location: COP - LEA CO NM

Sampling Date: 02/23/2022  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: FS- C - 4 (H220707-14)**

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	02/24/2022	ND	2.16	108	2.00	0.318		
Toluene*	<0.050	0.050	02/24/2022	ND	2.13	106	2.00	0.924		
Ethylbenzene*	<0.050	0.050	02/24/2022	ND	2.07	103	2.00	0.223		
Total Xylenes*	<0.150	0.150	02/24/2022	ND	6.42	107	6.00	0.794		
Total BTEx	<0.300	0.300	02/24/2022	ND						

Surrogate: 4-Bromofluorobenzene (PI) 103 % 69.9-140

Chloride, SM4500CI-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	02/24/2022	ND	400	100	400	3.92		

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	02/24/2022	ND	197	98,3	200	0.746	
DRO >C10-C28*	<10.0	10.0	02/24/2022	ND	203	101	200	4.30	
EXT DRO >C28-C36	<10.0	10.0	02/24/2022	ND					

Surrogate: 1-Chlorooctane 87.6 % 66.9-136

Surrogate: 1-Chlorooctadecane 91.7 % 59.5-142

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



---

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---

### Notes and Definitions

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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A handwritten signature in black ink, appearing to read "Celey D. Keene".

---

Celey D. Keene, Lab Director/Quality Manager

## Analysis Request of Chain of Custody Record



## Tetra Tech, Inc.

901W Wall Street, Ste 100  
Midland, Texas 79705  
Tel (432) 652-4559  
Fax (432) 652-3946

Page 1 of 2

Client Name: Conoco Phillips		Site Manager: Sam Abbott	
Project Name: Phillips State #1		Contact Info: Email: <a href="mailto:Sam.Abbott@tetratech.com">Sam.Abbott@tetratech.com</a> Phone: (512) 739-7874	
Project Location: Lea County, New Mexico (county, state)		Project #: 212C-MD-02601	
Invoice to: Tetra Tech, Inc.		Sampler Signature: <i>Sam Abbott</i>	
Receiving Laboratory: Cardinal Labs		Comments:	

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX		PRESERVATIVE METHOD				# CONTAINERS	FILTERED (Y/N)	
		DATE	TIME	WATER	SOIL	HCL	HNO <sub>3</sub>	ICE	None			
												YEAR: 2020
1	NSW-B-1	2/23/2022		X				X			1	
2	ESW-B-1	2/23/2022		X				X			1	
3	SSW-B-1	2/23/2022		X				X			1	
4	WSW-B-1	2/23/2022		X				X			1	
5	FS-B-1	2/23/2022		X				X			1	
6	FS-B-2	2/23/2022		X				X			1	
7	NSW-C-1	2/23/2022		X				X			1	
8	ESW-C-1	2/23/2022		X				X			1	
9	SSW-C-1	2/23/2022		X				X			1	
10	WSW-C-1	2/23/2022		X				X			1	

Relinquished by: <i>Sam Abbott</i>	Date: 2/23/22	Time: 1534	Received by: <i>Sam Abbott</i>	Date: 2-23-22	Time: 1535
Relinquished by:	Date:	Time:	Received by:	Date:	Time:

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
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LAB USE ONLY	REMARKS:
<input type="checkbox"/> STANDARD <input checked="" type="checkbox"/> RUSH: Same Day 24 hr 48 hr 72 hr <input type="checkbox"/> Rush Charges Authorized <input type="checkbox"/> Special Report Limits or TRRP Report	Sample Temperature: 6.3°C pH: 6.0-5.6 5.8°C #113

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 Chloride Sulfate TDS General Water Chemistry (see attached list) Anion/Cation Balance Hold
--

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Analysis Request of Chain of Custody Record



Tetra Tech, Inc.

901W Wall Street, Ste 100  
Midland, Texas 79705  
Tel (432) 682-4559  
Fax (432) 682-3946

Client Name: Conoco Phillips		Site Manager: Sam Abbott									
Project Name: Phillips State #1		Contact Info: Email: <a href="mailto:Sam.Abbott@tetratech.com">Sam.Abbott@tetratech.com</a> Phone: (512) 739-7874									
Project Location: Lea County, New Mexico		Project #: 212C-MD-02601									
Invoice to: Tetra Tech, Inc.		Sampler Signature: <i>[Signature]</i>									
Receiving Laboratory: Cardinal Labs		Comments:									
<b>LAB #</b> H226707 <b>LAB USE ONLY</b>											
<b>SAMPLE IDENTIFICATION</b>											
		<b>SAMPLING</b>	<b>MATRIX</b>	<b>PRESERVATIVE METHOD</b>	<b># CONTAINERS</b>	<b>FILTERED (Y/N)</b>					
		YEAR: 2020									
		DATE	TIME	WATER	SOIL	HCL	HNO <sub>3</sub>	ICE	None		
11	FS-C-1	2/23/2022		X		X				1	
12	FS-C-2	2/23/2022		X		X				1	
13	FS-C-3	2/23/2022		X		X				1	
14	FS-C-4	2/23/2022		X		X				1	
<b>REMARKS:</b>											
<b>LAB USE ONLY</b>											
Relinquished by: <i>[Signature]</i> Date: 2/23/22 Time: 1534											
Received by: <i>[Signature]</i> Date: 2/23/22 Time: 1535											
Relinquished by: _____ Date: _____ Time: _____											
Received by: _____ Date: _____ Time: _____											
Relinquished by: _____ Date: _____ Time: _____											
Received by: _____ Date: _____ Time: _____											

<b>LAB USE ONLY</b>	
Sample Temperature	6.36
6.0.56	
5.86	
#113	
<b>REMARKS:</b>	
<input type="checkbox"/> STANDARD	<input checked="" type="checkbox"/> RUSH: Same Day 24 hr 48 hr 72 hr
<input type="checkbox"/> Rush Charges Authorized	<input type="checkbox"/> Special Report Limits or TRRP Report

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

ORIGINAL COPY





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

---

February 28, 2022

SAM ABBOTT

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: PHILLIPS STATE #1

Enclosed are the results of analyses for samples received by the laboratory on 02/25/22 14:11.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-21-14. 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](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited 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,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing style.

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	02/25/2022	Sampling Date:	02/25/2022
Reported:	02/28/2022	Sampling Type:	Soil
Project Name:	PHILLIPS STATE #1	Sampling Condition:	** (See Notes)
Project Number:	212C-MD-02601	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA CO NM		

**Sample ID: SSW - B - 1 (H220745-01)**

BTX 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	02/26/2022	ND	1.97	98.6	2.00	6.45	
Toluene*	<0.050	0.050	02/26/2022	ND	1.96	97.8	2.00	6.70	
Ethylbenzene*	<0.050	0.050	02/26/2022	ND	1.89	94.7	2.00	5.99	
Total Xylenes*	<0.150	0.150	02/26/2022	ND	5.89	98.2	6.00	5.10	
Total BTX	<0.300	0.300	02/26/2022	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 104 % 69.9-140

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	02/26/2022	ND	416	104	400	3.92	

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	02/25/2022	ND	200	99.9	200	2.15	
DRO >C10-C28*	<10.0	10.0	02/25/2022	ND	162	81.0	200	15.2	
EXT DRO >C28-C36	<10.0	10.0	02/25/2022	ND					

Surrogate: 1-Chlorooctane 100 % 66.9-136

Surrogate: 1-Chlorooctadecane 105 % 59.5-142

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

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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.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
BS-3	Blank spike recovery outside of lab established statistical limits, but still within method limits. Data is not adversely affected.
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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A handwritten signature in black ink, appearing to read "C. D. Keene".

---

Celey D. Keene, Lab Director/Quality Manager





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---

February 28, 2022

SAM ABBOTT

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: PHILLIPS STATE #1

Enclosed are the results of analyses for samples received by the laboratory on 02/25/22 14:11.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-21-14. 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](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited 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.

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Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing style.

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	02/25/2022	Sampling Date:	02/25/2022
Reported:	02/28/2022	Sampling Type:	Soil
Project Name:	PHILLIPS STATE #1	Sampling Condition:	** (See Notes)
Project Number:	212C-MD-02601	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA CO NM		

**Sample ID: FS - A - 2 (H220746-01)**

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	02/26/2022	ND	1.97	98.6	2.00	6.45	
Toluene*	<0.050	0.050	02/26/2022	ND	1.96	97.8	2.00	6.70	
Ethylbenzene*	<0.050	0.050	02/26/2022	ND	1.89	94.7	2.00	5.99	
Total Xylenes*	<0.150	0.150	02/26/2022	ND	5.89	98.2	6.00	5.10	
Total BTEX	<0.300	0.300	02/26/2022	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 103 % 69.9-140

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	02/26/2022	ND	416	104	400	3.92	

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	02/25/2022	ND	200	99.9	200	2.15	
DRO >C10-C28*	<10.0	10.0	02/25/2022	ND	162	81.0	200	15.2	
EXT DRO >C28-C36	<10.0	10.0	02/25/2022	ND					

Surrogate: 1-Chlorooctane 92.9 % 66.9-136

Surrogate: 1-Chlorooctadecane 99.4 % 59.5-142

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





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

**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 02/25/2022  
 Reported: 02/28/2022  
 Project Name: PHILLIPS STATE #1  
 Project Number: 212C-MD-02601  
 Project Location: COP - LEA CO NM

Sampling Date: 02/25/2022  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Tamara Oldaker

**Sample ID: ESW - A - 1 (H220746-02)**

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	02/26/2022	ND	1.97	98.6	2.00	6.45		
Toluene*	<0.050	0.050	02/26/2022	ND	1.96	97.8	2.00	6.70		
Ethylbenzene*	<0.050	0.050	02/26/2022	ND	1.89	94.7	2.00	5.99		
Total Xylenes*	<0.150	0.150	02/26/2022	ND	5.89	98.2	6.00	5.10		
Total BTEx	<0.300	0.300	02/26/2022	ND						

Surrogate: 4-Bromofluorobenzene (PI) 104 % 69.9-140

Chloride, SM4500CI-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	02/26/2022	ND	416	104	400	3.92		

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	02/25/2022	ND	200	99.9	200	2.15	
DRO >C10-C28*	<10.0	10.0	02/25/2022	ND	162	81.0	200	15.2	
EXT DRO >C28-C36	<10.0	10.0	02/25/2022	ND					

Surrogate: 1-Chlorooctane 97.6 % 66.9-136

Surrogate: 1-Chlorooctadecane 105 % 59.5-142

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 02/25/2022  
 Reported: 02/28/2022  
 Project Name: PHILLIPS STATE #1  
 Project Number: 212C-MD-02601  
 Project Location: COP - LEA CO NM

Sampling Date: 02/25/2022  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Tamara Oldaker

**Sample ID: WSW - A - 2 (H220746-03)**

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	02/26/2022	ND	1.97	98.6	2.00	6.45		
Toluene*	<0.050	0.050	02/26/2022	ND	1.96	97.8	2.00	6.70		
Ethylbenzene*	<0.050	0.050	02/26/2022	ND	1.89	94.7	2.00	5.99		
Total Xylenes*	<0.150	0.150	02/26/2022	ND	5.89	98.2	6.00	5.10		
Total BTEx	<0.300	0.300	02/26/2022	ND						

Surrogate: 4-Bromofluorobenzene (PI) 103 % 69.9-140

Chloride, SM4500CI-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	02/26/2022	ND	416	104	400	3.92		

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	02/25/2022	ND	200	99.9	200	2.15	
DRO >C10-C28*	<10.0	10.0	02/25/2022	ND	162	81.0	200	15.2	
EXT DRO >C28-C36	<10.0	10.0	02/25/2022	ND					

Surrogate: 1-Chlorooctane 96.1 % 66.9-136

Surrogate: 1-Chlorooctadecane 105 % 59.5-142

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

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

---

### 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.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
BS-3	Blank spike recovery outside of lab established statistical limits, but still within method limits. Data is not adversely affected.
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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Cardinal Laboratories

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A handwritten signature in black ink, appearing to read "Celey D. Keene".

---

Celey D. Keene, Lab Director/Quality Manager

## Analysis Request of Custody Record



Tetra Tech, Inc.

 9011 West Street, Ste 100  
 Midland, Texas 79705  
 Tel (432) 682-4559  
 Fax (432) 682-3966

Page 1 of 1

Page 6 of 6

Client Name: <b>Conoco Phillips</b>		Site Manager: <b>Sam Abbott</b>	
Project Name: <b>Phillips State #1</b>		Project #: <b>Sam. Abbott@tetratech.com</b>	
Project Location: <b>Lea County, New Mexico</b>		Project #: <b>212C-MD-02601</b>	
Invoice to: <b>Tetra Tech Inc.</b>		Sampler Signature: <i>Erin Moore</i>	
Receiving Laboratory: <b>Cardinal Labs</b>		Comments:	

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX		PRESERVATIVE METHOD		# CONTAINERS	FILTERED (Y/N)	ANALYSIS REQUEST (Circle or Specify Method No.)
		DATE	TIME	WATER	SOIL	HCL	HNO <sub>3</sub>			
1	FS-A-2	2/15/12			X					BTEX 8021B BTEX 8260B
2	ESW-A-1									TPH TX1005 (Ext to C35)
3	WSW-A-2									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
										Chloride Sulfate TDS
										General Water Chemistry (see attached list)
										Anion/Cation Balance
										Hold

Relinquished by: <i>Erin Moore</i>	Date: 2/15/12	Time: 1411	Received by: <i>Sam Abbott</i>	Date: 2-25-22	Time: 1411
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:

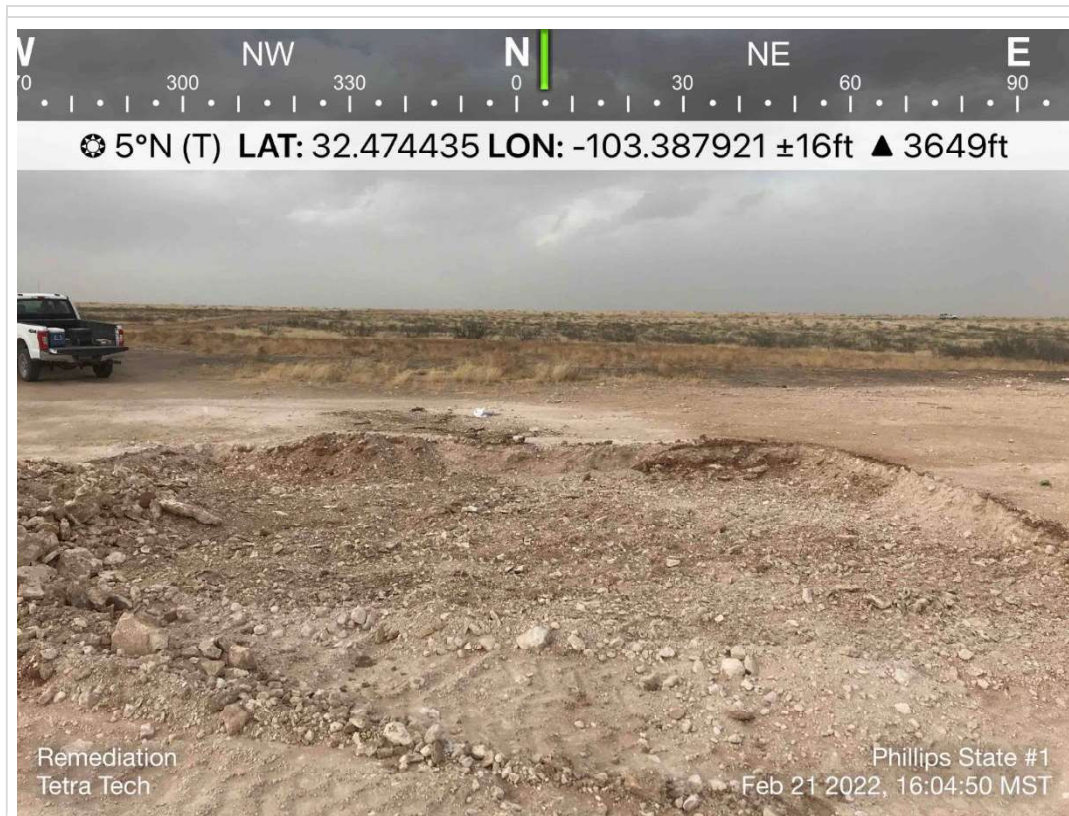
LAB USE ONLY	REMARKS:
<input type="checkbox"/> STANDARD <input checked="" type="checkbox"/> RUSH: Same Day 24 hr 48 hr 72 hr <input type="checkbox"/> Rush Charges Authorized <input type="checkbox"/> Special Report Limits or TRRP Report	Sample Temperature 11.6°C -0.5°C 11.1°C #13

ORIGINAL COPY

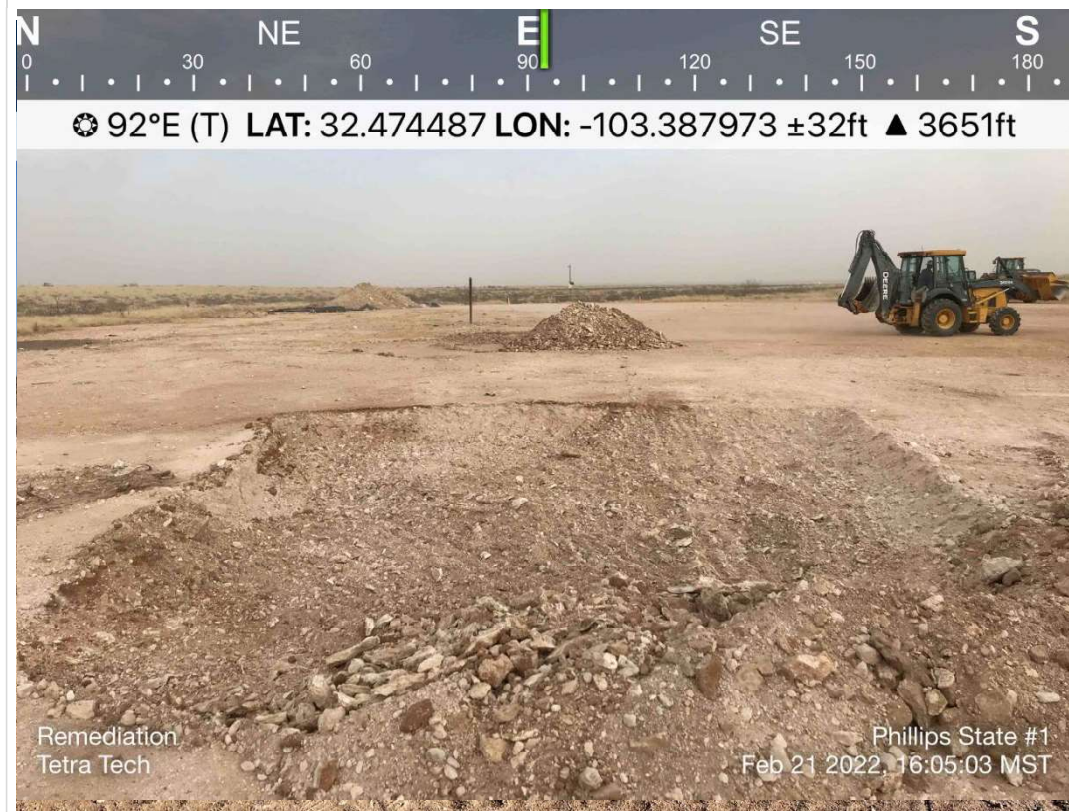
## **APPENDIX F**

### **Photographic Documentation**



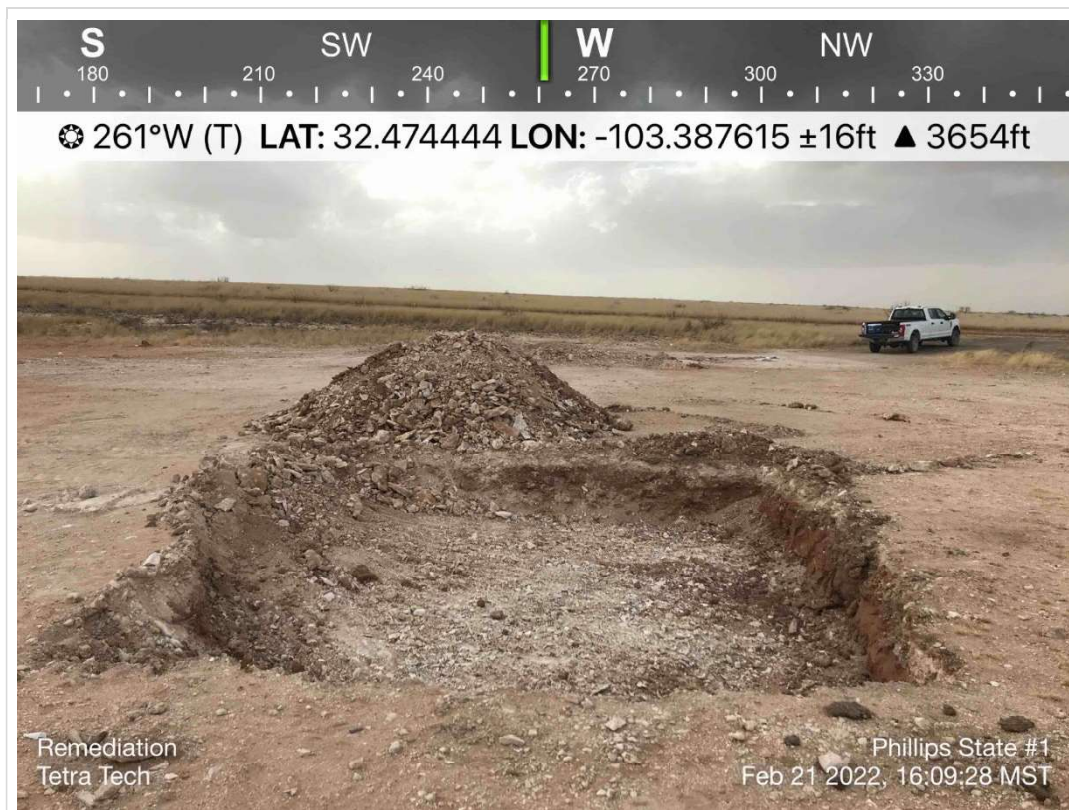


TETRA TECH, INC. PROJECT NO. 212C-MD-02601	DESCRIPTION	View north, excavated former heater treater release site prior to backfilling.	1
	SITE NAME	ConocoPhillips Phillips State #1 Remediation	2/21/2022

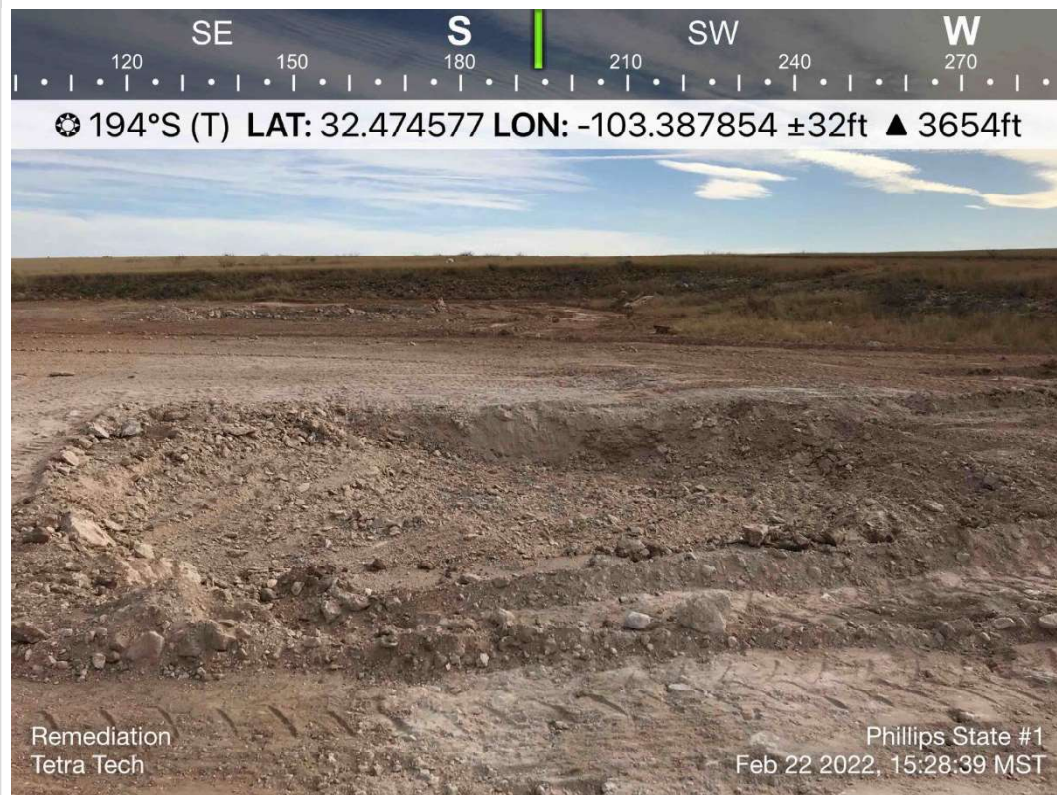


TETRA TECH, INC. PROJECT NO. 212C-MD-02601	DESCRIPTION	View east, excavated former heater treater release site prior to backfilling.	2
	SITE NAME	ConocoPhillips Phillips State #1 Remediation	2/21/2022





TETRA TECH, INC. PROJECT NO. 212C-MD-02601	DESCRIPTION	View west, excavated former heater treater release site prior to backfilling.	3
	SITE NAME	ConocoPhillips Phillips State #1 Remediation	2/21/2022

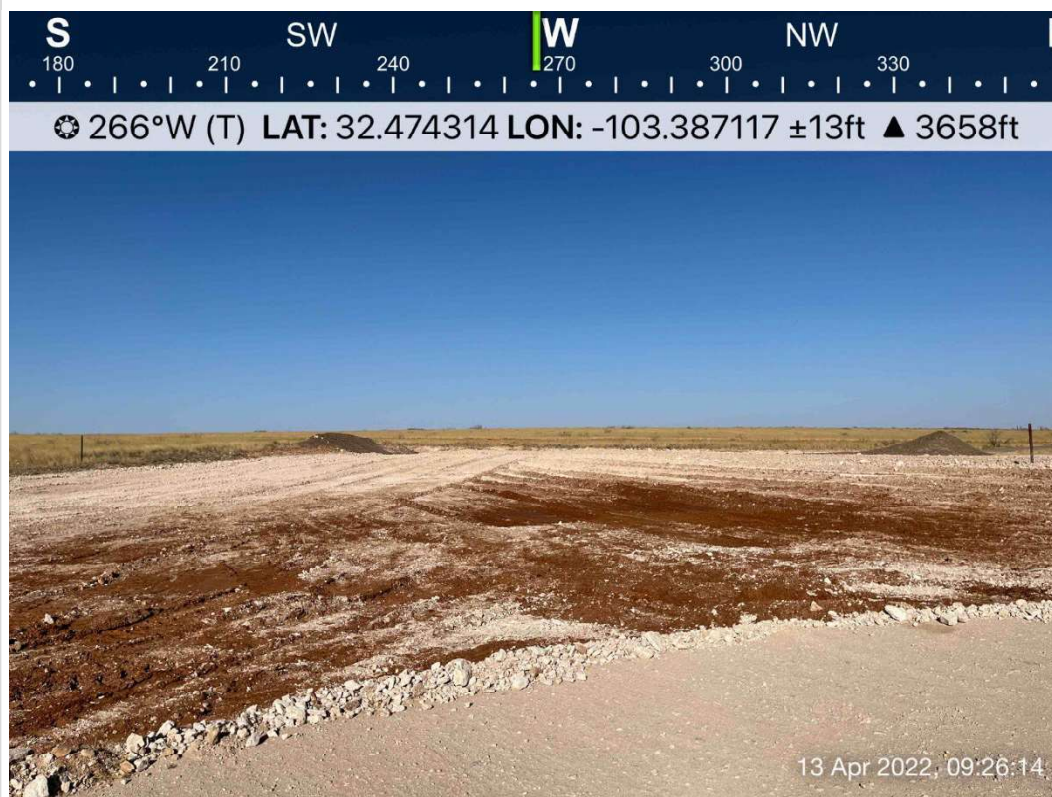


TETRA TECH, INC. PROJECT NO. 212C-MD-02601	DESCRIPTION	View south, excavated former heater treater release site prior to backfilling.	4
	SITE NAME	ConocoPhillips Phillips State #1 Remediation	2/22/2022





TETRA TECH, INC. PROJECT NO. 212C-MD-02601	DESCRIPTION	View north, ripping of caliche pad in progress.	5
	SITE NAME	ConocoPhillips Phillips State #1 Reclamation	4/11/2022

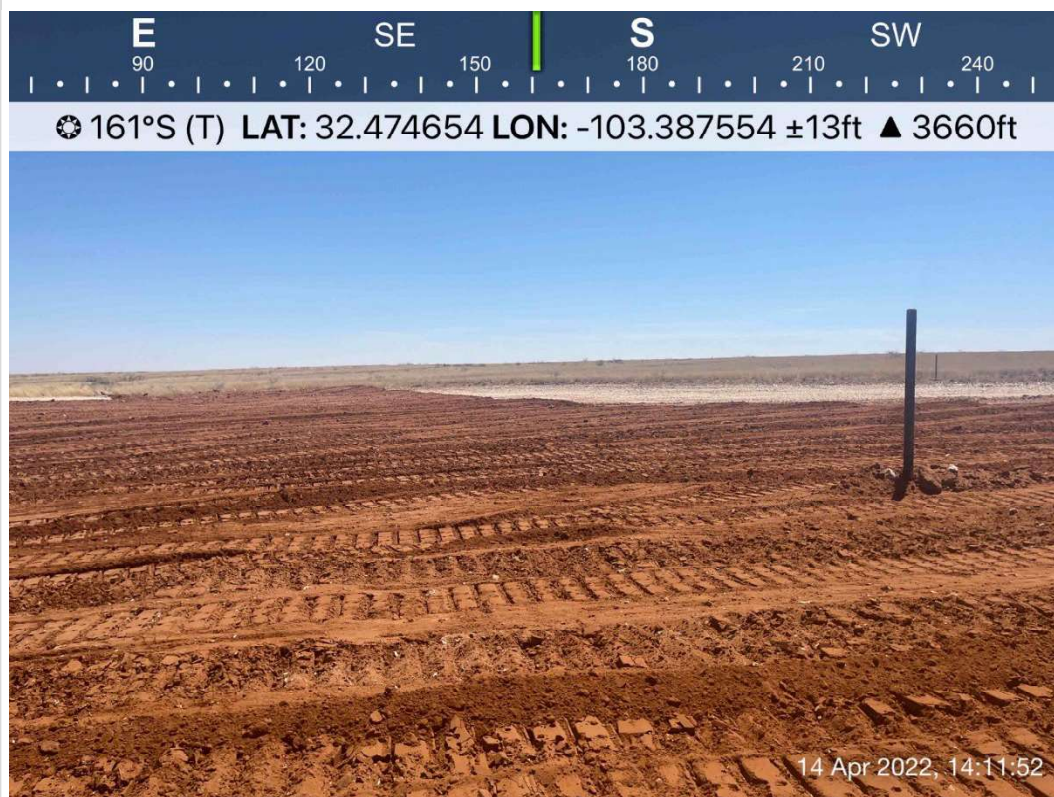


TETRA TECH, INC. PROJECT NO. 212C-MD-02601	DESCRIPTION	View west, imported material incorporated with ripped material.	6
	SITE NAME	ConocoPhillips Phillips State #1 Reclamation	4/13/2022





TETRA TECH, INC. PROJECT NO. 212C-MD-02601	DESCRIPTION	View northwest, imported material incorporated with ripped material.	7
	SITE NAME	ConocoPhillips Phillips State #1 Reclamation	4/13/2022



TETRA TECH, INC. PROJECT NO. 212C-MD-02601	DESCRIPTION	View south-southeast, pad surface ripped and imported material incorporated.	8
	SITE NAME	ConocoPhillips Phillips State #1 Reclamation	4/13/2022



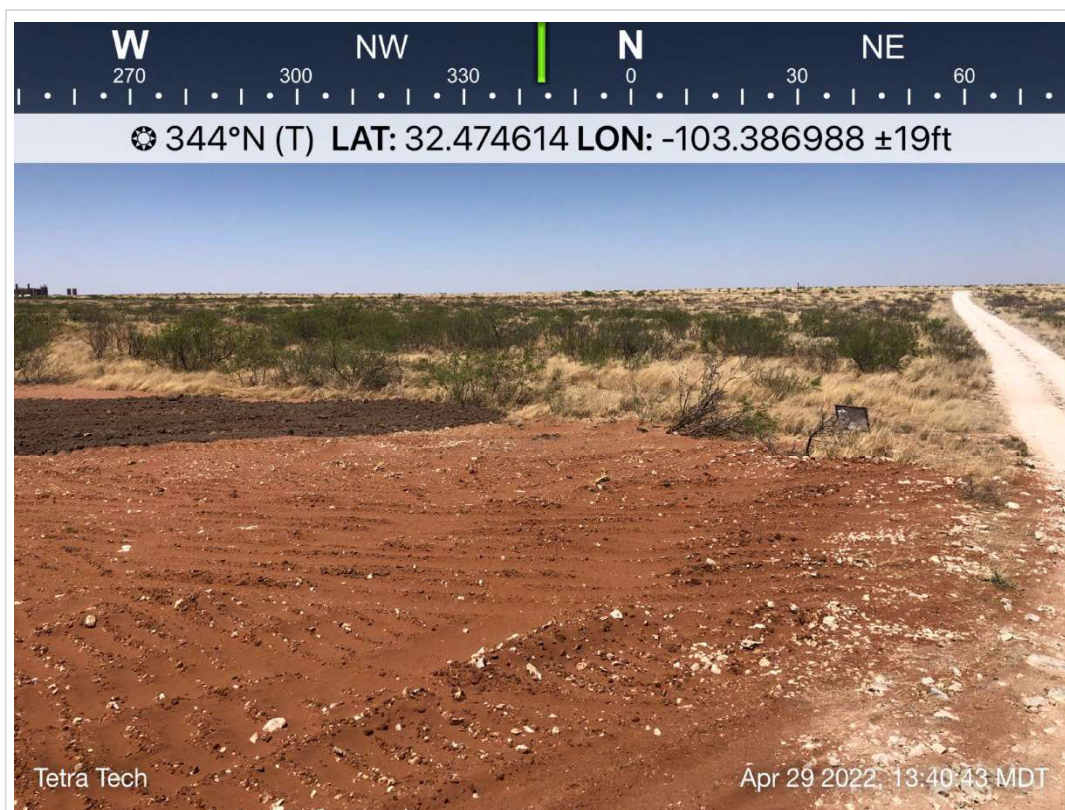


TETRA TECH, INC. PROJECT NO. 212C-MD-02601	DESCRIPTION	View southwest, pad surface ripped and imported material incorporated.	9
	SITE NAME	ConocoPhillips Phillips State #1 Reclamation	4/13/2022



TETRA TECH, INC. PROJECT NO. 212C-MD-02601	DESCRIPTION	View southwest, incorporating more imported material to the ripped pad area.	10
	SITE NAME	ConocoPhillips Phillips State #1 Reclamation	4/29/2022





TETRA TECH, INC. PROJECT NO. 212C-MD-02601	DESCRIPTION	View north, ripped pad, pad boundary, and access road.	11
	SITE NAME	ConocoPhillips Phillips State #1 Reclamation	4/29/2022



TETRA TECH, INC. PROJECT NO. 212C-MD-02601	DESCRIPTION	View north, western portion of pad prior to seeding.	12
	SITE NAME	ConocoPhillips Phillips State #1 Reclamation	4/29/2022





TETRA TECH, INC. PROJECT NO. 212C-MD-02601	DESCRIPTION	View east, southern section of pad prior to seeding.	13
	SITE NAME	ConocoPhillips Phillips State #1 Reclamation	4/29/2022

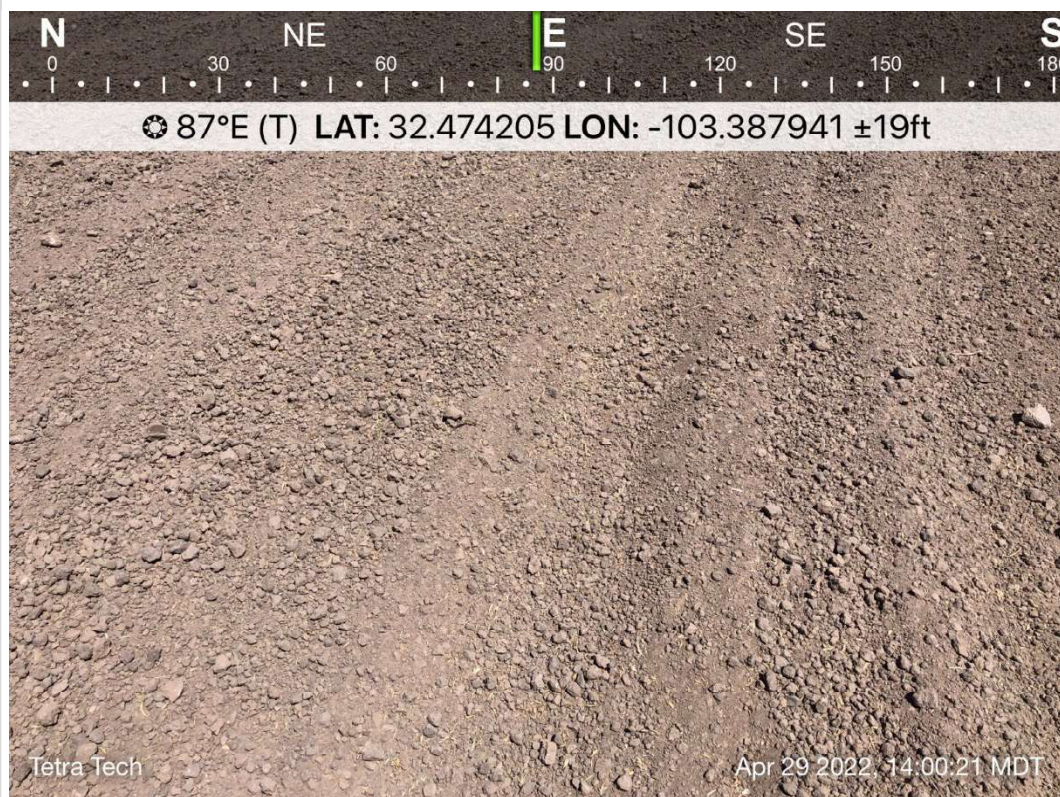


TETRA TECH, INC. PROJECT NO. 212C-MD-02601	DESCRIPTION	View northeast, central portion of pad prior to seeding.	14
	SITE NAME	ConocoPhillips Phillips State #1 Reclamation	4/29/2022



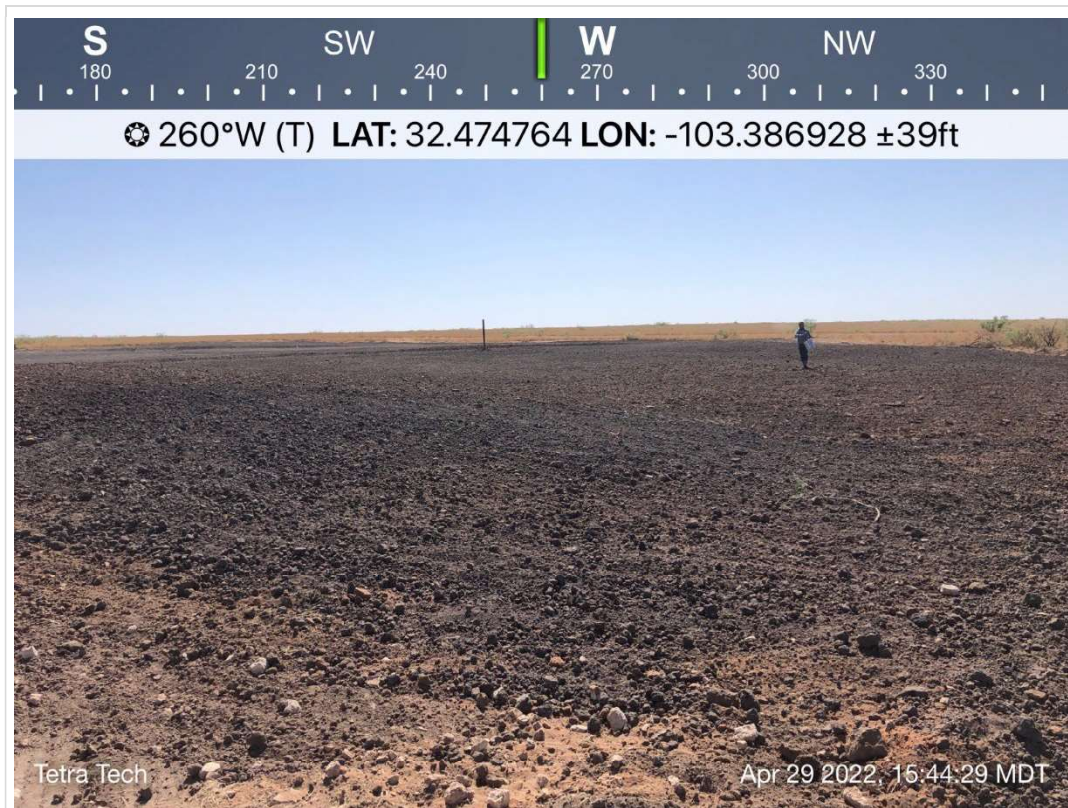


TETRA TECH, INC. PROJECT NO. 212C-MD-02601	DESCRIPTION	View east, seeding of reclaimed pad taking place.	15
	SITE NAME	ConocoPhillips Phillips State #1 Reclamation	4/29/2022



TETRA TECH, INC. PROJECT NO. 212C-MD-02601	DESCRIPTION	View of ground surface post reclamation work.	16
	SITE NAME	ConocoPhillips Phillips State #1 Reclamation	4/29/2022





TETRA TECH, INC. PROJECT NO. 212C-MD-02601	DESCRIPTION	View west, continuing the seeding process.	17
	SITE NAME	ConocoPhillips Phillips State #1 Reclamation	4/29/2022



TETRA TECH, INC. PROJECT NO. 212C-MD-02601	DESCRIPTION	View southwest, seeding process taking place.	18
	SITE NAME	ConocoPhillips Phillips State #1 Reclamation	4/29/2022

## **APPENDIX G**

### **Waste Manifests**



Permian Basin

Customer: CONOCOPHILLIPS  
Customer #: CRI2190  
Ordered by: IKE TAVAREZ  
AFE #:  
PO #:  
Manifest #: 1  
Manif. Date: 2/21/2022  
Hauler: MCNABB PARTNERS  
Driver: JOE  
Truck #: M33  
Card #  
Job Ref #

Ticket #: 700-1277256  
Bid #: O6UJ9A000HH0  
Date: 2/21/2022  
Generator: CONOCOPHILLIPS  
Generator #:  
Well Ser. #: 30956  
Well Name: PHILLIPS STATE  
Well #: 001  
Field:  
Field #:  
Rig: NON-DRILLING  
County: LEA (NM)

Facility: CRI

**Product / Service****Quantity Units**

Contaminated Soil (RCRA Exempt)

12.00 yards

**Generator Certification Statement of Waste Status**

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

☒ RCRA Exempt: Oil Field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste  
☐ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):  
☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description above)

**Driver/ Agent Signature****R360 Representative Signature****Customer Approval****THIS IS NOT AN INVOICE!**

Approved By: \_\_\_\_\_

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





Permian Basin

Customer: CONOCOPHILLIPS  
Customer #: CRI2190  
Ordered by: IKE TAVAREZ  
AFE #:  
PO #:  
Manifest #: 002  
Manif. Date: 2/21/2022  
Hauler: MCNABB PARTNERS  
Driver: JOE  
Truck #: M33  
Card #  
Job Ref #

Ticket #: 700-1277292  
Bid #: O6UJ9A000HH0  
Date: 2/21/2022  
Generator: CONOCOPHILLIPS  
Generator #:  
Well Ser. #: 30956  
Well Name: PHILLIPS STATE  
Well #: 001  
Field:  
Field #:  
Rig: NON-DRILLING  
County: LEA (NM)

Facility: CRI

## Product / Service

## Quantity Units

Contaminated Soil (RCRA Exempt)

12.00 yards

## Generator Certification Statement of Waste Status

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

☒ RCRA Exempt: Oil Field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste  
☐ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):  
☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description above)

Driver/ Agent Signature

R360 Representative Signature

Customer Approval

**THIS IS NOT AN INVOICE!**

Approved By: \_\_\_\_\_

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





Permian Basin

Customer: CONOCOPHILLIPS  
Customer #: CRI2190  
Ordered by: IKE TAVAREZ  
AFE #:  
PO #:  
Manifest #: 003  
Manif. Date: 2/22/2022  
Hauler: MCNABB PARTNERS  
Driver: JOSH  
Truck #: M75  
Card #  
Job Ref #

Ticket #: 700-1277465  
Bid #: O6UJ9A000HH0  
Date: 2/22/2022  
Generator: CONOCOPHILLIPS  
Generator #:  
Well Ser. #: 30956  
Well Name: PHILLIPS STATE  
Well #: 001  
Field:  
Field #:  
Rig: NON-DRILLING  
County: LEA (NM)

Facility: CRI

Product / Service

Quantity Units

Contaminated Soil (RCRA Exempt)

18.00 yards

**Generator Certification Statement of Waste Status**

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

☒ RCRA Exempt: Oil Field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste  
☐ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):  
☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description above)

Driver/ Agent Signature

R360 Representative Signature

Customer Approval

**THIS IS NOT AN INVOICE!**

Approved By: \_\_\_\_\_

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



Permian Basin

Customer: CONOCOPHILLIPS  
Customer #: CRI2190  
Ordered by: IKE TAVAREZ  
AFE #:  
PO #:  
Manifest #: 004  
Manif. Date: 2/22/2022  
Hauler: MCNABB PARTNERS  
Driver: JOE  
Truck #: M33  
Card #  
Job Ref #

Ticket #: 700-1277469  
Bid #: O6UJ9A000HH0  
Date: 2/22/2022  
Generator: CONOCOPHILLIPS  
Generator #:  
Well Ser. #: 30956  
Well Name: PHILLIPS STATE  
Well #: 001  
Field:  
Field #:  
Rig: NON-DRILLING  
County: LEA (NM)

Facility: CRI

Product / Service

Quantity Units

Contaminated Soil (RCRA Exempt)

12.00 yards

**Generator Certification Statement of Waste Status**

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

- ☒ RCRA Exempt: Oil Field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste  
☐ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):  
☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description above)

Driver/ Agent Signature

R360 Representative Signature

Customer Approval

**THIS IS NOT AN INVOICE!**

Approved By: \_\_\_\_\_

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



Permian Basin

Customer: CONOCOPHILLIPS  
Customer #: CRI2190  
Ordered by: IKE TAVAREZ  
AFE #:  
PO #:  
Manifest #: 005  
Manif. Date: 2/22/2022  
Hauler: MCNABB PARTNERS  
Driver: JOSH  
Truck #: M75  
Card #  
Job Ref #

Ticket #: 700-1277498  
Bid #: O6UJ9A000HH0  
Date: 2/22/2022  
Generator: CONOCOPHILLIPS  
Generator #:  
Well Ser. #: 30956  
Well Name: PHILLIPS STATE  
Well #: 001  
Field:  
Field #:  
Rig: NON-DRILLING  
County: LEA (NM)

Facility: CRI

Product / Service	Quantity Units
Contaminated Soil (RCRA Exempt)	18.00 yards

**Generator Certification Statement of Waste Status**

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

☒ RCRA Exempt: Oil Field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste  
☐ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):  
☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description above)

Driver/ Agent Signature

R360 Representative Signature

Customer Approval

**THIS IS NOT AN INVOICE!**

Approved By: \_\_\_\_\_

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





Permian Basin

Customer: CONOCOPHILLIPS  
Customer #: CRI2190  
Ordered by: IKE TAVAREZ  
AFE #:  
PO #:  
Manifest #: 006  
Manif. Date: 2/22/2022  
Hauler: MCNABB PARTNERS  
Driver: JOE  
Truck #: M33  
Card #  
Job Ref #

Ticket #: 700-1277499  
Bid #: O6UJ9A000HH0  
Date: 2/22/2022  
Generator: CONOCOPHILLIPS  
Generator #:  
Well Ser. #: 30956  
Well Name: PHILLIPS STATE  
Well #: 001  
Field:  
Field #:  
Rig: NON-DRILLING  
County: LEA (NM)

Facility: CRI

## Product / Service

## Quantity Units

Contaminated Soil (RCRA Exempt)

15.00 yards

## Generator Certification Statement of Waste Status

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

☒ RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste  
☐ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):  
☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description above)

Driver/ Agent Signature

R360 Representative Signature

Customer Approval

**THIS IS NOT AN INVOICE!**

Approved By: \_\_\_\_\_

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



Permian Basin

Customer: CONOCOPHILLIPS  
Customer #: CRI2190  
Ordered by: IKE TAVAREZ  
AFE #:  
PO #:  
Manifest #: 007  
Manif. Date: 2/22/2022  
Hauler: MCNABB PARTNERS  
Driver: JOSH  
Truck #: M75  
Card #  
Job Ref #

Ticket #: 700-1277534  
Bid #: O6UJ9A000HH0  
Date: 2/22/2022  
Generator: CONOCOPHILLIPS  
Generator #:  
Well Ser. #: 30956  
Well Name: PHILLIPS STATE  
Well #: 001  
Field:  
Field #:  
Rig: NON-DRILLING  
County: LEA (NM)

Facility: CRI

Product / Service	Quantity Units
Contaminated Soil (RCRA Exempt)	18.00 yards

**Generator Certification Statement of Waste Status**

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

- ☒ RCRA Exempt: Oil Field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste  
☐ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):  
☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description above)

Driver/ Agent Signature	R360 Representative Signature
-------------------------	-------------------------------

**Customer Approval****THIS IS NOT AN INVOICE!**

Approved By: \_\_\_\_\_

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

A handwritten signature in black ink, appearing to be "J. T. ...", is written over the date line.





Permian Basin

Customer: CONOCOPHILLIPS  
Customer #: CRI2190  
Ordered by: IKE TAVAREZ  
AFE #:  
PO #:  
Manifest #: 008  
Manif. Date: 2/22/2022  
Hauler: MCNABB PARTNERS  
Driver: JOE  
Truck #: M33  
Card #  
Job Ref #

Ticket #: 700-1277536  
Bid #: O6UJ9A000HH0  
Date: 2/22/2022  
Generator: CONOCOPHILLIPS  
Generator #:  
Well Ser. #: 30956  
Well Name: PHILLIPS STATE  
Well #: 001  
Field:  
Field #:  
Rig: NON-DRILLING  
County: LEA (NM)

Facility: CRI

Product / Service

Quantity Units

Contaminated Soil (RCRA Exempt)

12.00 yards

**Generator Certification Statement of Waste Status**

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

☒ RCRA Exempt: Oil Field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste  
☐ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):  
☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description above)

Driver/ Agent Signature

R360 Representative Signature

Customer Approval

**THIS IS NOT AN INVOICE!**

Approved By: \_\_\_\_\_

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



Permian Basin

Customer: CONOCOPHILLIPS  
Customer #: CRI2190  
Ordered by: IKE TAVAREZ  
AFE #:  
PO #:  
Manifest #: 009  
Manif. Date: 2/22/2022  
Hauler: MCNABB PARTNERS  
Driver: JOSH  
Truck #: M75  
Card #  
Job Ref #

Ticket #: 700-1277585  
Bid #: O6UJ9A000HH0  
Date: 2/22/2022  
Generator: CONOCOPHILLIPS  
Generator #:  
Well Ser. #: 30956  
Well Name: PHILLIPS STATE  
Well #: 001  
Field:  
Field #:  
Rig: NON-DRILLING  
County: LEA (NM)

Facility: CRI

**Product / Service****Quantity Units**

Contaminated Soil (RCRA Exempt)

18.00 yards

**Generator Certification Statement of Waste Status**

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

☒ RCRA Exempt: Oil Field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste  
☐ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):  
☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description above)

**Driver/ Agent Signature****R360 Representative Signature****Customer Approval****THIS IS NOT AN INVOICE!**

Approved By: \_\_\_\_\_

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



Permian Basin

Customer: CONOCOPHILLIPS  
Customer #: CRI2190  
Ordered by: IKE TAVAREZ  
AFE #:  
PO #:  
Manifest #: 010  
Manif. Date: 2/22/2022  
Hauler: MCNABB PARTNERS  
Driver: JOE  
Truck #: M33  
Card #  
Job Ref #

Ticket #: 700-1277588  
Bid #: O6UJ9A000HH0  
Date: 2/22/2022  
Generator: CONOCOPHILLIPS  
Generator #:  
Well Ser. #: 30956  
Well Name: PHILLIPS STATE  
Well #: 001  
Field:  
Field #:  
Rig: NON-DRILLING  
County: LEA (NM)

Facility: CRI

Product / Service	Quantity Units
Contaminated Soil (RCRA Exempt)	12.00 yards

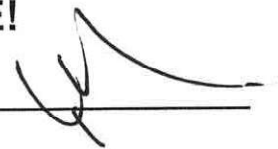
**Generator Certification Statement of Waste Status**

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

☒ RCRA Exempt: Oil Field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste  
☐ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):  
☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description above)

**Driver/ Agent Signature****R360 Representative Signature****Customer Approval****THIS IS NOT AN INVOICE!**

Approved By: \_\_\_\_\_

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





Permian Basin

Customer: CONOCOPHILLIPS  
Customer #: CRI2190  
Ordered by: IKE TAVAREZ  
AFE #:  
PO #:  
Manifest #: 011  
Manif. Date: 2/23/2022  
Hauler: MCNABB PARTNERS  
Driver: HUGO  
Truck #: M31  
Card #  
Job Ref #

Ticket #: 700-1277766  
Bid #: O6UJ9A000HH0  
Date: 2/23/2022  
Generator: CONOCOPHILLIPS  
Generator #:  
Well Ser. #: 30956  
Well Name: PHILLIPS STATE  
Well #: 001  
Field:  
Field #:  
Rig: NON-DRILLING  
County: LEA (NM)

Facility: CRI

## Product / Service

## Quantity Units

Contaminated Soil (RCRA Exempt)

16.00 yards

## Generator Certification Statement of Waste Status

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

☒ RCRA Exempt: Oil Field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste  
☐ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):  
☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description above)

## Driver/ Agent Signature

## R360 Representative Signature

Hugo I M31

[Signature]

## Customer Approval

**THIS IS NOT AN INVOICE!**

Approved By: \_\_\_\_\_

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



Permian Basin

Customer: CONOCOPHILLIPS  
Customer #: CRI2190  
Ordered by: IKE TAVAREZ  
AFE #:  
PO #:  
Manifest #: 012  
Manif. Date: 2/23/2022  
Hauler: MCNABB PARTNERS  
Driver: HUGO  
Truck #: M31  
Card #  
Job Ref #

Ticket #: 700-1277779  
Bid #: O6UJ9A000HH0  
Date: 2/23/2022  
Generator: CONOCOPHILLIPS  
Generator #:  
Well Ser. #: 30956  
Well Name: PHILLIPS STATE  
Well #: 001  
Field:  
Field #:  
Rig: NON-DRILLING  
County: LEA (NM)

Facility: CRI

Product / Service

Quantity Units

Contaminated Soil (RCRA Exempt)

16.00 yards

**Generator Certification Statement of Waste Status**

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

☒ RCRA Exempt: Oil Field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste  
☐ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):  
☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description above)

Driver/ Agent Signature

R360 Representative Signature

Customer Approval

**THIS IS NOT AN INVOICE!**

Approved By: \_\_\_\_\_

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





Permian Basin

Customer: CONOCOPHILLIPS  
Customer #: CRI2190  
Ordered by: IKE TAVAREZ  
AFE #:  
PO #:  
Manifest #: 013  
Manif. Date: 2/23/2022  
Hauler: MCNABB PARTNERS  
Driver: HUGO  
Truck #: M31  
Card #  
Job Ref #

Ticket #: 700-1277795  
Bid #: O6UJ9A000HH0  
Date: 2/23/2022  
Generator: CONOCOPHILLIPS  
Generator #:  
Well Ser. #: 30956  
Well Name: PHILLIPS STATE  
Well #: 001  
Field:  
Field #:  
Rig: NON-DRILLING  
County: LEA (NM)

Facility: CRI

Product / Service

Quantity Units

Contaminated Soil (RCRA Exempt)

16.00 yards

**Generator Certification Statement of Waste Status**

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

☒ RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste  
☐ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):  
☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description above)

Driver/ Agent Signature

R360 Representative Signature

Hugo = M31

Customer Approval

**THIS IS NOT AN INVOICE!**

Approved By: \_\_\_\_\_

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



Permian Basin

Customer: CONOCOPHILLIPS  
Customer #: CRI2190  
Ordered by: IKE TAVAREZ  
AFE #:  
PO #:  
Manifest #: 014  
Manif. Date: 2/23/2022  
Hauler: MCNABB PARTNERS  
Driver: HUGO  
Truck #: M31  
Card #  
Job Ref #

Ticket #: 700-1277820  
Bid #: O6UJ9A000HH0  
Date: 2/23/2022  
Generator: CONOCOPHILLIPS  
Generator #:  
Well Ser. #: 30956  
Well Name: PHILLIPS STATE  
Well #: 001  
Field:  
Field #:  
Rig: NON-DRILLING  
County: LEA (NM)

Facility: CRI

**Product / Service****Quantity Units**

Contaminated Soil (RCRA Exempt)

16.00 yards

**Generator Certification Statement of Waste Status**

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

☒ RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste  
☐ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):  
☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description above)

**Driver/ Agent Signature****R360 Representative Signature**

A handwritten signature in black ink that appears to read "Hugo" followed by "M31".

A stylized handwritten signature in black ink, possibly reading "R360" or similar.

**Customer Approval****THIS IS NOT AN INVOICE!**

Approved By: \_\_\_\_\_

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



Permian Basin

Customer: CONOCOPHILLIPS  
Customer #: CRI2190  
Ordered by: IKE TAVAREZ  
AFE #:  
PO #:  
Manifest #: 015  
Manif. Date: 2/23/2022  
Hauler: MCNABB PARTNERS  
Driver: HUGO  
Truck #: M31  
Card #  
Job Ref #

Ticket #: 700-1277850  
Bid #: O6UJ9A000HH0  
Date: 2/23/2022  
Generator: CONOCOPHILLIPS  
Generator #:  
Well Ser. #: 30956  
Well Name: PHILLIPS STATE  
Well #: 001  
Field:  
Field #:  
Rig: NON-DRILLING  
County: LEA (NM)

Facility: CRI

Product / Service	Quantity Units
Contaminated Soil (RCRA Exempt)	16.00 yards

**Generator Certification Statement of Waste Status**

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

- ☒ RCRA Exempt: Oil Field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste  
☐ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):  
☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description above)

**Driver/ Agent Signature****R360 Representative Signature**

A handwritten signature in black ink, appearing to be "Algo M31", written over a horizontal line.

A handwritten signature in black ink, appearing to be a stylized "V" or "W", written over a horizontal line.

**Customer Approval****THIS IS NOT AN INVOICE!**

Approved By: \_\_\_\_\_

Date: \_\_\_\_\_  
A handwritten signature in black ink, appearing to be a stylized "V" or "W", written over the date line.





Permian Basin

Customer: CONOCOPHILLIPS  
Customer #: CRI2190  
Ordered by: IKE TAVAREZ  
AFE #:  
PO #:  
Manifest #: 016  
Manif. Date: 2/23/2022  
Hauler: MCNABB PARTNERS  
Driver: HUGO  
Truck #: M31  
Card #  
Job Ref #

Ticket #: 700-1277890  
Bid #: O6UJ9A000HH0  
Date: 2/23/2022  
Generator: CONOCOPHILLIPS  
Generator #:  
Well Ser. #: 30956  
Well Name: PHILLIPS STATE  
Well #: 001  
Field:  
Field #:  
Rig: NON-DRILLING  
County: LEA (NM)

Facility: CRI

**Product / Service****Quantity Units**

Contaminated Soil (RCRA Exempt)

16.00 yards

**Generator Certification Statement of Waste Status**

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

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☐ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):  
☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description above)

**Driver/ Agent Signature****R360 Representative Signature**

A handwritten signature in black ink, appearing to be "Hugo" followed by "M31", written over a horizontal line.

A handwritten signature in black ink, written over a horizontal line.

**Customer Approval****THIS IS NOT AN INVOICE!**

Approved By: \_\_\_\_\_

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



Permian Basin

Customer: CONOCOPHILLIPS  
Customer #: CRI2190  
Ordered by: IKE TAVAREZ  
AFE #:  
PO #:  
Manifest #: 017  
Manif. Date: 2/24/2022  
Hauler: MCNABB PARTNERS  
Driver: HUGO  
Truck #: M31  
Card #  
Job Ref #

Ticket #: 700-1278115  
Bid #: O6UJ9A000HH0  
Date: 2/24/2022  
Generator: CONOCOPHILLIPS  
Generator #:  
Well Ser. #: 30956  
Well Name: PHILLIPS STATE  
Well #: 001  
Field:  
Field #:  
Rig: NON-DRILLING  
County: LEA (NM)

Facility: CRI

**Product / Service****Quantity Units**

Contaminated Soil (RCRA Exempt)

16.00 yards

**Generator Certification Statement of Waste Status**

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

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☐ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):  
☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description above)

**Driver/ Agent Signature****R360 Representative Signature**

A handwritten signature in black ink that appears to read "Hugo" followed by "M31".

A handwritten signature in black ink, consisting of a stylized, cursive-like mark.

**Customer Approval****THIS IS NOT AN INVOICE!**

Approved By: \_\_\_\_\_

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





Permian Basin

Customer: CONOCOPHILLIPS  
Customer #: CRI2190  
Ordered by: IKE TAVAREZ  
AFE #:  
PO #:  
Manifest #: M31  
Manif. Date: 2/24/2022  
Hauler: MCNABB PARTNERS  
Driver: HUGO  
Truck #: M31  
Card #  
Job Ref #

Ticket #: 700-1278151  
Bid #: O6UJ9A000HH0  
Date: 2/24/2022  
Generator: CONOCOPHILLIPS  
Generator #:  
Well Ser. #: 30956  
Well Name: PHILLIPS STATE  
Well #: 001  
Field:  
Field #:  
Rig: NON-DRILLING  
County: LEA (NM)

Facility: CRI

**Product / Service****Quantity Units**

Contaminated Soil (RCRA Exempt)

16.00 yards

**Generator Certification Statement of Waste Status**

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

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☐ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):  
☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description above)

**Driver/ Agent Signature****R360 Representative Signature**

A handwritten signature in black ink that appears to read "Hugo M 31".

A handwritten signature in black ink, possibly reading "Gr", written over a horizontal line.

**Customer Approval****THIS IS NOT AN INVOICE!**

Approved By: \_\_\_\_\_

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



Permian Basin

Customer: CONOCOPHILLIPS  
 Customer #: CRI2190  
 Ordered by: IKE TAVAREZ  
 AFE #:  
 PO #:  
 Manifest #: 019  
 Manif. Date: 2/24/2022  
 Hauler: MCNABB PARTNERS  
 Driver: HUGO  
 Truck #: M31  
 Card #  
 Job Ref #

Ticket #: 700-1278169  
 Bid #: O6UJ9A000HH0  
 Date: 2/24/2022  
 Generator: CONOCOPHILLIPS  
 Generator #:  
 Well Ser. #: 30956  
 Well Name: PHILLIPS STATE  
 Well #: 001  
 Field:  
 Field #:  
 Rig: NON-DRILLING  
 County: LEA (NM)

Facility: CRI

## Product / Service

## Quantity Units

Contaminated Soil (RCRA Exempt)

16.00 yards

	Cell	pH	Cl	Cond.	%Solids	TDS	PCI/GM	MR/HR	H2S	% Oil	Weight
Lab Analysis:	50/51	0.00	0.00	0.00	0		0.00	0.00			

## Generator Certification Statement of Waste Status

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

☒ RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste  
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☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description above)

Driver/ Agent Signature

R360 Representative Signature

Customer Approval

**THIS IS NOT AN INVOICE!**

Approved By: \_\_\_\_\_

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



Permian Basin

Customer: CONOCOPHILLIPS  
Customer #: CRI2190  
Ordered by: IKE TAVAREZ  
AFE #:  
PO #:  
Manifest #: 020  
Manif. Date: 2/24/2022  
Hauler: MCNABB PARTNERS  
Driver: HUGO  
Truck #: M31  
Card #  
Job Ref #

Ticket #: 700-1278214  
Bid #: O6UJ9A000HH0  
Date: 2/24/2022  
Generator: CONOCOPHILLIPS  
Generator #:  
Well Ser. #: 30956  
Well Name: PHILLIPS STATE  
Well #: 001  
Field:  
Field #:  
Rig: NON-DRILLING  
County: LEA (NM)

Facility: CRI

**Product / Service****Quantity Units**

Contaminated Soil (RCRA Exempt)

16.00 yards

**Generator Certification Statement of Waste Status**

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☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description above)

**Driver/ Agent Signature****R360 Representative Signature**

A handwritten signature in black ink, appearing to be "Hyr M31", written over a horizontal line.

A handwritten signature in black ink, appearing to be a stylized "M", written over a horizontal line.

**Customer Approval****THIS IS NOT AN INVOICE!**

Approved By: \_\_\_\_\_

Date: \_\_\_\_\_  
A handwritten signature in black ink, appearing to be a stylized "M", written over a horizontal line.





Permian Basin

Customer: CONOCOPHILLIPS  
Customer #: CRI2190  
Ordered by: IKE TAVAREZ  
AFE #:  
PO #:  
Manifest #: 021  
Manif. Date: 2/24/2022  
Hauler: MCNABB PARTNERS  
Driver: HUGO  
Truck #: M31  
Card #  
Job Ref #

Ticket #: 700-1278262  
Bid #: O6UJ9A000HH0  
Date: 2/24/2022  
Generator: CONOCOPHILLIPS  
Generator #:  
Well Ser. #: 30956  
Well Name: PHILLIPS STATE  
Well #: 001  
Field:  
Field #:  
Rig: NON-DRILLING  
County: LEA (NM)

Facility: CRI

**Product / Service****Quantity Units**

Contaminated Soil (RCRA Exempt)

16.00 yards

**Generator Certification Statement of Waste Status**

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☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description above)

**Driver/ Agent Signature****R360 Representative Signature**

*Heiz* *7* *M31*

**Customer Approval****THIS IS NOT AN INVOICE!**

Approved By: \_\_\_\_\_

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



Permian Basin

Customer: CONOCOPHILLIPS  
Customer #: CRI2190  
Ordered by: IKE TAVAREZ  
AFE #:  
PO #:  
Manifest #: 022  
Manif. Date: 2/25/2022  
Hauler: MCNABB PARTNERS  
Driver: HUGO  
Truck #: M31  
Card #  
Job Ref #

Ticket #: 700-1278473  
Bid #: O6UJ9A000HH0  
Date: 2/25/2022  
Generator: CONOCOPHILLIPS  
Generator #:  
Well Ser. #: 30956  
Well Name: PHILLIPS STATE  
Well #: 001  
Field:  
Field #:  
Rig: NON-DRILLING  
County: LEA (NM)

Facility: CRI

**Product / Service****Quantity Units**

Contaminated Soil (RCRA Exempt)

16.00 yards

**Generator Certification Statement of Waste Status**

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☐ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):  
☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description above)

**Driver/ Agent Signature****R360 Representative Signature**

A handwritten signature in black ink that reads "Hugo I M31".

A handwritten signature in black ink, appearing to be "DSG".

**Customer Approval****THIS IS NOT AN INVOICE!**

Approved By: \_\_\_\_\_

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





Permian Basin

Customer: CONOCOPHILLIPS  
Customer #: CRI2190  
Ordered by: IKE TAVAREZ  
AFE #:  
PO #:  
Manifest #: 023  
Manif. Date: 2/25/2022  
Hauler: MCNABB PARTNERS  
Driver: JOE  
Truck #: M81  
Card #  
Job Ref #

Ticket #: 700-1278480  
Bid #: O6UJ9A000HH0  
Date: 2/25/2022  
Generator: CONOCOPHILLIPS  
Generator #:  
Well Ser. #: 30956  
Well Name: PHILLIPS STATE  
Well #: 001  
Field:  
Field #:  
Rig: NON-DRILLING  
County: LEA (NM)

Facility: CRI

**Product / Service****Quantity Units**

Contaminated Soil (RCRA Exempt)

18.00 yards

**Generator Certification Statement of Waste Status**

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

- ☒ RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste  
☐ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):  
☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description above)

**Driver/ Agent Signature****R360 Representative Signature****Customer Approval****THIS IS NOT AN INVOICE!**

Approved By: \_\_\_\_\_

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



Permian Basin

Customer: CONOCOPHILLIPS  
Customer #: CRI2190  
Ordered by: IKE TAVAREZ  
AFE #:  
PO #:  
Manifest #: 024  
Manif. Date: 2/25/2022  
Hauler: MCNABB PARTNERS  
Driver: HUGO  
Truck #: M31  
Card #  
Job Ref #

Ticket #: 700-1278513  
Bid #: O6UJ9A000HH0  
Date: 2/25/2022  
Generator: CONOCOPHILLIPS  
Generator #:  
Well Ser. #: 30956  
Well Name: PHILLIPS STATE  
Well #: 001  
Field:  
Field #:  
Rig: NON-DRILLING  
County: LEA (NM)

Facility: CRI

Product / Service

Quantity Units

Contaminated Soil (RCRA Exempt)

16.00 yards

**Generator Certification Statement of Waste Status**

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

☒ RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste  
☐ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):  
☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description above)

Driver/ Agent Signature

R360 Representative Signature

A handwritten signature in black ink that reads "Hugo M31".

Customer Approval

**THIS IS NOT AN INVOICE!**

Approved By: \_\_\_\_\_

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



Permian Basin

Customer: CONOCOPHILLIPS  
Customer #: CRI2190  
Ordered by: IKE TAVAREZ  
AFE #:  
PO #:  
Manifest #: 025  
Manif. Date: 2/25/2022  
Hauler: MCNABB PARTNERS  
Driver: JOSE  
Truck #: M81  
Card #  
Job Ref #

Ticket #: 700-1278524  
Bid #: O6UJ9A000HH0  
Date: 2/25/2022  
Generator: CONOCOPHILLIPS  
Generator #:  
Well Ser. #: 30956  
Well Name: PHILLIPS STATE  
Well #: 001  
Field:  
Field #:  
Rig: NON-DRILLING  
County: LEA (NM)

Facility: CRI

Product / Service

Quantity Units

Contaminated Soil (RCRA Exempt)

18.00 yards

**Generator Certification Statement of Waste Status**

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

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☐ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):  
☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description above)

Driver/ Agent Signature

R360 Representative Signature

Customer Approval

**THIS IS NOT AN INVOICE!**

Approved By: \_\_\_\_\_

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

t6UJ9A01MLEZ

2/25/2022 9:24:47AM





Permian Basin

Customer: CONOCOPHILLIPS  
Customer #: CRI2190  
Ordered by: IKE TAVAREZ  
AFE #:  
PO #:  
Manifest #: 026  
Manif. Date: 2/25/2022  
Hauler: MCNABB PARTNERS  
Driver: HUGO  
Truck #: M31  
Card #  
Job Ref #

Ticket #: 700-1278546  
Bid #: O6UJ9A000HH0  
Date: 2/25/2022  
Generator: CONOCOPHILLIPS  
Generator #:  
Well Ser. #: 30956  
Well Name: PHILLIPS STATE  
Well #: 001  
Field:  
Field #:  
Rig: NON-DRILLING  
County: LEA (NM)

Facility: CRI

**Product / Service****Quantity Units**

Contaminated Soil (RCRA Exempt)

16.00 yards

**Generator Certification Statement of Waste Status**

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

☒ RCRA Exempt: Oil Field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste  
☐ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):  
☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description above)

**Driver/ Agent Signature****R360 Representative Signature**

Handwritten signature of Hugo M31 in black ink.

Handwritten signature of the R360 Representative in black ink.

**Customer Approval****THIS IS NOT AN INVOICE!**

Approved By: \_\_\_\_\_

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



Permian Basin

Customer: CONOCOPHILLIPS  
Customer #: CRI2190  
Ordered by: IKE TAVAREZ  
AFE #:  
PO #:  
Manifest #: 027  
Manif. Date: 2/25/2022  
Hauler: MCNABB PARTNERS  
Driver: JOE  
Truck #: M81  
Card #  
Job Ref #

Ticket #: 700-1278558  
Bid #: O6UJ9A000HH0  
Date: 2/25/2022  
Generator: CONOCOPHILLIPS  
Generator #:  
Well Ser. #: 30956  
Well Name: PHILLIPS STATE  
Well #: 001  
Field:  
Field #:  
Rig: NON-DRILLING  
County: LEA (NM)

Facility: CRI

**Product / Service****Quantity Units**

Contaminated Soil (RCRA Exempt)

18.00 yards

**Generator Certification Statement of Waste Status**

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

☒ RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste  
☐ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):  
☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description above)

**Driver/ Agent Signature****R360 Representative Signature****Customer Approval****THIS IS NOT AN INVOICE!**

Approved By: \_\_\_\_\_

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





Permian Basin

Customer: CONOCOPHILLIPS  
Customer #: CRI2190  
Ordered by: IKE TAVAREZ  
AFE #:  
PO #:  
Manifest #: 028  
Manif. Date: 2/25/2022  
Hauler: MCNABB PARTNERS  
Driver: HUGO  
Truck #: M31  
Card #  
Job Ref #

Ticket #: 700-1278564  
Bid #: O6UJ9A000HH0  
Date: 2/25/2022  
Generator: CONOCOPHILLIPS  
Generator #:  
Well Ser. #: 30956  
Well Name: PHILLIPS STATE  
Well #: 001  
Field:  
Field #:  
Rig: NON-DRILLING  
County: LEA (NM)

Facility: CRI

**Product / Service****Quantity Units**

Contaminated Soil (RCRA Exempt)

16.00 yards

**Generator Certification Statement of Waste Status**

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

☒ RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste  
☐ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):  
☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description above)

**Driver/ Agent Signature****R360 Representative Signature**

A handwritten signature in black ink that reads "Hugo" followed by "M31".

**Customer Approval****THIS IS NOT AN INVOICE!**

Approved By: \_\_\_\_\_

Date: \_\_\_\_\_ A handwritten signature in black ink, possibly reading "VJ".



Permian Basin

Customer: CONOCOPHILLIPS  
Customer #: CRI2190  
Ordered by: IKE TAVAREZ  
AFE #:  
PO #:  
Manifest #: 029  
Manif. Date: 2/25/2022  
Hauler: MCNABB PARTNERS  
Driver: JOE  
Truck #: M81  
Card #  
Job Ref #

Ticket #: 700-1278586  
Bid #: O6UJ9A000HH0  
Date: 2/25/2022  
Generator: CONOCOPHILLIPS  
Generator #:  
Well Ser. #: 30956  
Well Name: PHILLIPS STATE  
Well #: 001  
Field:  
Field #:  
Rig: NON-DRILLING  
County: LEA (NM)

Facility: CRI

**Product / Service****Quantity Units**

Contaminated Soil (RCRA Exempt)

18.00 yards

**Generator Certification Statement of Waste Status**

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

☒ RCRA Exempt: Oil Field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste  
☐ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):  
☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description above)

**Driver/ Agent Signature****R360 Representative Signature****Customer Approval****THIS IS NOT AN INVOICE!**

Approved By: \_\_\_\_\_

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



Permian Basin

Customer: CONOCOPHILLIPS  
Customer #: CRI2190  
Ordered by: IKE TAVAREZ  
AFE #:  
PO #:  
Manifest #: 030  
Manif. Date: 2/25/2022  
Hauler: MCNABB PARTNERS  
Driver: HUGO  
Truck #: M31  
Card #  
Job Ref #

Ticket #: 700-1278612  
Bid #: O6UJ9A000HH0  
Date: 2/25/2022  
Generator: CONOCOPHILLIPS  
Generator #:  
Well Ser. #: 30956  
Well Name: PHILLIPS STATE  
Well #: 001  
Field:  
Field #:  
Rig: NON-DRILLING  
County: LEA (NM)

Facility: CRI

**Product / Service****Quantity Units**

Contaminated Soil (RCRA Exempt)

16.00 yards

**Generator Certification Statement of Waste Status**

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

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☐ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):  
☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description above)

**Driver/ Agent Signature****R360 Representative Signature**

Hugo z M31

\_\_\_\_\_

**Customer Approval****THIS IS NOT AN INVOICE!**

Approved By: \_\_\_\_\_

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

A handwritten signature in black ink, appearing to be a stylized 'H' or similar character, written over the date line.





Permian Basin

Customer: CONOCOPHILLIPS  
Customer #: CRI2190  
Ordered by: IKE TAVAREZ  
AFE #:  
PO #:  
Manifest #: 031  
Manif. Date: 2/25/2022  
Hauler: MCNABB PARTNERS  
Driver: JOE  
Truck #: M81  
Card #  
Job Ref #

Ticket #: 700-1278631  
Bid #: O6UJ9A000HH0  
Date: 2/25/2022  
Generator: CONOCOPHILLIPS  
Generator #:  
Well Ser. #: 30956  
Well Name: PHILLIPS STATE  
Well #: 001  
Field:  
Field #:  
Rig: NON-DRILLING  
County: LEA (NM)

Facility: CRI

Product / Service

Quantity Units

Contaminated Soil (RCRA Exempt)

18.00 yards

**Generator Certification Statement of Waste Status**

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

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☐ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):  
☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description above)

Driver/ Agent Signature

R360 Representative Signature

Customer Approval

**THIS IS NOT AN INVOICE!**

Approved By: \_\_\_\_\_

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



Permian Basin

Customer: CONOCOPHILLIPS  
Customer #: CRI2190  
Ordered by: IKE TAVAREZ  
AFE #:  
PO #:  
Manifest #: 032  
Manif. Date: 2/28/2022  
Hauler: MCNABB PARTNERS  
Driver: JOE  
Truck #: M81  
Card #  
Job Ref #

Ticket #: 700-1279188  
Bid #: O6UJ9A000HH0  
Date: 2/28/2022  
Generator: CONOCOPHILLIPS  
Generator #:  
Well Ser. #: 30956  
Well Name: PHILLIPS STATE  
Well #: 001  
Field:  
Field #:  
Rig: NON-DRILLING  
County: LEA (NM)

Facility: CRI

**Product / Service****Quantity Units**

Contaminated Soil (RCRA Exempt)

18.00 yards

**Generator Certification Statement of Waste Status**

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

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☐ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):  
☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description above)

**Driver/ Agent Signature****R360 Representative Signature****Customer Approval****THIS IS NOT AN INVOICE!**

Approved By: \_\_\_\_\_

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





Permian Basin

Customer: CONOCOPHILLIPS  
Customer #: CRI2190  
Ordered by: IKE TAVAREZ  
AFE #:  
PO #:  
Manifest #: 033  
Manif. Date: 2/28/2022  
Hauler: MCNABB PARTNERS  
Driver: HUGO  
Truck #: M31  
Card #  
Job Ref #

Ticket #: 700-1279185  
Bid #: O6UJ9A000HH0  
Date: 2/28/2022  
Generator: CONOCOPHILLIPS  
Generator #:  
Well Ser. #: 30956  
Well Name: PHILLIPS STATE  
Well #: 001  
Field:  
Field #:  
Rig: NON-DRILLING  
County: LEA (NM)

Facility: CRI

**Product / Service****Quantity Units**

Contaminated Soil (RCRA Exempt)

16.00 yards

**Generator Certification Statement of Waste Status**

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

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☐ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):  
☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description above)

**Driver/ Agent Signature****R360 Representative Signature**

A handwritten signature in black ink that appears to read "Hugo 5 M31".

A handwritten signature in black ink, likely belonging to an R360 representative, written over a horizontal line.

**Customer Approval****THIS IS NOT AN INVOICE!**

Approved By: \_\_\_\_\_

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



Permian Basin

Customer: CONOCOPHILLIPS  
Customer #: CRI2190  
Ordered by: IKE TAVAREZ  
AFE #:  
PO #:  
Manifest #: 034  
Manif. Date: 2/28/2022  
Hauler: MCNABB PARTNERS  
Driver: JOE  
Truck #: M81  
Card #  
Job Ref #

Ticket #: 700-1279227  
Bid #: O6UJ9A000HHO  
Date: 2/28/2022  
Generator: CONOCOPHILLIPS  
Generator #:  
Well Ser. #: 30956  
Well Name: PHILLIPS STATE  
Well #: 001  
Field:  
Field #:  
Rig: NON-DRILLING  
County: LEA (NM)

Facility: CRI

Product / Service

Quantity Units

Contaminated Soil (RCRA Exempt)

18.00 yards

**Generator Certification Statement of Waste Status**

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

☒ RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste  
☐ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):  
☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description above)

Driver/ Agent Signature

R360 Representative Signature

A handwritten signature in black ink, appearing to be "Joe", written over a horizontal line.

A handwritten signature in black ink, appearing to be "DF", written over a horizontal line.

Customer Approval

**THIS IS NOT AN INVOICE!**

Approved By: \_\_\_\_\_

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

**District I**  
1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-6161 Fax:(575) 393-0720  
**District II**  
811 S. First St., Artesia, NM 88210  
Phone:(575) 748-1283 Fax:(575) 748-9720  
**District III**  
1000 Rio Brazos Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170  
**District IV**  
1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3462

**State of New Mexico**  
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

CONDITIONS  
  
Action 144164

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 144164
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
bhall	None	9/19/2022