



March 27, 2020

Environmental Specialist  
Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

**Re: Closure Report for the EOG Resources, David Ross SWD #1, Section 35, Township 22 South, Range 31 East, Eddy County, New Mexico.**

Oil Conservation Division:

Tetra Tech, Inc. (Tetra Tech) was contacted by EOG Resources (EOG) to assess and remediate a release that occurred at the EOG Resources, David Ross SWD #1, Section 35, Township 22 South, Range 31 East, Eddy County, New Mexico (Site). The site coordinates are 32.27090°, -104.42270°. The site location is shown on Figures 1 and 2.

## Background

According to the State of New Mexico C-141 Initial Report the release was discovered on April 12, 2010 and released approximately 90 barrels of produced water, due to a hole that was developed from a "T" connection on a Murphy Switch. 80 barrels of the released fluids were recovered. The release occurred inside of the berm of the tank battery, impacted areas measuring approximately 45' x 45'. The C-141 form is included in Appendix A.

## 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 and the site is in a low karst potential area. The nearest well is listed in the USGS National Water Information Database website in Section 35, approximately 1.5 miles west of the site, and has a reported depth to groundwater of 493 feet below ground surface. Site characterization data is included 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, updated August 14, 2018. The guidelines require a risk-based evaluation of the site to determine

Tetra Tech

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recommended remedial action levels (RRAL) for benzene, toluene, ethylbenzene and xylene (collectively referred to as BTEX) and total petroleum hydrocarbons (TPH) in soil. The proposed RRAL for benzene was determined to be 10 parts per million (ppm) or milligrams per kilogram (mg/kg) and 50 ppm for total BTEX (sum of benzene, toluene, ethylbenzene, and xylene). Based upon the site characterization, the proposed RRAL for TPH is 2,500 mg/kg (GRO+DRO+MRO). Additionally, based on the site characterization, the proposed RRAL for chlorides is 20,000 mg/kg.

### **Soil Assessment and Analytical Results**

On January 7, 2020, Tetra Tech personnel were onsite to evaluate and sample the release area. A total of four (4) auger holes (AH-1 through AH-4) were installed to total depths ranging from 0-1' – 3.5' below surface. Selected samples were analyzed 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 C. The results of the sampling are summarized in Table 1. The auger hole locations are shown on Figure 3.

Referring to Table 1, none of the samples analyzed showed benzene, total BTEX, or TPH concentrations above the reclamation threshold. However, elevated chloride concentrations were detected, all below RRAL, but there were exceptions above the 600 mg/kg reclamation threshold. The areas of AH-1, AH-2 and AH-4 showed chloride concentrations above 600 mg/kg that were not vertically defined at total depths ranging from 0-1' below surface. The areas of AH-3 showed concentrations above 600 mg/kg, decreasing with depth, with concentrations of 2,560 mg/kg, 1,480 mg/kg, 129 mg/kg, 155 mg/kg, 137 mg/kg, for depths of 0-1' to 3.0'-3.5' respectively. The areas of AH-1, AH-2, and AH-4 showed chloride highs of 8,040 mg/kg, 13,200 mg/kg, and 1,590 mg/kg at 0-1', respectively.

### **Remediation and Reclamation Activities**

Based on the results of the soil assessment, Tetra Tech personnel were onsite March 2, 2020, to supervise the remediation and reclamation activities as well as to collect confirmation samples. The impacted areas were excavated to total depths ranging from 2.0'-4.0' below surface, as shown on Figure 4 and highlighted (green) on Table 2.

Confirmation bottom hole and sidewall samples were collected every 20 square feet, a total of 7 bottom hole samples (Bottom Hole 1 through Bottom Hole 7) and 17 sidewall samples (N1SW, N2SW, N3SW, N4SW, N5SW, W1SW, W2SW, W3SW, E2SW, E3SW, S1SW, S2SW, S3SW, S4SW, S5SW, S6SW, NESW) were collected to ensure proper removal of the impacted soils. The samples were submitted to the laboratory to be analyzed for TPH method 8015 extended, BTEX method 8021B, and Chloride by EPA Method 300.0. The sampling results are summarized in Table 1. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix C. The excavation depths and sample locations are shown in Figure 4.

Referring to Table 1, all final confirmation samples collected showed benzene, total BTEX, and TPH concentrations below the RRALs. Additionally, the majority of final samples, showed chloride concentrations below the 600 mg/kg threshold. With exceptions of elevated chloride concentrations in six (6) Sidewall samples (N4SW, N5SW, NESW, S4SW, S5SW, S6SW), showing concentrations of 2,560 mg/kg, 768 mg/kg, 624 mg/kg, 1,340 mg/kg, 4,880 mg/kg, 2,360 mg/kg, respectively. Due to placement of lines and safety concerns, the elevated concentrations could not be excavated further.



Approximately 26 cubic yards of material was excavated and transported offsite for proper disposal. The areas were then backfilled with clean material to surface grade.

### Conclusion

Based on the laboratory results, remediation activities performed, and safety concerns of further excavation on elevated samples, EOG requests closure of this spill issue. The final C-141 is enclosed in Appendix A. If you have any questions or comments concerning the assessment or remediation activities for this site, please call at (432) 682-4559.

Respectfully submitted,  
TETRA TECH

A handwritten signature in black ink, appearing to read 'Brittany Long'.

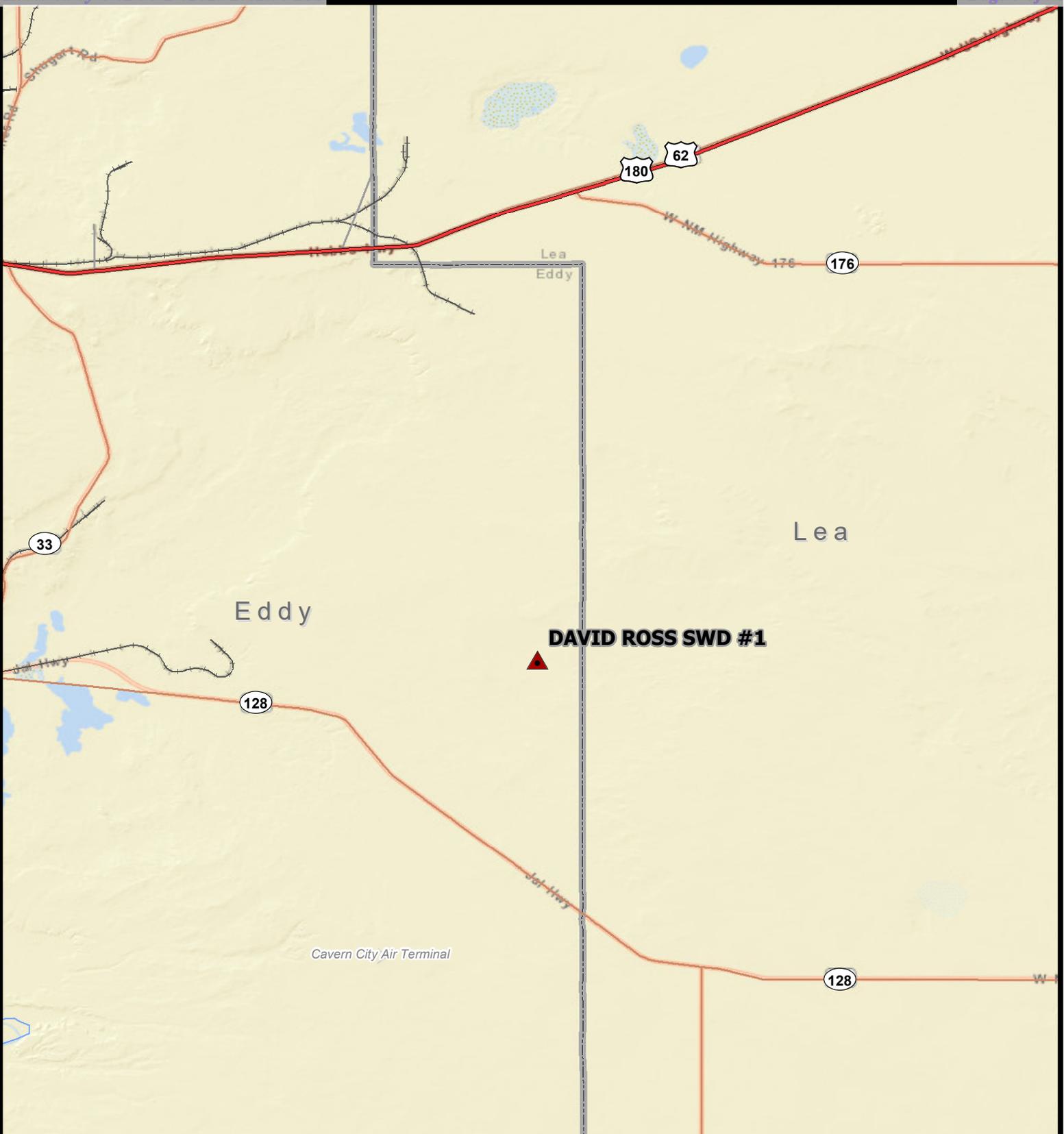
Brittany Long,  
Environmental Scientist/Biologist

A handwritten signature in blue ink, appearing to read 'Clair Gonzales'.

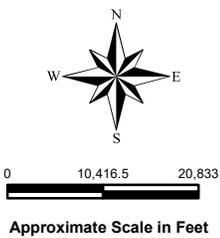
Clair Gonzales,  
Project Manager, P.G.

cc: James Kennedy – EOG  
Todd Wells - EOG

# Figures



 SITE LOCATION



OVERVIEW MAP  
 DAVID ROSS SWD #1  
 Property Located at coordinates 32.349553°, -103.742377°  
 EDDY COUNTY, NEW MEXICO

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

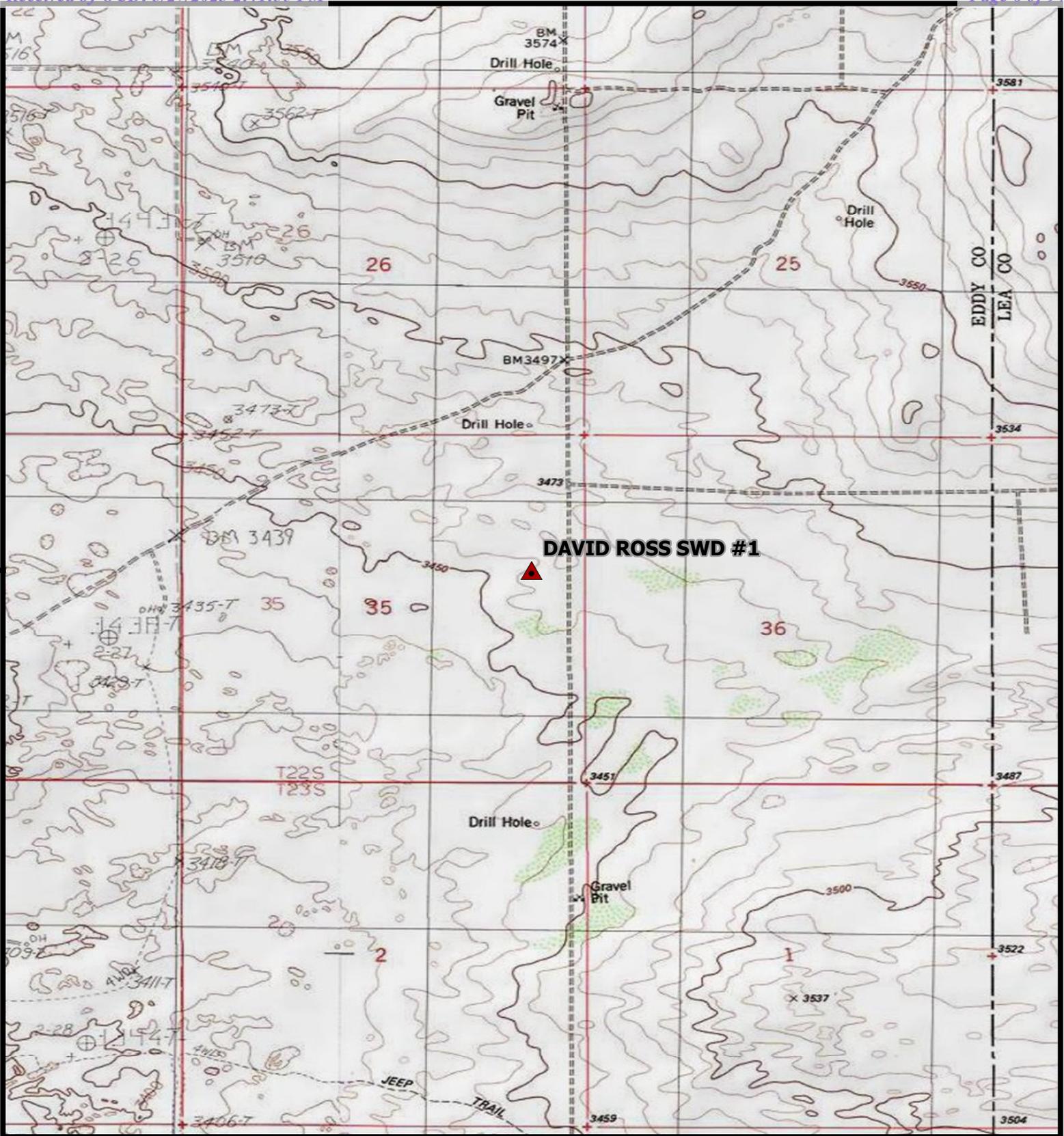


**TETRA TECH**  
 901 W Wall St Ste. 100,  
 Midland, TX 79701  
 (432) 682-4559

Project #: 212C-MD-02042  
 Date: 03-27-2020  
 Drawn By: MLM

FIGURE  
 1

Document Path: H:\GIS\EOG\_RESOURCES\212C-MD-02042 DAVID ROSS SWD #1\MXD\212C-MD-02042 DAVID ROSS SWD #1 FIG. 1 (1).mxd



**DAVID ROSS SWD #1**

 SITE LOCATION



0 1,000 2,000  
 Approximate Scale in Feet

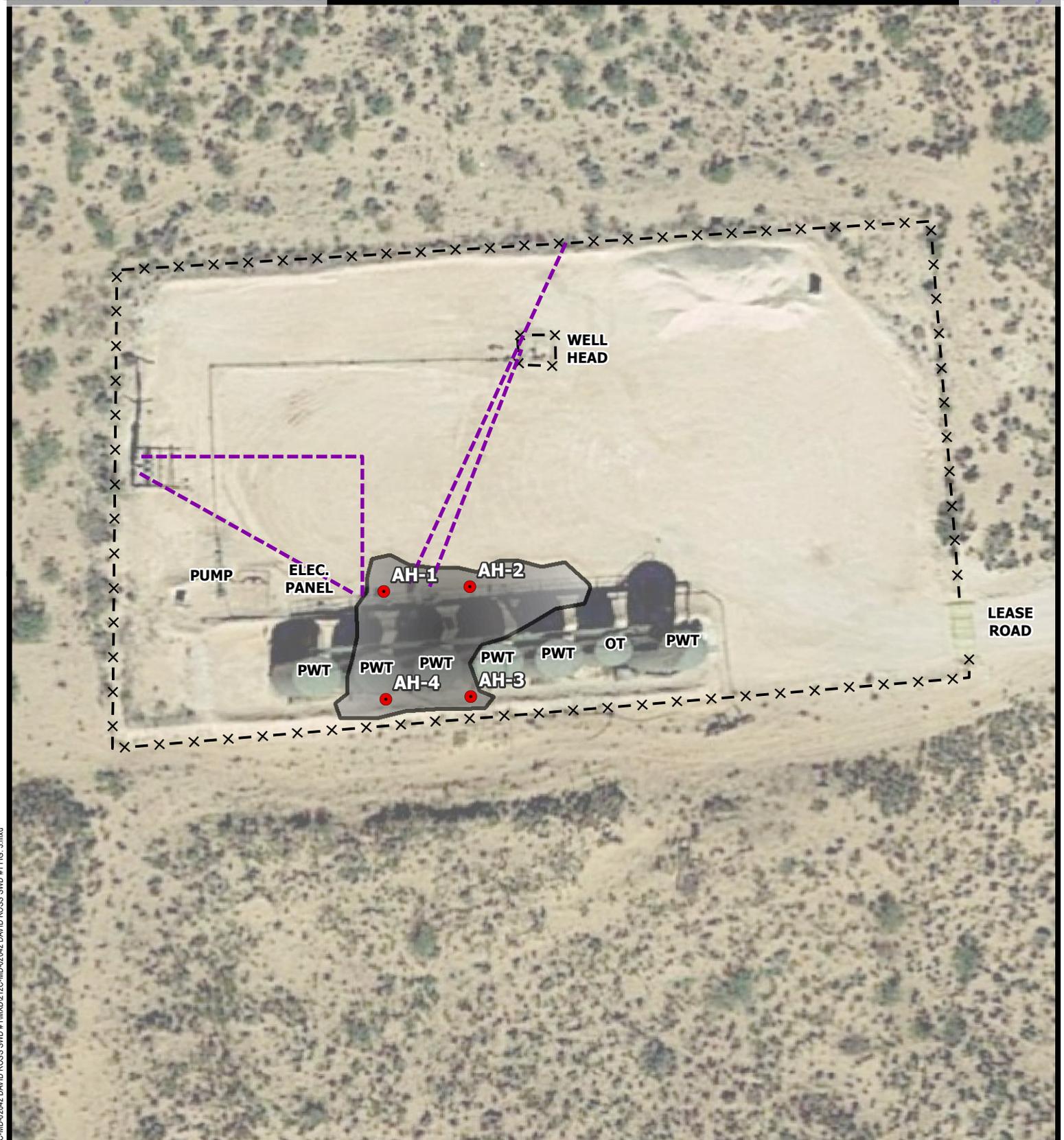
TOPOGRAPHIC MAP  
 DAVID ROSS SWD #1  
 Property Located at coordinates 32.349553°, -103.742377°  
 EDDY COUNTY, NEW MEXICO



Project #: 212C-MD-02042  
 Date: 03-27-2020  
 Drawn By: MLM

**FIGURE**  
 2

Document Path: H:\GIS\EOG RESOURCES\212C-MD-02042 DAVID ROSS SWD #1\MXD\212C-MD-02042 DAVID ROSS SWD #1 FIG. 2.mxd



- AUGERHOLE SAMPLE LOCATIONS
- BURIED PIPE
- FENCELINE
- SPILL AREA



0 25 50  
Approximate Scale in Feet

SPILL ASSESSMENT MAP  
 DAVID ROSS SWD #1  
 Property Located at coordinates 32.349553°, -103.742377°  
 EDDY COUNTY, NEW MEXICO

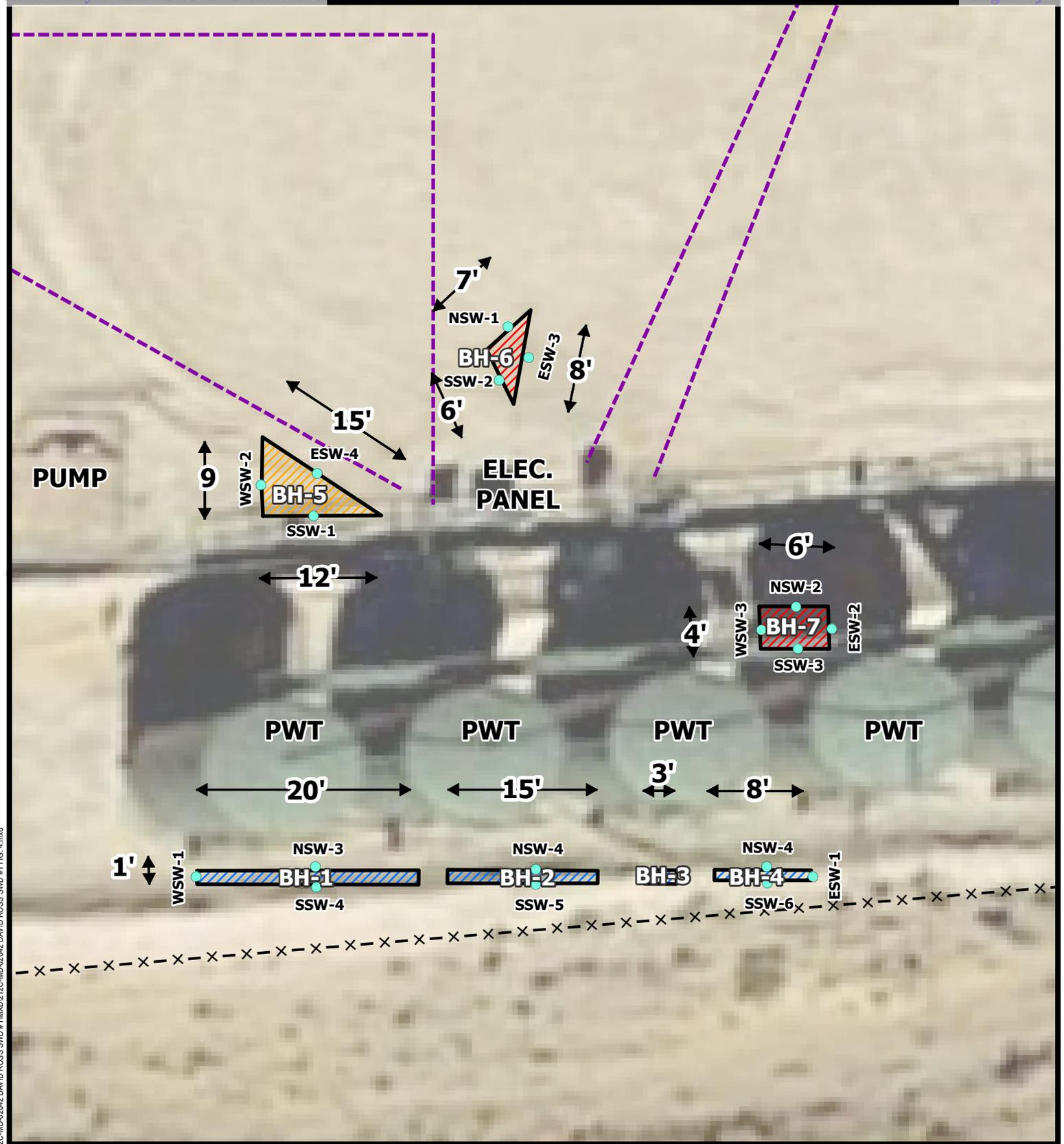


Project #: 212C-MD-02042  
 Date: 03-27-2020  
 Drawn By: MLM

FIGURE  
3

Date: 3/27/2020 Document Path: H:\GIS\EOG\_RESOURCES\212C-MD-02042 DAV ID ROSS SWD #1\11MXD12C-MD-02042 DAV ID ROSS SWD #1 FIG. 3.mxd

Source: "New Mexico", 32°20'58.39"N, 103°44'32.56"W. Google Earth. November 11, 2011. March 27, 2020.



Date: 3/30/2020 Document Path: H:\GIS\IEOG RESOURCES\212C-MD-02042 DAV\ID ROSS SWD #1\11MXD12C-MD-02042 DAV\ID ROSS SWD #1 FIG. 4.mxd

- SIDEWALL SAMPLE LOCATIONS
- BURIED PIPE
- X - X FENCELINE
- 4.0' DEPTH AREA
- 2.5' DEPTH AREA
- 2.0' DEPTH AREA



EXCAVATION AREA & DEPTH MAP  
 DAVID ROSS SWD #1  
 Property Located at coordinates 32.349553°, -103.742377°  
 EDDY COUNTY, NEW MEXICO



Project #: 212C-MD-02042  
 Date: 03-27-2020  
 Drawn By: MLM

FIGURE  
4

# Tables

**Table 1  
EOG  
David Ross Fed SWD #1  
Eddy County, New Mexico**

Sample ID	Sample Date	Sample Depth (ft)	Soil Status		TPH (mg/kg)				Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
			In-Situ	Removed	GRO	DRO	MRO	Total						
AH-1	1/7/2020	0-1		X	<50.2	53.1	<50.2	53.1	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	8,040
AH-2	1/7/2020	0-1		X	<50.1	<50.1	<50.1	<50.1	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	13,200
AH-3	1/7/2020	0-1		X	<49.8	155	<49.8	155	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	2,560
	"	1-1.5		X	<50.2	183	<50.2	183	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	1,480
	"	2-2.5	X		-	-	-	-	-	-	-	-	-	129
	"	3-3.5	X		-	-	-	-	-	-	-	-	-	155
	"	3-3.5	X		-	-	-	-	-	-	-	-	-	137
AH-4	1/7/2020	0-1		X	<49.8	<49.8	<49.8	<49.8	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	1,590

**Table 2**  
**EOG**  
**David Ross Fed SWD #1**  
**Eddy County, New Mexico**

Sample ID	Sample Date	Sample Depth (ft)	Soil Status		TPH (mg/kg)				Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
			In-Situ	Removed	GRO	DRO	MRO	Total						
BH-1	3/2/2020	2	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	448
BH-2	3/2/2020	2	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	80.0
BH-3	3/2/2020	2	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	544
BH-4	3/2/2020	2	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	240
BH-5	3/2/2020	4	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	528
BH-6	3/2/2020	2.5	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	416
BH-7	3/2/2020	2.5	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	384
North 1 SW	3/2/2020	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	80.0
North 2 SW	3/2/2020	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	256
North 3 SW	3/2/2020	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	512
North 4 SW	3/2/2020	-	X		<10.0	389	312	701	<0.050	<0.050	<0.050	<0.150	<0.300	2,560
North 5 SW	3/2/2020	-	X		<10.0	70.1	42.0	112.1	<0.050	<0.050	<0.050	<0.150	<0.300	768
West 1 SW	3/2/2020	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	192
West 2 SW	3/2/2020	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	48.0
West 3 SW	3/2/2020	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	32.0
East 2 SW	3/2/2020	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	256
East 3 SW	3/2/2020	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	128
Northeast SW	3/2/2020	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	624
South 1 SW	3/2/2020	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	176
South 2 SW	3/2/2020	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	80.0
South 3 SW	3/2/2020	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	544
South 4 SW	3/2/2020	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	1,340
South 5 SW	3/2/2020	-	X		<10.0	313	293	606	<0.050	<0.050	<0.050	<0.150	<0.300	4,880

**Table 2  
EOG  
David Ross Fed SWD #1  
Eddy County, New Mexico**

Sample ID	Sample Date	Sample Depth (ft)	Soil Status		TPH (mg/kg)				Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
			In-Situ	Removed	GRO	DRO	MRO	Total						
South 6 SW	3/2/2020	-	X		<10.0	861	536	1,397	<0.050	<0.050	<0.050	<0.150	<0.300	2,360

# Photos

EOG  
David Ross SWD #1  
Eddy County, New Mexico



TETRA TECH



View of Release, North of Tank Battery



View of Release, North of Tank Battery

EOG  
David Ross SWD #1  
Eddy County, New Mexico



TETRA TECH



View of Release, South of Tank Battery



View of Release, South of Tank Battery

EOG  
David Ross SWD #1  
Eddy County, New Mexico



TETRA TECH



View of Remediation, South of Tank Battery



View of Remediation, South of Tank Battery

EOG  
David Ross SWD #1  
Eddy County, New Mexico



TETRA TECH



View of Release and Remediation, North of Tank Battery



View of Remediation, North of Tank Battery

EOG  
David Ross SWD #1  
Eddy County, New Mexico



TETRA TECH



View of Remediation, North of Tank Battery



View of Remediation, North of Tank Battery

# Appendix A

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

State of New Mexico  
Energy Minerals and Natural  
Resources 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	OGRID
Contact Name	Contact Telephone
Contact email	Incident # (assigned by OCD)
Contact mailing address	

### Location of Release Source

Latitude \_\_\_\_\_ Longitude \_\_\_\_\_  
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Site Type
Date Release Discovered	API# (if applicable)

Unit Letter	Section	Township	Range	County

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

### Nature and Volume of Release

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

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

Cause of Release

State of New Mexico  
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC?  <input type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release?
----------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------

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

### Initial Response

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

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

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

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

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

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_  
 Signature: James F Kennedy Date: \_\_\_\_\_  
 email: \_\_\_\_\_ Telephone: \_\_\_\_\_

**OCD Only**  
 Received by: \_\_\_\_\_ Date: \_\_\_\_\_

Incident ID	
District RP	
Facility ID	
Application ID	

## Site Assessment/Characterization

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

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

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

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

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

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

State of New Mexico  
Oil Conservation Division

Page 4

Incident ID	
District RP	
Facility ID	
Application ID	

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

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

Signature: James F Kennedy Date: \_\_\_\_\_

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

**OCD Only**

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

Incident ID	
District RP	
Facility ID	
Application ID	

## Remediation Plan

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

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

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

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

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

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_  
 Signature: James F Kennedy Date: \_\_\_\_\_  
 email: \_\_\_\_\_ Telephone: \_\_\_\_\_

**OCD Only**

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

- Approved       Approved with Attached Conditions of Approval       Denied       Deferral Approved

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

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.

*James F Kennedy*

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

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

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_  
 Signature: *James F Kennedy* Date: \_\_\_\_\_  
 email: \_\_\_\_\_ Telephone: \_\_\_\_\_

**OCD Only**

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

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

Closure Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

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



# New Mexico Office of the State Engineer

## Wells with Well Log Information

(quarters are 1=NW 2=NE 3=SW 4=SE)  
(quarters are smallest to largest) (NAD83 UTM in meters)

POD Number	Sub Use	County	Source	Basin	Sec	Twp	Range	Start Date	Finish Date	Log File	Depth	Water
C 02416	MON ED	Artesian	3 2 4 28	22S	31E	615027	3580973*	10/05/1994	10/11/1994	05/07/2003	800	401
C 02420	EXP ED	Artesian	4 2 3 28	22S	31E	614423	3580964*	03/28/1995	04/22/1995	12/05/1995	779	450
C 02421	EXP ED	Artesian	4 2 3 28	22S	31E	614423	3580964*	05/10/1995	05/20/1995	12/05/1995	786	450
C 02422	EXP ED	Artesian	4 2 3 28	22S	31E	614423	3580964*	04/23/1995	05/09/1995	12/05/1995	785	450
C 02423	EXP ED	Artesian	4 2 3 28	22S	31E	614423	3580964*	05/26/1995	06/05/1995	12/05/1995	782	450
C 02424	EXP ED	Artesian	4 2 3 28	22S	31E	614423	3580964*	06/11/1995	08/27/1995	12/05/1995	786	450
C 02425	EXP ED	Artesian	4 2 3 28	22S	31E	614423	3580964*	07/10/1995	08/25/1995	12/05/1995	788	450
C 02426	EXP ED	Artesian	4 2 3 28	22S	31E	614423	3580964*	07/26/1995	08/20/1995	12/05/1995	785	450
C 03152	MON ED	Shallow	3 4 4 26	22S	31E	618250	3580606*	06/01/2005	06/07/2005	06/10/2005	938	

Record Count: 9

PLSS Search:

Section(s): 25, 26, 27, 28, 33, 34, 35, 36  
Township: 22S  
Range: 31E

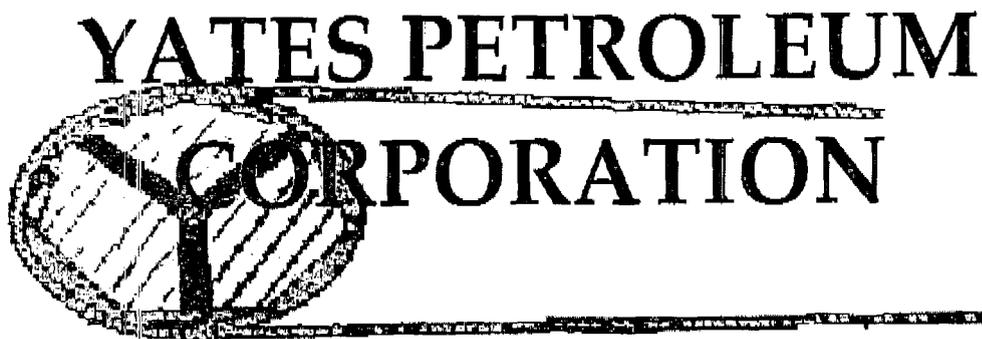
\*UTM location was derived from PLSS - see Help

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.

4/14/10 4:35 PM

Page 1 of 1

WELLS WITH WELL LOG INFORMATION



FACSIMILE TRANSMITTAL SHEET

TO: Mike Bratcher	FROM: Robert Asher
FAX NUMBER: 9-748-9720	DATE: Friday, April 16, 2010
COMPANY: NMOCD	TOTAL NO. OF PAGES INCLUDING COVER: 3
RE: C-141; David Ross Federal SWD #1	NOTES/COMMENTS: Initial Report (4/12/2010 Release)

URGENT   
 FOR REVIEW   
 PLEASE COMMENT   
 PLEASE REPLY   
 PLEASE RECYCLE

ADDITIONAL NOTES & COMMENTS:

Call me if you have any questions, 575-748-4217.

Thank you.

Robert Asher

Environmental Regulatory Department

105 SOUTH FOURTH STREET • ARTESIA, NEW MEXICO 88210-2118  
PHONE: 575-748-4217 (DIRECT) • FAX: 575-748-4662

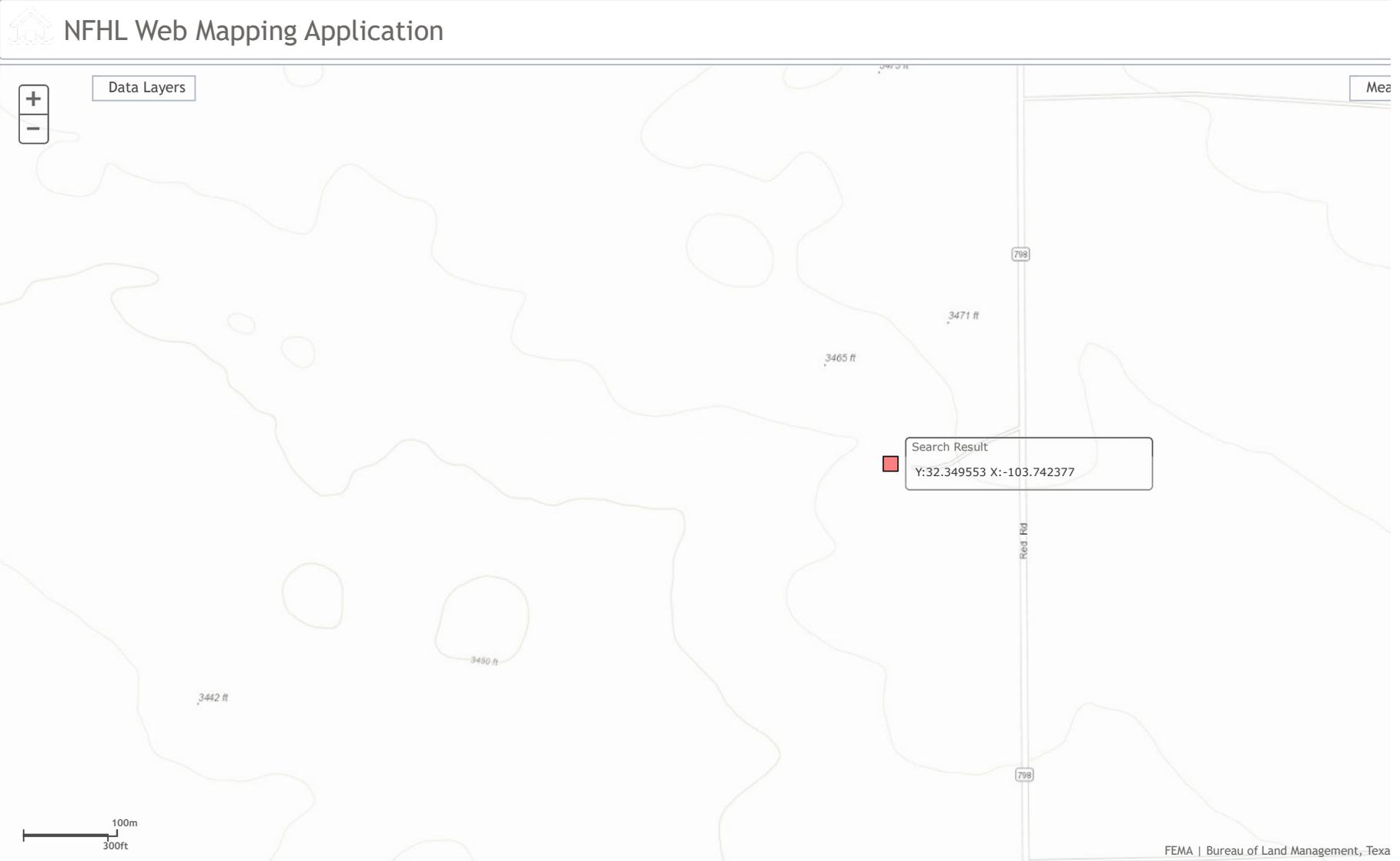
# Appendix B



National Water Information System: Mapper



Site Information



# David Ross SWD 1

ial Map

## Legend

-  32.349553 -
-  High
-  Low
-  Medium

 32.349553 -103.742377

Earth

2 mi



USGS Home  
Contact USGS  
Search USGS

## National Water Information System: Web Interface

USGS Water Resources

<b>Data Category:</b> Groundwater	<b>Geographic Area:</b> United States	GO
--------------------------------------	------------------------------------------	----

Click to hide News Bulletins

- [Introducing The Next Generation of USGS Water Data for the Nation](#)
- [Full News](#) 

Groundwater levels for the Nation

### Search Results -- 1 sites found

**site\_no list =**

- 322046103460301

**Minimum number of levels = 1**

[Save file of selected sites](#) to local disk for future upload

### USGS 322046103460301 22S.31E.34.321

**Available data for this site**

Eddy County, New Mexico

Hydrologic Unit Code 13060011

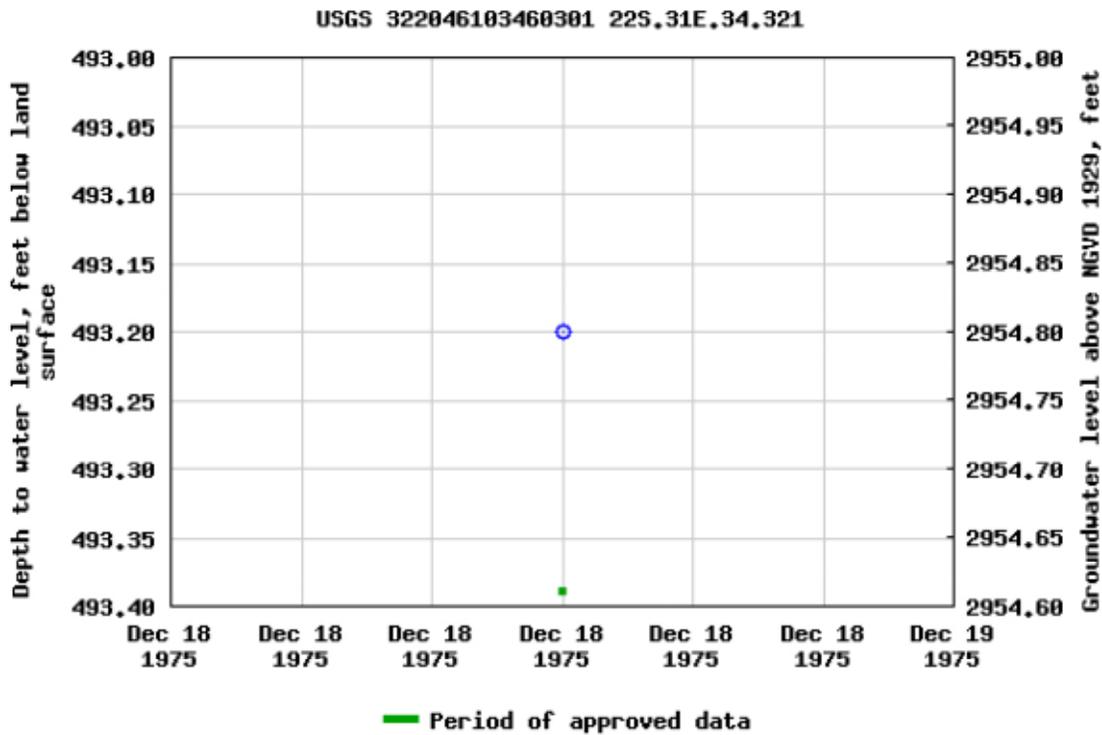
Latitude 32°20'46", Longitude 103°46'03" NAD27

Land-surface elevation 3,448 feet above NGVD29

This well is completed in the Delaware Mountain Group (313DLRM) local aquifer.

#### Output formats

<a href="#">Table of data</a>
<a href="#">Tab-separated data</a>
<a href="#">Graph of data</a>
<a href="#">Reselect period</a>



Breaks in the plot represent a gap of at least one year between field measurements.

[Download a presentation-quality graph](#)

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[U.S. Department of the Interior](#) | [U.S. Geological Survey](#)

**Title: Groundwater for USA: Water Levels**

**URL: <https://nwis.waterdata.usgs.gov/nwis/gwlevels?>**



Page Contact Information: [USGS Water Data Support Team](#)

Page Last Modified: 2020-01-21 10:28:45 EST

0.56 0.49 nadww01



# New Mexico Office of the State Engineer Water Column/Average Depth to Water

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

(R=POD has been replaced, O=orphaned, C=the file is closed) (quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) (NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
<a href="#">C 02413</a>	CUB	ED		1	2	1	20	22S	31E	612586	3583560*	737		
<a href="#">C 02414</a>	CUB	ED		3	1	3	16	22S	31E	613782	3584176*	846		
<a href="#">C 02415</a>	CUB	ED		3	3	4	16	22S	31E	614592	3583785*	880	448	432
<a href="#">C 02416</a>	CUB	ED		3	2	4	28	22S	31E	615027	3580973*	800	401	399
<a href="#">C 02417</a>	CUB	ED		4	4	4	29	22S	31E	613623	3580554*	681		
<a href="#">C 02418</a>	CUB	ED		3	2	3	29	22S	31E	612613	3580948*	617	413	204
<a href="#">C 02419</a>	CUB	ED		3	2	3	29	22S	31E	612613	3580948*	225		
<a href="#">C 02420</a>	CUB	ED		4	2	3	28	22S	31E	614423	3580964*	779	450	329
<a href="#">C 02421</a>	CUB	ED		4	2	3	28	22S	31E	614423	3580964*	786	450	336
<a href="#">C 02422</a>	CUB	ED		4	2	3	28	22S	31E	614423	3580964*	785	450	335
<a href="#">C 02423</a>	CUB	ED		4	2	3	28	22S	31E	614423	3580964*	782	450	332
<a href="#">C 02424</a>	CUB	ED		4	2	3	28	22S	31E	614423	3580964*	786	450	336
<a href="#">C 02425</a>	CUB	ED		4	2	3	28	22S	31E	614423	3580964*	788	450	338
<a href="#">C 02426</a>	CUB	ED		4	2	3	28	22S	31E	614423	3580964*	785	450	335
<a href="#">C 02505</a>	CUB	ED		4	4	4	20	22S	31E	613604	3582162*	69	48	21
<a href="#">C 02506</a>	CUB	ED		4	4	4	20	22S	31E	613604	3582162*	69	48	21
<a href="#">C 02507</a>	CUB	ED		4	4	4	20	22S	31E	613604	3582162*	73	45	28
<a href="#">C 02639</a>	CUB	ED		4	4	4	17	22S	31E	613585	3583770*	3928		
<a href="#">C 02662</a>	CUB	ED		1	2	2	29	22S	31E	613409	3581960*	856		
<a href="#">C 02682</a>	CUB	ED		4	4	4	08	22S	31E	613566	3585379*	4400		
<a href="#">C 02683</a>	CUB	ED		3	1	1	20	22S	31E	612184	3583356*	840		
<a href="#">C 02684</a>	CUB	ED		4	2	2	20	22S	31E	613590	3583368*	1060		
<a href="#">C 02685</a>	CUB	ED		2	2	2	28	22S	31E	615218	3581978*	900		
<a href="#">C 02687</a>	CUB	ED		4	2	4	33	22S	31E	615246	3579364*	779		
<a href="#">C 02737</a>	C	ED		2	4	2	29	22S	31E	613604	3581567	710		
<a href="#">C 02744</a>	CUB	ED		3	2	1	11	22S	31E	617374	3586631*	4911		

\*UTM location was derived from PLSS - see Help

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

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

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

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

(In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
<a href="#">C 02745</a>	CUB	ED	4	2	2	15	22S	31E	616789	3585013*		925		
<a href="#">C 02746</a>	CUB	ED	4	2	2	15	22S	31E	616789	3585013*		930		
<a href="#">C 02747</a>	CUB	ED	4	2	2	15	22S	31E	616789	3585013*		1076		
<a href="#">C 02748</a>	CUB	ED	1	2	3	17	22S	31E	612576	3584364*		3856		
<a href="#">C 02749</a>	CUB	ED	1	1	1	18	22S	31E	610556	3585146*		640		
<a href="#">C 02750</a>	CUB	ED	1	1	1	18	22S	31E	610556	3585146*		741		
<a href="#">C 02751</a>	CUB	ED	1	1	1	18	22S	31E	610556	3585146*		637		
<a href="#">C 02752</a>	CUB	ED	4	4	4	20	22S	31E	613604	3582162*		2875		
<a href="#">C 02753</a>	CUB	ED	1	4	4	20	22S	31E	613404	3582362*		851		
<a href="#">C 02754</a>	CUB	ED	4	2	4	20	22S	31E	613599	3582564*		1045		
<a href="#">C 02755</a>	CUB	ED	4	4	2	20	22S	31E	613595	3582966*		1040		
<a href="#">C 02756</a>	CUB	ED	3	4	4	26	22S	31E	618250	3580606*		1998		
<a href="#">C 02757</a>	CUB	ED	4	4	4	28	22S	31E	615232	3580571*		4057		
<a href="#">C 02758</a>	CUB	ED	3	2	1	29	22S	31E	612604	3581752*		661		
<a href="#">C 02759</a>	CUB	ED	1	2	1	29	22S	31E	612604	3581952*		795		
<a href="#">C 02760</a>	CUB	ED	2	2	4	29	22S	31E	613618	3581156*		725		
<a href="#">C 02761</a>	CUB	ED	2	2	4	29	22S	31E	613618	3581156*		730		
<a href="#">C 02761 POD1</a>	CUB	ED	2	2	4	29	22S	31E	613651	3581101		725		
<a href="#">C 02762</a>	CUB	ED	3	2	1	29	22S	31E	612604	3581752*		672		
<a href="#">C 02763</a>	CUB	ED	3	2	1	29	22S	31E	612604	3581752*		660		
<a href="#">C 02764</a>	CUB	ED	2	2	4	29	22S	31E	613618	3581156*		902		
<a href="#">C 02765</a>	CUB	ED	1	2	2	29	22S	31E	613409	3581960*		856		
<a href="#">C 02766</a>	CUB	ED	3	3	3	29	22S	31E	612216	3580541*		589		
<a href="#">C 02767</a>	CUB	ED	4	1	4	33	22S	31E	614844	3579360*		785		
<a href="#">C 02768</a>	CUB	ED	4	1	4	33	22S	31E	614844	3579360*		787		
<a href="#">C 02769</a>	CUB	ED	2	2	4	33	22S	31E	615246	3579564*		765		
<a href="#">C 02769 POD2</a>	CUB	ED	4	2	4	33	22S	31E	615261	3579312		753	428	325
<a href="#">C 02801</a>	CUB	ED	4	4	4	20	22S	31E	613604	3582162*		65		
<a href="#">C 02802</a>	CUB	ED	4	4	4	20	22S	31E	613604	3582162*		65		

\*UTM location was derived from PLSS - see Help

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

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

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

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

(In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
<a href="#">C 02803</a>	CUB	ED	4	4	4	20	22S	31E	613604	3582162*		65			
<a href="#">C 02811</a>	CUB	ED	2	4	2	29	22S	31E	613613	3581558*		80			
<a href="#">C 02980</a>	CUB	ED	2	4	4	20	22S	31E	613604	3582362*		62			
<a href="#">C 02981</a>	CUB	ED	4	4	4	20	22S	31E	613604	3582162*		62			
<a href="#">C 02982</a>	CUB	ED	2	4	4	20	22S	31E	613604	3582362*		65			
<a href="#">C 02983</a>	CUB	ED	4	4	4	20	22S	31E	613604	3582162*		60			
<a href="#">C 02984</a>	CUB	ED	2	4	4	20	22S	31E	613604	3582362*		65			
<a href="#">C 02985</a>	CUB	ED	2	4	4	20	22S	31E	613604	3582362*		62			
<a href="#">C 02986</a>	CUB	ED	1	4	4	20	22S	31E	613404	3582362*		71			
<a href="#">C 02987</a>	CUB	ED	4	4	4	20	22S	31E	613604	3582162*		68			
<a href="#">C 02988</a>	CUB	ED	2	4	4	20	22S	31E	613604	3582362*		75			
<a href="#">C 02989</a>	CUB	ED	3	4	4	20	22S	31E	613404	3582162*		54			
<a href="#">C 02990</a>	CUB	ED	1	4	4	20	22S	31E	613404	3582362*		71			
<a href="#">C 02991</a>	CUB	ED	4	4	4	20	22S	31E	613604	3582162*		64			
<a href="#">C 03002</a>	CUB	ED	4	2	4	06	22S	31E	611933	3587375*		668			
<a href="#">C 03112 EXPLORE</a>	CUB	ED	3	1	1	09	22S	31E	613753	3586590*		3567			
<a href="#">C 03138</a>	CUB	ED	3	3	3	26	22S	31E	617043	3580591*		750			
<a href="#">C 03150</a>	CUB	ED	2	4	4	14	22S	31E	618412	3584025*		981			
<a href="#">C 03152</a>	CUB	ED	3	4	4	26	22S	31E	618250	3580606*		938			
<a href="#">C 03207</a>	CUB	ED	4	2	4	29	22S	31E	613618	3580956*		150			
<a href="#">C 03221 EXPLORE</a>	CUB	ED	1	2	1	30	22S	31E	610995	3581935*		651			
<a href="#">C 03976 POD1</a>	CUB	ED	1	3	4	20	22S	31E	612967	3582387		180			
<a href="#">C 03976 POD2</a>	CUB	ED	1	3	4	20	22S	31E	612967	3582387		70			
<a href="#">C 03976 POD3</a>	CUB	ED	1	3	4	20	22S	31E	612967	3582387		182			
<a href="#">C 03976 POD4</a>	CUB	ED	1	3	4	20	22S	31E	612968	3582386		71			
<a href="#">C 04144 POD10</a>	CUB	LE	2	4	4	12	22S	31E	620089	3585741		67	0	67	

\*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.

Average Depth to Water: **332 feet**

Minimum Depth: **0 feet**

Maximum Depth: **450 feet**

---

**Record Count:** 81

**PLSS Search:**

**Township:** 22S

**Range:** 31E

### Water Well Data Average Depth to Groundwater (ft) EOG David Ross Fed SWD #1

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

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

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

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

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

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

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

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

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

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

# Appendix C



# Certificate of Analysis Summary 648188

EOG Resources, Midland, TX

Project Name: David Ross Fed SWD 1

**Project Id:**  
**Contact:** James Kennedy  
**Project Location:** Eddy Co, NM

**Date Received in Lab:** Tue Jan-07-20 03:40 pm  
**Report Date:** 10-JAN-20  
**Project Manager:** Holly Taylor

<i>Analysis Requested</i>	<i>Lab Id:</i>	648188-001	648188-002	648188-003	648188-004	648188-005	648188-006
	<i>Field Id:</i>	AH #1 (0-1')	AH #2 (0-1')	AH #3 (0-1')	AH #3 (1-1.5')	AH #3 (2-2.5')	AH #3 (3-3.5')
	<i>Depth:</i>	0-1 ft	0-1 ft	0-1 ft	1-1.5 ft	2-2.5 ft	3-3.5 ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Jan-07-20 00:00	Jan-07-20 00:00	Jan-07-20 00:00	Jan-07-20 00:00	Jan-07-20 00:00	Jan-07-20 00:00
<b>BTEX by EPA 8021B SUB: T104704400-19-19</b>	<i>Extracted:</i>	Jan-07-20 17:30	Jan-07-20 17:30	Jan-07-20 17:30	Jan-07-20 17:30		
	<i>Analyzed:</i>	Jan-07-20 21:19	Jan-07-20 21:38	Jan-07-20 21:57	Jan-07-20 22:16		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
	Benzene	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201		
	Toluene	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201		
	Ethylbenzene	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201		
	m,p-Xylenes	<0.00399 0.00399	<0.00399 0.00399	<0.00401 0.00401	<0.00402 0.00402		
	o-Xylene	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201		
Total Xylenes	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201			
Total BTEX	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201			
<b>Chloride by EPA 300 SUB: T104704400-19-19</b>	<i>Extracted:</i>	Jan-07-20 17:00	Jan-07-20 17:00	Jan-07-20 17:00	Jan-07-20 17:00	Jan-07-20 17:00	Jan-07-20 17:00
	<i>Analyzed:</i>	Jan-07-20 17:57	Jan-07-20 18:03	Jan-07-20 18:10	Jan-07-20 18:16	Jan-07-20 18:23	Jan-07-20 18:44
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride	8040 100	13200 100	2560 101	1480 50.5	129 10.0	155 9.98	
<b>TPH By SW8015 Mod SUB: T104704400-19-19</b>	<i>Extracted:</i>	Jan-07-20 17:20	Jan-07-20 17:20	Jan-07-20 17:20	Jan-07-20 17:20		
	<i>Analyzed:</i>	Jan-07-20 21:44	Jan-07-20 22:03	Jan-07-20 22:03	Jan-07-20 22:23		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
	Gasoline Range Hydrocarbons (GRO)	<50.2 50.2	<50.1 50.1	<49.8 49.8	<50.2 50.2		
	Diesel Range Organics (DRO)	53.1 50.2	<50.1 50.1	155 49.8	183 50.2		
Motor Oil Range Hydrocarbons (MRO)	<50.2 50.2	<50.1 50.1	<49.8 49.8	51.8 50.2			
Total TPH	53.1 50.2	<50.1 50.1	155 49.8	235 50.2			

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

Holly Taylor  
Project Manager



# Certificate of Analysis Summary 648188

EOG Resources, Midland, TX

Project Name: David Ross Fed SWD 1

**Project Id:**  
**Contact:** James Kennedy  
**Project Location:** Eddy Co, NM

**Date Received in Lab:** Tue Jan-07-20 03:40 pm  
**Report Date:** 10-JAN-20  
**Project Manager:** Holly Taylor

<b>Analysis Requested</b>	<b>Lab Id:</b>	648188-007	648188-008			
	<b>Field Id:</b>	AH #3 (4-4.5')	AH #4 (0-1')			
	<b>Depth:</b>	4-4.5 ft	0-1 ft			
	<b>Matrix:</b>	SOIL	SOIL			
	<b>Sampled:</b>	Jan-07-20 00:00	Jan-07-20 00:00			
<b>BTEX by EPA 8021B SUB: T104704400-19-19</b>	<b>Extracted:</b>		Jan-07-20 17:30			
	<b>Analyzed:</b>		Jan-07-20 22:35			
	<b>Units/RL:</b>		mg/kg RL			
Benzene			<0.00198 0.00198			
Toluene			<0.00198 0.00198			
Ethylbenzene			<0.00198 0.00198			
m,p-Xylenes			<0.00395 0.00395			
o-Xylene			<0.00198 0.00198			
Total Xylenes			<0.00198 0.00198			
Total BTEX			<0.00198 0.00198			
<b>Chloride by EPA 300 SUB: T104704400-19-19</b>	<b>Extracted:</b>	Jan-07-20 17:00	Jan-07-20 17:00			
	<b>Analyzed:</b>	Jan-07-20 18:49	Jan-07-20 19:23			
	<b>Units/RL:</b>	mg/kg RL	mg/kg RL			
Chloride		137 9.96	1590 49.9			
<b>TPH By SW8015 Mod SUB: T104704400-19-19</b>	<b>Extracted:</b>		Jan-07-20 17:20			
	<b>Analyzed:</b>		Jan-07-20 22:23			
	<b>Units/RL:</b>		mg/kg RL			
Gasoline Range Hydrocarbons (GRO)			<49.8 49.8			
Diesel Range Organics (DRO)			<49.8 49.8			
Motor Oil Range Hydrocarbons (MRO)			<49.8 49.8			
Total TPH			<49.8 49.8			

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

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

Holly Taylor  
Project Manager

# Analytical Report 648188

## for EOG Resources

**Project Manager: James Kennedy**

**David Ross Fed SWD 1**

**10-JAN-20**

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 (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)



10-JAN-20

Project Manager: **James Kennedy**

**EOG Resources**

PO Box 2267

Midland, TX 79707

Reference: XENCO Report No(s): **648188**

**David Ross Fed SWD 1**

Project Address: Eddy Co, NM

**James Kennedy:**

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) 648188. 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. 648188 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

A handwritten signature in black ink that reads 'Holly Taylor'.

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**Holly Taylor**

Project Manager

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

*Certified and approved by numerous States and Agencies.*

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

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



# Sample Cross Reference 648188

## EOG Resources, Midland, TX

David Ross Fed SWD 1

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
AH #1 (0-1')	S	01-07-20 00:00	0 - 1 ft	648188-001
AH #2 (0-1')	S	01-07-20 00:00	0 - 1 ft	648188-002
AH #3 (0-1')	S	01-07-20 00:00	0 - 1 ft	648188-003
AH #3 (1-1.5')	S	01-07-20 00:00	1 - 1.5 ft	648188-004
AH #3 (2-2.5')	S	01-07-20 00:00	2 - 2.5 ft	648188-005
AH #3 (3-3.5')	S	01-07-20 00:00	3 - 3.5 ft	648188-006
AH #3 (4-4.5')	S	01-07-20 00:00	4 - 4.5 ft	648188-007
AH #4 (0-1')	S	01-07-20 00:00	0 - 1 ft	648188-008



# CASE NARRATIVE

*Client Name: EOG Resources*

*Project Name: David Ross Fed SWD 1*

Project ID:  
Work Order Number(s): 648188

Report Date: 10-JAN-20  
Date Received: 01/07/2020

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**Sample receipt non conformances and comments:**

None

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

None

**Analytical non conformances and comments:**

Batch: LBA-3112568 BTEX by EPA 8021B

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

Batch: LBA-3112583 Chloride by EPA 300

Lab Sample ID 648193-010 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered below QC limits in the Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 648188-008.

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



# Certificate of Analytical Results 648188

## EOG Resources, Midland, TX

David Ross Fed SWD 1

Sample Id: <b>AH #1 (0-1')</b>	Matrix: Soil	Date Received: 01.07.20 15.40
Lab Sample Id: 648188-001	Date Collected: 01.07.20 00.00	Sample Depth: 0 - 1 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 01.07.20 17.00	Basis: Wet Weight
Seq Number: 3112570		SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	8040	100	mg/kg	01.07.20 17.57		10

Analytical Method: TPH By SW8015 Mod		Prep Method: SW8015P
Tech: DTH		% Moisture:
Analyst: DTH	Date Prep: 01.07.20 17.20	Basis: Wet Weight
Seq Number: 3112591		SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	01.07.20 21.44	U	1
<b>Diesel Range Organics (DRO)</b>	C10C28DRO	<b>53.1</b>	50.2	mg/kg	01.07.20 21.44		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	01.07.20 21.44	U	1
<b>Total TPH</b>	PHC635	<b>53.1</b>	50.2	mg/kg	01.07.20 21.44		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	132	%	70-135	01.07.20 21.44	
o-Terphenyl	84-15-1	133	%	70-135	01.07.20 21.44	



# Certificate of Analytical Results 648188

## EOG Resources, Midland, TX

David Ross Fed SWD 1

Sample Id: <b>AH #1 (0-1')</b>	Matrix: Soil	Date Received: 01.07.20 15.40
Lab Sample Id: 648188-001	Date Collected: 01.07.20 00.00	Sample Depth: 0 - 1 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 01.07.20 17.30	Basis: Wet Weight
Seq Number: 3112568		SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.07.20 21.19	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.07.20 21.19	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.07.20 21.19	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.07.20 21.19	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.07.20 21.19	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.07.20 21.19	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.07.20 21.19	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
4-Bromofluorobenzene	460-00-4	103	%	70-130	01.07.20 21.19		
1,4-Difluorobenzene	540-36-3	103	%	70-130	01.07.20 21.19		



# Certificate of Analytical Results 648188

## EOG Resources, Midland, TX

David Ross Fed SWD 1

Sample Id: <b>AH #2 (0-1')</b>	Matrix: Soil	Date Received: 01.07.20 15.40
Lab Sample Id: 648188-002	Date Collected: 01.07.20 00.00	Sample Depth: 0 - 1 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 01.07.20 17.00	Basis: Wet Weight
Seq Number: 3112570		SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	13200	100	mg/kg	01.07.20 18.03		10

Analytical Method: TPH By SW8015 Mod		Prep Method: SW8015P
Tech: DTH		% Moisture:
Analyst: DTH	Date Prep: 01.07.20 17.20	Basis: Wet Weight
Seq Number: 3112591		SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	01.07.20 22.03	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	01.07.20 22.03	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	01.07.20 22.03	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	01.07.20 22.03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	121	%	70-135	01.07.20 22.03	
o-Terphenyl	84-15-1	121	%	70-135	01.07.20 22.03	



# Certificate of Analytical Results 648188

## EOG Resources, Midland, TX

David Ross Fed SWD 1

Sample Id: <b>AH #2 (0-1')</b>	Matrix: Soil	Date Received: 01.07.20 15.40
Lab Sample Id: 648188-002	Date Collected: 01.07.20 00.00	Sample Depth: 0 - 1 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 01.07.20 17.30	Basis: Wet Weight
Seq Number: 3112568		SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.07.20 21.38	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.07.20 21.38	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.07.20 21.38	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.07.20 21.38	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.07.20 21.38	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.07.20 21.38	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.07.20 21.38	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
4-Bromofluorobenzene	460-00-4	103	%	70-130	01.07.20 21.38		
1,4-Difluorobenzene	540-36-3	104	%	70-130	01.07.20 21.38		



# Certificate of Analytical Results 648188

## EOG Resources, Midland, TX

David Ross Fed SWD 1

Sample Id: <b>AH #3 (0-1')</b>	Matrix: Soil	Date Received: 01.07.20 15.40
Lab Sample Id: 648188-003	Date Collected: 01.07.20 00.00	Sample Depth: 0 - 1 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 01.07.20 17.00	Basis: Wet Weight
Seq Number: 3112570		SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2560	101	mg/kg	01.07.20 18.10		10

Analytical Method: TPH By SW8015 Mod		Prep Method: SW8015P
Tech: DTH		% Moisture:
Analyst: DTH	Date Prep: 01.07.20 17.20	Basis: Wet Weight
Seq Number: 3112591		SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	01.07.20 22.03	U	1
<b>Diesel Range Organics (DRO)</b>	C10C28DRO	<b>155</b>	49.8	mg/kg	01.07.20 22.03		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	01.07.20 22.03	U	1
<b>Total TPH</b>	PHC635	<b>155</b>	49.8	mg/kg	01.07.20 22.03		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	116	%	70-135	01.07.20 22.03	
o-Terphenyl	84-15-1	120	%	70-135	01.07.20 22.03	



# Certificate of Analytical Results 648188

## EOG Resources, Midland, TX

David Ross Fed SWD 1

Sample Id: <b>AH #3 (0-1')</b>	Matrix: Soil	Date Received: 01.07.20 15.40
Lab Sample Id: 648188-003	Date Collected: 01.07.20 00.00	Sample Depth: 0 - 1 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 01.07.20 17.30	Basis: Wet Weight
Seq Number: 3112568		SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.07.20 21.57	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.07.20 21.57	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.07.20 21.57	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	01.07.20 21.57	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.07.20 21.57	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.07.20 21.57	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.07.20 21.57	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
1,4-Difluorobenzene	540-36-3	107	%	70-130	01.07.20 21.57		
4-Bromofluorobenzene	460-00-4	108	%	70-130	01.07.20 21.57		



# Certificate of Analytical Results 648188

## EOG Resources, Midland, TX

David Ross Fed SWD 1

Sample Id: <b>AH #3 (1-1.5')</b>	Matrix: Soil	Date Received: 01.07.20 15.40
Lab Sample Id: 648188-004	Date Collected: 01.07.20 00.00	Sample Depth: 1 - 1.5 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 01.07.20 17.00	Basis: Wet Weight
Seq Number: 3112570		SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1480	50.5	mg/kg	01.07.20 18.16		5

Analytical Method: TPH By SW8015 Mod		Prep Method: SW8015P
Tech: DTH		% Moisture:
Analyst: DTH	Date Prep: 01.07.20 17.20	Basis: Wet Weight
Seq Number: 3112591		SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	01.07.20 22.23	U	1
Diesel Range Organics (DRO)	C10C28DRO	183	50.2	mg/kg	01.07.20 22.23		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	51.8	50.2	mg/kg	01.07.20 22.23		1
Total TPH	PHC635	235	50.2	mg/kg	01.07.20 22.23		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	121	%	70-135	01.07.20 22.23	
o-Terphenyl	84-15-1	125	%	70-135	01.07.20 22.23	



# Certificate of Analytical Results 648188

## EOG Resources, Midland, TX

David Ross Fed SWD 1

Sample Id: <b>AH #3 (1-1.5')</b>	Matrix: Soil	Date Received: 01.07.20 15.40
Lab Sample Id: 648188-004	Date Collected: 01.07.20 00.00	Sample Depth: 1 - 1.5 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 01.07.20 17.30	Basis: Wet Weight
Seq Number: 3112568		SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	01.07.20 22.16	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	01.07.20 22.16	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	01.07.20 22.16	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	01.07.20 22.16	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	01.07.20 22.16	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	01.07.20 22.16	U	1
Total BTEX		<0.00201	0.00201	mg/kg	01.07.20 22.16	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>		<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>
1,4-Difluorobenzene	540-36-3	107		%	70-130	01.07.20 22.16	
4-Bromofluorobenzene	460-00-4	103		%	70-130	01.07.20 22.16	



# Certificate of Analytical Results 648188

## EOG Resources, Midland, TX

David Ross Fed SWD 1

Sample Id: AH #3 (2-2.5')

Matrix: Soil

Date Received: 01.07.20 15.40

Lab Sample Id: 648188-005

Date Collected: 01.07.20 00.00

Sample Depth: 2 - 2.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 01.07.20 17.00

Basis: Wet Weight

Seq Number: 3112570

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	129	10.0	mg/kg	01.07.20 18.23		1



# Certificate of Analytical Results 648188

## EOG Resources, Midland, TX

David Ross Fed SWD 1

Sample Id: AH #3 (3-3.5')

Matrix: Soil

Date Received: 01.07.20 15.40

Lab Sample Id: 648188-006

Date Collected: 01.07.20 00.00

Sample Depth: 3 - 3.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 01.07.20 17.00

Basis: Wet Weight

Seq Number: 3112570

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	155	9.98	mg/kg	01.07.20 18.44		1



# Certificate of Analytical Results 648188

## EOG Resources, Midland, TX

David Ross Fed SWD 1

Sample Id: AH #3 (4-4.5')

Matrix: Soil

Date Received: 01.07.20 15.40

Lab Sample Id: 648188-007

Date Collected: 01.07.20 00.00

Sample Depth: 4 - 4.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 01.07.20 17.00

Basis: Wet Weight

Seq Number: 3112570

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	137	9.96	mg/kg	01.07.20 18.49		1



# Certificate of Analytical Results 648188

## EOG Resources, Midland, TX

David Ross Fed SWD 1

Sample Id: <b>AH #4 (0-1')</b>	Matrix: Soil	Date Received: 01.07.20 15.40
Lab Sample Id: 648188-008	Date Collected: 01.07.20 00.00	Sample Depth: 0 - 1 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 01.07.20 17.00	Basis: Wet Weight
Seq Number: 3112583		SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1590	49.9	mg/kg	01.07.20 19.23		5

Analytical Method: TPH By SW8015 Mod		Prep Method: SW8015P
Tech: DTH		% Moisture:
Analyst: DTH	Date Prep: 01.07.20 17.20	Basis: Wet Weight
Seq Number: 3112591		SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	01.07.20 22.23	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	01.07.20 22.23	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	01.07.20 22.23	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	01.07.20 22.23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	01.07.20 22.23	
o-Terphenyl	84-15-1	117	%	70-135	01.07.20 22.23	



# Certificate of Analytical Results 648188

## EOG Resources, Midland, TX

David Ross Fed SWD 1

Sample Id: <b>AH #4 (0-1')</b>	Matrix: Soil	Date Received: 01.07.20 15.40
Lab Sample Id: 648188-008	Date Collected: 01.07.20 00.00	Sample Depth: 0 - 1 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 01.07.20 17.30	Basis: Wet Weight
Seq Number: 3112568		SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	01.07.20 22.35	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	01.07.20 22.35	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	01.07.20 22.35	U	1
m,p-Xylenes	179601-23-1	<0.00395	0.00395	mg/kg	01.07.20 22.35	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	01.07.20 22.35	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	01.07.20 22.35	U	1
Total BTEX		<0.00198	0.00198	mg/kg	01.07.20 22.35	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
1,4-Difluorobenzene	540-36-3	107	%	70-130	01.07.20 22.35		
4-Bromofluorobenzene	460-00-4	111	%	70-130	01.07.20 22.35		





**EOG Resources**  
David Ross Fed SWD 1

**Analytical Method: Chloride by EPA 300**

Seq Number: 3112570

MB Sample Id: 7693857-1-BLK

Matrix: Solid

LCS Sample Id: 7693857-1-BKS

Prep Method: E300P

Date Prep: 01.07.20

LCSD Sample Id: 7693857-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	244	98	247	99	90-110	1	20	mg/kg	01.07.20 15:17	

**Analytical Method: Chloride by EPA 300**

Seq Number: 3112583

MB Sample Id: 7693858-1-BLK

Matrix: Solid

LCS Sample Id: 7693858-1-BKS

Prep Method: E300P

Date Prep: 01.07.20

LCSD Sample Id: 7693858-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	245	98	246	98	90-110	0	20	mg/kg	01.07.20 19:11	

**Analytical Method: Chloride by EPA 300**

Seq Number: 3112570

Parent Sample Id: 648059-013

Matrix: Soil

MS Sample Id: 648059-013 S

Prep Method: E300P

Date Prep: 01.07.20

MSD Sample Id: 648059-013 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	100	200	299	100	302	100	90-110	1	20	mg/kg	01.07.20 15:33	

**Analytical Method: Chloride by EPA 300**

Seq Number: 3112570

Parent Sample Id: 648079-002

Matrix: Soil

MS Sample Id: 648079-002 S

Prep Method: E300P

Date Prep: 01.07.20

MSD Sample Id: 648079-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	16.4	200	218	101	216	99	90-110	1	20	mg/kg	01.07.20 16:54	

**Analytical Method: Chloride by EPA 300**

Seq Number: 3112583

Parent Sample Id: 648188-008

Matrix: Soil

MS Sample Id: 648188-008 S

Prep Method: E300P

Date Prep: 01.07.20

MSD Sample Id: 648188-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1590	200	1780	95	1760	84	90-110	1	20	mg/kg	01.07.20 19:28	X

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

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

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

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



**EOG Resources**  
David Ross Fed SWD 1

**Analytical Method:** Chloride by EPA 300

Seq Number: 3112583

Parent Sample Id: 648193-010

Matrix: Soil  
MS Sample Id: 648193-010 S

Prep Method: E300P  
Date Prep: 01.07.20  
MSD Sample Id: 648193-010 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	24.0	199	216	96	214	96	90-110	1	20	mg/kg	01.07.20 20:46	

**Analytical Method:** TPH By SW8015 Mod

Seq Number: 3112591

MB Sample Id: 7693855-1-BLK

Matrix: Solid  
LCS Sample Id: 7693855-1-BKS

Prep Method: SW8015P  
Date Prep: 01.07.20  
LCSD Sample Id: 7693855-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1110	111	1230	123	70-135	10	35	mg/kg	01.07.20 20:44	
Diesel Range Organics (DRO)	<50.0	1000	1010	101	1240	124	70-135	20	35	mg/kg	01.07.20 20:44	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	86		115		130		70-135	%	01.07.20 20:44
o-Terphenyl	88		92		130		70-135	%	01.07.20 20:44

**Analytical Method:** TPH By SW8015 Mod

Seq Number: 3112591

Matrix: Solid  
MB Sample Id: 7693855-1-BLK

Prep Method: SW8015P  
Date Prep: 01.07.20

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	01.08.20 09:58	

**Analytical Method:** TPH By SW8015 Mod

Seq Number: 3112591

Parent Sample Id: 648079-003

Matrix: Soil  
MS Sample Id: 648079-003 S

Prep Method: SW8015P  
Date Prep: 01.07.20  
MSD Sample Id: 648079-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.2	1000	1220	122	1190	119	70-135	2	35	mg/kg	01.07.20 21:24	
Diesel Range Organics (DRO)	204	1000	1430	123	1180	98	70-135	19	35	mg/kg	01.07.20 21:24	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	130		104		70-135	%	01.07.20 21:24
o-Terphenyl	125		100		70-135	%	01.07.20 21:24

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

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

LCS = Laboratory Control Sample  
A = Parent Result  
C = MS/LCS Result  
E = MSD/LCSD Result  
MS = Matrix Spike  
B = Spike Added  
D = MSD/LCSD % Rec



**EOG Resources**  
David Ross Fed SWD 1

**Analytical Method: BTEX by EPA 8021B**

Seq Number: 3112568

MB Sample Id: 7693860-1-BLK

Matrix: Solid

LCS Sample Id: 7693860-1-BKS

Prep Method: SW5030B

Date Prep: 01.07.20

LCSD Sample Id: 7693860-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.105	105	0.116	116	70-130	10	35	mg/kg	01.07.20 12:16	
Toluene	<0.00200	0.100	0.104	104	0.114	114	70-130	9	35	mg/kg	01.07.20 12:16	
Ethylbenzene	<0.00200	0.100	0.107	107	0.117	117	71-129	9	35	mg/kg	01.07.20 12:16	
m,p-Xylenes	<0.00400	0.200	0.214	107	0.234	117	70-135	9	35	mg/kg	01.07.20 12:16	
o-Xylene	<0.00200	0.100	0.107	107	0.117	117	71-133	9	35	mg/kg	01.07.20 12:16	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		101		103		70-130	%	01.07.20 12:16
4-Bromofluorobenzene	100		107		106		70-130	%	01.07.20 12:16

**Analytical Method: BTEX by EPA 8021B**

Seq Number: 3112568

Parent Sample Id: 648059-021

Matrix: Soil

MS Sample Id: 648059-021 S

Prep Method: SW5030B

Date Prep: 01.07.20

MSD Sample Id: 648059-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.100	0.128	128	0.0963	96	70-130	28	35	mg/kg	01.07.20 12:55	
Toluene	<0.00201	0.100	0.124	124	0.0923	92	70-130	29	35	mg/kg	01.07.20 12:55	
Ethylbenzene	<0.00201	0.100	0.125	125	0.0897	90	71-129	33	35	mg/kg	01.07.20 12:55	
m,p-Xylenes	<0.00402	0.201	0.250	124	0.178	89	70-135	34	35	mg/kg	01.07.20 12:55	
o-Xylene	<0.00201	0.100	0.125	125	0.0905	91	71-133	32	35	mg/kg	01.07.20 12:55	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	105		103		70-130	%	01.07.20 12:55
4-Bromofluorobenzene	109		110		70-130	%	01.07.20 12:55

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

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

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

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

Analysis Request of Chain of Custody Record



901W Wall Street, Ste 100  
Madland, Texas 79705  
Tel (432) 682-4559  
Fax (432) 682-3948

648188

Client Name: EOL

Site Manager: MIKE CHAMONVA

Project Name: DAVID ROSS EAD SWD 1

Project Location: Eddy County, NM

Project #:

Signature: [Handwritten Signature] Pending

Invoice to: EOL - James Kennedy

Receiving Laboratory: YencO

Sampler Signature: [Handwritten Signature] CONNER MOSHBRINK

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		DATE	TIME	MATRIX		PRESERVATIVE METHOD				# CONTAINERS	FILTERED (Y/N)
		YEAR: 2026	MONTH			WATER	SOIL	HCL	HNO <sub>3</sub>	ICE	None		
AH#1 (0-1')				1/7/20		X	X	X	X	X	X	1	2
AH#2 (0-1')						X	X	X	X	X	X	1	2
AH#3 (0-1')						X	X	X	X	X	X	1	2
AH#4 (0-1')						X	X	X	X	X	X	1	2
AH#5 (0-1')						X	X	X	X	X	X	1	2
AH#6 (0-1')						X	X	X	X	X	X	1	2
AH#7 (0-1')						X	X	X	X	X	X	1	2
AH#8 (0-1')						X	X	X	X	X	X	1	2
AH#9 (0-1')						X	X	X	X	X	X	1	2
AH#10 (0-1')						X	X	X	X	X	X	1	2

ANALYSIS REQUEST (Circle or Specify Method No.)	
<input type="checkbox"/>	BTEX 8021B
<input type="checkbox"/>	BTEX 8260B
<input type="checkbox"/>	TPH TX1005 (Ext to C35)
<input type="checkbox"/>	TPH 8015M (GRO - DRO - ORO - MRO)
<input type="checkbox"/>	PAH 8270C
<input type="checkbox"/>	Total Metals Ag As Ba Cd Cr Pb Se Hg
<input type="checkbox"/>	TCLP Metals Ag As Ba Cd Cr Pb Se Hg
<input type="checkbox"/>	TCLP Volatiles
<input type="checkbox"/>	TCLP Semi Volatiles
<input type="checkbox"/>	RCI
<input type="checkbox"/>	GC/MS Vol. 8260B / 624
<input type="checkbox"/>	GC/MS Semi. Vol. 8270C/625
<input type="checkbox"/>	PCB's 8082 / 608
<input type="checkbox"/>	NORM
<input type="checkbox"/>	PLM (Asbestos)
<input type="checkbox"/>	Chloride
<input type="checkbox"/>	Chloride Sulfate TDS
<input type="checkbox"/>	General Water Chemistry (see attached list)
<input type="checkbox"/>	Anion/Cation Balance
<input type="checkbox"/>	Hold

Received by: [Handwritten Signature] Date: 1/7/2020 Time: 15:40

Received by: [Handwritten Signature] Date: 1/7/20 Time: 15:40

LAB USE ONLY  
REMARKS:  
 STANDARD  
 RUSH: Same Day 24 hr 48 hr 72 hr  
 Push Charges Authorized  
 Special Report Limits or TRRP Report

ORIGINAL COPY



# XENCO Laboratories Prelogin/Nonconformance Report- Sample Log-In

Client: EOG Resources

Date/ Time Received: 01/07/2020 03:40:00 PM

Work Order #: 648188

Acceptable Temperature Range: 0 - 6 degC  
Air and Metal samples Acceptable Range: Ambient  
Temperature Measuring device used : T NM007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1.2
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6*Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	Yes
#18 Water VOC samples have zero headspace?	N/A

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

Analyst:

PH Device/Lot#:

Checklist completed by:  Date: 01/07/2020  
Elizabeth McClellan

Checklist reviewed by:  Date: 01/08/2020  
Holly Taylor



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

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March 03, 2020

CLAIR GONZALES

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: DAVID ROSS SWD #1 EXCAVATION

Enclosed are the results of analyses for samples received by the laboratory on 03/02/20 11:50.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene".

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	03/02/2020	Sampling Date:	03/02/2020
Reported:	03/03/2020	Sampling Type:	Soil
Project Name:	DAVID ROSS SWD #1 EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02042	Sample Received By:	Tamara Oldaker
Project Location:	EOG - EDDY CO NM		

**Sample ID: ( BH ) BOTTOM HOLE 1 @ 2' BEB (H000662-01)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/02/2020	ND	1.99	99.7	2.00	0.258	
Toluene*	<0.050	0.050	03/02/2020	ND	2.00	99.9	2.00	1.39	
Ethylbenzene*	<0.050	0.050	03/02/2020	ND	2.01	101	2.00	0.889	
Total Xylenes*	<0.150	0.150	03/02/2020	ND	5.82	97.0	6.00	0.782	
Total BTEX	<0.300	0.300	03/02/2020	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<b>448</b>	16.0	03/03/2020	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/02/2020	ND	200	100	200	0.346	
DRO >C10-C28*	<10.0	10.0	03/02/2020	ND	210	105	200	0.919	
EXT DRO >C28-C36	<10.0	10.0	03/02/2020	ND					

Surrogate: 1-Chlorooctane 78.1 % 44.3-144

Surrogate: 1-Chlorooctadecane 83.2 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	03/02/2020	Sampling Date:	03/02/2020
Reported:	03/03/2020	Sampling Type:	Soil
Project Name:	DAVID ROSS SWD #1 EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02042	Sample Received By:	Tamara Oldaker
Project Location:	EOG - EDDY CO NM		

**Sample ID: ( BH ) BOTTOM HOLE 2 @ 2' BEB (H000662-02)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/02/2020	ND	1.99	99.7	2.00	0.258	
Toluene*	<0.050	0.050	03/02/2020	ND	2.00	99.9	2.00	1.39	
Ethylbenzene*	<0.050	0.050	03/02/2020	ND	2.01	101	2.00	0.889	
Total Xylenes*	<0.150	0.150	03/02/2020	ND	5.82	97.0	6.00	0.782	
Total BTEX	<0.300	0.300	03/02/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.8 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	03/03/2020	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/02/2020	ND	200	100	200	0.346	
DRO >C10-C28*	<10.0	10.0	03/02/2020	ND	210	105	200	0.919	
EXT DRO >C28-C36	<10.0	10.0	03/02/2020	ND					

Surrogate: 1-Chlorooctane 83.8 % 44.3-144

Surrogate: 1-Chlorooctadecane 91.6 % 42.2-156

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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:	03/02/2020	Sampling Date:	03/02/2020
Reported:	03/03/2020	Sampling Type:	Soil
Project Name:	DAVID ROSS SWD #1 EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02042	Sample Received By:	Tamara Oldaker
Project Location:	EOG - EDDY CO NM		

**Sample ID: ( BH ) BOTTOM HOLE 3 @ 2' BEB (H000662-03)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/02/2020	ND	1.99	99.7	2.00	0.258	
Toluene*	<0.050	0.050	03/02/2020	ND	2.00	99.9	2.00	1.39	
Ethylbenzene*	<0.050	0.050	03/02/2020	ND	2.01	101	2.00	0.889	
Total Xylenes*	<0.150	0.150	03/02/2020	ND	5.82	97.0	6.00	0.782	
Total BTEX	<0.300	0.300	03/02/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.1 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	544	16.0	03/03/2020	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/02/2020	ND	200	100	200	0.346	
DRO >C10-C28*	<10.0	10.0	03/02/2020	ND	210	105	200	0.919	
EXT DRO >C28-C36	<10.0	10.0	03/02/2020	ND					

Surrogate: 1-Chlorooctane 78.7 % 44.3-144

Surrogate: 1-Chlorooctadecane 84.4 % 42.2-156

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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:	03/02/2020	Sampling Date:	03/02/2020
Reported:	03/03/2020	Sampling Type:	Soil
Project Name:	DAVID ROSS SWD #1 EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02042	Sample Received By:	Tamara Oldaker
Project Location:	EOG - EDDY CO NM		

**Sample ID: ( BH ) BOTTOM HOLE 4 @ 2' BEB (H000662-04)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/02/2020	ND	1.99	99.7	2.00	0.258	
Toluene*	<0.050	0.050	03/02/2020	ND	2.00	99.9	2.00	1.39	
Ethylbenzene*	<0.050	0.050	03/02/2020	ND	2.01	101	2.00	0.889	
Total Xylenes*	<0.150	0.150	03/02/2020	ND	5.82	97.0	6.00	0.782	
Total BTEX	<0.300	0.300	03/02/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.4 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	03/03/2020	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/02/2020	ND	200	100	200	0.346	
DRO >C10-C28*	<10.0	10.0	03/02/2020	ND	210	105	200	0.919	
EXT DRO >C28-C36	<10.0	10.0	03/02/2020	ND					

Surrogate: 1-Chlorooctane 83.0 % 44.3-144

Surrogate: 1-Chlorooctadecane 87.9 % 42.2-156

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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:	03/02/2020	Sampling Date:	03/02/2020
Reported:	03/03/2020	Sampling Type:	Soil
Project Name:	DAVID ROSS SWD #1 EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02042	Sample Received By:	Tamara Oldaker
Project Location:	EOG - EDDY CO NM		

**Sample ID: ( BH ) BOTTOM HOLE 5 @ 4' BEB (H000662-05)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/02/2020	ND	1.99	99.7	2.00	0.258	
Toluene*	<0.050	0.050	03/02/2020	ND	2.00	99.9	2.00	1.39	
Ethylbenzene*	<0.050	0.050	03/02/2020	ND	2.01	101	2.00	0.889	
Total Xylenes*	<0.150	0.150	03/02/2020	ND	5.82	97.0	6.00	0.782	
Total BTEX	<0.300	0.300	03/02/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.3 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	528	16.0	03/03/2020	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/02/2020	ND	200	100	200	0.346	
DRO >C10-C28*	<10.0	10.0	03/02/2020	ND	210	105	200	0.919	
EXT DRO >C28-C36	<10.0	10.0	03/02/2020	ND					

Surrogate: 1-Chlorooctane 86.0 % 44.3-144

Surrogate: 1-Chlorooctadecane 92.4 % 42.2-156

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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:	03/02/2020	Sampling Date:	03/02/2020
Reported:	03/03/2020	Sampling Type:	Soil
Project Name:	DAVID ROSS SWD #1 EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02042	Sample Received By:	Tamara Oldaker
Project Location:	EOG - EDDY CO NM		

**Sample ID: ( BH ) BOTTOM HOLE 6 @ 2.5' BEB (H000662-06)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/02/2020	ND	1.99	99.7	2.00	0.258	
Toluene*	<0.050	0.050	03/02/2020	ND	2.00	99.9	2.00	1.39	
Ethylbenzene*	<0.050	0.050	03/02/2020	ND	2.01	101	2.00	0.889	
Total Xylenes*	<0.150	0.150	03/02/2020	ND	5.82	97.0	6.00	0.782	
Total BTEX	<0.300	0.300	03/02/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.1 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	416	16.0	03/03/2020	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/03/2020	ND	200	100	200	0.346	
DRO >C10-C28*	<10.0	10.0	03/03/2020	ND	210	105	200	0.919	
EXT DRO >C28-C36	<10.0	10.0	03/03/2020	ND					

Surrogate: 1-Chlorooctane 85.1 % 44.3-144

Surrogate: 1-Chlorooctadecane 92.6 % 42.2-156

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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:	03/02/2020	Sampling Date:	03/02/2020
Reported:	03/03/2020	Sampling Type:	Soil
Project Name:	DAVID ROSS SWD #1 EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02042	Sample Received By:	Tamara Oldaker
Project Location:	EOG - EDDY CO NM		

**Sample ID: ( BH ) BOTTOM HOLE 7 @ 2.5' BEB (H000662-07)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/02/2020	ND	1.99	99.7	2.00	0.258	
Toluene*	<0.050	0.050	03/02/2020	ND	2.00	99.9	2.00	1.39	
Ethylbenzene*	<0.050	0.050	03/02/2020	ND	2.01	101	2.00	0.889	
Total Xylenes*	<0.150	0.150	03/02/2020	ND	5.82	97.0	6.00	0.782	
Total BTEX	<0.300	0.300	03/02/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.8 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	384	16.0	03/03/2020	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/03/2020	ND	200	100	200	0.346	
DRO >C10-C28*	<10.0	10.0	03/03/2020	ND	210	105	200	0.919	
EXT DRO >C28-C36	<10.0	10.0	03/03/2020	ND					

Surrogate: 1-Chlorooctane 85.8 % 44.3-144

Surrogate: 1-Chlorooctadecane 92.9 % 42.2-156

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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:	03/02/2020	Sampling Date:	03/02/2020
Reported:	03/03/2020	Sampling Type:	Soil
Project Name:	DAVID ROSS SWD #1 EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02042	Sample Received By:	Tamara Oldaker
Project Location:	EOG - EDDY CO NM		

**Sample ID: NORTH 1 SIDE WALL (H000662-08)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/02/2020	ND	1.99	99.7	2.00	0.258	
Toluene*	<0.050	0.050	03/02/2020	ND	2.00	99.9	2.00	1.39	
Ethylbenzene*	<0.050	0.050	03/02/2020	ND	2.01	101	2.00	0.889	
Total Xylenes*	<0.150	0.150	03/02/2020	ND	5.82	97.0	6.00	0.782	
Total BTEX	<0.300	0.300	03/02/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.8 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	03/03/2020	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/03/2020	ND	200	100	200	0.346	
DRO >C10-C28*	<10.0	10.0	03/03/2020	ND	210	105	200	0.919	
EXT DRO >C28-C36	<10.0	10.0	03/03/2020	ND					

Surrogate: 1-Chlorooctane 82.4 % 44.3-144

Surrogate: 1-Chlorooctadecane 89.8 % 42.2-156

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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:	03/02/2020	Sampling Date:	03/02/2020
Reported:	03/03/2020	Sampling Type:	Soil
Project Name:	DAVID ROSS SWD #1 EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02042	Sample Received By:	Tamara Oldaker
Project Location:	EOG - EDDY CO NM		

**Sample ID: WEST 1 SIDE WALL (H000662-09)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/02/2020	ND	1.99	99.7	2.00	0.258	
Toluene*	<0.050	0.050	03/02/2020	ND	2.00	99.9	2.00	1.39	
Ethylbenzene*	<0.050	0.050	03/02/2020	ND	2.01	101	2.00	0.889	
Total Xylenes*	<0.150	0.150	03/02/2020	ND	5.82	97.0	6.00	0.782	
Total BTEX	<0.300	0.300	03/02/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.8 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	03/03/2020	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/03/2020	ND	200	100	200	0.346	
DRO >C10-C28*	<10.0	10.0	03/03/2020	ND	210	105	200	0.919	
EXT DRO >C28-C36	<10.0	10.0	03/03/2020	ND					

Surrogate: 1-Chlorooctane 81.5 % 44.3-144

Surrogate: 1-Chlorooctadecane 88.9 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	03/02/2020	Sampling Date:	03/02/2020
Reported:	03/03/2020	Sampling Type:	Soil
Project Name:	DAVID ROSS SWD #1 EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02042	Sample Received By:	Tamara Oldaker
Project Location:	EOG - EDDY CO NM		

**Sample ID: WEST 2 SIDE WALL (H000662-10)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/03/2020	ND	1.99	99.7	2.00	0.258	
Toluene*	<0.050	0.050	03/03/2020	ND	2.00	99.9	2.00	1.39	
Ethylbenzene*	<0.050	0.050	03/03/2020	ND	2.01	101	2.00	0.889	
Total Xylenes*	<0.150	0.150	03/03/2020	ND	5.82	97.0	6.00	0.782	
Total BTEX	<0.300	0.300	03/03/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.7 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	03/03/2020	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/03/2020	ND	200	100	200	0.346	
DRO >C10-C28*	<10.0	10.0	03/03/2020	ND	210	105	200	0.919	
EXT DRO >C28-C36	<10.0	10.0	03/03/2020	ND					

Surrogate: 1-Chlorooctane 82.8 % 44.3-144

Surrogate: 1-Chlorooctadecane 89.4 % 42.2-156

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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:	03/02/2020	Sampling Date:	03/02/2020
Reported:	03/03/2020	Sampling Type:	Soil
Project Name:	DAVID ROSS SWD #1 EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02042	Sample Received By:	Tamara Oldaker
Project Location:	EOG - EDDY CO NM		

**Sample ID: EAST 2 SIDE WALL (H000662-11)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/03/2020	ND	1.99	99.7	2.00	0.258	
Toluene*	<0.050	0.050	03/03/2020	ND	2.00	99.9	2.00	1.39	
Ethylbenzene*	<0.050	0.050	03/03/2020	ND	2.01	101	2.00	0.889	
Total Xylenes*	<0.150	0.150	03/03/2020	ND	5.82	97.0	6.00	0.782	
Total BTEX	<0.300	0.300	03/03/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.6 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	256	16.0	03/03/2020	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/03/2020	ND	200	100	200	0.346	
DRO >C10-C28*	<10.0	10.0	03/03/2020	ND	210	105	200	0.919	
EXT DRO >C28-C36	<10.0	10.0	03/03/2020	ND					

Surrogate: 1-Chlorooctane 79.9 % 44.3-144

Surrogate: 1-Chlorooctadecane 86.9 % 42.2-156

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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:	03/02/2020	Sampling Date:	03/02/2020
Reported:	03/03/2020	Sampling Type:	Soil
Project Name:	DAVID ROSS SWD #1 EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02042	Sample Received By:	Tamara Oldaker
Project Location:	EOG - EDDY CO NM		

**Sample ID: NORTH 2 SIDE WALL (H000662-12)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/03/2020	ND	1.99	99.7	2.00	0.258	
Toluene*	<0.050	0.050	03/03/2020	ND	2.00	99.9	2.00	1.39	
Ethylbenzene*	<0.050	0.050	03/03/2020	ND	2.01	101	2.00	0.889	
Total Xylenes*	<0.150	0.150	03/03/2020	ND	5.82	97.0	6.00	0.782	
Total BTEX	<0.300	0.300	03/03/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.3 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	256	16.0	03/03/2020	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/03/2020	ND	200	100	200	0.346	
DRO >C10-C28*	<10.0	10.0	03/03/2020	ND	210	105	200	0.919	
EXT DRO >C28-C36	<10.0	10.0	03/03/2020	ND					

Surrogate: 1-Chlorooctane 82.0 % 44.3-144

Surrogate: 1-Chlorooctadecane 89.2 % 42.2-156

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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:	03/02/2020	Sampling Date:	03/02/2020
Reported:	03/03/2020	Sampling Type:	Soil
Project Name:	DAVID ROSS SWD #1 EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02042	Sample Received By:	Tamara Oldaker
Project Location:	EOG - EDDY CO NM		

**Sample ID: NORTH EAST SIDE WALL (H000662-13)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/03/2020	ND	1.99	99.7	2.00	0.258	
Toluene*	<0.050	0.050	03/03/2020	ND	2.00	99.9	2.00	1.39	
Ethylbenzene*	<0.050	0.050	03/03/2020	ND	2.01	101	2.00	0.889	
Total Xylenes*	<0.150	0.150	03/03/2020	ND	5.82	97.0	6.00	0.782	
Total BTEX	<0.300	0.300	03/03/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.1 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	624	16.0	03/03/2020	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/03/2020	ND	200	100	200	0.346	
DRO >C10-C28*	<10.0	10.0	03/03/2020	ND	210	105	200	0.919	
EXT DRO >C28-C36	<10.0	10.0	03/03/2020	ND					

Surrogate: 1-Chlorooctane 82.2 % 44.3-144

Surrogate: 1-Chlorooctadecane 88.5 % 42.2-156

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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:	03/02/2020	Sampling Date:	03/02/2020
Reported:	03/03/2020	Sampling Type:	Soil
Project Name:	DAVID ROSS SWD #1 EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02042	Sample Received By:	Tamara Oldaker
Project Location:	EOG - EDDY CO NM		

**Sample ID: EAST 3 SIDE WALL (H000662-14)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/03/2020	ND	1.99	99.7	2.00	0.258	
Toluene*	<0.050	0.050	03/03/2020	ND	2.00	99.9	2.00	1.39	
Ethylbenzene*	<0.050	0.050	03/03/2020	ND	2.01	101	2.00	0.889	
Total Xylenes*	<0.150	0.150	03/03/2020	ND	5.82	97.0	6.00	0.782	
Total BTEX	<0.300	0.300	03/03/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.2 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	03/03/2020	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/03/2020	ND	200	100	200	0.346	
DRO >C10-C28*	<10.0	10.0	03/03/2020	ND	210	105	200	0.919	
EXT DRO >C28-C36	<10.0	10.0	03/03/2020	ND					

Surrogate: 1-Chlorooctane 86.0 % 44.3-144

Surrogate: 1-Chlorooctadecane 92.5 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	03/02/2020	Sampling Date:	03/02/2020
Reported:	03/03/2020	Sampling Type:	Soil
Project Name:	DAVID ROSS SWD #1 EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02042	Sample Received By:	Tamara Oldaker
Project Location:	EOG - EDDY CO NM		

**Sample ID: SOUTH 3 SIDE WALL (H000662-15)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/03/2020	ND	1.99	99.7	2.00	0.258	
Toluene*	<0.050	0.050	03/03/2020	ND	2.00	99.9	2.00	1.39	
Ethylbenzene*	<0.050	0.050	03/03/2020	ND	2.01	101	2.00	0.889	
Total Xylenes*	<0.150	0.150	03/03/2020	ND	5.82	97.0	6.00	0.782	
Total BTEX	<0.300	0.300	03/03/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.7 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>544</b>	16.0	03/03/2020	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/03/2020	ND	200	100	200	0.346	
DRO >C10-C28*	<10.0	10.0	03/03/2020	ND	210	105	200	0.919	
EXT DRO >C28-C36	<10.0	10.0	03/03/2020	ND					

Surrogate: 1-Chlorooctane 79.2 % 44.3-144

Surrogate: 1-Chlorooctadecane 85.2 % 42.2-156

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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:	03/02/2020	Sampling Date:	03/02/2020
Reported:	03/03/2020	Sampling Type:	Soil
Project Name:	DAVID ROSS SWD #1 EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02042	Sample Received By:	Tamara Oldaker
Project Location:	EOG - EDDY CO NM		

**Sample ID: NORTH 4 SIDE WALL (H000662-16)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/03/2020	ND	1.99	99.7	2.00	0.258	
Toluene*	<0.050	0.050	03/03/2020	ND	2.00	99.9	2.00	1.39	
Ethylbenzene*	<0.050	0.050	03/03/2020	ND	2.01	101	2.00	0.889	
Total Xylenes*	<0.150	0.150	03/03/2020	ND	5.82	97.0	6.00	0.782	
Total BTEX	<0.300	0.300	03/03/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.7 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>2560</b>	16.0	03/03/2020	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/03/2020	ND	200	100	200	0.346	
<b>DRO &gt;C10-C28*</b>	<b>389</b>	10.0	03/03/2020	ND	210	105	200	0.919	
<b>EXT DRO &gt;C28-C36</b>	<b>312</b>	10.0	03/03/2020	ND					

Surrogate: 1-Chlorooctane 82.1 % 44.3-144

Surrogate: 1-Chlorooctadecane 104 % 42.2-156

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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:	03/02/2020	Sampling Date:	03/02/2020
Reported:	03/03/2020	Sampling Type:	Soil
Project Name:	DAVID ROSS SWD #1 EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02042	Sample Received By:	Tamara Oldaker
Project Location:	EOG - EDDY CO NM		

**Sample ID: SOUTH 1 SIDE WALL (H000662-17)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/03/2020	ND	1.99	99.7	2.00	0.258	
Toluene*	<0.050	0.050	03/03/2020	ND	2.00	99.9	2.00	1.39	
Ethylbenzene*	<0.050	0.050	03/03/2020	ND	2.01	101	2.00	0.889	
Total Xylenes*	<0.150	0.150	03/03/2020	ND	5.82	97.0	6.00	0.782	
Total BTEX	<0.300	0.300	03/03/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.7 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>176</b>	16.0	03/03/2020	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/03/2020	ND	200	100	200	0.346	
DRO >C10-C28*	<10.0	10.0	03/03/2020	ND	210	105	200	0.919	
EXT DRO >C28-C36	<10.0	10.0	03/03/2020	ND					

Surrogate: 1-Chlorooctane 99.2 % 44.3-144

Surrogate: 1-Chlorooctadecane 102 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	03/02/2020	Sampling Date:	03/02/2020
Reported:	03/03/2020	Sampling Type:	Soil
Project Name:	DAVID ROSS SWD #1 EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02042	Sample Received By:	Tamara Oldaker
Project Location:	EOG - EDDY CO NM		

**Sample ID: SOUTH 2 SIDE WALL (H000662-18)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/03/2020	ND	1.99	99.7	2.00	0.258	
Toluene*	<0.050	0.050	03/03/2020	ND	2.00	99.9	2.00	1.39	
Ethylbenzene*	<0.050	0.050	03/03/2020	ND	2.01	101	2.00	0.889	
Total Xylenes*	<0.150	0.150	03/03/2020	ND	5.82	97.0	6.00	0.782	
Total BTEX	<0.300	0.300	03/03/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.2 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	03/03/2020	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/03/2020	ND	200	100	200	0.346	
DRO >C10-C28*	<10.0	10.0	03/03/2020	ND	210	105	200	0.919	
EXT DRO >C28-C36	<10.0	10.0	03/03/2020	ND					

Surrogate: 1-Chlorooctane 97.0 % 44.3-144

Surrogate: 1-Chlorooctadecane 101 % 42.2-156

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	03/02/2020	Sampling Date:	03/02/2020
Reported:	03/03/2020	Sampling Type:	Soil
Project Name:	DAVID ROSS SWD #1 EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02042	Sample Received By:	Tamara Oldaker
Project Location:	EOG - EDDY CO NM		

**Sample ID: WEST 3 SIDE WALL (H000662-19)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/03/2020	ND	1.99	99.7	2.00	0.258	
Toluene*	<0.050	0.050	03/03/2020	ND	2.00	99.9	2.00	1.39	
Ethylbenzene*	<0.050	0.050	03/03/2020	ND	2.01	101	2.00	0.889	
Total Xylenes*	<0.150	0.150	03/03/2020	ND	5.82	97.0	6.00	0.782	
Total BTEX	<0.300	0.300	03/03/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.8 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	03/03/2020	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/03/2020	ND	200	100	200	0.346	
DRO >C10-C28*	<10.0	10.0	03/03/2020	ND	210	105	200	0.919	
EXT DRO >C28-C36	<10.0	10.0	03/03/2020	ND					

Surrogate: 1-Chlorooctane 101 % 44.3-144

Surrogate: 1-Chlorooctadecane 105 % 42.2-156

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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:	03/02/2020	Sampling Date:	03/02/2020
Reported:	03/03/2020	Sampling Type:	Soil
Project Name:	DAVID ROSS SWD #1 EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02042	Sample Received By:	Tamara Oldaker
Project Location:	EOG - EDDY CO NM		

**Sample ID: NORTH 3 SIDE WALL (H000662-20)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/03/2020	ND	1.99	99.7	2.00	0.258	
Toluene*	<0.050	0.050	03/03/2020	ND	2.00	99.9	2.00	1.39	
Ethylbenzene*	<0.050	0.050	03/03/2020	ND	2.01	101	2.00	0.889	
Total Xylenes*	<0.150	0.150	03/03/2020	ND	5.82	97.0	6.00	0.782	
Total BTEX	<0.300	0.300	03/03/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.9 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	512	16.0	03/03/2020	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/03/2020	ND	200	100	200	0.346	
DRO >C10-C28*	<10.0	10.0	03/03/2020	ND	210	105	200	0.919	
EXT DRO >C28-C36	<10.0	10.0	03/03/2020	ND					

Surrogate: 1-Chlorooctane 97.6 % 44.3-144

Surrogate: 1-Chlorooctadecane 101 % 42.2-156

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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:	03/02/2020	Sampling Date:	03/02/2020
Reported:	03/03/2020	Sampling Type:	Soil
Project Name:	DAVID ROSS SWD #1 EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02042	Sample Received By:	Tamara Oldaker
Project Location:	EOG - EDDY CO NM		

**Sample ID: NORTH 5 SIDE WALL (H000662-21)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/03/2020	ND	1.89	94.6	2.00	3.00	
Toluene*	<0.050	0.050	03/03/2020	ND	1.90	94.9	2.00	2.81	
Ethylbenzene*	<0.050	0.050	03/03/2020	ND	1.91	95.4	2.00	2.84	
Total Xylenes*	<0.150	0.150	03/03/2020	ND	5.52	92.0	6.00	2.81	
Total BTEX	<0.300	0.300	03/03/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 100 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>768</b>	16.0	03/03/2020	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/03/2020	ND	190	94.8	200	1.02	
<b>DRO &gt;C10-C28*</b>	<b>70.1</b>	10.0	03/03/2020	ND	187	93.3	200	1.93	
<b>EXT DRO &gt;C28-C36</b>	<b>42.0</b>	10.0	03/03/2020	ND					

Surrogate: 1-Chlorooctane 92.5 % 44.3-144

Surrogate: 1-Chlorooctadecane 85.2 % 42.2-156

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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:	03/02/2020	Sampling Date:	03/02/2020
Reported:	03/03/2020	Sampling Type:	Soil
Project Name:	DAVID ROSS SWD #1 EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02042	Sample Received By:	Tamara Oldaker
Project Location:	EOG - EDDY CO NM		

**Sample ID: SOUTH 4 SIDE WALL (H000662-22)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/03/2020	ND	1.89	94.6	2.00	3.00	
Toluene*	<0.050	0.050	03/03/2020	ND	1.90	94.9	2.00	2.81	
Ethylbenzene*	<0.050	0.050	03/03/2020	ND	1.91	95.4	2.00	2.84	
Total Xylenes*	<0.150	0.150	03/03/2020	ND	5.52	92.0	6.00	2.81	
Total BTEX	<0.300	0.300	03/03/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.8 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1340	16.0	03/03/2020	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/03/2020	ND	190	94.8	200	1.02	
DRO >C10-C28*	<10.0	10.0	03/03/2020	ND	187	93.3	200	1.93	
EXT DRO >C28-C36	<10.0	10.0	03/03/2020	ND					

Surrogate: 1-Chlorooctane 92.0 % 44.3-144

Surrogate: 1-Chlorooctadecane 96.4 % 42.2-156

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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:	03/02/2020	Sampling Date:	03/02/2020
Reported:	03/03/2020	Sampling Type:	Soil
Project Name:	DAVID ROSS SWD #1 EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02042	Sample Received By:	Tamara Oldaker
Project Location:	EOG - EDDY CO NM		

**Sample ID: SOUTH 5 SIDE WALL (H000662-23)**

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/03/2020	ND	1.89	94.6	2.00	3.00		
Toluene*	<0.050	0.050	03/03/2020	ND	1.90	94.9	2.00	2.81		
Ethylbenzene*	<0.050	0.050	03/03/2020	ND	1.91	95.4	2.00	2.84		
Total Xylenes*	<0.150	0.150	03/03/2020	ND	5.52	92.0	6.00	2.81		
Total BTEX	<0.300	0.300	03/03/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.8 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>4880</b>	16.0	03/03/2020	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/03/2020	ND	190	94.8	200	1.02		
<b>DRO &gt;C10-C28*</b>	<b>313</b>	10.0	03/03/2020	ND	187	93.3	200	1.93		
<b>EXT DRO &gt;C28-C36</b>	<b>293</b>	10.0	03/03/2020	ND						

Surrogate: 1-Chlorooctane 90.4 % 44.3-144

Surrogate: 1-Chlorooctadecane 131 % 42.2-156

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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:	03/02/2020	Sampling Date:	03/02/2020
Reported:	03/03/2020	Sampling Type:	Soil
Project Name:	DAVID ROSS SWD #1 EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02042	Sample Received By:	Tamara Oldaker
Project Location:	EOG - EDDY CO NM		

**Sample ID: SOUTH 6 SIDE WALL (H000662-24)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/03/2020	ND	1.89	94.6	2.00	3.00	
Toluene*	<0.050	0.050	03/03/2020	ND	1.90	94.9	2.00	2.81	
Ethylbenzene*	<0.050	0.050	03/03/2020	ND	1.91	95.4	2.00	2.84	
Total Xylenes*	<0.150	0.150	03/03/2020	ND	5.52	92.0	6.00	2.81	
Total BTEX	<0.300	0.300	03/03/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.3 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>2360</b>	16.0	03/03/2020	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/03/2020	ND	190	94.8	200	1.02	
<b>DRO &gt;C10-C28*</b>	<b>861</b>	10.0	03/03/2020	ND	187	93.3	200	1.93	
<b>EXT DRO &gt;C28-C36</b>	<b>536</b>	10.0	03/03/2020	ND					

Surrogate: 1-Chlorooctane 89.9 % 44.3-144

Surrogate: 1-Chlorooctadecane 156 % 42.2-156

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- \*\* Samples not received at proper temperature of 6°C or below.
- \*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C  
Samples reported on an as received basis (wet) unless otherwise noted on report

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*Celey D. Keene*

Celey D. Keene, Lab Director/Quality Manager

Analysis Request of Custody Record



Tetra Tech, Inc.

901W Wall Street, Ste 100  
Midland, Texas 79705  
Tel (432) 682-4539  
Fax (432) 682-3946

Client Name: **EOG** Site Manager: **Clair Gonzales**

Project Name: **David Ross SWD #1 Excavation** Project #: **212C-MD-02042**

Project Location: **Eddy Co, NM** (county, state)

Invoice to: **EOG - Samos F. Kennedy**

Receiving Laboratory: **Cardinal** Sampler Signature: **Tony Laganda**

Comments:

LAB #	SAMPLE IDENTIFICATION	SAMPLING		MATRIX		PRESERVATIVE METHOD			# CONTAINERS	FILTERED (Y/N)	LAB USE ONLY	REMARKS:
		DATE	TIME	WATER	SOIL	HCL	HNO <sub>3</sub>	ICE				
1	(BH) Bottom Hole 1 @ 2' 6"	3/2		X				X		1	N	X
2	(BH) Bottom Hole 2											X
3	(BH) Bottom Hole 3											X
4	(BH) Bottom Hole 4											X
5	(BH) Bottom Hole 5 @ 4' 6"											X
6	(BH) Bottom Hole 6 @ 3.5' 6"											X
7	(BH) Bottom Hole 7 " "											X
8	North Side wall											X
9	West Side wall											X
10	West 2 Side wall											X

Relinquished by: **Antwan S. Taylor** Date: **3/2/2020** Time: **1150** Received by: **Jamara Walker** Date: **3-2-20** Time: **1150**

Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

LAB USE ONLY

Sample Temperature: **5.92**

REMARKS:

STANDARD

RUSH: Same Day (24 hr) 48 hr 72 hr

Rush Charges Authorized

Special Report Limits or TRRP Report

(Circle) **AND DELIVERED** FEDEX UPS Tracking #: **#113**

ANALYSIS REQUEST (Circle or Specify Method No.)

BTEX 8021B BTEX 8260B

TPH TX1005 (Ext to C35)

TPH 8015M ( GRO - DRO - ORO - MRO)

PAH 8270C

Total Metals Ag As Ba Cd Cr Pb Se Hg

TCLP Metals Ag As Ba Cd Cr Pb Se Hg

TCLP Volatiles

TCLP Semi Volatiles

RCI

GC/MS Vol. 8260B / 624

GC/MS Semi. Vol. 8270C/625

PCB's 8082 / 608

NORM

PLM (Asbestos)

Chloride

Chloride Sulfate TDS

General Water Chemistry (see attached list)

Anion/Cation Balance

Hold

ORIGINAL COPY

Analysis Request of Custody Record



Tetra Tech, Inc.

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

Client Name:

EOG

Site Manager:

Clain Gonzales

Project Name:

David Ross SWD #1 Excavation

Project Location:

Eddy Co, NM

Project #:

212C-MD-02042

Invoice to:

EOG - James Kennedy

Receiving Laboratory:

Cardinal

Sampler Signature:

Tony Legarda

Comments:

SAMPLE IDENTIFICATION

LAB #	SAMPLE IDENTIFICATION	SAMPLING		MATRIX	PRESERVATIVE METHOD			# CONTAINERS	FILTERED (Y/N)	
		YEAR: 2020	DATE		TIME	WATER	SOIL			HCL
11	East 2 side wall		3/2		X				1	N
12	North 2 side wall									
13	North East side wall									
14	East 3 side wall									
15	South 3 side wall									
16	North 4 side wall									
17	South 1 side wall									
18	South 2 side wall									
19	West 3 side wall									
20	North 3 side wall									

Relinquished by:

Date: Time:

Received by:

Date: Time:

Relinquished by:

Date: Time:

Received by:

Date: Time:

Amman E. Butler 3/21/2020 11:50

James Walker 3-2-20

Date: Time: 11:50  
Date: Time: 3-2-20

LAB USE ONLY  
Sample Temperature  
5:58  
#113

REMARKS:  
 STANDARD  
 RUSH: Same Day 24 hr 48 hr 72 hr  
 Rush Charges Authorized  
 Special Report Limits or TRRP Report

ANALYSIS REQUEST  
(Circle or Specify Method No.)

- BTEX 8021B BTEX 8260B
- TPH TX1005 (Ext to C35)
- TPH 8015M ( GRO - DRO - ORO - MRO)
- PAH 8270C
- Total Metals Ag As Ba Cd Cr Pb Se Hg
- TCLP Metals Ag As Ba Cd Cr Pb Se Hg
- TCLP Volatiles
- TCLP Semi Volatiles
- RCI
- GC/MS Vol. 8260B / 624
- GC/MS Semi. Vol. 8270C/625
- PCB's 8082 / 608
- NORM
- PLM (Asbestos)
- Chloride
- Chloride Sulfate TDS
- General Water Chemistry (see attached list)
- Anion/Cation Balance

Hold

ORIGINAL COPY

Analysis Request of Custody Record



Tetra Tech, Inc.

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

Client Name: EOG  
Site Manager: Clair Gonzalez

Project Name: David Ross SWD # 1 Excavation

Project Location: Eddy Co, NM  
Project #: 212C - MD-02042

Invoice to: EOG - James Kennedy

Receiving Laboratory: Cardinal  
Sampler Signature: Tony Logarday

Comments:

LAB USE ONLY

HDD662

SAMPLE IDENTIFICATION

LAB #	SAMPLE IDENTIFICATION	SAMPLING		DATE	TIME	MATRIX		PRESERVATIVE METHOD				# CONTAINERS	FILTERED (Y/N)
		YEAR	MO			WATER	SOIL	HCL	HNO <sub>3</sub>	ICE	None		
21	North S Sidewall			3/2		X		X				1	N
22	South 4 Sidewall			3/2		X		X				1	N
23	South 5 Sidewall			3/2		X		X				1	N
24	South 6 Sidewall			3/2		X		X				1	N

RECEIVED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Chutkan S. Lopez	3/12/2020	1150	Lawrence Walker	5-2-20	1150

Relinquished by: Chutkan S. Lopez  
Date: 3/12/2020  
Time: 1150

Relinquished by: Lawrence Walker  
Date: 5-2-20  
Time: 1150

Relinquished by: \_\_\_\_\_  
Date: \_\_\_\_\_  
Time: \_\_\_\_\_

ANALYSIS REQUEST  
(Circle or Specify Method No.)

<input type="checkbox"/>	BTEX 8021B
<input type="checkbox"/>	BTEX 8260B
<input type="checkbox"/>	TPH TX1005 (Ext to C35)
<input type="checkbox"/>	TPH 8015M ( GRO - DRO - ORO - MRO)
<input type="checkbox"/>	PAH 8270C
<input type="checkbox"/>	Total Metals Ag As Ba Cd Cr Pb Se Hg
<input type="checkbox"/>	TCLP Metals Ag As Ba Cd Cr Pb Se Hg
<input type="checkbox"/>	TCLP Volatiles
<input type="checkbox"/>	TCLP Semi Volatiles
<input type="checkbox"/>	RCI
<input type="checkbox"/>	GC/MS Vol. 8260B / 624
<input type="checkbox"/>	GC/MS Semi. Vol. 8270C/625
<input type="checkbox"/>	PCB's 8082 / 608
<input type="checkbox"/>	NORM
<input type="checkbox"/>	PLM (Asbestos)
<input type="checkbox"/>	Chloride
<input type="checkbox"/>	Chloride Sulfate TDS
<input type="checkbox"/>	General Water Chemistry (see attached list)
<input type="checkbox"/>	Anion/Cation Balance

LAB USE ONLY

REMARKS:

STANDARD

RUSH: Same Day (24 hr) 48 hr 72 hr

Rush Charges Authorized

Special Report Limits or TRRP Report

Sample Temperature: 57.9°

#113

ORIGINAL COPY

**District I**  
 1625 N. French Dr., Hobbs, NM 88240  
 Phone:(575) 393-6161 Fax:(575) 393-0720

**District II**  
 811 S. First St., Artesia, NM 88210  
 Phone:(575) 748-1283 Fax:(575) 748-9720

**District III**  
 1000 Rio Brazos Rd., Aztec, NM 87410  
 Phone:(505) 334-6178 Fax:(505) 334-6170

**District IV**  
 1220 S. St Francis Dr., Santa Fe, NM 87505  
 Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 201158

**CONDITIONS**

Operator: OWL SWD OPERATING, LLC 20 Greenway Plaza Houston, TX 77046	OGRID: 308339
	Action Number: 201158
	Action Type: [IM-SD] Incident File Support Doc (ENV) (IM-BNF)

**CONDITIONS**

Created By	Condition	Condition Date
bhall	Closure approved on 8/25/2020 by Bradford Billings. Report was not uploaded at that time.	3/27/2023