

***** LIQUID SPILLS - VOLUME CALCULATIONS *****

Location of spill: Dolores AIL Federal #3

Date of Spill: 1/23/2025

If the leak/spill is associated with production equipment, i.e. - wellhead, stuffing box,
flowline, tank battery, production vessel, transfer pump, or storage tank place an "X" here: ☒

Input Data:

If spill volumes from measurement, i.e. metering, tank volumes, etc. are known enter the volumes here: OIL: 0.0000 BBL WATER: 0.0000 BBL

If "known" spill volumes are given, input data for the following "Area Calculations" is optional. The above will override the calculated volumes.

Total Area Calculations					Standing Liquid Calculations				
Total Surface Area	width	length	wet soil depth	oil (%)	Standing Liquid Area	width	length	liquid depth	oil (%)
Rectangle Area #1	21 ft X	150 ft X	3.75 in	15%	Rectangle Area #1	10 ft X	17 ft X	1 in	100%
Rectangle Area #2	0 ft X	0 ft X	0.00 in	0%	Rectangle Area #2	0 ft X	0 ft X	0 in	0%
Rectangle Area #3	0 ft X	0 ft X	0.00 in	0%	Rectangle Area #3	0 ft X	0 ft X	0 in	0%
Rectangle Area #4	0 ft X	0 ft X	0.00 in	0%	Rectangle Area #4	0 ft X	0 ft X	0 in	0%
Rectangle Area #5	0 ft X	0 ft X	0.00 in	0%	Rectangle Area #5	0 ft X	0 ft X	0 in	0%
Rectangle Area #6	0 ft X	0 ft X	0.00 in	0%	Rectangle Area #6	0 ft X	0 ft X	0 in	0%
Rectangle Area #7	0 ft X	0 ft X	0.00 in	0%	Rectangle Area #7	0 ft X	0 ft X	0 in	0%
Rectangle Area #8	0 ft X	0 ft X	0.00 in	0%	Rectangle Area #8	0 ft X	0 ft X	0 in	0%

okay

production system leak - DAILY PRODUCTION DATA REQUIRED

Average Daily Production: Oil BBL Water 0 BBL

Did leak occur before the separator?: ☐ YES ☒ N/A (place an "X")

Amount of Free Liquid Recovered: 1 BBL okay

Percentage of Oil in Free Liquid Recovered: 50% (percentage)

Liquid holding factor *: 0.14 gal per gal

Use the following when the spill wets the grains of the soil:

* sand = .08 gallon liquid per gallon volume of soil.

* gravelly (caliche) loam = .14 gallon liquid per gallon volume of soil.

* sandy clay loam soil = .14 gallon liquid per gallon volume of soil.

* clay loam = .16 gallon liquid per gallon volume of soil.

Use the following when the liquid completely fills the pore space of the soil:

Occurs when the spill soaked soil is contained by barriers, natural (or not).

* gravelly (caliche) loam = .25 gallon liquid per gallon volume of soil.

* sandy loam = .5 gallon liquid per gallon volume of soil.

Saturated Soil Volume Calculations:

Total Solid/Liquid Volume: 3,150 sq. ft. H2O 837 cu. ft. OIL 148 cu. ft.

Estimated Volumes Spilled

Liquid in Soil: 20.9 BBL
Free Liquid: 0.0 BBL
Totals: 20.862 BBL

Total Liquid Spill Liquid: 20.862 BBL 4.943 BBL

Recovered Volumes

Estimated oil recovered: 0.5 BBL check - okay
Estimated water recovered: 0.5 BBL check - okay

Free Liquid Volume Calculations:

Total Free Liquid Volume: 170 sq. ft. H2O .000 cu. ft. OIL 7.083 cu. ft.

Estimated Production Volumes Lost

Estimated Production Spilled: 0.000000 BBL 0.000000 BBL

Estimated Surface Damage

Surface Area: 3,150 sq. ft.

Surface Area: .0723 acre

Estimated Weights, and Volumes

Saturated Soil = 110,250 lbs 984 cu. ft. 36 cu. yds.
Total Liquid = 26 BBL 1,083.82 gallon 9,017 lbs

Environmental Site Remediation Work Plan

General Information

County:	Eddy	Incident ID:	Unknown
Landowner:	Federal	Location:	32.393634, -103.742007
Client:	EOG Resources, Inc.	Site Location:	Dolores AIL Federal #003
Date:	February 22, 2025	Project #:	25A-00478
Client Contact:	Chase Settle	Phone #:	575.703.6537
Vertex PM:	Chance Dixon	Phone #:	575.988.1472

Objective

The objective of the environmental remediation work plan is to identify exceedances found during the site assessment/characterization activity and propose an appropriate remediation technique to address the incident at Dolores AIL Federal #003. The incident was caused by internal erosion of the poly flow line. The release was initially reported as 3 barrels of oil and 1 barrel of produced water with one barrel of material recovered. However, further site investigation revealed that the original release estimate was under-reported from the field. The official calculated release estimate is 5 barrels of oil and 20 barrels of produced water. Areas of environmental concern identified and delineated include: the pasture adjacent to the northwest corner of the pad. Closure criteria has been selected as per New Mexico Administrative Code (NMAC) 19.15.29.12. All applicable research as it pertains to closure criteria selection is presented in Attachment 2. The closure criteria for the site is presented below.

Table 1. Closure Criteria for Soils to Remediation & Reclamation Standards		
	Constituent	Limit
0-4 feet bgs (19.15.29.13)	Chloride	600 mg/kg
	TPH (GRO+DRO+MRO)	100 mg/kg
DTGW > 100 feet (19.15.29.12)	Chloride	20,000 mg/kg
	TPH (GRO+DRO+MRO)	2,500 mg/kg
	GRO+DRO	1,000 mg/kg
	BTEX	50 mg/kg
	Benzene	10 mg/kg

DTGW – Depth to groundwater

bgs – Below ground surface

TPH – Total petroleum hydrocarbons = gasoline range organics (GRO) + diesel range organics (DRO) + motor oil range organics (MRO)

BTEX – Benzene, toluene, ethylbenzene, and xylenes

Site Assessment/Characterization

Site characterization began on February 4, 2025, and was completed on February 5, 2025. A total of seven sample points were established and 23 samples collected for field screening. Samples at the deepest vertical distance below closure criteria were submitted to the laboratory for analysis. In total, 19 samples were submitted to Cardinal Laboratories, Hobbs, New Mexico, for analysis. The sample locations are presented in Attachment 1. Laboratory analysis results have been compared to the above noted closure criteria and the results from the characterization activity are presented in Attachment 2. Exceedances are identified in the table as bold with a green background.

Remedial Activities

General

Areas identified with contaminant concentrations above closure criteria will be remediated through excavation. Laboratory results from the site assessment/characterization have been referenced to estimate both the vertical and horizontal limits of the impacts and the volume of soil to be removed. Soil will be excavated to the extents of the known contamination in exceedance to the closure criteria

VERSATILITY. EXPERTISE.

Environmental Site Remediation Work Plan

presented in Table 1. Field screening will be utilized to confirm removal of contaminated soil below the applicable closure criteria. Once excavation is complete, confirmatory samples will be collected and laboratory analysis completed to confirm closure criteria guidelines are met. Excavations will be backfilled with clean soil sourced locally.

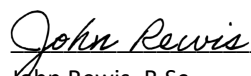
Field screening and laboratory analysis were utilized to find the horizontal and vertical extents of the spill area. A total of 23 samples were collected for analysis in the pasture adjacent to the constructed pad. Heavy equipment will be used to complete excavation of the release. Field screening from five-point composite samples at 200-square-foot intervals will be utilized to find the horizontal and vertical extents of the spill area. Confirmatory samples will be collected as per New Mexico Oil Conservation Division guidance and submitted for laboratory analysis of all applicable parameters. The estimated volume to be excavated is **8,140 cubic yards**.

Sample Point	Excavation Depth	Remediation Method
BH25-01	7'	Backhoe
BH25-02	7'	Backhoe
BH25-03	7'	Backhoe

Variance Request

Vertex would like to request a variance for the closure criteria of the site. The most recent DTGW data in the vicinity of the site is an exploratory borehole which was overseen by Carmona Resources, LLC. (Carmona). The borehole was placed approximately 0.74 miles away from the site, which is outside of NMOCD's required 0.5-mile window. It was recorded as a dry hole at 105 feet bgs in 2022. The proposed variance seeks to assume the >100 feet closure criteria listed in Table 1 of 19.15.29.12 NMAC. There is also a reference from the New Mexico Office of the State Engineer (NMOSE) located approximately 1.26 miles away (C-4144 POD 13). Details for the bore logs associated with the DTGW references described above are located in Attachment 3. With no other water or karst receptors being affected at the site, there are no groundwater risks associated with the site, and it will provide equal protection to the environment.

Should you have any questions or concerns, please do not hesitate to contact Chance Dixon at 575.988.1472 or cdixon@vertexresource.com.

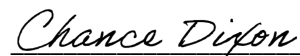


John Lewis, B.Sc.

ENVIRONMENTAL TECHNICIAN, REPORTING

5/15/2025

Date



Chance Dixon, B.Sc.

PROJECT MANAGER, REPORT REVIEW

5/15/2025

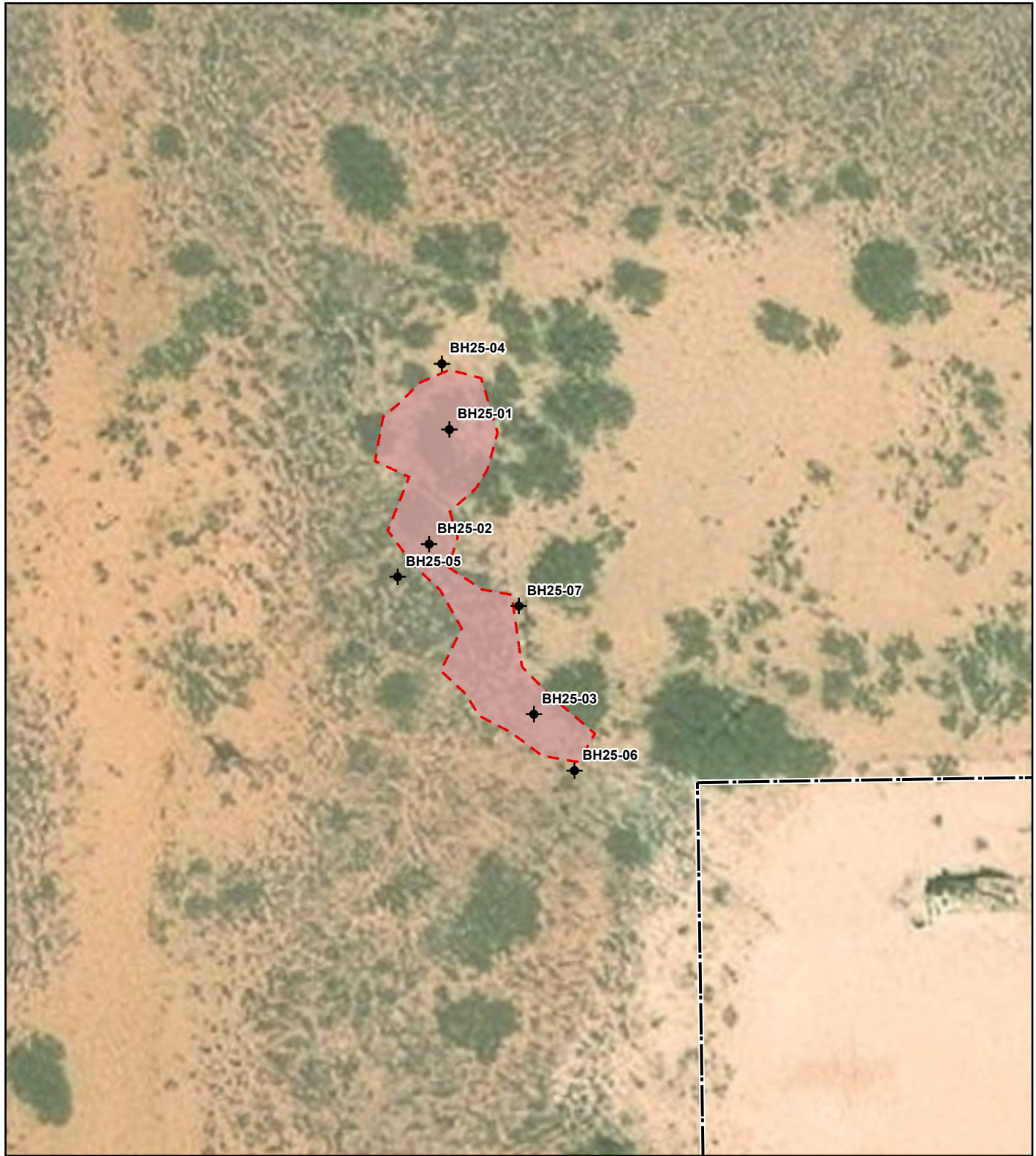
Date

Attachments

- Attachment 1. Characterization Sampling Site Schematic
- Attachment 2. Characterization Analytical Summary
- Attachment 3. Closure Criteria Research
- Attachment 4. Laboratory Data Reports and Chain of Custody Forms

VERSATILITY. EXPERTISE.

ATTACHMENT 1



-  Borehole
-  Approximate Release Area (~3,025 sq.ft.)
-  Approximate Lease Boundary



0 20 40 ft
NAD 1983 UTM Zone 13N
Date: Feb 25/25

Map Center:
Lat: 32.393634°N,
Long: 103.742007°W



Characterization Sampling Site Schematic Dolores AIL Federal #3

FIGURE:
1



Geospatial data presented in this figure may be derived from external sources and Vertex does not assume any liability for inaccuracies. This figure is intended for reference use only and is not certified for legal, survey, or engineering purposes.

Note: Georeferenced image from Esri, 2024. Approximate lease boundary from sketch by Vertex Professional Services Ltd. (Vertex), 2025. Site features from GPS, Vertex 2025

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ATTACHMENT 2

Client Name: EOG Resources Inc.

Site Name: Dolores AIL Federal #3

Project #: 25A-00478

Lab Report: H250711, H250887, H250955

Table 3. Characterization Sample Laboratory Results										
Sample Description			Petroleum Hydrocarbons							Inorganic
Sample ID	Depth (ft)	Sample Date	Volatile		Extractable					
			Benzene	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	
(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)				
Depth to Groundwater >100ft bgs										
BH25-01	0.0	February 4, 2025	1.83	106	2160	9040	1650	11200	12850	33,600
	2.0	February 4, 2025	ND	ND	ND	ND	ND	ND	ND	7,400
	4.0	February 4, 2025	ND	ND	ND	19.2	ND	19.2	19.2	2,600
BH25-02	0.0	February 4, 2025	6.44	261	6690	27700	4880	34390	39270	8,480
	2.0	February 4, 2025	ND	ND	ND	ND	ND	ND	ND	288
	4.0	February 4, 2025	ND	ND	ND	137	20.2	137	157.2	10,000
BH25-03	0.0	February 4, 2025	17.6	413	5620	18500	3650	24120	27770	9,400
	2.0	February 4, 2025	5.86	271	4710	13900	1390	18610	20000	4,480
	4.0	February 4, 2025	ND	2.45	85.9	1090	185	1175.9	1360.9	6,130
	6.0	February 5, 2025	ND	2.25	162	1000	157	1162	1319	5,460
	8.0	February 5, 2025	ND	ND	ND	60	ND	60	60	14,400
BH25-04	0.0	February 4, 2025	ND	ND	ND	ND	ND	ND	ND	ND
	2.0	February 4, 2025	ND	ND	ND	ND	ND	ND	ND	ND
BH25-05	0.0	February 4, 2025	ND	ND	ND	ND	ND	ND	ND	ND
	2.0	February 4, 2025	ND	ND	ND	ND	ND	ND	ND	ND
BH25-06	0.0	February 4, 2025	ND	ND	ND	ND	ND	ND	ND	ND
	2.0	February 4, 2025	ND	ND	ND	ND	ND	ND	ND	ND
BH25-07	0.0	February 4, 2025	ND	ND	ND	ND	ND	ND	ND	ND
	2.0	February 4, 2025	ND	ND	ND	ND	ND	ND	ND	ND

"ND" Not Detected at the Reporting Limit

"- " indicates not analyzed/assessed

Bold and green shaded indicates exceedance outside of NMOCD Reclamation Criteria (off-pad)



ATTACHMENT 3

Closure Criteria Determination			
Site Name: DOLORES AIL FEDERAL #3			
Spill Coordinates: 32.393339, -103.741514		X: UTM 618364.55 Y: UTM 3584732.18	
Site Specific Conditions		Value	Unit
1	Depth to Groundwater (nearest reference)	>105	feet
	Distance between release and nearest DTGW reference	3,907	feet
		0.74	miles
	Date of nearest DTGW reference measurement	March 2, 2022	
2	Within 300 feet of any continuously flowing watercourse or any other significant watercourse	8,314	feet
3	Within 200 feet of any lakebed, sinkhole or playa lake (measured from the ordinary high-water mark)	35,559	feet
4	Within 300 feet from an occupied residence, school, hospital, institution or church	32,165	feet
5	i) Within 500 feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or	8,208	feet
	ii) Within 1000 feet of any fresh water well or spring		feet
6	Within incorporated municipal boundaries or within a defined municipal fresh water field covered under a municipal ordinance adopted pursuant to Section 3-27-3 NMSA 1978 as amended, unless the municipality specifically approves	No	(Y/N)
7	Within 300 feet of a wetland	19,149	feet
8	Within the area overlying a subsurface mine	No	(Y/N)
	Distance between release and nearest registered mine	41,866	feet
9	Within an unstable area (Karst Map)	Low	Critical High Medium Low
	Distance between release and nearest unstable area	20,480	feet
10	Within a 100-year Floodplain	>500	year
	Distance between release and nearest FEMA Zone A (100-year Floodplain)	53,744	feet
11	Soil Type	KM	
12	Ecological Classification	Deep Sand	
13	Geology	Qep	
	NMAC 19.15.29.12 E (Table 1) Closure Criteria	>100'	<50' 51-100' >100'

Dolores AIL Federal #3

0.5-Mile Radius

Legend

-  Dolores AIL Federal #3
-  Carmona Resources DTGW Borehole

Carmona Resources, DTGW Borehole

32.393634 -103.742007 Dolores AIL Federal #3

Campbell Rd

Campbell Rd

Google Earth

2000 ft





Project Name :	Martha AIK Federal No. 13	Date :	Wednesday, March 2, 2022
Project No. :	1016	Sampler :	Clinton Merritt
Location :	Eddy Co, New Mexico	Driller :	Scarborough Drilling
Coordinates :	32.4038688, -103.7457492	Method :	Air Rotary
Elevation :	3,583		

Depth (ft.)	WL	Soil Description	Lithology	Depth (ft.)	WL	Soil Description	Lithology
0		(0') - Red very soft, silty, very loose sand, w/ <3% gyp, no organics, dry (SM).		50		(50') - Red/Brown stiff clay with 50% soft, silty, very loose sand, no organics, dry (SC).	
5		(5') - Red very soft, silty, very loose sand, w/ <3% gyp, no organics, dry (SM).		55		(55') - Red/Brown stiff clay with 50% soft, silty, very loose sand, no organics, dry (SC).	
10		(10') - Red very soft, silty, very loose sand, w/ <3% gyp, no organics, dry (SM).		60		(60') - Red/Brown stiff clay with 50% soft, silty, very loose sand, no organics, dry (SC).	
15		(15') - Red very soft, silty, very loose sand, w/ <3% gyp, no organics, dry (SM).		65		(65') - Red/Brown stiff clay with 50% soft, silty, very loose sand, no organics, dry (SC).	
20		(20') - Red very soft, silty, very loose sand, w/ <3% gyp, no organics, dry (SM).		70		(70') - Red/Brown stiff clay with 50% soft, silty, very loose sand, no organics, dry (SC).	
25		(25') - Red very soft, silty, very loose sand, w/ <3% gyp, no organics, dry (SM).		75		(75') - Red/Brown stiff clay with 50% soft, silty, very loose sand, no organics, dry (SC).	
30		(30') - Red very soft, silty, very loose sand, w/ <3% gyp, no organics, dry (SM).		80		(80') - White soft, silty, very loose sand w/ 5% gyp, no organics, dry (SM).	
35		(35') - Red very soft, silty, very loose sand, w/ <3% gyp, no organics, dry (SM).		85		(85') - Red stiff clay w/ 15% soft, silty, loosed sand and gyp, no organics, dry (SC)	
40		(40') - Red very soft, silty, very loose sand, w/ <3% gyp, no organics, dry (SM).		90		(90') - Red stiff clay w/ 15% soft, silty, loosed sand and gyp, no organics, dry (SC)	
45		(45') - Red very soft, silty, very loose sand, w/ <3% gyp, no organics, dry (SM).		95		(95') - Red stiff clay w/ 15% soft, silty, loosed sand and gyp, no organics, dry (SC)	
50				105			

Comments : 12:30 (CT) Boring terminated at 105' with no presence of groundwater or moisture.

9:13 (CT) 03/07/2022 no presence of groundwater was detected

Dolores AIL Federal #3 - C-4144 POD 13



3/4/2025, 1:44:18 PM

Override 1

GIS WATERS PODs

Active

Pending

Plugged

OSE District Boundary

Water Right Regulations

Closure Area

Artesian Planning Area

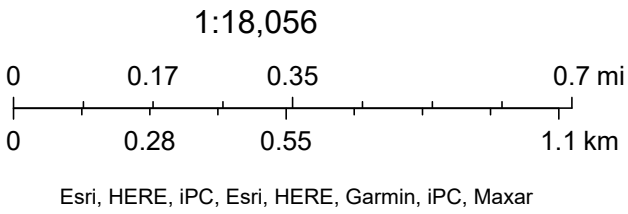
New Mexico State Trust Lands

Both Estates

NHD Flowlines

Artificial Path

Stream River





WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION	OSE POD NO. (WELL NO.) POD 13		WELL TAG ID NO. PMW-11		OSE FILE NO(S). C-4144		
	WELL OWNER NAME(S) EOG Resources				PHONE (OPTIONAL) 432-848-9146		
	WELL OWNER MAILING ADDRESS 5509 Champions Drive				CITY Midland	STATE Texas	
					ZIP 79706		
	WELL LOCATION (FROM GPS)	DEGREES LATITUDE 32	MINUTES 24	SECONDS 08.82	N	* ACCURACY REQUIRED: ONE TENTH OF A SECOND	
	LONGITUDE -103	43	23.28	W	* DATUM REQUIRED: WGS 84		
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE Approximately 10.5 south of US Highway 62/180							
2. DRILLING & CASING INFORMATION	LICENSE NO. 1664		NAME OF LICENSED DRILLER Shawn Cain			NAME OF WELL DRILLING COMPANY Cascade Drilling	
	DRILLING STARTED 8/5/21	DRILLING ENDED 8/10/21	DEPTH OF COMPLETED WELL (FT) NA	BORE HOLE DEPTH (FT) 105	DEPTH WATER FIRST ENCOUNTERED (FT) NA		
	COMPLETED WELL IS: <input type="checkbox"/> ARTESIAN <input checked="" type="checkbox"/> DRY HOLE <input type="checkbox"/> SHALLOW (UNCONFINED)				STATIC WATER LEVEL IN COMPLETED WELL (FT) NA		
	DRILLING FLUID: <input type="checkbox"/> AIR <input type="checkbox"/> MUD ADDITIVES – SPECIFY:						
	DRILLING METHOD: <input type="checkbox"/> ROTARY <input type="checkbox"/> HAMMER <input type="checkbox"/> CABLE TOOL <input checked="" type="checkbox"/> OTHER – SPECIFY: Roto Sonic						
	DEPTH (feet bgl) FROM TO		BORE HOLE DIAM. (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)
3. ANNULAR MATERIAL	DEPTH (feet bgl) FROM TO		BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT	
	0 105		6	Cement with 5% Bentonite	23	Trimie Pumped	


FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 04/30/19)

FILE NO.	POD NO.	TRN NO.
LOCATION	WELL TAG ID NO.	PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL	DEPTH (feet bgl)		THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER- BEARING ZONES (gpm)
	FROM	TO				
	0	6	6	Fine Silty Sand Red/Brown	Y ✓ N	
	6	10	4	Caliche	Y ✓ N	
	10	15	5	Fine Clayey sand brown	Y ✓ N	
	15	25	10	Fine sandstone brown	Y ✓ N	
	25	60	35	Fine silty sandstone Brown	Y ✓ N	
	60	70	10	Fat Clay Brown	Y ✓ N	
	70	85	15	Fine silty sandstone Brown	Y ✓ N	
	85	105	20	Fine to Medium Sandstone	Y ✓ N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA: <input type="checkbox"/> PUMP <input type="checkbox"/> AIR LIFT <input type="checkbox"/> BAILER <input type="checkbox"/> OTHER – SPECIFY:					TOTAL ESTIMATED WELL YIELD (gpm): 0.00	

5. TEST; RIG SUPERVISION	WELL TEST	TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.
	MISCELLANEOUS INFORMATION:	
	<p style="text-align: right;">USE DTH NOV 24 2021 PM 1:38</p>	
PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE: Jason Camp		

6. SIGNATURE	BY SIGNING BELOW, I CERTIFY THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED WELL. I ALSO CERTIFY THAT THE WELL TAG, IF REQUIRED, HAS BEEN INSTALLED AND THAT THIS WELL RECORD WILL ALSO BE FILED WITH THE PERMIT HOLDER WITHIN 30 DAYS AFTER THE COMPLETION OF WELL DRILLING.	
	 SIGNATURE OF DRILLER / PRINT SIGNEE NAME	Shawn Cain DATE

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 04/30/2019)

FILE NO.	POD NO.	TRN NO.
LOCATION	WELL TAG ID NO.	PAGE 2 OF 2



Dolores AIL Federal #3 Watercourse 8,314ft



February 23, 2025

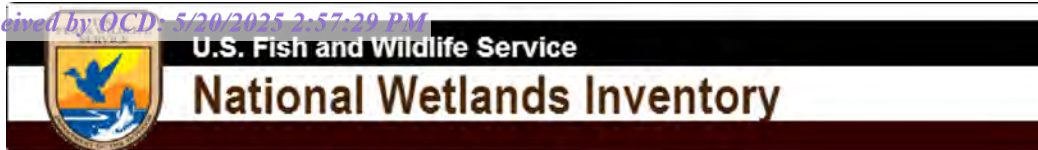
Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland

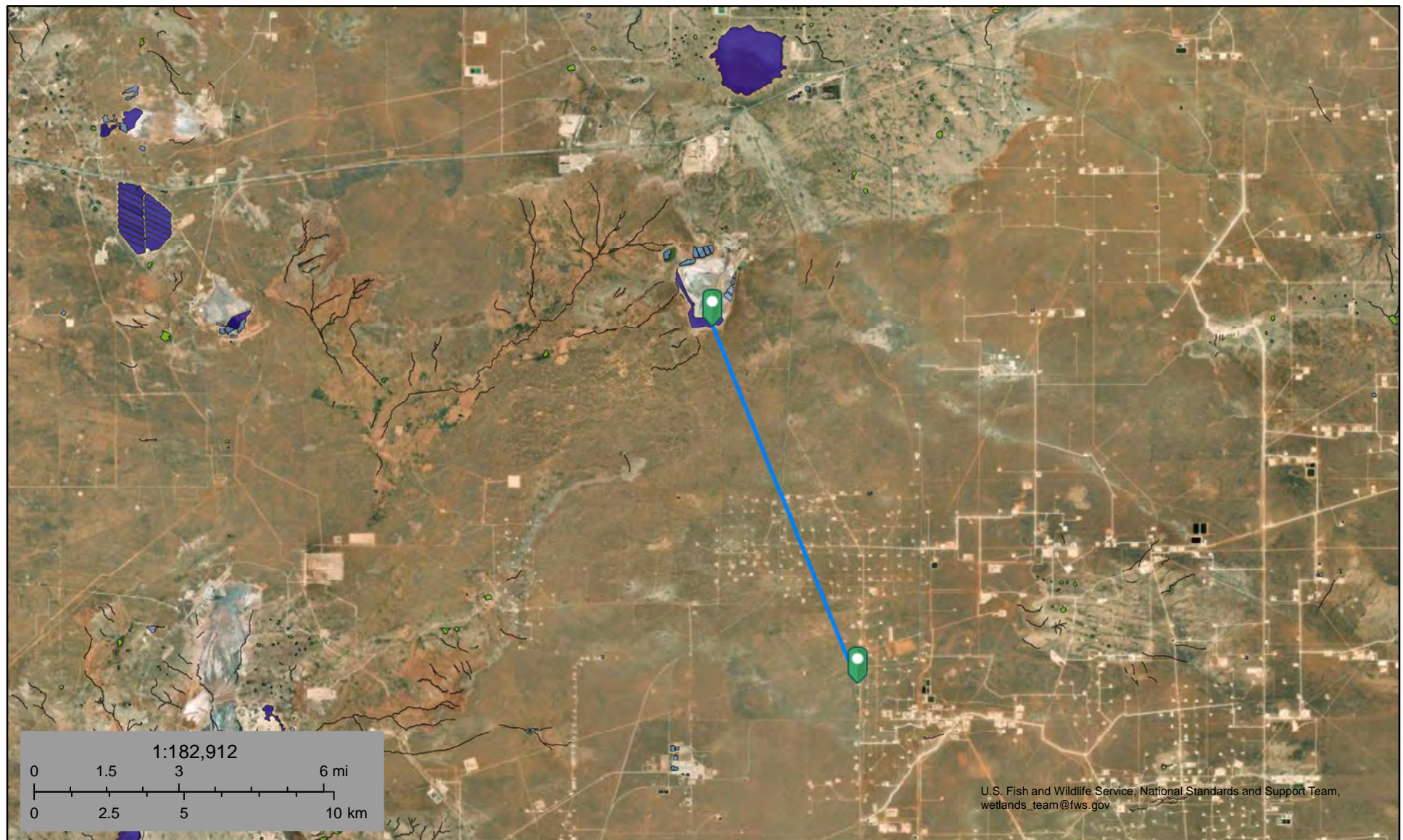
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond

- 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.



Dolores AIL Federal #3 Lake 3,5591ft



February 23, 2025

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland

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

- Lake
- Other
- Riverine




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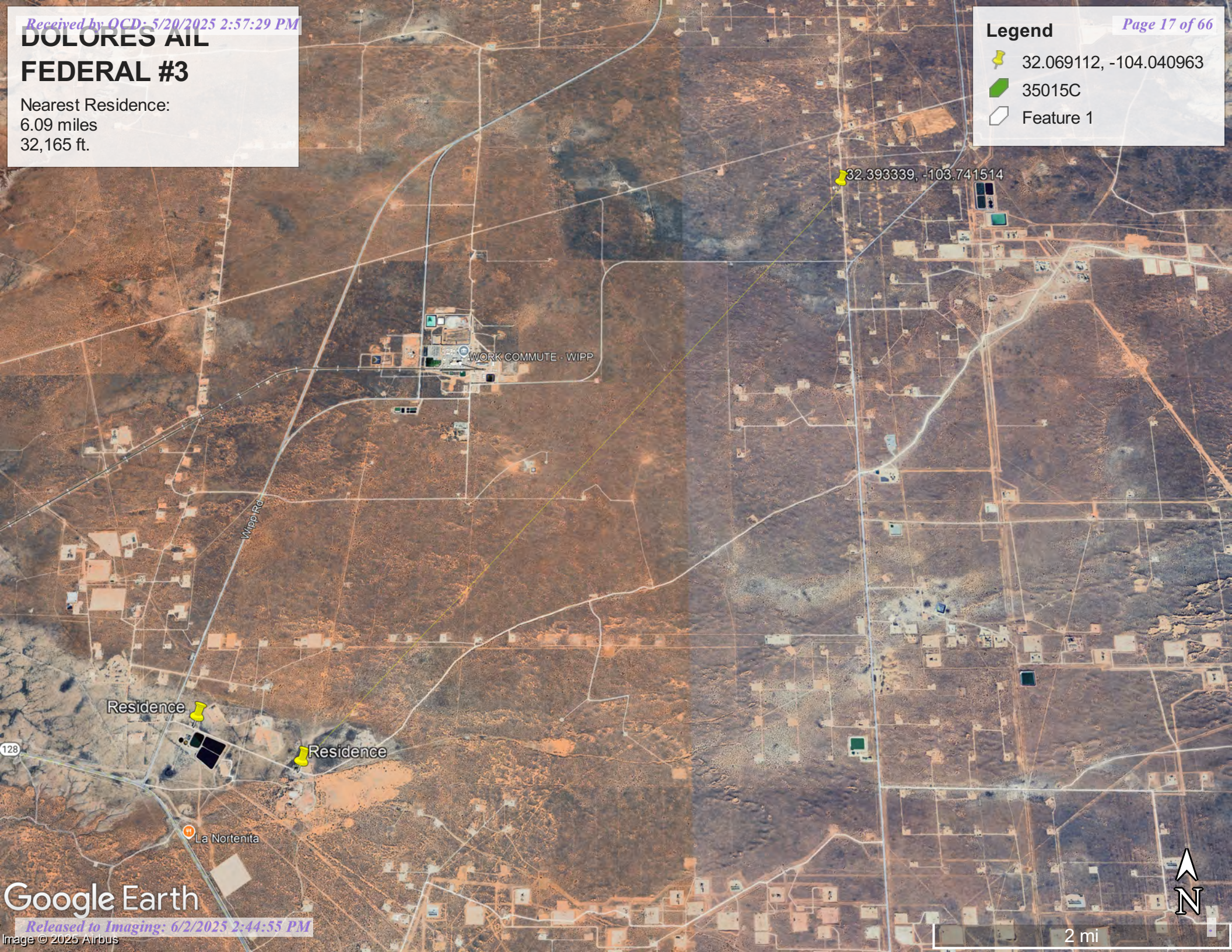
DOLORES AIL

FEDERAL #3

Nearest Residence:
6.09 miles
32,165 ft.

Legend

-  32.069112, -104.040963
-  35015C
-  Feature 1



32.393339, -103.741514

Residence

Residence

La Nortenita

WORK COMMUTE - WIPP

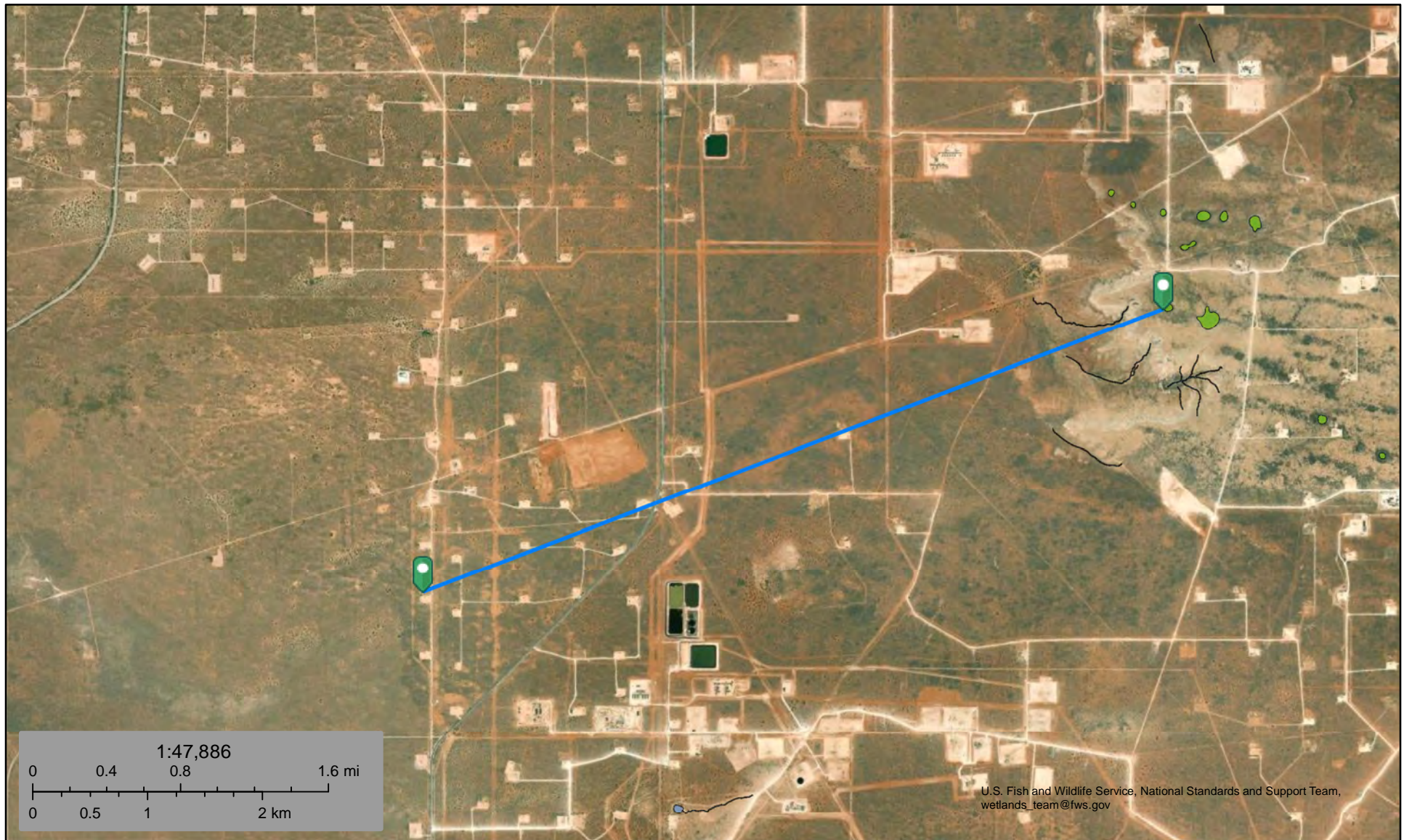


(R=POD has been replaced
and no longer serves this file,
C=the file is closed)

(acre ft per annum)										
WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Well Tag	Code	Grant	Source
					LE	C 04144 POD7	NA			
					LE	C 04144 POD33	NA			
					LE	C 04144 POD34	NA			
					LE	C 04144 POD6	NA			
					LE	C 04144 POD12	NA			
C 04740	CUB	MON	0.000	OXY USA INC.	ED	C 04740 POD1	NA			
C 02739	C	STK	0.000	MILLS FAMILY PARTNERSHIP FLP	ED	C 02739				
C 02939	C	STK	0.000	J C AND FRANCES MILLS FAMILY PARTNERSHIP LTD	LE	C 02939				
C 04837	CUB	MON	0.000	BLAKE GROOMS	LE	C 04837 POD1	NA			
C 02415	CUB	MON	0.000	U.S. DEPT OF ENERGY	ED	C 02415				Artesian
C 02756	CUB	MON	0.000	U.S. DEPT. OF ENERGY - WIPP	ED	C 02756				
C 03152	CUB	MON	0.000	U.S. DEPT OF ENERGY	ED	C 03152				Shallow
C 04695	CUB	MON	0.000	OXY USA INC.	LE	C 04695 POD1	NA			
C 04691	CUB	MON	0.000	OXY USA INC	ED	C 04691 POD1	NA			
C 04907	CUB	MON	0.000	SELECT WATER SOLUTIONS, LLC	LA	C 04907 POD1	NA			
C 02685	CUB	MON	0.000	SANDIA NATIONAL LABORATORIES	ED	C 02685				
C 03138	CUB	MON	0.000	U.S. DEPT. OF ENERGY	ED	C 03138				
C 02414	CUB	MON	0.000	U.S. DEPT. OF ENERGY	ED	C 02414				Artesian
C 04686	CUB	MON	0.000	OXY USA INC	ED	C 04686 POD1	NA			
C 02682	CUB	MON	0.000	SANDIA NATIONAL LABORATORIES	ED	C 02682				
C 04598	CUB	EXP	0.000	LUCID ENERGY GROUP	LE	C 04598 POD1	NA			
C 02639	CUB	MON	0.000	U.S. DEPARTMENT OF ENERGY	ED	C 02639				



Dolores AIL Federal Wetland 19,149ft



February 23, 2025

Wetlands

- 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.

Dolores AIL Federal #3 Mine 41,886ft



1/27/2025, 4:29:54 PM

1:144,448

Registered Mines

Aggregate, Stone etc.

Potash

Land Ownership

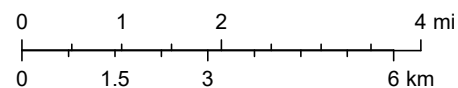
BLM

DOE

P

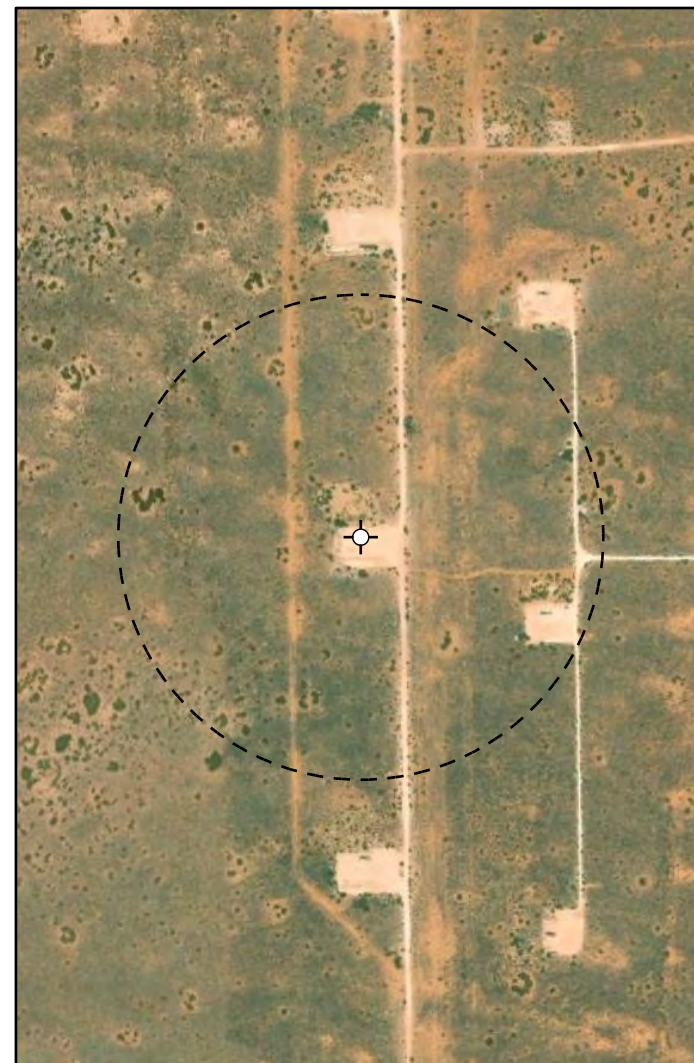
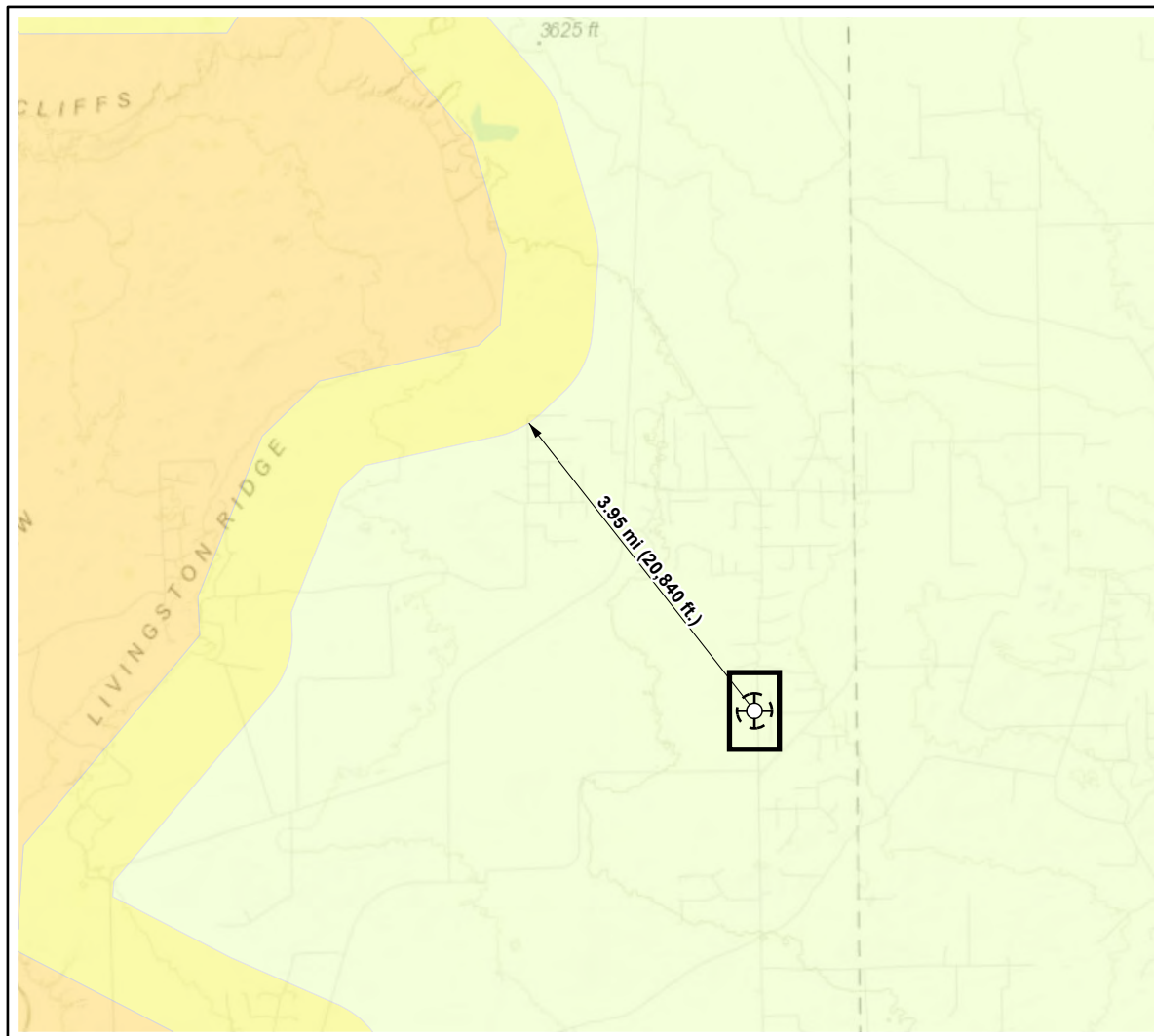
S

PLSS Townships



U.S. BLM, Esri, NASA, NGA, USGS, Texas Parks & Wildlife, CONANP, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA, USFWS, BLM

EMNRD MMD GIS Coordinator



Karst Potential

- Critical
- High
- Medium
- Low



Site Location



Buffer Location (~1,000 ft.)

Overview Map

0 0.5 1 2 mi

Detail Map

0 145 290 580 ft



Map Center:
Lat/Long
32.393339°,-103.741514°

NAD 1983 UTM Zone 13N
Date: Feb 03/25



Karst Potential Map Dolores AIL Federal #3

Figure:

X



Geospatial data presented in this figure may be derived from external sources and Vertex does not assume any liability for inaccuracies. This figure is intended for reference use only and is not certified for legal, survey, or engineering purposes.




Note: Inset Map, Esri 2022; Overview Map: Esri World Topographic. Karst potential data sources from Roswell Field Office, Bureau of Land Management, 2020 or United States Department of the Interior, Bureau of Land Management, (2018). Karst Potential.

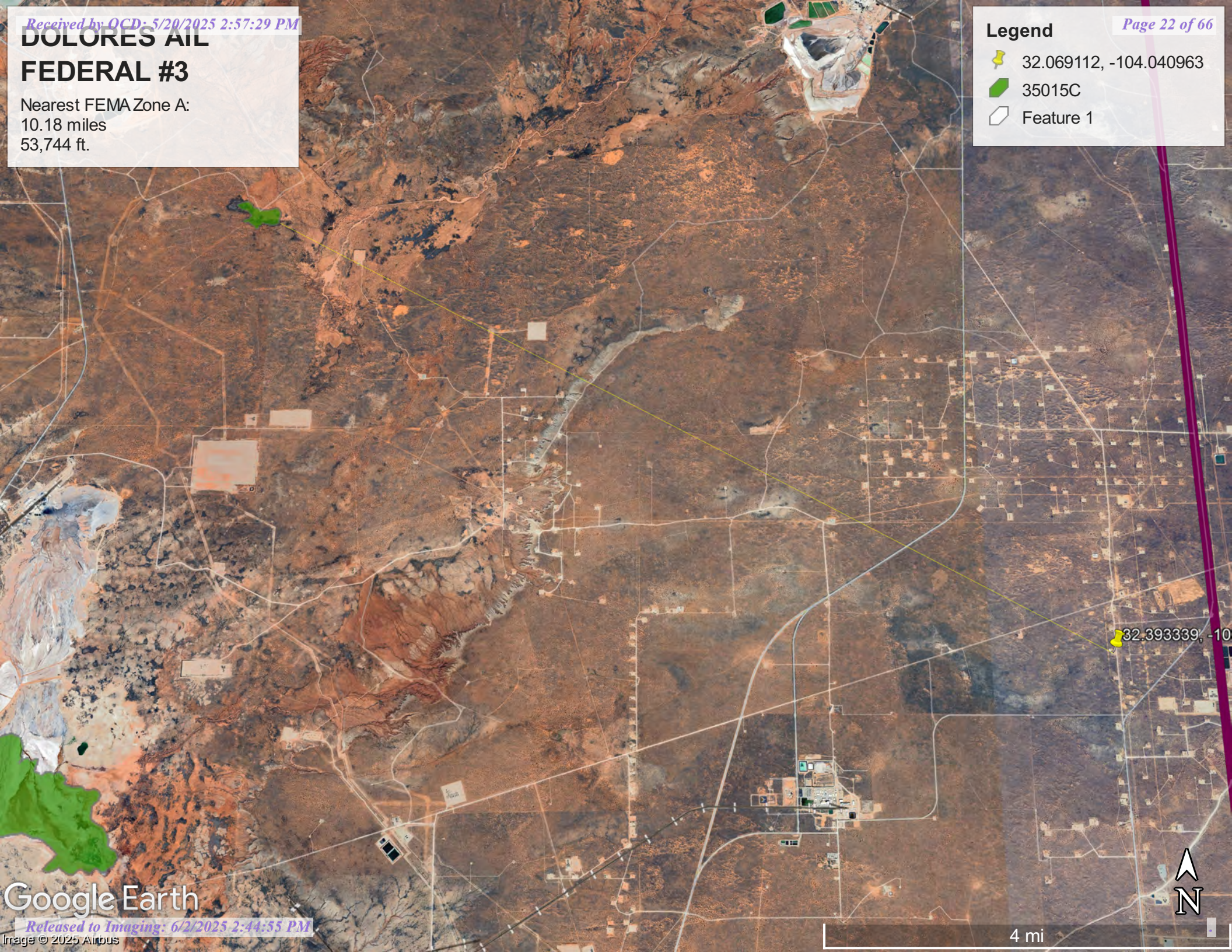
VERSATILITY. EXPERTISE.

**DOLORES AIL
FEDERAL #3**

Nearest FEMA Zone A:
10.18 miles
53,744 ft.

Legend

-  32.069112, -104.040963
-  35015C
-  Feature 1



Google Earth

National Flood Hazard Layer FIRMette



103°44'48"W 32°23'51"N



0 250 500 1,000 1,500 2,000 Feet

1:6,000

103°44'11"W 32°23'21"N

Released to Imaging: 6/2/2025 2:44:55 PM

Basemap Imagery Source: USGS National Map 2023

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		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
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 1/27/2025 at 11:23 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.



United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for Eddy Area, New Mexico



January 27, 2025

Custom Soil Resource Report

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
KM	Kermit-Berino fine sands, 0 to 3 percent slopes	3.0	100.0%
Totals for Area of Interest		3.0	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Custom Soil Resource Report

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Custom Soil Resource Report

Eddy Area, New Mexico**KM—Kermit-Berino fine sands, 0 to 3 percent slopes****Map Unit Setting**

National map unit symbol: 1w4q
Elevation: 3,100 to 4,200 feet
Mean annual precipitation: 10 to 14 inches
Mean annual air temperature: 60 to 64 degrees F
Frost-free period: 190 to 230 days
Farmland classification: Not prime farmland

Map Unit Composition

Kermit and similar soils: 50 percent
Berino and similar soils: 35 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kermit**Setting**

Landform: Plains, alluvial fans
Landform position (three-dimensional): Talf, rise
Down-slope shape: Convex, linear
Across-slope shape: Linear
Parent material: Mixed alluvium and/or eolian sands

Typical profile

H1 - 0 to 7 inches: fine sand
H2 - 7 to 60 inches: fine sand

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Excessively drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Very high (20.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.0 mmhos/cm)
Sodium adsorption ratio, maximum: 1.0
Available water supply, 0 to 60 inches: Low (about 3.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: A
Ecological site: R070BD005NM - Deep Sand
Hydric soil rating: No

Description of Berino**Setting**

Landform: Plains, fan piedmonts
Landform position (three-dimensional): Riser

Custom Soil Resource Report

Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Mixed alluvium and/or eolian sands

Typical profile

H1 - 0 to 17 inches: fine sand
H2 - 17 to 50 inches: fine sandy loam
H3 - 50 to 58 inches: loamy sand

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 40 percent
Maximum salinity: Very slightly saline to slightly saline (2.0 to 4.0 mmhos/cm)
Sodium adsorption ratio, maximum: 1.0
Available water supply, 0 to 60 inches: Moderate (about 7.2 inches)

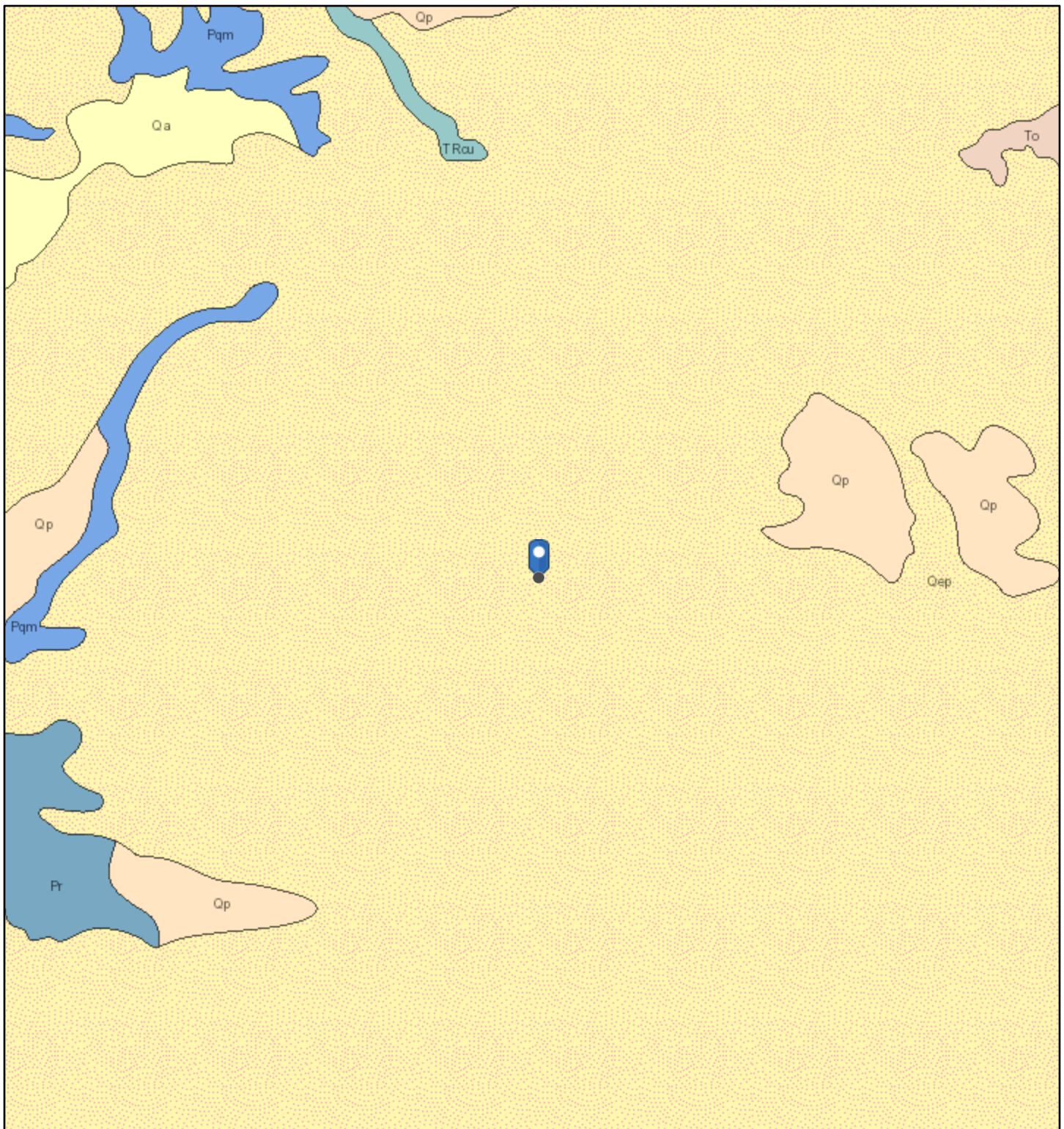
Interpretive groups

Land capability classification (irrigated): 4e
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: B
Ecological site: R070BD003NM - Loamy Sand
Hydric soil rating: No

Minor Components**Active dune land**

Percent of map unit: 15 percent
Hydric soil rating: No

Dolores AIL Federal #3 Geology

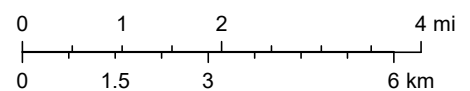


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Lithologic Units

- Playa—Alluvium and evaporite deposits (Holocene)
- Water—Perennial standing water
- Qa—Alluvium (Holocene to upper Pleistocene)



Esri, NASA, NGA, USGS, NMBGMR, USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset; USGS Global Ecosystems; U.S. Census Bureau TIGER/Line data; USFS

ArcGIS Web AppBuilder

ATTACHMENT 4



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

February 12, 2025

CHANCE DIXON

VERTEX RESOURCE

3101 BOYD DRIVE

CARLSBAD, NM 88220

RE: DOLORES AIL FEDERAL #3

Enclosed are the results of analyses for samples received by the laboratory on 02/06/25 13:18.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing style.

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

VERTEX RESOURCE
 CHANCE DIXON
 3101 BOYD DRIVE
 CARLSBAD NM, 88220
 Fax To: NA

Received: 02/06/2025
 Reported: 02/12/2025
 Project Name: DOLORES AIL FEDERAL #3
 Project Number: 25A - 00478
 Project Location: EOG

Sampling Date: 02/04/2025
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BH25 - 01 @ 0' (H250711-01)

BTX 8021B		mg/kg		Analyzed By: JH				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	1.83	0.500	02/08/2025	ND	1.75	87.3	2.00	3.42	GC-NC1
Toluene*	19.9	0.500	02/08/2025	ND	1.83	91.7	2.00	2.92	
Ethylbenzene*	22.7	0.500	02/08/2025	ND	1.78	89.2	2.00	3.27	
Total Xylenes*	61.9	1.50	02/08/2025	ND	5.22	87.1	6.00	3.30	
Total BTX	106	3.00	02/08/2025	ND					GC-NC1

Surrogate: 4-Bromofluorobenzene (PID) 143 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	33600	16.0	02/07/2025	ND	448	112	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	2160	100	02/07/2025	ND	204	102	200	0.719	
DRO >C10-C28*	9040	100	02/07/2025	ND	204	102	200	0.00343	
EXT DRO >C28-C36	1650	100	02/07/2025	ND					

Surrogate: 1-Chlorooctane 231 % 48.2-134

Surrogate: 1-Chlorooctadecane 195 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

VERTEX RESOURCE
 CHANCE DIXON
 3101 BOYD DRIVE
 CARLSBAD NM, 88220
 Fax To: NA

Received: 02/06/2025
 Reported: 02/12/2025
 Project Name: DOLORES AIL FEDERAL #3
 Project Number: 25A - 00478
 Project Location: EOG

Sampling Date: 02/04/2025
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BH25 - 01 @ 2' (H250711-02)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/07/2025	ND	1.75	87.3	2.00	3.42		
Toluene*	<0.050	0.050	02/07/2025	ND	1.83	91.7	2.00	2.92		
Ethylbenzene*	<0.050	0.050	02/07/2025	ND	1.78	89.2	2.00	3.27		
Total Xylenes*	<0.150	0.150	02/07/2025	ND	5.22	87.1	6.00	3.30		
Total BTEX	<0.300	0.300	02/07/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 91.9 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	7400	16.0	02/07/2025	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/07/2025	ND	204	102	200	0.719	
DRO >C10-C28*	<10.0	10.0	02/07/2025	ND	204	102	200	0.00343	
EXT DRO >C28-C36	<10.0	10.0	02/07/2025	ND					

Surrogate: 1-Chlorooctane 115 % 48.2-134

Surrogate: 1-Chlorooctadecane 121 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

VERTEX RESOURCE
 CHANCE DIXON
 3101 BOYD DRIVE
 CARLSBAD NM, 88220
 Fax To: NA

Received: 02/06/2025
 Reported: 02/12/2025
 Project Name: DOLORES AIL FEDERAL #3
 Project Number: 25A - 00478
 Project Location: EOG

Sampling Date: 02/04/2025
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BH25 - 01 @ 4' (H250711-03)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/07/2025	ND	1.75	87.3	2.00	3.42	
Toluene*	0.056	0.050	02/07/2025	ND	1.83	91.7	2.00	2.92	
Ethylbenzene*	<0.050	0.050	02/07/2025	ND	1.78	89.2	2.00	3.27	
Total Xylenes*	<0.150	0.150	02/07/2025	ND	5.22	87.1	6.00	3.30	
Total BTEX	<0.300	0.300	02/07/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.5 % 71.5-134

Chloride, SM4500Cl-B		mg/kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2600	16.0	02/07/2025	ND	448	112	400	3.64	

TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/07/2025	ND	204	102	200	0.719	
DRO >C10-C28*	19.2	10.0	02/07/2025	ND	204	102	200	0.00343	
EXT DRO >C28-C36	<10.0	10.0	02/07/2025	ND					

Surrogate: 1-Chlorooctane 116 % 48.2-134

Surrogate: 1-Chlorooctadecane 124 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

VERTEX RESOURCE
 CHANCE DIXON
 3101 BOYD DRIVE
 CARLSBAD NM, 88220
 Fax To: NA

Received: 02/06/2025
 Reported: 02/12/2025
 Project Name: DOLORES AIL FEDERAL #3
 Project Number: 25A - 00478
 Project Location: EOG

Sampling Date: 02/04/2025
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BH25 - 02 @ 0' (H250711-04)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	6.44	5.00	02/08/2025	ND	1.75	87.3	2.00	3.42	GC-NC1
Toluene*	47.4	5.00	02/08/2025	ND	1.83	91.7	2.00	2.92	
Ethylbenzene*	54.8	5.00	02/08/2025	ND	1.78	89.2	2.00	3.27	
Total Xylenes*	153	15.0	02/08/2025	ND	5.22	87.1	6.00	3.30	
Total BTEX	261	30.0	02/08/2025	ND					GC-NC1

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	8480	16.0	02/07/2025	ND	448	112	400	3.64	

TPH 8015M	mg/kg		Analyzed By: MS					S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	6690	100	02/07/2025	ND	204	102	200	0.719	
DRO >C10-C28*	27700	100	02/07/2025	ND	204	102	200	0.00343	
EXT DRO >C28-C36	4880	100	02/07/2025	ND					

Surrogate: 1-Chlorooctane 273 % 48.2-134

Surrogate: 1-Chlorooctadecane 615 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

VERTEX RESOURCE
 CHANCE DIXON
 3101 BOYD DRIVE
 CARLSBAD NM, 88220
 Fax To: NA

Received: 02/06/2025
 Reported: 02/12/2025
 Project Name: DOLORES AIL FEDERAL #3
 Project Number: 25A - 00478
 Project Location: EOG

Sampling Date: 02/04/2025
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BH25 - 02 @ 2' (H250711-05)

BTEx 8021B			mg/kg		Analyzed By: JH				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/08/2025	ND	1.75	87.3	2.00	3.42	
Toluene*	<0.050	0.050	02/08/2025	ND	1.83	91.7	2.00	2.92	
Ethylbenzene*	<0.050	0.050	02/08/2025	ND	1.78	89.2	2.00	3.27	
Total Xylenes*	<0.150	0.150	02/08/2025	ND	5.22	87.1	6.00	3.30	
Total BTEX	<0.300	0.300	02/08/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.4 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	288	16.0	02/07/2025	ND	448	112	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/07/2025	ND	204	102	200	0.719	
DRO >C10-C28*	<10.0	10.0	02/07/2025	ND	204	102	200	0.00343	
EXT DRO >C28-C36	<10.0	10.0	02/07/2025	ND					

Surrogate: 1-Chlorooctane 110 % 48.2-134

Surrogate: 1-Chlorooctadecane 117 % 49.1-148

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Analytical Results For:

VERTEX RESOURCE
 CHANCE DIXON
 3101 BOYD DRIVE
 CARLSBAD NM, 88220
 Fax To: NA

Received: 02/06/2025
 Reported: 02/12/2025
 Project Name: DOLORES AIL FEDERAL #3
 Project Number: 25A - 00478
 Project Location: EOG

Sampling Date: 02/04/2025
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BH25 - 02 @ 4' (H250711-06)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/08/2025	ND	1.75	87.3	2.00	3.42	
Toluene*	0.075	0.050	02/08/2025	ND	1.83	91.7	2.00	2.92	
Ethylbenzene*	<0.050	0.050	02/08/2025	ND	1.78	89.2	2.00	3.27	
Total Xylenes*	<0.150	0.150	02/08/2025	ND	5.22	87.1	6.00	3.30	
Total BTEX	<0.300	0.300	02/08/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.4 % 71.5-134

Chloride, SM4500Cl-B		mg/kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	10000	16.0	02/07/2025	ND	448	112	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/07/2025	ND	204	102	200	0.719	
DRO >C10-C28*	137	10.0	02/07/2025	ND	204	102	200	0.00343	
EXT DRO >C28-C36	20.2	10.0	02/07/2025	ND					

Surrogate: 1-Chlorooctane 103 % 48.2-134

Surrogate: 1-Chlorooctadecane 110 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

VERTEX RESOURCE
 CHANCE DIXON
 3101 BOYD DRIVE
 CARLSBAD NM, 88220
 Fax To: NA

Received: 02/06/2025
 Reported: 02/12/2025
 Project Name: DOLORES AIL FEDERAL #3
 Project Number: 25A - 00478
 Project Location: EOG

Sampling Date: 02/04/2025
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BH25 - 03 @ 0' (H250711-07)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	17.6	5.00	02/08/2025	ND	1.75	87.3	2.00	3.42	GC-NC1
Toluene*	94.3	5.00	02/08/2025	ND	1.83	91.7	2.00	2.92	
Ethylbenzene*	81.2	5.00	02/08/2025	ND	1.78	89.2	2.00	3.27	
Total Xylenes*	220	15.0	02/08/2025	ND	5.22	87.1	6.00	3.30	
Total BTEX	413	30.0	02/08/2025	ND					GC-NC1

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	9400	16.0	02/07/2025	ND	448	112	400	3.64	

TPH 8015M	mg/kg		Analyzed By: MS					S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	5620	100	02/07/2025	ND	204	102	200	0.719	
DRO >C10-C28*	18500	100	02/07/2025	ND	204	102	200	0.00343	
EXT DRO >C28-C36	3650	100	02/07/2025	ND					

Surrogate: 1-Chlorooctane 512 % 48.2-134

Surrogate: 1-Chlorooctadecane 396 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

VERTEX RESOURCE
 CHANCE DIXON
 3101 BOYD DRIVE
 CARLSBAD NM, 88220
 Fax To: NA

Received: 02/06/2025
 Reported: 02/12/2025
 Project Name: DOLORES AIL FEDERAL #3
 Project Number: 25A - 00478
 Project Location: EOG

Sampling Date: 02/04/2025
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BH25 - 03 @ 2' (H250711-08)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	5.86	5.00	02/08/2025	ND	1.75	87.3	2.00	3.42	GC-NC1
Toluene*	55.7	5.00	02/08/2025	ND	1.83	91.7	2.00	2.92	
Ethylbenzene*	52.9	5.00	02/08/2025	ND	1.78	89.2	2.00	3.27	
Total Xylenes*	157	15.0	02/08/2025	ND	5.22	87.1	6.00	3.30	
Total BTEX	271	30.0	02/08/2025	ND					GC-NC1

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	4480	16.0	02/07/2025	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	4710	10.0	02/07/2025	ND	204	102	200	0.719	
DRO >C10-C28*	13900	10.0	02/07/2025	ND	204	102	200	0.00343	
EXT DRO >C28-C36	1390	10.0	02/07/2025	ND					

Surrogate: 1-Chlorooctane 462 % 48.2-134

Surrogate: 1-Chlorooctadecane 295 % 49.1-148

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Analytical Results For:

VERTEX RESOURCE
 CHANCE DIXON
 3101 BOYD DRIVE
 CARLSBAD NM, 88220
 Fax To: NA

Received: 02/06/2025
 Reported: 02/12/2025
 Project Name: DOLORES AIL FEDERAL #3
 Project Number: 25A - 00478
 Project Location: EOG

Sampling Date: 02/04/2025
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BH25 - 03 @ 4' (H250711-09)

BTEx 8021B		mg/kg		Analyzed By: JH				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/09/2025	ND	1.75	87.3	2.00	3.42	
Toluene*	0.259	0.050	02/09/2025	ND	1.83	91.7	2.00	2.92	
Ethylbenzene*	0.492	0.050	02/09/2025	ND	1.78	89.2	2.00	3.27	
Total Xylenes*	1.70	0.150	02/09/2025	ND	5.22	87.1	6.00	3.30	
Total BTEX	2.45	0.300	02/09/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 138 % 71.5-134

Chloride, SM4500CI-B			mg/kg					Analyzed By: HM	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	6130	16.0	02/07/2025	ND	448	112	400	3.64	

TPH 8015M			mg/kg					Analyzed By: MS	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	85.9	10.0	02/07/2025	ND	204	102	200	0.719	
DRO >C10-C28*	1090	10.0	02/07/2025	ND	204	102	200	0.00343	
EXT DRO >C28-C36	185	10.0	02/07/2025	ND					

Surrogate: 1-Chlorooctane 129 % 48.2-134

Surrogate: 1-Chlorooctadecane 139 % 49.1-148

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Analytical Results For:

VERTEX RESOURCE
 CHANCE DIXON
 3101 BOYD DRIVE
 CARLSBAD NM, 88220
 Fax To: NA

Received: 02/06/2025
 Reported: 02/12/2025
 Project Name: DOLORES AIL FEDERAL #3
 Project Number: 25A - 00478
 Project Location: EOG

Sampling Date: 02/04/2025
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BH25 - 04 @ 0' (H250711-10)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/08/2025	ND	1.75	87.3	2.00	3.42		
Toluene*	<0.050	0.050	02/08/2025	ND	1.83	91.7	2.00	2.92		
Ethylbenzene*	<0.050	0.050	02/08/2025	ND	1.78	89.2	2.00	3.27		
Total Xylenes*	<0.150	0.150	02/08/2025	ND	5.22	87.1	6.00	3.30		
Total BTEX	<0.300	0.300	02/08/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 93.0 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/07/2025	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/07/2025	ND	204	102	200	0.719	
DRO >C10-C28*	<10.0	10.0	02/07/2025	ND	204	102	200	0.00343	
EXT DRO >C28-C36	<10.0	10.0	02/07/2025	ND					

Surrogate: 1-Chlorooctane 114 % 48.2-134

Surrogate: 1-Chlorooctadecane 123 % 49.1-148

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Analytical Results For:

VERTEX RESOURCE
 CHANCE DIXON
 3101 BOYD DRIVE
 CARLSBAD NM, 88220
 Fax To: NA

Received: 02/06/2025
 Reported: 02/12/2025
 Project Name: DOLORES AIL FEDERAL #3
 Project Number: 25A - 00478
 Project Location: EOG

Sampling Date: 02/04/2025
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BH25 - 04 @ 2' (H250711-11)

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/08/2025	ND	1.75	87.3	2.00	3.42		
Toluene*	<0.050	0.050	02/08/2025	ND	1.83	91.7	2.00	2.92		
Ethylbenzene*	<0.050	0.050	02/08/2025	ND	1.78	89.2	2.00	3.27		
Total Xylenes*	<0.150	0.150	02/08/2025	ND	5.22	87.1	6.00	3.30		
Total BTEX	<0.300	0.300	02/08/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 92.2 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/07/2025	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/07/2025	ND	204	102	200	0.719	
DRO >C10-C28*	<10.0	10.0	02/07/2025	ND	204	102	200	0.00343	
EXT DRO >C28-C36	<10.0	10.0	02/07/2025	ND					

Surrogate: 1-Chlorooctane 110 % 48.2-134

Surrogate: 1-Chlorooctadecane 122 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

VERTEX RESOURCE
 CHANCE DIXON
 3101 BOYD DRIVE
 CARLSBAD NM, 88220
 Fax To: NA

Received: 02/06/2025
 Reported: 02/12/2025
 Project Name: DOLORES AIL FEDERAL #3
 Project Number: 25A - 00478
 Project Location: EOG

Sampling Date: 02/04/2025
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BH25 - 05 @ 0' (H250711-12)

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/08/2025	ND	1.75	87.3	2.00	3.42		
Toluene*	<0.050	0.050	02/08/2025	ND	1.83	91.7	2.00	2.92		
Ethylbenzene*	<0.050	0.050	02/08/2025	ND	1.78	89.2	2.00	3.27		
Total Xylenes*	<0.150	0.150	02/08/2025	ND	5.22	87.1	6.00	3.30		
Total BTEX	<0.300	0.300	02/08/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 92.2 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/07/2025	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/07/2025	ND	204	102	200	0.719	
DRO >C10-C28*	<10.0	10.0	02/07/2025	ND	204	102	200	0.00343	
EXT DRO >C28-C36	<10.0	10.0	02/07/2025	ND					

Surrogate: 1-Chlorooctane 116 % 48.2-134

Surrogate: 1-Chlorooctadecane 122 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

VERTEX RESOURCE
 CHANCE DIXON
 3101 BOYD DRIVE
 CARLSBAD NM, 88220
 Fax To: NA

Received: 02/06/2025
 Reported: 02/12/2025
 Project Name: DOLORES AIL FEDERAL #3
 Project Number: 25A - 00478
 Project Location: EOG

Sampling Date: 02/04/2025
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BH25 - 05 @ 2' (H250711-13)

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/08/2025	ND	1.75	87.3	2.00	3.42		
Toluene*	<0.050	0.050	02/08/2025	ND	1.83	91.7	2.00	2.92		
Ethylbenzene*	<0.050	0.050	02/08/2025	ND	1.78	89.2	2.00	3.27		
Total Xylenes*	<0.150	0.150	02/08/2025	ND	5.22	87.1	6.00	3.30		
Total BTEX	<0.300	0.300	02/08/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 92.5 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/07/2025	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/07/2025	ND	204	102	200	0.719	
DRO >C10-C28*	<10.0	10.0	02/07/2025	ND	204	102	200	0.00343	
EXT DRO >C28-C36	<10.0	10.0	02/07/2025	ND					

Surrogate: 1-Chlorooctane 114 % 48.2-134

Surrogate: 1-Chlorooctadecane 123 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

VERTEX RESOURCE
 CHANCE DIXON
 3101 BOYD DRIVE
 CARLSBAD NM, 88220
 Fax To: NA

Received: 02/06/2025
 Reported: 02/12/2025
 Project Name: DOLORES AIL FEDERAL #3
 Project Number: 25A - 00478
 Project Location: EOG

Sampling Date: 02/04/2025
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BH25 - 06 @ 0' (H250711-14)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/08/2025	ND	1.75	87.3	2.00	3.42	
Toluene*	<0.050	0.050	02/08/2025	ND	1.83	91.7	2.00	2.92	
Ethylbenzene*	<0.050	0.050	02/08/2025	ND	1.78	89.2	2.00	3.27	
Total Xylenes*	<0.150	0.150	02/08/2025	ND	5.22	87.1	6.00	3.30	
Total BTEX	<0.300	0.300	02/08/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 91.7 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	02/07/2025	ND	448	112	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/07/2025	ND	204	102	200	0.719	
DRO >C10-C28*	<10.0	10.0	02/07/2025	ND	204	102	200	0.00343	
EXT DRO >C28-C36	<10.0	10.0	02/07/2025	ND					

Surrogate: 1-Chlorooctane 112 % 48.2-134

Surrogate: 1-Chlorooctadecane 120 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

VERTEX RESOURCE
 CHANCE DIXON
 3101 BOYD DRIVE
 CARLSBAD NM, 88220
 Fax To: NA

Received: 02/06/2025
 Reported: 02/12/2025
 Project Name: DOLORES AIL FEDERAL #3
 Project Number: 25A - 00478
 Project Location: EOG

Sampling Date: 02/04/2025
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BH25 - 06 @ 2' (H250711-15)

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/08/2025	ND	1.75	87.3	2.00	3.42		
Toluene*	<0.050	0.050	02/08/2025	ND	1.83	91.7	2.00	2.92		
Ethylbenzene*	<0.050	0.050	02/08/2025	ND	1.78	89.2	2.00	3.27		
Total Xylenes*	<0.150	0.150	02/08/2025	ND	5.22	87.1	6.00	3.30		
Total BTEX	<0.300	0.300	02/08/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 92.4 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/07/2025	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/07/2025	ND	204	102	200	0.719	
DRO >C10-C28*	<10.0	10.0	02/07/2025	ND	204	102	200	0.00343	
EXT DRO >C28-C36	<10.0	10.0	02/07/2025	ND					

Surrogate: 1-Chlorooctane 114 % 48.2-134

Surrogate: 1-Chlorooctadecane 122 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

VERTEX RESOURCE
 CHANCE DIXON
 3101 BOYD DRIVE
 CARLSBAD NM, 88220
 Fax To: NA

Received: 02/06/2025
 Reported: 02/12/2025
 Project Name: DOLORES AIL FEDERAL #3
 Project Number: 25A - 00478
 Project Location: EOG

Sampling Date: 02/04/2025
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BH25 - 07 @ 0' (H250711-16)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/08/2025	ND	1.75	87.3	2.00	3.42	
Toluene*	<0.050	0.050	02/08/2025	ND	1.83	91.7	2.00	2.92	
Ethylbenzene*	<0.050	0.050	02/08/2025	ND	1.78	89.2	2.00	3.27	
Total Xylenes*	<0.150	0.150	02/08/2025	ND	5.22	87.1	6.00	3.30	
Total BTEX	<0.300	0.300	02/08/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 92.5 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	02/07/2025	ND	448	112	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/07/2025	ND	223	112	200	0.676	
DRO >C10-C28*	<10.0	10.0	02/07/2025	ND	219	110	200	4.39	
EXT DRO >C28-C36	<10.0	10.0	02/07/2025	ND					

Surrogate: 1-Chlorooctane 85.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 87.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

VERTEX RESOURCE
 CHANCE DIXON
 3101 BOYD DRIVE
 CARLSBAD NM, 88220
 Fax To: NA

Received: 02/06/2025
 Reported: 02/12/2025
 Project Name: DOLORES AIL FEDERAL #3
 Project Number: 25A - 00478
 Project Location: EOG

Sampling Date: 02/04/2025
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BH25 - 07 @ 2' (H250711-17)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/08/2025	ND	2.00	100	2.00	6.32	
Toluene*	<0.050	0.050	02/08/2025	ND	2.09	104	2.00	6.67	
Ethylbenzene*	<0.050	0.050	02/08/2025	ND	1.99	99.6	2.00	6.15	
Total Xylenes*	<0.150	0.150	02/08/2025	ND	5.87	97.8	6.00	6.37	
Total BTEX	<0.300	0.300	02/08/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 90.9 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/07/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/07/2025	ND	223	112	200	0.676	
DRO >C10-C28*	<10.0	10.0	02/07/2025	ND	219	110	200	4.39	
EXT DRO >C28-C36	<10.0	10.0	02/07/2025	ND					

Surrogate: 1-Chlorooctane 84.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 85.5 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
GC-NC1	8260 confirmation analysis was performed; initial GC results were not supported by GC/MS analysis and are biased high with interfering compounds.
BS-3	Blank spike recovery outside of lab established statistical limits, but still within method limits. Data is not adversely affected.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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

Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: <u>Vertex (bill to EOG Resources Inc)</u>				BILL TO		ANALYSIS REQUEST														
Project Manager: <u>Chance Dixon</u>				P.O. #:		<div style="display: flex; flex-direction: column; align-items: center; justify-content: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">BTEX 8021</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">TPH 8015</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Chloride</div> </div>														
Address: <u>3101 Boyd Dr</u>				Company: <u>EOG Resources</u>																
City: <u>Carlsbad</u> State: <u>NM</u> Zip: <u>88220</u>				Attn: <u>Chase Settle</u>																
Phone #: <u>575-988-1472</u> Fax #:				Address:																
Project #: <u>25A-00478</u> Project Owner:				City:																
Project Name: <u>Dolores AIL Federal #3</u>				State: Zip:																
Project Location:				Phone #:																
Sampler Name: <u>Riley Arnold</u>				Fax #:																
FOR LAB USE ONLY				MATRIX		PRESERV.		SAMPLING												
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME						
<u>H250711</u>																				
1	BH25-01 @ 0'	G	1			X					X		02.04.25	10:00						
2	BH25-01 @ 2'													10:07						
3	BH25-01 @ 4'													10:17						
4	BH25-02 @ 0'													10:25						
5	BH25-02 @ 2'													10:32						
6	BH25-02 @ 4'													10:40						
7	BH25-03 @ 0'													11:00						
8	BH25-03 @ 2'													11:09						
9	BH25-03 @ 4'													11:22						
10	BH25-04 @ 0'													11:30						

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Relinquished By: <u>[Signature]</u>	Date: <u>2.4.25</u> Time: <u>138</u>	Received By: <u>[Signature]</u>	Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #:
Relinquished By:	Date:	Received By:	All Results are emailed. Please provide Email address:
	Time:		<u>Cdixon@vertexresource.com</u>
Delivered By: (Circle One)	Observed Temp. °C <u>1.4</u>	Sample Condition	Turnaround Time: Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/>
Sampler - UPS - Bus - Other:	Corrected Temp. °C <u>1.72</u>	CHECKED BY: (Initials) <u>SR</u>	Bacteria (only) Sample Condition
			Cool Intact Observed Temp. °C
			<input type="checkbox"/> Yes <input type="checkbox"/> No
			Thermometer ID #140
			Correction Factor <u>+0.3</u>
			Cool Intact Observed Temp. °C
			<input type="checkbox"/> Yes <input type="checkbox"/> No
			Corrected Temp. °C

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: <u>Vertex (bill to EOG Resources Inc)</u>				BILL TO		ANALYSIS REQUEST																							
Project Manager: <u>Chance Dixon</u>				P.O. #:		<div style="display: flex; justify-content: space-around; font-size: 2em;"> <div>BTEX 8021</div> <div>TPH 8015</div> <div>Chloride</div> </div>																							
Address: <u>3101 Boyd Dr</u>				Company: <u>EOG Resources</u>																									
City: <u>Carlsbad</u> State: <u>NM</u> Zip: <u>88220</u>				Attn: <u>Chase Settle</u>																									
Phone #: <u>575-988-1472</u> Fax #:				Address:																									
Project #: <u>25A-00478</u> Project Owner:				City:																									
Project Name: <u>Dolores All Federal #3</u>				State: Zip:																									
Project Location:				Phone #:																									
Sampler Name: <u>Riley Arnold</u>				Fax #:																									
FOR LAB USE ONLY				MATRIX		PRESERV.		SAMPLING																					
Lab I.D.		Sample I.D.		(G)RAB OR (C)COMP		# CONTAINERS		GROUNDWATER		WASTEWATER		SOIL		OIL		SLUDGE		OTHER		ACID/BASE		ICE / COOL		OTHER		DATE		TIME	
<u>H250711</u>		<u>BH25-04 @ 2'</u>		<u>G</u>		<u>1</u>		<u>X</u>												<u>X</u>						<u>02.04.25</u>		<u>11:45</u>	
<u>11</u>		<u>BH25-05 @ 0'</u>																								<u>11:57</u>			
<u>12</u>		<u>BH25-05 @ 2'</u>																								<u>12:09</u>			
<u>13</u>		<u>BH25-06 @ 0'</u>																								<u>12:21</u>			
<u>14</u>		<u>BH25-06 @ 2'</u>																								<u>12:30</u>			
<u>15</u>		<u>BH25-07 @ 0'</u>																								<u>12:39</u>			
<u>16</u>		<u>BH25-07 @ 2'</u>																								<u>12:50</u>			
<u>17</u>																													

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Relinquished By: <u>Coxin</u>		Date: <u>2.10.25</u>		Received By: <u>Stodkiewicz</u>		Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #:	
Time: <u>13:18</u>		Time: <u>13:18</u>		Time: <u>13:18</u>		All Results are emailed. Please provide Email address:	
Relinquished By:		Date:		Received By:		REMARKS:	
Time:		Time:		Time:		REMARKS:	
Delivered By: (Circle One)		Observed Temp. °C <u>1.4</u>		Sample Condition		Turnaround Time: <u>Standard</u> <input checked="" type="checkbox"/> <u>Rush</u> <input type="checkbox"/>	
Sampler - UPS - Bus - Other:		Corrected Temp. °C <u>1.7</u>		Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No		Bacteria (only) Sample Condition	
				Checked By: (Initials) <u>SR</u>		Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No	
						Thermometer ID #140	
						Correction Factor <u>-0.6</u> <u>+0.3</u>	
						Observed Temp. °C	
						Corrected Temp. °C	

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

February 17, 2025

CHANCE DIXON

VERTEX RESOURCE

3101 BOYD DRIVE

CARLSBAD, NM 88220

RE: DOLORES AIL FEDERAL #3

Enclosed are the results of analyses for samples received by the laboratory on 02/13/25 14:25.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

VERTEX RESOURCE
 CHANCE DIXON
 3101 BOYD DRIVE
 CARLSBAD NM, 88220
 Fax To: NA

Received: 02/13/2025
 Reported: 02/17/2025
 Project Name: DOLORES AIL FEDERAL #3
 Project Number: 25A - 00478
 Project Location: EOG - CARLSBAD, NM

Sampling Date: 02/05/2025
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: BS 25 - 03 6' (H250887-01)

BTX 8021B		mg/kg		Analyzed By: JH				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/14/2025	ND	1.86	93.1	2.00	0.779	
Toluene*	<0.050	0.050	02/14/2025	ND	1.93	96.4	2.00	1.31	GC-NC
Ethylbenzene*	0.351	0.050	02/14/2025	ND	1.94	96.9	2.00	1.58	
Total Xylenes*	1.90	0.150	02/14/2025	ND	5.94	99.0	6.00	2.00	
Total BTX	2.25	0.300	02/14/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 142 % 71.5-134

Chloride, SM4500Cl-B			mg/kg					Analyzed By: HM	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	5460	16.0	02/14/2025	ND	416	104	400	0.00	

TPH 8015M			mg/kg					Analyzed By: MS	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	162	10.0	02/14/2025	ND	195	97.6	200	3.05	
DRO >C10-C28*	1000	10.0	02/14/2025	ND	184	92.1	200	3.76	
EXT DRO >C28-C36	157	10.0	02/14/2025	ND					

Surrogate: 1-Chlorooctane 104 % 48.2-134

Surrogate: 1-Chlorooctadecane 104 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
GC-NC	8260 confirmation analysis was performed; initial GC results were not supported by GC/MS analysis and are reported as ND.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: <u>VERTX/EOG</u>		BILL TO		ANALYSIS REQUEST																									
Project Manager: <u>Chance Dixon</u>		P.O. #:		<div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">BTEX 8021</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">TPH 8015</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">CI</div> </div>																									
Address: <u>On File</u>		Company: <u>EOG</u>																											
City:	State:	Zip:	Attn: <u>Chase Settle</u>																										
Phone #:	Fax #:	Address:																											
Project #: <u>25A-00478</u>	Project Owner:		City:																										
Project Name: <u>DOLORES AIL Federal #3</u>		State: Zip:																											
Project Location: <u>Carrizobad, NM</u>		Phone #:																											
Sampler Name: <u>Ricky Arnold</u>		Fax #:																											
FOR LAB USE ONLY				MATRIX		PRESERV.		SAMPLING																					
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE/COOL	OTHER:	DATE	TIME															
<u>H250887</u>	<u>BS 25-03 6'</u>	<u>G</u>	<u>1</u>										<u>2/5</u>	<u>4:00</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>												

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Relinquished By: <u>CAIN</u>	Date: <u>2/13</u>	Received By: <u>Tamara Aldridge</u>	Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
Time: <u>1425</u>	Date:	Received By:	All Results are emailed. Please provide Email address:	
Relinquished By:	Date:	Received By:	REMARKS:	
Time:	Date:	Received By:		
Delivered By: (Circle One)	Observed Temp. °C <u>0.1</u>	Sample Condition	CHECKED BY: (Initials) <u>YO</u>	Turnaround Time: <u>Standard</u> <input type="checkbox"/> <u>Rush</u> <input checked="" type="checkbox"/>
Sampler - UPS - Bus - Other:	Corrected Temp. °C <u>0.4</u>	<input type="checkbox"/> Cool <input checked="" type="checkbox"/> Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Bacteria (only) Sample Condition Cool Intact Observed Temp. °C <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Corrected Temp. °C
Thermometer ID #140		Correction Factor -0.6°C		

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com



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

February 20, 2025

CHANCE DIXON

VERTEX RESOURCE

3101 BOYD DRIVE

CARLSBAD, NM 88220

RE: DOLORES AIL FEDERAL #3

Enclosed are the results of analyses for samples received by the laboratory on 02/18/25 13:50.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

Accreditation applies to public drinking water matrices.

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Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

VERTEX RESOURCE
 CHANCE DIXON
 3101 BOYD DRIVE
 CARLSBAD NM, 88220
 Fax To: NA

Received: 02/18/2025
 Reported: 02/20/2025
 Project Name: DOLORES AIL FEDERAL #3
 Project Number: 25A - 00478
 Project Location: EOG - CARLSBAD, NM

Sampling Date: 02/11/2025
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: BH25 - 03 @ 8' (H250955-01)

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/19/2025	ND	2.00	99.8	2.00	13.3		
Toluene*	<0.050	0.050	02/19/2025	ND	2.27	113	2.00	14.5		
Ethylbenzene*	<0.050	0.050	02/19/2025	ND	2.52	126	2.00	16.5		
Total Xylenes*	<0.150	0.150	02/19/2025	ND	7.72	129	6.00	18.0		
Total BTEX	<0.300	0.300	02/19/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 107 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	14400	16.0	02/19/2025	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/19/2025	ND	191	95.4	200	2.18	
DRO >C10-C28*	60.0	10.0	02/19/2025	ND	179	89.5	200	4.39	
EXT DRO >C28-C36	<10.0	10.0	02/19/2025	ND					

Surrogate: 1-Chlorooctane 94.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 95.2 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

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Notes and Definitions

QR-04	The RPD for the BS/BSD was outside of historical limits.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
BS-3	Blank spike recovery outside of lab established statistical limits, but still within method limits. Data is not adversely affected.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

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A handwritten signature in black ink, appearing to read "Celey D. Keene", is written over a horizontal line.

Celey D. Keene, Lab Director/Quality Manager



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: <u>VERTEX/EOG</u> Project Manager: <u>Charles Dixon</u> Address: <u>On File</u> City: _____ State: _____ Zip: _____ Phone #: _____ Fax #: _____ Project #: <u>25A-00478</u> Project Owner: _____ Project Name: <u>Dolores AIL Federal #3</u> Project Location: <u>Carlsbad</u> Sampler Name: <u>Charles Dixon</u>				BILL TO P.O. #: _____ Company: <u>EOG</u> Attn: <u>CHASE KEENE</u> Address: _____ City: _____ State: _____ Zip: _____ Phone #: _____ Fax #: _____		ANALYSIS REQUEST												
FOR LAB USE ONLY Lab I.D. <u>H250955</u> Sample I.D. <u>BH25-03 8'</u>		GRAB OR (C)OMP. # CONTAINERS <u>61</u>	MATRIX GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER: _____	PRESERV. ACID/BASE: CE/COL OTHER: _____	SAMPLING DATE <u>2/11</u> TIME <u>9:00</u>	<u>RTX 8021</u> <u>TPH 8015</u> <u>CI</u>												

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: <u>CASH</u> Relinquished By: _____ Delivered By: (Circle One) Sampler - UPS - Bus - Other: _____	Date: <u>2-18-25</u> Time: <u>1350</u> Date: _____ Time: _____	Received By: <u>Jamara Oldaker</u> Received By: _____ Observed Temp. °C <u>1.1</u> Corrected Temp. °C <u>1.4</u>	Sample Condition Cool Intact <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No	CHECKED BY: (Initials) <u>YO</u>	Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #: _____ All Results are emailed. Please provide Email address: _____ REMARKS: _____ Turnaround Time: Standard <input type="checkbox"/> Rush <input checked="" type="checkbox"/> Thermometer ID #140 <u>2-Day</u> Correction Factor -0.6°C	Bacteria (only) Sample Condition Cool Intact Observed Temp. °C <input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No Corrected Temp. °C
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FORM-006 R 3.3 06/03/24

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com

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 465388

QUESTIONS

Operator: EOG RESOURCES INC 5509 Champions Drive Midland, TX 79706	OGRID: 7377
	Action Number: 465388
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2513446761
Incident Name	NAPP2513446761 DOLORES AIL FEDERAL #3 @ 30-015-26722
Incident Type	Produced Water Release
Incident Status	Remediation Plan Received
Incident Well	[30-015-26722] DOLORES AIL FEDERAL #003

Location of Release Source	
Please answer all the questions in this group.	
Site Name	Dolores AIL Federal #3
Date Release Discovered	01/23/2025
Surface Owner	Federal

Incident Details	
Please answer all the questions in this group.	
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

Nature and Volume of Release	
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.	
Crude Oil Released (bbls) Details	Cause: Corrosion Pipeline (Any) Crude Oil Released: 5 BBL Recovered: 1 BBL Lost: 4 BBL.
Produced Water Released (bbls) Details	Cause: Corrosion Pipeline (Any) Produced Water Released: 20 BBL Recovered: 0 BBL Lost: 20 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
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)	Initial release reported as 4 bbls, upon delineation and investigation of the impact area, it was further determined to be a larger release. Calculated to be ~5 bbls crude oil and ~20 bbls produced water.

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

General Information
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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 465388

QUESTIONS (continued)

Operator: EOG RESOURCES INC 5509 Champions Drive Midland, TX 79706	OGRID: 7377
	Action Number: 465388
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	No, according to supplied volumes this does not appear to be a "gas only" report.
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	Yes
Reasons why this would be considered a submission for a notification of a major release	From paragraph A. "Major release" determine using: (1) an unauthorized release of a volume, excluding gases, of 25 barrels or more.
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: Chase Settle Title: Safety & Environmental Rep II Email: chase_settle@eogresources.com Date: 05/20/2025
--	--

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 465388

QUESTIONS (continued)

Operator: EOG RESOURCES INC 5509 Champions Drive Midland, TX 79706	OGRID: 7377
	Action Number: 465388
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS**Site Characterization**

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.

What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 100 and 500 (ft.)
What method was used to determine the depth to ground water	NM OSE iWaters Database Search
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Between 1 and 5 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Greater than 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 1 and 5 (mi.)
Any other fresh water well or spring	Greater than 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between 1 and 5 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Between 1 and 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

Remediation Plan

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.

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

Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)

Chloride (EPA 300.0 or SM4500 Cl B)	33600
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	39270
GRO+DRO (EPA SW-846 Method 8015M)	34390
BTEX (EPA SW-846 Method 8021B or 8260B)	413
Benzene (EPA SW-846 Method 8021B or 8260B)	6.4

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.

On what estimated date will the remediation commence	06/20/2025
On what date will (or did) the final sampling or liner inspection occur	06/20/2025
On what date will (or was) the remediation complete(d)	07/01/2025
What is the estimated surface area (in square feet) that will be reclaimed	3025
What is the estimated volume (in cubic yards) that will be reclaimed	600
What is the estimated surface area (in square feet) that will be remediated	3025
What is the estimated volume (in cubic yards) that will be remediated	600

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.

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 4

Action 465388

QUESTIONS (continued)

Operator: EOG RESOURCES INC 5509 Champions Drive Midland, TX 79706	OGRID: 7377
	Action Number: 465388
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Remediation Plan (continued)	
<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>	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
<i>(Select all answers below that apply.)</i>	
(Ex Situ) Excavation and off-site disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for off-site disposal	LEA LAND LANDFILL [fEEM0112342028]
OR which OCD approved well (API) will be used for off-site disposal	Not answered.
OR is the off-site disposal site, to be used, out-of-state	Not answered.
OR is the off-site disposal site, to be used, an NMED facility	Not answered.
(Ex Situ) Excavation and on-site remediation (i.e. On-Site Land Farms)	No
(In Situ) Soil Vapor Extraction	No
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	No
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	No
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	No
Ground Water Abatement pursuant to 19.15.30 NMAC	No
OTHER (Non-listed remedial process)	No
<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>	
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: Chase Settle Title: Safety & Environmental Rep II Email: chase_settle@eogresources.com Date: 05/20/2025
<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>	

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QUESTIONS, Page 5

Action 465388

QUESTIONS (continued)

Operator: EOG RESOURCES INC 5509 Champions Drive Midland, TX 79706	OGRID: 7377
	Action Number: 465388
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Deferral Requests Only	
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.	
Requesting a deferral of the remediation closure due date with the approval of this submission	No

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QUESTIONS, Page 6

Action 465388

QUESTIONS (continued)

Operator: EOG RESOURCES INC 5509 Champions Drive Midland, TX 79706	OGRID: 7377
	Action Number: 465388
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	{Unavailable.}

Remediation Closure Request	
Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.	
Requesting a remediation closure approval with this submission	No

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State of New Mexico

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CONDITIONS

Action 465388

CONDITIONS

Operator: EOG RESOURCES INC 5509 Champions Drive Midland, TX 79706	OGRID: 7377
	Action Number: 465388
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

CONDITIONS

Created By	Condition	Condition Date
nvez	Remediation plan and variance toward depth to water estimation are approved. Prior to backfilling the open excavation per 19.15.29.12D (2) NMAC, EOG must collect a minimum of one (1) 5pcs from the media being used as backfill to verify that it meets non-waste containing, uncontaminated, earthen material with chloride concentrations less than 600 mg/kg as analyzed by EPA Method 300.0, or other test methods approved by the division. This is especially important for the material being used within the top four (4) feet from the ground surface. EOG has 90-days (September 2, 2025) to submit to OCD its appropriate or final remediation closure report.	6/2/2025