



EOG Resources, Inc.
Artesia Division Office
104 S. 4th Street
Artesia, N. M. 88210

INFORMATION ONLY

EOG Y Resources, Inc.

Characterization Plan

McBride BEH State Com #1

30-025-37107

Section 4, T10S-R34E

Lea County, New Mexico

November 7, 2017

1RP-4827

I. Location

Go North of Tatum, NM to Crossroads, NM. Turn west on Carroll Road and go approximately 6.5 miles. Turn south thru cattle guard and go south on main road approximately 2.8 miles. Take lease road going west for approximately 0.8 of a mile. Lease access road will start here going north for approximately 0.5 of a mile to the southeast corner of the pad.

II. Background

On September 9, 2017, EOG Y Resources, Inc. submitted to the NMOCD District I office a Form C-141 for the release of 23 B/O with 0 B/O recovered. The affected area is approximately 20 feet by 20 feet within the primary berm of the production facility and was contained within the bermed battery. The release was caused by a hole in bottom of the production tank. A vacuum truck was dispatched to recover any remaining oil, but no oil was recovered and a backhoe crew was contracted to excavate visually impacted soils (approximately 20' X 20' X 1' deep). Impacted soils excavated have been placed on plastic and it will be determined through sampling if in-place remediation will be attempted or if impacted soils will be hauled to an NMOCD approved disposal facility.

III. Surface and Ground Water

Area surface geology is Cenozoic Tertiary. Based on information regarding this location (Section 4, T10S-R34E), the New Mexico Office of the State Engineer (NMOSE) database depth to groundwater is follows: (NMOSE-L 05023, 85'), the United States Geological Survey National Water Information System, is as follows: (USGS #33285210323601, 104'), (USGS #332500103270701, 55'), (USGS #3323321036000001, 156'). The depth to groundwater is approximately 100', per USGS and NMOSE groundwater level. **Based on this information the Site Ranking is a Zero (0).**

Watercourses in the area are dry except for infrequent flows in response to major precipitation events, with the nearest body of surface water being Lane Salt Lake at 7.27 miles away.

IV. NMOCD Ranking Criteria

The ranking for this site is Zero (0) based on the following:

Depth to ground water	> 100'
Wellhead Protection Area	> 1000'
Distance to surface water body	> 1000'

Based on the ranking criteria, the NMOCD established RRALs for this site are:

Benzene	10 ppm
BTEX	50 ppm
TPH	5,000 ppm

V. Sampling Procedure

Vertical delineation samples will be collected at a central sample point within the release area. Samples will be collected at 1', 2', 3', and 4' below grade surface (bgs) or when auger refusal is encountered. Due to the nature of the release (oil), the vertical delineation soil samples will be analyzed for Benzene, BTEX, TPH extended. All samples will be sent to a NMOCD approved laboratory for analysis.

Horizontal delineation samples will be collected at the 4 cardinal point (CP1-CP4) at what is believed to be the outer edge of the release/excavation area. Samples will be collected at 18" bgs and analysis will be run for the identified constituents determined from vertical delineation sampling to have caused impaction to the soil at the site. If a sample point is determined to be impacted by the release, a new sample will be collected moving out further until an area without impaction is located. Once located, samples will be taken to collaborate the impaction path to the next sample point in the sequence. Due to the nature of the release (oil), the vertical delineation soil samples will be analyzed for Benzene, BTEX, TPH extended. All samples will be sent to a NMOCD approved laboratory for analysis.

Stockpile delineation samples will be collected from 3 points with in the stockpiled materials at various depth to determine if in-place remediation will be conducted on stockpiled soils to be utilized for backfill of the excavation. Due to the nature of the release (oil), the vertical delineation soil samples will be analyzed for Benzene, BTEX, TPH extended. All samples will be sent to a NMOCD approved laboratory for analysis.

As a baseline for all sampling analytical data, background sample(s) will be collected up gradient from the release to the east. The point remains on the production pad in an area that has no known release impaction. This creates less damage to the SLO surface by keeping the activities on the production pad and reduces the vegetative damage that would otherwise be created by moving off of location to collect background samples in the adjoining pasture.

Figure 1

Site Map

McBride BEH State Com #1

30-025-37107
Section 4, T10S-R34E
Lea County, New Mexico

Legend

 McBride BEH State Com #1

McBride BEH State Com #1 

Google Earth

100 ft



McBride BEH State Com #1

Section 4, T10S-R34E
Lea County, New Mexico
Area of Release/Excavation Corner Points

Legend

➡ Excavation Corners

NW Excavation Corner (33.477707 & -103.476381)

NE Excavation Corner (33.477707 & -103.476311)

SW Excavation Corner (33.477653 & -103.476381)

SE Excavation Corner (33.477654 & -103.476311)



40 ft

Figure 2

Vertical Sample Point(s)

McBride BEH State Com #1

Section 4, T10S-R34E
Lea County, New Mexico
Vertical, Horizontal & Stock Pile Sample Point(s)

Legend

- CP (Cardinal Point Samples)
- S-1 (Vertical Sample Point)
- S-2 (Stock Pile Sample Points)



40 ft

Figure 3

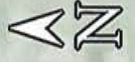
Horizontal Sample Point(s)

McBride BEH State Com #1

Section 4, T10S-R34E
Lea County, New Mexico
Vertical, Horizontal & Stock Pile Sample Point(s)

Legend

- CP (Cardinal Point Samples)
- S-1 (Vertical Sample Point)
- S-2 (Stock Pile Sample Points)



40 ft

Figure 4

Stockpile Sample Point(s)

McBride BEH State Com #1

Section 4, T10S-R34E
Lea County, New Mexico
Vertical, Horizontal & Stock Pile Sample Point(s)

Legend

- CP (Cardinal Point Samples)
- S-1 (Vertical Sample Point)
- S-2 (Stock Pile Sample Points)



40 ft

Figure 5

Background Sample Point(s)

McBride BEH State Com #1

Section 4, T10S-R34E
Lea County, New Mexico
Background Sample Point

Legend

- BG1
- 📍 McBride BEH State Com #1



Photos



eogy resources (575) 748-1471

McBRIDE "BEH" State Com. #1

1980' FNL & 660' FWL - Unit E

Sec 4 - T 10 S - R 34 E - SW/NW

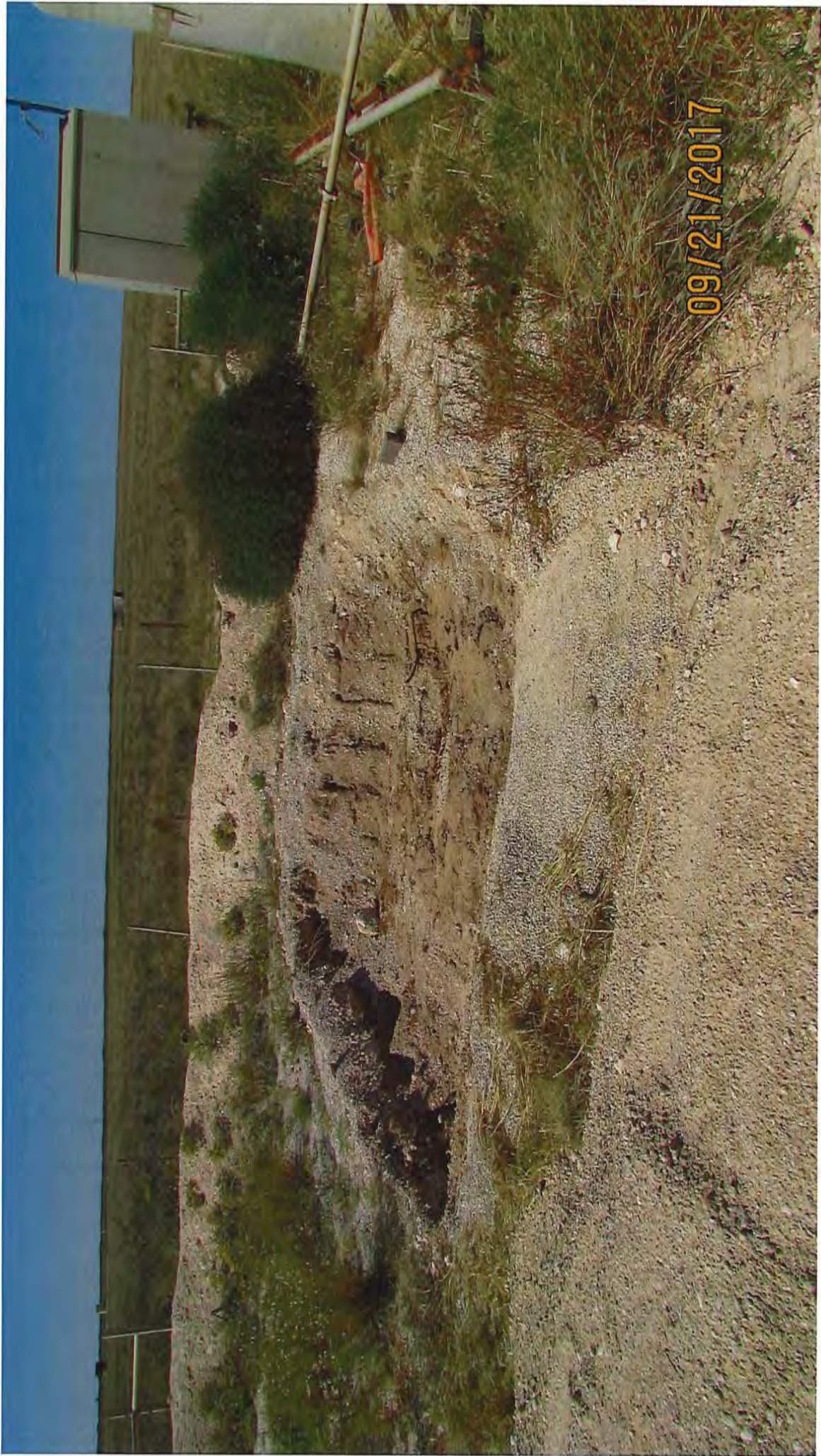
Lea Co. New Mexico

Lse. #V0-5825 - API #30-025-37107

AFF # 05-113-0

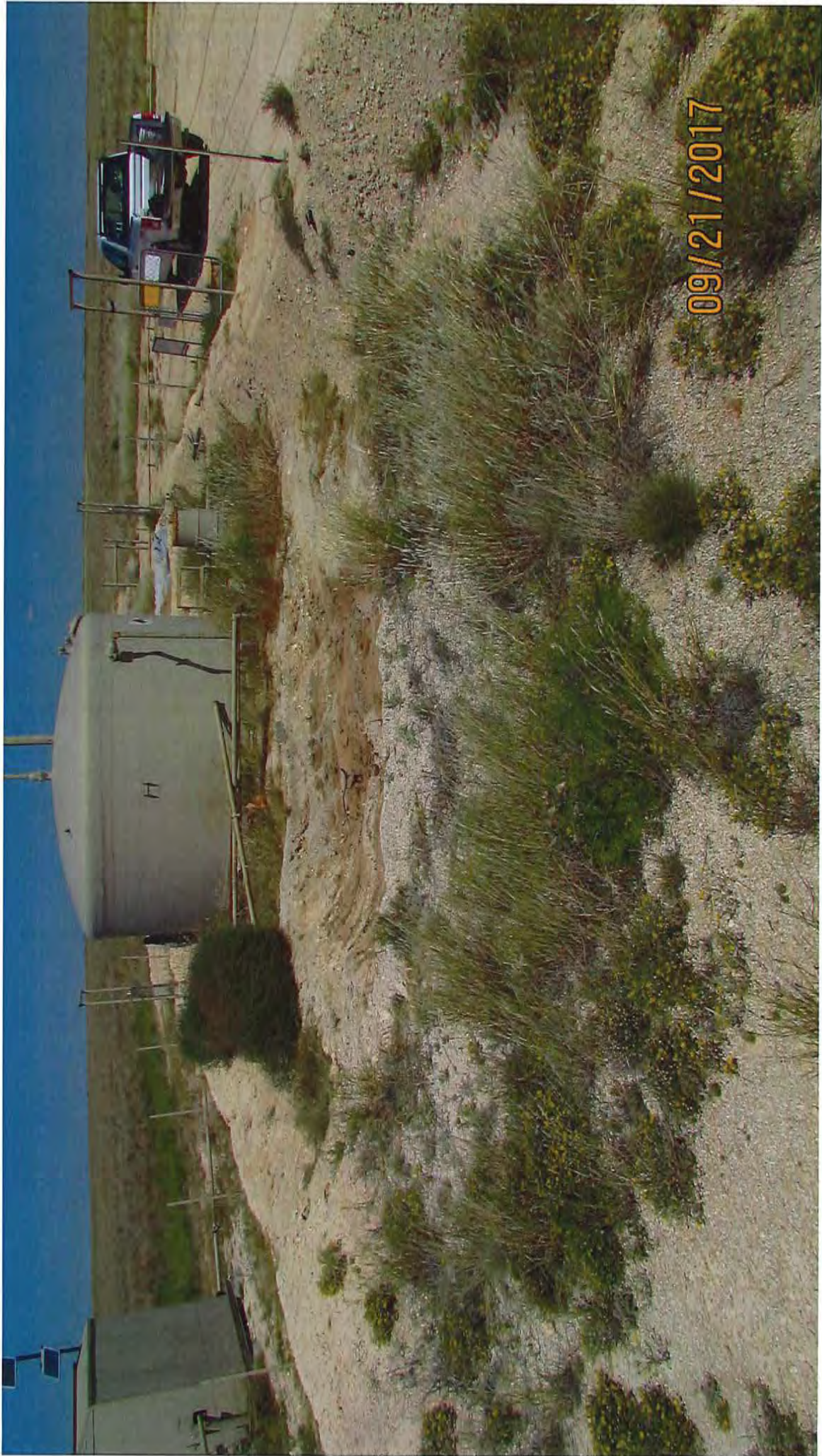
09/21/2017













Appendix A

NMOSE Well Log

McBride BEH State Com #1

Section 4, T10S-R34E
Lea county, New Mexico
Water Well Data

Site Ranking is Zero (0). Depth to Ground Water > 100'
(Approximately 100', per USGS & NMOSE Groundwater Levels).

Legend

-  McBride BEH State Com #1
-  USGS & NMOSE Water Wells

McBride BEH State Com #1 CP-2

USGS #332852103234601 (DTGW @ 104')

USGS #332500103270701 (DTGW @ 55')

NMOSE - L' 05023 (DTGW @ 85')

USGS #332332103600001 (DTGW @ 156')



4 mi

Google Earth

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New Mexico Office of the State Engineer

Point of Diversion Summary

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag	POD Number	Q64 Q16 Q4 Sec Tws Rng	X	Y
L 05023		2 2 07 11S 34E	635415	3695003*

Driller License: 322

Driller Company: BACKUS, GRADY

Driller Name:

Drill Start Date: 12/27/1962

Drill Finish Date: 12/27/1962

Plug Date: 12/27/1962

Log File Date: 02/17/1964

PCW Rcv Date:

Source: Shallow

Pump Type:

Pipe Discharge Size:

Estimated Yield:

Casing Size: 7.00

Depth Well: 140 feet

Depth Water: 85 feet

Water Bearing Stratifications:	Top	Bottom	Description
	85	94	Sandstone/Gravel/Conglomerate
	116	124	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	85	130

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

Appendix B

USGS Groundwater Level Information

McBride BEH State Com #1

Section 4, T10S-R34E
Lea county, New Mexico
Water Well Data

Site Ranking is Zero (0). Depth to Ground Water > 100'
(Approximately 100', per USGS & NMOSE Groundwater Levels).

Legend

-  McBride BEH State Com #1
-  USGS & NMOSE Water Wells





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National Water Information System: Web Interface

[USGS Water Resources](#)

Data Category:

Site Information ▼

Geographic Area:

United States ▼

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USGS 332332103260001 11S.35E.05.132222

Available data for this site

SUMMARY OF ALL AVAILABLE DATA ▼

GO

Well Site

DESCRIPTION:

Latitude 33°23'32", Longitude 103°26'00" NAD27

Lea County, New Mexico

Well depth: not determined.

Land surface altitude: 4,153 feet above NAVD88.

Well completed in "Ogallala Formation" (121OGLL) local aquifer

AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1981-02-17	1990-12-06	3

OPERATION:

Record for this site is maintained by the USGS New Mexico Water Science Center

Email questions about this site to [New Mexico Water Science Center Water-Data Inquiries](#)

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Title: NWIS Site Information for USA: Site Inventory

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



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

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National Water Information System: Web Interface

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Data Category:

Groundwater

Geographic Area:

United States

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Groundwater levels for the Nation

Search Results -- 1 sites found

site_no list =

- 332332103260001

Minimum number of levels = 1

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

USGS 332332103260001 11S.35E.05.132222

Available data for this site

Groundwater: Field measurements

GO

Lea County, New Mexico

Hydrologic Unit Code --

Latitude 33°23'32", Longitude 103°26'00" NAD27

Land-surface elevation 4,153 feet above NAVD88

This well is completed in the Ogallala Formation (121OGLL) local aquifer.

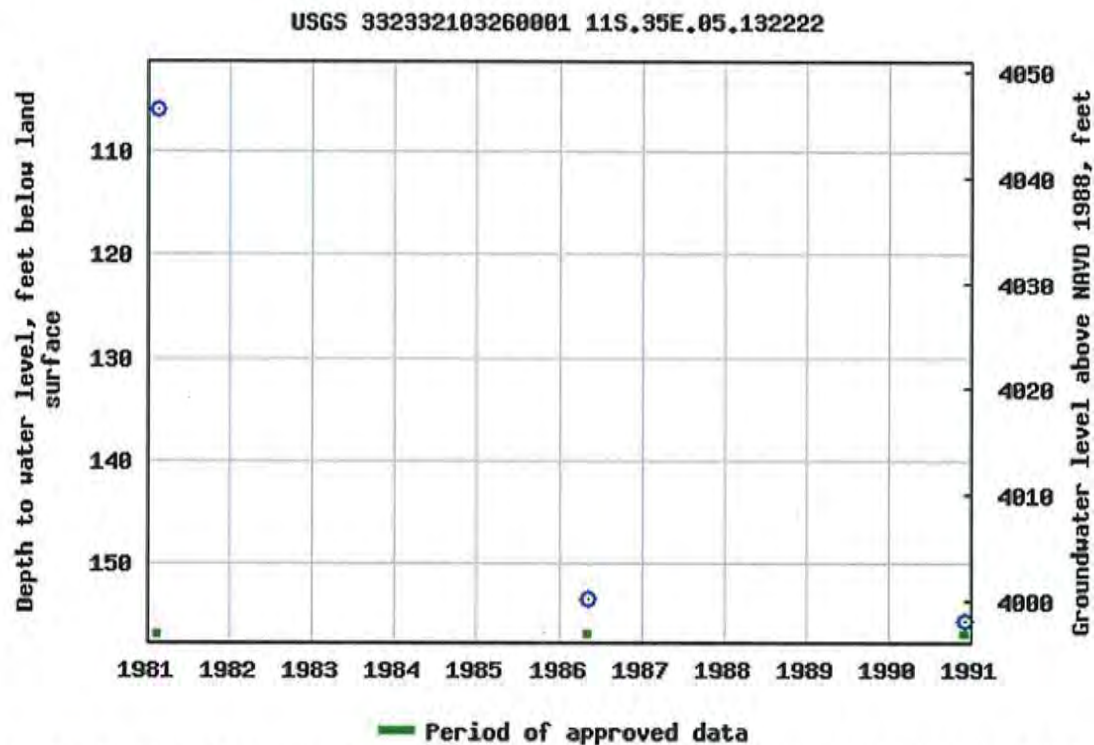
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Breaks in the plot represent a gap of at least one year between field measurements.

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Title: Groundwater for USA: Water Levels

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



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1.03 0.9 nadww01



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[USGS Water Resources](#)

Data Category:

Site Information ▼

Geographic Area:

United States ▼

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USGS 332500103270701 10S.34E.27.14210

Available data for this site

SUMMARY OF ALL AVAILABLE DATA ▼

GO

Well Site

DESCRIPTION:

Latitude 33°25'16", Longitude 103°27'11" NAD27
Lea County, New Mexico , Hydrologic Unit 12080001
Well depth: not determined.
Land surface altitude: 4,190.00 feet above NGVD29.
Well completed in "Cretaceous System" (210CRCS) local aquifer

AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1976-05-04	1976-05-04	1

OPERATION:

Record for this site is maintained by the USGS New Mexico Water Science Center
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Title: NWIS Site Information for USA: Site Inventory

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



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National Water Information System: Web Interface

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Data Category:

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Geographic Area:

United States ▼

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Groundwater levels for the Nation

Search Results -- 1 sites found

site_no list =

- 332500103270701

Minimum number of levels = 1

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

USGS 332500103270701 10S.34E.27.14210

Available data for this site

Groundwater: Field measurements ▼

GO

Lea County, New Mexico

Hydrologic Unit Code 12080001

Latitude 33°25'16", Longitude 103°27'11" NAD27

Land-surface elevation 4,190.00 feet above NGVD29

This well is completed in the Cretaceous System (210CRCS) local aquifer.

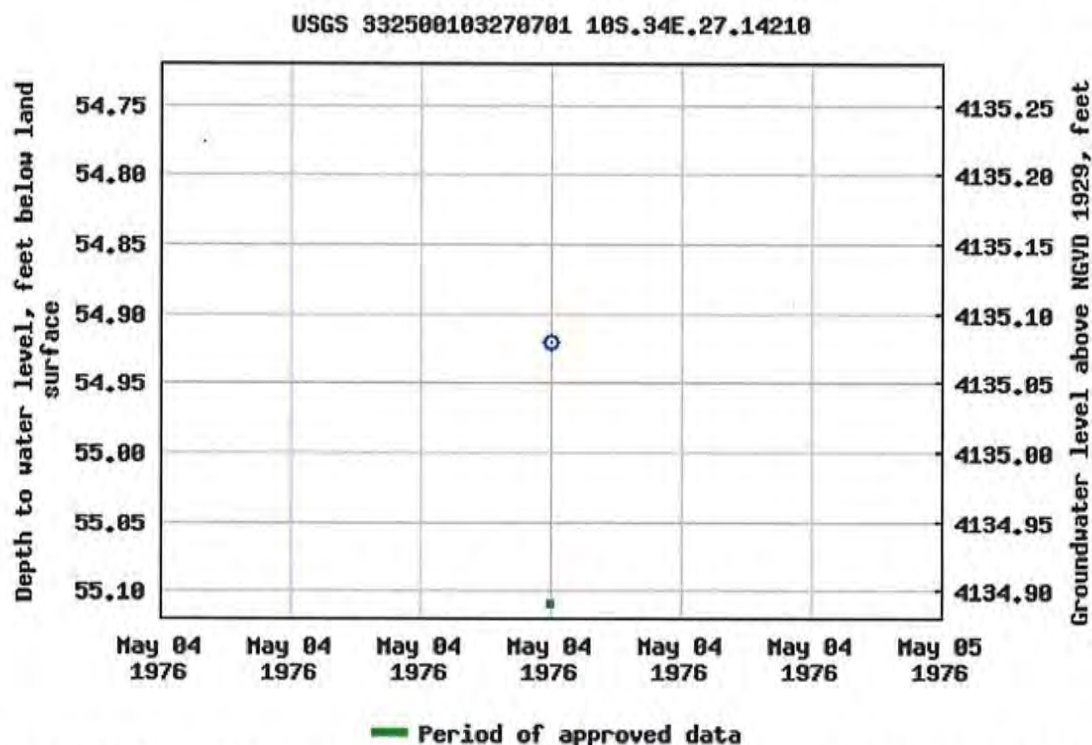
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Title: Groundwater for USA: Water Levels

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



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

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1 0.87 nadww01

Appendix C

Form C-141 Initial

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised August 8, 2011

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

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company EOG Y Resources, Inc.	OGRID Number 25575	Contact Robert Asher
Address 104 S. 4 th Street	Telephone No. 575-748-1471	
Facility Name McBride BEH State Com #1	Facility Type Battery	
Surface Owner State	Mineral Owner State	API No. 30-025-37107

LOCATION OF RELEASE

Unit Letter E	Section 4	Township 10S	Range 34E	Feet from the 1980	North/South Line North	Feet from the 660	East/West Line West	County Lea
------------------	--------------	-----------------	--------------	-----------------------	---------------------------	----------------------	------------------------	---------------

Latitude 32.47756 Longitude 103.47538

NATURE OF RELEASE

Type of Release Crude Oil	Volume of Release 23 B/O	Volume Recovered 0 B/O
Source of Release Production Tank	Date and Hour of Occurrence 9/7/2017; PM	Date and Hour of Discovery 9/7/2017; PM
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? N/A	
By Whom? N/A	Date and Hour N/A	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
Hole discovered in tank bottom, causing the release. Tank removed.

Describe Area Affected and Cleanup Action Taken.*

An approximate area of 20'X 20'. The well and valves were closed. The impacted soils under removed tank were excavated and placed on bermed plastic, if applicable in-place remediation will be conducted. Vertical and horizontal delineation samples will be collected and analysis ran for TPH & BTEX. If initial analytical results for TPH & BTEX are under RRAL's a Final Report, C-141 will be submitted to the OCD requesting closure. If the analytical results are above the RRAL's a work plan will be submitted to the OCD. Depth to Ground Water: <50' (approximately 36', per USGS Groundwater Levels), Wellhead Protection Area: No, Distance to Surface Water Body: >1000', SITE RANKING IS 20.

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

Signature: 	OIL CONSERVATION DIVISION	
Printed Name: Robert Asher	Approved by Environmental Specialist: 	
Title: Environmental Supervisor	Approval Date: <u>9/27/2017</u>	Expiration Date:
E-mail Address: Robert_Asher@eogresources.com	Conditions of Approval: <u>see attached directive</u>	Attached ☒
Date: September 22, 2017	Phone: 575-748-4217	

* Attach Additional Sheets If Necessary

1RP-4827

nOY1727033052

pOY1727033242