

**TETRA TECH**

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.

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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

Brittany Long,
Environmental Scientist/Biologist

Clair Gonzales,
Project Manager, P.G.

cc: James Kennedy – EOG
Todd Wells - EOG

Figures



 SITE LOCATION



0 10,416.5 20,833

Approximate Scale in Feet



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

OVERVIEW MAP

DAVID ROSS SWD #1

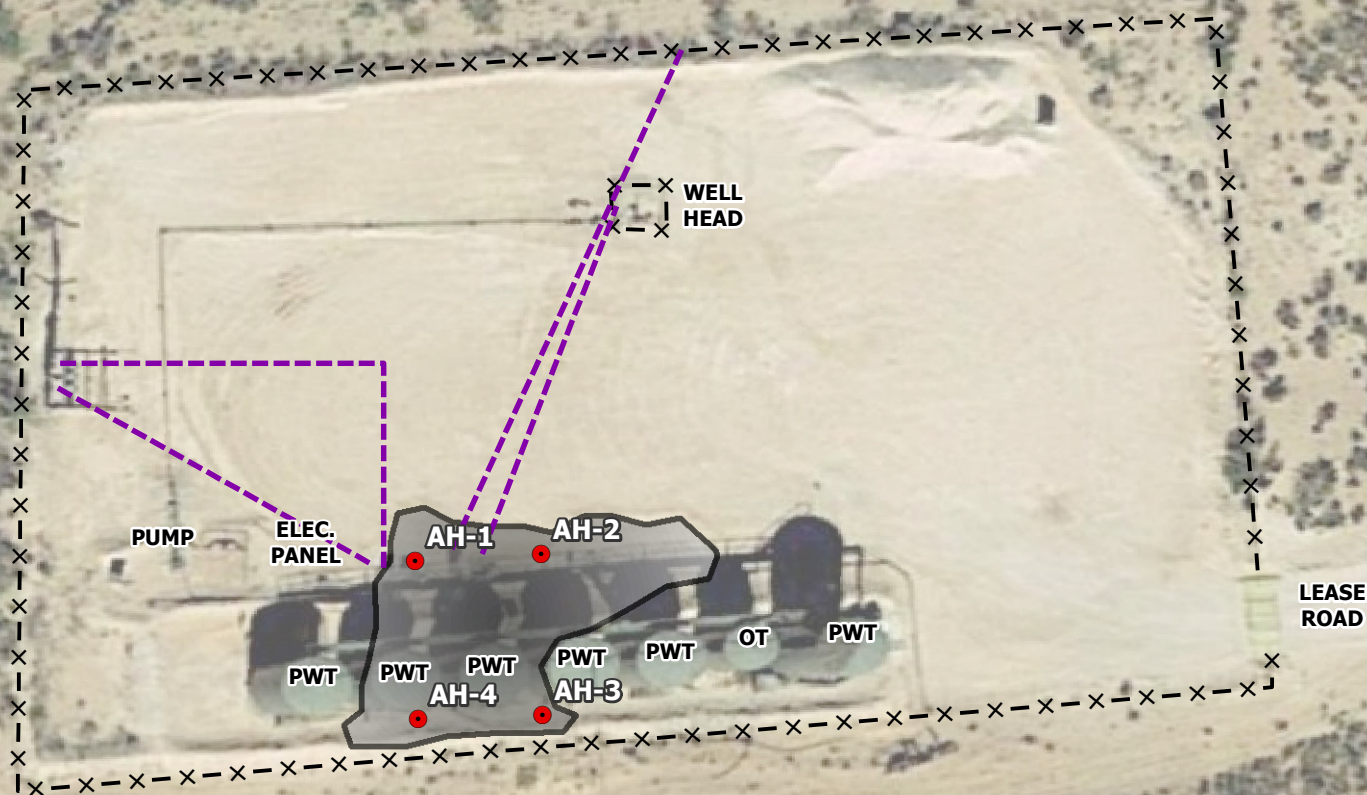
Property Located at coordinates 32.349553°, -103.742377°
EDDY COUNTY, NEW MEXICO



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

FIGURE
1



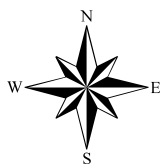


● AUGERHOLE SAMPLE LOCATIONS

--- BURIED PIPE

X - X FENCELINE

■ SPILL AREA



0 25 50
Approximate Scale in Feet

SPILL ASSESSMENT MAP

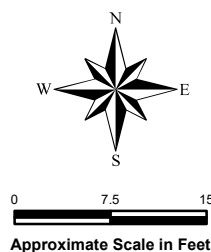
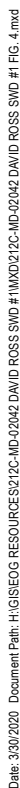
DAVID ROSS SWD #1

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

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



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View of Release, North of Tank Battery



View of Release, North of Tank Battery

EOG
David Ross SWD #1
Eddy County, New Mexico



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View of Release, South of Tank Battery



View of Release, South of Tank Battery

EOG
David Ross SWD #1
Eddy County, New Mexico



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View of Remediation, South of Tank Battery



View of Remediation, South of Tank Battery

EOG
David Ross SWD #1
Eddy County, New Mexico



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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



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 <u>not</u> 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: <u>James F Kennedy</u>	Date: _____
email: _____	Telephone: _____
<u>OCD Only</u>	
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 not 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.

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-basin	Use	County	Source	Sec	Twp	Range	X	Y	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

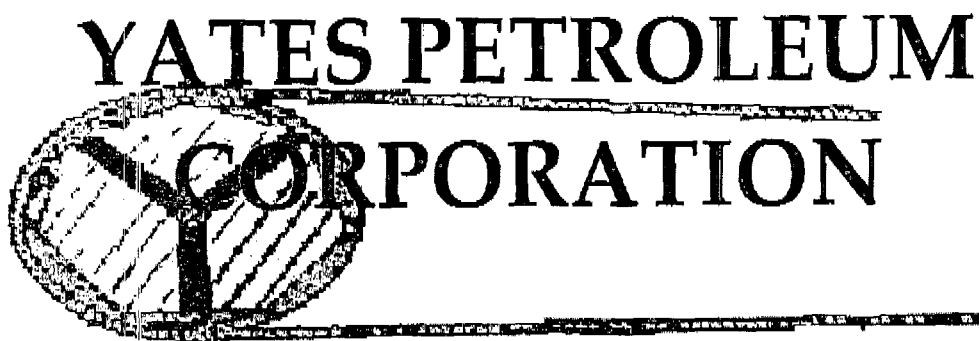
*UTM location was derived from PLSS - see Help

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

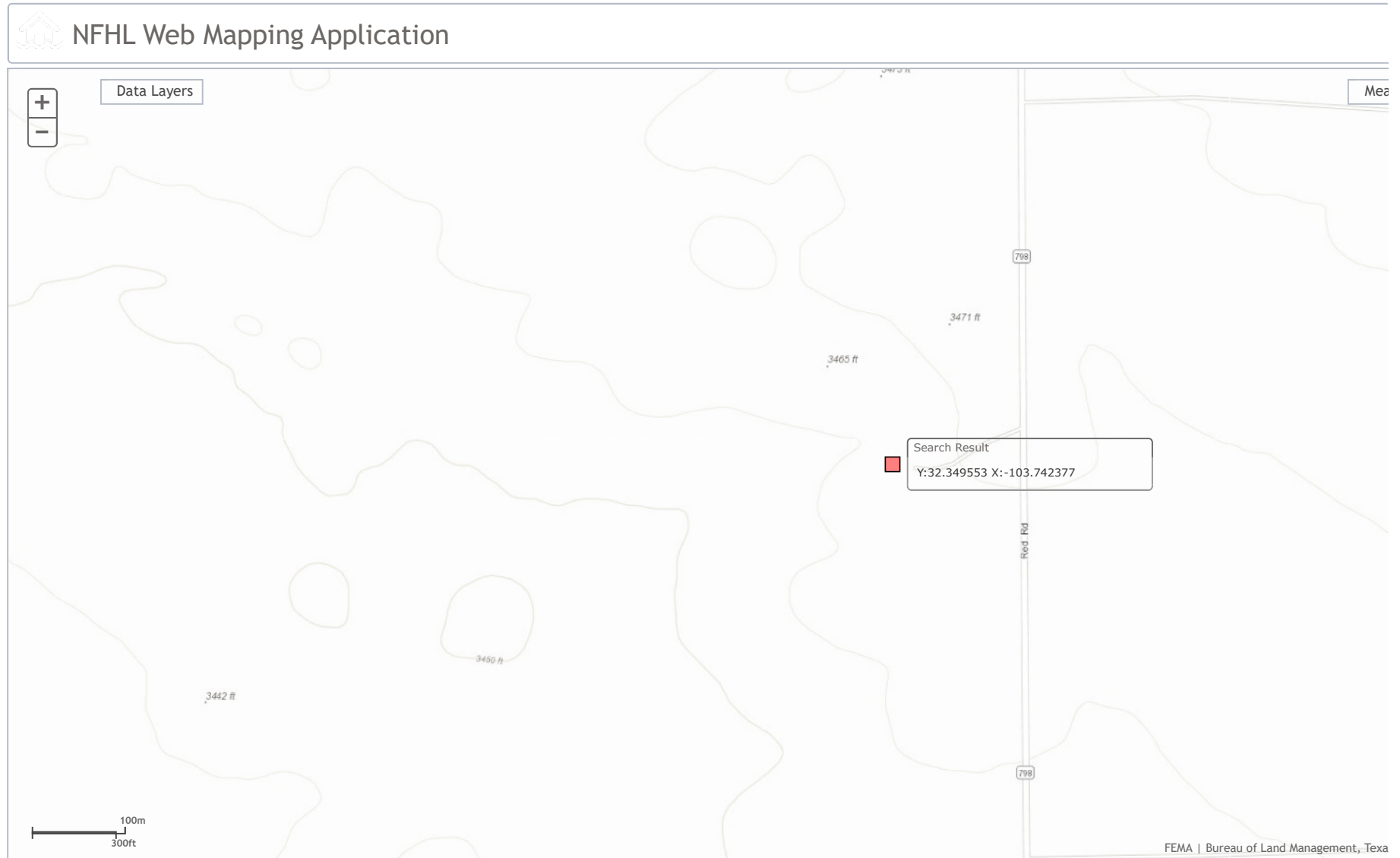
Appendix B

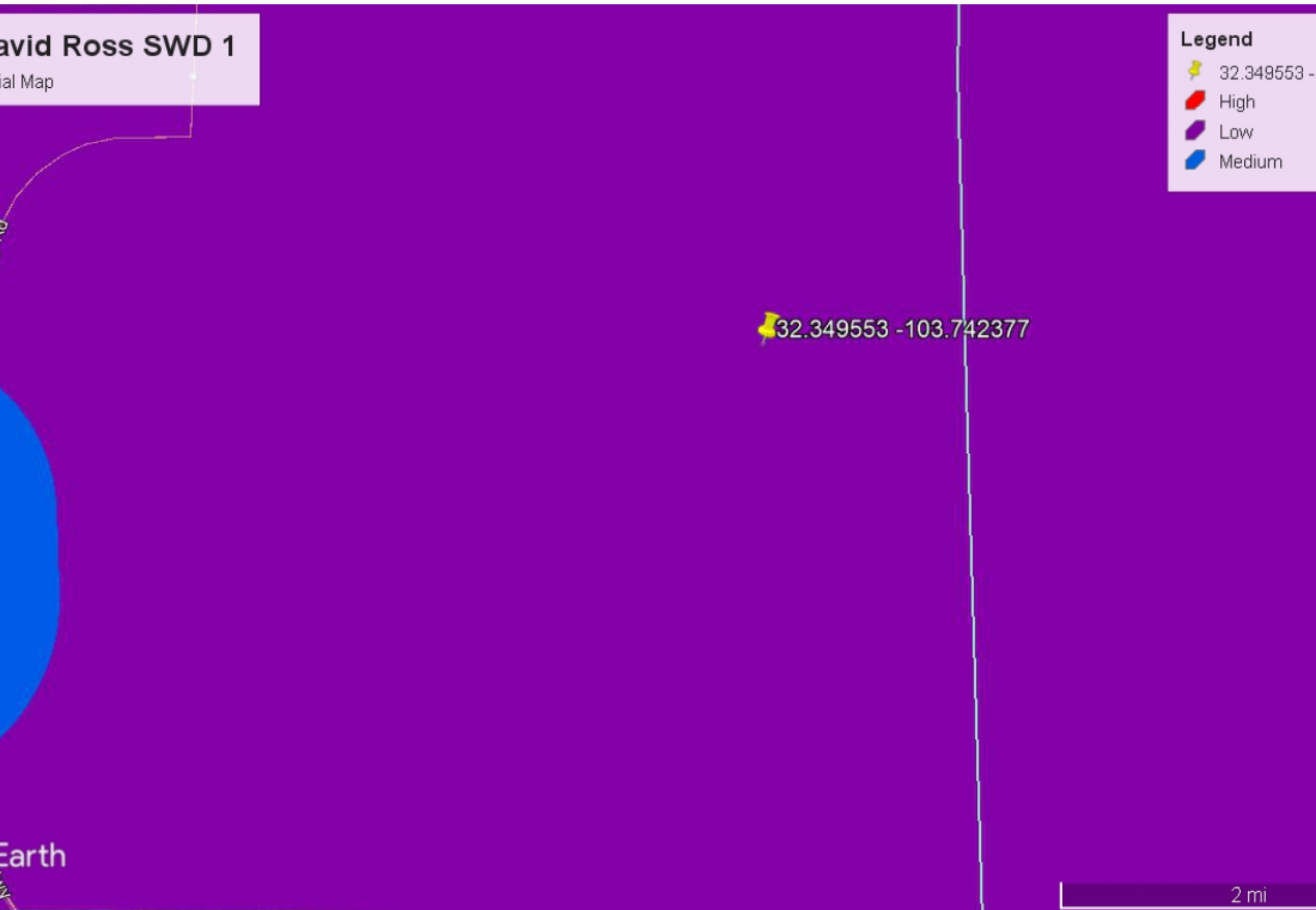


National Water Information System: Mapper



Site Information







USGS Home
Contact USGS
Search USGS

National Water Information System: Web Interface

USGS Water Resources

Data Category:


Groundwater

Geographic Area:

United States

GO

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- [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

Groundwater: Field measurements

GO

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.

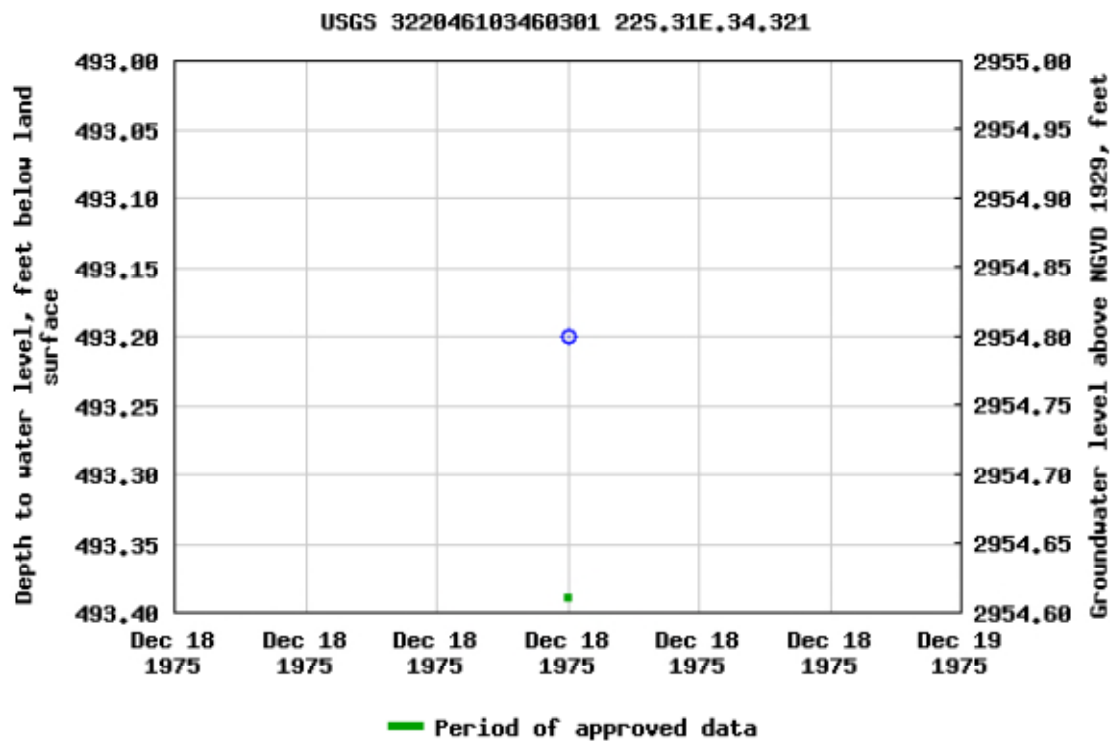
Output formats

[Table of data](#)

[Tab-separated data](#)

[Graph of data](#)

[Reselect period](#)



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

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

*UTM location was derived from PLSS - see Help






























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POD suffix indicates the
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(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
C 02745	CUB	ED	4	2	2	15	22S	31E	616789	3585013*		925		
C 02746	CUB	ED	4	2	2	15	22S	31E	616789	3585013*		930		
C 02747	CUB	ED	4	2	2	15	22S	31E	616789	3585013*		1076		
C 02748	CUB	ED	1	2	3	17	22S	31E	612576	3584364*		3856		
C 02749	CUB	ED	1	1	1	18	22S	31E	610556	3585146*		640		
C 02750	CUB	ED	1	1	1	18	22S	31E	610556	3585146*		741		
C 02751	CUB	ED	1	1	1	18	22S	31E	610556	3585146*		637		
C 02752	CUB	ED	4	4	4	20	22S	31E	613604	3582162*		2875		
C 02753	CUB	ED	1	4	4	20	22S	31E	613404	3582362*		851		
C 02754	CUB	ED	4	2	4	20	22S	31E	613599	3582564*		1045		
C 02755	CUB	ED	4	4	2	20	22S	31E	613595	3582966*		1040		
C 02756	CUB	ED	3	4	4	26	22S	31E	618250	3580606*		1998		
C 02757	CUB	ED	4	4	4	28	22S	31E	615232	3580571*		4057		
C 02758	CUB	ED	3	2	1	29	22S	31E	612604	3581752*		661		
C 02759	CUB	ED	1	2	1	29	22S	31E	612604	3581952*		795		
C 02760	CUB	ED	2	2	4	29	22S	31E	613618	3581156*		725		
C 02761	CUB	ED	2	2	4	29	22S	31E	613618	3581156*		730		
C 02761 POD1	CUB	ED	2	2	4	29	22S	31E	613651	3581101		725		
C 02762	CUB	ED	3	2	1	29	22S	31E	612604	3581752*		672		
C 02763	CUB	ED	3	2	1	29	22S	31E	612604	3581752*		660		
C 02764	CUB	ED	2	2	4	29	22S	31E	613618	3581156*		902		
C 02765	CUB	ED	1	2	2	29	22S	31E	613409	3581960*		856		
C 02766	CUB	ED	3	3	3	29	22S	31E	612216	3580541*		589		
C 02767	CUB	ED	4	1	4	33	22S	31E	614844	3579360*		785		
C 02768	CUB	ED	4	1	4	33	22S	31E	614844	3579360*		787		
C 02769	CUB	ED	2	2	4	33	22S	31E	615246	3579564*		765		
C 02769 POD2	CUB	ED	4	2	4	33	22S	31E	615261	3579312		753	428	325
C 02801	CUB	ED	4	4	4	20	22S	31E	613604	3582162*		65		
C 02802	CUB	ED	4	4	4	20	22S	31E	613604	3582162*		65		

*UTM location was derived from PLSS - see Help



























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(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
C 02803	CUB	ED	4	4	4	20	22S	31E	613604	3582162*		65		
C 02811	CUB	ED	2	4	2	29	22S	31E	613613	3581558*		80		
C 02980	CUB	ED	2	4	4	20	22S	31E	613604	3582362*		62		
C 02981	CUB	ED	4	4	4	20	22S	31E	613604	3582162*		62		
C 02982	CUB	ED	2	4	4	20	22S	31E	613604	3582362*		65		
C 02983	CUB	ED	4	4	4	20	22S	31E	613604	3582162*		60		
C 02984	CUB	ED	2	4	4	20	22S	31E	613604	3582362*		65		
C 02985	CUB	ED	2	4	4	20	22S	31E	613604	3582362*		62		
C 02986	CUB	ED	1	4	4	20	22S	31E	613404	3582362*		71		
C 02987	CUB	ED	4	4	4	20	22S	31E	613604	3582162*		68		
C 02988	CUB	ED	2	4	4	20	22S	31E	613604	3582362*		75		
C 02989	CUB	ED	3	4	4	20	22S	31E	613404	3582162*		54		
C 02990	CUB	ED	1	4	4	20	22S	31E	613404	3582362*		71		
C 02991	CUB	ED	4	4	4	20	22S	31E	613604	3582162*		64		
C 03002	CUB	ED	4	2	4	06	22S	31E	611933	3587375*		668		
C 03112 EXPLORE	CUB	ED	3	1	1	09	22S	31E	613753	3586590*		3567		
C 03138	CUB	ED	3	3	3	26	22S	31E	617043	3580591*		750		
C 03150	CUB	ED	2	4	4	14	22S	31E	618412	3584025*		981		
C 03152	CUB	ED	3	4	4	26	22S	31E	618250	3580606*		938		
C 03207	CUB	ED	4	2	4	29	22S	31E	613618	3580956*		150		
C 03221 EXPLORE	CUB	ED	1	2	1	30	22S	31E	610995	3581935*		651		
C 03976 POD1	CUB	ED	1	3	4	20	22S	31E	612967	3582387		180		
C 03976 POD2	CUB	ED	1	3	4	20	22S	31E	612967	3582387		70		
C 03976 POD3	CUB	ED	1	3	4	20	22S	31E	612967	3582387		182		
C 03976 POD4	CUB	ED	1	3	4	20	22S	31E	612968	3582386		71		
C 04144 POD10	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						21 South 31 East						21 South 32 East					
6	5	4	3	2	1	6	5	4	3	2	1	6	5	4	3	2	1
7	8	9	10	11	12	7	8	9	10	11	12	7	8	9	10	11	12
18	17	16	15	14	13	18	17	16	15	14	13	18	17	16	15	14	13
19	20	21	22	23	24	19	20	21	22	23	24	19	20	21	22	23	24
30	29	28	27	26	25	30	29	28	27	26	25	30	29	28	27	26	25
31	32	33	34	35	36	31	32	33	34	35	36	31	32	33	34	35	36

22 South 30 East						22 South 31 East						22 South 32 East					
6	5	4	3	2	1	6	5	4	3	2	1	6	5	4	3	2	1
7	8	9	10	11	12	7	8	9	10	11	12	7	8	9	10	11	12
18	17	16	15	14	13	18	17	16	15	14	13	18	17	16	15	14	13
19	20	21	22	23	24	19	20	21	22	23	24	19 (S)	20	21	22	23	24
30	29	28	27	26	25	30	29	28	27	26	25	280	29	28	27	26	25
31	32	33	34	35	36	31	32	33	34	35	36	31	32	33	34	35	36

23 South 30 East						23 South 31 East						23 South 32 East					
6	5	4	3	2	1	6	5	4	3	2	1	6	5	4	3	2	1
7	8	9	10	11	12	7	8	9	10	11	12	7	8	9	10	11	12
18	17	16	15	14	13	18	17	16	15	14	13	18	17	16	15	14	13
19	20	21	22	23	24	19	20	21	22	23	24	19	20	21	22	23	24
30	29	28	27	26	25	30	29	28	27	26	25	30	29	28	27	26	25
31	32	33	34	35	36	31	32	33	34	35	36	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
BTEX by EPA 8021B SUB: T104704400-19-19	<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		
Chloride by EPA 300 SUB: T104704400-19-19	<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
TPH By SW8015 Mod SUB: T104704400-19-19	<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

Analysis Requested	Lab Id:	648188-007	648188-008				
	Field Id:	AH #3 (4-4.5')	AH #4 (0-1')				
	Depth:	4-4.5 ft	0-1 ft				
	Matrix:	SOIL	SOIL				
	Sampled:	Jan-07-20 00:00	Jan-07-20 00:00				
BTEX by EPA 8021B SUB: T104704400-19-19	Extracted:		Jan-07-20 17:30				
	Analyzed:		Jan-07-20 22:35				
	Units/RL:		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				
Chloride by EPA 300 SUB: T104704400-19-19	Extracted:	Jan-07-20 17:00	Jan-07-20 17:00				
	Analyzed:	Jan-07-20 18:49	Jan-07-20 19:23				
	Units/RL:	mg/kg RL	mg/kg RL				
Chloride		137 9.96	1590 49.9				
TPH By SW8015 Mod SUB: T104704400-19-19	Extracted:		Jan-07-20 17:20				
	Analyzed:		Jan-07-20 22:23				
	Units/RL:		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'.

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

Sample receipt non conformances and comments:

None

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: **AH #1 (0-1')**

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
Diesel Range Organics (DRO)	C10C28DRO	53.1	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
Total TPH	PHC635	53.1	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: **AH #1 (0-1')**

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
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
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: **AH #2 (0-1')**

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: **AH #2 (0-1')**

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
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
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: **AH #3 (0-1')**

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
Diesel Range Organics (DRO)	C10C28DRO	155	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
Total TPH	PHC635	155	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: **AH #3 (0-1')**

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
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
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: **AH #3 (1-1.5')**

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: **AH #3 (1-1.5')**

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
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
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: **AH #4 (0-1')**

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: **AH #4 (0-1')**

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
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
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		



Flagging Criteria

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



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

Matrix: Soil

Parent Sample Id: 648079-003

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



Tetra Tech, Inc.

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

Page 1 of 1

648188

Client Name:

EOL

Site Manager:

MIKE CHAMONA

Project Name:

DAVID ROSS EAD SWD 1

Project Location:

Eddy County, NM

Invoice to:

EOL - James Kennedy

Receiving Laboratory:

YencO

Comments:

 Project #: EOL- Pending
 Sampler Signature: CONNOR MCHENRY

SAMPLE IDENTIFICATION

LAB #
(LAB USE ONLY)
 SAMPLING
 YEAR: 2026
 DATE: 1/7/20
 TIME:

 MATRIX
 PRESERVATIVE METHOD
 WATER
 SOIL
 HCL
 HNO₃
 ICE
 None

CONTAINERS

FILTERED (Y/N)

BTEX 8021B BTEX 8260B

TPH TX1005 (Ext to C35)

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

PAH 8270C

Total Metals Ag As Ba Cd Cr Pb Se Hg

TCLP Metals Ag As Ba Cd Cr Pb Se Hg

TCLP Volatiles

TCLP Semi Volatiles

RCI

GC/MS Vol. 8260B / 624

GC/MS Semi. Vol. 8270C/625

PCB's 8082 / 608

NORM

PLM (Asbestos)

Chloride

Chloride Sulfate TDS

General Water Chemistry (see attached list)

Anion/Cation Balance

Hold

Received by:

James Kennedy

Date: 1/7/2020

Time: 1540

Received by:

[Signature]

Date: 1/7/20

Time: 15:40

Received by:

Date: Time:

Received by:

Date: Time:

LAB USE ONLY

REMARKS:

☒ STANDARD

Sample Temperature

☐ RUSH: Same Day 24 hr 48 hr 72 hr

☐ Rush Charges Authorized

☐ Special Report Limits or TRRP Report

1.20C

ORIGINAL COPY

(Circle) HAND DELIVERED FEDEX UPS Tracking #:



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:

Elizabeth McClellan

Date: 01/07/2020

Checklist reviewed by:

Holly Taylor

Date: 01/08/2020



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

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.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, stylized 'C' and 'K'.

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)

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	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 BTX	<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	448	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

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

TETRA TECH
 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

Cardinal Laboratories

*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	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



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 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)

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	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 BTX	<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, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	416	16.0	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



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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 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)

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	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 BTX	<0.300	0.300	03/03/2020	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	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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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)

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	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 BTX	<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



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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 3 SIDE WALL (H000662-15)

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	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 BTX	<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	544	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, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2560	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*	389	10.0	03/03/2020	ND	210	105	200	0.919	
EXT DRO >C28-C36	312	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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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	
Chloride	176	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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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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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 3 SIDE WALL (H000662-19)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	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 BTX	<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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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, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	768	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*	70.1	10.0	03/03/2020	ND	187	93.3	200	1.93	
EXT DRO >C28-C36	42.0	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, SM4500Cl-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, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	4880	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*	313	10.0	03/03/2020	ND	187	93.3	200	1.93	
EXT DRO >C28-C36	293	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	
Chloride	2360	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*	861	10.0	03/03/2020	ND	187	93.3	200	1.93	
EXT DRO >C28-C36	536	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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Notes and Definitions

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

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

Celey D. Keene, Lab Director/Quality Manager

62 jo L2 ege

Analysis Request of Chain of Custody Record

Page 1 of 2



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 Gonzales	
Project Name: David Ross SUD #1		Excavation	
Project Location: Eddy Co, NM		Project #: 212C-MD-02042	
Invoice to: EOG - Samas 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 ₃				
1	(BH) Bottom Hole 1 @ 2' b/b	3/2		X			X		1	N	
2	(BH) Bottom Hole 2										
3	(BH) Bottom Hole 3										
4	(BH) Bottom Hole 4										
5	(BH) Bottom Hole 5 @ 4' b/b										
6	(BH) Bottom Hole 6 @ 2.5' b/b										
7	(BH) Bottom Hole 7 " "										
8	North 1 Side wall										
9	West 1 Side wall										
10	West 2 Side wall										

LAB USE ONLY	REMARKS:
<input type="checkbox"/> STANDARD <input checked="" type="checkbox"/> RUSH: Same Day (24 hr) 48 hr 72 hr <input type="checkbox"/> Rush Charges Authorized <input type="checkbox"/> Special Report Limits or TRRP Report	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

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62 jo 82 ead

Analysis Request of Chain of Custody Record

Page 2 of 3



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 Gonzales	
Project Name: David Ross SWD #1		Project #: Excavation	
Project Location: Eddy Co, NM		Project #: 212C-MD-02042	
Invoice to: EOG - James Kennedy		Sampler Signature: Tony Legarda	
Receiving Laboratory: Cardinal		Sampler Signature: Tony Legarda	
Comments:			

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX	PRESERVATIVE METHOD				# CONTAINERS	FILTERED (Y/N)	ANALYSIS REQUEST (Circle or Specify Method No.)			
		YEAR: 2020	DATE		TIME	WATER	SOIL	HCL				HNO ₃	ICE	None
11	East 2 side wall		3/2			X					X	BTEX 8021B BTEX 8260B		
12	North 2 side wall										X	TPH TX1005 (Ext to C35)		
13	North East side wall										X	TPH 8015M (GRO - DRO - ORO - MRO)		
14	East 3 side wall										X	PAH 8270C		
15	South 3 side wall										X	Total Metals Ag As Ba Cd Cr Pb Se Hg		
16	North 4 side wall										X	TCLP Metals Ag As Ba Cd Cr Pb Se Hg		
17	South 1 side wall										X	TCLP Volatiles		
18	South 2 side wall										X	TCLP Semi Volatiles		
19	West 3 side wall										X	RCI		
20	North 3 side wall										X	GC/MS Vol. 8260B / 624		
											X	GC/MS Semi. Vol. 8270C/625		
											X	PCB's 8082 / 608		
											X	NORM		
											X	PLM (Asbestos)		
											X	Chloride		
											X	Chloride Sulfate TDS		
											X	General Water Chemistry (see attached list)		
											X	Anion/Cation Balance		
											X	Hold		

Relinquished by: <i>Chadman E. Buckle</i>	Date: 3/21/2020	Time: 11:50	Received by: <i>James Legarda</i>	Date: 3-2-20	Time: 11:50
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:

LAB USE ONLY	REMARKS:
<input type="checkbox"/> STANDARD <input checked="" type="checkbox"/> RUSH: Same Day (24 hr) 48 hr 72 hr <input type="checkbox"/> Rush Charges Authorized <input type="checkbox"/> Special Report Limits or TRRP Report	Sample Temperature: 5:58 #113

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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