SITE INFORMATION

Report Type: Closure Request NTO1418358258

General Site Information:						
Site:	**Madera Ridge 25 Federal #001**					
Company:	**EOG Resources, Inc.**					
Section, Township and Range	**Unit Letter L**	**Sec. 25**	**T 24S**	**R 33E**		
Lease Number:	**Associated API: 30-025-28553**					
County:	**Lea**					
GPS:	**32.1866°**			**-103.5323°**		
Surface Owner:	**State of New Mexico**					
Mineral Owner:	**N/A**					
Directions:	From Jal, NM (NM-205/NM-128): Head west on NM-128 for 21.8 miles. Turn left onto Vaca Ln. Head south for 1.6 miles. Turn left onto Resource Ln. Turn right (west) on Caliche Rd for 0.6 miles. Destination is on the right.					

Release Data:			
Date Released:	May-14		
Type Release:	Produced Water		
Source of Contamination:	Leak from Fire Tube		
Fluid Released:	10 bbls		
Fluids Recovered:	8 bbls		

Official Communication:			
Name:	James Kennedy		Clair Gonzales
Company:	EOG Resources		Tetra Tech, Inc.
Address:	5509 Champions Dr		901 West Wall St.
City:	Midland, TX 79706		Midland, TX
Phone number:	432-686-7016		(432) 682-4559
Fax:			
Email:	James.Kennedy@eogresources.com		Clair.Gonzales@tetratech.com

Site Characterization	
Shallowest Depth to Groundwater:	*30' below surface*
Impact to groundwater or surface water:	*No*
Extents within 300 feet of a watercourse:	*No*
Extents within 200 feet of lakebed, sinkhole, or playa lake:	*No*
Extents within 300 feet of an occupied structure:	*No*
Extents within 500 horizontal feet of a private water well:	*No*
Extents within 1000 feet of any water well or spring:	*No*
Extents within incorporated municipal well field:	*No*
Extents within 300 feet of a wetland:	*No*
Extents overlying a subsurface mine:	*No*
Karst Potential:	*Low*
Extents within a 100-year floodplain:	*No*
Impact to areas not on a production site:	*No*

Recommended Remedial Action Levels (RRALs)				
Benzene	***Total BTEX***	***TPH (GRO+DRO)***	***TPH (GRO+DRO+MRO)***	***Chlorides***
10 mg/kg	*50 mg/kg*	*N/A*	*100 mg/kg*	*600 mg/kg*

TETRA TECH

February 8, 2021

Bradford Billings
Hydrologist
District 2 Artesia
Oil Conservation Division
Santa Fe, NM 87505

Subject: **Closure Letter Report**
EOG Resources, Inc.
Madera Ridge 25 Federal #001
PLSS Unit Letter L, Section 25, Township 24 South, and Range 33 East
Lea County, New Mexico
1RP-3316
Incident ID NTO1425428176

Mr. Billings:

On behalf of EOG Resources, Inc. (EOG), Tetra Tech, Inc. (Tetra Tech) submits the following Closure Report for review. The EOG Madera Ridge 25 Federal #001 (API No. 30-025-28533) is located approximately 20.5 miles northwest of Jal in Lea County, New Mexico (Figures 1 and 2). The Madera Ridge 25 Federal #001 (Site) is located in the Public Land Survey System (PLSS) Unit Letter L, Section 25, Township 24 South, and Range 33 East. The coordinates of the release area (Site) are 32.1866°, -103.5323°.

BACKGROUND

According to the State of New Mexico C-141 Initial Report (Attachment A), on May 2014 a release of 10 barrels (bbls) of produced water occurred due to leak from a fire tube due to an equipment malfunction. All fluids released staid within the pad site. During initial response actions, approximately 8 bbls. of free fluids were recovered and the fire tube was repaired. The approximate release footprint is presented in Figure 3. Notice was given to the New Mexico Oil Conservation Division (NMOCD) on September 11, 2014. The NMOCD approved the initial C-141 on September 11, 2014 and assigned the release the Remediation Permit (RP) number 1RP-3316 and the Incident ID NTO1425428176.

SITE CHARACTERIZATION

A site characterization was performed and no watercourses, lakebeds, sinkholes, playa lakes, residences, schools, hospitals, institutions, churches, springs, public or private domestic water wells, springs, wetlands, incorporated municipal boundaries, subsurface mines, or floodplains are located within the specified distances. The Site is located in a low karst potential area.

The nearest well is listed in the USGS National Water Information Database website in Section 25 approximately 1-mile northeast of the Site and has a reported depth to groundwater of 17.56 feet below ground surface. In addition, based on data from the New Mexico Office of the State Engineer (NMOSE), there are no water wells located within 800 meters (approximately ½ mile) of the Site. However, there are twenty-nine water wells within 2,400 meters (approximately 1 ½ mile) of the Site with a depth to groundwater of 30 feet (ft) below ground surface (bgs). The site characterization data is shown in Attachment B.

Tetra Tech
901 Wes Wal St., Suite 100, Midland, TX 79701
Tel 432.682.4559 Fax 432.682.3946 www.tetratech.com

Bradford Billings
NMOCD
February 8, 2021

REGULATORY FRAMEWORK

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

Based on the site characterization, the RRALs for the Site are as follows:

Constituent	RRAL
Chloride	600 mg/kg
TPH	100 mg/kg
BTEX	50 mg/kg
Benzene	10 mg/kg

SITE INVESTIGATION

A visual Site inspection conducted by Tetra Tech on behalf of EOG to evaluate current conditions and conduct soil sampling at the Site was perform on February 1, 2021. The formerly impacted area was identified from the description in the C-141 and the aerial imagery (November,2017) where it appears the site was reclaimed after the release occurred. A total of three hand auger borings (AH-1 through AH-3) were advanced around the area where the fire tube was placed, to depths ranging from 1-foot to 1.5-feet below ground surface (bgs.). Figure 3 depicts the approximate release extent and the 2021 soil boring locations Photographic documentation of the visual Site inspection is included as Appendix C.

Soils were field screened for salinity using an Extech EC400 ExStik to determine sampling intervals. A total of three (3) samples were collected from the three (3) borings (AH-1 through AH-3) and submitted to Eurofins in Carlsbad, New Mexico to be analyzed for chlorides via EPA Method 300.0, TPH via EPA Method 8015M, and BTEX via EPA Method 8021B. A copy of the laboratory analytical report and chain-of-custody documentation are included in Appendix D.

SAMPLING RESULTS

Results from the February 2021 soils sampling event are summarized in Table 1. The analytical results associated with the three sample locations (AH-1 through AH-3) are below the Site reclamation RRAL for Chloride (600 mg/kg), TPH (100 mg/kg) and BTEX (50 mg/kg).

CONCLUSION

Based on the visual site investigation, confirmation sampling results, and recent aerial imagery evidence of reestablished vegetation at the formerly impacted surface areas, EOG respectfully requests closure for this release. The final C-141 form is enclosed in Attachment A.

Should you have any questions or comments regarding this report, please do not hesitate to contact me by telephone at 432-682-4559 or by email at clair.gonzales@tetratech.com.

Sincerely,

Clair Gonzales

Clair Gonzales, P.G.

Senior Project Manager
Tetra Tech, Inc.

FIGURES

SITE LOCATION

N
W E
S

0 2.5 5 Miles

Approximate Scale in Miles

Source: ESRI Basemap - Streets, 2021.

OVERVIEW MAP
MADERA RIDGE 25 FEDERAL #001 1RP-3316
Property Located at coordinates 32.1866°, -103.5323°
LEA COUNTY, NEW MEXICO

eog resources

Project #:
212C-MD-02419

FIGURE
1

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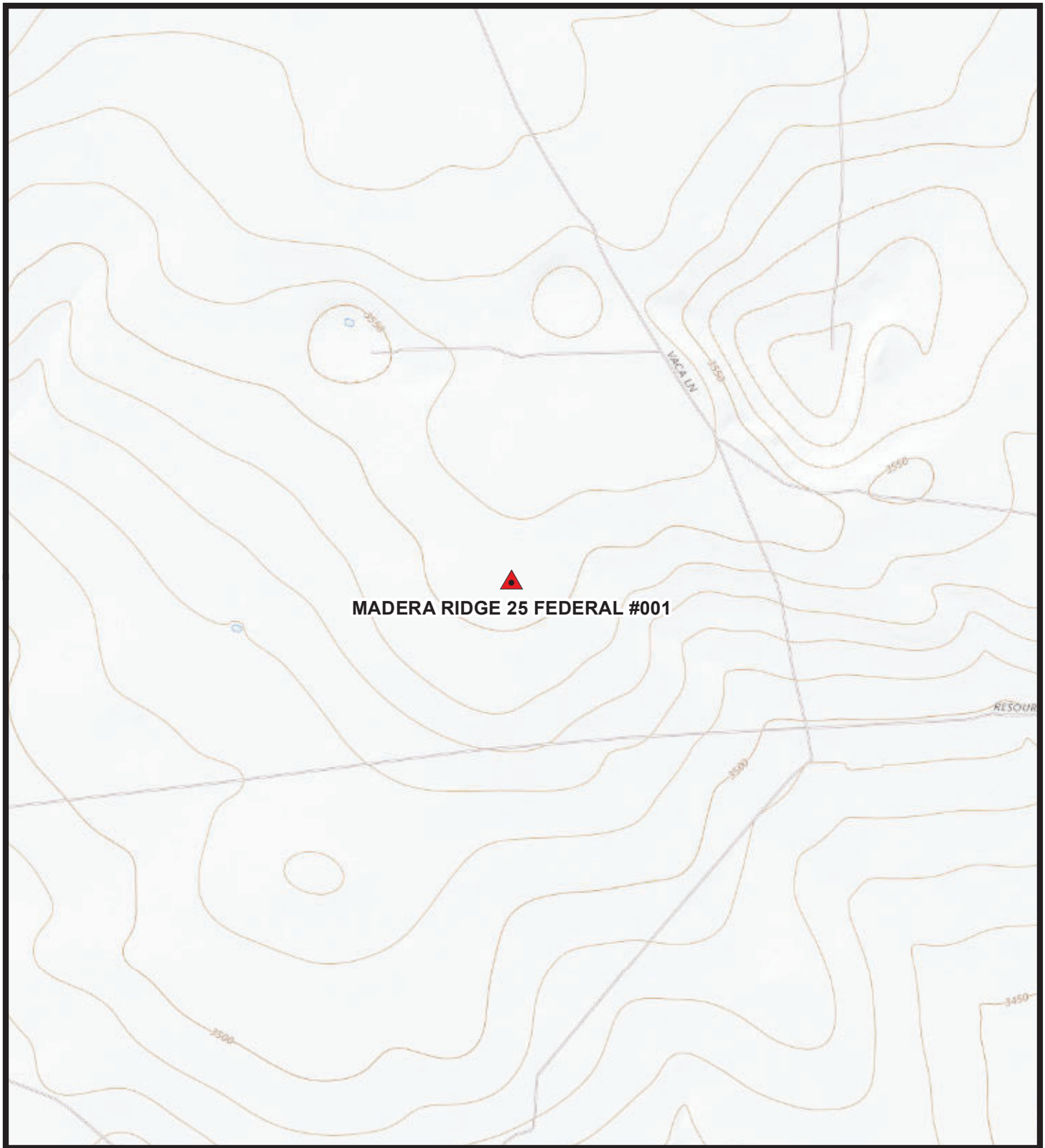


SITE LOCATION

N
W
E
S

0 1,000 2,000 Feet

Approximate Scale in Feet

Source: USGS, The National Map, Topo Base, 2021.

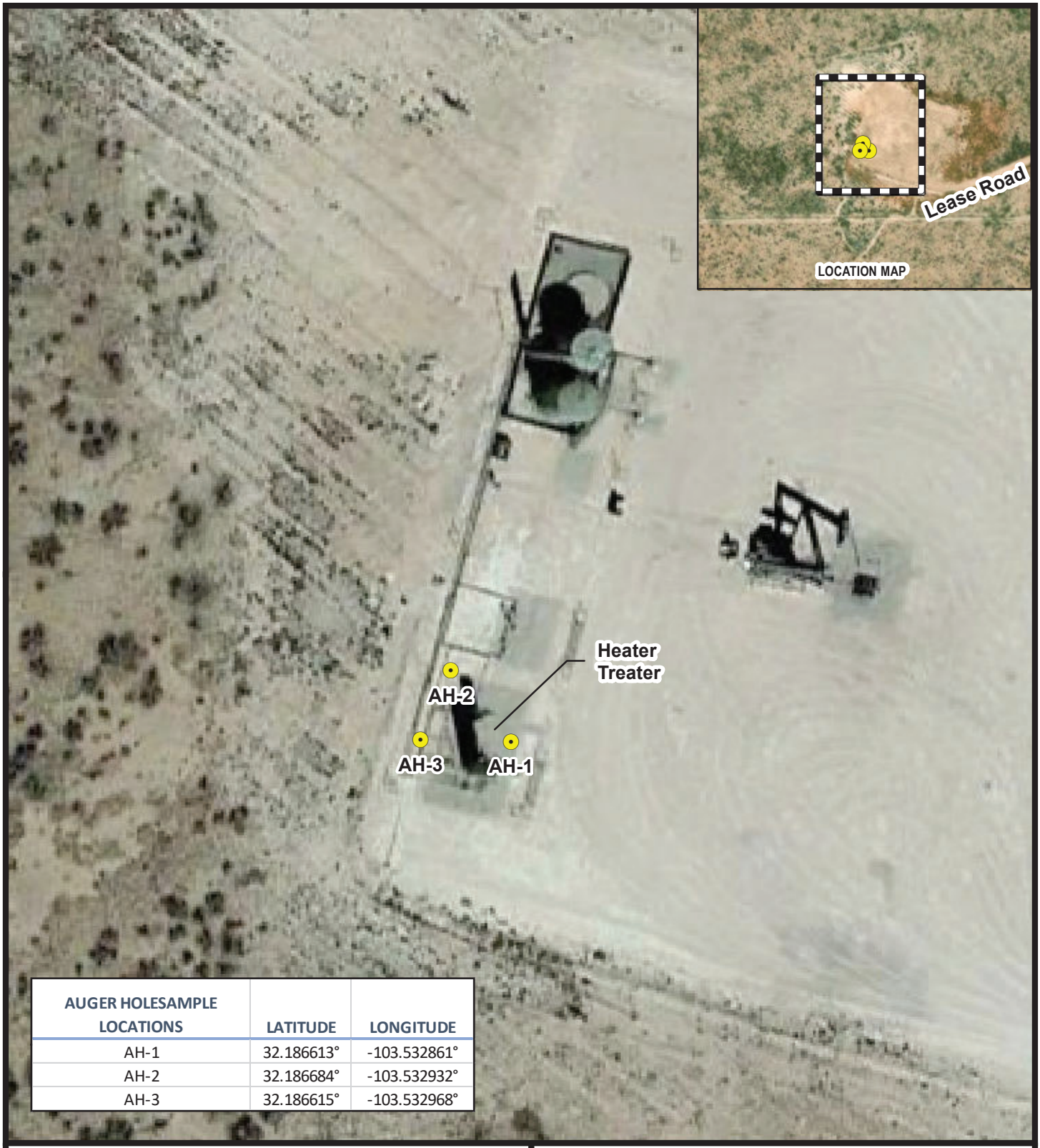
TOPOGRAPHIC MAP
MADERA RIDGE 25 FEDERAL #001 1RP-3316
Property Located at coordinates 32.1866°, -103.5323°
LEA COUNTY, NEW MEXICO

eog resources

Project #:
212C-MD-02419

FIGURE
2

C:\GIS\EOG Resources\212C-MD-02149_MaderaRidge25Federal001\212C-MD-02419_MADERARIDGE25_FIG2.mxd 2/8/2021 joel.peters



AUGER HOLESAMPLE LOCATIONS	LATITUDE	LONGITUDE
AH-1	32.186613°	-103.532861°
AH-2	32.186684°	-103.532932°
AH-3	32.186615°	-103.532968°

AUGER HOLE SAMPLE LOCATION

N
W
E
S

0 25 50 Feet

Approximate Scale in Feet

Source: Google Earth Imagery, 2014, and ESRI Basemap - Imagery 2019.

RELEASE ASSESSMENT AND BORING LOCATIONS MAP
MADERA RIDGE 25 FEDERAL #001 1RP-3316
Property Located at coordinates 32.1866°, -103.5323°
LEA COUNTY, NEW MEXICO

eog resources

Project #: 212C-MD-02419

FIGURE 3

C:\GIS\EOG Resources\212C-MD-02149_MaderaRidge25Federal001\212C-MD-02419_MADERARIDGE25_FIG3.mxd 2/8/2021 joel.peters

TABLES

Table 1
EOG
Madera Ridge 25 Federal #001
Lea 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	2/1/2021	1.5	X		<50.0	<50.0	<50.0	<50.0	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	192
AH-2	2/1/2021	1.0	X		<50.0	<50.0	<50.0	<50.0	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	70
AH-3	2/1/2021	1.0	X		<50.0	<50.0	<50.0	<50.0	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	360

(-) Not Analyzed

Exceeded RRALs

ATTACHMENT A
C-141 Forms

HOBBS OCD
SEP 11 2014
RECEIVED

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised August 8, 2011

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

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company - EOG Resources	Contact - Zane Kurtz
Address – 5509 Champions Drive, Midland, Texas 79703	Telephone No. 432-425-2023
Facility Name – Madera Ridge 25 Fed #1	Facility Type - Oil Well

Surface Owner	Mineral Owner	API No. 30-025-28533

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
L	25	24S	33E	1980'	South	660'	West	Lea

Latitude__32.1866________ **Longitude**___-103.5323______

NATURE OF RELEASE

Type of Release Produced Water	Volume of Release 10 bbls	Volume Recovered 8 bbls
Source of Release - Fire Tube Leak	Date and Hour of Occurrence May 2014 Unknown hour	Date and Hour of Discovery May 2014 Unknown hour
Was Immediate Notice Given? ☐ Yes ☒ No ☐ Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

N/A

Describe Cause of Problem and Remedial Action Taken.*
A leak from a fire tube occurred from equipment malfunction and released produced water. The fire tube has since been repaired.

Describe Area Affected and Cleanup Action Taken.*

Approximately 10 bbls of produced water was released from equipment malfunction. 8 bbls were recovered and all fluids released stay within the pad site. The impacted area will be excavated, stockpiled, on poly-plastic, and transported to Sundance disposal facility. Clean material will be backfilled within the excavated area to normal grade.

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

Signature: [signature]	OIL CONSERVATION DIVISION	
Printed Name: Zane Kurtz	Approved by Environmental Specialist: [signature]	
Title: Sr. Safety and Environmental Rep., EOG Resources	Approval Date: 9-11-14	Expiration Date: 11-11-14
E-mail Address: Zane_Kurtz@eogresources.com	Conditions of Approval: Site Samples required	Attached ☐
Date: 09/11/2014 Phone: 432-425-2023		IRP-3316

* Attach Additional Sheets If Necessary

Delineate & remediate area as per NMOCD guides. Submit final C-141 by 11-11-14.

ogrid 7377
nTO1425428176
pTO1425428328

SEP 11 2014

State of New Mexico
Oil Conservation Division

Incident ID	NTO1425428176
District RP	1RP-3316
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?	30 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☑ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☑ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☑ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☑ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☑ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☑ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☑ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☑ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☑ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☑ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☑ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☑ No

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

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

- ☑ 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.

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	NTO1425428176
District RP	1RP-3316
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: James Kennedy Title: Environmental Specialist

Signature: James F. Kennedy Date: 2/10/2021

email: James.Kennedy@eogresources.com Telephone: 432-258-4346

OCD Only

Received by: _____ Date: _____

Incident ID	NTO1425428176
District RP	1RP-3316
Facility ID	
Application ID	

Closure

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

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

☑ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☐ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☑ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☑ Description of remediation activities

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

Printed Name: James Kennedy Title: Environmental Specialist

Signature: James F. Kennedy Date: 2/10/2021

email: James.Kennedy@eogresources.com Telephone: 432-258-4346

OCD Only

Received by: _____ Date: _____

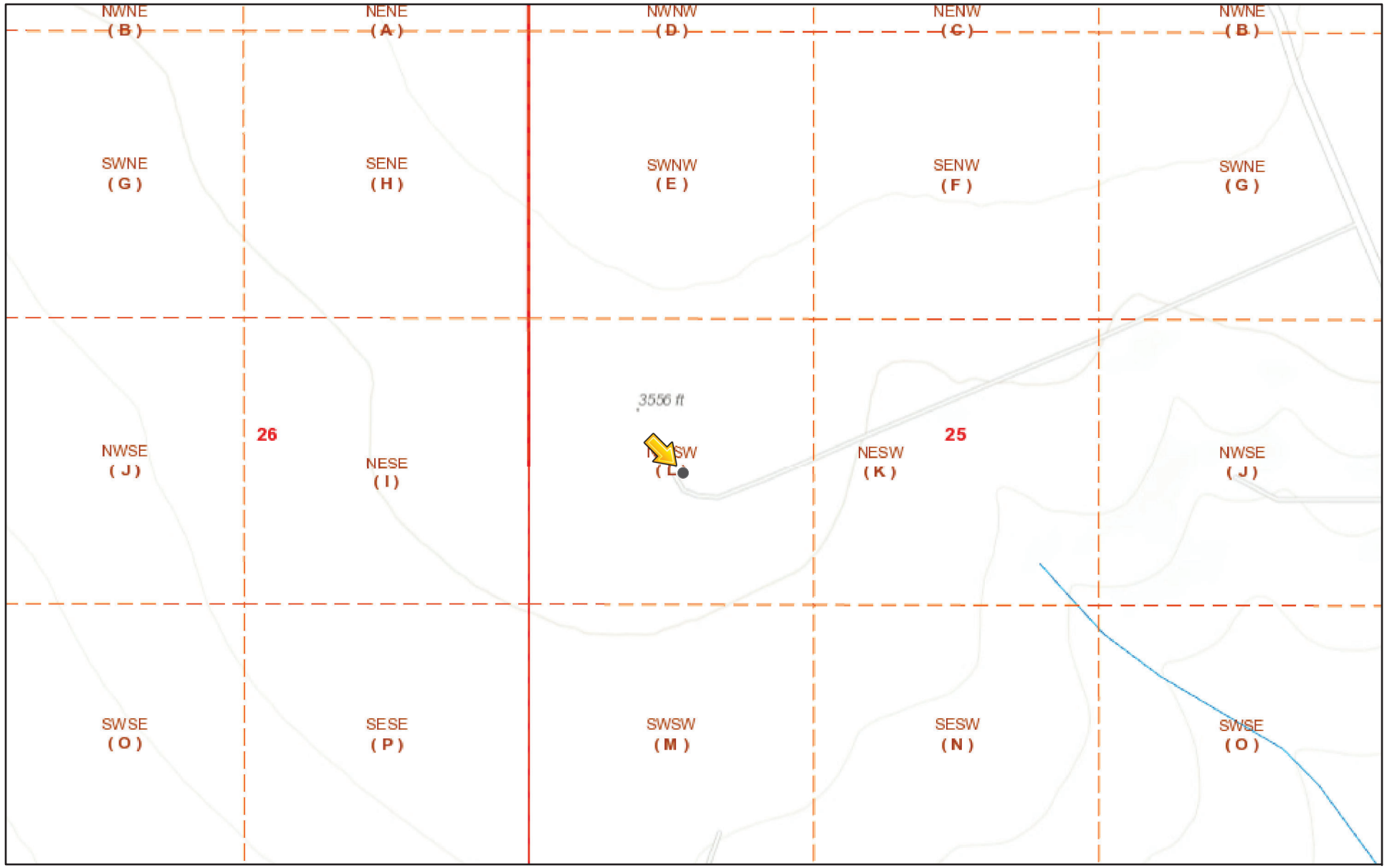
Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance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

Closure Approved by: Brittany Hall Date: 1/23/2023

Printed Name: Brittany Hall Title: Environmental Specialist

ATTACHMENT B
Site Characterization Data

1RP-3316



2/8/2021, 11:15:06 AM

Override 1

OCD District Offices

PLSS First Division

PLSS Second Division

OSE Water-bodies

PLJV Probable Playas

OSE Streams

1:9,028

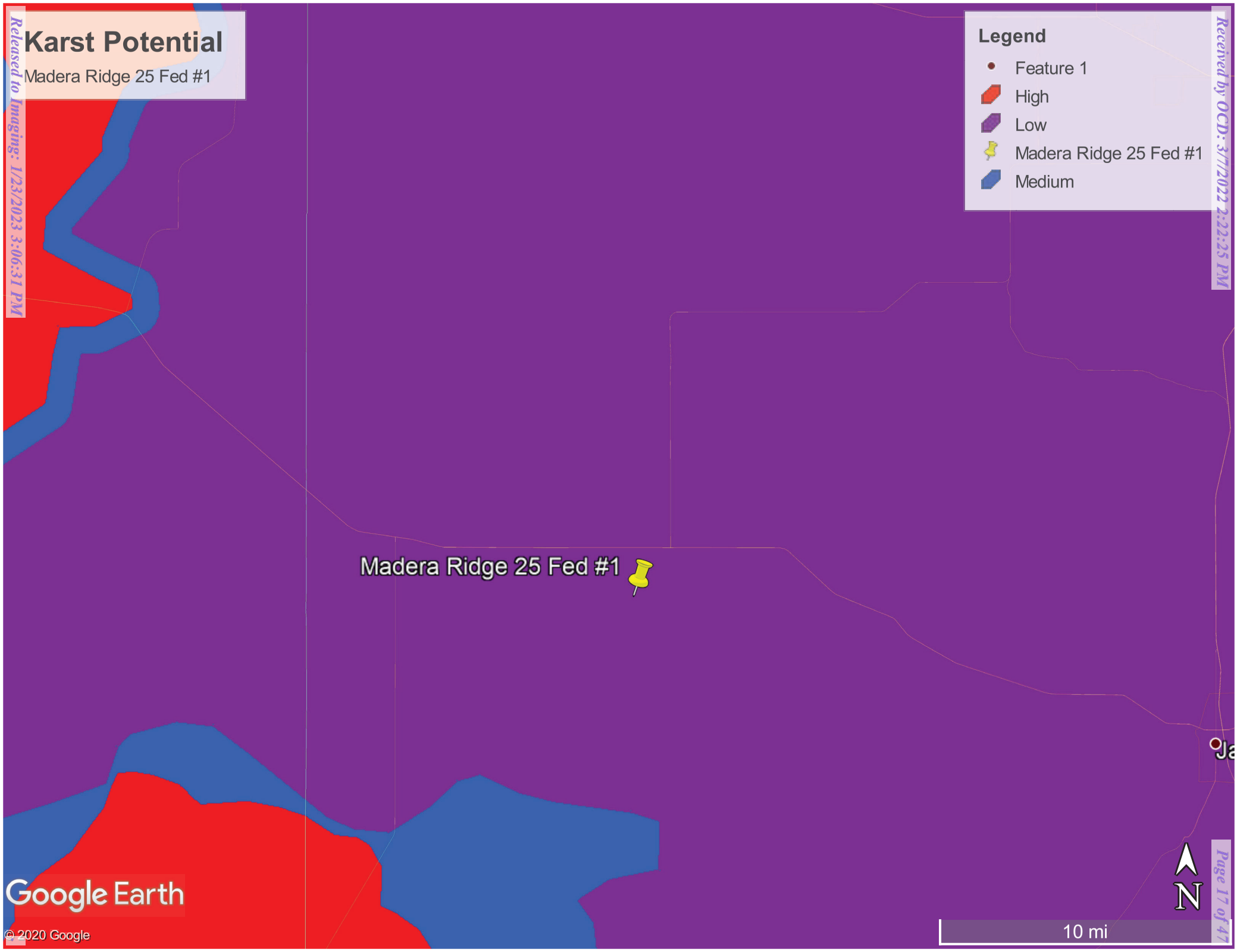
0 0.05 0.1 0.2 mi

0 0.1 0.2 0.4 km

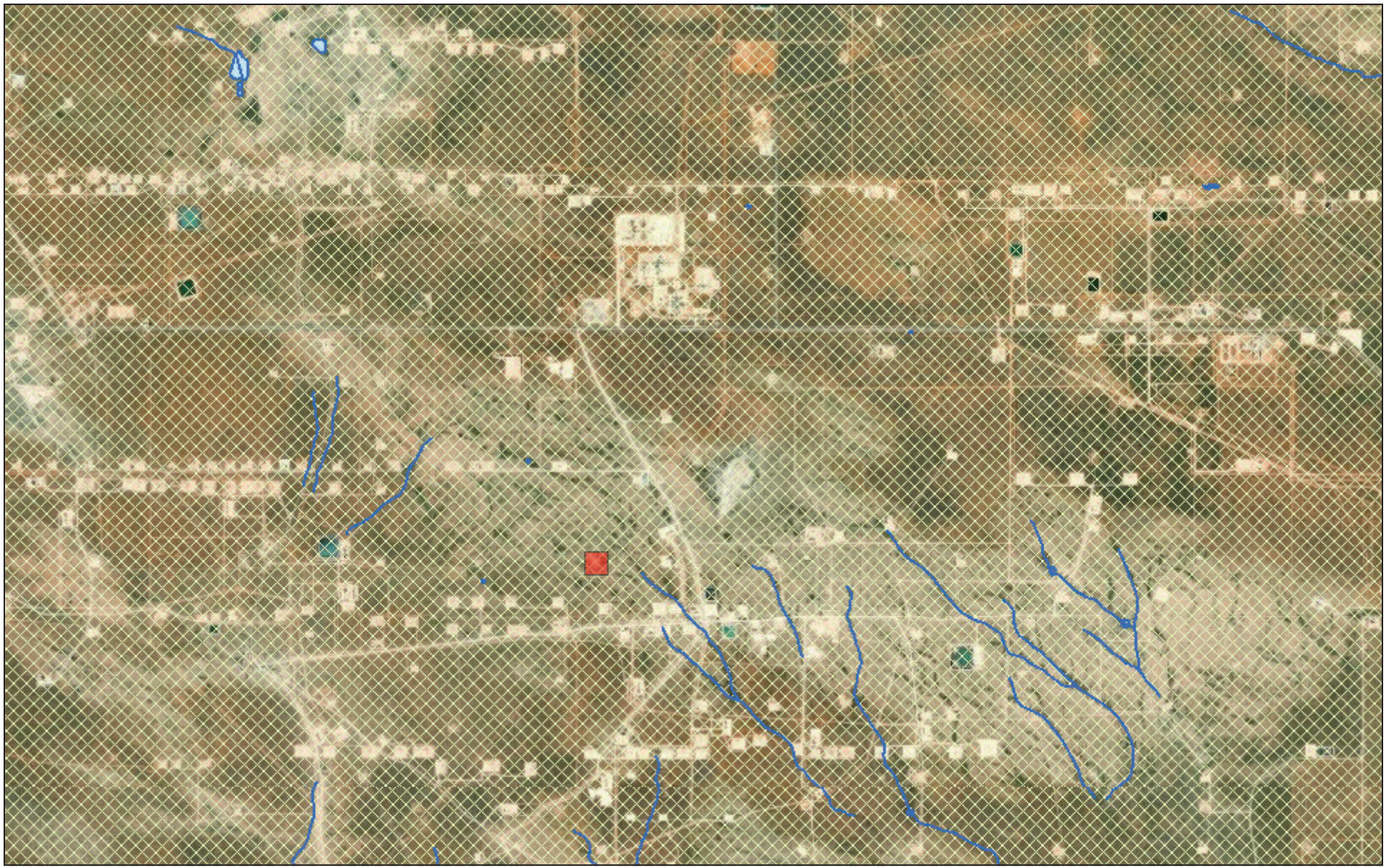
Bureau of Land Management, Texas Parks & Wildlife, Esri, HERE, Garmin,

New Mexico Oil Conservation Division

NM OCD Oil and Gas Map. http://nm-emnrd.maps.arcgis.com/apps/webappviewer/index.html?id=4d017f2306164de29fd2fb9f8f35ca75: New Mexico Oil Conservation Division


Karst Potential
Madera Ridge 25 Fed #1
Legend
Feature 1
High
Low
Madera Ridge 25 Fed #1
Medium
Released to Imaging: 1/23/2023 3:06:31 PM
Received by OCD: 3/7/2022 2:22:25 PM
Madera Ridge 25 Fed #1
Google Earth
© 2020 Google
N
10 mi
Page 17 of 47

New Mexico NFHL Data



January 28, 2021

1:72,224

0 0.5 1 2 mi

0 1 2 4 km

Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

nmflood.org is made possible through a collaboration with NMDHSEM, EDAC, and FEMA
This is a non-regulatory product for informational use only. Please consult your local floodplain administrator for further information.

USGS science for a changing world

National Water Information System: Mapper

Site Information

Click to hideNews Bulletins

- Introducing The Next Generation of USGS Water Data for the Nation
- Full News

Groundwater levels for New Mexico

Click to hide state-specific text

Search Results -- 1 sites found

Agency code = usgs
site_no list =
- 321127103310401

Minimum number of levels = 1
Save file of selected sites to local disk for future upload

USGS 321127103310401 24S.33E.24.44444

Lea County, New Mexico
Latitude 32°11'27", Longitude 103°31'04" NAD27
Land-surface elevation 3,538 feet above NAVD88
This well is completed in the Other aquifers (N9999OTHER) national aquifer.
This well is completed in the Ogallala Formation (121OGLL) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source of measurement	? Water-level approval status
1953-11-27		D	72019	17.40				U		U	A
1976-01-21		D	72019	13.57				U		U	A
1981-03-19		D	72019	16.03				U		U	A
1986-03-06		D	72019	14.80				U		U	A
1991-05-29		D	72019	17.56				U		U	A

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Parameter code	72019	Depth to water level, feet below land surface
Status		The reported water-level measurement represents a static level
Method of measurement	U	Unknown method.
Measuring agency		Not determined
Source of measurement	U	Source is unknown.
Water-level approval status	A	Approved for publication -- Processing and review completed.

U.S. Department of the Interior | U.S. Geological Survey
Title: Groundwater for New Mexico: Water Levels
URL: https://nwis.waterdata.usgs.gov/nm/nwis/gwlevels?

Page Contact Information: New Mexico Water Data Maintainer
Page Last Modified: 2021-02-08 11:13:20 EST
0.33 0.28 nadww02

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	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
C 03600 POD5		CUB	LE	3	2	4	26	24S	33E	637857	3562020	502			
C 03600 POD2		CUB	LE	4	4	1	25	24S	33E	638824	3562329	537			
C 03602 POD2		CUB	LE	4	4	1	25	24S	33E	638824	3562329	537			
C 03600 POD3		CUB	LE	3	4	2	26	24S	33E	637784	3562340	637			
C 03601 POD4		CUB	LE	3	3	3	24	24S	33E	638162	3561375	715			
C 03600 POD6		CUB	LE	3	1	4	26	24S	33E	637383	3562026	975			
C 03603 POD1		CUB	LE	3	2	2	35	24S	33E	637805	3561225	1003			
C 03601 POD7		CUB	LE	4	4	4	23	24S	33E	637946	3563170	1182			
C 03603 POD2		CUB	LE	3	1	2	35	24S	33E	637384	3561167	1323			
C 03601 POD5		CUB	LE	2	4	4	23	24S	33E	637988	3563334	1324			
C 03601 POD3		CUB	LE	1	3	3	24	24S	33E	638142	3563413	1368			
C 03601 POD6		CUB	LE	1	4	4	23	24S	33E	637834	3563338	1379			
C 03600 POD1		CUB	LE	2	2	1	26	24S	33E	637275	3563023	1447			
C 04339 POD5		CUB	LE	2	3	4	23	24S	33E	637580	3563328	1485	54		
C 04339 POD10		CUB	LE	4	1	4	23	24S	33E	637688	3563503	1589	49		
C 03601 POD2		CUB	LE	3	2	4	23	24S	33E	637846	3563588	1609			
C 03600 POD7		CUB	LE	3	1	3	26	24S	33E	636726	3561968	1634			
C 02309		CUB	LE	2	2	2	25	24S	33E	639708	3562997	1642	60	30	30
C 04339 POD3		CUB	LE	2	4	3	23	24S	33E	637273	3563323	1662	38		
C 04339 POD4		CUB	LE	2	4	3	23	24S	33E	637273	3563323	1662	47		
C 03603 POD4		CUB	LE	3	2	4	35	24S	33E	637789	3560461	1699			
C 03600 POD4		CUB	LE	3	3	1	26	24S	33E	636617	3562293	1756			
C 03603 POD3		CUB	LE	4	1	1	35	24S	33E	636890	3561092	1759			
C 03601 POD1		CUB	LE	4	4	2	23	24S	33E	638124	3563937	1888			
C 04339 POD9		CUB	LE	3	4	2	23	24S	33E	637731	3563913	1954	45		
C 04339 POD2		CUB	LE	2	3	3	23	24S	33E	636789	3563315	2007			
C 03603 POD5		CUB	LE	3	3	2	35	24S	33E	636745	3560767	2068			
C 04339 POD1		CUB	LE	1	3	3	23	24S	33E	636525	3563309	2216	47		
C 03603 POD6		CUB	LE	3	1	3	35	24S	33E	636749	3560447	2279			

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

Record 29

Count:

UTMNAD83 Radius Search (in meters):

Easting (X): 638358 **Northing (Y):** 3562062.7 **Radius:** 2400

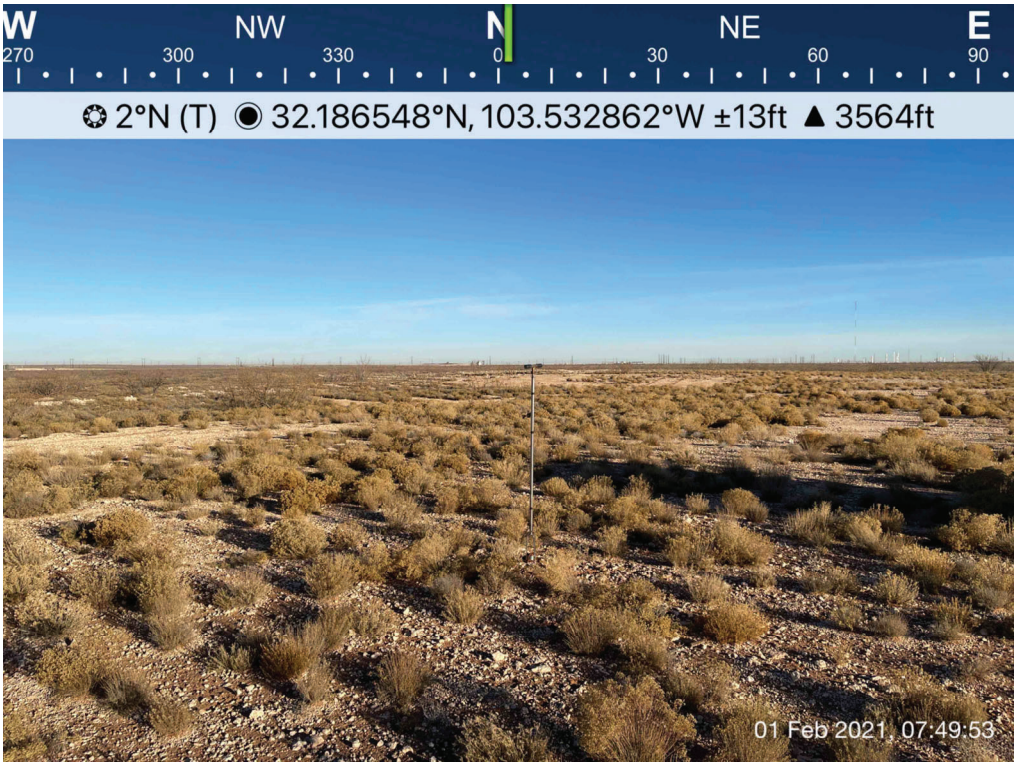
1/27/21 8:11 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER

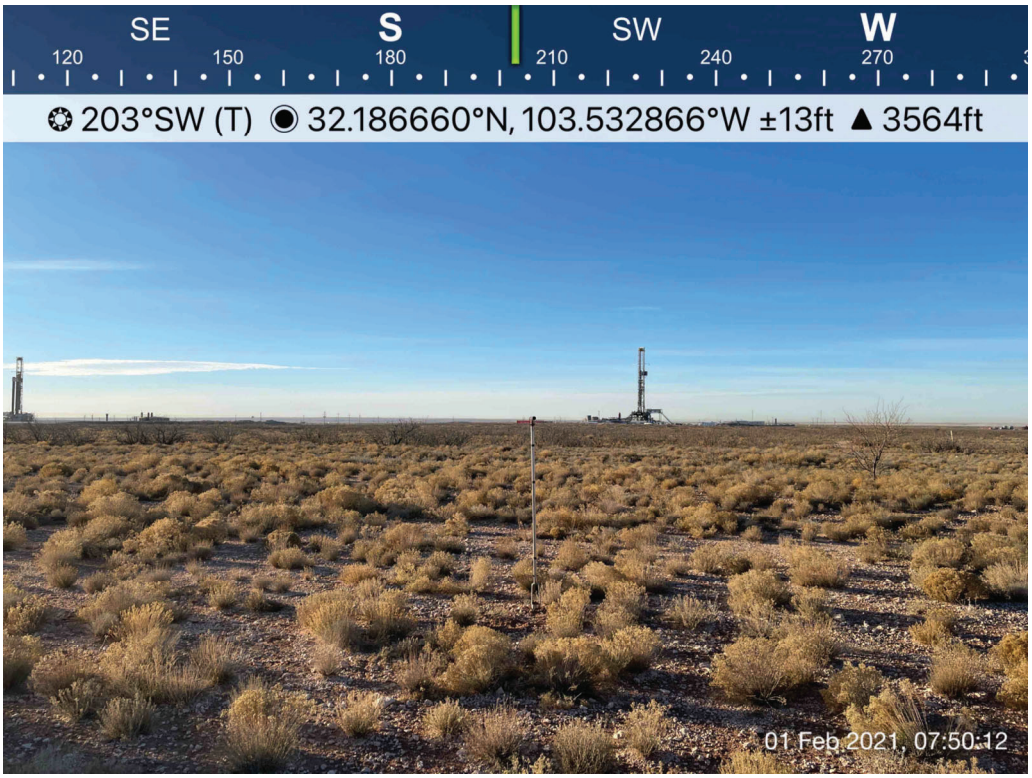
ATTACHMENT C
Photographic Documentation

EOG Resources
Madera Ridge 25 Federal #001
Lea County, New Mexico

TETRA TECH

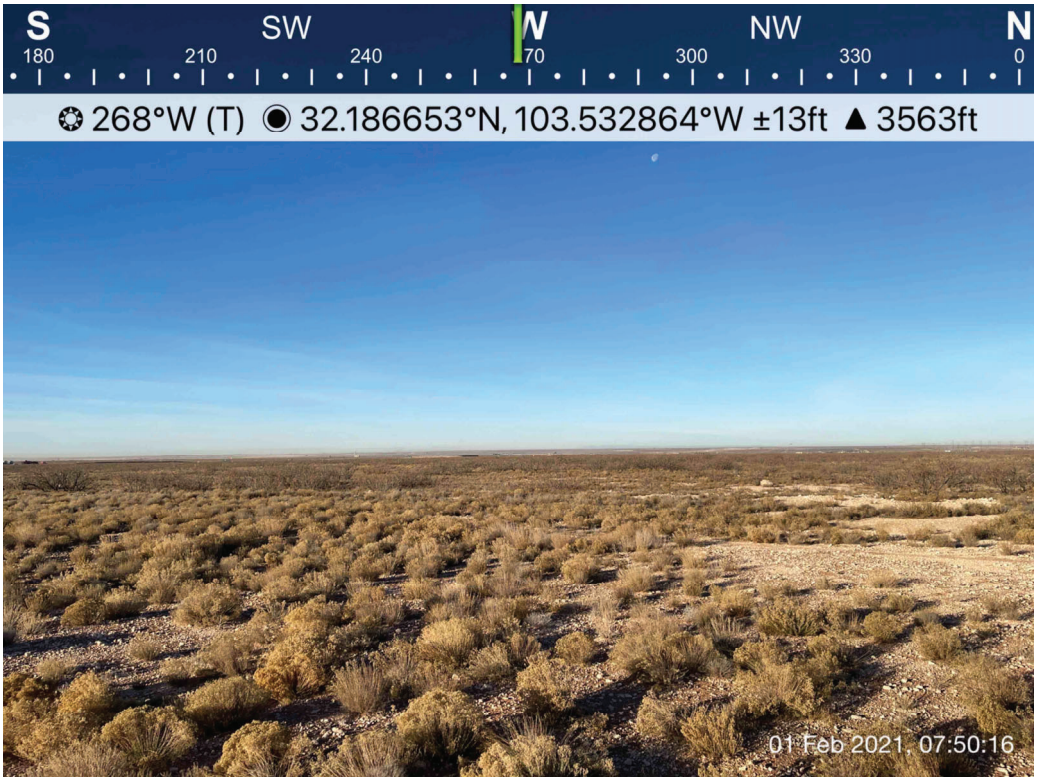


View of Reclaimed Site – View North

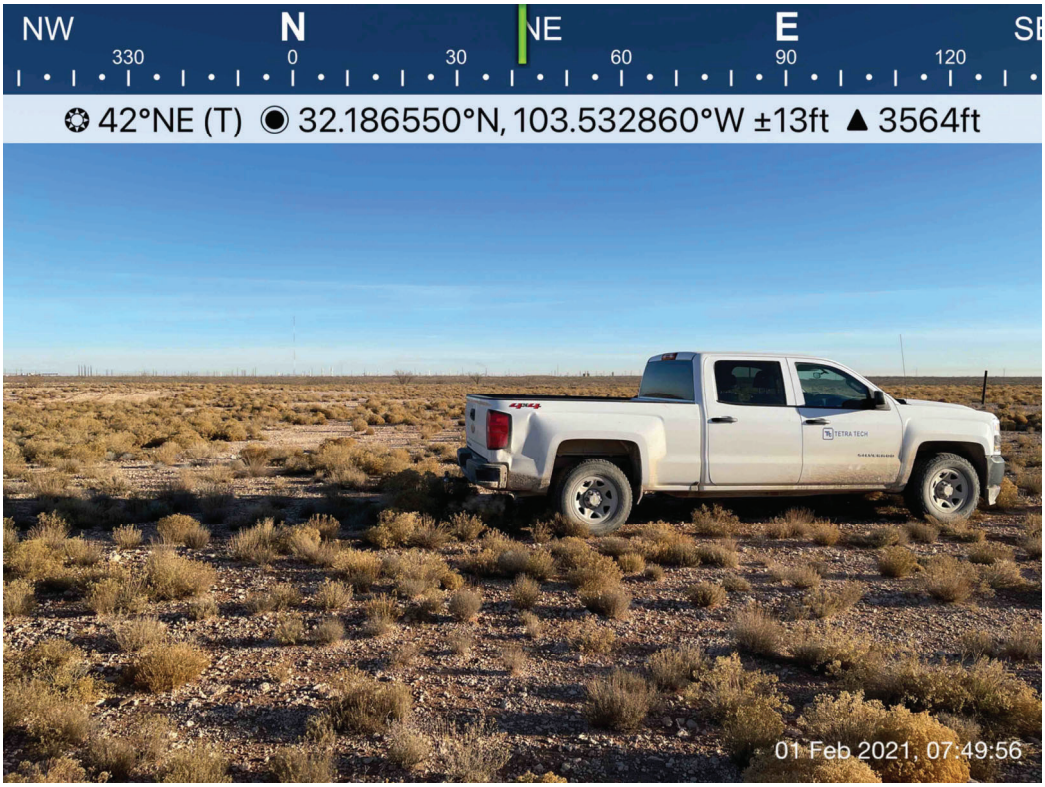


View of Reclaimed Site – View South

EOG Resources
Madera Ridge 25 Federal #001
Lea County, New Mexico



View of Reclaimed Site – View Southwest



View of Reclaimed Site – View Northeast

ATTACHMENT D
Laboratory Report

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Xenco, Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-114-1
Laboratory Sample Delivery Group: 212C-MD-2419
Client Project/Site: Madera Ridge

For:
Tetra Tech, Inc.
901 W Wall
Ste 100
Midland, Texas 79701

Attn: Clair Gonzales

JKramer

Authorized for release by:
2/5/2021 6:05:57 PM

Jessica Kramer, Project Manager
(432)704-5440
jessica.kramer@eurofinset.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: Tetra Tech, Inc.
Project/Site: Madera Ridge

Laboratory Job ID: 890-114-1
SDG: 212C-MD-2419

Table of Contents

Definitions/Glossary

Client: Tetra Tech, Inc.
Project/Site: Madera Ridge

Job ID: 890-114-1
SDG: 212C-MD-2419

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Tetra Tech, Inc.
Project/Site: Madera Ridge

Job ID: 890-114-1
SDG: 212C-MD-2419

Job ID: 890-114-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-114-1

Receipt
The samples were received on 2/1/2021 1:53 PM; the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 14.8°C

GC VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Tetra Tech, Inc.
Project/Site: Madera Ridge

Job ID: 890-114-1
SDG: 212C-MD-2419

Client Sample ID: AH-1 1.5 ft BGS — Lab Sample ID: 890-114-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	192		49.5		mg/Kg	5		300.0	Soluble

Client Sample ID: AH-2 1 ft BGS — Lab Sample ID: 890-114-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	70.0		10.0		mg/Kg	1		300.0	Soluble

Client Sample ID: AH-3 1 ft BGS — Lab Sample ID: 890-114-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	360		49.5		mg/Kg	5		300.0	Soluble

This Detection Summary does not include radiochemical test results.

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Madera Ridge

Job ID: 890-114-1
SDG: 212C-MD-2419

Client Sample ID: AH-1 1.5 ft BGS

Lab Sample ID: 890-114-1
Matrix: Solid
Date Collected: 02/01/21 08:30
Date Received: 02/01/21 13:53

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		02/02/21 09:20	02/04/21 05:36	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		02/02/21 09:20	02/04/21 05:36	1
Toluene	<0.00198	U	0.00198		mg/Kg		02/02/21 09:20	02/04/21 05:36	1
Total BTEX	<0.00198	U	0.00198		mg/Kg		02/02/21 09:20	02/04/21 05:36	1
Xylenes, Total	<0.00198	U	0.00198		mg/Kg		02/02/21 09:20	02/04/21 05:36	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		02/02/21 09:20	02/04/21 05:36	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		02/02/21 09:20	02/04/21 05:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene	*102*		*70 - 130*	*02/02/21 09:20*	*02/04/21 05:36*	*1*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*02/02/21 09:20*	*02/04/21 05:36*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**192**		49.5		mg/Kg			02/02/21 04:07	5

Method: SW8015-MOD - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	ND		50.0		mg/kg		02/04/21 10:00	02/04/21 18:41	1
Gasoline Range Hydrocarbons (GRO)	ND		50.0		mg/kg		02/04/21 10:00	02/04/21 18:41	1
Motor Oil Range Hydrocarbons (MRO)	ND		50.0		mg/kg		02/04/21 10:00	02/04/21 18:41	1
Total TPH	ND		50.0		mg/kg		02/04/21 10:00	02/04/21 18:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*92*		*70 - 135*	*02/04/21 10:00*	*02/04/21 18:41*	*1*
o-Terphenyl	*109*		*70 - 135*	*02/04/21 10:00*	*02/04/21 18:41*	*1*

Client Sample ID: AH-2 1 ft BGS

Lab Sample ID: 890-114-2
Matrix: Solid
Date Collected: 02/01/21 08:45
Date Received: 02/01/21 13:53

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		02/02/21 09:20	02/04/21 05:58	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		02/02/21 09:20	02/04/21 05:58	1
Toluene	<0.00202	U	0.00202		mg/Kg		02/02/21 09:20	02/04/21 05:58	1
Total BTEX	<0.00202	U	0.00202		mg/Kg		02/02/21 09:20	02/04/21 05:58	1
Xylenes, Total	<0.00202	U	0.00202		mg/Kg		02/02/21 09:20	02/04/21 05:58	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		02/02/21 09:20	02/04/21 05:58	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		02/02/21 09:20	02/04/21 05:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene	*99*		*70 - 130*	*02/02/21 09:20*	*02/04/21 05:58*	*1*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*02/02/21 09:20*	*02/04/21 05:58*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**70.0**		10.0		mg/Kg			02/02/21 04:13	1

Method: SW8015-MOD - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	ND		50.0		mg/kg		02/04/21 10:00	02/04/21 19:02	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Madera Ridge

Job ID: 890-114-1
SDG: 212C-MD-2419

Client Sample ID: AH-2 1 ft BGS

Lab Sample ID: 890-114-2
Matrix: Solid
Date Collected: 02/01/21 08:45
Date Received: 02/01/21 13:53

Method: SW8015-MOD - SW846 8015B TPH ORO (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons (GRO)	ND		50.0		mg/kg		02/04/21 10:00	02/04/21 19:02	1
Motor Oil Range Hydrocarbons (MRO)	ND		50.0		mg/kg		02/04/21 10:00	02/04/21 19:02	1
Total TPH	ND		50.0		mg/kg		02/04/21 10:00	02/04/21 19:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*87*		*70 - 135*	*02/04/21 10:00*	*02/04/21 19:02*	*1*
o-Terphenyl	*103*		*70 - 135*	*02/04/21 10:00*	*02/04/21 19:02*	*1*

Client Sample ID: AH-3 1 ft BGS

Lab Sample ID: 890-114-3
Matrix: Solid
Date Collected: 02/01/21 09:00
Date Received: 02/01/21 13:53

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		02/02/21 09:20	02/04/21 06:21	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		02/02/21 09:20	02/04/21 06:21	1
Toluene	<0.00202	U	0.00202		mg/Kg		02/02/21 09:20	02/04/21 06:21	1
Total BTEX	<0.00202	U	0.00202		mg/Kg		02/02/21 09:20	02/04/21 06:21	1
Xylenes, Total	<0.00202	U	0.00202		mg/Kg		02/02/21 09:20	02/04/21 06:21	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		02/02/21 09:20	02/04/21 06:21	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		02/02/21 09:20	02/04/21 06:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene	*100*		*70 - 130*	*02/02/21 09:20*	*02/04/21 06:21*	*1*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*02/02/21 09:20*	*02/04/21 06:21*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**360**		49.5		mg/Kg			02/02/21 04:19	5

Method: SW8015-MOD - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	ND		50.0		mg/kg		02/04/21 10:00	02/04/21 19:23	1
Gasoline Range Hydrocarbons (GRO)	ND		50.0		mg/kg		02/04/21 10:00	02/04/21 19:23	1
Motor Oil Range Hydrocarbons (MRO)	ND		50.0		mg/kg		02/04/21 10:00	02/04/21 19:23	1
Total TPH	ND		50.0		mg/kg		02/04/21 10:00	02/04/21 19:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*86*		*70 - 135*	*02/04/21 10:00*	*02/04/21 19:23*	*1*
o-Terphenyl	*98*		*70 - 135*	*02/04/21 10:00*	*02/04/21 19:23*	*1*

Surrogate Summary

Client: Tetra Tech, Inc.
Project/Site: Madera Ridge

Job ID: 890-114-1
SDG: 212C-MD-2419

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		DFBZ1	BFB1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-112-A-28-E MS	Matrix Spike	99	101
890-114-1	AH-1 1.5 ft BGS	102	111
890-114-2	AH-2 1 ft BGS	99	104
890-114-3	AH-3 1 ft BGS	100	104
LCS 890-104/2-A	Lab Control Sample	95	98
LCSD 890-104/3-A	Lab Control Sample Dup	97	98
MB 890-104/1-A	Method Blank	97	103

Surrogate Legend

DFBZ = 1,4-Difluorobenzene

BFB = 4-Bromofluorobenzene (Surr)

Method: SW8015-MOD - SW846 8015B TPH ORO

Matrix: Solid — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO	OTPH
Lab Sample ID	Client Sample ID	(70-135)	(70-135)
890-114-1	AH-1 1.5 ft BGS	92	109
890-114-2	AH-2 1 ft BGS	87	103
890-114-3	AH-3 1 ft BGS	86	98

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Madera Ridge

Job ID: 890-114-1
SDG: 212C-MD-2419

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 890-104/1-A
Matrix: Solid
Analysis Batch: 106

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 104

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/02/21 09:20	02/03/21 20:37	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/02/21 09:20	02/03/21 20:37	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/02/21 09:20	02/03/21 20:37	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		02/02/21 09:20	02/03/21 20:37	1
Xylenes, Total	<0.00200	U	0.00200		mg/Kg		02/02/21 09:20	02/03/21 20:37	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/02/21 09:20	02/03/21 20:37	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/02/21 09:20	02/03/21 20:37	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene	*97*		*70 - 130*	*02/02/21 09:20*	*02/03/21 20:37*	*1*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*02/02/21 09:20*	*02/03/21 20:37*	*1*

Lab Sample ID: LCS 890-104/2-A
Matrix: Solid
Analysis Batch: 106

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 104

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.09745		mg/Kg		97	70 - 130
Ethylbenzene	0.100	0.09457		mg/Kg		95	71 - 129
Toluene	0.100	0.09480		mg/Kg		95	70 - 130
m-Xylene & p-Xylene	0.200	0.1882		mg/Kg		94	70 - 135
o-Xylene	0.100	0.09318		mg/Kg		93	71 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Difluorobenzene	*95*		*70 - 130*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*

Lab Sample ID: LCSD 890-104/3-A
Matrix: Solid
Analysis Batch: 106

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 104

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.1014		mg/Kg		101	70 - 130	4	35
Ethylbenzene	0.100	0.09808		mg/Kg		98	71 - 129	4	35
Toluene	0.100	0.1022		mg/Kg		102	70 - 130	8	35
m-Xylene & p-Xylene	0.200	0.1964		mg/Kg		98	70 - 135	4	35
o-Xylene	0.100	0.09713		mg/Kg		97	71 - 133	4	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,4-Difluorobenzene	*97*		*70 - 130*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*

Lab Sample ID: 890-112-A-28-E MS
Matrix: Solid
Analysis Batch: 106

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 104

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0720	F1	0.0996	0.07374	F1	mg/Kg		2	70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Madera Ridge

Job ID: 890-114-1
SDG: 212C-MD-2419

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 890-112-A-28-E MS
Matrix: Solid
Analysis Batch: 106

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 104

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	0.0240	F1	0.0996	0.01490	F1	mg/Kg		-9	71 - 129
Toluene	0.0504	F1	0.0996	0.05456	F1	mg/Kg		4	70 - 130
m-Xylene & p-Xylene	0.171	F1	0.199	0.1572	F1	mg/Kg		-7	70 - 135
o-Xylene	0.0883	F1	0.0996	0.08632	F1	mg/Kg		-2	71 - 133

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,4-Difluorobenzene	*99*		*70 - 130*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 890-102/1-A
Matrix: Solid
Analysis Batch: 110

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<10.0	U	10.0		mg/Kg			02/02/21 01:23	1

Lab Sample ID: LCS 890-102/2-A
Matrix: Solid
Analysis Batch: 110

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	200	194.5		mg/Kg		97	90 - 110

Lab Sample ID: LCSD 890-102/3-A
Matrix: Solid
Analysis Batch: 110

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	200	190.0		mg/Kg		95	90 - 110	2	20

Lab Sample ID: 890-112-A-38-E MS
Matrix: Solid
Analysis Batch: 110

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	<9.92	U	201	200.8		mg/Kg		96	90 - 110

Lab Sample ID: 890-112-A-38-F MSD
Matrix: Solid
Analysis Batch: 110

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	<9.92	U	200	195.9		mg/Kg		94	90 - 110	2	20

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Madera Ridge

Job ID: 890-114-1
SDG: 212C-MD-2419

Method: SW8015-MOD - SW846 8015B TPH ORO

Lab Sample ID: 7720904-1-BLK
Matrix: SOIL
Analysis Batch: 3150187

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3150187_P

Analyte	BLANK Result	BLANK Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	U		50		mg/kg		02/04/21 10:00	02/04/21 10:55	1
Gasoline Range Hydrocarbons (GRO)	U		50		mg/kg		02/04/21 10:00	02/04/21 10:55	1
Motor Oil Range Hydrocarbons (MRO)	U		50		mg/kg		02/04/21 10:00	02/04/21 10:55	1

Lab Sample ID: 7720904-1-BKS
Matrix: SOIL
Analysis Batch: 3150187

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3150187_P

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Diesel Range Organics (DRO)			1000	991		mg/kg		99	70 - 135		
Gasoline Range Hydrocarbons (GRO)			1000	906		mg/kg		91	70 - 135		

Lab Sample ID: 7720904-1-BSD
Matrix: SOIL
Analysis Batch: 3150187

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3150187_P

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics (DRO)			1000	1040		mg/kg		104	70 - 135	5	20
Gasoline Range Hydrocarbons (GRO)			1000	943		mg/kg		94	70 - 135	4	20

QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: Madera Ridge

Job ID: 890-114-1
SDG: 212C-MD-2419

GC VOA

Prep Batch: 104

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-114-1	AH-1 1.5 ft BGS	Total/NA	Solid	5030C	
890-114-2	AH-2 1 ft BGS	Total/NA	Solid	5030C	
890-114-3	AH-3 1 ft BGS	Total/NA	Solid	5030C	
MB 890-104/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 890-104/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCSD 890-104/3-A	Lab Control Sample Dup	Total/NA	Solid	5030C	
890-112-A-28-E MS	Matrix Spike	Total/NA	Solid	5030C	

Analysis Batch: 106

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-114-1	AH-1 1.5 ft BGS	Total/NA	Solid	8021B	104
890-114-2	AH-2 1 ft BGS	Total/NA	Solid	8021B	104
890-114-3	AH-3 1 ft BGS	Total/NA	Solid	8021B	104
MB 890-104/1-A	Method Blank	Total/NA	Solid	8021B	104
LCS 890-104/2-A	Lab Control Sample	Total/NA	Solid	8021B	104
LCSD 890-104/3-A	Lab Control Sample Dup	Total/NA	Solid	8021B	104
890-112-A-28-E MS	Matrix Spike	Total/NA	Solid	8021B	104

HPLC/IC

Leach Batch: 102

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-114-1	AH-1 1.5 ft BGS	Soluble	Solid	DI Leach	
890-114-2	AH-2 1 ft BGS	Soluble	Solid	DI Leach	
890-114-3	AH-3 1 ft BGS	Soluble	Solid	DI Leach	
MB 890-102/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 890-102/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 890-102/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-112-A-38-E MS	Matrix Spike	Soluble	Solid	DI Leach	
890-112-A-38-F MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 110

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-114-1	AH-1 1.5 ft BGS	Soluble	Solid	300.0	102
890-114-2	AH-2 1 ft BGS	Soluble	Solid	300.0	102
890-114-3	AH-3 1 ft BGS	Soluble	Solid	300.0	102
MB 890-102/1-A	Method Blank	Soluble	Solid	300.0	102
LCS 890-102/2-A	Lab Control Sample	Soluble	Solid	300.0	102
LCSD 890-102/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	102
890-112-A-38-E MS	Matrix Spike	Soluble	Solid	300.0	102
890-112-A-38-F MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	102

Subcontract

Analysis Batch: 3150187

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-114-1	AH-1 1.5 ft BGS	Total/NA	Solid	SW8015-MOD	3150187_P
890-114-2	AH-2 1 ft BGS	Total/NA	Solid	SW8015-MOD	3150187_P
890-114-3	AH-3 1 ft BGS	Total/NA	Solid	SW8015-MOD	3150187_P
7720904-1-BLK	Method Blank	Total/NA	SOIL	SW8015-MOD	3150187_P
7720904-1-BKS	Lab Control Sample	Total/NA	SOIL	SW8015-MOD	3150187_P
7720904-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	SW8015-MOD	3150187_P

Eurofins Xenco, Carlsbad

QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: Madera Ridge

Job ID: 890-114-1
SDG: 212C-MD-2419

Subcontract

Prep Batch: 3150187_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-114-1	AH-1 1.5 ft BGS	Total/NA	Solid	SW8015P	
890-114-2	AH-2 1 ft BGS	Total/NA	Solid	SW8015P	
890-114-3	AH-3 1 ft BGS	Total/NA	Solid	SW8015P	
7720904-1-BLK	Method Blank	Total/NA	SOIL	***DEFAULT PREP***	
7720904-1-BKS	Lab Control Sample	Total/NA	SOIL	***DEFAULT PREP***	
7720904-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	***DEFAULT PREP***	

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Madera Ridge

Job ID: 890-114-1
SDG: 212C-MD-2419

Client Sample ID: AH-1 1.5 ft BGS
Lab Sample ID: 890-114-1
Date Collected: 02/01/21 08:30
Matrix: Solid
Date Received: 02/01/21 13:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			104	02/02/21 09:20	MC	XC
Total/NA	Analysis	8021B		1	106	02/04/21 05:36	MC	XC
Soluble	Leach	DI Leach			102	02/01/21 17:00	MC	XC
Soluble	Analysis	300.0		5	110	02/02/21 04:07	JM	XC
Total/NA	Prep	SW8015P		1	3150187_P	02/04/21 10:00		XM
Total/NA	Analysis	SW8015-MOD		1	3150187	02/04/21 18:41	ARM	XM

Client Sample ID: AH-2 1 ft BGS
Lab Sample ID: 890-114-2
Date Collected: 02/01/21 08:45
Matrix: Solid
Date Received: 02/01/21 13:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			104	02/02/21 09:20	MC	XC
Total/NA	Analysis	8021B		1	106	02/04/21 05:58	MC	XC
Soluble	Leach	DI Leach			102	02/01/21 17:00	MC	XC
Soluble	Analysis	300.0		1	110	02/02/21 04:13	JM	XC
Total/NA	Prep	SW8015P		1	3150187_P	02/04/21 10:00		XM
Total/NA	Analysis	SW8015-MOD		1	3150187	02/04/21 19:02	ARM	XM

Client Sample ID: AH-3 1 ft BGS
Lab Sample ID: 890-114-3
Date Collected: 02/01/21 09:00
Matrix: Solid
Date Received: 02/01/21 13:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			104	02/02/21 09:20	MC	XC
Total/NA	Analysis	8021B		1	106	02/04/21 06:21	MC	XC
Soluble	Leach	DI Leach			102	02/01/21 17:00	MC	XC
Soluble	Analysis	300.0		5	110	02/02/21 04:19	JM	XC
Total/NA	Prep	SW8015P		1	3150187_P	02/04/21 10:00		XM
Total/NA	Analysis	SW8015-MOD		1	3150187	02/04/21 19:23	ARM	XM

Laboratory References:
XC = Eurofins Xenco, Carlsbad, 1089 N Canal St., Carlsbad, NM 88220, TEL (575)988-3199
XM = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: Tetra Tech, Inc.
Project/Site: Madera Ridge

Job ID: 890-114-1
SDG: 212C-MD-2419

Laboratory: Eurofins Xenco, Carlsbad

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Louisiana	NELAP	05092	06-30-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8021B	5030C	Solid	Total BTEX

Laboratory: Eurofins Xenco, Midland

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-20-21	06-30-21

Method Summary

Client: Tetra Tech, Inc.
Project/Site: Madera Ridge

Job ID: 890-114-1
SDG: 212C-MD-2419

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XC
300.0	Anions, Ion Chromatography	MCAWW	XC
8015B	SW846 8015B TPH ORO	SW846	XM
5030C	Purge and Trap	SW846	XC
DI Leach	Deionized Water Leaching Procedure	ASTM	XC

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

XC = Eurofins Xenco, Carlsbad, 1089 N Canal St., Carlsbad, NM 88220, TEL (575)988-3199

XM = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: Tetra Tech, Inc.
Project/Site: Madera Ridge

Job ID: 890-114-1
SDG: 212C-MD-2419

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
890-114-1	AH-1 1.5 ft BGS	Solid	02/01/21 08:30	02/01/21 13:53	
890-114-2	AH-2 1 ft BGS	Solid	02/01/21 08:45	02/01/21 13:53	
890-114-3	AH-3 1 ft BGS	Solid	02/01/21 09:00	02/01/21 13:53	

Analysis Request of Chain of Custody Record

Page 1 of 1

Tetra Tech, Inc.

4000 N. Big Spring Street, Ste
401 Midland, Texas 79705
Tel (432) 682-4559
Fax (432) 682-3946

Client Name: EOG	Site Manager:
Project Name: Madera Ridge	
Project Location: (county, state) Lea, NM	Project #: 212C-MD-2419
Invoice to: EOG; Attn James Kennedy	
Receiving Laboratory: Eurofins	Sampler Signature:
Comments:	

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING DATE	SAMPLING TIME	MATRIX: WATER	MATRIX: SOIL	PRESERVATIVE METHOD: HCL	PRESERVATIVE METHOD: HNO_3	PRESERVATIVE METHOD: ICE	# CONTAINERS	FILTERED (Y/N)
	AH-1 1.5ft Bgs	2/1	0830		✓				1	N
	AH-2 1ft Bgs	2/1	0845		✓				1	N
	AH-3 1ft Bgs	2/1	0900		✓				1	N

ANALYSIS REQUEST
(Circle or Specify Method No.)

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

890-114 Chain of Custody

Relinquished by:	Date: 2/1/21	Time: 1353	Received by:
Relinquished by:	Date:	Time:	Received by:
Relinquished by:	Date:	Time:	Received by:

LAB USE ONLY

Sample Temperature: 15.0/14.8

REMARKS:

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

(Circle) HAND DELIVERED FEDEX UPS Tracking #:

ORIGINAL COPY

Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 890-114-1
SDG Number: 212C-MD-2419

Login Number: 114
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	

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 87728

CONDITIONS

Operator: EOG RESOURCES INC P.O. Box 2267 Midland, TX 79702	OGRID: 7377
	Action Number: 87728
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
bhall	None	1/23/2023