

Incident ID	nOY1829558271
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?	<u>Unknown</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

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

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

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

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

Incident ID	nOY1829558271
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: James Kennedy Title: Environmental Supervisor

Signature: \_\_\_\_\_ Date: August 1, 2023

email: James.Kennedy@eogresouces.com Telephone: 432-848-9146

**OCD Only**

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

Incident ID	nOY1829558271
District RP	
Facility ID	
Application ID	

## Closure

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

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

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

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

Printed Name: James Kennedy Title: Environmental Supervisor

Signature: \_\_\_\_\_ Date: August 1, 2023

email: James.Kennedy@eogresources.com Telephone: 432-848-9146

**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: \_\_\_\_\_



701 Tradewinds Boulevard, Suite C  
Midland, Texas 79706  
Tel. 432-685-3898  
www.ntglobal.com

July 7, 2023

Mr. Mike Bratcher  
New Mexico Oil Conservation District  
Oil Conservation Division, District 2  
811 S. First Street  
Artesia, NM 88210

**Re: Remedial Action Report  
Vaca Line Strike  
1RP-5243  
EOG Resources, Inc.  
Site Location: Unit A, Sec. 36, T 24-S, R 33-E  
(Lat 32.180794°, Long -103.518761°)  
Lea County, New Mexico**

Dear Ms. Hernandez:

At the request of EOG Resources, Inc. (EOG), New Tech Global Environmental, LLC (NTGE) has prepared this letter to document remedial action activities following a release at the Vaca Line Strike (Site). The Site is an active produced water line at the intersection of Vaca Lane and Resource Lane within Unit C, Section 36, Township 24 South, Range 33 East, approximately 19.6 miles northwest of Jal, New Mexico (Figures 1 and 2).

### **Background**

According to EOG personnel, on October 10, 2018, a release of approximately 233 barrels (bbls) of produced water occurred when a third-party contractor was backfilling an area where a new pipeline header was installed. While backfilling, the bucket of a backhoe caught an existing 4-inch produced water line and caused the release of fluids. Personnel onsite initiated response actions by constructing earthen berms to contain the release. The pipeline flow was stopped and a vacuum truck was used to recover fluids. The amount of fluids recovered was estimated to be 55 bbls. The spill trajectory is illustrated on Figure 3, attached.

On November 6, 2018, NTGE conducted Site assessment activities to determine the vertical and horizontal extents of impacts resulting from the release. A total of nine test pits were installed within the identified spill trajectory area to depths of 0 to 5 feet below ground surface (ft bgs) or until bucket refusal occurred. Samples were selected for testing by using the highest field screen result and the lowest depth obtained during sampling. Test pit locations are illustrated on Figure 3, attached. Site Photographs taken at the time of sample collection are included in the attached photographic log. A Site Assessment Report (SAR) and Remedial Action Plan (RAP) was submitted to the New Mexico Oil Conservation District (NMOCD) on December 12, 2018. The remediation plan was approved by the New Mexico State Land Office (NMSLO) in an email dated January 9, 2019, and the NMOCD on May 1, 2019.

---

**Creating a Better Environment  
For Oil & Gas Operations**

Mr. Mike Bratcher  
July 7, 2023  
Page 2

### **Regulatory Limits**

The NMOCD regulatory limits for constituents of concern (COC) commonly associated with E&P substance releases are established in Table 1 of NMAC Rule 19.15.29. The rule dictates the depth to groundwater be determined within 0.5 miles of the affected location. Depth to groundwater will then be used in conjunction with Table 1 to determine regulatory limits for COC.

Groundwater depths were determined using the New Mexico Office of State Engineers – Water Rights Reporting System. No wells were identified within 0.5 miles of the Site. However, EOG agrees to remediate impacts to the lowest levels required by NMAC 19.15.29.

USGS topographic maps were used to identify water sources and significant watercourses within 0.5 miles of the lateral extents of the release. It was determined that one seasonal water source was located approximately 375 feet southwest of the release area (Figure 2). See Attachment A for groundwater data and karst information.

### **Remedial Action and Soil Sample Analysis**

On May 28, 2019, excavation began in the areas of TP1, TP3, and TP4. These will be referred to as AOC1, AOC2, and AOC3 respectfully.

Soils in the areas of AOC1 and AOC 3 were excavated to a depth of 4 ft bgs and soils in AOC2 were excavated to a depth of 5 ft bgs. The bottoms and sidewalls were field screened using Hach Quantab Chloride Strips to ensure all impacts had been removed. Soil confirmation samples were collected from the sidewalls and bottoms of the excavation for lab analysis. After reviewing the laboratory results, it is determined that chloride levels at soil sample locations, AOC3 SW1 (603 mg/kg) and AOC3 SW3 (649 mg/kg) were above regulatory limits. Due to the proximity of the excavation to an active saltwater disposal line to the north and a road to the south, further excavation was not feasible without undermining the integrity of the onsite equipment and adjacent road. Excavation and confirmation sample locations are illustrated on Figure 3, attached. Site Photographs taken at the time of excavation and sample collection are included in the attached photographic log.

Soil samples were placed directly into laboratory provided sample containers, stored on ice, and transported under proper chain-of-custody protocol to Xenco Laboratories for chemical analysis of chlorides by EPA Method 300.0. Laboratory reports and chain of custody documents are attached. Soil analytical results are presented in Table 1, attached.

### **NMOCD Additional Requested Sampling**

On June 26, 2019, the Remedial Action/Closure Report was submitted to the NMOCD for closure consideration. In an email dated August 13, 2019, the NMOCD rejected the closure request and requested the following:

- 1) Page 2 of text referenced correspondence section which was not included in the report;
- 2) The correspondence section of report did not address the NMSLO request for revegetation plan
- 3) Closure C-141 in report was upside down.

In addition, the NMOCD requested additional soil sampling between the three (3) areas of concern in order to address gaps in the original sampling scheme. As requested, if the soil sampling comes back

Mr. Mike Bratcher  
July 7, 2023  
Page 3

below the standards of 600 mg/Kg chlorides, the NMOCD will consider the site for closure. See Appendix B for correspondence section for NMOCD/SLO responses.

On June 22 and 26, 2023, NTGE was onsite to collect soil samples within the areas previously requested by the NMOCD. Three (3) composite soil samples (CS-2, CS-3, and CS-4) along with twelve (12) wall samples (SW-N2, E2, W2, S2, SW-N3, E3, W3, S3, SW-N4, E4, W4, and S4) were collected along the respective walls and submitted to Eurofins Laboratory of Midland, Texas for analysis of chlorides by EPA Method 300.0. Soil samples were collected to a maximum depth of three and half (3.5) feet below ground surface. In addition, soil samples (CS-1A, SW-1A, and SW-3A) were collected in the vicinity of AOC3 which initially had two (2) soil samples above the threshold of 600 mg/Kg chlorides to verify if these soils are still impacted with chlorides. Analytical results from the confirmation sampling activities indicated all samples collected and submitted for analysis were below the NMOCD standards of 600 mg/Kg chlorides. The two initial wall samples AOC 3 SW1 and AOC3 SW3 resamples SW-1A and SW-3A were also below the chloride threshold. See attached Table 1 for analytical results, Figure 3 for sample locations, Appendix C for Photographic Logs, and Appendix D for Laboratory Analytical Reports.

### **State Land Office Revegetation Plan**

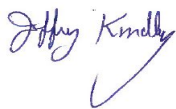
As per email correspondence on January 9, 2019, with Mr. Ryan Mann of the New Mexico State Land Office (NMSLO), EOG proposes to revegetate the site with an approved NMSLO seed mix. The seed will be planted in the amount specified based on the soils type in pounds pure live seed (PLS) per acre. The seed will be broadcast and tilled into the ground with a tractor and a water truck provided to spray the planted seedlings. EOG will take precautions to prevent any noxious weeds from entering the site and will terrace the soils to prevent runoff of the soils and the seeds.

### **Conclusions**

After reviewing the laboratory results, it is determined that chloride levels at the site are below the regulatory limits. With the additional sampling, as requested by the NMOCD, EOG believes the site has been remediated to below regulatory limits and respectfully requests a closure of 1RP-5243. The release, site assessment and closure C-141 are attached to the front of this report.

If you have any questions regarding this report or need further information, please contact us at 432-685-3898.

Sincerely,  
**NTG Environmental**



Jeffrey Kindley, P.G.  
Senior Project Manager/Geologist

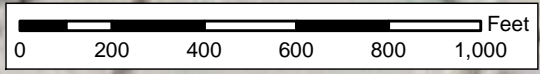
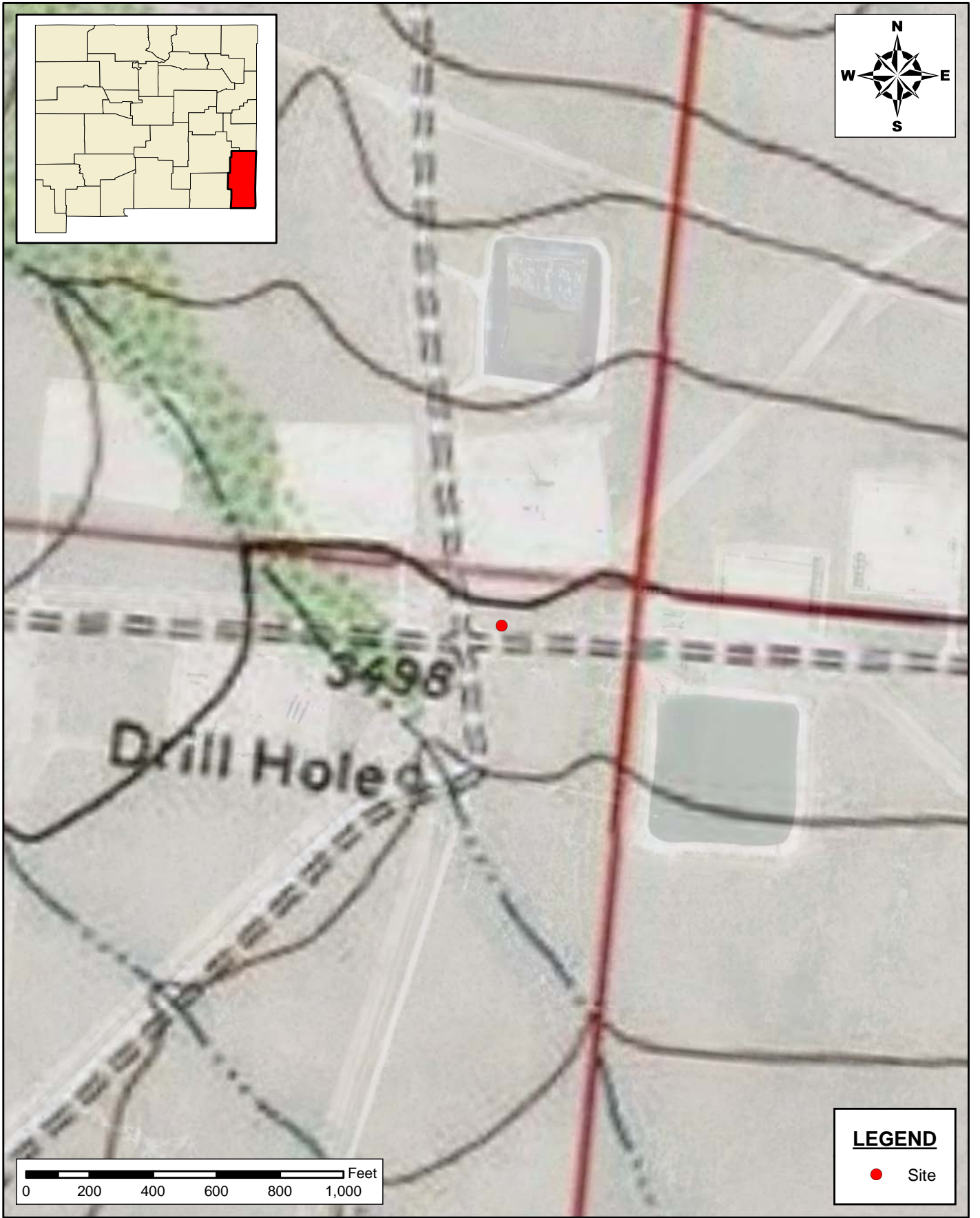
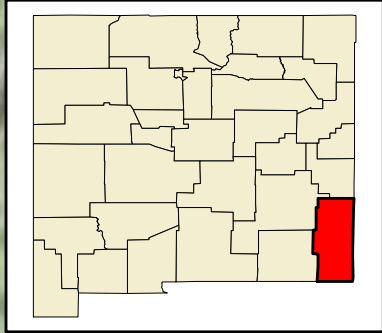
Mr. Mike Bratcher  
July 7, 2023  
Page 4

Attachments: Figures  
Table  
Appendix A: Site Characterization  
Appendix B: Correspondence Section  
Appendix C: Photographic Log  
Appendix D: Laboratory Reports and Chain of Custody Documents

## **FIGURES**

---

Document Path: P:\2018 PROJECTS\EOG RESOURCES INC (EOG0)\RSC\EG00-R1805645 VACA LANE LINE STRIKE\Figures\Geodatabase\EG00-R1805645\_FIG 1\_TopoMap\_12112018.mxd



**LEGEND**

- Site

**AERIAL MAP  
SITE ASSESSMENT REPORT  
EOG RESOURCES  
VACA LINE STRIKE  
LEA COUNTY, NEW MEXICO**

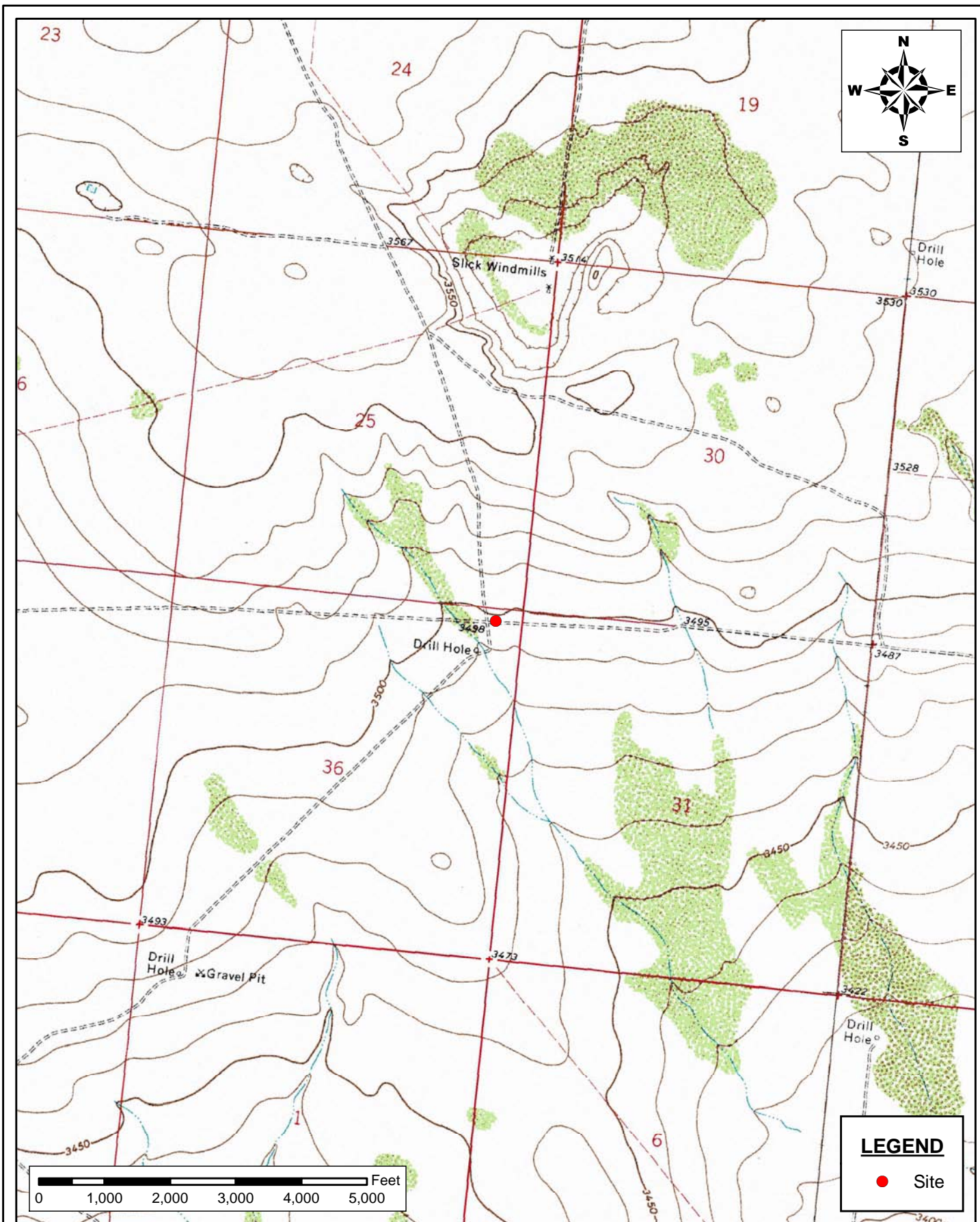
SCALE: AS SHOWN    DATE: 12/11/2018    PROJECT #: EGO0-R1805645

 **NTG**  
**Environmental**  
 New Tech Global Environmental, LLC  
 911 Regional Park Drive  
 Houston, Texas 77060  
 T - 281.872.9300  
 F - 281.872.4521  
 Web: www.ntglobal.com

**NOTES:**  
 1. Base Image: ESRI Maps & Data 2017  
 2. Map Projection: NAD 1983 UTM Zone 15N

DRAWING NUMBER:  
**FIGURE 2**  
 SHEET NUMBER:  
**1 of 1**

Document Path: P:\2019 PROJECTS\EOG RESOURCES\EG00-R\1805645 VACA LANE LINE STRIKE\7 - Figures\Geodatabase\EG00-R\1805645\_FIG 2\_AMap\_06262019.mxd



**AREA MAP**  
**SITE ASSESSMENT REPORT**  
 EOG RESOURCES  
 VACA LINE STRIKE  
 LEA COUNTY, NEW MEXICO



**New Tech Global Environmental, LLC**  
 911 Regional Park Drive  
 Houston, Texas 77060  
 T - 281.872.9300  
 F - 281.872.4521  
 Web: www.ntglobal.com

- NOTES:**
1. Base Image: USDA, NRCS-NGCG 2002
  2. Map Projection: NAD 1983 UTM Zone 15N

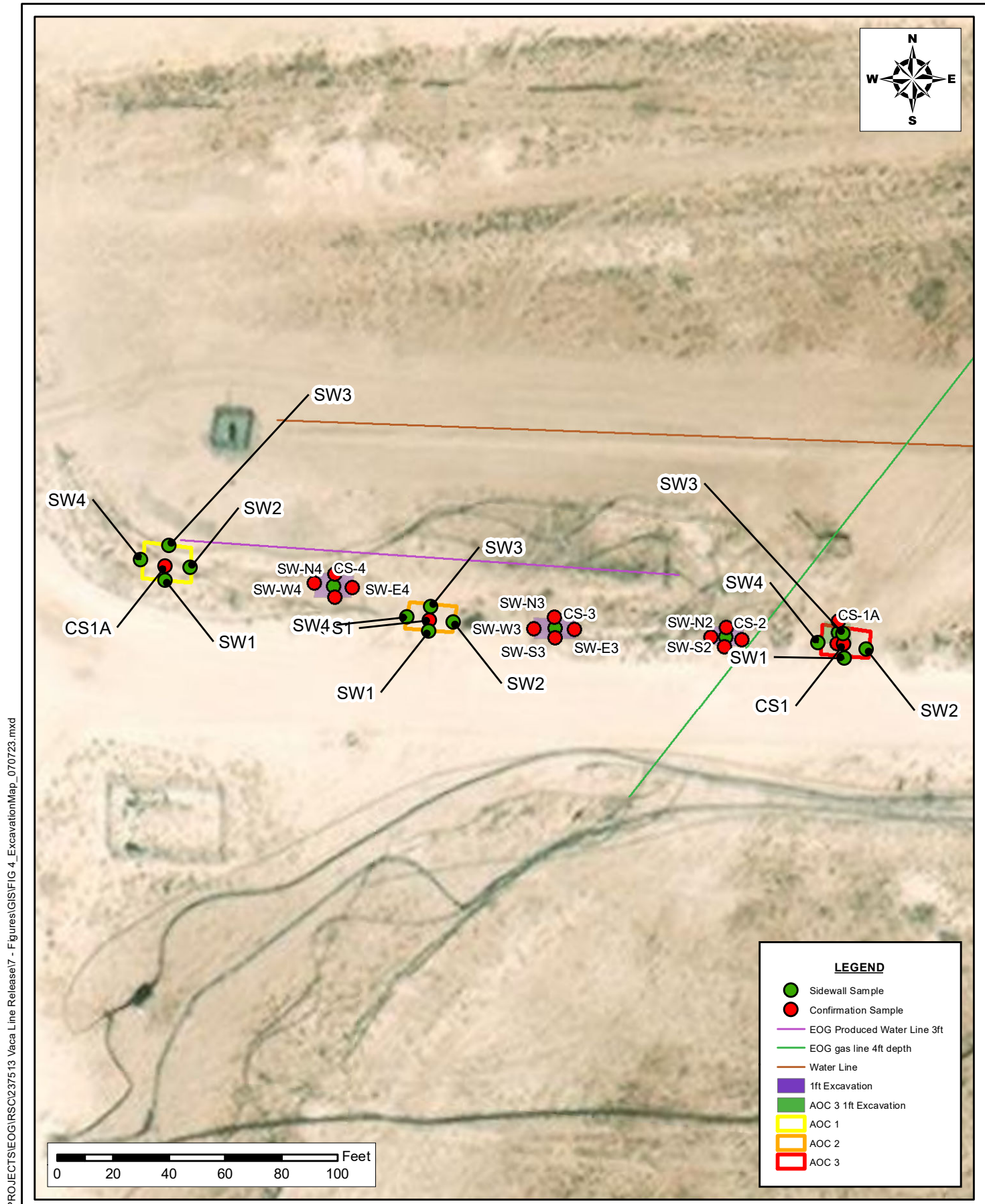
DRAWING NUMBER:

**FIGURE 2**

SHEET NUMBER:

**1 of 1**

SCALE: AS SHOWN    DATE: 06/26/2019    PROJECT #: EGO0-R1805645



Document Path: P:\2023 PROJECTS\EOG\IRSC\237513 Vaca Line Release\7 - Figures\GIS\FIG 4\_ExcavationMap\_070723.mxd

**SAMPLE MAP**  
**SITE ASSESSMENT REPORT**  
 EOG RESOURCES  
 VACA LINE STRIKE  
 LEA COUNTY, NEW MEXICO

SCALE: AS SHOWN    DATE: 07/07/2023    PROJECT #: 191653

 **NTG ENVIRONMENTAL**  
 New Tech Global Environmental, LLC  
 911 Regional Park Drive  
 Houston, Texas 77060  
 T - 281.872.9300  
 F - 281.872.4521  
 Web: www.ntglobal.com

**NOTES:**  
 1. Base Image: ESRI Maps & Data 2017  
 2. Map Projection: NAD 1983 UTM Zone 15N

DRAWING NUMBER:  
**FIGURE 3**  
 SHEET NUMBER:  
**1 of 1**

**TABLE**

---

**Table 1**  
**Confirmation - Soil Sample Analysis**  
**EOG Resources**  
**Vaca Line Release**  
**Lea County, New Mexico**

Sample ID	Date	Sample Depth (ft)	Chloride (mg/kg)
AOC 1 CS1	05/28/19	4	205
AOC 1 SW1	05/28/19	2	227
AOC 1 SW2	05/28/19	2	216
AOC 1 SW3	05/28/19	2	590
AOC 1 SW4	05/28/19	2	261
AOC 2 CS1	05/28/19	5	210
AOC 2 SW1	05/28/19	2.5	260
AOC 2 SW2	05/28/19	2.5	244
AOC 2 SW3	05/28/19	2.5	571
AOC 2 SW4	05/28/19	2.5	561
AOC 3 CS1	05/28/19	4	226
CS-1A	06/22/23	1	146
AOC 3 SW1	05/28/19	2	603
SW-1A	06/22/23	1	177
AOC 3 SW2	05/28/19	2	586
AOC 3 SW3	05/28/19	2	649
SW-3A	06/22/23	1	119
AOC 3 SW4	05/28/19	2	256
CS-2	06/22/23	1	312
CS-2	06/26/23	2-2.5	78.1
CS-2	06/26/23	3-3.5	41.6
SW-N2	06/22/23	1	304
SW-E2	06/22/23	1	127
SW-S2	06/22/23	1	186
SW-W2	06/22/23	1	69.2
CS-3	06/22/23	1	278
CS-3	06/26/23	2-2.5	101
CS-3	06/26/23	3-3.5	70.5

**Table 1**  
**Confirmation - Soil Sample Analysis**  
**EOG Resources**  
**Vaca Line Release**  
**Lea County, New Mexico**

Sample ID	Date	Sample Depth (ft)	Chloride (mg/kg)
SW-N3	06/22/23	1	87
SW-E3	06/22/23	1	158
SW-S3	06/22/23	1	71
SW-W3	06/22/23	1	63.1
CS-4	06/22/23	1	359
CS-4	06/26/23	2-2.5	66
CS-4	06/26/23	3-3.5	165
SW-N4	06/22/23	1	146
SW-E4	06/22/23	1	89.4
SW-S4	06/22/23	1	157
SW-W4	06/22/23	1	167
<b>Regulatory Limits (mg/kg)</b>			<b>600<sup>A</sup></b>



- exceeds regulatory limits

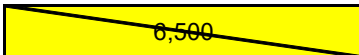
(-) Not Analyzed

<sup>A</sup>- NMOCD standards for groundwater less than 50 feet bgs

mg/kg - milligram per kilogram

ft-feet

TPH- total petroleum hydrocarbons



Soils excavated and removed from site.

**ATTACHMENT A: SITE CHARACTERIZATION DOCUMENTATION**

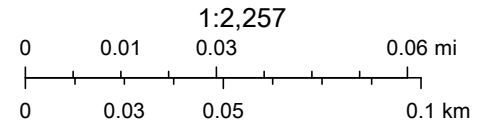
# OCD Well Locations



6/12/2023, 3:04:52 PM

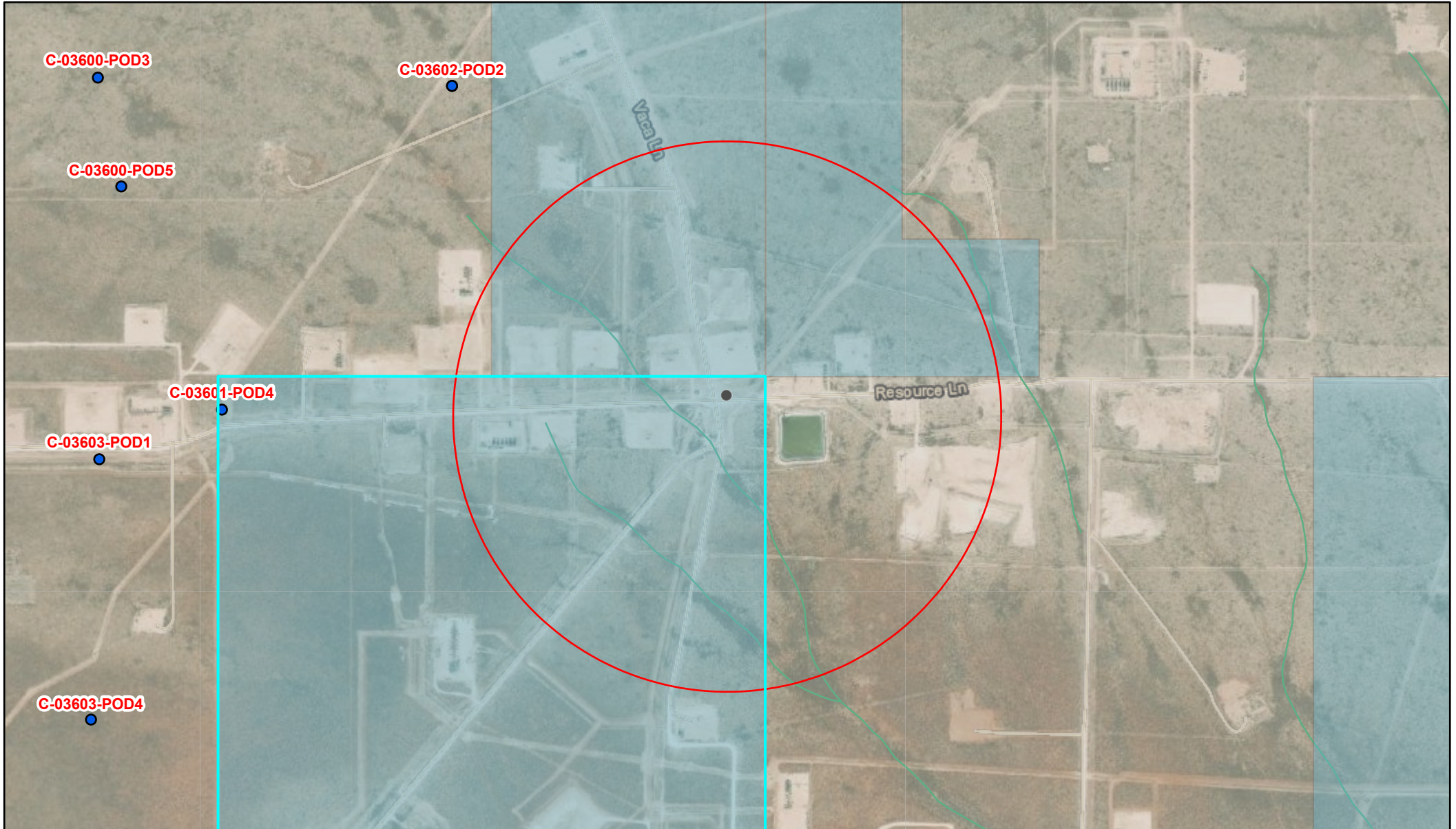
Wells - Large Scale

- Oil, Active
- Oil, Cancelled
- Oil, Plugged
- ▭ PLSS Second Division
- ▭ PLSS First Division



Esri Community Maps Contributors, Texas Parks & Wildlife, © OpenStreetMap, Microsoft, CONANP, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, Oil Conservation Division of the New Mexico Energy, Minerals and Natural Resources

# OSE POD Locations Map



6/12/2023, 3:08:36 PM

GIS WATERS PODs

- Active
- OSE District Boundary

Water Right Regulations

- Closure Area
- Soil & Water Conservation Districts

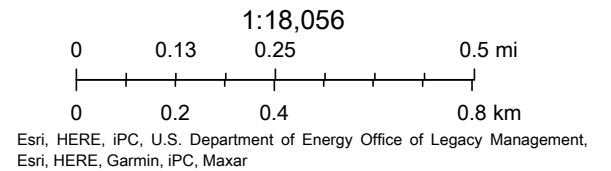
New Mexico State Trust Lands

- Both Estates
- NHD Flowlines
- Stream River

Site Boundaries

- Sample Locations
- Well
- ✕ Abandoned Well

Oil, Gas Well

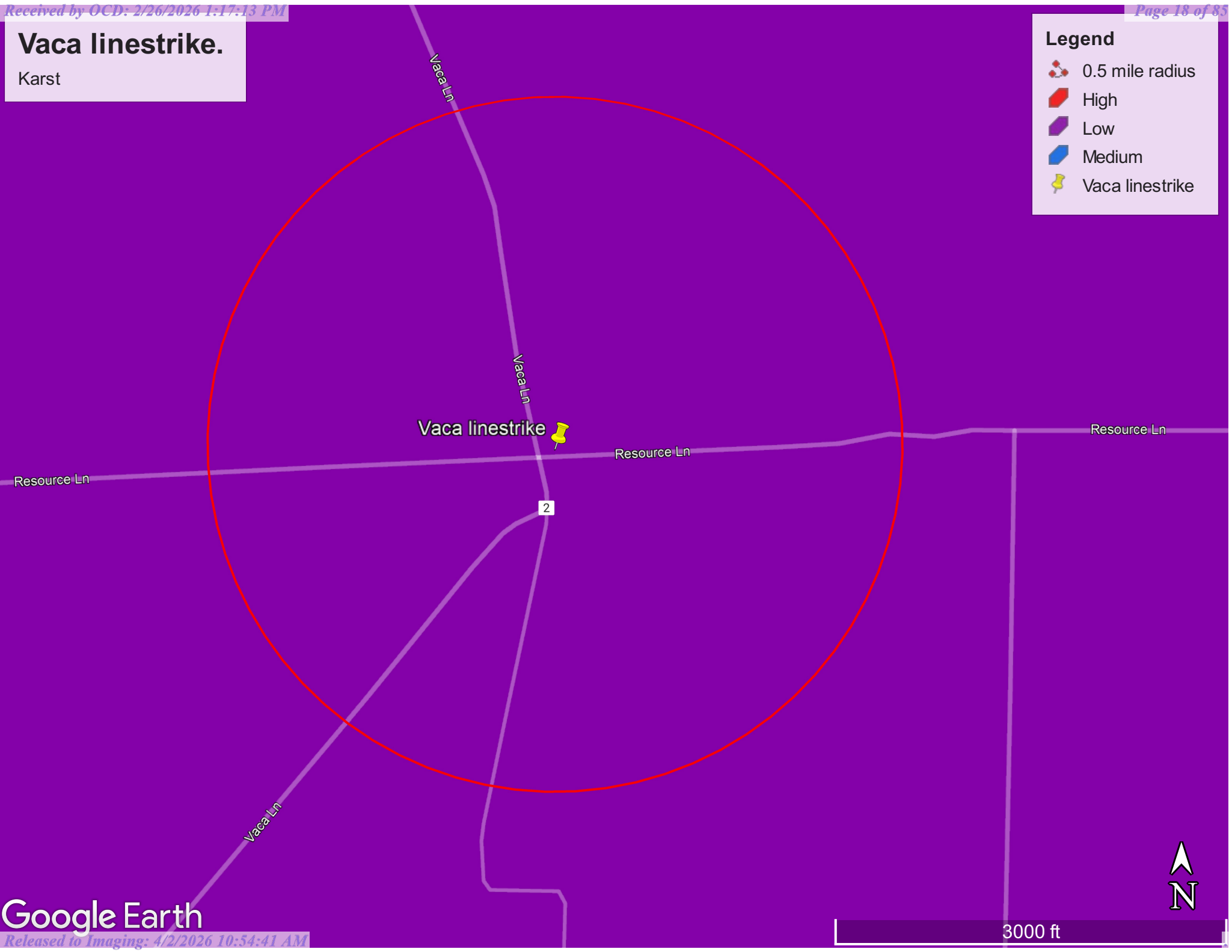


# Vaca linestrike.

Karst

**Legend**



-  0.5 mile radius
-  High
-  Low
-  Medium
-  Vaca linestrike

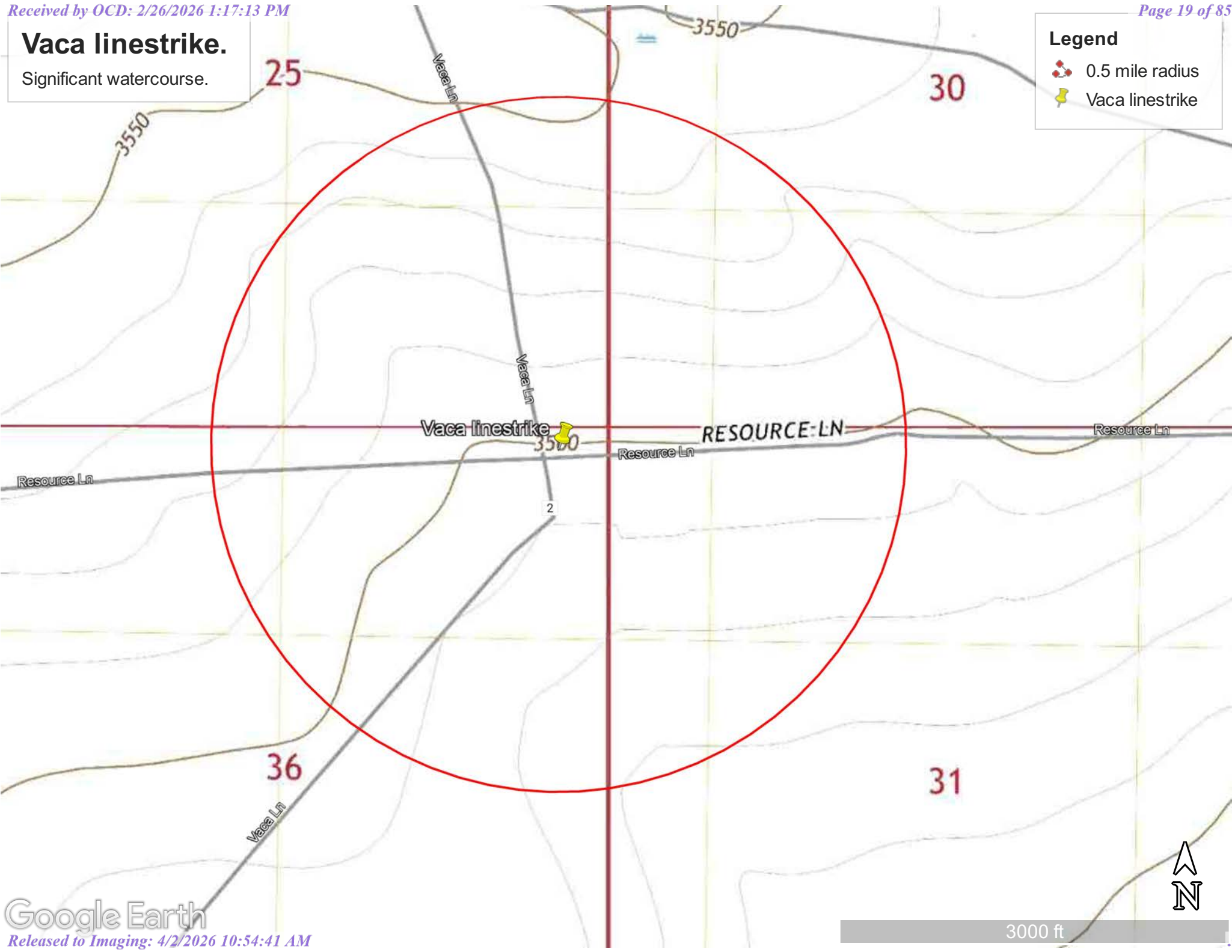


# Vaca linestrike.

Significant watercourse.

**Legend**

-  0.5 mile radius
-  Vaca linestrike





# Vaca linestrike









U.S. Fish and Wildlife Service, National Standards and Support Team, wetlands\_team@fws.gov

June 12, 2023

### Wetlands\_Alaska

-  Estuarine and Marine Deepwater
-  Estuarine and Marine Wetland

-  Freshwater Emergent Wetland
-  Freshwater Forested/Shrub Wetland
-  Freshwater Pond

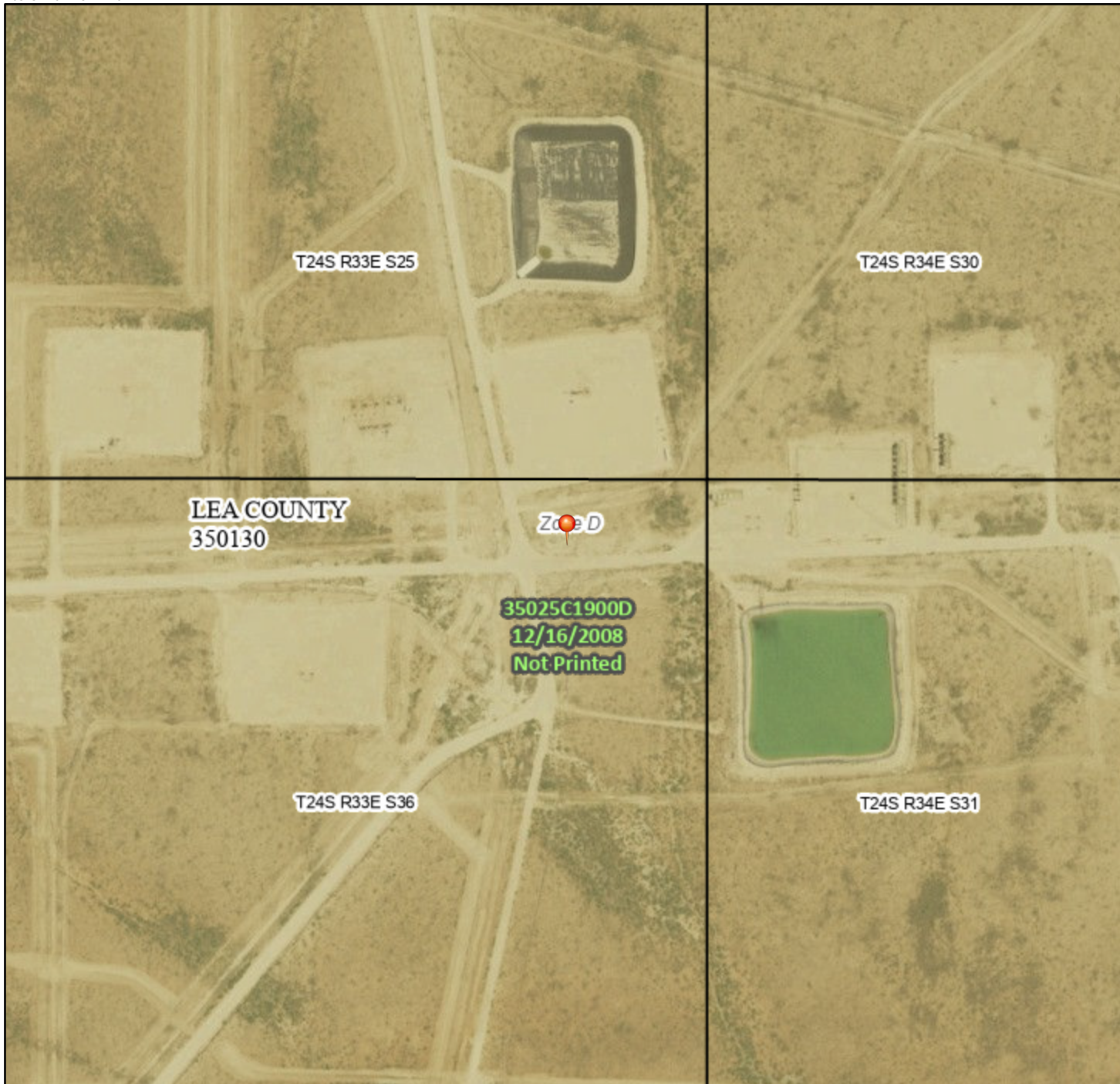
-  Lake
-  Other
-  Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

# National Flood Hazard Layer FIRMette



103°31'26"W 32°11'6"N



## Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

- SPECIAL FLOOD HAZARD AREAS**
  - Without Base Flood Elevation (BFE) Zone A, V, A99
  - With BFE or Depth Zone AE, AO, AH, VE, AR
  - Regulatory Floodway
- OTHER AREAS OF FLOOD HAZARD**
  - 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
  - Future Conditions 1% Annual Chance Flood Hazard Zone X
  - Area with Reduced Flood Risk due to Levee. See Notes. Zone X
  - Area with Flood Risk due to Levee Zone D
- OTHER AREAS**
  - NO SCREEN Area of Minimal Flood Hazard Zone X
  - Effective LOMRs
  - Area of Undetermined Flood Hazard Zone D
- GENERAL STRUCTURES**
  - Channel, Culvert, or Storm Sewer
  - Levee, Dike, or Floodwall
- OTHER FEATURES**
  - Cross Sections with 1% Annual Chance Water Surface Elevation
  - Coastal Transect
  - Base Flood Elevation Line (BFE)
  - Limit of Study
  - Jurisdiction Boundary
  - Coastal Transect Baseline
  - Profile Baseline
  - Hydrographic Feature
- MAP PANELS**
  - Digital Data Available
  - No Digital Data Available
  - Unmapped



The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 6/12/2023 at 4:12 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Released to Imaging: 4/2/2026 10:34:41 AM

1:6,000

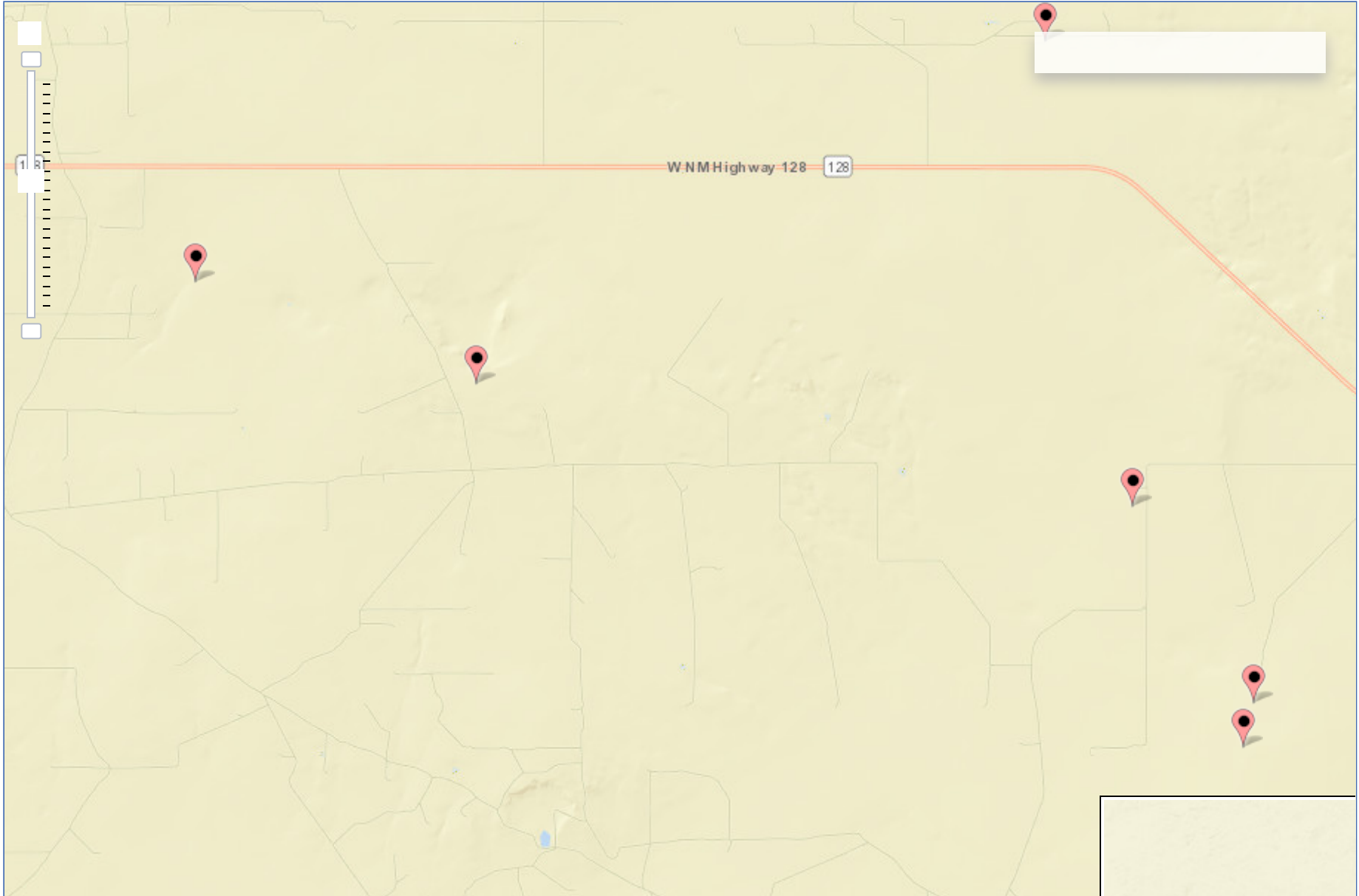
Basemap Imagery Source: USGS National Map 2023



[USGS Home](#)  
[Contact USGS](#)  
[Search USGS](#)

## National Water Information System: Mapper

[Help](#) [Info](#)



**ATTACHMENT B: CORRESPONDENCE SECTION**

---

**From:** [Hernandez, Christina, EMNRD](#)  
**To:** [Griswold, Jim, EMNRD](#)  
**Date:** Wednesday, February 20, 2019 3:46:06 PM

---

---

**From:** Mann, Ryan <rmann@slo.state.nm.us>  
**Sent:** Wednesday, January 9, 2019 1:41 PM  
**To:** 'Jay Loudermilk'; Hernandez, Christina, EMNRD  
**Cc:** Jamon Hohensee  
**Subject:** [EXT] RE: 1RP-5243 EOG Vaca Line Strike Site Assessment Report

Good afternoon,

NMSLO approves of the remediation plan with some comments.

- The current regulatory limit for chloride delineation is 600 ppm, not 650 as stated in the report.
- Vertical delineation is not completed at TP3. Delineation is nearly completed and can be completed during remediation.
- Confirmation samples are required for the bottom and sidewalls for all differing excavation depths. These samples should be at most 50' apart.
- TP1 may require further excavation than 3 feet. But should be less than 5' according to the data.
- The backfill should be clean non-impacted top soil. Caliche should definitely not be used in the top 4'
- This site will also require a revegetation after the remediation is completed. A revegetation and noxious weed management plan should be included in subsequent reports.

Let me know if you have any questions. Like approval is also required from NMOCD.

Thanks  
Ryan Mann

---

**From:** Jay Loudermilk [mailto:JLoudermilk@ntglobal.com]  
**Sent:** Thursday, December 13, 2018 3:13 PM  
**To:** christina.hernandez@state.nm.us; Mann, Ryan <rmann@slo.state.nm.us>  
**Cc:** Jamon Hohensee <Jamon\_Hohensee@eogresources.com>  
**Subject:** 1RP-5243 EOG Vaca Line Strike Site Assessment Report  
**Importance:** High

Ms. Hernandez & Mr. Mann,

Please see attached Site Assessment Report for EOG Vaca Line Strike release.

Incident ID: NOY1829558271  
District RP: 1RP-5243  
Facility ID: fOY1829556640  
Application ID: pOY1829559003

If you have any questions regarding the report please do not hesitate to contact me.

Thanks,

**Jay Loudermilk**  
Staff Scientist | **NTG Environmental**  
701 Tradewinds Blvd, Suite C | Midland, Texas 79706  
T: 432.848.4208 | M: 432.312.8049 | [jloudermilk@ntglobal.com](mailto:jloudermilk@ntglobal.com) | [ntglobal.com](http://ntglobal.com)

---

This email has been scanned by the Symantec Email Security.cloud service.  
For more information please visit <http://www.symanteccloud.com>

---

---

This email has been scanned by the Symantec Email Security.cloud service.  
For more information please visit [https://clicktime.symantec.com/a/1/oYg3DEqU6IyGGQoymbgg16g2LQY8QJpUtbhEDUvZu20=?d=sJxhFZv\\_k\\_Ln14wi5DaRuGUeuCu6h0NGD0YPjFgpjLUUV08Zb3aWDE4xf2cEVDMMvFnbwknf1Z64mx5TDF\\_cEtT4TtnEWJk6ok5x0xJ3Gi-](https://clicktime.symantec.com/a/1/oYg3DEqU6IyGGQoymbgg16g2LQY8QJpUtbhEDUvZu20=?d=sJxhFZv_k_Ln14wi5DaRuGUeuCu6h0NGD0YPjFgpjLUUV08Zb3aWDE4xf2cEVDMMvFnbwknf1Z64mx5TDF_cEtT4TtnEWJk6ok5x0xJ3Gi-)

F0RO2wHKWh1KetKruwg9S0TuOTO9fD99CdVhApA5pfnQNY9YHnfKmod4wlj0Gg38Z4DSGU8BNh5IbIVS7BFpK1UO2MBTWBA8ws5NrM-hhwRidyhwyKnC\_zHsWUJUg4jkFpwHk1uRssCcxgLEAsSYIP-m3s4QkqrKnDZF2Kr6T2fhS2FHgqcwxd4OQ1t\_eNBNT2h\_TOLwyy5RyUKZovAMXkVUFxikXkEWXvCBZ3a2fjYg5EtlrYYTh2GoqPohCJdha-yyVOXB3JDk0R6ivD4jUobNZhbQOUibxMsg6hmvMgWS&u=http%3A%2F%2Fwww.symanteccloud.com

---

**Rose-Coss, Dylan H, EMNRD**

---

**From:** Jay Loudermilk <JLoudermilk@ntglobal.com>  
**Sent:** Wednesday, May 1, 2019 12:28 PM  
**To:** Rose-Coss, Dylan H, EMNRD  
**Subject:** [EXT] RE: 1RP-5243 EOG Vaca Line Strike Site Assessment Report  
**Attachments:** Vaca Linestrike - Site Assessment Report.pdf

Dylan,

I have attached the Site Assessment Report to this email for the Vaca Linestrike. This project has been on hold since then but we are ready to get it done.

Let me know if you are still good with the stipulations that Ryan has laid out for us and we will get rolling on the remediation.

Thanks,

**Jay Loudermilk**Staff Scientist | **NTG Environmental**

701 Tradewinds Blvd, Suite C | Midland, Texas 79706

T: 432.848.4208 | M: 432.312.8049 | [jloudermilk@ntglobal.com](mailto:jloudermilk@ntglobal.com) | [ntglobal.com](http://ntglobal.com)

---

**From:** Rose-Coss, Dylan H, EMNRD <DylanH.Rose-Coss@state.nm.us>  
**Sent:** Monday, April 29, 2019 9:32 AM  
**To:** Jay Loudermilk <JLoudermilk@ntglobal.com>  
**Subject:** 1RP-5243 EOG Vaca Line Strike Site Assessment Report

Mr. Loudermilk,

Hello, my name is Dylan Rose-Coss. I am the new Environmental Specialist for the NMOCD District 1 office in Hobbs. I want to apologize up front about any delays you might have experienced do to slow response times from the office. I started two weeks ago and have been slowly catching up on emails received while the position was vacant.

I would like to touch base regarding the assessment report for the EOG Vaca Line Strike site (1RP-5243) and associated emails from Ryan Mann at the State Land Office. Where are you currently at with the remediation, has the process been on hold this whole time? I would be willing to approve the remediation plan siting the same comments as the NMSLO in an email sent to you on 1/9/2018. However, in the email chains I received, the assessment report was no longer attached. So I am unable to perform a my own review of the document, or upload the document to our system. Could you please send me a copy of the plan again and just let me know if there have been any changes or new developments at the site?

Thanks and don't hesitate to contact me if you have any questions, otherwise I'm hoping that we can begin to move forward with this site.

Sincerely,

**Dylan Rose-Coss***Environmental Scientist*

Oil Conservatin Division

1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

(505) 476-3488

## Jay Loudermilk

---

**From:** Rose-Coss, Dylan H, EMNRD <DylanH.Rose-Coss@state.nm.us>  
**Sent:** Wednesday, May 1, 2019 16:57  
**To:** Jay Loudermilk  
**Subject:** RE: 1RP-5243 EOG Vaca Line Strike Site Assessment Report

Jay,

Thanks for sending the report. After review, the NMOCD accepts the remediation workplan citing the same comments as the NMSLO. As per NMAC 19.15.29. E(1) the closure report summarizing remediation activities will be due to the department on Tuesday July 30, 2019. Please let me know if more time is required to complete the report, or if you have additional questions or concerns.

Thank you,

### Dylan Rose-Coss

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

(505) 476-3488

---

**From:** Jay Loudermilk <JLoudermilk@ntglobal.com>  
**Sent:** Wednesday, May 1, 2019 12:28 PM  
**To:** Rose-Coss, Dylan H, EMNRD <DylanH.Rose-Coss@state.nm.us>  
**Subject:** [EXT] RE: 1RP-5243 EOG Vaca Line Strike Site Assessment Report

Dylan,

I have attached the Site Assessment Report to this email for the Vaca Linestrike. This project has been on hold since then but we are ready to get it done.

Let me know if you are still good with the stipulations that Ryan has laid out for us and we will get rolling on the remediation.

Thanks,

### Jay Loudermilk

Staff Scientist | **NTG Environmental**  
701 Tradewinds Blvd, Suite C | Midland, Texas 79706  
T: 432.848.4208 | M: 432.312.8049 | [jloudermilk@ntglobal.com](mailto:jloudermilk@ntglobal.com) | [ntglobal.com](http://ntglobal.com)

---

**From:** Rose-Coss, Dylan H, EMNRD <[DylanH.Rose-Coss@state.nm.us](mailto:DylanH.Rose-Coss@state.nm.us)>  
**Sent:** Monday, April 29, 2019 9:32 AM  
**To:** Jay Loudermilk <[JLoudermilk@ntglobal.com](mailto:JLoudermilk@ntglobal.com)>  
**Subject:** 1RP-5243 EOG Vaca Line Strike Site Assessment Report

Mr. Loudermilk,

Hello, my name is Dylan Rose-Coss. I am the new Environmental Specialist for the NMOCD District 1 office in Hobbs. I want to apologize up front about any delays you might have experienced do to slow response times from the office. I started two weeks ago and have been slowly catching up on emails received while the position was vacant.

I would like to touch base regarding the assessment report for the EOG Vaca Line Strike site (1RP-5243) and associated emails from Ryan Mann at the State Land Office. Where are you currently at with the remediation, has the process been on hold this whole time? I would be willing to approve the remediation plan siting the same comments as the NMSLO in an email sent to you on 1/9/2018. However, in the email chains I received, the assessment report was no longer attached. So I am unable to perform a my own review of the document, or upload the document to our system. Could you please send me a copy of the plan again and just let me know if there have been any changes or new developments at the site?

Thanks and don't hesitate to contact me if you have any questions, otherwise I'm hoping that we can begin to move forward with this site.

Sincerely,

**Dylan Rose-Coss**

*Environmental Scientist*

Oil Conservatin Division

1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

(505) 476-3488

**Rose-Coss, Dylan H, EMNRD**

---

**From:** Rose-Coss, Dylan H, EMNRD  
**Sent:** Tuesday, August 13, 2019 8:16 AM  
**To:** 'Jay Loudermilk'  
**Cc:** Mann, Ryan  
**Subject:** RE: 1RP-5243 EOG Vaca Line Strike Site Assessment Report  
**Attachments:** Vaca Linestrike - sampling.pdf

Mr. Loudermilk,

The NMOCD has reviewed the closure request for the EOG Vaca Line Strike Site (1RP-5243). Closure is not granted at this time. In order to do so, please correct the following within the report

1. On page two of the text, in the first paragraph of the remedial actions section, it states that remediation stipulations from the NMOCD can be found in the correspondence section of the attachments. The reports does not seem to contain a correspondence section of the attachments. Could you please make the appropriate corrections to this section on the resubmittal.
2. In the correspondence with Ryan Mann dated 1/9/2019, he had requested that a revegetation plan be submitted. The report in its current form has no mention of a revegetation plan. Please include a revegetation and noxious weed management plan when the report is re-submitted.
3. The closure page of the C-141 section is upside down. Please correct the orientation when the report is resubmitted.

Additionally, when the remediation plan was initially accepted, I assumed that the entire area of the "spill trajectory" which is outlined in orange on the aerial map would be excavated. I thought that if the whole area was excavated that it would compensate for there being a large distance between TP1 and TP3 and between TP3 and TP4 that were not sampled. However, it appears that only a small area immediately surrounding those sample points was excavated. This leaves the question open regarding the soil contaminant levels present in those locations.

Before granting closure the NMOCD would like additional soil characterization to take place at locations between AOC 1 and AOC 2, and then between AOC 2 and AOC 3 (See attached). If results from these areas come back clean, then closure will be considered at that point.

The OCD will review the aforementioned soil sample results through email correspondence. The subsequent final closure report will need to be submitted through the online fees portal.

Thanks for your time and attention to remediating this site.

Regards,

**Dylan Rose-Coss**

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

(505) 476-3488



---

**From:** Rose-Coss, Dylan H, EMNRD  
**Sent:** Wednesday, May 1, 2019 3:57 PM  
**To:** Jay Loudermilk <JLoudermilk@ntglobal.com>  
**Subject:** RE: 1RP-5243 EOG Vaca Line Strike Site Assessment Report

Jay,

Thanks for sending the report. After review, the NMOCD accepts the remediation workplan citing the same comments as the NMSLO. As per NMAC 19.15.29. E(1) the closure report summarizing remediation activities will be due to the department on Tuesday July 30, 2019. Please let me know if more time is required to complete the report, or if you have additional questions or concerns.

Thank you,

**Dylan Rose-Coss**

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

(505) 476-3488

---

**From:** Jay Loudermilk  
**Sent:** Wednesday, May 1, 2019 12:28 PM  
**To:** Rose-Coss, Dylan H, EMNRD  
**Subject:** [EXT] RE: 1RP-5243 EOG Vaca Line Strike Site Assessment Report

Dylan,

I have attached the Site Assessment Report to this email for the Vaca Linestrike. This project has been on hold since then but we are ready to get it done.

Let me know if you are still good with the stipulations that Ryan has laid out for us and we will get rolling on the remediation.

Thanks,

**Jay Loudermilk**  
Staff Scientist | **NTG Environmental**

701 Tradewinds Blvd, Suite C | Midland, Texas 79706  
T: 432.848.4208 | M: 432.312.8049 | [jloudermilk@ntglobal.com](mailto:jloudermilk@ntglobal.com) | [ntglobal.com](http://ntglobal.com)

---

**From:** Rose-Coss, Dylan H, EMNRD <[DylanH.Rose-Coss@state.nm.us](mailto:DylanH.Rose-Coss@state.nm.us)>  
**Sent:** Monday, April 29, 2019 9:32 AM  
**To:** Jay Loudermilk <[JLoudermilk@ntglobal.com](mailto:JLoudermilk@ntglobal.com)>  
**Subject:** 1RP-5243 EOG Vaca Line Strike Site Assessment Report

Mr. Loudermilk,

Hello, my name is Dylan Rose-Coss. I am the new Environmental Specialist for the NMOCD District 1 office in Hobbs. I want to apologize up front about any delays you might have experienced do to slow response times from the office. I started two weeks ago and have been slowly catching up on emails received while the position was vacant.

I would like to touch base regarding the assessment report for the EOG Vaca Line Strike site (1RP-5243) and associated emails from Ryan Mann at the State Land Office. Where are you currently at with the remediation, has the process been on hold this whole time? I would be willing to approve the remediation plan siting the same comments as the NMSLO in an email sent to you on 1/9/2018. However, in the email chains I received, the assessment report was no longer attached. So I am unable to perform a my own review of the document, or upload the document to our system. Could you please send me a copy of the plan again and just let me know if there have been any changes or new developments at the site?

Thanks and don't hesitate to contact me if you have any questions, otherwise I'm hoping that we can begin to move forward with this site.

Sincerely,

**Dylan Rose-Coss**

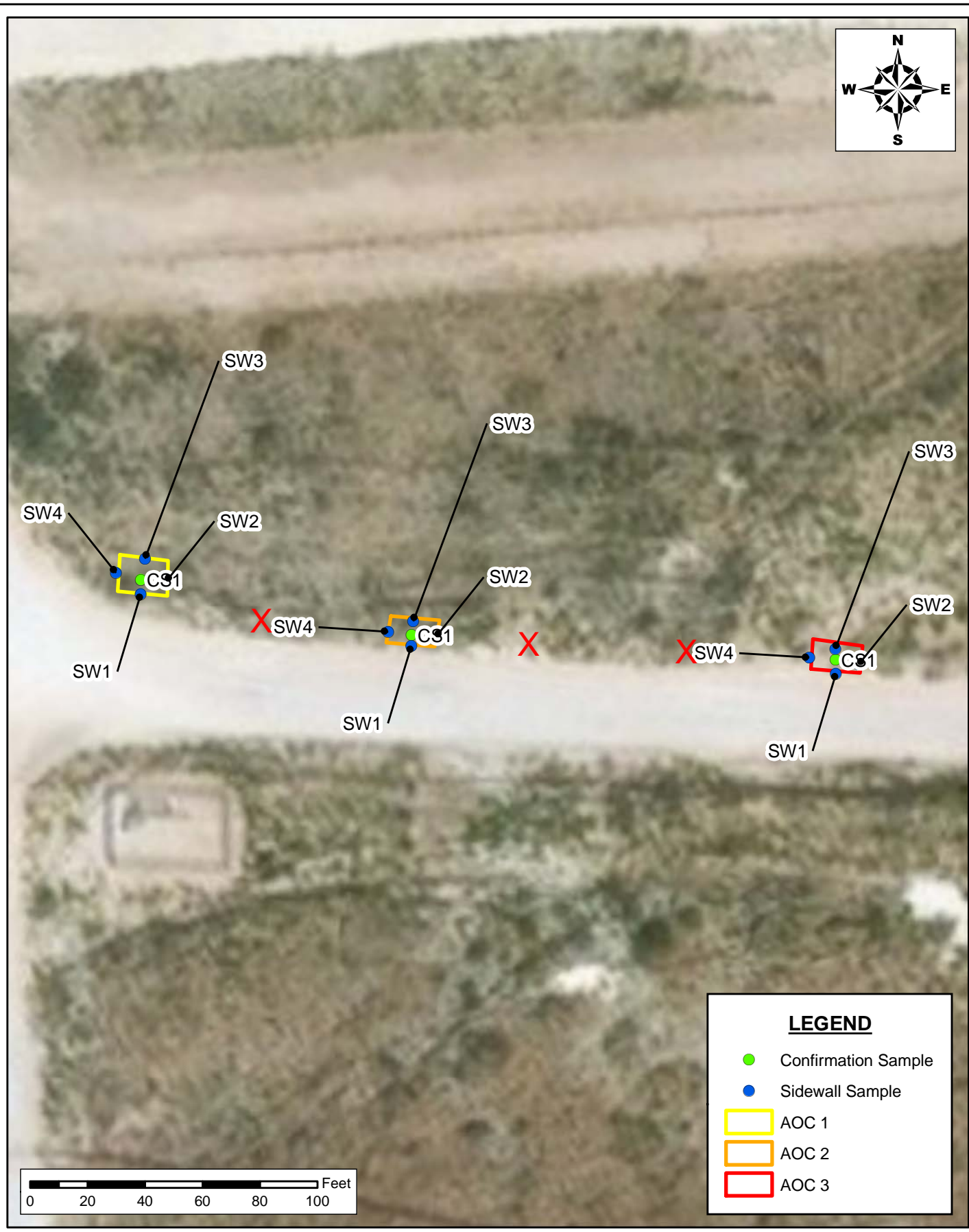
*Environmental Scientist*

Oil Conservatin Division

1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

(505) 476-3488

Document Path: P:\2019 PROJECTS\EOG RESOURCES\EG00-R1805645 VACA LANE LINE STRIKE7 - Figures\Geodatabase\EG00-R1805645\_FIG 4\_ExcavationMap\_06252019.mxd



**LEGEND**

- Confirmation Sample
- Sidewall Sample
- AOC 1
- AOC 2
- AOC 3

**SAMPLE MAP**  
**SITE ASSESSMENT REPORT**  
 EOG RESOURCES  
 VACA LINE STRIKE  
 LEA COUNTY, NEW MEXICO

SCALE: AS SHOWN    DATE: 06/25/2019    PROJECT #: 191653

  
**New Tech Global Environmental, LLC**  
 911 Regional Park Drive  
 Houston, Texas 77060  
 T - 281.872.9300  
 F - 281.872.4521  
 Web: www.ntglobal.com

**NOTES:**  
 1. Base Image: ESRI Maps & Data 2017  
 2. Map Projection: NAD 1983 UTM Zone 15N

X **OCD Requested sample location**

DRAWING NUMBER:  
**FIGURE 4**

SHEET NUMBER:  
**1 of 1**

**ATTACHMENT C: PHOTOGRAPHIC LOG**

---

# PHOTOGRAPHIC LOG

## EOG RESOURCES, INC

### Photograph No. 1

Facility: Vaca Line Strike

County: Lea, NM

Date: 10/31/2018

Photographer: Jay Loudermilk

**Description:**

View of spill trajectory looking east. Note Resource Lane to the south.



### Photograph No. 2

Facility: Vaca Line Strike

County: Lea, NM

Date: 11/06/2018

Photographer: Jay Loudermilk

**Description:**

View of point of release and area of TP 1 looking southwest. Note intersection of Vaca Lane (N to S) and Resource Land (E to W).



### Photograph No. 3

Facility: Vaca Line Strike

County: Lea, NM

Date: 10/31/2018

Photographer: Jay Loudermilk

**Description:**

View of spill trajectory looking west from area of TP5.



# PHOTOGRAPHIC LOG

## CENTENNIAL RESOURCE DEVELOPMENT, INC.

### Photograph No. 4

Facility: Vaca Line Strike

County: Lea, NM

Date: 6/22/2023

Photographer: Jay Loudermilk

**Description:**

View of area of concern.



### Photograph No. 5

Facility: Vaca Line Strike

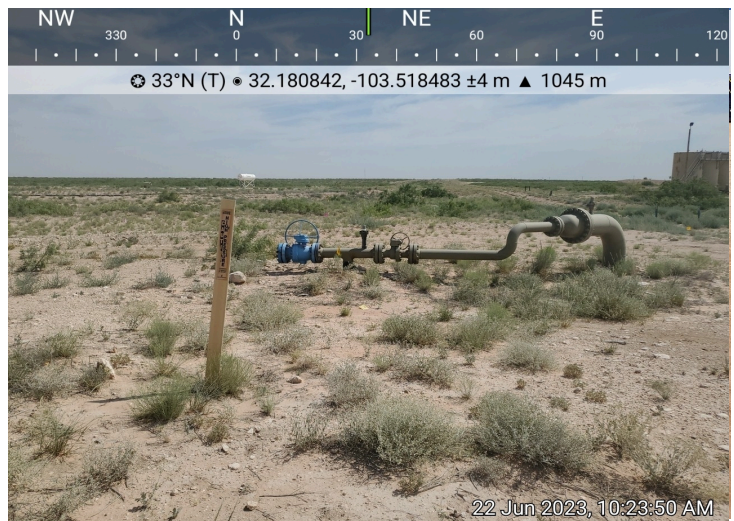
County: Lea, NM

Date: 6/22/2023

Photographer: Jay Loudermilk

**Description:**

View of area of concern.



### Photograph No. 6

Facility: Vaca Line Strike

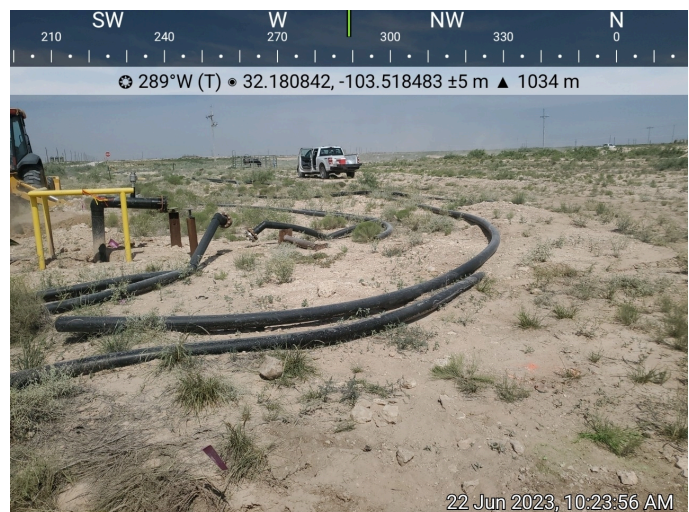
County: Lea, NM

Date: 6/22/2023

Photographer: Kenny Han

**Description:**

View of area of concern



# PHOTOGRAPHIC LOG

## CENTENNIAL RESOURCE DEVELOPMENT, INC.

---

**Photograph No. 7**

**Facility:** Godfather 36 State Com No. 1H

**County:** Lea, NM

**Date:** 6/22/2023

**Photographer:** Kenny Han

**Description:**

View of area of concern.



**ATTACHMENT D: LABORATORY REPORTS AND CHAIN-OF-CUSTODY DOCUMENTS**

---



Environment Testing

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

# ANALYTICAL REPORT

## PREPARED FOR

Attn: Jeff Kindley  
 NT Global  
 701 Tradewinds Blvd  
 Midland, Texas 79706  
 Generated 7/5/2023 9:35:35 AM

## JOB DESCRIPTION

Vaca Line  
 SDG NUMBER Lea CO NM

## JOB NUMBER

890-4851-2

Eurofins Carlsbad  
 1089 N Canal St.  
 Carlsbad NM 88220



# Eurofins Carlsbad

## Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

## Authorization



Generated  
7/5/2023 9:35:35 AM

Authorized for release by  
Jessica Kramer, Project Manager  
[Jessica.Kramer@et.eurofinsus.com](mailto:Jessica.Kramer@et.eurofinsus.com)  
(432)704-5440



Client: NT Global  
Project/Site: Vaca Line

Laboratory Job ID: 890-4851-2  
SDG: Lea CO NM

# Table of Contents

Cover Page . . . . .	1
Table of Contents . . . . .	3
Definitions/Glossary . . . . .	4
Case Narrative . . . . .	5
Client Sample Results . . . . .	6
QC Sample Results . . . . .	9
QC Association Summary . . . . .	10
Lab Chronicle . . . . .	12
Certification Summary . . . . .	15
Method Summary . . . . .	16
Sample Summary . . . . .	17
Chain of Custody . . . . .	18
Receipt Checklists . . . . .	20

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

## Definitions/Glossary

Client: NT Global  
Project/Site: Vaca Line

Job ID: 890-4851-2  
SDG: Lea CO NM

## Qualifiers

## 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.
α	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: NT Global  
Project/Site: Vaca Line

Job ID: 890-4851-2  
SDG: Lea CO NM

---

## Job ID: 890-4851-2

---

### Laboratory: Eurofins Carlsbad

#### Narrative

---

#### Job Narrative 890-4851-2

#### Receipt

The samples were received on 6/22/2023 1:30 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 12.0°C

#### Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: CS-1A 1' (890-4851-1), SW-1A 0-1' (890-4851-2), SW-3A 0-1' (890-4851-3), CS-2 (890-4851-4), SW-N2 (890-4851-5), SW-E2 (890-4851-6), SW-S2 (890-4851-7), SW-W2 (890-4851-8), CS-3 (890-4851-9), SW-N3 (890-4851-10), SW-E3 (890-4851-11), SW-S3 (890-4851-12), SW-W3 (890-4851-13), CS-4 (890-4851-14), SW-N4 (890-4851-15), SW-E4 (890-4851-16), SW-S4 (890-4851-17) and SW-W4 (890-4851-18).

#### HPLC/IC

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



### Client Sample Results

Client: NT Global  
 Project/Site: Vaca Line

Job ID: 890-4851-2  
 SDG: Lea CO NM

**Client Sample ID: CS-1A 1'**

**Lab Sample ID: 890-4851-1**

Date Collected: 06/22/23 10:00

Matrix: Solid

Date Received: 06/22/23 13:30

Sample Depth: 1

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	146		5.02		mg/Kg			06/26/23 21:53	1

**Client Sample ID: SW-1A 0-1'**

**Lab Sample ID: 890-4851-2**

Date Collected: 06/22/23 10:05

Matrix: Solid

Date Received: 06/22/23 13:30

Sample Depth: 0 - 1

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	177		5.03		mg/Kg			06/26/23 22:10	1

**Client Sample ID: SW-3A 0-1'**

**Lab Sample ID: 890-4851-3**

Date Collected: 06/22/23 10:10

Matrix: Solid

Date Received: 06/22/23 13:30

Sample Depth: 0 - 1

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	119		4.98		mg/Kg			06/26/23 22:16	1

**Client Sample ID: CS-2**

**Lab Sample ID: 890-4851-4**

Date Collected: 06/22/23 10:15

Matrix: Solid

Date Received: 06/22/23 13:30

Sample Depth: 1

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	312		4.95		mg/Kg			06/26/23 22:22	1

**Client Sample ID: SW-N2**

**Lab Sample ID: 890-4851-5**

Date Collected: 06/22/23 10:20

Matrix: Solid

Date Received: 06/22/23 13:30

Sample Depth: 0 - 1

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	304		5.00		mg/Kg			06/26/23 22:28	1

**Client Sample ID: SW-E2**

**Lab Sample ID: 890-4851-6**

Date Collected: 06/22/23 10:25

Matrix: Solid

Date Received: 06/22/23 13:30

Sample Depth: 0 - 1

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	127		4.97		mg/Kg			06/26/23 22:45	1

Eurofins Carlsbad

### Client Sample Results

Client: NT Global  
Project/Site: Vaca Line

Job ID: 890-4851-2  
SDG: Lea CO NM

**Client Sample ID: SW-S2**

**Lab Sample ID: 890-4851-7**

Date Collected: 06/22/23 10:30

Matrix: Solid

Date Received: 06/22/23 13:30

Sample Depth: 0 - 1

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	186		4.98		mg/Kg			06/26/23 22:51	1

**Client Sample ID: SW-W2**

**Lab Sample ID: 890-4851-8**

Date Collected: 06/22/23 10:35

Matrix: Solid

Date Received: 06/22/23 13:30

Sample Depth: 0 - 1

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	69.2		4.99		mg/Kg			06/26/23 22:57	1

**Client Sample ID: CS-3**

**Lab Sample ID: 890-4851-9**

Date Collected: 06/22/23 10:40

Matrix: Solid

Date Received: 06/22/23 13:30

Sample Depth: 1

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	278		5.04		mg/Kg			06/26/23 23:03	1

**Client Sample ID: SW-N3**

**Lab Sample ID: 890-4851-10**

Date Collected: 06/22/23 10:45

Matrix: Solid

Date Received: 06/22/23 13:30

Sample Depth: 0 - 1

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	87.0		5.04		mg/Kg			06/26/23 23:08	1

**Client Sample ID: SW-E3**

**Lab Sample ID: 890-4851-11**

Date Collected: 06/22/23 10:50

Matrix: Solid

Date Received: 06/22/23 13:30

Sample Depth: 0 - 1

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	158		5.00		mg/Kg			06/26/23 23:14	1

**Client Sample ID: SW-S3**

**Lab Sample ID: 890-4851-12**

Date Collected: 06/22/23 10:55

Matrix: Solid

Date Received: 06/22/23 13:30

Sample Depth: 0 - 1

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	71.0		4.95		mg/Kg			06/26/23 23:32	1

Eurofins Carlsbad

### Client Sample Results

Client: NT Global  
 Project/Site: Vaca Line

Job ID: 890-4851-2  
 SDG: Lea CO NM

**Client Sample ID: SW-W3**

**Lab Sample ID: 890-4851-13**

Date Collected: 06/22/23 11:00

Matrix: Solid

Date Received: 06/22/23 13:30

Sample Depth: 0 - 1

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	63.1		4.99		mg/Kg			06/26/23 23:38	1

**Client Sample ID: CS-4**

**Lab Sample ID: 890-4851-14**

Date Collected: 06/22/23 11:05

Matrix: Solid

Date Received: 06/22/23 13:30

Sample Depth: 1

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	359		5.01		mg/Kg			06/26/23 23:55	1

**Client Sample ID: SW-N4**

**Lab Sample ID: 890-4851-15**

Date Collected: 06/22/23 11:10

Matrix: Solid

Date Received: 06/22/23 13:30

Sample Depth: 0 - 1

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	146		4.99		mg/Kg			06/27/23 00:01	1

**Client Sample ID: SW-E4**

**Lab Sample ID: 890-4851-16**

Date Collected: 06/22/23 11:15

Matrix: Solid

Date Received: 06/22/23 13:30

Sample Depth: 0 - 1

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	89.4		4.97		mg/Kg			06/27/23 00:07	1

**Client Sample ID: SW-S4**

**Lab Sample ID: 890-4851-17**

Date Collected: 06/22/23 11:20

Matrix: Solid

Date Received: 06/22/23 13:30

Sample Depth: 0 - 1

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	157		4.95		mg/Kg			06/27/23 00:13	1

**Client Sample ID: SW-W4**

**Lab Sample ID: 890-4851-18**

Date Collected: 06/22/23 11:25

Matrix: Solid

Date Received: 06/22/23 13:30

Sample Depth: 0 - 1

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	167		4.98		mg/Kg			06/27/23 00:18	1

Eurofins Carlsbad

### QC Sample Results

Client: NT Global  
Project/Site: Vaca Line

Job ID: 890-4851-2  
SDG: Lea CO NM

#### Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-56176/1-A  
Matrix: Solid  
Analysis Batch: 56371

Client Sample ID: Method Blank  
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			06/26/23 21:35	1

Lab Sample ID: LCS 880-56176/2-A  
Matrix: Solid  
Analysis Batch: 56371

Client Sample ID: Lab Control Sample  
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	255.4		mg/Kg		102	90 - 110

Lab Sample ID: LCSD 880-56176/3-A  
Matrix: Solid  
Analysis Batch: 56371

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	250	252.8		mg/Kg		101	90 - 110	1	20

Lab Sample ID: 890-4851-1 MS  
Matrix: Solid  
Analysis Batch: 56371

Client Sample ID: CS-1A 1'  
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	146		251	389.7		mg/Kg		97	90 - 110

Lab Sample ID: 890-4851-1 MSD  
Matrix: Solid  
Analysis Batch: 56371

Client Sample ID: CS-1A 1'  
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	146		251	387.3		mg/Kg		96	90 - 110	1	20

Lab Sample ID: 890-4851-11 MS  
Matrix: Solid  
Analysis Batch: 56371

Client Sample ID: SW-E3  
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	158		250	398.7		mg/Kg		96	90 - 110

Lab Sample ID: 890-4851-11 MSD  
Matrix: Solid  
Analysis Batch: 56371

Client Sample ID: SW-E3  
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	158		250	395.4		mg/Kg		95	90 - 110	1	20

Eurofins Carlsbad

## QC Association Summary

Client: NT Global  
Project/Site: Vaca LineJob ID: 890-4851-2  
SDG: Lea CO NM

## HPLC/IC

## Leach Batch: 56176

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4851-1	CS-1A 1'	Soluble	Solid	DI Leach	
890-4851-2	SW-1A 0-1'	Soluble	Solid	DI Leach	
890-4851-3	SW-3A 0-1'	Soluble	Solid	DI Leach	
890-4851-4	CS-2	Soluble	Solid	DI Leach	
890-4851-5	SW-N2	Soluble	Solid	DI Leach	
890-4851-6	SW-E2	Soluble	Solid	DI Leach	
890-4851-7	SW-S2	Soluble	Solid	DI Leach	
890-4851-8	SW-W2	Soluble	Solid	DI Leach	
890-4851-9	CS-3	Soluble	Solid	DI Leach	
890-4851-10	SW-N3	Soluble	Solid	DI Leach	
890-4851-11	SW-E3	Soluble	Solid	DI Leach	
890-4851-12	SW-S3	Soluble	Solid	DI Leach	
890-4851-13	SW-W3	Soluble	Solid	DI Leach	
890-4851-14	CS-4	Soluble	Solid	DI Leach	
890-4851-15	SW-N4	Soluble	Solid	DI Leach	
890-4851-16	SW-E4	Soluble	Solid	DI Leach	
890-4851-17	SW-S4	Soluble	Solid	DI Leach	
890-4851-18	SW-W4	Soluble	Solid	DI Leach	
MB 880-56176/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-56176/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-56176/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4851-1 MS	CS-1A 1'	Soluble	Solid	DI Leach	
890-4851-1 MSD	CS-1A 1'	Soluble	Solid	DI Leach	
890-4851-11 MS	SW-E3	Soluble	Solid	DI Leach	
890-4851-11 MSD	SW-E3	Soluble	Solid	DI Leach	

## Analysis Batch: 56371

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4851-1	CS-1A 1'	Soluble	Solid	300.0	56176
890-4851-2	SW-1A 0-1'	Soluble	Solid	300.0	56176
890-4851-3	SW-3A 0-1'	Soluble	Solid	300.0	56176
890-4851-4	CS-2	Soluble	Solid	300.0	56176
890-4851-5	SW-N2	Soluble	Solid	300.0	56176
890-4851-6	SW-E2	Soluble	Solid	300.0	56176
890-4851-7	SW-S2	Soluble	Solid	300.0	56176
890-4851-8	SW-W2	Soluble	Solid	300.0	56176
890-4851-9	CS-3	Soluble	Solid	300.0	56176
890-4851-10	SW-N3	Soluble	Solid	300.0	56176
890-4851-11	SW-E3	Soluble	Solid	300.0	56176
890-4851-12	SW-S3	Soluble	Solid	300.0	56176
890-4851-13	SW-W3	Soluble	Solid	300.0	56176
890-4851-14	CS-4	Soluble	Solid	300.0	56176
890-4851-15	SW-N4	Soluble	Solid	300.0	56176
890-4851-16	SW-E4	Soluble	Solid	300.0	56176
890-4851-17	SW-S4	Soluble	Solid	300.0	56176
890-4851-18	SW-W4	Soluble	Solid	300.0	56176
MB 880-56176/1-A	Method Blank	Soluble	Solid	300.0	56176
LCS 880-56176/2-A	Lab Control Sample	Soluble	Solid	300.0	56176
LCSD 880-56176/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	56176
890-4851-1 MS	CS-1A 1'	Soluble	Solid	300.0	56176
890-4851-1 MSD	CS-1A 1'	Soluble	Solid	300.0	56176

Eurofins Carlsbad

### QC Association Summary

Client: NT Global  
Project/Site: Vaca Line

Job ID: 890-4851-2  
SDG: Lea CO NM

#### HPLC/IC (Continued)

#### Analysis Batch: 56371 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4851-11 MS	SW-E3	Soluble	Solid	300.0	56176
890-4851-11 MSD	SW-E3	Soluble	Solid	300.0	56176

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

# Lab Chronicle

Client: NT Global  
Project/Site: Vaca Line

Job ID: 890-4851-2  
SDG: Lea CO NM

**Client Sample ID: CS-1A 1'**

Date Collected: 06/22/23 10:00

Date Received: 06/22/23 13:30

**Lab Sample ID: 890-4851-1**

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.98 g	50 mL	56176	06/26/23 12:00	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	56371	06/26/23 21:53	CH	EET MID

**Client Sample ID: SW-1A 0-1'**

Date Collected: 06/22/23 10:05

Date Received: 06/22/23 13:30

**Lab Sample ID: 890-4851-2**

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.97 g	50 mL	56176	06/26/23 12:00	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	56371	06/26/23 22:10	CH	EET MID

**Client Sample ID: SW-3A 0-1'**

Date Collected: 06/22/23 10:10

Date Received: 06/22/23 13:30

**Lab Sample ID: 890-4851-3**

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.02 g	50 mL	56176	06/26/23 12:00	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	56371	06/26/23 22:16	CH	EET MID

**Client Sample ID: CS-2**

Date Collected: 06/22/23 10:15

Date Received: 06/22/23 13:30

**Lab Sample ID: 890-4851-4**

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.05 g	50 mL	56176	06/26/23 12:00	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	56371	06/26/23 22:22	CH	EET MID

**Client Sample ID: SW-N2**

Date Collected: 06/22/23 10:20

Date Received: 06/22/23 13:30

**Lab Sample ID: 890-4851-5**

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5 g	50 mL	56176	06/26/23 12:00	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	56371	06/26/23 22:28	CH	EET MID

**Client Sample ID: SW-E2**

Date Collected: 06/22/23 10:25

Date Received: 06/22/23 13:30

**Lab Sample ID: 890-4851-6**

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.03 g	50 mL	56176	06/26/23 12:00	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	56371	06/26/23 22:45	CH	EET MID

Eurofins Carlsbad

# Lab Chronicle

Client: NT Global  
Project/Site: Vaca Line

Job ID: 890-4851-2  
SDG: Lea CO NM

**Client Sample ID: SW-S2**

**Date Collected: 06/22/23 10:30**

**Date Received: 06/22/23 13:30**

**Lab Sample ID: 890-4851-7**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.02 g	50 mL	56176	06/26/23 12:00	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	56371	06/26/23 22:51	CH	EET MID

**Client Sample ID: SW-W2**

**Date Collected: 06/22/23 10:35**

**Date Received: 06/22/23 13:30**

**Lab Sample ID: 890-4851-8**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.01 g	50 mL	56176	06/26/23 12:00	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	56371	06/26/23 22:57	CH	EET MID

**Client Sample ID: CS-3**

**Date Collected: 06/22/23 10:40**

**Date Received: 06/22/23 13:30**

**Lab Sample ID: 890-4851-9**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.96 g	50 mL	56176	06/26/23 12:00	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	56371	06/26/23 23:03	CH	EET MID

**Client Sample ID: SW-N3**

**Date Collected: 06/22/23 10:45**

**Date Received: 06/22/23 13:30**

**Lab Sample ID: 890-4851-10**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.96 g	50 mL	56176	06/26/23 12:00	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	56371	06/26/23 23:08	CH	EET MID

**Client Sample ID: SW-E3**

**Date Collected: 06/22/23 10:50**

**Date Received: 06/22/23 13:30**

**Lab Sample ID: 890-4851-11**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5 g	50 mL	56176	06/26/23 12:00	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	56371	06/26/23 23:14	CH	EET MID

**Client Sample ID: SW-S3**

**Date Collected: 06/22/23 10:55**

**Date Received: 06/22/23 13:30**

**Lab Sample ID: 890-4851-12**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.05 g	50 mL	56176	06/26/23 12:00	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	56371	06/26/23 23:32	CH	EET MID

Eurofins Carlsbad

## Lab Chronicle

Client: NT Global  
Project/Site: Vaca Line

Job ID: 890-4851-2  
SDG: Lea CO NM

Client Sample ID: SW-W3

Lab Sample ID: 890-4851-13

Date Collected: 06/22/23 11:00

Matrix: Solid

Date Received: 06/22/23 13:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.01 g	50 mL	56176	06/26/23 12:00	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	56371	06/26/23 23:38	CH	EET MID

Client Sample ID: CS-4

Lab Sample ID: 890-4851-14

Date Collected: 06/22/23 11:05

Matrix: Solid

Date Received: 06/22/23 13:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.99 g	50 mL	56176	06/26/23 12:00	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	56371	06/26/23 23:55	CH	EET MID

Client Sample ID: SW-N4

Lab Sample ID: 890-4851-15

Date Collected: 06/22/23 11:10

Matrix: Solid

Date Received: 06/22/23 13:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.01 g	50 mL	56176	06/26/23 12:00	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	56371	06/27/23 00:01	CH	EET MID

Client Sample ID: SW-E4

Lab Sample ID: 890-4851-16

Date Collected: 06/22/23 11:15

Matrix: Solid

Date Received: 06/22/23 13:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.03 g	50 mL	56176	06/26/23 12:00	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	56371	06/27/23 00:07	CH	EET MID

Client Sample ID: SW-S4

Lab Sample ID: 890-4851-17

Date Collected: 06/22/23 11:20

Matrix: Solid

Date Received: 06/22/23 13:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.05 g	50 mL	56176	06/26/23 12:00	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	56371	06/27/23 00:13	CH	EET MID

Client Sample ID: SW-W4

Lab Sample ID: 890-4851-18

Date Collected: 06/22/23 11:25

Matrix: Solid

Date Received: 06/22/23 13:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.02 g	50 mL	56176	06/26/23 12:00	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	56371	06/27/23 00:18	CH	EET MID

## Laboratory References:

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

Eurofins Carlsbad

### Accreditation/Certification Summary

Client: NT Global  
Project/Site: Vaca Line

Job ID: 890-4851-2  
SDG: Lea CO NM

#### Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-23-26	06-30-23

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

# Method Summary

Client: NT Global  
Project/Site: Vaca Line

Job ID: 890-4851-2  
SDG: Lea CO NM

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	EPA	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

**Protocol References:**

ASTM = ASTM International

EPA = US Environmental Protection Agency

**Laboratory References:**

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

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

### Sample Summary

Client: NT Global  
 Project/Site: Vaca Line

Job ID: 890-4851-2  
 SDG: Lea CO NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4851-1	CS-1A 1'	Solid	06/22/23 10:00	06/22/23 13:30	1
890-4851-2	SW-1A 0-1'	Solid	06/22/23 10:05	06/22/23 13:30	0 - 1
890-4851-3	SW-3A 0-1'	Solid	06/22/23 10:10	06/22/23 13:30	0 - 1
890-4851-4	CS-2	Solid	06/22/23 10:15	06/22/23 13:30	1
890-4851-5	SW-N2	Solid	06/22/23 10:20	06/22/23 13:30	0 - 1
890-4851-6	SW-E2	Solid	06/22/23 10:25	06/22/23 13:30	0 - 1
890-4851-7	SW-S2	Solid	06/22/23 10:30	06/22/23 13:30	0 - 1
890-4851-8	SW-W2	Solid	06/22/23 10:35	06/22/23 13:30	0 - 1
890-4851-9	CS-3	Solid	06/22/23 10:40	06/22/23 13:30	1
890-4851-10	SW-N3	Solid	06/22/23 10:45	06/22/23 13:30	0 - 1
890-4851-11	SW-E3	Solid	06/22/23 10:50	06/22/23 13:30	0 - 1
890-4851-12	SW-S3	Solid	06/22/23 10:55	06/22/23 13:30	0 - 1
890-4851-13	SW-W3	Solid	06/22/23 11:00	06/22/23 13:30	0 - 1
890-4851-14	CS-4	Solid	06/22/23 11:05	06/22/23 13:30	1
890-4851-15	SW-N4	Solid	06/22/23 11:10	06/22/23 13:30	0 - 1
890-4851-16	SW-E4	Solid	06/22/23 11:15	06/22/23 13:30	0 - 1
890-4851-17	SW-S4	Solid	06/22/23 11:20	06/22/23 13:30	0 - 1
890-4851-18	SW-W4	Solid	06/22/23 11:25	06/22/23 13:30	0 - 1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13



Environment Testing  
Xenco

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300  
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334  
El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296  
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Chain of Custody


Work Order No: \_\_\_\_\_

www.xenco.com Page 1 of 2

Project Manager:	Jeff Kinley	Bill to: (if different)	
Company Name:	MTG-E	Company Name:	
Address:	201 Trade Winds Blvd	Address:	
City, State ZIP:	Midland, TX, 79706	City, State ZIP:	
Phone:	575-988-8856	Email:	

Work Order Comments	
Program:	UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>
State of Project:	
Reporting:	Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/>
Deliverables:	EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other: _____

Project Name:	Water line	Turn Around	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush	Pres. Code:	
Project Number:	237513	Due Date:			
Project Location:	Res Co, Midland	TAT starts the day received by the lab, if received by 4:30pm			
Sampler Name:	Lenny Huan	Wet Ice:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
PO #:		Thermometer ID:	TM0007		
SAMPLE RECEIPT	Temp Blank:	Correction Factor:	-0.2		
Samples Received Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Temperature Reading:	12.2		
Cooler Custody Seals:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Corrected Temperature:	12.0		
Sample Custody Seals:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				
Total Containers:	18				

ANALYSIS REQUEST		Preservative Codes
 890-4851 Chain of Custody		None: NO Cool: Cool HCL: HC H <sub>2</sub> SO <sub>4</sub> : H <sub>2</sub> H <sub>2</sub> PO <sub>4</sub> : HP NaHSO <sub>4</sub> : NABIS Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> : NASO <sub>3</sub> Zn Acetate+NaOH: Zn NaOH+Ascorbic Acid: SARP
BTMEX TPH Chloride		DI Water: H <sub>2</sub> O MeOH: Me HNO <sub>3</sub> : HN NaOH: Na

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	Parameters
CS-1A	1'	6/29/23	10	1'	Comp	1	
SW-1A	0-1'		10:05	0-1'			
SW-3A	0-1'		10:10	0-1'			
CS-2			10:15	1'			
SW-1B			10:20	0-1'			
SW-1B2			10:25				
SW-S2			10:30				
SW-W2			10:35				
CS-3			10:40				
SW-N3			10:45	0-1'			

Total 2007 / 6010      2008 / 6020:      8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO<sub>2</sub> Na Sr Tl Sn U V Zn  
 Circle Method(s) and Metal(s) to be analyzed      TCP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U      Hg: 1631 / 245.1 / 7470 / 7471

Notes: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	6/29/23 1330			

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13



Environment Testing  
Xenco

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300  
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334  
El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296  
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

### Chain of Custody

Work Order No: \_\_\_\_\_

www.xenco.com

Page 2 of 2

Project Manager:	Jeff Kinley	Bill to: (if different)	
Company Name:	NTG-E	Company Name:	
Address:	701 Trailways Blvd	Address:	
City, State ZIP:	Midland TX 79706	City, State ZIP:	
Phone:	575-988-8854	Email:	

Project Name:	Mesa Line	Turn Around	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush	Pres Code	
Project Number:	237175	Due Date:		ANALYSIS REQUEST	
Project Location:	Year Co NW	TAT starts the day received by the lab, if received by 4:30pm			
Sampler's Name:	Kenry Hun				
P O #:					
SAMPLE RECEIPT		Temp Blank:	Yes No	Moister:	Yes No
Samples Received In tact:		Yes No	Thermometer ID:	Parameters	
Cooler Custody Seals:		Yes No	Corrected Factor:	BTEX	
Sample Custody Seals:		Yes No	Temperature Reading:	TPH	
Total Containers:		Yes No	Corrected Temperature:	Chloride	
		Yes No			

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	Preservative Codes	Sample Comments
SW-E3		4/29/23	10:50	0-1	Comp	7	None: NO Cool: Cool HCl: HC H <sub>2</sub> SO <sub>4</sub> : H <sub>2</sub> H <sub>3</sub> PO <sub>4</sub> : HP NaHSO <sub>4</sub> : NABIS Na <sub>2</sub> S <sub>2</sub> O <sub>5</sub> : NASO <sub>3</sub> Zn Acetate+NaOH: Zn NaOH+Ascorbic Acid: SASC	
SW-W3			10:55					
CS-4			11:05	2'				
SW-N4			11:10	0-1				
SW-E4			11:15					
SW-S4			11:20					
SW-W4			11:25					

Total 200.7 / 6010    200.8 / 6020:    8RCRA 13PPM    Texas 11    Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO<sub>2</sub> Na Sr Ti Sn U V Zn  
 Circle Method(s) and Metal(s) to be analyzed    TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U    Hg: 1631 / 245.1 / 7470 / 7471

Note: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$95.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		10:20-23 1330			

Revised Date: 08/25/2020 Rev. 2020.2

### Login Sample Receipt Checklist

Client: NT Global

Job Number: 890-4851-2

SDG Number: Lea CO NM

**Login Number: 4851**

**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.	N/A	Refer to Job Narrative for details.
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").	N/A	

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

### Login Sample Receipt Checklist

Client: NT Global

Job Number: 890-4851-2

SDG Number: Lea CO NM

**Login Number: 4851**

**List Number: 2**

**Creator: Rodriguez, Leticia**

**List Source: Eurofins Midland**

**List Creation: 06/26/23 08:47 AM**

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
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").	N/A	

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13



Environment Testing

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

# ANALYTICAL REPORT

## PREPARED FOR

Attn: Jeff Kindley  
NT Global

701 Tradewinds Blvd  
Midland, Texas 79706

Generated 6/30/2023 9:33:54 AM

## JOB DESCRIPTION

Vaca Line  
SDG NUMBER Lea Co NM

## JOB NUMBER

890-4861-1

Eurofins Carlsbad  
1089 N Canal St.  
Carlsbad NM 88220



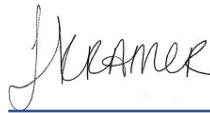
# Eurofins Carlsbad

## Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

## Authorization



Generated  
6/30/2023 9:33:54 AM

Authorized for release by  
Jessica Kramer, Project Manager  
[Jessica.Kramer@et.eurofinsus.com](mailto:Jessica.Kramer@et.eurofinsus.com)  
(432)704-5440



Client: NT Global  
Project/Site: Vaca Line

Laboratory Job ID: 890-4861-1  
SDG: Lea Co NM

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

# Table of Contents

Cover Page . . . . .	1
Table of Contents . . . . .	3
Definitions/Glossary . . . . .	4
Case Narrative . . . . .	5
Client Sample Results . . . . .	6
QC Sample Results . . . . .	7
QC Association Summary . . . . .	9
Lab Chronicle . . . . .	11
Certification Summary . . . . .	12
Method Summary . . . . .	13
Sample Summary . . . . .	14
Chain of Custody . . . . .	15
Receipt Checklists . . . . .	17

## Definitions/Glossary

Client: NT Global  
Project/Site: Vaca Line

Job ID: 890-4861-1  
SDG: Lea Co NM

## Qualifiers

## HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
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.
α	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: NT Global  
Project/Site: Vaca Line

Job ID: 890-4861-1  
SDG: Lea Co NM

**Job ID: 890-4861-1**

**Laboratory: Eurofins Carlsbad**

**Narrative**

**Job Narrative  
890-4861-1**

**Receipt**

The samples were received on 6/26/2023 1:53 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 8.2°C

**Receipt Exceptions**

The following samples were received and analyzed from an unpreserved bulk soil jar: CS-2 (890-4861-1), CS-2 (890-4861-2), CS-3 (890-4861-3), CS-3 (890-4861-4), CS-4 (890-4861-5) and CS-4 (890-4861-6).

**HPLC/IC**

Method 300\_ORGFM\_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-56358 and analytical batch 880-56503 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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



### Client Sample Results

Client: NT Global  
Project/Site: Vaca Line

Job ID: 890-4861-1  
SDG: Lea Co NM

**Client Sample ID: CS-2**

**Lab Sample ID: 890-4861-1**

Date Collected: 06/26/23 10:10  
Date Received: 06/26/23 13:53  
Sample Depth: 2 - 2.5

Matrix: Solid

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	78.1		5.02		mg/Kg			06/28/23 19:25	1

**Client Sample ID: CS-2**

**Lab Sample ID: 890-4861-2**

Date Collected: 06/26/23 11:20  
Date Received: 06/26/23 13:53  
Sample Depth: 3 - 3.5

Matrix: Solid

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	41.6		5.05		mg/Kg			06/28/23 19:31	1

**Client Sample ID: CS-3**

**Lab Sample ID: 890-4861-3**

Date Collected: 06/26/23 11:35  
Date Received: 06/26/23 13:53  
Sample Depth: 2 - 2.5

Matrix: Solid

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	101		4.98		mg/Kg			06/28/23 18:47	1

**Client Sample ID: CS-3**

**Lab Sample ID: 890-4861-4**

Date Collected: 06/26/23 11:45  
Date Received: 06/26/23 13:53  
Sample Depth: 3 - 3.5

Matrix: Solid

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	70.5		5.03		mg/Kg			06/28/23 19:02	1

**Client Sample ID: CS-4**

**Lab Sample ID: 890-4861-5**

Date Collected: 06/26/23 12:00  
Date Received: 06/26/23 13:53  
Sample Depth: 2 - 2.5

Matrix: Solid

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	66.0		4.96		mg/Kg			06/28/23 15:46	1

**Client Sample ID: CS-4**

**Lab Sample ID: 890-4861-6**

Date Collected: 06/26/23 12:15  
Date Received: 06/26/23 13:53  
Sample Depth: 3 - 3.5

Matrix: Solid

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	165		4.95		mg/Kg			06/28/23 16:02	1

Eurofins Carlsbad

### QC Sample Results

Client: NT Global  
Project/Site: Vaca Line

Job ID: 890-4861-1  
SDG: Lea Co NM

#### Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-56358/1-A  
Matrix: Solid  
Analysis Batch: 56503

Client Sample ID: Method Blank  
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			06/28/23 16:41	1

Lab Sample ID: LCS 880-56358/2-A  
Matrix: Solid  
Analysis Batch: 56503

Client Sample ID: Lab Control Sample  
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	245.2		mg/Kg		98	90 - 110

Lab Sample ID: LCSD 880-56358/3-A  
Matrix: Solid  
Analysis Batch: 56503

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	250	243.8		mg/Kg		98	90 - 110	1	20

Lab Sample ID: 890-4855-A-2-C MS  
Matrix: Solid  
Analysis Batch: 56503

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	206	F1	248	418.0	F1	mg/Kg		86	90 - 110

Lab Sample ID: 890-4855-A-2-D MSD  
Matrix: Solid  
Analysis Batch: 56503

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	206	F1	248	426.0	F1	mg/Kg		89	90 - 110	2	20

Lab Sample ID: MB 880-56484/1-A  
Matrix: Solid  
Analysis Batch: 56510

Client Sample ID: Method Blank  
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			06/28/23 15:31	1

Lab Sample ID: LCS 880-56484/2-A  
Matrix: Solid  
Analysis Batch: 56510

Client Sample ID: Lab Control Sample  
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	256.0		mg/Kg		102	90 - 110

Lab Sample ID: LCSD 880-56484/3-A  
Matrix: Solid  
Analysis Batch: 56510

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	250	260.9		mg/Kg		104	90 - 110	2	20

Eurofins Carlsbad

### QC Sample Results

Client: NT Global  
Project/Site: Vaca Line

Job ID: 890-4861-1  
SDG: Lea Co NM

#### Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 890-4861-5 MS  
Matrix: Solid  
Analysis Batch: 56510

Client Sample ID: CS-4  
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	66.0		248	288.7		mg/Kg		90	90 - 110

Lab Sample ID: 890-4861-5 MSD  
Matrix: Solid  
Analysis Batch: 56510

Client Sample ID: CS-4  
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	66.0		248	289.5		mg/Kg		90	90 - 110	0	20

Lab Sample ID: MB 880-56483/1-A  
Matrix: Solid  
Analysis Batch: 56511

Client Sample ID: Method Blank  
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			06/28/23 18:31	1

Lab Sample ID: LCS 880-56483/2-A  
Matrix: Solid  
Analysis Batch: 56511

Client Sample ID: Lab Control Sample  
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	258.6		mg/Kg		103	90 - 110

Lab Sample ID: LCSD 880-56483/3-A  
Matrix: Solid  
Analysis Batch: 56511

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	250	263.1		mg/Kg		105	90 - 110	2	20

Lab Sample ID: 890-4861-3 MS  
Matrix: Solid  
Analysis Batch: 56511

Client Sample ID: CS-3  
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	101		249	358.7		mg/Kg		104	90 - 110

Lab Sample ID: 890-4861-3 MSD  
Matrix: Solid  
Analysis Batch: 56511

Client Sample ID: CS-3  
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	101		249	363.3		mg/Kg		105	90 - 110	1	20

Eurofins Carlsbad

## QC Association Summary

Client: NT Global  
Project/Site: Vaca LineJob ID: 890-4861-1  
SDG: Lea Co NM

## HPLC/IC

## Leach Batch: 56358

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4861-1	CS-2	Soluble	Solid	DI Leach	
890-4861-2	CS-2	Soluble	Solid	DI Leach	
MB 880-56358/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-56358/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-56358/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4855-A-2-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-4855-A-2-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

## Leach Batch: 56483

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4861-3	CS-3	Soluble	Solid	DI Leach	
890-4861-4	CS-3	Soluble	Solid	DI Leach	
MB 880-56483/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-56483/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-56483/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4861-3 MS	CS-3	Soluble	Solid	DI Leach	
890-4861-3 MSD	CS-3	Soluble	Solid	DI Leach	

## Leach Batch: 56484

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4861-5	CS-4	Soluble	Solid	DI Leach	
890-4861-6	CS-4	Soluble	Solid	DI Leach	
MB 880-56484/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-56484/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-56484/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4861-5 MS	CS-4	Soluble	Solid	DI Leach	
890-4861-5 MSD	CS-4	Soluble	Solid	DI Leach	

## Analysis Batch: 56503

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4861-1	CS-2	Soluble	Solid	300.0	56358
890-4861-2	CS-2	Soluble	Solid	300.0	56358
MB 880-56358/1-A	Method Blank	Soluble	Solid	300.0	56358
LCS 880-56358/2-A	Lab Control Sample	Soluble	Solid	300.0	56358
LCSD 880-56358/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	56358
890-4855-A-2-C MS	Matrix Spike	Soluble	Solid	300.0	56358
890-4855-A-2-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	56358

## Analysis Batch: 56510

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4861-5	CS-4	Soluble	Solid	300.0	56484
890-4861-6	CS-4	Soluble	Solid	300.0	56484
MB 880-56484/1-A	Method Blank	Soluble	Solid	300.0	56484
LCS 880-56484/2-A	Lab Control Sample	Soluble	Solid	300.0	56484
LCSD 880-56484/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	56484
890-4861-5 MS	CS-4	Soluble	Solid	300.0	56484
890-4861-5 MSD	CS-4	Soluble	Solid	300.0	56484

## Analysis Batch: 56511

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4861-3	CS-3	Soluble	Solid	300.0	56483

Eurofins Carlsbad

### QC Association Summary

Client: NT Global  
Project/Site: Vaca Line

Job ID: 890-4861-1  
SDG: Lea Co NM

#### HPLC/IC (Continued)

#### Analysis Batch: 56511 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4861-4	CS-3	Soluble	Solid	300.0	56483
MB 880-56483/1-A	Method Blank	Soluble	Solid	300.0	56483
LCS 880-56483/2-A	Lab Control Sample	Soluble	Solid	300.0	56483
LCSD 880-56483/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	56483
890-4861-3 MS	CS-3	Soluble	Solid	300.0	56483
890-4861-3 MSD	CS-3	Soluble	Solid	300.0	56483

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

### Lab Chronicle

Client: NT Global  
Project/Site: Vaca Line

Job ID: 890-4861-1  
SDG: Lea Co NM

**Client Sample ID: CS-2**

**Lab Sample ID: 890-4861-1**

Date Collected: 06/26/23 10:10

Matrix: Solid

Date Received: 06/26/23 13:53

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.98 g	50 mL	56358	06/28/23 11:36	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	56503	06/28/23 19:25	CH	EET MID

**Client Sample ID: CS-2**

**Lab Sample ID: 890-4861-2**

Date Collected: 06/26/23 11:20

Matrix: Solid

Date Received: 06/26/23 13:53

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.95 g	50 mL	56358	06/28/23 11:36	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	56503	06/28/23 19:31	CH	EET MID

**Client Sample ID: CS-3**

**Lab Sample ID: 890-4861-3**

Date Collected: 06/26/23 11:35

Matrix: Solid

Date Received: 06/26/23 13:53

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.02 g	50 mL	56483	06/28/23 09:54	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	56511	06/28/23 18:47	CH	EET MID

**Client Sample ID: CS-3**

**Lab Sample ID: 890-4861-4**

Date Collected: 06/26/23 11:45

Matrix: Solid

Date Received: 06/26/23 13:53

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.97 g	50 mL	56483	06/28/23 09:54	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	56511	06/28/23 19:02	CH	EET MID

**Client Sample ID: CS-4**

**Lab Sample ID: 890-4861-5**

Date Collected: 06/26/23 12:00

Matrix: Solid

Date Received: 06/26/23 13:53

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.04 g	50 mL	56484	06/28/23 09:55	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	56510	06/28/23 15:46	CH	EET MID

**Client Sample ID: CS-4**

**Lab Sample ID: 890-4861-6**

Date Collected: 06/26/23 12:15

Matrix: Solid

Date Received: 06/26/23 13:53

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.05 g	50 mL	56484	06/28/23 09:55	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	56510	06/28/23 16:02	CH	EET MID

**Laboratory References:**

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

Eurofins Carlsbad

### Accreditation/Certification Summary

Client: NT Global  
Project/Site: Vaca Line

Job ID: 890-4861-1  
SDG: Lea Co NM

#### Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-25	06-30-23

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

### Method Summary

Client: NT Global  
Project/Site: Vaca Line

Job ID: 890-4861-1  
SDG: Lea Co NM

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	EPA	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

**Protocol References:**

ASTM = ASTM International

EPA = US Environmental Protection Agency

**Laboratory References:**

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

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

### Sample Summary

Client: NT Global  
Project/Site: Vaca Line

Job ID: 890-4861-1  
SDG: Lea Co NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4861-1	CS-2	Solid	06/26/23 10:10	06/26/23 13:53	2 - 2.5
890-4861-2	CS-2	Solid	06/26/23 11:20	06/26/23 13:53	3 - 3.5
890-4861-3	CS-3	Solid	06/26/23 11:35	06/26/23 13:53	2 - 2.5
890-4861-4	CS-3	Solid	06/26/23 11:45	06/26/23 13:53	3 - 3.5
890-4861-5	CS-4	Solid	06/26/23 12:00	06/26/23 13:53	2 - 2.5
890-4861-6	CS-4	Solid	06/26/23 12:15	06/26/23 13:53	3 - 3.5

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13



- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

**Eurofins Carlsbad**

1089 N Canal St  
 Carlsbad NM 88220  
 Phone: 575-988-3199 Fax: 575-988-3199

**Chain of Custody Record**



Environment Testing

<b>Client Information (Sub Contract Lab)</b>	Sampler	Lab PM:	Carrier Tracking No(s)
Client Contact: Eurofins Environment Testing South Cent	Phone:	Kramer Jessica	
Company: Eurofins Environment Testing South Cent		E-Mail: Jessica.Kramer@eurofins.com	State of Origin: New Mexico
Address: 1211 W. Florida Ave.	Due Date Requested: 6/30/2023	Accreditations Required (See note): NELAP - Texas	Job # 890-4861-1
City: Midland	TAT Requested (days):		COC No: 890-1346 1
State Zip: TX, 79701			Page: Page 1 of 1
Phone: 432-704-5440 (Tel)	PO #:		
Email: 432-704-5440 (Tel)	WO #:		
Project Name: Vacca Line	Project #: 88000222		
Site: SSOV#:			

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wastewater, BI=Issue Analy)	Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		Analysis Requested	Total Number of containers	Special Instructions/Note:
					Preservation Code						
CS-2 (890-4861-1)	6/26/23	10 10		Solid		X					
CS-2 (890-4861-2)	6/26/23	11 20		Solid		X					
CS-3 (890-4861-3)	6/26/23	11 35		Solid		X					
CS-3 (890-4861-4)	6/26/23	11 45		Solid		X					
CS-4 (890-4861-5)	6/26/23	12 00		Solid		X					
CS-4 (890-4861-6)	6/26/23	12 15		Solid		X					

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central LLC places the ownership of method analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/assessments, being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to Eurofins Environment Testing South Central LLC.

**Possible Hazard Identification**

*Unconfirmed*

Deliverable Requested: I II III IV Other (Specify) Primary Deliverable Rank: 2

Special Instructions/QC Requirements:

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months

Empty Kit Relinquished by	Date/Time	Date	Time	Method of Shipment
Relinquished by: <i>AW</i>				
Relinquished by:	Date/Time	Company	Received by:	Date/Time
			<i>J. Kramer</i>	<i>6/26/23 10:55</i>
Relinquished by:	Date/Time	Company	Received by:	Date/Time
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks: <i>2.3/2.0</i>		

### Login Sample Receipt Checklist

Client: NT Global

Job Number: 890-4861-1

SDG Number: Lea Co NM

**Login Number: 4861**

**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.	N/A	Refer to Job Narrative for details.
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").	N/A	

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

### Login Sample Receipt Checklist

Client: NT Global

Job Number: 890-4861-1

SDG Number: Lea Co NM

Login Number: 4861

List Number: 2

Creator: Kramer, Jessica

List Source: Eurofins Midland

List Creation: 06/28/23 10:43 AM

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.	True	
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").	N/A	

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

Sante Fe Main Office  
Phone: (505) 476-3441

General Information  
Phone: (505) 629-6116

Online Phone Directory  
<https://www.emnrd.nm.gov/ocd/contact-us>

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

QUESTIONS

Action 558151

**QUESTIONS**

Operator: EOG RESOURCES INC 5509 Champions Drive Midland, TX 79706	OGRID: 7377
	Action Number: 558151
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

<b>Prerequisites</b>	
Incident ID (n#)	nOY1829558271
Incident Name	NOY1829558271 EOG VACA LANE PIPELINE STRIKE @ FOY1829556640
Incident Type	Produced Water Release
Incident Status	Remediation Closure Report Received
Incident Facility	[fOY1829556640] VACA LANE PRODUCED WATER PIPELINE

<b>Location of Release Source</b>	
<i>Please answer all the questions in this group.</i>	
Site Name	EOG VACA LANE PIPELINE STRIKE
Date Release Discovered	10/10/2018
Surface Owner	State

<b>Incident Details</b>	
<i>Please answer all the questions in this group.</i>	
Incident Type	Produced Water Release
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

<b>Nature and Volume of Release</b>	
<i>Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.</i>	
Crude Oil Released (bbls) Details	Not answered.
Produced Water Released (bbls) Details	Cause: Human Error   Pipeline (Any)   Produced Water   Released: 233 BBL   Recovered: 55 BBL   Lost: 178 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	No
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Not answered.

Sante Fe Main Office  
Phone: (505) 476-3441

General Information  
Phone: (505) 629-6116

Online Phone Directory  
<https://www.emnrd.nm.gov/ocd/contact-us>

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

QUESTIONS, Page 2

Action 558151

**QUESTIONS (continued)**

Operator: EOG RESOURCES INC 5509 Champions Drive Midland, TX 79706	OGRID: 7377
	Action Number: 558151
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

<b>Nature and Volume of Release (continued)</b>	
Is this a gas only submission (i.e. only significant Mcf values reported)	<b>No, according to supplied volumes this does not appear to be a "gas only" report.</b>
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	<b>Yes</b>
Reasons why this would be considered a submission for a notification of a major release	<b>From paragraph A. "Major release" determine using: (1) an unauthorized release of a volume, excluding gases, of 25 barrels or more.</b>

*With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.*

**Initial Response**

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

The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	Not answered.

*Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.*

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.

I hereby agree and sign off to the above statement	Name: Hadlie Stout Title: Environmental Representative II Email: Hadlie_green@eogresources.com Date: 02/26/2026
--	--

Sante Fe Main Office  
Phone: (505) 476-3441

General Information  
Phone: (505) 629-6116

Online Phone Directory  
<https://www.emnrd.nm.gov/ocd/contact-us>

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

QUESTIONS, Page 3

Action 558151

**QUESTIONS (continued)**

Operator: EOG RESOURCES INC 5509 Champions Drive Midland, TX 79706	OGRID: 7377
	Action Number: 558151
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

<b>Site Characterization</b>	
<i>Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.</i>	
What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Less than or equal 25 (ft.)
What method was used to determine the depth to ground water	U.S. Geological Survey
Did this release impact groundwater or surface water	No
<b>What is the minimum distance, between the closest lateral extents of the release and the following surface areas:</b>	
A continuously flowing watercourse or any other significant watercourse	Between 300 and 500 (ft.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between 1 and 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Greater than 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between ½ and 1 (mi.)
Any other fresh water well or spring	Between ½ and 1 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between ½ and 1 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Low
A 100-year floodplain	Greater than 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	Yes

<b>Remediation Plan</b>	
<i>Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.</i>	
Requesting a remediation plan approval with this submission	Yes
<i>Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.</i>	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
<b>Soil Contamination Sampling:</b> (Provide the highest observable value for each, in milligrams per kilograms.)	
Chloride (EPA 300.0 or SM4500 Cl B)	649
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	0
GRO+DRO (EPA SW-846 Method 8015M)	0
BTEX (EPA SW-846 Method 8021B or 8260B)	0
Benzene (EPA SW-846 Method 8021B or 8260B)	0
<i>Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.</i>	
On what estimated date will the remediation commence	10/10/2018
On what date will (or did) the final sampling or liner inspection occur	06/26/2023
On what date will (or was) the remediation complete(d)	06/26/2023
What is the estimated surface area (in square feet) that will be reclaimed	200
What is the estimated volume (in cubic yards) that will be reclaimed	37
What is the estimated surface area (in square feet) that will be remediated	200
What is the estimated volume (in cubic yards) that will be remediated	37
<i>These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.</i>	
<i>The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.</i>	

Sante Fe Main Office  
Phone: (505) 476-3441

General Information  
Phone: (505) 629-6116

Online Phone Directory  
<https://www.emnrd.nm.gov/ocd/contact-us>

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

QUESTIONS, Page 4

Action 558151

**QUESTIONS (continued)**

Operator: EOG RESOURCES INC 5509 Champions Drive Midland, TX 79706	OGRID: 7377
	Action Number: 558151
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

**Remediation Plan (continued)**

Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

**This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:**

(Select all answers below that apply.)

(Ex Situ) Excavation and <b>off-site</b> disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for <b>off-site</b> disposal	fEEM0112340644 R360 ARTESIA LLC LANDFARM
<b>OR</b> which OCD approved well (API) will be used for <b>off-site</b> disposal	Not answered.
<b>OR</b> is the <b>off-site</b> disposal site, to be used, out-of-state	Not answered.
<b>OR</b> is the <b>off-site</b> disposal site, to be used, an NMED facility	Not answered.
(Ex Situ) Excavation and <b>on-site</b> remediation (i.e. On-Site Land Farms)	Not answered.
(In Situ) Soil Vapor Extraction	Not answered.
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	Not answered.
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	Not answered.
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	Not answered.
Ground Water Abatement pursuant to 19.15.30 NMAC	Not answered.
OTHER (Non-listed remedial process)	Not answered.

Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.

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.

I hereby agree and sign off to the above statement	Name: Hadlie Stout Title: Environmental Representative II Email: Hadlie_green@eogresources.com Date: 02/26/2026
--	--

The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.

Sante Fe Main Office  
Phone: (505) 476-3441

General Information  
Phone: (505) 629-6116

Online Phone Directory  
<https://www.emnrd.nm.gov/ocd/contact-us>

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

QUESTIONS, Page 5

Action 558151

**QUESTIONS (continued)**

Operator: EOG RESOURCES INC 5509 Champions Drive Midland, TX 79706	OGRID: 7377
	Action Number: 558151
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

<b>Deferral Requests Only</b>	
<i>Only answer the questions in this group if seeking a deferral upon approval this submission. Each of the following items must be confirmed as part of any request for deferral of remediation.</i>	
Requesting a deferral of the remediation closure due date with the approval of this submission	No

Sante Fe Main Office  
Phone: (505) 476-3441

General Information  
Phone: (505) 629-6116

Online Phone Directory  
<https://www.emnrd.nm.gov/ocd/contact-us>

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

QUESTIONS, Page 6

Action 558151

**QUESTIONS (continued)**

Operator: EOG RESOURCES INC 5509 Champions Drive Midland, TX 79706	OGRID: 7377
	Action Number: 558151
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

<b>Sampling Event Information</b>	
Last sampling notification (C-141N) recorded	558146
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	06/26/2023
What was the (estimated) number of samples that were to be gathered	6
What was the sampling surface area in square feet	200

<b>Remediation Closure Request</b>	
<i>Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.</i>	
Requesting a remediation closure approval with this submission	Yes
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
All areas reasonably needed for production or subsequent drilling operations have been stabilized, returned to the sites existing grade, and have a soil cover that prevents ponding of water, minimizing dust and erosion	Yes
What was the total surface area (in square feet) remediated	200
What was the total volume (cubic yards) remediated	37
All areas not reasonably needed for production or subsequent drilling operations have been reclaimed to contain a minimum of four feet of non-waste contain earthen material with concentrations less than 600 mg/kg chlorides, 100 mg/kg TPH, 50 mg/kg BTEX, and 10 mg/kg Benzene	Yes
What was the total surface area (in square feet) reclaimed	200
What was the total volume (in cubic yards) reclaimed	37
Summarize any additional remediation activities not included by answers (above)	Historical remediation activities completed in response to NMOCD and SLO correspondence.

*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 (in .pdf format) 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.*

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.

I hereby agree and sign off to the above statement	Name: Hadlie Stout Title: Environmental Representative II Email: Hadlie_green@eogresources.com Date: 02/26/2026
--	--

Sante Fe Main Office  
Phone: (505) 476-3441

General Information  
Phone: (505) 629-6116

Online Phone Directory  
<https://www.emnrd.nm.gov/ocd/contact-us>

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

QUESTIONS, Page 7

Action 558151

**QUESTIONS (continued)**

Operator: EOG RESOURCES INC 5509 Champions Drive Midland, TX 79706	OGRID: 7377
	Action Number: 558151
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

<b>Reclamation Report</b>	
<i>Only answer the questions in this group if all reclamation steps have been completed.</i>	
Requesting a reclamation approval with this submission	No

Sante Fe Main Office  
Phone: (505) 476-3441

General Information  
Phone: (505) 629-6116

Online Phone Directory  
<https://www.emnrd.nm.gov/ocd/contact-us>

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

CONDITIONS

Action 558151

**CONDITIONS**

Operator: EOG RESOURCES INC 5509 Champions Drive Midland, TX 79706	OGRID: 7377
	Action Number: 558151
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**CONDITIONS**

Created By	Condition	Condition Date
nvez	None	4/2/2026