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

### **Location of Release Source**

Latitude 32.1	0268°	Longitude <u>-</u>		decimal degrees to 5 decimal places)	
Site Name Do	orstate SWD	1		Site Type Well pad	
Date Release	Discovered	8-23-17		API# (if applicable) 30-01	5-23728
Unit Letter	Section	Township	Range	County	
<u>H</u>	27	<u>25 S</u>	28 E	<u>Eddy</u>	

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

## Nature and Volume of Release

Crude Oil	rial(s) Released (Select all that apply and attach calculations or speci Volume Released (bbls)	Volume Recovered (bbls)
Produced Water	Volume Released (bbls) <u>25</u>	Volume Recovered (bbls) zero
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)
Cause of Release Over	flowing sumps due to truck drivers inattention and exce	ess rainwater.

Form C-141 Page 2

### State of New Mexico Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major	If YES, for what reason(s) does the responsible party consider this a major release?
release as defined by 19.15.29.7(A) NMAC?	Meets 25 bbl threshold as defined in code
⊠ Yes □ No	
If YES, was immediate no	otice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?
Discovered by previous o received C-141 on Aug. 2	operator Cambrian Management, Ltd. at 1404 Aug. 23, 2017. Cambrian filed C-141 on Aug. 24, 2017. OCD
received C-141 on Aug. 2	29, 2017.
	Initial Response
The responsible j	party must undertake the following actions immediately unless they could create a safety hazard that would result in injury
☐ The source of the rele	ease has been stopped.
☐ The impacted area ha	s been secured to protect human health and the environment.
Released materials ha	ave been contained via the use of berms or dikes, absorbent pads, or other containment devices.
Gally order of the con-	ecoverable materials have been removed and managed appropriately.
	d above have not been undertaken, explain why:
	rendering containment moot. No free liquids left to recover.
	OF ENDING TO STORM CONTROL OF THE PROPERTY OF
Per 19.15.29.8 B. (4) NM	AC the responsible party may commence remediation immediately after discovery of a release. If remediation a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred
within a lined containmen	a narrative of actions to date. If remedial errors have been successfully completed or if the release occurred at area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.
	rmation 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 environn	ment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have
addition, OCD acceptance of	ate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In f 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 Woo	od Title: Consultant
77	Wood Date: 1-10-2020
Signature:	Date: 1-10-2020
email: brian@permitswes	t.com Telephone: 505 466-8120
	<del>0.17.10.17.17.17.17.17.17.17.17.17.17.17.17.17.</del>
OCD Only	
Described her	Descri
Received by:	Date:

Did this release impact groundwater or surface water?

<50 (ft bgs)

☐ Yes ⊠ No

Form C-141 Page 3

# State of New Mexico Oil Conservation Division

What is the shallowest depth to groundwater beneath the area affected by the release?

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.

Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ⊠ No		
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ⊠ No		
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ⊠ No		
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ⊠ No		
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ⊠ No		
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ⊠ No		
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ⊠ No		
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ⊠ No		
Are the lateral extents of the release overlying an unstable area such as karst geology?	⊠ Yes □ No		
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ⊠ No		
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	⊠ Yes □ No		
Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.			
Characterization Report Checklist: Each of the following items must be included in the report.			
<ul> <li>Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.</li> <li>Field data</li> <li>Data table of soil contaminant concentration data</li> <li>Depth to water determination</li> <li>Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release</li> <li>Boring or excavation logs</li> <li>Photographs including date and GIS information</li> <li>Topographic/Aerial maps</li> <li>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.

Received/by OCD:11/10/2020 10:32:53 AM

Page 4 of 481

Form C-141 Page 4

### State of New Mexico Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

I hereby certify that the information given above is true and complete to the regulations all operators are required to report and/or file certain release not public health or the environment. The acceptance of a C-141 report by the failed to adequately investigate and remediate contamination that pose a threaddition, OCD acceptance of a C-141 report does not relieve the operator of and/or regulations.	ifications and perform corrective actions for releases which may endanger OCD does not relieve the operator of liability should their operations have eat to groundwater, surface water, human health or the environment. In
Printed Name: Brian Wood Title: Consultant	
Signature: Blakes	Date: 1-10-2020
email: <u>brian@permitswest.com</u> Telephone: <u>505 466-812</u>	20
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: Beliand Date: 1-10-2020
Date: 1-10-2020
email: brian@permitswest.com Telephone: 505 466-8120
OCD Only
Received by: Date:
☐ Approved
Signature: Bradford Billings Date: 07/29/2021

Form C-141 Page 6

### State of New Mexico Oil Conservation Division

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

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.

A scaled site and sampling diagram as described in 19.15.29.1	1 NMAC
Photographs of the remediated site prior to backfill or photos must be notified 2 days prior to liner inspection)	of the liner integrity if applicable (Note: appropriate OCD District office
☐ Laboratory analyses of final sampling (Note: appropriate ODG	C District office must be notified 2 days prior to final sampling)
Description of remediation activities	
and regulations all operators are required to report and/or file certai may endanger public health or the environment. The acceptance of	ntions. The responsible party acknowledges they must substantially inditions that existed prior to the release or their final land use in PCD when reclamation and re-vegetation are complete.  Title:
email:	Telephone:
OCD Only	
Received by:	Date:
Closure approval by the OCD does not relieve the responsible party remediate contamination that poses a threat to groundwater, surface party of compliance with any other federal, state, or local laws and/o	of liability should their operations have failed to adequately investigate and water, human health, or the environment nor does not relieve the responsible or regulations.
Closure Approved by:	Date:
Printed Name:	Title:

	SITE INFORMATION	ON
	Report Type: Work	Plan
General Site Information:		
Site:	Dorstate SWD	
Company:	Permian Water Solutions	
Section, Township and Range	Unit H Sec. 27 T 259	R 28E
Lease Number:	API No. 30-015-23728	
County:	Eddy	
GPS:	32.102684	-104.068565
Surface Owner:	State	
Directions:		/hites City Rd in rural Eddy County, travel north on HWY ad and continue for 0.20 miles to location on north side
Release Data:	2RP-4364	
Date Released:	8/23/2017	
Type Release:	Produced Water	
Source of Contamination:	Sump Overflow	
Fluid Released:	25 bbls	
Fluids Recovered:	0 bbls	

Official Commun	nication:	
Name:	James Corbitt	Clair Gonzales
Company:	Permian Water Solutions	Tetra Tech
Address:	415 W. Wall St.	901 West Wall Street
	Suite 320	Suite 100
City:	Midland, TX 79701	Midland, Texas
Phone number:	(432) 305-4124	(432) 687-8110
Fax:		
Email:	james@permianws.com	Clair.Gonzales@tetratech.com

Site Characterization	
Depth to Groundwater:	Less than 50'
Karst Potential:	Medium

Recommended F	Remedial Action Le	evels (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.tetratech.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 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 safely 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

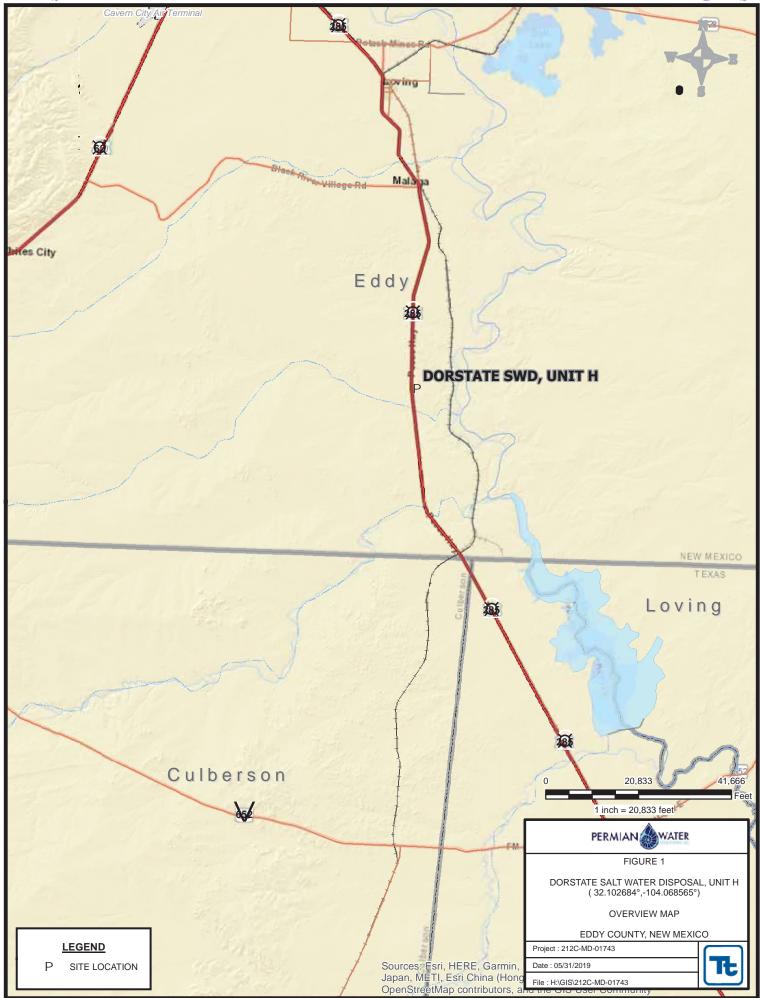
Once the soil remediation activities are completed, a soils closure report and a groundwater monitoring report will be prepared for NMOCD and NMSLO approval. If you have any questions or comments concerning the assessment or remediation activities for this site, please call at (432) 682-4559.

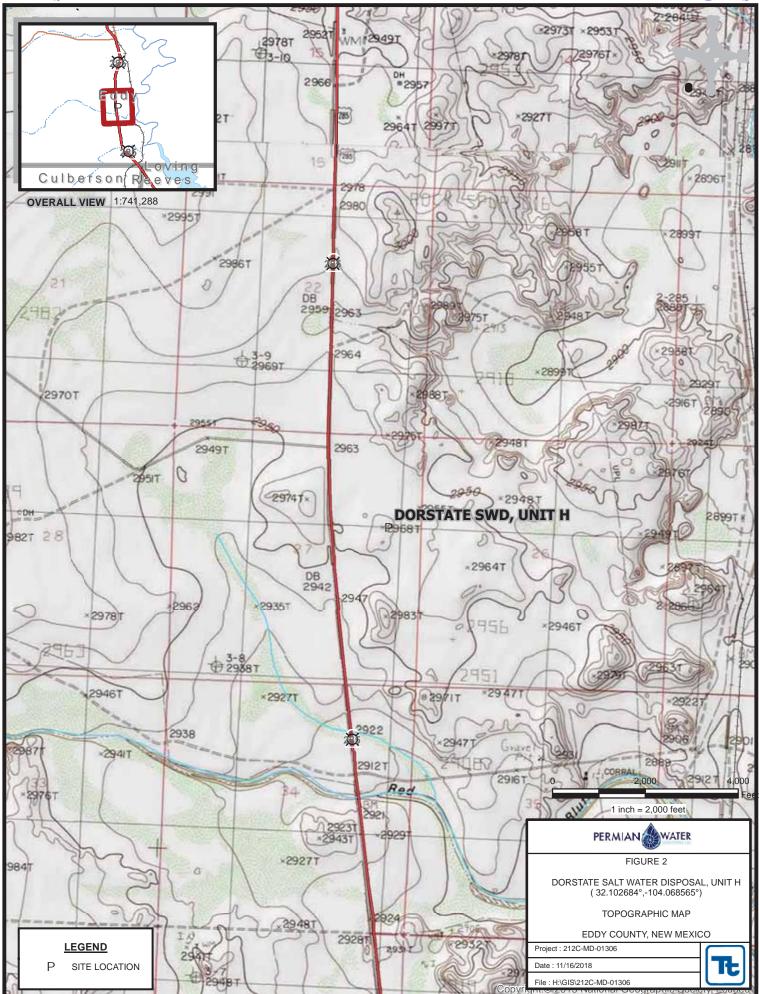
Respectfully submitted, TETRA TECH

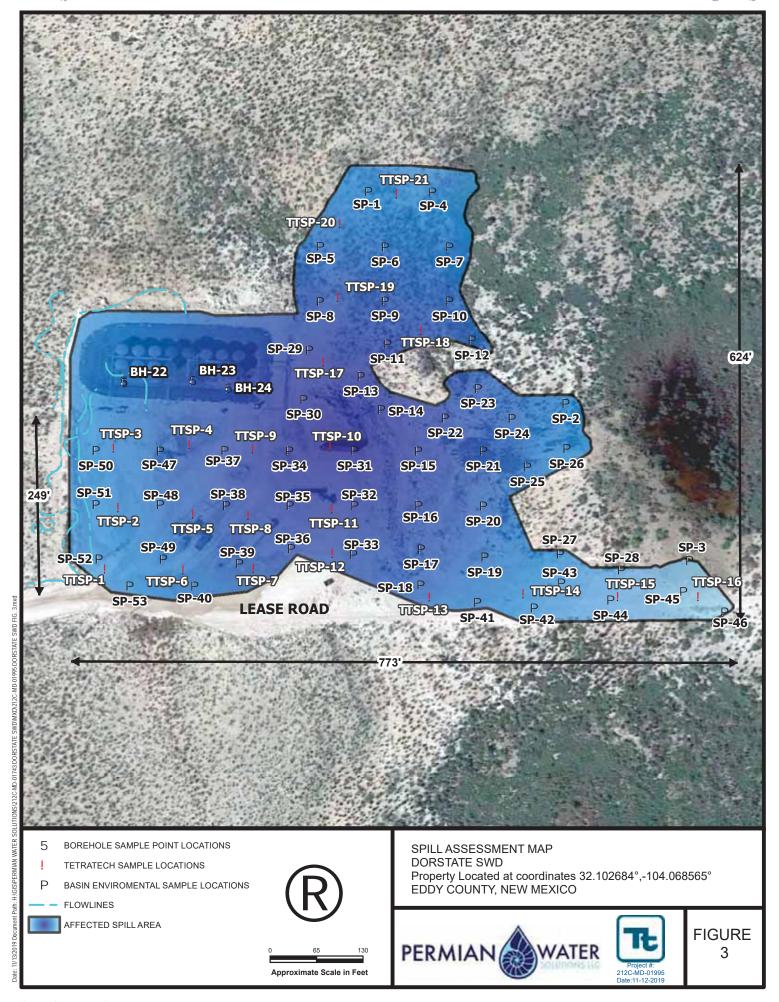
Clair Gonzales, P.G., Project Manager

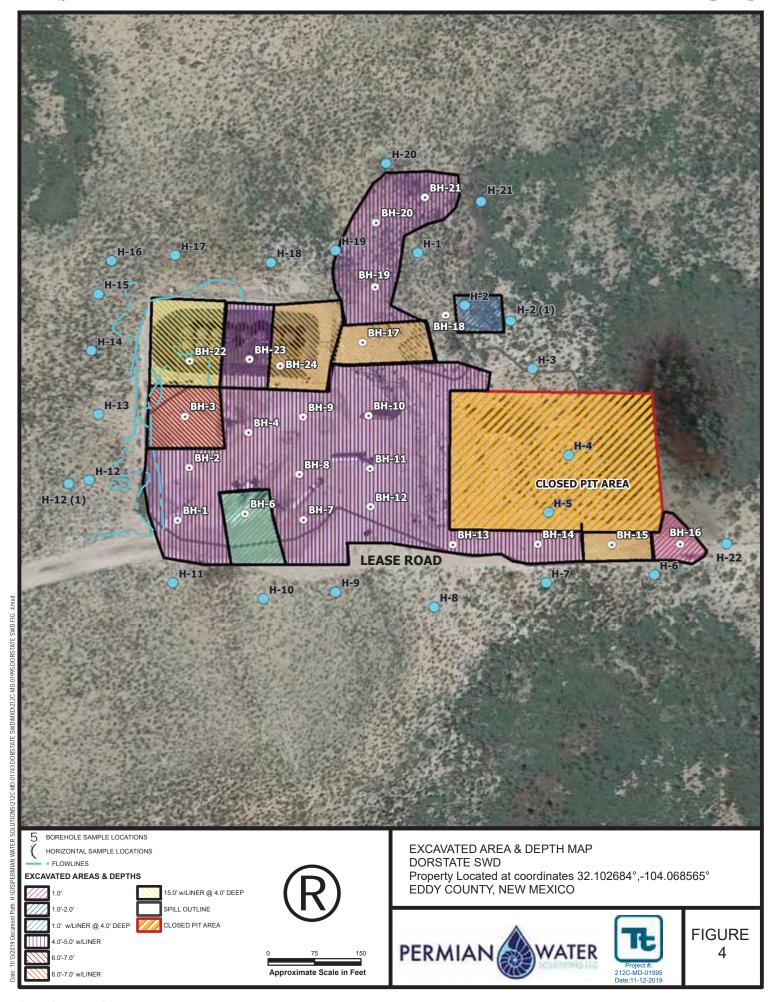
5

Figures











# **Tables**

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

		Sample	BEB	0-11	Status		TDU	( N )		Benzene				Total BTEX	Chloride
Sample ID	Sample Date	Sample Depth (ft)	Sample Depth (ft)			GRO	DRO	(mg/kg) ORO	Total	Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	(mg/kg)
SP-1	5/4/2019	0-1	-	In-Situ X	Removed	<10.0	<10.0	<10.0	<b>Total</b> <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	-	Х		-	-	-	-	-	-	-	-	-	1,200
	"	9-10	-	Х		-	-	-	-	-		-	-	-	1,140
		14-15	-	Х		-	-	-	-	-	-	-	-	-	672
	"	19-20	-	Х		-	-	-		-	-	-	-	-	480
		24-25	-	Х		-	-	-	-	-	-	-	-	-	400
	"	29-30	-	Х		-	-	-	-	-	-	-	-	-	352
	"	34-35	-	Х		-	-	-	-	-		-	-	-	304
SP-2	5/14/2019	0-1	-	Х		<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	-	Х		-	-	-	-	-	-	-	-	-	2,160
	"	6-7	-	Х		-	-	-	-	-	-	-	-	-	624
	"	9-10	-	Х		-	-	-	-	-	-	-	-	-	1,020
	"	14-15	-	Х		-	-	-		-	-	-	-	-	2,680
		19-20	-	Х		-	-	-	-	-	-	-	-	-	3,360
	"	24-25	-	Х		-	-	-	-	-	-	-	-	-	3,000
		29-30	-	Х		-	-	-	-	-	-	-	-	-	3,800
	"	34-35	-	Х		-		-	-			-	-	-	1,630
		39-40	-	Х		-	-	-	-	-	-	-	-	-	2,240
	"	44-45	-	Х		-	-	-	-	-	-	-	-	-	2,400
		49-50	-	Х		-	-	-	-	-	-	-	-	-	1,620
	"	54-55	-	Х		-	-	-	-	-		-	-	-	1,010
		59-60	-	Х		-	-	-	-	-	-	-	-	-	1,390
SP-3	5/14/2019	0-1	-	Х		30.9	1,940	358	2,329	< 0.050	< 0.050	< 0.050	<0.150	< 0.300	3,360
		2-3	-	Х		669	9,200	1,120	10,989	<0.050	<0.050	<0.050	<0.150	<0.300	1,860
	"	4-5	-	Х		115	2,470	264.0	2,849	-	-	-	-	-	1,490
	"	6-7	-	Х		<10.0	703	34.2	737	-	-	-	-	-	1,120
	"	9-10	-	Х		<10.0	99.8	<10.0	99.8	-	-	-	-	-	624
		14-15	-	Х		<10.0	35.7	<10.0	35.7	-	-	-	-	-	480

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

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

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

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

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

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

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

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

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

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

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

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

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

				BEB			3,								
H-2	Sample ID	Sample Date	Sample Depth (ft)	Sample		GRO			Total	Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
H-2	H-1	10/23/2019	0-1	-	Х	<50.0	<50.0	<50.0	<50.0	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	322
H-2		"	1-2	-	Χ	<49.8	<49.8	<49.8	<49.8	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	325
H-2 (1)	H-2	10/23/2019	0-1	-	Х	<50.0	169	<50.0	169	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	148
H-3			1-2	-	Χ	<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	275
H-4	H-2 (1)	11/11/2019	0-1	-	Х	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	144
H-4	H-3	10/23/2019	0-1	-	Х	<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	135
H-2		"	1-2	-	X	<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	148
H-5	H-4	10/23/2019	0-1	-	Х	<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	641
H-6		"	1-2	-	Χ	<49.9	<49.9	<49.9	<49.9	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	259
H-6	H-5	10/23/2019	0-1	-	Х	<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	452
H-10			1-2	-	Х	<50.0	<50.0	<50.0	<50.0	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	492
H-7	H-6	10/23/2019	0-1	-	Х	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	439
1-2		"	1-2	-	Х	<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	516
H-8	H-7	10/23/2019	0-1	-	Х	<50.0	<50.0	<50.0	<50.0	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	243
H-9		"	1-2	-	Х	<49.9	<49.9	<49.9	<49.9	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	175
H-9	H-8	10/23/2019	0-1	-	Х	<50.0	<50.0	<50.0	<50.0	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	281
H-10    10/24/2019   0-1			1-2	-	Х	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	855
1-2	H-9	10/24/2019	0-8"	-	Х	<49.9	<49.9	<49.9	<49.9	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	154
H-11	H-10	10/24/2019	0-1	-	Х	<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	192
H-12   10/24/2019   0-1   .			1-2	-	Χ	<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	72.7
H-12	H-11	10/24/2019	0-10"	-	Х	<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	0.00498	0.00914	0.01410	125
H-12 (1)  11/11/2019 0-1	H-12	10/24/2019	0-1	-	Х	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	0.00440	0.00571	0.01010	57.4
H-13		"	1-2	-	Χ	<50.0	141	<50.0	141	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	174
H-13	H-12 (1)	11/11/2019	0-1	-	Х	<10.0	<10.0	<10.0	<10.0	< 0.050	< 0.050	<0.050	<0.150	< 0.300	16.0
H-14   10/24/2019   0-1   -		"	1-2	-	Х	<10.0	<10.0	<10.0	<10.0	< 0.050	<0.050	<0.050	<0.150	<0.300	<16.0
H-15	H-13	10/24/2019	0-1	-	Х	<49.9	<49.9	<49.9	<49.9	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	332
H-15	H-14	10/24/2019	0-1	-	Х	<49.9	<49.9	<49.9	<49.9	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	32.0
H-16			1-2	-	Х	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	25.8
H-16	H-15	10/24/2019	0-1	-	Х	<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	6.18
H-17   10/25/2019   0-1   -     X     <49.8   <49.8   <49.8   <49.8   <49.8   <49.00020   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.00202   <0.0020		"	1-2	-	Х	<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	31.9
H-17	H-16	10/24/2019	0-1	-	Х	<50.0	<50.0	<50.0	<50.0	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	22.7
H-18   10/25/2019   0-1   -     X     <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0   <50.0		"	1-2	-	Х	<49.8	<49.8	<49.8	<49.8	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	307
H-18	H-17	10/25/2019	0-1	-	Х	<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	38.3
10/25/2019   0-1   -     X		"	1-2	-	Х	<49.9	<49.9	<49.9	<49.9	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	58.5
H-19	H-18	10/25/2019	0-1	-		<50.0	<50.0	<50.0	<50.0	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	59.2
1-2   -   X     <49.9   <49.9   <49.9   <49.9   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00198   <0.00			1-2	-	Х	<50.0	<50.0	<50.0	<50.0	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	117
H-20   10/25/2019   0-1   -     X	H-19	10/25/2019	0-1	-	Х	<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	140
1-2   -     X		"	1-2	-	Х	<49.9	<49.9	<49.9	<49.9	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	847
H-21   11/11/2019   0-1   -   X     <10.0   <10.0   <10.0   <0.050   <0.050   <0.050   <0.150   <0.300   32.0	H-20	10/25/2019	0-1	-	Х	<50.0	<50.0	<50.0	<50.0	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	435
77772510 0 7 7 7 7000 7000 7000 7000 70000 70000 70000 70000 70000		"	1-2	-	Х	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	126
H-22   11/11/2019   0-1   -   X     <10.0   <10.0   <10.0   <0.050   <0.050   <0.050   <0.150   <0.300   512	H-21	11/11/2019	0-1	-	Х	<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	-	Х	<10.0	<10.0	<10.0	<10.0	< 0.050	<0.050	<0.050	<0.150	<0.300	512

( - ) Not Analyzed

## **Photos**



View West - Area of SP-1



View North - Area of SP-2



View North - Area of SP-3



View West - Area of SP-4



View North - Area of SP-6



View Northwest - Area of SP-7





View Southwest - Area of SP-8



View Southwest - Area of SP-9



View Northwest - Area of SP-10



View Southeast - Area of SP-11



View Southeast – Area of SP-12



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



View North - Area of SP-15



View North – Area of SP-16





View East - Area of SP-17



View Northwest – Area of SP-18

## TETRA TECH

#### Permian Water Solutions, Dorstate SWD Eddy County, New Mexico



View Southwest – Area of SP-19



View Northwest – Area of SP-20

# E TETRATECH

#### Permian Water Solutions, Dorstate SWD Eddy County, New Mexico



View North – Area of SP-21

## **TETRA TECH**

#### 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

#### NM OIL CONSERVATION

ARTESIA DISTRICT

District 1
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

AUG 2 9 2017

Form C-141 Revised April 3, 2017

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit 1 Copy to appropriate District Office in RECEIVEBroordance with 19.15.29 NMAC.

Release Notification and Corrective Action 148488 OPERATOR X Initial Report Final Report mike Contact mbrian Management. Anthony Midland, TXV 432-631-4398 Address PD Telephone No. Facility Name Facility Type Docstate SWO SWD Surface Owner Mineral Owner API No. 30-015-23728 LOCATION OF RELEASE East/West Line Unit Letter Range North/South Line Feet from the Section Township Feet from the 28 E H 27 255 1980 North 660 cast Latitude 32, 102 684 Longitude 104, 068565 NAD83 NATURE OF RELEASE Volume of Release 25 bbls Volume Recovered Type of Release Water, Produced Water Source of Release Date and Hour of Occurrence Date and Hour of Discovery 8-23-17 Was Immediate Notice Given? If YES, To Whom? 8:04 PM ☐ Yes 🛛 No ☐ Not Required By Whom? Date and Hour Was a Watercourse Reached? If YES, Volume Impacting the Watercourse. Yes No If a Watercourse was Impacted, Describe Fully.\* Describe Cause of Problem and Remedial Action Taken.\* Overflowing sumps due to truck drivers inattention and excess rainwater. We will get soil samples and Trinit, 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. OIL CONSERVATION DIVISION Signature: Approved by Environmental St Printed Name:

Approval Date:

Conditions of Approval

Expiration Date:

\* Attach Additional Sheets If Necessary

iones@cambrianmant

Phone: 430-600-9181

Title: Regulatory

E-mail Address:

Date: 8-24-1

Form C-141 Page 3

#### State of New Mexico Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

#### **Site Assessment/Characterization**

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

What is the shallowest depth to groundwater beneath the area affected by the release?	<50 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☐ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☐ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☐ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☐ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☐ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☐ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☐ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☐ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☐ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☐ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☐ No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	☐ Yes ☐ No
Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and ver contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.	tical extents of soil

Characterization Report Checklist: Each of the following items must be included in the report.							
Character Earlier Report Checking.							
Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.							
Field data							
Data table of soil contaminant concentration data							
Depth to water determination							
Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release							
✓ Boring or excavation logs							
✓ Photographs including date and GIS information							
✓ Topographic/Aerial maps							

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

Form C-141 Page 4

#### State of New Mexico Oil Conservation Division

Incident ID	
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:							
Signature:	Date:						
email:	Telephone:						
OCD Only							
Received by:	Date:						

Form C-141 Page 5

#### State of New Mexico Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

#### **Remediation Plan**

Remediation Plan Checklist: Each of the following items must be	e 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)								
Defended Democrate Only Early of the fall wine it was a week to	£							
<u>Deferral Requests Only</u> : Each of the following items must be con	firmea as part of any request for deferral of remediation.							
Contamination must be in areas immediately under or around predeconstruction.	oduction equipment where remediation could cause a major facility							
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:							
ach a L								
OCD Only								
Received by:	Date:							
☐ Approved ☐ Approved with Attached Conditions of	Approval							
Signature:	<u>Date:</u>							

Appendix B

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

	24 S	outh	- 2	27 East			2	4 So	uth	28	B East				24 Sc	outh	2	9 East	:
	5	4	3	2	1	6	<b>70</b> 5	30	4 3	3	2 5	55 1 60		6	5	4	3	2	1
	8 <b>17</b>	9	10	11	12	7	8	50	g Q	10	11	12		7	8	9	10	11	12
		43	1.0	1	27	ľ	ľ	30	0	17	20	73		160	O		1'0	1''	
30	<b>26</b> 17	16	15	14	13 <b>30</b>	18	17		16	15	14	13	<u> </u>	18	17 <b>4</b>	16	15	14	13
	l''	1.0	1.0	1	31		42		<b>29</b>	18	52	34			+	18	1.0	1	1.0
<b>4</b> 9	20	21	22	23	24	19	20		21	22	23	24	1	19	20	21	22	23	24
			70				48												
0	29	28	27	26	25	30	29		28	27	26	25	1	30	29	28	27	26	25
1	32	33	34	35	36	31	32		33	34	35	36	ł	31	32	33	34	35	36
	25 S	outh	2	27 East			2	5 So			B East				25 Sc	outh	2	9 East	:
	5	4	3	2	1	6	5 <b>59</b>		4 3	3 <b>5</b> 3 <b>32</b>	2	1 Site		6 4 <del>0</del>	5	4	3	2	1
	8	9	10	11	12	7 4			9	10	11	12	1	7	8	9	10	11	12
		ľ	1.0	1	92				Ü	1.0	l	1.2				ľ	40	1	1
8	17	16	15	14	13	18	17		16	15 <b>48</b>	14	13 /	1	18	17	16	15	14	13
			1			67				49					1		60		
9	20	21	22	23	24	19	20		21	22	23	24	1	19	20	21	22	23	24
							96												
30	29	28	27	26	25	30	29		28	27	26 <b>40</b>	25	1	30	29	28	27	26	25
ļ							15		90			\		30					
31	32	33	34	35	36	31	32		33	34	35 5	<b>5</b> 36	1	31	32 <b>115</b>	33	34	35	36
		19										40							
	00.0			0 <b>7</b> F	_		•			0.0	. =		_		00.0			O = - 1	
	26 S	outn I <sub>4</sub>		27 East	-	C	<b></b>	6 So			East	1 5	1	C	26 Sc			9 East	14
6	5	4	3	2	1	6	5		4	3			<u> </u>	6	2 /8	4	3	2	1
,	<b>12</b> 8	9	10	11	12	7	8	-	9	10	<b>21</b>	12		7	8	9	10	11	12
ļ	0	9	110		12	<b>'</b>	°		9	10	''			1'	ر فر	9	10		112
8	17	16	15	14	13	18	17		16	15	14	100 13	-	18	17	16	15	14	13
O	17	10	13	14		10	'		10	13				10	''		113	1'4	113
9	20	21	22	23	<b>35</b>	19	20		21	22	1 <b>20</b> 23	<b>56</b>	ł	19	20	<b>125</b> 21	22 <b>57</b>	23	24
J	20			23	24	19	20		<b>∠</b> I		23	24		19	20	- 1		23	24
30	29	28	<b>50</b> 27	26	25	30	29		28	1 <b>20</b> 27	26	25	ł	30	29	28	<b>69</b>	26	25
,,	23	20	4	20	23	30	29		20	21	20	20		30	23	20	- 1	20	23
	32	33	34	35	36	31	32	-	33	34	35	36	1	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,

(quarters are 1=NW 2=NE 3=SW 4=SE) C=the file is

(quarters are smallest to largest) (NAD83 UTM in meters) closed)

(In feet)

	POD Sub-		Q	Q	Q					Depth	Depth	Water
POD Number	Code basin	County	64	16	4 Se	c Tws	Rng	Х	Υ	Well	Water	Column
<u>C 01278</u>	С	ED		4 3	3 28	25S	28E	585470	3551338* 🌑	205	90	115
<u>C 01411</u>	С	ED	4	4 2	2 04	25S	28E	586289	3558522*	69	35	34
C 01453	С	ED		1 2	2 26	25S	28E	589096	3552612*	70	40	30
C 01522	С	ED			1 22	25S	28E	586843	3554004* 🌑	150		
C 01573 POD1	С	ED	3	1 4	1 20	25S	28E	584144	3553361 🌑	176	96	80
C 02668	С	ED	2	1 2	2 09	25S	28E	585890	3557525* 🌑	150		
C 03263 POD1	CUB	ED	1	1 ′	l 07	25S	28E	581628	3557501* 🌍	133		
C 03836 POD1	С	ED	2	2 4	1 29	25S	28E	584682	3551934 🌑	300	30	270
C 03861 POD1	С	ED	4	2 3	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

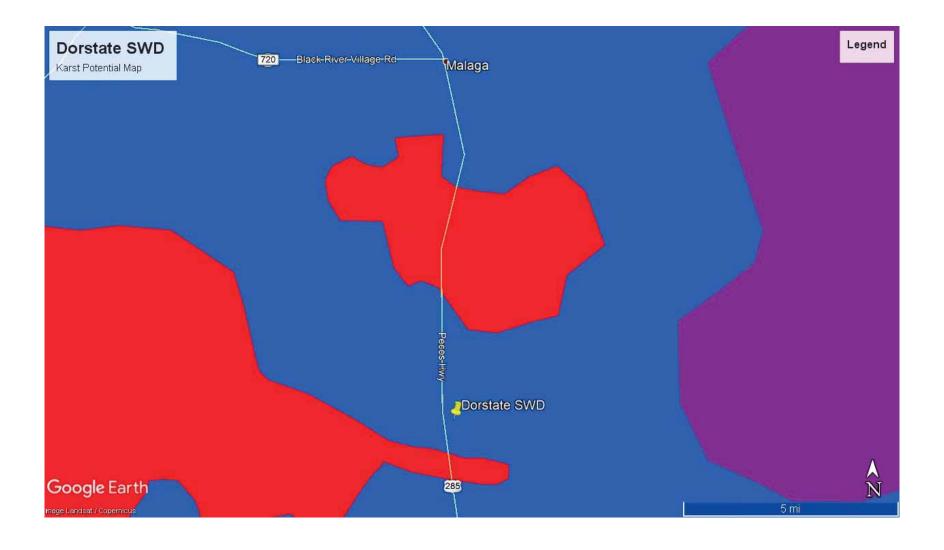
**PLSS Search:** 

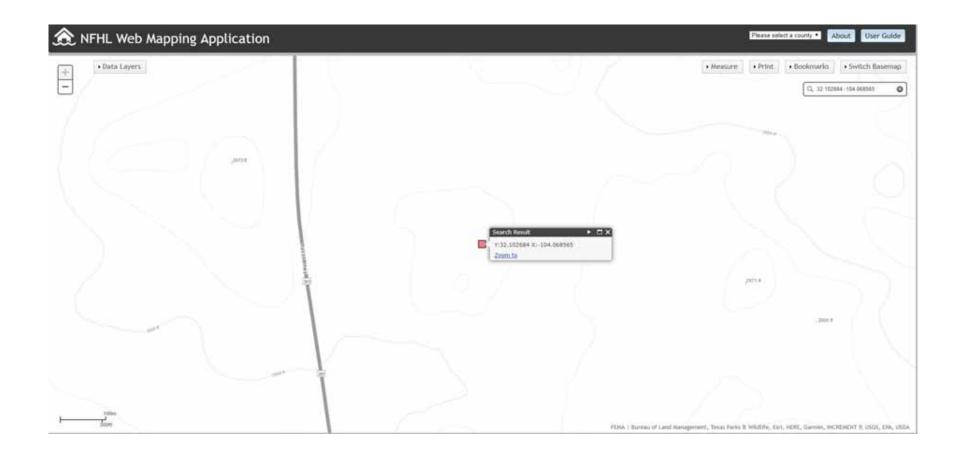
Township: 25S Range: 28E

\*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.

5/29/19 11:48 AM





Appendix C

Client:	Permian Water Solutions										
Site Name	Dorstate SWD										
Sample ID:	SP-1										
GPS	32.102315° -104.069380°										
Project #:	212C-MD-01743										
Total Depth	35'	35'									
Date Installed:	5/14/2019										
DEPTH (Ft)	Lithology/Sample Description	NOTES	Salinity (ppm)	Chloride (ppm)							
0-1	Light brown sand with caliche - dry	No odor or Odor	5,740	-							
2-3	Light brown sand with caliche - dry	No Stain or odor	3,800	-							
4-5	Light brown sand with caliche - dry	No Stain or odor	2,230	-							
6-7	Light brown sand with caliche - dry	No Stain or odor	2,100	-							
9-10	Light brown sand with caliche - dry	No Stain or odor	1,900	-							
14-15	Light brown sand with caliche - dry	No Stain or odor	1,520	800							
19-20	Light brown sand with caliche - dry	No Stain or odor	1,160	-							
24-25	Light brown sand with caliche - dry	No Stain or odor	727	800							
29-30	Light brown sand with caliche - dry	No Stain or odor	628	500							
34-35	Light brown sand with caliche - dry	No Stain or odor	610	360							
L	1										

Client:	Permian Water Solutions										
Site Name	Dorstate SWD										
Sample ID:	SP-2										
GPS	32.102545° -104.069328°										
Project #:	212C-MD-01743										
Total Depth	60'										
Date Installed:	5/14/2019										
	•										
DEPTH (Ft)	Lithology/Sample Description	NOTES	Salinity (ppm)	Chloride (ppm)							
0-1	Light brown sand with caliche - dry	No odor or Odor	9,100	-							
2-3	Light brown sand with caliche - dry	No Stain or odor	9,000	-							
4-5	Light brown sand with caliche - dry	No Stain or odor	2,210	-							
6-7	Sand with caliche and limestone - dry	No Stain or odor	2,300	-							
9-10	Sand with caliche and limestone - dry	No Stain or odor	1,010	-							
14-15	Sand with caliche and limestone - dry	No Stain or odor	2,700	-							
19-20	Sand with caliche and limestone - dry	No Stain or odor	3,670	-							
24-25	Sand with caliche and limestone - dry	No Stain or odor	2,970	-							
29-30	Sand with caliche and limestone - dry	No Stain or odor	2,000	-							
34-35	Sand with caliche and limestone - dry	No Stain or odor	1,720	-							
39-40	Sand with caliche and limestone - dry	No odor or Odor	1,800	1480							
44-45	Sand with caliche and limestone - dry	No Stain or odor	2,650	-							
49-50	Sand with caliche and limestone - dry	No Stain or odor	1,670	-							
54-55	Sand with caliche and limestone - damp	No Stain or odor	1,230	-							
55-60	Sand with caliche and limestone - damp	No Stain or odor	1,730	-							
	•										

Client:	Permian Water Solutions										
Site Name	Dorstate SWD										
Sample ID:	SP-3										
GPS	32.102771° -104.069347°	32.102771° -104.069347°									
Project #:	212C-MD-01743	212C-MD-01743									
Total Depth	15'	15'									
Date Installed:	5/14/2019										
DEPTH (Ft)	Lithology/Sample Description	NOTES	Salinity (ppm)	Chloride (ppm)							
0-1	Light tan sand with caliche - dry	Faint odor	3200	-							
2-3	Light tan sand with caliche - dry	Faint odor	1,100	-							
4-5	Light tan sand with caliche - dry	Faint odor	2,600	-							
6-7	Light tan sand with caliche - dry	No Stain or odor	900	-							
9-10	Light tan sand with caliche - dry	No Stain or odor	670	400							
14-15	Light tan sand with caliche - dry	No Stain or odor	650	440							
				·							

Client:	Permian Water Solutions			
Site Name	Dorstate SWD			
Sample ID:	SP-4			
GPS	32.102701° -104.069066°			
Project #:	212C-MD-01743			
Total Depth	50'			
Date Installed:	5/14/2019			
DEPTH (Ft)	Lithology/Sample Description	NOTES	Salinity (ppm)	Chloride (ppm)
0-1	Light brown sand - dry	Faint odor	9,870	-
2-3	Light brown sand - dry	No Stain or odor	8,600	-
4-5	Light brown sand - dry	No Stain or odor	4,810	-
6-7	Light brown sand - dry	No Stain or odor	3,600	-
9-10	Light tan sand and caliche - dry	No Stain or odor	2,700	-
14-15	Light tan sand and caliche - dry	No Stain or odor	1,900	-
19-20	Light tan sand and caliche - dry	No Stain or odor	2,130	-
24-25	Light tan sand and caliche - dry	No Stain or odor	1,850	-
29-30	Light tan sand and caliche - dry	No Stain or odor	1,770	-
34-35	Light tan sand and caliche - dry	No Stain or odor	1,150	-
39-40	Light tan sand and caliche - dry	No odor or Odor	1,300	-
44-45	Light tan sand and caliche - dry	No Stain or odor	666	560
49-50	Sand with caliche and limestone - damp	No Stain or odor	1,640	-
	<u> </u>			

Client:	Permian Water Solutions			
Site Name	Dorstate SWD			
Sample ID:	SP-6			
GPS	32.102344° -104.069082°			
Project #:	212C-MD-01743			
Total Depth	45'			
Date Installed:	5/15/2019			
	•			
DEPTH (Ft)	Lithology/Sample Description	NOTES	Salinity (ppm)	Chloride (ppm)
0-1	Light brown sand - dry	No Stain or odor	3,560	-
2-3	Light brown sand - dry	No Stain or odor	3,000	-
4-5	Brown clay with gypsum - dry	No Stain or odor	1,090	-
6-7	Brown clay with gypsum - dry	No Stain or odor	2,600	-
9-10	Brown clay with gypsum - dry	No Stain or odor	2,080	960
14-15	Brown silty sand with gypsum - dry	No Stain or odor	2,160	-
19-20	Brown silty sand with gypsum - dry	No Stain or odor	1,090	600
24-25	Brown silty sand with gypsum - dry	No Stain or odor	1,220	920
29-30	Brown silty sand with gypsum - dry	No Stain or odor	1,000	-
34-35	Brown silty sand with gypsum - dry	No Stain or odor	1,600	-
39-40	Brown silty sand with gypsum - dry	No odor or Odor	597	400
44-45	Brown silty sand with gypsum - dry	No Stain or odor	315	200
=	•	· ·		

Client:	Permian Water Solutions			
Site Name	Dorstate SWD			
Sample ID:	SP-7			
GPS	32.102316° -104.068824°			
Project #:	212C-MD-01743			
Total Depth	30'			
Date Installed:	5/15/2019			
	•			
DEPTH (Ft)	Lithology/Sample Description	NOTES	Salinity (ppm)	Chloride (ppm)
0-1	Sand with caliche and gravel - dry	No Stain or odor	7,300	-
2-3	Light brown sand with gravel - dry	No Stain or odor	3,560	-
4-5	Light brown sand with gravel - dry	No Stain or odor	2,360	-
6-7	Light brown sand with gravel - dry	No Stain or odor	1,930	-
9-10	Sand with caliche and gravel - dry	No Stain or odor	1,600	-
14-15	Brown silty sand with gypsum - dry	No Stain or odor	998	-
19-20	Brown silty sand with gypsum - dry	No Stain or odor	845	-
24-25	Brown silty sand with gypsum - dry	No Stain or odor	829	-
29-30	Brown silty sand with gypsum - dry	No Stain or odor	697	-
34-35	Brown silty sand with gypsum - dry	No Stain or odor	1,600	560
39-40	Brown silty sand with gypsum - dry	No odor or Odor	597	540
44-45	Brown silty sand with gypsum - dry	No Stain or odor	315	400

Client:	Permian Water Solutions			
Site Name	Dorstate SWD			
Sample ID:	SP-8			
GPS	32.102516° -104.068842°			
Project #:	212C-MD-01743			
Total Depth	50'			
Date Installed:	5/15/2019			
	•			
DEPTH (Ft)	Lithology/Sample Description	NOTES	Salinity (ppm)	Chloride (ppm)
0-1	Light brown sand - dry	No Stain or odor	5,800	-
2-3	Light tan sand and caliche - dry	No Stain or odor	3,060	-
4-5	Light tan sand and caliche - dry	No Stain or odor	2,490	-
6-7	Light tan sand with caliche & gravel - dry	No Stain or odor	2,000	-
9-10	Light tan sand with caliche & gravel - dry	No Stain or odor	1,860	-
14-15	Light tan sand with caliche & gravel - dry	No Stain or odor	1,990	-
19-20	Light tan sand with caliche & gravel - dry	No Stain or odor	3,440	-
24-25	Light tan sand, caliche, limestone - dry	No Stain or odor	2,890	-
29-30	Light tan sand, caliche, limestone - dry	No Stain or odor	3,800	-
34-35	Light tan sand, caliche, limestone - dry	No Stain or odor	4,100	-
39-40	Light tan sand, caliche, limestone - dry	No odor or Odor	4,700	-
44-45	Light tan sand, caliche, limestone - dry	No Stain or odor	4,800	-
49-50	Sand with caliche and limestone - damp	No Stain or odor	5,110	-
	<u> </u>			

Client:	Permian Water Solutions			
Site Name	Dorstate SWD			
Sample ID:	SP-9			
GPS	32.102768° -104.068825°			
Project #:	212C-MD-01743			
Total Depth	40'			
Date Installed:	5/15/2019			
	•			
DEPTH (Ft)	Lithology/Sample Description	NOTES	Salinity (ppm)	Chloride (ppm)
0-1	Sand with caliche and limestone - dry	No Stain or odor	8,290	-
2-3	Sand with caliche and limestone - dry	No Stain or odor	7,840	-
4-5	Sand with caliche and limestone - dry	No Stain or odor	3,500	-
6-7	Sand with caliche and limestone - dry	No Stain or odor	3,000	-
9-10	Sand with caliche and limestone - dry	No Stain or odor	2,360	-
14-15	Sand with caliche and limestone - dry	No Stain or odor	1,240	-
19-20	Sand with caliche and limestone - dry	No Stain or odor	2,500	-
24-25	Sand with caliche and limestone - dry	No Stain or odor	3,010	-
29-30	Sand with caliche and limestone - dry	No Stain or odor	3,560	-
34-35	Sand with caliche and limestone - dry	No Stain or odor	3,200	-
39-40	Sand with caliche and limestone - dry	No Stain or odor	4,010	-

Client:	Permian Water Solutions			
Site Name	Dorstate SWD			
Sample ID:	SP-10			
GPS	32.102775° -104.068536°			
Project #:	212C-MD-01743			
Total Depth	40'			
Date Installed:	5/17/2019			
DEPTH (Ft)	Lithology/Sample Description	NOTES	Salinity (ppm)	Chloride (ppm)
0-1	Sand with caliche and limestone - dry	No Stain or odor	5,100	-
2-3	Sand with caliche and limestone - dry	No Stain or odor	5,220	-
4-5	Sand and caliche - dry	No Stain or odor	3,790	-
6-7	Sand with caliche and limestone - dry	No Stain or odor	3,600	-
9-10	Sand with caliche and limestone - dry	No Stain or odor	3,360	-
14-15	Sand with caliche and limestone - dry	No Stain or odor	3,600	-
19-20	Sand with caliche and limestone - dry	No Stain or odor	4,800	-
24-25	Sand with caliche and limestone - dry	No Stain or odor	2,300	-
29-30	Sand with caliche and limestone - dry	No Stain or odor	1,190	-
34-35	Sand with caliche and limestone - dry	No Stain or odor	3,500	-
39-40	Sand with caliche and limestone - dry	No Stain or odor	2,960	-

Client:	Permian Water Solutions			
Site Name	Dorstate SWD			
Sample ID:	SP-11			
GPS	32.102542° -104.068529°			
Project #:	212C-MD-01743			
Total Depth	45'			
Date Installed:	5/17/2019			
	•			
DEPTH (Ft)	Lithology/Sample Description	NOTES	Salinity (ppm)	Chloride (ppm)
0-1	Sand with caliche - dry	No Stain or odor	2,770	-
2-3	Sand with caliche - dry	No Stain or odor	3,100	-
4-5	Sand with caliche - dry	No Stain or odor	1,900	-
6-7	Sand with caliche and gypsum - dry	No Stain or odor	1,620	-
9-10	Sand with caliche and gypsum - dry	No Stain or odor	2,630	-
14-15	Sandy clay with gypsum - dry	No Stain or odor	4,800	-
19-20	Sandy clay with gypsum - dry	No Stain or odor	4,700	-
24-25	Sandy clay with gypsum - dry	No Stain or odor	3,600	-
29-30	Sandy clay with gypsum - dry	No Stain or odor	2,930	-
34-35	Sandy clay with gypsum - dry	No Stain or odor	3,970	-
39-40	Sandy clay with gypsum - dry	No Stain or odor	3,770	-
44-45	Sandy clay with gypsum - dry	No Stain or odor	2,260	-

Client:         Permian Water Solutions           Site Name         Dorstate SWD           Sample ID:         SP-12           GPS         32.102373° -104.068527°           Project #:         212C-MD-01743           Total Depth         45'           Date Installed:         5/17/2019	Chloride (ppm)
GPS 32.102373° -104.068527°  Project #: 212C-MD-01743  Total Depth 45'	Chloride (ppm)
GPS 32.102373° -104.068527°  Project #: 212C-MD-01743  Total Depth 45'	Chloride (ppm)
Total Depth 45'	Chloride (ppm)
Total Depth 45'	Chloride (ppm)
Date Installed: 5/17/2019	Chloride (ppm)
·	Chloride (ppm)
	Chloride (ppm)
DEPTH (Ft) Lithology/Sample Description NOTES Salinity (ppm)	
0-1 Sand with caliche - dry No Stain or odor 4,360	-
2-3 Sand with caliche - dry No Stain or odor 3,280	-
4-5 Sand with caliche - dry Heavy odor -	-
6-7 Sand with caliche - dry Heavy odor -	-
9-10 Sand with limestone - dry Heavy odor 2,680	-
14-15 Sand with limestone - dry Heavy odor 1,940	-
19-20 Sand with limestone - dry Moderate odor 1,860	-
24-25 Sand with limestone - dry Moderate odor 2,990	-
29-30 Sand with limestone - dry Faint odor 3,420	-
34-35 Sandy clay with gypsum - dry No Stain or odor 3,560	-
39-40 Sandy clay with gypsum - dry No Stain or odor 2,600	-
44-45 Sandy clay with gypsum - dry No Stain or odor 1,600	-

Client:	Permian Water Solutions			
Site Name	Dorstate SWD			
Sample ID:	SP-13			
GPS	32.102207° -104.068164°			
Project #:	212C-MD-01743			
Total Depth	40'			
Date Installed:	5/17/2019			
DEPTH (Ft)	Lithology/Sample Description	NOTES	Salinity (ppm)	Chloride (ppm)
0-1	Sand, limestone, and caliche - dry	No Stain or odor	3,040	-
2-3	Sand, limestone, and caliche - dry	No Stain or odor	2,990	-
4-5	Sand, limestone, and caliche - dry	No Stain or odor	2,050	-
6-7	Sand, limestone, and caliche - dry	No Stain or odor	201	-
9-10	Sand, limestone, and caliche - dry	No Stain or odor	3,890	-
14-15	Sand, limestone, and caliche - dry	No Stain or odor	4,060	-
19-20	Sand, limestone, and caliche - dry	No Stain or odor	5,900	-
24-25	Sand and caliche - dry	No Stain or odor	4,230	-
29-30	Sand and caliche - dry	No Stain or odor	1,190	-
34-35	Sand and caliche - dry	No Stain or odor	3,500	-
39-40	Sand and caliche - dry	No Stain or odor	2,960	-
		•		

Client:	Permian Water Solutions			
Site Name	Dorstate SWD			
Sample ID:	SP-14			
GPS	32.102209° -104.067787°			
Project #:	212C-MD-01743			
Total Depth	30'			
Date Installed:	5/15/2019			
	•			
DEPTH (Ft)	Lithology/Sample Description	NOTES	Salinity (ppm)	Chloride (ppm)
0-1	Red clay with gypsum - dry	No Stain or odor	3,260	-
2-3	Red clay with gypsum - dry	No Stain or odor	4,010	-
4-5	Red clay with gypsum - dry	No Stain or odor	4,180	-
6-7	Red clay with gypsum - dry	No Stain or odor	2,340	-
9-10	Calcareous clay with gypsum - dry	No Stain or odor	2,000	1400
14-15	Calcareous clay with gypsum - dry	No Stain or odor	2,340	1400
19-20	Calcareous clay with gypsum - dry	No Stain or odor	1,230	1200
24-25	Calcareous clay with gypsum - dry	No Stain or odor	1,580	-
29-30	Calcareous clay with gypsum - dry	No Stain or odor	486	-

Client:	Permian Water Solutions			
Site Name	Dorstate SWD			
Sample ID:	SP-15			
GPS	32.102208° -104.067459°			
Project #:	212C-MD-01743			
Total Depth	30'			
Date Installed:	5/15/2019			
	•			
DEPTH (Ft)	Lithology/Sample Description	NOTES	Salinity (ppm)	Chloride (ppm)
0-1	Red clay with gypsum - dry	No Stain or odor	7,240	-
2-3	Red clay with gypsum - dry	No Stain or odor	7,300	-
4-5	Red clay with gypsum - dry	No Stain or odor	6,360	-
6-7	Red clay with gypsum - dry	No Stain or odor	5,800	-
9-10	Calcareous clay with gypsum - dry	No Stain or odor	3,260	-
14-15	Calcareous clay with gypsum - dry	No Stain or odor	2,800	-
19-20	Calcareous clay with gypsum - dry	No Stain or odor	1,040	-
24-25	Calcareous clay with gypsum - dry	No Stain or odor	470	480
29-30	Calcareous clay with gypsum - dry	No Stain or odor	394	200
	•	•		-

Client:	Permian Water Solutions			
Site Name	Dorstate SWD			
Sample ID:	SP-16			
GPS	32.102208° -104.067158°			
Project #:	212C-MD-01743			
Total Depth	35'			
Date Installed:	5/16/2019			
DEPTH (Ft)	Lithology/Sample Description	NOTES	Salinity (ppm)	Chloride (ppm)
0-1	Red clay with gypsum - dry	No Stain or odor	3,900	-
2-3	Red clay with gypsum - dry	No Stain or odor	1,830	-
4-5	Calcareous clay with gypsum - dry	No Stain or odor	1,560	-
6-7	Calcareous clay with gypsum - dry	No Stain or odor	1,470	-
9-10	Calcareous clay with gypsum - dry	No Stain or odor	1,980	-
14-15	Calcareous clay with gypsum - dry	No Stain or odor	1,250	800
19-20	Calcareous clay with gypsum - dry	No Stain or odor	1,100	800
24-25	Calcareous clay with gypsum - dry	No Stain or odor	1,440	840
29-30	Calcareous clay with gypsum - dry	No Stain or odor	760	200
34-35	Calcareous clay with gypsum - dry	No Stain or odor	944	320
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Client:	Permian Water Solutions					
Site Name	Dorstate SWD					
Sample ID:	SP-17					
GPS	32.103096° -104.068561°					
Project #:	212C-MD-01743					
Total Depth	15'					
Date Installed:	5/16/2019					
	•					
DEPTH (Ft)	Lithology/Sample Description	NOTES	Salinity (ppm)	Chloride (ppm)		
0-1	Red clay with gypsum - dry	No Stain or odor	6,380	-		
2-3	Sand with limestone - dry	No Stain or odor	4,800	-		
4-5	Sand with limestone - dry	No Stain or odor	1,090	-		
6-7	Sand with limestone - dry	No Stain or odor	1,050	-		
9-10	Sand with limestone - dry	No Stain or odor	495	280		
14-15	Sand with limestone - dry	No Stain or odor	235	200		
	•	•				

Client:	Permian Water Solutions						
Site Name	Dorstate SWD						
Sample ID:	SP-18						
GPS	32.103216° -104.068194°						
Project #:	212C-MD-01743						
Total Depth	15'						
Date Installed:	5/16/2019						
	•						
DEPTH (Ft)	Lithology/Sample Description	NOTES	Salinity (ppm)	Chloride (ppm)			
0-1	Light brown sand - dry	No Stain or odor	229	-			
2-3	Light brown sand - dry	No Stain or odor	560	-			
4-5	Clay with gypsum - dry	No Stain or odor	1,360	-			
6-7	Clay with gypsum - dry	No Stain or odor	773	-			
9-10	Clay with gypsum - dry	No Stain or odor	1,010	520			
14-15	Clay with gypsum - dry	No Stain or odor	824	440			

Client:	Permian Water Solutions							
Site Name	Dorstate SWD							
Sample ID:	SP-19							
GPS	32.103339° -104.068507°							
Project #:	212C-MD-01743							
Total Depth	10'							
Date Installed:	5/16/2019							
DEPTH (Ft)	Lithology/Sample Description NOTES Salinity (ppm) Chloride (ppm							
0-1	Light brown sand - dry	No Stain or odor	2,600	-				
2-3	Sand with caliche - dry	No Stain or odor	1,200	-				
4-5	Sand with caliche - dry	No Stain or odor	1,200	1520				
6-7	Sand with gypsum - dry	No Stain or odor	394	280				
9-10	Sand with gypsum - dry	No Stain or odor	465	360				

Client:	Permian Water Solutions							
Site Name	Dorstate SWD							
Sample ID:	SP-20							
GPS	32.103622° -104.068501°							
Project #:	212C-MD-01743							
Total Depth	10'							
Date Installed:	5/16/2019							
	'							
DEPTH (Ft)	Lithology/Sample Description NOTES Salinity (ppm) Chloride (ppm							
0-1	Light brown sand - dry	No Stain or odor	4,600	-				
2-3	Sand with caliche - dry	No Stain or odor	2,360	-				
4-5	Sandy clay with gypsum - dry	No Stain or odor	1,100	-				
6-7	Sandy clay with gypsum - dry	No Stain or odor	623	400				
9-10	Sandy clay with gypsum - dry	No Stain or odor	286	200				

Client:	Permian Water Solutions							
Site Name	Dorstate SWD							
Sample ID:	SP-21							
GPS	32.103732° -104.068287°							
Project #:	212C-MD-01743							
Total Depth	25'							
Date Installed:	5/16/2019							
DEPTH (Ft)	Lithology/Sample Description NOTES Salinity (ppm) Chloride (ppm)							
0-1	Light brown sand - dry	No Stain or odor	2,760	-				
2-3	Sand with caliche - dry	No Stain or odor	2,800	-				
4-5	Sandy clay with gypsum - dry	No Stain or odor	2,060	-				
6-7	Sandy clay with gypsum - dry	No Stain or odor	1,990	-				
9-10	Sandy clay with gypsum - dry	No Stain or odor	1,520	-				
14-15	Sandy clay with gypsum - dry	No Stain or odor	748	-				
19-20	Sandy clay with gypsum - dry	No Stain or odor	1,620	1200				
24-25	Sandy clay with gypsum - dry	No Stain or odor	1,900	-				

Client:	Permian Water Solutions						
Site Name	Dorstate SWD						
Sample ID:	BG-1						
GPS	32.103471°, -104.069609°						
Project #:	212C-MD-01743						
Total Depth	40'						
Date Installed:	5/16/2019						
	•						
DEPTH (Ft)	Lithology/Sample Description	NOTES	Salinity (ppm)	Chloride (ppm)			
0-1	Brown sand - dry	No Stain or odor	330	-			
2-3	Sand with limestone - dry	No Stain or odor	450	-			
4-5	Sand with limestone - dry	No Stain or odor	1,230	-			
6-7	Sand with gypsum - dry	No Stain or odor	367	-			
9-10	Sand with gypsum - dry	No Stain or odor	260	-			
14-15	Sand with gypsum - dry	No Stain or odor	157	-			
19-20	Sandy clay with gypsum - dry						
24-25	Sandy clay with gypsum - dry	No Stain or odor	185	-			
29-30	Sandy clay with gypsum - dry	No Stain or odor	195	-			
34-35	Sandy clay with gypsum - dry	No Stain or odor	200	-			
39-40	Sandy clay with gypsum - dry	No Stain or odor	350	-			



#### **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.) W	/L Soil Description	Chloride Field Field Test (ppm) (ppm)
10	black and grey gravel and sand large grey and black rocks Very dense leyer of caliche black and grey caliche yellow tan caliche tan and yellow caliche tan yellow caliche with noudles  yellow caliche Moist yellow/white caliche	1,520	H.O H.O H.O S.O	50	Comments: T.D 30'	

<sup>\*</sup> H.O. = Heavy Odor

<sup>\*</sup> L.O. = Low Odor

<sup>\*</sup> H.S. = Heavy Staining

<sup>\*</sup> 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.)	VL	Soil Description	Chloride Field Test (ppm)	PID	Depth (ft.)	WL	Soil Description	Chloride Field Test (ppm)	Field Titration Test (ppm)
0 <b>T</b> [	Black and g	grev gravel		S.O	50 —			I	
#1					#				
+1	large and g	rey gravel with caliche		S.O	+				
5	yellow and	white caliche		S.O	55				
10	white and g	grey caliche	920	S.O	60				
15 —	white and y	yellow caliche		L.O	65				
20	white and y	yellow caliche	1,900	L.O	70				
25	Fine powde	ery gypsum		L.O	75				
30	moist calicl	he yellowish white			#		Comments: T.D 30'		
+1					+				
#1					丰				
40 —					+				
#1					#				
+1					+				
45 🛨					土				
~~ <b>T</b>					干				
土!					土				
45					丰				
50 🚣 💄								<u> </u>	

<sup>\*</sup> H.O. = Heavy Odor

<sup>\*</sup> L.O. = Low Odor

<sup>\*</sup> H.S. = Heavy Staining

<sup>\*</sup> 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

Grey , yellow caliche and gravel  H.O  50  Large caliche gravel	(ppm)
5	(μριτή)

<sup>\*</sup> H.O. = Heavy Odor

<sup>\*</sup> L.O. = Low Odor

<sup>\*</sup> H.S. = Heavy Staining

<sup>\*</sup> 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 a impacted two-hundred and twelve thousand, six-hundred and seventy-two (212,672) square feet (ft²) 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

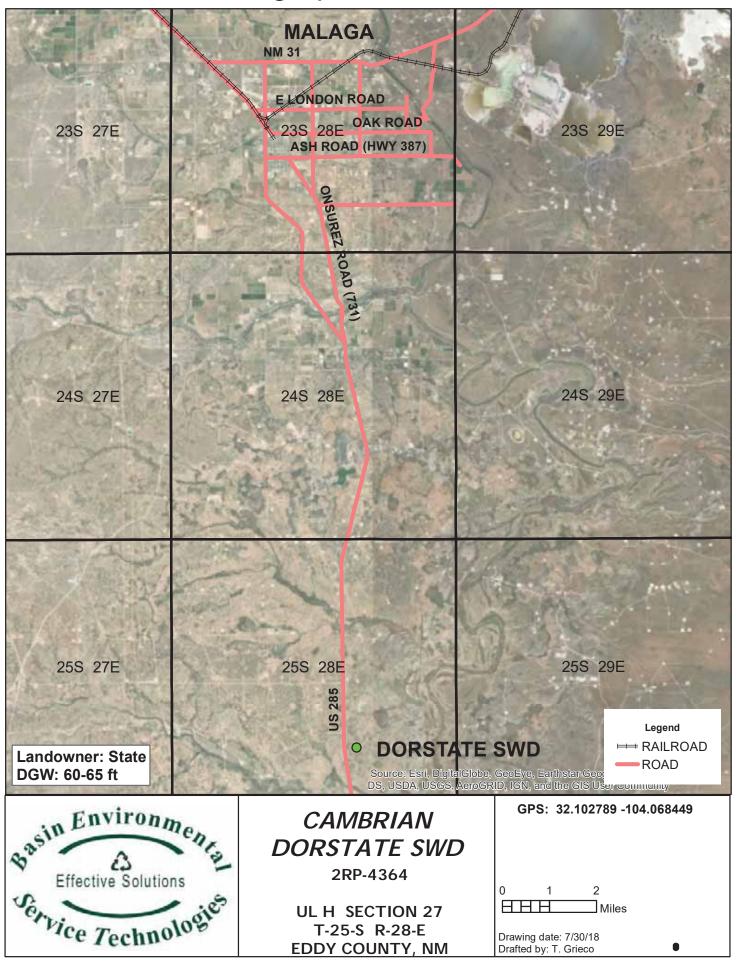
Figure 4 - Soil Chemistry Table

Appendix A – Photo Documentation

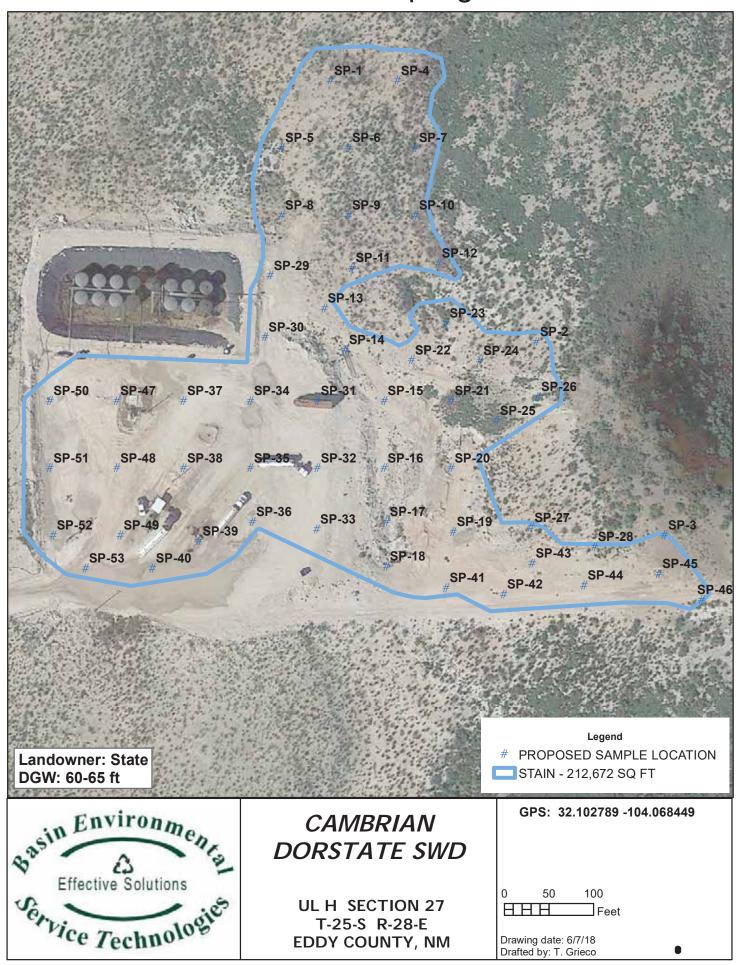
Appendix B – Initial C-141 Forms

Appendix C – Analytical Reports

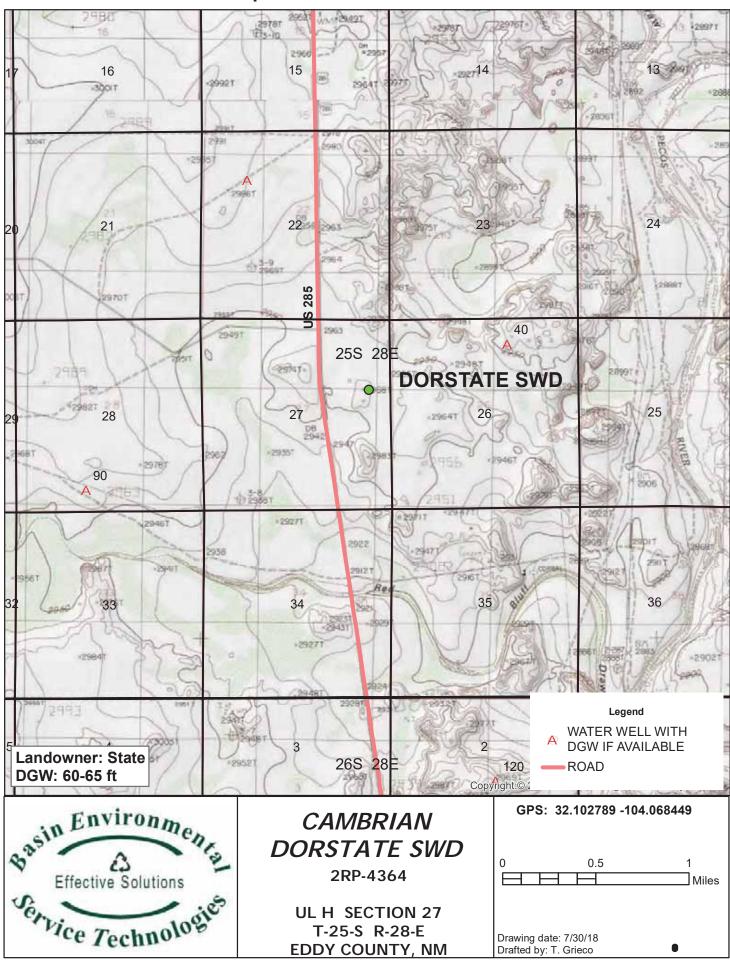
# Received by OCD: 1/10/2020 10:32:53|AM Geographic Location



## **Initial Sampling**



# Depth to Groundwater



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

	OAMBU 5				METHOD: EPA SW 846-8021B, 5030						METHOD: 8015M			
SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	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)	
NMOCD Recommended	Remediation	Action Levels	(RRALs)	10	NE	NE	NE	50	NE	NE	NE	1,000	600	
CD 4 @ 4!	1'	2/20/2019	In-Situ	-0.0E0	<0.050	<0.050	<0.150	×0.200	<10.0	<10.0	<10.0	<10.0	4.000	
SP-1 @ 1' SP-1 @ 5'	5'	3/29/2018	In-Situ In-Situ	<0.050 <0.050	<0.050	<0.050	<0.150 <0.150	<0.300	<10.0	<10.0	<10.0	<10.0	4,030 2,120	
	9'	3/29/2018	In-Situ			<0.050		<0.300	<10.0	<10.0	<10.0			
SP-1 @ 9'	9	3/29/2018	เท-ธแน	<0.050	<0.050	<0.050	<0.150	<0.300	< 10.0	<10.0	< 10.0	<10.0	1,610	
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	4,740	
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	1,860	
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	850	
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	758	
51 T (G) 0	<u> </u>	17272010	III Olla	0.000	10.000	0.000	0.100	-0.000	10.0	10.0	10.0	10.0	100	
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	4,800	
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	3,900	
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	8,070	
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	5,040	
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	1,450	
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	2,460	
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	1,180	
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	2,600	

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

SP-22 @ 1' 1' 4/3/2018   In-Situ   <0.050   <0.050   <0.050   <0.050   <0.050   <0.300   <10.0   <10.0   <10.0   <10.0   37.9    SP-23 @ 1' 1' 4/3/2018   In-Situ   <0.050   <0.050   <0.050   <0.050   <0.150   <0.300   <10.0   <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   <0.050   <0.050   <0.050   <0.300   <10.0   <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   <0.050   <0.050   <0.300   <10.0   <10.0   <10.0   <10.0   2,390    SP-26 @ 1' 1' 4/3/2018   In-Situ   <0.050   <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   <0.050   <0.150   <0.300   <10.0   <10.0   <10.0   <10.0   945    SP-28 @ 1' 1' 4/3/2018   In-Situ   <0.050   <0.050   <0.050   <0.050   <0.050   <0.300   <10.0   <10.0   <10.0   <10.0   945    SP-29 @ 1' 1' 4/9/2018   In-Situ   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.050   <0.05		SAMPLE				METHOD: EPA SW 846-8021B, 5030					METHO	D: 8015M		300
SP-14 @ 1' 1' 4/3/2018 In-Situ <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050	SAMPLE LOCATION	DEPTH					BENZENE	XYLENES	BTEX	C <sub>6</sub> -C <sub>12</sub>	C <sub>12</sub> -C <sub>28</sub>	DRO C <sub>28</sub> -C <sub>35</sub>	C <sub>6</sub> -C <sub>35</sub>	
SP-15 @ 1'         1'         4/3/2018         In-Situ         <0.050	NMOCD Recommended	Remediation	Action Levels	s (RRALs)	10	NE	NE	NE	50	NE	NE		1,000	600
SP-15 @ 1'         1'         4/3/2018         In-Situ         <0.050         <0.050         <0.150         <0.300         <10.0         37.0         11.5         48.5         5,240           SP-16 @ 1'         1'         4/3/2018         In-Situ         <0.050														
SP-16 @ 1' 1' 4/3/2018   In-Situ   <0.050   <0.050   <0.050   <0.050   <0.050   <0.300   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0	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	9,180
SP-16 @ 1' 1' 4/3/2018   In-Situ   <0.050   <0.050   <0.050   <0.050   <0.050   <0.300   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0		4.	1 10 10 0 1 0				0.0=0	0.450		400				
SP-17 @ 1' 1' 4/3/2018 In-Situ <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050	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	5,240
SP-17 @ 1' 1' 4/3/2018 In-Situ <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050	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-18 @ 1' 1' 4/3/2018   In-Situ   <0.050   <0.050   <0.050   <0.050   <0.050   <0.300   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0														
SP-19 @ 1'         1'         4/3/2018         In-Situ         < 0.050         < 0.050         < 0.150         < 0.300         < 10.0         < 10.0         < 10.0         1,150           SP-20 @ 1'         1'         4/3/2018         In-Situ         < 0.050	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	1,710
SP-19 @ 1'         1'         4/3/2018         In-Situ         < 0.050         < 0.050         < 0.150         < 0.300         < 10.0         < 10.0         < 10.0         1,150           SP-20 @ 1'         1'         4/3/2018         In-Situ         < 0.050	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	3.130
SP-20 @ 1'			.,			0.000								3,100
SP-21 @ 1'	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	1,150
SP-21 @ 1'	SP-20 @ 1'	1'	1/3/2018	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	31.0
SP-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   <10.0   37.9    SP-23 @ 1' 1' 4/3/2018   In-Situ   <0.050   <0.050   <0.050   <0.050   <0.150   <0.300   <10.0   <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   <0.050   <0.150   <0.300   <10.0   <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   <0.050   <0.150   <0.300   <10.0   <10.0   <10.0   <10.0   2,390    SP-26 @ 1' 1' 4/3/2018   In-Situ   <0.050   <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   <0.050   <0.150   <0.300   <10.0   <10.0   <10.0   <10.0   945    SP-29 @ 1' 1' 4/9/2018   In-Situ   <0.050   <0.050   <0.050   <0.050   <0.150   <0.300   <10.0   <10.0   <10.0   <10.0   945    SP-29 @ 1' 1' 4/9/2018   In-Situ   <0.050   <0.050   <0.050   <0.050   <0.150   <0.300   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <10.0   <	01 -20 @ 1	ı	4/3/2010	III-Oitu	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	<b>\0.030</b>	<b>\0.030</b>	<b>40.130</b>	<b>40.300</b>	×10.0	10.0	10.0	10.0	31.0
SP-23 @ 1'	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-23 @ 1' 1' 4/3/2018   In-Situ	CD 22 @ 4!	41	4/2/2040	In City	<0.050	<0.050	<0.0E0	<0.4E0	<b>40.200</b>	<10.0	<b>~10.0</b>	<b>~10.0</b>	<b>~10.0</b>	46.0
SP-24 @ 1' 1' 4/3/2018   In-Situ   <0.050   <0.050   <0.050   <0.050   <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   <0.050   <0.150   <0.300   <10.0   <10.0   <10.0   <10.0   2,390    SP-26 @ 1' 1' 4/3/2018   In-Situ   <0.050   <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   <0.050   <0.150   <0.300   <10.0   35.7   24.9   60.6   931    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   945    SP-29 @ 1' 1' 4/9/2018   In-Situ   -	3P-22 @ 1	I	4/3/2010	III-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	< 10.0	<10.0	<10.0	<10.0	16.0
SP-25 @ 1'	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-25 @ 1'	00.04.0.41	41	4/0/0040	1 0:1	1 .0.050	10.050	-0.050	-0.450	-0.000	.40.0	-40.0	.40.0	:10.0	00.5
SP-26 @ 1'	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-27 @ 1'	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	2,390
SP-27 @ 1'														
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 \$945 \$	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-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 \$945 \$	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	931
SP-29 @ 1' 1' 4/9/2018 In-Situ 1,310														
	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	945
	SP-29 @ 1'	1'	4/9/2018	In-Situ	-		_	_	_	_	_		_	1 310
	SP-29 @ 8'				-	-	-	-	-	-	-	-	-	

Page 2 of 5

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

	SAMPI F				METHOD: EF	PA SW 846-8	021B, 5030			METHO	D: 8015M		300
SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	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)
NMOCD Recommended	Remediation	Action Levels	s (RRALs)	10	NE	NE	NE	50	NE	NE	NE	1,000	600
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	1,490
SP-30 @ 6'	6'	4/9/2018	In-Situ	-	-	-	-	-	-	-	-	-	336
00 04 0 41	41	4/0/0040	1 0:1	1	ı	ı		1	ı				200
SP-31 @ 1'	1' 10'	4/9/2018	In-Situ In-Situ	-	-	-	-	-	-	-	-	-	928 944
SP-31 @ 10'	10	4/10/2018	III-SITU	-			-			-	-		944
SP-32 @ 1'	1'	4/10/2018	In-Situ	_	l -		-			_		_	912
SP-32 @ 10'	10'	4/10/2018	In-Situ		_		_						560
01 -02 @ 10	10	4/10/2010	III-Oita			_		_					300
SP-33 @ 1'	1'	4/10/2018	In-Situ	I -	l -	-	-		-	-	-	-	4,240
SP-33 @ 10'	10'	4/10/2018	In-Situ	-	-	-	-	-	-	-	-	-	3,800
				<b>'</b>									5,555
SP-34 @ 1'	1'	4/10/2018	In-Situ	-	-	-	-	-	-	-	-	-	7,100
SP-34 @ 10'	10'	4/10/2018	In-Situ	-	-	-	-	-	-	-	-	-	1,540
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	8,200
SP-35 @ 10'	10'	4/10/2018	In-Situ	-	-	-	-	-	-	-	-	-	4,300
SP-36 @ 1'	1'	4/11/2018	In-Situ	<0.050	0.062	<0.050	1.12	1.18	38.1	1,190	216	1,444	12,000
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	2,320
00.07.0.41	41	4/44/0040	1 0:	ı	ı	ı		<u> </u>	ı			<u> </u>	<b>5</b> 440
SP-37 @ 1'	1'	4/11/2018	In-Situ	-	-	-	-	-	-	-	-	-	5,440
SP-37 @ 10'	10'	4/11/2018	In-Situ	-	-	-	-	-	-	-	-	-	4,560
SP-38 @ 1'	1'	4/11/2018	In-Situ		I	l -	-	I -		_	_	-	8,800
SP-38 @ 10'	10'	4/11/2018	In-Situ	-	-		-						1,650
3F - 30 (@ 10	10	4/11/2010	III-Oitu	_	_	_	-	_	_	-		_	1,030
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	15,600
SP-39 @ 10'	10'	4/11/2018	In-Situ	-	-	-	-	-	-	-	-	-	7,000
													.,,,,,,
SP-40 @ 1'	1'	4/11/2018	In-Situ	-	-	-	-	-	-	-	-	-	2,160
SP-40 @ 10'	10'	4/11/2018	In-Situ	-	-	-	-	-	-	-	-	-	960

Page 3 of 5

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

					METHOD: EPA SW 846-8021B, 5030						METHOD: 8015M			
SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	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)	
NMOCD Recommended	Remediation	Action Levels	s (RRALs)	10	NE	NE	NE	50	NE	NE	NE	1,000	600	
SP-41 @ 1'	1'	4/12/2018	In-Situ	l	ı			1			ı		1,600	
SP-41@1 SP-41@5'	5'	4/12/2018	In-Situ	-	-	-	-	-	-	-	-	-	368	
SP-41@5	] 5	1 4/12/2018	เท-ธแน	-	-	-	-	-	-	-	-	-	308	
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	2,600	
SP-42 @ 6'	6'	4/12/2018	In-Situ	-0.000	-	-	-0.100	-	-	- 10.0	- 10.0	-	384	
01 42 @ 0		1 4/ 12/2010	III-Oltu			_	_			_		_	304	
SP-43 @ 1'	1'	4/12/2018	In-Situ	_		-	-	l -		_	l -	l -	2,520	
SP-43 @ 10'	10'	4/12/2018	In-Situ	-	-	-	-	-	-	-	-	-	3,120	
					•								,	
SP-44 @ 1'	1'	4/12/2018	In-Situ	-	-	-	-	-	-	-	-	-	2,280	
SP-44 @ 7'	7'	4/12/2018	In-Situ	-	-	-	-	-	-	-	-	-	304	
SP-45 @ 1'	1'	4/12/2018	In-Situ	-	-	-	-	-	-	-	-	-	864	
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	-	-	-	-	-	-	-	-	-	2,160	
SP-47 @ 10'	10'	4/13/2018	In-Situ	-	-	-	-		-	-	-	-	1,090	
CD 40 G 41	I 41	14/40/0040	I City	10.050	10.050	10.050	10.450	1 40 000	140.0	140.0	1400	140.0	0.000	
SP-48 @ 1'	1' 10'	4/13/2018	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	6,320	
SP-48 @ 10'	10	4/13/2018	In-Situ	-			-						5,200	
SP-49 @ 1'	1'	4/13/2018	In-Situ	T -	T -	_	_	l -		-	_		8,000	
SP-49 @ 10'	10'	4/13/2018	In-Situ	<del>-</del>	<del></del>		-	<del></del>		<del></del>			1,200	
51 40 W 10	10	1 -1/10/2010	III-Ollu					_	_		_	_	1,200	
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	7,360	
SP-50 @ 10'	10'	4/13/2018	In-Situ	-	-	-	-	-	-	-	-	-	3,160	
				<u> </u>		-		•						
SP-51 @ 1'	1'	4/13/2018	In-Situ	-	-	-	-	-	-	-	-	-	2,000	
SP-51 @ 10'	10'	4/13/2018	In-Situ	-	-	-	-	-	-	-	-	-	1,020	
SP-51 @ 1'	1'	4/13/2018	In-Situ	-		-			-		-	-	2,0	

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

				l N	METHOD: EF	PA SW 846-8	021B, 5030			METHO	D: 8015M		300
SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	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 $C_{28}$ - $C_{35}$ (mg/Kg)	TPH C <sub>6</sub> -C <sub>35</sub> (mg/Kg)	CHLORIDE (mg/Kg)
NMOCD Recommended	Remediation	Action Levels	s (RRALs)	10	NE	NE	NE	50	NE	NE	NE	1,000	600
SP-52 @ 1'	1'	4/13/2018	In-Situ	-	-	-	-	-	-	-	-	-	2,640
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	5,280
SP-53 @ 10'	10'	4/13/2018	In-Situ	-	-	-	-	-	-	-	-	-	784

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)



 $Dorstate \ SWD-Release \ Site \ (Looking \ West-Northwest)$ 



 $Dorstate \ SWD-Release \ Site \ (Looking \ West-Northwest)$ 

## NM OIL CONSERVATION

ARTESIA DISTRICT

District 1
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

AUG 2 9 2017

Form C-141 Revised April 3, 2017

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit 1 Copy to appropriate District Office in RECEIVEBroordance with 19.15.29 NMAC.

Release Notification and Corrective Action 148488 OPERATOR X Initial Report Final Report mike Contact mbrian Management. Anthony Midland, TXV 432-631-4398 Telephone No. Facility Name Facility Type Docstate SWO SWD Surface Owner Mineral Owner API No. 30-015-23728 LOCATION OF RELEASE East/West Line Unit Letter Range North/South Line Feet from the Section Township Feet from the 28 E H 27 255 1980 North 660 cast Latitude 32, 102 684 Longitude 104, 068565 NAD83 NATURE OF RELEASE Volume of Release 25 bbls Volume Recovered Type of Release Water, Produced Water Source of Release Date and Hour of Occurrence Date and Hour of Discovery 8-23-17 Was Immediate Notice Given? If YES, To Whom? 8:04 PM ☐ Yes 🛛 No ☐ Not Required By Whom? Date and Hour Was a Watercourse Reached? If YES, Volume Impacting the Watercourse. Yes No If a Watercourse was Impacted, Describe Fully.\* Describe Cause of Problem and Remedial Action Taken.\* Overflowing sumps due to truck drivers inattention and excess rainwater. We will get soil samples and Trinit, 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. OIL CONSERVATION DIVISION Signature: Approved by Environmental St Printed Name: Approval Date: Title: Regulatory Expiration Date:

Conditions of Approval

\* Attach Additional Sheets If Necessary

iones@cambrianmant

Phone: 430-600-9181

E-mail Address:

Date: 8-24-1



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 <a href="https://www.tceq.texas.gov/field/qa/lab-accred-certif.html">www.tceq.texas.gov/field/qa/lab-accred-certif.html</a>.

Cardinal Laboratories is accreditated 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)

Celey D. Keene

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



### 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

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## Analytical Results For:

TRINITY OILFIELD SERVICE P. O. BOX 2587 HOBBS NM, 88241	ES & RENTALS, LLC	Project: Project Number: Project Manager: Fax To:	BEN ARGUIJO	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

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### 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
			Cardina	al Laborat	ories					
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 %	72-1	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 %	41-1	142	8040603	MS	06-Apr-18	8015B	
Surrogate: 1-Chlorooctadecane			69.2 %	37.6-	-147	8040603	MS	06-Apr-18	8015B	
			Green Anal	ytical Lab	oratories					
Soluble (DI Water Extraction)										
Chloride	4030		100	mg/kg wet	100	B804052	JDA	06-Apr-18	EPA300.0	

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### 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
			Cardin	al Laborat	ories					
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)			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	
Surrogate: 1-Chlorooctane			82.4 %	41-	142	8040603	MS	06-Apr-18	8015B	
Surrogate: 1-Chlorooctadecane			72.1 %	37.6	-147	8040603	MS	06-Apr-18	8015B	
			Green Anal	ytical Lab	oratories					
Soluble (DI Water Extraction)										
Chloride	2120		100	mg/kg wet	100	B804052	JDA	06-Apr-18	EPA300.0	

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### 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
			Cardin	al Laborat	ories					
Volatile Organic Compounds b	y 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)			104 %	72-	148	8040505	MS	05-Apr-18	8021B	
Petroleum Hydrocarbons by G	C 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			83.6 %	41-	142	8040603	MS	06-Apr-18	8015B	
Surrogate: 1-Chlorooctadecane			75.0 %	37.6-	-147	8040603	MS	06-Apr-18	8015B	
			Green Anal	ytical Lab	oratories					
Soluble (DI Water Extraction)										
Chloride	1610		100	mg/kg wet	100	B804052	JDA	06-Apr-18	EPA300.0	

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### 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

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

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardin	al Laborat	ories					
Volatile Organic Compounds by 1	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 %	72-1	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 %	41-1	142	8040603	MS	06-Apr-18	8015B	
Surrogate: 1-Chlorooctadecane			74.4 %	37.6-	147	8040603	MS	06-Apr-18	8015B	
			Green Anal	ytical Labo	oratories					
Soluble (DI Water Extraction)										
Chloride	55.7		10.0	mg/kg wet	10	B804052	JDA	06-Apr-18	EPA300.0	

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### 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

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

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	l Laborat	ories					
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)	)		104 %	72	148	8040505	MS	05-Apr-18	8021B	
Petroleum Hydrocarbons by C	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			85.7 %	41	142	8040603	MS	06-Apr-18	8015B	
Surrogate: 1-Chlorooctadecane			76.2 %	<i>37.6</i> -	-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	

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### 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

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

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardin	al Laborat	ories					
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 Anal	ytical Lab	oratories					
Soluble (DI Water Extraction)										
Chloride	4740		100	mg/kg wet	100	B804052	JDA	06-Apr-18	EPA300.0	

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### 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

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

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	al Laborat	ories					
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 %	72-1	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 Anal	ytical Lab	oratories					
Soluble (DI Water Extraction)										
Chloride	1860		100	mg/kg wet	100	B804052	JDA	06-Apr-18	EPA300.0	

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### 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
			Cardina	al Laborat	ories					
Volatile Organic Compounds b	y 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 G	C 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 Anal	ytical Lab	oratories					
Soluble (DI Water Extraction)										
Chloride	850		50.0	mg/kg wet	50	B804052	JDA	06-Apr-18	EPA300.0	

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# 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
			Cardin	al Laborat	ories					
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	
Surrogate: 4-Bromofluorobenzene (PID)			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	
Surrogate: 1-Chlorooctane			86.8 %	41-	142	8040603	MS	07-Apr-18	8015B	
Surrogate: 1-Chlorooctadecane			70.2 %	37.6	-147	8040603	MS	07-Apr-18	8015B	
			Green Anal	ytical Lab	oratories					
Soluble (DI Water Extraction)										
Chloride	758		50.0	mg/kg wet	50	B804052	JDA	06-Apr-18	EPA300.0	

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# 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

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

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	al Laborat	ories					
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 Anal	ytical Lab	oratories					
Soluble (DI Water Extraction)										
Chloride	4800		100	mg/kg wet	100	B804052	JDA	06-Apr-18	EPA300.0	

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# 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

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

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	ıl Laborat	ories					
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)			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	
Surrogate: 1-Chlorooctane			87.3 %	41-	142	8040901	MS	10-Apr-18	8015B	
Surrogate: 1-Chlorooctadecane			86.6 %	37.6	-147	8040901	MS	10-Apr-18	8015B	
			Green Anal	ytical Lab	oratories					
Soluble (DI Water Extraction)										
Chloride	3900		100	mg/kg wet	100	B804052	JDA	06-Apr-18	EPA300.0	

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# 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

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

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardin	al Laborat	ories					
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 GO	C 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			80.9 %	41-	142	8040901	MS	10-Apr-18	8015B	
Surrogate: 1-Chlorooctadecane			77.8 %	37.6	-147	8040901	MS	10-Apr-18	8015B	
			Green Anal	ytical Lab	oratories					
Soluble (DI Water Extraction)										
Chloride	38.3		10.0	mg/kg wet	10	B804052	JDA	06-Apr-18	EPA300.0	

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# 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

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

Reporting Analyte Result MDL Limit Units Dilution Batch Analyst Analyzed Method	Notes	
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Analyte	Result	MDL	Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	l Laborat	ories					
Volatile Organic Compounds by	y 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 G	C 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			84.2 %	41-	142	8040901	MS	10-Apr-18	8015B	
Surrogate: 1-Chlorooctadecane			82.2 %	37.6	-147	8040901	MS	10-Apr-18	8015B	
			Green Analy	tical Lab	oratories					

Soluble (DI Water Extraction)								
Chloride	98.4	10.0	mg/kg wet	10	B804052	JDA	06-Apr-18	EPA300.0

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# 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

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

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	al Laborat	ories					
Volatile Organic Compounds by I	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)			104 %	72-1	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			88.6 %	41-1	142	8040901	MS	10-Apr-18	8015B	
Surrogate: 1-Chlorooctadecane			88.0 %	37.6-	.147	8040901	MS	10-Apr-18	8015B	
			Green Anal	ytical Lab	oratories					
Soluble (DI Water Extraction)										
Chloride	8070		200	mg/kg wet	200	B804052	JDA	07-Apr-18	EPA300.0	

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# 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
			Cardin	al Laborat	ories					
Volatile Organic Compounds by l	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)			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	
Surrogate: 1-Chlorooctane			85.9 %	41-	142	8040901	MS	10-Apr-18	8015B	
Surrogate: 1-Chlorooctadecane			84.3 %	37.6	-147	8040901	MS	10-Apr-18	8015B	
Calada (DI Water Fater dian)			Green Anal	ytical Lab	oratories					
Soluble (DI Water Extraction)	110		10.0	mg/kg wet	10	B804052	JDA	06-Apr-18	EPA300.0	
Chloride	119		10.0	mg/kg wet	10	D604032	JDA	00-Apr-18	EFA300.0	

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# 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

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

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	al Laborat	ories					
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			87.3 %	41-	142	8040901	MS	10-Apr-18	8015B	
Surrogate: 1-Chlorooctadecane			85.2 %	37.6-	147	8040901	MS	10-Apr-18	8015B	
			Green Anal	ytical Lab	oratories					
Soluble (DI Water Extraction)										
Chloride	35.6		10.0	mg/kg wet	10	B804052	JDA	06-Apr-18	EPA300.0	

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# 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
			Cardin	al Laborat	ories					
Volatile Organic Compounds b	y 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)			104 %	72-	148	8040505	MS	05-Apr-18	8021B	
Petroleum Hydrocarbons by G	C FID									
GRO C6-C10*	<10.0		10.0	mg/kg	1	8040901	MS	10-Apr-18	8015B	
DRO >C10-C28*	29.7		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			88.6 %	41-	142	8040901	MS	10-Apr-18	8015B	
Surrogate: 1-Chlorooctadecane			89.7 %	37.6-	.147	8040901	MS	10-Apr-18	8015B	
			Green Anal	ytical Lab	oratories					
Soluble (DI Water Extraction)										
Chloride	5040		100	mg/kg wet	100	B804052	JDA	06-Apr-18	EPA300.0	

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# 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
			Cardin	al Laborat	ories					
Volatile Organic Compounds b	y 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 G	C 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			79.0 %	41-	142	8040901	MS	10-Apr-18	8015B	
Surrogate: 1-Chlorooctadecane			75.2 %	37.6	-147	8040901	MS	10-Apr-18	8015B	
			Green Anal	ytical Lab	oratories					
Soluble (DI Water Extraction)										
Chloride	1450		50.0	mg/kg wet	50	B804052	JDA	06-Apr-18	EPA300.0	

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11-Apr-18 15:38



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# Analytical Results For:

TRINITY OILFIELD SERVICES & RENTALS, LLC

P. O. BOX 2587 HOBBS NM, 88241 Project: DORSTATE SWD

Project Number: NONE GIVEN

Fax To: NONE

Project Manager: BEN ARGUIJO

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

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	al Laborat	ories					
Volatile Organic Compounds l	oy 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 %	72-1	148	8040505	MS	05-Apr-18	8021B	
Petroleum Hydrocarbons by C	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 %	41-1	142	8040901	MS	10-Apr-18	8015B	
Surrogate: 1-Chlorooctadecane			95.0 %	37.6-	.147	8040901	MS	10-Apr-18	8015B	
			Green Anal	ytical Lab	oratories					
Soluble (DI Water Extraction)										
Chloride	2460		100	mg/kg wet	100	B804052	JDA	07-Apr-18	EPA300.0	

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# 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
			Cardina	al Laborat	ories					
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 %	72-1	48	8040505	MS	05-Apr-18	8021B	
Petroleum Hydrocarbons by GO	C 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			91.5 %	41-1	42	8040901	MS	10-Apr-18	8015B	
Surrogate: 1-Chlorooctadecane			98.9 %	37.6-	147	8040901	MS	10-Apr-18	8015B	
			Green Anal	ytical Lab	oratories					
Soluble (DI Water Extraction)										
Chloride	1180		50.0	mg/kg wet	50	B804052	JDA	07-Apr-18	EPA300.0	

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# 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

Reported: 11-Apr-18 15:38

Fax To: NONE

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

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardin	al Laborat	ories					
Volatile Organic Compounds by I	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 Anal	ytical Lab	oratories					
Soluble (DI Water Extraction)										
Chloride	2600		100	mg/kg wet	100	B804053	JDA	07-Apr-18	EPA300.0	

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# 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

11-Apr-18 15:38

Reported:

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

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardin	al Laborat	ories					
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	
Surrogate: 4-Bromofluorobenzene (PID)			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	
Surrogate: 1-Chlorooctane			91.2 %	41-	142	8040901	MS	10-Apr-18	8015B	
Surrogate: 1-Chlorooctadecane			98.6 %	37.6	-147	8040901	MS	10-Apr-18	8015B	
			Green Anal	ytical Lab	oratories					
Soluble (DI Water Extraction)										
Chloride	9180		200	mg/kg wet	200	B804053	JDA	07-Apr-18	EPA300.0	

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# 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

SP-15 @ 1'

H800935-23 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	al Laborat	ories					
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	
Surrogate: 4-Bromofluorobenzene (PID)			107 %	72-1	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*	37.0		10.0	mg/kg	1	8040901	MS	10-Apr-18	8015B	
EXT DRO >C28-C36	11.5		10.0	mg/kg	1	8040901	MS	10-Apr-18	8015B	
Surrogate: 1-Chlorooctane			96.4 %	41-1	142	8040901	MS	10-Apr-18	8015B	
Surrogate: 1-Chlorooctadecane			108 %	37.6-	-147	8040901	MS	10-Apr-18	8015B	
			Green Anal	ytical Lab	oratories					
Soluble (DI Water Extraction)										
Chloride	5240		200	mg/kg wet	200	B804053	JDA	07-Apr-18	EPA300.0	

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# 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

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

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardin	al Laborat	ories					
Volatile Organic Compounds b	y 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	
Surrogate: 4-Bromofluorobenzene (PID)			108 %	72-1	148	8040506	MS	05-Apr-18	8021B	
Petroleum Hydrocarbons by G	C 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			88.3 %	41-1	142	8040901	MS	10-Apr-18	8015B	
Surrogate: 1-Chlorooctadecane			95.7 %	37.6-	147	8040901	MS	10-Apr-18	8015B	
			Green Anal	ytical Labo	oratories					
Soluble (DI Water Extraction)										
Chloride	269		200	mg/kg wet	200	B804053	JDA	07-Apr-18	EPA300.0	

Cardinal Laboratories \*=Accredited Analyte

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11-Apr-18 15:38



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

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

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardin	al Laborat	ories					
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)			107 %	72-1	48	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			93.8 %	41-1	42	8040901	MS	10-Apr-18	8015B	
Surrogate: 1-Chlorooctadecane			96.2 %	37.6-	147	8040901	MS	10-Apr-18	8015B	
		G	reen Anal	lytical Labo	oratories					
Soluble (DI Water Extraction)										
Chloride	1710		200	mg/kg wet	200	B804053	JDA	07-Apr-18	EPA300.0	

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# 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
			Cardin	al Laborat	ories					
Volatile Organic Compounds by l	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)			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	
Surrogate: 1-Chlorooctane			93.8 %	41	142	8040901	MS	10-Apr-18	8015B	
Surrogate: 1-Chlorooctadecane			97.4 %	37.6	-147	8040901	MS	10-Apr-18	8015B	
			Green Anal	ytical Lab	oratories					
Soluble (DI Water Extraction)										
Chloride	3130		100	mg/kg wet	100	B804053	JDA	07-Apr-18	EPA300.0	

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# 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
			Cardin	al Laborat	ories					
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 Anal	ytical Lab	oratories					
Soluble (DI Water Extraction)										
Chloride	1150		200	mg/kg wet	200	B804053	JDA	07-Apr-18	EPA300.0	

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# 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

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

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardin	al Laborat	ories					
Volatile Organic Compounds by 1	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	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			86.5 %	41	142	8040901	MS	10-Apr-18	8015B	
Surrogate: 1-Chlorooctadecane			94.7 %	37.6	-147	8040901	MS	10-Apr-18	8015B	
			Green Anal	ytical Lab	oratories					
Soluble (DI Water Extraction)										
Chloride	31.0		10.0	mg/kg wet	10	B804053	JDA	07-Apr-18	EPA300.0	

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# 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

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

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	al Laborat	ories					
Volatile Organic Compounds by I	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 %	72-1	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			90.8 %	41-1	142	8040901	MS	10-Apr-18	8015B	
Surrogate: 1-Chlorooctadecane			98.9 %	37.6-	.147	8040901	MS	10-Apr-18	8015B	
			Green Anal	ytical Lab	oratories					
Soluble (DI Water Extraction)										
Chloride	< 50.0		50.0	mg/kg wet	50	B804053	JDA	07-Apr-18	EPA300.0	

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# 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

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

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardin	al Laborat	ories					
Volatile Organic Compounds by l	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 Anal	ytical Lab	oratories					
Soluble (DI Water Extraction)										
Chloride	16.0		10.0	mg/kg wet	10	B804053	JDA	07-Apr-18	EPA300.0	

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# 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

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

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
				al Laborat	ories					
Volatile Organic Compounds b	v FPA Method	8021								
Benzene*	<0.050	0021	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 G	C 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 Anal	ytical Lab	oratories					
Soluble (DI Water Extraction)										
Chloride	37.9		10.0	mg/kg wet	10	B804053	JDA	07-Apr-18	EPA300.0	

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# 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

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

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardin	al Laborat	ories					
Volatile Organic Compounds by I	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 Anal	ytical Lab	oratories					
Soluble (DI Water Extraction)										
Chloride	20.5		10.0	mg/kg wet	10	B804053	JDA	07-Apr-18	EPA300.0	

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# 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

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

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardin	al Laborat	ories					
Volatile Organic Compounds by I	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 %	72-1	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 %	41-1	142	8040902	MS	10-Apr-18	8015B	
Surrogate: 1-Chlorooctadecane			78.5 %	37.6-	.147	8040902	MS	10-Apr-18	8015B	
			Green Anal	ytical Lab	oratories					
Soluble (DI Water Extraction)										
Chloride	2390		200	mg/kg wet	200	B804053	JDA	07-Apr-18	EPA300.0	

Cardinal Laboratories \*=Accredited Analyte

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# Analytical Results For:

TRINITY OILFIELD SERVICES & RENTALS, LLC

P. O. BOX 2587 HOBBS NM, 88241 Project: DORSTATE SWD

Project: DORSTATE SW

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
			Cardin	al Laborat	ories					
Volatile Organic Compounds b	y 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 G	C 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 Anal	lytical Lab	oratories					
Soluble (DI Water Extraction)										
Chloride	292		10.0	mg/kg wet	10	B804053	JDA	07-Apr-18	EPA300.0	

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11-Apr-18 15:38



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

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

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	al Laborat	ories					
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)			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	
DRO >C10-C28*	35.7		10.0	mg/kg	1	8040902	MS	10-Apr-18	8015B	
EXT DRO >C28-C36	24.9		10.0	mg/kg	1	8040902	MS	10-Apr-18	8015B	
Surrogate: 1-Chlorooctane			91.9 %	41-	142	8040902	MS	10-Apr-18	8015B	
Surrogate: 1-Chlorooctadecane			94.9 %	37.6	-147	8040902	MS	10-Apr-18	8015B	
			Green Anal	ytical Lab	oratories					
Soluble (DI Water Extraction)										
Chloride	931		200	mg/kg wet	200	B804053	JDA	07-Apr-18	EPA300.0	

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# 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

Reported: 11-Apr-18 15:38

Fax To: NONE

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

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	al Laborat	ories					
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)			110 %	72-1	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			93.0 %	41-	142	8040902	MS	10-Apr-18	8015B	
Surrogate: 1-Chlorooctadecane			89.6 %	37.6-	-147	8040902	MS	10-Apr-18	8015B	
			Green Anal	ytical Lab	oratories					
Soluble (DI Water Extraction)										
Chloride	945		200	mg/kg wet	200	B804053	JDA	07-Apr-18	EPA300.0	

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# 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**

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 8040505 - Volatiles										
Blank (8040505-BLK1)				Prepared &	Analyzed:	05-Apr-18	l			
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			
LCS (8040505-BS1)				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			
LCS Dup (8040505-BSD1)				Prepared &	Analyzed:	05-Apr-18	1			
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			
Batch 8040506 - Volatiles										
Blank (8040506-BLK1)				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)	0.107		mg/kg	0.100		107	72-148			

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# 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**

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

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# 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**

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 8040603 - General Prep - Organics										

Blank (8040603-BLK1)				Prepared & Ana	lyzed: 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	
LCS (8040603-BS1)				Prepared & Ana	lyzed: 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			
LCS Dup (8040603-BSD1)				Prepared & Ana	alyzed: 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

Blank (8040901-BLK1)				Prepared: 09-Apr	-18 Analyzed: 1	0-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	

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# 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										
LCS (8040901-BS1)				Prepared: (	09-Apr-18 A	nalyzed: 1	0-Apr-18			
GRO C6-C10	216	10.0	mg/kg	200		108	76.5-133			
ORO >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			
LCS Dup (8040901-BSD1)				Prepared: (	)9-Apr-18 A	nalyzed: 1	0-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			
surroguie. 1-Chioroociune	70.1									
Surrogate: 1-Chlorooctadecane	46.9		mg/kg	50.0		93.7	37.6-147			
			mg/kg	50.0		93.7	37.6-147			
Surrogate: 1-Chlorooctadecane			mg/kg		09-Apr-18 <i>A</i>					
Surrogate: 1-Chlorooctadecane  Batch 8040902 - General Prep - Organics		10.0	mg/kg		09-Apr-18 A					
Surrogate: 1-Chlorooctadecane  Batch 8040902 - General Prep - Organics Blank (8040902-BLK1)	46.9	10.0 10.0			09-Apr-18 <i>A</i>					
Surrogate: 1-Chlorooctadecane  Batch 8040902 - General Prep - Organics  Blank (8040902-BLK1)  GRO C6-C10	46.9 ND		mg/kg		99-Apr-18 A					
Surrogate: 1-Chlorooctadecane  Batch 8040902 - General Prep - Organics  Blank (8040902-BLK1)  GRO C6-C10  DRO >C10-C28	A6.9 ND ND	10.0	mg/kg mg/kg		09-Apr-18 A					
Batch 8040902 - General Prep - Organics Blank (8040902-BLK1) GRO C6-C10 DRO >C10-C28 EXT DRO >C28-C35	ND ND ND	10.0 10.0	mg/kg mg/kg mg/kg		09-Apr-18 A					
Batch 8040902 - General Prep - Organics Blank (8040902-BLK1) GRO C6-C10 DRO >C10-C28 EXT DRO >C28-C35 EXT DRO >C28-C36	ND ND ND ND ND	10.0 10.0 10.0	mg/kg mg/kg mg/kg mg/kg		09-Apr-18 A					
Surrogate: 1-Chlorooctadecane  Batch 8040902 - General Prep - Organics  Blank (8040902-BLK1)  GRO C6-C10  DRO >C10-C28  EXT DRO >C28-C35  EXT DRO >C28-C36  Total TPH C6-C28	ND ND ND ND ND ND	10.0 10.0 10.0	mg/kg mg/kg mg/kg mg/kg mg/kg	Prepared: (	09-Apr-18 A	analyzed: 1	0-Apr-18			
Surrogate: 1-Chlorooctadecane  Batch 8040902 - General Prep - Organics  Blank (8040902-BLK1)  GRO C6-C10  DRO >C10-C28  EXT DRO >C28-C35  EXT DRO >C28-C36  Gotal TPH C6-C28  Surrogate: 1-Chlorooctane	ND 46.0	10.0 10.0 10.0	mg/kg mg/kg mg/kg mg/kg mg/kg	Prepared: (0.50.0.50.0.50.0.0.50.0.0.50.0.0.50.	09-Apr-18 A	92.0 85.1	0-Apr-18  41-142 37.6-147			
Surrogate: 1-Chlorooctadecane  Batch 8040902 - General Prep - Organics  Blank (8040902-BLK1)  GRO C6-C10  DRO >C10-C28  EXT DRO >C28-C35  EXT DRO >C28-C36  Total TPH C6-C28  Surrogate: 1-Chlorooctane  Surrogate: 1-Chlorooctadecane	ND 46.0	10.0 10.0 10.0	mg/kg mg/kg mg/kg mg/kg mg/kg	Prepared: (0.50.0.50.0.50.0.0.50.0.0.50.0.0.50.	•	92.0 85.1	0-Apr-18  41-142 37.6-147			
Surrogate: 1-Chlorooctadecane  Batch 8040902 - General Prep - Organics  Blank (8040902-BLK1)  GRO C6-C10  DRO >C10-C28  EXT DRO >C28-C35  EXT DRO >C28-C36  Total TPH C6-C28  Surrogate: 1-Chlorooctane  Surrogate: 1-Chlorooctadecane  LCS (8040902-BS1)	ND ND ND ND ND 46.0 42.6	10.0 10.0 10.0 10.0	mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	Prepared: (0 50.0 50.0 Prepared: (1 0 50.0 50.0 50.0 Prepared: (1 0 50.0 50.0 50.0 Frepared: (1 0 50.0 50.0 50.0 Frepared: (1 0 50.0 50.0 50.0 50.0 50.0 50.0 Frepared: (1 0 50.0 50.0 50.0 50.0 50.0 50.0 50.0 5	•	92.0 85.1 analyzed: 1	0-Apr-18  41-142 37.6-147 0-Apr-18			
Batch 8040902 - General Prep - Organics Blank (8040902-BLK1) GRO C6-C10 DRO >C10-C28 EXT DRO >C28-C35 EXT DRO >C28-C36 Gotal TPH C6-C28 Surrogate: 1-Chlorooctane Surrogate: 1-Chlorooctane LCS (8040902-BS1) GRO C6-C10	ND ND ND ND ND ND 46.0 42.6	10.0 10.0 10.0 10.0	mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	50.0 50.0 50.0 Prepared: (	•	92.0 85.1 analyzed: 1	0-Apr-18  41-142 37.6-147  0-Apr-18 76.5-133			
Surrogate: 1-Chlorooctadecane  Batch 8040902 - General Prep - Organics  Blank (8040902-BLK1)  GRO C6-C10  DRO >C10-C28  EXT DRO >C28-C35  EXT DRO >C28-C36  Gotal TPH C6-C28  Surrogate: 1-Chlorooctane  Surrogate: 1-Chlorooctadecane  LCS (8040902-BS1)  GRO C6-C10  DRO >C10-C28	ND ND ND ND ND ND 46.0 42.6	10.0 10.0 10.0 10.0 10.0	mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	50.0 50.0 50.0 Prepared: 0 200 200	•	92.0 85.1 analyzed: 1 106 89.1	0-Apr-18  41-142 37.6-147  0-Apr-18  76.5-133 72.9-138			

# Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager

Page 43 of 50



%REC

Limits

41-142

37.6-147

RPD

# Analytical Results For:

TRINITY OILFIELD SERVICES & RENTALS, LLC

P. O. BOX 2587 HOBBS NM, 88241

Analyte

Surrogate: 1-Chlorooctane

Surrogate: 1-Chlorooctadecane

Project: DORSTATE SWD

Spike

Level

50.0

50.0

Source

Result

%REC

94.2

99.7

Project Number: NONE GIVEN Project Manager: BEN ARGUIJO

Fax To: NONE

Reported:

11-Apr-18 15:38

**RPD** 

Limit

Notes

# Petroleum Hydrocarbons by GC FID - Quality Control

## **Cardinal Laboratories**

Units

Reporting

Limit

Result

47 1

49.8

Batch 8040902 - General Prep - Organics								
LCS Dup (8040902-BSD1)				Prepared: 09-A	pr-18 Analyzed: 1	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

mg/kg

mg/kg

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Celey D. Keene, Lab Director/Quality Manager

Page 44 of 50



# 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**

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch B804052 - General Prep - Wet Chem										
Blank (B804052-BLK1)				Prepared &	k 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 &	k 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	

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## **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

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Celey D. Keene, Lab Director/Quality Manager

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Revision I.0

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 1 of 4

ARDINAL LABORATORIES

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

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Company Name:	Trinity Oilfield Services & Rentals, LLC	als, L	5					300	88	₩	×	B//	11. 10				A	ANALYSIS REQUES	SIS	RE	QUE	TS	
Project Manager:	Ben J. Arguijo							7	P.O. #:	#	"							4	4	-	-	$\exists$	
Address: P.O. Box 2587	: 2587							~	Compan	ᆲ	an		Trinity					_	_	-	_	_	
City: Hobbs	State: NM Zip: 88241	Zip		88241				_	Attn:	3								_	_	-	_		
Phone #: (575)390-7208	-7208 Fax#:							_	Address	dre	SS							_	_	_			
Project #:	Project Owner:	ner:	0	Cambrian	5				City:						)	)		_	_	-	_		
Project Name: Don	Dorstate SWD							10	State:	te:	5 6		Zip:	5M)	21B	300			_			-	
Project Location:	Eddy Co., NM							-	Phone #:	on I	#			801	(80:	de (			_	-	_		
Sampler Name: Tristan Payne	tan Payne							-	Fax#	#				PH (	EX	lori			_	-	_		
FOR LAB USE ONLY					3	MATRIX	×		70	Ř	SE	PRESERV	SAMPLING	TF	вт	Ch		_	_	-	_		
Lab I.D. ∦800936	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER WASTEWATER	SOIL	OIL	SLUDGE	OTHER:		ACID/BASE;	ICE / COOL	OTHER:	DATE TIME										
1	SP-1 @ 1'	G	-		×						×		3/29/18 1000	×	×	×		Ц	_	Н	L		
2	SP-1 @ 5'	G	-		×				_		×		3/29/18 1200	×	×	×			_	_			
3	SP-1@9'	G	_		×	-		-			×		3/29/18 1450	×	×	×				-			
4	SP-2 @ 1'	G	1	_	×	-					×		3/29/18 1300	×	×	×			_				-

analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business intemptions, less of use, or loss of profits incurred by client, its subsidiaries, PLEASE NOTE: Liability and Damages, Cardinal's liability and client's ex-

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SP-4 @ 3" SP-4@1"

FORM-006 Relinquished By: Sampler - UPS - Bus - Other: 5.2% Relinquished By: Delivered By: (Circle One) がい Time: Time: 4: 30p. Date: 4.4. Date: † Cardinal cannot accept yerbal changes. Please fax written changes to 575-393-2476 251.0 Received By: Beceived By: Sample Condition Cool Intact Pres Pres CHECKED BY: Please e-mail results to ben@trinityoilfieldservices.com & todd@trinityoilfieldservices.com

Released to Imaging: 7/29/2021 3:19:33 PM

Page 47 of 50

Page 48 of 50

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 2 of 4

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

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Address: P.O. Box 2587	(2587					- 1				o 1:	Compa	8 1	Compan	7 H	-1	Trinity													
City: Hobbs	State: NM	Zip:		88241	12		- 1	- 1		D	Attn:	= F		- 1	- 1														
Phone #: (575)390-7208	-7208 Fax#:									D	6	6	Address	7								_							
Project #:	Project Owner:	ner:	0	Cambrian	oria	5	- 1			0	City:	. 1							)	,	65_	_			_				
Project Name: Dors	Dorstate SWD		-	-	- 1	- 1		- 1		S	State:	0			N	Zip:		5M)	21B	300	101.7	_							
ă.	Eddy Co., NM									ס ו	5	2	Phone #:	"				301	(80:	do (		_							
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Sampler Name: Tristan Payne	an Payne									TI	Fax #	#		ı	1		L	PH	TE:	ılo	255	_							_
FOR LABUSE ONLY		$\exists$		П	1	3	MATRIX		1	1 1	10	굒	SS	PRESERV	5	SAMPLING	ING	TF	вт	Ch	-	_							
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	******************	OIL	SLUDGE	OTHER:	ACID/BASE:	********************	ICE / COOL	OTHER:	OTTICIT.	DATE	TIME				_							11	Ц
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14	SP-8 @ 1"	6	4		-		×						×		-	4/3/18	0900	×	×		**								
15	SP-9 @ 1'	G			-		×						×	1		4/3/18	0910	×	×		^`	_							
16	SP-10@1'	G	_			_	×			-			×			4/3/18	0915	×	×		0								
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191	SP-12 @ 3'	G	_				×			-			×			4/3/18	1010	×	×		^		1						
26	SP-12 @ 5'	G					×						×	*****		4/3/18	1020	×	×	-	_	_							
PLEASE NOTE: Liability and D analyses. All claims including it service. In no event shall Cardi	PLEASE NOTE: Liability and Damages. Cardinal's liability and clicus's exclusive remedy for any claim arising whether based in contract or sort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligance and any other cause whetever shall be deemed waived unless made in whiting and received by Cardinal within 30 days after completion of the applicable service. In no event shall Contribute be table for incidental or consequent damages, including without limitation, business interruptions, loss of use, or softlis incured by client, instances a subsidiaries, afficient in the contribution of an account of services and a state of the contribution of the applicable services.	remody I discever images.	TO HE SE	2 8 G	100	of the state of	when the second	ther ther	D D D	1000	35 00	in in in	B de de	1699	a sa a	Il be limited to received by C oss of use, or	o the amount paid by the Cardinal within 30 days or loss of profits incurred amount the above state.	d by the	o client ys after nd by c	or the comple lent, its	efion of subsidi	the ap	plicable						
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	TIME:																Ъ	lease	6-H	ailr	Sults	to b	ena	Ti.	ityo	ilfie		ldse	Please e-mail results to ben@trinityoilfieldservices.com &
Delivered By: (Circle One)	Sircle One)		- 1	-	200	Sample Condition	18	S	ĕ	=	3		윈	m	Ä	CHECKED BY:				to	id@	Tinit	Voil	ield	SCITY	ices		COL	todd@trinityoilfieldservices.com

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Revision 1.0 FORM-006

Sampler - UPS - Bus - Other: 5.20

21.20

Sample Condition Cool Intact Pres Pres

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### ARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

10	(575) 393-2326 FAX (575) 393-2476		Page 3 of 4
Company Name:	Trinity Oilfield Services & Rentals, LLC	BILL 70	ANALYSIS REQUEST
Project Manager: Ben J. Arguijo	Ben J. Arguijo	P.O. #:	
Address: P.O. Box 2587	x 2587	Compan' Trinity	
City: Hobbs	State: NM Zip: 88241	Attn:	
Phone #: (575)390-7208	0-7208 Fax#:	Address	

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××		-1							SCHOOL SALES		Project Owner:	Fax #:	State: NM			
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4/3/18	4/3/18	4/3/18	4/3/18	4/3/18	4/3/18	DATE	SAMPLING			Zip:				Trinity		
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Relinquished By: Relinquished By: Sampler - UPS - Bus - Other: 5.20 Delivered By: (Circle One) #75 Time: Time: 1/:30 Date: 15.150 Received By: Cool Intract Sample Condition CHECKED BY: 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

Revision 1.0 FORM-006

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Time:

Received By:

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# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 4 of 4

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

ARDINAL LABORATORIES

Company Name:	Trinity Oilfield Services & Rentals, LLC	als, I	티	1					88	₩	×	B	BILL TO					ANALYSIS REQUEST
Project Manager:	Ben J. Arguijo								P	P.O.	#							
Address: P.O. Box 2587	x 2587								O	Compan'	par	-	Trinity					
City: Hobbs	State: NM	Zip:		88	88241				A I	Attn:								
Phone #: (575)390-7208	0-7208 Fax#:								A	Address	ess	97						
Project #:	Project Owner:	ner:		an	Cambrian	5			C	City:	1.0					)	)	
Project Name: Do	Dorstate SWD								co.	State:	•		Zip:		5M)	21B	300	
Project Location:	Eddy Co., NM								ם	Phone #:	ē	77		1	801	(80	de (	
Sampler Name: Tristan Payne	stan Payne								T	Fax #	**				H (	EX	lori	
FOR LAB USE ONLY		$\dashv$	$\dashv$	-		MA	MATRIX	×		뮤	ES	PRESERV	SAMPLING		TF	вт	Ch	
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS		GROUNDWATER WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME				
15	SP-23 @ 1'	6	6)	_		×			_		×		4/3/18	1130	×	×	×	
22	SP-24 @ I'	G	67	-		×					×	-	4/3/18	1135	×	×	×	
55	SP-25 @ 1'	G		-		×				, U	×		4/3/18	1140	×	×	×	
165	SP-26 @ I'	G	6)			×					×		4/3/18	1150	×	×	×	
35	SP-27 @ 1'	G	6)	-,	_	×					×	-	4/3/18	1155	×	×	×	
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Released to Imaging: 7/29/2021 3:19:33 PM

Revision 1.0 FORM-006

Sampler - UPS - Bus - Other: 5.22

Sample Condition Cool Intact C

(Initials)

Please e-mail results to ben@trinityoilfieldservices.com & todd@trinityoilfieldservices.com

Delivered By: (Circle One)



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 <a href="https://www.tceq.texas.gov/field/qa/lab">www.tceq.texas.gov/field/qa/lab</a> accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/qa/lab">www.tceq.texas.gov/field/qa/lab</a> accredited certif.html.

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

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

Accreditation applies to public drinking water matrices.

Celey D. Keine

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

Qualifier



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: Sampling Type: 04/09/2018

Soil

Reported:

Chloride, SM4500Cl-B

04/30/2018 DORSTATE SWD

Sampling Condition:

Cool & Intact

Project Name: Project Number:

NONE GIVEN

mg/kg

Sample Received By:

Jodi Henson

Project Location:

PERMIAN WATER SOLUTIONS - EDDY CO

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

Chloride, SM4500CI-B	mg,	/kg	Analyze	ed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1310	16.0	04/25/2018	ND	432	108	400	3.77	
Sample ID: SP- 29 @ 8' (H80	)1094-02)								

Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	
Chloride	336	16.0	04/25/2018	ND	432	108	400	3.77	

### TD. CD 20 @ 41/H004004 021

BTEX 8021B	mg/	'ka	Analyze	d By: MS					
	51	5							
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 9	% 72-148							
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1490	16.0	04/25/2018	ND	432	108	400	3.77	
TPH 8015M	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier

\*=Accredited Analyte Cardinal Laboratories

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Celeg D. Keene

Celey D. Keene, Lab Director/Quality Manager



### 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	Analyze	d 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	82.7	% 41-142	?						
Surrogate: 1-Chlorooctadecane	74.7	% 37.6-14	7						

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

Chloride, SM4500Cl-B	mg,	'kg	Analyze	ed 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: SD- 21 @ 1'/	U001004_0E\								

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

Chloride, SM4500CI-B	mg,	/kg	Analyze	d 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	Analyze	d 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

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

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### 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

Analyzed By: AC

Project Location: PERMIAN WATER SOLUTIONS - EDDY CC

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

Chloride, SM4500Cl-B

Cilioride, SM4500CI-B	ilig	/ kg	Allalyze	u 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' (F		3) /kg	Analyze	d 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	Quamici
Sample ID: SP- 33 @ 1' (H8 Chloride, SM4500Cl-B	•	/kg	Analyze	d 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' (F		<b>))</b> /kg	Analyze	d 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	Quae.
Sample ID: SP- 34 @ 1' (H8	301094-11)								
Chloride, SM4500Cl-B	•	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager



### 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 SWDSampling Condition:Cool & IntactProject Number:NONE GIVENSample Received By:Jodi Henson

Project Location: PERMIAN WATER SOLUTIONS - EDDY CC

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

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

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### Analytical Results For:

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

Received: 04/19/2018 Reported: 04/30/2018

DORSTATE SWD

Project Name: Project Number: NONE GIVEN

Project Location: PERMIAN WATER SOLUTIONS - EDDY CO Sampling Date: 04/10/2018

Sampling Type: Soil

Sampling Condition: Cool & Intact Sample Received By: Jodi Henson

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

BTEX 8021B	mg/	kg	Analyze	d 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, SM4500CI-B	mg/	kg	Analyze	d 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	Analyze	d 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	% 37.6-14	7						

Surrogate: 1-Chlorooctadecane

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Celeg D. Kreene

Celey D. Keene, Lab Director/Quality Manager

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### 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 SWDSampling Condition:Cool & IntactProject Number:NONE GIVENSample Received By:Jodi Henson

Project Location: PERMIAN WATER SOLUTIONS - EDDY CC

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

Chloride, SM4500CI-B	mg,	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4300	16.0	04/25/2018	ND	432	108	400	3.77	

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Celey D. Keens

Celey D. Keene, Lab Director/Quality Manager

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### Analytical Results For:

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

Received: Sampling Date: 04/11/2018 04/19/2018

Reported: Sampling Type: 04/30/2018 Soil

Project Name: DORSTATE SWD Sampling Condition: Cool & Intact Project Number: NONE GIVEN Sample Received By: Jodi Henson

PERMIAN WATER SOLUTIONS - EDDY CO Project Location:

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

BTEX 8021B	mg/	mg/kg Analyzed By: MS		d 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*	0.062	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*	1.12	0.150	04/23/2018	ND	6.32	105	6.00	4.60	
Total BTEX	1.18	0.300	04/23/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	139 9	% 72-148	}						
Chloride, SM4500CI-B	mg/	kg	Analyze	ed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	12000	16.0	04/25/2018	ND	432	108	400	3.77	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	38.1	10.0	04/23/2018	ND	213	107	200	0.870	
DRO >C10-C28*	1190	10.0	04/23/2018	ND	209	104	200	2.13	
EXT DRO >C28-C36	216	10.0	04/23/2018	ND					
Surrogate: 1-Chlorooctane	88.3	% 41-142	?						
Surrogate: 1-Chlorooctadecane	104 9	% 37.6-14	7						

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Celeg D. Kreene

Celey D. Keene, Lab Director/Quality Manager

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### Analytical Results For:

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

Received: Sampling Date: 04/11/2018 04/19/2018

Reported: Sampling Type: 04/30/2018 Soil

Project Name: DORSTATE SWD Sampling Condition: Cool & Intact NONE GIVEN Project Number: Sample Received By: Jodi Henson

Project Location: PERMIAN WATER SOLUTIONS - EDDY CO

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

BTEX 8021B	mg/	/kg	Analyze	d 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, SM4500CI-B	mg/	/kg	Analyze	d By: AC					
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	Analyze	d 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	% 37.6-14	7						

\*=Accredited Analyte Cardinal Laboratories

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Celeg D. Keene

Celey D. Keene, Lab Director/Quality Manager

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### 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 SWDSampling Condition:Cool & IntactProject Number:NONE GIVENSample Received By:Jodi Henson

Analyzed By: AC

Project Location: PERMIAN WATER SOLUTIONS - EDDY CC

mg/kg

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

Chloride, SM4500Cl-B

<u> </u>			•	•					
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	•	-							
Chloride, SM4500CI-B	mg	/kg	Analyze	d 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	Analyze	d 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, SM4500Cl-B	mg,	/kg	Analyze	d 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	

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Celey D. Keene, Lab Director/Quality Manager

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### Analytical Results For:

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

Received: 04/19/2018 Reported: 04/30/2018

DORSTATE SWD

Project Number: NONE GIVEN

Project Location: PERMIAN WATER SOLUTIONS - EDDY CC

Sampling Date: 04/11/2018

Sampling Type: Soil

Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

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

Project Name:

BTEX 8021B	mg/	/kg	Analyze	d 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, SM4500CI-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	Analyze	ed 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	% 37.6-14	7						

Cardinal Laboratories \*=Accredited Analyte

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

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04/11/2018

Soil

### Analytical Results For:

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

Fax To: NONE

Received: 04/19/2018 Reported: 04/30/2018

 04/19/2018
 Sampling Date:

 04/30/2018
 Sampling Type:

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- 39 @ 10' (H801094-22)

Chloride, SM4500Cl-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' (H	801094-23)								
Chloride, SM4500CI-B	mg,	/kg	Analyze	d 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 mg,	-	Analyze	d 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' (H Chloride, SM4500Cl-B	801094-25) mg,		Analyze	d 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	<b>Q</b>
Sample ID: SP- 41 @ 5' (H Chloride, SM4500Cl-B	801094-26) mg,		Analyze	d 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	

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager



### Analytical Results For:

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

Received: Sampling Date: 04/12/2018 04/19/2018 Reported: Sampling Type: 04/30/2018 Soil

Project Name: DORSTATE SWD Sampling Condition: Cool & Intact Project Number: NONE GIVEN Sample Received By: Jodi Henson

PERMIAN WATER SOLUTIONS - EDDY CO Project Location:

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

BTEX 8021B	mg/	kg	Analyze	d 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, 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	04/25/2018	ND	432	108	400	3.77	
TPH 8015M	mg/	kg	Analyze	d 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	1						
Surrogate: 1-Chlorooctadecane	81.7	% 37.6-14	7						

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Celey D. Keene, Lab Director/Quality Manager

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### 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 CC

### 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' (H8	801094-29)								
Chloride, SM4500Cl-B	mg	/kg	Analyze	d 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' (F	1801094-30 mg,	•	Analyze	d 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' (Ha	8 <b>01094-31)</b> mg,		Analyze	d 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' (Ha	8 <b>01094-32)</b> mg,		Analyze	d 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	

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Celey D. Keens

Celey D. Keene, Lab Director/Quality Manager



### 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 CC

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

Chloride, SM4500Cl-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' (I	H801094-34)								
Chloride, SM4500CI-B	mg/	kg	Analyze	d 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' (I	<b>1801094-35)</b> mg/	ka	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	04/25/2018	ND ND	416	104	400	3.77	Qualifici
Sample ID: SP- 47 @ 1' (I	-								
Chloride, SM4500Cl-B	mg/	kg	Analyze	d 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	Analyze	d 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	

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Celeg D. Keene

Celey D. Keene, Lab Director/Quality Manager



### Analytical Results For:

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

Received: 04/19/2018 Reported: 04/30/2018

Project Name: DORSTATE SWD Project Number: NONE GIVEN

Project Location: PERMIAN WATER SOLUTIONS - EDDY CO Sampling Date: 04/13/2018

Sampling Type: Soil

Sampling Condition: Cool & Intact Sample Received By: Jodi Henson

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

BTEX 8021B	mg/	kg	Analyze	d 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, SM4500CI-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	Analyze	d 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	% 37.6-14	7						

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Celey D. Keene, Lab Director/Quality Manager

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### 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 SWDSampling Condition:Cool & IntactProject Number:NONE GIVENSample Received By:Jodi Henson

Project Location: PERMIAN WATER SOLUTIONS - EDDY CC

mg/kg

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

Chloride, SM4500Cl-B

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

Analyzed By: AC

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

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

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### Analytical Results For:

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

Received: Sampling Date: 04/13/2018 04/19/2018

Reported: Sampling Type: 04/30/2018 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	Analyze	d 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, SM4500CI-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	7360	16.0	04/25/2018	ND	416	104	400	3.77	
TPH 8015M	mg,	/kg	Analyze	d 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*	67.8	10.0	04/23/2018	ND	209	104	200	2.13	
EXT DRO >C28-C36	58.0	10.0	04/23/2018	ND					
Surrogate: 1-Chlorooctane	67.6	% 41-142	,						
Surrogate: 1-Chlorooctadecane	64.5	% 37.6-14	7						

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Celey D. Keene, Lab Director/Quality Manager

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### 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 SWDSampling Condition:Cool & IntactProject Number:NONE GIVENSample Received By:Jodi Henson

Project Location: PERMIAN WATER SOLUTIONS - EDDY CC

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

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d 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' (H	I801094-44)								
Chloride, SM4500CI-B	mg	/kg	Analyze	d 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' ( Chloride, SM4500Cl-B	H801094-45	-	Analyze	d 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' (H	-		Aughan	d Pour AC					
Chloride, SM4500CI-B	mg,			d 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	<b>'</b> )							
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d 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	

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager



### Analytical Results For:

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

Received: Sampling Date: 04/13/2018 04/19/2018

Reported: Sampling Type: 04/30/2018 Soil

Project Name: DORSTATE SWD Sampling Condition: Cool & Intact Project Number: NONE GIVEN Sample Received By: Jodi Henson

PERMIAN WATER SOLUTIONS - EDDY CO Project Location:

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

BTEX 8021B	mg/	kg	Analyze	d 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, SM4500CI-B	mg/	kg	Analyze	ed 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	Analyze	d 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	% 37.6-14	7						

\*=Accredited Analyte Cardinal Laboratories

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 whistoever 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 subcidaries, 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 approved of Cardinal Laboratories.

Celeg D. Keene

Celey D. Keene, Lab Director/Quality Manager

Page 20 of 27



### 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 SWDSampling Condition:Cool & IntactProject Number:NONE GIVENSample Received By:Jodi Henson

Project Location: PERMIAN WATER SOLUTIONS - EDDY CC

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

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

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Celey D. Keene, Lab Director/Quality Manager

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### **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. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
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

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Celey D. Keene, Lab Director/Quality Manager

Page 22 of 27

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Sampler - UPS - Bus - Other:

1.05%

Cool Intage

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

Delivered By: (Circle One)#75

Time:

Received By:

Phone Result: Yes No Add'l Phone #:
Fax Result: Yes No Add'l Fax #:
REMARKS:

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

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Company Name:	Trinity Oilfield Services & Kentais, LLC	ntais, L	18		L			Ļ	8	В	į,	E	DIT. 10		ı	1	1	ł	12	AL COLO		10000	1	1	1
Project Manager:	Ben J. Arguijo								P.O. #:	#	"										_	_			
Address: P.O. Box 2587	x 2587								Compan	E E	an		Trinity					-				_	_		
City: Hobbs	State: N	NM Zip:		8824	-				Attn:	2							D				_	_	_		
Phone #: (575)390-7208	0-7208 Fax#:								Address	dre	SS						50					_	-		
Project #:	Project Owner:	wner:	7	Permian Water Solutions	Wate	Sol	ution	-	City:	*					)	3)							_		
Project Name: Do	Dorstate SWD								State:	6			Zip:		5M	21E	(300				_		_		
Project Location:	Eddy, NM								Phone #:	5	#				801	(80						_	_		
Sampler Name: Tristan Payne	stan Payne								Fax #	*					РΗ	EX	_				_	_	_		
FORTARDS ONLY		$\exists$		╗		MATRIX	RIX		_	PRESERV	SE	RV	SAMPLING	LING	TI	в	_	_	_		_		_		
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME											
-	SP-29 @ 1'	G	4			×					×		4/9/18	0930		T	×	f	H		L	+	+	+	+
2	SP-29 @ 8"	6	-			×					×		4/9/18	1105		$\vdash$		×	H		L	H	+	-	1
3	SP-30 @ 1'	G	-			×					×	-	4/9/18	1120	×	×	×	r	t		_	H	+	+	t
4	SP-30 @ 6'	G	_			×					×	-	4/9/18	1145		-		×	t			-	+	+	+
S	SP-31 @ I'	g G	_			×					×	1	4/9/18	1300		1		×	H		-	-	+	-	+
0	SP-31@10'	G	-4			×					×	-	4/10/18	1030		$\vdash$		×	t		L	+	+	+	+
7	SP-32 @ 1"	G	-4			×					×		4/10/18	1115	Г			×	H		L	-	+	t	+
cA.	SP-32 @ 10'	G	0			×					×		4/10/18	1155	Г	-	L	×	H		-		-	+	+
Ą	SP-33 @ I'	G	G			×					×		4/10/18	1300		H		×	H		-	-	+	-	+
5	SP-33 @ 10'	G	_		-	×					×		4/10/18	1350			_	×	H		L	L	H	-	H

Page 23 of 27

Page 1 of 5

Please e-mail results to ben@trinityoilfieldservices.com & todd@trinityoilfieldservices.com

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Sampler - UPS - Bus - Other: Delivered By: (Circle One)

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doed as per lan. 4/26/18C

todd@trinityoilfieldservices.com

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

ARDINAL LABORATORIES
101 East Marland, Hobbs, NM 88240

12	Relinquished By:	PLEASE, NOTE: Library and analyses. All claims: including service. In no event shall Car	W	PI	4	71	16	15	14	13	121		Lab I.D.   1801094	FOR LABLISE ONLY	Sampler Name: Tristan Payne	Project Location:	Project Name: Do	Project #:	Phone #: (575)39	City: Hobbs	Address: P.O. Box 2587	Project Manager:	Company Name:
Tire: 12	Printing	TLANK NVIET. Lucioni, an unimpo. The second of the course whatever shall be deemed waved usess made in writing and received by Cardinal within 30 days other course whatever shall be deemed waved usess made in writing and received by Cardinal within 30 days other course whatever shall be deemed waved usess made in writing and received by Cardinal within 30 days of the course of	SP-38 @ 10'	SP-38 @ 1"	SP-37 @ 10'	SP-37 @ I'	SP-36@10'	SP-36 @ I'	SP-35 @ 10'	SP-35@1"	SP-34 @ 10'	SP-34 @ 1"	Sample I.D.		istan Payne	Eddy, NM	Dorstate SWD	Project Owner:	(575)390-7208 Fax #:	State: NM	ж 2587	Ben J. Arguijo	Trinity Oilfield Services & Rentals, LLC
n du	Ā	hatsoever damages.	6	G	G	G	6	G	G	G	G	G	(G)RAB OR (C)OMP.	$\dashv$				wner:		M Zip:			itals, LI
1	Received By	shall b	G	G	G	-	-	-	-	-	-	-	# CONTAINERS					Pem		1			TC
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	Phone Result:	y Cardinal within 30 days after con or loss of profits incurred by client.	8 1435 arrows paid by the client for the	1350	1150	1105	1100	1015	1535	1450	1445	1400	TIME	ING	L								
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Page 24 of 27

Page 2 of 5

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Add'I Phone #:

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

### ARDINAL LABORATORIES 101 East Marland, Hobbs, NM 88240

(575) 393-2326 FAX (575) 393-2476 Page 3 of 5

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Company Name:	Trinity Oilfield Services & Rei	Rentals, LLC	0					8	Ø	8	b	BILL TO		ľ	1		ANALISIS NEWSEST
Project Manager:	Ben J. Arguijo							7	P.O. #:	*							
Address: P.O. Box 2587	x 2587							0	Compan	Pa	17	Trinity		_			
City: Hobbs	State: NM	M Zip:		88241				Þ	Attn:	P .				_			
Phone #: (575)390-7208	0-7208 Fax #:							A	Address	Tes	on .						
Project #:	Project Owner:	wner:	Perm	Permian Water Solutions	rator	Solut	ons	C	City:					)	3)		
Project Name: Do	Dorstate SWD							co	State:	9		Zip:		15M	218	(30	
Project Location:	Eddy, NM							70	Phone #:	ne	#			(80	(80		
Sampler Name: Tristan Payne	stan Payne							T	Fax#	*				PH	TEX		
FOR LAB USE ONLY		-			8	MATRIX	ã		P	R	PRESERV		SAMPLING	TI	В		
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	SLUDGE	OTHER:	ACID/BASE:		ICE / COOL OTHER :	DATE	E TIME	m			
2	SP-39 @ 4"	G (			-				Н	-	×	4/11/18	1300	×	×	×	
22	SP-39 @ 10'	G	-			×	-	-	H	_	×	4/11/18	1345	-	+	×	
23	SP-40@1"	G	-			×		-	-	_	×	4/11/18	8 1440	-	$\vdash$	×	
24	SP-40 @ 10'	G	-			×		-	-		×	4/11/18	8 1525		t	×	
25	SP-41@1"	G	-			×	-	_	-		×	4/12/18	8 1030	-	H	×	
26	SP-41@5"	6				×	-	_			×	4/12/18	8 1050			×	
23	SP-42 (a)1"	6	-			×					×	4/12/18	8 1100	×	×	×	
78	SP-42@6	G	0			×					×	4/12/18	8 1125	0,		×	
8	SP-43 @ 1'	G	0			×					×	4/12/18	8 1135	-	t	×	
8	SP-43 @ 10'	9	G			×					×	4/12/18	8 1220	_	H	×	

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Revision 1.0 FORM-006

Sampler - UPS - Bus - Other:

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Sample Condition Cool Intact Dres Dres

CKED BY:

Please e-mail results to ben@trinityoilfieldservices.com & todd@trinityoilfieldservices.com

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Date: Time:

Received By:

Time:

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Sampler - UPS - Bus - Other: Delivered By: (Circle One) 15

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## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

ARDINAL LABORATORIES 101 East Marland, Hobbs, NM 88240

(575) 393-2326 FAX (575) 393-2476 Page 4 of 5

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Company Name:	Trinity Oilfield Services & Rentals,	tals, LLC	Ö			8	8	t	ALT THE			l	1	ANALISIS NEGOCO	-
Project Manager:	Ben J. Arguljo					70	P.O. #:	77							
Address: P.O. Bo	P.O. Box 2587					Ω	E	Compan'	Trinity						
City: Hobbs	State: NM Zip:	V Zip		88241		Þ	Attn:								
#:	(575)390-7208 Fax #:					Þ	ddn	Address							_
Project #:	Project Owner:	vner:	Pon	Permian Water Solutions	Solution	-	City:				)	3)	0)		
ame:	Dorstate SWD					S	State:		Zip:		15M	)21E	(30		
Project Location:	Eddy, NM					P	100	Phone #:			(80	(80	ide		_
Sampler Name: Tristan Payne	ristan Payne			ACT THE TOP	NO COURT	E	Fax #	"			РН	TE)	nloi		
FOR LAB USE ONLY		-		Į,	MATRIX	1	12	PRESERV	SAMPLING	NG	Т	В	C		
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP	# CONTAINERS	GROUNDWATER WASTEWATER	SOIL OIL	SLUDGE OTHER:	ACID/BASE:	ICE / COOL OTHER :	DATE	TIME					
2	SP-44 @ 1"	G			×			×	4/12/18	1300			×		
de	SP-44@7	G	-4		×			×	4/12/18	1330			×		
er	SP-45 @ 1"	G	-		×			×	4/12/18	1335	Г		×		
4	SP-45@3'	G	4		×			×	4/12/18	1345			×		
22	SP-46 @ 1"	G	4		×			×	4/12/18	1440		Г	×		
36	SP-47@1"	G	_		×			×	4/13/18	1000			×		
22	SP-47@10'	6			×			×	4/13/18	1045			×		
Hr.	SP-48 @ 1"	6	6		×			×	4/13/18	1050	×	×	×		
39	SP-48 @ 10'	G	0		×			×	4/13/18	1135		T	×		
45	SP-49@1"	6	0		×	_	_	×	4/13/18	1140		Г	×		

PLEASE NOTE: Lighting Relinquished By: analyses. All claims including those for regisjance and any other cause whatsoever shall be deemed waived is service. In no event shall Cardinal be liable for incidental or consequental damages, including without inhibition urisess made in writing and received by Cardinal within 30 days after completion of the applicable or loss of profits incurred by client, its subsidiaries Phone Result: | Yes | No |Add'l Phone #
Fax Result: | Yes | No |Add'l Fax #:
#EMARKS:

1.05% Please e-mail results to ben@trinityoilfieldservices.com & todd@trinityoilfieldservices.com

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Relinquished By:

Time: Date: analyses. All claims including those for nogligence and any other cause service. In no event shall Cardinal be liable for incidental or consequent

Relinquished By:

Phone Result: Ses One Add'I Phone Fax Result: Yes No Add'I Fax #:
REMARKS:

Add'I Phone #:

FORM-006 Revision I.0

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Sampler - UPS - Bus - Other: Delivered By: (Circle One)

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

### ARDINAL LABORATORIES 101 East Marland, Hobbs, NM 88240

(575) 393-2326 FAX (575) 393-2476

Page 5 of 5

							DNO	
Company Name:	Innity Officed Services & Refuels,	Italis, LEC	BO #	***************************************	1	4		
Project Manager:	ben J. Mguijo				_	_		
Address: P.O. Box 2587	ox 2587		Compan	Trinity	1_	_		
City: Hobbs	State: N	NM Zip: 88241	Attn:		_			
Phone #: (575)390-7208	90-7208 Fax#:		Address		_			
Project #:	Project Owner:	Permian Water	Solutions City:		_	100	0)	
me:	Dorstate SWD		State:	Zip:		0.55	(30	
Project Location:	Eddy, NM		Phone #:		(80	(80	ride	
Sampler Name: Tristan Payne	istan Payne		Fax#				nioi	
FOR LAB USE ONLY		MA	MATRIX PRESERV	SAMPLING	_	-	C	
Lab I.D. 1501094	Sample I.D.	(G)RAB OR (C)OMP. # CONTAINERS GROUNDWATER WASTEWATER SOIL	OIL SLUDGE OTHER: ACID/BASE: ICE / COOL OTHER:	DATE TIME	m			
lh l	SP-49@10'	G 1 X	×	4/13/18 1225	5		×	
47	SP-50 @ 1'	G 1 X	×	4/13/18 1230	×	×	×	
12h	SP-50 @ 10'	G 1 X	×	4/13/18 1315	5		×	
E	SP-51@1"	6 1 X	×	4/13/18 1320	0	L	×	
7	SP-51 @ 10'	G 1 X	×	4/13/18 1405	6		×	
15	SP-52 @ 1"	G 1 X		4/13/18 1410	0		×	
27	SP-52 @ 10"	G 1	×	4/13/18 1455	6	L	×	
8	SP-53 @ I'	G G X	×	4/13/18 1500	×	×	×	
db.	Sp-53 @ 10'	G G X	×	4/13/18 1545	Ch		×	

Page 27 of 27

Please e-mail results to ben@trinityoilfieldservices.com & todd@trinityoilfieldservices.com

Appendix E



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 <a href="https://www.tceq.texas.gov/field/qa/lab-accred-certif.html">www.tceq.texas.gov/field/qa/lab-accred-certif.html</a>.

Cardinal Laboratories is accreditated 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)

Celey D. Keene

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

Reported:

28-May-19 13:43



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

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

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### Analytical Results For:

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701		Project Number: Project Manager:	DORSTATE SWD 212C-MD-01743 CLAIR GONZALES (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.

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### 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
			Cardina	l Laborat	ories					
Inorganic Compounds										
Chloride	5360		16.0	mg/kg	4	9051705	AC	21-May-19	4500-Cl-B	
Volatile Organic Compounds by I	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	

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Reported:

28-May-19 13:43



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

### Analytical Results For:

TETRA TECH

Surrogate: 1-Chlorooctane

Surrogate: 1-Chlorooctadecane

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

SP - 1 ( 2-3 ) H901758-02 (Soil)

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

		Cardina	l Laborato	ries				
Inorganic Compounds								
Chloride	4640	16.0	mg/kg	4	9051705	AC	21-May-19	4500-Cl-B
Volatile Organic Compound	ls 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 (F	PID)	95.5 %	73.3-	129	9051611	ms	16-May-19	8021B
Petroleum Hydrocarbons by	y 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

41-142

37.6-147

9051515

9051515

MS

MS

17-May-19

17-May-19

8015B

8015B

71.2 %

70.7%

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## 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

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		

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## 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

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

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## 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

SP-1 (9-10)

H901758-05 (Soil)

Analyte Result MDL	Reporting Limit Units	Dilution Batch	Analyst Analyzed	Method	Notes
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#### **Cardinal Laboratories**

Inorganic Compounds								
Chloride	1140	16.0	mg/kg	4	9051705	AC	21-May-19	4500-Cl-B

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## 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

SP-1 (14-15)

H901758-06 (Soil)

	Reporting Limit Units Dilution	Batch Analyst Analyzed	Method Notes
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#### **Cardinal Laboratories**

Inorganic Compounds								
Chloride	672	16.0	mg/kg	4	9051705	AC	21-May-19	4500-Cl-B

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## 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

Reported: 28-May-19 13:43

Fax To: (432) 682-3946

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		

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## 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

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

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## 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

SP-1 (29-30)

H901758-09 (Soil)

Analyte Result MDL	Reporting Limit Units	Dilution Batch	Analyst	Analyzed	Method	Notes
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#### **Cardinal Laboratories**

Inorganic Compounds								
Chloride	352	16.0	mg/kg	4	9051705	AC	21-May-19	4500-Cl-B

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## 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

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## 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

SP-2 (0-1)

H901758-11 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	l Laborat	ories					
Inorganic Compounds										
Chloride	7520		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 (PL	D)		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	
DRO >C10-C28*	14.8		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			90.0 %	41	142	9051515	MS	17-May-19	8015B	
Surrogate: 1-Chlorooctadecane			91.4 %	37.6	-147	9051515	MS	17-May-19	8015B	

Cardinal Laboratories \*=Accredited Analyte

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28-May-19 13:43



#### 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

SP-2 (2-3)

H901758-12 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	l Laborat	ories					
Inorganic Compounds										
Chloride	4720		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 (PIL	))		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	
DRO >C10-C28*	51.5		10.0	mg/kg	1	9051515	MS	17-May-19	8015B	
EXT DRO >C28-C36	15.6		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	

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# 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

SP-2 (4-5)

H901758-13 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	al Laborat	ories					
Inorganic Compounds										
Chloride	2160		16.0	mg/kg	4	9051705	AC	21-May-19	4500-Cl-B	

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4500-Cl-B

28-May-19 13:43



624

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## Analytical Results For:

TETRA TECH

Chloride

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

9051705

AC

21-May-19

SP-2 (6-7)

H901758-14 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
	Cardinal Laboratories									
Inorganic Compounds										

mg/kg

16.0

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28-May-19 13:43



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## 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

SP-2 (9-10)

H901758-15 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	l Laborato	ries					

 Inorganic Compounds
 Chloride
 1020
 16.0
 mg/kg
 4
 9052116
 AC
 21-May-19
 4500-Cl-B
 QM-07

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## 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

SP - 2 ( 14-15 ) H901758-16 (Soil)

#### **Cardinal Laboratories**

Inorganic Compounds								
Chloride	2680	16.0	mg/kg	4	9052116	AC	21-May-19	4500-C1-B

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## 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

SP - 2 ( 19-20 )

H901758-17 (Soil)

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

#### **Cardinal Laboratories**

 Inorganic Compounds
 16.0
 mg/kg
 4
 9052116
 AC
 21-May-19
 4500-Cl-B

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## 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

SP-2 (24-25)

H901758-18 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			C 11							

#### **Cardinal Laboratories**

 Inorganic Compounds
 3000
 16.0
 mg/kg
 4
 9052116
 AC
 21-May-19
 4500-Cl-B

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# 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

SP-2 (29-30)

H901758-19 (Soil)

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

#### **Cardinal Laboratories**

 Inorganic Compounds
 3800
 16.0
 mg/kg
 4
 9052116
 AC
 21-May-19
 4500-Cl-B

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## 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
			Cardin	al Laborat	tories					

**Inorganic Compounds** 16.0 mg/kg 9052116 AC 21-May-19 4500-Cl-B Chloride 1630

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## Analytical Results For:

TETRA TECH

901 WEST WALL STREET, STE 100

MIDLAND TX, 79701

**Inorganic Compounds** 

Project: DORSTATE SWD

Project Number: 212C-MD-01743

Project Manager: CLAIR GONZALES

Fax To: (432) 682-3946

SP-2 (39-40)

H901758-21 (Soil)

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

**Cardinal Laboratories** 

Chloride 2240 16.0 mg/kg 4 9052116 AC 21-May-19 4500-Cl-B

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## 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

SP-2 (44-45)

H901758-22 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	l Laborat	ories					

 Inorganic Compounds

 Chloride
 2400
 16.0
 mg/kg
 4
 9052116
 AC
 21-May-19
 4500-Cl-B

Cardinal Laboratories \*=Accredited Analyte

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# 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

SP - 2 ( 49-50 ) H901758-23 (Soil)

#### **Cardinal Laboratories**

Inorganic Compounds								
Chloride	1620	16.0	mg/kg	4	9052116	AC	21-May-19	4500-Cl-B

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## 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

SP-2 (54-55)

H901758-24 (Soil)

Analyte Result MDL Eimit Units Dilution Batch Analyst Analyzed Method Notes

**Cardinal Laboratories** 

Inorganic Compounds

**Chloride** 1010 16.0 mg/kg 4 9052116 AC 21-May-19 4500-CI-B

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# Analytical Results For:

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND TX, 79701

**Inorganic Compounds** 

Project: DORSTATE SWD

Project Number: 212C-MD-01743

Project Manager: CLAIR GONZALES

Fax To: (432) 682-3946

SP-2 (59-60)

H901758-25 (Soil)

Analyte Result MDL Reporting Units Dilution Batch Analyst Analyzed Method Notes

**Cardinal Laboratories** 

 Chloride
 1390
 16.0
 mg/kg
 4
 9052116
 AC
 21-May-19
 4500-Cl-B

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## 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

SP-3 (0-1)

H901758-26 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	l Laborat	ories					
Inorganic Compounds										
Chloride	3360		16.0	mg/kg	4	9052116	AC	21-May-19	4500-Cl-B	
Volatile Organic Compounds I	oy 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 C	GC FID									
GRO C6-C10*	30.9		10.0	mg/kg	1	9051515	MS	17-May-19	8015B	
DRO >C10-C28*	1940		10.0	mg/kg	1	9051515	MS	17-May-19	8015B	
EXT DRO >C28-C36	358		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	

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

## Analytical Results For:

TETRA TECH

901 WEST WALL STREET, STE 100

MIDLAND TX, 79701

Surrogate: 1-Chlorooctadecane

Project: DORSTATE SWD

Project Number: 212C-MD-01743

Project Manager: CLAIR GONZALES

Fax To: (432) 682-3946

9051714

MS

17-May-19

8015B

SP - 3 ( 2-3 ) H901758-27 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	l Labora	tories					
Inorganic Compounds										
Chloride	1860		16.0	mg/kg	4	9052116	AC	21-May-19	4500-Cl-B	
Volatile Organic Compound	ls by EPA Method	8021								
Benzene*	< 0.050		0.050	mg/kg	50	9051611	ms	16-May-19	8021B	
Toluene*	0.078		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*	3.47		0.150	mg/kg	50	9051611	ms	16-May-19	8021B	
Total BTEX	3.54		0.300	mg/kg	50	9051611	ms	16-May-19	8021B	
Surrogate: 4-Bromofluorobenzene (F	PID)		107 %	73.3	-129	9051611	ms	16-May-19	8021B	
Petroleum Hydrocarbons by	GC FID									S-04
GRO C6-C10*	669		10.0	mg/kg	1	9051714	MS	17-May-19	8015B	
DRO >C10-C28*	9200		10.0	mg/kg	1	9051714	MS	17-May-19	8015B	QM-07
EXT DRO >C28-C36	1120		10.0	mg/kg	1	9051714	MS	17-May-19	8015B	
Surrogate: 1-Chlorooctane			199 %	41-	142	9051714	MS	17-May-19	8015B	

37.6-147

320 %

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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

SP-3 (4-5)

H901758-28 (Soil)

Analyte	Result	Reporting MDL Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
		Cardina	ıl Laborat	tories					
Inorganic Compoun	ds								
Chloride	1490	16.0	mg/kg	4	9052116	AC	21-May-19	4500-Cl-B	
Petroleum Hydrocar	rbons by GC FID								S-04
GRO C6-C10*	115	10.0	mg/kg	1	9052208	MS	23-May-19	8015B	
DRO >C10-C28*	2470	10.0	mg/kg	1	9052208	MS	23-May-19	8015B	QM-07
EXT DRO >C28-C36	264	10.0	mg/kg	1	9052208	MS	23-May-19	8015B	
Surrogate: 1-Chlorooctane		164 %	41-	142	9052208	MS	23-May-19	8015B	
Surrogate: 1-Chlorooctade	ecane	139 %	37.6	-147	9052208	MS	23-May-19	8015B	

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## 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

SP-3 (6-7)

H901758-29 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	l Laborat	tories					
Inorganic Compounds										
Chloride	1120		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*	703		10.0	mg/kg	1	9052208	MS	23-May-19	8015B	
EXT DRO >C28-C36	34.2		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	

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## 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

SP-3 (9-10)

H901758-30 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	ıl Laborat	ories					
Inorganic Compounds										
Chloride	624		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*	99.8		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	

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## 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

SP-3 (14-15)

H901758-31 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	l Laborat	tories					
Inorganic Compounds										
Chloride	480		16.0	mg/kg	4	9052116	AC	21-May-19	4500-Cl-B	
Petroleum Hydrocarbons by	y GC FID									
GRO C6-C10*	<10.0		10.0	mg/kg	1	9052208	MS	23-May-19	8015B	
DRO >C10-C28*	35.7		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	

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## 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
			Cardina	ıl Laborat	ories					
Inorganic Compounds										
Chloride	11300		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	
DRO >C10-C28*	647		10.0	mg/kg	1	9051714	MS	17-May-19	8015B	
EXT DRO >C28-C36	397		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	

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## 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

SP-4 (2-3)

H901758-33 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	l Laborat	ories					
Inorganic Compounds										
Chloride	5440		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 C	GC FID									
GRO C6-C10*	<10.0		10.0	mg/kg	1	9051714	MS	17-May-19	8015B	
DRO >C10-C28*	80.1		10.0	mg/kg	1	9051714	MS	17-May-19	8015B	
EXT DRO >C28-C36	50.0		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	

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## 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

SP-4 (4-5)

H901758-34 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	ıl Laborat	ories					
Inorganic Compounds										
Chloride	5280		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	

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## 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

Reported: 28-May-19 13:43

Fax To: (432) 682-3946

SP-4 (6-7)

H901758-35 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	l Laborat	ories					
Inorganic Compounds										
Chloride	3680		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	
DRO >C10-C28*	23.6		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	

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## 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

SP-4 (9-10)

H901758-36 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes		
Cardinal Laboratories												
Inorganic Compounds												
Chloride	1810		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	adecane 93.9 % 37.6-147		-147	9052213	MS	22-May-19	8015B					

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## 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

SP-4 (14-15)

H901758-37 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes		
	Cardinal Laboratories											
Inorganic Compounds												
Chloride	1150		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

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28-May-19 13:43



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## 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

SP-4 (19-20)

H901758-38 (Soil)

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

#### **Cardinal Laboratories**

 Inorganic Compounds
 1420
 16.0
 mg/kg
 4
 9051702
 AC
 21-May-19
 4500-Cl-B

Cardinal Laboratories \*=Accredited Analyte

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28-May-19 13:43



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## 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

SP-4 (24-25)

H901758-39 (Soil)

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

## **Cardinal Laboratories**

 Inorganic Compounds
 1760
 16.0
 mg/kg
 4
 9051702
 AC
 21-May-19
 4500-Cl-B

Cardinal Laboratories \*=Accredited Analyte

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28-May-19 13:43



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## 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

SP-4 (29-30)

H901758-40 (Soil)

## **Cardinal Laboratories**

Inorganic Compounds								
Chloride	2080	16.0	mg/kg	4	9051702	AC	21-May-19	4500-Cl-B

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## 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

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

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28-May-19 13:43



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## 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

SP-4 (39-40)

H901758-42 (Soil)

## **Cardinal Laboratories**

Inorganic Compounds								
Chloride	1120	16.0	mg/kg	4	9051702	AC	21-May-19	4500-Cl-B

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## 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

082-394

SP-4 (44-45)

H901758-43 (Soil)

## **Cardinal Laboratories**

Inorganic Compounds								
Chloride	544	16.0	mg/kg	4	9051702	AC	21-May-19	4500-Cl-B

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## 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

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

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## 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										
Blank (9051702-BLK1)				Prepared &	Analyzed:	17-May-19				
Chloride	ND	16.0	mg/kg							
LCS (9051702-BS1)				Prepared &	Analyzed:	17-May-19				
Chloride	400	16.0	mg/kg	400		100	80-120			
LCS Dup (9051702-BSD1)				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										
Blank (9051705-BLK1)				Prepared &	Analyzed:	17-May-19				
Chloride	ND	16.0	mg/kg							
LCS (9051705-BS1)				Prepared &	Analyzed:	17-May-19				
Chloride	416	16.0	mg/kg	400		104	80-120			
LCS Dup (9051705-BSD1)				Prepared &	Analyzed:	17-May-19				
Chloride	416	16.0	mg/kg	400		104	80-120	0.00	20	
Batch 9052116 - 1:4 DI Water										
Blank (9052116-BLK1)				Prepared &	Analyzed:	21-May-19				
Chloride	ND	16.0	mg/kg							
LCS (9052116-BS1)				Prepared &	Analyzed:	21-May-19				
Chloride	416	16.0	mg/kg	400		104	80-120			

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## 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**

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

## Batch 9052116 - 1:4 DI Water

LCS Dup (9052116-BSD1)				Prepared & Analyzed	l: 21-May-19	)			
Chloride	400	16.0	mg/kg	400	100	80-120	3.92	20	

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## 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
Analyte	Kesult	Limit	Units	Level	Kesuit	%KEC	Limits	KPD	Limit	Notes
Batch 9051611 - Volatiles										
Blank (9051611-BLK1)				Prepared &	Analyzed:	16-May-1	9			
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 &	Analyzed:	16-May-1	9			
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 &	Analyzed:	16-May-1	9			
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 &	z Analyzed:	17-May-1	9			
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			

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## 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**

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 9051701 - Volatiles										
LCS (9051701-BS1)				Prepared &	Analyzed:	17-May-1	9			
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-1	9			
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			

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**RPD** 

Limit

Notes

RPD



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%REC

Limits

## Analytical Results For:

TETRA TECH

Analyte

DRO >C10-C28

EXT DRO >C28-C36

Surrogate: 1-Chlorooctane

Surrogate: 1-Chlorooctadecane

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

Spike

Level

Source

Result

%REC

97.4

101

41-142

37.6-147

## Petroleum Hydrocarbons by GC FID - Quality Control

## **Cardinal Laboratories**

Units

Reporting

Limit

Result

ND

ND

48.7

50.7

10.0

10.0

mg/kg

mg/kg

mg/kg

mg/kg

50.0

50.0

Analyte	Kesuit	Lillit	Ullits	Level	Kesuit	/0KEC	Lillits	KLD	LIIIII	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-BSD1)				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-1	19			
GRO C6-C10	ND	10.0	mg/kg							

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RPD



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%REC

## 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

Snike

Source

## Petroleum Hydrocarbons by GC FID - Quality Control

## **Cardinal Laboratories**

Reporting

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 9051714 - General Prep - Organi	cs									
LCS (9051714-BS1)				Prepared &	Analyzed:	17-May-1	9			
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			
LCS Dup (9051714-BSD1)				Prepared &	Analyzed:	17-May-1	9			
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 - Organi	cs									
Blank (9052208-BLK1)				Prepared: 2	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			
LCS (9052208-BS1)				Prepared: 2	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

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Celey D. Keene, Lab Director/Quality Manager

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## 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										
LCS Dup (9052208-BSD1)				Prepared: 2	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										
Blank (9052213-BLK1)				Prepared &	k Analyzed:	22-May-1	9			
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			
LCS (9052213-BS1)				Prepared &	k Analyzed:	22-May-1	9			
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			
LCS Dup (9052213-BSD1)				Prepared &	k Analyzed:	22-May-1	9			
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			

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## **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

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Celey D. Keene, Lab Director/Quality Manager

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



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

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Project Manager:	1		P.O. #:					
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## 101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476

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Project Manager:				P.O. #:				
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101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476

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Project Manager:		P.O. #:		
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101 East Marland, Hobbs, NM 88240

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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 <a href="https://www.tceq.texas.gov/field/qa/lab">www.tceq.texas.gov/field/qa/lab</a> accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/qa/lab">www.tceq.texas.gov/field/qa/lab</a> accredited certif.html.

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

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

Accreditation applies to public drinking water matrices.

Celey D. Keens

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

Page 1 of 49



## Analytical Results For:

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

Received: Sampling Date: 05/17/2019

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	Analyze	d 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	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyze	d 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	Analyze	d 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	<u>,                                      </u>						
Surrogate: 1-Chlorooctadecane	90.7	% 37.6-14	7						

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Celey D. Keene, Lab Director/Quality Manager

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## 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	Analyze	d 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	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d 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	Analyze	d 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	% 37.6-14	7						

Cardinal Laboratories \*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

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## 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 SWDSampling Condition:Cool & IntactProject Number:212C-MD-01743Sample Received By:Tamara Oldaker

Project Location: PWS - EDDY CO NM

## Sample ID: SP - 6 ( 4-5 ) (H901800-03)

DD Qualifier	RPD 0.00 RPD 0.00	True Value QC 400 True Value QC 400	% Recovery 100  % Recovery 100	BS 400	Method Blank  ND  I By: AC  Method Blank  ND	Analyzed 05/22/2019  Analyzed Analyzed 05/22/2019	Reporting Limit	Result 288  ( 6-7 ) (H901800-0 mg/  Result 272  ( 9-10 ) (H901800-0	Analyte  Chloride  Sample ID: SP - 6 ( Chloride, SM4500Cl-B  Analyte  Chloride
PD Qualifier 00	RPD 0.00	True Value QC	% Recovery	BS	I By: AC  Method Blank  ND	Analyzed Analyzed 05/22/2019	Neg Reporting Limit	( 6-7 ) (H901800-0 mg/ Result 272	Sample ID: SP - 6 ( Chloride, SM4500CI-B  Analyte  Chloride
00	0.00	·	•		Method Blank	Analyzed 05/22/2019	Reporting Limit	mg/ Result <b>272</b>	Chloride, SM4500CI-B  Analyte  Chloride
00	0.00	·	•		Method Blank	Analyzed 05/22/2019	Reporting Limit	Result 272	Analyte <b>Chloride</b>
00	0.00	·	•		ND	05/22/2019	16.0	272	Chloride
		400	100	400		, ,			
'D Qualifier	RPD				I By: AC		-05)	( 9-10 )(H901800-	
D Qualifier	RPD					Analyze	/kg	mg/	Sample ID: SP - 6 ( Chloride, SM4500Cl-B
		True Value QC	% Recovery	BS	Method Blank	Analyzed	Reporting Limit	Result	Analyte
00	0.00	400	100	400	ND	05/22/2019	16.0	1470	Chloride
					I Rv: AC	Analyze	-		
PD Qualifier	RPD	True Value QC	% Recovery	BS	Method Blank	Analyzed	Reporting Limit	Result	Analyte
00	0.00	400	100	400	ND	05/22/2019	16.0	1330	Chloride
							0-07)	( 19-20 )(H901800	Sample ID: SP - 6 (
					l By: AC	Analyze	•	mg/	
PD Qualifier	RPD	True Value QC	% Recovery	BS	Method Blank	Analyzed	Reporting Limit	Result	Analyte
00 QM-07	0.00	400	100	400	ND	05/22/2019	16.0	352	Chloride
O.C		400 True Value QC	100 % Recovery	400 BS	Method Blank  ND  I By: AC  Method Blank	05/22/2019  Analyzed  Analyzed	Reporting Limit 16.0  0-07) /kg  Reporting Limit	mg/ Result 1330 ( 19-20 ) (H901800 mg/ Result	Chloride  Sample ID: SP - 6 ( Chloride, SM4500Cl-B

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Celey D. Keene, Lab Director/Quality Manager



## 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	Analyze	d 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 )(H90180	0-09)							
Chloride, SM4500Cl-B	mg	/kg	Analyze	d 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-		-							
Chloride, SM4500Cl-B	mg	/kg	Analyze	d 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 )(H90180	0-11)							
Chloride, SM4500CI-B	mg	/kg	Analyze	d 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 )(H90180	0-12)							
Chloride, SM4500CI-B	mg	/kg	Analyze	d 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	

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Celey D. Keene, Lab Director/Quality Manager



## 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	Analyze	d 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	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyze	ed 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	Analyze	ed 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	% 37.6-14	7						

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05/15/2019

## 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:

Reported: 05/28/2019 Sampling Type: Soil

Project Name:DORSTATE SWDSampling Condition:Cool & IntactProject Number:212C-MD-01743Sample Received By:Tamara Oldaker

Project Location: PWS - EDDY CO NM

## Sample ID: SP - 7 ( 2-3 ) (H901800-14)

BTEX 8021B	mg,	/kg	Analyze	d 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	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	ed 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	Analyze	ed 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	% 37.6-14	7						

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## 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		Analyze	d 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 )	(H901800-1	L <b>6</b> )							
Chloride, SM4500Cl-B	mg	/kg	Analyze	d 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 Chloride, SM4500Cl-B	) (H901800- mg	•	Analyze	d 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 Chloride, SM4500Cl-B	(H <b>90180</b> 0	•	Analyze	d 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 Chloride, SM4500Cl-B	) (H90180	_	Analyze	d 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	

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## 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 Analyzed By: AC Analyte Result Reporting Limit Analyzed Method Blank % Recovery True Value QC RPD Qualifier Chloride 352 16.0 05/22/2019 ND 400 100 400 0.00

Sample ID: SP - 7 ( 29-30 ) (H901800-21)

Chloride, SM4500Cl-B Analyzed By: AC RPD Analyte Result Reporting Limit Analyzed Method Blank BS % Recovery True Value QC Qualifier Chloride 512 16.0 05/22/2019 ND 400 100 400 0.00

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## 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	Analyze	d 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	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyze	ed 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	Analyze	ed 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	% 37.6-14	7						

Surrogate: 1-Chlorooctadecane 95.0 % 37.6-147

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## 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	Analyze	d 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	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	ed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1280	16.0	05/22/2019	ND	400	100	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d 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	% 37.6-14	7						

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## 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)

	mg	/kg	Analyze	d 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 )(F		•							
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d 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 ) ( Chloride, SM4500Cl-B	(H <b>901800</b> -	•	Analyze	d 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 ) Chloride, SM4500Cl-B	(H901800 mg,	-	Analyze	d Rv: 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 )	(H90180	0-28)							
Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: AC					
	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Analyte	resure	, ,							

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Celey D. Keene, Lab Director/Quality Manager



## 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 SWDSampling Condition:Cool & IntactProject Number:212C-MD-01743Sample Received By:Tamara Oldaker

Project Location: PWS - EDDY CO NM

## Sample ID: SP - 8 ( 24-25 ) (H901800-29)

Chloride, SM4500Cl-B	mg	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 )(H90180	0-30)							
Chloride, SM4500CI-B	mg	/kg	Analyze	d 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- Chloride, SM4500Cl-B	, ,	<b>0-31)</b> /kg	Analyza	d By: AC					
Ciliolide, Si-14500Ci-B	ilig	/ kg	Allalyze	u 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 )(H90180	0-32)							
Chloride, SM4500CI-B	mg	/kg	Analyze	d 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 ) (H90180	0-33)							
Chloride, SM4500Cl-B	mg	/kg	Analyze	d 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	

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Celey D. Keene, Lab Director/Quality Manager



## 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 % Recovery True Value QC RPD Qualifier Chloride 5840 16.0 05/22/2019 ND 416 104 400 0.00

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## 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:

Sampling Type: 05/28/2019 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	Analyze	d 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	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyze	ed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	7600	16.0	05/22/2019	ND	416	104	400	0.00	
TPH 8015M	mg,	/kg	Analyze	ed 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*	59.2	10.0	05/21/2019	ND	224	112	200	8.64	
EXT DRO >C28-C36	19.8	10.0	05/21/2019	ND					
Surrogate: 1-Chlorooctane	85.9	% 41-142	?						
Surrogate: 1-Chlorooctadecane	96.6	% 37.6-14	7						

\*=Accredited Analyte Cardinal Laboratories

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05/15/2019

## 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:

Reported: 05/28/2019 Sampling Type: Soil

Project Name:DORSTATE SWDSampling Condition:Cool & IntactProject Number:212C-MD-01743Sample Received By:Tamara Oldaker

Project Location: PWS - EDDY CO NM

## Sample ID: SP - 9 (2-3) (H901800-36)

BTEX 8021B	mg,	/kg	Analyze	d 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	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	ed 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	Analyze	ed 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	% 37.6-14	7						

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## 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 SWDSampling Condition:Cool & IntactProject Number:212C-MD-01743Sample Received By:Tamara Oldaker

Project Location: PWS - EDDY CO NM

## Sample ID: SP - 9 ( 4-5 ) (H901800-37)

	mg,	/kg	Analyze	d 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 )	( <b>H901800-</b> 3	88)							
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d 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, SM4500Cl-B	mg,	/kg	Analyze	d 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 ( 14-1!	5 ) (H901800	0-40)							
Sample ID: SP - 9 ( 14-15 Chloride, SM4500Cl-B	5 ) (H901800 mg,	-	Analyze	d By: AC					
		-	<b>Analyze</b> Analyzed	d By: AC  Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride, SM4500CI-B	mg,	/kg			BS 416	% Recovery	True Value QC 400	RPD 0.00	Qualifier
Chloride, SM4500Cl-B  Analyte  Chloride	Result	Reporting Limit	Analyzed	Method Blank		,	·		Qualifier
Chloride, SM4500Cl-B  Analyte  Chloride  Sample ID: SP - 9 ( 19-20	Result	Reporting Limit 16.0 0-41)	Analyzed 05/22/2019	Method Blank		,	·		Qualifier
Chloride, SM4500Cl-B  Analyte	mg, Result 1420 0 ) (H901800	Reporting Limit 16.0 0-41)	Analyzed 05/22/2019	Method Blank ND		,	·		Qualifier

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Celey D. Keene, Lab Director/Quality Manager



### 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 SWDSampling Condition:Cool & IntactProject Number:212C-MD-01743Sample Received By:Tamara Oldaker

Project Location: PWS - EDDY CO NM

### Sample ID: SP - 9 ( 24-25 ) (H901800-42)

Chloride, SM4500CI-B	mg	/kg	Analyze	d 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 ( 29-36	O )(H90180	0-43)							
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d 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 ( 34-3: Chloride, SM4500Cl-B	5 ) (H901800 mg,	_	Analyze	d By: AC					
		_	<b>Analyze</b> Analyzed	d By: AC  Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride, SM4500CI-B	mg	/kg		-	BS 416	% Recovery	True Value QC 400	RPD 0.00	Qualifier
Chloride, SM4500Cl-B  Analyte	Result	Reporting Limit	Analyzed	Method Blank		,	·		Qualifier
Chloride, SM4500Cl-B  Analyte  Chloride	Result	Reporting Limit 16.0 0-45)	Analyzed 05/22/2019	Method Blank		,	·		Qualifier
Chloride, SM4500Cl-B  Analyte  Chloride  Sample ID: SP - 9 ( 39-46	mg, Result 4120 0 ) (H901800	Reporting Limit 16.0 0-45)	Analyzed 05/22/2019	Method Blank ND		,	·		Qualifier

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### 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: Sampling Type: 05/28/2019 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	Analyze	d 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	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	8000	16.0	05/23/2019	ND	416	104	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d 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*	87.9	10.0	05/21/2019	ND	192	95.9	200	4.80	
EXT DRO >C28-C36	39.1	10.0	05/21/2019	ND					
Surrogate: 1-Chlorooctane	92.6	% 41-142	)						
Surrogate: 1-Chlorooctadecane	102	% 37.6-14	7						

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### 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: Sampling Type: 05/28/2019 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	Analyze	d 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	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyze	d 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	Analyze	d 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	% 37.6-14	7						

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### 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 SWDSampling Condition:Cool & IntactProject Number:212C-MD-01743Sample Received By:Tamara Oldaker

Project Location: PWS - EDDY CO NM

### Sample ID: SP - 14 ( 4-5 ) (H901800-48)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d 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	Analyze	d 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	) (H90180	0-50)							
Chloride, SM4500Cl-B	mg	/kg	Analyze	d 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	
-									
	5 ) (H9018	00-51)							
Sample ID: SP - 14 ( 14-15	5 ) (H <b>9018</b> (	•	Analyze	d By: AC					
Sample ID: SP - 14 ( 14-15	, ,	•	<b>Analyze</b> Analyzed	d By: AC  Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Sample ID: SP - 14 ( 14-15 Chloride, SM4500Cl-B	mg,	/kg			BS 416	% Recovery	True Value QC 400		Qualifier
Sample ID: SP - 14 ( 14-15 Chloride, SM4500Cl-B Analyte Chloride	Result 1500	Reporting Limit	Analyzed	Method Blank		,	·	RPD	Qualifier
Sample ID: SP - 14 ( 14-15 Chloride, SM4500Cl-B Analyte Chloride Sample ID: SP - 14 ( 19-20	Result 1500	Reporting Limit 16.0	Analyzed 05/23/2019	Method Blank		,	·	RPD	Qualifier
Sample ID: SP - 14 ( 14-15 Chloride, SM4500Cl-B	Result 1500	Reporting Limit 16.0	Analyzed 05/23/2019	Method Blank ND		,	·	RPD	Qualifier

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Celey D. Keene, Lab Director/Quality Manager



### Analytical Results For:

TETRA TECH **CLAIR GONZALES** 901 WEST WALL STREET, STE 100 MIDLAND TX, 79701

Fax To: (432) 682-3946

Received: 05/15/2019 05/17/2019 Sampling Date:

Reported: Sampling Type: 05/28/2019 Soil

Project Name: DORSTATE SWD Sampling Condition: Cool & Intact Project Number: Sample Received By: Tamara Oldaker 212C-MD-01743

Project Location: PWS - EDDY CO NM

mg/kg

Sample ID: SP - 14 ( 24-25 ) (H901800-53)

Chloride, SM4500Cl-B

Analyzed By: AC Analyte Result Reporting Limit Analyzed Method Blank % Recovery True Value QC RPD Qualifier Chloride 1020 16.0 05/23/2019 ND 416 104 400 0.00

Sample ID: SP - 14 ( 29-30 ) (H901800-54)

Chloride, SM4500Cl-B Analyzed By: AC RPD Analyte Result Reporting Limit Analyzed Method Blank BS % Recovery True Value QC Qualifier Chloride 192 16.0 05/23/2019 ND 416 104 400 0.00

Cardinal Laboratories \*=Accredited Analyte

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### 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: Sampling Type: 05/28/2019 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	Analyze	d 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	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	9600	16.0	05/23/2019	ND	416	104	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d 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*	545	10.0	05/21/2019	ND	192	95.9	200	4.80	
EXT DRO >C28-C36	203	10.0	05/21/2019	ND					
Surrogate: 1-Chlorooctane	96.0	% 41-142	)						
Surrogate: 1-Chlorooctadecane	124	% 37.6-14	7						

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### 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	Analyze	d 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	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d 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	Analyze	d 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	% 37.6-14	7						

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### 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, SM4500Cl-B	mg/	/kg	Analyze	d 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	•	•	A	d Pr 40					
Chloride, SM4500CI-B	mg/	кд	Апагухе	d 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 Chloride, SM4500CI-B	) (H901800 mg/	•	Analyze	d 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 ( 14-1		-	Analisas	d Boo AC					
Chloride, SM4500CI-B	mg/	кд	Anaiyze	d 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 ( 19-2	0 )(H90180	00-61)							
Chloride, SM4500Cl-B	mg/	,	Analyze	d 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	
<del>-</del>	3	20.0	-0, -0, -013			20.		0.00	

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### Analytical Results For:

TETRA TECH **CLAIR GONZALES** 901 WEST WALL STREET, STE 100 MIDLAND TX, 79701

Fax To: (432) 682-3946

Received: 05/15/2019 05/17/2019 Sampling Date:

Reported: Sampling Type: 05/28/2019 Soil

Project Name: DORSTATE SWD Sampling Condition: Cool & Intact Project Number: Sample Received By: Tamara Oldaker 212C-MD-01743

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 % Recovery True Value QC RPD Qualifier

Chloride 352 16.0 05/23/2019 ND 416 104 400 0.00

Sample ID: SP - 15 ( 29-30 ) (H901800-63)

Chloride, SM4500Cl-B Analyzed By: AC RPD Analyte Result Reporting Limit Analyzed Method Blank BS % Recovery True Value QC Qualifier Chloride 192 16.0 05/23/2019 ND 416 104 400 0.00

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### 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: Sampling Type: 05/28/2019 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	Analyze	d 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	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3120	16.0	05/23/2019	ND	400	100	400	0.00	QM-07
TPH 8015M	mg,	/kg	Analyze	d 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*	547	10.0	05/21/2019	ND	192	95.9	200	4.80	
EXT DRO >C28-C36	224	10.0	05/21/2019	ND					
Surrogate: 1-Chlorooctane	92.2	% 41-142	?						
Surrogate: 1-Chlorooctadecane	124	% 37.6-14	7						

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### 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: Sampling Type: 05/28/2019 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	Analyze	d 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	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	672	16.0	05/23/2019	ND	400	100	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d 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	% 37.6-14	7						

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### 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 SWDSampling Condition:Cool & IntactProject Number:212C-MD-01743Sample Received By:Tamara Oldaker

Project Location: PWS - EDDY CO NM

### Sample ID: SP - 16 ( 4-5 ) (H901800-66)

Chloride, SM4500CI-B	mg	/kg	Analyze	d 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	, ,	•							
Chloride, SM4500CI-B	mg,	/kg	Analyze	d 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 ( 9-1 Chloride, SM4500Cl-B	.0 ) (H901800 mg,	•	Analyze	d 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 ) (H9018	00-69)							
Chloride, SM4500Cl-B	mg	/kg	Analyze	d 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 )(H9018	00-70)							
Chloride, SM4500Cl-B	mg,	-	Analyze	d 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	

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Celey D. Keene, Lab Director/Quality Manager



### 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

mg/kg

Sample ID: SP - 16 ( 24-25 ) (H901800-71)

Chloride, SM4500Cl-B

Analyte Result Reporting Limit Analyzed Method Blank % Recovery True Value QC RPD Qualifier Chloride 1120 16.0 05/23/2019 ND 400 100 400 0.00

Analyzed By: AC

Sample ID: SP - 16 ( 29-30 ) (H901800-72)

Chloride, SM4500Cl-B 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 Analyzed By: AC Analyte Reporting Limit Analyzed Method Blank BS True Value QC **RPD** Qualifier Result % Recovery Chloride 352 16.0 05/23/2019 ND 400 100 400 0.00

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### 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: Sampling Type: 05/28/2019 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	Analyze	d 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	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	ed 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	Analyze	ed 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	% 37.6-14	7						

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### 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	Analyze	d 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	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyze	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	Analyze	d 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	% 37.6-14	7						

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% Recovery

True Value QC

RPD

Qualifier

### 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

Analyzed

Project Name:DORSTATE SWDSampling Condition:Cool & IntactProject Number:212C-MD-01743Sample Received By:Tamara Oldaker

Analyzed By: AC

Method Blank

Project Location: PWS - EDDY CO NM

Result

Reporting Limit

Sample ID: SP - 17 ( 4-5) (H901800-76)

Chloride, SM4500Cl-B

Analyte

Chloride	1390	16.0	05/23/2019	ND	400	100	400	0.00	
Sample ID: SP - 17 ( 6-7 Chloride, SM4500Cl-B	) (H901800- mg,	•	Analyze	d 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 ( 9-1	0 )(H901800	)-78)							
Chloride, SM4500CI-B	mg,	'kg	Analyze	d 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, SM4500Cl-B	mg	/kg	Analyze	d 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	

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### 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	Analyze	d 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	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	05/23/2019	ND	400	100	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d 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	% 37.6-14	7						

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### 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	Analyze	d 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	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d 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	
TPH 8015M	mg,	/kg	Analyze	d 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	% 37.6-14	7						

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### 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

mg/kg

Sample ID: SP - 18 ( 4-5 ) (H901800-82)

Chloride, SM4500Cl-B

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

Analyzed By: AC

Sample ID: SP - 18 (6-7) (H901800-83)

Chloride, SM4500Cl-B 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, SM4500Cl-B Analyzed By: AC Qualifier Method Blank Analyte Reporting Limit Analyzed BS **RPD** Result % Recovery True Value QC Chloride 736 16.0 05/23/2019 ND 400 100 400 0.00

Sample ID: SP - 18 ( 14-15 ) (H901800-85)

Chloride, SM4500Cl-B Analyzed By: AC mg/kg Analyte Result Reporting Limit Analyzed Method Blank BS True Value QC RPD Qualifier % Recovery Chloride 448 16.0 05/23/2019 ND 400 100 400 0.00

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### 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:

Sampling Type: 05/28/2019 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	Analyze	d 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	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	ed 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	Analyze	ed 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	% 37.6-14	7						

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### 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	Analyze	d 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	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	ed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2480	16.0	05/23/2019	ND	400	100	400	0.00	
TPH 8015M	mg,	/kg	Analyze	ed 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	% 37.6-14	7						

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### Analytical Results For:

TETRA TECH **CLAIR GONZALES** 901 WEST WALL STREET, STE 100 MIDLAND TX, 79701

Fax To: (432) 682-3946

05/16/2019 Received: 05/17/2019 Sampling Date:

Reported: Sampling Type: 05/28/2019 Soil

Project Name: DORSTATE SWD Sampling Condition: Cool & Intact Sample Received By: Project Number: Tamara Oldaker 212C-MD-01743

Project Location: PWS - EDDY CO NM

mg/kg

Sample ID: SP - 19 ( 4-5 ) (H901800-88)

Chloride, SM4500Cl-B

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 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 Analyzed By: AC Analyte Reporting Limit Analyzed Method Blank BS True Value QC **RPD** Qualifier Result % Recovery Chloride 256 16.0 05/23/2019 ND 400 100 400 0.00

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### **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

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Company Name:	Total Tell	1		BILL TO			ANALYSIS REQUEST	
Project Manager:	~	Scarzales		P.O.# +	Tech			
Address: 90/	1/20	· Stelle		Company: Tetro	130			
City: Midle	9	State: TX	Zip: 75 7501	r	Conzules	_		
Phone #:	1	Fax #:		Address:				
S	2C-MD-01743	Project Owner:	r. PWS	City:				
3	Torstate SwD	0		State: Zip: _	,			
ž	>			Phone #:				
Sampler Name: (	Aint Loit	+		Fax #:				
FOR LAB USE ONLY			MATRIX	PRESERV. SAMPLING	ING			_
Lab I.D.	Sample I.D.	9	WATER		·	ejieles EX		
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S	16-10)		-	×	×			
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PLEASE NOTE: Liability and Dr analyses. All claims including the service. In no event shall Cardin	images. Cardinal's liability and clien see for negligence and any other cu at be liable for incidental or conseq	I's exclusive remedy for use whatboover shall be sental damages, includin	any claim arising whether based in co deemed waived unless made in writing g without limitation, business informat	PLEASE NOTE: Liability and Damages. Cardinate liability and client's wecharive remedy for any claim arising whether based in contract or tor, shall be limited to the amount paid by the client for the "analyses. All claims including those for nogligence and any other cause whatsower shall be deemed waved 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 durunges, including without finitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries,	aid by the clant for the her completion of the app y clant, its subsidiaries.	Scable		
Relinquished By:	THE PERSON NAMED IN	Date: // -	Received By:	Received By:	_	□ Yes □	Add'l Phone #:	
Cille	N. P.	Time: 5/1 +	huara .	Makse	REMARKS:	Yes	Add'I Fax #:	
Retinguished By:	٦	Date: Time:	Received By:	(				
Delivered By: (Circle One)	Circle One)		Sample Condition	오				
Sampler - UPS - Bus - Other:	Bus - Other:	0100	Tres Tres	Yes (intrais)				
			The second secon	ı				



Company Name:			BILL TO			ANALYSIS REQUEST
Project Manager:			P.O. #:			
Address:			Company:			
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Company Name:			BILL TO		ANALYSIS	YSIS REQUEST
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FOR LAB USE ONLY			MATRIX	PRESERV. SAM	SAMPLING			
Lab I.D.	Sample i.D.		(G)RAB OR (C)OMP. # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE	OTHER: ACID/BASE: ICE/COOL OTHER:	TIME	Chlosides BTEX TPH		
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66	(14-15)			×	•	× - -		
PLEASE NOTE: Liability and analyses. All daims includin service. In no event shall Ca	PLEASE NOTE: Lability and Damages. Cardinal's lability and client's axclusive seriedy for any claim aiding whether based in contract or jort, shall be limited to the amount paid by the client for the sanalyses. All claims including bloce for neighbornes and any other cause whitehoner has be delimined waived whitein musted and received by cardinal within 20 days after completion of the applicable sarvices, in no event shall Caudinals books for incidented are required damages, including without all inflations, business intempletens, bos of use, or base of profits incurred by plant, its subdidantes, sarvices are recovered action and of the applicable and stated and the sarvices are recovered actions and of the applicable and sarvices have sarviced and actions are not the applicable and sarvices are recovered actions and of the applicable actions are not the applicable and sarvices are recovered actions and of the applicable actions are not the applicable and the applicab	exclusive remedy for e whatspever shall be tel damages, include tel damages, include	any daim aising whether besed in control of deemed waived unless made in writing a ng without limitation, business interruption of whether such class	act or fort, shall be limited to the amount of and received by Cardinal within 30 days a re, loss of use, or loss of profits incurred b on is based upon any of the above stated	It paid by the cleant for the tradier completion of the tradier completion of the tradiers or otherwise of seasons or otherwise	ppikabis L		
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Company Name:		BILL TO	ANALYSIS REQUEST	37
Project Manager:		P.O. #:		
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Lab I.D. Sample I.D.	(G)RAB OR (C)OMI # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE	OTHER ACID/BASE ICE / COOL OTHER	Chlorides BTEX TPH	
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### Page 48 of 49

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:	BILL T	70 ANALYSIS REQUEST
Project Manager:		
Address:	Company:	
City: State:	Zip: Attn:	
Phone #: Fax #:	Address:	
Project #: Project Owner:	Owner: City:	
Project Name:	State: Zip:	
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AND BY BUT AND	TER R MATRIX PRESERV.	
H901800	(G)RAB OR (C # CONTAINER GROUNDWAT WASTEWATER SOIL OIL SLUDGE OTHER ACID/BASE ICE / COOL OTHER	TIME Classica BTEX TPH
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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 <a href="https://www.tceq.texas.gov/field/qa/lab-accred-certif.html">www.tceq.texas.gov/field/qa/lab-accred-certif.html</a>.

Cardinal Laboratories is accreditated 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)

Celey D. Keene

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



### 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 are 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 su 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. Keine

Celey D. Keene, Lab Director/Quality Manager

Page 2 of 92



### Analytical Results For:

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701		Project Number: Project Manager:	DORSTATE SWD 212C-MD-01743 CLAIR GONZALES (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

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Celey D. Keene, Lab Director/Quality Manager

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### Analytical Results For:

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701		Project Number: Project Manager:	DORSTATE SWD 212C-MD-01743 CLAIR GONZALES (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.

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# 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
			Cardina	l Laborat	ories					
Inorganic Compounds										
Chloride	7920		16.0	mg/kg	4	9052313	AC	24-May-19	4500-Cl-B	
Volatile Organic Compound	s 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 (Pl	TD)		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	

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# 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
			Cardina	al Laborat	ories					
Inorganic Compounds										
Chloride	1630		16.0	mg/kg	4	9052313	AC	24-May-19	4500-C1-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	
Surrogate: 4-Bromofluorobenzene (PID	))		94.9 %	73.3	-129	9052102	ms	24-May-19	8021B	
Petroleum Hydrocarbons by C	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			91.8 %	41	142	9052009	MS	21-May-19	8015B	
Surrogate: 1-Chlorooctadecane			93.3 %	37.6	-147	9052009	MS	21-May-19	8015B	

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# 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
			Cardin	al Laborat	ories					

Inorganic Compounds								
Chloride	2480	16.0	mg/kg	4	9052313	AC	24-May-19	4500-Cl-B

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31-May-19 10:00



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# 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

SP - 20 ( 6-7 ) H901801-04 (Soil)

ı		D. L	MDI	Reporting	TT 12	D'1 - (	D / 1			M.d. 1	N
ı	Analyte	Result	MDL	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

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31-May-19 10:00



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# 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

SP-20 (9-10)

H901801-05 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	l Laborato	ories					

 Inorganic Compounds

 Chloride
 144
 16.0
 mg/kg
 4
 9052313
 AC
 24-May-19
 4500-Cl-B

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31-May-19 10:00



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# 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

SP-21 (0-1)

H901801-06 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	l Laborat	ories					
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 (PIL	))		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	

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# 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
			Cardina	l Laborat	ories					
Inorganic Compounds										
Chloride	2680		16.0	mg/kg	4	9052313	AC	24-May-19	4500-Cl-B	
Volatile Organic Compounds by	EPA Method 8	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	

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# 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

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31-May-19 10:00



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# 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

SP-21 (6-7)

H901801-09 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Not
			Cardin	al Laborai	torios					

**Inorganic Compounds** 9052313 AC 24-May-19 4500-Cl-B 1920 16.0 Chloride mg/kg

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31-May-19 10:00



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

SP - 21 ( 9-10 )

H901801-10 (Soil)

Analyte Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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#### **Cardinal Laboratories**

Inorganic Compounds									
Chloride	1340	16.0	mg/kg	4	9052313	AC	24-May-19	4500-Cl-B	

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# 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

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# 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				

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Page 16 of 92

4500-Cl-B

31-May-19 10:00



1390

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# Analytical Results For:

TETRA TECH

Chloride

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

9052313

AC

24-May-19

SP-21 (24-25)

H901801-13 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes		
Cardinal Laboratories												
Inorganic Compounds												

mg/kg

16.0

Cardinal Laboratories \*=Accredited Analyte

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31-May-19 10:00



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# 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

BG - 1 ( 0-1 ) H901801-14 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	ıl Laborat	ories					
<b>Inorganic Compounds</b>										
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	

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31-May-19 10:00



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# 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

BG-1 (2-3) H901801-15 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	al Laborat	ories					
Inorganic Compounds										
Chloride	208		16.0	mg/kg	4	9052408	AC	24-May-19	4500-Cl-B	
Volatile Organic Compounds by	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)			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	
Surrogate: 1-Chlorooctane			81.7 %	41-	142	9051719	MS	21-May-19	8015B	
Surrogate: 1-Chlorooctadecane			89.6 %	37.6	-147	9051719	MS	21-May-19	8015B	

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# 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)

ı		D. L	MDI	Reporting	TT 12	D'1 - (	D / 1			M.d. 1	N
ı	Analyte	Result	MDL	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

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31-May-19 10:00



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# 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

BG-1 (6-7)

H901801-17 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			C 11							

#### **Cardinal Laboratories**

 Inorganic Compounds

 Chloride
 352
 16.0
 mg/kg
 4
 9052408
 AC
 24-May-19
 4500-Cl-B

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31-May-19 10:00



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# 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

BG-1 (9-10)

H901801-18 (Soil)

#### **Cardinal Laboratories**

Inorganic Compounds								
Chloride	256	16.0	mg/kg	4	9052408	AC	24-May-19	4500-Cl-B

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31-May-19 10:00



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# 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

BG-1 (14-15)

H901801-19 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Note
			Cardin	al Labora	tories					

 Inorganic Compounds
 Inorganic Compounds

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4500-Cl-B

31-May-19 10:00



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# Analytical Results For:

TETRA TECH

Chloride

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

9052408

AC

24-May-19

BG-1 (19-20)

H901801-20 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes				
	Cardinal Laboratories													
Inorganic Compounds														

mg/kg

16.0

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31-May-19 10:00



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# 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

BG - 1 (24-25)

H901801-21 (Soil)

Analyte Result MDL L	orting mit 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

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31-May-19 10:00



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# 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

BG-1 (29-30)

H901801-22 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			C 11							

#### **Cardinal Laboratories**

 Inorganic Compounds
 80.0
 16.0
 mg/kg
 4
 9052408
 AC
 24-May-19
 4500-Cl-B

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# Analytical Results For:

TETRA TECH

Chloride

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

9052408

AC

24-May-19

Reported: 31-May-19 10:00

4500-Cl-B

BG - 1 ( 34-35 )

H901801-23 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes		
Cardinal Laboratories												
Inorganic Compounds												

mg/kg

16.0

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24-May-19

# Analytical Results For:

TETRA TECH

Chloride

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

4500-Cl-B

9052408

AC

BG-1 (39-40)

H901801-24 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes			
	Cardinal Laboratories												
Inorganic Compounds													

mg/kg

16.0

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# 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
			Cardina	l Laborat	ories					
Inorganic Compounds										
Chloride	3200		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 GO	C FID									S-04
GRO C6-C10*	<10.0		10.0	mg/kg	1	9051719	MS	22-May-19	8015B	
DRO >C10-C28*	2070		10.0	mg/kg	1	9051719	MS	22-May-19	8015B	
EXT DRO >C28-C36	XT DRO >C28-C36 1050				1	9051719	MS	22-May-19	8015B	
Surrogate: 1-Chlorooctane	rrogate: 1-Chlorooctane			41-	142	9051719	MS	22-May-19	8015B	
Surrogate: 1-Chlorooctadecane	159 %	37.6	-147	9051719	MS	22-May-19	8015B			

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31-May-19 10:00



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# 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

SP - 13 (2-3) H901801-26 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	ıl Laborat	ories					
Inorganic Compounds										
Chloride	3440		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	
DRO >C10-C28*	129		10.0	mg/kg	1	9051719	MS	21-May-19	8015B	
EXT DRO >C28-C36	35.5		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	

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31-May-19 10:00



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

SP - 13 ( 4-5 )

H901801-27 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes					
			Cardina	ıl Laborat	ories										
Inorganic Compounds															
Chloride	1380		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						

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31-May-19 10:00



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# Analytical Results For:

TETRA TECH

901 WEST WALL STREET, STE 100

MIDLAND TX, 79701

Project: DORSTATE SWD

Toject. DORSTATE SWD

Project Number: 212C-MD-01743

Project Manager: CLAIR GONZALES

Fax To: (432) 682-3946

SP-13 (6-7)

H901801-28 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	ıl Laborat	tories					
Inorganic Compounds										
Chloride	3440		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	

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31-May-19 10:00



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# Analytical Results For:

TETRA TECH

901 WEST WALL STREET, STE 100

MIDLAND TX, 79701

Surrogate: 1-Chlorooctadecane

Project: DORSTATE SWD

Project Number: 212C-MD-01743

Project Manager: CLAIR GONZALES

9052813

MS

29-May-19

8015B

Fax To: (432) 682-3946

SP-13 (9-10)

H901801-29 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes			
			Cardina	l Labora	tories								
Inorganic Compounds													
Chloride	3840		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				

37.6-147

88.5 %

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31-May-19 10:00



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# 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

SP-13 (14-15)

H901801-30 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	l Laborat	tories					
Inorganic Compounds										
Chloride	6560		16.0	mg/kg	4	9052408	AC	24-May-19	4500-C1-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	

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31-May-19 10:00



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# 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

SP-13 (19-20)

H901801-31 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Note
Cardinal Laboratories										

**Inorganic Compounds** 9052408 24-May-19 4500-Cl-B 7200 16.0 AC Chloride mg/kg

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31-May-19 10:00



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# 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

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

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# 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	Not
Cardinal Laboratories										

#### Cardinal Laboratories

**Inorganic Compounds** 9052408 24-May-19 4500-Cl-B 1420 16.0 AC Chloride mg/kg

Cardinal Laboratories \*=Accredited Analyte

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QM-07

Reported:

4500-C1-B

31-May-19 10:00



4320

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# Analytical Results For:

TETRA TECH

Chloride

901 WEST WALL STREET, STE 100

MIDLAND TX, 79701

Project: DORSTATE SWD

2420.445.04742

Project Number: 212C-MD-01743

9052409

AC

24-May-19

Project Manager: CLAIR GONZALES

Fax To: (432) 682-3946

SP-13 (34-35)

H901801-34 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories  Inorganic Compounds										

mg/kg

16.0

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4500-Cl-B

31-May-19 10:00



4480

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24-May-19

# Analytical Results For:

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND TX, 79701

**Inorganic Compounds** 

Chloride

Project: DORSTATE SWD

Project Number: 212C-MD-01743

Project Manager: CLAIR GONZALES

Fax To: (432) 682-3946

9052409

AC

SP-13 (39-40)

H901801-35 (Soil)

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

mg/kg

16.0

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31-May-19 10:00



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# 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

SP-10 ( 0-1 )

H901801-36 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	al Laborat	tories					
Inorganic Compounds										
Chloride	4000		16.0	mg/kg	4	9052409	AC	24-May-19	4500-Cl-B	
Volatile Organic Compounds	s 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 (PI	TD)		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	
DRO >C10-C28*	1320		10.0	mg/kg	1	9051719	MS	21-May-19	8015B	
EXT DRO >C28-C36	1790		10.0	mg/kg	1	9051719	MS	21-May-19	8015B	
Surrogate: 1-Chlorooctane			88.6 %	41-	142	9051719	MS	21-May-19	8015B	<u> </u>
Surrogate: 1-Chlorooctadecane			117 %	37.6	-147	9051719	MS	21-May-19	8015B	

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31-May-19 10:00



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#### 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

SP-10 (2-3)

H901801-37 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	l Laborat	ories					
Inorganic Compounds										
Chloride	3120		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 (PIL	0)		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	
DRO >C10-C28*	26.2		10.0	mg/kg	1	9051719	MS	21-May-19	8015B	
EXT DRO >C28-C36	19.3		10.0	mg/kg	1	9051719	MS	21-May-19	8015B	
Surrogate: 1-Chlorooctane			84.5 %	41-	142	9051719	MS	21-May-19	8015B	
Surrogate: 1-Chlorooctadecane			94.9 %	37.6	-147	9051719	MS	21-May-19	8015B	

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Celey D. Keene, Lab Director/Quality Manager

4500-Cl-B

31-May-19 10:00



4160

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24-May-19

#### Analytical Results For:

TETRA TECH

Chloride

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

9052409

AC

SP-10 (4-5)

H901801-38 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardin	al Labora	tories					
Inorganic Compounds										

mg/kg

16.0

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31-May-19 10:00



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#### 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

SP-10 (6-7)

H901801-39 (Soil)

Analyte Result MDL	Reporting Limit Units Dilution Batch	h Analyst Analyzed Method Notes
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#### **Cardinal Laboratories**

Inorganic Compounds								
Chloride	1760	16.0	mg/kg	4	9052409	AC	24-May-19	4500-Cl-B

Cardinal Laboratories \*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

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31-May-19 10:00



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

SP-10 (9-10)

H901801-40 (Soil)

Analyte Result MDL Reporting 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

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31-May-19 10:00



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#### 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

SP-10 (14-15)

H901801-41 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardin	al Laborat	tories					

# Inorganic Compounds Chloride 3600 16.0 mg/kg 4 9052409 AC 24-May-19 4500-Cl-B

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#### Analytical Results For:

TETRA TECH

901 WEST WALL STREET, STE 100

MIDLAND TX, 79701

**Inorganic Compounds** 

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)

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

**Cardinal Laboratories** 

9052409 24-May-19 4500-Cl-B 2920 16.0 mg/kg AC Chloride

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31-May-19 10:00



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#### 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

SP-10 (24-25)

H901801-43 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardin	al Laborat	tories					

 Inorganic Compounds

 Chloride
 3080
 16.0
 mg/kg
 4
 9052409
 AC
 24-May-19
 4500-Cl-B

Cardinal Laboratories \*=Accredited Analyte

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31-May-19 10:00



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# 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

SP - 10 ( 29-30 )

H901801-44 (Soil)

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

#### **Cardinal Laboratories**

Inorganic Compounds								
Chloride	4240	16.0	mg/kg	4	9052409	AC	24-May-19	4500-Cl-B

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31-May-19 10:00



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# 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

SP-10 (34-35)

H901801-45 (Soil)

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

**Cardinal Laboratories** 

**Inorganic Compounds** 

9052409 24-May-19 4500-Cl-B 16.0 mg/kg AC Chloride 4640

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#### 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

Reported: 31-May-19 10:00

Fax To: (432) 682-3946

SP-10 (39-40) H901801-46 (Soil)

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

**Cardinal Laboratories** 

**Inorganic Compounds** 

9052409 24-May-19 4500-Cl-B 16.0 mg/kg AC Chloride 4880

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31-May-19 10:00



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#### 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

SP - 11 ( 0-1 ) H901801-47 (Soil)

Analyte Result MDL Limit Units Dilution Batch Analyst Analyzed Method Notes

Analyte	Result	MDL	Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	l Labora	tories					
Inorganic Compounds										
Chloride	1760		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 (PIL	))		91.8 %	73.3	-129	9052103	ms	21-May-19	8021B	
Petroleum Hydrocarbons by C	GC FID									
GRO C6-C10*	<10.0		10.0	mg/kg	1	9051719	MS	21-May-19	8015B	
DRO >C10-C28*	120		10.0	mg/kg	1	9051719	MS	21-May-19	8015B	
EXT DRO >C28-C36	44.9		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	

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#### Analytical Results For:

TETRA TECH

901 WEST WALL STREET, STE 100

MIDLAND TX, 79701

Project: DORSTATE SWD

N. ..... 2126 MD 01742

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			
			Cardina	l Laborat	ories								
Inorganic Compounds	<u>Inorganic Compounds</u>												
Chloride	400		16.0	mg/kg	4	9052409	AC	24-May-19	4500-C1-B				
Volatile Organic Compounds by	EPA Method 8	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				

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31-May-19 10:00



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#### 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

SP-11 (4-5)

H901801-49 (Soil)

Analyte Result MDL Limit Units Dilution Batch Analyst A	Analyzed Method Notes
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#### **Cardinal Laboratories**

Inorganic Compounds								
Chloride	1070	16.0	mg/kg	4	9052409	AC	24-May-19	4500-Cl-B

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#### 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	Note
			Cardin	al Laborat	tories					

**Inorganic Compounds** 9052409 24-May-19 4500-Cl-B 1700 16.0 AC Chloride mg/kg

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31-May-19 10:00



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#### 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

SP-11 (9-10)

H901801-51 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			C 11							

#### **Cardinal Laboratories**

 Inorganic Compounds

 Chloride
 3600
 16.0
 mg/kg
 4
 9052409
 AC
 24-May-19
 4500-Cl-B

Cardinal Laboratories \*=Accredited Analyte

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31-May-19 10:00



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#### 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

SP-11 (14-15)

H901801-52 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardin	al Laborat	tories					

# Inorganic Compounds Chloride 6000 16.0 mg/kg 4 9052409 AC 24-May-19 4500-Cl-B

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#### 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			

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#### 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													
<u>I</u>	norganic Compounds													
(	Chloride	5760		16.0	mg/kg	4	9052206	AC	24-May-19	4500-Cl-B	QM-07			

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31-May-19 10:00



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#### 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

SP-11 (29-30)

H901801-55 (Soil)

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

**Cardinal Laboratories** 

**Inorganic Compounds** 

9052206 24-May-19 4500-Cl-B 16.0 mg/kg AC Chloride 6800

Cardinal Laboratories \*=Accredited Analyte

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4500-Cl-B

31-May-19 10:00



5730

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

24-May-19

# Analytical Results For:

TETRA TECH

Chloride

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

9052206

AC

SP-11 (34-35)

H901801-56 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes		
	Cardinal Laboratories											
Inorganic Compounds												

mg/kg

16.0

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#### 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												
<u>I</u>	norganic Compounds												
(	Chloride	5730		16.0	mg/kg	4	9052206	AC	24-May-19	4500-Cl-B			

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31-May-19 10:00



6960

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#### Analytical Results For:

TETRA TECH

Chloride

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

SP-11 (44-45)

H901801-58 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	l Laborato	ories					

mg/kg

#### **Inorganic Compounds** 16.0 9052206 AC 24-May-19 4500-Cl-B

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31-May-19 10:00



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#### 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

SP-12 (0-1)

H901801-59 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	l Laborat	ories					
Inorganic Compounds										
Chloride	4960		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 C	GC FID									
GRO C6-C10*	<10.0		10.0	mg/kg	1	9051719	MS	21-May-19	8015B	
DRO >C10-C28*	417		10.0	mg/kg	1	9051719	MS	21-May-19	8015B	
EXT DRO >C28-C36	124		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	

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#### 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
			Cardina	l Laborat	ories					
Inorganic Compounds										
Chloride	3320		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*	0.229		0.050	mg/kg	50	9052103	ms	21-May-19	8021B	
Ethylbenzene*	1.29		0.050	mg/kg	50	9052103	ms	21-May-19	8021B	
Total Xylenes*	0.326		0.150	mg/kg	50	9052103	ms	21-May-19	8021B	
Total BTEX	1.85		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
GRO C6-C10*	240		100	mg/kg	10	9051719	MS	21-May-19	8015B	
DRO >C10-C28*	6620		100	mg/kg	10	9051719	MS	21-May-19	8015B	
EXT DRO >C28-C36	1960		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	

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#### 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

Reported: 31-May-19 10:00

Fax To: (432) 682-3946

SP-12 (4-5)

H901801-61 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	l Laborat	ories					
Inorganic Compounds										
Chloride	8800		16.0	mg/kg	4	9052206	AC	24-May-19	4500-Cl-B	
Petroleum Hydrocarbons by	GC FID									S-06
GRO C6-C10*	2360		100	mg/kg	10	9052902	MS	29-May-19	8015B	QM-07
DRO >C10-C28*	18500		100	mg/kg	10	9052902	MS	29-May-19	8015B	QM-07
EXT DRO >C28-C36	2730		100	mg/kg	10	9052902	MS	29-May-19	8015B	
Surrogate: 1-Chlorooctane			605 %	41-	142	9052902	MS	29-May-19	8015B	
Surrogate: 1-Chlorooctadecane			689 %	37.6	-147	9052902	MS	29-May-19	8015B	

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31-May-19 10:00



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#### 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

SP-12 (6-7)

H901801-62 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	ıl Laborat	tories					
Inorganic Compounds										
Chloride	2520		16.0	mg/kg	4	9052206	AC	24-May-19	4500-Cl-B	
Petroleum Hydrocarbons by	GC FID									S-04
GRO C6-C10*	112		10.0	mg/kg	1	9052902	MS	29-May-19	8015B	
DRO >C10-C28*	2400		10.0	mg/kg	1	9052902	MS	29-May-19	8015B	
EXT DRO >C28-C36	479		10.0	mg/kg	1	9052902	MS	29-May-19	8015B	
Surrogate: 1-Chlorooctane			144 %	41-	142	9052902	MS	29-May-19	8015B	
Surrogate: 1-Chlorooctadecane			168 %	37.6	-147	9052902	MS	29-May-19	8015B	

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31-May-19 10:00



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#### 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

SP - 12 ( 9-10 ) H901801-63 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	l Laborato	ries					

		Cardina	l Laborat	ories					
Inorganic Compounds									
Chloride	3840	16.0	mg/kg	4	9052206	AC	24-May-19	4500-C1-B	
Petroleum Hydrocarbons by G	SC FID								S-06
GRO C6-C10*	147	50.0	mg/kg	5	9052902	MS	29-May-19	8015B	
DRO >C10-C28*	2940	50.0	mg/kg	5	9052902	MS	29-May-19	8015B	
EXT DRO >C28-C36	251	50.0	mg/kg	5	9052902	MS	29-May-19	8015B	
Surrogate: 1-Chlorooctane		174 %	41-1	42	9052902	MS	29-May-19	8015B	
Surrogate: 1-Chlorooctadecane		194 %	37.6-	147	9052902	MS	29-May-19	8015B	

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#### 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
			Cardina	ıl Laborat	ories					
Inorganic Compounds										
Chloride	5520		16.0	mg/kg	4	9052206	AC	24-May-19	4500-C1-B	
Petroleum Hydrocarbons by	GC FID									S-04
GRO C6-C10*	446		10.0	mg/kg	1	9052902	MS	29-May-19	8015B	
DRO >C10-C28*	5640		10.0	mg/kg	1	9052902	MS	29-May-19	8015B	
EXT DRO >C28-C36	1170		10.0	mg/kg	1	9052902	MS	29-May-19	8015B	
Surrogate: 1-Chlorooctane			219 %	41-	142	9052902	MS	29-May-19	8015B	
Surrogate: 1-Chlorooctadecane			281 %	37.6	-147	9052902	MS	29-May-19	8015B	

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31-May-19 10:00



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#### 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

SP-12 (19-20)

H901801-65 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	al Laborat	ories					
Inorganic Compounds										
Chloride	6320		16.0	mg/kg	4	9052206	AC	24-May-19	4500-Cl-B	
Volatile Organic Compound	s by EPA Method 8	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*	0.212		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 (Pa	TD)		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	
DRO >C10-C28*	1250		10.0	mg/kg	1	9053005	MS	30-May-19	8015B	QM-07
EXT DRO >C28-C36	212		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	

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31-May-19 10:00



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#### 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

SP - 12 ( 24-25 )

H901801-66 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	ıl Laborat	ories					
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	

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31-May-19 10:00



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#### 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

SP-12 (29-30)

H901801-67 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	l Laborat	ories					
Inorganic Compounds										
Chloride	7200		16.0	mg/kg	4	9052206	AC	24-May-19	4500-Cl-B	
Volatile Organic Compounds by	EPA Method 8	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	
DRO >C10-C28*	180		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			97.0 %	41-	142	9053005	MS	30-May-19	8015B	
Surrogate: 1-Chlorooctadecane			116 %	37.6	-147	9053005	MS	30-May-19	8015B	

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Celley & treene

Celey D. Keene, Lab Director/Quality Manager

31-May-19 10:00



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

SP-12 (34-35)

H901801-68 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	l Laborat	ories					
Inorganic Compounds										
Chloride	6000		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 (PII	0)		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	
DRO >C10-C28*	293		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			100 %	41	142	9053005	MS	30-May-19	8015B	
Surrogate: 1-Chlorooctadecane			113 %	37.6	-147	9053005	MS	30-May-19	8015B	

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Celey D. Keene, Lab Director/Quality Manager

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31-May-19 10:00



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#### 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

SP-12 (39-40)

H901801-69 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	ıl Laborat	tories					
Inorganic Compounds										
Chloride	6080		16.0	mg/kg	4	9052206	AC	24-May-19	4500-Cl-B	
Volatile Organic Compounds by	EPA Method 8	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	
DRO >C10-C28*	54.0		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	

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Celey D. Keene, Lab Director/Quality Manager

31-May-19 10:00



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#### 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

SP-12 (44-45)

H901801-70 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	l Laborat	ories					
Inorganic Compounds										
Chloride	6480		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 (PI	D)		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*	81.1		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			95.2 %	41	142	9053005	MS	30-May-19	8015B	
Surrogate: 1-Chlorooctadecane			99.9 %	37.6	-147	9053005	MS	30-May-19	8015B	

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Cellery D. Freene

Celey D. Keene, Lab Director/Quality Manager



#### 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										
Blank (9052206-BLK1)				Prepared &	Analyzed:	22-May-19	)			
Chloride	ND	16.0	mg/kg							
LCS (9052206-BS1)				Prepared &	Analyzed:	22-May-19	)			
Chloride	400	16.0	mg/kg	400		100	80-120			
LCS Dup (9052206-BSD1)				Prepared &	Analyzed:	22-May-19	)			
Chloride	400	16.0	mg/kg	400		100	80-120	0.00	20	
Batch 9052313 - 1:4 DI Water										
Blank (9052313-BLK1)				Prepared &	Analyzed:	23-May-19	)			
Chloride	ND	16.0	mg/kg							
LCS (9052313-BS1)				Prepared &	Analyzed:	23-May-19	)			
Chloride	400	16.0	mg/kg	400		100	80-120			
LCS Dup (9052313-BSD1)				Prepared &	Analyzed:	23-May-19	)			
Chloride	400	16.0	mg/kg	400		100	80-120	0.00	20	
Batch 9052408 - 1:4 DI Water										
Blank (9052408-BLK1)				Prepared &	Analyzed:	24-May-19	)			
Chloride	ND	16.0	mg/kg							
LCS (9052408-BS1)				Prepared &	Analyzed:	24-May-19	)			
Chloride	400	16.0	mg/kg	400		100	80-120			

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#### 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										
LCS Dup (9052408-BSD1)				Prepared &	Analyzed:	24-May-19	)			
Chloride	400	16.0	mg/kg	400		100	80-120	0.00	20	
Batch 9052409 - 1:4 DI Water										
Blank (9052409-BLK1)				Prepared &	Analyzed:	24-May-19	)			
Chloride	ND	16.0	mg/kg							
LCS (9052409-BS1)				Prepared &	Analyzed:	24-May-19	)			
Chloride	384	16.0	mg/kg	400		96.0	80-120			
LCS Dup (9052409-BSD1)				Prepared &	Analyzed:	24-May-19	)			
Chloride	400	16.0	mg/kg	400		100	80-120	4.08	20	

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Reported:

31-May-19 10:00



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## 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

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

## **Cardinal Laboratories**

Andre	D <sup>1</sup>	Reporting	TT-:4-	Spike	Source	0/DEC	%REC	DDD	RPD	N
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 9052102 - Volatiles										
Blank (9052102-BLK1)				Prepared &	Analyzed:	21-May-1	9			
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-1	9			
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-1	9			
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-1	9			
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			

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## 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**

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 9052103 - Volatiles										
LCS (9052103-BS1)				Prepared &	Analyzed:	21-May-1	9			
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 &	Analyzed:	21-May-1	9			
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 &	z Analyzed:	30-May-1	9			
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 &	Analyzed:	30-May-1	9			
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			

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31-May-19 10:00

RPD



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%REC

## 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

Snike

Source

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

## **Cardinal Laboratories**

Reporting

		Reporting		Spike	Source		/0KEC		KrD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 9053003 - Volatiles										
LCS Dup (9053003-BSD1)				Prepared &	k 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			

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Reported:

31-May-19 10:00



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

## 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										
Blank (9051719-BLK1)				Prepared:	17-May-19 A	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			
LCS (9051719-BS1)				Prepared:	17-May-19 A	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			
LCS Dup (9051719-BSD1)				Prepared:	17-May-19 A	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										
Blank (9052009-BLK1)				Prepared:	20-May-19 A	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			

Cardinal Laboratories \*=Accredited Analyte

mg/kg

50.0

99.8

37.6-147

49.9

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 ar 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 su 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.

Celleg Theene

Surrogate: 1-Chlorooctadecane

Celey D. Keene, Lab Director/Quality Manager



## 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										
LCS (9052009-BS1)				Prepared: 2	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			
LCS Dup (9052009-BSD1)				Prepared: 2	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										
Blank (9052813-BLK1)				Prepared: 2	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			
LCS (9052813-BS1)				Prepared: 2	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			

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Celey D. Keene, Lab Director/Quality Manager

Page 81 of 92

Reported:

31-May-19 10:00



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

## 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: 2	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 &	z Analyzed:	29-May-1	9			
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-1	9			
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-1	9			
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			

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Celley Theene

Celey D. Keene, Lab Director/Quality Manager

Reported:

31-May-19 10:00

**RPD** 



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

%REC

## 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

Spike

Source

## Petroleum Hydrocarbons by GC FID - Quality Control

## **Cardinal Laboratories**

Reporting

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 9053005 - General Prep - Organics										
Blank (9053005-BLK1)				Prepared &	Analyzed:	30-May-19	9			
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	9			
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-BSD1)				Prepared &	Analyzed:	30-May-19	9			
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			

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Celey & treene

Celey D. Keene, Lab Director/Quality Manager

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## **Notes and Definitions**

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

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Celley & treene

Celey D. Keene, Lab Director/Quality Manager

Relinquished

Sampler - UPS - Bus - Other:

Delivered By: (Circle One)

THITE!

Sample Condition

(Initials)

Received By:

amara

Fax Result: REMARKS:

Phone Sesult:

DC

X55

N N

Add'l Fhone #: Add'l Fax #:

Received By:

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

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

## Project Name: Project #: 2120-70-0743 Project Owner: Project Manager: Sampler Name: Project Location: Phone #: Address Company Name: THE BRITISH BOTH Lab I.D L9020 ctra prstate Sample I.D. 0 Conrales Tech Merci H Fax #: State: SWO Zip: (G)RAB OF (C)OMP - # CONTAINERS GROUNDWATER WASTEWATER MATRIX Oil SLUDGE OTHER State: City: Attn: P.O. # Fax #: Phone #: Address Company: ACID/BASE PRESERV ICE / COOL BILL OTHER Zip: DATE SAMPLING 70 13:00 TIME Melinides X.X x KK XX ANALYSIS REQUES

## Saluatoratories

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

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

City: Project Manager: Sampler Name: Project Name: Address: Sampler - UPS - Bus - Other Relinquished By H90180 Project Location: Project #: Phone #: Company Name: Delivered By: (Circle One) CONCRUTE BYTHOU Lab I.D. Sample I.D Fax #: Project Owner: State: Zip: (G)RAB OR (C)OMP Received By: Received By: # CONTAINERS amara ck GROUNDWATER Sample Condition MATRIX SOIL OIL SLUDGE OTHER City: Attn: P.O. #: Fax #: Phone #: State: Address: Company ACID/BASE PRESERV (Initiate) BILL OTHER Zip: SAMPLING 70 Phone Result: Fax Result: REMARKS: 14:00 TIME DE XX Yes XX DI ZZ ANALYSIS REQUEST Add'l Phone #: Add'l Fax #:

## Sairotatories | Page 87 of 92

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:	BILL TO	O ANALYSIS REQUEST
Address:	Company:	
City: State:	Zip: Attn:	
Phone #: Fax #:	Address:	
Project #: Project Owner:	ner: City:	8
Project Name:	State: Zip:	1/2
Project Location:	Phone #:	3
Sampler Name:	Fax #:	ol
LOS TRU DATA	S TER R MATRIX PRESERV	<u>x</u>
Lab I.D. Sample I.D.	(G)RAB OR (C) # CONTAINERS GROUNDWATE WASTEWATER SOIL OIL SLUDGE OTHER: ACID/BASE ICE / COOL OTHER	TPH a
22 86-1 (24-25)	 r××	*XXX
24 (39-40) 25 SP-13 (0-1)	× y :	*
26 (2-3)	**	X X X
28 (6-7)	× /	×7
printings of Direction of Direction for the property of the control of the contro	the differential which is the contract of the contract of the property of the	Typed the classed the first Account of the special section of the sp
Relinquished By:  Peringuished By:  Date:  Date:  Peringuished By:  Date:  Date	Received By:  Delaty	Plone Result:    Yes    No Add'I Plone #: Fax Result:    Yes    No Add'I Fax #: REMARKS:
Delivered By: (Circle One)		
Sampler - UPS - Bus - Other: 0.60	#97 Fes Tes Tes Tes	



# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

makeyet, de domin, schwarp than in replaced and service to receive suit Control to fail in an arcticle of the control of the c	1-45 Sb-11-	oampier Name:	Project Location:	Project Name:	Project #:	Phone #:	City:	Address:	Project Manager:	Company Name:
Time:  The:  Date:  Time:	Sample i.D.  3(14.20) (24.25) (24.25) (24.35) (34.35) (34.40) (3-1) (7-3) (4-5)				Project Owner:	Fax #:	State:			
Received by:  Received By:  Received By:  Received By:  Received By:  Received By:  No. 100   10	SLUDGE OTHER	MATRIX PR	Ph	State:	City:	Ad	Zip: Attn:	Co	P.O.	1
CHECKED BY:  [Initials]  CHECKED BY:  [Initials]	DATE S//2	PRESERVI SAMPLING	Phone #:	ite: Zip:	y:	Address:	n:	Company:		BILL TO
Phone Result: Yes I No Fax Result: Yes I No Fax Result: Yes I No	Who continued as the state of t									
Add'! Phone #: Add'! Fax #:										ANALYSIS REQUEST

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:		BILL TO		ANALYSIS REQUEST
Project Manager:		P.O. #:		
Address:		Company:		
City: State:	Zip:	Attn:		
Phone #: Fax #:		Address:		
Project #: Project Owner:	150	City:		
Project Name:		State: Zip:		
Project Location:		Phone #:		
Sampler Name:		Fax #:		
SOM THE DIST.	S ER	PRESERV! SAMPLING	des	
Lab I.D. Sample I.D.	(G)RAB OR (C) # CONTAINERS GROUNDWATE WASTEWATER SOIL OIL SLUDGE	OTHER ACID/BASE ICE / COOL OTHER	TIME	
42 (14.75)				
45 (25-20) 44 (25-20)	×××	***	<	
1	·	**	× × × × ×	
PLEASE NOTE: Lithlay and Durnaryes, Christoff Stability and Entiry artificial internal.	Later to Keem arrangs whether this set on currents of the	XXX	^	
Relinquished By:  Retinquished By:  Retinquished By:  Date:  Date:  Retinquished By:  Retinquished By:	Received By:	the state of the s	Phone Result:  Yes  No REMARKS:	Add'l Phone #: Add'l Fax #:
Delivered By: (Circle One)	ñ.	n CHECKED BY:		
Sampler - UPS - Bus - Other: 0.6	they work wo	To Initials		

## Seinotarodes | Page 90 of 92

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Project Manager: Address:	P.O. #:	
Address:	Company:	
Control of the contro		
City: State: Z	Zip: Attn:	
Phone #: Fax #:	Address:	
Project #: Project Owner:	City:	
Project Name:	State: Zip:	
Project Location:	Phone #:	
Sampler Name:	Fax #:	
Lab I.D. Sample I.D.	(G)RAB OR (C)OI # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER ACID/BASE ICE / COOL OTHER	Chlorida BTEX TPH
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-62)	- ×	·×
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58 (44-45)	* \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	**
59 Sp. 12 10-1	×× ××	1:30 X X X X
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Relinquished By:  Contact of the state of th	Received By: Pho Fex REA	Phone Result: ☐ Yes ☐ No Add'I Phone #: Fax Result: ☐ Yes ☐ No Add'I Fax #: REMARKS:
Times		
(Circle One)	Sample Con	
Sampler-UPS - Bus - Other D. 6c	#97 - TO.	

## Sairotatories Page 91 of 92

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

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Project Location: City: Project Manager: Relinquished By Sampler Name: Project Name: Company Name: Relinquished By Project #: Phone #: Address: Sampler - UPS - Bus - Other Delivered By: (Circle One) CHOSTORY BOY Lab I.D Sample I.D 14-15 26-30 52-42 14-70 9-10 Date: 14:00 Time: Project Owner: Fax #: State: Zip: Received By: Received By: (G)RAB OR (C)OMP. Sample Condition
Cool Intact
Ones Tres # CONTAINERS anara GROUND-WATER WASTEWATER MATRIX OIL SLUDGE State: P.O. # OTHER City: Attn: Fax #: Phone #: Address: Company: 9 ACID/BASE PRESERV. (Initials) ICE / COOL BILL OTHER Zip: DATE SAMPLING 70 Phone Result: Fax Result: REMARKS: 11.30 TIME DE Yes No U NO Sam Add'l Phone #: ANALYSIS TPH added 5/28
BTEX added 5/30 (Rush) REQUEST

## Salloquer

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Delivered By: (Circle One) Sampler - UPS - Bus - Other	Relinquished By:	PLEASE NOTE: Lander Art Curvay and the Art them introdes there is severe. In movematical Cultinal to difference or movematics project dat of		, }	2000年	H901 801	Lab I.D.	FOR LABILITE DIALY	Sampler Name:	Project Location:	Project Name:	Project #:	Phone #:	City:	Address:	Project Manager:	Company Name:
(Circle One) - Bus - Other:	By:	ent Correges, Contexts forble will all seg thate he regificate and any other Captinal by highly for prayering or cares seg out of an interest to the personance			70 72 (m-45)		Sample I.D.			25						a	
8.60	Date:	onth workstoor queety for conse witch may relate to queetal gainages, webste af proyect have order to			50		Þ					Project Owner:	Fax #:	State:			
Sample Condition Cool Intact Fes Tyes	Received By:	one stam among whether bread in mile durined to a returning miles make it arrows y within a longitude to distinct or miles (dis-			- ~	# CON GROUI WASTE SOIL OIL	FOR (C)OM TAINERS NDWATER WATER	MATRIX						Zip:			
dition CHECKED BY:  CL (Initials)  Yes  No.	Marky	uert or left, bluid for Newbook to the anterior of a sont her record by Carebrol wither 20 stars, a re, blue of use, or bleen of puells; presented to co. or feature upon part, affine others o stated.			×× 4/2 4/2 4/2 4/2 4/2 4/2 4/2 4/2	OTHER OTHER DATE	ASE OOL	PRESERV. SAMPLING	Fax#:	Phone #:	State: Zip:	City:	Address:	Attn:	Company:	P.O. #:	BILL TO
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	□ Yes □ No	ži.			1		EX				_		_	-			
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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 <a href="https://www.tceq.texas.gov/field/qa/lab">www.tceq.texas.gov/field/qa/lab</a> accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/qa/lab">www.tceq.texas.gov/field/qa/lab</a> accredited certif.html.

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

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

Accreditation applies to public drinking water matrices.

Celey D. Keens

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



## Analytical Results For:

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

Received: Sampling Date: 11/11/2019 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	Analyze	d 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	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d 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	Analyze	d 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	% 37.6-14	7						

Surrogate: 1-Chlorooctadecane

\*=Accredited Analyte Cardinal Laboratories

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Celeg D. Keene

Celey D. Keene, Lab Director/Quality Manager

Page 2 of 4



## **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

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

Page 3 of 4

Page 4 of

Relinquished by: Relinquished by: Analysis Request of Chain of Custody Record telipquished by: county, state) H96388 Receiving Laboratory: roject Location roject Name: voice to: ient Name: LAB # SWIS ᆏ ORIZONTAL 9 an Cardinal Eddy Co, NM Dorstate SWD Permian Water Solution etra Tech, Tetra Tech, Inc. SAMPLE IDENTIFICATION 2 N 11/11/15 Date: Date: C Time: ime: me: 6 W ٠A ORIGINAL COPY Received by: Sampler Signature: Project #: Site Manager: leceived by 11/11/2019 DATE SAMPLING TIME WATER Clair Gonzales MATRIX SOIL × Conner Moehring 212C-MD-01995 901W Wall Street, Ste 100 Midland, Texas 79705 Tel (432) 682-4559 Fax (432) 682-3946 Date: HCL PRESERVATIVE HNO<sub>3</sub> ICE × Time: None # CONTAINERS Z FILTERED (Y/N) B.92 + × BTEX 8021B BTEX 8260B ITCH) HAND DELIVERED FEDEX UPS ONLY ONLY TPH TX1005 (Ext to C35) TPH 8015M (GRO - DRO - ORO - MRO) PAH 8270C Circle or Specify Method Total Metals Ag As Ba Cd Cr Pb Se Hg TCLP Metals Ag As Ba Cd Cr Pb Se Hg REMARKS: TCLP Volatiles ANALYSIS REQUEST X RUSH: Same Day 24 m Rush Charges Authorized TCLP Semi Volatiles Special Report Limits or TRRP Report **RCI** STANDARD GC/MS Vol. 8260B / 624 GC/MS Semi. Vol. 8270C/625 PCB's 8082 / 608 NORM Page PLM (Asbestos) Chloride No Chloride TDS Sulfate 48 hr 72 hr General Water Chemistry (see attached list) Anion/Cation Balance 9 Hold



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 <a href="https://www.tceq.texas.gov/field/qa/lab">www.tceq.texas.gov/field/qa/lab</a> accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/qa/lab">www.tceq.texas.gov/field/qa/lab</a> accredited certif.html.

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Method EPA 524.2 Total Trihalomethanes (TTHM)
Method EPA 524.4 Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

Celey D. Keens

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



## Analytical Results For:

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

Received: Sampling Date: 11/11/2019 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	Analyze	d 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	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	11/12/2019	ND	416	104	400	3.92	
TPH 8015M	mg,	/kg	Analyze	d 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	% 37.6-14	7						

\*=Accredited Analyte Cardinal Laboratories

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Celeg D. Keene

Celey D. Keene, Lab Director/Quality Manager

Page 2 of 4



## **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.

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Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

Page 3 of 4

Relinquished by: Relinquished by: H903829 Analysis Request of Chain of Custody Record reliaquished by: receiving Laboratory: county, state) Hent Name: roject Location mments: voice to: oject Name: CAR USE Page 4 of 늄 3 HORIZONTAL Cardinal Eddy Co, NM Dorstate SWD Permian Water Solution Tetra Tech, Tetra Tech, Inc. SAMPLE IDENTIFICATION 2 11/11 Date: Date: Date: 100 Time: Ime: 6 5 ORIGINAL COPY Received by: Received by: Received by: 11/11/2019 Sampler Signature: Project #: Site Manager: DATE SAMPLING TIME WATER Clair Gonzales MATRIX SOIL × Conner Moehring 212C-MD-01995 901W Wall Street, Ste 100 Midland, Texas 79705 Tel (432) 682-4559 Fax (432) 682-3946 Date HCL 11-11-19 HNO<sub>3</sub> PRESERVATIVE METHOD Time: × ICE None CONTAINERS Z FILTERED (Y/N) × BTEX 8021B BTEX 8260B 4.3 LAB USE TPH TX1005 (Ext to C35) HAND DELIVERED TPH 8015M ( GRO - DRO - ORO - MRO) PAH 8270C Circle or Specify Method Total Metals Ag As Ba Cd Cr Pb Se Hg TCLP Metals Ag As Ba Cd Cr Pb Se Hg TCLP Volatiles REMARKS: ANALYSIS REQUEST X RUSH: Same Day 24 hr 48 hr TCLP Semi Volatiles Rush Charges Authorized FEDEX Special Report Limits or TRRP Report RCI STANDARD GC/MS Vol. 82608 / 624 UPS GC/MS Semi. Vol. 8270C/625 PCB's 8082 / 608 NORM Page PLM (Asbestos) Chloride No Chloride Sulfate TDS General Water Chemistry (see attached list) Anion/Cation Balance 72 hr 9 Hold



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 <a href="https://www.tceq.texas.gov/field/qa/lab">www.tceq.texas.gov/field/qa/lab</a> accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/qa/lab">www.tceq.texas.gov/field/qa/lab</a> accredited certif.html.

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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.

Celey D. Keens

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Sincerely,

Celey D. Keene

Lab Director/Quality Manager



## Analytical Results For:

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

Received: Sampling Date: 11/11/2019 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	Analyze	d 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	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d 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	Analyze	d 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	<u>,                                      </u>						
Surrogate: 1-Chlorooctadecane	107	% 37.6-14	7						

\*=Accredited Analyte Cardinal Laboratories

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Celeg D. Keene

Celey D. Keene, Lab Director/Quality Manager

Page 2 of 4



## **Notes and Definitions**

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

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\*\*\* Insufficient time to reach temperature.

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

Page 3 of 4

Page 388 of 481 Analysis Request of Chain of Custody Record Page 4 of 4

neinquisned by:	Dollar de brade but	om m	Belinquished by:				( LAB USE )	LAB#	Lanas an	Comments:	Receiving Laboratory:	Invoice to:	(county, state)	Project Name:	Client Name:	7
Date: T		orly 11/11/12	П			HORIZONTAL . 21 (0-1)		SAMPLE IDENTIFICATION			ory: Cardinal	Tetra Tech, Inc.	Eddy Co, NM	Dorstate SWD	Permian Water Solution	Tetra Tech,
Time: Received by:		1635				11/11/2019		VEAR: 2019	SAMPLING		Sampler Signature:		Project #:		Site Manager:	h, Inc.
Date: Time:	Mate: Time:	a Malfac 11-11-19				×	WATER SOIL HCL HNO <sub>3</sub> ICE None		MATRIX PRESERVATIVE		Conner Moehring		212C-MD-01995		Clair Gonzales	901W Wall Street, Ste 100 Midland, Texas 79705 Tel (432) 682-4550 Fair (432) 682-3545
Correctical Special Report Limits or TRRP Report  4.3c April Special Report Limits or TRRP Report  (Circle) HANG DELIVERED FEDEX UPS Tracking 8:	Sample Temperature  3.9 c 4577  Rush Charges Authorized	19 163 ONLY REMARKS: □ STANDARD				×	# CONTAI FILTERED BTEX 802 TPH TX10 TPH 8015 PAH 8270 Total Metal TCLP Meta TCLP Sem RCI GC/MS Vol GC/MS Ser PCB's 808 NORM PLM (Asbe- Chloride Chloride General W	O (Y)  1B  105 ( M ( C  Is April 1 Vo  Is April 1 V	RS /N) BTEX (Ext to C GRO - D g As Ba g As Ba latiles 260B / 62 /ol. 827 508	35) PRO - OF Cd Cr Pt Cd Cr P 24 0C/625	o Se H	g lg		(Circle or Specify Method No.)	ANALYSIS REQUEST	



November 12, 2019

**CLAIR GONZALES** 

TETRA TECH

901 WEST WALL STREET, STE 100

MIDLAND, TX 79701

RE: DORSTATE SWD

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Method EPA 524.2 Total Trihalomethanes (TTHM)
Method EPA 524.4 Regulated VOCs (V1, V2, V3)

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Sincerely,

Celey D. Keene

Lab Director/Quality Manager



## Analytical Results For:

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

Received: Sampling Date: 11/11/2019 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	Analyze	d 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	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d 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	Analyze	d 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	% 37.6-14	7						

Surrogate: 1-Chlorooctadecane

\*=Accredited Analyte Cardinal Laboratories

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 whistoever 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 claims 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.

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Celey D. Keene, Lab Director/Quality Manager

Page 2 of 5



## Analytical Results For:

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

Received: Sampling Date: 11/11/2019 11/11/2019

Reported: Sampling Type: 11/12/2019 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	Analyze	d 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	% 73.3-12	9						
Chloride, SM4500CI-B	mg	/kg	Analyze	ed 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	Analyze	ed 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	% 37.6-14	7						

\*=Accredited Analyte Cardinal Laboratories

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 whistoever 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 claims 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.

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## **Notes and Definitions**

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

\*\* Samples not received at proper temperature of 6°C or below.

\*\*\* Insufficient time to reach temperature.

- Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

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 whistoever 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 claims 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.

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Page 4 of 5

Page 5 of 5

Relinquished by: Analysis Request of Chain of Custody Record telinedished by: relinquished by: Receiving Laboratory: county, state) 1903831 voice to: roject Location roject Name: lient Name: CALLY CALLY LAB # of miles 4 HORIZONTAL HORIZONTAL Lung Cardinal Eddy Co, NM Dorstate SWD Permian Water Solution Tetra Tech, Inc. Tetra Tech, Inc. SAMPLE IDENTIFICATION 12 9 1 5 Date: Date: lime: Time: me: ž 1635 ORIGINAL COPY Sampler Signature: Received by: Received by Project #: Site Manager: 11/11/2019 11/11/2019 EAR: 2019 DATE SAMPLING TIME WATER Clair Gonzales MATRIX  $\times$ SOIL Conner Moehring 212C-MD-01995 901W Wall Street, Ste 100 Midland, Texas 79705 Tel (432) 682-4559 Fax (432) 682-3946 Date: HCL PRESERVATIVE HNO: × × ICE Time: None CONTAINERS z Z FILTERED (Y/N) BTEX 8021B BTEX 8260B × Circle HAND DELIVERED ONLY TPH TX1005 (Ext to C35) TPH 8015M (GRO - DRO - ORO - MRO) PAH 8270C Circle or Specify Method Total Metals Ag As Ba Cd Cr Pb Se Hg TCLP Metals Ag As Ba Cd Cr Pb Se Hg REMARKS: TCLP Volatiles ANALYSIS REQUEST X RUSH: Same Day 84hr 48 hr 72 hr Rush Charges Authorized TCLP Semi Volatiles FEDEX UPS Special Report Limits or TRRP Report STANDARD GC/MS Vol. 8260B / 624 GC/MS Semi. Vol. 8270C/625 PCB's 8082 / 608 NORM Page PLM (Asbestos) ×× Chloride Chloride Sulfate TDS General Water Chemistry (see attached list) Anion/Cation Balance 9 Hold

## **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

Jessica Vermer

Project Assistant

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## **Sample Cross Reference 641244**

## Tetra Tech- Midland, Midland, TX

P.W.S. Dorstate SWD

Borehole #22 (0-1')  Borehole #22 (2-3')  Borehole #22 (4-5')  Borehole #22 (6-7')  Borehole #22 (9-10')  S 10-25-19 00:00 0 1 ft 641244-0  S 10-25-19 00:00 0 2 - 3 ft 641244-0  S 10-25-19 00:00 0 4 - 5 ft 641244-0  Borehole #22 (6-7')  S 10-25-19 00:00 6 - 7 ft 641244-0  Borehole #22 (9-10')  S 10-25-19 00:00 9 - 10 ft 641244-0
Borehole #22 (4-5')  S 10-25-19 00:00 4 - 5 ft 641244-0  Borehole #22 (6-7')  S 10-25-19 00:00 6 - 7 ft 641244-0
Borehole #22 (6-7') S 10-25-19 00:00 6 - 7 ft 641244-0
Porcholo #22 (0.10') S 10.25 10.00:00 0.10 ft 641244.0
DUICHIOIC #22 (7-10) 5 10-23-19 00.00 9 - 10 It 041244-0
Borehole #22 (14-15') S 10-25-19 00:00 14 - 15 ft 641244-0
Borehole #22 (19-20') S 10-25-19 00:00 19 - 20 ft 641244-0
Borehole #22 (24-25') S 10-25-19 00:00 24 - 25 ft 641244-0
Borehole #22 (29-30') S 10-25-19 00:00 29 - 30 ft 641244-0
Borehole #23 (0-1') S 10-25-19 00:00 0 - 1 ft 641244-0
Borehole #23 (2-3') S 10-25-19 00:00 2 - 3 ft 641244-0
Borehole #23 (4-5') S 10-25-19 00:00 4 - 5 ft 641244-0
Borehole #23 (6-7') S 10-25-19 00:00 6 - 7 ft 641244-0
Borehole #23 (9-10') S 10-25-19 00:00 9 - 10 ft 641244-0
Borehole #23 (14-15') S 10-25-19 00:00 14 - 15 ft 641244-0
Borehole #23 (19-20') S 10-25-19 00:00 19 - 20 ft 641244-0
Borehole #23 (24-25') S 10-25-19 00:00 24 - 25 ft 641244-0
Borehole #23 (29-30') S 10-25-19 00:00 29 - 30 ft 641244-0
Borehole #24 (0-1') S 10-25-19 00:00 0 - 1 ft 641244-0
Borehole #24 (2-3') S 10-25-19 00:00 2 - 3 ft 641244-0
Borehole #24 (4-5') S 10-25-19 00:00 4 - 5 ft 641244-0
Borehole #24 (6-7') S 10-25-19 00:00 6 - 7 ft 641244-0
Borehole #24 (9-10') S 10-25-19 00:00 9 - 10 ft 641244-0
Borehole #24 (14-15') S 10-25-19 00:00 14 - 15 ft 641244-0
Borehole #24 (19-20') S 10-25-19 00:00 19 - 20 ft 641244-0
Borehole #24 (24-25') S 10-25-19 00:00 24 - 25 ft 641244-0
Borehole #24 (29-30') S 10-25-19 00:00 29 - 30 ft 641244-0

## XENCO CAS

CASE NARRATIVE

Client Name: Tetra Tech- Midland Project Name: P.W.S. Dorstate SWD

Project ID: Report Date: 04-NOV-19
Work Order Number(s): 641244
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.



Contact: Clair Gonzales

Project Location: Eddy Co, NM

## Certificate of Analysis Summary 641244

Tetra Tech- Midland, Midland, TX

**Project Name: P.W.S. Dorstate SWD** 

**Date Received in Lab:** Fri Oct-25-19 02:40 pm

**Report Date:** 04-NOV-19 **Project Manager:** Jessica Kramer

	Lab Id:	641244-	001	641244-	002	641244-0	003	641244-	004	641244-	005	641244-0	006
4 1 1 0	Field Id:	Borehole #2	2 (0-1')	Borehole #2	2 (2-3')	Borehole #22	2 (4-5')	Borehole #2	2 (6-7')	Borehole #22	2 (9-10')	Borehole #22	(14-15')
Analysis Requested	Depth:	0-1 f	t	2-3 f	t	4-5 ft		6-7 f	t	9-10 f	t	14-15	ft
	Matrix:	SOIL	_	SOII	.	SOIL		SOII	_	SOIL	,	SOIL	
	Sampled:	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
BTEX by EPA 8021B	Extracted:	Oct-31-19	12:00	Oct-31-19	12:00	Oct-31-19	12:00	Oct-31-19	12:00	Oct-31-19	12:00	Oct-31-19	12:00
SUB: T104704400-19-19	Analyzed:	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
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	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
Inorganic Anions by EPA 300/300.1	Extracted:	Oct-29-19	13:30	Oct-29-19 13:30		Oct-29-19 13:30		Oct-29-19 13:30		Oct-29-19	13:30	Oct-29-19	13:30
SUB: T104704400-19-19	Analyzed:	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		35 Oct-29-19 16	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	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
TPH By SW8015 Mod	Extracted:	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
SUB: T104704400-19-19	Analyzed:	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
Units/Ri		mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	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 Weamer



Contact: Clair Gonzales
Project Location: Eddy Co, NM

## Certificate of Analysis Summary 641244

Tetra Tech- Midland, Midland, TX Project Name: P.W.S. Dorstate SWD

**Date Received in Lab:** Fri Oct-25-19 02:40 pm

**Report Date:** 04-NOV-19 **Project Manager:** Jessica Kramer

Lab Id:	641244-0	007	641244-0	800	641244-0	009	641244-0	010	641244-	011	641244-0	012
Field Id:	Borehole #22	(19-20')	Borehole #22	(24-25')	Borehole #22	(29-30')	Borehole #2	3 (0-1')	Borehole #2	3 (2-3')	Borehole #2	3 (4-5')
Depth:	19-20 1	ft	24-25	ft	29-30 1	t	0-1 ft	:	2-3 ft	:	4-5 ft	t
Matrix:	SOIL	,	SOIL		SOIL		SOIL		SOIL		SOIL	_
Sampled:	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
Extracted:	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
Analyzed:	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
Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
	< 0.00198	0.00198	< 0.00200	0.00200	< 0.00198	0.00198	< 0.00200	0.00200	< 0.00202	0.00202	< 0.00199	0.00199
	< 0.00198	0.00198	< 0.00200	0.00200	< 0.00198	0.00198	0.00254	0.00200	< 0.00202	0.00202	< 0.00199	0.00199
	< 0.00198	0.00198	< 0.00200	0.00200	< 0.00198	0.00198	< 0.00200	0.00200	< 0.00202	0.00202	< 0.00199	0.00199
	< 0.00397	0.00397	< 0.00399	0.00399	< 0.00397	0.00397	0.0134	0.00401	< 0.00403	0.00403	< 0.00398	0.00398
	< 0.00198	0.00198	< 0.00200	0.00200	< 0.00198	0.00198	0.00576	0.00200	< 0.00202	0.00202	< 0.00199	0.00199
	< 0.00198	0.00198	< 0.00200	0.00200	< 0.00198	0.00198	0.0192	0.00200	< 0.00202	0.00202	< 0.00199	0.00199
	< 0.00198	0.00198	< 0.00200	0.00200	< 0.00198	0.00198	0.0217	0.00200	< 0.00202	0.00202	< 0.00199	0.00199
Extracted:	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	
Analyzed:	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
Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
	1660	24.9	598	4.98	1160	4.95	398	4.99	415	25.0	348	5.04
Extracted:	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
Analyzed:	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
Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
'	< 50.0	50.0	<49.8	49.8	<49.9	49.9	58.1	49.9	<49.9	49.9	< 50.0	50.0
	87.9	50.0	<49.8	49.8	<49.9	49.9	2320	49.9	430	49.9	424	50.0
	< 50.0	50.0	<49.8	49.8	<49.9	49.9	305	49.9	63.0	49.9	60.6	50.0
	87.9	50.0	<49.8	49.8	<49.9	49.9	2680	49.9	493	49.9	485	50.0
	Field Id: Depth: Matrix: Sampled: Extracted: Analyzed: Units/RL:  Extracted: Analyzed: Units/RL:  Extracted: Analyzed: Analyzed: Analyzed:	## Field Id: Borehole #22   Depth: 19-20     Matrix: SOIL     Sampled: Oct-25-19     Extracted: Oct-31-19     Analyzed: Nov-02-19     Units/RL: mg/kg     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.00198     <0.001	Field Id:         Borehole #22 (19-20')           Depth:         19-20 ft           Matrix:         SOIL           Sampled:         Oct-25-19 00:00           Extracted:         Oct-31-19 12:00           Analyzed:         Nov-02-19 19:11           Units/RL:         mg/kg         RL           <0.00198         0.00198           <0.00198         0.00198           <0.00198         0.00198           <0.00198         0.00198           <0.00198         0.00198           <0.00198         0.00198           <0.00198         0.00198           <0.00198         0.00198           <0.00198         0.00198           <0.00198         0.00198           <0.00198         0.00198           <0.00198         0.00198           <0.00198         0.00198           <0.00198         0.00198           <0.00198         0.00198           <0.00198         0.00198           <0.00198         0.00198           <0.00198         0.00198           <0.00198         0.00198           <0.00198         0.00198           <0.00198         0.00198           <0.001	Field Id:         Borehole #22 (19-20')         24-25 (19-20')         24-25 (19-20')         24-25 (19-20')         24-25 (19-20')         24-25 (19-20')         24-25 (19-20')         25-20 (19-20')	Field Id:         Borehole #22 (19-20')         Borehole #22 (24-25')           Depth:         19-20 ft         24-25 ft           Matrix:         SOIL         SOIL           Sampled:         Oct-25-19 00:00         Oct-25-19 00:00           Extracted:         Oct-31-19 12:00         Oct-31-19 12:00           Analyzed:         Nov-02-19 19:11         Nov-02-19 19:31           Units/RL:         mg/kg         RL         mg/kg         RL           <0.00198         0.00198         <0.00200         0.00200           <0.00198         0.00198         <0.00200         0.00200           <0.00198         0.00198         <0.00200         0.00200           <0.00198         0.00198         <0.00200         0.00200           <0.00198         0.00198         <0.00200         0.00200           <0.00198         0.00198         <0.00200         0.00200           <0.00198         0.00198         <0.00200         0.00200           <0.00198         0.00198         <0.00200         0.00200           <0.00198         0.00198         <0.00200         0.00200           <0.00198         0.00198         <0.00200         0.00200           <0.00198         0.00198 <th>Field Id:         Borehole #22 (19-20')         Borehole #22 (24-25')         Dot 24-25-19         Borolo 0000 (00</th> <th>Field Id:         Borehole #22 (19-20')         Borehole #22 (24-25')         Borehole #22 (29-30')           Depth:         19-20 ft         24-25 ft         29-30 ft           Matrix:         SOIL         SOIL         SOIL           Sampled:         Oct-25-19 00:00         Oct-25-19 00:00         Oct-25-19 00:00           Extracted:         Oct-31-19 12:00         Nov-02-19 16:00         Nov-02-19 19:31         Nov-02-19 16:00           Analyzed:         Nov-02-19 19:11         Nov-02-19 19:31         Nov-02-19 22:50         mg/kg         RL         Mov-02-19 22:50         Mov-02-19 16:00         Nov-02-19 16:45         Nov-02-19 16:45         Nov-02-19 16:45         Nov-02-19 16:45         Nov-02-19 16:45         Nov-02-19 16:45         Nov-02-19 16:45</th> <th>Field Id:         Borehole #22 (19-20')         Borehole #22 (24-25')         Borehole #22 (29-30')         Borehole #2 (29-19 16:00         Aout         Pack         Borehole #2 (29-30')         Borehole #2 (29-19 16:00         Aout         Aout         Pack         Borehole #2 (29-19 10:00         Aout         Aout</th> <th>Field Id:         Borehole #22 (19-20)         Borehole #22 (24-25)         Borehole #22 (29-30)         Borehole #23 (0-1)           Depth:         19-20 ft         24-25 ft         29-30 ft         0-1 ft         SOIL           Matrix:         SOIL         SOIL         SOIL         SOIL         SOIL         SOIL           Sampled:         Oct-25-19 00:00         Nov-02-19 16:00         Nov-02-19 16:00         Nov-02-19 16:00         Nov-02-19 23:10         Nov-02-19 22:50         Nov-02-19 22:50         Nov-02-19 23:10         Nov-02-19 22:50         Nov-02-19 22:50         Nov-0</th> <th>Field Id:         Borehole #22 (19-20)         Borehole #22 (24-25)         Borehole #22 (29-30)         Borehole #23 (0-1)         Borehole #23 (0-1)           Depth:         19-20 ft         24-25 ft         29-30 ft         0-1 ft         2-3 ft           Matrix:         SOIL         SOIL</th> <th>Field Id:         Borehole #22 (19-20)         Borehole #22 (24-25)         Borehole #22 (29-30)         Borehole #23 (0-1)         Borehole #23 (2-3)           Depth:         19-20 ft         24-25 ft         29-30 ft         0-1 ft         2-3 ft           Matrix:         SOIL         SOIL</th> <th>  Borehole #22 (19-20)   Borehole #22 (24-25)   Borehole #22 (29-30)   Borehole #23 (0-1)   Borehole #23 (2-3)   Borehole #23 (2-1)    </th>	Field Id:         Borehole #22 (19-20')         Borehole #22 (24-25')         Dot 24-25-19         Borolo 0000 (00	Field Id:         Borehole #22 (19-20')         Borehole #22 (24-25')         Borehole #22 (29-30')           Depth:         19-20 ft         24-25 ft         29-30 ft           Matrix:         SOIL         SOIL         SOIL           Sampled:         Oct-25-19 00:00         Oct-25-19 00:00         Oct-25-19 00:00           Extracted:         Oct-31-19 12:00         Nov-02-19 16:00         Nov-02-19 19:31         Nov-02-19 16:00           Analyzed:         Nov-02-19 19:11         Nov-02-19 19:31         Nov-02-19 22:50         mg/kg         RL         Mov-02-19 22:50         Mov-02-19 16:00         Nov-02-19 16:45         Nov-02-19 16:45         Nov-02-19 16:45         Nov-02-19 16:45         Nov-02-19 16:45         Nov-02-19 16:45         Nov-02-19 16:45	Field Id:         Borehole #22 (19-20')         Borehole #22 (24-25')         Borehole #22 (29-30')         Borehole #2 (29-19 16:00         Aout         Pack         Borehole #2 (29-30')         Borehole #2 (29-19 16:00         Aout         Aout         Pack         Borehole #2 (29-19 10:00         Aout         Aout	Field Id:         Borehole #22 (19-20)         Borehole #22 (24-25)         Borehole #22 (29-30)         Borehole #23 (0-1)           Depth:         19-20 ft         24-25 ft         29-30 ft         0-1 ft         SOIL           Matrix:         SOIL         SOIL         SOIL         SOIL         SOIL         SOIL           Sampled:         Oct-25-19 00:00         Nov-02-19 16:00         Nov-02-19 16:00         Nov-02-19 16:00         Nov-02-19 23:10         Nov-02-19 22:50         Nov-02-19 22:50         Nov-02-19 23:10         Nov-02-19 22:50         Nov-02-19 22:50         Nov-0	Field Id:         Borehole #22 (19-20)         Borehole #22 (24-25)         Borehole #22 (29-30)         Borehole #23 (0-1)         Borehole #23 (0-1)           Depth:         19-20 ft         24-25 ft         29-30 ft         0-1 ft         2-3 ft           Matrix:         SOIL         SOIL	Field Id:         Borehole #22 (19-20)         Borehole #22 (24-25)         Borehole #22 (29-30)         Borehole #23 (0-1)         Borehole #23 (2-3)           Depth:         19-20 ft         24-25 ft         29-30 ft         0-1 ft         2-3 ft           Matrix:         SOIL         SOIL	Borehole #22 (19-20)   Borehole #22 (24-25)   Borehole #22 (29-30)   Borehole #23 (0-1)   Borehole #23 (2-3)   Borehole #23 (2-1)

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Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Weamer



Contact: Clair Gonzales

Project Location: Eddy Co, NM

## Certificate of Analysis Summary 641244

Tetra Tech- Midland, Midland, TX Project Name: P.W.S. Dorstate SWD

**Date Received in Lab:** Fri Oct-25-19 02:40 pm

**Report Date:** 04-NOV-19 **Project Manager:** Jessica Kramer

	Lab Id:	641244-0	013	641244-	014	641244-0	015	641244-	016	641244-	017	641244-0	018
Analysis Requested	Field Id:	Borehole #2	3 (6-7')	Borehole #23	(9-10')	Borehole #23	(14-15')	Borehole #23	(19-20')	Borehole #23	(24-25')	Borehole #23	(29-30')
Analysis Requesieu	Depth:	6-7 ft	:	9-10 f	t	14-15	ft	19-20	ft	24-25	ft	29-30	ft
	Matrix:	SOIL	,	SOIL	,	SOIL		SOIL		SOIL	,	SOIL	_
	Sampled:	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
BTEX by EPA 8021B	Extracted:	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
SUB: T104704400-19-19	Analyzed:	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
	Units/RL:	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
Inorganic Anions by EPA 300/300.1	Extracted:	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 14:0	
SUB: T104704400-19-19	Analyzed:	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		:50 Oct-29-19 1	
	Units/RL:	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
TPH By SW8015 Mod	Extracted:	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
SUB: T104704400-19-19	Analyzed:	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
Units/RI		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

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Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Weamer



Contact: Clair Gonzales

Project Location: Eddy Co, NM

## Certificate of Analysis Summary 641244

Tetra Tech- Midland, Midland, TX Project Name: P.W.S. Dorstate SWD

**Date Received in Lab:** Fri Oct-25-19 02:40 pm

Report Date: 04-NOV-19

Project Manager: Jessica Kramer

	Lab Id:	641244-0	019	641244-	020	641244-	021	641244-	022	641244-	023	641244-0	024
Analysis Requested	Field Id:	Borehole #24	4 (0-1')	Borehole #2	4 (2-3')	Borehole #2	4 (4-5')	Borehole #2	4 (6-7')	Borehole #24	(9-10')	Borehole #24	(14-15')
Anaiysis Kequesieu	Depth:	0-1 ft		2-3 ft	:	4-5 ft	:	6-7 ft	t	9-10 f	t	14-15	ft
	Matrix:	SOIL	,	SOIL	.	SOIL		SOIL		SOIL	,	SOIL	,
	Sampled:	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
BTEX by EPA 8021B	Extracted:	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
SUB: T104704400-19-19	Analyzed:	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
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	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
Inorganic Anions by EPA 300/300.1	Extracted:	Oct-29-19	Oct-29-19 14:00		Oct-29-19 14:00		14:00	Oct-29-19 14:00		Oct-29-19 14:00		Oct-29-19 14:0	
SUB: T104704400-19-19	Analyzed:	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
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	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
TPH By SW8015 Mod	Extracted:	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
SUB: T104704400-19-19	Analyzed:	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
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	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

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Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Vermer



Contact: Clair Gonzales

Project Location: Eddy Co, NM

## Certificate of Analysis Summary 641244

Tetra Tech- Midland, Midland, TX Project Name: P.W.S. Dorstate SWD

**Date Received in Lab:** Fri Oct-25-19 02:40 pm

**Report Date:** 04-NOV-19 **Project Manager:** Jessica Kramer

Lab Id:	641244-0	)25	641244-0	26	641244-0	)27				
Field Id:	Borehole #24	(19-20')	Borehole #24 (	(24-25')	Borehole #24	(29-30')				
Depth:	19-20 f	it	24-25 f	t	29-30 f	ît .				
Matrix:	SOIL		SOIL		SOIL					
Sampled:	Oct-25-19 (	00:00	Oct-25-19 (	00:00	Oct-25-19 (	00:00				
Extracted:	Nov-02-19	16:00	Nov-02-19	16:00	Nov-02-19	16:00				
Analyzed:	Nov-03-19	05:11	Nov-03-19 (	05:31	Nov-03-19	05:52				
Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL				
	< 0.00199	0.00199	< 0.00200	0.00200	< 0.00201	0.00201				
	< 0.00199	0.00199	< 0.00200	0.00200	< 0.00201	0.00201				
	< 0.00199	0.00199	< 0.00200	0.00200	< 0.00201	0.00201				
	< 0.00398	0.00398	< 0.00399	0.00399	< 0.00402	0.00402				
	< 0.00199	0.00199	< 0.00200	0.00200	< 0.00201	0.00201				
	< 0.00199	0.00199	< 0.00200	0.00200	< 0.00201	0.00201				
	< 0.00199	0.00199	< 0.00200	0.00200	< 0.00201	0.00201				
Extracted:	Oct-29-19	14:00	Oct-29-19 14:00		Oct-29-19 14:00					
Analyzed:	Oct-29-19	16:59	Oct-29-19 1	7:05	Oct-29-19 1	17:11				
Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL				
	400	5.00	1590	24.8	2470	25.2				
Extracted:	Oct-29-19	17:00	Oct-29-19 1	7:00	Oct-29-19 1	17:00				
Analyzed:	Oct-30-19 (	00:48	Oct-30-19 (	1:08	Oct-30-19 (	)1:29				
Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL				
	< 50.0	50.0	< 50.0	50.0	<49.9	49.9				
	< 50.0	50.0	<50.0	50.0	<49.9	49.9				
	< 50.0	50.0	< 50.0	50.0	<49.9	49.9				
	< 50.0	50.0	< 50.0	50.0	<49.9	49.9				
	Field Id: Depth: Matrix: Sampled: Extracted: Analyzed: Units/RL:  Extracted: Analyzed: Units/RL:  Extracted: Analyzed: Analyzed: Analyzed:	## Field Id:	Field Id:         Borehole #24 (19-20')           Depth:         19-20 ft           Matrix:         SOIL           Sampled:         Oct-25-19 00:00           Extracted:         Nov-02-19 16:00           Analyzed:         Nov-03-19 05:11           Units/RL:         mg/kg         RL           <0.00199         0.00199         0.00199           <0.00199         0.00199         0.00199           <0.00199         0.00199         0.00199           <0.00199         0.00199         0.00199           <0.00199         0.00199         0.00199           <0.00199         0.00199         0.00199           <0.00199         0.00199         0.00199           <0.00199         0.00199         0.00199           <0.00199         0.00199         0.00199           <0.00199         0.00199         0.00199           <0.00199         0.00199         0.00199           <0.00199         0.00199         0.00199           <0.00199         0.00199         0.00199           <0.00199         0.00199         0.00199           <0.00199         0.00199         0.00199           <0.00199         0.00199	Field Id:         Borehole #24 (19-20')         Apple #24 (19-20')         Apple #24 (19-20')         Borehole #24 (19-20')         Apple #25 (19-25-19 (19-25-19) (19-25-19)         Cotton 19-25-19 (19-25-19)         Apple #25 (19-25-19) (19-25-19) (19-25-19) (19-25-19)         Apple #25 (19-25-19) (19-2	Field Id:         Borehole #24 (19-20')         Borehole #24 (24-25')           Depth:         19-20 ft         24-25 ft           Matrix:         SOIL         SOIL           Sampled:         Oct-25-19 00:00         Oct-25-19 00:00           Extracted:         Nov-02-19 16:00         Nov-02-19 16:00           Analyzed:         Nov-03-19 05:11         Nov-03-19 05:31           Units/RL:         mg/kg         RL         mg/kg         RL           <0.00199         0.00199         <0.00200         0.00200           <0.00199         0.00199         <0.00200         0.00200           <0.00199         0.00199         <0.00200         0.00200           <0.00199         0.00199         <0.00200         0.00200           <0.00199         0.00199         <0.00200         0.00200           <0.00199         0.00199         <0.00200         0.00200           <0.00199         0.00199         <0.00200         0.00200           <0.00199         0.00199         <0.00200         0.00200           <0.00199         0.00199         <0.00200         0.00200           <0.00199         0.00199         <0.00200         0.00200           <0.00199         0.00199 <th>Field Id:         Borehole #24 (19-20')         Borehole #24 (24-25')         Borehole #24           Depth:         19-20 ft         24-25 ft         29-30 ft           Matrix:         SOIL         SOIL         SOIL         SOIL           Sampled:         Oct-25-19 00:00         Oct-25-19 00:00         Oct-25-19 00:00         Oct-25-19 00:00           Extracted:         Nov-02-19 16:00         Nov-02-19 16:00         Nov-02-19 16:00         Nov-02-19 16:00           Analyzed:         Nov-03-19 05:11         Nov-03-19 05:31         Nov-03-19 05:31         Nov-03-19 05:31           Units/RL:         mg/kg         RL         mg/kg         RL         mg/kg           <ol> <li>0.00199</li> <li>0.00199</li> <li>0.00200</li> <li>0.00200</li> <li>0.00200</li> <li>0.00200</li> <li>0.00201</li> <li>0.00402</li> <ol> <li>0.00199</li> <li>0.00200</li> <li>0.00200</li> <li>0.00200</li> <li>0.00200</li> <li>0.00200</li> <li>0.00201</li> <ol> <li>0.00199</li> <li>0.00200</li> <li>0.00200</li> <li>0.00200</li> <li>0.00200</li> <li>0.00201</li> <ol> <li>0.00199</li> <li>0.00200</li> <li>0.00200</li> <li>0.00200</li> <li>0.00201</li></ol></ol></ol></ol></th> <th>Field Id:         Borehole #24 (19-20')         Borehole #24 (24-25')         Borehole #24 (29-30')           Depth:         19-20 ft         24-25 ft         29-30 ft           Matrix:         SOIL         SOIL         SOIL           Sampled:         Oct-25-19 00:00         Oct-25-19 00:00         Oct-25-19 00:00           Extracted:         Nov-02-19 16:00         Nov-02-19 16:00         Nov-02-19 16:00           Analyzed:         Nov-03-19 05:11         Nov-03-19 05:31         Nov-03-19 05:52           Units/RL:         mg/kg         RL         mg/kg         RL         mg/kg         RL           &lt;0.00199         0.00199         &lt;0.00200         0.00200         &lt;0.00201         0.00201           &lt;0.00199         0.00199         &lt;0.00200         0.00200         &lt;0.00201         0.00201           &lt;0.00199         0.00199         &lt;0.00200         0.00200         &lt;0.00201         0.00201           &lt;0.00398         0.00398         &lt;0.00399         &lt;0.00200         &lt;0.00201         &lt;0.00201           &lt;0.00199         &lt;0.00209         &lt;0.00200         &lt;0.00201         &lt;0.00201         &lt;0.00201           &lt;0.00199         &lt;0.00209         &lt;0.00200         &lt;0.00201         &lt;0.00201         &lt;0.00201</th> <th>Field Id:         Borehole #24 (19-20)         Borehole #24 (24-25')         Borehole #24 (29-30')           Depth:         19-20 ft         24-25 ft         29-30 ft           Matrix:         SOIL         SOIL         SOIL           Sampled:         Oct-25-19 00:00         Oct-25-19 00:00         Oct-25-19 00:00           Extracted:         Nov-02-19 16:00         Nov-02-19 16:00         Nov-03-19 05:31         Nov-03-19 05:52           Units/RL:         mg/kg         RL         mg/kg         RL         mg/kg         RL           -0.00199         0.00199         &lt;0.00200         0.00200         &lt;0.00201         0.00201         0.00201           -0.00199         0.00199         &lt;0.00200         0.00200         &lt;0.00201         0.00201     &lt;</th> <th>Field Id:         Borehole #24 (19-20)         Borehole #24 (24-25)         Borehole #24 (29-30)           Depth:         19-20 ft         24-25 ft         29-30 ft           Matrix:         SOIL         SOIL         SOIL           Sampled:         Oct-25-19 00:00         Oct-25-19 00:00         Oct-25-19 00:00           Extracted:         Nov-02-19 16:00         Nov-02-19 16:00         Nov-02-19 16:00           Analyzed:         Nov-03-19 05:11         Nov-03-19 05:31         Nov-03-19 05:52           Units/RL:         mg/kg         RL         mg/kg         RL         mg/kg         RL           &lt;0.00199         0.00199         &lt;0.00200         0.00200         &lt;0.00201         0.00201           &lt;0.00199         0.00199         &lt;0.00200         0.00200         &lt;0.00201         0.00201</th> <th>Field Id:         Borchole #24 (19-20')         Borchole #24 (24-25')         Borchole #24 (29-30')           Depth:         19-20 ft         24-25 ft         29-30 ft           Matrix:         SOIL         SOIL         SOIL           Sampled:         Oct-25-19 00:00         Oct-25-19 00:00         Oct-25-19 00:00           Extracted:         Nov-02-19 16:00         Nov-02-19 16:00         Nov-03-19 05:31         Nov-03-19 05:52           Units/RL:         mg/kg         RL         mg/kg         RL         mg/kg         RL           &lt;0.00199         0.00199         &lt;0.00200         0.00201         0.00201         0.00201           &lt;0.00199         0.00199         &lt;0.00200         &lt;0.00201         0.00201           &lt;0.00199         0.00199         &lt;0.00200</th>	Field Id:         Borehole #24 (19-20')         Borehole #24 (24-25')         Borehole #24           Depth:         19-20 ft         24-25 ft         29-30 ft           Matrix:         SOIL         SOIL         SOIL         SOIL           Sampled:         Oct-25-19 00:00         Oct-25-19 00:00         Oct-25-19 00:00         Oct-25-19 00:00           Extracted:         Nov-02-19 16:00         Nov-02-19 16:00         Nov-02-19 16:00         Nov-02-19 16:00           Analyzed:         Nov-03-19 05:11         Nov-03-19 05:31         Nov-03-19 05:31         Nov-03-19 05:31           Units/RL:         mg/kg         RL         mg/kg         RL         mg/kg <ol> <li>0.00199</li> <li>0.00199</li> <li>0.00200</li> <li>0.00200</li> <li>0.00200</li> <li>0.00200</li> <li>0.00201</li> <li>0.00402</li> <ol> <li>0.00199</li> <li>0.00200</li> <li>0.00200</li> <li>0.00200</li> <li>0.00200</li> <li>0.00200</li> <li>0.00201</li> <ol> <li>0.00199</li> <li>0.00200</li> <li>0.00200</li> <li>0.00200</li> <li>0.00200</li> <li>0.00201</li> <ol> <li>0.00199</li> <li>0.00200</li> <li>0.00200</li> <li>0.00200</li> <li>0.00201</li></ol></ol></ol></ol>	Field Id:         Borehole #24 (19-20')         Borehole #24 (24-25')         Borehole #24 (29-30')           Depth:         19-20 ft         24-25 ft         29-30 ft           Matrix:         SOIL         SOIL         SOIL           Sampled:         Oct-25-19 00:00         Oct-25-19 00:00         Oct-25-19 00:00           Extracted:         Nov-02-19 16:00         Nov-02-19 16:00         Nov-02-19 16:00           Analyzed:         Nov-03-19 05:11         Nov-03-19 05:31         Nov-03-19 05:52           Units/RL:         mg/kg         RL         mg/kg         RL         mg/kg         RL           <0.00199         0.00199         <0.00200         0.00200         <0.00201         0.00201           <0.00199         0.00199         <0.00200         0.00200         <0.00201         0.00201           <0.00199         0.00199         <0.00200         0.00200         <0.00201         0.00201           <0.00398         0.00398         <0.00399         <0.00200         <0.00201         <0.00201           <0.00199         <0.00209         <0.00200         <0.00201         <0.00201         <0.00201           <0.00199         <0.00209         <0.00200         <0.00201         <0.00201         <0.00201	Field Id:         Borehole #24 (19-20)         Borehole #24 (24-25')         Borehole #24 (29-30')           Depth:         19-20 ft         24-25 ft         29-30 ft           Matrix:         SOIL         SOIL         SOIL           Sampled:         Oct-25-19 00:00         Oct-25-19 00:00         Oct-25-19 00:00           Extracted:         Nov-02-19 16:00         Nov-02-19 16:00         Nov-03-19 05:31         Nov-03-19 05:52           Units/RL:         mg/kg         RL         mg/kg         RL         mg/kg         RL           -0.00199         0.00199         <0.00200         0.00200         <0.00201         0.00201         0.00201           -0.00199         0.00199         <0.00200         0.00200         <0.00201         0.00201         0.00201           -0.00199         0.00199         <0.00200         0.00200         <0.00201         0.00201         0.00201           -0.00199         0.00199         <0.00200         0.00200         <0.00201         0.00201         0.00201           -0.00199         0.00199         <0.00200         0.00200         <0.00201         0.00201         0.00201           -0.00199         0.00199         <0.00200         0.00200         <0.00201         0.00201     <	Field Id:         Borehole #24 (19-20)         Borehole #24 (24-25)         Borehole #24 (29-30)           Depth:         19-20 ft         24-25 ft         29-30 ft           Matrix:         SOIL         SOIL         SOIL           Sampled:         Oct-25-19 00:00         Oct-25-19 00:00         Oct-25-19 00:00           Extracted:         Nov-02-19 16:00         Nov-02-19 16:00         Nov-02-19 16:00           Analyzed:         Nov-03-19 05:11         Nov-03-19 05:31         Nov-03-19 05:52           Units/RL:         mg/kg         RL         mg/kg         RL         mg/kg         RL           <0.00199         0.00199         <0.00200         0.00200         <0.00201         0.00201           <0.00199         0.00199         <0.00200         0.00200         <0.00201         0.00201           <0.00199         0.00199         <0.00200         0.00200         <0.00201         0.00201           <0.00199         0.00199         <0.00200         0.00200         <0.00201         0.00201           <0.00199         0.00199         <0.00200         0.00200         <0.00201         0.00201           <0.00199         0.00199         <0.00200         0.00200         <0.00201         0.00201	Field Id:         Borchole #24 (19-20')         Borchole #24 (24-25')         Borchole #24 (29-30')           Depth:         19-20 ft         24-25 ft         29-30 ft           Matrix:         SOIL         SOIL         SOIL           Sampled:         Oct-25-19 00:00         Oct-25-19 00:00         Oct-25-19 00:00           Extracted:         Nov-02-19 16:00         Nov-02-19 16:00         Nov-03-19 05:31         Nov-03-19 05:52           Units/RL:         mg/kg         RL         mg/kg         RL         mg/kg         RL           <0.00199         0.00199         <0.00200         0.00201         0.00201         0.00201           <0.00199         0.00199         <0.00200         <0.00201         0.00201           <0.00199         0.00199         <0.00200         <0.00201         0.00201           <0.00199         0.00199         <0.00200         <0.00201         0.00201           <0.00199         0.00199         <0.00200         <0.00201         0.00201           <0.00199         0.00199         <0.00200         <0.00201         0.00201           <0.00199         0.00199         <0.00200         <0.00201         0.00201           <0.00199         0.00199         <0.00200

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.

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Jessica Vramer



## Flagging Criteria

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

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

PQL Practical Quantitation Limit MQL Method Quantitation Limit LOQ Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample BLK Method Blank

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

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

- + NELAC certification not offered for this compound.
- \* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



Project Name: P.W.S. Dorstate SWD

 Work Orders:
 641244,
 Project ID:

 Lab Batch #:
 3105833
 Sample:
 641244-004 / SMP
 Batch:
 1
 Matrix:
 Soil

Units:	mg/kg	<b>Date Analyzed:</b> 10/29/19 13:16	SU	RROGATE RE	ECOVERY S	STUDY	
	ТРН	By SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chloroocta	nne	•	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:** Date Analyzed: 10/29/19 15:00 mg/kg SURROGATE RECOVERY STUDY Amount True Control TPH By SW8015 Mod **Found** Amount Recovery Limits Flags [A] [B] %R %R [D] **Analytes** 1-Chlorooctane 87.0 99.9 87 70-135 o-Terphenyl 42.8 50.0 70-135 86

**Date Analyzed:** 10/29/19 15:21 Units: mg/kg SURROGATE RECOVERY STUDY Amount True Control TPH By SW8015 Mod **Found** Amount Recovery Limits Flags [B] %R %R [A] [D] **Analytes** 1-Chlorooctane 79.6 99.7 80 70-135

42.2

49.9

85

70-135

 Lab Batch #: 3105833
 Sample: 641244-006 / SMP
 Batch: 1
 Matrix: Soil

Units:	mg/kg	<b>Date Analyzed:</b> 10/29/19 15:42	SU	RROGATE R	ECOVERY S	STUDY	
	ТРН	By SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooc	etane		75.9	99.6	76	70-135	
o-Terpheny	/l		40.0	49.8	80	70-135	

 Lab Batch #: 3105833
 Sample: 641244-007 / SMP
 Batch: 1
 Matrix: Soil

Units:	mg/kg	<b>Date Analyzed:</b> 10/29/19 16:03	SU	RROGATE RI	ECOVERY S	STUDY	
	ТРН	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooc	tane		77.4	99.9	77	70-135	
o-Terpheny	ıl.		40.9	50.0	82	70-135	

<sup>\*</sup> Surrogate outside of Laboratory QC limits

o-Terphenyl

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

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



## Form 2 - Surrogate Recoveries

Project Name: P.W.S. Dorstate SWD

**Work Orders** : 641244, **Project ID: Lab Batch #:** 3105833 **Sample:** 641244-008 / SMP Matrix: Soil Batch: 1

Units:	mg/kg	<b>Date Analyzed:</b> 10/29/19 16:24	SU	RROGATE RE	ECOVERY S	STUDY	
	ТРН	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chloroocta	ane		76.5	99.6	77	70-135	
o-Terphenyl			40.6	49.8	82	70-135	

Lab Batch #: 3105833 Sample: 641244-009 / SMP Batch: Matrix: Soil

Units:	mg/kg	<b>Date Analyzed:</b> 10/29/19 16:45	SU	RROGATE RE	ECOVERY S	STUDY	
	ТРН	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooc	etane		76.7	99.7	77	70-135	
o-Terpheny	yl		40.9	49.9	82	70-135	

**Lab Batch #:** 3105833 Sample: 641244-010 / SMP **Batch:** Matrix: Soil

<b>Units:</b>	mg/kg	<b>Date Analyzed:</b> 10/29/19 17:06	SU	RROGATE RI	ECOVERY S	STUDY	
	ТРН	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1.601		Anarytes					
1-Chlorooc	ctane		82.6	99.8	83	70-135	
o-Terpheny	yl		51.2	49.9	103	70-135	

Lab Batch #: 3105833 **Sample:** 641244-011 / SMP Batch: Matrix: Soil

Units:	mg/kg	<b>Date Analyzed:</b> 10/29/19 17:48	SU	SURROGATE RECOVERY STUDY  Amount True Recovery Limits Flag  [A] [B] %R %R  [D]					
	ТРН	By SW8015 Mod Analytes	Found	Amount	%R	Limits	Flags		
1-Chlorooc	ctane		76.8	99.7	77	70-135			
o-Terpheny	yl		42.5	49.9	85	70-135			

Lab Batch #: 3105833 Sample: 641244-012 / SMP Matrix: Soil

Units:	mg/kg	<b>Date Analyzed:</b> 10/29/19 18:09	SURROGATE RECOVERY STUDY						
	ТРН	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
1-Chlorooc	ctane		90.1	100	90	70-135			
o-Terpheny	yl		48.9	50.0	98	70-135			

<sup>\*</sup> Surrogate outside of Laboratory QC limits

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

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution

**Units:** 



## Form 2 - Surrogate Recoveries

Project Name: P.W.S. Dorstate SWD

**Work Orders** : 641244, **Project ID: Lab Batch #:** 3105833 **Sample:** 641244-013 / SMP Matrix: Soil Batch: 1

Units:	mg/kg	<b>Date Analyzed:</b> 10/29/19 18:30	SURROGATE RECOVERY STUDY						
	ТРН	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
1-Chlorooct	ane		77.9	99.9	78	70-135			
o-Terphenyl			41.3	50.0	83	70-135			

Lab Batch #: 3105833 Sample: 641244-014 / SMP Batch: Matrix: Soil

Units:	mg/kg	<b>Date Analyzed:</b> 10/29/19 18:51	SURROGATE RECOVERY STUDY						
	ТРН	By SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
1-Chlorooc	tane		73.9	99.6	74	70-135			
o-Terpheny	rl		37.9	49.8	76	70-135			

**Lab Batch #:** 3105833 **Sample:** 641244-015 / SMP **Batch:** Matrix: Soil

Units: mg/kg Date Analyzed: 10/29/19 19:12 SURROGATE RECOVERY STUDY								
	ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
		Analytes			[D]			
1-Chlorooc	ctane		74.5	99.7	75	70-135		
o-Terpheny	yl		38.7	49.9	78	70-135		

**Lab Batch #:** 3105833 **Sample:** 641244-016 / SMP Batch: Matrix: Soil

<b>Units:</b>	mg/kg	<b>Date Analyzed:</b> 10/29/19 19:33	SURROGATE RECOVERY STUDY						
	ТРН	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
1-Chlorooc	etane		75.4	99.9	75	70-135			
o-Terpheny	yl		39.8	50.0	80	70-135			

**Lab Batch #:** 3105833 Sample: 641244-017 / SMP Batch: Matrix: Soil

Date Analyzed: 10/29/19 19:54

Units: mg/kg	<b>Date Analyzed:</b> 10/29/19 19:54	SU	RROGATE RE	ECOVERY S	STUDY	
TP	H By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			[D]		
1-Chlorooctane		77.0	100	77	70-135	
o-Terphenyl		40.5	50.0	81	70-135	

<sup>\*</sup> Surrogate outside of Laboratory QC limits

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

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



Project Name: P.W.S. Dorstate SWD

 Work Orders:
 641244,
 Project ID:

 Lab Batch #:
 3105833
 Sample:
 641244-018 / SMP
 Batch:
 1 Matrix:
 Soil

Units: mg/	kg <b>Date Analyzed:</b> 10/29/19 20:15	SU	RROGATE RE	COVERY S	STUDY	
	TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			[D]		
1-Chlorooctane		78.0	99.6	78	70-135	
o-Terphenyl		41.4	49.8	83	70-135	

**Units:** Date Analyzed: 10/29/19 20:36 mg/kg SURROGATE RECOVERY STUDY Amount True Control TPH By SW8015 Mod **Found** Amount Recovery Limits Flags [A] [B] %R %R [D] **Analytes** 1-Chlorooctane 93.7 99.7 94 70-135 49.9 o-Terphenyl 44.0 70-135 88

**Date Analyzed:** 10/29/19 20:57 Units: mg/kg SURROGATE RECOVERY STUDY Amount True Control TPH By SW8015 Mod **Found** Amount Recovery Limits Flags [B] %R %R [A] [D] **Analytes** 1-Chlorooctane 81.9 99.9 82 70-135

42.5

50.0

85

70-135

 Lab Batch #: 3105836
 Sample: 641244-022 / SMP
 Batch: 1
 Matrix: Soil

Units:	mg/kg	<b>Date Analyzed:</b> 10/29/19 22:42	SURROGATE RECOVERY STUDY						
	ТРН	By SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
1-Chlorooc	etane		78.0	99.7	78	70-135			
o-Terpheny	yl		41.4	49.9	83	70-135			

 Lab Batch #: 3105836
 Sample: 641244-021 / SMP
 Batch: 1
 Matrix: Soil

Units:	mg/kg	<b>Date Analyzed:</b> 10/29/19 23:45	SURROGATE RECOVERY STUDY							
	ТРН	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags			
1-Chlorooc	ctane		84.5	99.6	85	70-135				
o-Terpheny	yl		42.6	49.8	86	70-135				

<sup>\*</sup> Surrogate outside of Laboratory QC limits

o-Terphenyl

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

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



Project Name: P.W.S. Dorstate SWD

**Work Orders** : 641244, **Project ID:** Lab Batch #: 3105836 **Sample:** 641244-023 / SMP Matrix: Soil Batch: 1

Units:	mg/kg	<b>Date Analyzed:</b> 10/30/19 00:06	SURROGATE RECOVERY STUDY					
	ТРН	By SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
1-Chlorooct	ane	•	80.3	99.9	80	70-135		
o-Terphenyl	I		42.5	50.0	85	70-135		

Lab Batch #: 3105836 **Sample:** 641244-024 / SMP Batch: Matrix: Soil

Units:	mg/kg Date Analyzed: 10/30/19 00:27 SURROGATE RECOVERY STUDY								
	ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
		Analytes			رطا				
1-Chlorooct	tane		78.9	99.7	79	70-135			
o-Terphenyl	1		42.0	49.9	84	70-135			

**Sample:** 641244-025 / SMP **Lab Batch #:** 3105836 **Batch:** Matrix: Soil

<b>Units:</b>	mg/kg	Date Analyzed: 10/30/19 00:48 SURROGATE RECOVERY STUDY							
	ТРН	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
1-Chlorooc	tane		82.0	99.9	82	70-135			
o-Terpheny	·l		43.2	50.0	86	70-135			

**Lab Batch #:** 3105836 **Sample:** 641244-026 / SMP Batch: Matrix: Soil

Units:	mg/kg	<b>Date Analyzed:</b> 10/30/19 01:08	SURROGATE RECOVERY STUDY						
	ТРН	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
1-Chlorooc	ctane	<del>`</del>	79.0	100	79	70-135			
o-Terpheny	yl		41.8	50.0	84	70-135			

**Lab Batch #:** 3105836 Sample: 641244-027 / SMP Batch: Matrix: Soil

**Date Analyzed:** 10/30/19 01:29

Units:	mg/kg	<b>Date Analyzed:</b> 10/30/19 01:29	SURROGATE RECOVERY STUDY							
TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags				
		Analytes			[D]					
1-Chlorooct	tane		79.2	99.7	79	70-135				
o-Terpheny	1		41.9	49.9	84	70-135				

<sup>\*</sup> Surrogate outside of Laboratory QC limits

**Units:** 

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

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



Project Name: P.W.S. Dorstate SWD

**Work Orders** : 641244, **Project ID: Lab Batch #:** 3105833 Batch: Matrix: Soil Sample: 641244-001 / SMP

Units: mg/kg Date Analyzed: 10/30/19 08:28 SURROGATE RECOVERY STUDY								
	ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
		Analytes			[D]			
1-Chlorooct	ane		102	99.9	102	70-135		
o-Terphenyl	l		55.7	50.0	111	70-135		

Lab Batch #: 3105833 Sample: 641244-002 / SMP Batch: Matrix: Soil

**Units:** Date Analyzed: 10/30/19 08:49 mg/kg SURROGATE RECOVERY STUDY Amount True Control TPH By SW8015 Mod **Found** Amount Recovery Limits Flags %R [A] [B] %R [D] **Analytes** 1-Chlorooctane 99.6 99.6 100 70-135 49.8 o-Terphenyl 48.6 98 70-135

Lab Batch #: 3106322 Sample: 641244-001 / SMP **Batch:** Matrix: Soil

Date Analyzed: 11/02/19 17:10 Units: mg/kg SURROGATE RECOVERY STUDY Amount True Control BTEX by EPA 8021B **Found** Amount Recovery Limits Flags [B] %R %R [A] [D] **Analytes** 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: Matrix: Soil

Units:	mg/kg	<b>Date Analyzed:</b> 11/02/19 17:30	SURROGATE RECOVERY STUDY							
	ВТЕ	X by EPA 8021B  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags			
1,4-Difluor	robenzene		0.0277	0.0300	92	70-130				
4-Bromofluorobenzene			0.0472	0.0300	157	70-130	**			

Lab Batch #: 3106322 **Sample:** 641244-003 / SMP Batch: Matrix: Soil

Units:	mg/kg	<b>Date Analyzed:</b> 11/02/19 17:50	SURROGATE RECOVERY STUDY							
	ВТЕ	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags			
		Analytes			[D]					
1,4-Difluoro	obenzene		0.0263	0.0300	88	70-130				
4-Bromoflu	orobenzene		0.0481	0.0300	160	70-130	**			

<sup>\*</sup> Surrogate outside of Laboratory QC limits

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

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



Project Name: P.W.S. Dorstate SWD

**Work Orders** : 641244, **Project ID: Lab Batch #:** 3106322 Matrix: Soil Sample: 641244-004 / SMP Batch:

Units:	Units: mg/kg Date Analyzed: 11/02/19 18:10 SURROGATE RECOVERY STUDY									
BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags				
		Analytes			[D]					
1,4-Difluoro	benzene		0.0260	0.0300	87	70-130				
4-Bromofluo	orobenzene		0.0339	0.0300	113	70-130				

Lab Batch #: 3106322 Sample: 641244-005 / SMP Batch: Matrix: Soil

**Units:** Date Analyzed: 11/02/19 18:30 mg/kg SURROGATE RECOVERY STUDY Amount True Control BTEX by EPA 8021B **Found** Amount Recovery Limits Flags [A] [B] %R %R [D] **Analytes** 1,4-Difluorobenzene 0.0282 0.0300 94 70-130 0.0300 4-Bromofluorobenzene 0.0340 113 70-130

Lab Batch #: 3106322 **Sample:** 641244-006 / SMP **Batch:** Matrix: Soil

Units: mg/kg Date Analyzed: 11/02/19 18:50 SURROGATE RECOVERY STUDY Amount True Control BTEX by EPA 8021B **Found** Amount Recovery Limits Flags [B] %R %R [A] [D] **Analytes** 1,4-Difluorobenzene 0.0309 0.0300 103 70-130

0.0366

0.0300

122

70-130

Lab Batch #: 3106322 **Sample:** 641244-007 / SMP Batch: Matrix: Soil

Units:	mg/kg	<b>Date Analyzed:</b> 11/02/19 19:11	SURROGATE RECOVERY STUDY							
	ВТЕ	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags			
		Analytes			[D]					
1,4-Difluor	robenzene		0.0331	0.0300	110	70-130				
4-Bromofly	uorobenzene		0.0356	0.0300	119	70-130				

Lab Batch #: 3106322 **Sample:** 641244-008 / SMP Batch: Matrix: Soil

**Date Analyzed:** 11/02/19 19:31

Units:	mg/kg	<b>Date Analyzed:</b> 11/02/19 19:31	SURROGATE RECOVERY STUDY						
BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags			
		Analytes			[D]				
1,4-Difluorobe	enzene		0.0333	0.0300	111	70-130			
4-Bromofluorobenzene			0.0377	0.0300	126	70-130			

<sup>\*</sup> Surrogate outside of Laboratory QC limits

4-Bromofluorobenzene

**Units:** 

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

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



Project Name: P.W.S. Dorstate SWD

**Work Orders** : 641244, **Project ID: Lab Batch #:** 3106326 Sample: 641244-009 / SMP Matrix: Soil Batch:

Units:	mg/kg	<b>Date Analyzed:</b> 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		
		Analytes							
1,4-Difluorob	enzene		0.0330	0.0300	110	70-130			
4-Bromofluoi	obenzene		0.0345	0.0300	115	70-130			

**Lab Batch #:** 3106326 Sample: 641244-010 / SMP Batch: Matrix: Soil

**Units:** Date Analyzed: 11/02/19 23:10 mg/kg SURROGATE RECOVERY STUDY Amount True Control BTEX by EPA 8021B **Found** Amount Recovery Limits Flags [A] [B] %R %R [D] **Analytes** 1,4-Difluorobenzene 0.0278 0.0300 93 70-130 4-Bromofluorobenzene 0.0300 0.0332 111 70-130

Lab Batch #: 3106326 Sample: 641244-011 / SMP **Batch:** Matrix: Soil

**Date Analyzed:** 11/02/19 23:30 **Units:** mg/kg SURROGATE RECOVERY STUDY Amount True Control BTEX by EPA 8021B **Found** Amount Recovery Limits Flags [B] %R %R [A] [D] **Analytes** 1,4-Difluorobenzene 0.0299 0.0300 100 70-130

0.0356

0.0300

119

70-130

Lab Batch #: 3106326 **Sample:** 641244-012 / SMP Batch: Matrix: Soil

<b>Units:</b>	mg/kg	<b>Date Analyzed:</b> 11/02/19 23:50	SURROGATE RECOVERY STUDY							
BTEX by EPA 8021B  Analytes		Amount Found [A]	True Amount [B]	Recovery Control Limits %R		Flags				
1,4-Difluor	obenzene		0.0289	0.0300	96	70-130				
4-Bromoflu	uorobenzene		0.0361	0.0300	120	70-130				

Sample: 641244-013 / SMP Lab Batch #: 3106326 Batch: Matrix: Soil

Units:	mg/kg	<b>Date Analyzed:</b> 11/03/19 00:10	SURROGATE RECOVERY STUDY							
BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags				
		Analytes			[D]					
1,4-Difluorol	benzene		0.0313	0.0300	104	70-130				
4-Bromofluorobenzene			0.0330	0.0300	110	70-130				

<sup>\*</sup> Surrogate outside of Laboratory QC limits

4-Bromofluorobenzene

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

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



Project Name: P.W.S. Dorstate SWD

**Work Orders** : 641244, **Project ID: Lab Batch #:** 3106326 Sample: 641244-014 / SMP Matrix: Soil Batch:

Units:	mg/kg	<b>Date Analyzed:</b> 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-Difluoro	benzene	Analytes	0.0313	0.0300	104	70-130			
4-Bromofluorobenzene			0.0341	0.0300	114	70-130			

Lab Batch #: 3106326 Sample: 641244-015 / SMP Matrix: Soil Batch:

**Units:** Date Analyzed: 11/03/19 00:50 mg/kg SURROGATE RECOVERY STUDY Amount True Control BTEX by EPA 8021B **Found** Amount Recovery Limits Flags [A] [B] %R %R [D] **Analytes** 1,4-Difluorobenzene 0.0320 0.0300 107 70-130 0.0300 4-Bromofluorobenzene 0.0344 115 70-130

Lab Batch #: 3106326 **Sample:** 641244-016 / SMP **Batch:** Matrix: Soil

**Units:** mg/kg Date Analyzed: 11/03/19 01:11 SURROGATE RECOVERY STUDY Amount True Control BTEX by EPA 8021B **Found** Amount Recovery Limits Flags [B] %R %R [A] [D] **Analytes** 1,4-Difluorobenzene 0.0313 0.0300 104 70-130

0.0327

0.0300

109

70-130

Lab Batch #: 3106326 **Sample:** 641244-017 / SMP **Batch:** Matrix: Soil

Units:	mg/kg	<b>Date Analyzed:</b> 11/03/19 01:31	SU	RROGATE R	<b>ECOVERY</b> S	STUDY	
	ВТЕ	X by EPA 8021B  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluor	robenzene	Tanta y Co	0.0340	0.0300	113	70-130	
4-Bromoflu	uorobenzene		0.0316	0.0300	105	70-130	

Lab Batch #: 3106326 **Sample:** 641244-018 / SMP Batch: Matrix: Soil

**Date Analyzed:** 11/03/19 01:51

<b>Units:</b> mg/kg <b>Date Analyzed:</b> 11/03/19 01:51	SU	RROGATE RI	ECOVERY S	STUDY	
BTEX by EPA 8021B  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes			[-]		
1,4-Difluorobenzene	0.0332	0.0300	111	70-130	
4-Bromofluorobenzene	0.0290	0.0300	97	70-130	

<sup>\*</sup> Surrogate outside of Laboratory QC limits

4-Bromofluorobenzene

**Units:** 

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

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



Project Name: P.W.S. Dorstate SWD

**Work Orders** : 641244, **Project ID:** Lab Batch #: 3106326 **Sample:** 641244-019 / SMP Matrix: Soil Batch:

Units:	mg/kg	<b>Date Analyzed:</b> 11/03/19 03:09	SURROGATE RECOVERY STUDY						
	ВТЕ	X by EPA 8021B  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
1,4-Difluore	benzene		0.0279	0.0300	93	70-130			
4-Bromoflu	orobenzene		0.0244	0.0300	81	70-130			

Lab Batch #: 3106326 Sample: 641244-020 / SMP Batch: Matrix: Soil

Units:	mg/kg	<b>Date Analyzed:</b> 11/03/19 03:30	SURROGATE RECOVERY STUDY							
	ВТЕ	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags			
		Analytes			[D]					
1,4-Difluor	obenzene		0.0284	0.0300	95	70-130				
4-Bromoflu	uorobenzene		0.0379	0.0300	126	70-130				

**Lab Batch #:** 3106326 **Sample:** 641244-021 / SMP **Batch:** Matrix: Soil

Units:	mg/kg	<b>Date Analyzed:</b> 11/03/19 03:51	SURROGATE RECOVERY STUDY								
	ВТЕ	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags				
		Analytes			[D]						
1,4-Difluor	robenzene		0.0257	0.0300	86	70-130					
4-Bromoflu	uorobenzene		0.0356	0.0300	119	70-130					

**Lab Batch #:** 3106326 **Sample:** 641244-022 / SMP Batch: Matrix: Soil

<b>Units:</b>	mg/kg	<b>Date Analyzed:</b> 11/03/19 04:11	SURROGATE RECOVERY STUDY							
	BTE	X by EPA 8021B  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags			
1,4-Difluor	obenzene		0.0248	0.0300	83	70-130				
4-Bromofluorobenzene			0.0374	0.0300	125	70-130				

Lab Batch #: 3106326 Sample: 641244-023 / SMP **Batch:** Matrix: Soil

**Date Analyzed:** 11/03/19 04:31

ang ng Dutt imang Dutt 11/00/15 0 He i	SURROGATE RECOVERT STUDI					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
Analytes			[D]			
1,4-Difluorobenzene	0.0298	0.0300	99	70-130		
4-Bromofluorobenzene	0.0354	0.0300	118	70-130		

<sup>\*</sup> Surrogate outside of Laboratory QC limits

mg/kg

**Units:** 

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

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

SUPPOCATE DECOVERY STUDY

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



Project Name: P.W.S. Dorstate SWD

Work Orders: 641244, **Project ID:** Lab Batch #: 3106326 Sample: 641244-024 / SMP Matrix: Soil Batch:

Units:	mg/kg	<b>Date Analyzed:</b> 11/03/19 04:51	SURROGATE RECOVERY STUDY						
	ВТЕ	X by EPA 8021B  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
1,4-Difluoro	benzene	Analytes	0.0294	0.0300	98	70-130			
4-Bromofluo	orobenzene		0.0385	0.0300	128	70-130			

Lab Batch #: 3106326 Sample: 641244-025 / SMP Matrix: Soil Batch:

**Units:** Date Analyzed: 11/03/19 05:11 mg/kg SURROGATE RECOVERY STUDY Amount True Control BTEX by EPA 8021B **Found** Amount Recovery Limits Flags [A] [B] %R %R [D] **Analytes** 1,4-Difluorobenzene 0.0304 0.0300 101 70-130 0.0300 4-Bromofluorobenzene 0.0352 117 70-130

Lab Batch #: 3106326 **Sample:** 641244-026 / SMP **Batch:** Matrix: Soil

**Units:** mg/kg Date Analyzed: 11/03/19 05:31 SURROGATE RECOVERY STUDY Amount True Control BTEX by EPA 8021B **Found** Amount Recovery Limits Flags [B] %R %R [A] [D] **Analytes** 1,4-Difluorobenzene 0.0294 0.0300 98 70-130

0.0301

0.0300

100

70-130

Lab Batch #: 3106326 **Sample:** 641244-027 / SMP **Batch:** Matrix: Soil

Units:	mg/kg	<b>Date Analyzed:</b> 11/03/19 05:52	SURROGATE RECOVERY STUDY							
	BTE	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags			
		Analytes			[D]					
1,4-Difluor	robenzene		0.0325	0.0300	108	70-130				
4-Bromoflu	uorobenzene		0.0337	0.0300	112	70-130				

Lab Batch #: 3105833 Sample: 7689177-1-BLK / BLK Batch: Matrix: Solid

**Units:** mg/kg Date Analyzed: 10/29/19 12:13 SURROGATE RECOVERY STUDY True Control Amount TPH By SW8015 Mod Limits Flags **Found** Amount Recovery [A] [B] %R %R [D] **Analytes** 1-Chlorooctane 76.1 100 76 70-135 o-Terphenyl 40.4 50.0 70-135

4-Bromofluorobenzene

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

<sup>\*</sup> Surrogate outside of Laboratory QC limits

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



Project Name: P.W.S. Dorstate SWD

Work Orders: 641244,
Lab Batch #: 3105836
Sample: 7689180-1-BLK / BLK
Batch: 1 Matrix: Solid

Units:	mg/kg	<b>Date Analyzed:</b> 10/29/19 21:39	SU	RROGATE RI	ECOVERY S	STUDY	
	TPH 1	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
		Analytes			[D]		
1-Chloroocta	nne		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:** Date Analyzed: 11/01/19 21:34 mg/kg SURROGATE RECOVERY STUDY Amount True Control BTEX by EPA 8021B **Found** Amount Recovery Limits Flags [A] [B] %R %R [D] **Analytes** 1,4-Difluorobenzene 0.0277 0.0300 92 70-130 0.0300 4-Bromofluorobenzene 0.0264 70-130 88

Lab Batch #: 3106326 Sample: 7689457-1-BLK / BLK Batch: 1 Matrix: Solid

**Units:** mg/kg Date Analyzed: 11/02/19 22:29 SURROGATE RECOVERY STUDY Amount True Control BTEX by EPA 8021B **Found** Amount Recovery Limits Flags [B] %R %R [A] [D] **Analytes** 1,4-Difluorobenzene 0.0301 0.0300 100 70-130

0.0304

0.0300

101

70-130

Lab Batch #: 3105833 Sample: 7689177-1-BKS / BKS Batch: 1 Matrix: Solid

Units:	mg/kg	<b>Date Analyzed:</b> 10/29/19 12:34	SURROGATE RECOVERY STUDY							
	ТРН	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags			
1-Chlorooc	tane	Analytes	92.8	100	93	70-135				
o-Terpheny	7]		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 True Control Amount TPH By SW8015 Mod Flags **Found** Amount Recovery Limits [A] [B] %R %R [D] **Analytes** 1-Chlorooctane 85.7 100 86 70-135 o-Terphenyl 43.2 50.0 70-135

4-Bromofluorobenzene

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

<sup>\*</sup> Surrogate outside of Laboratory QC limits

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



Project Name: P.W.S. Dorstate SWD

Work Orders: 641244,
Lab Batch #: 3106322
Sample: 7689370-1-BKS / BKS
Batch: 1 Matrix: Solid

Units: mg/	/kg	<b>Date Analyzed:</b> 11/01/19 19:54	SURROGATE RECOVERY STUDY							
		by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags			
1,4-Difluorobenzene	e		0.0313	0.0300	104	70-130				
4-Bromofluorobenzo	ene		0.0325	0.0300	108	70-130				

Lab Batch #: 3106326 Sample: 7689457-1-BKS / BKS Batch: 1 Matrix: Solid

**Units:** Date Analyzed: 11/02/19 20:50 mg/kg SURROGATE RECOVERY STUDY Amount True Control BTEX by EPA 8021B **Found** Amount Recovery Limits Flags %R [A] [B] %R [D] **Analytes** 1,4-Difluorobenzene 0.0296 0.0300 99 70-130 0.0294 0.0300 4-Bromofluorobenzene 98 70-130

Lab Batch #: 3105833 Sample: 7689177-1-BSD/BSD Batch: 1 Matrix: Solid

**Date Analyzed:** 10/29/19 12:55 **Units:** mg/kg SURROGATE RECOVERY STUDY Amount True Control TPH By SW8015 Mod **Found** Amount Recovery Limits Flags [B] %R %R [A] [D] **Analytes** 1-Chlorooctane 91.5 100 92 70-135

47.3

50.0

95

70-135

Lab Batch #: 3105836Sample: 7689180-1-BSD / BSDBatch: 1Matrix: Solid

Units:	mg/kg	<b>Date Analyzed:</b> 10/29/19 22:21	SU	RROGATE RE	ECOVERY S	STUDY	
	ТРН	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooc	tane		85.0	100	85	70-135	
o-Terpheny	<sup>1</sup>		43.1	50.0	86	70-135	

 Lab Batch #: 3106322
 Sample: 7689370-1-BSD / BSD
 Batch: 1
 Matrix: Solid

Units:	BTEX by EPA 8021B  Analytes	<b>Date Analyzed:</b> 11/01/19 20:14	SURROGATE RECOVERY STUDY									
	ВТЕ	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags					
		Analytes			[D]							
1,4-Difluoro	1,4-Difluorobenzene		0.0306	0.0300	102	70-130						
4-Bromofluo	orobenzene		0.0322	0.0300	107	70-130						

<sup>\*</sup> Surrogate outside of Laboratory QC limits

o-Terphenyl

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

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



Project Name: P.W.S. Dorstate SWD

Work Orders: 641244,
Lab Batch #: 3106326
Sample: 7689457-1-BSD / BSD
Batch: 1 Matrix: Solid

Units:	mg/kg	<b>Date Analyzed:</b> 11/02/19 21:10	SURROGATE RECOVERY STUDY									
	BTEX by EPA 8021B  Analytes		Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags					
		Analytes			[D]							
1,4-Difluoro	benzene		0.0285	0.0300	95	70-130						
4-Bromofluo	4-Bromofluorobenzene			0.0300	100	70-130						

**Units:** Date Analyzed: 10/29/19 13:37 mg/kg SURROGATE RECOVERY STUDY Amount True Control TPH By SW8015 Mod **Found** Amount Recovery Limits Flags [A] [B] %R %R [D] **Analytes** 1-Chlorooctane 91.9 99.7 92 70-135 45.1 49.9 o-Terphenyl 70-135 90

**Date Analyzed:** 10/29/19 23:03 **Units:** mg/kg SURROGATE RECOVERY STUDY Amount True Control TPH By SW8015 Mod **Found** Amount Recovery Limits Flags [B] %R %R [A] [D] **Analytes** 1-Chlorooctane 90 89.5 99.9 70-135

45.4

50.0

91

70-135

 Lab Batch #: 3106322
 Sample: 641117-001 S / MS
 Batch: 1
 Matrix: Soil

Units:	mg/kg	<b>Date Analyzed:</b> 11/01/19 20:35	SU	RROGATE RI	ECOVERY S	STUDY	
	BTEX by EPA 8021B  Analytes		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
		Analytes			[15]		
1,4-Difluor	robenzene		0.0317	0.0300	106	70-130	
4-Bromoflu	uorobenzene		0.0349	0.0300	116	70-130	

Units:	mg/kg	<b>Date Analyzed:</b> 11/02/19 21:30	SURROGATE RECOVERY STUDY										
	ВТЕ	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags						
		Analytes			[D]								
1,4-Difluor	obenzene		0.0323	0.0300	108	70-130							
4-Bromoflu	uorobenzene		0.0345	0.0300	115	70-130							

<sup>\*</sup> Surrogate outside of Laboratory QC limits

o-Terphenyl

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

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



Project Name: P.W.S. Dorstate SWD

**Work Orders** : 641244, **Project ID:** Lab Batch #: 3105833 Sample: 641244-004 SD / MSD Batch: Matrix: Soil

**Units:** mg/kg Date Analyzed: 10/29/19 13:57 SURROGATE RECOVERY STUDY Amount True Control TPH By SW8015 Mod Flags Recovery Found Amount Limits [B] %R [A] %R [D] Analytes 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:** Matrix: Soil

**Units:** Date Analyzed: 10/29/19 23:25 mg/kg SURROGATE RECOVERY STUDY Amount True Control TPH By SW8015 Mod **Found** Amount Recovery Limits Flags %R [A] [B] %R [D] **Analytes** 1-Chlorooctane 91.5 100 92 70-135 o-Terphenyl 50.0 47.8 96 70-135

Lab Batch #: 3106322 **Sample:** 641117-001 SD / MSD **Batch:** Matrix: Soil

Date Analyzed: 11/01/19 20:55 **Units:** mg/kg SURROGATE RECOVERY STUDY Amount True Control BTEX by EPA 8021B **Found** Amount Recovery Limits Flags [B] %R %R [A] [D] **Analytes** 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 Matrix: Soil **Batch:** 

Units:	mg/kg	<b>Date Analyzed:</b> 11/02/19 21:50	SURROGATE RECOVERY STUDY								
	ВТЕ	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags				
		Analytes			[D]						
1,4-Difluoro	benzene		0.0319	0.0300	106	70-130					
4-Bromofluorobenzene			0.0342	0.0300	114	70-130					

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

<sup>\*</sup> Surrogate outside of Laboratory QC limits

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



#### **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		BLAN	K/BLANK	SPIKE / 1	BLANK S	SPIKE DUP	LICATE	RECOV	ERY STUI	ΟY	
BTEX by EPA 8021B	Blank Sample Result [A]	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Blank Spike Duplicate	Blk. Spk Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes		[B]	[C]	[D]	[E]	Result [F]	[G]				
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	

KTL **Analyst: 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 BTEX by EPA 8021B Blank Blank Spike Blank Blank Spike Blk. Spk Control Control Sample Result Added Spike Spike Spike Dup. RPD Limits Limits Flag Added Result %R **Duplicate** %R % %R %RPD [A] [B] [C] [D] Result [F] [G] [E] **Analytes** Benzene < 0.00200 0.100 0.100 100 0.100 0.0944 94 6 70-130 35 Toluene 35 < 0.00200 0.100 0.0956 96 0.100 0.0891 89 70-130 Ethylbenzene < 0.00200 0.100 0.0930 93 0.100 0.0861 86 8 70-130 35 m,p-Xylenes 0.200 0.200 8 70-130 35 < 0.00400 0.189 95 0.174 87 o-Xylene 2 35 < 0.00200 0.100 0.0871 87 0.100 0.0856 86 70-130

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		BLAN	K/BLANK S	SPIKE / 1	BLANK S	SPIKE DUPI	LICATE	RECOVI	ERY STUD	ΟY	
Inorganic Anions by EPA 300/300.1	Sample Result   Added   Spike   Spike   Added   Spike   Dup.   RPD   Limits   Limits   Flag   Flag										
Analytes		[B]	[C]	[D]	[E]	Result [F]	[G]				
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 Spike Blank Blank Blank Blk. Spk Control Control Spike Sample Result Added Spike Spike Added Spike Dup. RPD Limits Limits Flag [A] Result %R **Duplicate** %R % %R %RPD Result [F] [B] [C] [D] [G]  $[\mathbf{E}]$ **Analytes** Chloride < 5.00 250 250 90-110

ARM **Date Prepared:** 10/29/2019 **Date Analyzed:** 10/29/2019 **Analyst:** 

**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 Spike Blank Blank Blank Blk. Spk Control Control Spike Sample Result Added Spike Spike Spike Dup. RPD Limits Limits Flag Added Result %R **Duplicate** %R % %R %RPD [A] [B] Result [F] [C] [D] [E] [G] **Analytes** Gasoline Range Hydrocarbons (GRO) 3 70-135 <15.0 1000 940 94 1000 966 97 20 Diesel Range Organics (DRO) < 50.0 1000 1000 100 1000 1010 101 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**

8

Project Name: P.W.S. Dorstate SWD

Work Order #: 641244 Project ID:

**Analyst:** ARM **Date Prepared:** 10/29/2019 **Date Analyzed:** 10/29/2019

Units: mg/kg		BLAN	K /BLANK S	SPIKE / I	BLANK S	SPIKE DUPI	LICATE	RECOVI	ERY STUD	ΟΥ	
TPH By SW8015 Mod	Blank Spike Blank Spike Blank Spike Blank Spike Spike Added Spike Dup. RPD Limits Limits Flag  [A] Result %R Duplicate %R % %R %RPD  [B] [C] [D] [E] Result [F] [G]										
Analytes		[B]	[C]	[D]	[E]	Result [F]	[G]				
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

**Project ID:** 

**Lab Batch ID:** 3106322

**QC- Sample ID:** 641117-001 S

Batch #:

. .

1 Matrix: Soil

Date Analyzed:

11/01/2019

**Date Prepared:** 10/31/2019

Analyst: KTL

Analyst. KIL

Reporting Units: mg/kg MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B	Parent Sample Result	Spike Added	Spiked Sample Result [C]	Spiked Sample %R	Spike Added	Duplicate Spiked Sample Result [F]	Spiked Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes	[A]	[B]		[D]	[E]		[G]				
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

**QC- Sample ID:** 641244-009 S

Batch #:

Matrix: Soil

Date Analyzed:

11/02/2019

**Date Prepared:** 11/02/2019

Analyst: KTL

**Reporting Units:** mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

1

BTEX by EPA 8021B	Parent Sample	Spike	Spiked Sample Result	Sample	Spike	Duplicate Spiked Sample	•	RPD	Control Limits	Control Limits	Flag
Analytes	Result [A]	Added [B]	[C]	%R [D]	Added [E]	Result [F]	%R [G]	%	%R	%RPD	
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



#### Form 3 - MS / MSD Recoveries

Project Name: P.W.S. Dorstate SWD

Work Order #: 641244 **Project ID:** 

Lab Batch ID:

3105845

**QC- Sample ID:** 641244-008 S

Batch #:

Matrix: Soil

**Date Analyzed:** 

10/29/2019

**Date Prepared:** 10/29/2019

Analyst: CHE

**Reporting Units:** mg/kg

#### Spiked Sample Spiked Dunlicate Spiked

Inorganic Anions by EPA 300/300.1  Analytes	Sample Result [A]	Spike Added [B]	Result [C]	Sample %R [D]	Spike Added [E]	Spiked Sample Result [F]	Dup. %R [G]	RPD %	Limits %R	Limits %RPD	Flag
Chloride	598	249	664	27	249	652	22	2	90-110	20	X

Lab Batch ID:

3105845

**QC- Sample ID:** 641244-019 S

Batch #:

Matrix: Soil

**Date Analyzed:** 

10/29/2019

**Date Prepared:** 10/29/2019

**Reporting Units:** mg/kg

Analyst: CHE

#### MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

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

**QC- Sample ID:** 640749-003 S

Batch #:

Matrix: Soil

**Date Analyzed: Reporting Units:**  10/29/2019

mg/kg

**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



#### Form 3 - MS / MSD Recoveries

Project Name: P.W.S. Dorstate SWD

Work Order #: 641244 **Project ID:** 

Lab Batch ID:

3105847

**QC- Sample ID:** 640878-013 S

Batch #:

Matrix: Soil

**Date Analyzed:** 

10/29/2019

**Date Prepared:** 10/29/2019

Analyst: SPC

**Reporting Units:** 

mg/kg

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

**QC- Sample ID:** 641244-004 S

Batch #:

Matrix: Soil

**Date Analyzed:** 

10/29/2019

**Date Prepared:** 10/29/2019

Analyst: ARM

**Reporting Units:** 

mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	Parent Sample Result	Spike Added	Spiked Sample Result [C]	Spiked Sample %R	Spike Added	Duplicate Spiked Sample Result [F]	Spiked Dup. %R	RPD	Control Limits %R	Control Limits %RPD	Flag
Analytes	[A]	[B]	[C]	[D]	[E]	Kesuit [F]	[G]	70	70K	70KFD	
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

**QC- Sample ID:** 641244-022 S

Batch #:

Matrix: Soil

**Date Analyzed:** 

10/29/2019

**Date Prepared:** 10/29/2019

**Reporting Units:** 

mg/kg

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



# Chain of Custody

Work Order No: (941244

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonia, TX (210) 509-3334
Midland, TX (432) 704-5440 EL Paso, TX (915) 585-3443 Lubbook, TX (805) 794-1295 Crastiaid, NM (432)
oprik AZ (480) 385-0300 Atlanta GA (770) 440-800 Tampa El (241) 800, 2000 Mars Tatal

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,	rinjant	in	of service. Xenco will be flable only for the cost of samples and shall not assume any responsibility for any lossen or expenses incurred by the client if successive and shall not assume any responsibility for any lossen or expenses incurred by the client if such losses are due 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 anfaces	Circle Method(s) and Metal(s) to be analyzed	\$2.4									BOREHOLE #22	Sample Identification	Sample Custody Seals:	Cooler Custody Seals:	Received Intact:	Temperature (°C):	SAMPLE RECEIPT	PO#:	Sampler's Name:	Project Location	Project Number:	Project Name:	Phone:	City, State ZIP:	Address:	Company Name:	Project Manager:
0	2	inature)	only for the cost of of \$75.00 will be app	and Metal(s) to b	10	(36-42)	(24-25)	(19-20)	(14-15)	(4-10)	(6-7)	(4-5)	(2.3)	(1-0)	fication	Yes	Yes		(°C): 0-6			CONVER 1	Eddy CC, NM	PENDING	P.W.S Da		MIDEAND	do! M. M	TETRA TECH	DE ZIENT
(	18.5	>	samples and itled to each p	20: o be analya	<	-	E							1738	Matrix	N/A	NA ON	No	6	Temp Blank:		MOEHEING	M		DOSSIATE		7× 70	WALL ST	H	CHONZALES
	0	Received t	shall not assured	bez	<									10/25/15	Date Sampled	Tota	Corre	1	(	No No	Quote #:	35			SWD		79705			1
	2	Received by: (Signature)	me any responsib	8RCRA 13PPM TCLP / SPLP 6010:											Time Sampled	Total Containers:	Correction Factor:	+00-MM-007	Thermometer ID	Wet lce:		Due Date	Rush:	Routine	11	Email:				Bill to: (if different)
(		e)	order from client lithy for any loss in sample submit	13PPM Texas 1 P 6010: 8RCRA											Depth	44	200	400	ID	ON CER		late:		E N	Turn Around		City, S	,	Company Name:	Bill to:
1	14/52/0	D	es or expens thed to Xeno	Texas 11 Al St 8RCRA Sb As	E	-	-	-	+	-	1	-	-	-	Numb	er of	Co	ntai	nera	,				Code			City, State ZIP:	Address:	y Name:	Bill to: (if different)
-1		Date/Time	ses incurre o, but not a	Sb As Ba As Ba Be	×	×	X	X	X	×		×	×	×	Ch		114	65									Cleave.			
fo.	440 2	0	in client company to Xendo, its affiliates and subcontractions. It assist you should be considered by the client it such losses are due submitted to Xendo, but not analyzed. These terms will be anthrope.	Al Sb As Ba Be B b As Ba Be Cd Cr	X	X	×	X	×	×	×	×	×		TP:		281	5	M								0			
		Reling	d subcontrac et if such los se terms will	10 CP CP	ŀ																						Samsave (			
		uished b	tors. It assi- ses are due to be enforced																						ANAL		Stote			
		Relinquished by: (Signature)	igns standard terms and conditions to direamstances beyond the control unless previously negotiated.	Cu Fe Pb Mg Mo Ni Se Ag	-																				LYSIS REQUEST		tetrateche			- Admirita
		ture)	nees beyond lously negot	e Ag TI U													_						1		EQUES		Š		D	
			conditions of the control dated.	Mg Mn Mo Ni K Ag Ti U																					T	Deliverables: EDD .	eporting:L	State of Project	rogram: L	
		eceived I		K Se Ag							-		-	1			_					_	-			s: EDO (	ewel II 🗆	Project:	JST/PST	
		Received by: (Signature)		SiO2										-													Level III		PRP	Work Order
		ature)		Na Sr TI 1631/	-					+	+		+	-		2	1	27	Nac	H	H2:	HA.	No.	Ma		ADaPT [	]PST/US		Brownfie	Work Order Comments
	1			TI Sn U V Zn 1/245.1/7470											Sampl	(BOB)	and the state of	Zn Acetata+ NaOH: Zn	NaOH Na	H	H2S04: H2	HNOS HN	None NO	OH: Ma	Prese	Other	TOTAL	2000	lds RR	iments
	1000000000	Date/Time		. Sr Tl Sn U V Zn 1631/245.1/7470/7471:Hg											Sample Comments	received by 4:00pm		BOH: Zn				371			Preservative Codes	8	Reporting:Level II   PST/UST   TRRP   Level IV	1	Program: UST/PST PRP Brownfields RRC Superfund	
	0000	me		1 : Hg											ents	ym une see.									odes		<   	Ī	bound	

Page 32 of 40



# Chain of Custody

Work Order No: (24) 244

Houston,TX (281) 240-4200 Dattas,TX (2/4) 902-0300 San Antonio,TX (210) 509-3334

Midtand,TX (432) 704-5440 EL Paso,TX (915) 585-3443 Lusbook,TX (806) 794-1286 Crasibad, NM (432) 704-5440

Phoenic,AZ (490) 355-0800 Atlanta,GA (770) 449-8300 Tannos FL (811) 630-2000 West Palm Reach EL (461) 800-870

- 0	mun moun	Relinquished by: (Signature	of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any loanes or expenses incurred by the client if such loanes are due to discursatances beyond the control of Xenco. A minimum change 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 negoticited.	Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: BRCRA. Sb As Ba Be Cd Cr Co Cu Pb Mn Mo  Notice: Signature of this document and relinquishment of samples constitutes a valid our base order for client.	Total 200.7 / 6010	(	DOREHOLE #24 (	-	(24	(19)	( 14	-1-)	(6	(4-5	BODEHOLE #23 (2-3	Sample identification	Sample Custody Seals:	Cooler Custody Seals:	Received Intact:	Temperature (°C):	SAMPLE RECEIPT	PO#	5	Project Location Ed	Project Number:	Project Name: 12	Phone:	City, State ZIP: N	Address: 9	Company Name: 11	Project Manager:
	-	iture)	y for the cost of a 75,00 will be appli	d Metal(s) to	200 8 / 6020	2-3)	0-1)	29-30)	24-25)	19-20)	14-15)	(01-12)	6-7)	5)		tion	Wes No	s: Yes No		H	Ten		DANGE M	Eddy co. N	TRUBING	DW S DO		KI DUND TX	401 m. nn	TETRA TEX	CLAIR GONZALES
(	1	1	araples an ed to each	be anal	5	<				-				-	Soil	Matrix	N/A	WA	No		Temp Blank:		SHEON	255		DOOSTATE		3	WHILL S	T	MZAL
(	1	Received b	d shall not assur	Zed T		<									10 25 14	Date Sampled	Tota	Corre	3	0 10	Yes No	Quote #:	1000			SWD		19702	ST.		
	1	Received by: (Signature	ne any responsib arge of \$5 for each	TCLP / SPLP 6010:	- 11 1	- 30										Time	Total Containers:	Correction Factor:		Allemomater ID	Wet los:		Due Date:	Rush:	Routine	7.	Email:				Bill to: (if different)
	1	(a.	ality for any loss th sample submit	P 6010: BRCRA	1111											Depth				1	Yes NG		2010:		ē	Turn Around		City, S		Company Name:	Bill to:
1	10/25/14		tind to Xen	BRCRA Sh	11.1	-	-	1	-	-	-	-	-	-	-	Numb	er of	Co	ntai	ners					Code		CLAIR-CONZALES @ Totratech	City, State ZIP:	Address:	y Name	Bill to: (if different
	1/15	Date/Time	mses incu	Sb As Ba Be		×	×	×	×	×	X	×	×	×	×	Ch	101	de	5								142.50		41-		0
	0441	me	red by the	As Ba Be Cd (	,	<	X	1	X	×	×	×	×	×	×	B1	_	_									ES CO				
-	2	77	client II s	Cd Cr Co			^	×	X	×	X	×	X	×	×	TPI	1 0	31	SV	_		-		-			TOHN				
		Relinqu	uch lasse irms will b	Co Cu F		1												-0						+			stech				
		Relinquished by: (	s are due t	Pb Mn Mo																				1		ANALY	WIED.				
		y: (Sigr	gns stand o circums f unites pe																							YSIS	,				
		Signature)	standard terms and conditions roumstances beyond the contro ass previously regotiated.			+	+	-	-	-								_	_			_		1		SIS REQUEST			_		
H	+		yond the c regetisted	Mg Mn Mo Ni K	ŀ	+	+	+	-	1	+	+	+	-	-	_		_		_		_		-	-	EST	Delive	Report	Sta	Progra	
		Reco	ontrol	×	l	1	+			1		+		1	1			_						+	-		Deliverables: EDD	ing:Leve	State of Project	ım: UST	
		Received by: (Signature)		Se Ag																		Ī		1			EDD [	Ę	oject:	PST	_
		/: (Sigr		SiO2	L																							evel III	1	PRP	Work Order
		ature)		1631	╟	+	+	-	-	+	-	+	4	4			-		7 7	z :	r	I:	T 2	2 2			ADaPT []	PSTA		Brownf	Work Order Comments
				TI Sn												Sai	u spens in		Zn Apetate	SH N	Ē	H2S04: H2	PNO3- HN	NIGOTI ME	SOL L	Pre		NST []T		elds F	mments
		Da		Se Ag SiO2 Na Sr Tl Sn U V Zn 1631/245,1/7470												nple Co	racelyad by 4.00pm		Zn Apetate+ NaOH: Zn					q		servati	Other:	RRP 🗆	Ĺ	RC	20
		Date/Time		1631 / 245,1 / 7470 / 7471 : Hg												Sample Comments	naceward by 4.00pm		Zn			0	1			Preservative Codes		Reporting:Level II   Level III   PST/UST   TRRP   Level IV	- Contraction	Program: UST/PST PRP Brownfields RRC Superfund	1
				급												Cri	the lab.									35		Si A	Ĺ	ב	



# Chain of Custody

Work Order No: 1941244

Houston,TX (281) 240-4200: Delias,TX (214) 902-0300: San Antonio,TX (210) 509-3334
Midland,TX (432) 704-5440: EL Paso,TX (915) 595-3443: Lubbock,TX (806) 794-1296 Chasibad, NM (432) 704-5440
toents,AZ (480) 355-9500: Atlantis,GA (770) 449-8800: Tampa,FL (813) 620-2000: West Palm Beach, FL [551) 889-6701

1 0	mon morey	Relinquished by: (Signature)	or Senior. S minimum charge of er	couper_apparate of this occument and renderment of an input community are not provided by a recovery and the limbs only for the cost of samples and shall not assume any responsibility for any losses of expenses incurred by the client if such losses are due to circumstances beyond the control of severe and the losses are due to circumstances beyond the control of severe and the sample of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These torms will be enforced unless previously regoldated.	Toology Structure of this electronic and religiously months of samples constitutes a valid purchase order from client company to Xeeco, its affiliates and subcontractors. It easigns	Total 200.7 / 6010 200.8 / 6020: Circle Method(s) and Metal(s) to be analyzed				2 )	(2)	(10	(1)	(2)	(0)	BOREHULE # 24 (4	Sample Identification	Sample Custody Seals:	Cooler Custody Seals:	Received Intact:	Temperature (°C):	SAMPLE RECEIPT		-	Project Location Edu	Project Number: TEN	Project Name: P. W. S	Phone:	City, State ZIP: MAN	Address: 901	_	Project Manager: CL
	6	ture)	man with the sales of the	y for the cost of sair 9.00 will be applied	and relinquishment	200,8 / 6020: d Metal(s) to be			20	29-30) V	24-23)	15-20)	14-15)	(9-10)	0-7)	11.05 (5-4)		Yam No	Yes No	Yes No		Temp Blank:	1	10	Eddy co, nm	12	S DOSSIATE		MIDLAND TX	I W. WALL	TETRA TECH	CLAIR GO
	Kr	Received by:	to print book book to be	ples and shall not as to each project and a	of samples constitu	analyzed				4						10/25/41	Matrix Sampled	N/A To	N/A Con	see		lank: Yes No	Quote #:	MOEHRING	8		TE SWO		× 75705	1 57.		CHONTACES
	un	d by: (Signature)	Section Section 100	esume any responsib	tes a valid ourchase	BRCRA 1											Time Sampled	Total Containers:	Correction Factor:	1	THen	Wat Ice:	H	Due Date	Rush:	Routine	Tur	Email:				
	1	е)	A Charles of the County of the County of	ility for any losses of hisample submitted	oder from client co	8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu											Depth				1	Yes N		100		×	Turn Around	C1611-90	City, State ZIP:	Address	Company Name:	Bill to: (if different)
	10/25/1	Dat	100000000000000000000000000000000000000	to Xenco, I	X of Viledin	11 AIS	⊩	+		X	- ×	- ×	- X	- ×	×	×	Numb	200	11,555	PALCO I	ners		-	_	ij	Code		521,22vi d	ZIP:	ess:	me:	trent
	117 14	Date/Time		incurred b	anco, its at	Al Sb As Ba				4	X	×	×	×	×	×	131	-	1500									(0)				
4	1440 2			y the cliest lyzed. Thes	fillates and	la Be B				X	X.	X	×:	×	K	X	TP	HO	51	5 m	^							+6+10+4				
		Relinquished by:		if such losses a e terms will be o	subcentractors	Co Cu Pb																					Al	ACCIVI-COM				
		hed by: (Sig		re due to circun		Cr Co Cu Fe Pb Mn Mo N																					ANALYSIS					
		(Signature)		nstances beyone previously ne	dind terms a	Ni Se Ag TI U	H	-																			S REQUEST	L.	, n	_	70	
		Received by: (Signature)		and the control agottated.	standard terms and conditions	Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn Ni Se Ag Ti U 1631/245.1/7470																					ST	Deliverables: EDD	Reporting:Lavel II   Level III   PSI/UST   Level IV	State of Project:	Program: UST/PST   PRP   Brownfields   RRC   Superfund	Work
		Signature)				02 Na Sr TI Sn 1631 / 245											S		TAT starts	Zn Aceta	NaOH: Na	HCL: HC	H2S04: H2	HNO3: HN	None: NO	MeOH: Me	P	ADari L	I LISIVISI LI		Brownfields	Work Order Comments
		Date/Time			- 1111	Sr Ti Sn U V Zn 1631 / 245.1 / 7470 / 7471 : Hg											Sample Comments	received by 4:000pm	TAT starts the day received by the tab, if	Zn Acetate+ NaOH: Zn	5		12 100		0	te	Preservative Codes	Oluber	I HAP I Level IV		RRC Superfund	in the second



Page 1 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
641244-001	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 I	
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 I	
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 I	
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 I	
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 I	
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 I	
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 I	
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 I	
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	



Page 2 of 4

IOS Number 50953

Date/Time: 10/28/19 13:37 Created by: Elizabeth Mcclellan

Jessica Kramer Please send report to:

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:



Page 3 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
641244-017	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 I	
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 I	
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 I	
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 l	

Inter Office Shipment or Sample Comments:

Relinquished By: Received By:



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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 I	
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	

#### **Inter Office Shipment or Sample Comments:**

Doto	Dalina	mished·
I )ate	Relina	michedi

Flizaheth	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

Received By: Brianna Teel	Date Received: 10/29/2019	) 11:04 AM	
	Sample Receipt Chec	klist	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	#5 *Custody Seals Signed and dated for Containers/coolers		
#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 d	elivery of samples prior to p	lacing in the refrigerator	
NonConformance:			
Corrective Action Taken:			
	Nonconformance Doo	cumentation	
Contact:	Contacted by :	Date:	
Checklist reviewed by:	Brance Wal	Date: <u>10/29/2019</u>	
	Brianna Teel		

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## 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 contain	ner/ 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 relinquish	ned/ received?	Yes	
#10 Chain of Custody agrees with sample la	abels/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 headsp	ace?	N/A	

Analyst:		PH Device/Lot#:		
	Checklist completed by:	Elizabeth McClellan	Date: <u>10/28/2019</u>	
	Checklist reviewed by:	Jessica Vramer	Date: 10/29/2019	

Jessica Kramer

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

# **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 Additional 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

Jessica Vermer

Project Assistant

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

Certified and approved by numerous States and Agencies.

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# **Sample Cross Reference 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
Н9 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

# XENCO

#### CASE NARRATIVE

Client Name: Tetra Tech- Midland

Project Name: Permian Water Solutions Dorstate SWD Additional Assessment

Project ID: Report Date: 06-NOV-19
Work Order Number(s): 641434
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.

**Project Location:** 

**Contact:** 



Eddy County, NM

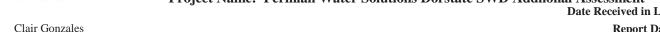
# Certificate of Analysis Summary 641434

#### 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

**Report Date:** 06-NOV-19 **Project Manager:** Jessica Kramer



	Lab Id:	641434-0	001	641434-0	002	641434-0	003	641434-0	004	641434-0	005	641434-006	
Anglusis Paguested	Field Id:	H1 0-	1	H1 1-2	2	H2 0-1	l	H2 1-2	2	H3 0-	1	H3 1-	2
Analysis Requested	Depth:												
	Matrix:	SOIL	,	SOIL		SOIL		SOIL		SOIL	,	SOIL	
	Sampled:	Oct-23-19	00:00	Oct-23-19	00:00								
BTEX by EPA 8021B	Extracted:	Nov-04-19	11:00	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	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
Inorganic Anions by EPA 300/300.1	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	mg/kg	RL								
Chloride		322	4.97	325	5.05	148	5.00	275	5.04	135	5.05	148	4.96
TPH By SW8015 Mod	Extracted:	Nov-01-19	13:00	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	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)	esel Range Organics (DRO) <50		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.%

Jessica Weamer

**Project Location:** 

**Contact:** 



Clair Gonzales

Eddy County, NM

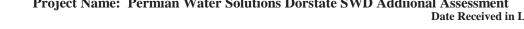
# Certificate of Analysis Summary 641434

#### 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

**Report Date:** 06-NOV-19 Project Manager: Jessica Kramer



	Lab Id:	641434-0	007	641434-0	800	641434-0	009	641434-0	010	641434-0	011	641434-	012
Amalusia Damusatad	Field Id:	H4 0-1	l	H4 1-2	2	H5 0-	l	H5 1-2	2	H6 0-1	ı	H6 1-	2
Analysis Requested	Depth:												
	Matrix:	SOIL		SOIL	,	SOIL		SOIL	,	SOIL		SOIL	
	Sampled:	Oct-23-19 (	00:00	Oct-23-19	00:00								
BTEX by EPA 8021B	Extracted:	Nov-04-19	11:00	Nov-04-19	11:00	Nov-04-19	11:00	Nov-04-19	11:00	Nov-04-19	11:00	Nov-04-19	11:00
	Analyzed:	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
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	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
Inorganic Anions by EPA 300/300.1	Extracted:	Oct-30-19	16:35	Oct-30-19	16:35	Oct-30-19	16:35	Oct-30-19	16:35	Oct-30-19	16:35	Oct-30-19	16:35
	Analyzed:	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
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		641	25.0	259	25.1	452	24.9	492	50.4	439	49.6	516	50.0
TPH By SW8015 Mod	Extracted:	Nov-01-19	13:00	Nov-01-19	13:00	Nov-01-19	13:00	Nov-01-19	13:00	Nov-01-19	13:00	Nov-01-19	13:00
	Analyzed:	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
	Units/RL:	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	<49.9	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

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Version: 1.%



**Project Location:** 

**Contact:** 



Eddy County, NM

# 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

**Report Date:** 06-NOV-19 **Project Manager:** Jessica Kramer



	[												
	Lab Id:	641434-0	013	641434-0	)14	641434-0	)15	641434-0	)16	641434-0	017	641434-0	018
Analysis Requested	Field Id:	H7 0-1	1	H7 1-2	2	H8 0-1	1	H8 1-2	2	H9 0-8	3"	H10 0-	-1
Anatysis Requested	Depth:												
	Matrix:	SOIL	,	SOIL	,	SOIL	,	SOIL		SOIL	,	SOIL	,
	Sampled:	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
BTEX by EPA 8021B	Extracted:	Nov-04-19	11:00										
	Analyzed:	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
	Units/RL:	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
Inorganic Anions by EPA 300/300.1	Extracted:	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
	Analyzed:	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
	Units/RL:	mg/kg	RL										
Chloride		243	4.96	175	5.03	281	4.99	855	4.98	154	5.04	192	4.96
TPH By SW8015 Mod	Extracted:	Nov-01-19	13:00										
	Analyzed:	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
	Units/RL:	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

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Version: 1.%

Jessica Weamer

**Project Location:** 

**Contact:** 



Clair Gonzales

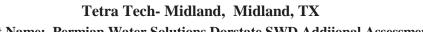
Eddy County, NM

# Certificate of Analysis Summary 641434

Project Name: Permian Water Solutions Dorstate SWD Addiional Assessment

Date Received in Lab: Tue Oct-29-19 03:45 pm

**Report Date:** 06-NOV-19 **Project Manager:** Jessica Kramer



641434-019 641434-020 641434-021 641434-022 641434-023 641434-024 Lab Id: Field Id: H10 1-2 H11 0-10" H13 0-1 H14 0-1 H12 0-1 H12 1-2 Analysis Requested Depth: Matrix: SOIL SOIL SOIL SOIL SOIL SOIL Oct-24-19 00:00 Oct-24-19 00:00 Oct-24-19 00:00 Oct-24-19 00:00 Oct-24-19 00:00 Sampled: Oct-24-19 00:00 BTEX by EPA 8021B Extracted: Nov-04-19 11:00 Nov-04-19 16:00 Nov-04-19 16:00 Nov-04-19 16:00 Nov-04-19 16:00 Nov-04-19 16:00 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 Analyzed: Units/RL: mg/kg RL mg/kg RL mg/kg RL mg/kg RL mg/kg RL mg/kg RL < 0.00200 0.00200 < 0.00199 0.00199 < 0.00200 0.00200 < 0.00201 0.00201 < 0.00202 0.00202 < 0.00198 0.00198 Benzene 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 0.00202 0.00200 0.00498 0.00199 0.00440 0.00200 < 0.00201 0.00201 < 0.00202 < 0.00198 0.00198 < 0.00200 Ethylbenzene 0.00681 0.00400 0.00398 0.00571 0.00399 < 0.00402 0.00402 0.00403 m,p-Xylenes < 0.00400 < 0.00403 < 0.00397 0.00397 0.00200 0.00199 < 0.00200 0.00200 0.00201 0.00198 o-Xylene < 0.00200 0.00233 < 0.00201 < 0.00202 0.00202 < 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 Inorganic Anions by EPA 300/300.1 Oct-31-19 08:05 Oct-31-19 08:05 Oct-31-19 08:05 Extracted: Oct-31-19 08:05 Oct-31-19 08:05 Oct-31-19 08:05 Oct-31-19 09:25 Oct-31-19 09:31 Oct-31-19 09:46 Analyzed: Oct-31-19 09:51 Oct-31-19 09:56 Oct-31-19 10:01 mg/kg RL mg/kg RL RL mg/kg RLmg/kg Units/RL: mg/kg RL mg/kg 72.7 5.00 125 4.99 57.4 5.03 174 4.95 332 4.95 32.0 4.95 Chloride TPH By SW8015 Mod 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 Extracted: Nov-02-19 05:40 Analyzed: Nov-02-19 05:19 Oct-31-19 13:09 Oct-31-19 14:05 Oct-31-19 14:24 Oct-31-19 14:43

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Units/RL:

mg/kg

<49.9

<49.9

<49.9

<49.9

RL

49.9

49.9

49.9

49.9

mg/kg

< 50.0

< 50.0

< 50.0

< 50.0

RL

50.0

50.0

50.0

50.0

mg/kg

< 50.0

< 50.0

< 50.0

< 50.0

RL

50.0

50.0

50.0

50.0

mg/kg

< 50.0

141

< 50.0

141

RL

50.0

50.0

50.0

50.0

mg/kg

<49.9

<49.9

<49.9

<49.9

Version: 1.%

Total TPH



RL

49.9

49.9

49.9

49.9

mg/kg

<49.9

<49.9

<49.9

<49.9

49.9

49.9

49.9

49.9

Jessica Kramer Project Assistant

Gasoline Range Hydrocarbons (GRO)

Motor Oil Range Hydrocarbons (MRO)

Diesel Range Organics (DRO)

**Project Location:** 

**Contact:** 



Clair Gonzales

Eddy County, NM

# Certificate of Analysis Summary 641434

#### Tetra Tech- Midland, Midland, TX

**Date Received in Lab:** Tue Oct-29-19 03:45 pm

**Report Date:** 06-NOV-19 Project Manager: Jessica Kramer

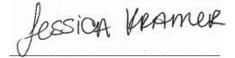


	Lab Id:	641434-0	)25	641434-0	)26	641434-0	)27	641434-0	028	641434-0	)29	641434-	030
Amalusia Domusated	Field Id:	H14 1-	2	H15 0-	1	H15 1-	2	H16 0-	1	H16 1-	2	H17 0-	-1
Analysis Requested	Depth:												
	Matrix:	SOIL	,	SOIL	,	SOIL		SOIL	,	SOIL	,	SOIL	,
	Sampled:	Oct-24-19	00:00	Oct-24-19	00:00	Oct-24-19	00:00	Oct-24-19	00:00	Oct-24-19	00:00	Oct-25-19	00:00
BTEX by EPA 8021B	Extracted:	Nov-04-19	16:00	Nov-04-19	16:00	Nov-04-19	16:00	Nov-04-19	16:00	Nov-04-19	16:00	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	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	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
Inorganic Anions by EPA 300/300.1	Extracted:	Oct-31-19	08:05	Oct-31-19	08:05	Oct-31-19	08:05	Oct-31-19	08:05	Oct-31-19 (	08:05	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	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	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
TPH By SW8015 Mod	Extracted:	Oct-31-19	10:00	Oct-31-19	10:00	Oct-31-19	10:00	Oct-31-19	10:00	Oct-31-19	10:00	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	mg/kg	RL	mg/kg	RL	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	< 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

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Version: 1.%



**Project Location:** 

**Contact:** 



Clair Gonzales

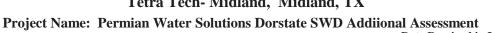
Eddy County, NM

# Certificate of Analysis Summary 641434

#### Tetra Tech- Midland, Midland, TX

**Date Received in Lab:** Tue Oct-29-19 03:45 pm

**Report Date:** 06-NOV-19 Project Manager: Jessica Kramer



	Lab Id:	641434-0	)31	641434-0	32	641434-0	033	641434-0	)34	641434-0	035	641434-0	036
	Field Id:	H17 1-2	2	H18 0-1	1	H18 1-	2	H19 0-	1	H19 1-	-2	H20 0-	-1
Analysis Requested	Depth:		_				_				_		
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
		Oct-25-19 (		Oct-25-19 (	10.00	Oct-25-19		Oct-25-19		Oct-25-19		Oct-25-19	
	Sampled:	OCI-23-19 (	50:00	Oct-23-19 (	0:00	Oct-23-19	00:00	OCt-23-19	00:00	OCI-23-19	00:00	OCt-23-19	00:00
BTEX by EPA 8021B	Extracted:	Nov-04-19	16:00	Nov-04-19	16:00	Nov-04-19	16:00	Nov-04-19	16:00	Nov-04-19	16:00	Nov-04-19	16:00
	Analyzed:	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
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	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
Inorganic Anions by EPA 300/300.1	Extracted:	Oct-31-19 (	08:05	Oct-31-19 0	8:05	Oct-31-19	08:05	Oct-31-19	08:05	Oct-31-19	08:05	Oct-31-19	08:15
	Analyzed:	Oct-31-19	10:58	Oct-31-19 1	1:03	Oct-31-19	11:08	Oct-31-19	11:13	Oct-31-19	11:18	Oct-31-19	09:28
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		58.5	5.01	59.2	4.96	117	4.98	140	5.00	847	25.2	435	5.00
TPH By SW8015 Mod	Extracted:	Oct-31-19	10:00	Oct-31-19 1	0:00	Oct-31-19	12:00	Oct-31-19	12:00	Oct-31-19	12:00	Oct-31-19	12:00
	Analyzed:	Oct-31-19	17:13	Oct-31-19 1	7:32	Nov-01-19	03:19	Nov-01-19	03:38	Nov-01-19	03:57	Nov-01-19	04:16
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	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	< 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.

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Version: 1.%



**Project Location:** 

**Contact:** 



Clair Gonzales

Eddy County, NM

# Certificate of Analysis Summary 641434

#### Tetra Tech- Midland, Midland, TX

Date Received in Lab: Tue Oct-29-19 03:45 pm

**Report Date:** 06-NOV-19 **Project Manager:** Jessica Kramer



	Lab Id:	641434-037				
Analysis Requested	Field Id:	H20 1-2				
Analysis Requested	Depth:					
	Matrix:	SOIL				
	Sampled:	Oct-25-19 00:00	0			
BTEX by EPA 8021B	Extracted:	Nov-05-19 16:1	5			
	Analyzed:	Nov-05-19 21:5	58			
	Units/RL:	mg/kg	RL			
Benzene		< 0.00200 0.00	0200			
Toluene		< 0.00200 0.00	0200			
Ethylbenzene		<0.00200 0.00	0200			
m,p-Xylenes		< 0.00401 0.00	0401			
o-Xylene		<0.00200 0.00	- 1			
Total Xylenes		< 0.00200 0.00	0200			
Total BTEX		< 0.00200 0.00	0200			
Inorganic Anions by EPA 300/300.1	Extracted:	Oct-31-19 08:15	5			
	Analyzed:	Oct-31-19 09:48	8			
	Units/RL:	mg/kg	RL			
Chloride		126 4	4.96			
TPH By SW8015 Mod	Extracted:	Oct-31-19 12:00	0			
	Analyzed:	Nov-01-19 04:3:	35			
	Units/RL:		RL			
Gasoline Range Hydrocarbons (GRO)	1		50.0			
Diesel Range Organics (DRO)		<50.0 5	50.0			
Motor Oil Range Hydrocarbons (MRO)			50.0			
Total TPH		<50.0 5	50.0			
L						

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Version: 1.%

Jessica Vramer



# **Flagging Criteria**



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

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

PQL Practical Quantitation Limit MQL Method Quantitation Limit LOQ Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample BLK Method Blank

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

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

- + NELAC certification not offered for this compound.
- \* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



#### Project Name: Permian Water Solutions Dorstate SWD Addiional Assessn

**Work Orders** : 641434, **Project ID:** Lab Batch #: 3106136 Sample: 641434-021 / SMP Matrix: Soil Batch:

Units:	mg/kg	<b>Date Analyzed:</b> 10/31/19 13:09	SURROGATE RECOVERY STUDY									
	ТРН	By SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags					
1-Chloroocta	ne		84.4	99.9	84	70-135						
o-Terphenyl			43.7	50.0	87	70-135						

**Lab Batch #:** 3106136 Sample: 641434-022 / SMP Batch: Matrix: Soil

**Units:** Date Analyzed: 10/31/19 14:05 mg/kg SURROGATE RECOVERY STUDY Amount True Control TPH By SW8015 Mod Found Amount Recovery Limits Flags [A] [B] %R %R [D] **Analytes** 1-Chlorooctane 82.8 99.9 83 70-135 o-Terphenyl 42.9 50.0 70-135 86

Lab Batch #: 3106136 **Sample:** 641434-023 / SMP Batch: Matrix: Soil

**Date Analyzed:** 10/31/19 14:24 Units: mg/kg SURROGATE RECOVERY STUDY True Control Amount TPH By SW8015 Mod Found Limits Flags Amount Recovery [A] [B] %R %R [D] **Analytes** 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: Matrix: Soil

Units:	mg/kg	<b>Date Analyzed:</b> 10/31/19 14:43	SU	RROGATE RI	ECOVERY S	STUDY	
	ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
		Analytes			[D]		
1-Chlorooc	etane		81.1	99.8	81	70-135	
o-Terpheny	/l		42.3	49.9	85	70-135	

Lab Batch #: 3106136 Sample: 641434-025 / SMP Batch: Matrix: Soil

Units:	mg/kg	<b>Date Analyzed:</b> 10/31/19 15:02	SU	RROGATE RE	ECOVERY S	STUDY	
	ТРН	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooc	tane	Analytes	82.9	99.9	83	70-135	
o-Terpheny			42.9	50.0	86	70-135	

<sup>\*</sup> Surrogate outside of Laboratory QC limits

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

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

Version: 1.%

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



## Project Name: Permian Water Solutions Dorstate SWD Addiional Assessn

 Work Orders:
 641434,
 Project ID:

 Lab Batch #:
 3106136
 Sample:
 641434-026 / SMP
 Batch:
 1
 Matrix:
 Soil

Units:	mg/kg	<b>Date Analyzed:</b> 10/31/19 15:20	SURROGATE RECOVERY STUDY							
TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags				
		Analytes			[D]					
1-Chlorooctan	ne		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:** Date Analyzed: 10/31/19 15:39 mg/kg SURROGATE RECOVERY STUDY Amount True Control TPH By SW8015 Mod Flags Found Amount Recovery Limits [A] [B] %R %R [D] **Analytes** 1-Chlorooctane 79 78.8 99.7 70-135 41.2 49.9 o-Terphenyl 70-135 83

**Date Analyzed:** 10/31/19 15:58 Units: mg/kg SURROGATE RECOVERY STUDY True Amount Control TPH By SW8015 Mod Found Limits Flags Amount Recovery [A] [B] %R %R [D] **Analytes** 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	<b>Date Analyzed:</b> 10/31/19 16:17	SURROGATE RECOVERY STUDY					
	ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
		Analytes			[D]			
1-Chlorooc	ctane		81.3	99.6	82	70-135		
o-Terpheny	yl		41.6	49.8	84	70-135		

 Lab Batch #: 3106136
 Sample: 641434-030 / SMP
 Batch: 1
 Matrix: Soil

**Date Analyzed:** 10/31/19 16:35

	SURROGATE RECOVERT STUDI				
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1-Chlorooctane	82.0	99.7	82	70-135	
o-Terphenyl	41.9	49.9	84	70-135	

<sup>\*</sup> Surrogate outside of Laboratory QC limits

mg/kg

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

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

Version: 1.%

**Units:** 

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



## Project Name: Permian Water Solutions Dorstate SWD Addiional Assessn

 Work Orders:
 641434,
 Project ID:

 Lab Batch #:
 3106136
 Sample:
 641434-031 / SMP
 Batch:
 1
 Matrix:
 Soil

Units:	mg/kg	<b>Date Analyzed:</b> 10/31/19 17:13	SURROGATE RECOVERY STUDY				
	ТРН	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chloroocta	ine		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:** Date Analyzed: 10/31/19 17:32 mg/kg SURROGATE RECOVERY STUDY Amount True Control TPH By SW8015 Mod Found Amount Recovery Limits Flags [A] [B] %R %R [D] **Analytes** 1-Chlorooctane 78.2 100 78 70-135 o-Terphenyl 40.2 50.0 80 70-135

Units: mg/kg Date Analyzed: 11/01/19 03:19 SURROGATE RECOVERY STUDY True Control Amount TPH By SW8015 Mod Found Amount Limits Flags Recovery [A] [B] %R %R [D] **Analytes** 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	<b>Date Analyzed:</b> 11/01/19 03:38	SURROGATE RECOVERY STUDY					
	ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
		Analytes			[2]			
1-Chlorooc	etane		82.0	100	82	70-135		
o-Terpheny	/l		41.6	50.0	83	70-135		

**Date Analyzed:** 11/01/19 03:57

	SURROGATE RECOVERT STUDI				
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1-Chlorooctane	79.9	99.8	80	70-135	
o-Terphenyl	40.8	49.9	82	70-135	

<sup>\*</sup> Surrogate outside of Laboratory QC limits

mg/kg

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

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

Version: 1.%

**Units:** 

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



## Project Name: Permian Water Solutions Dorstate SWD Addiional Assessn

Units:	mg/kg	<b>Date Analyzed:</b> 11/01/19 04:16	SURROGATE RECOVERY STUDY				
	ТРН	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chloroocta	ne		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:** Date Analyzed: 11/01/19 04:35 mg/kg SURROGATE RECOVERY STUDY Amount True Control TPH By SW8015 Mod Found Amount Recovery Limits Flags [A] [B] %R %R [D] **Analytes** 1-Chlorooctane 80.3 100 80 70-135 o-Terphenyl 41.4 50.0 83 70-135

Units: mg/kg Date Analyzed: 11/01/19 21:58 SURROGATE RECOVERY STUDY True Control Amount TPH By SW8015 Mod Found Amount Limits Flags Recovery [A] [B] %R %R [D] **Analytes** 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	<b>Date Analyzed:</b> 11/01/19 23:00	SURROGATE RECOVERY STUDY					
	ТРН	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
1-Chlorooct	tona	Analytes	80.6	99.6	81	70-135		
o-Terphenyl			41.3	49.8	83	70-135		

**Date Analyzed:** 11/01/19 23:21

	SURROGATE RECOVERT STUDI					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
Analytes			[D]			
1-Chlorooctane	80.2	99.9	80	70-135		
o-Terphenyl	42.6	50.0	85	70-135		

<sup>\*</sup> Surrogate outside of Laboratory QC limits

mg/kg

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

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

Version: 1.%

**Units:** 

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



## Project Name: Permian Water Solutions Dorstate SWD Addiional Assessn

 Work Orders:
 641434,
 Project ID:

 Lab Batch #:
 3106228
 Sample:
 641434-004 / SMP
 Batch:
 1
 Matrix:
 Soil

Units: mg/kg	<b>Date Analyzed:</b> 11/01/19 23:42	SURROGATE RECOVERY STUDY				
	Sy 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:** Date Analyzed: 11/02/19 00:04 mg/kg SURROGATE RECOVERY STUDY Amount True Control TPH By SW8015 Mod Found Amount Recovery Limits Flags [A] [B] %R %R [D] **Analytes** 1-Chlorooctane 85.9 99.7 86 70-135 o-Terphenyl 49.9 45.9 92 70-135

Date Analyzed: 11/02/19 00:25 Units: mg/kg SURROGATE RECOVERY STUDY True Control Amount TPH By SW8015 Mod Found Amount Limits Flags Recovery [A] [B] %R %R [D] **Analytes** 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	<b>Date Analyzed:</b> 11/02/19 00:46	SURROGATE RECOVERY STUDY					
	ТРН	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
1-Chlorooct	ane	Analytes	90.7	100	91	70-135		
o-Terpheny			48.0	50.0	96	70-135		

**Date Analyzed:** 11/02/19 01:07

	SURROGATE RECOVERT STUDI				
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1-Chlorooctane	94.1	99.7	94	70-135	
o-Terphenyl	48.6	49.9	97	70-135	

<sup>\*</sup> Surrogate outside of Laboratory QC limits

mg/kg

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

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

Version: 1.%

**Units:** 

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



## Project Name: Permian Water Solutions Dorstate SWD Addiional Assessn

 Work Orders:
 641434,
 Project ID:

 Lab Batch #:
 3106228
 Sample:
 641434-009 / SMP
 Batch:
 1
 Matrix:
 Soil

Units:	Units: mg/kg Date Analyzed: 11/02/19 01:28 SURROGATE RECOVERY STUDY								
TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags			
		Analytes			[D]				
1-Chloroocta	ane		76.9	99.8	77	70-135			
o-Terphenyl			40.2	49.9	81	70-135			

**Units:** Date Analyzed: 11/02/19 01:48 mg/kg SURROGATE RECOVERY STUDY Amount True Control TPH By SW8015 Mod Flags Found Amount Recovery Limits [A] [B] %R %R [D] **Analytes** 1-Chlorooctane 77.8 99.9 78 70-135 o-Terphenyl 39.3 50.0 79 70-135

**Date Analyzed:** 11/02/19 02:30 Units: mg/kg SURROGATE RECOVERY STUDY True Control Amount TPH By SW8015 Mod Found Amount Limits Flags Recovery [A] [B] %R %R [D] **Analytes** 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	<b>Date Analyzed:</b> 11/02/19 02:51	SURROGATE RECOVERY STUDY					
	ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
		Analytes			[D]			
1-Chlorooc	tane		81.4	99.8	82	70-135		
o-Terpheny	ıl		42.7	49.9	86	70-135		

**Date Analyzed:** 11/02/19 03:13

	SURROGATE RECOVERT STUDI					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
Analytes			[D]			
1-Chlorooctane	78.2	99.9	78	70-135		
o-Terphenyl	39.7	50.0	79	70-135		

<sup>\*</sup> Surrogate outside of Laboratory QC limits

mg/kg

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

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

Version: 1.%

**Units:** 

SUPPOCATE DECOVERY STUDY

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



## Project Name: Permian Water Solutions Dorstate SWD Addiional Assessn

 Work Orders:
 641434,
 Project ID:

 Lab Batch #:
 3106228
 Sample:
 641434-014 / SMP
 Batch:
 1
 Matrix:
 Soil

Units:	mg/kg	<b>Date Analyzed:</b> 11/02/19 03:34	SURROGATE RECOVERY STUDY						
TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags			
		Analytes			[D]				
1-Chlorooct	tane		86.4	99.7	87	70-135			
o-Terpheny	l		46.0	49.9	92	70-135			

 Lab Batch #: 3106228
 Sample: 641434-015 / SMP
 Batch: 1
 Matrix: Soil

**Units:** Date Analyzed: 11/02/19 03:55 mg/kg SURROGATE RECOVERY STUDY Amount True Control TPH By SW8015 Mod Flags Found Amount Recovery Limits [A] [B] %R %R [D] **Analytes** 1-Chlorooctane 89.3 100 89 70-135 o-Terphenyl 48.5 50.0 97 70-135

**Date Analyzed:** 11/02/19 04:16 **Units:** mg/kg SURROGATE RECOVERY STUDY True Control Amount TPH By SW8015 Mod Found Amount Limits Flags Recovery [A] [B] %R %R [D] **Analytes** 1-Chlorooctane 99.9 88.4 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	<b>Date Analyzed:</b> 11/02/19 04:37	SURROGATE RECOVERY STUDY					
	ТРН	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
1-Chlorooct	ane		86.0	99.8	86	70-135		
o-Terphenyl			46.1	49.9	92	70-135		

**Date Analyzed:** 11/02/19 04:58

	SURROGATE RECOVERT STUDI						
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
Analytes			[D]				
1-Chlorooctane	78.3	99.9	78	70-135			
o-Terphenyl	39.8	50.0	80	70-135			

<sup>\*</sup> Surrogate outside of Laboratory QC limits

mg/kg

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

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

Version: 1.%

**Units:** 

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



#### Project Name: Permian Water Solutions Dorstate SWD Addiional Assessn

 Work Orders:
 641434,
 Project ID:

 Lab Batch #:
 3106228
 Sample:
 641434-019 / SMP
 Batch:
 1
 Matrix:
 Soil

Units:	mg/kg	<b>Date Analyzed:</b> 11/02/19 05:19	SURROGATE RECOVERY STUDY				
	ТРН	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chloroocta	ane		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:** Date Analyzed: 11/02/19 05:40 mg/kg SURROGATE RECOVERY STUDY Amount True Control TPH By SW8015 Mod Found Amount Recovery Limits Flags [A] [B] %R %R [D] **Analytes** 1-Chlorooctane 83.8 99.9 84 70-135 45.2 o-Terphenyl 50.0 90 70-135

**Units:** mg/kg Date Analyzed: 11/04/19 14:25 SURROGATE RECOVERY STUDY True Amount Control BTEX by EPA 8021B Found Limits Flags Amount Recovery [A] [B] %R %R [D] **Analytes** 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	<b>Date Analyzed:</b> 11/04/19 14:45	SURROGATE RECOVERY STUDY					
	ВТЕ	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
		Analytes			[D]			
1,4-Difluor	robenzene		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

**Date Analyzed:** 11/04/19 15:05

	SURROGATE RECOVERT STUDI					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
Analytes			[D]			
1,4-Difluorobenzene	0.0282	0.0300	94	70-130		
4-Bromofluorobenzene	0.0306	0.0300	102	70-130		

<sup>\*</sup> Surrogate outside of Laboratory QC limits

mø/kø

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

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

Version: 1.%

**Units:** 

SUPPOCATE DECOVERY STUDY

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



#### Project Name: Permian Water Solutions Dorstate SWD Addiional Assessn

 Work Orders:
 641434,
 Project ID:

 Lab Batch #:
 3106504
 Sample:
 641434-004 / SMP
 Batch:
 1
 Matrix:
 Soil

Units:	mg/kg	<b>Date Analyzed:</b> 11/04/19 15:25	SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
	A	analytes			[D]			
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:** Date Analyzed: 11/04/19 15:45 mg/kg SURROGATE RECOVERY STUDY Amount True Control BTEX by EPA 8021B Found Amount Recovery Limits Flags [A] [B] %R %R [D] **Analytes** 1,4-Difluorobenzene 0.0296 0.0300 99 70-130 0.0300 4-Bromofluorobenzene 0.0325 108 70-130

Units: mg/kg Date Analyzed: 11/04/19 16:05 SURROGATE RECOVERY STUDY True Amount Control BTEX by EPA 8021B Found Limits Flags Amount Recovery [A] [B] %R %R [D] **Analytes** 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	<b>Date Analyzed:</b> 11/04/19 16:26	SURROGATE RECOVERY STUDY				
	BTE	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
		Analytes			[D]		
1,4-Difluoro	benzene		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

**Date Analyzed:** 11/04/19 16:46

	SURROGATE RECOVERT STUDI						
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
Analytes			[D]				
1,4-Difluorobenzene	0.0288	0.0300	96	70-130			
4-Bromofluorobenzene	0.0323	0.0300	108	70-130			

<sup>\*</sup> Surrogate outside of Laboratory QC limits

mg/kg

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

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

Version: 1.%

**Units:** 

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



#### Project Name: Permian Water Solutions Dorstate SWD Addiional Assessn

 Work Orders:
 641434,
 Project ID:

 Lab Batch #:
 3106504
 Sample:
 641434-009 / SMP
 Batch:
 1
 Matrix:
 Soil

Units:	mg/Kg	<b>Date Analyzed:</b> 11/04/19 17:06	SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
		Analytes			[D]			
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:** Date Analyzed: 11/04/19 18:24 mg/kg SURROGATE RECOVERY STUDY Amount True Control BTEX by EPA 8021B Found Amount Recovery Limits Flags [A] [B] %R %R [D] **Analytes** 1,4-Difluorobenzene 0.0290 0.0300 97 70-130 0.0300 4-Bromofluorobenzene 0.0306 102 70-130

Units: mg/kg Date Analyzed: 11/04/19 18:44 SURROGATE RECOVERY STUDY True Amount Control BTEX by EPA 8021B Found Limits Flags Amount Recovery [A] [B] %R %R [D] **Analytes** 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	<b>Date Analyzed:</b> 11/04/19 19:04	SURROGATE RECOVERY STUDY				
	ВТЕ	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
		Analytes			[D]		
1,4-Difluor	robenzene		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

**Date Analyzed:** 11/04/19 19:24

	SURROGATE RECOVERT STUDI					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
Analytes			[D]			
1,4-Difluorobenzene	0.0287	0.0300	96	70-130		
4-Bromofluorobenzene	0.0354	0.0300	118	70-130		

<sup>\*</sup> Surrogate outside of Laboratory QC limits

mg/kg

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

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

Version: 1.%

**Units:** 

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



## Project Name: Permian Water Solutions Dorstate SWD Addiional Assessn

Units:	mg/kg	<b>Date Analyzed:</b> 11/04/19 19:45	SURROGATE RECOVERY STUDY				
	ВТЕ	X by EPA 8021B  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorob	enzene	•	0.0276	0.0300	92	70-130	
4-Bromofluoi	robenzene		0.0348	0.0300	116	70-130	

 Lab Batch #: 3106504
 Sample: 641434-015 / SMP
 Batch: 1
 Matrix: Soil

**Units:** Date Analyzed: 11/04/19 20:05 mg/kg SURROGATE RECOVERY STUDY Amount True Control BTEX by EPA 8021B Found Amount Recovery Limits Flags [A] [B] %R %R [D] **Analytes** 1,4-Difluorobenzene 0.0278 0.0300 93 70-130 0.0300 4-Bromofluorobenzene 0.0338 113 70-130

Units: mg/kg Date Analyzed: 11/04/19 20:25 SURROGATE RECOVERY STUDY True Amount Control BTEX by EPA 8021B Found Limits Flags Amount Recovery [A] [B] %R %R [D] **Analytes** 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	<b>Date Analyzed:</b> 11/04/19 20:45	SURROGATE RECOVERY STUDY				
	ВТЕ	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
		Analytes			[D]		
1,4-Difluor	robenzene		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

**Date Analyzed:** 11/04/19 21:05

	SURROGATE RECOVERT STUDI					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
Analytes			[D]			
1,4-Difluorobenzene	0.0282	0.0300	94	70-130		
4-Bromofluorobenzene	0.0333	0.0300	111	70-130		

<sup>\*</sup> Surrogate outside of Laboratory QC limits

mg/kg

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

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

Version: 1.%

**Units:** 

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



#### Project Name: Permian Water Solutions Dorstate SWD Addiional Assessn

 Work Orders:
 641434,
 Project ID:

 Lab Batch #:
 3106504
 Sample:
 641434-019 / SMP
 Batch:
 1
 Matrix:
 Soil

Units:	mg/kg	<b>Date Analyzed:</b> 11/04/19 21:25	SURROGATE RECOVERY STUDY				
	BTE	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
		Analytes			[2]		
1,4-Difluorober	nzene		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:** Date Analyzed: 11/05/19 01:03 mg/kg SURROGATE RECOVERY STUDY Amount True Control BTEX by EPA 8021B Found Amount Recovery Limits Flags [A] [B] %R %R [D] **Analytes** 1,4-Difluorobenzene 0.0275 0.0300 92 70-130 0.0300 4-Bromofluorobenzene 0.0330 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 True Amount Control BTEX by EPA 8021B Found Limits Flags Amount Recovery [A] [B] %R %R [D] **Analytes** 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	<b>Date Analyzed:</b> 11/05/19 08:59	SURROGATE RECOVERY STUDY					
	BTE	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
		Analytes			[D]			
1,4-Difluor	robenzene		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

Date Analyzed: 11/05/19 09:19

	SURROGATE RECOVERT STUDI					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
Analytes			[D]			
1,4-Difluorobenzene	0.0285	0.0300	95	70-130		
4-Bromofluorobenzene	0.0329	0.0300	110	70-130		

<sup>\*</sup> Surrogate outside of Laboratory QC limits

mg/kg

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

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

Version: 1.%

**Units:** 

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



## Project Name: Permian Water Solutions Dorstate SWD Addiional Assessn

 Work Orders:
 641434,
 Project ID:

 Lab Batch #:
 3106497
 Sample:
 641434-024 / SMP
 Batch:
 1
 Matrix:
 Soil

Units: mg/kg	<b>Date Analyzed:</b> 11/05/19 09:39	SURROGATE RECOVERY STUDY						
BTEX by	y EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
Ar	nalytes			[D]				
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:** Date Analyzed: 11/05/19 09:59 mg/kg SURROGATE RECOVERY STUDY Amount True Control BTEX by EPA 8021B Found Amount Recovery Limits Flags [A] [B] %R %R [D] **Analytes** 1,4-Difluorobenzene 0.0292 0.0300 97 70-130 0.0300 4-Bromofluorobenzene 0.0320 70-130 107

**Lab Batch #:** 3106497 **Sample:** 641434-026 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg Date Analyzed: 11/05/19 10:19 SURROGATE RECOVERY STUDY True Amount Control BTEX by EPA 8021B Found Limits Flags Amount Recovery [A] [B] %R %R [D] **Analytes** 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	<b>Date Analyzed:</b> 11/05/19 10:39	SURROGATE RECOVERY STUDY					
	BTE	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
		Analytes			[D]			
1,4-Difluor	robenzene		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

**Date Analyzed:** 11/05/19 11:00

	SURROGATE RECOVERT STUDI					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
Analytes			[D]			
1,4-Difluorobenzene	0.0294	0.0300	98	70-130		
4-Bromofluorobenzene	0.0310	0.0300	103	70-130		

<sup>\*</sup> Surrogate outside of Laboratory QC limits

mø/kø

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

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

Version: 1.%

**Units:** 

SUPPOCATE PECOVERY STUDY

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



## Project Name: Permian Water Solutions Dorstate SWD Addiional Assessn

**Work Orders** : 641434, **Project ID:** Lab Batch #: 3106497 Sample: 641434-029 / SMP Matrix: Soil Batch:

Units:	mg/kg	<b>Date Analyzed:</b> 11/05/19 12:38	SURROGATE RECOVERY STUDY					
	ВТЕ	X by EPA 8021B  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
1,4-Difluorobe	nzene	<del>-</del>	0.0261	0.0300	87	70-130		
4-Bromofluoro	benzene		0.0376	0.0300	125	70-130		

**Lab Batch #:** 3106497 Sample: 641434-030 / SMP Batch: Matrix: Soil

**Units:** Date Analyzed: 11/05/19 12:58 mg/kg SURROGATE RECOVERY STUDY Amount True Control BTEX by EPA 8021B Found Amount Recovery Limits Flags [A] [B] %R %R [D] **Analytes** 1,4-Difluorobenzene 0.0289 0.0300 96 70-130 0.0300 4-Bromofluorobenzene 0.0326 109 70-130

Lab Batch #: 3106497 **Sample:** 641434-031 / SMP **Batch:** Matrix: Soil

Units: mg/kg Date Analyzed: 11/05/19 13:18 SURROGATE RECOVERY STUDY True Amount Control BTEX by EPA 8021B Found Limits Flags Amount Recovery [A] [B] %R %R [D] **Analytes** 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: Matrix: Soil

Units: mg/kg Date Analyzed: 11/05/19 13:38 SURROGATE RECOVERY STUDY							
	ВТЕ	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
		Analytes					
1,4-Difluoro	benzene		0.0235	0.0300	78	70-130	
4-Bromofluo	orobenzene		0.0351	0.0300	117	70-130	

Lab Batch #: 3106497 **Sample:** 641434-033 / SMP Batch: Matrix: Soil

Date Analyzed: 11/05/19 13:59

	SURROGATE RECOVERT STUDI						
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
Analytes			[D]				
1,4-Difluorobenzene	0.0286	0.0300	95	70-130			
4-Bromofluorobenzene	0.0325	0.0300	108	70-130			

<sup>\*</sup> Surrogate outside of Laboratory QC limits

mg/kg

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

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

Version: 1.%

**Units:** 

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



## Project Name: Permian Water Solutions Dorstate SWD Addiional Assessn

**Work Orders** : 641434, **Project ID:** Lab Batch #: 3106497 Sample: 641434-034 / SMP Batch: Matrix: Soil

Units:	mg/kg	<b>Date Analyzed:</b> 11/05/19 16:35	SU	RROGATE RI	ECOVERY S	STUDY	
	ВТЕ	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
		Analytes			[D]		
1,4-Difluoro	obenzene		0.0208	0.0300	69	70-130	**
4-Bromoflu	orobenzene		0.0336	0.0300	112	70-130	

**Lab Batch #:** 3106497 Sample: 641434-035 / SMP Batch: Matrix: Soil

**Units:** Date Analyzed: 11/05/19 16:56 mg/kg SURROGATE RECOVERY STUDY Amount True Control BTEX by EPA 8021B Flags Found Amount Recovery Limits [A] [B] %R %R [D] **Analytes** 1,4-Difluorobenzene 0.0290 0.0300 97 70-130 0.0300 4-Bromofluorobenzene 0.0296 70-130 99

Lab Batch #: 3106497 **Sample:** 641434-036 / SMP Batch: Matrix: Soil

**Units:** mg/kg Date Analyzed: 11/05/19 17:16 SURROGATE RECOVERY STUDY True Amount Control BTEX by EPA 8021B Found Limits Flags Amount Recovery [A] [B] %R %R [D] **Analytes** 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: Matrix: Soil

Units:	mg/kg	<b>Date Analyzed:</b> 11/05/19 21:58	8 SURROGATE RECOVERY STUDY							
	ВТЕ	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags			
		Analytes			[D]					
1,4-Difluoro	benzene		0.0293	0.0300	98	70-130				
4-Bromoflu	orobenzene		0.0287	0.0300	96	70-130				

Lab Batch #: 3106136 Sample: 7689297-1-BLK / BLK Batch: Matrix: Solid

D-4- A---I---- J. 10/21/10 12:12

Units:	mg/kg	<b>Date Analyzed:</b> 10/31/19 12:12	SU	RROGATE RE	COVERY S	STUDY	
	TPH	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
		Analytes			[D]		
1-Chloroocta	nne		89.5	100	90	70-135	
o-Terphenyl			44.4	50.0	89	70-135	

<sup>\*</sup> Surrogate outside of Laboratory QC limits

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

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

Version: 1.%

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<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



## Project Name: Permian Water Solutions Dorstate SWD Addiional Assessn

Work Orders: 641434,
Lab Batch #: 3106137
Sample: 7689298-1-BLK / BLK
Batch: 1 Matrix: Solid

Units:	mg/kg	<b>Date Analyzed:</b> 10/31/19 20:40	SURROGATE RECOVERY STUDY					
	ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
		Analytes			[D]			
1-Chlorooct	ane		91.0	100	91	70-135		
o-Terphenyl	l		45.1	50.0	90	70-135		

Lab Batch #: 3106228 Sample: 7689413-1-BLK / BLK Batch: 1 Matrix: Solid

**Units:** Date Analyzed: 11/01/19 20:55 mg/kg SURROGATE RECOVERY STUDY Amount True Control TPH By SW8015 Mod Flags Found Amount Recovery Limits [A] [B] %R %R [D] **Analytes** 1-Chlorooctane 85.3 100 85 70-135 o-Terphenyl 50.0 45.4 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 True Control Amount BTEX by EPA 8021B Found Limits Flags Amount Recovery [A] [B] %R %R [D] **Analytes** 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

<b>Units:</b>	mg/kg	<b>Date Analyzed:</b> 11/05/19 00:23	0:23 SURROGATE RECOVERY STUDY						
	ВТЕ	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
		Analytes			[D]				
1,4-Difluor	robenzene		0.0276	0.0300	92	70-130			
4-Bromoflu	orobenzene		0.0291	0.0300	97	70-130			

Lab Batch #: 3106580Sample: 7689675-1-BLK / BLKBatch: 1Matrix: Solid

D-4- A---I---- J. 11/05/10 21:20

Units: mg/kg	Date Analyzed: 11/05/19 21:38	SU	RROGATE RI	ECOVERY S	STUDY	
1	BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			[D]		
1,4-Difluorobenzene		0.0287	0.0300	96	70-130	
4-Bromofluorobenzene		0.0290	0.0300	97	70-130	

<sup>\*</sup> Surrogate outside of Laboratory QC limits

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

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

Version: 1.%

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<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



#### Project Name: Permian Water Solutions Dorstate SWD Addiional Assessn

Work Orders: 641434,
Lab Batch #: 3106136
Sample: 7689297-1-BKS / BKS
Batch: 1 Matrix: Solid

Units:	mg/kg	<b>Date Analyzed:</b> 10/31/19 12:31	SURROGATE RECOVERY STUDY						
	ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
		Analytes			[D]				
1-Chlorooct	ane		112	100	112	70-135			
o-Terpheny	I		46.9	50.0	94	70-135			

 Lab Batch #: 3106137
 Sample: 7689298-1-BKS / BKS
 Batch: 1
 Matrix: Solid

Units:	mg/kg	<b>Date Analyzed:</b> 10/31/19 20:59	SURROGATE RECOVERY STUDY						
	ТРН	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
1-Chlorooct	ane		112	100	112	70-135			
o-Terphenyl			47.3	50.0	95	70-135			

Lab Batch #: 3106228Sample: 7689413-1-BKS / BKSBatch: 1Matrix: Solid

Units:	mg/kg	<b>Date Analyzed:</b> 11/01/19 21:16	SU	RROGATE RE	ECOVERY S	STUDY	
	ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
		Analytes			[D]		
1-Chlorooc	ctane		104	100	104	70-135	
o-Terpheny	yl		53.5	50.0	107	70-135	

Lab Batch #: 3106504Sample: 7689578-1-BKS / BKSBatch: 1Matrix: Solid

Units:	mg/kg	<b>Date Analyzed:</b> 11/04/19 12:05	SURROGATE RECOVERY STUDY						
	ВТЕ	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
		Analytes			[D]				
1,4-Difluor	obenzene		0.0292	0.0300	97	70-130			
4-Bromoflu	orobenzene		0.0322	0.0300	107	70-130			

Lab Batch #: 3106497 Sample: 7689579-1-BKS / BKS Batch: 1 Matrix: Solid

Units:	mg/kg	<b>Date Analyzed:</b> 11/04/19 22:43	SURROGATE RECOVERY STUDY					
	вте	X by EPA 8021B  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
1,4-Difluoro	benzene		0.0283	0.0300	94	70-130		
4-Bromofluo	orobenzene		0.0345	0.0300	115	70-130		

<sup>\*</sup> Surrogate outside of Laboratory QC limits

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

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

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



## Project Name: Permian Water Solutions Dorstate SWD Addiional Assessn

Work Orders: 641434,
Lab Batch #: 3106580
Sample: 7689675-1-BKS / BKS
Batch: 1 Matrix: Solid

Units:	mg/kg	<b>Date Analyzed:</b> 11/05/19 19:58	SURROGATE RECOVERY STUDY								
BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags					
		Analytes			[D]						
1,4-Difluorobenzene			0.0301	0.0300	100	70-130					
4-Bromoflu	orobenzene		0.0307	0.0300	102	70-130					

Lab Batch #: 3106136 Sample: 7689297-1-BSD / BSD Batch: 1 Matrix: Solid

**Units:** Date Analyzed: 10/31/19 12:50 mg/kg SURROGATE RECOVERY STUDY Amount True Control TPH By SW8015 Mod Flags Found Amount Recovery Limits [A] [B] %R %R [D] **Analytes** 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 True Control Amount TPH By SW8015 Mod Found Amount Limits Flags Recovery [A] [B] %R %R [D] **Analytes** 1-Chlorooctane 114 100 114 70-135 o-Terphenyl 49.7 50.0 99 70-135

Lab Batch #: 3106228Sample: 7689413-1-BSD / BSDBatch: 1Matrix: Solid

<b>Units:</b>	mg/kg	<b>Date Analyzed:</b> 11/01/19 21:37	SURROGATE RECOVERY STUDY						
	ТРН	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
1-Chlorooc	tane	Timuly tes	109	100	109	70-135			
o-Terpheny	rl		55.9	50.0	112	70-135			

Lab Batch #: 3106504 Sample: 7689578-1-BSD / BSD Batch: 1 Matrix: Solid

D-4- A---I---- J. 11/04/10 12:25

Units: mg/kg Date Analyzed: 11/04/19 12:25 SURROGATE RECOVERY STUDY								
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags			
Analytes			[D]					
1,4-Difluorobenzene	0.0290	0.0300	97	70-130				
4-Bromofluorobenzene	0.0321	0.0300	107	70-130				

<sup>\*</sup> Surrogate outside of Laboratory QC limits

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

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

Version: 1.%

TT--24---

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



## Project Name: Permian Water Solutions Dorstate SWD Addiional Assessn

Work Orders: 641434,
Lab Batch #: 3106497
Sample: 7689579-1-BSD / BSD
Batch: 1 Matrix: Solid

Units: mg	/kg <b>Date Analyzed:</b> 11/04/19 23:04	SURROGATE RECOVERY STUDY							
BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags			
	Analytes			[D]					
1,4-Difluorobenzen	е	0.0299	0.0300	100	70-130				
4-Bromofluorobenz	ene	0.0295	0.0300	98	70-130				

Lab Batch #: 3106580 Sample: 7689675-1-BSD / BSD Batch: 1 Matrix: Solid

**Units:** Date Analyzed: 11/05/19 20:18 mg/kg SURROGATE RECOVERY STUDY Amount True Control BTEX by EPA 8021B Flags Found Amount Recovery Limits [A] [B] %R %R [D] **Analytes** 1,4-Difluorobenzene 0.0302 0.0300 101 70-130 0.0302 0.0300 4-Bromofluorobenzene 101 70-130

**Date Analyzed:** 10/31/19 13:28 **Units:** mg/kg SURROGATE RECOVERY STUDY True Amount Control TPH By SW8015 Mod Found Amount Limits Flags Recovery [A] [B] %R %R [D] **Analytes** 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	<b>Date Analyzed:</b> 10/31/19 21:56	SURROGATE RECOVERY STUDY					
	ТРН	By SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
1-Chlorooc	tane	Tillary tes	126	99.7	126	70-135		
o-Terpheny	<sup>7</sup> l		55.6	49.9	111	70-135		

 Lab Batch #: 3106228
 Sample: 641434-001 S / MS
 Batch: 1
 Matrix: Soil

**Date Analyzed:** 11/01/19 22:19

	SURROGATE RECOVERT STUDI						
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
Analytes			[D]				
1-Chlorooctane	93.3	99.7	94	70-135			
o-Terphenyl	45.2	49.9	91	70-135			

<sup>\*</sup> Surrogate outside of Laboratory QC limits

mg/kg

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

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

Version: 1.%

**Units:** 

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



# Form 2 - Surrogate Recoveries

## Project Name: Permian Water Solutions Dorstate SWD Addiional Assessn

**Work Orders** : 641434, **Project ID:** Lab Batch #: 3106504 **Sample:** 641371-001 S / MS Matrix: Soil Batch:

Units:	mg/kg	<b>Date Analyzed:</b> 11/04/19 12:45	SURROGATE RECOVERY STUDY					
	вте	X by EPA 8021B  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
1,4-Difluoro	benzene		0.0296	0.0300	99	70-130		
4-Bromofluo	orobenzene		0.0336	0.0300	112	70-130		

**Lab Batch #:** 3106497 **Sample:** 641434-020 S / MS Batch: Matrix: Soil

**Units:** Date Analyzed: 11/04/19 23:24 mg/kg SURROGATE RECOVERY STUDY Amount True Control BTEX by EPA 8021B Found Amount Recovery Limits Flags [A] [B] %R %R [D] **Analytes** 1,4-Difluorobenzene 0.0285 0.0300 95 70-130 0.0300 4-Bromofluorobenzene 0.0344 115 70-130

Lab Batch #: 3106580 **Sample:** 641654-006 S / MS **Batch:** Matrix: Soil

**Units:** mg/kg Date Analyzed: 11/05/19 20:39 SURROGATE RECOVERY STUDY True Amount Control BTEX by EPA 8021B Found Limits Flags Amount Recovery [A] [B] %R %R [D] **Analytes** 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:** Matrix: Soil

<b>Units:</b>	mg/kg	<b>Date Analyzed:</b> 10/31/19 13:46	SURROGATE RECOVERY STUDY					
	ТРН	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
1-Chlorooc	tane	•	111	99.8	111	70-135		
o-Terpheny	l		47.8	49.9	96	70-135		

Lab Batch #: 3106137 **Sample:** 641367-001 SD / MSD Batch: Matrix: Soil

Units:	mg/kg	<b>Date Analyzed:</b> 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-Chloroocta	ane	- Indigues	127	99.8	127	70-135			
o-Terphenyl			55.5	49.9	111	70-135			

<sup>\*</sup> Surrogate outside of Laboratory QC limits

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

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

Version: 1.%

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



## Project Name: Permian Water Solutions Dorstate SWD Addiional Assessn

 Work Orders:
 641434,
 Project ID:

 Lab Batch #:
 3106228
 Sample:
 641434-001 SD / MSD
 Batch:
 1
 Matrix:
 Soil

Units:	Units: mg/kg Date Analyzed: 11/01/19 22:40 SURROGATE RECOVERY STUDY									
TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags				
		Analytes			[D]					
1-Chlorooct	ane		93.9	99.9	94	70-135				
o-Terphenyl			46.7	50.0	93	70-135				

**Units:** Date Analyzed: 11/04/19 13:05 mg/kg SURROGATE RECOVERY STUDY Amount True Control BTEX by EPA 8021B Flags Found Amount Recovery Limits [A] [B] %R %R [D] **Analytes** 1,4-Difluorobenzene 0.0296 0.0300 99 70-130 0.0332 0.0300 4-Bromofluorobenzene 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									
	ВТЕ	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
		Analytes			[D]				
1,4-Difluor	obenzene		0.0284	0.0300	95	70-130			
4-Bromoflu	orobenzene		0.0332	0.0300	111	70-130			

**Lab Batch #:** 3106580 **Sample:** 641654-006 SD / MSD **Batch:** 1 **Matrix:** Soil

<b>Units:</b> mg/kg <b>Date Analyzed:</b> 11/05/19 20:59	Date Analyzed: 11/05/19 20:59 SURROGATE RECOVERY STUDY									
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags					
Analytes			[D]							
1,4-Difluorobenzene	0.0296	0.0300	99	70-130						
4-Bromofluorobenzene	0.0349	0.0300	116	70-130						

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

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

<sup>\*</sup> Surrogate outside of Laboratory QC limits

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



## **BS / BSD Recoveries**



Project Name: Permian Water Solutions Dorstate SWD Additional 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		BLAN	K/BLANK	SPIKE / I	BLANK S	SPIKE DUPI	LICATE	RECOVI	ERY STUL	ΟY	
BTEX by EPA 8021B	Blank Sample Result [A]	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Blank Spike Duplicate	Blk. Spk Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes		[B]	[C]	[D]	[E]	Result [F]	[G]				
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	

KTL **Analyst: 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 BTEX by EPA 8021B Blank Spike Blank Blank Blank Blk. Spk Control Spike Control Sample Result Added Spike Spike Added Spike Dup. **RPD** Limits Limits Flag %RPD [A] Result %R **Duplicate** %R % %R [B] [C] [D] Result [F] [G] [E]**Analytes** Benzene < 0.00200 0.100 0.0907 91 0.100 0.100 100 10 70-130 35 Toluene 97 35 < 0.00200 0.100 0.0965 0.100 0.0957 96 70-130 Ethylbenzene < 0.00200 0.100 0.105 105 0.100 0.0958 96 9 70-130 35 m,p-Xylenes 0.200 0.200 12 70-130 < 0.00400 0.218 109 0.193 97 35 o-Xylene 12 35 < 0.00200 0.100 0.110 110 0.100 0.0974 97 70-130

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: Permian Water Solutions Dorstate SWD Additional 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		BLAN	K/BLANK	SPIKE / 1	BLANK S	SPIKE DUPI	LICATE	RECOVI	ERY STUL	ΟY	
BTEX by EPA 8021B	Blank Sample Result [A]	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Blank Spike Duplicate	Blk. Spk Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes		[B]	[C]	[D]	[E]	Result [F]	[G]				
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									Y		
Inorganic Anions by EPA 300/300.1	Blank Sample Result [A]	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Blank Spike Duplicate	Blk. Spk Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes		[B]	[C]	[D]	[E]	Result [F]	[G]				
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

Chloride



## **BS / BSD Recoveries**



90-110

Project Name: Permian Water Solutions Dorstate SWD Additional 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		BLAN	K/BLANK S	SPIKE / I	BLANK S	SPIKE DUPI	ICATE	RECOVI	ERY STUD	Y	
Inorganic Anions by EPA 300/300.1	Blank Sample Result [A]	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Blank Spike Duplicate	Blk. Spk Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes		[B]	[C]	[D]	[E]	Result [F]	[G]				
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 Spike Blank Blank Spike Blank Blk. Spk Control Control **RPD** Flag Sample Result Added Spike Spike Spike Dup. Limits Limits Added Result %R **Duplicate** %R % %R %RPD [A] [B] [C] [D] [E]Result [F] [G] **Analytes** 

242

97

250

236

**Date Analyzed:** 10/31/2019 CHE **Date Prepared:** 10/31/2019 **Analyst:** 

**Lab Batch ID: 3106096 Sample:** 7689290-1-BKS Batch #: 1 Matrix: Solid

250

< 5.00

**Units:** mg/kg BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY Inorganic Anions by EPA 300/300.1 Blank Spike Blank Blank Blank Blk. Spk Control Control Spike Sample Result Added Spike Spike Spike Dup. **RPD** Limits Flag Added Limits [A] Result %R **Duplicate** %R % %R %RPD [B] [C] [D] Result [F] [G] [E]**Analytes** Chloride 90-110 < 5.00 250 249 100 250 247 99 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.%

**Units:** 



mg/kg

## **BS / BSD Recoveries**



Project Name: Permian Water Solutions Dorstate SWD Addiional Assessment

RI ANK /RI ANK SPIKE / RI ANK SPIKE DUPI ICATE RECOVERY STUDY

Work Order #: 641434 Project ID:

**Analyst:** ARM **Date Prepared:** 10/31/2019 **Date Analyzed:** 10/31/2019

		DLAN	K/DLANK	)1 1IXL: / 1	LANK	IKE DUI I	LICATE	RECOVI	EKI SIUL	, I	
TPH By SW8015 Mod	Blank Sample Result [A]	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Blank Spike Duplicate	Blk. Spk Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes		[B]	[C]	[D]	[E]	Result [F]	[G]				
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 | Spike | Blank | Spike | Sp

TPH By SW8015 Mod	Blank Sample Result [A]	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Blank Spike Duplicate	Blk. Spk Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes		[B]	[C]	[D]	[E]	Result [F]	[G]				
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  Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
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

Version: 1.%

Work Order #:



641434

## Form 3 - MS / MSD Recoveries

Project Name: Permian Water Solutions Dorstate SWD Additional Asses...

Project ID:

**Lab Batch ID:** 3106497 **QC- Sample ID:** 641434-020 S **Batch #:** 1 **Matrix:** Soil

**Date Analyzed:** 11/04/2019 **Date Prepared:** 11/04/2019 **Analyst:** KTL

Reporting Units: mg/kg MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B	Parent Sample Result	Spike Added	Spiked Sample Result [C]	Spiked Sample %R	Spike Added	Duplicate Spiked Sample Result [F]	Spiked Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes	[A]	[B]	[0]	[D]	[E]	11050110 [1]	[G]	,,	, 021	, , , ,	
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 **QC- Sample ID:** 641371-001 S **Batch #:** 1 **Matrix:** Soil

**Date Analyzed:** 11/04/2019 **Date Prepared:** 11/04/2019 **Analyst:** KTL

Reporting Units: mg/kg 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



#### Form 3 - MS / MSD Recoveries

Project Name: Permian Water Solutions Dorstate SWD Additional Asses...

Work Order #: 641434 Project ID:

**Lab Batch ID:** 3106580 **QC- Sample ID:** 641654-006 S **Batch #:** 1 **Matrix:** Soil

 Date Analyzed:
 11/05/2019
 Date Prepared:
 11/05/2019
 Analyst:
 KTL

Reporting Units: mg/kg MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B	Parent Sample Result	Spike Added	Spiked Sample Result [C]	Spiked Sample %R	Spike Added	Duplicate Spiked Sample Result [F]	Spiked Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes	[A]	[B]	[C]	[D]	[E]	Kesuit [F]	[G]	70	/0K	/0KI D	
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 **QC- Sample ID:** 641420-001 S **Batch #:** 1 **Matrix:** Soil

**Date Analyzed:** 10/30/2019 **Date Prepared:** 10/30/2019 **Analyst:** CHE

Reporting Units: mg/kg MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1	Parent Sample Result	Spike Added	Spiked Sample Result [C]	Spiked Sample %R	Spike Added	Duplicate Spiked Sample Result [F]	Spiked Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag	
Analytes	[A]	[B]	[0]	[D]	[E]	result [1]	[G]	70	/014	/ VICE D		
Chloride	64.0	250	325	104	250	325	104	0	90-110	20		

**Lab Batch ID:** 3105919 **QC- Sample ID:** 641420-011 S **Batch #:** 1 **Matrix:** Soil

 Date Analyzed:
 10/30/2019

 Date Prepared:
 10/30/2019

 Analyst:
 CHE

Reporting Units: mg/kg 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

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



#### Form 3 - MS / MSD Recoveries

Project Name: Permian Water Solutions Dorstate SWD Additional Assess

**Project ID:** 

Lab Batch ID: 3105992 **QC- Sample ID:** 641434-006 S

Batch #:

Matrix: Soil

**Date Analyzed:** 

Work Order #:

10/30/2019

641434

**Date Prepared:** 10/30/2019

Analyst: CHE

**Reporting Units:** mg/kg

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]		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

**QC- Sample ID:** 641506-100 S

Batch #:

Matrix: Soil

**Date Analyzed:** 10/30/2019 **Date Prepared:** 10/30/2019

**Reporting Units:** mg/kg

Analyst: CHE

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

1

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

**QC- Sample ID:** 641434-016 S

Batch #:

Matrix: Soil

**Date Analyzed:** 

**Reporting Units:** 

10/31/2019

mg/kg

**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

Work Order #:



641434

#### Form 3 - MS / MSD Recoveries

Project Name: Permian Water Solutions Dorstate SWD Additional Assess

Project ID:

**Lab Batch ID:** 3106006 **QC- Sample ID:** 641434-026 S **Batch #:** 1 **Matrix:** Soil

Reporting Units: mg/kg 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 **QC- Sample ID:** 641434-036 S **Batch #:** 1 **Matrix:** Soil

 Date Analyzed:
 10/31/2019
 Date Prepared:
 10/31/2019
 Analyst:
 CHE

Reporting Units: mg/kg MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1	Parent Sample Result	Spike Added	Spiked Sample Result [C]	Sample %R	Spike Added	Duplicate Spiked Sample Result [F]	%R	RPD %	Control Limits %R	Control Limits %RPD	Flag	
Analytes	[A]	[B]		[D]	[E]		[G]					
Chloride	435	250	658	89	250	653	87	1	90-110	20	X	

**Lab Batch ID:** 3106096 **QC- Sample ID:** 641447-004 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 10/31/2019 Date Prepared: 10/31/2019 Analyst: CHE

Reporting Units: mg/kg 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

Work Order #:



641434

#### Form 3 - MS / MSD Recoveries

Project Name: Permian Water Solutions Dorstate SWD Addiional Asses...

Project ID:

**Lab Batch ID:** 3106136 **QC- Sample ID:** 641434-021 S **Batch #:** 1 **Matrix:** Soil

Reporting Units: mg/kg MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
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
 QC- Sample ID:
 641367-001 S
 Batch #:
 1
 Matrix:
 Soil

**Date Analyzed:** 10/31/2019 **Date Prepared:** 10/31/2019 **Analyst:** ARM

Reporting Units: mg/kg MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	l Sa R	1	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 **QC- Sample ID:** 641434-001 S **Batch #:** 1 **Matrix:** Soil

 Date Analyzed:
 11/01/2019
 Date Prepared:
 11/01/2019
 Analyst:
 ARM

Reporting Units: mg/kg MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
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

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

state) Analysis Request of Chain of Custody Record Relinquished by: eceiving Laboratory: roject Location: roject Name ient Name: LAB USE ONLY LAB# H H-5 프 H-5 T 4 T 4 꿄 H-3 H-2 H-2 긒 (county, Eddy County, NM 2 9-1 1-2 1-2 1-2 2 1-2 9-1 2 1-2 Xenco Dorstate SWD Additional Assessment Permian Water Solutions Tetra Tech, Inc. Tetra Tech. Inc. SAMPLE IDENTIFICATION Date: 29 Time Sampler Signature Project #: Site Manager ORIGINAL COPY 10/23/2019 Received by: 10/23/2019 10/23/2019 10/23/2019 10/23/2019 10/23/2019 10/23/2019 10/23/2019 10/23/2019 DATE SAMPLING TIME WATER Clair Gonzales MATRIX 4000 N. Big Spring Street, Ste 401 Midland,Texas 79705 Tel (432) 682-4559 Fax (432) 682-3946 × × × ×  $\times$  $\times \times \times$ SOIL TBD Date: Date: HCL PRESERVATIVE HNO<sub>3</sub> ICE Time: S481 # CONTAINERS FILTERED (Y/N) BTEX 8260B × BTEX 8021B (Circle) HAND DELIVERED TPH TX1005 (Ext to C35) LAB USE ONLY TPH 8015M (GRO - DRO - ORO) × × × × × × PAH 8270C (Circle or Specify Method Total Metals Ag As Ba Cd Cr Pb Se Hg TCLP Metals Ag As Ba Cd Cr Pb Se Hg TCLP Volatiles **ANALYSIS REQUEST** REMARKS TCLP Semi Volatiles RUSH: Same Day Rush Charges Authorized FEDEX Special Report Limits or TRRP Report RCI GC/MS Vol. 8260B / 624 GC/MS Semi. Vol. 8270C/625 PCB's 8082 / 608 NORM Page PLM (Asbestos) 24 hr ×× ×  $\times \times \times$ Chloride No. TDS Chloride Sulfate 48 hr General Water Chemistry (see attached list) Anion/Cation Balance Asbestos 72 hr 으 Hold

		Relinquished by:	The state of the s	Relinquished by:	akh	Relinquished by:	H-11	H-10	H-10	H-9	H-8	H-8	H-7	H-7	H-6	170	( ONLY )	LAB#			Comments:	Receiving Laboratory:	Invoice to:	et Location:	Project Name:	Client Name:	7	]
	Date. Time:	1	Pair. IIIIE.	1	10/21 15:45	Date	0-10"	-	0-1	0-8"	1-2	0-1	1-2	0-1	122	ç		SAMPLE IDENTIFICATION			Xenco	Tetra Tech, Inc.	Eddy County, NM	(county,	Dorstoto SWID Additional A	Permian Water Solutions	Tetra Tech, Inc.	
	Received by:		Received by:	T V V V X	Redel red, by:	10/24/2019	10/24/2019	10/24/2019	10/24/2019	10/24/2010	10/23/2019	10/23/2019	10/23/2019	10/23/2019	10/23/2019	10/23/2019	DATE	YEAR:	SAMPLING		Sampler Signature:			Project #-	-	Site Manager:	indi.	
	Date: T		Date: / T	11W 1010	MAO Date: T	×									×	×	WATE SOIL HCL HNO <sub>3</sub>	R	MATRIX PRESER				TBD		Ciali Colizates	Clair Contain	4000 N. Big Spring Street, Ste 401 Midland,Texas 79705 Tel (432) 682-4559 Fax (432) 682-3946	
(Circle)	Time:		Time: San	27	1548 St.	1 X	1 X	×	×			\ \ -	4 -	<u>.</u>			# CON	ED (	(/N)	X 8260B		7					est, Ste 19705 9	É
Ne) HAND DELIVERED CEDES	// O   Speci		Sample Temperature RUSI	ONLY	LAB USE REMARKS:	×	×	×	×	×				× >	×	×	PAH 82 Total Me TCLP M TCLP V TCLP Se RCI	15M ( 70C tals A etals / latiles	GRO- g As B Ag As E s	DRO - O a Cd Cr P Ba Cd Cr F	b Se F	-		— 9	(Circle or Speci	ANALYS		*
	Special Report Limits or TRRP Report	Charges Authorized	RUSH: Same Day 24 hr 48 hr			×	×	×	×	×	×	×	×	< >	< >	F C	PCB's 8 NORM PLM (Asi Chloride	D82 / Destos	Vol. 82 608 b)	70C/625 TDS	e attac	ched li	st)		Specify Method No.			Page
	eport		hr 72 hr													A	nion/Ca sbestos		Balanc	е								2 of

Tetra Tech. Inc.	Permian Water Solutions	Permian Water Solutions	County   C	Circle or   Committee   Comm	Tetra Tech, Inc.
Sampler Signature:   TBD   Sampler Signature:	Project #: TBD	Sampler Signature:   TBD	Sampler Signature:   Clair Gonzales   Clair Gonzales	Sampler Signature:   Clair Gonzales   Clair Gonzales	Complete   Site Manager:   Clair Conzales   Clair Conzales   Site Manager:   Clair Conzales   Sit
TIME  WATER  VAIRIX  VAIRIX  TBD  TBD  TBD  TBD  TBD  TBD  TBD  TB	TIME  MATRIX  MATRIX  MATRIX  PRESERVATIVE  METHOD  TIME  VAX  X  X  X  X  X  X  X  X  X  X  X  X	Time	Clair Gonzales	Clair Gonzales	Time:   Time
PRESERVATIVE  METHOD  Date: Time:  Date: Time:  Date: Time:	Time:  Time:  Time:  Time:  Time:	Time:  Servative  Serv	Circle   Sample   Temperature   Sample   Temperature   Time:   Sample   Temperature   Time:   Sample   Temperature   Time:   Time:   Sample   Temperature   Time:   Sample   Temperature   Time:   Time:   Sample   Temperature   Sample   Time:   Sample   Temperature   Sample   Time:   Sample   Temperature   Sample   Samp	Circle   Sample   Temperature   Sample   Temperature   Time:   Sample   Temperature   Time:   Sample   Temperature   Time:   Time:   Sample   Temperature   Time:   Sample   Temperature   Time:   Time:   Sample   Temperature   Sample   Time:   Sample   Temperature   Sample   Time:   Sample   Temperature   Sample   Samp	Cords   ANALYSIS REQUEST   Circle or Specify Method No.)
	FILTERED (Y/N)	FILTERED (Y/N)    S	Sample Temple Temple Total Metals Ag As Ba Cd Cr Pb Se Hg   TCLP Metals Ag As Ba Cd Cr Pb Se Hg   TCLP Metals Ag As Ba Cd Cr Pb Se Hg   TCLP Semi Volatiles   TCLP Semi Volati	FILTERED (Y/N)   FILTERED (Y/N)	Circle or Special Report Limits or TRRP Report Limits and TRRP R

	Kelinquished by:		Relinguished by:	Relinquished by:									SANTER ENGEROUS	( LAB USE )	LAB#		Comments.	Comments Laboratory.	myoice to:	state)		Project Name	Client Name:	
	/: Date: Time:	Paic	wolk idea	y: 2 Date: Time:		n-20 1-2					H-18 1-2	- 1	H-17 1-2		SAMPLE IDENTIFICATION			Xenco	Tetra Tech, Inc.	n: (county, Eddy County, NM	ı	Permian Water Solutions	Tetra Tech.	
	Received by:	Received by:	5:45	Received by:		10/25/2019	10/25/2019	10/25/2019	10/25/2019	10/25/2019	10/25/2019	10/25/2019	T	DATE	YEAR:	SAMPLING	T.	Sampler Signature:		Project#:	ssment	Site Manager:	Inc.	
	Date: Time:	Date: /Time:	0	Date: Time:		×	×	×	×	×	×	×	V S H	VATER OIL ICL INO <sub>3</sub>	2	MATRIX PRESERVATIVE METHOD				TBD		Clair Gonzales	4000 N. Big Spring Street, Ste 401 Midland,Texas 79705 Tel (432) 682-4559 Fax (432) 682-3946	
(Circle) HAND DEI NÆBED	0.6	Sample Temperature	9/54S LABUSE ONLY			×	×	×	×	1 ×	×	×	FI B1 TF TF PA	AH 827 tal Meta	21B 005 ( 5M ( 0C	RS //N) BTE (Ext to GRO -	DRO - C	RO) Pb Se l			(Circie			« C
	Special Report Limits or TRRP Report	Rush Charges Authorized	ZEMAKZO.	000000000000000000000000000000000000000		×	×	×	×	×	×	×	TC TC RC GC GC PC NC PL	CLP Vola CLP Sen CI C/MS Vo	ol. 82 emi. \ 82 / 6	latiles 260B / /ol. 82	624 70C/625		Hg		le or specify Method No.)	ANALYSIS REQUEST		) / rage
	RP Report	48 hr 72 hr											Ge	10000000000	Vater	Chen	nistry (se	e atta	ched lis	st)	_ <u> </u>		*	4 of

Released to Imaging: 7/29/2021 3:19:33 PM

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Final 1.000



## XENCO Laboratories

# Prelogin/Nonconformance Report- Sample Log-In



Client: Tetra Tech- Midland

Date/ Time Received: 10/29/2019 03:45:00 PM

Work Order #: 641434

Acceptable Temperature Range: 0 - 6 degC Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used: R8

	Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?		1	
#2 *Shipping container in good condition?		Yes	
#3 *Samples received on ice?		Yes	
#4 *Custody Seals intact on shipping contain	ner/ 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 relinquish	ned/ received?	Yes	
#10 Chain of Custody agrees with sample la	abels/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 t	test(s)?	Yes	
#16 All samples received within hold time?		Yes	
#17 Subcontract of sample(s)?		N/A	
#18 Water VOC samples have zero headsp	ace?	N/A	

Analyst:		PH Device/Lot#:	
	Checklist completed by:	Brianna Teel	Date: 10/29/2019
	Checklist reviewed by:	Jessica Vramer  Jessica Kramer	Date: <u>10/30/2019</u>

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

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

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:	OGRID:
Permian Water Solutions, LLC	373626
PO Box 2106	Action Number:
Midland, TX 79702	3294
	Action Type:
	[C-141] Release Corrective Action (C-141)

#### CONDITIONS

Created	Condition	Condition
Ву		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-	7/29/2021
	water interface. Chloride only at this time. Measure depth to water to nearest 100th of an inch.	