Form C-101 August 1, 2011

Permit 308310

<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 Phone:(575) 393-6161 Fax:(575) 393-0720

District II

**District IV** 

811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

District III 1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

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

	APPLICATION FOR PERMIT TO DRILL	. RE-ENTER. DEEPEN	. PLUGBACK	OR ADD A ZONE
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	APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE												
1. Operator Name and Address 2. OGRID Number													
EOG RESOURCES INC													
P.O. Box 2267													
Midland, TX 79702 30-025-49769													
4. Property Code 5. Property Name							6. Well	No.					
325727 QUIJOTE 2 STATE COM 5011						501H							
7. Surface Location													
UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County	·			

A	2	203	32E	A	303	IN	763		Lea	
									•	
8. Proposed Bottom Hole Location										
III Lot	Section	Township	Panga	Lot Idn	Foot From	N/S Line	Foot From	E/M/ Lino	County	

32E

JENNINGS; UPPER BONE SPRING SHALE	97838

#### Additional Well Information

11. Work Type 12. Well Type		13. Cable/Rotary	14. Lease Type	15. Ground Level Elevation
New Well	OIL		State	3340
16. Multiple 17. Proposed Depth		18. Formation 19. Contractor		20. Spud Date
N	15850	Bone Spring		2/21/2022
Depth to Ground water		Distance from nearest fresh water well	Distance to nearest surface water	

#### ■ We will be using a closed-loop system in lieu of lined pits

21. Proposed Casing and Cement Program

	Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC		
	Surf	12.25	9.625	36	890	340	0		
	Int1	8.75	7.625	29.7	12100	820	0		
	Prod	6.75	5.5	17	14200	719	12000		
	Prod	6.75	5.5	17	15850	550	10475		

#### Casing/Cement Program: Additional Comments

Plug: Class H + 0.4% Halad-344 + 0.35% HR-601 + 3% Microbond (TOC @ 12,000')

22. Proposed Blowout Prevention Program

Туре	Working Pressure	Test Pressure	Manufacturer
Double Ram	5000	3000	

knowledge and be	elief.	true and complete to the best of my  NMAC ⊠ and/or 19.15.14.9 (B) NMAC		OIL CONSERVATION	ON DIVISION	
Printed Name:	Electronically filed by Kay Maddo	(	Approved By:	Paul F Kautz		
Title:	Regulatory Agent		Title:	Geologist		
Email Address:	kay_maddox@eogresources.com	m	Approved Date:	2/16/2022	Expiration Date: 2/16/2024	
Date:	2/15/2022	Phone: 432-686-3658	Conditions of Appr	litions of Approval Attached		

District I 1625 N. French Dr., Hobbs, NM 88240 Phone: (575) 393-6161 Fax: (575) 393-0720 District II 811 S. First St., Artesia, NM 88210 Phone: (575) 748-1283 Fax: (575) 748-9720 District III 1000 Rio Brazos Road, Aztec, NM 87410 Phone: (505) 334-6178 Fax: (505) 334-6170 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505

Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources
Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

FORM C-102 Revised August 1, 2011 Submit one copy to appropriate District Office

AMENDED REPOI	RТ
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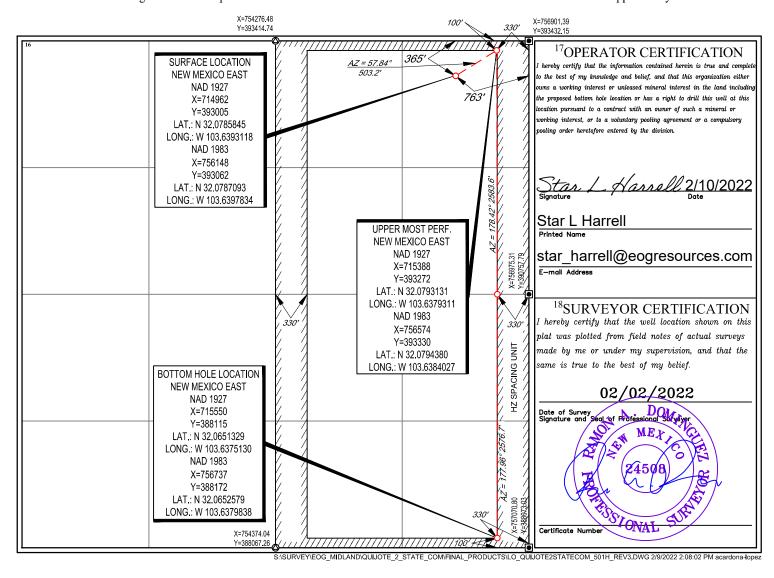
#### WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Numbe 30-025-49769		Jennings; Upper Bone S	pring Shale					
<sup>4</sup> Property Code		perty Name  6Well Number						
325727	•	2 STATE COM	501H  9Elevation					
7377	EOG RESOURCES, INC. 3340'							

<sup>10</sup>Surface Location

UL or lot no.	Section 2	Township 26-S	Range 32-E	Lot Idn —	Feet from the 365'	North/South line	Feet from the 763'	East/West line EAST	County LEA
	<sup>11</sup> Bottom Hole Location If Different From Surface								
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	2	26-S	32-E	_	100'	SOUTH	330'	EAST	LEA
<sup>12</sup> Dedicated Acres 320.00	<sup>13</sup> Joint or l	Infill 14Co	onsolidation Co	de <sup>15</sup> Ord	er No.				
J 320.00									

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



Form APD Conditions

Permit 308310

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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**

#### PERMIT CONDITIONS OF APPROVAL

Operator Name and Address:	API Number:
EOG RESOURCES INC [7377]	30-025-49769
P.O. Box 2267	Well:
Midland, TX 79702	QUIJOTE 2 STATE COM #501H

OCD Reviewer	Condition
pkautz	Notify OCD 24 hours prior to casing & cement
pkautz	Will require a File As Drilled C-102 and a Directional Survey with the C-104
pkautz	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string
pkautz	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system
pkautz	The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud
pkautz	1) SURFACE & INTERMEDIATE CASING - Cement must circulate to surface 2) PRODUCTION CASING - Cement must tie back into intermediate casing



#### Quijote 2 State 501H

365' FNL

**Revised Wellbore** 

KB: 3365' GL: 3340'

763' FEL

**Section 2 T-26-S, R-32-E** 

API: 30-025-\*\*\*\*

Surface Bit Size: 12-1/4" 9-5/8", 36.#, J-55, LTC @ 0' - 890' Intermediate Bit Size: 8-3/4" 7-5/8", 29.7#, HCP-110, FXL @ 0' - 12,100' Production Bit Size: 6-3/4" 5-1/2", 17.#, HCP-110, LTC @ 0' - 15,850' TOC: 11,600' KOP: 10,365' Pilot Hole Bit Size: 6-3/4" (Pilot Lateral: 15,848' MD, 10,820' TVD hole vertical, 14,200' MD/14,200' BH Location: 100' FSL & 330' FEL TVD). Cement from 12,000 to Sec. 2 14,200' T-26-S R-32-E Set bridge plug at 9,800'

Page 1 of 5



#### Quijote 2 State 501H

#### **Permit Information:**

Well Name: Quijote 2 State 501H

Location: SHL: 365' FNL & 763' FEL, Section 2, T-26-S, R-32-E, Lea Co., N.M.

BHL: 100' FSL & 330' FEL, Section 2, T-26-S, R-32-E, Lea Co., N.M.

**Casing Program:** 

Hole		Csg				DFmin	DFmin	DFmin
Size	Interval	OD	Weight	Grade	Conn	Collapse	Burst	Tension
12.25"	0' - 890'	9.625"	36#	J-55	LTC	1.125	1.25	1.6
8.75"	0' - 12,100'	7.625"	29.7#	HCP-110	FXL	1.125	1.25	1.6
6.75"	0' - 15,850'	7.625"	17#	HCP-110	LTC	1.125	1.25	1.6

**Cementing Program:** 

		Wt.	Yld	Shumu Description
Depth	No. Sacks	ppg Ft3/sk		Slurry Description
2021	260	13.5	1.73	Lead: Class C + 4.0% Bentonite Gel + 0.5% CaCl2 + 0.25 lb/sk Cello-Flake (TOC @ Surface)
890'	80	14.8	1.34	Tail: Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate
4 520'	570	12.7	2.22	Lead: Class C + 10% NaCl + 6% Bentonite Gel + 3% MagOx (TOC @ Surface)
4,520'	250	14.8	1.32	Tail: Class C + 10% NaCL + 3% MagOx
14,200' 6-3/4" Pilot Hole	719	17.5	0.95	Plug: Class H + 0.4% Halad-344 + 0.35% HR-601 + 3% Microbond (TOC @ 12,000')
15,850'	60	11.0	3.21	Lead: Class C + 3% CaCl2 + 3% Microbond (TOC @ 10,475')
13,630	490	14.4	1.2	Tail: Class H + 0.4% Halad-344 + 0.35% HR-601 + 3% Microbond

#### **Mud Program:**

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 - 890'	Fresh - Gel	8.6-8.8	28-34	N/c
890' – 4,520'	Brine	8.6-8.8	28-34	N/c
4,520' – 15,850' Lateral	Oil Base	8.8-9.5	58-68	N/c - 6
12,000' – 14,200' Pilot Hole	Oil Base	13.5 - 15.0	58-68	4 - 6



#### Quijote 2 State 501H

#### **Hydrogen Sulfide Plan Summary**

- A. All personnel shall receive proper H2S training in accordance with Onshore Order III.C.3.a.
- B. Briefing Area: two perpendicular areas will be designated by signs and readily accessible.
- C. Required Emergency Equipment:
  - Well control equipment
  - a. Flare line 150' from wellhead to be ignited by flare gun.
  - b. Choke manifold with a remotely operated choke.
  - c. Mud/gas separator
  - Protective equipment for essential personnel.

Breathing apparatus:

- a. Rescue Packs (SCBA) 1 unit shall be placed at each breathing area, 2 shall be stored in the safety trailer.
- b. Work/Escape packs —4 packs shall be stored on the rig floor with sufficient air hose not to restrict work activity.
- c. Emergency Escape Packs —4 packs shall be stored in the doghouse for emergency evacuation.

#### Auxiliary Rescue Equipment:

- a. Stretcher
- b. Two OSHA full body harness
- c. 100 ft 5/8 inch OSHA approved rope
- d. 1-20# class ABC fire extinguisher
- H2S detection and monitoring equipment:

The stationary detector with three sensors will be placed in the upper dog house if equipped, set to visually alarm @ 10 ppm and audible @ 14 ppm. Calibrate a minimum of every 30 days or as needed. The sensors will be placed in the following places: Rig floor / Bell nipple / End of flow line or where well bore fluid is being discharged.

(Gas sample tubes will be stored in the safety trailer)

- Visual warning systems.
  - a. One color code condition sign will be placed at the entrance to the site reflecting the possible conditions at the site.
  - b. A colored condition flag will be on display, reflecting the current condition at the site at the time.
  - c. Two wind socks will be placed in strategic locations, visible from all angles.



#### ■ Mud program:

The mud program has been designed to minimize the volume of H2S circulated to surface. The operator will have the necessary mud products to minimize hazards while drilling in H2S bearing zones.

#### ■ Metallurgy:

All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H2S service.

#### ■ Communication:

Communication will be via cell phones and land lines where available.



#### Quijote 2 State 501H Emergency Assistance Telephone List

PUBLIC SAFET	ГҮ:	<b>.</b>	911 or
Lea County Sheri	iff's Department		(575) 396-3611
-	Rod Coffman		
Fire Department:			
_	Carlsbad		(575) 885-3125
	Artesia		(575) 746-5050
Hospitals:			
-	Carlsbad		(575) 887-4121
	Artesia		(575) 748-3333
	Hobbs		(575) 392-1979
Dept. of Public S	afety/Carlsbad		(575) 748-9718
Highway Departr	ment		(575) 885-3281
New Mexico Oil	Conservation		(575) 476-3440
U.S. Dept. of Lab	oor		(575) 887-1174
_			
<b>EOG Resources</b>	. Inc.		
EOG / Midland	,	Office	(432) 686-3600
			,
Company Drillin	ng Consultants:		
David Dominque		Cell	(985) 518-5839
Mike Vann		Cell	(817) 980-5507
			,
<b>Drilling Engine</b>	er		
Esteban Del Vall	e	Cell	(432) 269-7063
Daniel Moose		Cell	(432) 312-2803
<b>Drilling Manage</b>	er		
Aj Dach		Office	(432) 686-3751
		Cell	(817) 480-1167
<b>Drilling Superin</b>	tendent		
Jason Townsend		Office	(432) 848-9209
		Cell	(210) 776-5131
H&P Drilling			,
		O.C.	(422) 5(2,5757
H&P Drilling		Office	(432) 563-5757
H&P 651 Drilling	g Rig	Rig	(903) 509-7131
Tool Pusher:		G 11	(017) 7(0 (274
Johnathan Craig		Cell	(817) 760-6374
Brad Garrett			
Safaty.			
Safety: Brian Chandler (	HSF Manager)	Office	(432) 686-3695
Difair Chandiel (	HOL Manager	Cell	(817) 239-0251
		Cell	(017) 233-0231



### **Midland**

Lea County, NM (NAD 83 NME) Quijote 2 State Com #501H

OH

Plan: Plan #0.1

## **Standard Planning Report**

14 February, 2022



#### Planning Report

Database: Company: PEDM

Midland

Project:

Site:

Well: Wellbore: Design:

Lea County, NM (NAD 83 NME)

Quijote 2 State Com

#501H OH Plan #0.1 Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well #501H

KB = 25 @ 3365.0usft KB = 25 @ 3365.0usft

Grid

Minimum Curvature

Project

Lea County, NM (NAD 83 NME)

Map System: Geo Datum:

US State Plane 1983 North American Datum 1983 System Datum:

Mean Sea Level

Map Zone:

New Mexico Eastern Zone

Quijote 2 State Com Site

Site Position: From: Мар

Northing: Easting:

393,066.99 usft 756,153.00 usft

Latitude: Longitude:

393,062.00 usft

32° 4' 43.401 N 103° 38' 23.163 W

0.0 usft Slot Radius: 13-3/16 " **Position Uncertainty:** 

Well #501H

**Well Position** +N/-S

0.0 usft +E/-W 0.0 usft 0.0 usft

Northing: Easting:

756,148.00 usft Wellhead Elevation:

Latitude: Longitude:

32° 4' 43.352 N 103° 38' 23.222 W 3,340.0 usft

usft **Ground Level: Position Uncertainty** 0.37 **Grid Convergence:** 

ОН Wellbore

Declination Magnetics **Model Name** Sample Date Dip Angle Field Strength (°) (°) (nT) IGRF2015 5/28/2019 6.76 59.89 47,646.19073935

Design

Audit Notes:

Version:

Phase:

PLAN

Tie On Depth:

0.0

Vertical Section: Depth From (TVD) +N/-S +E/-W Direction (usft) (usft) (usft) (°) 0.0 0.0 0.0 173.13

Plan Survey Tool Program

Date 2/14/2022

**Depth From** Depth To (usft)

(usft)

Plan #0.1

Survey (Wellbore)

**Tool Name** 

MWD

Remarks

0.0 15,847.6 Plan #0.1 (OH)

OWSG MWD - Standard

**Plan Sections** Measured Vertical Dogleg Build Turn Depth Inclination Azimuth Depth +N/-S +E/-W Rate Rate Rate TFO (usft) (°) (°) (usft) (usft) (usft) (°/100usft) (°/100usft) (°/100usft) (°) Target 0.0 0.00 0.00 0.0 0.0 0.0 0.00 0.00 0.00 0.00 1,000.0 0.00 0.00 1,000.0 0.0 0.0 0.00 0.00 0.00 0.00 1,240.5 4.81 53.26 1,240.2 6.0 8.1 2.00 2.00 0.00 53.26 7,340.6 4.81 53.26 7,318.8 312.0 417.9 0.00 0.00 0.00 0.00 318.0 426.0 7,581.0 0.00 0.00 7,559.0 2.00 -2.00 0.00 180.00 10,364.5 10,342.5 318.0 426.0 0.00 0.00 0.00 0.00 0.00 0.00 KOP(Quijote 2 State ( 11,114.5 90.00 178.21 10,820.0 -159.2 440.9 12.00 12.00 23.76 10,820.0 -4,890.0 589.0 0.00 15,847.6 90.00 178.21 0.00 0.00 0.00 PBHL(Quijote 2 State

# eog resources

#### Planning Report

Database: Company:

Project:

PEDM

Midland

Lea County, NM (NAD 83 NME)

Site: Quijote 2 State Com

 Well:
 #501H

 Wellbore:
 OH

 Design:
 Plan #0.1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well #501H

KB = 25 @ 3365.0usft

KB = 25 @ 3365.0usft

iria

nned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
	0.00			0.0		0.0	0.00		
800.0		0.00	800.0		0.0			0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	2.00	53.26	1,100.0	1.0	1.4	-0.9	2.00	2.00	0.00
1,200.0	4.00	53.26	1,199.8	4.2	5.6	-3.5	2.00	2.00	0.00
1,240.5	4.81	53.26	1,240.2	6.0	8.1	-5.0	2.00	2.00	0.00
1,300.0	4.81	53.26	1,299.5	9.0	12.1	-7.5	0.00	0.00	0.00
1,400.0	4.81	53.26	1,399.2	14.0	18.8	-11.7	0.00	0.00	0.00
1,500.0	4.81	53.26	1,498.8	19.0	25.5	-15.9	0.00	0.00	0.00
1,600.0	4.81	53.26	1,598.5	24.1	32.2	-20.0	0.00	0.00	0.00
1,700.0	4.81	53.26	1,698.1	29.1	39.0	-24.2	0.00	0.00	0.00
1,800.0	4.81	53.26	1,797.7	34.1	45.7	-28.4	0.00	0.00	0.00
1,900.0	4.81	53.26	1,897.4	39.1	52.4	-32.6	0.00	0.00	0.00
2,000.0	4.81	53.26	1,997.0	44.1	59.1	-36.7	0.00	0.00	0.00
2,100.0	4.81	53.26	2,096.7	49.1	65.8	-40.9	0.00	0.00	0.00
2,200.0	4.81	53.26	2,196.3	54.2	72.5	-45.1	0.00	0.00	0.00
2,300.0	4.81	53.26	2,296.0	59.2	79.3	-49.3	0.00	0.00	0.00
2,400.0	4.81	53.26	2,395.6	64.2	86.0	-53.4	0.00	0.00	0.00
2,500.0	4.81	53.26	2,495.3	69.2	92.7	-57.6	0.00	0.00	0.00
2,600.0	4.81	53.26	2,594.9	74.2	99.4	-61.8	0.00	0.00	0.00
2,700.0	4.81	53.26	2,694.6	79.2	106.1	-66.0	0.00	0.00	0.00
2,800.0	4.81	53.26	2,794.2	84.2	112.9	-70.1	0.00	0.00	0.00
0.000.0	4.04	F2 00	0.000.0	00.0	110.0	74.0	0.00	0.00	0.00
2,900.0	4.81	53.26	2,893.9	89.3	119.6	-74.3	0.00	0.00	0.00
3,000.0	4.81	53.26	2,993.5	94.3	126.3	-78.5	0.00	0.00	0.00
3,100.0	4.81	53.26	3,093.2	99.3	133.0	-82.7	0.00	0.00	0.00
3,200.0	4.81	53.26	3,192.8	104.3	139.7	-86.8	0.00	0.00	0.00
3,300.0	4.81	53.26	3,292.5	109.3	146.5	-91.0	0.00	0.00	0.00
0.400.0	4.04		2 200 4	4440	450.0	05.0	0.00	0.00	0.00
3,400.0	4.81	53.26	3,392.1	114.3	153.2	-95.2	0.00	0.00	0.00
3,500.0	4.81	53.26	3,491.8	119.4	159.9	-99.4	0.00	0.00	0.00
3,600.0	4.81	53.26	3,591.4	124.4	166.6	-103.6	0.00	0.00	0.00
3,700.0	4.81	53.26	3,691.1	129.4	173.3	-107.7	0.00	0.00	0.00
3,800.0	4.81	53.26	3,790.7	134.4	180.0	-111.9	0.00	0.00	0.00
3,900.0	4.81	53.26	3,890.4	139.4	186.8	-116.1	0.00	0.00	0.00
4,000.0	4.81	53.26	3,990.0	144.4	193.5	-120.3	0.00	0.00	0.00
4,100.0	4.81	53.26	4,089.7	149.4	200.2	-124.4	0.00	0.00	0.00
4,200.0	4.81	53.26	4,189.3	154.5	206.9	-128.6	0.00	0.00	0.00
4,300.0	4.81	53.26	4,288.9	159.5	213.6	-132.8	0.00	0.00	0.00
		33.20		100.0	210.0		0.00	0.00	0.00
4,400.0	4.81	53.26	4,388.6	164.5	220.4	-137.0	0.00	0.00	0.00
4,500.0	4.81	53.26	4,488.2	169.5	227.1	-141.1	0.00	0.00	0.00
4,600.0	4.81	53.26	4,587.9	174.5	233.8	-145.3	0.00	0.00	0.00
4,700.0	4.81	53.26	4,687.5	179.5	240.5	-149.5	0.00	0.00	0.00
4,800.0	4.81	53.26	4,787.2	184.6	247.2	-153.7	0.00	0.00	0.00
4,900.0	4.81	53.26	4,886.8	189.6	253.9	-157.8	0.00	0.00	0.00
5,000.0	4.81	53.26	4,986.5	194.6	260.7	-162.0	0.00	0.00	0.00
5,100.0	4.81	53.26	5,086.1	199.6	267.4	-166.2	0.00	0.00	0.00
	4.01	JJ.ZU	5,000.1	199.0	201.4	-100.2	0.00	0.00	0.00

# **b**eog resources

#### Planning Report

Database: Company: Project: PEDM

Midland

Lea County, NM (NAD 83 NME)

Site: Quijote 2 State Com

 Well:
 #501H

 Wellbore:
 OH

 Design:
 Plan #0.1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well #501H

KB = 25 @ 3365.0usft KB = 25 @ 3365.0usft

Grid

nned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,300.0	4.81	53.26	5,285.4	209.6	280.8	-174.5	0.00	0.00	0.00
5,400.0	4.81	53.26	5,385.1	214.6	287.5	-178.7	0.00	0.00	0.00
5,500.0	4.81	53.26	5,484.7	219.7	294.3	-182.9	0.00	0.00	0.00
5,600.0	4.81	53.26	5,584.4	224.7	301.0	-187.1	0.00	0.00	0.00
5,700.0	4.81	53.26	5,684.0	229.7	307.7	-191.2	0.00	0.00	0.00
5,800.0	4.81	53.26	5,783.7	234.7	314.4	-195.4	0.00	0.00	0.00
5,900.0	4.81	53.26	5,883.3	239.7	321.1	-199.6	0.00	0.00	0.00
6,000.0	4.81	53.26	5,983.0	244.7	327.9	-203.8	0.00	0.00	0.00
6,100.0	4.81	53.26	6,082.6	249.7	334.6	-207.9	0.00	0.00	0.00
6,200.0	4.81	53.26	6,182.3	254.8	341.3	-212.1	0.00	0.00	0.00
6,300.0	4.81	53.26	6,281.9	259.8	348.0	-216.3	0.00	0.00	0.00
6,400.0	4.81	53.26	6,381.6	264.8	354.7	-220.5	0.00	0.00	0.00
6,500.0	4.81	53.26	6,481.2	269.8	361.4	-224.7	0.00	0.00	0.00
6,600.0	4.81	53.26	6,580.8	274.8	368.2	-228.8	0.00	0.00	0.00
6,700.0	4.81	53.26	6,680.5	279.8	374.9	-233.0	0.00	0.00	0.00
6,800.0	4.81	53.26	6,780.1	284.9	381.6	-237.2	0.00	0.00	0.00
6,900.0	4.81	53.26	6,879.8	289.9	388.3	-241.4	0.00	0.00	0.00
7,000.0	4.81	53.26	6,979.4	294.9	395.0	-245.5	0.00	0.00	0.00
7,100.0	4.81	53.26	7,079.1	299.9	401.8	-249.7	0.00	0.00	0.00
7,200.0	4.81	53.26	7,178.7	304.9	408.5	-253.9	0.00	0.00	0.00
7,300.0	4.81	53.26	7,278.4	309.9	415.2	-258.1	0.00	0.00	0.00
7,340.6	4.81	53.26	7,318.8	312.0	417.9	-259.8	0.00	0.00	0.00
7,400.0	3.62	53.26	7,378.1	314.6	421.4	-261.9	2.00	-2.00	0.00
7,500.0	1.62	53.26	7,478.0	317.3	425.1	-264.2	2.00	-2.00	0.00
7,581.0	0.00	0.00	7,559.0	318.0	426.0	-264.8	2.00	-2.00	0.00
7,600.0	0.00	0.00	7,578.0	318.0	426.0	-264.8	0.00	0.00	0.00
7,700.0	0.00	0.00	7,678.0	318.0	426.0	-264.8	0.00	0.00	0.00
7,800.0	0.00	0.00	7,778.0	318.0	426.0	-264.8	0.00	0.00	0.00
7,900.0	0.00	0.00	7,878.0	318.0	426.0	-264.8	0.00	0.00	0.00
8,000.0	0.00 0.00	0.00 0.00	7,978.0	318.0	426.0 426.0	-264.8 -264.8	0.00	0.00	0.00
8,100.0			8,078.0	318.0			0.00	0.00	0.00
8,200.0	0.00	0.00	8,178.0	318.0	426.0	-264.8	0.00	0.00	0.00
8,300.0	0.00	0.00	8,278.0	318.0	426.0	-264.8	0.00	0.00	0.00
8,400.0	0.00	0.00	8,378.0	318.0	426.0	-264.8	0.00	0.00	0.00
8,500.0 8,600.0	0.00 0.00	0.00 0.00	8,478.0 8,578.0	318.0 318.0	426.0 426.0	-264.8 -264.8	0.00 0.00	0.00 0.00	0.00 0.00
8,700.0	0.00	0.00	8,678.0	318.0	426.0	-264.8	0.00	0.00	0.00
8,800.0	0.00	0.00	8,778.0	318.0	426.0	-264.8	0.00	0.00	0.00
8,900.0	0.00	0.00	8,878.0	318.0	426.0	-264.8	0.00	0.00	0.00
9,000.0 9,100.0	0.00 0.00	0.00 0.00	8,978.0 9,078.0	318.0 318.0	426.0 426.0	-264.8 -264.8	0.00 0.00	0.00 0.00	0.00 0.00
9,200.0	0.00	0.00	9,178.0	318.0	426.0	-264.8	0.00	0.00	0.00
9,300.0	0.00	0.00	9,278.0	318.0	426.0	-264.8	0.00	0.00	0.00
9,400.0 9,500.0	0.00	0.00	9,378.0	318.0	426.0	-264.8	0.00	0.00	0.00
9,600.0	0.00 0.00	0.00 0.00	9,478.0 9,578.0	318.0 318.0	426.0 426.0	-264.8 -264.8	0.00 0.00	0.00 0.00	0.00 0.00
9,700.0	0.00	0.00	9,678.0	318.0	426.0	-264.8	0.00	0.00	0.00
9,800.0	0.00	0.00	9,778.0	318.0	426.0	-264.8	0.00	0.00	0.00
9,900.0 10,000.0	0.00 0.00	0.00 0.00	9,878.0 9,978.0	318.0 318.0	426.0 426.0	-264.8 -264.8	0.00 0.00	0.00 0.00	0.00 0.00
10,000.0	0.00	0.00	10,078.0	318.0	426.0 426.0	-264.8 -264.8	0.00	0.00	0.00
10,200.0 10,300.0	0.00 0.00	0.00 0.00	10,178.0 10,278.0	318.0 318.0	426.0 426.0	-264.8 -264.8	0.00 0.00	0.00 0.00	0.00 0.00
10,364.5	0.00	0.00	10,276.0	318.0	426.0	-264.8	0.00	0.00	0.00

# beog resources

#### Planning Report

Database: PEDM Company: Midland

Project: Lea County, NM (NAD 83 NME)

Site: Quijote 2 State Com

 Well:
 #501H

 Wellbore:
 OH

 Design:
 Plan #0.1

Local Co-ordinate Reference:

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North Reference:

Survey Calculation Method:

Well #501H

KB = 25 @ 3365.0usft KB = 25 @ 3365.0usft

Grid

Planned	d Survey									
	Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Vertical Section	Dogleg Rate	Build Rate	Turn Rate
	(usft)	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(°/100usft)	(°/100usft)	(°/100usft)
	KOP(Quiiote	2 State Com #5	01H)							
	10,375.0	1.26	178.21	10,353.0	317.9	426.0	-264.7	12.00	12.00	0.00
	10,400.0	4.26	178.21	10,377.9	316.7	426.0	-263.5	12.00	12.00	0.00
	10,425.0	7.26	178.21	10,402.8	314.2	426.1	-261.0	12.00	12.00	0.00
	10,450.0	10.26	178.21	10,427.5	310.4	426.2	-257.2	12.00	12.00	0.00
	10,475.0	13.26	178.21	10,452.0	305.3	426.4	-252.1	12.00	12.00	0.00
	10,500.0	16.26	178.21	10,476.1	298.9	426.6	-245.8	12.00	12.00	0.00
	10,525.0	19.26	178.21	10,500.0	291.3	426.8	-238.2	12.00	12.00	0.00
	10,550.0	22.26	178.21	10,523.3	282.4	427.1	-229.3	12.00	12.00	0.00
	10,575.0	25.26	178.21	10,546.2	272.4	427.4	-219.3	12.00	12.00	0.00
	10,576.8	25.47	178.21	10,547.8	271.6	427.5	-218.6	12.00	12.00	0.00
		2 State Com #5		,						
	10,600.0	28.26	178.21	10,568.5	261.1	427.8	-208.1	12.00	12.00	0.00
	10,625.0	31.26	178.21	10,590.2	248.7	428.2	-195.7	12.00	12.00	0.00
	10,650.0	34.26	178.21	10,611.3	235.2	428.6	-182.3	12.00	12.00	0.00
	10,675.0	37.26	178.21	10,631.5	220.6	429.0	-167.7	12.00	12.00	0.00
	10,700.0	40.26	178.21	10,651.0	205.0	429.5	-152.1	12.00	12.00	0.00
	10,725.0	43.26	178.21	10,669.7	188.3	430.1	-135.6	12.00	12.00	0.00
	10,750.0	46.26	178.21	10,687.4	170.8	430.6	-118.0	12.00	12.00	0.00
	10,775.0	49.26	178.21	10,704.2	152.3	431.2	-99.6	12.00	12.00	0.00
	10,800.0	52.26	178.21	10,720.1	132.9	431.8	-80.3	12.00	12.00	0.00
	10,825.0	55.26	178.21	10,734.8	112.8	432.4	-60.2	12.00	12.00	0.00
	10,850.0	58.26	178.21	10,748.5	91.9	433.1	-39.4	12.00	12.00	0.00
	10,875.0	61.26	178.21	10,761.1	70.3	433.8	-17.9	12.00	12.00	0.00
	10,900.0	64.26	178.21	10,772.6	48.1	434.4	4.2	12.00	12.00	0.00
	10,925.0	67.26	178.21	10,782.8	25.3	435.2	26.9	12.00	12.00	0.00
	10,950.0	70.26	178.21	10,791.9	2.0	435.9	50.1	12.00	12.00	0.00
	10,975.0	73.26	178.21	10,799.7	-21.7	436.6	73.8	12.00	12.00	0.00
	11,000.0	76.26	178.21	10,806.3	-45.8	437.4	97.8	12.00	12.00	0.00
	11,025.0	79.26	178.21	10,811.6	-70.3	438.2	122.1	12.00	12.00	0.00
	11,050.0	82.26	178.21	10,815.6	-94.9	438.9	146.7	12.00	12.00	0.00
	11,075.0	85.26	178.21	10,818.3	-119.8	439.7	171.5	12.00	12.00	0.00
	11,100.0	88.26	178.21	10,819.7	-144.7	440.5	196.3	12.00	12.00	0.00
	11,114.5	90.00	178.21	10,820.0	-159.2	440.9	210.8	12.00	12.00	0.00
	11,200.0	90.00	178.21	10,820.0	-244.6	443.6	295.9	0.00	0.00	0.00
	11,200.0	90.00	178.21	10,820.0	-244.6 -344.6	443.6 446.7	295.9 395.5	0.00	0.00	0.00
	11,400.0	90.00	178.21	10,820.0	-344.6 -444.6	449.9	395.5 495.2	0.00	0.00	0.00
	11,400.0	90.00	178.21	10,820.0	-444.6 -544.5	449.9 453.0	495.2 594.8	0.00	0.00	0.00
	11,600.0	90.00	178.21	10,820.0	-644.5	456.1	694.4	0.00	0.00	0.00
	11,700.0	90.00	178.21	10,820.0	-744.4	459.3	794.0	0.00	0.00	0.00
	11,800.0	90.00	178.21	10,820.0	-844.4	462.4	893.6	0.00	0.00	0.00
	11,900.0	90.00	178.21	10,820.0	-944.3	465.5	993.2	0.00	0.00	0.00
	12,000.0	90.00	178.21	10,820.0	-1,044.3	468.6	1,092.8	0.00	0.00	0.00
	12,100.0	90.00	178.21	10,820.0	-1,144.2	471.8	1,192.4	0.00	0.00	0.00
	12,200.0	90.00	178.21	10,820.0	-1,244.2	474.9	1,292.0	0.00	0.00	0.00
	12,300.0	90.00	178.21	10,820.0	-1,344.1	478.0	1,391.6	0.00	0.00	0.00
	12,400.0	90.00	178.21	10,820.0	-1,444.1	481.1	1,491.2	0.00	0.00	0.00
	12,500.0	90.00	178.21	10,820.0	-1,544.0	484.3	1,590.8	0.00	0.00	0.00
	12,600.0	90.00	178.21	10,820.0	-1,644.0	487.4	1,690.5	0.00	0.00	0.00
	12,700.0	90.00	178.21	10,820.0	-1,743.9	490.5	1,790.1	0.00	0.00	0.00
	12,800.0	90.00	178.21	10,820.0	-1,843.9	493.7	1,889.7	0.00	0.00	0.00
	12,900.0	90.00	178.21	10,820.0	-1,943.8	496.8	1,989.3	0.00	0.00	0.00
	13,000.0	90.00	178.21	10,820.0	-2,043.8	499.9	2,088.9	0.00	0.00	0.00
	13,100.0	90.00	178.21	10,820.0	-2,143.7	503.0	2,188.5	0.00	0.00	0.00

# eog resources

#### Planning Report

Database: Company: PEDM

Midland

Project: Lea County, NM (NAD 83 NME)

Site: Quijote 2 State Com

 Well:
 #501H

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Well #501H

Vell #501H

KB = 25 @ 3365.0usft KB = 25 @ 3365.0usft

Grid

(usft)  13,200.0 13,300.0 13,400.0 13,500.0 13,600.0 13,700.0 13,800.0 13,900.0 14,000.0 14,100.0 14,200.0 14,300.0 14,400.0 14,500.0 14,600.0 14,700.0 14,800.0 14,900.0	90.00 90.00 90.00 90.00 90.00 90.00 90.00 90.00 90.00 90.00 90.00 90.00	Azimuth (°)  178.21 178.21 178.21 178.21 178.21 178.21 178.21 178.21 178.21 178.21 178.21 178.21 178.21 178.21	Vertical Depth (usft)  10,820.0 10,820.0 10,820.0 10,820.0 10,820.0 10,820.0 10,820.0 10,820.0 10,820.0 10,820.0 10,820.0 10,820.0 10,820.0 10,820.0	+N/-S (usft)  -2,243.7 -2,343.6 -2,443.6 -2,543.5 -2,643.5 -2,743.4 -2,843.4 -2,943.3 -3,043.3 -3,143.2 -3,243.2 -3,243.2	+E/-W (usft)  506.2 509.3 512.4 515.6 518.7 521.8 524.9 528.1 531.2 534.3 537.5 540.6	Vertical Section (usft) 2,288.1 2,387.7 2,487.3 2,586.9 2,686.5 2,786.1 2,885.7 2,985.4 3,085.0 3,184.6 3,284.2 3,383.8	Dogleg Rate (°/100usft)  0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	Build Rate (*/100usft)  0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	Turn Rate (°/100usft)  0.00 0.00 0.00 0.00 0.00 0.00 0.00 0
13,300.0 13,400.0 13,500.0 13,600.0 13,700.0 13,800.0 13,900.0 14,000.0 14,100.0 14,200.0 14,300.0 14,400.0 14,500.0 14,600.0 14,700.0 14,800.0 14,900.0	90.00 90.00 90.00 90.00 90.00 90.00 90.00 90.00 90.00 90.00 90.00	178.21 178.21 178.21 178.21 178.21 178.21 178.21 178.21 178.21 178.21 178.21 178.21	10,820.0 10,820.0 10,820.0 10,820.0 10,820.0 10,820.0 10,820.0 10,820.0 10,820.0 10,820.0 10,820.0	-2,343.6 -2,443.6 -2,543.5 -2,643.5 -2,743.4 -2,843.4 -2,943.3 -3,043.3 -3,143.2 -3,243.2 -3,343.1	509.3 512.4 515.6 518.7 521.8 524.9 528.1 531.2 534.3 537.5 540.6	2,387.7 2,487.3 2,586.9 2,686.5 2,786.1 2,885.7 2,985.4 3,085.0 3,184.6 3,284.2	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
13,400.0 13,500.0 13,600.0 13,700.0 13,800.0 13,900.0 14,000.0 14,100.0 14,200.0 14,300.0 14,400.0 14,500.0 14,600.0 14,700.0 14,800.0 14,900.0	90.00 90.00 90.00 90.00 90.00 90.00 90.00 90.00 90.00 90.00	178.21 178.21 178.21 178.21 178.21 178.21 178.21 178.21 178.21 178.21 178.21	10,820.0 10,820.0 10,820.0 10,820.0 10,820.0 10,820.0 10,820.0 10,820.0 10,820.0 10,820.0	-2,443.6 -2,543.5 -2,643.5 -2,743.4 -2,843.4 -2,943.3 -3,043.3 -3,143.2 -3,243.2 -3,343.1	512.4 515.6 518.7 521.8 524.9 528.1 531.2 534.3 537.5 540.6	2,487.3 2,586.9 2,686.5 2,786.1 2,885.7 2,985.4 3,085.0 3,184.6 3,284.2	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
13,500.0 13,600.0 13,700.0 13,800.0 13,900.0 14,000.0 14,100.0 14,200.0 14,300.0 14,400.0 14,500.0 14,600.0 14,700.0 14,800.0 14,900.0	90.00 90.00 90.00 90.00 90.00 90.00 90.00 90.00 90.00	178.21 178.21 178.21 178.21 178.21 178.21 178.21 178.21 178.21 178.21	10,820.0 10,820.0 10,820.0 10,820.0 10,820.0 10,820.0 10,820.0 10,820.0 10,820.0	-2,543.5 -2,643.5 -2,743.4 -2,843.4 -2,943.3 -3,043.3 -3,143.2 -3,243.2 -3,343.1	515.6 518.7 521.8 524.9 528.1 531.2 534.3 537.5 540.6	2,586.9 2,686.5 2,786.1 2,885.7 2,985.4 3,085.0 3,184.6 3,284.2	0.00 0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
13,600.0 13,700.0 13,800.0 13,900.0 14,000.0 14,100.0 14,200.0 14,300.0 14,400.0 14,500.0 14,600.0 14,700.0 14,800.0 14,900.0	90.00 90.00 90.00 90.00 90.00 90.00 90.00 90.00 90.00	178.21 178.21 178.21 178.21 178.21 178.21 178.21 178.21 178.21	10,820.0 10,820.0 10,820.0 10,820.0 10,820.0 10,820.0 10,820.0 10,820.0	-2,643.5 -2,743.4 -2,843.4 -2,943.3 -3,043.3 -3,143.2 -3,243.2 -3,343.1	518.7 521.8 524.9 528.1 531.2 534.3 537.5 540.6	2,686.5 2,786.1 2,885.7 2,985.4 3,085.0 3,184.6 3,284.2	0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00
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14,100.0 14,200.0 14,300.0 14,400.0 14,500.0 14,600.0 14,700.0 14,800.0 14,900.0	90.00 90.00 90.00 90.00	178.21 178.21 178.21 178.21	10,820.0 10,820.0 10,820.0	-3,143.2 -3,243.2 -3,343.1	534.3 537.5 540.6	3,184.6 3,284.2	0.00	0.00	0.00 0.00
14,200.0 14,300.0 14,400.0 14,500.0 14,600.0 14,700.0 14,800.0 14,900.0	90.00 90.00 90.00	178.21 178.21 178.21	10,820.0 10,820.0	-3,243.2 -3,343.1	537.5 540.6	3,284.2	0.00	0.00	0.00
14,300.0 14,400.0 14,500.0 14,600.0 14,700.0 14,800.0 14,900.0	90.00 90.00	178.21 178.21	10,820.0	-3,343.1	540.6				
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14,700.0 14,800.0 14,900.0	90.00	178.21	10,820.0	-3,543.0	546.8	3,583.0	0.00	0.00	0.00
14,800.0 14,900.0	90.00	178.21	10,820.0	-3,643.0	550.0	3,682.6	0.00	0.00	0.00
14,900.0	90.00	178.21	10,820.0	-3,742.9	553.1	3,782.2	0.00	0.00	0.00
•	90.00	178.21	10,820.0	-3,842.9	556.2	3,881.8	0.00	0.00	0.00
	90.00	178.21	10,820.0	-3,942.8	559.4	3,981.4	0.00	0.00	0.00
15,000.0	90.00	178.21	10,820.0	-4,042.8	562.5	4,081.0	0.00	0.00	0.00
15,100.0	90.00	178.21	10,820.0	-4,142.7	565.6	4,180.6	0.00	0.00	0.00
15,200.0	90.00	178.21	10,820.0	-4,242.7	568.7	4,280.3	0.00	0.00	0.00
15,300.0	90.00	178.21	10,820.0	-4,342.6	571.9	4,379.9	0.00	0.00	0.00
15,400.0	90.00	178.21	10,820.0	-4,442.6	575.0	4,479.5	0.00	0.00	0.00
15,500.0	90.00	178.21	10,820.0	-4,542.5	578.1	4,579.1	0.00	0.00	0.00
15,600.0	90.00	178.21	10,820.0	-4,642.5	581.3	4,678.7	0.00	0.00	0.00
15,700.0	90.00	178.21	10,820.0	-4,742.4	584.4	4,778.3	0.00	0.00	0.00
15,800.0	90.00	178.21	10,820.0	-4,842.4	587.5	4,877.9	0.00	0.00	0.00
15,847.6	90.00	178.21	10,820.0	-4,890.0	589.0	4,925.3	0.00	0.00	0.00

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
KOP(Quijote 2 State Cor - plan hits target cer - Polygon		0.00	10,342.5	318.0	426.0	393,380.00	756,574.00	32° 4' 46.472 N	103° 38' 18.247 W
Point 1			10,342.5	-353,380.0	-754,574.0	40,000.00	2,000.00		
Point 2			10,342.5	-353,380.0	-754,674.0	40,000.00	1,900.00		
Point 3			10,342.5	-352,380.0	-754,474.0	41,000.00	2,100.00		
Point 4			10,342.5	-352,380.0	-754,774.0	41,000.00	1,800.00		
PBHL(Quijote 2 State Co - plan hits target cer - Point		0.00	10,820.0	-4,890.0	589.0	388,172.00	756,737.00	32° 3′ 54.925 N	103° 38' 16.743 W

# eog resources

**Azimuths to Grid North** True North: -0.37° Magnetic North: 6.40°

**Magnetic Field** Strength: 47646.2nT Dip Angle: 59.89° Date: 5/28/2019 Model: IGRF2015

To convert a Magnetic Direction to a Grid Direction, Add 6.40°
To convert a Magnetic Direction to a True Direction, Add 6.76° East
To convert a True Direction to a Grid Direction, Subtract 0.37°

Lea County, NM (NAD 83 NME)

**Quijote 2 State Com** #501H

1800-

1500

1200

900

600

-600

-1200

-1500

₹-2400

-3000

-3300

-3600

**Plan #0.1** 

PROJECT DETAILS: Lea County, NM (NAD 83 NME)

**Geodetic System: US State Plane 1983 Datum: North American Datum 1983** Ellipsoid: GRS 1980

**Zone: New Mexico Eastern Zone** System Datum: Mean Sea Level

**WELL DETAILS: #501H** 

3340.0

KB = 25 @ 3365.0usft

Northing **Easting** Latittude 32° 4' 43.352 N Longitude 103° 38' 23.222 W 393062.00 756148.00

SECTION DETAILS **TVD** +N/-S +E/-W **Target** Sec **TFace VSect** Azi 0.00 0.00 1000.0 1000.0 1240.5 53.26 1240.2 2.00 53.26 -5.0 53.26 417.9 -259.8 7340.6 7318.8 -264.8 426.0 7581.0 7559.0 2.00 180.00 10364.5 10342.5 426.0 -264.8 KOP(Quijote 2 State Com #501H) 0.00 10820.0 -159.2 12.00 178.21 210.8 PBHL(Quijote 2 State Com #501H) 10820.0 -4890.0 589.0 4925.3 0.00

CASING DETAILS

No casing data is available

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-|-|-|-

10850

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

+N/-S +E/-W Northing **Easting** KOP(Quijote 2 State Com #501H) 10342.5 318.0 756574.00 PBHL(Quijote 2 State Com #501H) 10820.0 -4890.0 388172.00 756737.00 589.0

**-4200 -4500** -5100<del>+</del> -5400

> -6000 -6300

> > West(-)/East(+)

. - - - - - - - - - -2250

Vertical Section at 173.13°

Lea County, NM (NAD 83 NME) Quijote 2 State Com Plan #0.1 10:00, February 14 2022

#### State of New Mexico Energy, Minerals and Natural Resources Department

Submit Electronically Via E-permitting

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

#### NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

#### Section 1 – Plan Description Effective May 25, 2021

I. Operator:EOG	Pasouroas Inc	OCRII	. 7377		D,	ote: 2/10	/2022	
i. OperatorEOO	Resources, Inc	OGKII	<b></b>		Da	ite. 2/10	/2022	
II. Type: ⊠ Origina Other.	ıl □ Amendm	ent due to □ 19.15	.27.9.D(6)(a) NI	MAC □ 19.15.27.	9.D(6)(l	o) NMAC		
If Other, please describe	::							
<b>III. Well(s):</b> Provide the be recompleted from a s					wells pr	oposed to	be dri	lled or proposed to
Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D		cipated MCF/D	P	Anticipated roduced Water BBL/D
Quijote 2 State Com 501H		A-2-26S-32E	365' FNL & 763' FEL	+/- 1000	+/- 35	500	+/- 30	000
IV. Central Delivery P V. Anticipated Schedor proposed to be recom	ule: Provide th	e following inform	ation for each ne	ew or recompleted entral delivery poi Completion	l well or nt.	set of we	lls prop	-
			Date	Commencemen	t Date	Back I	Oate	Date
Quijote 2 State Com 501H		3/1/22	03/15/22	05/01/22		06/01/22	)	07/01/22
VI. Separation Equipm VII. Operational Prac Subsection A through F VIII. Best Management during active and planne	tices: ⊠ Attac of 19.15.27.8 at Practices: □	ch a complete descr NMAC. ⊠ Attach a comple	ription of the ac	tions Operator wi	ll take t	o comply	with t	he requirements of

#### Section 2 – Enhanced Plan EFFECTIVE APRIL 1, 2022

		EFFECTIV	E APRIL 1, 2022		
Beginning April 1, 2 reporting area must of			with its statewide natural ga	as capture requir	rement for the applicable
☐ Operator certifies capture requirement			tion because Operator is in o	compliance with	its statewide natural gas
IX. Anticipated Nat	tural Gas Producti	on:			
We	llé	API	Anticipated Average Natural Gas Rate MCF/D		ted Volume of Natural r the First Year MCF
X. Natural Gas Gat	thering System (NC	GGS):			
Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date		ximum Daily Capacity m Segment Tie-in
production operation the segment or portion XII. Line Capacity. production volume fixIII. Line Pressure	is to the existing or point of the natural gas.  The natural gas gas from the well prior to the comparison of the compar	planned interconnect of the graph of the state of the state of the state of the date of first product □ does not anticipate the	cocation of the well(s), the and the natural gas gathering system which the well(s) will be considered will not have capacity to go cion.  It its existing well(s) connect meet anticipated increases in	em(s), and the m nected. ather 100% of the	aximum daily capacity of the anticipated natural gas
			•	ime pressure ca	used by the new wen(s).
-		•	ne increased line pressure.		
Section 2 as provided	d in Paragraph (2) o		uant to Section 71-2-8 NMS 27.9 NMAC, and attaches a f on.		

(i)

## Section 3 - Certifications Effective May 25, 2021

	Effective May 25, 2021
Operator certifies that,	after reasonable inquiry and based on the available information at the time of submittal:
one hundred percent of	e to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering
hundred percent of the a into account the current	able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system.  **Dox, Operator will select one of the following:**
Well Shut-In. ☐ Opera D of 19.15.27.9 NMAC	tor will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection 5; or
0	<b>Plan.</b> □ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential ses for the natural gas until a natural gas gathering system is available, including:
(a)	power generation on lease;
<b>(b)</b>	power generation for grid;
(c)	compression on lease;
<b>(d)</b>	liquids removal on lease;
(e)	reinjection for underground storage;
<b>(f)</b>	reinjection for temporary storage;
(g)	reinjection for enhanced oil recovery;
(h)	fuel cell production; and

#### **Section 4 - Notices**

1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

other alternative beneficial uses approved by the division.

- (a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or
- (b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.
- 2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

Signature: Star L Harrell		
Printed Name: Star L Harrell		
Title: Sr Regulatory Specialist		
E-mail Address: Star_Harrell@eogresources.com		
Date: 2/10/2022		
Phone: (432) 848-9161		
OIL CONSERVATION DIVISION		
(Only applicable when submitted as a standalone form)		
Approved By:		
Title:		
Approval Date:		
Conditions of Approval:		

#### Natural Gas Management Plan Items VI-VIII

## VI. Separation Equipment: Attach a complete description of how Operator will size separation equipment to optimize gas capture.

- Separation equipment will be sized to provide adequate separation for anticipated rates.
- Adequate separation relates to retention time for Liquid Liquid separation and velocity for Gas-Liquid separation.
- Collection systems are appropriately sized to handle facility production rates on all (3) phases.
- Ancillary equipment and metering is selected to be serviced without flow interruptions or the need to release
  gas from the well.

# VII. Operational Practices: Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F 19.15.27.8 NMAC.

#### **Drilling Operations**

- All flare stacks will be properly sized. The flare stacks will be located at a minimum 100' from the nearest surface hole location on the pad.
- All natural gas produced during drilling operations will be flared, unless there is an equipment malfunction
  and/or to avoid risk of an immediate and substantial adverse impact on safety and the environment, at which
  point the gas will be vented.

#### Completions/Recompletions Operations

- New wells will not be flowed back until they are connected to a properly sized gathering system.
- The facility will be built/sized for maximum anticipated flowrates and pressures to minimize waste.
- For flowback operations, multiple stages of separation will be used as well as excess VRU and blowers to make sure waste is minimized off the storage tanks and facility.
- During initial flowback, the well stream will be routed to separation equipment.
- At an existing facility, when necessary, post separation natural gas will be flared until it meets pipeline specifications, at which point it will be turned into a collection system.
- At a new facility, post separation natural gas will be vented until storage tanks can safely function, at which point it will be flared until it meets pipeline spec.

#### **Production Operations**

- Weekly AVOs will be performed on all facilities.
- All flares will be equipped with auto-ignition systems and continuous pilot operations.
- After a well is stabilized from liquid unloading, the well will be turned back into the collection system.
- All plunger lift systems will be optimized to limit the amount of waste.
- All tanks will have automatic gauging equipment installed.
- Leaking thief hatches found during AVOs will be cleaned and properly re-sealed.

#### Performance Standards

- Production equipment will be designed to handle maximum anticipated rates and pressure.
- All flared gas will be combusted in a flare stack that is properly sized and designed to ensure proper combustion.
- Weekly AVOs will be performed on all wells and facilities that produce more than 60 Mcfd.

#### Measurement & Estimation

- All volume that is flared and vented that is not measured will be estimated.
- All measurement equipment for flared volumes will conform to API 14.10.
- No meter bypasses with be installed.

• When metering is not practical due to low pressure/low rate, the vented or flared volume will be estimated.

# VIII. Best Management Practices: Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

- During downhole well maintenance, EOG will use best management practices to vent as minimally as possible.
- Prior to the commencement of any maintenance, the tank or vessel will be isolated from the rest of the facilities.
- All valves upstream of the equipment will be closed and isolated.
- After equipment has been isolated, the equipment will be blown down to as low a pressure as possible into the collection system.
- If the equipment being maintained cannot be relieved into the collection system, it shall be released to a tank where the vapor can either be captured or combusted if possible.
- After downhole well maintenance, natural gas will be flared until it reaches pipeline specification.