

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

State of New Mexico  
Energy Minerals and Natural  
Resources Department  
  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

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

Incident ID	
District RP	
Facility ID	
Application ID	

## Release Notification

### Responsible Party

Responsible Party <u>Permian Water Solutions, LLC</u>	OGRID <u>373626</u>
Contact Name <u>James Corbett</u>	Contact Telephone <u>432 305-4124</u>
Contact email <u>james@permianws.com</u>	Incident # (assigned by OCD) <u>NAB1724135283</u>
Contact mailing address <u>415 W. Wall St., #320, Midland TX 79701</u>	

### Location of Release Source

Latitude 32.10268° Longitude -104.06850°  
*(NAD 83 in decimal degrees to 5 decimal places)*

Site Name <u>Dorstate SWD 1</u>	Site Type <u>Well pad</u>
Date Release Discovered <u>8-23-17</u>	API# (if applicable) <u>30-015-23728</u>

Unit Letter	Section	Township	Range	County
<u>H</u>	<u>27</u>	<u>25 S</u>	<u>28 E</u>	<u>Eddy</u>

Surface Owner:  State  Federal  Tribal  Private (Name: \_\_\_\_\_)

### Nature and Volume of Release

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

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) <u>25</u>	Volume Recovered (bbls) <u>zero</u>
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release Overflowing sumps due to truck drivers inattention and excess rainwater.

Form C-141

State of New Mexico  
Oil Conservation Division

Page 2

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC?  <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release? <u>Meets 25 bbl threshold as defined in code</u>
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? <u>Discovered by previous operator Cambrian Management, Ltd. at 1404 Aug. 23, 2017. Cambrian filed C-141 on Aug. 24, 2017. OCD received C-141 on Aug. 29, 2017.</u>	

### Initial Response

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

<input checked="" type="checkbox"/> The source of the release has been stopped. <input type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.
If all the actions described above have <u>not</u> been undertaken, explain why: <u>Water seeped into ground rendering containment moot. No free liquids left to recover.</u>
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.
Printed Name: <u>Brian Wood</u> Title: <u>Consultant</u> Signature: <u></u> Date: <u>1-10-2020</u> email: <u>brian@permitswest.com</u> Telephone: <u>505 466-8120</u>
<b><u>OCD Only</u></b>  Received by: _____ Date: _____

Incident ID	
District RP	
Facility ID	
Application ID	

## Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	<50 (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 checked="" type="checkbox"/> Yes <input 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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No

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

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

- Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- Field data
- Data table of soil contaminant concentration data
- Depth to water determination
- Determination of water sources and significant watercourses within 1/2-mile of the lateral extents of the release
- Boring or excavation logs
- Photographs including date and GIS information
- Topographic/Aerial maps
- Laboratory data including chain of custody

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

Form C-141

State of New Mexico  
Oil Conservation Division

Page 4

Incident ID	
District RP	
Facility ID	
Application ID	

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

Printed Name: Brian Wood Title: Consultant

Signature:  Date: 1-10-2020

email: brian@permitswest.com Telephone: 505 466-8120

**OCD Only**

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

Form C-141  
Page 5

State of New Mexico  
Oil Conservation Division

Incident ID	nAB1724135283
District RP	2RP-4364
Facility ID	
Application ID	

### Remediation Plan

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

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

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

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

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

Printed Name: Brian Wood Title: Consultant

Signature:  Date: 1-10-2020

email: brian@permitswest.com Telephone: 505 466-8120

**OCD Only**

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

- Approved     Approved with Attached Conditions of Approval     Denied     Deferral Approved

Signature:  Date: 07/29/2021

Form C-141

State of New Mexico  
Oil Conservation Division

Page 6

Incident ID	
District RP	
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: \_\_\_\_\_ Title: \_\_\_\_\_  
 Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
 email: \_\_\_\_\_ Telephone: \_\_\_\_\_

**OCD Only**

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

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: \_\_\_\_\_  
 Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_

## SITE INFORMATION

### Report Type: Work Plan

#### General Site Information:

<b>Site:</b>	Dorstate SWD				
<b>Company:</b>	Permian Water Solutions				
<b>Section, Township and Range</b>	Unit H	Sec. 27	T 25S	R 28E	
<b>Lease Number:</b>	API No. 30-015-23728				
<b>County:</b>	Eddy				
<b>GPS:</b>	32.102684			-104.068565	
<b>Surface Owner:</b>	State				
<b>Directions:</b>	From the intersection of HWY 285 and Whites City Rd in rural Eddy County, travel north on HWY 285 for 2.8 miles, turn east onto lease road and continue for 0.20 miles to location on north side of lease road.				
<b>Release Data:</b>	2RP-4364				
<b>Date Released:</b>	8/23/2017				
<b>Type Release:</b>	Produced Water				
<b>Source of Contamination:</b>	Sump Overflow				
<b>Fluid Released:</b>	25 bbls				
<b>Fluids Recovered:</b>	0 bbls				

#### Official Communication:

<b>Name:</b>	James Corbitt		Clair Gonzales
<b>Company:</b>	Permian Water Solutions		Tetra Tech
<b>Address:</b>	415 W. Wall St.		901 West Wall Street
	Suite 320		Suite 100
<b>City:</b>	Midland, TX 79701		Midland, Texas
<b>Phone number:</b>	(432) 305-4124		(432) 687-8110
<b>Fax:</b>			
<b>Email:</b>	<a href="mailto:james@permianws.com">james@permianws.com</a>		<a href="mailto:Clair.Gonzales@tetrattech.com">Clair.Gonzales@tetrattech.com</a>

#### Site Characterization

<b>Depth to Groundwater:</b>	Less than 50'
<b>Karst Potential:</b>	Medium

#### Recommended Remedial Action Levels (RRALs)

Benzene	Total BTEX	TPH (GRO+DRO+MRO)	Chlorides
10 mg/kg	50 mg/kg	100 mg/kg	600 mg/kg



November 12, 2019

New Mexico State Land Office  
310 Old Santa Fe Trail  
P.O. Box 1148  
Santa Fe, New Mexico 87504

**Re: Site Characterization Report for the Permian Water Solutions, LLC., Dorstate SWD, Unit H, Section 27, Township 25 South, Range 28 East, Eddy County, New Mexico.**

Tetra Tech, Inc. (Tetra Tech) was contacted by Permian Water Solutions, LLC. (Permian Water Solutions) to assess the impacted areas at the Dorstate SWD, Unit H, Section 27, Township 25 South, Range 28 East, Eddy County, New Mexico. The site coordinates are 32.102684°, -104.068565°. The site location is shown on Figures 1 and 2.

## Background

According to the State of New Mexico C-141 Initial Report, submitted by Cambrian Management, LTD., the release was discovered on August 23, 2017, and released approximately 25 barrels of produced water due to overflowing sumps. None of the fluids were recovered. The initial C-141 Forms are included in Appendix A.

Basin Environmental Service Technologies (Basin Environmental) submitted a Corrective Action Plan dated August 28, 2018, which detailed sampling activities performed at the site. A copy of the Corrective Action Plan, as well as the data obtained is included in Appendix D.

## Site Characterization

A site characterization was performed for the site and no watercourses, lakebeds, sinkholes, playa lakes, residences, schools, hospitals, institutions, churches, springs, private domestic water wells, springs, wetlands, incorporated municipal boundaries, subsurface mines, or floodplains are located within the specified distances. The site is located in a medium karst potential area. The nearest well is listed on the New Mexico Office of the State Engineer's website in Section 26, approximately 0.70 miles east-northeast of the site and has a reported depth to groundwater of 40' below ground surface. According to the Chevron Texaco Groundwater Trend map, the average depth to groundwater in this area is less than 50' below surface. The groundwater data is shown in Appendix B.

## Regulatory

A risk-based evaluation was performed for the Site in accordance with the New Mexico Oil Conservation Division (NMOCD) Guidelines for Remediation of Leaks, Spills and Releases,

Tetra Tech

901 West Wall St, Ste 100, Midland, TX 79701

Tel 432.682.4559 Fax 432.682.3946 www.tetrattech.com



updated August 14, 2018. The guidelines require a risk-based evaluation of the site to determine recommended remedial action levels (RRAL) for benzene, toluene, ethylbenzene and xylene (collectively referred to as BTEX) and total petroleum hydrocarbons (TPH) in soil. A site characterization was performed for the site and no watercourses, lakebeds, sinkholes, playa lakes, residences, schools, hospitals, institutions, churches, springs, private domestic water wells, springs, wetlands, incorporated municipal boundaries, subsurface mines, or floodplains are located within the specified distances. The proposed RRAL for benzene was determined to be 10 milligrams per kilogram (mg/kg) and 50 mg/kg for total BTEX (sum of benzene, toluene, ethylbenzene, and xylene). Based upon the site characterization, the proposed RRAL for TPH is 100 mg/kg (GRO + DRO + MRO). Additionally, based on the site characterization, the proposed RRAL for chlorides is 600 mg/kg.

## Soil Assessment and Analytical Results

### Initial Assessment

Based on the previous sampling data, Tetra Tech personnel were onsite between May 14<sup>th</sup> and May 17<sup>th</sup>, 2019, in order to vertically define the impacts. A total of twenty (20) sample points (SP-1 through SP-4 and SP-6 through SP-21) were installed using a truck mounted air rotary rig to total depths ranging from 9'-10' and 59'-60' below surface. A sample point (SP-5) was originally planned to be installed in the area nearest to the wellhead, however due to numerous underground lines in the area, this sample point could not be safely installed. Additionally, one background bore hole was installed to a total depth of 39'-40' below surface to evaluate the native soils. Selected soil samples were collected and submitted to the laboratory for TPH analysis by EPA method 8015 modified, BTEX by EPA Method 8021B, and chloride by EPA method 300.0. The drilling logs for the sample points are included in Appendix C. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix E. The results of the sampling are summarized in Table 1. The sample locations are shown on Figure 3.

Referring to Table 1, none of the samples analyzed showed benzene or total BTEX concentrations above the RRALs. Additionally, sample points SP-1, SP-2, SP-6, SP-7, SP-8, SP-9, SP-17, SP-18, SP-19, SP-20, and SP-21 did not show any TPH concentrations above the RRALs. However, sample points SP-3, SP-4, SP-10, SP-11, SP-12, SP-13, SP-14, and SP-16 showed elevated TPH concentrations in the soils which declined with depth to below the 100 mg/kg threshold at depths ranging from 2'-3' and 34'-35' below surface.

Sample points SP-1, SP-3, SP-6, SP-7, SP-14, SP-15, SP-16, SP-17, SP-18, SP-19, and SP-20 showed chloride concentrations above the 600 mg/kg threshold. However, the chloride concentrations declined with depth and were vertically defined at depths ranging from 6'-7' and 39'-30' below surface. However, sample points SP-2, SP-4, SP-8, SP-9, SP-10, SP-11, SP-12, SP-13, and SP-21 were not vertically delineated for chlorides and showed bottom hole concentrations ranging from 1,390 mg/kg to 6,960 mg/kg.

The background sample point, BG-1, showed a chloride high concentration of 672 mg/kg at 4'-5'.



### Additional Assessment

As requested by NMSLO, Tetra Tech personnel returned to the site between October 23<sup>rd</sup> and October 25<sup>th</sup>, 2019 in order to horizontally define the release area as well as to install boreholes inside the bermed facility. A total of twenty-two (22) horizontal samples (H-1 through H-22) were installed around the perimeter of the release to total depths ranging from 0-6" and 2' below surface. Three boreholes (BH-22, BH-23, and BH-24) were installed using a truck mounted air rotary drilling rig to total depths of 29'-30' below surface inside the bermed facility. Additional sample points could not be installed due to the steep incline of the berm and safety concerns for onsite staff. All collected samples were submitted to the laboratory for TPH analysis by EPA method 8015 modified, BTEX by EPA Method 8021B, and chloride by EPA method 300.0. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix D. The results of the sampling are summarized in Table 1. The sample locations are shown on Figure 3.

### *Bermed Facility*

Referring to Table 1, none of the samples collected showed benzene or total BTEX concentrations above the RRAL's. However, the areas of BH-22, BH-23, and BH-24 showed elevated TPH concentrations to the soils. The area of BH-22 showed a TPH high concentration of 15,800 mg/kg at 0-1' which steadily declined with depth to 87.9 mg/kg at 19'-20' below surface. The areas of BH-23 and BH-24 showed TPH high concentrations of 2,680 mg/kg and 8,230 mg/kg, respectively at 0-1', which then declined with depth to <50.0 mg/kg (6'-7') and 94.5 mg/kg (9-10'), respectively.

Additionally, the areas of BH-22, BH-23, and BH-24 showed minimal chloride concentrations in the surficial soils, however the chloride concentrations increased with depth and showed bottom hole concentrations of 1,160 mg/kg, 2,640 mg/kg, and 2,470 mg/kg, respectively.

### *Horizontal Sampling*

Referring to Table 1, none of the samples collected showed benzene or total BTEX concentrations above the RRALs. However, the areas of H-2 and H-12 showed TPH concentrations above the RRAL at 0-1' and 1'-2' with concentrations of 169 mg/kg and 141 mg/kg, respectively. Based on this data, Tetra Tech personnel returned to the site and installed additional horizontal sample points (H-2 (1) and H-12 (1)) in order to horizontally define the release. The samples collected at H-2 (1) and H-12(1) did not show any benzene, total BTEX, TPH, or chloride concentrations above the RRALs. None of the remaining horizontal sample points showed any TPH concentrations above the RRALs. Additionally, all of the samples collected showed chloride concentrations below the background concentration of 672 mg/kg; with the exception of H-8 at 1-2' with a concentration of 855 mg/kg and H-19 at 1-2' with a concentration of 847 mg/kg.

### **Work Plan**

Based on the laboratory data, Permian Water Solutions proposes to excavate the areas as shown on Figure 4 and highlighted (green) on Table 1. The areas of sample points SP-1, SP-2, SP-4, SP-7 through SP-14 and SP-19 through SP-21 will be excavated to approximately 4.0' below surface. The areas of SP-3, SP-15, SP-17, and SP-24 will be excavated to approximately 6-7' below surface, the areas of SP-12 and BH-22 will be excavated to approximately 15' below surface, and the areas of SP-6, H-2, and SP-16 will be excavated to approximately 1'-2' below



surface. Additionally, the areas of SP-1, SP-2, SP-4, SP-6, SP-8 through SP-14, SP-15, SP-16, and SP-21 through SP-24 will be capped with a 20-mil liner at 4.0' below surface in order to prevent further vertical migration of the deeper impact.

Once excavated, composite bottom hole and sidewall confirmation samples will be collected every 200 square feet, to be representative of the area and to confirm proper removal of the impacted soils. The areas will then be backfilled with clean material to surface grade. Permian Water Solutions estimates approximately 36,600 cubic yards will be excavated, and the remediation to be implemented 90 days after the work plan is approved by both the NMSLO and NMOCD and all remediation access permits are obtained.

The proposed excavation depths may not be reached due to wall cave ins and safety concerns for onsite personnel. In addition, impacted soil around oil and gas equipment, structures or lines may not be feasible or practicable to be removed due to safety concerns for onsite personnel. As such, Permian Water Solutions will excavate the impacted soils to the maximum extent practicable.

#### Monitor Wells

In addition to the proposed soil remediation activities, Permian Water Solutions proposes to install three monitor wells on the pad area in order to evaluate the groundwater conditions in the area. Tetra Tech will supervise the installation of the monitor wells to a total depth of approximately 60' below surface using an air rotary rig. The monitor well will be constructed of 2-inch diameter, screw threaded, schedule 40 PVC casing and 0.020-inch factory slotted screen. The well screens, approximately twenty (20) feet in length, will be installed with approximately 15.0' of screen into the groundwater and 5.0' above the groundwater. The well screens will be filter packed with graded (20-40) silica sand, which will be placed in the annular space between the borehole wall and screen to a depth of approximately two (2) feet above the screen.

Once completed, the monitor wells will be properly developed, and all of the fluids will be contained in drums for proper disposal. Additionally, the wells will be surveyed. At the time of sampling, the well caps will be opened and water level measurements will be collected from the top of the casing. The depth to water measurements will be recorded to the nearest 0.01 foot. Approximately three (3) casing volumes of water will be purged from each well using a dedicated bailer and disposable line. All water generated for the purging will be contained in drums for proper disposal. The proposed locations of the monitor wells are shown on Figure 5.

The groundwater samples will be placed into labeled and preserved containers provided by the laboratory. They will then be analyzed for chlorides by EPA method 300.0, TPH by method 8015 modified, and BTEX by EPA Method 8021B. Based on the results of the initial sampling event, a groundwater monitoring plan will be submitted to the NMOCD and NMSLO for approval.



**Conclusion**

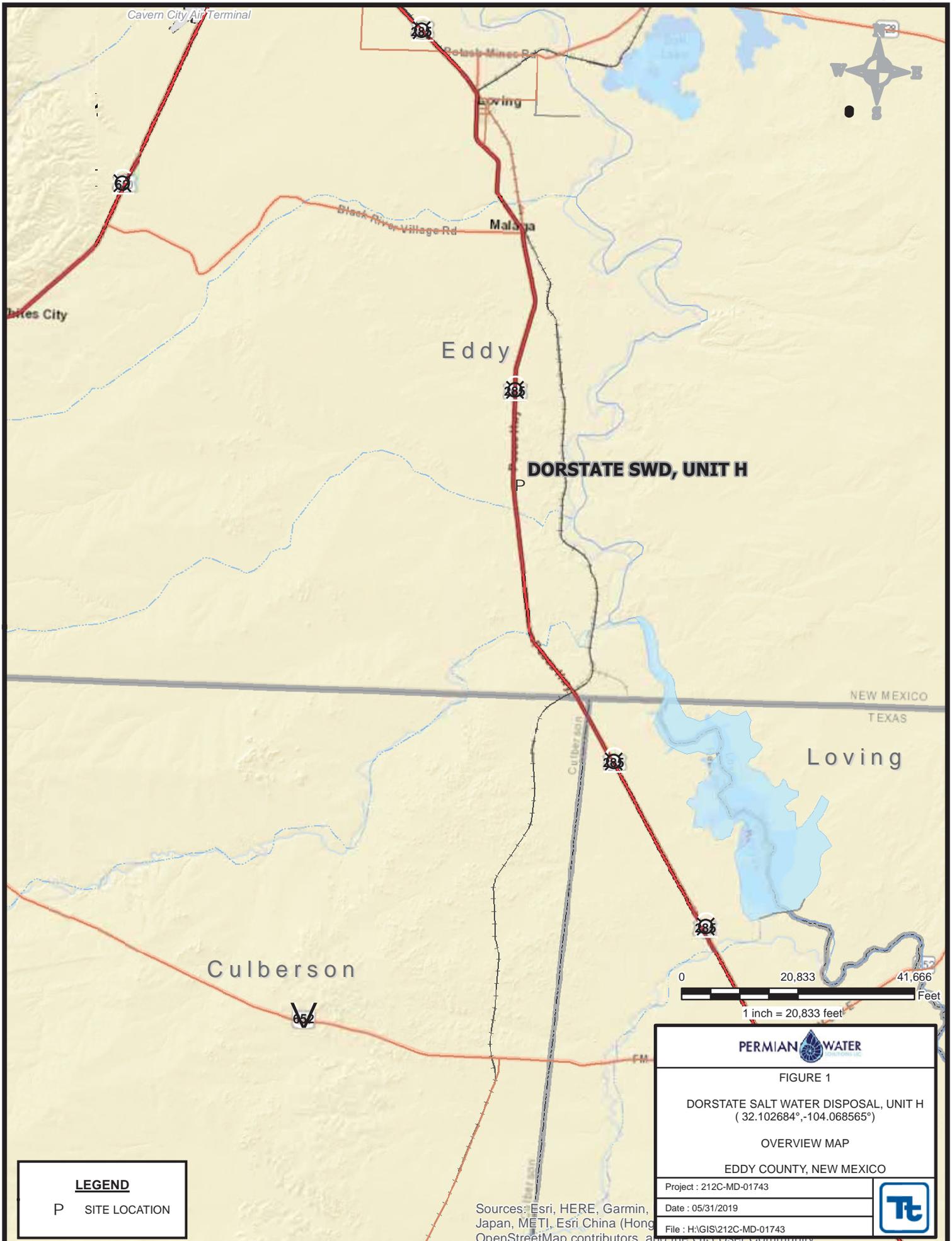
Once the soil remediation activities are completed, a soils closure report and a groundwater monitoring report will be prepared for NMOCD and NMSLO approval. If you have any questions or comments concerning the assessment or remediation activities for this site, please call at (432) 682-4559.

Respectfully submitted,  
TETRA TECH

A handwritten signature in blue ink that reads 'Clair Gonzales'.

Clair Gonzales, P.G.,  
Project Manager

# Figures



Cavern City Air Terminal

Eddy

**DORSTATE SWD, UNIT H**

NEW MEXICO  
TEXAS

Loving

Culberson

**LEGEND**

P SITE LOCATION

0 20,833 41,666 Feet  
1 inch = 20,833 feet



FIGURE 1

DORSTATE SALT WATER DISPOSAL, UNIT H  
( 32.102684°, -104.068565°)

OVERVIEW MAP

EDDY COUNTY, NEW MEXICO

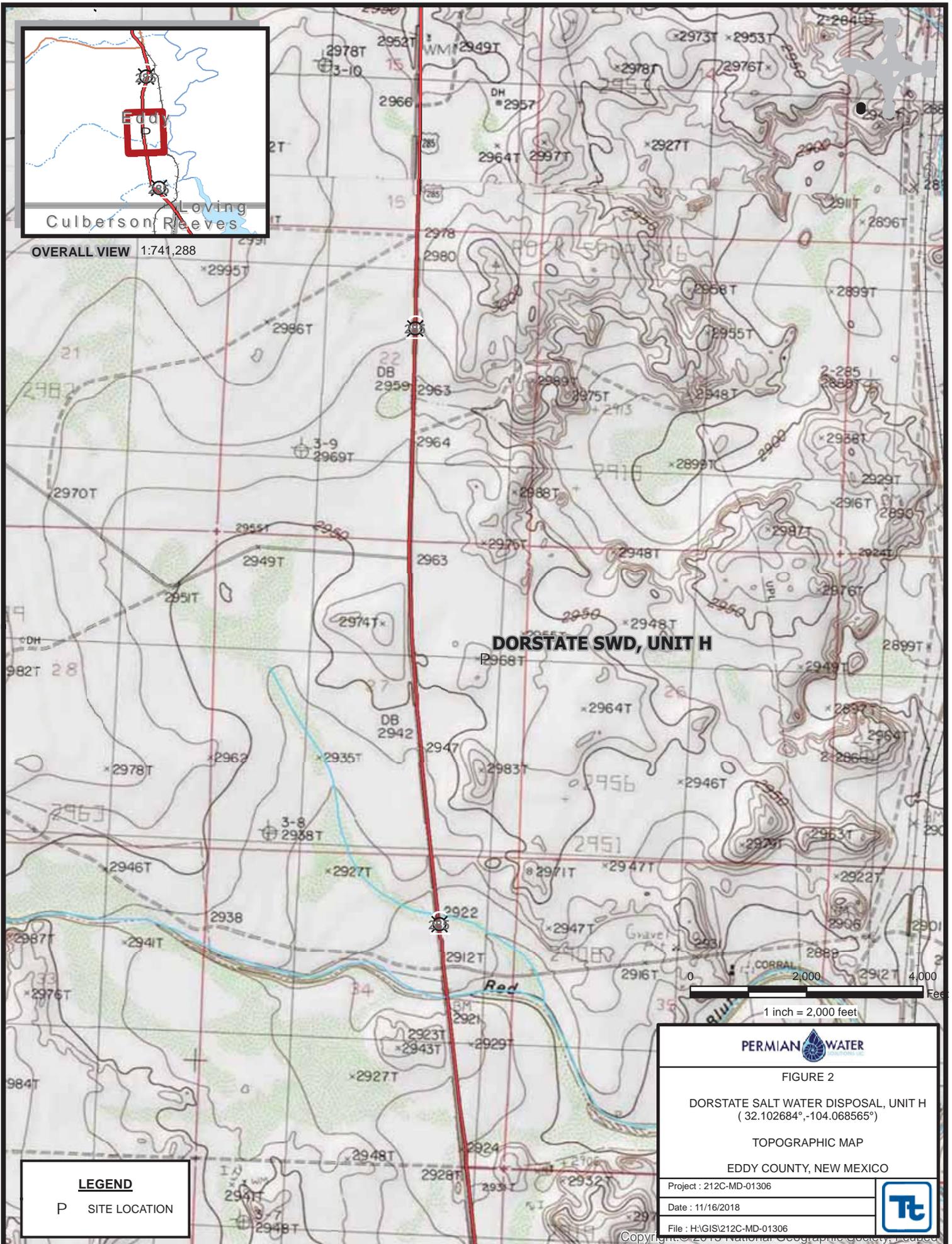
Project : 212C-MD-01743

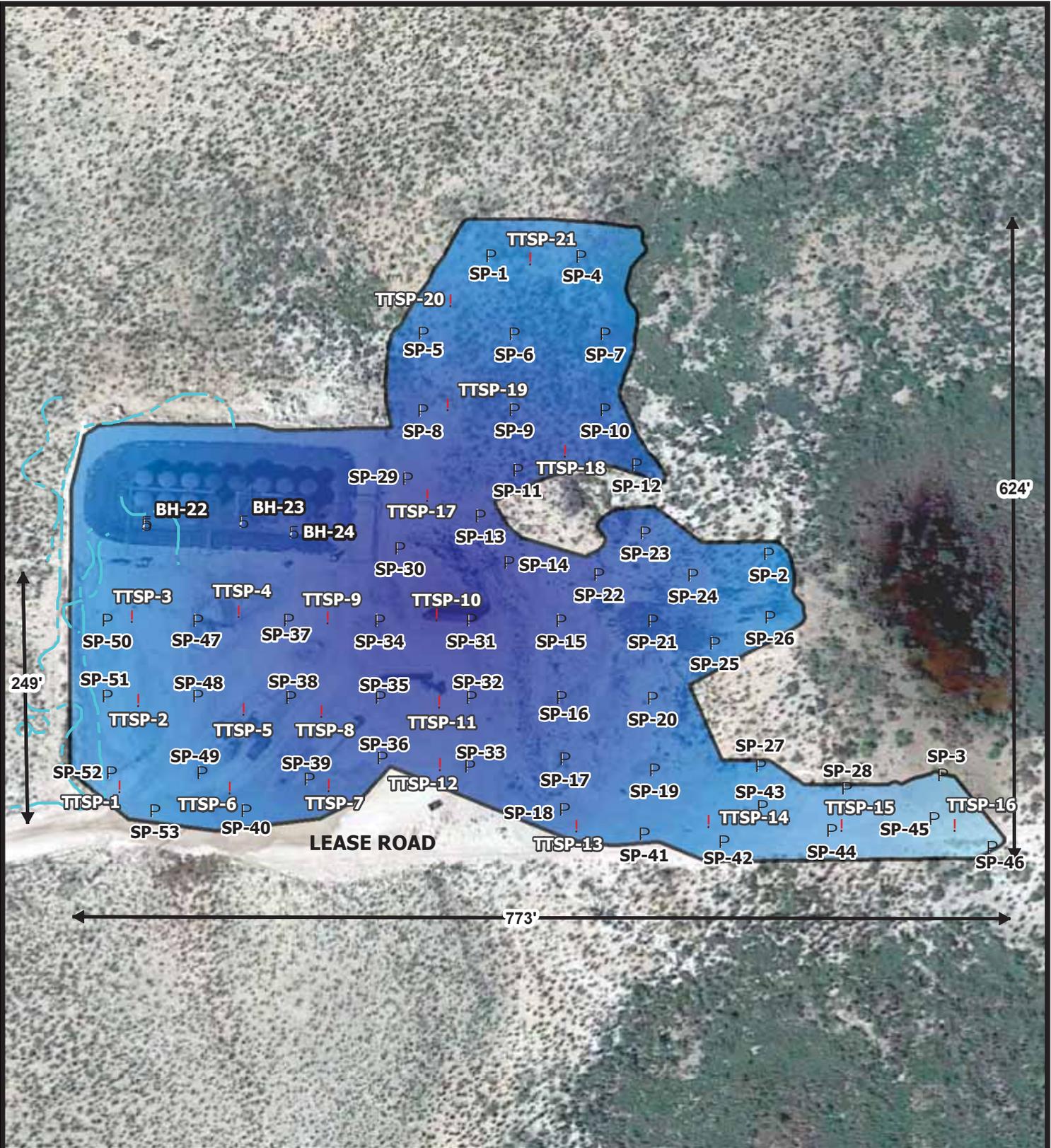
Date : 05/31/2019

File : H:\GIS\212C-MD-01743



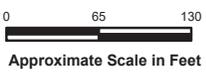
Sources: Esri, HERE, Garmin, Japan, METI, Esri China (Hong Kong), OpenStreetMap contributors, and the GIS User Community





Date: 11/12/2019 Document Path: H:\GIS\PERMIAN WATER SOLUTIONS\212C-MD-01743 DORSTATE SWD\MD-01995 DORSTATE SWD FIG. 3.mxd

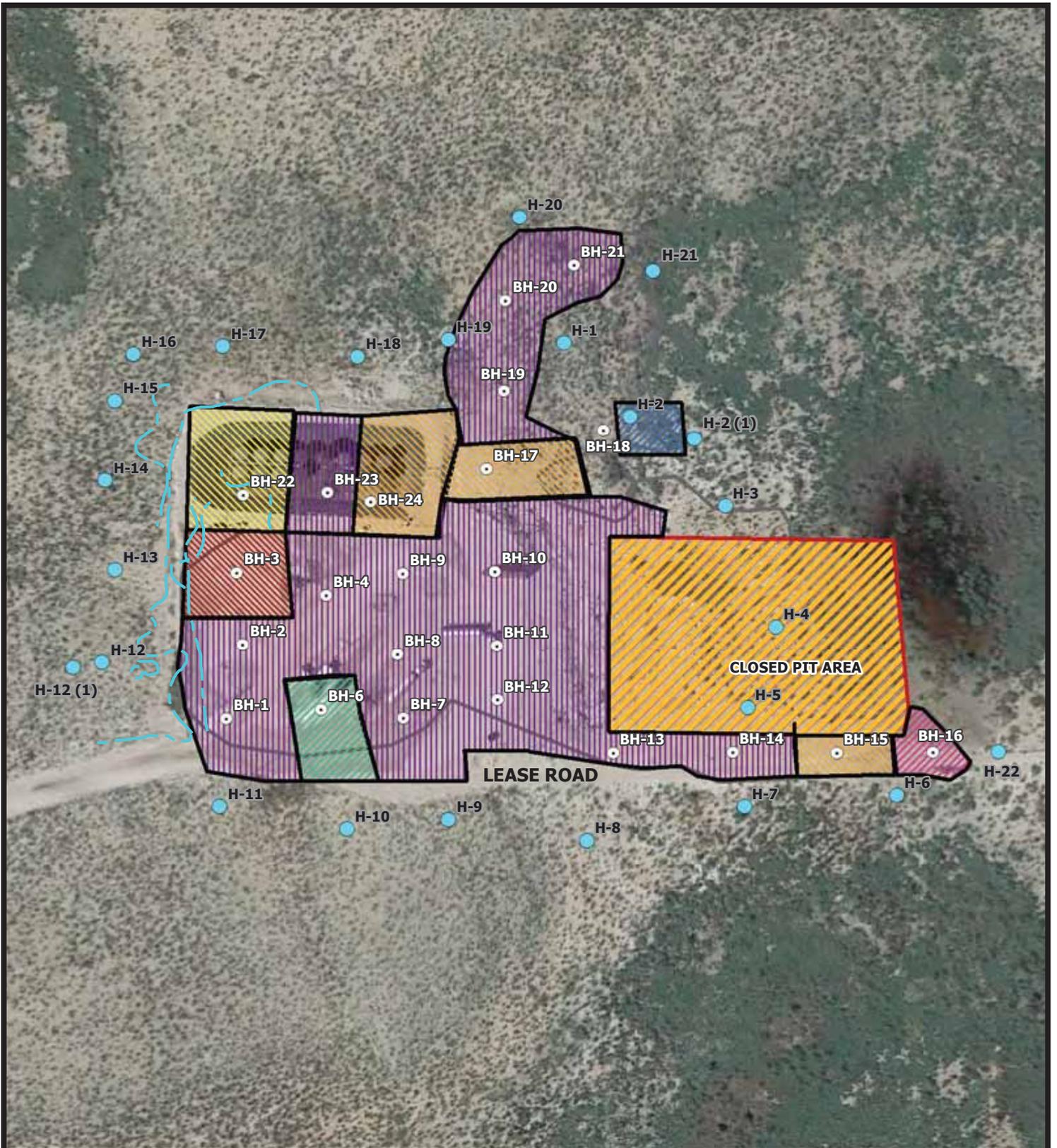
- 5 BOREHOLE SAMPLE POINT LOCATIONS
- ! TETRATECH SAMPLE LOCATIONS
- P BASIN ENVIROMENTAL SAMPLE LOCATIONS
- FLOWLINES
- AFFECTED SPILL AREA



SPILL ASSESSMENT MAP  
 DORSTATE SWD  
 Property Located at coordinates 32.102684°,-104.068565°  
 EDDY COUNTY, NEW MEXICO



FIGURE 3



Date: 11/12/2019 Document Path: H:\GIS\PERMIAN WATER SOLUTIONS\212C-MD-01743 DORSTATE SWD\MXD\212C-MD-01995 DORSTATE SWD FIG. 4.mxd

- 5 BOREHOLE SAMPLE LOCATIONS
- ( ) HORIZONTAL SAMPLE LOCATIONS
- FLOWLINES

**EXCAVATED AREAS & DEPTHS**

1.0'	15.0' w/LINER @ 4.0' DEEP
1.0'-2.0'	SPILL OUTLINE
1.0' w/LINER @ 4.0' DEEP	CLOSED PIT AREA
4.0'-5.0' w/LINER	
6.0'-7.0'	
6.0'-7.0' w/LINER	



**EXCAVATED AREA & DEPTH MAP**  
 DORSTATE SWD  
 Property Located at coordinates 32.102684°,-104.068565°  
 EDDY COUNTY, NEW MEXICO



**FIGURE**  
4



Date: 11/13/2019 Document Path: H:\GIS\PERMIAN WATER SOLUTIONS\212C-MD-01743-DORSTATE SWD\MD-212C-MD-01995-DORSTATE SWD FIG. 5.mxd

LEASE ROAD

**A** PROPOSED MONITORING WELLS  
 --- FLOWLINES



0 65 130  
 Approximate Scale in Feet

PROPOSED MONITORING WELL LOCATION MAP  
 DORSTATE SWD  
 Property Located at coordinates 32.102684°,-104.068565°  
 EDDY COUNTY, NEW MEXICO



FIGURE  
 5

# Tables

**Table 1**  
**Permian Water Solutions**  
**Dorstate SWD**  
**Eddy County, New Mexico**

Sample ID	Sample Date	Sample Depth (ft)	BEB Sample Depth (ft)	Soil Status		TPH (mg/kg)				Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
				In-Situ	Removed	GRO	DRO	ORO	Total						
SP-1	5/4/2019	0-1	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	5,360
	"	2-3	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	4,640
	"	4-5	-	X		-	-	-	-	-	-	-	-	-	1,920
	"	6-7	-	X		-	-	-	-	-	-	-	-	-	1,200
	"	9-10	-	X		-	-	-	-	-	-	-	-	-	1,140
	"	14-15	-	X		-	-	-	-	-	-	-	-	-	672
	"	19-20	-	X		-	-	-	-	-	-	-	-	-	480
	"	24-25	-	X		-	-	-	-	-	-	-	-	-	400
	"	29-30	-	X		-	-	-	-	-	-	-	-	-	352
"	34-35	-	X		-	-	-	-	-	-	-	-	-	304	
SP-2	5/14/2019	0-1	-	X		<10.0	14.8	<10.0	14.8	<0.050	<0.050	<0.050	<0.150	<0.300	7,520
	"	2-3	-	X		<10.0	51.5	15.6	67.1	<0.050	<0.050	<0.050	<0.150	<0.300	4,720
	"	4-5	-	X		-	-	-	-	-	-	-	-	-	2,160
	"	6-7	-	X		-	-	-	-	-	-	-	-	-	624
	"	9-10	-	X		-	-	-	-	-	-	-	-	-	1,020
	"	14-15	-	X		-	-	-	-	-	-	-	-	-	2,680
	"	19-20	-	X		-	-	-	-	-	-	-	-	-	3,360
	"	24-25	-	X		-	-	-	-	-	-	-	-	-	3,000
	"	29-30	-	X		-	-	-	-	-	-	-	-	-	3,800
	"	34-35	-	X		-	-	-	-	-	-	-	-	-	1,630
	"	39-40	-	X		-	-	-	-	-	-	-	-	-	2,240
	"	44-45	-	X		-	-	-	-	-	-	-	-	-	2,400
	"	49-50	-	X		-	-	-	-	-	-	-	-	-	1,620
"	54-55	-	X		-	-	-	-	-	-	-	-	-	1,010	
"	59-60	-	X		-	-	-	-	-	-	-	-	-	1,390	
SP-3	5/14/2019	0-1	-	X		30.9	1,940	358	2,329	<0.050	<0.050	<0.050	<0.150	<0.300	3,360
	"	2-3	-	X		669	9,200	1,120	10,989	<0.050	<0.050	<0.050	<0.150	<0.300	1,860
	"	4-5	-	X		115	2,470	264.0	2,849	-	-	-	-	-	1,490
	"	6-7	-	X		<10.0	703	34.2	737	-	-	-	-	-	1,120
	"	9-10	-	X		<10.0	99.8	<10.0	99.8	-	-	-	-	-	624
	"	14-15	-	X		<10.0	35.7	<10.0	35.7	-	-	-	-	-	480

**Table 1**  
**Permian Water Solutions**  
**Dorstate SWD**  
**Eddy County, New Mexico**

Sample ID	Sample Date	Sample Depth (ft)	BEB Sample Depth (ft)	Soil Status		TPH (mg/kg)				Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
				In-Situ	Removed	GRO	DRO	ORO	Total						
SP-4	5/14/2019	0-1	-	X		<10.0	647	397	1,044	<0.050	<0.050	<0.050	<0.150	<0.300	11,300
	"	2-3	-	X		<10.0	80.1	50.0	130	<0.050	<0.050	<0.050	<0.150	<0.300	5,440
	"	4-5	-	X		<10.0	<10.0	<10.0	<10.0	-	-	-	-	-	5,280
	"	6-7	-	X		<10.0	23.6	<10.0	23.6	-	-	-	-	-	3,680
	"	9-10	-	X		<10.0	<10.0	<10.0	<10.0	-	-	-	-	-	1,810
	"	14-15	-	X		<10.0	<10.0	<10.0	<10.0	-	-	-	-	-	1,150
	"	19-20	-	X		-	-	-	-	-	-	-	-	-	1,420
	"	24-25	-	X		-	-	-	-	-	-	-	-	-	1,760
	"	29-30	-	X		-	-	-	-	-	-	-	-	-	2,080
	"	34-35	-	X		-	-	-	-	-	-	-	-	-	736
	"	39-40	-	X		-	-	-	-	-	-	-	-	-	1,120
	"	44-45	-	X		-	-	-	-	-	-	-	-	-	544
"	49-50	-	X		-	-	-	-	-	-	-	-	-	1,630	
SP-6	5/15/2019	0-1	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	1,380
	"	2-3	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	560
	"	4-5	-	X		-	-	-	-	-	-	-	-	-	288
	"	6-7	-	X		-	-	-	-	-	-	-	-	-	272
	"	9-10	-	X		-	-	-	-	-	-	-	-	-	1,470
	"	14-15	-	X		-	-	-	-	-	-	-	-	-	1,330
	"	19-20	-	X		-	-	-	-	-	-	-	-	-	352
	"	24-25	-	X		-	-	-	-	-	-	-	-	-	416
	"	29-30	-	X		-	-	-	-	-	-	-	-	-	688
	"	34-35	-	X		-	-	-	-	-	-	-	-	-	496
	"	39-40	-	X		-	-	-	-	-	-	-	-	-	208
	"	44-45	-	X		-	-	-	-	-	-	-	-	-	112
SP-7	5/15/2019	0-1	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	5,920
	"	2-3	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	3,680
	"	4-5	-	X		-	-	-	-	-	-	-	-	-	1,840
	"	6-7	-	X		-	-	-	-	-	-	-	-	-	960
	"	9-10	-	X		-	-	-	-	-	-	-	-	-	976
	"	14-15	-	X		-	-	-	-	-	-	-	-	-	672
	"	19-20	-	X		-	-	-	-	-	-	-	-	-	528
	"	24-25	-	X		-	-	-	-	-	-	-	-	-	352
"	29-30	-	X		-	-	-	-	-	-	-	-	-	512	

**Table 1**  
**Permian Water Solutions**  
**Dorstate SWD**  
**Eddy County, New Mexico**

Sample ID	Sample Date	Sample Depth (ft)	BEB Sample Depth (ft)	Soil Status		TPH (mg/kg)				Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
				In-Situ	Removed	GRO	DRO	ORO	Total						
SP-8	5/15/2019	0-1	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	3,040
	"	2-3	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	1,280
	"	4-5	-	X		-	-	-	-	-	-	-	-	-	1,650
	"	6-7	-	X		-	-	-	-	-	-	-	-	-	864
	"	9-10	-	X		-	-	-	-	-	-	-	-	-	1,880
	"	14-15	-	X		-	-	-	-	-	-	-	-	-	1,020
	"	19-20	-	X		-	-	-	-	-	-	-	-	-	3,160
	"	24-25	-	X		-	-	-	-	-	-	-	-	-	3,040
	"	29-30	-	X		-	-	-	-	-	-	-	-	-	4,480
	"	34-35	-	X		-	-	-	-	-	-	-	-	-	3,720
	"	39-40	-	X		-	-	-	-	-	-	-	-	-	5,360
"	44-45	-	X		-	-	-	-	-	-	-	-	-	4,560	
"	49-50	-	X		-	-	-	-	-	-	-	-	-	5,840	
SP-9	5/15/2019	0-1	-	X		<10.0	59.2	19.8	79.0	<0.050	<0.050	<0.050	<0.150	<0.300	7,600
	"	2-3	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	3,280
	"	4-5	-	X		-	-	-	-	-	-	-	-	-	2,680
	"	6-7	-	X		-	-	-	-	-	-	-	-	-	896
	"	9-10	-	X		-	-	-	-	-	-	-	-	-	1,220
	"	14-15	-	X		-	-	-	-	-	-	-	-	-	1,420
	"	19-20	-	X		-	-	-	-	-	-	-	-	-	2,600
	"	24-25	-	X		-	-	-	-	-	-	-	-	-	3,440
	"	29-30	-	X		-	-	-	-	-	-	-	-	-	3,040
	"	34-35	-	X		-	-	-	-	-	-	-	-	-	4,120
"	39-40	-	X		-	-	-	-	-	-	-	-	-	3,520	
SP-10	5/17/2019	0-1	-	X		<10.0	1,320	1,790	3,110	<0.050	<0.050	<0.050	<0.150	<0.300	4,000
	"	2-3	-	X		<10.0	26.2	19.3	45.5	<0.050	<0.050	<0.050	<0.150	<0.300	3,120
	"	4-5	-	X		-	-	-	-	-	-	-	-	-	4,160
	"	6-7	-	X		-	-	-	-	-	-	-	-	-	1,760
	"	9-10	-	X		-	-	-	-	-	-	-	-	-	2,800
	"	14-15	-	X		-	-	-	-	-	-	-	-	-	3,600
	"	19-20	-	X		-	-	-	-	-	-	-	-	-	2,920
	"	24-25	-	X		-	-	-	-	-	-	-	-	-	3,080
	"	29-30	-	X		-	-	-	-	-	-	-	-	-	4,240
"	34-35	-	X		-	-	-	-	-	-	-	-	-	4,640	
"	39-40	-	X		-	-	-	-	-	-	-	-	-	4,880	

**Table 1**  
**Permian Water Solutions**  
**Dorstate SWD**  
**Eddy County, New Mexico**

Sample ID	Sample Date	Sample Depth (ft)	BEB Sample Depth (ft)	Soil Status		TPH (mg/kg)				Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
				In-Situ	Removed	GR0	DRO	ORO	Total						
SP-11	5/17/2019	0-1	-	X		<10.0	120	44.9	165	<0.050	<0.050	<0.050	<0.150	<0.300	1,760
	"	2-3	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	400
	"	4-5	-	X		-	-	-	-	-	-	-	-	-	1,070
	"	6-7	-	X		-	-	-	-	-	-	-	-	-	1,700
	"	9-10	-	X		-	-	-	-	-	-	-	-	-	3,600
	"	14-15	-	X		-	-	-	-	-	-	-	-	-	6,000
	"	19-20	-	X		-	-	-	-	-	-	-	-	-	7,360
	"	24-25	-	X		-	-	-	-	-	-	-	-	-	5,760
	"	29-30	-	X		-	-	-	-	-	-	-	-	-	6,800
	"	34-35	-	X		-	-	-	-	-	-	-	-	-	5,730
"	39-40	-	X		-	-	-	-	-	-	-	-	-	5,730	
"	44-45	-	X		-	-	-	-	-	-	-	-	-	6,960	
SP-12	5/17/2019	0-1	-	X		<10.0	417	124	541	<0.050	<0.050	<0.050	<0.150	<0.300	4,960
	"	2-3	-	X		240	6,620	1,960	8,820	<0.050	0.229	1.29	0.326	1.85	3,320
	"	4-5	-	X		2,360	18,500	2,730	23,590	-	-	-	-	-	8,800
	"	6-7	-	X		112	2,400	479	2,991	-	-	-	-	-	2,520
	"	9-10	-	X		147	2,940	251	3,338	-	-	-	-	-	3,840
	"	14-15	-	X		446	5,640	1,170	7,256	-	-	-	-	-	5,520
	"	19-20	-	X		<10.0	1,250	212	1,462	<0.050	<0.050	<0.050	0.212	<0.300	6,320
	"	24-25	-	X		<10.0	262	<10.0	262	<0.050	<0.050	<0.050	<0.150	<0.300	7,520
	"	29-30	-	X		<10.0	180	<10.0	180	<0.050	<0.050	<0.050	<0.150	<0.300	7,200
	"	34-35	-	X		<10.0	293	<10.0	293	<0.050	<0.050	<0.050	<0.150	<0.300	6,000
"	39-40	-	X		<10.0	54.0	<10.0	54.0	<0.050	<0.050	<0.050	<0.150	<0.300	6,080	
"	44-45	-	X		<10.0	81.1	<10.0	81.1	<0.050	<0.050	<0.050	<0.150	<0.300	6,480	
SP-13	5/17/2019	0-1	-	X		<10.0	2,070	1,050	3,120	<0.050	<0.050	<0.050	<0.150	<0.300	3,200
	"	2-3	-	X		<10.0	129	35.5	165	<0.050	<0.050	<0.050	<0.150	<0.300	3,440
	"	4-5	-	X		<10.0	<10.0	<10.0	<10.0	-	-	-	-	-	1,380
	"	6-7	-	X		<10.0	<10.0	<10.0	<10.0	-	-	-	-	-	3,440
	"	9-10	-	X		<10.0	<10.0	<10.0	<10.0	-	-	-	-	-	3,840
	"	14-15	-	X		<10.0	<10.0	<10.0	<10.0	-	-	-	-	-	6,560
	"	19-20	-	X		-	-	-	-	-	-	-	-	-	7,200
	"	24-25	-	X		-	-	-	-	-	-	-	-	-	4,800
	"	29-30	-	X		-	-	-	-	-	-	-	-	-	1,420
	"	34-35	-	X		-	-	-	-	-	-	-	-	-	4,320
"	39-40	-	X		-	-	-	-	-	-	-	-	-	4,480	

**Table 1**  
**Permian Water Solutions**  
**Dorstate SWD**  
**Eddy County, New Mexico**

Sample ID	Sample Date	Sample Depth (ft)	BEB Sample Depth (ft)	Soil Status		TPH (mg/kg)				Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
				In-Situ	Removed	GRO	DRO	ORO	Total						
SP-14	5/15/2019	0-1	-	X		<10.0	87.9	39.1	127	<0.050	<0.050	<0.050	<0.150	<0.300	8,000
	"	2-3	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	4,600
	"	4-5	-	X		-	-	-	-	-	-	-	-	-	3,960
	"	6-7	-	X		-	-	-	-	-	-	-	-	-	1,440
	"	9-10	-	X		-	-	-	-	-	-	-	-	-	672
	"	14-15	-	X		-	-	-	-	-	-	-	-	-	1,500
	"	19-20	-	X		-	-	-	-	-	-	-	-	-	1,540
	"	24-25	-	X		-	-	-	-	-	-	-	-	-	1,020
"	29-30	-	X		-	-	-	-	-	-	-	-	-	192	
SP-15	5/15/2019	0-1	-	X		<10.0	545	203	748	<0.050	<0.050	<0.050	<0.150	<0.300	9,600
	"	2-3	-	X		<10.0	31.5	21.2	52.7	<0.050	<0.050	<0.050	<0.150	<0.300	2,960
	"	4-5	-	X		-	-	-	-	-	-	-	-	-	8,400
	"	6-7	-	X		-	-	-	-	-	-	-	-	-	10,300
	"	9-10	-	X		-	-	-	-	-	-	-	-	-	3,440
	"	14-15	-	X		-	-	-	-	-	-	-	-	-	464
	"	19-20	-	X		-	-	-	-	-	-	-	-	-	720
	"	24-25	-	X		-	-	-	-	-	-	-	-	-	352
"	29-30	-	X		-	-	-	-	-	-	-	-	-	192	
SP-16	5/15/2019	0-1	-	X		<10.0	547	224	771	<0.050	<0.050	<0.050	<0.150	<0.300	3,120
	"	2-3	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	672
	"	4-5	-	X		-	-	-	-	-	-	-	-	-	288
	"	6-7	-	X		-	-	-	-	-	-	-	-	-	144
	"	9-10	-	X		-	-	-	-	-	-	-	-	-	1,250
	"	14-15	-	X		-	-	-	-	-	-	-	-	-	848
	"	19-20	-	X		-	-	-	-	-	-	-	-	-	560
	"	24-25	-	X		-	-	-	-	-	-	-	-	-	1,120
"	29-30	-	X		-	-	-	-	-	-	-	-	-	640	
"	34-35	-	X		-	-	-	-	-	-	-	-	-	352	
SP-17	5/15/2019	0-1	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	8,000
	"	2-3	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	1,230
	"	4-5	-	X		-	-	-	-	-	-	-	-	-	1,390
	"	6-7	-	X		-	-	-	-	-	-	-	-	-	992
	"	9-10	-	X		-	-	-	-	-	-	-	-	-	352
"	14-15	-	X		-	-	-	-	-	-	-	-	-	256	
SP-18	5/15/2019	0-1	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	112
	"	2-3	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	384
	"	4-5	-	X		-	-	-	-	-	-	-	-	-	384
	"	6-7	-	X		-	-	-	-	-	-	-	-	-	544
	"	9-10	-	X		-	-	-	-	-	-	-	-	-	736
"	14-15	-	X		-	-	-	-	-	-	-	-	-	448	

**Table 1**  
**Permian Water Solutions**  
**Dorstate SWD**  
**Eddy County, New Mexico**

Sample ID	Sample Date	Sample Depth (ft)	BEB Sample Depth (ft)	Soil Status		TPH (mg/kg)				Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
				In-Situ	Removed	GRO	DRO	ORO	Total						
SP-19	5/15/2019	0-1	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	5,360
	"	2-3	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	2,480
	"	4-5	-	X		-	-	-	-	-	-	-	-	-	2,400
	"	6-7	-	X		-	-	-	-	-	-	-	-	-	480
	"	9-10	-	X		-	-	-	-	-	-	-	-	-	256
SP-20	5/16/2019	0-1	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	7,920
	"	2-3	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	1,630
	"	4-5	-	X		-	-	-	-	-	-	-	-	-	2,480
	"	6-7	-	X		-	-	-	-	-	-	-	-	-	432
	"	9-10	-	X		-	-	-	-	-	-	-	-	-	144
SP-21	5/16/2019	0-1	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	2,760
	"	2-3	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	2,680
	"	4-5	-	X		-	-	-	-	-	-	-	-	-	2,240
	"	6-7	-	X		-	-	-	-	-	-	-	-	-	1,920
	"	9-10	-	X		-	-	-	-	-	-	-	-	-	1,340
	"	14-15	-	X		-	-	-	-	-	-	-	-	-	496
	"	19-20	-	X		-	-	-	-	-	-	-	-	-	1,100
	"	24-25	-	X		-	-	-	-	-	-	-	-	-	1,390

**Table 1**  
**Permian Water Solutions**  
**Dorstate SWD**  
**Eddy County, New Mexico**

Sample ID	Sample Date	Sample Depth (ft)	BEB Sample Depth (ft)	Soil Status		TPH (mg/kg)				Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)	
				In-Situ	Removed	GRO	DRO	ORO	Total							
BH-22	10/25/2019	0-1	-	X		1150	13,100	1,550	<b>15,800</b>	<0.00200	0.0422	0.0281	0.438	0.508	677	
		2-3	-	X		705	8,840	933	<b>10,500</b>	<0.00198	0.0222	0.022	0.347	0.391	<b>957</b>	
		4-5	-	X		186	3,580	369	<b>4,140</b>	<0.00199	0.0153	0.0223	0.198	0.235	<b>1,560</b>	
		6-7	-	X		<49.9	783	79.9	<b>863</b>	<0.00199	<0.00199	<0.00199	0.0342	0.0342	<b>1,380</b>	
		9-10	-	X		<49.9	318	72.2	<b>390</b>	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<b>1,800</b>	
		14-15	-	X		<49.8	198	<49.8	<b>198</b>	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<b>1,930</b>	
		19-20	-	X		<50.0	87.9	<50.0	<b>87.9</b>	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<b>1,660</b>	
		24-25	-	X		<49.8	<49.8	<49.8	<49.8	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	598	
		29-30	-	X		<49.9	<49.9	<49.9	<49.9	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<b>1,160</b>	
BH-23	10/25/2019	0-1	-	X		58.1	2,320	305	<b>2,680</b>	<0.00200	0.00254	<0.00200	0.0192	0.0217	398	
		2-3	-	X		<49.9	430	63.0	<b>493</b>	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	415	
		4-5	-	X		<50.0	424	60.6	<b>485</b>	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	348	
		6-7	-	X		<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	424	
		9-10	-	X		<49.8	<49.8	<49.8	<49.8	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	403	
		14-15	-	X		<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<b>1,310</b>	
		19-20	-	X		<50.0	<50.0	<50.0	<50.0	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<b>1,490</b>	
		24-25	-	X		<50.0	<50.0	<50.0	<50.0	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<b>1,520</b>	
		29-30	-	X		<49.8	<49.8	<49.8	<49.8	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<b>2,640</b>	
BH-24	10/25/2019	0-1	-	X		156	7,170	906	<b>8,230</b>	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	840	
		2-3	-	X		105	4,360	538	<b>5,000</b>	<0.00199	<0.00199	<0.00199	0.0246	0.0246	<b>983</b>	
		4-5	-	X		67.2	2,310	245	<b>2,620</b>	<0.00201	<0.00201	<0.00201	0.0268	0.0268	<b>2,810</b>	
		6-7	-	X		<49.9	161	<49.9	<b>161</b>	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	362	
		9-10	-	X		<50.0	94.5	<50.0	<b>94.5</b>	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<b>1,100</b>	
		14-15	-	X		<49.9	70.4	<49.9	<b>70.4</b>	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<b>1,290</b>	
		19-20	-	X		<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	400	
		24-25	-	X		<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<b>1,590</b>	
		29-30	-	X		<49.9	<49.9	<49.9	<49.9	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<b>2,470</b>	
BG-1	5/16/2019	0-1	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	80.0	
		"	2-3	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	208
		"	4-5	-	X		-	-	-	-	-	-	-	-	672	
		"	6-7	-	X		-	-	-	-	-	-	-	-	352	
		"	9-10	-	X		-	-	-	-	-	-	-	-	256	
		"	14-15	-	X		-	-	-	-	-	-	-	-	176	
		"	19-20	-	X		-	-	-	-	-	-	-	-	160	
		"	24-25	-	X		-	-	-	-	-	-	-	-	144	
		"	29-30	-	X		-	-	-	-	-	-	-	-	80.0	
"	34-35	-	X		-	-	-	-	-	-	-	-	128			
"	39-40	-	X		-	-	-	-	-	-	-	-	112			

**Table 1**  
**Permian Water Solutions**  
**Dorstate SWD**  
**Eddy County, New Mexico**

Sample ID	Sample Date	Sample Depth (ft)	BEB Sample Depth (ft)	Soil Status		TPH (mg/kg)				Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
				In-Situ	Removed	GR0	DRO	ORO	Total						
H-1	10/23/2019	0-1	-	X		<50.0	<50.0	<50.0	<50.0	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	322
	"	1-2	-	X		<49.8	<49.8	<49.8	<49.8	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	325
H-2	10/23/2019	0-1	-	X		<50.0	169	<50.0	169	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	148
	"	1-2	-	X		<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	275
H-2 (1)	11/11/2019	0-1	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	144
H-3	10/23/2019	0-1	-	X		<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	135
	"	1-2	-	X		<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	148
H-4	10/23/2019	0-1	-	X		<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	641
	"	1-2	-	X		<49.9	<49.9	<49.9	<49.9	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	259
H-5	10/23/2019	0-1	-	X		<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	452
	"	1-2	-	X		<50.0	<50.0	<50.0	<50.0	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	492
H-6	10/23/2019	0-1	-	X		<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	439
	"	1-2	-	X		<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	516
H-7	10/23/2019	0-1	-	X		<50.0	<50.0	<50.0	<50.0	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	243
	"	1-2	-	X		<49.9	<49.9	<49.9	<49.9	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	175
H-8	10/23/2019	0-1	-	X		<50.0	<50.0	<50.0	<50.0	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	281
	"	1-2	-	X		<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	855
H-9	10/24/2019	0-8"	-	X		<49.9	<49.9	<49.9	<49.9	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	154
H-10	10/24/2019	0-1	-	X		<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	192
	"	1-2	-	X		<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	72.7
H-11	10/24/2019	0-10"	-	X		<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	0.00498	0.00914	0.01410	125
H-12	10/24/2019	0-1	-	X		<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	0.00440	0.00571	0.01010	57.4
	"	1-2	-	X		<50.0	141	<50.0	141	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	174
H-12 (1)	11/11/2019	0-1	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	16.0
	"	1-2	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	<16.0
H-13	10/24/2019	0-1	-	X		<49.9	<49.9	<49.9	<49.9	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	332
H-14	10/24/2019	0-1	-	X		<49.9	<49.9	<49.9	<49.9	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	32.0
	"	1-2	-	X		<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	25.8
H-15	10/24/2019	0-1	-	X		<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	6.18
	"	1-2	-	X		<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	31.9
H-16	10/24/2019	0-1	-	X		<50.0	<50.0	<50.0	<50.0	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	22.7
	"	1-2	-	X		<49.8	<49.8	<49.8	<49.8	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	307
H-17	10/25/2019	0-1	-	X		<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	38.3
	"	1-2	-	X		<49.9	<49.9	<49.9	<49.9	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	58.5
H-18	10/25/2019	0-1	-	X		<50.0	<50.0	<50.0	<50.0	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	59.2
	"	1-2	-	X		<50.0	<50.0	<50.0	<50.0	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	117
H-19	10/25/2019	0-1	-	X		<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	140
	"	1-2	-	X		<49.9	<49.9	<49.9	<49.9	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	847
H-20	10/25/2019	0-1	-	X		<50.0	<50.0	<50.0	<50.0	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	435
	"	1-2	-	X		<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	126
H-21	11/11/2019	0-1	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	32.0
H-22	11/11/2019	0-1	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	512

(-) Not Analyzed

# Photos

Permian Water Solutions,  
Dorstate SWD  
Eddy County, New Mexico



View West – Area of SP-1



View North – Area of SP-2

Permian Water Solutions,  
Dorstate SWD  
Eddy County, New Mexico



View North – Area of SP-3



View West – Area of SP-4

Permian Water Solutions,  
Dorstate SWD  
Eddy County, New Mexico



View North – Area of SP-6



View Northwest – Area of SP-7

Permian Water Solutions,  
Dorstate SWD  
Eddy County, New Mexico



View Southwest – Area of SP-8



View Southwest – Area of SP-9

Permian Water Solutions,  
Dorstate SWD  
Eddy County, New Mexico



View Northwest – Area of SP-10



View Southeast – Area of SP-11

Permian Water Solutions,  
Dorstate SWD  
Eddy County, New Mexico



View Southeast – Area of SP-12



View Northwest – Area of SP-13 and SP-14

Permian Water Solutions,  
Dorstate SWD  
Eddy County, New Mexico



View North – Area of SP-15



View North – Area of SP-16

Permian Water Solutions,  
Dorstate SWD  
Eddy County, New Mexico



View East – Area of SP-17



View Northwest – Area of SP-18

Permian Water Solutions,  
Dorstate SWD  
Eddy County, New Mexico



View Southwest – Area of SP-19



View Northwest – Area of SP-20

Permian Water Solutions,  
Dorstate SWD  
Eddy County, New Mexico



View North – Area of SP-21

Permian Water Solutions  
Dorstate SWD  
Eddy County, New Mexico



View East – Areas of BH-22, BH-23, and BH-24



View West – North Side of Facility

# Appendix A

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

NM OIL CONSERVATION  
ARTESIA DISTRICT

AUG 29 2017

Form C-141  
Revised April 3, 2017

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

**Release Notification and Corrective Action**

NAB1724135283 198688 OPERATOR  Initial Report  Final Report

Name of Company <u>Cambrian Management, Ltd.</u>	Contact <u>Mike Anthony</u>
Address <u>PO Box 272, Midland, TX 79702</u>	Telephone No. <u>432-631-4398</u>
Facility Name <u>Dockate SWD</u>	Facility Type <u>SWD</u>
Surface Owner	Mineral Owner
API No. <u>30-015-23728</u>	

**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
<u>H</u>	<u>27</u>	<u>25S</u>	<u>28E</u>	<u>1980</u>	<u>North</u>	<u>660</u>	<u>East</u>	<u>Eddy</u>

Latitude 32.102684 Longitude 104.068565 NAD83

**NATURE OF RELEASE**

Type of Release <u>Water, Produced Water</u>	Volume of Release <u>25 bbls</u>	Volume Recovered <u>0</u>
Source of Release	Date and Hour of Occurrence	Date and Hour of Discovery <u>8-23-17</u>
Was Immediate Notice Given? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	<u>8:04 PM</u>
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.\*

Describe Cause of Problem and Remedial Action Taken.\*

Overflowing bumps due to truck drivers inattention and excess rainwater.

We will get soil samples and Trinity Environmental and proceed with proper remediation and cleanup

Describe Area Affected and Cleanup Action Taken.\*

Pasture land and SWD location

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: <u>Denise Jones</u>	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: <u>Denise Jones</u>	Signed By: <u>Mike Anthony</u> Approved by Environmental Specialist	
Title: <u>Regulatory Analyst</u>	Approval Date: <u>8/29/17</u>	Expiration Date: <u>N/A</u>
E-mail Address: <u>djones@cambrianmgmt.com</u>	Conditions of Approval: <u>See attached</u>	Attached: <u>SRP, 4B6A</u>
Date: <u>8-24-17</u> Phone: <u>432-620-9181</u>		

\* Attach Additional Sheets If Necessary

Incident ID	
District RP	
Facility ID	
Application ID	

## Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	<50 _____ (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input type="checkbox"/> No

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

<p><b>Characterization Report Checklist:</b> <i>Each of the following items must be included in the report.</i></p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.</li> <li><input type="checkbox"/> Field data</li> <li><input checked="" type="checkbox"/> Data table of soil contaminant concentration data</li> <li><input checked="" type="checkbox"/> Depth to water determination</li> <li><input checked="" type="checkbox"/> Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release</li> <li><input checked="" type="checkbox"/> Boring or excavation logs</li> <li><input checked="" type="checkbox"/> Photographs including date and GIS information</li> <li><input checked="" type="checkbox"/> Topographic/Aerial maps</li> <li><input checked="" type="checkbox"/> Laboratory data including chain of custody</li> </ul>
--

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

Form C-141

State of New Mexico  
Oil Conservation Division

Page 4

Incident ID	
District RP	
Facility ID	
Application ID	

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

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_

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

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

**OCD Only**

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

Form C-141

State of New Mexico  
Oil Conservation Division

Page 5

Incident ID	
District RP	
Facility ID	
Application ID	

## Remediation Plan

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

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

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

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

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

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_  
 Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
 email: \_\_\_\_\_ Telephone: \_\_\_\_\_

**OCD Only**

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

- Approved       Approved with Attached Conditions of Approval       Denied       Deferral Approved

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

## Appendix B

### Water Well Data Average Depth to Groundwater (ft) Permian Water Solutions - Dorstate SWD

24 South			27 East		
6	5	4	3	2	1
7	8 17	9	10	11	12
18 30	17	16	15	14	13 30
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

24 South			28 East		
6 70	5 30	4 30	3	2 55	1 60
7	8 50	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

24 South			29 East		
6	5	4	3	2	1
7	8	9	10	11	12
18 160	17 4	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

25 South			27 East		
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

25 South			28 East		
6	5	4 35	3 32	2	1 Site
7 45	8	9	10	11	12
18	17	16	15 48	14	13
19	20	21	22	23	24
30	29	28	27	26 40	25
31	32	33	34	35 55	36 40

25 South			29 East		
6	5	4	3	2	1
7 40	8	9	10	11	12
18	17	16	15 40	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32 115	33	34	35	36

26 South			27 East		
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

26 South			28 East		
6	5	4	3	2 120	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

26 South			29 East		
6	5 78	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22 57	23	24
30	29	28	27	26	25
31	32	33	34	35	36

- 88 New Mexico State Engineers Well Reports
- 105 USGS Well Reports
- 90 Geology and Groundwater Conditions in Southern Lea, County, NM (Report 6)
- 90 Geology and Groundwater Resources of Eddy County, NM (Report 3)
- 34 NMOCD - Groundwater Data
- 121 Abandoned Waterwell (recently measured)



# 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	Depth Well	Depth Water	Water Column
<a href="#">C 01278</a>	C	ED		4	3	28	25S	28E		585470	3551338*	205	90	115
<a href="#">C 01411</a>	C	ED		4	4	2	04	25S	28E	586289	3558522*	69	35	34
<a href="#">C 01453</a>	C	ED		1	2	26	25S	28E		589096	3552612*	70	40	30
<a href="#">C 01522</a>	C	ED			1	22	25S	28E		586843	3554004*	150		
<a href="#">C 01573 POD1</a>	C	ED		3	1	4	20	25S	28E	584144	3553361	176	96	80
<a href="#">C 02668</a>	C	ED		2	1	2	09	25S	28E	585890	3557525*	150		
<a href="#">C 03263 POD1</a>	CUB	ED		1	1	1	07	25S	28E	581628	3557501*	133		
<a href="#">C 03836 POD1</a>	C	ED		2	2	4	29	25S	28E	584682	3551934	300	30	270
<a href="#">C 03861 POD1</a>	C	ED		4	2	3	18	25S	28E	582266	3554864	91	63	28

Average Depth to Water: **59 feet**  
 Minimum Depth: **30 feet**  
 Maximum Depth: **96 feet**

**Record Count:** 9

**PLSS Search:**

**Township:** 25S      **Range:** 28E

\*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.





# Appendix C













































Borehole ID:  
BH-22

Soil Drilling Log with  
Field Testing Results

Project Name : Dorstate SWD  
 Project No. : Pending  
 Location : Eddy Co, NM  
 Coordinates : 32.103014 -104.069327  
 Elevation : \_\_\_\_\_

Date : Friday, October 25, 2019  
 Sampler : Conner Moehring  
 Driller : Scarborough Drilling  
 Method : Air Rotary

Depth (ft.)	WL	Soil Description	Chloride Field Test (ppm)	PID	Depth (ft.)	WL	Soil Description	Chloride Field Test (ppm)	Field Titration Test (ppm)
0		black and grey gravel and sand		H.O	50				
		large grey and black rocks		H.O					
5		Very dense layer of caliche		H.O	55				
		black and grey caliche		H.O					
10		yellow tan caliche		H.O	60				
15		tan and yellow caliche		H.O	65				
20		tan yellow caliche with noudles	1,520	S.O	70				
25		yellow caliche		S.O	75				
30		Moist yellow/white caliche					Comments: T.D 30'		
35									
40									
45									
50									

\* H.O. = Heavy Odor                      \* L.O. = Low Odor  
 \* H.S. = Heavy Staining                \* L.S. = Low Staining



Borehole ID:  
BH-23

Soil Drilling Log with  
Field Testing Results

Project Name : Dorstate SWD  
 Project No. : Pending  
 Location : Eddy Co, NM  
 Coordinates : 32.103021 -104.069062  
 Elevation : \_\_\_\_\_

Date : Friday, October 25, 2019  
 Sampler : Conner Moehring  
 Driller : Scarborough Drilling  
 Method : Air Rotary

Depth (ft.)	WL	Soil Description	Chloride Field Test (ppm)	PID	Depth (ft.)	WL	Soil Description	Chloride Field Test (ppm)	Field Titration Test (ppm)
0		Black and grey gravel		S.O	50				
		large and grey gravel with caliche		S.O					
5		yellow and white caliche		S.O	55				
10		white and grey caliche	920	S.O	60				
15		white and yellow caliche		L.O	65				
20		white and yellow caliche	1,900	L.O	70				
25		Fine powdery gypsum		L.O	75				
30		moist caliche yellowish white					Comments: T.D 30'		
35									
40									
45									
50									

\* H.O. = Heavy Odor  
 \* H.S. = Heavy Staining

\* L.O. = Low Odor  
 \* L.S. = Low Staining



**Borehole ID:**  
BH-24

**Soil Drilling Log with  
Field Testing Results**

**Project Name :** Dorstate SWD  
**Project No. :** Pending  
**Location :** Eddy Co, NM  
**Coordinates :** 32.102988 -104.068980  
**Elevation :**

**Date :** Friday, October 25, 2019  
**Sampler :** Conner Moehring  
**Driller :** Scarborough Drilling  
**Method :** Air Rotary

Depth (ft.)	WL	Soil Description	Chloride Field Test (ppm)	PID	Depth (ft.)	WL	Soil Description	Chloride Field Test (ppm)	Field Titration Test (ppm)
0		Grey , yellow caliche and gravel		H.O	50				
		Large caliche gravel							
5		grey caliche		H.O	55				
		Dense layer of caliche							
10		tan/ white caliche		H.O	60				
15		white caliche		H.O	65				
20		brown yellow caliche		H.O	70				
25		brown yellow caliche		S.O	75				
30		Mosit fine caliche		S.O			Comments: T.D 30'		
35									
40									
45									
50									

\* H.O. = Heavy Odor  
 \* H.S. = Heavy Staining

\* L.O. = Low Odor  
 \* L.S. = Low Staining

## Appendix D



PO Box 301 | Lovington, NM 88260 | Phone 575.396.2378

**August 28, 2018**

**Attn. Mike Bratcher**  
NMOCD, District 2  
811 South First Street  
Artesia, NM 88210

**RE: Corrective Action Plan  
Cambrian Management  
Dorstate SWD  
UL/H Sec.27, T25S R28E  
32.102789, -104.068449  
NMOCD Reference # 2RP – 4364**

Mr. Bratcher:

Cambrian Management (Cambrian) has retained Basin Environmental Service Technologies (Basin) to address potential environmental concerns at the above-referenced site.

### **Background and Previous Work**

The site is located approximately eight and one-half (8.5) miles south of Malaga, New Mexico at Unit Letter H of Section 27 in Township 25 South of Range 28 East (See Figure 1). This site is located in an area where groundwater is anticipated to be encountered at an estimated depth sixty-five (65) +/- feet below ground surface (bgs) (See Figure 4).

On August 23, 2017, a representative of the New Mexico State Land Office (NMSLO) notified Cambrian and the New Mexico Oil Conservation Division's (NMOCD) Artesia District Office via email that a release (or series of releases) had occurred at the Dorstate Salt Water Disposal (SWD). It was determined that driver inattention and excess rainwater had caused the on-site sumps to overflow. This resulted in the release of approximately twenty-five (25) barrels of produced water. No liquids from the release were recovered. An environmental site assessment was performed, and it was determined that the current release and/or historical release(s) is estimated to have impacted two-hundred and twelve thousand, six-hundred and seventy-two (212,672) square feet (ft<sup>2</sup>) of gypsum pad and pasture. An initial C-141 (Release Notification and Corrective Action) was submitted to NMOCD on August 24<sup>th</sup>, 2017 for approval.

Basin personnel were on site beginning July 23<sup>rd</sup>, 2018, to perform another assessment. Discrete soil samples were retrieved on the perimeter of the stain to establish the horizontal extent of the impact. Field screens indicate that the release spread in the subsurface or a historical(s) release was encountered as the subsurface perimeter extended beyond the visible stain.

## Corrective Action Plan

The pad area will be excavated to an approximate depth of 1-2', bgs. The remediated soils will be disposed of at an NMOCD approved landfill. The excavated pad area will be backfilled with clean, non-impacted gypsum, rolled and compacted before being contoured to the surrounding area.

The impacted pasture area will be excavated to a maximum depth of four (4) feet bgs. Once the floor depth of the excavation is established, numerous discrete soil samples will be retrieved from both the floor of the excavation as well as the walls and delivered to an NMOCD approved laboratory for analyses of benzene, toluene, ethyl-benzene xylenes (BTEX), gasoline range organics (GRO), diesel range organics (DRO), oil range organics (ORO), (total petroleum hydrocarbons [TPH], and chlorides. If the laboratory analyses indicate any of the constituents of interest are above the recommended remediation action levels (RRAL) for this location (1,000 mg/kg – TPH, 50 mg/kg – BTEX, 600 mg/kg – chlorides), after delineation, a 20-mil liner will be placed to ensure percolation is limited vertically downward as well as preventing effusion upwards towards the surface. Before liner placement (if required), full delineation of each sample point will occur. (See attached Perimeter Sampling Map). The impacted soil will be removed and disposed of at an approved NMOCD facility. The pasture excavation will be backfilled with clean, non-impacted topsoil and contoured to the surrounding area.

In the event the reserve pit area is encountered during remediation, the perimeter of the reserve pit will be identified, and it will have a new liner placed with 2' of clean, non-impacted topsoil placed and contoured for drainage.

At a time conducive for germination, the location will be seeded with the preferred seed mix of the land owner free of non-noxious or invasive vegetation. The seed will be applied with either a drill or broadcast method to ensure complete coverage of affected area. The seeds will then be sown with a disc (in compacted soils), rake or a harrow.

The supporting documentation for this Corrective Action Plan is attached.

Basin appreciates the opportunity to work with you on this project. Please contact me if you have any questions or wish to discuss the site.

Sincerely,

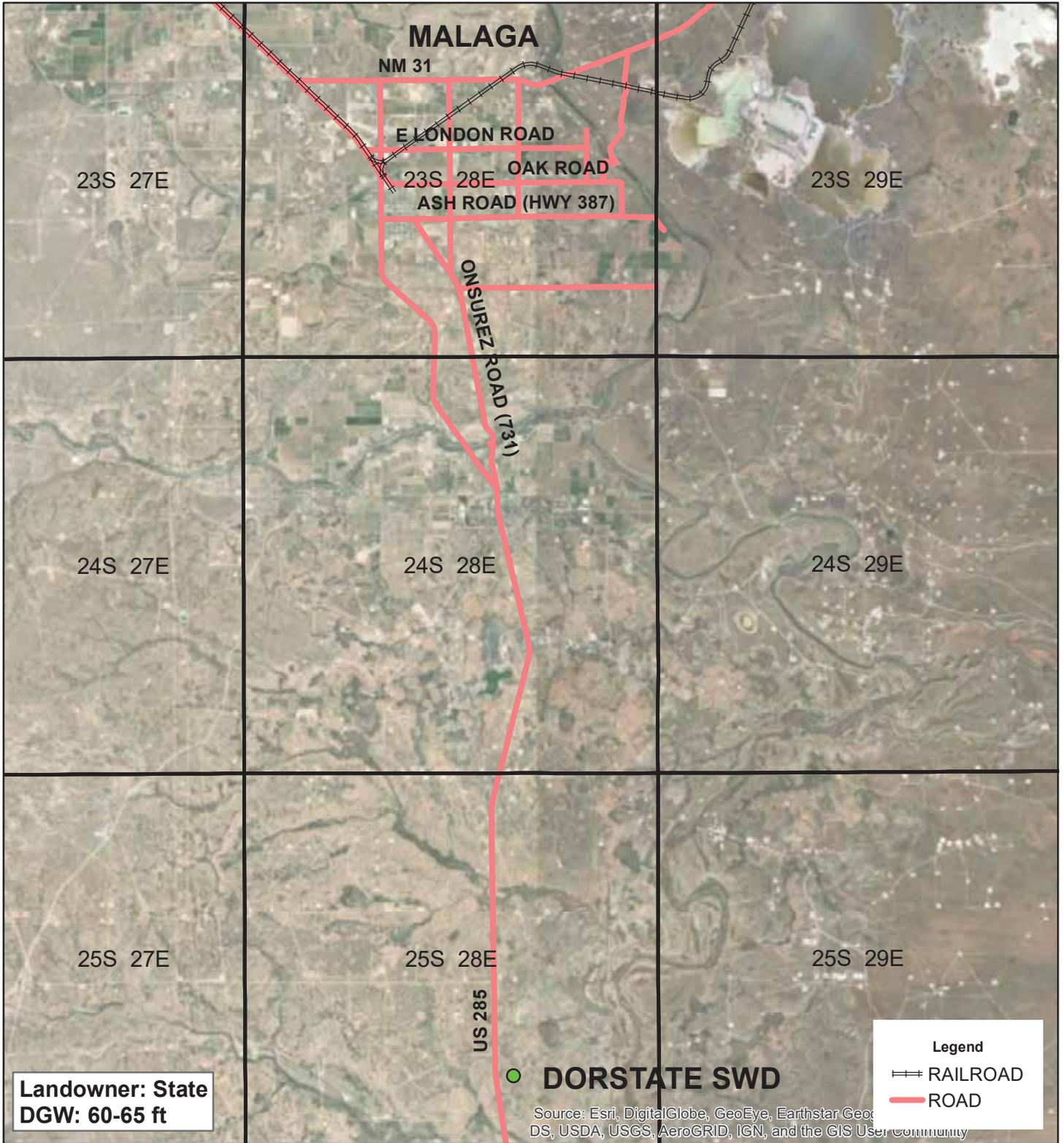


Robbie Runnels  
Project Manager  
Basin Environmental Service Technologies  
(575) 396-2378

Attachments:

- Figure 1 – Site Location Map
- Figure 2 - Area Sampling Data and Proposed Excavation
- Figure 3 – Approximate Depth to Groundwater
- Figure 4 - Soil Chemistry Table
- Appendix A – Photo Documentation
- Appendix B – Initial C-141 Forms
- Appendix C – Analytical Reports

# Geographic Location



**CAMBRIAN  
DORSTATE SWD**

2RP-4364

UL H SECTION 27  
T-25-S R-28-E  
EDDY COUNTY, NM

GPS: 32.102789 -104.068449

0 1 2  
Miles

Drawing date: 7/30/18  
Drafted by: T. Grieco

# Initial Sampling



**Landowner: State**  
**DGW: 60-65 ft**

**Legend**

- # PROPOSED SAMPLE LOCATION
- STAIN - 212,672 SQ FT



**CAMBRIAN  
DORSTATE SWD**

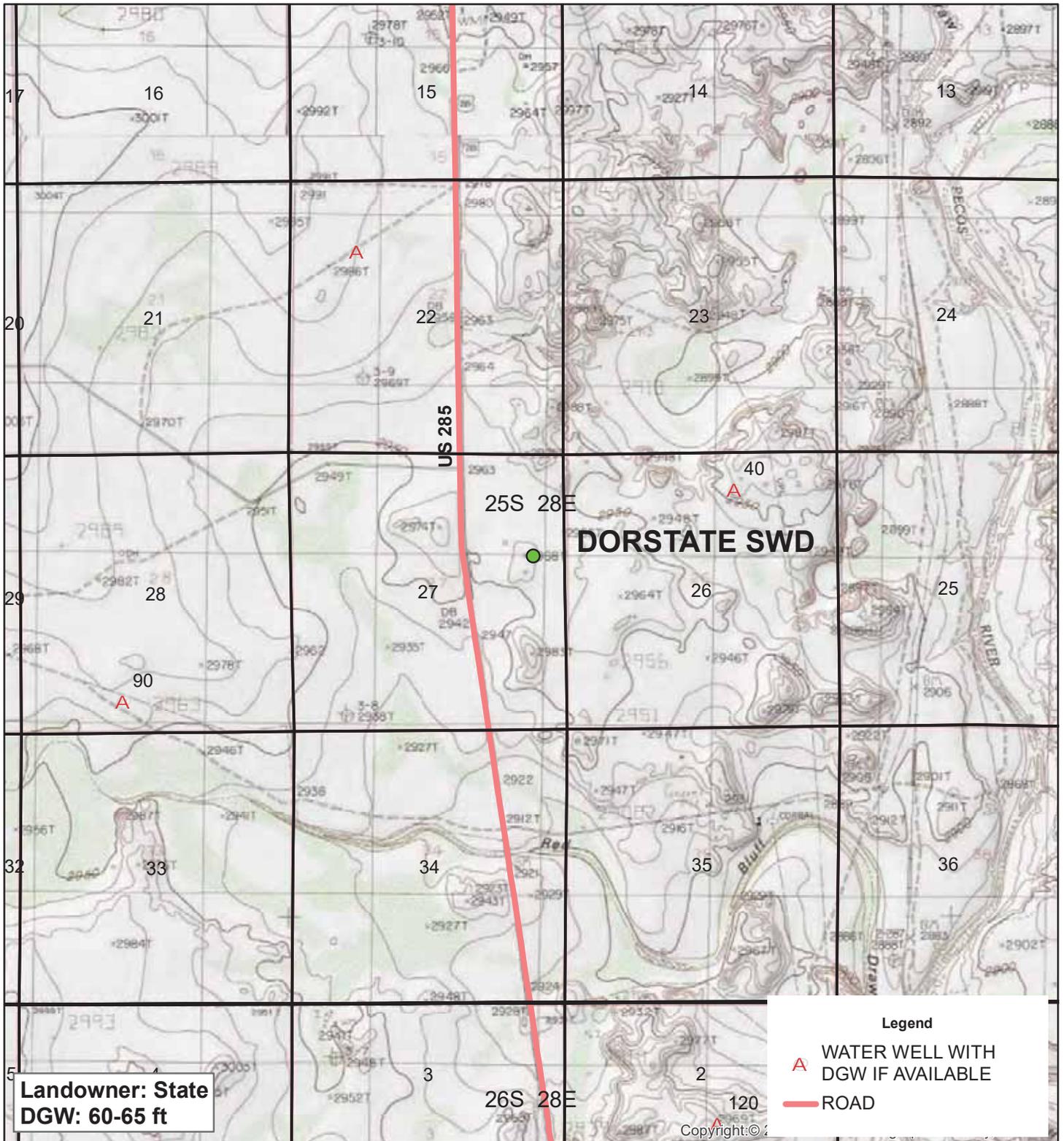
UL H SECTION 27  
T-25-S R-28-E  
EDDY COUNTY, NM

**GPS: 32.102789 -104.068449**

0 50 100  
 Feet

Drawing date: 6/7/18  
 Drafted by: T. Grieco

# Depth to Groundwater



Landowner: State  
 DGW: 60-65 ft

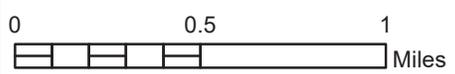
**Legend**  
 ▲ WATER WELL WITH DGW IF AVAILABLE  
 — ROAD



**CAMBRIAN  
 DORSTATE SWD**  
 2RP-4364

UL H SECTION 27  
 T-25-S R-28-E  
 EDDY COUNTY, NM

GPS: 32.102789 -104.068449



Drawing date: 7/30/18  
 Drafted by: T. Grieco

**TABLE 1  
CONCENTRATIONS OF BENZENE, BTEX, TPH & CHLORIDE IN SOIL**

**OXY USA, INC.  
DORSTATE SWD  
EDDY COUNTY, NEW MEXICO  
NMOCD REFERENCE #: 2RP-4364**

SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	METHOD: EPA SW 846-8021B, 5030					METHOD: 8015M				300
				BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL-BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO C <sub>6</sub> -C <sub>12</sub> (mg/Kg)	DRO C <sub>12</sub> -C <sub>28</sub> (mg/Kg)	EXT DRO C <sub>28</sub> -C <sub>35</sub> (mg/Kg)	TPH C <sub>6</sub> -C <sub>35</sub> (mg/Kg)	CHLORIDE (mg/Kg)
<b>NMOCD Recommended Remediation Action Levels (RRALs)</b>				<b>10</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>50</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>1,000</b>	<b>600</b>
SP-1 @ 1'	1'	3/29/2018	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<b>4,030</b>
SP-1 @ 5'	5'	3/29/2018	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<b>2,120</b>
SP-1 @ 9'	9'	3/29/2018	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<b>1,610</b>
SP-2 @ 1'	1'	3/29/2018	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	55.7
SP-3 @ 1'	1'	3/29/2018	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	75.1
SP-4 @ 1'	1'	4/2/2018	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<b>4,740</b>
SP-4 @ 3'	3'	4/2/2018	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<b>1,860</b>
SP-4 @ 5'	5'	4/2/2018	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<b>850</b>
SP-4 @ 6'	6'	4/2/2018	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<b>758</b>
SP-5 @ 1'	1'	4/2/2018	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<b>4,800</b>
SP-5 @ 3'	3'	4/2/2018	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<b>3,900</b>
SP-6 @ 1'	1'	4/2/2018	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	38.3
SP-7 @ 1'	1'	4/2/2018	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	98.4
SP-8 @ 1'	1'	4/3/2018	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<b>8,070</b>
SP-9 @ 1'	1'	4/3/2018	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	119
SP-10 @ 1'	1'	4/3/2018	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	35.6
SP-11 @ 1'	1'	4/3/2018	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	29.7	<10.0	29.7	<b>5,040</b>
SP-12 @ 1'	1'	4/3/2018	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<b>1,450</b>
SP-12 @ 3'	3'	4/3/2018	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<b>2,460</b>
SP-12 @ 5'	5'	4/3/2018	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<b>1,180</b>
SP-13 @ 1'	1'	4/3/2018	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<b>2,600</b>

**TABLE 1  
CONCENTRATIONS OF BENZENE, BTEX, TPH & CHLORIDE IN SOIL**

**OXY USA, INC.  
DORSTATE SWD  
EDDY COUNTY, NEW MEXICO  
NMOCD REFERENCE #: 2RP-4364**

SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	METHOD: EPA SW 846-8021B, 5030					METHOD: 8015M				300
				BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL-BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO C <sub>6</sub> -C <sub>12</sub> (mg/Kg)	DRO C <sub>12</sub> -C <sub>28</sub> (mg/Kg)	EXT DRO C <sub>28</sub> -C <sub>35</sub> (mg/Kg)	TPH C <sub>6</sub> -C <sub>35</sub> (mg/Kg)	CHLORIDE (mg/Kg)
<b>NMOCD Recommended Remediation Action Levels (RRALs)</b>				<b>10</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>50</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>1,000</b>	<b>600</b>
SP-14 @ 1'	1'	4/3/2018	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<b>9,180</b>
SP-15 @ 1'	1'	4/3/2018	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	37.0	11.5	48.5	<b>5,240</b>
SP-16 @ 1'	1'	4/3/2018	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	269
SP-17 @ 1'	1'	4/3/2018	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<b>1,710</b>
SP-18 @ 1'	1'	4/3/2018	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<b>3,130</b>
SP-19 @ 1'	1'	4/3/2018	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<b>1,150</b>
SP-20 @ 1'	1'	4/3/2018	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	31.0
SP-21 @ 1'	1'	4/3/2018	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<50.0
SP-22 @ 1'	1'	4/3/2018	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	16.0
SP-23 @ 1'	1'	4/3/2018	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	37.9
SP-24 @ 1'	1'	4/3/2018	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	20.5
SP-25 @ 1'	1'	4/3/2018	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<b>2,390</b>
SP-26 @ 1'	1'	4/3/2018	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	292
SP-27 @ 1'	1'	4/3/2018	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	35.7	24.9	60.6	<b>931</b>
SP-28 @ 1'	1'	4/3/2018	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<b>945</b>
SP-29 @ 1'	1'	4/9/2018	In-Situ	-	-	-	-	-	-	-	-	-	<b>1,310</b>
SP-29 @ 8'	8'	4/9/2018	In-Situ	-	-	-	-	-	-	-	-	-	336

**TABLE 1  
CONCENTRATIONS OF BENZENE, BTEX, TPH & CHLORIDE IN SOIL**

**OXY USA, INC.  
DORSTATE SWD  
EDDY COUNTY, NEW MEXICO  
NMOCD REFERENCE #: 2RP-4364**

SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	METHOD: EPA SW 846-8021B, 5030					METHOD: 8015M				300
				BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL-BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO C <sub>6</sub> -C <sub>12</sub> (mg/Kg)	DRO C <sub>12</sub> -C <sub>28</sub> (mg/Kg)	EXT DRO C <sub>28</sub> -C <sub>35</sub> (mg/Kg)	TPH C <sub>6</sub> -C <sub>35</sub> (mg/Kg)	CHLORIDE (mg/Kg)
<b>NMOCD Recommended Remediation Action Levels (RRALs)</b>				<b>10</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>50</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>1,000</b>	<b>600</b>
SP-30 @ 1'	1'	4/9/2018	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<b>1,490</b>
SP-30 @ 6'	6'	4/9/2018	In-Situ	-	-	-	-	-	-	-	-	-	336
SP-31 @ 1'	1'	4/9/2018	In-Situ	-	-	-	-	-	-	-	-	-	<b>928</b>
SP-31 @ 10'	10'	4/10/2018	In-Situ	-	-	-	-	-	-	-	-	-	<b>944</b>
SP-32 @ 1'	1'	4/10/2018	In-Situ	-	-	-	-	-	-	-	-	-	<b>912</b>
SP-32 @ 10'	10'	4/10/2018	In-Situ	-	-	-	-	-	-	-	-	-	560
SP-33 @ 1'	1'	4/10/2018	In-Situ	-	-	-	-	-	-	-	-	-	<b>4,240</b>
SP-33 @ 10'	10'	4/10/2018	In-Situ	-	-	-	-	-	-	-	-	-	<b>3,800</b>
SP-34 @ 1'	1'	4/10/2018	In-Situ	-	-	-	-	-	-	-	-	-	<b>7,100</b>
SP-34 @ 10'	10'	4/10/2018	In-Situ	-	-	-	-	-	-	-	-	-	<b>1,540</b>
SP-35 @ 1'	1'	4/10/2018	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	97.7	38.0	136	<b>8,200</b>
SP-35 @ 10'	10'	4/10/2018	In-Situ	-	-	-	-	-	-	-	-	-	<b>4,300</b>
SP-36 @ 1'	1'	4/11/2018	In-Situ	<0.050	0.062	<0.050	1.12	1.18	38.1	1,190	216	<b>1,444</b>	<b>12,000</b>
SP-36 @ 10'	10'	4/11/2018	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	19.2	<10.0	19.2	<b>2,320</b>
SP-37 @ 1'	1'	4/11/2018	In-Situ	-	-	-	-	-	-	-	-	-	<b>5,440</b>
SP-37 @ 10'	10'	4/11/2018	In-Situ	-	-	-	-	-	-	-	-	-	<b>4,560</b>
SP-38 @ 1'	1'	4/11/2018	In-Situ	-	-	-	-	-	-	-	-	-	<b>8,800</b>
SP-38 @ 10'	10'	4/11/2018	In-Situ	-	-	-	-	-	-	-	-	-	<b>1,650</b>
SP-39 @ 4'	4'	4/11/2018	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<b>15,600</b>
SP-39 @ 10'	10'	4/11/2018	In-Situ	-	-	-	-	-	-	-	-	-	<b>7,000</b>
SP-40 @ 1'	1'	4/11/2018	In-Situ	-	-	-	-	-	-	-	-	-	<b>2,160</b>
SP-40 @ 10'	10'	4/11/2018	In-Situ	-	-	-	-	-	-	-	-	-	<b>960</b>

**TABLE 1  
CONCENTRATIONS OF BENZENE, BTEX, TPH & CHLORIDE IN SOIL**

**OXY USA, INC.  
DORSTATE SWD  
EDDY COUNTY, NEW MEXICO  
NMOCD REFERENCE #: 2RP-4364**

SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	METHOD: EPA SW 846-8021B, 5030					METHOD: 8015M				300
				BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL-BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO C <sub>6</sub> -C <sub>12</sub> (mg/Kg)	DRO C <sub>12</sub> -C <sub>28</sub> (mg/Kg)	EXT DRO C <sub>28</sub> -C <sub>35</sub> (mg/Kg)	TPH C <sub>6</sub> -C <sub>35</sub> (mg/Kg)	CHLORIDE (mg/Kg)
<b>NMOCD Recommended Remediation Action Levels (RRALs)</b>				<b>10</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>50</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>1,000</b>	<b>600</b>
SP-41 @ 1'	1'	4/12/2018	In-Situ	-	-	-	-	-	-	-	-	-	<b>1,600</b>
SP-41 @ 5'	5'	4/12/2018	In-Situ	-	-	-	-	-	-	-	-	-	368
SP-42 @ 1'	1'	4/12/2018	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<b>2,600</b>
SP-42 @ 6'	6'	4/12/2018	In-Situ	-	-	-	-	-	-	-	-	-	384
SP-43 @ 1'	1'	4/12/2018	In-Situ	-	-	-	-	-	-	-	-	-	<b>2,520</b>
SP-43 @ 10'	10'	4/12/2018	In-Situ	-	-	-	-	-	-	-	-	-	<b>3,120</b>
SP-44 @ 1'	1'	4/12/2018	In-Situ	-	-	-	-	-	-	-	-	-	<b>2,280</b>
SP-44 @ 7'	7'	4/12/2018	In-Situ	-	-	-	-	-	-	-	-	-	304
SP-45 @ 1'	1'	4/12/2018	In-Situ	-	-	-	-	-	-	-	-	-	<b>864</b>
SP-45 @ 3'	3'	4/12/2018	In-Situ	-	-	-	-	-	-	-	-	-	224
SP-46 @ 1'	1'	4/12/2018	In-Situ	-	-	-	-	-	-	-	-	-	160
SP-47 @ 1'	1'	4/13/2018	In-Situ	-	-	-	-	-	-	-	-	-	<b>2,160</b>
SP-47 @ 10'	10'	4/13/2018	In-Situ	-	-	-	-	-	-	-	-	-	<b>1,090</b>
SP-48 @ 1'	1'	4/13/2018	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<b>6,320</b>
SP-48 @ 10'	10'	4/13/2018	In-Situ	-	-	-	-	-	-	-	-	-	<b>5,200</b>
SP-49 @ 1'	1'	4/13/2018	In-Situ	-	-	-	-	-	-	-	-	-	<b>8,000</b>
SP-49 @ 10'	10'	4/13/2018	In-Situ	-	-	-	-	-	-	-	-	-	<b>1,200</b>
SP-50 @ 1'	1'	4/13/2018	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	67.8	58.0	126	<b>7,360</b>
SP-50 @ 10'	10'	4/13/2018	In-Situ	-	-	-	-	-	-	-	-	-	<b>3,160</b>
SP-51 @ 1'	1'	4/13/2018	In-Situ	-	-	-	-	-	-	-	-	-	<b>2,000</b>
SP-51 @ 10'	10'	4/13/2018	In-Situ	-	-	-	-	-	-	-	-	-	<b>1,020</b>

**TABLE 1  
CONCENTRATIONS OF BENZENE, BTEX, TPH & CHLORIDE IN SOIL**

**OXY USA, INC.  
DORSTATE SWD  
EDDY COUNTY, NEW MEXICO  
NMOCD REFERENCE #: 2RP-4364**

SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	METHOD: EPA SW 846-8021B, 5030					METHOD: 8015M				300
				BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL-BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO C <sub>6</sub> -C <sub>12</sub> (mg/Kg)	DRO C <sub>12</sub> -C <sub>28</sub> (mg/Kg)	EXT DRO C <sub>28</sub> -C <sub>35</sub> (mg/Kg)	TPH C <sub>6</sub> -C <sub>35</sub> (mg/Kg)	CHLORIDE (mg/Kg)
<b>NMOCD Recommended Remediation Action Levels (RRALs)</b>				<b>10</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>50</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>1,000</b>	<b>600</b>
SP-52 @ 1'	1'	4/13/2018	In-Situ	-	-	-	-	-	-	-	-	-	<b>2,640</b>
SP-52 @ 10'	10'	4/13/2018	In-Situ	-	-	-	-	-	-	-	-	-	528
SP-53 @ 1'	1'	4/13/2018	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	13.8	<10.0	13.8	<b>5,280</b>
SP-53 @ 10'	10'	4/13/2018	In-Situ	-	-	-	-	-	-	-	-	-	<b>784</b>

NE = Not established

- = Not analyzed

Concentrations in BOLD exceed NMOCD RRALs



Dorstate SWD - Release Site (Looking Northwest)



Dorstate SWD - Release Site (Looking North-Northeast)



Dorstate SWD – Release Site (Looking Northwest)



Dorstate SWD – Release Site (Looking North-Northwest)



Dorstate SWD – Release Site (Looking Northeast)



Dorstate SWD – Release Site (Looking Northwest)



Dorstate SWD – Release Site (Looking North)



Dorstate SWD – Release Site (Looking West)



Dorstate SWD – Release Site (Looking West)



Dorstate SWD – Release Site (Looking Northwest)



Dorstate SWD – Release Site (Looking North)



Dorstate SWD – Release Site (Looking Northeast)



Dorstate SWD – Release Site (Looking Northwest)



Dorstate SWD – Release Site (Looking North)



Dorstate SWD – Release Site (Looking North)



Dorstate SWD – Release Site (Looking Southwest)



Dorstate SWD – Release Site (Looking Northeast)



Dorstate SWD – Release Site (Looking Northwest)



Dorstate SWD – Release Site (Looking West-Northwest)



Dorstate SWD – Release Site (Looking West-Northwest)

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

NM OIL CONSERVATION  
ARTESIA DISTRICT

AUG 29 2017

Form C-141  
Revised April 3, 2017

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

**Release Notification and Corrective Action**

NAB1724135283 198688 OPERATOR  Initial Report  Final Report

Name of Company <u>Cambrian Management, Ltd.</u>	Contact <u>Mike Anthony</u>
Address <u>PO Box 272, Midland, TX 79702</u>	Telephone No. <u>432-631-4398</u>
Facility Name <u>Dockate SWD</u>	Facility Type <u>SWD</u>
Surface Owner	Mineral Owner
API No. <u>30-015-23728</u>	

**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
<u>H</u>	<u>27</u>	<u>25S</u>	<u>28E</u>	<u>1980</u>	<u>North</u>	<u>660</u>	<u>East</u>	<u>Eddy</u>

Latitude 32.102684 Longitude 104.068565 NAD83

**NATURE OF RELEASE**

Type of Release <u>Water, Produced Water</u>	Volume of Release <u>25 bbls</u>	Volume Recovered <u>0</u>
Source of Release	Date and Hour of Occurrence	Date and Hour of Discovery <u>8-23-17</u>
Was Immediate Notice Given? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	<u>8:04 PM</u>
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.\*

Describe Cause of Problem and Remedial Action Taken.\*

Overflowing bumps due to truck drivers inattention and excess rainwater.

We will get soil samples and Trinity Environmental and proceed with proper remediation and cleanup

Describe Area Affected and Cleanup Action Taken.\*

Pasture land and SWD location

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: <u>Denise Jones</u>	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: <u>Denise Jones</u>	Signed By: <u>Mike Anthony</u> Approved by Environmental Specialist	
Title: <u>Regulatory Analyst</u>	Approval Date: <u>8/29/17</u>	Expiration Date: <u>N/A</u>
E-mail Address: <u>djones@cambrianmgmt.com</u>	Conditions of Approval: <u>See attached</u>	Attached: <u>SRP, 4B6A</u>
Date: <u>8-24-17</u> Phone: <u>432-620-9181</u>		

\* Attach Additional Sheets If Necessary



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

April 11, 2018

BEN ARGUIJO

TRINITY OILFIELD SERVICES & RENTALS, LLC

P. O. BOX 2587

HOBBS, NM 88241

RE: DORSTATE SWD

Enclosed are the results of analyses for samples received by the laboratory on 04/04/18 16:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-17-10. 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      Total Haloacetic Acids (HAA-5)
- Method EPA 524.2      Total Trihalomethanes (TTHM)
- Method EPA 524.4      Regulated VOCs (V1, V2, V3)

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

- Method SM 9223-B      Total Coliform and E. coli (Colilert MMO-MUG)
- Method EPA 524.2      Regulated VOCs and Total Trihalomethanes (TTHM)
- Method EPA 552.2      Total Haloacetic Acids (HAA-5)

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

TRINITY OILFIELD SERVICES & RENTALS, LLC  
P. O. BOX 2587  
HOBBS NM, 88241

Project: DORSTATE SWD  
Project Number: NONE GIVEN  
Project Manager: BEN ARGUIJO  
Fax To: NONE

Reported:  
11-Apr-18 15:38

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SP-1 @ 1'	H800935-01	Soil	29-Mar-18 10:00	04-Apr-18 16:30
SP-1 @ 5'	H800935-02	Soil	29-Mar-18 12:00	04-Apr-18 16:30
SP-1 @ 9'	H800935-03	Soil	29-Mar-18 14:50	04-Apr-18 16:30
SP-2 @ 1'	H800935-04	Soil	29-Mar-18 13:00	04-Apr-18 16:30
SP-3 @ 1'	H800935-05	Soil	29-Mar-18 13:40	04-Apr-18 16:30
SP-4 @ 1'	H800935-06	Soil	02-Apr-18 10:30	04-Apr-18 16:30
SP-4 @ 3'	H800935-07	Soil	02-Apr-18 11:00	04-Apr-18 16:30
SP-4 @ 5'	H800935-08	Soil	02-Apr-18 11:30	04-Apr-18 16:30
SP-4 @ 6'	H800935-09	Soil	02-Apr-18 12:00	04-Apr-18 16:30
SP-5 @ 1'	H800935-10	Soil	02-Apr-18 13:00	04-Apr-18 16:30
SP-5 @ 3'	H800935-11	Soil	02-Apr-18 13:15	04-Apr-18 16:30
SP-6 @ 1'	H800935-12	Soil	02-Apr-18 14:30	04-Apr-18 16:30
SP-7 @ 1'	H800935-13	Soil	02-Apr-18 14:50	04-Apr-18 16:30
SP-8 @ 1'	H800935-14	Soil	03-Apr-18 09:00	04-Apr-18 16:30
SP-9 @ 1'	H800935-15	Soil	03-Apr-18 09:10	04-Apr-18 16:30
SP-10 @ 1'	H800935-16	Soil	03-Apr-18 09:15	04-Apr-18 16:30
SP-11 @ 1'	H800935-17	Soil	03-Apr-18 09:20	04-Apr-18 16:30
SP-12 @ 1'	H800935-18	Soil	03-Apr-18 09:30	04-Apr-18 16:30
SP-12 @ 3'	H800935-19	Soil	03-Apr-18 10:10	04-Apr-18 16:30
SP-12 @ 5'	H800935-20	Soil	03-Apr-18 10:20	04-Apr-18 16:30
SP-13 @ 1'	H800935-21	Soil	03-Apr-18 10:40	04-Apr-18 16:30
SP-14 @ 1'	H800935-22	Soil	03-Apr-18 10:45	04-Apr-18 16:30
SP-15 @ 1'	H800935-23	Soil	03-Apr-18 10:50	04-Apr-18 16:30
SP-16 @ 1'	H800935-24	Soil	03-Apr-18 10:55	04-Apr-18 16:30
SP-17 @ 1'	H800935-25	Soil	03-Apr-18 11:00	04-Apr-18 16:30
SP-18 @ 1'	H800935-26	Soil	03-Apr-18 11:05	04-Apr-18 16:30
SP-19 @ 1'	H800935-27	Soil	03-Apr-18 11:10	04-Apr-18 16:30

Cardinal Laboratories

\* = Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager

Page 2 of 50



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

**Analytical Results For:**

TRINITY OILFIELD SERVICES & RENTALS, LLC P. O. BOX 2587 HOBBS NM, 88241	Project: DORSTATE SWD Project Number: NONE GIVEN Project Manager: BEN ARGUIJO Fax To: NONE	Reported: 11-Apr-18 15:38
---	---	------------------------------

SP-20 @ 1'	H800935-28	Soil	03-Apr-18 11:15	04-Apr-18 16:30
SP-21 @ 1'	H800935-29	Soil	03-Apr-18 11:20	04-Apr-18 16:30
SP-22 @ 1'	H800935-30	Soil	03-Apr-18 11:25	04-Apr-18 16:30
SP-23 @ 1'	H800935-31	Soil	03-Apr-18 11:30	04-Apr-18 16:30
SP-24 @ 1'	H800935-32	Soil	03-Apr-18 11:35	04-Apr-18 16:30
SP-25 @ 1'	H800935-33	Soil	03-Apr-18 11:40	04-Apr-18 16:30
SP-26 @ 1'	H800935-34	Soil	03-Apr-18 11:50	04-Apr-18 16:30
SP-27 @ 1'	H800935-35	Soil	03-Apr-18 11:55	04-Apr-18 16:30
SP-28 @ 1'	H800935-36	Soil	03-Apr-18 12:00	04-Apr-18 16:30

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TRINITY OILFIELD SERVICES & RENTALS, LLC P. O. BOX 2587 HOBBS NM, 88241	Project: DORSTATE SWD Project Number: NONE GIVEN Project Manager: BEN ARGUIJO Fax To: NONE	Reported: 11-Apr-18 15:38
---	---	------------------------------

**SP-1 @ 1'  
H800935-01 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050	0.050	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Toluene*	<0.050	0.050	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Ethylbenzene*	<0.050	0.050	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Total Xylenes*	<0.150	0.150	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Total BTEX	<0.300	0.300	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Surrogate: 4-Bromofluorobenzene (PID)		103 %	72-148		8040505	MS	05-Apr-18	8021B	

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0	10.0	mg/kg	1	8040603	MS	06-Apr-18	8015B	
DRO >C10-C28*	<10.0	10.0	mg/kg	1	8040603	MS	06-Apr-18	8015B	
EXT DRO >C28-C36	<10.0	10.0	mg/kg	1	8040603	MS	06-Apr-18	8015B	
Surrogate: 1-Chlorooctane		80.6 %	41-142		8040603	MS	06-Apr-18	8015B	
Surrogate: 1-Chlorooctadecane		69.2 %	37.6-147		8040603	MS	06-Apr-18	8015B	

**Green Analytical Laboratories**

**Soluble (DI Water Extraction)**

Chloride	4030	100	mg/kg wet	100	B804052	JDA	06-Apr-18	EPA300.0	
----------	------	-----	-----------	-----	---------	-----	-----------	----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TRINITY OILFIELD SERVICES & RENTALS, LLC P. O. BOX 2587 HOBBS NM, 88241	Project: DORSTATE SWD Project Number: NONE GIVEN Project Manager: BEN ARGUIJO Fax To: NONE	Reported: 11-Apr-18 15:38
---	---	------------------------------

**SP-1 @ 5'  
H800935-02 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Toluene*	<0.050		0.050	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	8040505	MS	05-Apr-18	8021B	
<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			104 %	72-148		8040505	MS	05-Apr-18	8021B	

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	8040603	MS	06-Apr-18	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	8040603	MS	06-Apr-18	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	8040603	MS	06-Apr-18	8015B	
<i>Surrogate: 1-Chlorooctane</i>			82.4 %	41-142		8040603	MS	06-Apr-18	8015B	
<i>Surrogate: 1-Chlorooctadecane</i>			72.1 %	37.6-147		8040603	MS	06-Apr-18	8015B	

**Green Analytical Laboratories**

**Soluble (DI Water Extraction)**

Chloride	2120		100	mg/kg wet	100	B804052	JDA	06-Apr-18	EPA300.0	
----------	------	--	-----	-----------	-----	---------	-----	-----------	----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TRINITY OILFIELD SERVICES & RENTALS, LLC P. O. BOX 2587 HOBBS NM, 88241	Project: DORSTATE SWD Project Number: NONE GIVEN Project Manager: BEN ARGUIJO Fax To: NONE	Reported: 11-Apr-18 15:38
---	---	------------------------------

**SP-1 @ 9'  
H800935-03 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Toluene*	<0.050		0.050	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	8040505	MS	05-Apr-18	8021B	
<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			104 %	72-148		8040505	MS	05-Apr-18	8021B	

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	8040603	MS	06-Apr-18	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	8040603	MS	06-Apr-18	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	8040603	MS	06-Apr-18	8015B	
<i>Surrogate: 1-Chlorooctane</i>			83.6 %	41-142		8040603	MS	06-Apr-18	8015B	
<i>Surrogate: 1-Chlorooctadecane</i>			75.0 %	37.6-147		8040603	MS	06-Apr-18	8015B	

**Green Analytical Laboratories**

**Soluble (DI Water Extraction)**

Chloride	1610		100	mg/kg wet	100	B804052	JDA	06-Apr-18	EPA300.0	
----------	------	--	-----	-----------	-----	---------	-----	-----------	----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TRINITY OILFIELD SERVICES & RENTALS, LLC P. O. BOX 2587 HOBBS NM, 88241	Project: DORSTATE SWD Project Number: NONE GIVEN Project Manager: BEN ARGUIJO Fax To: NONE	Reported: 11-Apr-18 15:38
---	---	------------------------------

**SP-2 @ 1'  
H800935-04 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Toluene*	<0.050		0.050	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			105 %	72-148		8040505	MS	05-Apr-18	8021B	

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	8040603	MS	06-Apr-18	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	8040603	MS	06-Apr-18	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	8040603	MS	06-Apr-18	8015B	
Surrogate: 1-Chlorooctane			82.8 %	41-142		8040603	MS	06-Apr-18	8015B	
Surrogate: 1-Chlorooctadecane			74.4 %	37.6-147		8040603	MS	06-Apr-18	8015B	

**Green Analytical Laboratories**

**Soluble (DI Water Extraction)**

Chloride	55.7		10.0	mg/kg wet	10	B804052	JDA	06-Apr-18	EPA300.0	
----------	------	--	------	-----------	----	---------	-----	-----------	----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TRINITY OILFIELD SERVICES & RENTALS, LLC P. O. BOX 2587 HOBBS NM, 88241	Project: DORSTATE SWD Project Number: NONE GIVEN Project Manager: BEN ARGUIJO Fax To: NONE	Reported: 11-Apr-18 15:38
---	---	------------------------------

**SP-3 @ 1'  
H800935-05 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Toluene*	<0.050		0.050	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	8040505	MS	05-Apr-18	8021B	
<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			104 %	72-148		8040505	MS	05-Apr-18	8021B	

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	8040603	MS	06-Apr-18	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	8040603	MS	06-Apr-18	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	8040603	MS	06-Apr-18	8015B	
<i>Surrogate: 1-Chlorooctane</i>			85.7 %	41-142		8040603	MS	06-Apr-18	8015B	
<i>Surrogate: 1-Chlorooctadecane</i>			76.2 %	37.6-147		8040603	MS	06-Apr-18	8015B	

**Green Analytical Laboratories**

**Soluble (DI Water Extraction)**

Chloride	75.1		50.0	mg/kg wet	50	B804052	JDA	06-Apr-18	EPA300.0	
----------	------	--	------	-----------	----	---------	-----	-----------	----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TRINITY OILFIELD SERVICES & RENTALS, LLC P. O. BOX 2587 HOBBS NM, 88241	Project: DORSTATE SWD Project Number: NONE GIVEN Project Manager: BEN ARGUIJO Fax To: NONE	Reported: 11-Apr-18 15:38
---	---	------------------------------

**SP-4 @ 1'  
H800935-06 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Toluene*	<0.050		0.050	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			105 %	72-148		8040505	MS	05-Apr-18	8021B	

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	8040603	MS	07-Apr-18	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	8040603	MS	07-Apr-18	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	8040603	MS	07-Apr-18	8015B	
Surrogate: 1-Chlorooctane			80.2 %	41-142		8040603	MS	07-Apr-18	8015B	
Surrogate: 1-Chlorooctadecane			70.0 %	37.6-147		8040603	MS	07-Apr-18	8015B	

**Green Analytical Laboratories**

**Soluble (DI Water Extraction)**

Chloride	4740		100	mg/kg wet	100	B804052	JDA	06-Apr-18	EPA300.0	
----------	------	--	-----	-----------	-----	---------	-----	-----------	----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TRINITY OILFIELD SERVICES & RENTALS, LLC P. O. BOX 2587 HOBBS NM, 88241	Project: DORSTATE SWD Project Number: NONE GIVEN Project Manager: BEN ARGUIJO Fax To: NONE	Reported: 11-Apr-18 15:38
---	---	------------------------------

**SP-4 @ 3'  
H800935-07 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Toluene*	<0.050		0.050	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			105 %	72-148		8040505	MS	05-Apr-18	8021B	

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	8040603	MS	07-Apr-18	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	8040603	MS	07-Apr-18	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	8040603	MS	07-Apr-18	8015B	
Surrogate: 1-Chlorooctane			82.4 %	41-142		8040603	MS	07-Apr-18	8015B	
Surrogate: 1-Chlorooctadecane			68.9 %	37.6-147		8040603	MS	07-Apr-18	8015B	

**Green Analytical Laboratories**

**Soluble (DI Water Extraction)**

Chloride	1860		100	mg/kg wet	100	B804052	JDA	06-Apr-18	EPA300.0	
----------	------	--	-----	-----------	-----	---------	-----	-----------	----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TRINITY OILFIELD SERVICES & RENTALS, LLC P. O. BOX 2587 HOBBS NM, 88241	Project: DORSTATE SWD Project Number: NONE GIVEN Project Manager: BEN ARGUIJO Fax To: NONE	Reported: 11-Apr-18 15:38
---	---	------------------------------

**SP-4 @ 5'  
H800935-08 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Toluene*	<0.050		0.050	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			105 %	72-148		8040505	MS	05-Apr-18	8021B	

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	8040603	MS	07-Apr-18	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	8040603	MS	07-Apr-18	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	8040603	MS	07-Apr-18	8015B	
Surrogate: 1-Chlorooctane			86.1 %	41-142		8040603	MS	07-Apr-18	8015B	
Surrogate: 1-Chlorooctadecane			71.8 %	37.6-147		8040603	MS	07-Apr-18	8015B	

**Green Analytical Laboratories**

**Soluble (DI Water Extraction)**

Chloride	850		50.0	mg/kg wet	50	B804052	JDA	06-Apr-18	EPA300.0	
----------	-----	--	------	-----------	----	---------	-----	-----------	----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TRINITY OILFIELD SERVICES & RENTALS, LLC P. O. BOX 2587 HOBBS NM, 88241	Project: DORSTATE SWD Project Number: NONE GIVEN Project Manager: BEN ARGUIJO Fax To: NONE	Reported: 11-Apr-18 15:38
---	---	------------------------------

**SP-4 @ 6'  
H800935-09 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	8040505	MS	11-Apr-18	8021B	
Toluene*	<0.050		0.050	mg/kg	50	8040505	MS	11-Apr-18	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	8040505	MS	11-Apr-18	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	8040505	MS	11-Apr-18	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	8040505	MS	11-Apr-18	8021B	
<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			96.3 %	72-148		8040505	MS	11-Apr-18	8021B	

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	8040603	MS	07-Apr-18	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	8040603	MS	07-Apr-18	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	8040603	MS	07-Apr-18	8015B	
<i>Surrogate: 1-Chlorooctane</i>			86.8 %	41-142		8040603	MS	07-Apr-18	8015B	
<i>Surrogate: 1-Chlorooctadecane</i>			70.2 %	37.6-147		8040603	MS	07-Apr-18	8015B	

**Green Analytical Laboratories**

**Soluble (DI Water Extraction)**

Chloride	758		50.0	mg/kg wet	50	B804052	JDA	06-Apr-18	EPA300.0	
----------	-----	--	------	-----------	----	---------	-----	-----------	----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TRINITY OILFIELD SERVICES & RENTALS, LLC P. O. BOX 2587 HOBBS NM, 88241	Project: DORSTATE SWD Project Number: NONE GIVEN Project Manager: BEN ARGUIJO Fax To: NONE	Reported: 11-Apr-18 15:38
---	---	------------------------------

**SP-5 @ 1'  
H800935-10 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Toluene*	<0.050		0.050	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			105 %	72-148		8040505	MS	05-Apr-18	8021B	

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	8040901	MS	10-Apr-18	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	8040901	MS	10-Apr-18	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	8040901	MS	10-Apr-18	8015B	
Surrogate: 1-Chlorooctane			78.8 %	41-142		8040901	MS	10-Apr-18	8015B	
Surrogate: 1-Chlorooctadecane			84.0 %	37.6-147		8040901	MS	10-Apr-18	8015B	

**Green Analytical Laboratories**

**Soluble (DI Water Extraction)**

Chloride	4800		100	mg/kg wet	100	B804052	JDA	06-Apr-18	EPA300.0	
----------	------	--	-----	-----------	-----	---------	-----	-----------	----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TRINITY OILFIELD SERVICES & RENTALS, LLC P. O. BOX 2587 HOBBS NM, 88241	Project: DORSTATE SWD Project Number: NONE GIVEN Project Manager: BEN ARGUIJO Fax To: NONE	Reported: 11-Apr-18 15:38
---	---	------------------------------

**SP-5 @ 3'  
H800935-11 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Toluene*	<0.050		0.050	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	8040505	MS	05-Apr-18	8021B	
<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			102 %	72-148		8040505	MS	05-Apr-18	8021B	

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	8040901	MS	10-Apr-18	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	8040901	MS	10-Apr-18	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	8040901	MS	10-Apr-18	8015B	
<i>Surrogate: 1-Chlorooctane</i>			87.3 %	41-142		8040901	MS	10-Apr-18	8015B	
<i>Surrogate: 1-Chlorooctadecane</i>			86.6 %	37.6-147		8040901	MS	10-Apr-18	8015B	

**Green Analytical Laboratories**

**Soluble (DI Water Extraction)**

Chloride	3900		100	mg/kg wet	100	B804052	JDA	06-Apr-18	EPA300.0	
----------	------	--	-----	-----------	-----	---------	-----	-----------	----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TRINITY OILFIELD SERVICES & RENTALS, LLC P. O. BOX 2587 HOBBS NM, 88241	Project: DORSTATE SWD Project Number: NONE GIVEN Project Manager: BEN ARGUIJO Fax To: NONE	Reported: 11-Apr-18 15:38
---	---	------------------------------

**SP-6 @ 1'  
H800935-12 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Toluene*	<0.050		0.050	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	8040505	MS	05-Apr-18	8021B	
<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			103 %	72-148		8040505	MS	05-Apr-18	8021B	

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	8040901	MS	10-Apr-18	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	8040901	MS	10-Apr-18	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	8040901	MS	10-Apr-18	8015B	
<i>Surrogate: 1-Chlorooctane</i>			80.9 %	41-142		8040901	MS	10-Apr-18	8015B	
<i>Surrogate: 1-Chlorooctadecane</i>			77.8 %	37.6-147		8040901	MS	10-Apr-18	8015B	

**Green Analytical Laboratories**

**Soluble (DI Water Extraction)**

Chloride	38.3		10.0	mg/kg wet	10	B804052	JDA	06-Apr-18	EPA300.0	
----------	------	--	------	-----------	----	---------	-----	-----------	----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TRINITY OILFIELD SERVICES & RENTALS, LLC P. O. BOX 2587 HOBBS NM, 88241	Project: DORSTATE SWD Project Number: NONE GIVEN Project Manager: BEN ARGUIJO Fax To: NONE	Reported: 11-Apr-18 15:38
---	---	------------------------------

**SP-7 @ 1'  
H800935-13 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Toluene*	<0.050		0.050	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	8040505	MS	05-Apr-18	8021B	
<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			103 %	72-148		8040505	MS	05-Apr-18	8021B	

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	8040901	MS	10-Apr-18	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	8040901	MS	10-Apr-18	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	8040901	MS	10-Apr-18	8015B	
<i>Surrogate: 1-Chlorooctane</i>			84.2 %	41-142		8040901	MS	10-Apr-18	8015B	
<i>Surrogate: 1-Chlorooctadecane</i>			82.2 %	37.6-147		8040901	MS	10-Apr-18	8015B	

**Green Analytical Laboratories**

**Soluble (DI Water Extraction)**

Chloride	98.4		10.0	mg/kg wet	10	B804052	JDA	06-Apr-18	EPA300.0	
----------	------	--	------	-----------	----	---------	-----	-----------	----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TRINITY OILFIELD SERVICES & RENTALS, LLC P. O. BOX 2587 HOBBS NM, 88241	Project: DORSTATE SWD Project Number: NONE GIVEN Project Manager: BEN ARGUIJO Fax To: NONE	Reported: 11-Apr-18 15:38
---	---	------------------------------

**SP-8 @ 1'  
H800935-14 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Toluene*	<0.050		0.050	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	8040505	MS	05-Apr-18	8021B	
<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			104 %	72-148		8040505	MS	05-Apr-18	8021B	

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	8040901	MS	10-Apr-18	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	8040901	MS	10-Apr-18	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	8040901	MS	10-Apr-18	8015B	
<i>Surrogate: 1-Chlorooctane</i>			88.6 %	41-142		8040901	MS	10-Apr-18	8015B	
<i>Surrogate: 1-Chlorooctadecane</i>			88.0 %	37.6-147		8040901	MS	10-Apr-18	8015B	

**Green Analytical Laboratories**

**Soluble (DI Water Extraction)**

Chloride	8070		200	mg/kg wet	200	B804052	JDA	07-Apr-18	EPA300.0	
----------	------	--	-----	-----------	-----	---------	-----	-----------	----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TRINITY OILFIELD SERVICES & RENTALS, LLC P. O. BOX 2587 HOBBS NM, 88241	Project: DORSTATE SWD Project Number: NONE GIVEN Project Manager: BEN ARGUIJO Fax To: NONE	Reported: 11-Apr-18 15:38
---	---	------------------------------

**SP-9 @ 1'  
H800935-15 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Toluene*	<0.050		0.050	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	8040505	MS	05-Apr-18	8021B	
<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			104 %	72-148		8040505	MS	05-Apr-18	8021B	

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	8040901	MS	10-Apr-18	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	8040901	MS	10-Apr-18	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	8040901	MS	10-Apr-18	8015B	
<i>Surrogate: 1-Chlorooctane</i>			85.9 %	41-142		8040901	MS	10-Apr-18	8015B	
<i>Surrogate: 1-Chlorooctadecane</i>			84.3 %	37.6-147		8040901	MS	10-Apr-18	8015B	

**Green Analytical Laboratories**

**Soluble (DI Water Extraction)**

Chloride	119		10.0	mg/kg wet	10	B804052	JDA	06-Apr-18	EPA300.0	
----------	-----	--	------	-----------	----	---------	-----	-----------	----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TRINITY OILFIELD SERVICES & RENTALS, LLC P. O. BOX 2587 HOBBS NM, 88241	Project: DORSTATE SWD Project Number: NONE GIVEN Project Manager: BEN ARGUIJO Fax To: NONE	Reported: 11-Apr-18 15:38
---	---	------------------------------

**SP-10 @ 1'  
H800935-16 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Toluene*	<0.050		0.050	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	8040505	MS	05-Apr-18	8021B	
<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			105 %	72-148		8040505	MS	05-Apr-18	8021B	

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	8040901	MS	10-Apr-18	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	8040901	MS	10-Apr-18	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	8040901	MS	10-Apr-18	8015B	
<i>Surrogate: 1-Chlorooctane</i>			87.3 %	41-142		8040901	MS	10-Apr-18	8015B	
<i>Surrogate: 1-Chlorooctadecane</i>			85.2 %	37.6-147		8040901	MS	10-Apr-18	8015B	

**Green Analytical Laboratories**

**Soluble (DI Water Extraction)**

Chloride	35.6		10.0	mg/kg wet	10	B804052	JDA	06-Apr-18	EPA300.0	
----------	------	--	------	-----------	----	---------	-----	-----------	----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TRINITY OILFIELD SERVICES & RENTALS, LLC P. O. BOX 2587 HOBBS NM, 88241	Project: DORSTATE SWD Project Number: NONE GIVEN Project Manager: BEN ARGUIJO Fax To: NONE	Reported: 11-Apr-18 15:38
---	---	------------------------------

**SP-11 @ 1'  
H800935-17 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Toluene*	<0.050		0.050	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	8040505	MS	05-Apr-18	8021B	
<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			104 %	72-148		8040505	MS	05-Apr-18	8021B	

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	8040901	MS	10-Apr-18	8015B	
<b>DRO &gt;C10-C28*</b>	<b>29.7</b>		10.0	mg/kg	1	8040901	MS	10-Apr-18	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	8040901	MS	10-Apr-18	8015B	
<i>Surrogate: 1-Chlorooctane</i>			88.6 %	41-142		8040901	MS	10-Apr-18	8015B	
<i>Surrogate: 1-Chlorooctadecane</i>			89.7 %	37.6-147		8040901	MS	10-Apr-18	8015B	

**Green Analytical Laboratories**

**Soluble (DI Water Extraction)**

Chloride	5040		100	mg/kg wet	100	B804052	JDA	06-Apr-18	EPA300.0	
----------	------	--	-----	-----------	-----	---------	-----	-----------	----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TRINITY OILFIELD SERVICES & RENTALS, LLC P. O. BOX 2587 HOBBS NM, 88241	Project: DORSTATE SWD Project Number: NONE GIVEN Project Manager: BEN ARGUIJO Fax To: NONE	Reported: 11-Apr-18 15:38
---	---	------------------------------

**SP-12 @ 1'  
H800935-18 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Toluene*	<0.050		0.050	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	8040505	MS	05-Apr-18	8021B	
<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			105 %	72-148		8040505	MS	05-Apr-18	8021B	

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	8040901	MS	10-Apr-18	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	8040901	MS	10-Apr-18	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	8040901	MS	10-Apr-18	8015B	
<i>Surrogate: 1-Chlorooctane</i>			79.0 %	41-142		8040901	MS	10-Apr-18	8015B	
<i>Surrogate: 1-Chlorooctadecane</i>			75.2 %	37.6-147		8040901	MS	10-Apr-18	8015B	

**Green Analytical Laboratories**

**Soluble (DI Water Extraction)**

Chloride	1450		50.0	mg/kg wet	50	B804052	JDA	06-Apr-18	EPA300.0	
----------	------	--	------	-----------	----	---------	-----	-----------	----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TRINITY OILFIELD SERVICES & RENTALS, LLC P. O. BOX 2587 HOBBS NM, 88241	Project: DORSTATE SWD Project Number: NONE GIVEN Project Manager: BEN ARGUIJO Fax To: NONE	Reported: 11-Apr-18 15:38
---	---	------------------------------

**SP-12 @ 3'  
H800935-19 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Toluene*	<0.050		0.050	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			105 %	72-148		8040505	MS	05-Apr-18	8021B	

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	8040901	MS	10-Apr-18	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	8040901	MS	10-Apr-18	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	8040901	MS	10-Apr-18	8015B	
Surrogate: 1-Chlorooctane			89.4 %	41-142		8040901	MS	10-Apr-18	8015B	
Surrogate: 1-Chlorooctadecane			95.0 %	37.6-147		8040901	MS	10-Apr-18	8015B	

**Green Analytical Laboratories**

**Soluble (DI Water Extraction)**

Chloride	2460		100	mg/kg wet	100	B804052	JDA	07-Apr-18	EPA300.0	
----------	------	--	-----	-----------	-----	---------	-----	-----------	----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TRINITY OILFIELD SERVICES & RENTALS, LLC P. O. BOX 2587 HOBBS NM, 88241	Project: DORSTATE SWD Project Number: NONE GIVEN Project Manager: BEN ARGUIJO Fax To: NONE	Reported: 11-Apr-18 15:38
---	---	------------------------------

**SP-12 @ 5'  
H800935-20 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Toluene*	<0.050		0.050	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	8040505	MS	05-Apr-18	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	8040505	MS	05-Apr-18	8021B	
<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			105 %	72-148		8040505	MS	05-Apr-18	8021B	

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	8040901	MS	10-Apr-18	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	8040901	MS	10-Apr-18	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	8040901	MS	10-Apr-18	8015B	
<i>Surrogate: 1-Chlorooctane</i>			91.5 %	41-142		8040901	MS	10-Apr-18	8015B	
<i>Surrogate: 1-Chlorooctadecane</i>			98.9 %	37.6-147		8040901	MS	10-Apr-18	8015B	

**Green Analytical Laboratories**

**Soluble (DI Water Extraction)**

Chloride	1180		50.0	mg/kg wet	50	B804052	JDA	07-Apr-18	EPA300.0	
----------	------	--	------	-----------	----	---------	-----	-----------	----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TRINITY OILFIELD SERVICES & RENTALS, LLC P. O. BOX 2587 HOBBS NM, 88241	Project: DORSTATE SWD Project Number: NONE GIVEN Project Manager: BEN ARGUIJO Fax To: NONE	Reported: 11-Apr-18 15:38
---	---	------------------------------

**SP-13 @ 1'  
H800935-21 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	8040506	MS	05-Apr-18	8021B	QR-03
Toluene*	<0.050		0.050	mg/kg	50	8040506	MS	05-Apr-18	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	8040506	MS	05-Apr-18	8021B	QR-03
Total Xylenes*	<0.150		0.150	mg/kg	50	8040506	MS	05-Apr-18	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	8040506	MS	05-Apr-18	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			108 %	72-148		8040506	MS	05-Apr-18	8021B	

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	8040901	MS	10-Apr-18	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	8040901	MS	10-Apr-18	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	8040901	MS	10-Apr-18	8015B	
Surrogate: 1-Chlorooctane			89.6 %	41-142		8040901	MS	10-Apr-18	8015B	
Surrogate: 1-Chlorooctadecane			97.0 %	37.6-147		8040901	MS	10-Apr-18	8015B	

**Green Analytical Laboratories**

**Soluble (DI Water Extraction)**

Chloride	2600		100	mg/kg wet	100	B804053	JDA	07-Apr-18	EPA300.0	
----------	------	--	-----	-----------	-----	---------	-----	-----------	----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TRINITY OILFIELD SERVICES & RENTALS, LLC P. O. BOX 2587 HOBBS NM, 88241	Project: DORSTATE SWD Project Number: NONE GIVEN Project Manager: BEN ARGUIJO Fax To: NONE	Reported: 11-Apr-18 15:38
---	---	------------------------------

**SP-14 @ 1'  
H800935-22 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	8040506	MS	05-Apr-18	8021B	
Toluene*	<0.050		0.050	mg/kg	50	8040506	MS	05-Apr-18	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	8040506	MS	05-Apr-18	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	8040506	MS	05-Apr-18	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	8040506	MS	05-Apr-18	8021B	
<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			109 %	72-148		8040506	MS	05-Apr-18	8021B	

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	8040901	MS	10-Apr-18	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	8040901	MS	10-Apr-18	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	8040901	MS	10-Apr-18	8015B	
<i>Surrogate: 1-Chlorooctane</i>			91.2 %	41-142		8040901	MS	10-Apr-18	8015B	
<i>Surrogate: 1-Chlorooctadecane</i>			98.6 %	37.6-147		8040901	MS	10-Apr-18	8015B	

**Green Analytical Laboratories**

**Soluble (DI Water Extraction)**

Chloride	9180		200	mg/kg wet	200	B804053	JDA	07-Apr-18	EPA300.0	
----------	------	--	-----	-----------	-----	---------	-----	-----------	----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TRINITY OILFIELD SERVICES & RENTALS, LLC P. O. BOX 2587 HOBBS NM, 88241	Project: DORSTATE SWD Project Number: NONE GIVEN Project Manager: BEN ARGUIJO Fax To: NONE	Reported: 11-Apr-18 15:38
---	---	------------------------------

**SP-15 @ 1'  
H800935-23 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	8040506	MS	05-Apr-18	8021B	
Toluene*	<0.050		0.050	mg/kg	50	8040506	MS	05-Apr-18	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	8040506	MS	05-Apr-18	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	8040506	MS	05-Apr-18	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	8040506	MS	05-Apr-18	8021B	
<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			107 %	72-148		8040506	MS	05-Apr-18	8021B	

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	8040901	MS	10-Apr-18	8015B	
<b>DRO &gt;C10-C28*</b>	<b>37.0</b>		10.0	mg/kg	1	8040901	MS	10-Apr-18	8015B	
<b>EXT DRO &gt;C28-C36</b>	<b>11.5</b>		10.0	mg/kg	1	8040901	MS	10-Apr-18	8015B	
<i>Surrogate: 1-Chlorooctane</i>			96.4 %	41-142		8040901	MS	10-Apr-18	8015B	
<i>Surrogate: 1-Chlorooctadecane</i>			108 %	37.6-147		8040901	MS	10-Apr-18	8015B	

**Green Analytical Laboratories**

**Soluble (DI Water Extraction)**

Chloride	5240		200	mg/kg wet	200	B804053	JDA	07-Apr-18	EPA300.0	
----------	------	--	-----	-----------	-----	---------	-----	-----------	----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TRINITY OILFIELD SERVICES & RENTALS, LLC P. O. BOX 2587 HOBBS NM, 88241	Project: DORSTATE SWD Project Number: NONE GIVEN Project Manager: BEN ARGUIJO Fax To: NONE	Reported: 11-Apr-18 15:38
---	---	------------------------------

**SP-16 @ 1'  
H800935-24 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	8040506	MS	05-Apr-18	8021B	
Toluene*	<0.050		0.050	mg/kg	50	8040506	MS	05-Apr-18	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	8040506	MS	05-Apr-18	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	8040506	MS	05-Apr-18	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	8040506	MS	05-Apr-18	8021B	
<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			108 %	72-148		8040506	MS	05-Apr-18	8021B	

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	8040901	MS	10-Apr-18	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	8040901	MS	10-Apr-18	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	8040901	MS	10-Apr-18	8015B	
<i>Surrogate: 1-Chlorooctane</i>			88.3 %	41-142		8040901	MS	10-Apr-18	8015B	
<i>Surrogate: 1-Chlorooctadecane</i>			95.7 %	37.6-147		8040901	MS	10-Apr-18	8015B	

**Green Analytical Laboratories**

**Soluble (DI Water Extraction)**

Chloride	269		200	mg/kg wet	200	B804053	JDA	07-Apr-18	EPA300.0	
----------	-----	--	-----	-----------	-----	---------	-----	-----------	----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TRINITY OILFIELD SERVICES & RENTALS, LLC P. O. BOX 2587 HOBBS NM, 88241	Project: DORSTATE SWD Project Number: NONE GIVEN Project Manager: BEN ARGUIJO Fax To: NONE	Reported: 11-Apr-18 15:38
---	---	------------------------------

**SP-17 @ 1'  
H800935-25 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	8040506	MS	06-Apr-18	8021B	
Toluene*	<0.050		0.050	mg/kg	50	8040506	MS	06-Apr-18	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	8040506	MS	06-Apr-18	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	8040506	MS	06-Apr-18	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	8040506	MS	06-Apr-18	8021B	
<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			107 %	72-148		8040506	MS	06-Apr-18	8021B	

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	8040901	MS	10-Apr-18	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	8040901	MS	10-Apr-18	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	8040901	MS	10-Apr-18	8015B	
<i>Surrogate: 1-Chlorooctane</i>			93.8 %	41-142		8040901	MS	10-Apr-18	8015B	
<i>Surrogate: 1-Chlorooctadecane</i>			96.2 %	37.6-147		8040901	MS	10-Apr-18	8015B	

**Green Analytical Laboratories**

**Soluble (DI Water Extraction)**

Chloride	1710		200	mg/kg wet	200	B804053	JDA	07-Apr-18	EPA300.0	
----------	------	--	-----	-----------	-----	---------	-----	-----------	----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TRINITY OILFIELD SERVICES & RENTALS, LLC P. O. BOX 2587 HOBBS NM, 88241	Project: DORSTATE SWD Project Number: NONE GIVEN Project Manager: BEN ARGUIJO Fax To: NONE	Reported: 11-Apr-18 15:38
---	---	------------------------------

**SP-18 @ 1'  
H800935-26 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	8040506	MS	06-Apr-18	8021B	
Toluene*	<0.050		0.050	mg/kg	50	8040506	MS	06-Apr-18	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	8040506	MS	06-Apr-18	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	8040506	MS	06-Apr-18	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	8040506	MS	06-Apr-18	8021B	
<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			107 %	72-148		8040506	MS	06-Apr-18	8021B	

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	8040901	MS	10-Apr-18	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	8040901	MS	10-Apr-18	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	8040901	MS	10-Apr-18	8015B	
<i>Surrogate: 1-Chlorooctane</i>			93.8 %	41-142		8040901	MS	10-Apr-18	8015B	
<i>Surrogate: 1-Chlorooctadecane</i>			97.4 %	37.6-147		8040901	MS	10-Apr-18	8015B	

**Green Analytical Laboratories**

**Soluble (DI Water Extraction)**

Chloride	3130		100	mg/kg wet	100	B804053	JDA	07-Apr-18	EPA300.0	
----------	------	--	-----	-----------	-----	---------	-----	-----------	----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TRINITY OILFIELD SERVICES & RENTALS, LLC P. O. BOX 2587 HOBBS NM, 88241	Project: DORSTATE SWD Project Number: NONE GIVEN Project Manager: BEN ARGUIJO Fax To: NONE	Reported: 11-Apr-18 15:38
---	---	------------------------------

**SP-19 @ 1'  
H800935-27 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	8040506	MS	06-Apr-18	8021B	
Toluene*	<0.050		0.050	mg/kg	50	8040506	MS	06-Apr-18	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	8040506	MS	06-Apr-18	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	8040506	MS	06-Apr-18	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	8040506	MS	06-Apr-18	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			106 %	72-148		8040506	MS	06-Apr-18	8021B	

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	8040901	MS	10-Apr-18	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	8040901	MS	10-Apr-18	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	8040901	MS	10-Apr-18	8015B	
Surrogate: 1-Chlorooctane			86.3 %	41-142		8040901	MS	10-Apr-18	8015B	
Surrogate: 1-Chlorooctadecane			91.1 %	37.6-147		8040901	MS	10-Apr-18	8015B	

**Green Analytical Laboratories**

**Soluble (DI Water Extraction)**

Chloride	1150		200	mg/kg wet	200	B804053	JDA	07-Apr-18	EPA300.0	
----------	------	--	-----	-----------	-----	---------	-----	-----------	----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TRINITY OILFIELD SERVICES & RENTALS, LLC P. O. BOX 2587 HOBBS NM, 88241	Project: DORSTATE SWD Project Number: NONE GIVEN Project Manager: BEN ARGUIJO Fax To: NONE	Reported: 11-Apr-18 15:38
---	---	------------------------------

**SP-20 @ 1'  
H800935-28 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	8040506	MS	06-Apr-18	8021B	
Toluene*	<0.050		0.050	mg/kg	50	8040506	MS	06-Apr-18	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	8040506	MS	06-Apr-18	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	8040506	MS	06-Apr-18	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	8040506	MS	06-Apr-18	8021B	
<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			109 %	72-148		8040506	MS	06-Apr-18	8021B	

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	8040901	MS	10-Apr-18	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	8040901	MS	10-Apr-18	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	8040901	MS	10-Apr-18	8015B	
<i>Surrogate: 1-Chlorooctane</i>			86.5 %	41-142		8040901	MS	10-Apr-18	8015B	
<i>Surrogate: 1-Chlorooctadecane</i>			94.7 %	37.6-147		8040901	MS	10-Apr-18	8015B	

**Green Analytical Laboratories**

**Soluble (DI Water Extraction)**

Chloride	31.0		10.0	mg/kg wet	10	B804053	JDA	07-Apr-18	EPA300.0	
----------	------	--	------	-----------	----	---------	-----	-----------	----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TRINITY OILFIELD SERVICES & RENTALS, LLC P. O. BOX 2587 HOBBS NM, 88241	Project: DORSTATE SWD Project Number: NONE GIVEN Project Manager: BEN ARGUIJO Fax To: NONE	Reported: 11-Apr-18 15:38
---	---	------------------------------

**SP-21 @ 1'  
H800935-29 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	8040506	MS	06-Apr-18	8021B	
Toluene*	<0.050		0.050	mg/kg	50	8040506	MS	06-Apr-18	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	8040506	MS	06-Apr-18	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	8040506	MS	06-Apr-18	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	8040506	MS	06-Apr-18	8021B	
<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			109 %	72-148		8040506	MS	06-Apr-18	8021B	

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	8040901	MS	10-Apr-18	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	8040901	MS	10-Apr-18	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	8040901	MS	10-Apr-18	8015B	
<i>Surrogate: 1-Chlorooctane</i>			90.8 %	41-142		8040901	MS	10-Apr-18	8015B	
<i>Surrogate: 1-Chlorooctadecane</i>			98.9 %	37.6-147		8040901	MS	10-Apr-18	8015B	

**Green Analytical Laboratories**

**Soluble (DI Water Extraction)**

Chloride	<50.0		50.0	mg/kg wet	50	B804053	JDA	07-Apr-18	EPA300.0	
----------	-------	--	------	-----------	----	---------	-----	-----------	----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TRINITY OILFIELD SERVICES & RENTALS, LLC P. O. BOX 2587 HOBBS NM, 88241	Project: DORSTATE SWD Project Number: NONE GIVEN Project Manager: BEN ARGUIJO Fax To: NONE	Reported: 11-Apr-18 15:38
---	---	------------------------------

**SP-22 @ 1'  
H800935-30 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	8040506	MS	06-Apr-18	8021B	
Toluene*	<0.050		0.050	mg/kg	50	8040506	MS	06-Apr-18	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	8040506	MS	06-Apr-18	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	8040506	MS	06-Apr-18	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	8040506	MS	06-Apr-18	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			105 %	72-148		8040506	MS	06-Apr-18	8021B	

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	8040902	MS	10-Apr-18	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	8040902	MS	10-Apr-18	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	8040902	MS	10-Apr-18	8015B	
Surrogate: 1-Chlorooctane			84.3 %	41-142		8040902	MS	10-Apr-18	8015B	
Surrogate: 1-Chlorooctadecane			70.1 %	37.6-147		8040902	MS	10-Apr-18	8015B	

**Green Analytical Laboratories**

**Soluble (DI Water Extraction)**

Chloride	16.0		10.0	mg/kg wet	10	B804053	JDA	07-Apr-18	EPA300.0	
----------	------	--	------	-----------	----	---------	-----	-----------	----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TRINITY OILFIELD SERVICES & RENTALS, LLC P. O. BOX 2587 HOBBS NM, 88241	Project: DORSTATE SWD Project Number: NONE GIVEN Project Manager: BEN ARGUIJO Fax To: NONE	Reported: 11-Apr-18 15:38
---	---	------------------------------

**SP-23 @ 1'  
H800935-31 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	8040506	MS	06-Apr-18	8021B	
Toluene*	<0.050		0.050	mg/kg	50	8040506	MS	06-Apr-18	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	8040506	MS	06-Apr-18	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	8040506	MS	06-Apr-18	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	8040506	MS	06-Apr-18	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			108 %	72-148		8040506	MS	06-Apr-18	8021B	

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	8040902	MS	10-Apr-18	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	8040902	MS	10-Apr-18	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	8040902	MS	10-Apr-18	8015B	
Surrogate: 1-Chlorooctane			87.2 %	41-142		8040902	MS	10-Apr-18	8015B	
Surrogate: 1-Chlorooctadecane			71.8 %	37.6-147		8040902	MS	10-Apr-18	8015B	

**Green Analytical Laboratories**

**Soluble (DI Water Extraction)**

Chloride	37.9		10.0	mg/kg wet	10	B804053	JDA	07-Apr-18	EPA300.0	
----------	------	--	------	-----------	----	---------	-----	-----------	----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TRINITY OILFIELD SERVICES & RENTALS, LLC P. O. BOX 2587 HOBBS NM, 88241	Project: DORSTATE SWD Project Number: NONE GIVEN Project Manager: BEN ARGUIJO Fax To: NONE	Reported: 11-Apr-18 15:38
---	---	------------------------------

**SP-24 @ 1'  
H800935-32 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	8040506	MS	06-Apr-18	8021B	
Toluene*	<0.050		0.050	mg/kg	50	8040506	MS	06-Apr-18	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	8040506	MS	06-Apr-18	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	8040506	MS	06-Apr-18	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	8040506	MS	06-Apr-18	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			108 %	72-148		8040506	MS	06-Apr-18	8021B	

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	8040902	MS	10-Apr-18	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	8040902	MS	10-Apr-18	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	8040902	MS	10-Apr-18	8015B	
Surrogate: 1-Chlorooctane			87.5 %	41-142		8040902	MS	10-Apr-18	8015B	
Surrogate: 1-Chlorooctadecane			71.8 %	37.6-147		8040902	MS	10-Apr-18	8015B	

**Green Analytical Laboratories**

**Soluble (DI Water Extraction)**

Chloride	20.5		10.0	mg/kg wet	10	B804053	JDA	07-Apr-18	EPA300.0	
----------	------	--	------	-----------	----	---------	-----	-----------	----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TRINITY OILFIELD SERVICES & RENTALS, LLC P. O. BOX 2587 HOBBS NM, 88241	Project: DORSTATE SWD Project Number: NONE GIVEN Project Manager: BEN ARGUIJO Fax To: NONE	Reported: 11-Apr-18 15:38
---	---	------------------------------

**SP-25 @ 1'  
H800935-33 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	8040506	MS	06-Apr-18	8021B	
Toluene*	<0.050		0.050	mg/kg	50	8040506	MS	06-Apr-18	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	8040506	MS	06-Apr-18	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	8040506	MS	06-Apr-18	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	8040506	MS	06-Apr-18	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			109 %	72-148		8040506	MS	06-Apr-18	8021B	

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	8040902	MS	10-Apr-18	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	8040902	MS	10-Apr-18	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	8040902	MS	10-Apr-18	8015B	
Surrogate: 1-Chlorooctane			93.2 %	41-142		8040902	MS	10-Apr-18	8015B	
Surrogate: 1-Chlorooctadecane			78.5 %	37.6-147		8040902	MS	10-Apr-18	8015B	

**Green Analytical Laboratories**

**Soluble (DI Water Extraction)**

Chloride	2390		200	mg/kg wet	200	B804053	JDA	07-Apr-18	EPA300.0	
----------	------	--	-----	-----------	-----	---------	-----	-----------	----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TRINITY OILFIELD SERVICES & RENTALS, LLC P. O. BOX 2587 HOBBS NM, 88241	Project: DORSTATE SWD Project Number: NONE GIVEN Project Manager: BEN ARGUIJO Fax To: NONE	Reported: 11-Apr-18 15:38
---	---	------------------------------

**SP-26 @ 1'  
H800935-34 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	8040506	MS	06-Apr-18	8021B	
Toluene*	<0.050		0.050	mg/kg	50	8040506	MS	06-Apr-18	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	8040506	MS	06-Apr-18	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	8040506	MS	06-Apr-18	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	8040506	MS	06-Apr-18	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			108 %	72-148		8040506	MS	06-Apr-18	8021B	

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	8040902	MS	10-Apr-18	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	8040902	MS	10-Apr-18	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	8040902	MS	10-Apr-18	8015B	
Surrogate: 1-Chlorooctane			94.7 %	41-142		8040902	MS	10-Apr-18	8015B	
Surrogate: 1-Chlorooctadecane			81.1 %	37.6-147		8040902	MS	10-Apr-18	8015B	

**Green Analytical Laboratories**

**Soluble (DI Water Extraction)**

Chloride	292		10.0	mg/kg wet	10	B804053	JDA	07-Apr-18	EPA300.0	
----------	-----	--	------	-----------	----	---------	-----	-----------	----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TRINITY OILFIELD SERVICES & RENTALS, LLC P. O. BOX 2587 HOBBS NM, 88241	Project: DORSTATE SWD Project Number: NONE GIVEN Project Manager: BEN ARGUIJO Fax To: NONE	Reported: 11-Apr-18 15:38
---	---	------------------------------

**SP-27 @ 1'  
H800935-35 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	8040506	MS	06-Apr-18	8021B	
Toluene*	<0.050		0.050	mg/kg	50	8040506	MS	06-Apr-18	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	8040506	MS	06-Apr-18	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	8040506	MS	06-Apr-18	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	8040506	MS	06-Apr-18	8021B	
<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			104 %	72-148		8040506	MS	06-Apr-18	8021B	

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	8040902	MS	10-Apr-18	8015B	
<b>DRO &gt;C10-C28*</b>	<b>35.7</b>		10.0	mg/kg	1	8040902	MS	10-Apr-18	8015B	
<b>EXT DRO &gt;C28-C36</b>	<b>24.9</b>		10.0	mg/kg	1	8040902	MS	10-Apr-18	8015B	
<i>Surrogate: 1-Chlorooctane</i>			91.9 %	41-142		8040902	MS	10-Apr-18	8015B	
<i>Surrogate: 1-Chlorooctadecane</i>			94.9 %	37.6-147		8040902	MS	10-Apr-18	8015B	

**Green Analytical Laboratories**

**Soluble (DI Water Extraction)**

Chloride	931		200	mg/kg wet	200	B804053	JDA	07-Apr-18	EPA300.0	
----------	-----	--	-----	-----------	-----	---------	-----	-----------	----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TRINITY OILFIELD SERVICES & RENTALS, LLC P. O. BOX 2587 HOBBS NM, 88241	Project: DORSTATE SWD Project Number: NONE GIVEN Project Manager: BEN ARGUIJO Fax To: NONE	Reported: 11-Apr-18 15:38
---	---	------------------------------

**SP-28 @ 1'  
H800935-36 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	8040506	MS	06-Apr-18	8021B	
Toluene*	<0.050		0.050	mg/kg	50	8040506	MS	06-Apr-18	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	8040506	MS	06-Apr-18	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	8040506	MS	06-Apr-18	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	8040506	MS	06-Apr-18	8021B	
<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			110 %	72-148		8040506	MS	06-Apr-18	8021B	

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	8040902	MS	10-Apr-18	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	8040902	MS	10-Apr-18	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	8040902	MS	10-Apr-18	8015B	
<i>Surrogate: 1-Chlorooctane</i>			93.0 %	41-142		8040902	MS	10-Apr-18	8015B	
<i>Surrogate: 1-Chlorooctadecane</i>			89.6 %	37.6-147		8040902	MS	10-Apr-18	8015B	

**Green Analytical Laboratories**

**Soluble (DI Water Extraction)**

Chloride	945		200	mg/kg wet	200	B804053	JDA	07-Apr-18	EPA300.0	
----------	-----	--	-----	-----------	-----	---------	-----	-----------	----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TRINITY OILFIELD SERVICES & RENTALS, LLC P. O. BOX 2587 HOBBS NM, 88241	Project: DORSTATE SWD Project Number: NONE GIVEN Project Manager: BEN ARGUIJO Fax To: NONE	Reported: 11-Apr-18 15:38
---	---	------------------------------

**Volatile Organic Compounds by EPA Method 8021 - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch 8040505 - Volatiles**

<b>Blank (8040505-BLK1)</b>		Prepared & Analyzed: 05-Apr-18								
Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							
Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	0.103		mg/kg	0.100		103	72-148			

<b>LCS (8040505-BS1)</b>		Prepared & Analyzed: 05-Apr-18								
Benzene	2.14	0.050	mg/kg	2.00		107	79.5-124			
Toluene	2.11	0.050	mg/kg	2.00		106	75.5-127			
Ethylbenzene	2.12	0.050	mg/kg	2.00		106	77.7-125			
Total Xylenes	6.59	0.150	mg/kg	6.00		110	70.9-124			
Surrogate: 4-Bromofluorobenzene (PID)	0.101		mg/kg	0.100		101	72-148			

<b>LCS Dup (8040505-BSD1)</b>		Prepared & Analyzed: 05-Apr-18								
Benzene	2.09	0.050	mg/kg	2.00		105	79.5-124	2.15	6.5	
Toluene	2.08	0.050	mg/kg	2.00		104	75.5-127	1.45	7.02	
Ethylbenzene	2.09	0.050	mg/kg	2.00		104	77.7-125	1.57	7.83	
Total Xylenes	6.48	0.150	mg/kg	6.00		108	70.9-124	1.75	7.78	
Surrogate: 4-Bromofluorobenzene (PID)	0.103		mg/kg	0.100		103	72-148			

<b>Batch 8040506 - Volatiles</b>		Prepared & Analyzed: 05-Apr-18								
<b>Blank (8040506-BLK1)</b>										
Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							
Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	0.107		mg/kg	0.100		107	72-148			

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TRINITY OILFIELD SERVICES & RENTALS, LLC P. O. BOX 2587 HOBBS NM, 88241	Project: DORSTATE SWD Project Number: NONE GIVEN Project Manager: BEN ARGUIJO Fax To: NONE	Reported: 11-Apr-18 15:38
---	---	------------------------------

**Volatile Organic Compounds by EPA Method 8021 - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch 8040506 - Volatiles**

**LCS (8040506-BS1)**

Prepared & Analyzed: 05-Apr-18

Benzene	1.79	0.050	mg/kg	2.00		89.5	79.5-124			
Toluene	1.87	0.050	mg/kg	2.00		93.4	75.5-127			
Ethylbenzene	1.87	0.050	mg/kg	2.00		93.7	77.7-125			
Total Xylenes	5.58	0.150	mg/kg	6.00		93.0	70.9-124			
Surrogate: 4-Bromofluorobenzene (PID)	0.107		mg/kg	0.100		107	72-148			

**LCS Dup (8040506-BSD1)**

Prepared & Analyzed: 05-Apr-18

Benzene	1.76	0.050	mg/kg	2.00		88.1	79.5-124	1.55	6.5	
Toluene	1.83	0.050	mg/kg	2.00		91.5	75.5-127	2.07	7.02	
Ethylbenzene	1.84	0.050	mg/kg	2.00		92.1	77.7-125	1.78	7.83	
Total Xylenes	5.48	0.150	mg/kg	6.00		91.3	70.9-124	1.83	7.78	
Surrogate: 4-Bromofluorobenzene (PID)	0.108		mg/kg	0.100		108	72-148			

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TRINITY OILFIELD SERVICES & RENTALS, LLC P. O. BOX 2587 HOBBS NM, 88241	Project: DORSTATE SWD Project Number: NONE GIVEN Project Manager: BEN ARGUIJO Fax To: NONE	Reported: 11-Apr-18 15:38
---	---	------------------------------

**Petroleum Hydrocarbons by GC FID - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	-----------	-------	-----	-----------	-------

**Batch 8040603 - General Prep - Organics**

<b>Blank (8040603-BLK1)</b>		Prepared & Analyzed: 06-Apr-18								
GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C35	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Total TPH C6-C28	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	46.5		mg/kg	50.0		92.9	41-142			
Surrogate: 1-Chlorooctadecane	43.0		mg/kg	50.0		86.0	37.6-147			

<b>LCS (8040603-BS1)</b>		Prepared & Analyzed: 06-Apr-18								
GRO C6-C10	213	10.0	mg/kg	200		106	76.5-133			
DRO >C10-C28	214	10.0	mg/kg	200		107	72.9-138			
Total TPH C6-C28	427	10.0	mg/kg	400		107	78-132			
Surrogate: 1-Chlorooctane	47.1		mg/kg	50.0		94.2	41-142			
Surrogate: 1-Chlorooctadecane	46.2		mg/kg	50.0		92.4	37.6-147			

<b>LCS Dup (8040603-BSD1)</b>		Prepared & Analyzed: 06-Apr-18								
GRO C6-C10	218	10.0	mg/kg	200		109	76.5-133	2.47	20.6	
DRO >C10-C28	214	10.0	mg/kg	200		107	72.9-138	0.117	20.6	
Total TPH C6-C28	432	10.0	mg/kg	400		108	78-132	1.30	18	
Surrogate: 1-Chlorooctane	48.3		mg/kg	50.0		96.6	41-142			
Surrogate: 1-Chlorooctadecane	45.9		mg/kg	50.0		91.8	37.6-147			

**Batch 8040901 - General Prep - Organics**

<b>Blank (8040901-BLK1)</b>		Prepared: 09-Apr-18 Analyzed: 10-Apr-18								
GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C35	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Total TPH C6-C28	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	47.3		mg/kg	50.0		94.6	41-142			
Surrogate: 1-Chlorooctadecane	46.6		mg/kg	50.0		93.1	37.6-147			

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TRINITY OILFIELD SERVICES & RENTALS, LLC P. O. BOX 2587 HOBBS NM, 88241	Project: DORSTATE SWD Project Number: NONE GIVEN Project Manager: BEN ARGUIJO Fax To: NONE	Reported: 11-Apr-18 15:38
---	---	------------------------------

**Petroleum Hydrocarbons by GC FID - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	-----------	--------	-----	-----------	-------

**Batch 8040901 - General Prep - Organics**

<b>LCS (8040901-BS1)</b>		Prepared: 09-Apr-18 Analyzed: 10-Apr-18								
GRO C6-C10	216	10.0	mg/kg	200		108	76.5-133			
DRO >C10-C28	229	10.0	mg/kg	200		114	72.9-138			
Total TPH C6-C28	445	10.0	mg/kg	400		111	78-132			
Surrogate: 1-Chlorooctane	47.2		mg/kg	50.0		94.4	41-142			
Surrogate: 1-Chlorooctadecane	46.8		mg/kg	50.0		93.6	37.6-147			

<b>LCS Dup (8040901-BSD1)</b>		Prepared: 09-Apr-18 Analyzed: 10-Apr-18								
GRO C6-C10	204	10.0	mg/kg	200		102	76.5-133	5.65	20.6	
DRO >C10-C28	206	10.0	mg/kg	200		103	72.9-138	10.2	20.6	
Total TPH C6-C28	411	10.0	mg/kg	400		103	78-132	7.98	18	
Surrogate: 1-Chlorooctane	48.1		mg/kg	50.0		96.2	41-142			
Surrogate: 1-Chlorooctadecane	46.9		mg/kg	50.0		93.7	37.6-147			

**Batch 8040902 - General Prep - Organics**

<b>Blank (8040902-BLK1)</b>		Prepared: 09-Apr-18 Analyzed: 10-Apr-18								
GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C35	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Total TPH C6-C28	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	46.0		mg/kg	50.0		92.0	41-142			
Surrogate: 1-Chlorooctadecane	42.6		mg/kg	50.0		85.1	37.6-147			

<b>LCS (8040902-BS1)</b>		Prepared: 09-Apr-18 Analyzed: 10-Apr-18								
GRO C6-C10	211	10.0	mg/kg	200		106	76.5-133			
DRO >C10-C28	178	10.0	mg/kg	200		89.1	72.9-138			
Total TPH C6-C28	389	10.0	mg/kg	400		97.4	78-132			
Surrogate: 1-Chlorooctane	47.6		mg/kg	50.0		95.1	41-142			
Surrogate: 1-Chlorooctadecane	49.4		mg/kg	50.0		98.8	37.6-147			

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TRINITY OILFIELD SERVICES & RENTALS, LLC P. O. BOX 2587 HOBBS NM, 88241	Project: DORSTATE SWD Project Number: NONE GIVEN Project Manager: BEN ARGUIJO Fax To: NONE	Reported: 11-Apr-18 15:38
---	---	------------------------------

**Petroleum Hydrocarbons by GC FID - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch 8040902 - General Prep - Organics**

<b>LCS Dup (8040902-BSD1)</b>		Prepared: 09-Apr-18 Analyzed: 10-Apr-18								
GRO C6-C10	222	10.0	mg/kg	200		111	76.5-133	4.74	20.6	
DRO >C10-C28	203	10.0	mg/kg	200		102	72.9-138	13.2	20.6	
Total TPH C6-C28	425	10.0	mg/kg	400		106	78-132	8.71	18	
Surrogate: 1-Chlorooctane	47.1		mg/kg	50.0		94.2	41-142			
Surrogate: 1-Chlorooctadecane	49.8		mg/kg	50.0		99.7	37.6-147			

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TRINITY OILFIELD SERVICES & RENTALS, LLC P. O. BOX 2587 HOBBS NM, 88241	Project: DORSTATE SWD Project Number: NONE GIVEN Project Manager: BEN ARGUIJO Fax To: NONE	Reported: 11-Apr-18 15:38
---	---	------------------------------

**Soluble (DI Water Extraction) - Quality Control**

**Green Analytical Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch B804052 - General Prep - Wet Chem**

**Blank (B804052-BLK1)** Prepared & Analyzed: 06-Apr-18

Chloride	ND	10.0	mg/kg wet							
----------	----	------	-----------	--	--	--	--	--	--	--

**LCS (B804052-BS1)** Prepared & Analyzed: 06-Apr-18

Chloride	229	10.0	mg/kg wet	250		91.6	85-115			
----------	-----	------	-----------	-----	--	------	--------	--	--	--

**LCS Dup (B804052-BSD1)** Prepared & Analyzed: 06-Apr-18

Chloride	229	10.0	mg/kg wet	250		91.5	85-115	0.170	20	
----------	-----	------	-----------	-----	--	------	--------	-------	----	--

**Batch B804053 - General Prep - Wet Chem**

**Blank (B804053-BLK1)** Prepared & Analyzed: 06-Apr-18

Chloride	ND	10.0	mg/kg wet							
----------	----	------	-----------	--	--	--	--	--	--	--

**LCS (B804053-BS1)** Prepared & Analyzed: 06-Apr-18

Chloride	227	10.0	mg/kg wet	250		90.9	85-115			
----------	-----	------	-----------	-----	--	------	--------	--	--	--

**LCS Dup (B804053-BSD1)** Prepared & Analyzed: 06-Apr-18

Chloride	228	10.0	mg/kg wet	250		91.4	85-115	0.597	20	
----------	-----	------	-----------	-----	--	------	--------	-------	----	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Notes and Definitions

- QR-03      The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
- 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

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

*Celey D. Keene*

Celey D. Keene, Lab Director/Quality Manager





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

**CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**

**FIELD TO**

**ANALYSIS REQUEST**

Company Name: Trinity Oilfield Services & Rentals, LLC		P.O. #:	
Project Manager: Ben J. Argujilo		Company:	Trinity
Address: P.O. Box 2587		Attn:	
City: Hobbs	State: NM Zip: 88241	Address:	
Phone #: (575)390-7208	Fax #:	City:	
Project #:	Project Owner: Cambrian	State:	Zip:
Project Name: Dorstate SWD		Phone #:	
Project Location: Eddy Co., NM		Fax #:	
Sampler Name: Tristan Payne			

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						DATE	TIME	TPH (8015M)	BTEX (8021B)	Chloride (300)
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:					
11	SP-5 @ 3'	G	1	X						4/2/18	1315	X	X	X
12	SP-6 @ 1'	G	1	X						4/2/18	1430	X	X	X
13	SP-7 @ 1'	G	1	X						4/2/18	1450	X	X	X
14	SP-8 @ 1'	G	1	X						4/3/18	0900	X	X	X
15	SP-9 @ 1'	G	1	X						4/3/18	0910	X	X	X
16	SP-10 @ 1'	G	1	X						4/3/18	0915	X	X	X
17	SP-11 @ 1'	G	1	X						4/3/18	0920	X	X	X
18	SP-12 @ 1'	G	1	X						4/3/18	0930	X	X	X
19	SP-12 @ 3'	G	1	X						4/3/18	1010	X	X	X
20	SP-12 @ 5'	G	1	X						4/3/18	1020	X	X	X

PLEASE NOTE: Liability and Damages: Cardinal liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims, including those for negligence and any other cause, whatsoever, shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for residential or commercial damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors. A release of all or retention in the performance of services, as authorized by Cardinal, constitutes an acknowledgment of the above stated limitations of liability.

Relinquished By: <i>[Signature]</i>	Date: 4/9/18	Received By: <i>[Signature]</i>	Date: 4/9/18
Time: 4:30p			
Delivered By: (Circle One) Sampler - UPS - Bus - Other: 5.20/5.15c	#75	Sample Condition Cool Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No No Leak: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	CHECKED BY: <i>[Signature]</i>
REMARKS: Please e-mail results to ben@trinityoilfieldservices.com & todd@trinityoilfieldservices.com			

Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476

corrected - 05c



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

**CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**

Company Name: Trinity Oilfield Services & Rentals, LLC Project Manager: Ben J. Argujo Address: P.O. Box 2587 City: Hobbs State: NM Zip: 88241 Phone #: (575)390-7208 Fax #: _____ Project #: _____ Project Owner: Cambrian Project Name: Dorstate SWD Project Location: Eddy Co., NM Sampler Name: Tristan Payne		P.O. #: _____ Company: Trinity Attn: _____ Address: _____ City: _____ State: _____ Zip: _____ Phone #: _____ Fax #: _____		<b>Bill To</b>		<b>ANALYSIS REQUEST</b>	
Lab I.D. <b>HS00935</b> Sample I.D. _____		(G)RAB OR (C)OMP. _____ # CONTAINERS _____ MATRIX: GROUNDWATER _____ WASTEWATER _____ SOIL _____ OIL _____ SLUDGE _____ OTHER: _____ ACID/BASE: _____ ICE / COOL _____ OTHER: _____		PRESERV _____ SAMPLING _____		TPH (8015M) _____ BTEX (8021B) _____ Chloride (300) _____	
SP-13 @ 1' G 1 4/3/18 1040 X X X SP-14 @ 1' G 1 4/3/18 1045 X X X SP-15 @ 1' G 1 4/3/18 1050 X X X SP-16 @ 1' G 1 4/3/18 1055 X X X SP-17 @ 1' G 1 4/3/18 1100 X X X SP-18 @ 1' G 1 4/3/18 1105 X X X SP-19 @ 1' G 1 4/3/18 1110 X X X SP-20 @ 1' G 1 4/3/18 1115 X X X SP-21 @ 1' G 1 4/3/18 1120 X X X SP-22 @ 1' G 1 4/3/18 1125 X X X							

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

Requisitioned By: _____ Date: 4/9/18 Received By: _____ Time: 4:30p		Requisitioned By: _____ Date: _____ Received By: _____ Time: _____	
Relinquished By: _____ Date: _____ Received By: _____ Time: _____		Relinquished By: _____ Date: _____ Received By: _____ Time: _____	
Delivered By: (Circle One) Sampler - UPS - Bus - Other: 5.22/5.15e		Sample Condition: _____ Cool Effect: _____ Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
CHECKED BY: _____ (Initials)		Phone Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Add'l Phone #: _____ Fax Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Add'l Fax #: _____	
REMARKS: _____ Please e-mail results to ben@trinityoilfieldservices.com & todd@trinityoilfieldservices.com			

FORM-006  
 Revision 1.0  
 † Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476



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

**CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**

Company Name: Trinity Oilfield Services & Rentals, LLC Project Manager: Ben J. Argujio Address: P.O. Box 2587 City: Hobbs State: NM Zip: 88241 Phone #: (575)390-7208 Fax #: _____ Project #: _____ Project Owner: Cambrian Project Name: Dorstate SWD Project Location: Eddy Co., NM Sampler Name: Tristan Payne		P.O. #: _____ Company: Trinity Attn: _____ Address: _____ City: _____ State: _____ Zip: _____ Phone #: _____ Fax #: _____	
Lab I.D. <b>1800935</b> Sample I.D. _____		ANALYSIS REQUEST TPH (8015M) _____ BTEX (8021B) _____ Chloride (300) _____	
PLEASE NOTE: Liability and Damages: Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analysis. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 90 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors, and/or related to the performance of services provided by Cardinal, regardless of whether such claim is based upon any of the above-stated Arizona or other state.			
FOR LAB USE ONLY			
(G)RAB OR (C)OMP. # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER : ACID/BASE: ICE / COOL OTHER :		MATRIX PRESERV SAMPLING DATE TIME	
SP-23 @ 1' G 1 X SP-24 @ 1' G 1 X SP-25 @ 1' G 1 X SP-26 @ 1' G 1 X SP-27 @ 1' G 1 X SP-28 @ 1' G 1 X		4/3/18 1130 X X X 4/3/18 1135 X X X 4/3/18 1140 X X X 4/3/18 1150 X X X 4/3/18 1155 X X X 4/3/18 1200 X X X	
Relinquished By: _____ Date: 4/18/18 Time: 4:30 PM Received By: <i>Wade Jensen</i> Date: _____ Time: _____		Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Add'l Phone #: _____ Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Add'l Fax #: _____ REMARKS: _____	
Relinquished By: _____ Date: _____ Time: _____ Received By: _____ Date: _____ Time: _____		Sample Condition CHECKED BY (Initials) Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No No <input type="checkbox"/> Yes <input type="checkbox"/> No	
Delivered By: (Circle One) <b>#15</b> Sampler - UPS - Bus - Other: 5.22/5.15		Please e-mail results to ben@trinityoilfieldservices.com & todd@trinityoilfieldservices.com	

FORM-006  
 Revision 1.0

† Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476  
*Directed = 052*



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

---

April 30, 2018

BEN ARGUIJO

TRINITY OILFIELD SERVICES & RENTALS, LLC

P. O. BOX 2587

HOBBS, NM 88241

RE: DORSTATE SWD

Enclosed are the results of analyses for samples received by the laboratory on 04/19/18 16:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-17-10. 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 style.

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

TRINITY OILFIELD SERVICES & RENTALS, LLC  
 BEN ARGUIJO  
 P. O. BOX 2587  
 HOBBS NM, 88241  
 Fax To: NONE

Received:	04/19/2018	Sampling Date:	04/09/2018
Reported:	04/30/2018	Sampling Type:	Soil
Project Name:	DORSTATE SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	PERMIAN WATER SOLUTIONS - EDDY CO		

**Sample ID: SP- 29 @ 1' (H801094-01)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>1310</b>	16.0	04/25/2018	ND	432	108	400	3.77		

**Sample ID: SP- 29 @ 8' (H801094-02)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>336</b>	16.0	04/25/2018	ND	432	108	400	3.77		

**Sample ID: SP- 30 @ 1' (H801094-03)**

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	04/23/2018	ND	2.00	100	2.00	0.705		
Toluene*	<0.050	0.050	04/23/2018	ND	2.04	102	2.00	1.64		
Ethylbenzene*	<0.050	0.050	04/23/2018	ND	2.07	104	2.00	1.34		
Total Xylenes*	<0.150	0.150	04/23/2018	ND	6.08	101	6.00	0.503		
Total BTEX	<0.300	0.300	04/23/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 113 % 72-148

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>1490</b>	16.0	04/25/2018	ND	432	108	400	3.77		

TPH 8015M	mg/kg	Analyzed By: MS								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	

Cardinal Laboratories

\* = Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TRINITY OILFIELD SERVICES & RENTALS, LLC  
 BEN ARGUIJO  
 P. O. BOX 2587  
 HOBBS NM, 88241  
 Fax To: NONE

Received:	04/19/2018	Sampling Date:	04/09/2018
Reported:	04/30/2018	Sampling Type:	Soil
Project Name:	DORSTATE SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	PERMIAN WATER SOLUTIONS - EDDY CC		

**Sample ID: SP- 30 @ 1' (H801094-03)**

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	04/23/2018	ND	213	107	200	0.870		
DRO >C10-C28*	<10.0	10.0	04/23/2018	ND	209	104	200	2.13		
EXT DRO >C28-C36	<10.0	10.0	04/23/2018	ND						
<hr/>										
Surrogate: 1-Chlorooctane	82.7 %	41-142								
Surrogate: 1-Chlorooctadecane	74.7 %	37.6-147								

**Sample ID: SP- 30 @ 6' (H801094-04)**

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	04/25/2018	ND	432	108	400	3.77		

**Sample ID: SP- 31 @ 1' (H801094-05)**

Chloride, SM4500Cl-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	928	16.0	04/25/2018	ND	432	108	400	3.77		

**Sample ID: SP- 31 @ 10' (H801094-06)**

Chloride, SM4500Cl-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	944	16.0	04/25/2018	ND	432	108	400	3.77		

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TRINITY OILFIELD SERVICES & RENTALS, LLC  
 BEN ARGUIJO  
 P. O. BOX 2587  
 HOBBS NM, 88241  
 Fax To: NONE

Received:	04/19/2018	Sampling Date:	04/10/2018
Reported:	04/30/2018	Sampling Type:	Soil
Project Name:	DORSTATE SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	PERMIAN WATER SOLUTIONS - EDDY CO		

**Sample ID: SP- 32 @ 1' (H801094-07)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	912	16.0	04/25/2018	ND	432	108	400	3.77	

**Sample ID: SP- 32 @ 10' (H801094-08)**

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	04/25/2018	ND	432	108	400	3.77	

**Sample ID: SP- 33 @ 1' (H801094-09)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4240	16.0	04/25/2018	ND	432	108	400	3.77	

**Sample ID: SP- 33 @ 10' (H801094-10)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3800	16.0	04/25/2018	ND	432	108	400	3.77	

**Sample ID: SP- 34 @ 1' (H801094-11)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	7100	16.0	04/25/2018	ND	432	108	400	3.77	QM-07

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TRINITY OILFIELD SERVICES & RENTALS, LLC  
 BEN ARGUIJO  
 P. O. BOX 2587  
 HOBBS NM, 88241  
 Fax To: NONE

Received:	04/19/2018	Sampling Date:	04/10/2018
Reported:	04/30/2018	Sampling Type:	Soil
Project Name:	DORSTATE SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	PERMIAN WATER SOLUTIONS - EDDY CO		

**Sample ID: SP- 34 @ 10' (H801094-12)**

Chloride, SM4500Cl-B	mg/kg	Analyzed By: AC							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>1540</b>	16.0	04/25/2018	ND	432	108	400	3.77	

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TRINITY OILFIELD SERVICES & RENTALS, LLC  
 BEN ARGUIJO  
 P. O. BOX 2587  
 HOBBS NM, 88241  
 Fax To: NONE

Received:	04/19/2018	Sampling Date:	04/10/2018
Reported:	04/30/2018	Sampling Type:	Soil
Project Name:	DORSTATE SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	PERMIAN WATER SOLUTIONS - EDDY CC		

**Sample ID: SP- 35 @ 1' (H801094-13)**

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	04/23/2018	ND	2.13	106	2.00	2.90		
Toluene*	<0.050	0.050	04/23/2018	ND	2.09	104	2.00	2.48		
Ethylbenzene*	<0.050	0.050	04/23/2018	ND	2.07	103	2.00	4.39		
Total Xylenes*	<0.150	0.150	04/23/2018	ND	6.32	105	6.00	4.60		
Total BTEX	<0.300	0.300	04/23/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.6 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	8200	16.0	04/25/2018	ND	432	108	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	04/23/2018	ND	213	107	200	0.870		
DRO >C10-C28*	97.7	10.0	04/23/2018	ND	209	104	200	2.13		
EXT DRO >C28-C36	38.0	10.0	04/23/2018	ND						

Surrogate: 1-Chlorooctane 85.7 % 41-142

Surrogate: 1-Chlorooctadecane 87.2 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TRINITY OILFIELD SERVICES & RENTALS, LLC  
 BEN ARGUIJO  
 P. O. BOX 2587  
 HOBBS NM, 88241  
 Fax To: NONE

Received:	04/19/2018	Sampling Date:	04/10/2018
Reported:	04/30/2018	Sampling Type:	Soil
Project Name:	DORSTATE SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	PERMIAN WATER SOLUTIONS - EDDY CO		

**Sample ID: SP- 35 @ 10' (H801094-14)**

Chloride, SM4500Cl-B	mg/kg	Analyzed By: AC							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>4300</b>	16.0	04/25/2018	ND	432	108	400	3.77	

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TRINITY OILFIELD SERVICES & RENTALS, LLC  
 BEN ARGUIJO  
 P. O. BOX 2587  
 HOBBS NM, 88241  
 Fax To: NONE

Received:	04/19/2018	Sampling Date:	04/11/2018
Reported:	04/30/2018	Sampling Type:	Soil
Project Name:	DORSTATE SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	PERMIAN WATER SOLUTIONS - EDDY CO		

**Sample ID: SP- 36 @ 1' (H801094-15)**

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/23/2018	ND	2.13	106	2.00	2.90		
<b>Toluene*</b>	<b>0.062</b>	0.050	04/23/2018	ND	2.09	104	2.00	2.48		
Ethylbenzene*	<0.050	0.050	04/23/2018	ND	2.07	103	2.00	4.39		
<b>Total Xylenes*</b>	<b>1.12</b>	0.150	04/23/2018	ND	6.32	105	6.00	4.60		
<b>Total BTEX</b>	<b>1.18</b>	0.300	04/23/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 139 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>12000</b>	16.0	04/25/2018	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>GRO C6-C10*</b>	<b>38.1</b>	10.0	04/23/2018	ND	213	107	200	0.870		
<b>DRO &gt;C10-C28*</b>	<b>1190</b>	10.0	04/23/2018	ND	209	104	200	2.13		
<b>EXT DRO &gt;C28-C36</b>	<b>216</b>	10.0	04/23/2018	ND						

Surrogate: 1-Chlorooctane 88.3 % 41-142

Surrogate: 1-Chlorooctadecane 104 % 37.6-147

Cardinal Laboratories

\* = Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TRINITY OILFIELD SERVICES & RENTALS, LLC  
 BEN ARGUIJO  
 P. O. BOX 2587  
 HOBBS NM, 88241  
 Fax To: NONE

Received:	04/19/2018	Sampling Date:	04/11/2018
Reported:	04/30/2018	Sampling Type:	Soil
Project Name:	DORSTATE SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	PERMIAN WATER SOLUTIONS - EDDY CO		

**Sample ID: SP- 36 @ 10' (H801094-16)**

BTEX 8021B		mg/kg		Analyzed By: MS					I-02	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/27/2018	ND	2.00	100	2.00	1.95	QM-07	
Toluene*	<0.050	0.050	04/27/2018	ND	1.98	98.8	2.00	2.40		
Ethylbenzene*	<0.050	0.050	04/27/2018	ND	1.93	96.3	2.00	1.74		
Total Xylenes*	<0.150	0.150	04/27/2018	ND	5.91	98.6	6.00	1.54		
Total BTEX	<0.300	0.300	04/27/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 94.0 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					I-03	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2320	16.0	04/25/2018	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					I-03	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	04/27/2018	ND	208	104	200	0.405		
DRO >C10-C28*	19.2	10.0	04/27/2018	ND	204	102	200	0.173		
EXT DRO >C28-C36	<10.0	10.0	04/27/2018	ND						

Surrogate: 1-Chlorooctane 88.7 % 41-142

Surrogate: 1-Chlorooctadecane 76.1 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TRINITY OILFIELD SERVICES & RENTALS, LLC  
 BEN ARGUIJO  
 P. O. BOX 2587  
 HOBBS NM, 88241  
 Fax To: NONE

Received:	04/19/2018	Sampling Date:	04/11/2018
Reported:	04/30/2018	Sampling Type:	Soil
Project Name:	DORSTATE SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	PERMIAN WATER SOLUTIONS - EDDY CO		

**Sample ID: SP- 37 @ 1' (H801094-17)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	5440	16.0	04/25/2018	ND	432	108	400	3.77		

**Sample ID: SP- 37 @ 10' (H801094-18)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	4560	16.0	04/25/2018	ND	432	108	400	3.77		

**Sample ID: SP- 38 @ 1' (H801094-19)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	8800	16.0	04/25/2018	ND	432	108	400	3.77		

**Sample ID: SP- 38 @ 10' (H801094-20)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1650	16.0	04/25/2018	ND	432	108	400	3.77		

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TRINITY OILFIELD SERVICES & RENTALS, LLC  
 BEN ARGUIJO  
 P. O. BOX 2587  
 HOBBS NM, 88241  
 Fax To: NONE

Received:	04/19/2018	Sampling Date:	04/11/2018
Reported:	04/30/2018	Sampling Type:	Soil
Project Name:	DORSTATE SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	PERMIAN WATER SOLUTIONS - EDDY CO		

**Sample ID: SP- 39 @ 4' (H801094-21)**

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	04/23/2018	ND	2.13	106	2.00	2.90		
Toluene*	<0.050	0.050	04/23/2018	ND	2.09	104	2.00	2.48		
Ethylbenzene*	<0.050	0.050	04/23/2018	ND	2.07	103	2.00	4.39		
Total Xylenes*	<0.150	0.150	04/23/2018	ND	6.32	105	6.00	4.60		
Total BTEX	<0.300	0.300	04/23/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.9 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	15600	16.0	04/25/2018	ND	432	108	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	04/23/2018	ND	213	107	200	0.870		
DRO >C10-C28*	<10.0	10.0	04/23/2018	ND	209	104	200	2.13		
EXT DRO >C28-C36	<10.0	10.0	04/23/2018	ND						

Surrogate: 1-Chlorooctane 87.6 % 41-142

Surrogate: 1-Chlorooctadecane 82.9 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TRINITY OILFIELD SERVICES & RENTALS, LLC  
 BEN ARGUIJO  
 P. O. BOX 2587  
 HOBBS NM, 88241  
 Fax To: NONE

Received:	04/19/2018	Sampling Date:	04/11/2018
Reported:	04/30/2018	Sampling Type:	Soil
Project Name:	DORSTATE SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	PERMIAN WATER SOLUTIONS - EDDY CO		

**Sample ID: SP- 39 @ 10' (H801094-22)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	7000	16.0	04/25/2018	ND	432	108	400	3.77		

**Sample ID: SP- 40 @ 1' (H801094-23)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2160	16.0	04/25/2018	ND	432	108	400	3.77		

**Sample ID: SP- 40 @ 10' (H801094-24)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	960	16.0	04/25/2018	ND	432	108	400	3.77		

**Sample ID: SP- 41 @ 1' (H801094-25)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1600	16.0	04/25/2018	ND	432	108	400	3.77		

**Sample ID: SP- 41 @ 5' (H801094-26)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	368	16.0	04/25/2018	ND	432	108	400	3.77		

Cardinal Laboratories

\* = Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TRINITY OILFIELD SERVICES & RENTALS, LLC  
 BEN ARGUIJO  
 P. O. BOX 2587  
 HOBBS NM, 88241  
 Fax To: NONE

Received:	04/19/2018	Sampling Date:	04/12/2018
Reported:	04/30/2018	Sampling Type:	Soil
Project Name:	DORSTATE SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	PERMIAN WATER SOLUTIONS - EDDY CO		

**Sample ID: SP- 42 @ 1' (H801094-27)**

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	04/23/2018	ND	2.13	106	2.00	2.90		
Toluene*	<0.050	0.050	04/23/2018	ND	2.09	104	2.00	2.48		
Ethylbenzene*	<0.050	0.050	04/23/2018	ND	2.07	103	2.00	4.39		
Total Xylenes*	<0.150	0.150	04/23/2018	ND	6.32	105	6.00	4.60		
Total BTEX	<0.300	0.300	04/23/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.9 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2600	16.0	04/25/2018	ND	432	108	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	04/23/2018	ND	213	107	200	0.870		
DRO >C10-C28*	<10.0	10.0	04/23/2018	ND	209	104	200	2.13		
EXT DRO >C28-C36	<10.0	10.0	04/23/2018	ND						

Surrogate: 1-Chlorooctane 86.9 % 41-142

Surrogate: 1-Chlorooctadecane 81.7 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TRINITY OILFIELD SERVICES & RENTALS, LLC  
 BEN ARGUIJO  
 P. O. BOX 2587  
 HOBBS NM, 88241  
 Fax To: NONE

Received:	04/19/2018	Sampling Date:	04/12/2018
Reported:	04/30/2018	Sampling Type:	Soil
Project Name:	DORSTATE SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	PERMIAN WATER SOLUTIONS - EDDY CO		

**Sample ID: SP- 42 @ 6' (H801094-28)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	384	16.0	04/25/2018	ND	432	108	400	3.77		

**Sample ID: SP- 43 @ 1' (H801094-29)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2520	16.0	04/25/2018	ND	432	108	400	3.77		

**Sample ID: SP- 43 @ 10' (H801094-30)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	3120	16.0	04/25/2018	ND	432	108	400	3.77		

**Sample ID: SP- 44 @ 1' (H801094-31)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2280	16.0	04/25/2018	ND	416	104	400	3.77	QM-07	

**Sample ID: SP- 44 @ 7' (H801094-32)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	304	16.0	04/25/2018	ND	416	104	400	3.77		

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TRINITY OILFIELD SERVICES & RENTALS, LLC  
 BEN ARGUIJO  
 P. O. BOX 2587  
 HOBBS NM, 88241  
 Fax To: NONE

Received:	04/19/2018	Sampling Date:	04/12/2018
Reported:	04/30/2018	Sampling Type:	Soil
Project Name:	DORSTATE SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	PERMIAN WATER SOLUTIONS - EDDY CO		

**Sample ID: SP- 45 @ 1' (H801094-33)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	864	16.0	04/25/2018	ND	416	104	400	3.77		

**Sample ID: SP- 45 @ 3' (H801094-34)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	224	16.0	04/25/2018	ND	416	104	400	3.77		

**Sample ID: SP- 46 @ 1' (H801094-35)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	160	16.0	04/25/2018	ND	416	104	400	3.77		

**Sample ID: SP- 47 @ 1' (H801094-36)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2160	16.0	04/25/2018	ND	416	104	400	3.77		

**Sample ID: SP- 47 @ 10' (H801094-37)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1090	16.0	04/25/2018	ND	416	104	400	3.77		

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TRINITY OILFIELD SERVICES & RENTALS, LLC  
 BEN ARGUIJO  
 P. O. BOX 2587  
 HOBBS NM, 88241  
 Fax To: NONE

Received:	04/19/2018	Sampling Date:	04/13/2018
Reported:	04/30/2018	Sampling Type:	Soil
Project Name:	DORSTATE SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	PERMIAN WATER SOLUTIONS - EDDY CO		

**Sample ID: SP- 48 @ 1' (H801094-38)**

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	04/23/2018	ND	2.13	106	2.00	2.90		
Toluene*	<0.050	0.050	04/23/2018	ND	2.09	104	2.00	2.48		
Ethylbenzene*	<0.050	0.050	04/23/2018	ND	2.07	103	2.00	4.39		
Total Xylenes*	<0.150	0.150	04/23/2018	ND	6.32	105	6.00	4.60		
Total BTEX	<0.300	0.300	04/23/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.2 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	6320	16.0	04/25/2018	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	04/23/2018	ND	213	107	200	0.870		
DRO >C10-C28*	<10.0	10.0	04/23/2018	ND	209	104	200	2.13		
EXT DRO >C28-C36	<10.0	10.0	04/23/2018	ND						

Surrogate: 1-Chlorooctane 84.5 % 41-142

Surrogate: 1-Chlorooctadecane 80.6 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TRINITY OILFIELD SERVICES & RENTALS, LLC  
 BEN ARGUIJO  
 P. O. BOX 2587  
 HOBBS NM, 88241  
 Fax To: NONE

Received:	04/19/2018	Sampling Date:	04/13/2018
Reported:	04/30/2018	Sampling Type:	Soil
Project Name:	DORSTATE SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	PERMIAN WATER SOLUTIONS - EDDY CO		

**Sample ID: SP- 48 @ 10' (H801094-39)**

Chloride, SM4500Cl-B	mg/kg	Analyzed By: AC							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	5200	16.0	04/25/2018	ND	416	104	400	3.77	

**Sample ID: SP- 49 @ 1' (H801094-40)**

Chloride, SM4500Cl-B	mg/kg	Analyzed By: AC							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	8000	16.0	04/25/2018	ND	416	104	400	3.77	

**Sample ID: SP- 49 @ 10' (H801094-41)**

Chloride, SM4500Cl-B	mg/kg	Analyzed By: AC							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1200	16.0	04/25/2018	ND	416	104	400	3.77	

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TRINITY OILFIELD SERVICES & RENTALS, LLC  
 BEN ARGUIJO  
 P. O. BOX 2587  
 HOBBS NM, 88241  
 Fax To: NONE

Received:	04/19/2018	Sampling Date:	04/13/2018
Reported:	04/30/2018	Sampling Type:	Soil
Project Name:	DORSTATE SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	PERMIAN WATER SOLUTIONS - EDDY CO		

**Sample ID: SP- 50 @ 1' (H801094-42)**

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	04/23/2018	ND	2.13	106	2.00	2.90		
Toluene*	<0.050	0.050	04/23/2018	ND	2.09	104	2.00	2.48		
Ethylbenzene*	<0.050	0.050	04/23/2018	ND	2.07	103	2.00	4.39		
Total Xylenes*	<0.150	0.150	04/23/2018	ND	6.32	105	6.00	4.60		
Total BTEX	<0.300	0.300	04/23/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.9 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>7360</b>	16.0	04/25/2018	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	04/23/2018	ND	213	107	200	0.870		
<b>DRO &gt;C10-C28*</b>	<b>67.8</b>	10.0	04/23/2018	ND	209	104	200	2.13		
<b>EXT DRO &gt;C28-C36</b>	<b>58.0</b>	10.0	04/23/2018	ND						

Surrogate: 1-Chlorooctane 67.6 % 41-142

Surrogate: 1-Chlorooctadecane 64.5 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TRINITY OILFIELD SERVICES & RENTALS, LLC  
 BEN ARGUIJO  
 P. O. BOX 2587  
 HOBBS NM, 88241  
 Fax To: NONE

Received:	04/19/2018	Sampling Date:	04/13/2018
Reported:	04/30/2018	Sampling Type:	Soil
Project Name:	DORSTATE SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	PERMIAN WATER SOLUTIONS - EDDY CO		

**Sample ID: SP- 50 @ 10' (H801094-43)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	3160	16.0	04/25/2018	ND	416	104	400	3.77		

**Sample ID: SP- 51 @ 1' (H801094-44)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2000	16.0	04/25/2018	ND	416	104	400	3.77		

**Sample ID: SP- 51 @ 10' (H801094-45)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1020	16.0	04/25/2018	ND	416	104	400	3.77		

**Sample ID: SP- 52 @ 1' (H801094-46)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2640	16.0	04/25/2018	ND	416	104	400	3.77		

**Sample ID: SP- 52 @ 10' (H801094-47)**

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	04/25/2018	ND	416	104	400	3.77		

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TRINITY OILFIELD SERVICES & RENTALS, LLC  
 BEN ARGUIJO  
 P. O. BOX 2587  
 HOBBS NM, 88241  
 Fax To: NONE

Received:	04/19/2018	Sampling Date:	04/13/2018
Reported:	04/30/2018	Sampling Type:	Soil
Project Name:	DORSTATE SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	PERMIAN WATER SOLUTIONS - EDDY CO		

**Sample ID: SP- 53 @ 1' (H801094-48)**

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	04/23/2018	ND	2.13	106	2.00	2.90		
Toluene*	<0.050	0.050	04/23/2018	ND	2.09	104	2.00	2.48		
Ethylbenzene*	<0.050	0.050	04/23/2018	ND	2.07	103	2.00	4.39		
Total Xylenes*	<0.150	0.150	04/23/2018	ND	6.32	105	6.00	4.60		
Total BTEX	<0.300	0.300	04/23/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 96.0 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	5280	16.0	04/25/2018	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	04/23/2018	ND	213	107	200	0.870		
DRO >C10-C28*	13.8	10.0	04/23/2018	ND	209	104	200	2.13		
EXT DRO >C28-C36	<10.0	10.0	04/23/2018	ND						

Surrogate: 1-Chlorooctane 84.3 % 41-142

Surrogate: 1-Chlorooctadecane 83.4 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TRINITY OILFIELD SERVICES & RENTALS, LLC  
 BEN ARGUIJO  
 P. O. BOX 2587  
 HOBBS NM, 88241  
 Fax To: NONE

Received:	04/19/2018	Sampling Date:	04/13/2018
Reported:	04/30/2018	Sampling Type:	Soil
Project Name:	DORSTATE SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	PERMIAN WATER SOLUTIONS - EDDY CO		

**Sample ID: SP- 53 @ 10' (H801094-49)**

Chloride, SM4500Cl-B	mg/kg	Analyzed By: AC							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>784</b>	16.0	04/25/2018	ND	416	104	400	3.77	

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Notes and Definitions

- S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QR-03 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference.
QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD.
I-03 This result was extracted outside of the EPA recommended holding time of 14 days.
I-02 This result was analyzed outside of the EPA recommended holding time.
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

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses.

Celest D. Keene

Celest D. Keene, Lab Director/Quality Manager



ARDINAL LABORATORIES

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

BILL TO

ANALYSIS REQUEST

Company Name: Trinity Oilfield Services & Rentals, LLC		P.O. #:							
Project Manager: Ben J. Arguilo		Company:	Trinity						
Address: P.O. Box 2587		City:	Hobbs						
City: Hobbs		State:	NM						
Phone #: (575)390-7208		Fax #:							
Project #:		Project Owner:	Permian Water Solutions						
Project Name: Dorstale SWD		City:							
Project Location: Eddy, NM		State:	NM						
Sampler Name: Tristan Payne		Phone #:							
FOR LAB USE ONLY		Fax #:							
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	DATE	TIME	TPH (8015M)	BTEX (8021B)	Chloride (300)	4500
H801094									
1	SP-29 @ 1'	G	1	4/9/18	0930	X			
2	SP-29 @ 8'	G	1	4/9/18	1105	X			
3	SP-30 @ 1'	G	1	4/9/18	1120	X	X		
4	SP-30 @ 6'	G	1	4/9/18	1145	X	X		
5	SP-31 @ 1'	G	1	4/9/18	1300	X	X		
6	SP-31 @ 10'	G	1	4/10/18	1030	X	X		
7	SP-32 @ 1'	G	1	4/10/18	1115	X	X		
8	SP-32 @ 10'	G	1	4/10/18	1155	X	X		
9	SP-33 @ 1'	G	1	4/10/18	1300	X	X		
10	SP-33 @ 10'	G	1	4/10/18	1350	X	X		

PLEASE NOTE: Liability and Damages (cardinal liability and client's residence) is limited to the amount paid for the client for the analysis. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors, actions out of or related to the performance of services provided by Cardinal, regardless of whether such claim is based upon any of the above stated causes of action.

Relinquished By: *[Signature]* Received By: *[Signature]*

Relinquished Date: *4/11/18* Received Date: *4/11/18*

Delivered By: (Circle One) *#15* Sample Condition:  Intact  Leaking

Sampler - UPS - Bus - Other: *1.10/1.05%*  Yes  No

Checked By: *[Signature]*

Remarks: *Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476*

Please e-mail results to [ben@trinityoilfieldservices.com](mailto:ben@trinityoilfieldservices.com) & [todd@trinityoilfieldservices.com](mailto:todd@trinityoilfieldservices.com)

FORM-006  
Revision 1.0



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

**CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**

Company Name: Trinity Oilfield Services & Rentals, LLC		P.O. #:		BILL TO		ANALYSIS REQUEST	
Project Manager: Ben J. Argujilo		Compan: Trinity					
Address: P.O. Box 2587		Attn:					
City: Hobbs		Address:					
State: NM Zip: 88241							
Phone #: (575)390-7208		City:					
Fax #: _____		State:					
Project #: _____		Zip:					
Project Name: Dorstate SWD		Project Owner: Permian Water Solutions					
Project Location: Eddy, NM		Phone #:					
Sampler Name: Tristan Payne		Fax #:					

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX							DATE	TIME	TPH (8015M)	BTEX (8021B)	Chloride (300)
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:					
11	SP-34 @ 1'	G 1	X	X							4/10/18	1400			
12	SP-34 @ 10'	G 1	X	X							4/10/18	1445			
13	SP-35 @ 1'	G 1	X	X							4/10/18	1450	X		
14	SP-35 @ 10'	G 1	X	X							4/10/18	1535			
15	SP-36 @ 1'	G 1	X	X							4/11/18	1015	X		
16	SP-36 @ 10'	G 1	X	X							4/11/18	1100	X		
17	SP-37 @ 1'	G 1	X	X							4/11/18	1105	X		
18	SP-37 @ 10'	G 1	X	X							4/11/18	1150	X		
19	SP-38 @ 1'	G 1	X	X							4/11/18	1350	X		
20	SP-38 @ 10'	G 1	X	X							4/11/18	1435	X		

PLEASE NOTE: Labors and charges (Customer liability) and client's evidence records for any claim arising whether based in contract or tort, shall be limited to the amount paid for the exact fee for the analysis. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or associates arising out of or related to the use of any of our services. *Handwritten note: added as per Ben 4/12/18*

Relinquished By: \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Time: \_\_\_\_\_

Received By: *Todd Henderson*  
 Date: *4/12/18*  
 Time: \_\_\_\_\_

Delivered By: (Circle One) *#75*  
 Sampler - UPS - Bus - Other: *1.10/1.05e*

Sample Condition:  Intact  Coag  Filtered  Yes  No

CHECKED BY: *[Signature]*

REMARKS: *\* Added as per Ben. 4/12/18*

FORM-006  
 Revision 1.0

† Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476







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

**CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**

Company Name: Trinity Oilfield Services & Rentals, LLC Project Manager: Ben J. Arguilo Address: P.O. Box 2587 City: Hobbs State: NM Zip: 88241 Phone #: (575)390-7208 Fax #: Project #: Project Owner: Premium Water Solutions Project Name: Dorstale SWD Project Location: Eddy, NM Sampler Name: Tristan Payne		P.O. #: Trinity Compar: Trinity Attn: Address: City: State: Zip: Phone #: Fax #		<b>BILL TO</b>		<b>ANALYSIS REQUEST</b>											
Lab I.D. <b>HB01094</b> Sample I.D.		(G/RAB OR (C)OMP. # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER : ACID/BASE: ICE / COOL OTHER :		MATRIX PRESERV SAMPLING		DATE TIME TPH (8015M) BTEX (8021B) Chloride (300)											
41	SP-49 @ 10'	G 1	X			4/13/18	1225	X									
42	SP-50 @ 1'	G 1	X			4/13/18	1230	X	X								
43	SP-50 @ 10'	G 1	X			4/13/18	1315		X								
44	SP-51 @ 1'	G 1	X			4/13/18	1320		X								
45	SP-51 @ 10'	G 1	X			4/13/18	1405		X								
46	SP-52 @ 1'	G 1	X			4/13/18	1410		X								
47	SP-52 @ 10'	G 1	X			4/13/18	1455		X								
48	SP-53 @ 1'	G G	X			4/13/18	1500	X	X								
49	SP-53 @ 10'	G G	X			4/13/18	1545		X								

PLEASE NOTE: Liability and Damage: Cardinal's liability and third-party liability for any claim arising in connection with this contract or work, shall be limited to the amount paid by the client for the analysis. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of data, or loss of profits incurred by client, its subsidiaries, affiliates or successors, actions and/or claims for the performance of services provided by Cardinal, regardless of whether such claim is based upon any of the above stated limitations or otherwise.

Reinquinshed By: *[Signature]* Received By: *[Signature]*  
 Date: 4/13/18 Time: 1:30  
 Date: 4/13/18 Time: 1:30  
 Received By: *[Signature]*

Delivered By: (Circle One)  UPS  Bus  Other: 1.12/1.05c  
 Sample Condition:  Cool  Ambient  Dry  Wet  No  No

Checked By: *[Signature]*

Phone Result:  Yes  No  Add'l Phone #:  
 Fax Result:  Yes  No  Add'l Fax #:  
 REMARKS:

Please e-mail results to ben@trinityoilfieldservices.com & todd@trinityoilfieldservices.com

† Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476

# Appendix E



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

May 28, 2019

CLAIR GONZALES

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: DORSTATE SWD

Enclosed are the results of analyses for samples received by the laboratory on 05/14/19 16:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. 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      Total Haloacetic Acids (HAA-5)
- Method EPA 524.2      Total Trihalomethanes (TTHM)
- Method EPA 524.4      Regulated VOCs (V1, V2, V3)

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

- Method SM 9223-B      Total Coliform and E. coli (Colilert MMO-MUG)
- Method EPA 524.2      Regulated VOCs and Total Trihalomethanes (TTHM)
- Method EPA 552.2      Total Haloacetic Acids (HAA-5)

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 28-May-19 13:43
---	---	------------------------------

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SP - 1 ( 0-1 )	H901758-01	Soil	14-May-19 10:00	14-May-19 16:00
SP - 1 ( 2-3 )	H901758-02	Soil	14-May-19 10:00	14-May-19 16:00
SP - 1 ( 4-5 )	H901758-03	Soil	14-May-19 10:00	14-May-19 16:00
SP - 1 ( 6-7 )	H901758-04	Soil	14-May-19 10:00	14-May-19 16:00
SP - 1 ( 9-10 )	H901758-05	Soil	14-May-19 10:00	14-May-19 16:00
SP - 1 ( 14-15 )	H901758-06	Soil	14-May-19 10:00	14-May-19 16:00
SP - 1 ( 19-20 )	H901758-07	Soil	14-May-19 10:00	14-May-19 16:00
SP - 1 ( 24-25 )	H901758-08	Soil	14-May-19 10:00	14-May-19 16:00
SP - 1 ( 29-30 )	H901758-09	Soil	14-May-19 10:00	14-May-19 16:00
SP - 1 ( 34-35 )	H901758-10	Soil	14-May-19 10:00	14-May-19 16:00
SP - 2 ( 0-1 )	H901758-11	Soil	14-May-19 11:15	14-May-19 16:00
SP - 2 ( 2-3 )	H901758-12	Soil	14-May-19 11:15	14-May-19 16:00
SP - 2 ( 4-5 )	H901758-13	Soil	14-May-19 11:15	14-May-19 16:00
SP - 2 ( 6-7 )	H901758-14	Soil	14-May-19 11:15	14-May-19 16:00
SP - 2 ( 9-10 )	H901758-15	Soil	14-May-19 11:15	14-May-19 16:00
SP - 2 ( 14-15 )	H901758-16	Soil	14-May-19 11:15	14-May-19 16:00
SP - 2 ( 19-20 )	H901758-17	Soil	14-May-19 11:15	14-May-19 16:00
SP - 2 ( 24-25 )	H901758-18	Soil	14-May-19 11:15	14-May-19 16:00
SP - 2 ( 29-30 )	H901758-19	Soil	14-May-19 11:15	14-May-19 16:00
SP - 2 ( 34-35 )	H901758-20	Soil	14-May-19 11:15	14-May-19 16:00
SP - 2 ( 39-40 )	H901758-21	Soil	14-May-19 11:15	14-May-19 16:00
SP - 2 ( 44-45 )	H901758-22	Soil	14-May-19 11:15	14-May-19 16:00
SP - 2 ( 49-50 )	H901758-23	Soil	14-May-19 11:15	14-May-19 16:00
SP - 2 ( 54-55 )	H901758-24	Soil	14-May-19 11:15	14-May-19 16:00
SP - 2 ( 59-60 )	H901758-25	Soil	14-May-19 11:15	14-May-19 16:00
SP - 3 ( 0-1 )	H901758-26	Soil	14-May-19 14:00	14-May-19 16:00
SP - 3 ( 2-3 )	H901758-27	Soil	14-May-19 14:00	14-May-19 16:00

Cardinal Laboratories

\* = Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 28-May-19 13:43
---	---	------------------------------

SP - 3 ( 4-5 )	H901758-28	Soil	14-May-19 14:00	14-May-19 16:00
SP - 3 ( 6-7 )	H901758-29	Soil	14-May-19 14:00	14-May-19 16:00
SP - 3 ( 9-10 )	H901758-30	Soil	14-May-19 14:00	14-May-19 16:00
SP - 3 ( 14-15 )	H901758-31	Soil	14-May-19 14:00	14-May-19 16:00
SP - 4 ( 0-1 )	H901758-32	Soil	14-May-19 14:30	14-May-19 16:00
SP - 4 ( 2-3 )	H901758-33	Soil	14-May-19 14:30	14-May-19 16:00
SP - 4 ( 4-5 )	H901758-34	Soil	14-May-19 14:30	14-May-19 16:00
SP - 4 ( 6-7 )	H901758-35	Soil	14-May-19 14:30	14-May-19 16:00
SP - 4 ( 9-10 )	H901758-36	Soil	14-May-19 14:30	14-May-19 16:00
SP - 4 ( 14-15 )	H901758-37	Soil	14-May-19 14:30	14-May-19 16:00
SP - 4 ( 19-20 )	H901758-38	Soil	14-May-19 14:30	14-May-19 16:00
SP - 4 ( 24-25 )	H901758-39	Soil	14-May-19 14:30	14-May-19 16:00
SP - 4 ( 29-30 )	H901758-40	Soil	14-May-19 14:30	14-May-19 16:00
SP - 4 ( 34-35 )	H901758-41	Soil	14-May-19 14:30	14-May-19 16:00
SP - 4 ( 39-40 )	H901758-42	Soil	14-May-19 14:30	14-May-19 16:00
SP - 4 ( 44-45 )	H901758-43	Soil	14-May-19 14:30	14-May-19 16:00
SP - 4 ( 49-50 )	H901758-44	Soil	14-May-19 14:30	14-May-19 16:00

TPH added as per Clair on 05/22/19. This is the revised report and will replace the one sent on 05/21/19.

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 28-May-19 13:43
---	---	------------------------------

**SP - 1 ( 0-1 )  
H901758-01 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	5360		16.0	mg/kg	4	9051705	AC	21-May-19	4500-Cl-B	
----------	------	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	9051611	ms	16-May-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9051611	ms	16-May-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9051611	ms	16-May-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9051611	ms	16-May-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9051611	ms	16-May-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			95.5 %		73.3-129	9051611	ms	16-May-19	8021B	
---------------------------------------	--	--	--------	--	----------	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	9051515	MS	17-May-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9051515	MS	17-May-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9051515	MS	17-May-19	8015B	

Surrogate: 1-Chlorooctane			104 %		41-142	9051515	MS	17-May-19	8015B	
---------------------------	--	--	-------	--	--------	---------	----	-----------	-------	--

Surrogate: 1-Chlorooctadecane			88.7 %		37.6-147	9051515	MS	17-May-19	8015B	
-------------------------------	--	--	--------	--	----------	---------	----	-----------	-------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 28-May-19 13:43
---	---	------------------------------

**SP - 1 ( 2-3 )  
H901758-02 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>4640</b>		16.0	mg/kg	4	9051705	AC	21-May-19	4500-Cl-B	
-----------------	-------------	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	9051611	ms	16-May-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9051611	ms	16-May-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9051611	ms	16-May-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9051611	ms	16-May-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9051611	ms	16-May-19	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			95.5 %		73.3-129	9051611	ms	16-May-19	8021B	
--	--	--	--------	--	----------	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	9051515	MS	17-May-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9051515	MS	17-May-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9051515	MS	17-May-19	8015B	

<i>Surrogate: 1-Chlorooctane</i>			71.2 %		41-142	9051515	MS	17-May-19	8015B	
----------------------------------	--	--	--------	--	--------	---------	----	-----------	-------	--

<i>Surrogate: 1-Chlorooctadecane</i>			70.7 %		37.6-147	9051515	MS	17-May-19	8015B	
--------------------------------------	--	--	--------	--	----------	---------	----	-----------	-------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 28-May-19 13:43
---	---	------------------------------

**SP - 1 ( 4-5 )  
H901758-03 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	1920		16.0	mg/kg	4	9051705	AC	21-May-19	4500-Cl-B	
----------	------	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 28-May-19 13:43
---	---	------------------------------

**SP - 1 ( 6-7 )  
H901758-04 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	1200		16.0	mg/kg	4	9051705	AC	21-May-19	4500-Cl-B	
----------	------	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 28-May-19 13:43
---	---	------------------------------

**SP - 1 ( 9-10 )  
H901758-05 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	1140		16.0	mg/kg	4	9051705	AC	21-May-19	4500-Cl-B	
----------	------	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 28-May-19 13:43
---	---	------------------------------

**SP - 1 ( 14-15 )  
H901758-06 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	672		16.0	mg/kg	4	9051705	AC	21-May-19	4500-Cl-B	
----------	-----	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 28-May-19 13:43
---	---	------------------------------

**SP - 1 ( 19-20 )  
H901758-07 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	480		16.0	mg/kg	4	9051705	AC	21-May-19	4500-Cl-B	
----------	-----	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 28-May-19 13:43
---	---	------------------------------

**SP - 1 ( 24-25 )  
H901758-08 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	400		16.0	mg/kg	4	9051705	AC	21-May-19	4500-Cl-B	
----------	-----	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 28-May-19 13:43
---	---	------------------------------

**SP - 1 ( 29-30 )  
H901758-09 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	352		16.0	mg/kg	4	9051705	AC	21-May-19	4500-Cl-B	
----------	-----	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 28-May-19 13:43
---	---	------------------------------

**SP - 1 ( 34-35 )  
H901758-10 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	304		16.0	mg/kg	4	9051705	AC	21-May-19	4500-Cl-B	
----------	-----	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 28-May-19 13:43
---	---	------------------------------

**SP - 2 ( 0-1 )  
H901758-11 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>7520</b>		16.0	mg/kg	4	9051705	AC	21-May-19	4500-Cl-B	
-----------------	-------------	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	9051611	ms	16-May-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9051611	ms	16-May-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9051611	ms	16-May-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9051611	ms	16-May-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9051611	ms	16-May-19	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			94.4 %		73.3-129	9051611	ms	16-May-19	8021B	
--	--	--	--------	--	----------	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	9051515	MS	17-May-19	8015B	
<b>DRO &gt;C10-C28*</b>	<b>14.8</b>		10.0	mg/kg	1	9051515	MS	17-May-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9051515	MS	17-May-19	8015B	

<i>Surrogate: 1-Chlorooctane</i>			90.0 %		41-142	9051515	MS	17-May-19	8015B	
----------------------------------	--	--	--------	--	--------	---------	----	-----------	-------	--

<i>Surrogate: 1-Chlorooctadecane</i>			91.4 %		37.6-147	9051515	MS	17-May-19	8015B	
--------------------------------------	--	--	--------	--	----------	---------	----	-----------	-------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 28-May-19 13:43
---	---	------------------------------

**SP - 2 ( 2-3 )  
H901758-12 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>4720</b>		16.0	mg/kg	4	9051705	AC	21-May-19	4500-Cl-B	
-----------------	-------------	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	9051611	ms	16-May-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9051611	ms	16-May-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9051611	ms	16-May-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9051611	ms	16-May-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9051611	ms	16-May-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			94.7 %			73.3-129	9051611	ms	16-May-19	8021B
---------------------------------------	--	--	--------	--	--	----------	---------	----	-----------	-------

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	9051515	MS	17-May-19	8015B	
<b>DRO &gt;C10-C28*</b>	<b>51.5</b>		10.0	mg/kg	1	9051515	MS	17-May-19	8015B	
<b>EXT DRO &gt;C28-C36</b>	<b>15.6</b>		10.0	mg/kg	1	9051515	MS	17-May-19	8015B	

Surrogate: 1-Chlorooctane			86.0 %			41-142	9051515	MS	17-May-19	8015B
---------------------------	--	--	--------	--	--	--------	---------	----	-----------	-------

Surrogate: 1-Chlorooctadecane			90.9 %			37.6-147	9051515	MS	17-May-19	8015B
-------------------------------	--	--	--------	--	--	----------	---------	----	-----------	-------

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 28-May-19 13:43
---	---	------------------------------

**SP - 2 ( 4-5 )  
H901758-13 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	2160		16.0	mg/kg	4	9051705	AC	21-May-19	4500-Cl-B	
----------	------	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 28-May-19 13:43
---	---	------------------------------

**SP - 2 ( 6-7 )  
H901758-14 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	624		16.0	mg/kg	4	9051705	AC	21-May-19	4500-Cl-B	
----------	-----	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 28-May-19 13:43
---	---	------------------------------

**SP - 2 ( 9-10 )  
H901758-15 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	1020		16.0	mg/kg	4	9052116	AC	21-May-19	4500-Cl-B	QM-07
----------	------	--	------	-------	---	---------	----	-----------	-----------	-------

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 28-May-19 13:43
---	---	------------------------------

SP - 2 ( 14-15 )  
H901758-16 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

Cardinal Laboratories

Inorganic Compounds

Chloride	2680		16.0	mg/kg	4	9052116	AC	21-May-19	4500-Cl-B	
----------	------	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 28-May-19 13:43
---	---	------------------------------

**SP - 2 ( 19-20 )  
H901758-17 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	3360		16.0	mg/kg	4	9052116	AC	21-May-19	4500-Cl-B	
----------	------	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 28-May-19 13:43
---	---	------------------------------

SP - 2 ( 24-25 )  
H901758-18 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

Cardinal Laboratories

Inorganic Compounds

Chloride	3000		16.0	mg/kg	4	9052116	AC	21-May-19	4500-Cl-B	
----------	------	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 28-May-19 13:43
---	---	------------------------------

**SP - 2 ( 29-30 )  
H901758-19 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	3800		16.0	mg/kg	4	9052116	AC	21-May-19	4500-Cl-B	
----------	------	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 28-May-19 13:43
---	---	------------------------------

**SP - 2 ( 34-35 )  
H901758-20 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	1630		16.0	mg/kg	4	9052116	AC	21-May-19	4500-Cl-B	
----------	------	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 28-May-19 13:43
---	---	------------------------------

**SP - 2 ( 39-40 )  
H901758-21 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	2240		16.0	mg/kg	4	9052116	AC	21-May-19	4500-Cl-B	
----------	------	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 28-May-19 13:43
---	---	------------------------------

**SP - 2 ( 44-45 )  
H901758-22 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>2400</b>		16.0	mg/kg	4	9052116	AC	21-May-19	4500-Cl-B	
-----------------	-------------	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 28-May-19 13:43
---	---	------------------------------

**SP - 2 ( 49-50 )  
H901758-23 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	1620		16.0	mg/kg	4	9052116	AC	21-May-19	4500-Cl-B	
----------	------	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 28-May-19 13:43
---	---	------------------------------

**SP - 2 ( 54-55 )  
H901758-24 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>1010</b>		16.0	mg/kg	4	9052116	AC	21-May-19	4500-Cl-B	
-----------------	-------------	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 28-May-19 13:43
---	---	------------------------------

**SP - 2 ( 59-60 )  
H901758-25 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	1390		16.0	mg/kg	4	9052116	AC	21-May-19	4500-Cl-B	
----------	------	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 28-May-19 13:43
---	---	------------------------------

**SP - 3 ( 0-1 )  
H901758-26 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>3360</b>		16.0	mg/kg	4	9052116	AC	21-May-19	4500-Cl-B	
-----------------	-------------	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	9051611	ms	16-May-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9051611	ms	16-May-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9051611	ms	16-May-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9051611	ms	16-May-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9051611	ms	16-May-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			114 %		73.3-129	9051611	ms	16-May-19	8021B	
---------------------------------------	--	--	-------	--	----------	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

<b>GRO C6-C10*</b>	<b>30.9</b>		10.0	mg/kg	1	9051515	MS	17-May-19	8015B	
<b>DRO &gt;C10-C28*</b>	<b>1940</b>		10.0	mg/kg	1	9051515	MS	17-May-19	8015B	
<b>EXT DRO &gt;C28-C36</b>	<b>358</b>		10.0	mg/kg	1	9051515	MS	17-May-19	8015B	

Surrogate: 1-Chlorooctane			93.0 %		41-142	9051515	MS	17-May-19	8015B	
---------------------------	--	--	--------	--	--------	---------	----	-----------	-------	--

Surrogate: 1-Chlorooctadecane			123 %		37.6-147	9051515	MS	17-May-19	8015B	
-------------------------------	--	--	-------	--	----------	---------	----	-----------	-------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 28-May-19 13:43
---	---	------------------------------

**SP - 3 ( 2-3 )  
H901758-27 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>1860</b>		16.0	mg/kg	4	9052116	AC	21-May-19	4500-Cl-B	
-----------------	-------------	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	9051611	ms	16-May-19	8021B	
<b>Toluene*</b>	<b>0.078</b>		0.050	mg/kg	50	9051611	ms	16-May-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9051611	ms	16-May-19	8021B	
<b>Total Xylenes*</b>	<b>3.47</b>		0.150	mg/kg	50	9051611	ms	16-May-19	8021B	
<b>Total BTEX</b>	<b>3.54</b>		0.300	mg/kg	50	9051611	ms	16-May-19	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			107 %	73.3-129		9051611	ms	16-May-19	8021B	
--	--	--	-------	----------	--	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

**S-04**

<b>GRO C6-C10*</b>	<b>669</b>		10.0	mg/kg	1	9051714	MS	17-May-19	8015B	
<b>DRO &gt;C10-C28*</b>	<b>9200</b>		10.0	mg/kg	1	9051714	MS	17-May-19	8015B	QM-07
<b>EXT DRO &gt;C28-C36</b>	<b>1120</b>		10.0	mg/kg	1	9051714	MS	17-May-19	8015B	

<i>Surrogate: 1-Chlorooctane</i>			199 %	41-142		9051714	MS	17-May-19	8015B	
----------------------------------	--	--	-------	--------	--	---------	----	-----------	-------	--

<i>Surrogate: 1-Chlorooctadecane</i>			320 %	37.6-147		9051714	MS	17-May-19	8015B	
--------------------------------------	--	--	-------	----------	--	---------	----	-----------	-------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 28-May-19 13:43
---	---	------------------------------

**SP - 3 ( 4-5 )  
H901758-28 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>1490</b>		16.0	mg/kg	4	9052116	AC	21-May-19	4500-Cl-B	
-----------------	-------------	--	------	-------	---	---------	----	-----------	-----------	--

**Petroleum Hydrocarbons by GC FID**

**S-04**

<b>GRO C6-C10*</b>	<b>115</b>		10.0	mg/kg	1	9052208	MS	23-May-19	8015B	
<b>DRO &gt;C10-C28*</b>	<b>2470</b>		10.0	mg/kg	1	9052208	MS	23-May-19	8015B	QM-07
<b>EXT DRO &gt;C28-C36</b>	<b>264</b>		10.0	mg/kg	1	9052208	MS	23-May-19	8015B	
<i>Surrogate: 1-Chlorooctane</i>			<i>164 %</i>	<i>41-142</i>		<i>9052208</i>	<i>MS</i>	<i>23-May-19</i>	<i>8015B</i>	
<i>Surrogate: 1-Chlorooctadecane</i>			<i>139 %</i>	<i>37.6-147</i>		<i>9052208</i>	<i>MS</i>	<i>23-May-19</i>	<i>8015B</i>	

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 28-May-19 13:43
---	---	------------------------------

**SP - 3 ( 6-7 )  
H901758-29 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>1120</b>		16.0	mg/kg	4	9052116	AC	21-May-19	4500-Cl-B	
-----------------	-------------	--	------	-------	---	---------	----	-----------	-----------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	9052208	MS	23-May-19	8015B	
<b>DRO &gt;C10-C28*</b>	<b>703</b>		10.0	mg/kg	1	9052208	MS	23-May-19	8015B	
<b>EXT DRO &gt;C28-C36</b>	<b>34.2</b>		10.0	mg/kg	1	9052208	MS	23-May-19	8015B	

Surrogate: 1-Chlorooctane			114 %	41-142		9052208	MS	23-May-19	8015B	
Surrogate: 1-Chlorooctadecane			108 %	37.6-147		9052208	MS	23-May-19	8015B	

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 28-May-19 13:43
---	---	------------------------------

**SP - 3 ( 9-10 )  
H901758-30 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>624</b>		16.0	mg/kg	4	9052116	AC	21-May-19	4500-Cl-B	
-----------------	------------	--	------	-------	---	---------	----	-----------	-----------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	9052208	MS	23-May-19	8015B	
<b>DRO &gt;C10-C28*</b>	<b>99.8</b>		10.0	mg/kg	1	9052208	MS	23-May-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9052208	MS	23-May-19	8015B	

Surrogate: 1-Chlorooctane			96.3 %	41-142		9052208	MS	23-May-19	8015B	
Surrogate: 1-Chlorooctadecane			101 %	37.6-147		9052208	MS	23-May-19	8015B	

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 28-May-19 13:43
---	---	------------------------------

**SP - 3 ( 14-15 )  
H901758-31 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>480</b>		16.0	mg/kg	4	9052116	AC	21-May-19	4500-Cl-B	
-----------------	------------	--	------	-------	---	---------	----	-----------	-----------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	9052208	MS	23-May-19	8015B	
<b>DRO &gt;C10-C28*</b>	<b>35.7</b>		10.0	mg/kg	1	9052208	MS	23-May-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9052208	MS	23-May-19	8015B	

Surrogate: 1-Chlorooctane			100 %	41-142		9052208	MS	23-May-19	8015B	
Surrogate: 1-Chlorooctadecane			106 %	37.6-147		9052208	MS	23-May-19	8015B	

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 28-May-19 13:43
---	---	------------------------------

**SP - 4 ( 0-1 )  
H901758-32 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>11300</b>		16.0	mg/kg	4	9052116	AC	21-May-19	4500-Cl-B	
-----------------	--------------	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	9051611	ms	16-May-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9051611	ms	16-May-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9051611	ms	16-May-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9051611	ms	16-May-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9051611	ms	16-May-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			95.1 %		73.3-129	9051611	ms	16-May-19	8021B	
---------------------------------------	--	--	--------	--	----------	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	9051714	MS	17-May-19	8015B	
<b>DRO &gt;C10-C28*</b>	<b>647</b>		10.0	mg/kg	1	9051714	MS	17-May-19	8015B	
<b>EXT DRO &gt;C28-C36</b>	<b>397</b>		10.0	mg/kg	1	9051714	MS	17-May-19	8015B	

Surrogate: 1-Chlorooctane			92.8 %		41-142	9051714	MS	17-May-19	8015B	
---------------------------	--	--	--------	--	--------	---------	----	-----------	-------	--

Surrogate: 1-Chlorooctadecane			130 %		37.6-147	9051714	MS	17-May-19	8015B	
-------------------------------	--	--	-------	--	----------	---------	----	-----------	-------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 28-May-19 13:43
---	---	------------------------------

**SP - 4 ( 2-3 )  
H901758-33 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>5440</b>		16.0	mg/kg	4	9052116	AC	21-May-19	4500-Cl-B	
-----------------	-------------	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	9051701	ms	17-May-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9051701	ms	17-May-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9051701	ms	17-May-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9051701	ms	17-May-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9051701	ms	17-May-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			98.4 %		73.3-129	9051701	ms	17-May-19	8021B	
---------------------------------------	--	--	--------	--	----------	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	9051714	MS	17-May-19	8015B	
<b>DRO &gt;C10-C28*</b>	<b>80.1</b>		10.0	mg/kg	1	9051714	MS	17-May-19	8015B	
<b>EXT DRO &gt;C28-C36</b>	<b>50.0</b>		10.0	mg/kg	1	9051714	MS	17-May-19	8015B	

Surrogate: 1-Chlorooctane			92.5 %		41-142	9051714	MS	17-May-19	8015B	
---------------------------	--	--	--------	--	--------	---------	----	-----------	-------	--

Surrogate: 1-Chlorooctadecane			102 %		37.6-147	9051714	MS	17-May-19	8015B	
-------------------------------	--	--	-------	--	----------	---------	----	-----------	-------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 28-May-19 13:43
---	---	------------------------------

**SP - 4 ( 4-5 )  
H901758-34 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>5280</b>		16.0	mg/kg	4	9052116	AC	21-May-19	4500-Cl-B	
-----------------	-------------	--	------	-------	---	---------	----	-----------	-----------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	9052208	MS	23-May-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9052208	MS	23-May-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9052208	MS	23-May-19	8015B	
Surrogate: 1-Chlorooctane			97.4 %	41-142		9052208	MS	23-May-19	8015B	
Surrogate: 1-Chlorooctadecane			101 %	37.6-147		9052208	MS	23-May-19	8015B	

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 28-May-19 13:43
---	---	------------------------------

**SP - 4 ( 6-7 )  
H901758-35 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>3680</b>		16.0	mg/kg	4	9051702	AC	21-May-19	4500-Cl-B	QM-07
-----------------	-------------	--	------	-------	---	---------	----	-----------	-----------	-------

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	9052213	MS	22-May-19	8015B	
<b>DRO &gt;C10-C28*</b>	<b>23.6</b>		10.0	mg/kg	1	9052213	MS	22-May-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9052213	MS	22-May-19	8015B	
Surrogate: 1-Chlorooctane			90.7 %	41-142		9052213	MS	22-May-19	8015B	
Surrogate: 1-Chlorooctadecane			101 %	37.6-147		9052213	MS	22-May-19	8015B	

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 28-May-19 13:43
---	---	------------------------------

**SP - 4 ( 9-10 )  
H901758-36 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>1810</b>		16.0	mg/kg	4	9051702	AC	21-May-19	4500-Cl-B	
-----------------	-------------	--	------	-------	---	---------	----	-----------	-----------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	9052213	MS	22-May-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9052213	MS	22-May-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9052213	MS	22-May-19	8015B	
Surrogate: 1-Chlorooctane			87.8 %	41-142		9052213	MS	22-May-19	8015B	
Surrogate: 1-Chlorooctadecane			93.9 %	37.6-147		9052213	MS	22-May-19	8015B	

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 28-May-19 13:43
---	---	------------------------------

**SP - 4 ( 14-15 )  
H901758-37 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>1150</b>		16.0	mg/kg	4	9051702	AC	21-May-19	4500-Cl-B	
-----------------	-------------	--	------	-------	---	---------	----	-----------	-----------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	9052213	MS	22-May-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9052213	MS	22-May-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9052213	MS	22-May-19	8015B	
Surrogate: 1-Chlorooctane			83.8 %	41-142		9052213	MS	22-May-19	8015B	
Surrogate: 1-Chlorooctadecane			90.0 %	37.6-147		9052213	MS	22-May-19	8015B	

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 28-May-19 13:43
---	---	------------------------------

**SP - 4 ( 19-20 )  
H901758-38 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	1420		16.0	mg/kg	4	9051702	AC	21-May-19	4500-Cl-B	
----------	------	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 28-May-19 13:43
---	---	------------------------------

**SP - 4 ( 24-25 )  
H901758-39 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	1760		16.0	mg/kg	4	9051702	AC	21-May-19	4500-Cl-B	
----------	------	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 28-May-19 13:43
---	---	------------------------------

**SP - 4 ( 29-30 )  
H901758-40 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	2080		16.0	mg/kg	4	9051702	AC	21-May-19	4500-Cl-B	
----------	------	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 28-May-19 13:43
---	---	------------------------------

**SP - 4 ( 34-35 )  
H901758-41 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	736		16.0	mg/kg	4	9051702	AC	21-May-19	4500-Cl-B	
----------	-----	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 28-May-19 13:43
---	---	------------------------------

**SP - 4 ( 39-40 )  
H901758-42 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	1120		16.0	mg/kg	4	9051702	AC	21-May-19	4500-Cl-B	
----------	------	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 28-May-19 13:43
---	---	------------------------------

**SP - 4 ( 44-45 )  
H901758-43 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	544		16.0	mg/kg	4	9051702	AC	21-May-19	4500-Cl-B	
----------	-----	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 28-May-19 13:43
---	---	------------------------------

**SP - 4 ( 49-50 )  
H901758-44 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	1630		16.0	mg/kg	4	9051702	AC	21-May-19	4500-Cl-B	
----------	------	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 28-May-19 13:43
---	---	------------------------------

**Inorganic Compounds - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch 9051702 - 1:4 DI Water**

<b>Blank (9051702-BLK1)</b> Prepared & Analyzed: 17-May-19										
Chloride	ND	16.0	mg/kg							
<b>LCS (9051702-BS1)</b> Prepared & Analyzed: 17-May-19										
Chloride	400	16.0	mg/kg	400		100	80-120			
<b>LCS Dup (9051702-BSD1)</b> Prepared & Analyzed: 17-May-19										
Chloride	384	16.0	mg/kg	400		96.0	80-120	4.08	20	

**Batch 9051705 - 1:4 DI Water**

<b>Blank (9051705-BLK1)</b> Prepared & Analyzed: 17-May-19										
Chloride	ND	16.0	mg/kg							
<b>LCS (9051705-BS1)</b> Prepared & Analyzed: 17-May-19										
Chloride	416	16.0	mg/kg	400		104	80-120			
<b>LCS Dup (9051705-BSD1)</b> Prepared & Analyzed: 17-May-19										
Chloride	416	16.0	mg/kg	400		104	80-120	0.00	20	

**Batch 9052116 - 1:4 DI Water**

<b>Blank (9052116-BLK1)</b> Prepared & Analyzed: 21-May-19										
Chloride	ND	16.0	mg/kg							
<b>LCS (9052116-BS1)</b> Prepared & Analyzed: 21-May-19										
Chloride	416	16.0	mg/kg	400		104	80-120			

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 28-May-19 13:43
---	---	------------------------------

**Inorganic Compounds - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch 9052116 - 1:4 DI Water**

**LCS Dup (9052116-BSD1)**

Prepared & Analyzed: 21-May-19

Chloride	400	16.0	mg/kg	400		100	80-120	3.92	20	
----------	-----	------	-------	-----	--	-----	--------	------	----	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH  
901 WEST WALL STREET , STE 100  
MIDLAND TX, 79701

Project: DORSTATE SWD  
Project Number: 212C-MD-01743  
Project Manager: CLAIR GONZALES  
Fax To: (432) 682-3946

Reported:  
28-May-19 13:43

**Volatile Organic Compounds by EPA Method 8021 - Quality Control****Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	-----------	--------	-----	-----------	-------

**Batch 9051611 - Volatiles****Blank (9051611-BLK1)**

Prepared &amp; Analyzed: 16-May-19

Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							
Total BTEX	ND	0.300	mg/kg							

Surrogate: 4-Bromofluorobenzene (PID) 0.0963 mg/kg 0.100 96.3 73.3-129

**LCS (9051611-BS1)**

Prepared &amp; Analyzed: 16-May-19

Benzene	1.97	0.050	mg/kg	2.00		98.3	72.2-131			
Toluene	2.09	0.050	mg/kg	2.00		104	71.7-126			
Ethylbenzene	1.99	0.050	mg/kg	2.00		99.5	68.9-126			
Total Xylenes	6.00	0.150	mg/kg	6.00		99.9	71.4-125			

Surrogate: 4-Bromofluorobenzene (PID) 0.0926 mg/kg 0.100 92.6 73.3-129

**LCS Dup (9051611-BSD1)**

Prepared &amp; Analyzed: 16-May-19

Benzene	1.89	0.050	mg/kg	2.00		94.4	72.2-131	4.04	6.91	
Toluene	2.04	0.050	mg/kg	2.00		102	71.7-126	2.16	7.12	
Ethylbenzene	1.95	0.050	mg/kg	2.00		97.4	68.9-126	2.17	7.88	
Total Xylenes	5.87	0.150	mg/kg	6.00		97.8	71.4-125	2.13	7.46	

Surrogate: 4-Bromofluorobenzene (PID) 0.0918 mg/kg 0.100 91.8 73.3-129

**Batch 9051701 - Volatiles****Blank (9051701-BLK1)**

Prepared &amp; Analyzed: 17-May-19

Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							
Total BTEX	ND	0.300	mg/kg							

Surrogate: 4-Bromofluorobenzene (PID) 0.0982 mg/kg 0.100 98.2 73.3-129

Cardinal Laboratories

\* = Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 28-May-19 13:43
---	---	------------------------------

**Volatile Organic Compounds by EPA Method 8021 - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch 9051701 - Volatiles**

**LCS (9051701-BS1)**

Prepared & Analyzed: 17-May-19

Benzene	1.98	0.050	mg/kg	2.00		98.9	72.2-131			
Toluene	2.14	0.050	mg/kg	2.00		107	71.7-126			
Ethylbenzene	2.05	0.050	mg/kg	2.00		103	68.9-126			
Total Xylenes	6.18	0.150	mg/kg	6.00		103	71.4-125			
Surrogate: 4-Bromofluorobenzene (PID)	0.0962		mg/kg	0.100		96.2	73.3-129			

**LCS Dup (9051701-BSD1)**

Prepared & Analyzed: 17-May-19

Benzene	1.97	0.050	mg/kg	2.00		98.5	72.2-131	0.479	6.91	
Toluene	2.11	0.050	mg/kg	2.00		106	71.7-126	1.37	7.12	
Ethylbenzene	2.04	0.050	mg/kg	2.00		102	68.9-126	0.643	7.88	
Total Xylenes	6.18	0.150	mg/kg	6.00		103	71.4-125	0.0911	7.46	
Surrogate: 4-Bromofluorobenzene (PID)	0.0947		mg/kg	0.100		94.7	73.3-129			

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 28-May-19 13:43
---	---	------------------------------

**Petroleum Hydrocarbons by GC FID - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	-----------	--------	-----	-----------	-------

**Batch 9051515 - General Prep - Organics**

**Blank (9051515-BLK1)** Prepared: 15-May-19 Analyzed: 17-May-19

GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	51.7		mg/kg	50.0		103	41-142			
Surrogate: 1-Chlorooctadecane	53.7		mg/kg	50.0		107	37.6-147			

**LCS (9051515-BS1)** Prepared: 15-May-19 Analyzed: 17-May-19

GRO C6-C10	193	10.0	mg/kg	200		96.6	76.5-133			
DRO >C10-C28	189	10.0	mg/kg	200		94.7	72.9-138			
Total TPH C6-C28	382	10.0	mg/kg	400		95.6	78-132			
Surrogate: 1-Chlorooctane	55.1		mg/kg	50.0		110	41-142			
Surrogate: 1-Chlorooctadecane	55.0		mg/kg	50.0		110	37.6-147			

**LCS Dup (9051515-BS1)** Prepared: 15-May-19 Analyzed: 17-May-19

GRO C6-C10	202	10.0	mg/kg	200		101	76.5-133	4.25	20.6	
DRO >C10-C28	194	10.0	mg/kg	200		97.2	72.9-138	2.64	20.6	
Total TPH C6-C28	396	10.0	mg/kg	400		99.0	78-132	3.46	18	
Surrogate: 1-Chlorooctane	55.5		mg/kg	50.0		111	41-142			
Surrogate: 1-Chlorooctadecane	54.8		mg/kg	50.0		110	37.6-147			

**Batch 9051714 - General Prep - Organics**

**Blank (9051714-BLK1)** Prepared & Analyzed: 17-May-19

GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	48.7		mg/kg	50.0		97.4	41-142			
Surrogate: 1-Chlorooctadecane	50.7		mg/kg	50.0		101	37.6-147			

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 28-May-19 13:43
---	---	------------------------------

**Petroleum Hydrocarbons by GC FID - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch 9051714 - General Prep - Organics**

<b>LCS (9051714-BS1)</b>		Prepared & Analyzed: 17-May-19								
GRO C6-C10	201	10.0	mg/kg	200	100	76.5-133				
DRO >C10-C28	184	10.0	mg/kg	200	92.0	72.9-138				
Total TPH C6-C28	385	10.0	mg/kg	400	96.2	78-132				
Surrogate: 1-Chlorooctane	53.5		mg/kg	50.0	107	41-142				
Surrogate: 1-Chlorooctadecane	53.6		mg/kg	50.0	107	37.6-147				

<b>LCS Dup (9051714-BSD1)</b>		Prepared & Analyzed: 17-May-19								
GRO C6-C10	198	10.0	mg/kg	200	99.2	76.5-133	1.20	20.6		
DRO >C10-C28	189	10.0	mg/kg	200	94.4	72.9-138	2.57	20.6		
Total TPH C6-C28	387	10.0	mg/kg	400	96.8	78-132	0.619	18		
Surrogate: 1-Chlorooctane	54.2		mg/kg	50.0	108	41-142				
Surrogate: 1-Chlorooctadecane	53.9		mg/kg	50.0	108	37.6-147				

**Batch 9052208 - General Prep - Organics**

<b>Blank (9052208-BLK1)</b>		Prepared: 22-May-19 Analyzed: 23-May-19								
GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	46.5		mg/kg	50.0	93.0	41-142				
Surrogate: 1-Chlorooctadecane	47.2		mg/kg	50.0	94.4	37.6-147				

<b>LCS (9052208-BS1)</b>		Prepared: 22-May-19 Analyzed: 23-May-19								
GRO C6-C10	192	10.0	mg/kg	200	96.2	76.5-133				
DRO >C10-C28	197	10.0	mg/kg	200	98.6	72.9-138				
Total TPH C6-C28	390	10.0	mg/kg	400	97.4	78-132				
Surrogate: 1-Chlorooctane	52.5		mg/kg	50.0	105	41-142				
Surrogate: 1-Chlorooctadecane	50.7		mg/kg	50.0	101	37.6-147				

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 28-May-19 13:43
---	---	------------------------------

**Petroleum Hydrocarbons by GC FID - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch 9052208 - General Prep - Organics**

<b>LCS Dup (9052208-BSD1)</b>		Prepared: 22-May-19 Analyzed: 23-May-19								
GRO C6-C10	193	10.0	mg/kg	200		96.4	76.5-133	0.220	20.6	
DRO >C10-C28	200	10.0	mg/kg	200		99.8	72.9-138	1.17	20.6	
Total TPH C6-C28	392	10.0	mg/kg	400		98.1	78-132	0.703	18	
Surrogate: 1-Chlorooctane	51.2		mg/kg	50.0		102	41-142			
Surrogate: 1-Chlorooctadecane	49.3		mg/kg	50.0		98.6	37.6-147			

**Batch 9052213 - General Prep - Organics**

<b>Blank (9052213-BLK1)</b>		Prepared & Analyzed: 22-May-19								
GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	43.7		mg/kg	50.0		87.4	41-142			
Surrogate: 1-Chlorooctadecane	47.2		mg/kg	50.0		94.4	37.6-147			

<b>LCS (9052213-BS1)</b>		Prepared & Analyzed: 22-May-19								
GRO C6-C10	185	10.0	mg/kg	200		92.6	76.5-133			
DRO >C10-C28	224	10.0	mg/kg	200		112	72.9-138			
Total TPH C6-C28	410	10.0	mg/kg	400		102	78-132			
Surrogate: 1-Chlorooctane	46.8		mg/kg	50.0		93.6	41-142			
Surrogate: 1-Chlorooctadecane	49.9		mg/kg	50.0		99.7	37.6-147			

<b>LCS Dup (9052213-BSD1)</b>		Prepared & Analyzed: 22-May-19								
GRO C6-C10	183	10.0	mg/kg	200		91.5	76.5-133	1.14	20.6	
DRO >C10-C28	244	10.0	mg/kg	200		122	72.9-138	8.14	20.6	
Total TPH C6-C28	427	10.0	mg/kg	400		107	78-132	4.05	18	
Surrogate: 1-Chlorooctane	45.4		mg/kg	50.0		90.8	41-142			
Surrogate: 1-Chlorooctadecane	49.7		mg/kg	50.0		99.5	37.6-147			

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Notes and Definitions

- S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
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

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager



**CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**

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

Company Name: <u>Tetra Tech</u>		<b>BILL TO</b>		<b>ANALYSIS REQUEST</b>						
Project Manager: <u>Chic Gonzales</u>		P.O. #:								
Address: <u>901 W. Bell St Ste 100</u>		Company: <u>Tetra Tech</u>								
City: <u>Milled</u> State: <u>TX</u> Zip: <u>74701</u>		Attn: <u>Chic Gonzales</u>								
Phone #: _____ Fax #: _____		Address: _____								
Project #: <u>2121-ND-0743</u> Project Owner: <u>PWS</u>		City: _____								
Project Name: <u>Deade SWP</u>		State: _____ Zip: _____								
Project Location: <u>Eddy Co NM</u>		Phone #: _____								
Sampler Name: <u>Chit Smith</u>		Fax #: _____								
<small>FOR LAB USE ONLY</small>										
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX	PRESERV.	SAMPLING	DATE	TIME	ANALYSIS	REMARKS
H901758	SP-1 10-13		1	SOIL			5/14	10:00	Chlorides	
	(7-3)		1	SOIL					BTEX	
	(4-5)		1	SOIL					TPH	
	(6-7)		1	SOIL						
	(9-10)		1	SOIL						
	(14-15)		1	SOIL						
	(18-20)		1	SOIL						
	(24-25)		1	SOIL						
	(29-30)		1	SOIL						
	(34-35)		1	SOIL						

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

Relinquished By: [Signature] Date: 5/14/19 Received By: Jamara Black Date: 5/14/19  
 Time: 16:00 Time: \_\_\_\_\_

Delivered By: (Circle One) UPS - Bus - Other: 4160 #97 Sample Condition: Cool  Intact   
 Checked By: PO (Initials)

Phone Result:  Yes  No Add'l Phone #: \_\_\_\_\_  
 Fax Result:  Yes  No Add'l Fax #: \_\_\_\_\_



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

**BILL TO**

**ANALYSIS REQUEST**

Company Name: \_\_\_\_\_  
 Project Manager: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
 Phone #: \_\_\_\_\_ Fax #: \_\_\_\_\_  
 Project #: \_\_\_\_\_ Project Owner: PLS  
 Project Name: Parade SW  
 Project Location: Elly Co. SW  
 Sampler Name: PLS  
 P.O. #: \_\_\_\_\_  
 Company: Cardinal  
 Attn: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
 Phone #: \_\_\_\_\_ Fax #: \_\_\_\_\_

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						DATE	TIME	REMARKS
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :			
H901758	SP-2 (10-1)		1	X						5/19	11:15	C Woodier
	12 (2-5)		1	X								ISTEX
	13 (14-5)		1	X								HPD
	14 (6-7)		1	X								
	15 (9-10)		1	X								
	16 (14-15)		1	X								
	17 (19-20)		1	X								
	18 (24-25)		1	X								
	19 (24-30)		1	X								
	20 (34-35)		1	X								

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

Relinquished By: \_\_\_\_\_  
 Date: 5/19/19 Received By: \_\_\_\_\_  
 Time: 16:00 Received By: Marina Dlatky

Delivered By: (Circle One) \_\_\_\_\_  
 Sampler - UPS - Bus - Other: 4.6.1 #97

Sample Condition: Cool  Intact   
 Checked By: MD

Phone Result:  Yes  No Add'l Phone #: \_\_\_\_\_  
 Fax Result:  Yes  No Add'l Fax #: \_\_\_\_\_

REMARKS:



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name:		P.O. #:		<b>BILL TO</b>		ANALYSIS REQUEST	
Project Manager:		Company:					
Address:		Attn:		Address:		State:	
City:		State:		City:		Zip:	
Phone #:		Fax #:		Address:		State:	
Project #:		Project Owner:		City:		Zip:	
Project Name:		Project Location:		State:		Zip:	
Sampler Name:		Fax #:		Phone #:		Zip:	
FOR LAB USE ONLY		PRESERV/		SAMPLING			
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX	DATE	TIME	
A901758	SP-2 (39-40)		1	GROUNDWATER	5/14	11:15	Chloride
	(44-45)		1	WASTEWATER			BTEX
	(47-50)		1	SOIL			TPH
	(54-55)		1	OIL			
	(59-60)		1	SLUDGE			
	SP-3 (10-1)		1	OTHER:			
	(2-3)		1	ACID/BASE:			
	(4-5)		1	ICE / COOL			
	(6-7)		1	OTHER:			
	(9-10)		1				

PLEASE NOTE: Labity and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether stated in contract or not, shall be limited to the amount paid by the client for the analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruption, loss of use, or loss of profits, incurred by client, its subsidiaries, affiliates or successors either out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: *[Signature]* Date: 5/14/19 Time: 16:00  
 Received By: *[Signature]* Date: 5/14/19 Time: 11:15

Delivered By: (Circle One)  UPS  Bus  Other: 4.66 AM  
 Sample Condition: Cool  Intact  Yes  No  
 CHECKED BY: *[Signature]*

REMARKS: Phone Result:  Yes  No Add'l Phone #:   
 Fax Result:  Yes  No Add'l Fax #:   
 REMARKS:





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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: _____		<b>BILL TO</b>		P.O. #:		ANALYSIS REQUEST						
Project Manager: _____		Address: _____		Company: <i>Ida Tech</i>								
City: _____ State: _____ Zip: _____		Attn: _____		Address: _____								
Phone #: _____ Fax #: _____		City: _____		State: _____ Zip: _____								
Project #: <i>212C-40-01743</i> Project Owner: <i>PWS</i>		Project Name: <i>Dredge S&amp;D</i>		Project Location: <i>Eddy Co. NM</i>								
Sampler Name: <i>Clay Smith</i>		Phone #: _____		Fax #: _____								
FOR LAB USE ONLY												
Lab I.D.	Sample I.D.	(G)GRAB OR (C)OMP.	# CONTAINERS	MATRIX		PRESERV		DATE	TIME			
				GROUNDWATER	WASTEWATER	SOIL	OIL				SLUDGE	OTHER :
				ACID/BASE:	ICE / COOL	OTHER :						
<i>H901758</i>	<i>SP-4(34-35)</i>		1	X			<i>5/14</i>	<i>14:30</i>	X	<i>Chloride</i>		
<i>42</i>	<i>(35-40)</i>		1	X		<i>5/14</i>	<i>14:30</i>	X				
<i>43</i>	<i>(44-45)</i>		1	X		<i>5/14</i>	<i>14:30</i>	X				
<i>44</i>	<i>(44-50)</i>		1	X		<i>5/14</i>	<i>14:30</i>	X				

PLEASE NOTE: Liability and Damages, Contractor's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analysis. All claims, including those for negligence and any other cause whatsoever shall be disallowed without unless made in writing and received by Cardinal within 90 days after completion of the applicable service. In no event shall Cardinal be liable for individual or consequential damages, including without limitation, business interruptions, loss of data, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: \_\_\_\_\_ Date: *5-14-19* Time: *16:00*  
 Received By: *Jawana Dlatkye*

Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 Received By: \_\_\_\_\_

Delivered By: (Circle One)  UPS  Bus  Other: *4.0c #97*

Sample Condition:  Cool  Intact  Yes  No  Yes  No

CHECKED BY: *VD* (Initials)

Phone Result:  Yes  No  Add'l Phone #:  
 Fax Result:  Yes  No  Add'l Fax #:

REMARKS:



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

---

May 28, 2019

CLAIR GONZALES

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: DORSTATE SWD

Enclosed are the results of analyses for samples received by the laboratory on 05/17/19 14:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. 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 style.

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	05/17/2019	Sampling Date:	05/15/2019
Reported:	05/28/2019	Sampling Type:	Soil
Project Name:	DORSTATE SWD	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01743	Sample Received By:	Tamara Oldaker
Project Location:	PWS - EDDY CO NM		

**Sample ID: SP - 6 ( 0-1 ) (H901800-01)**

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	05/22/2019	ND	2.07	103	2.00	4.22		
Toluene*	<0.050	0.050	05/22/2019	ND	2.06	103	2.00	1.00		
Ethylbenzene*	<0.050	0.050	05/22/2019	ND	1.99	99.5	2.00	1.14		
Total Xylenes*	<0.150	0.150	05/22/2019	ND	5.98	99.7	6.00	1.60		
Total BTEX	<0.300	0.300	05/22/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 73.3 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1380	16.0	05/22/2019	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	05/21/2019	ND	179	89.5	200	12.1		
DRO >C10-C28*	<10.0	10.0	05/21/2019	ND	183	91.4	200	13.4		
EXT DRO >C28-C36	<10.0	10.0	05/21/2019	ND						

Surrogate: 1-Chlorooctane 90.2 % 41-142

Surrogate: 1-Chlorooctadecane 90.7 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	05/17/2019	Sampling Date:	05/15/2019
Reported:	05/28/2019	Sampling Type:	Soil
Project Name:	DORSTATE SWD	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01743	Sample Received By:	Tamara Oldaker
Project Location:	PWS - EDDY CO NM		

**Sample ID: SP - 6 ( 2-3 ) (H901800-02)**

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	05/21/2019	ND	2.07	103	2.00	4.22		
Toluene*	<0.050	0.050	05/21/2019	ND	2.06	103	2.00	1.00		
Ethylbenzene*	<0.050	0.050	05/21/2019	ND	1.99	99.5	2.00	1.14		
Total Xylenes*	<0.150	0.150	05/21/2019	ND	5.98	99.7	6.00	1.60		
Total BTEX	<0.300	0.300	05/21/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 89.3 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	560	16.0	05/22/2019	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	05/21/2019	ND	179	89.5	200	12.1		
DRO >C10-C28*	<10.0	10.0	05/21/2019	ND	183	91.4	200	13.4		
EXT DRO >C28-C36	<10.0	10.0	05/21/2019	ND						

Surrogate: 1-Chlorooctane 83.5 % 41-142

Surrogate: 1-Chlorooctadecane 85.4 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	05/17/2019	Sampling Date:	05/15/2019
Reported:	05/28/2019	Sampling Type:	Soil
Project Name:	DORSTATE SWD	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01743	Sample Received By:	Tamara Oldaker
Project Location:	PWS - EDDY CO NM		

**Sample ID: SP - 6 ( 4-5 ) (H901800-03)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	288	16.0	05/22/2019	ND	400	100	400	0.00		

**Sample ID: SP - 6 ( 6-7 ) (H901800-04)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	272	16.0	05/22/2019	ND	400	100	400	0.00		

**Sample ID: SP - 6 ( 9-10 ) (H901800-05)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1470	16.0	05/22/2019	ND	400	100	400	0.00		

**Sample ID: SP - 6 ( 14-15 ) (H901800-06)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1330	16.0	05/22/2019	ND	400	100	400	0.00		

**Sample ID: SP - 6 ( 19-20 ) (H901800-07)**

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	05/22/2019	ND	400	100	400	0.00	QM-07	

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	05/17/2019	Sampling Date:	05/15/2019
Reported:	05/28/2019	Sampling Type:	Soil
Project Name:	DORSTATE SWD	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01743	Sample Received By:	Tamara Oldaker
Project Location:	PWS - EDDY CO NM		

**Sample ID: SP - 6 ( 24-25 ) (H901800-08)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	416	16.0	05/22/2019	ND	400	100	400	0.00		

**Sample ID: SP - 6 ( 29-30 ) (H901800-09)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	688	16.0	05/22/2019	ND	400	100	400	0.00		

**Sample ID: SP - 6 ( 34-35 ) (H901800-10)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	496	16.0	05/22/2019	ND	400	100	400	0.00		

**Sample ID: SP - 6 ( 39-40 ) (H901800-11)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	208	16.0	05/22/2019	ND	400	100	400	0.00		

**Sample ID: SP - 6 ( 44-45 ) (H901800-12)**

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	05/22/2019	ND	400	100	400	0.00		

Cardinal Laboratories

\* = Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	05/17/2019	Sampling Date:	05/15/2019
Reported:	05/28/2019	Sampling Type:	Soil
Project Name:	DORSTATE SWD	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01743	Sample Received By:	Tamara Oldaker
Project Location:	PWS - EDDY CO NM		

**Sample ID: SP - 7 ( 0-1 ) (H901800-13)**

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	05/21/2019	ND	2.07	103	2.00	4.22		
Toluene*	<0.050	0.050	05/21/2019	ND	2.06	103	2.00	1.00		
Ethylbenzene*	<0.050	0.050	05/21/2019	ND	1.99	99.5	2.00	1.14		
Total Xylenes*	<0.150	0.150	05/21/2019	ND	5.98	99.7	6.00	1.60		
Total BTEX	<0.300	0.300	05/21/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 80.3 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	5920	16.0	05/22/2019	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	05/21/2019	ND	179	89.5	200	12.1		
DRO >C10-C28*	<10.0	10.0	05/21/2019	ND	183	91.4	200	13.4		
EXT DRO >C28-C36	<10.0	10.0	05/21/2019	ND						

Surrogate: 1-Chlorooctane 80.6 % 41-142

Surrogate: 1-Chlorooctadecane 83.2 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	05/17/2019	Sampling Date:	05/15/2019
Reported:	05/28/2019	Sampling Type:	Soil
Project Name:	DORSTATE SWD	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01743	Sample Received By:	Tamara Oldaker
Project Location:	PWS - EDDY CO NM		

**Sample ID: SP - 7 ( 2-3 ) (H901800-14)**

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	05/22/2019	ND	2.07	103	2.00	4.22		
Toluene*	<0.050	0.050	05/22/2019	ND	2.06	103	2.00	1.00		
Ethylbenzene*	<0.050	0.050	05/22/2019	ND	1.99	99.5	2.00	1.14		
Total Xylenes*	<0.150	0.150	05/22/2019	ND	5.98	99.7	6.00	1.60		
Total BTEX	<0.300	0.300	05/22/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 88.1 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	3680	16.0	05/22/2019	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	05/21/2019	ND	179	89.5	200	12.1		
DRO >C10-C28*	<10.0	10.0	05/21/2019	ND	183	91.4	200	13.4		
EXT DRO >C28-C36	<10.0	10.0	05/21/2019	ND						

Surrogate: 1-Chlorooctane 96.5 % 41-142

Surrogate: 1-Chlorooctadecane 95.5 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	05/17/2019	Sampling Date:	05/15/2019
Reported:	05/28/2019	Sampling Type:	Soil
Project Name:	DORSTATE SWD	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01743	Sample Received By:	Tamara Oldaker
Project Location:	PWS - EDDY CO NM		

**Sample ID: SP - 7 ( 4-5 ) (H901800-15)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1840	16.0	05/22/2019	ND	400	100	400	0.00		

**Sample ID: SP - 7 ( 6-7 ) (H901800-16)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	960	16.0	05/22/2019	ND	400	100	400	0.00		

**Sample ID: SP - 7 ( 9-10 ) (H901800-17)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	976	16.0	05/22/2019	ND	400	100	400	0.00		

**Sample ID: SP - 7 ( 14-15 ) (H901800-18)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	672	16.0	05/22/2019	ND	400	100	400	0.00		

**Sample ID: SP - 7 ( 19-20 ) (H901800-19)**

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	05/22/2019	ND	400	100	400	0.00		

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	05/17/2019	Sampling Date:	05/15/2019
Reported:	05/28/2019	Sampling Type:	Soil
Project Name:	DORSTATE SWD	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01743	Sample Received By:	Tamara Oldaker
Project Location:	PWS - EDDY CO NM		

**Sample ID: SP - 7 ( 24-25 ) (H901800-20)**

Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>352</b>	16.0	05/22/2019	ND	400	100	400	0.00	

**Sample ID: SP - 7 ( 29-30 ) (H901800-21)**

Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>512</b>	16.0	05/22/2019	ND	400	100	400	0.00	

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	05/17/2019	Sampling Date:	05/15/2019
Reported:	05/28/2019	Sampling Type:	Soil
Project Name:	DORSTATE SWD	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01743	Sample Received By:	Tamara Oldaker
Project Location:	PWS - EDDY CO NM		

**Sample ID: SP - 8 ( 0-1 ) (H901800-22)**

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	05/21/2019	ND	2.07	103	2.00	4.22		
Toluene*	<0.050	0.050	05/21/2019	ND	2.06	103	2.00	1.00		
Ethylbenzene*	<0.050	0.050	05/21/2019	ND	1.99	99.5	2.00	1.14		
Total Xylenes*	<0.150	0.150	05/21/2019	ND	5.98	99.7	6.00	1.60		
Total BTEX	<0.300	0.300	05/21/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 86.9 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	3040	16.0	05/22/2019	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	05/21/2019	ND	188	94.0	200	6.52		
DRO >C10-C28*	<10.0	10.0	05/21/2019	ND	224	112	200	8.64		
EXT DRO >C28-C36	<10.0	10.0	05/21/2019	ND						

Surrogate: 1-Chlorooctane 87.5 % 41-142

Surrogate: 1-Chlorooctadecane 95.0 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	05/17/2019	Sampling Date:	05/15/2019
Reported:	05/28/2019	Sampling Type:	Soil
Project Name:	DORSTATE SWD	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01743	Sample Received By:	Tamara Oldaker
Project Location:	PWS - EDDY CO NM		

**Sample ID: SP - 8 ( 2-3 ) (H901800-23)**

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	05/24/2019	ND	2.07	103	2.00	4.22		
Toluene*	<0.050	0.050	05/24/2019	ND	2.06	103	2.00	1.00		
Ethylbenzene*	<0.050	0.050	05/24/2019	ND	1.99	99.5	2.00	1.14		
Total Xylenes*	<0.150	0.150	05/24/2019	ND	5.98	99.7	6.00	1.60		
Total BTEX	<0.300	0.300	05/24/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 94.7 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>1280</b>	16.0	05/22/2019	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	05/21/2019	ND	188	94.0	200	6.52		
DRO >C10-C28*	<10.0	10.0	05/21/2019	ND	224	112	200	8.64		
EXT DRO >C28-C36	<10.0	10.0	05/21/2019	ND						

Surrogate: 1-Chlorooctane 93.7 % 41-142

Surrogate: 1-Chlorooctadecane 105 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	05/17/2019	Sampling Date:	05/15/2019
Reported:	05/28/2019	Sampling Type:	Soil
Project Name:	DORSTATE SWD	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01743	Sample Received By:	Tamara Oldaker
Project Location:	PWS - EDDY CO NM		

**Sample ID: SP - 8 ( 4-5 ) (H901800-24)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1650	16.0	05/22/2019	ND	400	100	400	0.00		

**Sample ID: SP - 8 ( 6-7 ) (H901800-25)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	864	16.0	05/22/2019	ND	400	100	400	0.00		

**Sample ID: SP - 8 ( 9-10 ) (H901800-26)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1880	16.0	05/22/2019	ND	400	100	400	0.00		

**Sample ID: SP - 8 ( 14-15 ) (H901800-27)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1020	16.0	05/22/2019	ND	416	104	400	3.77	QM-07	

**Sample ID: SP - 8 ( 19-20 ) (H901800-28)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	3160	16.0	05/22/2019	ND	416	104	400	3.77		

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	05/17/2019	Sampling Date:	05/15/2019
Reported:	05/28/2019	Sampling Type:	Soil
Project Name:	DORSTATE SWD	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01743	Sample Received By:	Tamara Oldaker
Project Location:	PWS - EDDY CO NM		

**Sample ID: SP - 8 ( 24-25 ) (H901800-29)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3040	16.0	05/22/2019	ND	416	104	400	3.77	

**Sample ID: SP - 8 ( 29-30 ) (H901800-30)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4480	16.0	05/22/2019	ND	416	104	400	3.77	

**Sample ID: SP - 8 ( 34-35 ) (H901800-31)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3720	16.0	05/22/2019	ND	416	104	400	0.00	

**Sample ID: SP - 8 ( 39-40 ) (H901800-32)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	5360	16.0	05/22/2019	ND	416	104	400	0.00	

**Sample ID: SP - 8 ( 44-45 ) (H901800-33)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4560	16.0	05/22/2019	ND	416	104	400	0.00	

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	05/17/2019	Sampling Date:	05/15/2019
Reported:	05/28/2019	Sampling Type:	Soil
Project Name:	DORSTATE SWD	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01743	Sample Received By:	Tamara Oldaker
Project Location:	PWS - EDDY CO NM		

**Sample ID: SP - 8 ( 49-50 ) (H901800-34)**

Chloride, SM4500Cl-B	mg/kg	Analyzed By: AC							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>5840</b>	16.0	05/22/2019	ND	416	104	400	0.00	

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	05/17/2019	Sampling Date:	05/15/2019
Reported:	05/28/2019	Sampling Type:	Soil
Project Name:	DORSTATE SWD	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01743	Sample Received By:	Tamara Oldaker
Project Location:	PWS - EDDY CO NM		

**Sample ID: SP - 9 ( 0-1 ) (H901800-35)**

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	05/21/2019	ND	2.07	103	2.00	4.22		
Toluene*	<0.050	0.050	05/21/2019	ND	2.06	103	2.00	1.00		
Ethylbenzene*	<0.050	0.050	05/21/2019	ND	1.99	99.5	2.00	1.14		
Total Xylenes*	<0.150	0.150	05/21/2019	ND	5.98	99.7	6.00	1.60		
Total BTEX	<0.300	0.300	05/21/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 92.5 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>7600</b>	16.0	05/22/2019	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	05/21/2019	ND	188	94.0	200	6.52		
<b>DRO &gt;C10-C28*</b>	<b>59.2</b>	10.0	05/21/2019	ND	224	112	200	8.64		
<b>EXT DRO &gt;C28-C36</b>	<b>19.8</b>	10.0	05/21/2019	ND						

Surrogate: 1-Chlorooctane 85.9 % 41-142

Surrogate: 1-Chlorooctadecane 96.6 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	05/17/2019	Sampling Date:	05/15/2019
Reported:	05/28/2019	Sampling Type:	Soil
Project Name:	DORSTATE SWD	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01743	Sample Received By:	Tamara Oldaker
Project Location:	PWS - EDDY CO NM		

**Sample ID: SP - 9 ( 2-3 ) (H901800-36)**

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	05/24/2019	ND	1.82	91.1	2.00	0.868		
Toluene*	<0.050	0.050	05/24/2019	ND	1.81	90.3	2.00	4.41		
Ethylbenzene*	<0.050	0.050	05/24/2019	ND	1.71	85.4	2.00	3.94		
Total Xylenes*	<0.150	0.150	05/24/2019	ND	4.85	80.9	6.00	7.20		
Total BTEX	<0.300	0.300	05/24/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 91.9 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	3280	16.0	05/22/2019	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	05/21/2019	ND	198	99.1	200	3.28		
DRO >C10-C28*	<10.0	10.0	05/21/2019	ND	192	95.9	200	4.80		
EXT DRO >C28-C36	<10.0	10.0	05/21/2019	ND						

Surrogate: 1-Chlorooctane 91.8 % 41-142

Surrogate: 1-Chlorooctadecane 92.0 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	05/17/2019	Sampling Date:	05/15/2019
Reported:	05/28/2019	Sampling Type:	Soil
Project Name:	DORSTATE SWD	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01743	Sample Received By:	Tamara Oldaker
Project Location:	PWS - EDDY CO NM		

**Sample ID: SP - 9 ( 4-5 ) (H901800-37)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2680	16.0	05/22/2019	ND	416	104	400	0.00		

**Sample ID: SP - 9 ( 6-7 ) (H901800-38)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	896	16.0	05/22/2019	ND	416	104	400	0.00		

**Sample ID: SP - 9 ( 9-10 ) (H901800-39)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1220	16.0	05/22/2019	ND	416	104	400	0.00		

**Sample ID: SP - 9 ( 14-15 ) (H901800-40)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1420	16.0	05/22/2019	ND	416	104	400	0.00		

**Sample ID: SP - 9 ( 19-20 ) (H901800-41)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2600	16.0	05/22/2019	ND	416	104	400	0.00		

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	05/17/2019	Sampling Date:	05/15/2019
Reported:	05/28/2019	Sampling Type:	Soil
Project Name:	DORSTATE SWD	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01743	Sample Received By:	Tamara Oldaker
Project Location:	PWS - EDDY CO NM		

**Sample ID: SP - 9 ( 24-25 ) (H901800-42)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	3440	16.0	05/22/2019	ND	416	104	400	0.00		

**Sample ID: SP - 9 ( 29-30 ) (H901800-43)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	3040	16.0	05/22/2019	ND	416	104	400	0.00		

**Sample ID: SP - 9 ( 34-35 ) (H901800-44)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	4120	16.0	05/22/2019	ND	416	104	400	0.00		

**Sample ID: SP - 9 ( 39-40 ) (H901800-45)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	3520	16.0	05/22/2019	ND	416	104	400	0.00		

Cardinal Laboratories

\* = Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	05/17/2019	Sampling Date:	05/15/2019
Reported:	05/28/2019	Sampling Type:	Soil
Project Name:	DORSTATE SWD	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01743	Sample Received By:	Tamara Oldaker
Project Location:	PWS - EDDY CO NM		

**Sample ID: SP - 14 ( 0-1 ) (H901800-46)**

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	05/24/2019	ND	1.82	91.1	2.00	0.868		
Toluene*	<0.050	0.050	05/24/2019	ND	1.81	90.3	2.00	4.41		
Ethylbenzene*	<0.050	0.050	05/24/2019	ND	1.71	85.4	2.00	3.94		
Total Xylenes*	<0.150	0.150	05/24/2019	ND	4.85	80.9	6.00	7.20		
Total BTEX	<0.300	0.300	05/24/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.4 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>8000</b>	16.0	05/23/2019	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	05/21/2019	ND	198	99.1	200	3.28		
<b>DRO &gt;C10-C28*</b>	<b>87.9</b>	10.0	05/21/2019	ND	192	95.9	200	4.80		
<b>EXT DRO &gt;C28-C36</b>	<b>39.1</b>	10.0	05/21/2019	ND						

Surrogate: 1-Chlorooctane 92.6 % 41-142

Surrogate: 1-Chlorooctadecane 102 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	05/17/2019	Sampling Date:	05/15/2019
Reported:	05/28/2019	Sampling Type:	Soil
Project Name:	DORSTATE SWD	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01743	Sample Received By:	Tamara Oldaker
Project Location:	PWS - EDDY CO NM		

**Sample ID: SP - 14 ( 2-3 ) (H901800-47)**

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	05/21/2019	ND	1.82	91.1	2.00	0.868		
Toluene*	<0.050	0.050	05/21/2019	ND	1.81	90.3	2.00	4.41		
Ethylbenzene*	<0.050	0.050	05/21/2019	ND	1.71	85.4	2.00	3.94		
Total Xylenes*	<0.150	0.150	05/21/2019	ND	4.85	80.9	6.00	7.20		
Total BTEX	<0.300	0.300	05/21/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 77.4 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	4600	16.0	05/23/2019	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	05/21/2019	ND	198	99.1	200	3.28		
DRO >C10-C28*	<10.0	10.0	05/21/2019	ND	192	95.9	200	4.80		
EXT DRO >C28-C36	<10.0	10.0	05/21/2019	ND						

Surrogate: 1-Chlorooctane 92.4 % 41-142

Surrogate: 1-Chlorooctadecane 93.5 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	05/17/2019	Sampling Date:	05/15/2019
Reported:	05/28/2019	Sampling Type:	Soil
Project Name:	DORSTATE SWD	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01743	Sample Received By:	Tamara Oldaker
Project Location:	PWS - EDDY CO NM		

**Sample ID: SP - 14 ( 4-5 ) (H901800-48)**

Chloride, SM4500Cl-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	3960	16.0	05/23/2019	ND	416	104	400	0.00		

**Sample ID: SP - 14 ( 6-7 ) (H901800-49)**

Chloride, SM4500Cl-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1440	16.0	05/23/2019	ND	416	104	400	0.00		

**Sample ID: SP - 14 ( 9-10 ) (H901800-50)**

Chloride, SM4500Cl-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	672	16.0	05/23/2019	ND	416	104	400	0.00		

**Sample ID: SP - 14 ( 14-15 ) (H901800-51)**

Chloride, SM4500Cl-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1500	16.0	05/23/2019	ND	416	104	400	0.00		

**Sample ID: SP - 14 ( 19-20 ) (H901800-52)**

Chloride, SM4500Cl-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1540	16.0	05/23/2019	ND	416	104	400	0.00		

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	05/17/2019	Sampling Date:	05/15/2019
Reported:	05/28/2019	Sampling Type:	Soil
Project Name:	DORSTATE SWD	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01743	Sample Received By:	Tamara Oldaker
Project Location:	PWS - EDDY CO NM		

**Sample ID: SP - 14 ( 24-25 ) (H901800-53)**

Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>1020</b>	16.0	05/23/2019	ND	416	104	400	0.00	

**Sample ID: SP - 14 ( 29-30 ) (H901800-54)**

Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>192</b>	16.0	05/23/2019	ND	416	104	400	0.00	

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	05/17/2019	Sampling Date:	05/15/2019
Reported:	05/28/2019	Sampling Type:	Soil
Project Name:	DORSTATE SWD	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01743	Sample Received By:	Tamara Oldaker
Project Location:	PWS - EDDY CO NM		

**Sample ID: SP - 15 ( 0-1 ) (H901800-55)**

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	05/21/2019	ND	1.82	91.1	2.00	0.868		
Toluene*	<0.050	0.050	05/21/2019	ND	1.81	90.3	2.00	4.41		
Ethylbenzene*	<0.050	0.050	05/21/2019	ND	1.71	85.4	2.00	3.94		
Total Xylenes*	<0.150	0.150	05/21/2019	ND	4.85	80.9	6.00	7.20		
Total BTEX	<0.300	0.300	05/21/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 86.2 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>9600</b>	16.0	05/23/2019	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	05/21/2019	ND	198	99.1	200	3.28		
<b>DRO &gt;C10-C28*</b>	<b>545</b>	10.0	05/21/2019	ND	192	95.9	200	4.80		
<b>EXT DRO &gt;C28-C36</b>	<b>203</b>	10.0	05/21/2019	ND						

Surrogate: 1-Chlorooctane 96.0 % 41-142

Surrogate: 1-Chlorooctadecane 124 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	05/17/2019	Sampling Date:	05/15/2019
Reported:	05/28/2019	Sampling Type:	Soil
Project Name:	DORSTATE SWD	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01743	Sample Received By:	Tamara Oldaker
Project Location:	PWS - EDDY CO NM		

**Sample ID: SP - 15 ( 2-3 ) (H901800-56)**

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	05/24/2019	ND	1.82	91.1	2.00	0.868		
Toluene*	<0.050	0.050	05/24/2019	ND	1.81	90.3	2.00	4.41		
Ethylbenzene*	<0.050	0.050	05/24/2019	ND	1.71	85.4	2.00	3.94		
Total Xylenes*	<0.150	0.150	05/24/2019	ND	4.85	80.9	6.00	7.20		
Total BTEX	<0.300	0.300	05/24/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.9 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2960	16.0	05/23/2019	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	05/21/2019	ND	198	99.1	200	3.28		
DRO >C10-C28*	31.5	10.0	05/21/2019	ND	192	95.9	200	4.80		
EXT DRO >C28-C36	21.2	10.0	05/21/2019	ND						

Surrogate: 1-Chlorooctane 93.1 % 41-142

Surrogate: 1-Chlorooctadecane 98.8 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	05/17/2019	Sampling Date:	05/15/2019
Reported:	05/28/2019	Sampling Type:	Soil
Project Name:	DORSTATE SWD	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01743	Sample Received By:	Tamara Oldaker
Project Location:	PWS - EDDY CO NM		

**Sample ID: SP - 15 ( 4-5 ) (H901800-57)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	8400	16.0	05/23/2019	ND	416	104	400	0.00		

**Sample ID: SP - 15 ( 6-7 ) (H901800-58)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	10300	16.0	05/23/2019	ND	416	104	400	0.00		

**Sample ID: SP - 15 ( 9-10 ) (H901800-59)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	3440	16.0	05/23/2019	ND	416	104	400	0.00		

**Sample ID: SP - 15 ( 14-15 ) (H901800-60)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	464	16.0	05/23/2019	ND	416	104	400	0.00		

**Sample ID: SP - 15 ( 19-20 ) (H901800-61)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	720	16.0	05/23/2019	ND	416	104	400	0.00		

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	05/17/2019	Sampling Date:	05/15/2019
Reported:	05/28/2019	Sampling Type:	Soil
Project Name:	DORSTATE SWD	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01743	Sample Received By:	Tamara Oldaker
Project Location:	PWS - EDDY CO NM		

**Sample ID: SP - 15 ( 24-25 ) (H901800-62)**

Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>352</b>	16.0	05/23/2019	ND	416	104	400	0.00		

**Sample ID: SP - 15 ( 29-30 ) (H901800-63)**

Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>192</b>	16.0	05/23/2019	ND	416	104	400	0.00		

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	05/17/2019	Sampling Date:	05/16/2019
Reported:	05/28/2019	Sampling Type:	Soil
Project Name:	DORSTATE SWD	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01743	Sample Received By:	Tamara Oldaker
Project Location:	PWS - EDDY CO NM		

**Sample ID: SP - 16 ( 0-1 ) (H901800-64)**

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	05/21/2019	ND	1.82	91.1	2.00	0.868		
Toluene*	<0.050	0.050	05/21/2019	ND	1.81	90.3	2.00	4.41		
Ethylbenzene*	<0.050	0.050	05/21/2019	ND	1.71	85.4	2.00	3.94		
Total Xylenes*	<0.150	0.150	05/21/2019	ND	4.85	80.9	6.00	7.20		
Total BTEX	<0.300	0.300	05/21/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 87.1 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>3120</b>	16.0	05/23/2019	ND	400	100	400	0.00	QM-07	

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	05/21/2019	ND	198	99.1	200	3.28		
<b>DRO &gt;C10-C28*</b>	<b>547</b>	10.0	05/21/2019	ND	192	95.9	200	4.80		
<b>EXT DRO &gt;C28-C36</b>	<b>224</b>	10.0	05/21/2019	ND						

Surrogate: 1-Chlorooctane 92.2 % 41-142

Surrogate: 1-Chlorooctadecane 124 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	05/17/2019	Sampling Date:	05/16/2019
Reported:	05/28/2019	Sampling Type:	Soil
Project Name:	DORSTATE SWD	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01743	Sample Received By:	Tamara Oldaker
Project Location:	PWS - EDDY CO NM		

**Sample ID: SP - 16 ( 2-3 ) (H901800-65)**

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	05/21/2019	ND	1.82	91.1	2.00	0.868		
Toluene*	<0.050	0.050	05/21/2019	ND	1.81	90.3	2.00	4.41		
Ethylbenzene*	<0.050	0.050	05/21/2019	ND	1.71	85.4	2.00	3.94		
Total Xylenes*	<0.150	0.150	05/21/2019	ND	4.85	80.9	6.00	7.20		
Total BTEX	<0.300	0.300	05/21/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 74.7 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>672</b>	16.0	05/23/2019	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	05/21/2019	ND	198	99.1	200	3.28		
DRO >C10-C28*	<10.0	10.0	05/21/2019	ND	192	95.9	200	4.80		
EXT DRO >C28-C36	<10.0	10.0	05/21/2019	ND						

Surrogate: 1-Chlorooctane 91.4 % 41-142

Surrogate: 1-Chlorooctadecane 92.7 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	05/17/2019	Sampling Date:	05/16/2019
Reported:	05/28/2019	Sampling Type:	Soil
Project Name:	DORSTATE SWD	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01743	Sample Received By:	Tamara Oldaker
Project Location:	PWS - EDDY CO NM		

**Sample ID: SP - 16 ( 4-5 ) (H901800-66)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	288	16.0	05/23/2019	ND	400	100	400	0.00		

**Sample ID: SP - 16 ( 6-7 ) (H901800-67)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	144	16.0	05/23/2019	ND	400	100	400	0.00		

**Sample ID: SP - 16 ( 9-10 ) (H901800-68)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1250	16.0	05/23/2019	ND	400	100	400	0.00		

**Sample ID: SP - 16 ( 14-15 ) (H901800-69)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	848	16.0	05/23/2019	ND	400	100	400	0.00		

**Sample ID: SP - 16 ( 19-20 ) (H901800-70)**

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	05/23/2019	ND	400	100	400	0.00		

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	05/17/2019	Sampling Date:	05/16/2019
Reported:	05/28/2019	Sampling Type:	Soil
Project Name:	DORSTATE SWD	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01743	Sample Received By:	Tamara Oldaker
Project Location:	PWS - EDDY CO NM		

**Sample ID: SP - 16 ( 24-25 ) (H901800-71)**

Chloride, SM4500Cl-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1120	16.0	05/23/2019	ND	400	100	400	0.00		

**Sample ID: SP - 16 ( 29-30 ) (H901800-72)**

Chloride, SM4500Cl-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	640	16.0	05/23/2019	ND	400	100	400	0.00		

**Sample ID: SP - 16 ( 34-35 ) (H901800-73)**

Chloride, SM4500Cl-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	352	16.0	05/23/2019	ND	400	100	400	0.00		

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	05/17/2019	Sampling Date:	05/16/2019
Reported:	05/28/2019	Sampling Type:	Soil
Project Name:	DORSTATE SWD	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01743	Sample Received By:	Tamara Oldaker
Project Location:	PWS - EDDY CO NM		

**Sample ID: SP - 17 ( 0-1 ) (H901800-74)**

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	05/21/2019	ND	1.82	91.1	2.00	0.868		
Toluene*	<0.050	0.050	05/21/2019	ND	1.81	90.3	2.00	4.41		
Ethylbenzene*	<0.050	0.050	05/21/2019	ND	1.71	85.4	2.00	3.94		
Total Xylenes*	<0.150	0.150	05/21/2019	ND	4.85	80.9	6.00	7.20		
Total BTEX	<0.300	0.300	05/21/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 82.2 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	8000	16.0	05/23/2019	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	05/21/2019	ND	198	99.1	200	3.28		
DRO >C10-C28*	<10.0	10.0	05/21/2019	ND	192	95.9	200	4.80		
EXT DRO >C28-C36	<10.0	10.0	05/21/2019	ND						

Surrogate: 1-Chlorooctane 94.8 % 41-142

Surrogate: 1-Chlorooctadecane 96.6 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	05/17/2019	Sampling Date:	05/16/2019
Reported:	05/28/2019	Sampling Type:	Soil
Project Name:	DORSTATE SWD	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01743	Sample Received By:	Tamara Oldaker
Project Location:	PWS - EDDY CO NM		

**Sample ID: SP - 17 ( 2-3 ) (H901800-75)**

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	05/21/2019	ND	1.82	91.1	2.00	0.868		
Toluene*	<0.050	0.050	05/21/2019	ND	1.81	90.3	2.00	4.41		
Ethylbenzene*	<0.050	0.050	05/21/2019	ND	1.71	85.4	2.00	3.94		
Total Xylenes*	<0.150	0.150	05/21/2019	ND	4.85	80.9	6.00	7.20		
Total BTEX	<0.300	0.300	05/21/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 82.7 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1230	16.0	05/23/2019	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	05/21/2019	ND	198	99.1	200	3.28		
DRO >C10-C28*	<10.0	10.0	05/21/2019	ND	192	95.9	200	4.80		
EXT DRO >C28-C36	<10.0	10.0	05/21/2019	ND						

Surrogate: 1-Chlorooctane 89.3 % 41-142

Surrogate: 1-Chlorooctadecane 90.0 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	05/17/2019	Sampling Date:	05/16/2019
Reported:	05/28/2019	Sampling Type:	Soil
Project Name:	DORSTATE SWD	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01743	Sample Received By:	Tamara Oldaker
Project Location:	PWS - EDDY CO NM		

**Sample ID: SP - 17 ( 4-5 ) (H901800-76)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1390	16.0	05/23/2019	ND	400	100	400	0.00		

**Sample ID: SP - 17 ( 6-7 ) (H901800-77)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	992	16.0	05/23/2019	ND	400	100	400	0.00		

**Sample ID: SP - 17 ( 9-10 ) (H901800-78)**

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	05/23/2019	ND	400	100	400	0.00		

**Sample ID: SP - 17 ( 14-15 ) (H901800-79)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	256	16.0	05/23/2019	ND	400	100	400	0.00		

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	05/17/2019	Sampling Date:	05/16/2019
Reported:	05/28/2019	Sampling Type:	Soil
Project Name:	DORSTATE SWD	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01743	Sample Received By:	Tamara Oldaker
Project Location:	PWS - EDDY CO NM		

**Sample ID: SP - 18 ( 0-1 ) (H901800-80)**

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	05/21/2019	ND	1.82	91.1	2.00	0.868		
Toluene*	<0.050	0.050	05/21/2019	ND	1.81	90.3	2.00	4.41		
Ethylbenzene*	<0.050	0.050	05/21/2019	ND	1.71	85.4	2.00	3.94		
Total Xylenes*	<0.150	0.150	05/21/2019	ND	4.85	80.9	6.00	7.20		
Total BTEX	<0.300	0.300	05/21/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 82.0 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>112</b>	16.0	05/23/2019	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	05/21/2019	ND	198	99.1	200	3.28		
DRO >C10-C28*	<10.0	10.0	05/21/2019	ND	192	95.9	200	4.80		
EXT DRO >C28-C36	<10.0	10.0	05/21/2019	ND						

Surrogate: 1-Chlorooctane 89.0 % 41-142

Surrogate: 1-Chlorooctadecane 90.2 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	05/17/2019	Sampling Date:	05/16/2019
Reported:	05/28/2019	Sampling Type:	Soil
Project Name:	DORSTATE SWD	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01743	Sample Received By:	Tamara Oldaker
Project Location:	PWS - EDDY CO NM		

**Sample ID: SP - 18 ( 2-3 ) (H901800-81)**

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	05/21/2019	ND	1.82	91.1	2.00	0.868		
Toluene*	<0.050	0.050	05/21/2019	ND	1.81	90.3	2.00	4.41		
Ethylbenzene*	<0.050	0.050	05/21/2019	ND	1.71	85.4	2.00	3.94		
Total Xylenes*	<0.150	0.150	05/21/2019	ND	4.85	80.9	6.00	7.20		
Total BTEX	<0.300	0.300	05/21/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 73.5 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>384</b>	16.0	05/23/2019	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	05/21/2019	ND	198	99.1	200	3.28		
DRO >C10-C28*	<10.0	10.0	05/21/2019	ND	192	95.9	200	4.80		
EXT DRO >C28-C36	<10.0	10.0	05/21/2019	ND						

Surrogate: 1-Chlorooctane 87.9 % 41-142

Surrogate: 1-Chlorooctadecane 88.9 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	05/17/2019	Sampling Date:	05/16/2019
Reported:	05/28/2019	Sampling Type:	Soil
Project Name:	DORSTATE SWD	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01743	Sample Received By:	Tamara Oldaker
Project Location:	PWS - EDDY CO NM		

**Sample ID: SP - 18 ( 4-5 ) (H901800-82)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	384	16.0	05/23/2019	ND	400	100	400	0.00		

**Sample ID: SP - 18 ( 6-7 ) (H901800-83)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	544	16.0	05/23/2019	ND	400	100	400	0.00		

**Sample ID: SP - 18 ( 9-10 ) (H901800-84)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	736	16.0	05/23/2019	ND	400	100	400	0.00		

**Sample ID: SP - 18 ( 14-15 ) (H901800-85)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	448	16.0	05/23/2019	ND	400	100	400	0.00		

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	05/17/2019	Sampling Date:	05/16/2019
Reported:	05/28/2019	Sampling Type:	Soil
Project Name:	DORSTATE SWD	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01743	Sample Received By:	Tamara Oldaker
Project Location:	PWS - EDDY CO NM		

**Sample ID: SP - 19 ( 0-1 ) (H901800-86)**

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	05/24/2019	ND	1.82	91.1	2.00	0.868		
Toluene*	<0.050	0.050	05/24/2019	ND	1.81	90.3	2.00	4.41		
Ethylbenzene*	<0.050	0.050	05/24/2019	ND	1.71	85.4	2.00	3.94		
Total Xylenes*	<0.150	0.150	05/24/2019	ND	4.85	80.9	6.00	7.20		
Total BTEX	<0.300	0.300	05/24/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.3 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	5360	16.0	05/23/2019	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	05/21/2019	ND	198	99.1	200	3.28		
DRO >C10-C28*	<10.0	10.0	05/21/2019	ND	192	95.9	200	4.80		
EXT DRO >C28-C36	<10.0	10.0	05/21/2019	ND						

Surrogate: 1-Chlorooctane 86.5 % 41-142

Surrogate: 1-Chlorooctadecane 87.3 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	05/17/2019	Sampling Date:	05/16/2019
Reported:	05/28/2019	Sampling Type:	Soil
Project Name:	DORSTATE SWD	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01743	Sample Received By:	Tamara Oldaker
Project Location:	PWS - EDDY CO NM		

**Sample ID: SP - 19 ( 2-3 ) (H901800-87)**

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	05/21/2019	ND	1.82	91.1	2.00	0.868		
Toluene*	<0.050	0.050	05/21/2019	ND	1.81	90.3	2.00	4.41		
Ethylbenzene*	<0.050	0.050	05/21/2019	ND	1.71	85.4	2.00	3.94		
Total Xylenes*	<0.150	0.150	05/21/2019	ND	4.85	80.9	6.00	7.20		
Total BTEX	<0.300	0.300	05/21/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 80.3 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>2480</b>	16.0	05/23/2019	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	05/21/2019	ND	198	99.1	200	3.28		
DRO >C10-C28*	<10.0	10.0	05/21/2019	ND	192	95.9	200	4.80		
EXT DRO >C28-C36	<10.0	10.0	05/21/2019	ND						

Surrogate: 1-Chlorooctane 87.0 % 41-142

Surrogate: 1-Chlorooctadecane 89.1 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	05/17/2019	Sampling Date:	05/16/2019
Reported:	05/28/2019	Sampling Type:	Soil
Project Name:	DORSTATE SWD	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01743	Sample Received By:	Tamara Oldaker
Project Location:	PWS - EDDY CO NM		

**Sample ID: SP - 19 ( 4-5 ) (H901800-88)**

Chloride, SM4500Cl-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2400	16.0	05/23/2019	ND	400	100	400	0.00		

**Sample ID: SP - 19 ( 6-7 ) (H901800-89)**

Chloride, SM4500Cl-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	480	16.0	05/23/2019	ND	400	100	400	0.00		

**Sample ID: SP - 19 ( 9-10 ) (H901800-90)**

Chloride, SM4500Cl-B	mg/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	256	16.0	05/23/2019	ND	400	100	400	0.00		

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Notes and Definitions

- S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
- 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

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: <u>Tetra Tech</u> Project Manager: <u>Chir Gonzalez</u> Address: <u>901 W. Wall St. Ste 100</u> City: <u>Midland</u> State: <u>TX</u> Zip: <u>79701</u> Phone #: <u>          </u> Fax #: <u>          </u> Project #: <u>212C-MD-01743</u> Project Owner: <u>RWS</u> Project Name: <u>Destake SWD</u> Project Location: <u>Eddy Co. NM</u> Sampler Name: <u>Clad Acosta</u>		P.O. #: <u>Tetra Tech</u> Company: <u>Tetra Tech</u> Attn: <u>Chir Gonzalez</u> Address: <u>          </u> City: <u>          </u> State: <u>          </u> Zip: <u>          </u> Phone #: <u>          </u> Fax #: <u>          </u>																			
Lab I.D. <u>HQD1800</u>		<b>BILL TO</b>																			
Sample I.D. <u>SP-6 (6-1)</u>		<b>ANALYSIS REQUEST</b>																			
(G)RAB OR (C)OMP. <u>          </u>		# CONTAINERS <u>          </u>																			
MATRIX: <table border="1" style="display: inline-table; border-collapse: collapse;"> <tr><td>GROUNDWATER</td><td><input type="checkbox"/></td></tr> <tr><td>WASTEWATER</td><td><input type="checkbox"/></td></tr> <tr><td>SOIL</td><td><input checked="" type="checkbox"/></td></tr> <tr><td>OIL</td><td><input type="checkbox"/></td></tr> <tr><td>SLUDGE</td><td><input type="checkbox"/></td></tr> <tr><td>OTHER:</td><td><input type="checkbox"/></td></tr> </table>		GROUNDWATER	<input type="checkbox"/>	WASTEWATER	<input type="checkbox"/>	SOIL	<input checked="" type="checkbox"/>	OIL	<input type="checkbox"/>	SLUDGE	<input type="checkbox"/>	OTHER:	<input type="checkbox"/>	PRESERV: <table border="1" style="display: inline-table; border-collapse: collapse;"> <tr><td>ACID/BASE:</td><td><input type="checkbox"/></td></tr> <tr><td>ICE / COOL</td><td><input checked="" type="checkbox"/></td></tr> <tr><td>OTHER:</td><td><input type="checkbox"/></td></tr> </table>		ACID/BASE:	<input type="checkbox"/>	ICE / COOL	<input checked="" type="checkbox"/>	OTHER:	<input type="checkbox"/>
GROUNDWATER	<input type="checkbox"/>																				
WASTEWATER	<input type="checkbox"/>																				
SOIL	<input checked="" type="checkbox"/>																				
OIL	<input type="checkbox"/>																				
SLUDGE	<input type="checkbox"/>																				
OTHER:	<input type="checkbox"/>																				
ACID/BASE:	<input type="checkbox"/>																				
ICE / COOL	<input checked="" type="checkbox"/>																				
OTHER:	<input type="checkbox"/>																				
DATE <u>5/15</u> TIME <u>9:30</u>		ANALYSIS: <u>Chlorides</u> <u>BTEX</u> <u>TPH</u>																			
1 SP-6 (6-1) <u>          </u>		2 (12-3) <u>          </u>																			
3 (4-5) <u>          </u>		4 (6-7) <u>          </u>																			
5 (5-10) <u>          </u>		6 (14-15) <u>          </u>																			
7 (19-20) <u>          </u>		8 (24-25) <u>          </u>																			
9 (29-30) <u>          </u>		10 (34-35) <u>          </u>																			

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

Relinquished By: [Signature] Date: 5/17 Time: 4:00  
 Received By: [Signature] Date:            Time:             
 Delivered By: (Circle One) UPS                                                                                          
 Sampler - UPS - Bus - Other:                                                                                                   

Sample Condition: Cool  Intact   
 Checked By: [Signature]  
 Phone Result:  Yes  No  Add'l Phone #:             
 Fax Result:  Yes  No  Add'l Fax #:             
 REMARKS:



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Page 42 of 49

Company Name:		P.O. #:		BILL TO		ANALYSIS REQUEST	
Project Manager:		Company:					
Address:		Attn:					
City:		Address:					
Phone #:		City:					
Project #:		State:					
Project Name:		Zip:					
Project Location:		Phone #:					
Sampler Name:		Fax #:					
FOR LAB USE ONLY							
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX	PRESERVY	SAMPLING	
				GROUNDWATER			
				WASTEWATER			
				SOIL			
				OIL			
				SLUDGE			
				OTHER:			
				ACID/BASE:			
				ICE / COOL			
				OTHER:			
						DATE	TIME
H901800	SP-6 (39-40)		1	X		5/15	09:30
	(44-45)		1	X			9:30
	SP-7 (0-1)		1	X			10:00
	(7-8)		1	X			
	(4-5)		1	X			
	(6-9)		1	X			
	(9-10)		1	X			
	(14-15)		1	X			
	(19-20)		1	X			
	(24-25)		1	X			

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

Relinquished By: *[Signature]* Date: 5/17  
 Received By: *[Signature]* Date: 5/17  
 Relinquished By: *[Signature]* Date: 5/17  
 Received By: *[Signature]* Date: 5/17

Delivered By: (Circle One) *D.O.C.*  
 Sampler - UPS - Bus - Other: *HP*  
 Sample Condition: Cool  Intact   
 Checked By: *[Signature]*

Phone Result:  Yes  No Add'l Phone #: \_\_\_\_\_  
 Fax Result:  Yes  No Add'l Fax #: \_\_\_\_\_  
 REMARKS:





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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:		<b>BILL TO</b>		<b>ANALYSIS REQUEST</b>	
Project Manager:		P.O. #:			
Address:		Company:			
City:		Attn:			
State:		Address:			
Zip:		City:			
Phone #:		State:			
Fax #:		Zip:			
Project #:		Project Owner:			
Project Name:		Phone #:			
Project Location:		Fax #:			
Sampler Name:		FOR LAB USE ONLY			
Lab I.D.		Sample I.D.			
H901800		SP-8 (24-35)			
31		(24-40)			
32		(44-45)			
33		(45-50)			
34		(2-3)			
35		(4-5)			
36		(6-7)			
37		(9-10)			
38		(14-15)			
39					
40					
		(G)RAB OR (C)OMP.			
		# CONTAINERS			
		GROUNDWATER			
		WASTEWATER			
		SOIL			
		OIL			
		SLUDGE			
		OTHER:			
		ACID/BASE:			
		ICE / COOL			
		OTHER:			
		DATE			
		TIME			
		5/5		10:45	
		13:30			
		Chlorides			
		BTEX			
		TPH			

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

Relinquished By: *[Signature]* Date: *5/17* Time: *14:00*

Received By: *[Signature]* Date: *5/17* Time: *14:00*

Delivered By: (Circle One) *UPS*  Bus  Other

Sampler - UPS - Bus - Other: *UPS*

Sample Condition: Cool  Intact

Checked By: *[Signature]*

REMARKS:









CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

BILL TO

ANALYSIS REQUEST

Company Name: \_\_\_\_\_ P.O. #: \_\_\_\_\_  
 Project Manager: \_\_\_\_\_ Company: \_\_\_\_\_  
 Address: \_\_\_\_\_ Attn: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
 Phone #: \_\_\_\_\_ Fax #: \_\_\_\_\_  
 Project #: \_\_\_\_\_ Project Owner: \_\_\_\_\_  
 Project Location: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
 Sampler Name: \_\_\_\_\_ Phone #: \_\_\_\_\_ Fax #: \_\_\_\_\_

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						PRESERV.			DATE	TIME	Chlorides	BTEX	TPH
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER	ACID/BASE	ICE / COOL	OTHER					
H9D1800	SP-16 (24-25)		1	X	X	X	X	X	X	X	X	5/16	8:30	X	X	X	
	(24-30)		1	X	X	X	X	X	X	X	X			X	X	X	
	C 34-35		1	X	X	X	X	X	X	X	X			X	X	X	
	SP-17 (0-1)		1	X	X	X	X	X	X	X	X			X	X	X	
	(2-3)		1	X	X	X	X	X	X	X	X			X	X	X	
	(4-5)		1	X	X	X	X	X	X	X	X			X	X	X	
	(6-7)		1	X	X	X	X	X	X	X	X			X	X	X	
	(9-10)		1	X	X	X	X	X	X	X	X			X	X	X	
	(14-15)		1	X	X	X	X	X	X	X	X			X	X	X	
	80 SP-18 (0-1)		1	X	X	X	X	X	X	X	X			X	X	X	
	(14-15)		1	X	X	X	X	X	X	X	X			X	X	X	

PLEASE NOTE: Laboratory and Client's responsibility for any other testing without proper request for that. All lab forms to be returned to the client for the lab to be used. All chain of custody forms must be completed and returned to the client within 20 days after completion of the analysis. All chain of custody forms must be completed and returned to the client within 20 days after completion of the analysis. All chain of custody forms must be completed and returned to the client within 20 days after completion of the analysis.

Relinquished By:

Date: 5/17  
 Time: 14:00  
 Received By:

Phone Result:  Yes  No  
 Fax Result:  Yes  No  
 Add'l Phone #: \_\_\_\_\_  
 Add'l Fax #: \_\_\_\_\_

Delivered By: (Circle One)  
 Sampler - UPS - Bus - Other:

Sample Condition: Cool  Intact   
 Checked By:



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

BILL TO

ANALYSIS REQUEST

Company Name: \_\_\_\_\_ P.O. #: \_\_\_\_\_  
 Project Manager: \_\_\_\_\_ Company: \_\_\_\_\_  
 Address: \_\_\_\_\_ Attn: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
 Phone #: \_\_\_\_\_ Fax #: \_\_\_\_\_  
 Project #: \_\_\_\_\_ Project Owner: \_\_\_\_\_  
 Project Name: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
 Project Location: \_\_\_\_\_ Phone #: \_\_\_\_\_  
 Sampler Name: \_\_\_\_\_ Fax #: \_\_\_\_\_

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP	# CONTAINERS	MATRIX							DATE	TIME	ANALYSIS
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER	ACID/BASE			
H901800	SP-18(2-3)			X						5/16	10:30	Chlorides	
	82 (4-5)			X								X	
	83 (6-7)			X								X	
	84 (9-10)			X								X	
	85 (14-15)			X								X	
	86 SP-19 (0-1)			X								X	
	87 (2-3)			X								X	
	88 (4-5)			X								X	
	89 (6-7)			X								X	
	90 (9-10)			X								X	

PLEASE NOTE: Quality and Durability. Containers should be used in accordance with the instructions on the container label. The client is responsible for the accuracy of the information provided. No one should tamper with the information provided. Containers should be used in accordance with the instructions on the container label. The client is responsible for the accuracy of the information provided. No one should tamper with the information provided.

Relinquished By: [Signature] Date: 5/17 Received By: [Signature] Date: 5/16  
 Time: 14:00

Delivered By: (Circle One) UPS Bus Other  
 Sampler - UPS - Bus - Other: UPS  
 Sample Condition:  Intact  Broken  
 Checked By: [Signature] (Initials)  
 Phone Result:  Yes  No Add'l Phone #: \_\_\_\_\_  
 Fax Result:  Yes  No Add'l Fax #: \_\_\_\_\_  
 REMARKS: See #97



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

May 31, 2019

CLAIR GONZALES

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: DORSTATE SWD

Enclosed are the results of analyses for samples received by the laboratory on 05/17/19 14:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. 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      Total Haloacetic Acids (HAA-5)
- Method EPA 524.2      Total Trihalomethanes (TTHM)
- Method EPA 524.4      Regulated VOCs (V1, V2, V3)

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

- Method SM 9223-B      Total Coliform and E. coli (Colilert MMO-MUG)
- Method EPA 524.2      Regulated VOCs and Total Trihalomethanes (TTHM)
- Method EPA 552.2      Total Haloacetic Acids (HAA-5)

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SP - 20 ( 0-1 )	H901801-01	Soil	16-May-19 13:00	17-May-19 14:00
SP - 20 ( 2-3 )	H901801-02	Soil	16-May-19 13:00	17-May-19 14:00
SP - 20 ( 4-5 )	H901801-03	Soil	16-May-19 13:00	17-May-19 14:00
SP - 20 ( 6-7 )	H901801-04	Soil	16-May-19 13:00	17-May-19 14:00
SP - 20 ( 9-10 )	H901801-05	Soil	16-May-19 13:00	17-May-19 14:00
SP - 21 ( 0-1 )	H901801-06	Soil	16-May-19 13:30	17-May-19 14:00
SP - 21 ( 2-3 )	H901801-07	Soil	16-May-19 13:30	17-May-19 14:00
SP - 21 ( 4-5 )	H901801-08	Soil	16-May-19 13:30	17-May-19 14:00
SP - 21 ( 6-7 )	H901801-09	Soil	16-May-19 13:30	17-May-19 14:00
SP - 21 ( 9-10 )	H901801-10	Soil	16-May-19 13:30	17-May-19 14:00
SP - 21 ( 14-15 )	H901801-11	Soil	16-May-19 13:30	17-May-19 14:00
SP - 21 ( 19-20 )	H901801-12	Soil	16-May-19 13:30	17-May-19 14:00
SP - 21 ( 24-25 )	H901801-13	Soil	16-May-19 13:30	17-May-19 14:00
BG - 1 ( 0-1 )	H901801-14	Soil	16-May-19 14:00	17-May-19 14:00
BG - 1 ( 2-3 )	H901801-15	Soil	16-May-19 14:00	17-May-19 14:00
BG - 1 ( 4-5 )	H901801-16	Soil	16-May-19 14:00	17-May-19 14:00
BG - 1 ( 6-7 )	H901801-17	Soil	16-May-19 14:00	17-May-19 14:00
BG - 1 ( 9-10 )	H901801-18	Soil	16-May-19 14:00	17-May-19 14:00
BG - 1 ( 14-15 )	H901801-19	Soil	16-May-19 14:00	17-May-19 14:00
BG - 1 ( 19-20 )	H901801-20	Soil	16-May-19 14:00	17-May-19 14:00
BG - 1 ( 24-25 )	H901801-21	Soil	16-May-19 14:00	17-May-19 14:00
BG - 1 ( 29-30 )	H901801-22	Soil	16-May-19 14:00	17-May-19 14:00
BG - 1 ( 34-35 )	H901801-23	Soil	16-May-19 14:00	17-May-19 14:00
BG - 1 ( 39-40 )	H901801-24	Soil	16-May-19 14:00	17-May-19 14:00
SP - 13 ( 0-1 )	H901801-25	Soil	17-May-19 09:30	17-May-19 14:00
SP - 13 ( 2-3 )	H901801-26	Soil	17-May-19 09:30	17-May-19 14:00
SP - 13 ( 4-5 )	H901801-27	Soil	17-May-19 09:30	17-May-19 14:00

Cardinal Laboratories

\* = Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

SP - 13 ( 6-7 )	H901801-28	Soil	17-May-19 09:30	17-May-19 14:00
SP - 13 ( 9-10 )	H901801-29	Soil	17-May-19 09:30	17-May-19 14:00
SP - 13 ( 14-15 )	H901801-30	Soil	17-May-19 09:30	17-May-19 14:00
SP - 13 ( 19-20 )	H901801-31	Soil	17-May-19 09:30	17-May-19 14:00
SP - 13 ( 24-25 )	H901801-32	Soil	17-May-19 09:30	17-May-19 14:00
SP - 13 ( 29-30 )	H901801-33	Soil	17-May-19 09:30	17-May-19 14:00
SP - 13 ( 34-35 )	H901801-34	Soil	17-May-19 09:30	17-May-19 14:00
SP - 13 ( 39-40 )	H901801-35	Soil	17-May-19 09:30	17-May-19 14:00
SP - 10 ( 0-1 )	H901801-36	Soil	17-May-19 10:00	17-May-19 14:00
SP - 10 ( 2-3 )	H901801-37	Soil	17-May-19 10:00	17-May-19 14:00
SP - 10 ( 4-5 )	H901801-38	Soil	17-May-19 10:00	17-May-19 14:00
SP - 10 ( 6-7 )	H901801-39	Soil	17-May-19 10:00	17-May-19 14:00
SP - 10 ( 9-10 )	H901801-40	Soil	17-May-19 10:00	17-May-19 14:00
SP - 10 ( 14-15 )	H901801-41	Soil	17-May-19 10:00	17-May-19 14:00
SP - 10 ( 19-20 )	H901801-42	Soil	17-May-19 10:00	17-May-19 14:00
SP - 10 ( 24-25 )	H901801-43	Soil	17-May-19 10:00	17-May-19 14:00
SP - 10 ( 29-30 )	H901801-44	Soil	17-May-19 10:00	17-May-19 14:00
SP - 10 ( 34-35 )	H901801-45	Soil	17-May-19 10:00	17-May-19 14:00
SP - 10 ( 39-40 )	H901801-46	Soil	17-May-19 10:00	17-May-19 14:00
SP - 11 ( 0-1 )	H901801-47	Soil	17-May-19 10:30	17-May-19 14:00
SP - 11 ( 2-3 )	H901801-48	Soil	17-May-19 10:30	17-May-19 14:00
SP - 11 ( 4-5 )	H901801-49	Soil	17-May-19 10:30	17-May-19 14:00
SP - 11 ( 6-7 )	H901801-50	Soil	17-May-19 10:30	17-May-19 14:00
SP - 11 ( 9-10 )	H901801-51	Soil	17-May-19 10:30	17-May-19 14:00
SP - 11 ( 14-15 )	H901801-52	Soil	17-May-19 10:30	17-May-19 14:00
SP - 11 ( 19-20 )	H901801-53	Soil	17-May-19 10:30	17-May-19 14:00
SP - 11 ( 24-25 )	H901801-54	Soil	17-May-19 10:30	17-May-19 14:00
SP - 11 ( 29-30 )	H901801-55	Soil	17-May-19 10:30	17-May-19 14:00
SP - 11 ( 34-35 )	H901801-56	Soil	17-May-19 10:30	17-May-19 14:00
SP - 11 ( 39-40 )	H901801-57	Soil	17-May-19 10:30	17-May-19 14:00

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

SP - 11 ( 44-45 )	H901801-58	Soil	17-May-19 10:30	17-May-19 14:00
SP - 12 ( 0-1 )	H901801-59	Soil	17-May-19 11:30	17-May-19 14:00
SP - 12 ( 2-3 )	H901801-60	Soil	17-May-19 11:30	17-May-19 14:00
SP - 12 ( 4-5 )	H901801-61	Soil	17-May-19 11:30	17-May-19 14:00
SP - 12 ( 6-7 )	H901801-62	Soil	17-May-19 11:30	17-May-19 14:00
SP - 12 ( 9-10 )	H901801-63	Soil	17-May-19 11:30	17-May-19 14:00
SP - 12 ( 14-15 )	H901801-64	Soil	17-May-19 11:30	17-May-19 14:00
SP - 12 ( 19-20 )	H901801-65	Soil	17-May-19 11:30	17-May-19 14:00
SP - 12 ( 24-25 )	H901801-66	Soil	17-May-19 11:30	17-May-19 14:00
SP - 12 ( 29-30 )	H901801-67	Soil	17-May-19 11:30	17-May-19 14:00
SP - 12 ( 34-35 )	H901801-68	Soil	17-May-19 11:30	17-May-19 14:00
SP - 12 ( 39-40 )	H901801-69	Soil	17-May-19 11:30	17-May-19 14:00
SP - 12 ( 44-45 )	H901801-70	Soil	17-May-19 11:30	17-May-19 14:00

TPH added as per Clair 05/28/19. This is the revised report and will replace the one sent on 05/28/19.

05/30/19 Clair added BTEX and TPH to samples 65 thru 70. This is the 2nd revision of the report and will replace the one sent on 05/30/19.

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**SP - 20 ( 0-1 )  
H901801-01 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	7920		16.0	mg/kg	4	9052313	AC	24-May-19	4500-Cl-B	
----------	------	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	9052102	MS	21-May-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9052102	MS	21-May-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9052102	MS	21-May-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9052102	MS	21-May-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9052102	MS	21-May-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			84.2 %		73.3-129	9052102	MS	21-May-19	8021B	
---------------------------------------	--	--	--------	--	----------	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	9052009	MS	21-May-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9052009	MS	21-May-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9052009	MS	21-May-19	8015B	

Surrogate: 1-Chlorooctane			90.1 %		41-142	9052009	MS	21-May-19	8015B	
---------------------------	--	--	--------	--	--------	---------	----	-----------	-------	--

Surrogate: 1-Chlorooctadecane			93.6 %		37.6-147	9052009	MS	21-May-19	8015B	
-------------------------------	--	--	--------	--	----------	---------	----	-----------	-------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**SP - 20 ( 2-3 )  
 H901801-02 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>1630</b>		16.0	mg/kg	4	9052313	AC	24-May-19	4500-Cl-B	
-----------------	-------------	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	9052102	ms	24-May-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9052102	ms	24-May-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9052102	ms	24-May-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9052102	ms	24-May-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9052102	ms	24-May-19	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			94.9 %		73.3-129	9052102	ms	24-May-19	8021B	
--	--	--	--------	--	----------	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	9052009	MS	21-May-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9052009	MS	21-May-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9052009	MS	21-May-19	8015B	

<i>Surrogate: 1-Chlorooctane</i>			91.8 %		41-142	9052009	MS	21-May-19	8015B	
----------------------------------	--	--	--------	--	--------	---------	----	-----------	-------	--

<i>Surrogate: 1-Chlorooctadecane</i>			93.3 %		37.6-147	9052009	MS	21-May-19	8015B	
--------------------------------------	--	--	--------	--	----------	---------	----	-----------	-------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**SP - 20 ( 4-5 )  
H901801-03 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	2480		16.0	mg/kg	4	9052313	AC	24-May-19	4500-Cl-B	
----------	------	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

SP - 20 ( 6-7 )  
H901801-04 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

Cardinal Laboratories

Inorganic Compounds

Chloride	432		16.0	mg/kg	4	9052313	AC	24-May-19	4500-Cl-B	
----------	-----	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**SP - 20 ( 9-10 )  
H901801-05 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	144		16.0	mg/kg	4	9052313	AC	24-May-19	4500-Cl-B	
----------	-----	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**SP - 21 ( 0-1 )  
H901801-06 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	2760		16.0	mg/kg	4	9052313	AC	24-May-19	4500-Cl-B	
----------	------	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	9052102	MS	21-May-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9052102	MS	21-May-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9052102	MS	21-May-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9052102	MS	21-May-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9052102	MS	21-May-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			90.9 %		73.3-129	9052102	MS	21-May-19	8021B	
---------------------------------------	--	--	--------	--	----------	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	9052009	MS	21-May-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9052009	MS	21-May-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9052009	MS	21-May-19	8015B	

Surrogate: 1-Chlorooctane			88.0 %		41-142	9052009	MS	21-May-19	8015B	
---------------------------	--	--	--------	--	--------	---------	----	-----------	-------	--

Surrogate: 1-Chlorooctadecane			89.5 %		37.6-147	9052009	MS	21-May-19	8015B	
-------------------------------	--	--	--------	--	----------	---------	----	-----------	-------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**SP - 21 ( 2-3 )  
H901801-07 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	2680		16.0	mg/kg	4	9052313	AC	24-May-19	4500-Cl-B	
----------	------	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	9052102	MS	21-May-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9052102	MS	21-May-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9052102	MS	21-May-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9052102	MS	21-May-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9052102	MS	21-May-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			91.0 %		73.3-129	9052102	MS	21-May-19	8021B	
---------------------------------------	--	--	--------	--	----------	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	9052009	MS	21-May-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9052009	MS	21-May-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9052009	MS	21-May-19	8015B	

Surrogate: 1-Chlorooctane			87.5 %		41-142	9052009	MS	21-May-19	8015B	
---------------------------	--	--	--------	--	--------	---------	----	-----------	-------	--

Surrogate: 1-Chlorooctadecane			90.1 %		37.6-147	9052009	MS	21-May-19	8015B	
-------------------------------	--	--	--------	--	----------	---------	----	-----------	-------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

SP - 21 ( 4-5 )  
H901801-08 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

Cardinal Laboratories

Inorganic Compounds

Chloride	2240		16.0	mg/kg	4	9052313	AC	24-May-19	4500-Cl-B	
----------	------	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**SP - 21 ( 6-7 )  
H901801-09 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	1920		16.0	mg/kg	4	9052313	AC	24-May-19	4500-Cl-B	
----------	------	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**SP - 21 ( 9-10 )  
H901801-10 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	1340		16.0	mg/kg	4	9052313	AC	24-May-19	4500-Cl-B	
----------	------	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**SP - 21 ( 14-15 )  
H901801-11 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	496		16.0	mg/kg	4	9052313	AC	24-May-19	4500-Cl-B	
----------	-----	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**SP - 21 ( 19-20 )  
H901801-12 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	1100		16.0	mg/kg	4	9052313	AC	24-May-19	4500-Cl-B	
----------	------	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

SP - 21 ( 24-25 )  
H901801-13 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

Cardinal Laboratories

Inorganic Compounds

Chloride	1390		16.0	mg/kg	4	9052313	AC	24-May-19	4500-Cl-B	
----------	------	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**BG - 1 ( 0-1 )  
H901801-14 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	80.0		16.0	mg/kg	4	9052408	AC	24-May-19	4500-Cl-B	
----------	------	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	9052102	MS	22-May-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9052102	MS	22-May-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9052102	MS	22-May-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9052102	MS	22-May-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9052102	MS	22-May-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			103 %		73.3-129	9052102	MS	22-May-19	8021B	
---------------------------------------	--	--	-------	--	----------	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	9051719	MS	21-May-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9051719	MS	21-May-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9051719	MS	21-May-19	8015B	

Surrogate: 1-Chlorooctane			81.3 %		41-142	9051719	MS	21-May-19	8015B	
---------------------------	--	--	--------	--	--------	---------	----	-----------	-------	--

Surrogate: 1-Chlorooctadecane			87.7 %		37.6-147	9051719	MS	21-May-19	8015B	
-------------------------------	--	--	--------	--	----------	---------	----	-----------	-------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**BG - 1 ( 2-3 )  
H901801-15 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>208</b>		16.0	mg/kg	4	9052408	AC	24-May-19	4500-Cl-B	
-----------------	------------	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	9052102	MS	22-May-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9052102	MS	22-May-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9052102	MS	22-May-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9052102	MS	22-May-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9052102	MS	22-May-19	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			78.3 %			73.3-129	9052102	MS	22-May-19	8021B
--	--	--	--------	--	--	----------	---------	----	-----------	-------

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	9051719	MS	21-May-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9051719	MS	21-May-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9051719	MS	21-May-19	8015B	

<i>Surrogate: 1-Chlorooctane</i>			81.7 %			41-142	9051719	MS	21-May-19	8015B
----------------------------------	--	--	--------	--	--	--------	---------	----	-----------	-------

<i>Surrogate: 1-Chlorooctadecane</i>			89.6 %			37.6-147	9051719	MS	21-May-19	8015B
--------------------------------------	--	--	--------	--	--	----------	---------	----	-----------	-------

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**BG - 1 ( 4-5 )  
H901801-16 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	672		16.0	mg/kg	4	9052408	AC	24-May-19	4500-Cl-B	
----------	-----	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**BG - 1 ( 6-7 )  
H901801-17 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	352		16.0	mg/kg	4	9052408	AC	24-May-19	4500-Cl-B	
----------	-----	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**BG - 1 ( 9-10 )  
H901801-18 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	256		16.0	mg/kg	4	9052408	AC	24-May-19	4500-Cl-B	
----------	-----	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**BG - 1 ( 14-15 )  
H901801-19 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	176		16.0	mg/kg	4	9052408	AC	24-May-19	4500-Cl-B	
----------	-----	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

BG - 1 ( 19-20 )  
H901801-20 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

Cardinal Laboratories

Inorganic Compounds

Chloride	160		16.0	mg/kg	4	9052408	AC	24-May-19	4500-Cl-B	
----------	-----	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**BG - 1 ( 24-25 )  
H901801-21 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	144		16.0	mg/kg	4	9052408	AC	24-May-19	4500-Cl-B	
----------	-----	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

BG - 1 ( 29-30 )  
H901801-22 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

Cardinal Laboratories

Inorganic Compounds

Chloride	80.0		16.0	mg/kg	4	9052408	AC	24-May-19	4500-Cl-B	
----------	------	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**BG - 1 ( 34-35 )  
H901801-23 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	128		16.0	mg/kg	4	9052408	AC	24-May-19	4500-Cl-B	
----------	-----	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**BG - 1 ( 39-40 )  
H901801-24 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	112		16.0	mg/kg	4	9052408	AC	24-May-19	4500-Cl-B	
----------	-----	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**SP - 13 ( 0-1 )  
H901801-25 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>3200</b>		16.0	mg/kg	4	9052408	AC	24-May-19	4500-Cl-B	
-----------------	-------------	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	9052102	MS	22-May-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9052102	MS	22-May-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9052102	MS	22-May-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9052102	MS	22-May-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9052102	MS	22-May-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			82.6 %		73.3-129	9052102	MS	22-May-19	8021B	
---------------------------------------	--	--	--------	--	----------	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

**S-04**

GRO C6-C10*	<10.0		10.0	mg/kg	1	9051719	MS	22-May-19	8015B	
<b>DRO &gt;C10-C28*</b>	<b>2070</b>		10.0	mg/kg	1	9051719	MS	22-May-19	8015B	
<b>EXT DRO &gt;C28-C36</b>	<b>1050</b>		10.0	mg/kg	1	9051719	MS	22-May-19	8015B	

Surrogate: 1-Chlorooctane			87.7 %		41-142	9051719	MS	22-May-19	8015B	
---------------------------	--	--	--------	--	--------	---------	----	-----------	-------	--

Surrogate: 1-Chlorooctadecane			159 %		37.6-147	9051719	MS	22-May-19	8015B	
-------------------------------	--	--	-------	--	----------	---------	----	-----------	-------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**SP - 13 ( 2-3 )  
H901801-26 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>3440</b>		16.0	mg/kg	4	9052408	AC	24-May-19	4500-Cl-B	
-----------------	-------------	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	9052103	ms	21-May-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9052103	ms	21-May-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9052103	ms	21-May-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9052103	ms	21-May-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9052103	ms	21-May-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			89.7 %		73.3-129	9052103	ms	21-May-19	8021B	
---------------------------------------	--	--	--------	--	----------	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	9051719	MS	21-May-19	8015B	
<b>DRO &gt;C10-C28*</b>	<b>129</b>		10.0	mg/kg	1	9051719	MS	21-May-19	8015B	
<b>EXT DRO &gt;C28-C36</b>	<b>35.5</b>		10.0	mg/kg	1	9051719	MS	21-May-19	8015B	

Surrogate: 1-Chlorooctane			86.5 %		41-142	9051719	MS	21-May-19	8015B	
---------------------------	--	--	--------	--	--------	---------	----	-----------	-------	--

Surrogate: 1-Chlorooctadecane			104 %		37.6-147	9051719	MS	21-May-19	8015B	
-------------------------------	--	--	-------	--	----------	---------	----	-----------	-------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**SP - 13 ( 4-5 )  
H901801-27 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>1380</b>		16.0	mg/kg	4	9052408	AC	24-May-19	4500-Cl-B	
-----------------	-------------	--	------	-------	---	---------	----	-----------	-----------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	9052813	MS	29-May-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9052813	MS	29-May-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9052813	MS	29-May-19	8015B	

Surrogate: 1-Chlorooctane			81.1 %	41-142		9052813	MS	29-May-19	8015B	
Surrogate: 1-Chlorooctadecane			79.5 %	37.6-147		9052813	MS	29-May-19	8015B	

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**SP - 13 ( 6-7 )  
H901801-28 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>3440</b>		16.0	mg/kg	4	9052408	AC	24-May-19	4500-Cl-B	
-----------------	-------------	--	------	-------	---	---------	----	-----------	-----------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	9052813	MS	29-May-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9052813	MS	29-May-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9052813	MS	29-May-19	8015B	
Surrogate: 1-Chlorooctane			78.0 %	41-142		9052813	MS	29-May-19	8015B	
Surrogate: 1-Chlorooctadecane			75.6 %	37.6-147		9052813	MS	29-May-19	8015B	

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**SP - 13 ( 9-10 )  
H901801-29 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>3840</b>		16.0	mg/kg	4	9052408	AC	24-May-19	4500-Cl-B	
-----------------	-------------	--	------	-------	---	---------	----	-----------	-----------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	9052813	MS	29-May-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9052813	MS	29-May-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9052813	MS	29-May-19	8015B	
Surrogate: 1-Chlorooctane			90.6 %	41-142		9052813	MS	29-May-19	8015B	
Surrogate: 1-Chlorooctadecane			88.5 %	37.6-147		9052813	MS	29-May-19	8015B	

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**SP - 13 ( 14-15 )  
H901801-30 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>6560</b>		16.0	mg/kg	4	9052408	AC	24-May-19	4500-Cl-B	
-----------------	-------------	--	------	-------	---	---------	----	-----------	-----------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	9052813	MS	29-May-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9052813	MS	29-May-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9052813	MS	29-May-19	8015B	
Surrogate: 1-Chlorooctane			93.6 %	41-142		9052813	MS	29-May-19	8015B	
Surrogate: 1-Chlorooctadecane			90.6 %	37.6-147		9052813	MS	29-May-19	8015B	

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**SP - 13 ( 19-20 )  
H901801-31 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	7200		16.0	mg/kg	4	9052408	AC	24-May-19	4500-Cl-B	
----------	------	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**SP - 13 ( 24-25 )  
H901801-32 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	4800		16.0	mg/kg	4	9052408	AC	24-May-19	4500-Cl-B	
----------	------	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

SP - 13 ( 29-30 )  
H901801-33 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

Cardinal Laboratories

Inorganic Compounds

Chloride	1420		16.0	mg/kg	4	9052408	AC	24-May-19	4500-Cl-B	
----------	------	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**SP - 13 ( 34-35 )  
H901801-34 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	4320		16.0	mg/kg	4	9052409	AC	24-May-19	4500-Cl-B	QM-07
----------	------	--	------	-------	---	---------	----	-----------	-----------	-------

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**SP - 13 ( 39-40 )  
H901801-35 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	4480		16.0	mg/kg	4	9052409	AC	24-May-19	4500-Cl-B	
----------	------	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**SP - 10 ( 0-1 )  
H901801-36 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>4000</b>		16.0	mg/kg	4	9052409	AC	24-May-19	4500-Cl-B	
-----------------	-------------	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	9052103	ms	21-May-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9052103	ms	21-May-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9052103	ms	21-May-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9052103	ms	21-May-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9052103	ms	21-May-19	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			93.1 %		73.3-129	9052103	ms	21-May-19	8021B	
--	--	--	--------	--	----------	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	9051719	MS	21-May-19	8015B	
<b>DRO &gt;C10-C28*</b>	<b>1320</b>		10.0	mg/kg	1	9051719	MS	21-May-19	8015B	
<b>EXT DRO &gt;C28-C36</b>	<b>1790</b>		10.0	mg/kg	1	9051719	MS	21-May-19	8015B	

<i>Surrogate: 1-Chlorooctane</i>			88.6 %		41-142	9051719	MS	21-May-19	8015B	
----------------------------------	--	--	--------	--	--------	---------	----	-----------	-------	--

<i>Surrogate: 1-Chlorooctadecane</i>			117 %		37.6-147	9051719	MS	21-May-19	8015B	
--------------------------------------	--	--	-------	--	----------	---------	----	-----------	-------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**SP - 10 ( 2-3 )  
H901801-37 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>3120</b>		16.0	mg/kg	4	9052409	AC	24-May-19	4500-Cl-B	
-----------------	-------------	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	9052103	ms	21-May-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9052103	ms	21-May-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9052103	ms	21-May-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9052103	ms	21-May-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9052103	ms	21-May-19	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			92.3 %		73.3-129	9052103	ms	21-May-19	8021B	
--	--	--	--------	--	----------	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	9051719	MS	21-May-19	8015B	
<b>DRO &gt;C10-C28*</b>	<b>26.2</b>		10.0	mg/kg	1	9051719	MS	21-May-19	8015B	
<b>EXT DRO &gt;C28-C36</b>	<b>19.3</b>		10.0	mg/kg	1	9051719	MS	21-May-19	8015B	

<i>Surrogate: 1-Chlorooctane</i>			84.5 %		41-142	9051719	MS	21-May-19	8015B	
----------------------------------	--	--	--------	--	--------	---------	----	-----------	-------	--

<i>Surrogate: 1-Chlorooctadecane</i>			94.9 %		37.6-147	9051719	MS	21-May-19	8015B	
--------------------------------------	--	--	--------	--	----------	---------	----	-----------	-------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**SP - 10 ( 4-5 )  
H901801-38 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	4160		16.0	mg/kg	4	9052409	AC	24-May-19	4500-Cl-B	
----------	------	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**SP - 10 ( 6-7 )  
H901801-39 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	1760		16.0	mg/kg	4	9052409	AC	24-May-19	4500-Cl-B	
----------	------	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**SP - 10 ( 9-10 )  
H901801-40 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	2800		16.0	mg/kg	4	9052409	AC	24-May-19	4500-Cl-B	
----------	------	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**SP - 10 ( 14-15 )  
H901801-41 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	3600		16.0	mg/kg	4	9052409	AC	24-May-19	4500-Cl-B	
----------	------	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**SP - 10 ( 19-20 )  
H901801-42 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	2920		16.0	mg/kg	4	9052409	AC	24-May-19	4500-Cl-B	
----------	------	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**SP - 10 ( 24-25 )  
H901801-43 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	3080		16.0	mg/kg	4	9052409	AC	24-May-19	4500-Cl-B	
----------	------	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**SP - 10 ( 29-30 )  
H901801-44 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	4240		16.0	mg/kg	4	9052409	AC	24-May-19	4500-Cl-B	
----------	------	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**SP - 10 ( 34-35 )  
H901801-45 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	4640		16.0	mg/kg	4	9052409	AC	24-May-19	4500-Cl-B	
----------	------	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**SP - 10 ( 39-40 )  
H901801-46 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	4880		16.0	mg/kg	4	9052409	AC	24-May-19	4500-Cl-B	
----------	------	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**SP - 11 ( 0-1 )  
H901801-47 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>1760</b>		16.0	mg/kg	4	9052409	AC	24-May-19	4500-Cl-B	
-----------------	-------------	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	9052103	ms	21-May-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9052103	ms	21-May-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9052103	ms	21-May-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9052103	ms	21-May-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9052103	ms	21-May-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			91.8 %			73.3-129	9052103	ms	21-May-19	8021B
---------------------------------------	--	--	--------	--	--	----------	---------	----	-----------	-------

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	9051719	MS	21-May-19	8015B	
<b>DRO &gt;C10-C28*</b>	<b>120</b>		10.0	mg/kg	1	9051719	MS	21-May-19	8015B	
<b>EXT DRO &gt;C28-C36</b>	<b>44.9</b>		10.0	mg/kg	1	9051719	MS	21-May-19	8015B	

Surrogate: 1-Chlorooctane			85.6 %			41-142	9051719	MS	21-May-19	8015B
---------------------------	--	--	--------	--	--	--------	---------	----	-----------	-------

Surrogate: 1-Chlorooctadecane			102 %			37.6-147	9051719	MS	21-May-19	8015B
-------------------------------	--	--	-------	--	--	----------	---------	----	-----------	-------

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**SP - 11 ( 2-3 )  
H901801-48 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	400		16.0	mg/kg	4	9052409	AC	24-May-19	4500-Cl-B	
----------	-----	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	9052103	ms	21-May-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9052103	ms	21-May-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9052103	ms	21-May-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9052103	ms	21-May-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9052103	ms	21-May-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			92.5 %		73.3-129	9052103	ms	21-May-19	8021B	
---------------------------------------	--	--	--------	--	----------	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	9051719	MS	21-May-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9051719	MS	21-May-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9051719	MS	21-May-19	8015B	

Surrogate: 1-Chlorooctane			79.3 %		41-142	9051719	MS	21-May-19	8015B	
---------------------------	--	--	--------	--	--------	---------	----	-----------	-------	--

Surrogate: 1-Chlorooctadecane			87.7 %		37.6-147	9051719	MS	21-May-19	8015B	
-------------------------------	--	--	--------	--	----------	---------	----	-----------	-------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

SP - 11 ( 4-5 )  
H901801-49 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

Cardinal Laboratories

Inorganic Compounds

Chloride	1070		16.0	mg/kg	4	9052409	AC	24-May-19	4500-Cl-B	
----------	------	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**SP - 11 ( 6-7 )  
H901801-50 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	1700		16.0	mg/kg	4	9052409	AC	24-May-19	4500-Cl-B	
----------	------	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**SP - 11 ( 9-10 )  
H901801-51 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	3600		16.0	mg/kg	4	9052409	AC	24-May-19	4500-Cl-B	
----------	------	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**SP - 11 ( 14-15 )  
H901801-52 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	6000		16.0	mg/kg	4	9052409	AC	24-May-19	4500-Cl-B	
----------	------	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**SP - 11 ( 19-20 )  
H901801-53 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	7360		16.0	mg/kg	4	9052409	AC	24-May-19	4500-Cl-B	
----------	------	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

SP - 11 ( 24-25 )  
H901801-54 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

Cardinal Laboratories

Inorganic Compounds

Chloride	5760		16.0	mg/kg	4	9052206	AC	24-May-19	4500-Cl-B	QM-07
----------	------	--	------	-------	---	---------	----	-----------	-----------	-------

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**SP - 11 ( 29-30 )  
H901801-55 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	6800		16.0	mg/kg	4	9052206	AC	24-May-19	4500-Cl-B	
----------	------	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**SP - 11 ( 34-35 )  
H901801-56 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	5730		16.0	mg/kg	4	9052206	AC	24-May-19	4500-Cl-B	
----------	------	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**SP - 11 ( 39-40 )  
H901801-57 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	5730		16.0	mg/kg	4	9052206	AC	24-May-19	4500-Cl-B	
----------	------	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**SP - 11 ( 44-45 )  
H901801-58 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	6960		16.0	mg/kg	4	9052206	AC	24-May-19	4500-Cl-B	
----------	------	--	------	-------	---	---------	----	-----------	-----------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**SP - 12 ( 0-1 )  
H901801-59 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>4960</b>		16.0	mg/kg	4	9052206	AC	24-May-19	4500-Cl-B	
-----------------	-------------	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	9052103	ms	21-May-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9052103	ms	21-May-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9052103	ms	21-May-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9052103	ms	21-May-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9052103	ms	21-May-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			94.5 %		73.3-129	9052103	ms	21-May-19	8021B	
---------------------------------------	--	--	--------	--	----------	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	9051719	MS	21-May-19	8015B	
DRO >C10-C28*	<b>417</b>		10.0	mg/kg	1	9051719	MS	21-May-19	8015B	
EXT DRO >C28-C36	<b>124</b>		10.0	mg/kg	1	9051719	MS	21-May-19	8015B	

Surrogate: 1-Chlorooctane			80.6 %		41-142	9051719	MS	21-May-19	8015B	
---------------------------	--	--	--------	--	--------	---------	----	-----------	-------	--

Surrogate: 1-Chlorooctadecane			100 %		37.6-147	9051719	MS	21-May-19	8015B	
-------------------------------	--	--	-------	--	----------	---------	----	-----------	-------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**SP - 12 ( 2-3 )  
H901801-60 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>3320</b>		16.0	mg/kg	4	9052206	AC	24-May-19	4500-Cl-B	
-----------------	-------------	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

**S-04**

Benzene*	<0.050		0.050	mg/kg	50	9052103	ms	21-May-19	8021B	
Toluene*	<b>0.229</b>		0.050	mg/kg	50	9052103	ms	21-May-19	8021B	
Ethylbenzene*	<b>1.29</b>		0.050	mg/kg	50	9052103	ms	21-May-19	8021B	
Total Xylenes*	<b>0.326</b>		0.150	mg/kg	50	9052103	ms	21-May-19	8021B	
Total BTEX	<b>1.85</b>		0.300	mg/kg	50	9052103	ms	21-May-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			183 %		73.3-129	9052103	ms	21-May-19	8021B	
---------------------------------------	--	--	-------	--	----------	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

**S-06**

<b>GRO C6-C10*</b>	<b>240</b>		100	mg/kg	10	9051719	MS	21-May-19	8015B	
<b>DRO &gt;C10-C28*</b>	<b>6620</b>		100	mg/kg	10	9051719	MS	21-May-19	8015B	
<b>EXT DRO &gt;C28-C36</b>	<b>1960</b>		100	mg/kg	10	9051719	MS	21-May-19	8015B	

Surrogate: 1-Chlorooctane			128 %		41-142	9051719	MS	21-May-19	8015B	
---------------------------	--	--	-------	--	--------	---------	----	-----------	-------	--

Surrogate: 1-Chlorooctadecane			239 %		37.6-147	9051719	MS	21-May-19	8015B	
-------------------------------	--	--	-------	--	----------	---------	----	-----------	-------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**SP - 12 ( 4-5 )  
H901801-61 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>8800</b>		16.0	mg/kg	4	9052206	AC	24-May-19	4500-Cl-B	
-----------------	-------------	--	------	-------	---	---------	----	-----------	-----------	--

**Petroleum Hydrocarbons by GC FID**

**S-06**

<b>GRO C6-C10*</b>	<b>2360</b>		100	mg/kg	10	9052902	MS	29-May-19	8015B	QM-07
<b>DRO &gt;C10-C28*</b>	<b>18500</b>		100	mg/kg	10	9052902	MS	29-May-19	8015B	QM-07
<b>EXT DRO &gt;C28-C36</b>	<b>2730</b>		100	mg/kg	10	9052902	MS	29-May-19	8015B	
<i>Surrogate: 1-Chlorooctane</i>			<i>605 %</i>	<i>41-142</i>		<i>9052902</i>	<i>MS</i>	<i>29-May-19</i>	<i>8015B</i>	
<i>Surrogate: 1-Chlorooctadecane</i>			<i>689 %</i>	<i>37.6-147</i>		<i>9052902</i>	<i>MS</i>	<i>29-May-19</i>	<i>8015B</i>	

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**SP - 12 ( 6-7 )  
H901801-62 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>2520</b>		16.0	mg/kg	4	9052206	AC	24-May-19	4500-Cl-B	
-----------------	-------------	--	------	-------	---	---------	----	-----------	-----------	--

**Petroleum Hydrocarbons by GC FID**

**S-04**

<b>GRO C6-C10*</b>	<b>112</b>		10.0	mg/kg	1	9052902	MS	29-May-19	8015B	
<b>DRO &gt;C10-C28*</b>	<b>2400</b>		10.0	mg/kg	1	9052902	MS	29-May-19	8015B	
<b>EXT DRO &gt;C28-C36</b>	<b>479</b>		10.0	mg/kg	1	9052902	MS	29-May-19	8015B	
<i>Surrogate: 1-Chlorooctane</i>			<i>144 %</i>	<i>41-142</i>		<i>9052902</i>	<i>MS</i>	<i>29-May-19</i>	<i>8015B</i>	
<i>Surrogate: 1-Chlorooctadecane</i>			<i>168 %</i>	<i>37.6-147</i>		<i>9052902</i>	<i>MS</i>	<i>29-May-19</i>	<i>8015B</i>	

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**SP - 12 ( 9-10 )  
H901801-63 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>3840</b>		16.0	mg/kg	4	9052206	AC	24-May-19	4500-Cl-B	
-----------------	-------------	--	------	-------	---	---------	----	-----------	-----------	--

**Petroleum Hydrocarbons by GC FID**

**S-06**

<b>GRO C6-C10*</b>	<b>147</b>		50.0	mg/kg	5	9052902	MS	29-May-19	8015B	
<b>DRO &gt;C10-C28*</b>	<b>2940</b>		50.0	mg/kg	5	9052902	MS	29-May-19	8015B	
<b>EXT DRO &gt;C28-C36</b>	<b>251</b>		50.0	mg/kg	5	9052902	MS	29-May-19	8015B	
<i>Surrogate: 1-Chlorooctane</i>			<i>174 %</i>	<i>41-142</i>		<i>9052902</i>	<i>MS</i>	<i>29-May-19</i>	<i>8015B</i>	
<i>Surrogate: 1-Chlorooctadecane</i>			<i>194 %</i>	<i>37.6-147</i>		<i>9052902</i>	<i>MS</i>	<i>29-May-19</i>	<i>8015B</i>	

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**SP - 12 ( 14-15 )  
H901801-64 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>5520</b>		16.0	mg/kg	4	9052206	AC	24-May-19	4500-Cl-B	
-----------------	-------------	--	------	-------	---	---------	----	-----------	-----------	--

**Petroleum Hydrocarbons by GC FID**

**S-04**

<b>GRO C6-C10*</b>	<b>446</b>		10.0	mg/kg	1	9052902	MS	29-May-19	8015B	
<b>DRO &gt;C10-C28*</b>	<b>5640</b>		10.0	mg/kg	1	9052902	MS	29-May-19	8015B	
<b>EXT DRO &gt;C28-C36</b>	<b>1170</b>		10.0	mg/kg	1	9052902	MS	29-May-19	8015B	
<i>Surrogate: 1-Chlorooctane</i>			219 %	41-142		9052902	MS	29-May-19	8015B	
<i>Surrogate: 1-Chlorooctadecane</i>			281 %	37.6-147		9052902	MS	29-May-19	8015B	

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**SP - 12 ( 19-20 )  
H901801-65 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	6320		16.0	mg/kg	4	9052206	AC	24-May-19	4500-Cl-B	
----------	------	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	9053003	ms	30-May-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9053003	ms	30-May-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9053003	ms	30-May-19	8021B	
<b>Total Xylenes*</b>	<b>0.212</b>		0.150	mg/kg	50	9053003	ms	30-May-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9053003	ms	30-May-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			111 %		73.3-129	9053003	ms	30-May-19	8021B	
---------------------------------------	--	--	-------	--	----------	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	9053005	MS	30-May-19	8015B	
<b>DRO &gt;C10-C28*</b>	<b>1250</b>		10.0	mg/kg	1	9053005	MS	30-May-19	8015B	QM-07
<b>EXT DRO &gt;C28-C36</b>	<b>212</b>		10.0	mg/kg	1	9053005	MS	30-May-19	8015B	

Surrogate: 1-Chlorooctane			106 %		41-142	9053005	MS	30-May-19	8015B	
---------------------------	--	--	-------	--	--------	---------	----	-----------	-------	--

Surrogate: 1-Chlorooctadecane			135 %		37.6-147	9053005	MS	30-May-19	8015B	
-------------------------------	--	--	-------	--	----------	---------	----	-----------	-------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**SP - 12 ( 24-25 )  
H901801-66 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	7520		16.0	mg/kg	4	9052206	AC	24-May-19	4500-Cl-B	
----------	------	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	9053003	ms	30-May-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9053003	ms	30-May-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9053003	ms	30-May-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9053003	ms	30-May-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9053003	ms	30-May-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			105 %	73.3-129		9053003	ms	30-May-19	8021B	
---------------------------------------	--	--	-------	----------	--	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	9053005	MS	30-May-19	8015B	
DRO >C10-C28*	262		10.0	mg/kg	1	9053005	MS	30-May-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9053005	MS	30-May-19	8015B	

Surrogate: 1-Chlorooctane			94.4 %	41-142		9053005	MS	30-May-19	8015B	
---------------------------	--	--	--------	--------	--	---------	----	-----------	-------	--

Surrogate: 1-Chlorooctadecane			116 %	37.6-147		9053005	MS	30-May-19	8015B	
-------------------------------	--	--	-------	----------	--	---------	----	-----------	-------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**SP - 12 ( 29-30 )  
H901801-67 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>7200</b>		16.0	mg/kg	4	9052206	AC	24-May-19	4500-Cl-B	
-----------------	-------------	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	9053003	ms	30-May-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9053003	ms	30-May-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9053003	ms	30-May-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9053003	ms	30-May-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9053003	ms	30-May-19	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			106 %		73.3-129	9053003	ms	30-May-19	8021B	
--	--	--	-------	--	----------	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	9053005	MS	30-May-19	8015B	
<b>DRO &gt;C10-C28*</b>	<b>180</b>		10.0	mg/kg	1	9053005	MS	30-May-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9053005	MS	30-May-19	8015B	

<i>Surrogate: 1-Chlorooctane</i>			97.0 %		41-142	9053005	MS	30-May-19	8015B	
----------------------------------	--	--	--------	--	--------	---------	----	-----------	-------	--

<i>Surrogate: 1-Chlorooctadecane</i>			116 %		37.6-147	9053005	MS	30-May-19	8015B	
--------------------------------------	--	--	-------	--	----------	---------	----	-----------	-------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**SP - 12 ( 34-35 )  
H901801-68 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>6000</b>		16.0	mg/kg	4	9052206	AC	24-May-19	4500-Cl-B	
-----------------	-------------	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	9053003	ms	30-May-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9053003	ms	30-May-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9053003	ms	30-May-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9053003	ms	30-May-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9053003	ms	30-May-19	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			107 %	73.3-129		9053003	ms	30-May-19	8021B	
--	--	--	-------	----------	--	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	9053005	MS	30-May-19	8015B	
<b>DRO &gt;C10-C28*</b>	<b>293</b>		10.0	mg/kg	1	9053005	MS	30-May-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9053005	MS	30-May-19	8015B	

<i>Surrogate: 1-Chlorooctane</i>			100 %	41-142		9053005	MS	30-May-19	8015B	
----------------------------------	--	--	-------	--------	--	---------	----	-----------	-------	--

<i>Surrogate: 1-Chlorooctadecane</i>			113 %	37.6-147		9053005	MS	30-May-19	8015B	
--------------------------------------	--	--	-------	----------	--	---------	----	-----------	-------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**SP - 12 ( 39-40 )  
H901801-69 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>6080</b>		16.0	mg/kg	4	9052206	AC	24-May-19	4500-Cl-B	
-----------------	-------------	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	9053003	ms	30-May-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9053003	ms	30-May-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9053003	ms	30-May-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9053003	ms	30-May-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9053003	ms	30-May-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			106 %		73.3-129	9053003	ms	30-May-19	8021B	
---------------------------------------	--	--	-------	--	----------	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	9053005	MS	30-May-19	8015B	
<b>DRO &gt;C10-C28*</b>	<b>54.0</b>		10.0	mg/kg	1	9053005	MS	30-May-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9053005	MS	30-May-19	8015B	

Surrogate: 1-Chlorooctane			97.1 %		41-142	9053005	MS	30-May-19	8015B	
---------------------------	--	--	--------	--	--------	---------	----	-----------	-------	--

Surrogate: 1-Chlorooctadecane			101 %		37.6-147	9053005	MS	30-May-19	8015B	
-------------------------------	--	--	-------	--	----------	---------	----	-----------	-------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**SP - 12 ( 44-45 )  
H901801-70 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>6480</b>		16.0	mg/kg	4	9052206	AC	24-May-19	4500-Cl-B	
-----------------	-------------	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	9053003	ms	30-May-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9053003	ms	30-May-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9053003	ms	30-May-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9053003	ms	30-May-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9053003	ms	30-May-19	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			105 %	73.3-129		9053003	ms	30-May-19	8021B	
--	--	--	-------	----------	--	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	9053005	MS	30-May-19	8015B	
<b>DRO &gt;C10-C28*</b>	<b>81.1</b>		10.0	mg/kg	1	9053005	MS	30-May-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9053005	MS	30-May-19	8015B	

<i>Surrogate: 1-Chlorooctane</i>			95.2 %	41-142		9053005	MS	30-May-19	8015B	
----------------------------------	--	--	--------	--------	--	---------	----	-----------	-------	--

<i>Surrogate: 1-Chlorooctadecane</i>			99.9 %	37.6-147		9053005	MS	30-May-19	8015B	
--------------------------------------	--	--	--------	----------	--	---------	----	-----------	-------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**Inorganic Compounds - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch 9052206 - 1:4 DI Water**

<b>Blank (9052206-BLK1)</b> Prepared & Analyzed: 22-May-19										
Chloride	ND	16.0	mg/kg							
<b>LCS (9052206-BS1)</b> Prepared & Analyzed: 22-May-19										
Chloride	400	16.0	mg/kg	400		100	80-120			
<b>LCS Dup (9052206-BSD1)</b> Prepared & Analyzed: 22-May-19										
Chloride	400	16.0	mg/kg	400		100	80-120	0.00	20	

**Batch 9052313 - 1:4 DI Water**

<b>Blank (9052313-BLK1)</b> Prepared & Analyzed: 23-May-19										
Chloride	ND	16.0	mg/kg							
<b>LCS (9052313-BS1)</b> Prepared & Analyzed: 23-May-19										
Chloride	400	16.0	mg/kg	400		100	80-120			
<b>LCS Dup (9052313-BSD1)</b> Prepared & Analyzed: 23-May-19										
Chloride	400	16.0	mg/kg	400		100	80-120	0.00	20	

**Batch 9052408 - 1:4 DI Water**

<b>Blank (9052408-BLK1)</b> Prepared & Analyzed: 24-May-19										
Chloride	ND	16.0	mg/kg							
<b>LCS (9052408-BS1)</b> Prepared & Analyzed: 24-May-19										
Chloride	400	16.0	mg/kg	400		100	80-120			

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**Inorganic Compounds - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch 9052408 - 1:4 DI Water**

<b>LCS Dup (9052408-BSD1)</b>				Prepared & Analyzed: 24-May-19						
Chloride	400	16.0	mg/kg	400	100	80-120	0.00	20		

**Batch 9052409 - 1:4 DI Water**

<b>Blank (9052409-BLK1)</b>				Prepared & Analyzed: 24-May-19						
Chloride	ND	16.0	mg/kg							

<b>LCS (9052409-BS1)</b>				Prepared & Analyzed: 24-May-19						
Chloride	384	16.0	mg/kg	400	96.0	80-120				

<b>LCS Dup (9052409-BSD1)</b>				Prepared & Analyzed: 24-May-19						
Chloride	400	16.0	mg/kg	400	100	80-120	4.08	20		

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**Volatile Organic Compounds by EPA Method 8021 - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch 9052102 - Volatiles**

**Blank (9052102-BLK1)** Prepared & Analyzed: 21-May-19

Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							
Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	0.115		mg/kg	0.100		115	73.3-129			

**LCS (9052102-BS1)** Prepared & Analyzed: 21-May-19

Benzene	1.82	0.050	mg/kg	2.00		91.1	72.2-131			
Toluene	1.81	0.050	mg/kg	2.00		90.3	71.7-126			
Ethylbenzene	1.71	0.050	mg/kg	2.00		85.4	68.9-126			
Total Xylenes	4.85	0.150	mg/kg	6.00		80.9	71.4-125			
Surrogate: 4-Bromofluorobenzene (PID)	0.0777		mg/kg	0.100		77.7	73.3-129			

**LCS Dup (9052102-BSD1)** Prepared & Analyzed: 21-May-19

Benzene	1.81	0.050	mg/kg	2.00		90.3	72.2-131	0.868	6.91	
Toluene	1.89	0.050	mg/kg	2.00		94.4	71.7-126	4.41	7.12	
Ethylbenzene	1.78	0.050	mg/kg	2.00		88.8	68.9-126	3.94	7.88	
Total Xylenes	5.21	0.150	mg/kg	6.00		86.9	71.4-125	7.20	7.46	
Surrogate: 4-Bromofluorobenzene (PID)	0.0905		mg/kg	0.100		90.5	73.3-129			

**Batch 9052103 - Volatiles**

**Blank (9052103-BLK1)** Prepared & Analyzed: 21-May-19

Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							
Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	0.0923		mg/kg	0.100		92.3	73.3-129			

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH  
901 WEST WALL STREET , STE 100  
MIDLAND TX, 79701

Project: DORSTATE SWD  
Project Number: 212C-MD-01743  
Project Manager: CLAIR GONZALES  
Fax To: (432) 682-3946

Reported:  
31-May-19 10:00

**Volatile Organic Compounds by EPA Method 8021 - Quality Control****Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	RPD Limits	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	-----------	------------	-----------	-------

**Batch 9052103 - Volatiles****LCS (9052103-BS1)**

Prepared &amp; Analyzed: 21-May-19

Benzene	1.59	0.050	mg/kg	2.00		79.3	72.2-131		
Toluene	1.72	0.050	mg/kg	2.00		85.8	71.7-126		
Ethylbenzene	1.64	0.050	mg/kg	2.00		82.1	68.9-126		
Total Xylenes	4.95	0.150	mg/kg	6.00		82.4	71.4-125		
Surrogate: 4-Bromofluorobenzene (PID)	0.0890		mg/kg	0.100		89.0	73.3-129		

**LCS Dup (9052103-BSD1)**

Prepared &amp; Analyzed: 21-May-19

Benzene	1.71	0.050	mg/kg	2.00		85.7	72.2-131	7.78	6.91	QR-02
Toluene	1.84	0.050	mg/kg	2.00		92.2	71.7-126	7.14	7.12	QR-02
Ethylbenzene	1.76	0.050	mg/kg	2.00		88.0	68.9-126	6.86	7.88	
Total Xylenes	5.30	0.150	mg/kg	6.00		88.3	71.4-125	6.83	7.46	
Surrogate: 4-Bromofluorobenzene (PID)	0.0913		mg/kg	0.100		91.3	73.3-129			

**Batch 9053003 - Volatiles****Blank (9053003-BLK1)**

Prepared &amp; Analyzed: 30-May-19

Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							
Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	0.106		mg/kg	0.100		106	73.3-129			

**LCS (9053003-BS1)**

Prepared &amp; Analyzed: 30-May-19

Benzene	1.87	0.050	mg/kg	2.00		93.7	72.2-131			
Toluene	1.98	0.050	mg/kg	2.00		99.0	71.7-126			
Ethylbenzene	1.90	0.050	mg/kg	2.00		94.9	68.9-126			
Total Xylenes	5.79	0.150	mg/kg	6.00		96.5	71.4-125			
Surrogate: 4-Bromofluorobenzene (PID)	0.107		mg/kg	0.100		107	73.3-129			

Cardinal Laboratories

\* = Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**Volatile Organic Compounds by EPA Method 8021 - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch 9053003 - Volatiles**

**LCS Dup (9053003-BSD1)**

Prepared & Analyzed: 30-May-19

Benzene	1.79	0.050	mg/kg	2.00		89.6	72.2-131	4.54	6.91	
Toluene	1.89	0.050	mg/kg	2.00		94.5	71.7-126	4.64	7.12	
Ethylbenzene	1.80	0.050	mg/kg	2.00		89.9	68.9-126	5.51	7.88	
Total Xylenes	5.52	0.150	mg/kg	6.00		91.9	71.4-125	4.85	7.46	
Surrogate: 4-Bromofluorobenzene (PID)	0.107		mg/kg	0.100		107	73.3-129			

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**Petroleum Hydrocarbons by GC FID - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	-----------	--------	-----	-----------	-------

**Batch 9051719 - General Prep - Organics**

<b>Blank (9051719-BLK1)</b>		Prepared: 17-May-19 Analyzed: 21-May-19								
GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	45.3		mg/kg	50.0		90.6	41-142			
Surrogate: 1-Chlorooctadecane	50.2		mg/kg	50.0		100	37.6-147			

<b>LCS (9051719-BS1)</b>		Prepared: 17-May-19 Analyzed: 21-May-19								
GRO C6-C10	188	10.0	mg/kg	200		94.0	76.5-133			
DRO >C10-C28	224	10.0	mg/kg	200		112	72.9-138			
Total TPH C6-C28	412	10.0	mg/kg	400		103	78-132			
Surrogate: 1-Chlorooctane	49.3		mg/kg	50.0		98.7	41-142			
Surrogate: 1-Chlorooctadecane	53.2		mg/kg	50.0		106	37.6-147			

<b>LCS Dup (9051719-BS1)</b>		Prepared: 17-May-19 Analyzed: 21-May-19								
GRO C6-C10	201	10.0	mg/kg	200		100	76.5-133	6.52	20.6	
DRO >C10-C28	244	10.0	mg/kg	200		122	72.9-138	8.64	20.6	
Total TPH C6-C28	445	10.0	mg/kg	400		111	78-132	7.68	18	
Surrogate: 1-Chlorooctane	50.2		mg/kg	50.0		100	41-142			
Surrogate: 1-Chlorooctadecane	54.6		mg/kg	50.0		109	37.6-147			

**Batch 9052009 - General Prep - Organics**

<b>Blank (9052009-BLK1)</b>		Prepared: 20-May-19 Analyzed: 21-May-19								
GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	49.0		mg/kg	50.0		98.1	41-142			
Surrogate: 1-Chlorooctadecane	49.9		mg/kg	50.0		99.8	37.6-147			

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**Petroleum Hydrocarbons by GC FID - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch 9052009 - General Prep - Organics**

<b>LCS (9052009-BS1)</b>		Prepared: 20-May-19 Analyzed: 21-May-19								
GRO C6-C10	198	10.0	mg/kg	200		99.1	76.5-133			
DRO >C10-C28	192	10.0	mg/kg	200		95.9	72.9-138			
Total TPH C6-C28	390	10.0	mg/kg	400		97.5	78-132			
Surrogate: 1-Chlorooctane	53.3		mg/kg	50.0		107	41-142			
Surrogate: 1-Chlorooctadecane	52.0		mg/kg	50.0		104	37.6-147			

<b>LCS Dup (9052009-BSD1)</b>		Prepared: 20-May-19 Analyzed: 21-May-19								
GRO C6-C10	205	10.0	mg/kg	200		102	76.5-133	3.28	20.6	
DRO >C10-C28	201	10.0	mg/kg	200		101	72.9-138	4.80	20.6	
Total TPH C6-C28	406	10.0	mg/kg	400		102	78-132	4.03	18	
Surrogate: 1-Chlorooctane	54.3		mg/kg	50.0		109	41-142			
Surrogate: 1-Chlorooctadecane	52.9		mg/kg	50.0		106	37.6-147			

**Batch 9052813 - General Prep - Organics**

<b>Blank (9052813-BLK1)</b>		Prepared: 28-May-19 Analyzed: 29-May-19								
GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	48.7		mg/kg	50.0		97.5	41-142			
Surrogate: 1-Chlorooctadecane	48.6		mg/kg	50.0		97.1	37.6-147			

<b>LCS (9052813-BS1)</b>		Prepared: 28-May-19 Analyzed: 29-May-19								
GRO C6-C10	180	10.0	mg/kg	200		90.2	76.5-133			
DRO >C10-C28	182	10.0	mg/kg	200		91.0	72.9-138			
Total TPH C6-C28	362	10.0	mg/kg	400		90.6	78-132			
Surrogate: 1-Chlorooctane	52.2		mg/kg	50.0		104	41-142			
Surrogate: 1-Chlorooctadecane	51.2		mg/kg	50.0		102	37.6-147			

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**Petroleum Hydrocarbons by GC FID - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch 9052813 - General Prep - Organics**

LCS Dup (9052813-BSD1)		Prepared: 28-May-19 Analyzed: 29-May-19								
GRO C6-C10	202	10.0	mg/kg	200	101	76.5-133	11.1	20.6		
DRO >C10-C28	205	10.0	mg/kg	200	102	72.9-138	11.7	20.6		
Total TPH C6-C28	406	10.0	mg/kg	400	102	78-132	11.4	18		
Surrogate: 1-Chlorooctane	52.9		mg/kg	50.0	106	41-142				
Surrogate: 1-Chlorooctadecane	51.3		mg/kg	50.0	103	37.6-147				

**Batch 9052902 - General Prep - Organics**

Blank (9052902-BLK1)		Prepared & Analyzed: 29-May-19								
GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	50.2		mg/kg	50.0	100	41-142				
Surrogate: 1-Chlorooctadecane	50.3		mg/kg	50.0	101	37.6-147				

LCS (9052902-BS1)		Prepared & Analyzed: 29-May-19								
GRO C6-C10	200	10.0	mg/kg	200	99.8	76.5-133				
DRO >C10-C28	208	10.0	mg/kg	200	104	72.9-138				
Total TPH C6-C28	407	10.0	mg/kg	400	102	78-132				
Surrogate: 1-Chlorooctane	53.4		mg/kg	50.0	107	41-142				
Surrogate: 1-Chlorooctadecane	51.5		mg/kg	50.0	103	37.6-147				

LCS Dup (9052902-BSD1)		Prepared & Analyzed: 29-May-19								
GRO C6-C10	201	10.0	mg/kg	200	101	76.5-133	0.718	20.6		
DRO >C10-C28	217	10.0	mg/kg	200	108	72.9-138	4.22	20.6		
Total TPH C6-C28	418	10.0	mg/kg	400	104	78-132	2.52	18		
Surrogate: 1-Chlorooctane	52.6		mg/kg	50.0	105	41-142				
Surrogate: 1-Chlorooctadecane	50.5		mg/kg	50.0	101	37.6-147				

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DORSTATE SWD Project Number: 212C-MD-01743 Project Manager: CLAIR GONZALES Fax To: (432) 682-3946	Reported: 31-May-19 10:00
---	---	------------------------------

**Petroleum Hydrocarbons by GC FID - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch 9053005 - General Prep - Organics**

**Blank (9053005-BLK1)**

Prepared & Analyzed: 30-May-19

GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	49.5		mg/kg	50.0		99.0	41-142			
Surrogate: 1-Chlorooctadecane	52.6		mg/kg	50.0		105	37.6-147			

**LCS (9053005-BS1)**

Prepared & Analyzed: 30-May-19

GRO C6-C10	191	10.0	mg/kg	200		95.7	76.5-133			
DRO >C10-C28	199	10.0	mg/kg	200		99.3	72.9-138			
Total TPH C6-C28	390	10.0	mg/kg	400		97.5	78-132			
Surrogate: 1-Chlorooctane	51.0		mg/kg	50.0		102	41-142			
Surrogate: 1-Chlorooctadecane	50.4		mg/kg	50.0		101	37.6-147			

**LCS Dup (9053005-BS1)**

Prepared & Analyzed: 30-May-19

GRO C6-C10	184	10.0	mg/kg	200		91.8	76.5-133	4.18	20.6	
DRO >C10-C28	184	10.0	mg/kg	200		92.0	72.9-138	7.57	20.6	
Total TPH C6-C28	368	10.0	mg/kg	400		91.9	78-132	5.90	18	
Surrogate: 1-Chlorooctane	53.3		mg/kg	50.0		107	41-142			
Surrogate: 1-Chlorooctadecane	53.0		mg/kg	50.0		106	37.6-147			

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Notes and Definitions

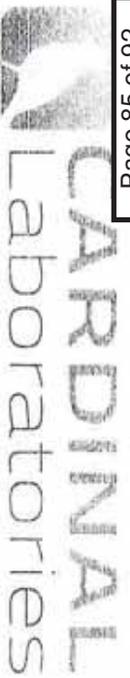
- S-06 The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
- S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
- QR-02 The RPD result exceeded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

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: **Tetra Tech**  
 Project Manager: **Clair Gonzales**

Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
 Phone #: \_\_\_\_\_ Fax #: \_\_\_\_\_

Project #: **212C-MD-0743** Project Owner: **PWC**  
 Project Name: **Dorstate SUD**  
 Project Location: **Eddy Co.**

Sampler Name: **Clint Merritt**

**BILL TO**

**ANALYSIS REQUEST**

P.O. #: \_\_\_\_\_ Company: \_\_\_\_\_  
 Attn: \_\_\_\_\_ Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
 Phone #: \_\_\_\_\_ Fax #: \_\_\_\_\_

FOR USE ONLY	Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX	PRESERV.	SAMPLING	DATE	TIME	Chlorides	BTEX	TPH
	H901801	SP-20 (6-1)			SOIL	X	5/6	13:00		X	X	
		(2-3)			SOIL	X				X	X	
		(4-5)			SOIL	X				X	X	
		(6-7)			SOIL	X				X	X	
		(9-10)			SOIL	X				X	X	
		(10-1)			SOIL	X				X	X	
		(12-5)			SOIL	X				X	X	
		(14-5)			SOIL	X				X	X	
		(16-7)			SOIL	X				X	X	
		(19-10)			SOIL	X				X	X	
		SP-21			SOIL	X				X	X	
		(1-3)			SOIL	X				X	X	
		(4-5)			SOIL	X				X	X	
		(6-7)			SOIL	X				X	X	
		(8-9)			SOIL	X				X	X	
		(10-1)			SOIL	X				X	X	

Relinquished By: *[Signature]*

Date: **5/17**  
 Time: **14:00**

Received By: *[Signature]*

Phone Result:  Yes  No  
 Fax Result:  Yes  No  
 Add'l Phone #: \_\_\_\_\_  
 Add'l Fax #: \_\_\_\_\_

Delivered By: (Circle One)  
 Sampler - UPS - Bus - Other

**Delivered By: UPS**

Sample Condition:  
 Cool  Intact  
 05  12  ND

CHECKED BY: **SO.**





CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

BILL TO

ANALYSIS REQUEST

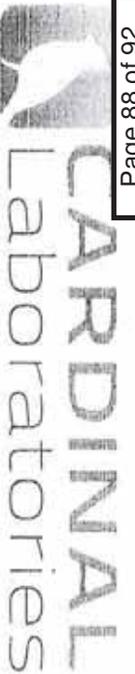
Company Name: \_\_\_\_\_ P.O. #: \_\_\_\_\_  
 Project Manager: \_\_\_\_\_ Company: \_\_\_\_\_  
 Address: \_\_\_\_\_ Attn: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
 Phone #: \_\_\_\_\_ Fax #: \_\_\_\_\_  
 Project #: \_\_\_\_\_ Project Owner: \_\_\_\_\_  
 Project Location: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
 Sampler Name: \_\_\_\_\_ Phone #: \_\_\_\_\_  
 FOR LAB USE ONLY: \_\_\_\_\_ Fax #:

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						PRESERV.			SAMPLING		DATE	TIME	ANALYSIS	REMARKS
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER	ACID/BASE	ICE / COOL	OTHER						
H901801	B6-1 (24-25)			X	X	X	X	X	X	X	X	X	X	5/16	4:08	Chloride		
	(24-30)			X	X	X	X	X	X	X	X	X	X			BTEX		
	(34-35)			X	X	X	X	X	X	X	X	X	X			TPH		
	(39-46)			X	X	X	X	X	X	X	X	X	X					
	SP-13 (0-1)			X	X	X	X	X	X	X	X	X	X	5/12	09:30			
	(2-3)			X	X	X	X	X	X	X	X	X	X					
	(4-5)			X	X	X	X	X	X	X	X	X	X					
	(6-7)			X	X	X	X	X	X	X	X	X	X					
	(9-10)			X	X	X	X	X	X	X	X	X	X					
	(14-15)			X	X	X	X	X	X	X	X	X	X					

PLEASE NOTE: Laundry and Drumpage Containers (Tubs and Drums) are not to be used for sampling. Containers must be clean and free of any residue. Containers must be sealed and labeled with the date and time of collection. Containers must be sealed and labeled with the date and time of collection. Containers must be sealed and labeled with the date and time of collection. Containers must be sealed and labeled with the date and time of collection.

Relinquished By: \_\_\_\_\_ Date: 5/12  
 Received By: \_\_\_\_\_ Date: 5/12  
 Relinquished By: \_\_\_\_\_ Date: 5/12  
 Received By: \_\_\_\_\_ Date: 5/12

Delivered By: (Circle One) \_\_\_\_\_  
 Sampler - UPS - Bus - Other: \_\_\_\_\_  
 Sample Condition: \_\_\_\_\_  
 Cool:  Intact   
 NO  YES   
 CHECKED BY: \_\_\_\_\_  
 Initials: \_\_\_\_\_



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

BILL TO

ANALYSIS REQUEST

Company Name: \_\_\_\_\_ P.O. #: \_\_\_\_\_  
 Project Manager: \_\_\_\_\_ Company: \_\_\_\_\_  
 Address: \_\_\_\_\_ Attn: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
 Phone #: \_\_\_\_\_ Fax #: \_\_\_\_\_  
 Project #: \_\_\_\_\_ Project Owner: \_\_\_\_\_  
 Project Location: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
 Sampler Name: \_\_\_\_\_ Phone #: \_\_\_\_\_ Fax #: \_\_\_\_\_

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX							DATE	TIME	Chlorides	BTEX	TPH
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER	ACID/BASE					
H901 801	31	58-13 (14.20)		X							5/12	04:30	X		
	32	(24.25)		X									X		
	33	(29.30)		X									X		
	34	(34.35)		X									X		
	35	(34.40)		X									X		
	36	58-10 (10-1)		X							5/17	10:00	X		
	37	(2-3)		X									X		
	38	(14-5)		X									X		
	39	(6-7)		X									X		
	40	(9-10)		X									X		

PLEASE NOTE: Labeled and Damaged Containers, whether new or used, are not to be returned to the provider for the credit for the analysis. All items, including those for replacement and for other uses, shall be returned to the provider in the original container. The provider is not responsible for any damage to or loss of samples or containers. The provider is not responsible for any damage to or loss of samples or containers. The provider is not responsible for any damage to or loss of samples or containers.

Relinquished By: *Chk Muff* Date: *5/17* Received By: *Yvonne Stultz* Date: *5/17*  
 Time: *14:00*

Delivered By: (Circle One) *UPS*  *Bus*  *Other*   
 Sampler - UPS - Bus - Other: *UPS #97*  
 Sample Condition: Cool  Intact   
 Checked By: *YS*



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

**BILL TO** ANALYSIS REQUEST

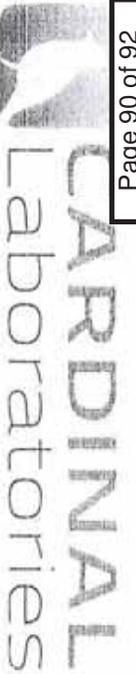
Company Name: \_\_\_\_\_ P.O. #: \_\_\_\_\_  
 Project Manager: \_\_\_\_\_ Company: \_\_\_\_\_  
 Address: \_\_\_\_\_ Attn: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
 Phone #: \_\_\_\_\_ Fax #: \_\_\_\_\_  
 Project #: \_\_\_\_\_ Project Owner: \_\_\_\_\_  
 Project Location: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
 Sampler Name: \_\_\_\_\_ Phone #: \_\_\_\_\_ Fax #: \_\_\_\_\_

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						PRESERV.			DATE	TIME	Chlorides	BTEX	TPH
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER	ACID/BASE	ICE / COOL	OTHER					
H901801	SP-10 (14-15)			X	X	X	X	X	X	X	X	5/17	10:00	X	X	X	
41	(14-20)			X	X	X	X	X	X	X	X			X	X	X	
42	(24-25)			X	X	X	X	X	X	X	X			X	X	X	
43	(24-30)			X	X	X	X	X	X	X	X			X	X	X	
44	(34-35)			X	X	X	X	X	X	X	X			X	X	X	
45	(34-40)			X	X	X	X	X	X	X	X			X	X	X	
46	SP-11 (0-1)			X	X	X	X	X	X	X	X			X	X	X	
47	(2-3)			X	X	X	X	X	X	X	X			X	X	X	
48	(4-5)			X	X	X	X	X	X	X	X			X	X	X	
49	(6-7)			X	X	X	X	X	X	X	X			X	X	X	
50				X	X	X	X	X	X	X	X			X	X	X	

PLEASE NOTE: Stability and Durability. Customer's liability and that of the laboratory is limited to the amount paid for the analysis. All samples, including those for reference and any other samples submitted shall be deemed void unless results are received by Cardinal within 30 days after completion of the laboratory analysis. In no event shall Cardinal be liable for modification or consequential damages, including transportation, handling, shipping, loss of time, or loss of profits, incurred by client, its subsidiaries, affiliates or successors, arising out of or related to the transportation, analysis, or handling of samples submitted to the laboratory.

Relinquished By: \_\_\_\_\_ Date: 5/17 Received By: \_\_\_\_\_  
 Time: 14:00 Date: 5/17  
 Relinquished By: \_\_\_\_\_ Received By: Jayana Delaney

Delivered By: (Circle One)  UPS  Bus  Other: DLI #97  
 Sample Condition: Cool  Intact   
 Checked By: \_\_\_\_\_ (Initials) TD  
 Phone Result:  Yes  No Add'l Phone #: \_\_\_\_\_  
 Fax Result:  Yes  No Add'l Fax #: \_\_\_\_\_  
 REMARKS:



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

BILL TO

ANALYSIS REQUEST

Company Name: \_\_\_\_\_ P.O. #: \_\_\_\_\_  
 Project Manager: \_\_\_\_\_ Company: \_\_\_\_\_  
 Address: \_\_\_\_\_ Attn: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
 Phone #: \_\_\_\_\_ Fax #: \_\_\_\_\_  
 Project #: \_\_\_\_\_ Project Owner: \_\_\_\_\_  
 Project Location: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
 Sampler Name: \_\_\_\_\_ Phone #: \_\_\_\_\_  
 Fax #: \_\_\_\_\_

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX							PRESERV.			DATE	TIME	Chlorides	BTEX	TPH
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER	ACID/BASE	ICE / COOL	OTHER						
H901801	SP-11 (9-10)		1	X	X	X	X	X	X	X	X	X	5/12	10:30	X	X	X	
	SP-11 (14-15)		1	X	X	X	X	X	X	X	X	X			X	X	X	
	SP-11 (14-20)		1	X	X	X	X	X	X	X	X	X			X	X	X	
	SP-11 (24-25)		1	X	X	X	X	X	X	X	X	X			X	X	X	
	SP-11 (29-30)		1	X	X	X	X	X	X	X	X	X			X	X	X	
	SP-11 (34-35)		1	X	X	X	X	X	X	X	X	X			X	X	X	
	SP-11 (39-40)		1	X	X	X	X	X	X	X	X	X			X	X	X	
	SP-11 (44-45)		1	X	X	X	X	X	X	X	X	X			X	X	X	
	SP-11 (0-1)		1	X	X	X	X	X	X	X	X	X			X	X	X	
	SP-11 (2-3)		1	X	X	X	X	X	X	X	X	X			X	X	X	

PREP LAB ONLY

PREP NOTE: Labeling and Sampling, CAPTIONED BELOW, MUST BE THE PROPERTY OF THE CLIENT. THE PREP LAB WILL NOT BE RESPONSIBLE FOR THE ACCURACY OF THE DATA PROVIDED BY THE CLIENT. THE PREP LAB WILL NOT BE RESPONSIBLE FOR THE ACCURACY OF THE DATA PROVIDED BY THE CLIENT. THE PREP LAB WILL NOT BE RESPONSIBLE FOR THE ACCURACY OF THE DATA PROVIDED BY THE CLIENT.

Relinquished By: *[Signature]* Date: *5/12* Time: *14:00*  
 Received By: *[Signature]* Date: *5/12* Time: *11:30*

Delivered By: (Circle One)  UPS  Bus  Other: *0.61 #97*

Sample Condition:  Intact  Damaged

Checked By: *[Signature]*

Phone Result:  Yes  No

Fax Result:  Yes  No

REMARKS:







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

---

November 12, 2019

CLAIR GONZALES

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: DORSTATE SWD

Enclosed are the results of analyses for samples received by the laboratory on 11/11/19 16:35.

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

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	11/11/2019	Sampling Date:	11/11/2019
Reported:	11/12/2019	Sampling Type:	Soil
Project Name:	DORSTATE SWD	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01995	Sample Received By:	Tamara Oldaker
Project Location:	PWS - EDDY CO NM		

**Sample ID: HORIZONTAL - 22 ( 0-1' ) (H903828-01)**

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	11/12/2019	ND	1.79	89.7	2.00	1.84		
Toluene*	<0.050	0.050	11/12/2019	ND	1.80	89.9	2.00	1.65		
Ethylbenzene*	<0.050	0.050	11/12/2019	ND	1.82	90.9	2.00	1.61		
Total Xylenes*	<0.150	0.150	11/12/2019	ND	5.44	90.7	6.00	1.64		
Total BTEX	<0.300	0.300	11/12/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 110 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	512	16.0	11/12/2019	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	11/12/2019	ND	196	97.9	200	0.299		
DRO >C10-C28*	<10.0	10.0	11/12/2019	ND	193	96.7	200	0.298		
EXT DRO >C28-C36	<10.0	10.0	11/12/2019	ND						

Surrogate: 1-Chlorooctane 106 % 41-142

Surrogate: 1-Chlorooctadecane 110 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

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

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

*Coley D. Keene*

Coley D. Keene, Lab Director/Quality Manager





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

---

November 12, 2019

CLAIR GONZALES

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: DORSTATE SWD

Enclosed are the results of analyses for samples received by the laboratory on 11/11/19 16:35.

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

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	11/11/2019	Sampling Date:	11/11/2019
Reported:	11/12/2019	Sampling Type:	Soil
Project Name:	DORSTATE SWD	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01995	Sample Received By:	Tamara Oldaker
Project Location:	PWS - EDDY CO NM		

**Sample ID: HORIZONTAL - 2 ( 1 ) ( 0-1' ) (H903829-01)**

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	11/12/2019	ND	1.79	89.7	2.00	1.84		
Toluene*	<0.050	0.050	11/12/2019	ND	1.80	89.9	2.00	1.65		
Ethylbenzene*	<0.050	0.050	11/12/2019	ND	1.82	90.9	2.00	1.61		
Total Xylenes*	<0.150	0.150	11/12/2019	ND	5.44	90.7	6.00	1.64		
Total BTEX	<0.300	0.300	11/12/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.7 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<b>144</b>	16.0	11/12/2019	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	11/12/2019	ND	196	97.9	200	0.299		
DRO >C10-C28*	<10.0	10.0	11/12/2019	ND	193	96.7	200	0.298		
EXT DRO >C28-C36	<10.0	10.0	11/12/2019	ND						

Surrogate: 1-Chlorooctane 105 % 41-142

Surrogate: 1-Chlorooctadecane 107 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

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

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Caley D. Keene, Lab Director/Quality Manager





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

---

November 12, 2019

CLAIR GONZALES

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: DORSTATE SWD

Enclosed are the results of analyses for samples received by the laboratory on 11/11/19 16:35.

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

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	11/11/2019	Sampling Date:	11/11/2019
Reported:	11/12/2019	Sampling Type:	Soil
Project Name:	DORSTATE SWD	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01995	Sample Received By:	Tamara Oldaker
Project Location:	PWS - EDDY CO NM		

**Sample ID: HORIZONTAL - 21 ( 0-1' ) (H903830-01)**

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	11/12/2019	ND	1.79	89.7	2.00	1.84		
Toluene*	<0.050	0.050	11/12/2019	ND	1.80	89.9	2.00	1.65		
Ethylbenzene*	<0.050	0.050	11/12/2019	ND	1.82	90.9	2.00	1.61		
Total Xylenes*	<0.150	0.150	11/12/2019	ND	5.44	90.7	6.00	1.64		
Total BTEX	<0.300	0.300	11/12/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.6 % 73.3-129

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	11/12/2019	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	11/12/2019	ND	196	97.9	200	0.299		
DRO >C10-C28*	<10.0	10.0	11/12/2019	ND	193	96.7	200	0.298		
EXT DRO >C28-C36	<10.0	10.0	11/12/2019	ND						

Surrogate: 1-Chlorooctane 105 % 41-142

Surrogate: 1-Chlorooctadecane 107 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**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

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Caley D. Keene, Lab Director/Quality Manager





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

---

November 12, 2019

CLAIR GONZALES

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: DORSTATE SWD

Enclosed are the results of analyses for samples received by the laboratory on 11/11/19 16:35.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-19-12. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](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  
 CLAIR GONZALES  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	11/11/2019	Sampling Date:	11/11/2019
Reported:	11/12/2019	Sampling Type:	Soil
Project Name:	DORSTATE SWD	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01995	Sample Received By:	Tamara Oldaker
Project Location:	PWS - EDDY CO NM		

**Sample ID: HORIZONTAL - 12 ( 0-1' ) (H903831-01)**

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	11/12/2019	ND	1.79	89.7	2.00	1.84		
Toluene*	<0.050	0.050	11/12/2019	ND	1.80	89.9	2.00	1.65		
Ethylbenzene*	<0.050	0.050	11/12/2019	ND	1.82	90.9	2.00	1.61		
Total Xylenes*	<0.150	0.150	11/12/2019	ND	5.44	90.7	6.00	1.64		
Total BTEX	<0.300	0.300	11/12/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.9 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	11/12/2019	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	11/12/2019	ND	196	97.9	200	0.299		
DRO >C10-C28*	<10.0	10.0	11/12/2019	ND	193	96.7	200	0.298		
EXT DRO >C28-C36	<10.0	10.0	11/12/2019	ND						

Surrogate: 1-Chlorooctane 103 % 41-142

Surrogate: 1-Chlorooctadecane 105 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	11/11/2019	Sampling Date:	11/11/2019
Reported:	11/12/2019	Sampling Type:	Soil
Project Name:	DORSTATE SWD	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01995	Sample Received By:	Tamara Oldaker
Project Location:	PWS - EDDY CO NM		

**Sample ID: HORIZONTAL - 12 ( 1-2' ) (H903831-02)**

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	11/12/2019	ND	1.79	89.7	2.00	1.84		
Toluene*	<0.050	0.050	11/12/2019	ND	1.80	89.9	2.00	1.65		
Ethylbenzene*	<0.050	0.050	11/12/2019	ND	1.82	90.9	2.00	1.61		
Total Xylenes*	<0.150	0.150	11/12/2019	ND	5.44	90.7	6.00	1.64		
Total BTEX	<0.300	0.300	11/12/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.0 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	11/12/2019	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	11/12/2019	ND	196	97.9	200	0.299		
DRO >C10-C28*	<10.0	10.0	11/12/2019	ND	193	96.7	200	0.298		
EXT DRO >C28-C36	<10.0	10.0	11/12/2019	ND						

Surrogate: 1-Chlorooctane 98.0 % 41-142

Surrogate: 1-Chlorooctadecane 100 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

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

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

*Coley D. Keene*

Coley D. Keene, Lab Director/Quality Manager



# Analytical Report 641244

for  
**Tetra Tech- Midland**

**Project Manager: Clair Gonzales**

**P.W.S. Dorstate SWD**

**04-NOV-19**

Collected By: Client



**1089 N Canal Street  
Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):  
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)  
Oklahoma (2017-142), North Carolina (681)

Xenco-Dallas (EPA Lab Code: TX01468):  
Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)  
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)  
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)  
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)  
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)  
Xenco-Tampa: Florida (E87429), North Carolina (483)



04-NOV-19

Project Manager: **Clair Gonzales**  
**Tetra Tech- Midland**  
901 West Wall ST  
Midland, TX 79701

Reference: XENCO Report No(s): **641244**  
**P.W.S. Dorstate SWD**  
Project Address: Eddy Co, NM

**Clair Gonzales:**

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) 641244. 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. 641244 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,

**Jessica Kramer**

Project Assistant

*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 641244

Tetra Tech- Midland, Midland, TX

P.W.S. Dorstate SWD

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Borehole #22 (0-1')	S	10-25-19 00:00	0 - 1 ft	641244-001
Borehole #22 (2-3')	S	10-25-19 00:00	2 - 3 ft	641244-002
Borehole #22 (4-5')	S	10-25-19 00:00	4 - 5 ft	641244-003
Borehole #22 (6-7')	S	10-25-19 00:00	6 - 7 ft	641244-004
Borehole #22 (9-10')	S	10-25-19 00:00	9 - 10 ft	641244-005
Borehole #22 (14-15')	S	10-25-19 00:00	14 - 15 ft	641244-006
Borehole #22 (19-20')	S	10-25-19 00:00	19 - 20 ft	641244-007
Borehole #22 (24-25')	S	10-25-19 00:00	24 - 25 ft	641244-008
Borehole #22 (29-30')	S	10-25-19 00:00	29 - 30 ft	641244-009
Borehole #23 (0-1')	S	10-25-19 00:00	0 - 1 ft	641244-010
Borehole #23 (2-3')	S	10-25-19 00:00	2 - 3 ft	641244-011
Borehole #23 (4-5')	S	10-25-19 00:00	4 - 5 ft	641244-012
Borehole #23 (6-7')	S	10-25-19 00:00	6 - 7 ft	641244-013
Borehole #23 (9-10')	S	10-25-19 00:00	9 - 10 ft	641244-014
Borehole #23 (14-15')	S	10-25-19 00:00	14 - 15 ft	641244-015
Borehole #23 (19-20')	S	10-25-19 00:00	19 - 20 ft	641244-016
Borehole #23 (24-25')	S	10-25-19 00:00	24 - 25 ft	641244-017
Borehole #23 (29-30')	S	10-25-19 00:00	29 - 30 ft	641244-018
Borehole #24 (0-1')	S	10-25-19 00:00	0 - 1 ft	641244-019
Borehole #24 (2-3')	S	10-25-19 00:00	2 - 3 ft	641244-020
Borehole #24 (4-5')	S	10-25-19 00:00	4 - 5 ft	641244-021
Borehole #24 (6-7')	S	10-25-19 00:00	6 - 7 ft	641244-022
Borehole #24 (9-10')	S	10-25-19 00:00	9 - 10 ft	641244-023
Borehole #24 (14-15')	S	10-25-19 00:00	14 - 15 ft	641244-024
Borehole #24 (19-20')	S	10-25-19 00:00	19 - 20 ft	641244-025
Borehole #24 (24-25')	S	10-25-19 00:00	24 - 25 ft	641244-026
Borehole #24 (29-30')	S	10-25-19 00:00	29 - 30 ft	641244-027



### CASE NARRATIVE

*Client Name: Tetra Tech- Midland*

*Project Name: P.W.S. Dorstate SWD*

Project ID:  
Work Order Number(s): 641244

Report Date: 04-NOV-19  
Date Received: 10/25/2019

---

**Sample receipt non conformances and comments:**

None

---

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

None

**Analytical non conformances and comments:**

Batch: LBA-3105845 Inorganic Anions by EPA 300/300.1

Lab Sample ID 641244-019 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 641244-008, -009, -010, -011, -012, -013, -014, -015, -016, -017, -018, -019, -020, -021, -022, -023, -024, -025, -026, -027.

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

Batch: LBA-3106322 BTEX by EPA 8021B

Surrogate 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected.

Samples affected are: 641244-001,641244-005,641244-002.

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

Batch: LBA-3106326 BTEX by EPA 8021B

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



# Certificate of Analysis Summary 641244

Tetra Tech- Midland, Midland, TX

Project Name: P.W.S. Dorstate SWD

Project Id:

Contact: Clair Gonzales

Project Location: Eddy Co, NM

Date Received in Lab: Fri Oct-25-19 02:40 pm

Report Date: 04-NOV-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	641244-001	641244-002	641244-003	641244-004	641244-005	641244-006
	<i>Field Id:</i>	Borehole #22 (0-1')	Borehole #22 (2-3')	Borehole #22 (4-5')	Borehole #22 (6-7')	Borehole #22 (9-10')	Borehole #22 (14-15')
	<i>Depth:</i>	0-1 ft	2-3 ft	4-5 ft	6-7 ft	9-10 ft	14-15 ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Oct-25-19 00:00	Oct-25-19 00:00				
<b>BTEX by EPA 8021B SUB: T104704400-19-19</b>	<i>Extracted:</i>	Oct-31-19 12:00	Oct-31-19 12:00				
	<i>Analyzed:</i>	Nov-02-19 17:10	Nov-02-19 17:30	Nov-02-19 17:50	Nov-02-19 18:10	Nov-02-19 18:30	Nov-02-19 18:50
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL				
	Benzene	<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198
Toluene	0.0422 0.00200	0.0222 0.00198	0.0153 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	
Ethylbenzene	0.0281 0.00200	0.0220 0.00198	0.0223 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	
m,p-Xylenes	0.336 0.00400	0.265 0.00396	0.110 0.00398	0.0261 0.00398	<0.00399 0.00399	<0.00397 0.00397	
o-Xylene	0.102 0.00200	0.0819 0.00198	0.0876 0.00199	0.00812 0.00199	<0.00200 0.00200	<0.00198 0.00198	
Total Xylenes	0.438 0.00200	0.347 0.00198	0.198 0.00199	0.0342 0.00199	<0.00200 0.00200	<0.00198 0.00198	
Total BTEX	0.508 0.00200	0.391 0.00198	0.235 0.00199	0.0342 0.00199	<0.00200 0.00200	<0.00198 0.00198	
<b>Inorganic Anions by EPA 300/300.1 SUB: T104704400-19-19</b>	<i>Extracted:</i>	Oct-29-19 13:30	Oct-29-19 13:30				
	<i>Analyzed:</i>	Oct-29-19 15:55	Oct-29-19 16:15	Oct-29-19 16:21	Oct-29-19 16:28	Oct-29-19 16:35	Oct-29-19 16:41
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL				
	Chloride	677 25.0	957 24.8	1560 24.9	1380 5.02	1800 25.3	1930 24.9
<b>TPH By SW8015 Mod SUB: T104704400-19-19</b>	<i>Extracted:</i>	Oct-29-19 11:00	Oct-29-19 11:00				
	<i>Analyzed:</i>	Oct-30-19 08:28	Oct-30-19 08:49	Oct-29-19 15:00	Oct-29-19 13:16	Oct-29-19 15:21	Oct-29-19 15:42
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL				
	Gasoline Range Hydrocarbons (GRO)	1150 250	705 249	186 50.0	<49.9 49.9	<49.9 49.9	<49.8 49.8
Diesel Range Organics (DRO)	13100 250	8840 249	3580 50.0	783 49.9	318 49.9	198 49.8	
Motor Oil Range Hydrocarbons (MRO)	1550 250	933 249	369 50.0	79.9 49.9	72.2 49.9	<49.8 49.8	
Total TPH	15800 250	10500 249	4140 50.0	863 49.9	390 49.9	198 49.8	

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 - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer  
Project Assistant



# Certificate of Analysis Summary 641244

Tetra Tech- Midland, Midland, TX

Project Name: P.W.S. Dorstate SWD

Project Id:

Contact: Clair Gonzales

Project Location: Eddy Co, NM

Date Received in Lab: Fri Oct-25-19 02:40 pm

Report Date: 04-NOV-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	641244-007	641244-008	641244-009	641244-010	641244-011	641244-012
	<i>Field Id:</i>	Borehole #22 (19-20')	Borehole #22 (24-25')	Borehole #22 (29-30')	Borehole #23 (0-1')	Borehole #23 (2-3')	Borehole #23 (4-5')
	<i>Depth:</i>	19-20 ft	24-25 ft	29-30 ft	0-1 ft	2-3 ft	4-5 ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Oct-25-19 00:00	Oct-25-19 00:00	Oct-25-19 00:00	Oct-25-19 00:00	Oct-25-19 00:00	Oct-25-19 00:00
<b>BTEX by EPA 8021B SUB: T104704400-19-19</b>	<i>Extracted:</i>	Oct-31-19 12:00	Oct-31-19 12:00	Nov-02-19 16:00	Nov-02-19 16:00	Nov-02-19 16:00	Nov-02-19 16:00
	<i>Analyzed:</i>	Nov-02-19 19:11	Nov-02-19 19:31	Nov-02-19 22:50	Nov-02-19 23:10	Nov-02-19 23:30	Nov-02-19 23:50
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00198 0.00198	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00202 0.00202	<0.00199 0.00199
Toluene		<0.00198 0.00198	<0.00200 0.00200	<0.00198 0.00198	0.00254 0.00200	<0.00202 0.00202	<0.00199 0.00199
Ethylbenzene		<0.00198 0.00198	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00202 0.00202	<0.00199 0.00199
m,p-Xylenes		<0.00397 0.00397	<0.00399 0.00399	<0.00397 0.00397	0.0134 0.00401	<0.00403 0.00403	<0.00398 0.00398
o-Xylene		<0.00198 0.00198	<0.00200 0.00200	<0.00198 0.00198	0.00576 0.00200	<0.00202 0.00202	<0.00199 0.00199
Total Xylenes		<0.00198 0.00198	<0.00200 0.00200	<0.00198 0.00198	0.0192 0.00200	<0.00202 0.00202	<0.00199 0.00199
Total BTEX		<0.00198 0.00198	<0.00200 0.00200	<0.00198 0.00198	0.0217 0.00200	<0.00202 0.00202	<0.00199 0.00199
<b>Inorganic Anions by EPA 300/300.1 SUB: T104704400-19-19</b>	<i>Extracted:</i>	Oct-29-19 13:30	Oct-29-19 14:00	Oct-29-19 14:00	Oct-29-19 14:00	Oct-29-19 14:00	Oct-29-19 14:00
	<i>Analyzed:</i>	Oct-29-19 16:48	Oct-29-19 14:34	Oct-29-19 14:51	Oct-29-19 14:57	Oct-29-19 15:03	Oct-29-19 15:09
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		1660 24.9	598 4.98	1160 4.95	398 4.99	415 25.0	348 5.04
<b>TPH By SW8015 Mod SUB: T104704400-19-19</b>	<i>Extracted:</i>	Oct-29-19 11:00	Oct-29-19 11:00	Oct-29-19 11:00	Oct-29-19 11:00	Oct-29-19 11:00	Oct-29-19 11:00
	<i>Analyzed:</i>	Oct-29-19 16:03	Oct-29-19 16:24	Oct-29-19 16:45	Oct-29-19 17:06	Oct-29-19 17:48	Oct-29-19 18:09
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0	<49.8 49.8	<49.9 49.9	58.1 49.9	<49.9 49.9	<50.0 50.0
Diesel Range Organics (DRO)		87.9 50.0	<49.8 49.8	<49.9 49.9	2320 49.9	430 49.9	424 50.0
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<49.8 49.8	<49.9 49.9	305 49.9	63.0 49.9	60.6 50.0
Total TPH		87.9 50.0	<49.8 49.8	<49.9 49.9	2680 49.9	493 49.9	485 50.0

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 - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer  
Project Assistant



# Certificate of Analysis Summary 641244

Tetra Tech- Midland, Midland, TX

Project Name: P.W.S. Dorstate SWD

Project Id:

Contact: Clair Gonzales

Project Location: Eddy Co, NM

Date Received in Lab: Fri Oct-25-19 02:40 pm

Report Date: 04-NOV-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	641244-013	641244-014	641244-015	641244-016	641244-017	641244-018
	<i>Field Id:</i>	Borehole #23 (6-7')	Borehole #23 (9-10')	Borehole #23 (14-15')	Borehole #23 (19-20')	Borehole #23 (24-25')	Borehole #23 (29-30')
	<i>Depth:</i>	6-7 ft	9-10 ft	14-15 ft	19-20 ft	24-25 ft	29-30 ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Oct-25-19 00:00	Oct-25-19 00:00	Oct-25-19 00:00	Oct-25-19 00:00	Oct-25-19 00:00	Oct-25-19 00:00
<b>BTEX by EPA 8021B SUB: T104704400-19-19</b>	<i>Extracted:</i>	Nov-02-19 16:00	Nov-02-19 16:00	Nov-02-19 16:00	Nov-02-19 16:00	Nov-02-19 16:00	Nov-02-19 16:00
	<i>Analyzed:</i>	Nov-03-19 00:10	Nov-03-19 00:30	Nov-03-19 00:50	Nov-03-19 01:11	Nov-03-19 01:31	Nov-03-19 01:51
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202	<0.00199 0.00199
Toluene		<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202	<0.00199 0.00199
Ethylbenzene		<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202	<0.00199 0.00199
m,p-Xylenes		<0.00400 0.00400	<0.00402 0.00402	<0.00398 0.00398	<0.00397 0.00397	<0.00404 0.00404	<0.00398 0.00398
o-Xylene		<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202	<0.00199 0.00199
Total Xylenes		<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202	<0.00199 0.00199
Total BTEX		<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202	<0.00199 0.00199
<b>Inorganic Anions by EPA 300/300.1 SUB: T104704400-19-19</b>	<i>Extracted:</i>	Oct-29-19 14:00	Oct-29-19 14:00	Oct-29-19 14:00	Oct-29-19 14:00	Oct-29-19 14:00	Oct-29-19 14:00
	<i>Analyzed:</i>	Oct-29-19 15:26	Oct-29-19 15:32	Oct-29-19 15:38	Oct-29-19 15:44	Oct-29-19 15:50	Oct-29-19 16:13
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		424 5.02	403 4.99	1310 5.05	1490 25.3	1520 25.3	2640 25.0
<b>TPH By SW8015 Mod SUB: T104704400-19-19</b>	<i>Extracted:</i>	Oct-29-19 11:00	Oct-29-19 11:00	Oct-29-19 11:00	Oct-29-19 11:00	Oct-29-19 11:00	Oct-29-19 11:00
	<i>Analyzed:</i>	Oct-29-19 18:30	Oct-29-19 18:51	Oct-29-19 19:12	Oct-29-19 19:33	Oct-29-19 19:54	Oct-29-19 20:15
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0	<49.8 49.8	<49.9 49.9	<50.0 50.0	<50.0 50.0	<49.8 49.8
Diesel Range Organics (DRO)		<50.0 50.0	<49.8 49.8	<49.9 49.9	<50.0 50.0	<50.0 50.0	<49.8 49.8
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<49.8 49.8	<49.9 49.9	<50.0 50.0	<50.0 50.0	<49.8 49.8
Total TPH		<50.0 50.0	<49.8 49.8	<49.9 49.9	<50.0 50.0	<50.0 50.0	<49.8 49.8

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 - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer  
Project Assistant



# Certificate of Analysis Summary 641244

Tetra Tech- Midland, Midland, TX

Project Name: P.W.S. Dorstate SWD

Project Id:

Contact: Clair Gonzales

Project Location: Eddy Co, NM

Date Received in Lab: Fri Oct-25-19 02:40 pm

Report Date: 04-NOV-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	641244-019	641244-020	641244-021	641244-022	641244-023	641244-024
	<i>Field Id:</i>	Borehole #24 (0-1')	Borehole #24 (2-3')	Borehole #24 (4-5')	Borehole #24 (6-7')	Borehole #24 (9-10')	Borehole #24 (14-15')
	<i>Depth:</i>	0-1 ft	2-3 ft	4-5 ft	6-7 ft	9-10 ft	14-15 ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Oct-25-19 00:00	Oct-25-19 00:00				
<b>BTEX by EPA 8021B SUB: T104704400-19-19</b>	<i>Extracted:</i>	Nov-02-19 16:00	Nov-02-19 16:00				
	<i>Analyzed:</i>	Nov-03-19 03:09	Nov-03-19 03:30	Nov-03-19 03:51	Nov-03-19 04:11	Nov-03-19 04:31	Nov-03-19 04:51
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL				
Benzene		<0.00199 0.00199	<0.00199 0.00199	<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202	<0.00198 0.00198
Toluene		<0.00199 0.00199	<0.00199 0.00199	<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202	<0.00198 0.00198
Ethylbenzene		<0.00199 0.00199	<0.00199 0.00199	<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202	<0.00198 0.00198
m,p-Xylenes		<0.00398 0.00398	0.0156 0.00398	0.0142 0.00402	<0.00402 0.00402	<0.00404 0.00404	<0.00396 0.00396
o-Xylene		<0.00199 0.00199	0.00899 0.00199	0.0126 0.00201	<0.00201 0.00201	<0.00202 0.00202	<0.00198 0.00198
Total Xylenes		<0.00199 0.00199	0.0246 0.00199	0.0268 0.00201	<0.00201 0.00201	<0.00202 0.00202	<0.00198 0.00198
Total BTEX		<0.00199 0.00199	0.0246 0.00199	0.0268 0.00201	<0.00201 0.00201	<0.00202 0.00202	<0.00198 0.00198
<b>Inorganic Anions by EPA 300/300.1 SUB: T104704400-19-19</b>	<i>Extracted:</i>	Oct-29-19 14:00	Oct-29-19 14:00				
	<i>Analyzed:</i>	Oct-29-19 15:55	Oct-29-19 16:19	Oct-29-19 16:36	Oct-29-19 16:42	Oct-29-19 16:48	Oct-29-19 16:54
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL				
Chloride		840 4.98	983 4.96	2810 25.0	362 4.95	1100 4.95	1290 25.1
<b>TPH By SW8015 Mod SUB: T104704400-19-19</b>	<i>Extracted:</i>	Oct-29-19 11:00	Oct-29-19 11:00	Oct-29-19 17:00	Oct-29-19 17:00	Oct-29-19 17:00	Oct-29-19 17:00
	<i>Analyzed:</i>	Oct-29-19 20:36	Oct-29-19 20:57	Oct-29-19 23:45	Oct-29-19 22:42	Oct-30-19 00:06	Oct-30-19 00:27
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL				
Gasoline Range Hydrocarbons (GRO)		156 49.9	105 50.0	67.2 49.8	<49.9 49.9	<50.0 50.0	<49.9 49.9
Diesel Range Organics (DRO)		7170 49.9	4360 50.0	2310 49.8	161 49.9	94.5 50.0	70.4 49.9
Motor Oil Range Hydrocarbons (MRO)		906 49.9	538 50.0	245 49.8	<49.9 49.9	<50.0 50.0	<49.9 49.9
Total TPH		8230 49.9	5000 50.0	2620 49.8	161 49.9	94.5 50.0	70.4 49.9

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 - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer  
Project Assistant



# Certificate of Analysis Summary 641244

Tetra Tech- Midland, Midland, TX

Project Name: P.W.S. Dorstate SWD

Project Id:

Contact: Clair Gonzales

Project Location: Eddy Co, NM

Date Received in Lab: Fri Oct-25-19 02:40 pm

Report Date: 04-NOV-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	641244-025	641244-026	641244-027			
	<i>Field Id:</i>	Borehole #24 (19-20')	Borehole #24 (24-25')	Borehole #24 (29-30')			
	<i>Depth:</i>	19-20 ft	24-25 ft	29-30 ft			
	<i>Matrix:</i>	SOIL	SOIL	SOIL			
	<i>Sampled:</i>	Oct-25-19 00:00	Oct-25-19 00:00	Oct-25-19 00:00			
<b>BTEX by EPA 8021B SUB: T104704400-19-19</b>	<i>Extracted:</i>	Nov-02-19 16:00	Nov-02-19 16:00	Nov-02-19 16:00			
	<i>Analyzed:</i>	Nov-03-19 05:11	Nov-03-19 05:31	Nov-03-19 05:52			
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL			
Benzene		<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201			
Toluene		<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201			
Ethylbenzene		<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201			
m,p-Xylenes		<0.00398 0.00398	<0.00399 0.00399	<0.00402 0.00402			
o-Xylene		<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201			
Total Xylenes		<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201			
Total BTEX		<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201			
<b>Inorganic Anions by EPA 300/300.1 SUB: T104704400-19-19</b>	<i>Extracted:</i>	Oct-29-19 14:00	Oct-29-19 14:00	Oct-29-19 14:00			
	<i>Analyzed:</i>	Oct-29-19 16:59	Oct-29-19 17:05	Oct-29-19 17:11			
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL			
Chloride		400 5.00	1590 24.8	2470 25.2			
<b>TPH By SW8015 Mod SUB: T104704400-19-19</b>	<i>Extracted:</i>	Oct-29-19 17:00	Oct-29-19 17:00	Oct-29-19 17:00			
	<i>Analyzed:</i>	Oct-30-19 00:48	Oct-30-19 01:08	Oct-30-19 01:29			
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL			
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0	<50.0 50.0	<49.9 49.9			
Diesel Range Organics (DRO)		<50.0 50.0	<50.0 50.0	<49.9 49.9			
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<50.0 50.0	<49.9 49.9			
Total TPH		<50.0 50.0	<50.0 50.0	<49.9 49.9			

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 - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer  
Project Assistant





## Form 2 - Surrogate Recoveries

Project Name: P.W.S. Dorstate SWD

Work Orders : 641244,

Lab Batch #: 3105833

Sample: 641244-004 / SMP

Project ID:

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/29/19 13:16

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	85.4	99.7	86	70-135	
o-Terphenyl	46.6	49.9	93	70-135	

Lab Batch #: 3105833

Sample: 641244-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/29/19 15:00

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	87.0	99.9	87	70-135	
o-Terphenyl	42.8	50.0	86	70-135	

Lab Batch #: 3105833

Sample: 641244-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/29/19 15:21

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	79.6	99.7	80	70-135	
o-Terphenyl	42.2	49.9	85	70-135	

Lab Batch #: 3105833

Sample: 641244-006 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/29/19 15:42

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	75.9	99.6	76	70-135	
o-Terphenyl	40.0	49.8	80	70-135	

Lab Batch #: 3105833

Sample: 641244-007 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/29/19 16:03

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	77.4	99.9	77	70-135	
o-Terphenyl	40.9	50.0	82	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: P.W.S. Dorstate SWD

Work Orders : 641244,

Lab Batch #: 3105833

Sample: 641244-008 / SMP

Project ID:

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/29/19 16:24

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	76.5	99.6	77	70-135	
o-Terphenyl	40.6	49.8	82	70-135	

Lab Batch #: 3105833

Sample: 641244-009 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/29/19 16:45

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	76.7	99.7	77	70-135	
o-Terphenyl	40.9	49.9	82	70-135	

Lab Batch #: 3105833

Sample: 641244-010 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/29/19 17:06

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	82.6	99.8	83	70-135	
o-Terphenyl	51.2	49.9	103	70-135	

Lab Batch #: 3105833

Sample: 641244-011 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/29/19 17:48

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	76.8	99.7	77	70-135	
o-Terphenyl	42.5	49.9	85	70-135	

Lab Batch #: 3105833

Sample: 641244-012 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/29/19 18:09

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	90.1	100	90	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.



## Form 2 - Surrogate Recoveries

Project Name: P.W.S. Dorstate SWD

Work Orders : 641244,

Lab Batch #: 3105833

Sample: 641244-013 / SMP

Project ID:

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/29/19 18:30

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	77.9	99.9	78	70-135	
o-Terphenyl	41.3	50.0	83	70-135	

Lab Batch #: 3105833

Sample: 641244-014 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/29/19 18:51

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	73.9	99.6	74	70-135	
o-Terphenyl	37.9	49.8	76	70-135	

Lab Batch #: 3105833

Sample: 641244-015 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/29/19 19:12

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	74.5	99.7	75	70-135	
o-Terphenyl	38.7	49.9	78	70-135	

Lab Batch #: 3105833

Sample: 641244-016 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/29/19 19:33

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	75.4	99.9	75	70-135	
o-Terphenyl	39.8	50.0	80	70-135	

Lab Batch #: 3105833

Sample: 641244-017 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/29/19 19:54

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	77.0	100	77	70-135	
o-Terphenyl	40.5	50.0	81	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: P.W.S. Dorstate SWD

Work Orders : 641244,

Lab Batch #: 3105833

Sample: 641244-018 / SMP

Project ID:

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/29/19 20:15

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	78.0	99.6	78	70-135	
o-Terphenyl	41.4	49.8	83	70-135	

Lab Batch #: 3105833

Sample: 641244-019 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/29/19 20:36

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	93.7	99.7	94	70-135	
o-Terphenyl	44.0	49.9	88	70-135	

Lab Batch #: 3105833

Sample: 641244-020 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/29/19 20:57

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	81.9	99.9	82	70-135	
o-Terphenyl	42.5	50.0	85	70-135	

Lab Batch #: 3105836

Sample: 641244-022 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/29/19 22:42

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	78.0	99.7	78	70-135	
o-Terphenyl	41.4	49.9	83	70-135	

Lab Batch #: 3105836

Sample: 641244-021 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/29/19 23:45

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	84.5	99.6	85	70-135	
o-Terphenyl	42.6	49.8	86	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: P.W.S. Dorstate SWD

Work Orders : 641244,

Lab Batch #: 3105836

Sample: 641244-023 / SMP

Project ID:

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/30/19 00:06

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	80.3	99.9	80	70-135	
o-Terphenyl	42.5	50.0	85	70-135	

Lab Batch #: 3105836

Sample: 641244-024 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/30/19 00:27

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	78.9	99.7	79	70-135	
o-Terphenyl	42.0	49.9	84	70-135	

Lab Batch #: 3105836

Sample: 641244-025 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/30/19 00:48

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	82.0	99.9	82	70-135	
o-Terphenyl	43.2	50.0	86	70-135	

Lab Batch #: 3105836

Sample: 641244-026 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/30/19 01:08

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	79.0	100	79	70-135	
o-Terphenyl	41.8	50.0	84	70-135	

Lab Batch #: 3105836

Sample: 641244-027 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/30/19 01:29

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	79.2	99.7	79	70-135	
o-Terphenyl	41.9	49.9	84	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: P.W.S. Dorstate SWD

Work Orders : 641244,

Lab Batch #: 3105833

Sample: 641244-001 / SMP

Project ID:

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/30/19 08:28

**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	55.7	50.0	111	70-135	

Lab Batch #: 3105833

Sample: 641244-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/30/19 08:49

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	99.6	99.6	100	70-135	
o-Terphenyl	48.6	49.8	98	70-135	

Lab Batch #: 3106322

Sample: 641244-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/02/19 17:10

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0279	0.0300	93	70-130	
4-Bromofluorobenzene	0.0550	0.0300	183	70-130	**

Lab Batch #: 3106322

Sample: 641244-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/02/19 17:30

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0277	0.0300	92	70-130	
4-Bromofluorobenzene	0.0472	0.0300	157	70-130	**

Lab Batch #: 3106322

Sample: 641244-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/02/19 17:50

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0263	0.0300	88	70-130	
4-Bromofluorobenzene	0.0481	0.0300	160	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: P.W.S. Dorstate SWD

Work Orders : 641244,

Lab Batch #: 3106322

Sample: 641244-004 / SMP

Project ID:

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/02/19 18:10

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0260	0.0300	87	70-130	
4-Bromofluorobenzene	0.0339	0.0300	113	70-130	

Lab Batch #: 3106322

Sample: 641244-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/02/19 18:30

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0282	0.0300	94	70-130	
4-Bromofluorobenzene	0.0340	0.0300	113	70-130	

Lab Batch #: 3106322

Sample: 641244-006 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/02/19 18:50

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0309	0.0300	103	70-130	
4-Bromofluorobenzene	0.0366	0.0300	122	70-130	

Lab Batch #: 3106322

Sample: 641244-007 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/02/19 19:11

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0331	0.0300	110	70-130	
4-Bromofluorobenzene	0.0356	0.0300	119	70-130	

Lab Batch #: 3106322

Sample: 641244-008 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/02/19 19:31

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0333	0.0300	111	70-130	
4-Bromofluorobenzene	0.0377	0.0300	126	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: P.W.S. Dorstate SWD

Work Orders : 641244,

Lab Batch #: 3106326

Sample: 641244-009 / SMP

Project ID:

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/02/19 22:50

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0330	0.0300	110	70-130	
4-Bromofluorobenzene	0.0345	0.0300	115	70-130	

Lab Batch #: 3106326

Sample: 641244-010 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/02/19 23:10

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0278	0.0300	93	70-130	
4-Bromofluorobenzene	0.0332	0.0300	111	70-130	

Lab Batch #: 3106326

Sample: 641244-011 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/02/19 23:30

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0299	0.0300	100	70-130	
4-Bromofluorobenzene	0.0356	0.0300	119	70-130	

Lab Batch #: 3106326

Sample: 641244-012 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/02/19 23:50

**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	0.0361	0.0300	120	70-130	

Lab Batch #: 3106326

Sample: 641244-013 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/03/19 00:10

**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	0.0330	0.0300	110	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: P.W.S. Dorstate SWD

Work Orders : 641244,

Lab Batch #: 3106326

Sample: 641244-014 / SMP

Project ID:

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/03/19 00:30

**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	0.0341	0.0300	114	70-130	

Lab Batch #: 3106326

Sample: 641244-015 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/03/19 00:50

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0320	0.0300	107	70-130	
4-Bromofluorobenzene	0.0344	0.0300	115	70-130	

Lab Batch #: 3106326

Sample: 641244-016 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/03/19 01:11

**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	0.0327	0.0300	109	70-130	

Lab Batch #: 3106326

Sample: 641244-017 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/03/19 01:31

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0340	0.0300	113	70-130	
4-Bromofluorobenzene	0.0316	0.0300	105	70-130	

Lab Batch #: 3106326

Sample: 641244-018 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/03/19 01:51

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0332	0.0300	111	70-130	
4-Bromofluorobenzene	0.0290	0.0300	97	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: P.W.S. Dorstate SWD

Work Orders : 641244,

Lab Batch #: 3106326

Sample: 641244-019 / SMP

Project ID:

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/03/19 03:09

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0279	0.0300	93	70-130	
4-Bromofluorobenzene	0.0244	0.0300	81	70-130	

Lab Batch #: 3106326

Sample: 641244-020 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/03/19 03:30

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0284	0.0300	95	70-130	
4-Bromofluorobenzene	0.0379	0.0300	126	70-130	

Lab Batch #: 3106326

Sample: 641244-021 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/03/19 03:51

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0257	0.0300	86	70-130	
4-Bromofluorobenzene	0.0356	0.0300	119	70-130	

Lab Batch #: 3106326

Sample: 641244-022 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/03/19 04:11

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0248	0.0300	83	70-130	
4-Bromofluorobenzene	0.0374	0.0300	125	70-130	

Lab Batch #: 3106326

Sample: 641244-023 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/03/19 04:31

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0298	0.0300	99	70-130	
4-Bromofluorobenzene	0.0354	0.0300	118	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: P.W.S. Dorstate SWD

Work Orders : 641244,

Lab Batch #: 3106326

Sample: 641244-024 / SMP

Project ID:

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/03/19 04:51

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0294	0.0300	98	70-130	
4-Bromofluorobenzene	0.0385	0.0300	128	70-130	

Lab Batch #: 3106326

Sample: 641244-025 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/03/19 05:11

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0304	0.0300	101	70-130	
4-Bromofluorobenzene	0.0352	0.0300	117	70-130	

Lab Batch #: 3106326

Sample: 641244-026 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/03/19 05:31

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0294	0.0300	98	70-130	
4-Bromofluorobenzene	0.0301	0.0300	100	70-130	

Lab Batch #: 3106326

Sample: 641244-027 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/03/19 05:52

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0325	0.0300	108	70-130	
4-Bromofluorobenzene	0.0337	0.0300	112	70-130	

Lab Batch #: 3105833

Sample: 7689177-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 10/29/19 12:13

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	76.1	100	76	70-135	
o-Terphenyl	40.4	50.0	81	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: P.W.S. Dorstate SWD

Work Orders : 641244,

Project ID:

Lab Batch #: 3105836

Sample: 7689180-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 10/29/19 21:39

SURROGATE RECOVERY STUDY					
<b>TPH By SW8015 Mod</b>	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
<b>Analytes</b>					
1-Chlorooctane	92.2	100	92	70-135	
o-Terphenyl	49.1	50.0	98	70-135	

SURROGATE RECOVERY STUDY					
<b>TPH By SW8015 Mod</b>	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
<b>Analytes</b>					
1-Chlorooctane	92.2	100	92	70-135	
o-Terphenyl	49.1	50.0	98	70-135	

Lab Batch #: 3106322

Sample: 7689370-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 11/01/19 21:34

SURROGATE RECOVERY STUDY					
<b>BTEX by EPA 8021B</b>	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
<b>Analytes</b>					
1,4-Difluorobenzene	0.0277	0.0300	92	70-130	
4-Bromofluorobenzene	0.0264	0.0300	88	70-130	

SURROGATE RECOVERY STUDY					
<b>BTEX by EPA 8021B</b>	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
<b>Analytes</b>					
1,4-Difluorobenzene	0.0277	0.0300	92	70-130	
4-Bromofluorobenzene	0.0264	0.0300	88	70-130	

Lab Batch #: 3106322

Sample: 7689457-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 11/02/19 22:29

SURROGATE RECOVERY STUDY					
<b>BTEX by EPA 8021B</b>	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
<b>Analytes</b>					
1,4-Difluorobenzene	0.0301	0.0300	100	70-130	
4-Bromofluorobenzene	0.0304	0.0300	101	70-130	

SURROGATE RECOVERY STUDY					
<b>BTEX by EPA 8021B</b>	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
<b>Analytes</b>					
1,4-Difluorobenzene	0.0301	0.0300	100	70-130	
4-Bromofluorobenzene	0.0304	0.0300	101	70-130	

Lab Batch #: 3105833

Sample: 7689177-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 10/29/19 12:34

SURROGATE RECOVERY STUDY					
<b>TPH By SW8015 Mod</b>	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
<b>Analytes</b>					
1-Chlorooctane	92.8	100	93	70-135	
o-Terphenyl	46.3	50.0	93	70-135	

SURROGATE RECOVERY STUDY					
<b>TPH By SW8015 Mod</b>	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
<b>Analytes</b>					
1-Chlorooctane	92.8	100	93	70-135	
o-Terphenyl	46.3	50.0	93	70-135	

Lab Batch #: 3105836

Sample: 7689180-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 10/29/19 22:00

SURROGATE RECOVERY STUDY					
<b>TPH By SW8015 Mod</b>	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
<b>Analytes</b>					
1-Chlorooctane	85.7	100	86	70-135	
o-Terphenyl	43.2	50.0	86	70-135	

SURROGATE RECOVERY STUDY					
<b>TPH By SW8015 Mod</b>	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
<b>Analytes</b>					
1-Chlorooctane	85.7	100	86	70-135	
o-Terphenyl	43.2	50.0	86	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: P.W.S. Dorstate SWD

Work Orders : 641244,

Lab Batch #: 3106322

Sample: 7689370-1-BKS / BKS

Project ID:

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 11/01/19 19:54

**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	0.0325	0.0300	108	70-130	

Lab Batch #: 3106326

Sample: 7689457-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 11/02/19 20:50

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0296	0.0300	99	70-130	
4-Bromofluorobenzene	0.0294	0.0300	98	70-130	

Lab Batch #: 3105833

Sample: 7689177-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 10/29/19 12:55

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	91.5	100	92	70-135	
o-Terphenyl	47.3	50.0	95	70-135	

Lab Batch #: 3105836

Sample: 7689180-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 10/29/19 22:21

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	85.0	100	85	70-135	
o-Terphenyl	43.1	50.0	86	70-135	

Lab Batch #: 3106322

Sample: 7689370-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 11/01/19 20:14

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0306	0.0300	102	70-130	
4-Bromofluorobenzene	0.0322	0.0300	107	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: P.W.S. Dorstate SWD

Work Orders : 641244,

Lab Batch #: 3106326

Sample: 7689457-1-BSD / BSD

Project ID:

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 11/02/19 21:10

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0285	0.0300	95	70-130	
4-Bromofluorobenzene	0.0301	0.0300	100	70-130	

Lab Batch #: 3105833

Sample: 641244-004 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/29/19 13:37

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	91.9	99.7	92	70-135	
o-Terphenyl	45.1	49.9	90	70-135	

Lab Batch #: 3105836

Sample: 641244-022 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/29/19 23:03

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	89.5	99.9	90	70-135	
o-Terphenyl	45.4	50.0	91	70-135	

Lab Batch #: 3106322

Sample: 641117-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/01/19 20:35

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0317	0.0300	106	70-130	
4-Bromofluorobenzene	0.0349	0.0300	116	70-130	

Lab Batch #: 3106326

Sample: 641244-009 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/02/19 21:30

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0323	0.0300	108	70-130	
4-Bromofluorobenzene	0.0345	0.0300	115	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: P.W.S. Dorstate SWD

Work Orders : 641244,

Lab Batch #: 3105833

Sample: 641244-004 SD / MSD

Project ID:

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/29/19 13:57

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	93.8	99.9	94	70-135	
o-Terphenyl	47.5	50.0	95	70-135	

Lab Batch #: 3105836

Sample: 641244-022 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/29/19 23:25

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	91.5	100	92	70-135	
o-Terphenyl	47.8	50.0	96	70-135	

Lab Batch #: 3106322

Sample: 641117-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/01/19 20:55

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0322	0.0300	107	70-130	
4-Bromofluorobenzene	0.0364	0.0300	121	70-130	

Lab Batch #: 3106326

Sample: 641244-009 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/02/19 21:50

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0319	0.0300	106	70-130	
4-Bromofluorobenzene	0.0342	0.0300	114	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.



# BS / BSD Recoveries



**Project Name: P.W.S. Dorstate SWD**

**Work Order #:** 641244

**Project ID:**

**Analyst:** KTL

**Date Prepared:** 10/31/2019

**Date Analyzed:** 11/01/2019

**Lab Batch ID:** 3106322

**Sample:** 7689370-1-BKS

**Batch #:** 1

**Matrix:** Solid

**Units:** mg/kg

**BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY**

<b>BTEX by EPA 8021B</b>	<b>Blank Sample Result [A]</b>	<b>Spike Added [B]</b>	<b>Blank Spike Result [C]</b>	<b>Blank Spike %R [D]</b>	<b>Spike Added [E]</b>	<b>Blank Spike Duplicate Result [F]</b>	<b>Blk. Spk Dup. %R [G]</b>	<b>RPD %</b>	<b>Control Limits %R</b>	<b>Control Limits %RPD</b>	<b>Flag</b>
<b>Analytes</b>											
Benzene	<0.00200	0.100	0.0983	98	0.100	0.0922	92	6	70-130	35	
Toluene	<0.00200	0.100	0.0885	89	0.100	0.0868	87	2	70-130	35	
Ethylbenzene	<0.00200	0.100	0.0894	89	0.100	0.0858	86	4	70-130	35	
m,p-Xylenes	<0.00400	0.200	0.180	90	0.200	0.173	87	4	70-130	35	
o-Xylene	<0.00200	0.100	0.0855	86	0.100	0.0844	84	1	70-130	35	

**Analyst:** KTL

**Date Prepared:** 11/02/2019

**Date Analyzed:** 11/02/2019

**Lab Batch ID:** 3106326

**Sample:** 7689457-1-BKS

**Batch #:** 1

**Matrix:** Solid

**Units:** mg/kg

**BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY**

<b>BTEX by EPA 8021B</b>	<b>Blank Sample Result [A]</b>	<b>Spike Added [B]</b>	<b>Blank Spike Result [C]</b>	<b>Blank Spike %R [D]</b>	<b>Spike Added [E]</b>	<b>Blank Spike Duplicate Result [F]</b>	<b>Blk. Spk Dup. %R [G]</b>	<b>RPD %</b>	<b>Control Limits %R</b>	<b>Control Limits %RPD</b>	<b>Flag</b>
<b>Analytes</b>											
Benzene	<0.00200	0.100	0.100	100	0.100	0.0944	94	6	70-130	35	
Toluene	<0.00200	0.100	0.0956	96	0.100	0.0891	89	7	70-130	35	
Ethylbenzene	<0.00200	0.100	0.0930	93	0.100	0.0861	86	8	70-130	35	
m,p-Xylenes	<0.00400	0.200	0.189	95	0.200	0.174	87	8	70-130	35	
o-Xylene	<0.00200	0.100	0.0871	87	0.100	0.0856	86	2	70-130	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



# BS / BSD Recoveries

Project Name: P.W.S. Dorstate SWD

Work Order #: 641244

Project ID:

Analyst: SPC

Date Prepared: 10/29/2019

Date Analyzed: 10/29/2019

Lab Batch ID: 3105847

Sample: 7689138-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

**BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY**

Inorganic Anions by EPA 300/300.1	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	<0.858	250	244	98	250	244	98	0	90-110	20	

Analyst: CHE

Date Prepared: 10/29/2019

Date Analyzed: 10/29/2019

Lab Batch ID: 3105845

Sample: 7689140-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

**BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY**

Inorganic Anions by EPA 300/300.1	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	<5.00	250	237	95	250	239	96	1	90-110	20	

Analyst: ARM

Date Prepared: 10/29/2019

Date Analyzed: 10/29/2019

Lab Batch ID: 3105833

Sample: 7689177-1-BKS

Batch #: 1

Matrix: Solid

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	940	94	1000	966	97	3	70-135	20	
Diesel Range Organics (DRO)	<50.0	1000	1000	100	1000	1010	101	1	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



# BS / BSD Recoveries



**Project Name: P.W.S. Dorstate SWD**

**Work Order #:** 641244

**Project ID:**

**Analyst:** ARM

**Date Prepared:** 10/29/2019

**Date Analyzed:** 10/29/2019

**Lab Batch ID:** 3105836

**Sample:** 7689180-1-BKS

**Batch #:** 1

**Matrix:** Solid

**Units:** mg/kg

**BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY**

<b>TPH By SW8015 Mod</b>	<b>Blank Sample Result [A]</b>	<b>Spike Added [B]</b>	<b>Blank Spike Result [C]</b>	<b>Blank Spike %R [D]</b>	<b>Spike Added [E]</b>	<b>Blank Spike Duplicate Result [F]</b>	<b>Blk. Spk Dup. %R [G]</b>	<b>RPD %</b>	<b>Control Limits %R</b>	<b>Control Limits %RPD</b>	<b>Flag</b>
<b>Analytes</b>											
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	885	89	1000	857	86	3	70-135	20	
Diesel Range Organics (DRO)	<15.0	1000	948	95	1000	910	91	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



### Form 3 - MS / MSD Recoveries

Project Name: P.W.S. Dorstate SWD

Work Order #: 641244  
 Lab Batch ID: 3106322  
 Date Analyzed: 11/01/2019  
 Reporting Units: mg/kg

Project ID:  
 QC- Sample ID: 641117-001 S      Batch #: 1      Matrix: Soil  
 Date Prepared: 10/31/2019      Analyst: KTL

**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	<0.00199	0.0994	0.0960	97	0.0996	0.0980	98	2	70-130	35	
Toluene	<0.00199	0.0994	0.0748	75	0.0996	0.0846	85	12	70-130	35	
Ethylbenzene	<0.00199	0.0994	0.0787	79	0.0996	0.0875	88	11	70-130	35	
m,p-Xylenes	<0.00398	0.199	0.153	77	0.199	0.174	87	13	70-130	35	
o-Xylene	<0.00199	0.0994	0.0835	84	0.0996	0.0916	92	9	70-130	35	

Lab Batch ID: 3106326  
 Date Analyzed: 11/02/2019  
 Reporting Units: mg/kg

QC- Sample ID: 641244-009 S      Batch #: 1      Matrix: Soil  
 Date Prepared: 11/02/2019      Analyst: KTL

**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	<0.00165	0.0826	0.0886	107	0.0998	0.104	104	16	70-130	35	
Toluene	<0.00165	0.0826	0.0875	106	0.0998	0.0983	98	12	70-130	35	
Ethylbenzene	<0.00165	0.0826	0.0857	104	0.0998	0.0965	97	12	70-130	35	
m,p-Xylenes	<0.00331	0.165	0.175	106	0.200	0.195	98	11	70-130	35	
o-Xylene	<0.00165	0.0826	0.0834	101	0.0998	0.0927	93	11	70-130	35	

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

Matrix Spike Duplicate Percent Recovery [G] = 100\*(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: P.W.S. Dorstate SWD

Work Order #: 641244  
 Lab Batch ID: 3105845  
 Date Analyzed: 10/29/2019  
 Reporting Units: mg/kg

Project ID:

QC- Sample ID: 641244-008 S      Batch #: 1      Matrix: Soil  
 Date Prepared: 10/29/2019      Analyst: CHE

**MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY**

Inorganic Anions by EPA 300/300.1 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	598	249	664	27	249	652	22	2	90-110	20	X

Lab Batch ID: 3105845  
 Date Analyzed: 10/29/2019  
 Reporting Units: mg/kg

QC- Sample ID: 641244-019 S      Batch #: 1      Matrix: Soil  
 Date Prepared: 10/29/2019      Analyst: CHE

**MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY**

Inorganic Anions by EPA 300/300.1 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	840	249	1040	80	249	1050	84	1	90-110	20	X

Lab Batch ID: 3105847  
 Date Analyzed: 10/29/2019  
 Reporting Units: mg/kg

QC- Sample ID: 640749-003 S      Batch #: 1      Matrix: Soil  
 Date Prepared: 10/29/2019      Analyst: SPC

**MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY**

Inorganic Anions by EPA 300/300.1 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	302	252	550	98	252	552	99	0	90-110	20	

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

Matrix Spike Duplicate Percent Recovery [G] = 100\*(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: P.W.S. Dorstate SWD

Work Order #: 641244  
 Lab Batch ID: 3105847  
 Date Analyzed: 10/29/2019  
 Reporting Units: mg/kg

Project ID:  
 QC- Sample ID: 640878-013 S      Batch #: 1      Matrix: Soil  
 Date Prepared: 10/29/2019      Analyst: SPC

**MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY**

Inorganic Anions by EPA 300/300.1 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	128	249	374	99	249	375	99	0	90-110	20	

Lab Batch ID: 3105833  
 Date Analyzed: 10/29/2019  
 Reporting Units: mg/kg

QC- Sample ID: 641244-004 S      Batch #: 1      Matrix: Soil  
 Date Prepared: 10/29/2019      Analyst: ARM

**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
Gasoline Range Hydrocarbons (GRO)	24.1	997	879	86	999	894	87	2	70-135	20	
Diesel Range Organics (DRO)	783	997	1710	93	999	1750	97	2	70-135	20	

Lab Batch ID: 3105836  
 Date Analyzed: 10/29/2019  
 Reporting Units: mg/kg

QC- Sample ID: 641244-022 S      Batch #: 1      Matrix: Soil  
 Date Prepared: 10/29/2019      Analyst: ARM

**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
Gasoline Range Hydrocarbons (GRO)	<15.0	999	936	94	1000	974	97	4	70-135	20	
Diesel Range Organics (DRO)	161	999	1190	103	1000	1220	106	2	70-135	20	

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

Matrix Spike Duplicate Percent Recovery [G] = 100\*(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

Work Order No: 1041244

Houston, TX (281) 240-4200 Dallas, TX (214) 802-0300 San Antonio, TX (210) 509-3334  
 Midland, TX (432) 704-5440 El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296 Carrollton, NM (432) 704-5440  
 Phoenix, AZ (480) 356-0900 Atlanta, GA (770) 449-8900 Tampa, FL (813) 820-2000 West Palm Beach, FL (561) 569-6701

WWW.XENCO.COM Page 2 of 3

**Project Manager:** CLAIR CONVIALES  
**Company Name:** TERA TECH  
**Address:** 901 W. WALL ST.  
**City, State ZIP:** MIDLAND, TX 79705  
**Phone:**  
**Bill to: (if different)**  
**Company Name:**  
**Address:**  
**City, State ZIP:**  
**Email:** CLAIR.CONVIALES@Teratech.com

**Program:** UST/PST  PRRP  Brownfields  RRC  Superfund   
**State of Project:**  
**Reporting Level:** I  Level II  Level III  PST/UST  TRRP  Level IV   
**Deliverables:** EDD  ADAPT  Other:

**Project Name:** PWS DOORSTATE SWD  
**Project Number:** TRUDINA  
**Project Location:** Eddy Co. NM  
**Sampler's Name:** CLAIR CONVIALES  
**PO #:**  
**Turn Around:**   
**Routine:**   
**Rush:**   
**Due Date:**  
**Quote #:**  
**Preservative Codes:** MAOH: Me  
 None: NO  
 HNO3: HN  
 H2SO4: H2  
 HCL: HL  
 NaOH: Na  
 Zn Acetate+ NaOH: Zn

**SAMPLE RECEIPT**  
**Temperature (°C):**  
**Received Intact:** Yes  No   
**Cooler Custody Seals:** Yes  No   
**Sample Custody Seals:** Yes  No   
**Temperature ID:**  
**Correction Factor:**  
**Total Containers:**

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Chlorides	BTEX	TPH	OSISM
	BOREHOLE #23 (2-3)	Soil	10/25/14			1	X	X	X	
	(4-5)					1	X	X	X	
	(6-7)					1	X	X	X	
	(9-10)					1	X	X	X	
	(14-15)					1	X	X	X	
	(19-20)					1	X	X	X	
	(24-25)					1	X	X	X	
	(29-30)					1	X	X	X	
	BOREHOLE #24 (0-1)					1	X	X	X	
	(2-3)					1	X	X	X	

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Taxes 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SnO2 Na Sr Tl Sn U V Zn  
 Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U 1631 / 245.1 / 7470 / 7471 - Hg

Notice: 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 \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. Those terms will be enforced unless previously negotiated.

**Relinquished by: (Signature)** *Clair Conviales* **Received by: (Signature)** *Clair Conviales* **Date/Time** 10/25/14 1440  
**Relinquished by: (Signature)** **Received by: (Signature)** **Date/Time**



Houston, TX (281) 246-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334  
 Midland, TX (432) 704-5440 El Paso, TX (915) 885-3443 Lubbock, TX (806) 794-1296 Chandler, NM (432) 704-5440  
 Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 443-8900 Tampa, FL (813) 820-2000 West Palm Beach, FL (561) 899-6701

Chain of Custody

Work Order No: 1041244

Project Manager:	CLAIRE GONZALES	Bill to: (if different)	
Company Name:	TERRA TECH	Company Name:	
Address:	901 W. WALL ST.	Address:	
City, State, ZIP:	MIDLAND, TX 79705	City, State, ZIP:	
Phone:		Email:	claire.gonzales@terratech.com

Program:	UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>
State of Project:	
Reporting Level:	<input type="checkbox"/> Level I <input type="checkbox"/> Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/>
Deliverables:	<input type="checkbox"/> EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other:

Project Name:	P.W.S. DESTATE SAND	Turn Around	
Project Number:	TENDRIN	Routine	<input checked="" type="checkbox"/>
Project Location:	Eddy Co. NM	Rush:	
Sampler's Name:	CELVIE Q. MEDERIAN	Due Date:	
PO #:		Quote #:	

SAMPLE RECEIPT		Temp Blank:	Yes	No	Wet Ice:	Yes	No
Temperature (°C):		Received Inact:	Yes	No	Thermometer ID:		
Cooler Custody Seals:	Yes	No	N/A	Correction Factor:			
Sample Custody Seals:	Yes	No	N/A	Total Containers:			

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Preservative Codes
	BOEHLE # 24 (4-5)	Soil	10/25/19			1	Chlorides BTEX TPHOBISM
	(0-1)					1	
	(4-10)					1	
	(14-15)					1	
	(17-20)					1	
	(24-25)					1	
	(29-30)					1	

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Ni K Se Ag SIO2 Na Sr Tl Sn U V Zn  
 Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sp As Ba Be Cd Cr Co Cu Ni Mn Mo Ni Se Ag Tl U 1631 / 245.1 / 7470 / 7471 : Hg

Notice: 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 \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>Cervie Q. Mederian</i>	<i>[Signature]</i>	10/25/19 1440			



### Inter-Office Shipment

**IOS Number 50953**

Date/Time: 10/28/19 13:37

Created by: Elizabeth McClellan

Please send report to: Jessica Kramer

Lab# From: **Carlsbad**

Delivery Priority:

Address: 1089 N Canal Street

Lab# To: **Midland**

Air Bill No.: 776834191012

E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
641244-001	S	Borehole #22 (0-1')	10/25/19 00:00	E300	Inorganic Anions by EPA 300/300.1	10/31/19	11/22/19	JKR	CL	
641244-001	S	Borehole #22 (0-1')	10/25/19 00:00	SW8021B	BTEX by EPA 8021B	10/31/19	11/08/19	JKR	BR4FBZ BZ BZME EBZ X	
641244-001	S	Borehole #22 (0-1')	10/25/19 00:00	SW8015MOD_NM	TPH By SW8015 Mod	10/31/19	11/08/19	JKR	PHCC10C28 PHCC28C35	
641244-002	S	Borehole #22 (2-3')	10/25/19 00:00	SW8015MOD_NM	TPH By SW8015 Mod	10/31/19	11/08/19	JKR	PHCC10C28 PHCC28C35	
641244-002	S	Borehole #22 (2-3')	10/25/19 00:00	E300	Inorganic Anions by EPA 300/300.1	10/31/19	11/22/19	JKR	CL	
641244-002	S	Borehole #22 (2-3')	10/25/19 00:00	SW8021B	BTEX by EPA 8021B	10/31/19	11/08/19	JKR	BR4FBZ BZ BZME EBZ X	
641244-003	S	Borehole #22 (4-5')	10/25/19 00:00	SW8015MOD_NM	TPH By SW8015 Mod	10/31/19	11/08/19	JKR	PHCC10C28 PHCC28C35	
641244-003	S	Borehole #22 (4-5')	10/25/19 00:00	E300	Inorganic Anions by EPA 300/300.1	10/31/19	11/22/19	JKR	CL	
641244-003	S	Borehole #22 (4-5')	10/25/19 00:00	SW8021B	BTEX by EPA 8021B	10/31/19	11/08/19	JKR	BR4FBZ BZ BZME EBZ X	
641244-004	S	Borehole #22 (6-7')	10/25/19 00:00	E300	Inorganic Anions by EPA 300/300.1	10/31/19	11/22/19	JKR	CL	
641244-004	S	Borehole #22 (6-7')	10/25/19 00:00	SW8015MOD_NM	TPH By SW8015 Mod	10/31/19	11/08/19	JKR	PHCC10C28 PHCC28C35	
641244-004	S	Borehole #22 (6-7')	10/25/19 00:00	SW8021B	BTEX by EPA 8021B	10/31/19	11/08/19	JKR	BR4FBZ BZ BZME EBZ X	
641244-005	S	Borehole #22 (9-10')	10/25/19 00:00	SW8021B	BTEX by EPA 8021B	10/31/19	11/08/19	JKR	BR4FBZ BZ BZME EBZ X	
641244-005	S	Borehole #22 (9-10')	10/25/19 00:00	SW8015MOD_NM	TPH By SW8015 Mod	10/31/19	11/08/19	JKR	PHCC10C28 PHCC28C35	
641244-005	S	Borehole #22 (9-10')	10/25/19 00:00	E300	Inorganic Anions by EPA 300/300.1	10/31/19	11/22/19	JKR	CL	
641244-006	S	Borehole #22 (14-15')	10/25/19 00:00	E300	Inorganic Anions by EPA 300/300.1	10/31/19	11/22/19	JKR	CL	
641244-006	S	Borehole #22 (14-15')	10/25/19 00:00	SW8015MOD_NM	TPH By SW8015 Mod	10/31/19	11/08/19	JKR	PHCC10C28 PHCC28C35	
641244-006	S	Borehole #22 (14-15')	10/25/19 00:00	SW8021B	BTEX by EPA 8021B	10/31/19	11/08/19	JKR	BR4FBZ BZ BZME EBZ X	
641244-007	S	Borehole #22 (19-20')	10/25/19 00:00	SW8015MOD_NM	TPH By SW8015 Mod	10/31/19	11/08/19	JKR	PHCC10C28 PHCC28C35	
641244-007	S	Borehole #22 (19-20')	10/25/19 00:00	SW8021B	BTEX by EPA 8021B	10/31/19	11/08/19	JKR	BR4FBZ BZ BZME EBZ X	
641244-007	S	Borehole #22 (19-20')	10/25/19 00:00	E300	Inorganic Anions by EPA 300/300.1	10/31/19	11/22/19	JKR	CL	
641244-008	S	Borehole #22 (24-25')	10/25/19 00:00	SW8021B	BTEX by EPA 8021B	10/31/19	11/08/19	JKR	BR4FBZ BZ BZME EBZ X	
641244-008	S	Borehole #22 (24-25')	10/25/19 00:00	E300	Inorganic Anions by EPA 300/300.1	10/31/19	11/22/19	JKR	CL	
641244-008	S	Borehole #22 (24-25')	10/25/19 00:00	SW8015MOD_NM	TPH By SW8015 Mod	10/31/19	11/08/19	JKR	PHCC10C28 PHCC28C35	
641244-009	S	Borehole #22 (29-30')	10/25/19 00:00	SW8021B	BTEX by EPA 8021B	10/31/19	11/08/19	JKR	BR4FBZ BZ BZME EBZ X	



## Inter-Office Shipment

Page 2 of 4

IOS Number **50953**

Date/Time: 10/28/19 13:37

Created by: Elizabeth McClellan

Please send report to: Jessica Kramer

Lab# From: **Carlsbad**

Delivery Priority:

Address: 1089 N Canal Street

Lab# To: **Midland**

Air Bill No.: 776834191012

E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
641244-009	S	Borehole #22 (29-30')	10/25/19 00:00	E300	Inorganic Anions by EPA 300/300.1	10/31/19	11/22/19	JKR	CL	
641244-009	S	Borehole #22 (29-30')	10/25/19 00:00	SW8015MOD_NM	TPH By SW8015 Mod	10/31/19	11/08/19	JKR	PHCC10C28 PHCC28C35	
641244-010	S	Borehole #23 (0-1')	10/25/19 00:00	SW8021B	BTEX by EPA 8021B	10/31/19	11/08/19	JKR	BR4FBZ BZ BZME EBZ X	
641244-010	S	Borehole #23 (0-1')	10/25/19 00:00	E300	Inorganic Anions by EPA 300/300.1	10/31/19	11/22/19	JKR	CL	
641244-010	S	Borehole #23 (0-1')	10/25/19 00:00	SW8015MOD_NM	TPH By SW8015 Mod	10/31/19	11/08/19	JKR	PHCC10C28 PHCC28C35	
641244-011	S	Borehole #23 (2-3')	10/25/19 00:00	SW8021B	BTEX by EPA 8021B	10/31/19	11/08/19	JKR	BR4FBZ BZ BZME EBZ X	
641244-011	S	Borehole #23 (2-3')	10/25/19 00:00	SW8015MOD_NM	TPH By SW8015 Mod	10/31/19	11/08/19	JKR	PHCC10C28 PHCC28C35	
641244-011	S	Borehole #23 (2-3')	10/25/19 00:00	E300	Inorganic Anions by EPA 300/300.1	10/31/19	11/22/19	JKR	CL	
641244-012	S	Borehole #23 (4-5')	10/25/19 00:00	SW8021B	BTEX by EPA 8021B	10/31/19	11/08/19	JKR	BR4FBZ BZ BZME EBZ X	
641244-012	S	Borehole #23 (4-5')	10/25/19 00:00	SW8015MOD_NM	TPH By SW8015 Mod	10/31/19	11/08/19	JKR	PHCC10C28 PHCC28C35	
641244-012	S	Borehole #23 (4-5')	10/25/19 00:00	E300	Inorganic Anions by EPA 300/300.1	10/31/19	11/22/19	JKR	CL	
641244-013	S	Borehole #23 (6-7')	10/25/19 00:00	E300	Inorganic Anions by EPA 300/300.1	10/31/19	11/22/19	JKR	CL	
641244-013	S	Borehole #23 (6-7')	10/25/19 00:00	SW8021B	BTEX by EPA 8021B	10/31/19	11/08/19	JKR	BR4FBZ BZ BZME EBZ X	
641244-013	S	Borehole #23 (6-7')	10/25/19 00:00	SW8015MOD_NM	TPH By SW8015 Mod	10/31/19	11/08/19	JKR	PHCC10C28 PHCC28C35	
641244-014	S	Borehole #23 (9-10')	10/25/19 00:00	SW8015MOD_NM	TPH By SW8015 Mod	10/31/19	11/08/19	JKR	PHCC10C28 PHCC28C35	
641244-014	S	Borehole #23 (9-10')	10/25/19 00:00	SW8021B	BTEX by EPA 8021B	10/31/19	11/08/19	JKR	BR4FBZ BZ BZME EBZ X	
641244-014	S	Borehole #23 (9-10')	10/25/19 00:00	E300	Inorganic Anions by EPA 300/300.1	10/31/19	11/22/19	JKR	CL	
641244-015	S	Borehole #23 (14-15')	10/25/19 00:00	E300	Inorganic Anions by EPA 300/300.1	10/31/19	11/22/19	JKR	CL	
641244-015	S	Borehole #23 (14-15')	10/25/19 00:00	SW8021B	BTEX by EPA 8021B	10/31/19	11/08/19	JKR	BR4FBZ BZ BZME EBZ X	
641244-015	S	Borehole #23 (14-15')	10/25/19 00:00	SW8015MOD_NM	TPH By SW8015 Mod	10/31/19	11/08/19	JKR	PHCC10C28 PHCC28C35	
641244-016	S	Borehole #23 (19-20')	10/25/19 00:00	E300	Inorganic Anions by EPA 300/300.1	10/31/19	11/22/19	JKR	CL	
641244-016	S	Borehole #23 (19-20')	10/25/19 00:00	SW8015MOD_NM	TPH By SW8015 Mod	10/31/19	11/08/19	JKR	PHCC10C28 PHCC28C35	
641244-016	S	Borehole #23 (19-20')	10/25/19 00:00	SW8021B	BTEX by EPA 8021B	10/31/19	11/08/19	JKR	BR4FBZ BZ BZME EBZ X	
641244-017	S	Borehole #23 (24-25')	10/25/19 00:00	SW8015MOD_NM	TPH By SW8015 Mod	10/31/19	11/08/19	JKR	PHCC10C28 PHCC28C35	
641244-017	S	Borehole #23 (24-25')	10/25/19 00:00	SW8021B	BTEX by EPA 8021B	10/31/19	11/08/19	JKR	BR4FBZ BZ BZME EBZ X	

Inter Office Shipment or Sample Comments:



### Inter-Office Shipment

**IOS Number 50953**

Date/Time: 10/28/19 13:37

Created by: Elizabeth McClellan

Please send report to: Jessica Kramer

Lab# From: **Carlsbad**

Delivery Priority:

Address: 1089 N Canal Street

Lab# To: **Midland**

Air Bill No.: 776834191012

E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
641244-017	S	Borehole #23 (24-25')	10/25/19 00:00	E300	Inorganic Anions by EPA 300/300.1	10/31/19	11/22/19	JKR	CL	
641244-018	S	Borehole #23 (29-30')	10/25/19 00:00	E300	Inorganic Anions by EPA 300/300.1	10/31/19	11/22/19	JKR	CL	
641244-018	S	Borehole #23 (29-30')	10/25/19 00:00	SW8015MOD_NM	TPH By SW8015 Mod	10/31/19	11/08/19	JKR	PHCC10C28 PHCC28C35	
641244-018	S	Borehole #23 (29-30')	10/25/19 00:00	SW8021B	BTEX by EPA 8021B	10/31/19	11/08/19	JKR	BR4FBZ BZ BZME EBZ X	
641244-019	S	Borehole #24 (0-1')	10/25/19 00:00	SW8015MOD_NM	TPH By SW8015 Mod	10/31/19	11/08/19	JKR	PHCC10C28 PHCC28C35	
641244-019	S	Borehole #24 (0-1')	10/25/19 00:00	SW8021B	BTEX by EPA 8021B	10/31/19	11/08/19	JKR	BR4FBZ BZ BZME EBZ X	
641244-019	S	Borehole #24 (0-1')	10/25/19 00:00	E300	Inorganic Anions by EPA 300/300.1	10/31/19	11/22/19	JKR	CL	
641244-020	S	Borehole #24 (2-3')	10/25/19 00:00	E300	Inorganic Anions by EPA 300/300.1	10/31/19	11/22/19	JKR	CL	
641244-020	S	Borehole #24 (2-3')	10/25/19 00:00	SW8021B	BTEX by EPA 8021B	10/31/19	11/08/19	JKR	BR4FBZ BZ BZME EBZ X	
641244-020	S	Borehole #24 (2-3')	10/25/19 00:00	SW8015MOD_NM	TPH By SW8015 Mod	10/31/19	11/08/19	JKR	PHCC10C28 PHCC28C35	
641244-021	S	Borehole #24 (4-5')	10/25/19 00:00	SW8015MOD_NM	TPH By SW8015 Mod	10/31/19	11/08/19	JKR	PHCC10C28 PHCC28C35	
641244-021	S	Borehole #24 (4-5')	10/25/19 00:00	SW8021B	BTEX by EPA 8021B	10/31/19	11/08/19	JKR	BR4FBZ BZ BZME EBZ X	
641244-021	S	Borehole #24 (4-5')	10/25/19 00:00	E300	Inorganic Anions by EPA 300/300.1	10/31/19	11/22/19	JKR	CL	
641244-022	S	Borehole #24 (6-7')	10/25/19 00:00	SW8021B	BTEX by EPA 8021B	10/31/19	11/08/19	JKR	BR4FBZ BZ BZME EBZ X	
641244-022	S	Borehole #24 (6-7')	10/25/19 00:00	E300	Inorganic Anions by EPA 300/300.1	10/31/19	11/22/19	JKR	CL	
641244-022	S	Borehole #24 (6-7')	10/25/19 00:00	SW8015MOD_NM	TPH By SW8015 Mod	10/31/19	11/08/19	JKR	PHCC10C28 PHCC28C35	
641244-023	S	Borehole #24 (9-10')	10/25/19 00:00	SW8021B	BTEX by EPA 8021B	10/31/19	11/08/19	JKR	BR4FBZ BZ BZME EBZ X	
641244-023	S	Borehole #24 (9-10')	10/25/19 00:00	E300	Inorganic Anions by EPA 300/300.1	10/31/19	11/22/19	JKR	CL	
641244-023	S	Borehole #24 (9-10')	10/25/19 00:00	SW8015MOD_NM	TPH By SW8015 Mod	10/31/19	11/08/19	JKR	PHCC10C28 PHCC28C35	
641244-024	S	Borehole #24 (14-15')	10/25/19 00:00	SW8021B	BTEX by EPA 8021B	10/31/19	11/08/19	JKR	BR4FBZ BZ BZME EBZ X	
641244-024	S	Borehole #24 (14-15')	10/25/19 00:00	E300	Inorganic Anions by EPA 300/300.1	10/31/19	11/22/19	JKR	CL	
641244-024	S	Borehole #24 (14-15')	10/25/19 00:00	SW8015MOD_NM	TPH By SW8015 Mod	10/31/19	11/08/19	JKR	PHCC10C28 PHCC28C35	
641244-025	S	Borehole #24 (19-20')	10/25/19 00:00	SW8021B	BTEX by EPA 8021B	10/31/19	11/08/19	JKR	BR4FBZ BZ BZME EBZ X	
641244-025	S	Borehole #24 (19-20')	10/25/19 00:00	E300	Inorganic Anions by EPA 300/300.1	10/31/19	11/22/19	JKR	CL	
641244-025	S	Borehole #24 (19-20')	10/25/19 00:00	SW8015MOD_NM	TPH By SW8015 Mod	10/31/19	11/08/19	JKR	PHCC10C28 PHCC28C35	

**Inter Office Shipment or Sample Comments:**

Relinquished By:

Received By:



### Inter-Office Shipment

**IOS Number 50953**

Date/Time: 10/28/19 13:37

Created by: Elizabeth McClellan

Please send report to: Jessica Kramer

Lab# From: **Carlsbad**

Delivery Priority:

Address: 1089 N Canal Street

Lab# To: **Midland**

Air Bill No.: 776834191012

E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
641244-026	S	Borehole #24 (24-25)	10/25/19 00:00	SW8021B	BTEX by EPA 8021B	10/31/19	11/08/19	JKR	BR4FBZ BZ BZME EBZ X	
641244-026	S	Borehole #24 (24-25)	10/25/19 00:00	SW8015MOD_NM	TPH By SW8015 Mod	10/31/19	11/08/19	JKR	PHCC10C28 PHCC28C35 1	
641244-026	S	Borehole #24 (24-25)	10/25/19 00:00	E300	Inorganic Anions by EPA 300/300.1	10/31/19	11/22/19	JKR	CL	
641244-027	S	Borehole #24 (29-30)	10/25/19 00:00	SW8021B	BTEX by EPA 8021B	10/31/19	11/08/19	JKR	BR4FBZ BZ BZME EBZ X	
641244-027	S	Borehole #24 (29-30)	10/25/19 00:00	E300	Inorganic Anions by EPA 300/300.1	10/31/19	11/22/19	JKR	CL	
641244-027	S	Borehole #24 (29-30)	10/25/19 00:00	SW8015MOD_NM	TPH By SW8015 Mod	10/31/19	11/08/19	JKR	PHCC10C28 PHCC28C35 1	

**Inter Office Shipment or Sample Comments:**

Date Relinquished:

Elizabeth McClellan

10/28/2019

Date Received:

Cooler Temperature:

Brianna Teel

10/29/2019 11:04

0.3



# XENCO Laboratories

## Inter Office Report- Sample Receipt Checklist

Sent To: Midland

IOS #: 50953

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used :

Sent By: Elizabeth McClellan

Date Sent: 10/28/2019 01:37 PM

Received By: Brianna Teel

Date Received: 10/29/2019 11:04 AM

### Sample Receipt Checklist

### Comments

- #1 \*Temperature of cooler(s)? .3
- #2 \*Shipping container in good condition? Yes
- #3 \*Samples received with appropriate temperature? Yes
- #4 \*Custody Seals intact on shipping container/ cooler? Yes
- #5 \*Custody Seals Signed and dated for Containers/coolers Yes
- #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:

Corrective Action Taken:

### Nonconformance Documentation

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

Checklist reviewed by:

Brianna Teel

Date: 10/29/2019



# XENCO Laboratories

## Prelogin/Nonconformance Report- Sample Log-In



Client: Tetra Tech- Midland

Date/ Time Received: 10/25/2019 02:40:00 PM

Work Order #: 641244

Acceptable Temperature Range: 0 - 6 degC  
Air and Metal samples Acceptable Range: Ambient  
Temperature Measuring device used : T-NM-007

### Sample Receipt Checklist

### Comments

#1 *Temperature of cooler(s)?	.6	
#2 *Shipping container in good condition?	Yes	
#3 *Samples received on ice?	Yes	
#4 *Custody Seals intact on shipping container/ cooler?	Yes	
#5 Custody Seals intact on sample bottles?	Yes	
#6* Custody Seals Signed and dated?	Yes	
#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)?	Yes	Subbed to Midland.
#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:

Elizabeth McClellan

Date: 10/28/2019

Checklist reviewed by:

Jessica Kramer

Date: 10/29/2019

# Analytical Report 641434

for  
**Tetra Tech- Midland**

**Project Manager: Clair Gonzales**  
**Permian Water Solutions Dorstate SWD Addiional Assessment**

**06-NOV-19**

Collected By: Client



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

Xenco-Houston (EPA Lab Code: TX00122):  
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)  
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):  
Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)  
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)  
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)  
Xenco-Carlsbad (LELAP): Louisiana (05092)  
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)  
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)  
Xenco-Tampa: Florida (E87429), North Carolina (483)



06-NOV-19

Project Manager: **Clair Gonzales**  
**Tetra Tech- Midland**  
901 West Wall ST  
Midland, TX 79701

Reference: XENCO Report No(s): **641434**  
**Permian Water Solutions Dorstate SWD Addiional Assessment**  
Project Address: Eddy County, NM

**Clair Gonzales:**

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) 641434. 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. 641434 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,

**Jessica Kramer**

Project Assistant

*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 641434



### Tetra Tech- Midland, Midland, TX

#### Permian Water Solutions Dorstate SWD Addiional Assessment

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
H1 0-1	S	10-23-19 00:00		641434-001
H1 1-2	S	10-23-19 00:00		641434-002
H2 0-1	S	10-23-19 00:00		641434-003
H2 1-2	S	10-23-19 00:00		641434-004
H3 0-1	S	10-23-19 00:00		641434-005
H3 1-2	S	10-23-19 00:00		641434-006
H4 0-1	S	10-23-19 00:00		641434-007
H4 1-2	S	10-23-19 00:00		641434-008
H5 0-1	S	10-23-19 00:00		641434-009
H5 1-2	S	10-23-19 00:00		641434-010
H6 0-1	S	10-23-19 00:00		641434-011
H6 1-2	S	10-23-19 00:00		641434-012
H7 0-1	S	10-23-19 00:00		641434-013
H7 1-2	S	10-23-19 00:00		641434-014
H8 0-1	S	10-23-19 00:00		641434-015
H8 1-2	S	10-23-19 00:00		641434-016
H9 0-8"	S	10-24-19 00:00		641434-017
H10 0-1	S	10-24-19 00:00		641434-018
H10 1-2	S	10-24-19 00:00		641434-019
H11 0-10"	S	10-24-19 00:00		641434-020
H12 0-1	S	10-24-19 00:00		641434-021
H12 1-2	S	10-24-19 00:00		641434-022
H13 0-1	S	10-24-19 00:00		641434-023
H14 0-1	S	10-24-19 00:00		641434-024
H14 1-2	S	10-24-19 00:00		641434-025
H15 0-1	S	10-24-19 00:00		641434-026
H15 1-2	S	10-24-19 00:00		641434-027
H16 0-1	S	10-24-19 00:00		641434-028
H16 1-2	S	10-24-19 00:00		641434-029
H17 0-1	S	10-25-19 00:00		641434-030
H17 1-2	S	10-25-19 00:00		641434-031
H18 0-1	S	10-25-19 00:00		641434-032
H18 1-2	S	10-25-19 00:00		641434-033
H19 0-1	S	10-25-19 00:00		641434-034
H19 1-2	S	10-25-19 00:00		641434-035
H20 0-1	S	10-25-19 00:00		641434-036
H20 1-2	S	10-25-19 00:00		641434-037



### CASE NARRATIVE

*Client Name: Tetra Tech- Midland*

*Project Name: Permian Water Solutions Dorstate SWD Additional Assessment*

Project ID:

Work Order Number(s): 641434

Report Date: 06-NOV-19

Date Received: 10/29/2019

**Sample receipt non conformances and comments:**

None

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

None

**Analytical non conformances and comments:**

Batch: LBA-3106096 Inorganic Anions by EPA 300/300.1

Lab Sample ID 641447-004 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 641434-036, -037.

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

Batch: LBA-3106497 BTEX by EPA 8021B

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

Surrogate 1,4-Difluorobenzene recovered below QC limits. Matrix interferences is suspected; data confirmed by re-analysis.

Samples affected are: 641434-034.

Batch: LBA-3106504 BTEX by EPA 8021B

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

Batch: LBA-3106580 BTEX by EPA 8021B

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



# Certificate of Analysis Summary 641434

Tetra Tech- Midland, Midland, TX



**Project Name:** Permian Water Solutions Dorstate SWD Additional Assessment

**Date Received in Lab:** Tue Oct-29-19 03:45 pm

**Project Id:**

**Report Date:** 06-NOV-19

**Contact:** Clair Gonzales

**Project Manager:** Jessica Kramer

**Project Location:** Eddy County, NM

Analysis Requested	Lab Id:	641434-001	641434-002	641434-003	641434-004	641434-005	641434-006
	Field Id:	H1 0-1	H1 1-2	H2 0-1	H2 1-2	H3 0-1	H3 1-2
	Depth:						
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	Oct-23-19 00:00					
<b>BTEX by EPA 8021B</b>	Extracted:	Nov-04-19 11:00					
	Analyzed:	Nov-04-19 14:25	Nov-04-19 14:45	Nov-04-19 15:05	Nov-04-19 15:25	Nov-04-19 15:45	Nov-04-19 16:05
	Units/RL:	mg/kg RL					
Benzene		<0.00202 0.00202	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199
Toluene		<0.00202 0.00202	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199
Ethylbenzene		<0.00202 0.00202	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199
m,p-Xylenes		<0.00404 0.00404	<0.00400 0.00400	<0.00397 0.00397	<0.00399 0.00399	<0.00398 0.00398	<0.00398 0.00398
o-Xylene		<0.00202 0.00202	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199
Total Xylenes		<0.00202 0.00202	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199
Total BTEX		<0.00202 0.00202	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199
<b>Inorganic Anions by EPA 300/300.1</b>	Extracted:	Oct-30-19 10:45	Oct-30-19 10:45	Oct-30-19 10:45	Oct-30-19 16:35	Oct-30-19 16:35	Oct-30-19 16:35
	Analyzed:	Oct-30-19 13:52	Oct-30-19 13:59	Oct-30-19 14:05	Oct-30-19 20:33	Oct-30-19 20:40	Oct-30-19 20:47
	Units/RL:	mg/kg RL					
Chloride		322 4.97	325 5.05	148 5.00	275 5.04	135 5.05	148 4.96
<b>TPH By SW8015 Mod</b>	Extracted:	Nov-01-19 13:00					
	Analyzed:	Nov-01-19 21:58	Nov-01-19 23:00	Nov-01-19 23:21	Nov-01-19 23:42	Nov-02-19 00:04	Nov-02-19 00:25
	Units/RL:	mg/kg RL					
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0	<49.8 49.8	<50.0 50.0	<49.9 49.9	<49.9 49.9	<50.0 50.0
Diesel Range Organics (DRO)		<50.0 50.0	<49.8 49.8	169 50.0	<49.9 49.9	<49.9 49.9	<50.0 50.0
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<49.8 49.8	<50.0 50.0	<49.9 49.9	<49.9 49.9	<50.0 50.0
Total TPH		<50.0 50.0	<49.8 49.8	169 50.0	<49.9 49.9	<49.9 49.9	<50.0 50.0

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 - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Version: 1.9%

*Jessica Kramer*

Jessica Kramer  
Project Assistant



# Certificate of Analysis Summary 641434

Tetra Tech- Midland, Midland, TX



**Project Name:** Permian Water Solutions Dorstate SWD Additional Assessment

**Project Id:**

**Date Received in Lab:** Tue Oct-29-19 03:45 pm

**Contact:** Clair Gonzales

**Report Date:** 06-NOV-19

**Project Location:** Eddy County, NM

**Project Manager:** Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	641434-007	641434-008	641434-009	641434-010	641434-011	641434-012
	<i>Field Id:</i>	H4 0-1	H4 1-2	H5 0-1	H5 1-2	H6 0-1	H6 1-2
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Oct-23-19 00:00					
<b>BTEX by EPA 8021B</b>	<i>Extracted:</i>	Nov-04-19 11:00					
	<i>Analyzed:</i>	Nov-04-19 16:26	Nov-04-19 16:46	Nov-04-19 17:06	Nov-04-19 18:24	Nov-04-19 18:44	Nov-04-19 19:04
	<i>Units/RL:</i>	mg/kg RL					
Benzene		<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200
Toluene		<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200
Ethylbenzene		<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200
m,p-Xylenes		<0.00398 0.00398	<0.00402 0.00402	<0.00401 0.00401	<0.00396 0.00396	<0.00399 0.00399	<0.00400 0.00400
o-Xylene		<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200
Total Xylenes		<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200
Total BTEX		<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200
<b>Inorganic Anions by EPA 300/300.1</b>	<i>Extracted:</i>	Oct-30-19 16:35					
	<i>Analyzed:</i>	Oct-30-19 21:07	Oct-30-19 21:13	Oct-30-19 21:33	Oct-30-19 21:40	Oct-30-19 21:46	Oct-30-19 21:53
	<i>Units/RL:</i>	mg/kg RL					
Chloride		641 25.0	259 25.1	452 24.9	492 50.4	439 49.6	516 50.0
<b>TPH By SW8015 Mod</b>	<i>Extracted:</i>	Nov-01-19 13:00					
	<i>Analyzed:</i>	Nov-02-19 00:46	Nov-02-19 01:07	Nov-02-19 01:28	Nov-02-19 01:48	Nov-02-19 02:30	Nov-02-19 02:51
	<i>Units/RL:</i>	mg/kg RL					
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0	<49.9 49.9	<49.9 49.9	<50.0 50.0	<50.0 50.0	<49.9 49.9
Diesel Range Organics (DRO)		<50.0 50.0	<49.9 49.9	<49.9 49.9	<50.0 50.0	<50.0 50.0	<49.9 49.9
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<49.9 49.9	<49.9 49.9	<50.0 50.0	<50.0 50.0	<49.9 49.9
Total TPH		<50.0 50.0	<49.9 49.9	<49.9 49.9	<50.0 50.0	<50.0 50.0	<49.9 49.9

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 - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Version: 1.0%

Jessica Kramer  
Project Assistant



# Certificate of Analysis Summary 641434

Tetra Tech- Midland, Midland, TX



**Project Name:** Permian Water Solutions Dorstate SWD Additional Assessment

**Project Id:**

**Date Received in Lab:** Tue Oct-29-19 03:45 pm

**Contact:** Clair Gonzales

**Report Date:** 06-NOV-19

**Project Location:** Eddy County, NM

**Project Manager:** Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	641434-013	641434-014	641434-015	641434-016	641434-017	641434-018
	<i>Field Id:</i>	H7 0-1	H7 1-2	H8 0-1	H8 1-2	H9 0-8"	H10 0-1
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Oct-23-19 00:00	Oct-23-19 00:00	Oct-23-19 00:00	Oct-23-19 00:00	Oct-24-19 00:00	Oct-24-19 00:00
<b>BTEX by EPA 8021B</b>	<i>Extracted:</i>	Nov-04-19 11:00					
	<i>Analyzed:</i>	Nov-04-19 19:24	Nov-04-19 19:45	Nov-04-19 20:05	Nov-04-19 20:25	Nov-04-19 20:45	Nov-04-19 21:05
	<i>Units/RL:</i>	mg/kg RL					
Benzene		<0.00202 0.00202	<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199
Toluene		<0.00202 0.00202	<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199
Ethylbenzene		<0.00202 0.00202	<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199
m,p-Xylenes		<0.00403 0.00403	<0.00402 0.00402	<0.00402 0.00402	<0.00400 0.00400	<0.00397 0.00397	<0.00398 0.00398
o-Xylene		<0.00202 0.00202	<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199
Total Xylenes		<0.00202 0.00202	<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199
Total BTEX		<0.00202 0.00202	<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199
<b>Inorganic Anions by EPA 300/300.1</b>	<i>Extracted:</i>	Oct-30-19 16:35	Oct-30-19 16:35	Oct-30-19 16:35	Oct-31-19 08:05	Oct-31-19 08:05	Oct-31-19 08:05
	<i>Analyzed:</i>	Oct-30-19 22:00	Oct-30-19 22:06	Oct-30-19 22:13	Oct-31-19 08:48	Oct-31-19 09:15	Oct-31-19 09:20
	<i>Units/RL:</i>	mg/kg RL					
Chloride		243 4.96	175 5.03	281 4.99	855 4.98	154 5.04	192 4.96
<b>TPH By SW8015 Mod</b>	<i>Extracted:</i>	Nov-01-19 13:00					
	<i>Analyzed:</i>	Nov-02-19 03:13	Nov-02-19 03:34	Nov-02-19 03:55	Nov-02-19 04:16	Nov-02-19 04:37	Nov-02-19 04:58
	<i>Units/RL:</i>	mg/kg RL					
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0	<49.9 49.9	<50.0 50.0	<50.0 50.0	<49.9 49.9	<50.0 50.0
Diesel Range Organics (DRO)		<50.0 50.0	<49.9 49.9	<50.0 50.0	<50.0 50.0	<49.9 49.9	<50.0 50.0
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<49.9 49.9	<50.0 50.0	<50.0 50.0	<49.9 49.9	<50.0 50.0
Total TPH		<50.0 50.0	<49.9 49.9	<50.0 50.0	<50.0 50.0	<49.9 49.9	<50.0 50.0

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 - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Version: 1.9%

*Jessica Kramer*

Jessica Kramer  
Project Assistant



# Certificate of Analysis Summary 641434

Tetra Tech- Midland, Midland, TX



**Project Name:** Permian Water Solutions Dorstate SWD Additional Assessment

**Project Id:**

**Date Received in Lab:** Tue Oct-29-19 03:45 pm

**Contact:** Clair Gonzales

**Report Date:** 06-NOV-19

**Project Location:** Eddy County, NM

**Project Manager:** Jessica Kramer

Analysis Requested	Lab Id:	641434-019	641434-020	641434-021	641434-022	641434-023	641434-024
	Field Id:	H10 1-2	H11 0-10"	H12 0-1	H12 1-2	H13 0-1	H14 0-1
	Depth:						
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	Oct-24-19 00:00					
<b>BTEX by EPA 8021B</b>	Extracted:	Nov-04-19 11:00	Nov-04-19 16:00				
	Analyzed:	Nov-04-19 21:25	Nov-05-19 01:03	Nov-05-19 01:23	Nov-05-19 08:59	Nov-05-19 09:19	Nov-05-19 09:39
	Units/RL:	mg/kg RL					
Benzene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	<0.00198 0.00198
Toluene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	<0.00198 0.00198
Ethylbenzene		<0.00200 0.00200	0.00498 0.00199	0.00440 0.00200	<0.00201 0.00201	<0.00202 0.00202	<0.00198 0.00198
m,p-Xylenes		<0.00400 0.00400	0.00681 0.00398	0.00571 0.00399	<0.00402 0.00402	<0.00403 0.00403	<0.00397 0.00397
o-Xylene		<0.00200 0.00200	0.00233 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	<0.00198 0.00198
Total Xylenes		<0.00200 0.00200	0.00914 0.00199	0.00571 0.00200	<0.00201 0.00201	<0.00202 0.00202	<0.00198 0.00198
Total BTEX		<0.00200 0.00200	0.0141 0.00199	0.0101 0.00200	<0.00201 0.00201	<0.00202 0.00202	<0.00198 0.00198
<b>Inorganic Anions by EPA 300/300.1</b>	Extracted:	Oct-31-19 08:05					
	Analyzed:	Oct-31-19 09:25	Oct-31-19 09:31	Oct-31-19 09:46	Oct-31-19 09:51	Oct-31-19 09:56	Oct-31-19 10:01
	Units/RL:	mg/kg RL					
Chloride		72.7 5.00	125 4.99	57.4 5.03	174 4.95	332 4.95	32.0 4.95
<b>TPH By SW8015 Mod</b>	Extracted:	Nov-01-19 13:00	Nov-01-19 13:00	Oct-31-19 10:00	Oct-31-19 10:00	Oct-31-19 10:00	Oct-31-19 10:00
	Analyzed:	Nov-02-19 05:19	Nov-02-19 05:40	Oct-31-19 13:09	Oct-31-19 14:05	Oct-31-19 14:24	Oct-31-19 14:43
	Units/RL:	mg/kg RL					
Gasoline Range Hydrocarbons (GRO)		<49.9 49.9	<50.0 50.0	<50.0 50.0	<50.0 50.0	<49.9 49.9	<49.9 49.9
Diesel Range Organics (DRO)		<49.9 49.9	<50.0 50.0	<50.0 50.0	141 50.0	<49.9 49.9	<49.9 49.9
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9	<50.0 50.0	<50.0 50.0	<50.0 50.0	<49.9 49.9	<49.9 49.9
Total TPH		<49.9 49.9	<50.0 50.0	<50.0 50.0	141 50.0	<49.9 49.9	<49.9 49.9

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 - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Version: 1.0%

*Jessica Kramer*

Jessica Kramer  
Project Assistant



# Certificate of Analysis Summary 641434

Tetra Tech- Midland, Midland, TX



**Project Name:** Permian Water Solutions Dorstate SWD Additional Assessment

**Project Id:**

**Date Received in Lab:** Tue Oct-29-19 03:45 pm

**Contact:** Clair Gonzales

**Report Date:** 06-NOV-19

**Project Location:** Eddy County, NM

**Project Manager:** Jessica Kramer

Analysis Requested	Lab Id:	641434-025	641434-026	641434-027	641434-028	641434-029	641434-030
	Field Id:	H14 1-2	H15 0-1	H15 1-2	H16 0-1	H16 1-2	H17 0-1
	Depth:						
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	Oct-24-19 00:00	Oct-25-19 00:00				
<b>BTEX by EPA 8021B</b>	Extracted:	Nov-04-19 16:00					
	Analyzed:	Nov-05-19 09:59	Nov-05-19 10:19	Nov-05-19 10:39	Nov-05-19 11:00	Nov-05-19 12:38	Nov-05-19 12:58
	Units/RL:	mg/kg RL					
Benzene		<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202	<0.00200 0.00200
Toluene		<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202	<0.00200 0.00200
Ethylbenzene		<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202	<0.00200 0.00200
m,p-Xylenes		<0.00399 0.00399	<0.00398 0.00398	<0.00398 0.00398	<0.00396 0.00396	<0.00403 0.00403	<0.00399 0.00399
o-Xylene		<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202	<0.00200 0.00200
Total Xylenes		<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202	<0.00200 0.00200
Total BTEX		<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202	<0.00200 0.00200
<b>Inorganic Anions by EPA 300/300.1</b>	Extracted:	Oct-31-19 08:05					
	Analyzed:	Oct-31-19 10:07	Oct-31-19 10:12	Oct-31-19 10:27	Oct-31-19 10:32	Oct-31-19 10:48	Oct-31-19 10:53
	Units/RL:	mg/kg RL					
Chloride		25.8 5.02	6.18 4.99	31.9 4.97	22.7 5.00	307 5.00	38.3 5.04
<b>TPH By SW8015 Mod</b>	Extracted:	Oct-31-19 10:00					
	Analyzed:	Oct-31-19 15:02	Oct-31-19 15:20	Oct-31-19 15:39	Oct-31-19 15:58	Oct-31-19 16:17	Oct-31-19 16:35
	Units/RL:	mg/kg RL					
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0	<50.0 50.0	<49.9 49.9	<50.0 50.0	<49.8 49.8	<49.9 49.9
Diesel Range Organics (DRO)		<50.0 50.0	<50.0 50.0	<49.9 49.9	<50.0 50.0	<49.8 49.8	<49.9 49.9
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<50.0 50.0	<49.9 49.9	<50.0 50.0	<49.8 49.8	<49.9 49.9
Total TPH		<50.0 50.0	<50.0 50.0	<49.9 49.9	<50.0 50.0	<49.8 49.8	<49.9 49.9

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 - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Version: 1.9%

*Jessica Kramer*

Jessica Kramer  
Project Assistant



# Certificate of Analysis Summary 641434

Tetra Tech- Midland, Midland, TX



**Project Name: Permian Water Solutions Dorstate SWD Additional Assessment**

**Project Id:**

**Date Received in Lab:** Tue Oct-29-19 03:45 pm

**Contact:** Clair Gonzales

**Report Date:** 06-NOV-19

**Project Location:** Eddy County, NM

**Project Manager:** Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	641434-031	641434-032	641434-033	641434-034	641434-035	641434-036
	<i>Field Id:</i>	H17 1-2	H18 0-1	H18 1-2	H19 0-1	H19 1-2	H20 0-1
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Oct-25-19 00:00					
<b>BTEX by EPA 8021B</b>	<i>Extracted:</i>	Nov-04-19 16:00					
	<i>Analyzed:</i>	Nov-05-19 13:18	Nov-05-19 13:38	Nov-05-19 13:59	Nov-05-19 16:35	Nov-05-19 16:56	Nov-05-19 17:16
	<i>Units/RL:</i>	mg/kg RL					
Benzene		<0.00202 0.00202	<0.00198 0.00198	<0.00198 0.00198	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202
Toluene		<0.00202 0.00202	<0.00198 0.00198	<0.00198 0.00198	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202
Ethylbenzene		<0.00202 0.00202	<0.00198 0.00198	<0.00198 0.00198	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202
m,p-Xylenes		<0.00404 0.00404	<0.00397 0.00397	<0.00397 0.00397	<0.00398 0.00398	<0.00397 0.00397	<0.00403 0.00403
o-Xylene		<0.00202 0.00202	<0.00198 0.00198	<0.00198 0.00198	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202
Total Xylenes		<0.00202 0.00202	<0.00198 0.00198	<0.00198 0.00198	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202
Total BTEX		<0.00202 0.00202	<0.00198 0.00198	<0.00198 0.00198	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202
<b>Inorganic Anions by EPA 300/300.1</b>	<i>Extracted:</i>	Oct-31-19 08:05	Oct-31-19 08:15				
	<i>Analyzed:</i>	Oct-31-19 10:58	Oct-31-19 11:03	Oct-31-19 11:08	Oct-31-19 11:13	Oct-31-19 11:18	Oct-31-19 09:28
	<i>Units/RL:</i>	mg/kg RL					
Chloride		58.5 5.01	59.2 4.96	117 4.98	140 5.00	847 25.2	435 5.00
<b>TPH By SW8015 Mod</b>	<i>Extracted:</i>	Oct-31-19 10:00	Oct-31-19 10:00	Oct-31-19 12:00	Oct-31-19 12:00	Oct-31-19 12:00	Oct-31-19 12:00
	<i>Analyzed:</i>	Oct-31-19 17:13	Oct-31-19 17:32	Nov-01-19 03:19	Nov-01-19 03:38	Nov-01-19 03:57	Nov-01-19 04:16
	<i>Units/RL:</i>	mg/kg RL					
Gasoline Range Hydrocarbons (GRO)		<49.9 49.9	<50.0 50.0	<50.0 50.0	<50.0 50.0	<49.9 49.9	<50.0 50.0
Diesel Range Organics (DRO)		<49.9 49.9	<50.0 50.0	<50.0 50.0	<50.0 50.0	<49.9 49.9	<50.0 50.0
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9	<50.0 50.0	<50.0 50.0	<50.0 50.0	<49.9 49.9	<50.0 50.0
Total TPH		<49.9 49.9	<50.0 50.0	<50.0 50.0	<50.0 50.0	<49.9 49.9	<50.0 50.0

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 - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Version: 1.9%

*Jessica Kramer*

Jessica Kramer  
Project Assistant



# Certificate of Analysis Summary 641434

Tetra Tech- Midland, Midland, TX



**Project Name:** Permian Water Solutions Dorstate SWD Additional Assessment

**Project Id:**

**Date Received in Lab:** Tue Oct-29-19 03:45 pm

**Contact:** Clair Gonzales

**Report Date:** 06-NOV-19

**Project Location:** Eddy County, NM

**Project Manager:** Jessica Kramer

<b>Analysis Requested</b>	<b>Lab Id:</b> 641434-037 <b>Field Id:</b> H20 1-2 <b>Depth:</b> <b>Matrix:</b> SOIL <b>Sampled:</b> Oct-25-19 00:00					
<b>BTEX by EPA 8021B</b>	<b>Extracted:</b> Nov-05-19 16:15 <b>Analyzed:</b> Nov-05-19 21:58 <b>Units/RL:</b> mg/kg RL					
Benzene	<0.00200 0.00200					
Toluene	<0.00200 0.00200					
Ethylbenzene	<0.00200 0.00200					
m,p-Xylenes	<0.00401 0.00401					
o-Xylene	<0.00200 0.00200					
Total Xylenes	<0.00200 0.00200					
Total BTEX	<0.00200 0.00200					
<b>Inorganic Anions by EPA 300/300.1</b>	<b>Extracted:</b> Oct-31-19 08:15 <b>Analyzed:</b> Oct-31-19 09:48 <b>Units/RL:</b> mg/kg RL					
Chloride	126 4.96					
<b>TPH By SW8015 Mod</b>	<b>Extracted:</b> Oct-31-19 12:00 <b>Analyzed:</b> Nov-01-19 04:35 <b>Units/RL:</b> mg/kg RL					
Gasoline Range Hydrocarbons (GRO)	<50.0 50.0					
Diesel Range Organics (DRO)	<50.0 50.0					
Motor Oil Range Hydrocarbons (MRO)	<50.0 50.0					
Total TPH	<50.0 50.0					

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 - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Version: 1.0%

*Jessica Kramer*

Jessica Kramer  
Project Assistant





## Form 2 - Surrogate Recoveries

Project Name: Permian Water Solutions Dorstate SWD Additional Assessment

Work Orders : 641434,

Lab Batch #: 3106136

Sample: 641434-021 / SMP

Project ID:

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/31/19 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	84.4	99.9	84	70-135	
o-Terphenyl	43.7	50.0	87	70-135	

Lab Batch #: 3106136

Sample: 641434-022 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/31/19 14:05

**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	99.9	83	70-135	
o-Terphenyl	42.9	50.0	86	70-135	

Lab Batch #: 3106136

Sample: 641434-023 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/31/19 14:24

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	87.6	99.7	88	70-135	
o-Terphenyl	42.0	49.9	84	70-135	

Lab Batch #: 3106136

Sample: 641434-024 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/31/19 14:43

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	81.1	99.8	81	70-135	
o-Terphenyl	42.3	49.9	85	70-135	

Lab Batch #: 3106136

Sample: 641434-025 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/31/19 15:02

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	82.9	99.9	83	70-135	
o-Terphenyl	42.9	50.0	86	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: Permian Water Solutions Dorstate SWD Additional Assessment

Work Orders : 641434,

Lab Batch #: 3106136

Sample: 641434-026 / SMP

Project ID:

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/31/19 15:20

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	79.8	100	80	70-135	
o-Terphenyl	41.7	50.0	83	70-135	

Lab Batch #: 3106136

Sample: 641434-027 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/31/19 15:39

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	78.8	99.7	79	70-135	
o-Terphenyl	41.2	49.9	83	70-135	

Lab Batch #: 3106136

Sample: 641434-028 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/31/19 15:58

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	82.0	99.9	82	70-135	
o-Terphenyl	42.8	50.0	86	70-135	

Lab Batch #: 3106136

Sample: 641434-029 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/31/19 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	81.3	99.6	82	70-135	
o-Terphenyl	41.6	49.8	84	70-135	

Lab Batch #: 3106136

Sample: 641434-030 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/31/19 16:35

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	82.0	99.7	82	70-135	
o-Terphenyl	41.9	49.9	84	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: Permian Water Solutions Dorstate SWD Additional Assessment

Work Orders : 641434,

Lab Batch #: 3106136

Sample: 641434-031 / SMP

Project ID:

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/31/19 17:13

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	81.6	99.8	82	70-135	
o-Terphenyl	41.9	49.9	84	70-135	

Lab Batch #: 3106136

Sample: 641434-032 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/31/19 17:32

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	78.2	100	78	70-135	
o-Terphenyl	40.2	50.0	80	70-135	

Lab Batch #: 3106137

Sample: 641434-033 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/01/19 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	78.4	99.9	78	70-135	
o-Terphenyl	39.6	50.0	79	70-135	

Lab Batch #: 3106137

Sample: 641434-034 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/01/19 03:38

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	82.0	100	82	70-135	
o-Terphenyl	41.6	50.0	83	70-135	

Lab Batch #: 3106137

Sample: 641434-035 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/01/19 03:57

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	79.9	99.8	80	70-135	
o-Terphenyl	40.8	49.9	82	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: Permian Water Solutions Dorstate SWD Addiional Assessn

Work Orders : 641434,

Lab Batch #: 3106137

Sample: 641434-036 / SMP

Project ID:

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/01/19 04:16

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	80.6	99.9	81	70-135	
o-Terphenyl	41.8	50.0	84	70-135	

Lab Batch #: 3106137

Sample: 641434-037 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/01/19 04:35

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	80.3	100	80	70-135	
o-Terphenyl	41.4	50.0	83	70-135	

Lab Batch #: 3106228

Sample: 641434-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/01/19 21:58

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	78.0	99.9	78	70-135	
o-Terphenyl	40.3	50.0	81	70-135	

Lab Batch #: 3106228

Sample: 641434-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/01/19 23:00

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	80.6	99.6	81	70-135	
o-Terphenyl	41.3	49.8	83	70-135	

Lab Batch #: 3106228

Sample: 641434-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/01/19 23:21

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	80.2	99.9	80	70-135	
o-Terphenyl	42.6	50.0	85	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: Permian Water Solutions Dorstate SWD Addiional Assessn**

**Work Orders :** 641434,

**Lab Batch #:** 3106228

**Sample:** 641434-004 / SMP

**Project ID:**

**Batch:** 1 **Matrix:** Soil

**Units:** mg/kg

**Date Analyzed:** 11/01/19 23:42

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	76.3	99.8	76	70-135	
o-Terphenyl	39.3	49.9	79	70-135	

**Lab Batch #:** 3106228

**Sample:** 641434-005 / SMP

**Batch:** 1 **Matrix:** Soil

**Units:** mg/kg

**Date Analyzed:** 11/02/19 00:04

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	85.9	99.7	86	70-135	
o-Terphenyl	45.9	49.9	92	70-135	

**Lab Batch #:** 3106228

**Sample:** 641434-006 / SMP

**Batch:** 1 **Matrix:** Soil

**Units:** mg/kg

**Date Analyzed:** 11/02/19 00:25

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	90.1	99.9	90	70-135	
o-Terphenyl	46.6	50.0	93	70-135	

**Lab Batch #:** 3106228

**Sample:** 641434-007 / SMP

**Batch:** 1 **Matrix:** Soil

**Units:** mg/kg

**Date Analyzed:** 11/02/19 00:46

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	90.7	100	91	70-135	
o-Terphenyl	48.0	50.0	96	70-135	

**Lab Batch #:** 3106228

**Sample:** 641434-008 / SMP

**Batch:** 1 **Matrix:** Soil

**Units:** mg/kg

**Date Analyzed:** 11/02/19 01:07

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	94.1	99.7	94	70-135	
o-Terphenyl	48.6	49.9	97	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: Permian Water Solutions Dorstate SWD Additional Assessment

Work Orders : 641434,

Lab Batch #: 3106228

Sample: 641434-009 / SMP

Project ID:

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/02/19 01:28

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	76.9	99.8	77	70-135	
o-Terphenyl	40.2	49.9	81	70-135	

Lab Batch #: 3106228

Sample: 641434-010 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/02/19 01:48

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	77.8	99.9	78	70-135	
o-Terphenyl	39.3	50.0	79	70-135	

Lab Batch #: 3106228

Sample: 641434-011 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/02/19 02:30

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	75.8	100	76	70-135	
o-Terphenyl	37.8	50.0	76	70-135	

Lab Batch #: 3106228

Sample: 641434-012 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/02/19 02:51

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	81.4	99.8	82	70-135	
o-Terphenyl	42.7	49.9	86	70-135	

Lab Batch #: 3106228

Sample: 641434-013 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/02/19 03:13

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	78.2	99.9	78	70-135	
o-Terphenyl	39.7	50.0	79	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: Permian Water Solutions Dorstate SWD Additional Assessment**

**Work Orders :** 641434,

**Lab Batch #:** 3106228

**Sample:** 641434-014 / SMP

**Project ID:**

**Batch:** 1 **Matrix:** Soil

**Units:** mg/kg

**Date Analyzed:** 11/02/19 03:34

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	86.4	99.7	87	70-135	
o-Terphenyl	46.0	49.9	92	70-135	

**Lab Batch #:** 3106228

**Sample:** 641434-015 / SMP

**Batch:** 1 **Matrix:** Soil

**Units:** mg/kg

**Date Analyzed:** 11/02/19 03:55

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	89.3	100	89	70-135	
o-Terphenyl	48.5	50.0	97	70-135	

**Lab Batch #:** 3106228

**Sample:** 641434-016 / SMP

**Batch:** 1 **Matrix:** Soil

**Units:** mg/kg

**Date Analyzed:** 11/02/19 04:16

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	88.4	99.9	88	70-135	
o-Terphenyl	47.4	50.0	95	70-135	

**Lab Batch #:** 3106228

**Sample:** 641434-017 / SMP

**Batch:** 1 **Matrix:** Soil

**Units:** mg/kg

**Date Analyzed:** 11/02/19 04:37

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	86.0	99.8	86	70-135	
o-Terphenyl	46.1	49.9	92	70-135	

**Lab Batch #:** 3106228

**Sample:** 641434-018 / SMP

**Batch:** 1 **Matrix:** Soil

**Units:** mg/kg

**Date Analyzed:** 11/02/19 04:58

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	78.3	99.9	78	70-135	
o-Terphenyl	39.8	50.0	80	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: Permian Water Solutions Dorstate SWD Additional Assessment

Work Orders : 641434,

Lab Batch #: 3106228

Sample: 641434-019 / SMP

Project ID:

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/02/19 05:19

### SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	82.7	99.7	83	70-135	
o-Terphenyl	44.9	49.9	90	70-135	

Lab Batch #: 3106228

Sample: 641434-020 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/02/19 05:40

### SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	83.8	99.9	84	70-135	
o-Terphenyl	45.2	50.0	90	70-135	

Lab Batch #: 3106504

Sample: 641434-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/04/19 14:25

### 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	0.0303	0.0300	101	70-130	

Lab Batch #: 3106504

Sample: 641434-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/04/19 14:45

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0288	0.0300	96	70-130	
4-Bromofluorobenzene	0.0300	0.0300	100	70-130	

Lab Batch #: 3106504

Sample: 641434-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/04/19 15:05

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0282	0.0300	94	70-130	
4-Bromofluorobenzene	0.0306	0.0300	102	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: Permian Water Solutions Dorstate SWD Additional Assessment

Work Orders : 641434,

Lab Batch #: 3106504

Sample: 641434-004 / SMP

Project ID:

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/04/19 15:25

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0285	0.0300	95	70-130	
4-Bromofluorobenzene	0.0321	0.0300	107	70-130	

Lab Batch #: 3106504

Sample: 641434-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/04/19 15:45

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0296	0.0300	99	70-130	
4-Bromofluorobenzene	0.0325	0.0300	108	70-130	

Lab Batch #: 3106504

Sample: 641434-006 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/04/19 16:05

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0302	0.0300	101	70-130	
4-Bromofluorobenzene	0.0327	0.0300	109	70-130	

Lab Batch #: 3106504

Sample: 641434-007 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/04/19 16:26

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0288	0.0300	96	70-130	
4-Bromofluorobenzene	0.0317	0.0300	106	70-130	

Lab Batch #: 3106504

Sample: 641434-008 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/04/19 16:46

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0288	0.0300	96	70-130	
4-Bromofluorobenzene	0.0323	0.0300	108	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: Permian Water Solutions Dorstate SWD Addiional Assessn

Work Orders : 641434,

Lab Batch #: 3106504

Sample: 641434-009 / SMP

Project ID:

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/04/19 17:06

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0278	0.0300	93	70-130	
4-Bromofluorobenzene	0.0323	0.0300	108	70-130	

Lab Batch #: 3106504

Sample: 641434-010 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/04/19 18:24

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0290	0.0300	97	70-130	
4-Bromofluorobenzene	0.0306	0.0300	102	70-130	

Lab Batch #: 3106504

Sample: 641434-011 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/04/19 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	0.0279	0.0300	93	70-130	
4-Bromofluorobenzene	0.0345	0.0300	115	70-130	

Lab Batch #: 3106504

Sample: 641434-012 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/04/19 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	0.0287	0.0300	96	70-130	
4-Bromofluorobenzene	0.0337	0.0300	112	70-130	

Lab Batch #: 3106504

Sample: 641434-013 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/04/19 19:24

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0287	0.0300	96	70-130	
4-Bromofluorobenzene	0.0354	0.0300	118	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: Permian Water Solutions Dorstate SWD Addiional Assessn

Work Orders : 641434,

Lab Batch #: 3106504

Sample: 641434-014 / SMP

Project ID:

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/04/19 19:45

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0276	0.0300	92	70-130	
4-Bromofluorobenzene	0.0348	0.0300	116	70-130	

Lab Batch #: 3106504

Sample: 641434-015 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/04/19 20:05

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0278	0.0300	93	70-130	
4-Bromofluorobenzene	0.0338	0.0300	113	70-130	

Lab Batch #: 3106504

Sample: 641434-016 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/04/19 20:25

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0281	0.0300	94	70-130	
4-Bromofluorobenzene	0.0366	0.0300	122	70-130	

Lab Batch #: 3106504

Sample: 641434-017 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/04/19 20:45

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0279	0.0300	93	70-130	
4-Bromofluorobenzene	0.0358	0.0300	119	70-130	

Lab Batch #: 3106504

Sample: 641434-018 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/04/19 21:05

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0282	0.0300	94	70-130	
4-Bromofluorobenzene	0.0333	0.0300	111	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: Permian Water Solutions Dorstate SWD Additional Assessment

Work Orders : 641434,

Lab Batch #: 3106504

Sample: 641434-019 / SMP

Project ID:

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/04/19 21:25

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0294	0.0300	98	70-130	
4-Bromofluorobenzene	0.0327	0.0300	109	70-130	

Lab Batch #: 3106497

Sample: 641434-020 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/05/19 01:03

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0275	0.0300	92	70-130	
4-Bromofluorobenzene	0.0330	0.0300	110	70-130	

Lab Batch #: 3106497

Sample: 641434-021 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/05/19 01:23

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0215	0.0300	72	70-130	
4-Bromofluorobenzene	0.0326	0.0300	109	70-130	

Lab Batch #: 3106497

Sample: 641434-022 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/05/19 08:59

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0257	0.0300	86	70-130	
4-Bromofluorobenzene	0.0328	0.0300	109	70-130	

Lab Batch #: 3106497

Sample: 641434-023 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/05/19 09:19

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0285	0.0300	95	70-130	
4-Bromofluorobenzene	0.0329	0.0300	110	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: Permian Water Solutions Dorstate SWD Addiional Assessn

Work Orders : 641434,

Lab Batch #: 3106497

Sample: 641434-024 / SMP

Project ID:

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/05/19 09:39

### 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	0.0305	0.0300	102	70-130	

Lab Batch #: 3106497

Sample: 641434-025 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/05/19 09:59

### 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	0.0320	0.0300	107	70-130	

Lab Batch #: 3106497

Sample: 641434-026 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/05/19 10:19

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0289	0.0300	96	70-130	
4-Bromofluorobenzene	0.0319	0.0300	106	70-130	

Lab Batch #: 3106497

Sample: 641434-027 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/05/19 10:39

### 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	0.0309	0.0300	103	70-130	

Lab Batch #: 3106497

Sample: 641434-028 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/05/19 11:00

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0294	0.0300	98	70-130	
4-Bromofluorobenzene	0.0310	0.0300	103	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: Permian Water Solutions Dorstate SWD Addiional Assessn

Work Orders : 641434,

Lab Batch #: 3106497

Sample: 641434-029 / SMP

Project ID:

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/05/19 12:38

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0261	0.0300	87	70-130	
4-Bromofluorobenzene	0.0376	0.0300	125	70-130	

Lab Batch #: 3106497

Sample: 641434-030 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/05/19 12:58

**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	0.0326	0.0300	109	70-130	

Lab Batch #: 3106497

Sample: 641434-031 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/05/19 13:18

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0283	0.0300	94	70-130	
4-Bromofluorobenzene	0.0328	0.0300	109	70-130	

Lab Batch #: 3106497

Sample: 641434-032 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/05/19 13:38

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0235	0.0300	78	70-130	
4-Bromofluorobenzene	0.0351	0.0300	117	70-130	

Lab Batch #: 3106497

Sample: 641434-033 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/05/19 13:59

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0286	0.0300	95	70-130	
4-Bromofluorobenzene	0.0325	0.0300	108	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: Permian Water Solutions Dorstate SWD Additional Assessment

Work Orders : 641434,

Lab Batch #: 3106497

Sample: 641434-034 / SMP

Project ID:

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/05/19 16:35

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0208	0.0300	69	70-130	**
4-Bromofluorobenzene	0.0336	0.0300	112	70-130	

Lab Batch #: 3106497

Sample: 641434-035 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/05/19 16:56

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0290	0.0300	97	70-130	
4-Bromofluorobenzene	0.0296	0.0300	99	70-130	

Lab Batch #: 3106497

Sample: 641434-036 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/05/19 17:16

**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	0.0320	0.0300	107	70-130	

Lab Batch #: 3106580

Sample: 641434-037 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/05/19 21:58

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0293	0.0300	98	70-130	
4-Bromofluorobenzene	0.0287	0.0300	96	70-130	

Lab Batch #: 3106136

Sample: 7689297-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 10/31/19 12:12

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	89.5	100	90	70-135	
o-Terphenyl	44.4	50.0	89	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: Permian Water Solutions Dorstate SWD Additional Assessment

Work Orders : 641434,

Lab Batch #: 3106137

Sample: 7689298-1-BLK / BLK

Project ID:

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 10/31/19 20:40

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	91.0	100	91	70-135	
o-Terphenyl	45.1	50.0	90	70-135	

Lab Batch #: 3106228

Sample: 7689413-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 11/01/19 20:55

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	85.3	100	85	70-135	
o-Terphenyl	45.4	50.0	91	70-135	

Lab Batch #: 3106504

Sample: 7689578-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 11/04/19 13:45

**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 #: 3106497

Sample: 7689579-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 11/05/19 00:23

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0276	0.0300	92	70-130	
4-Bromofluorobenzene	0.0291	0.0300	97	70-130	

Lab Batch #: 3106580

Sample: 7689675-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 11/05/19 21:38

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0287	0.0300	96	70-130	
4-Bromofluorobenzene	0.0290	0.0300	97	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: Permian Water Solutions Dorstate SWD Additional Assessment

Work Orders : 641434,

Project ID:

Lab Batch #: 3106136

Sample: 7689297-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 10/31/19 12:31

SURROGATE RECOVERY STUDY					
<b>TPH By SW8015 Mod</b>	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
<b>Analytes</b>					
1-Chlorooctane	112	100	112	70-135	
o-Terphenyl	46.9	50.0	94	70-135	

SURROGATE RECOVERY STUDY					
<b>TPH By SW8015 Mod</b>	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
<b>Analytes</b>					
1-Chlorooctane	112	100	112	70-135	
o-Terphenyl	46.9	50.0	94	70-135	

Lab Batch #: 3106137

Sample: 7689298-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 10/31/19 20:59

SURROGATE RECOVERY STUDY					
<b>TPH By SW8015 Mod</b>	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
<b>Analytes</b>					
1-Chlorooctane	112	100	112	70-135	
o-Terphenyl	47.3	50.0	95	70-135	

SURROGATE RECOVERY STUDY					
<b>TPH By SW8015 Mod</b>	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
<b>Analytes</b>					
1-Chlorooctane	112	100	112	70-135	
o-Terphenyl	47.3	50.0	95	70-135	

Lab Batch #: 3106228

Sample: 7689413-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 11/01/19 21:16

SURROGATE RECOVERY STUDY					
<b>TPH By SW8015 Mod</b>	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
<b>Analytes</b>					
1-Chlorooctane	104	100	104	70-135	
o-Terphenyl	53.5	50.0	107	70-135	

SURROGATE RECOVERY STUDY					
<b>TPH By SW8015 Mod</b>	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
<b>Analytes</b>					
1-Chlorooctane	104	100	104	70-135	
o-Terphenyl	53.5	50.0	107	70-135	

Lab Batch #: 3106504

Sample: 7689578-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 11/04/19 12:05

SURROGATE RECOVERY STUDY					
<b>BTEX by EPA 8021B</b>	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
<b>Analytes</b>					
1,4-Difluorobenzene	0.0292	0.0300	97	70-130	
4-Bromofluorobenzene	0.0322	0.0300	107	70-130	

SURROGATE RECOVERY STUDY					
<b>BTEX by EPA 8021B</b>	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
<b>Analytes</b>					
1,4-Difluorobenzene	0.0292	0.0300	97	70-130	
4-Bromofluorobenzene	0.0322	0.0300	107	70-130	

Lab Batch #: 3106497

Sample: 7689579-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 11/04/19 22:43

SURROGATE RECOVERY STUDY					
<b>BTEX by EPA 8021B</b>	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
<b>Analytes</b>					
1,4-Difluorobenzene	0.0283	0.0300	94	70-130	
4-Bromofluorobenzene	0.0345	0.0300	115	70-130	

SURROGATE RECOVERY STUDY					
<b>BTEX by EPA 8021B</b>	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
<b>Analytes</b>					
1,4-Difluorobenzene	0.0283	0.0300	94	70-130	
4-Bromofluorobenzene	0.0345	0.0300	115	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: Permian Water Solutions Dorstate SWD Additional Assessment

Work Orders : 641434,

Lab Batch #: 3106580

Sample: 7689675-1-BKS / BKS

Project ID:

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 11/05/19 19:58

**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	0.0307	0.0300	102	70-130	

Lab Batch #: 3106136

Sample: 7689297-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 10/31/19 12:50

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	107	100	107	70-135	
o-Terphenyl	44.9	50.0	90	70-135	

Lab Batch #: 3106137

Sample: 7689298-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 10/31/19 21:18

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	114	100	114	70-135	
o-Terphenyl	49.7	50.0	99	70-135	

Lab Batch #: 3106228

Sample: 7689413-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 11/01/19 21:37

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	109	100	109	70-135	
o-Terphenyl	55.9	50.0	112	70-135	

Lab Batch #: 3106504

Sample: 7689578-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 11/04/19 12:25

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0290	0.0300	97	70-130	
4-Bromofluorobenzene	0.0321	0.0300	107	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: Permian Water Solutions Dorstate SWD Additional Assessment

Work Orders : 641434,

Lab Batch #: 3106497

Sample: 7689579-1-BSD / BSD

Project ID:

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 11/04/19 23:04

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0299	0.0300	100	70-130	
4-Bromofluorobenzene	0.0295	0.0300	98	70-130	

Lab Batch #: 3106580

Sample: 7689675-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 11/05/19 20:18

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0302	0.0300	101	70-130	
4-Bromofluorobenzene	0.0302	0.0300	101	70-130	

Lab Batch #: 3106136

Sample: 641434-021 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/31/19 13:28

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	108	99.7	108	70-135	
o-Terphenyl	47.1	49.9	94	70-135	

Lab Batch #: 3106137

Sample: 641367-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/31/19 21:56

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	126	99.7	126	70-135	
o-Terphenyl	55.6	49.9	111	70-135	

Lab Batch #: 3106228

Sample: 641434-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/01/19 22:19

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	93.3	99.7	94	70-135	
o-Terphenyl	45.2	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: Permian Water Solutions Dorstate SWD Additional Assessment

Work Orders : 641434,

Lab Batch #: 3106504

Sample: 641371-001 S / MS

Project ID:

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/04/19 12:45

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0296	0.0300	99	70-130	
4-Bromofluorobenzene	0.0336	0.0300	112	70-130	

Lab Batch #: 3106497

Sample: 641434-020 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/04/19 23:24

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0285	0.0300	95	70-130	
4-Bromofluorobenzene	0.0344	0.0300	115	70-130	

Lab Batch #: 3106580

Sample: 641654-006 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/05/19 20:39

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0294	0.0300	98	70-130	
4-Bromofluorobenzene	0.0330	0.0300	110	70-130	

Lab Batch #: 3106136

Sample: 641434-021 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/31/19 13:46

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	111	99.8	111	70-135	
o-Terphenyl	47.8	49.9	96	70-135	

Lab Batch #: 3106137

Sample: 641367-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/31/19 22:14

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	127	99.8	127	70-135	
o-Terphenyl	55.5	49.9	111	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: Permian Water Solutions Dorstate SWD Additional Assessment

Work Orders : 641434,

Project ID:

Lab Batch #: 3106228

Sample: 641434-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/01/19 22:40

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	93.9	99.9	94	70-135	
o-Terphenyl	46.7	50.0	93	70-135	

Lab Batch #: 3106504

Sample: 641371-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/04/19 13:05

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0296	0.0300	99	70-130	
4-Bromofluorobenzene	0.0332	0.0300	111	70-130	

Lab Batch #: 3106497

Sample: 641434-020 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/04/19 23:44

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0284	0.0300	95	70-130	
4-Bromofluorobenzene	0.0332	0.0300	111	70-130	

Lab Batch #: 3106580

Sample: 641654-006 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/05/19 20:59

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0296	0.0300	99	70-130	
4-Bromofluorobenzene	0.0349	0.0300	116	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.



# BS / BSD Recoveries

**Project Name: Permian Water Solutions Dorstate SWD Addiional Assessment**

**Work Order #:** 641434

**Project ID:**

**Analyst:** KTL

**Date Prepared:** 11/04/2019

**Date Analyzed:** 11/04/2019

**Lab Batch ID:** 3106504

**Sample:** 7689578-1-BKS

**Batch #:** 1

**Matrix:** Solid

**Units:** mg/kg

**BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY**

<b>BTEX by EPA 8021B</b>	<b>Blank Sample Result [A]</b>	<b>Spike Added [B]</b>	<b>Blank Spike Result [C]</b>	<b>Blank Spike %R [D]</b>	<b>Spike Added [E]</b>	<b>Blank Spike Duplicate Result [F]</b>	<b>Blk. Spk Dup. %R [G]</b>	<b>RPD %</b>	<b>Control Limits %R</b>	<b>Control Limits %RPD</b>	<b>Flag</b>
<b>Analytes</b>											
Benzene	<0.00200	0.100	0.0985	99	0.100	0.103	103	4	70-130	35	
Toluene	<0.00200	0.100	0.0992	99	0.100	0.104	104	5	70-130	35	
Ethylbenzene	<0.00200	0.100	0.104	104	0.100	0.109	109	5	70-130	35	
m,p-Xylenes	<0.00400	0.200	0.213	107	0.200	0.222	111	4	70-130	35	
o-Xylene	<0.00200	0.100	0.106	106	0.100	0.110	110	4	70-130	35	

**Analyst:** KTL

**Date Prepared:** 11/04/2019

**Date Analyzed:** 11/04/2019

**Lab Batch ID:** 3106497

**Sample:** 7689579-1-BKS

**Batch #:** 1

**Matrix:** Solid

**Units:** mg/kg

**BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY**

<b>BTEX by EPA 8021B</b>	<b>Blank Sample Result [A]</b>	<b>Spike Added [B]</b>	<b>Blank Spike Result [C]</b>	<b>Blank Spike %R [D]</b>	<b>Spike Added [E]</b>	<b>Blank Spike Duplicate Result [F]</b>	<b>Blk. Spk Dup. %R [G]</b>	<b>RPD %</b>	<b>Control Limits %R</b>	<b>Control Limits %RPD</b>	<b>Flag</b>
<b>Analytes</b>											
Benzene	<0.00200	0.100	0.0907	91	0.100	0.100	100	10	70-130	35	
Toluene	<0.00200	0.100	0.0965	97	0.100	0.0957	96	1	70-130	35	
Ethylbenzene	<0.00200	0.100	0.105	105	0.100	0.0958	96	9	70-130	35	
m,p-Xylenes	<0.00400	0.200	0.218	109	0.200	0.193	97	12	70-130	35	
o-Xylene	<0.00200	0.100	0.110	110	0.100	0.0974	97	12	70-130	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

Version: 1.0%



# BS / BSD Recoveries

**Project Name: Permian Water Solutions Dorstate SWD Addiional Assessment**

**Work Order #:** 641434

**Project ID:**

**Analyst:** KTL

**Date Prepared:** 11/05/2019

**Date Analyzed:** 11/05/2019

**Lab Batch ID:** 3106580

**Sample:** 7689675-1-BKS

**Batch #:** 1

**Matrix:** Solid

**Units:** mg/kg

**BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY**

<b>BTEX by EPA 8021B</b>	<b>Blank Sample Result [A]</b>	<b>Spike Added [B]</b>	<b>Blank Spike Result [C]</b>	<b>Blank Spike %R [D]</b>	<b>Spike Added [E]</b>	<b>Blank Spike Duplicate Result [F]</b>	<b>Blk. Spk Dup. %R [G]</b>	<b>RPD %</b>	<b>Control Limits %R</b>	<b>Control Limits %RPD</b>	<b>Flag</b>
<b>Analytes</b>											
Benzene	<0.00200	0.100	0.101	101	0.100	0.0960	96	5	70-130	35	
Toluene	<0.00200	0.100	0.0978	98	0.100	0.0908	91	7	70-130	35	
Ethylbenzene	<0.00200	0.100	0.100	100	0.100	0.0921	92	8	70-130	35	
m,p-Xylenes	<0.00400	0.200	0.203	102	0.200	0.188	94	8	70-130	35	
o-Xylene	<0.00200	0.100	0.101	101	0.100	0.0944	94	7	70-130	35	

**Analyst:** CHE

**Date Prepared:** 10/30/2019

**Date Analyzed:** 10/30/2019

**Lab Batch ID:** 3105919

**Sample:** 7689209-1-BKS

**Batch #:** 1

**Matrix:** Solid

**Units:** mg/kg

**BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY**

<b>Inorganic Anions by EPA 300/300.1</b>	<b>Blank Sample Result [A]</b>	<b>Spike Added [B]</b>	<b>Blank Spike Result [C]</b>	<b>Blank Spike %R [D]</b>	<b>Spike Added [E]</b>	<b>Blank Spike Duplicate Result [F]</b>	<b>Blk. Spk Dup. %R [G]</b>	<b>RPD %</b>	<b>Control Limits %R</b>	<b>Control Limits %RPD</b>	<b>Flag</b>
<b>Analytes</b>											
Chloride	<0.858	250	253	101	250	251	100	1	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

Version: 1.0%



# BS / BSD Recoveries

**Project Name: Permian Water Solutions Dorstate SWD Addiional Assessment**

**Work Order #:** 641434

**Project ID:**

**Analyst:** CHE

**Date Prepared:** 10/30/2019

**Date Analyzed:** 10/30/2019

**Lab Batch ID:** 3105992

**Sample:** 7689270-1-BKS

**Batch #:** 1

**Matrix:** Solid

**Units:** mg/kg

**BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY**

Inorganic Anions by EPA 300/300.1	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	<0.858	250	246	98	250	246	98	0	90-110	20	

**Analyst:** CHE

**Date Prepared:** 10/31/2019

**Date Analyzed:** 10/31/2019

**Lab Batch ID:** 3106006

**Sample:** 7689289-1-BKS

**Batch #:** 1

**Matrix:** Solid

**Units:** mg/kg

**BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY**

Inorganic Anions by EPA 300/300.1	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	<5.00	250	242	97	250	236	94	3	90-110	20	

**Analyst:** CHE

**Date Prepared:** 10/31/2019

**Date Analyzed:** 10/31/2019

**Lab Batch ID:** 3106096

**Sample:** 7689290-1-BKS

**Batch #:** 1

**Matrix:** Solid

**Units:** mg/kg

**BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY**

Inorganic Anions by EPA 300/300.1	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	<5.00	250	249	100	250	247	99	1	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

Version: 1.0%



# BS / BSD Recoveries

**Project Name: Permian Water Solutions Dorstate SWD Addiional Assessment**

**Work Order #:** 641434

**Project ID:**

**Analyst:** ARM

**Date Prepared:** 10/31/2019

**Date Analyzed:** 10/31/2019

**Lab Batch ID:** 3106136

**Sample:** 7689297-1-BKS

**Batch #:** 1

**Matrix:** Solid

**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
<b>Analytes</b>											
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	1010	101	1000	1030	103	2	70-135	20	
Diesel Range Organics (DRO)	<15.0	1000	984	98	1000	989	99	1	70-135	20	

**Analyst:** ARM

**Date Prepared:** 10/31/2019

**Date Analyzed:** 10/31/2019

**Lab Batch ID:** 3106137

**Sample:** 7689298-1-BKS

**Batch #:** 1

**Matrix:** Solid

**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
<b>Analytes</b>											
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	1050	105	1000	1040	104	1	70-135	20	
Diesel Range Organics (DRO)	<15.0	1000	1010	101	1000	1000	100	1	70-135	20	

**Analyst:** ARM

**Date Prepared:** 11/01/2019

**Date Analyzed:** 11/01/2019

**Lab Batch ID:** 3106228

**Sample:** 7689413-1-BKS

**Batch #:** 1

**Matrix:** Solid

**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
<b>Analytes</b>											
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	983	98	1000	989	99	1	70-135	20	
Diesel Range Organics (DRO)	<50.0	1000	1050	105	1000	1060	106	1	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: Permian Water Solutions Dorstate SWD Addiional Asses.....

Work Order #: 641434  
 Lab Batch ID: 3106497  
 Date Analyzed: 11/04/2019  
 Reporting Units: mg/kg

Project ID:  
 QC- Sample ID: 641434-020 S      Batch #: 1      Matrix: Soil  
 Date Prepared: 11/04/2019      Analyst: KTL

**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	0.00183	0.100	0.0782	76	0.0996	0.0763	75	2	70-130	35	
Toluene	<0.00200	0.100	0.0825	83	0.0996	0.0782	79	5	70-130	35	
Ethylbenzene	0.00498	0.100	0.0902	85	0.0996	0.0861	81	5	70-130	35	
m,p-Xylenes	0.00681	0.200	0.185	89	0.199	0.176	85	5	70-130	35	
o-Xylene	0.00233	0.100	0.0940	92	0.0996	0.0904	88	4	70-130	35	

Lab Batch ID: 3106504  
 Date Analyzed: 11/04/2019  
 Reporting Units: mg/kg

QC- Sample ID: 641371-001 S      Batch #: 1      Matrix: Soil  
 Date Prepared: 11/04/2019      Analyst: KTL

**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	<0.00201	0.100	0.0926	93	0.100	0.0983	98	6	70-130	35	
Toluene	<0.00201	0.100	0.0938	94	0.100	0.0976	98	4	70-130	35	
Ethylbenzene	<0.00201	0.100	0.0986	99	0.100	0.102	102	3	70-130	35	
m,p-Xylenes	<0.00402	0.201	0.202	100	0.201	0.206	102	2	70-130	35	
o-Xylene	<0.00201	0.100	0.101	101	0.100	0.103	103	2	70-130	35	

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

Matrix Spike Duplicate Percent Recovery [G] = 100\*(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: Permian Water Solutions Dorstate SWD Additional Asses.....

Work Order #: 641434  
 Lab Batch ID: 3106580  
 Date Analyzed: 11/05/2019  
 Reporting Units: mg/kg

Project ID:  
 QC- Sample ID: 641654-006 S      Batch #: 1      Matrix: Soil  
 Date Prepared: 11/05/2019      Analyst: KTL

**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	<0.00198	0.0990	0.0490	49	0.101	0.0527	52	7	70-130	35	X
Toluene	<0.00198	0.0990	0.0515	52	0.101	0.0561	56	9	70-130	35	X
Ethylbenzene	<0.00198	0.0990	0.0540	55	0.101	0.0592	59	9	70-130	35	X
m,p-Xylenes	<0.00396	0.198	0.109	55	0.202	0.120	59	10	70-130	35	X
o-Xylene	<0.00198	0.0990	0.0523	53	0.101	0.0585	58	11	70-130	35	X

Lab Batch ID: 3105919  
 Date Analyzed: 10/30/2019  
 Reporting Units: mg/kg

QC- Sample ID: 641420-001 S      Batch #: 1      Matrix: Soil  
 Date Prepared: 10/30/2019      Analyst: CHE

**MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY**

Inorganic Anions by EPA 300/300.1 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	64.0	250	325	104	250	325	104	0	90-110	20	

Lab Batch ID: 3105919  
 Date Analyzed: 10/30/2019  
 Reporting Units: mg/kg

QC- Sample ID: 641420-011 S      Batch #: 1      Matrix: Soil  
 Date Prepared: 10/30/2019      Analyst: CHE

**MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY**

Inorganic Anions by EPA 300/300.1 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	67.7	250	330	105	250	332	106	1	90-110	20	

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

Matrix Spike Duplicate Percent Recovery [G] = 100\*(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: Permian Water Solutions Dorstate SWD Additional Asses.....

Work Order #: 641434  
 Lab Batch ID: 3105992  
 Date Analyzed: 10/30/2019  
 Reporting Units: mg/kg

Project ID:

QC- Sample ID: 641434-006 S      Batch #: 1      Matrix: Soil  
 Date Prepared: 10/30/2019      Analyst: CHE

**MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY**

Inorganic Anions by EPA 300/300.1 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	148	248	376	92	248	378	93	1	90-110	20	

Lab Batch ID: 3105992  
 Date Analyzed: 10/30/2019  
 Reporting Units: mg/kg

QC- Sample ID: 641506-100 S      Batch #: 1      Matrix: Soil  
 Date Prepared: 10/30/2019      Analyst: CHE

**MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY**

Inorganic Anions by EPA 300/300.1 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	351	250	570	88	250	568	87	0	90-110	20	X

Lab Batch ID: 3106006  
 Date Analyzed: 10/31/2019  
 Reporting Units: mg/kg

QC- Sample ID: 641434-016 S      Batch #: 1      Matrix: Soil  
 Date Prepared: 10/31/2019      Analyst: CHE

**MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY**

Inorganic Anions by EPA 300/300.1 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	855	199	1070	108	199	1050	98	2	90-110	20	

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

Matrix Spike Duplicate Percent Recovery [G] = 100\*(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: Permian Water Solutions Dorstate SWD Addiional Asses.....

Work Order #: 641434  
 Lab Batch ID: 3106006  
 Date Analyzed: 10/31/2019  
 Reporting Units: mg/kg

Project ID:

QC- Sample ID: 641434-026 S      Batch #: 1      Matrix: Soil  
 Date Prepared: 10/31/2019      Analyst: CHE

**MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY**

Inorganic Anions by EPA 300/300.1 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	6.18	250	252	98	250	250	98	1	90-110	20	

Lab Batch ID: 3106096  
 Date Analyzed: 10/31/2019  
 Reporting Units: mg/kg

QC- Sample ID: 641434-036 S      Batch #: 1      Matrix: Soil  
 Date Prepared: 10/31/2019      Analyst: CHE

**MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY**

Inorganic Anions by EPA 300/300.1 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	435	250	658	89	250	653	87	1	90-110	20	X

Lab Batch ID: 3106096  
 Date Analyzed: 10/31/2019  
 Reporting Units: mg/kg

QC- Sample ID: 641447-004 S      Batch #: 1      Matrix: Soil  
 Date Prepared: 10/31/2019      Analyst: CHE

**MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY**

Inorganic Anions by EPA 300/300.1 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	263	253	518	101	253	518	101	0	90-110	20	

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

Matrix Spike Duplicate Percent Recovery [G] = 100\*(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: Permian Water Solutions Dorstate SWD Addiional Asses.....

Work Order #: 641434  
 Lab Batch ID: 3106136  
 Date Analyzed: 10/31/2019  
 Reporting Units: mg/kg

Project ID:  
 QC- Sample ID: 641434-021 S      Batch #: 1      Matrix: Soil  
 Date Prepared: 10/31/2019      Analyst: ARM

**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
Gasoline Range Hydrocarbons (GRO)	<15.0	997	1010	101	998	1030	103	2	70-135	20	
Diesel Range Organics (DRO)	<15.0	997	989	99	998	998	100	1	70-135	20	

Lab Batch ID: 3106137  
 Date Analyzed: 10/31/2019  
 Reporting Units: mg/kg

QC- Sample ID: 641367-001 S      Batch #: 1      Matrix: Soil  
 Date Prepared: 10/31/2019      Analyst: ARM

**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
Gasoline Range Hydrocarbons (GRO)	<15.0	997	1170	117	998	1190	119	2	70-135	20	
Diesel Range Organics (DRO)	<15.0	997	1190	119	998	1150	115	3	70-135	20	

Lab Batch ID: 3106228  
 Date Analyzed: 11/01/2019  
 Reporting Units: mg/kg

QC- Sample ID: 641434-001 S      Batch #: 1      Matrix: Soil  
 Date Prepared: 11/01/2019      Analyst: ARM

**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
Gasoline Range Hydrocarbons (GRO)	21.7	997	964	95	999	963	94	0	70-135	20	
Diesel Range Organics (DRO)	23.8	997	993	97	999	1030	101	4	70-135	20	

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

Matrix Spike Duplicate Percent Recovery [G] = 100\*(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.

Analysis Request of Custody Record



**Tetra Tech, Inc.**

4000 N. Big Spring Street, Ste 401  
Midland, Texas 79705  
Tel (432) 582-4539  
Fax (432) 582-3946

0211434

Client Name: Permian Water Solutions Site Manager: Clair Gonzales  
 Project Name: Dorstate SWD Additional Assessment  
 Project Location: (county, state) Eddy County, NM Project #: TBD  
 Invoice to: Tetra Tech, Inc.  
 Receiving Laboratory: Xenco Sampler Signature:  
 Comments:

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		DATE	TIME	MATRIX	PRESERVATIVE METHOD			# CONTAINERS	FILTERED (Y/N)	
		YEAR	DATE				WATER	SOIL	HCL			HNO <sub>3</sub>
H-1	0-1			10/23/2019		X				X		
H-1	1-2			10/23/2019		X				X		
H-2	0-1			10/23/2019		X				X		
H-2	1-2			10/23/2019		X				X		
H-3	0-1			10/23/2019		X				X		
H-3	1-2			10/23/2019		X				X		
H-4	0-1			10/23/2019		X				X		
H-4	1-2			10/23/2019		X				X		
H-5	0-1			10/23/2019		X				X		
H-5	1-2			10/23/2019		X				X		

Relinquished by: *[Signature]* Date: 10/24 15:45 Time: Received by: *[Signature]* Date: 10/29 1545 Time:  
 Relinquished by: Date: Time: Received by: Date: Time:

ORIGINAL COPY

ANALYSIS REQUEST (Circle or Specify Method No.)

<input checked="" type="checkbox"/>	BTEX 8021B
<input checked="" type="checkbox"/>	BTEX 8260B
<input checked="" type="checkbox"/>	TPH TX1005 (Ext to C35)
<input checked="" type="checkbox"/>	TPH 8015M ( GRO - DRO - ORO)
<input checked="" type="checkbox"/>	PAH 8270C
<input checked="" type="checkbox"/>	Total Metals Ag As Ba Cd Cr Pb Se Hg
<input checked="" type="checkbox"/>	TCLP Metals Ag As Ba Cd Cr Pb Se Hg
<input checked="" type="checkbox"/>	TCLP Volatiles
<input checked="" type="checkbox"/>	TCLP Semi Volatiles
<input checked="" type="checkbox"/>	RCI
<input checked="" type="checkbox"/>	GC/MS Vol. 8260B / 624
<input checked="" type="checkbox"/>	GC/MS Semi. Vol. 8270C/625
<input checked="" type="checkbox"/>	PCB's 8082 / 608
<input checked="" type="checkbox"/>	NORM
<input checked="" type="checkbox"/>	PLM (Asbestos)
<input checked="" type="checkbox"/>	Chloride
<input checked="" type="checkbox"/>	Chloride Sulfate TDS
<input checked="" type="checkbox"/>	General Water Chemistry (see attached list)
<input checked="" type="checkbox"/>	Anion/Cation Balance
<input checked="" type="checkbox"/>	Asbestos
<input checked="" type="checkbox"/>	Hold

LAB USE ONLY

REMARKS:  
 RUSH: Same Day 24 hr 48 hr 72 hr  
 Rush Charges Authorized  
 Special Report Limits or TRRP Report

Sample Temperature: 12/1.0

(Circle) HAND DELIVERED FEDEX UPS Tracking #:

Analysis Request of Chain of Custody Record



**Tetra Tech, Inc.**

4000 N. Big Spring Street, Ste  
401 Midland, Texas 79705  
Tel (432) 682-4559  
Fax (432) 682-3946

0411934

Client Name: Permian Water Solutions		Site Manager: Clair Gonzales	
Project Name: Dorstate SWD Additional Assessment			
Project Location: (county, state) Eddy County, NM		Project #: TBD	
Invoice to: Tetra Tech, Inc.		Receiving Laboratory: Xenco	
Comments:		Sampler Signature:	

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION		SAMPLING		MATRIX			PRESERVATIVE METHOD			# CONTAINERS	FILTERED (Y/N)	ANALYSIS REQUEST (Circle or Specify Method No.)
	YEAR	DATE	TIME	DATE	TIME	WATER	SOIL	HCL	HNO <sub>3</sub>	ICE			
H-6	0-1			10/23/2019		X					X	1	BTEX 8021B BTEX 8260B
H-6	1-2			10/23/2019		X					X	1	TPH TX1005 (Ext to C35)
H-7	0-1			10/23/2019		X					X	1	TPH 8015M ( GRO - DRO - ORO)
H-7	1-2			10/23/2019		X					X	1	PAH 8270C
H-8	0-1			10/23/2019		X					X	1	Total Metals Ag As Ba Cd Cr Pb Se Hg
H-8	1-2			10/23/2019		X					X	1	TCLP Metals Ag As Ba Cd Cr Pb Se Hg
H-9	0-8"			10/23/2019		X					X	1	TCLP Volatiles
H-10	0-1			10/24/2019		X					X	1	TCLP Semi Volatiles
H-10	1-2			10/24/2019		X					X	1	RCI
H-11	0-10"			10/24/2019		X					X	1	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
													Asbestos
													Hold

Relinquished by: <i>Chavez</i>	Date: 10/24	Time: 15:45	Received by: <i>W. RAMER</i>	Date: 10/23	Time: 1545
Relinquished by:	Date:	Time:	Received by:	Date:	Time:

LAB USE ONLY	REMARKS:
Sample Temperature	<input type="checkbox"/> RUSH: Same Day 24 hr 48 hr 72 hr
127/11.0	<input type="checkbox"/> Rush Charges Authorized
	<input type="checkbox"/> Special Report Limits or TRRP Report

ORIGINAL COPY

Analysis Request of Chain of Custody Record



Tetra Tech, Inc.

4000 N. Big Spring Street, Ste 401 Midland, Texas 79705 Tel (432) 682-4559 Fax (432) 682-3946

04114324

Client Name: Permian Water Solutions		Site Manager: Clair Gonzales	
Project Name: Dorstate SWD Additional Assessment			
Project Location: (county, state) Eddy County, NM		Project #: TBD	
Invoice to: Tetra Tech, Inc.		Receiving Laboratory: Xenco	
Comments:		Sampler Signature:	

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX				PRESERVATIVE METHOD				# CONTAINERS	FILTERED (Y/N)
		YEAR	DATE	WATER	SOIL	HCL	HNO <sub>3</sub>	ICE					
	H-12 0-1		10/24/2019	X				X				1	
	H-12 1-2		10/24/2019	X				X				1	
	H-13 0-1		10/24/2019	X				X				1	
	H-14 0-1		10/24/2019	X				X				1	
	H-14 1-2		10/24/2019	X				X				1	
	H-15 0-1		10/24/2019	X				X				1	
	H-15 1-2		10/24/2019	X				X				1	
	H-16 0-1		10/24/2019	X				X				1	
	H-16 1-2		10/24/2019	X				X				1	
	H-17 0-1		10/24/2019	X				X				1	

Relinquished by: <i>[Signature]</i>	Date: 10/29 15:45	Received by: <i>[Signature]</i>	Date: 10/29 15:45
Relinquished by:	Date:	Received by:	Date:

LAB USE ONLY	REMARKS:
Sample Temperature 10/2/11.0	<input 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

ANALYSIS REQUEST (Circle or Specify Method No.)	
BTEX 8021B BTEX 8260B	X
TPH TX1005 (Ext to C35)	X
TPH 8015M (GRO - DRO - ORO)	X
PAH 8270C	X
Total Metals Ag As Ba Cd Cr Pb Se Hg	X
TCLP Metals Ag As Ba Cd Cr Pb Se Hg	X
TCLP Volatiles	X
TCLP Semi Volatiles	X
RCI	X
GC/MS Vol. 8260B / 624	X
GC/MS Semi. Vol. 8270C/625	X
PCB's 8082 / 608	X
NORM	X
PLM (Asbestos)	X
Chloride	X
Chloride Sulfate TDS	X
General Water Chemistry (see attached list)	X
Anion/Cation Balance	X
Asbestos	X
Hold	

ORIGINAL COPY

Analysis Request of Custody Record



**Tetra Tech, Inc.**

4000 N. Big Spring Street, Ste 401  
Midland, Texas 79705  
Tel (432) 682-4559  
Fax (432) 682-3946

041434

Client Name: Perman Water Solutions		Site Manager: Clair Gonzales	
Project Name: Dorstate SWD Additional Assessment			
Project Location: (county, state) Eddy County, NM		Project #: TBD	
Invoice to: Tetra Tech, Inc.		Receiving Laboratory: Xenco	
Comments:		Sampler Signature:	

LAB # (Lab use ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX		PRESERVATIVE METHOD			# CONTAINERS	FILTERED (Y/N)
		DATE	TIME	WATER	SOIL	HCL	HNO <sub>3</sub>	ICE		
H-17	1-2	10/25/2019		X				X	1	
H-18	0-1	10/25/2019		X				X	1	
H-18	1-2	10/25/2019		X				X	1	
H-19	0-1	10/25/2019		X				X	1	
H-19	1-2	10/25/2019		X				X	1	
H-20	0-1	10/25/2019		X				X	1	
H-20	1-2	10/25/2019		X				X	1	

Relinquished by: <i>[Signature]</i>	Date: 10/29	Time: 15:45	Received by: <i>[Signature]</i>	Date: 10/29	Time: 15:45
Relinquished by:	Date:	Time:	Received by:	Date:	Time:

LAB USE ONLY	BTX 8021B	BTX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO)	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	Asbestos
	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

LAB USE ONLY	REMARKS:
Sample Temperature: 10/2/10	<input 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

ORIGINAL COPY



# XENCO Laboratories

## Prelogin/Nonconformance Report- Sample Log-In



Client: Tetra Tech- Midland

Acceptable Temperature Range: 0 - 6 degC  
Air and Metal samples Acceptable Range: Ambient

Date/ Time Received: 10/29/2019 03:45:00 PM

Temperature Measuring device used : R8

Work Order #: 641434

### 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)?	N/A
#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:

Brianna Teel

Date: 10/29/2019

Checklist reviewed by:

Jessica Kramer

Date: 10/30/2019

**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 3294

**CONDITIONS**

Operator: Permian Water Solutions, LLC PO Box 2106 Midland, TX 79702	OGRID: 373626
	Action Number: 3294
	Action Type: [C-141] Release Corrective Action (C-141)

**CONDITIONS**

Created By	Condition	Condition Date
bbillings	Anticipate 4 monitor wells. Fourth will be placed as upgradient well if proves needed. Pre-approve all well locations before placement. Sample soils every five feet from 20 ' feet down to air-water interface. Chloride only at this time. Measure depth to water to nearest 100th of an inch.	7/29/2021