

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

Form C-101
August 1, 2011

Permit 388193

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

1. Operator Name and Address EOG RESOURCES INC 5509 Champions Drive Midland, TX 79706		2. OGRID Number 7377
		3. API Number 30-025-54646
4. Property Code 313188	5. Property Name OSPREY 10	6. Well No. 581H

7. Surface Location

UL - Lot P	Section 10	Township 25S	Range 34E	Lot Idn	Feet From 943	N/S Line S	Feet From 1289	E/W Line E	County Lea
---------------	---------------	-----------------	--------------	---------	------------------	---------------	-------------------	---------------	---------------

8. Proposed Bottom Hole Location

UL - Lot K	Section 3	Township 25S	Range 34E	Lot Idn K	Feet From 2538	N/S Line S	Feet From 2310	E/W Line W	County Lea
---------------	--------------	-----------------	--------------	--------------	-------------------	---------------	-------------------	---------------	---------------

9. Pool Information

RED HILLS;BONE SPRING, EAST	97369
-----------------------------	-------

Additional Well Information

11. Work Type New Well	12. Well Type OIL	13. Cable/Rotary	14. Lease Type Private	15. Ground Level Elevation 3333
16. Multiple N	17. Proposed Depth 19694	18. Formation Bone Spring	19. Contractor	20. Spud Date 5/16/2025
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	13	10.75	40.5	985	320	0
Int1	9.875	8.625	32	5352	680	0
Prod	7.875	6	24.5	11553	1870	4972
Prod	6.75	5.5	20	19694	1870	4972

Casing/Cement Program: Additional Comments

EOG respectfully requests the option to use the casing and cement program described in Design B of the drill plan. The NMOCD will be notified of EOG's election at spud.
--

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	5000	3000	

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify I have complied with 19.15.14.9 (A) NMAC <input checked="" type="checkbox"/> and/or 19.15.14.9 (B) NMAC <input checked="" type="checkbox"/> if applicable.		OIL CONSERVATION DIVISION	
Signature:			
Printed Name:	Electronically filed by Kristina Agee	Approved By:	Matthew Gomez
Title:	Senior Regulatory Administrator	Title:	
Email Address:	Kristina_agee@eogresources.com	Approved Date:	5/14/2025
Date:	4/25/2025	Expiration Date:	5/14/2027
Phone:	432-686-6996	Conditions of Approval Attached	

C-102 Submit Electronically Via OCD Permitting	State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION	Revised July 9, 2024	
		Submittal Type:	<input checked="" type="checkbox"/> Initial Submittal
			<input type="checkbox"/> Amended Report
		<input type="checkbox"/> As Drilled	

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-54646	Pool Code 97369	Pool Name RED HILLS; BONE SPRING, EAST
Property Code HFHF11	Property Name OSPREY 10	Well Number 581H
OGRID No. 7377	Operator Name EOG RESOURCES, INC.	Ground Level Elevation 3333'
Surface Owner: <input type="checkbox"/> State <input checked="" type="checkbox"/> Fee <input type="checkbox"/> Tribal <input type="checkbox"/> Federal		Mineral Owner: <input type="checkbox"/> State <input checked="" type="checkbox"/> Fee <input type="checkbox"/> Tribal <input type="checkbox"/> Federal

Surface Location

UL or lot no. P	Section 10	Township 25-S	Range 34-E	Lot Idn -	Feet from the N/S 943' S	Feet from the E/W 1289' E	Latitude N 32.1403595	Longitude W 103.4534689	County LEA
---------------------------	----------------------	-------------------------	----------------------	---------------------	------------------------------------	-------------------------------------	---------------------------------	-----------------------------------	----------------------

Bottom Hole Location

UL or lot no. K	Section 3	Township 25-S	Range 34-E	Lot Idn -	Feet from the N/S 2538' S	Feet from the E/W 2310' W	Latitude N 32.1592639	Longitude W 103.4588500	County LEA
---------------------------	---------------------	-------------------------	----------------------	---------------------	-------------------------------------	-------------------------------------	---------------------------------	-----------------------------------	----------------------

Dedicated Acres 240.00	Infill or Defining Well INFILL	Defining Well API 30-025-46451	Overlapping Spacing Unit (Y/N) N	Consolidated Code F
Order Numbers R-21865			Well Setbacks are under Common Ownership: <input type="checkbox"/> Yes <input type="checkbox"/> No	

Kick Off Point (KOP)

UL or lot no. N	Section 10	Township 25-S	Range 34-E	Lot Idn -	Feet from the N/S 50' S	Feet from the E/W 2310' W	Latitude N 32.1379098	Longitude W 103.4588722	County LEA
---------------------------	----------------------	-------------------------	----------------------	---------------------	-----------------------------------	-------------------------------------	---------------------------------	-----------------------------------	----------------------


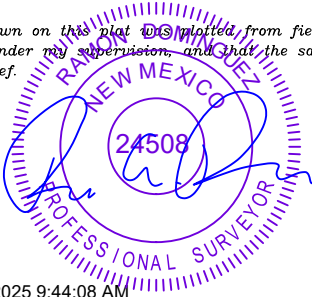
First Take Point (FTP)

UL or lot no. N	Section 10	Township 25-S	Range 34-E	Lot Idn -	Feet from the N/S 100' S	Feet from the E/W 2310' W	Latitude N 32.1380472	Longitude W 103.4588720	County LEA
---------------------------	----------------------	-------------------------	----------------------	---------------------	------------------------------------	-------------------------------------	---------------------------------	-----------------------------------	----------------------

Last Take Point (LTP)

UL or lot no. K	Section 3	Township 25-S	Range 34-E	Lot Idn -	Feet from the N/S 2538' S	Feet from the E/W 2310' W	Latitude N 32.1592639	Longitude W 103.4588500	County LEA
---------------------------	---------------------	-------------------------	----------------------	---------------------	-------------------------------------	-------------------------------------	---------------------------------	-----------------------------------	----------------------

Unitized Area or Area of Uniform Interest UNITIZED AREA	Spacing Unity Type <input checked="" type="checkbox"/> Horizontal <input type="checkbox"/> Vertical	Ground Floor Elevation 3358'
---	--	--

OPERATOR CERTIFICATION <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief; and, if the well is a vertical or directional well, that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of a working interest or unleased mineral interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</i> <i>If this well is a horizontal well, I further certify that this organization has received The consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or formation) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division.</i>  04/24/2025		SURVEYORS CERTIFICATION <i>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</i>  4/15/2025 9:44:08 AM	
Signature KAYLA MCCONNELL		Signature and Seal of Professional Surveyor Rayon Gomez	
Print Name KAYLA_MCCONNELL@EOGRESOURCES.COM		Certificate Number	Date of Survey 04/04/2025
E-mail Address			

C-102

Submit Electronically
Via OCD PermittingState of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION

Revised July 9, 2024

Submittal
Type:

- ☒
- Initial Submittal
-
- ☐
- Amended Report
-
- ☐
- As Drilled

Property Name and Well Number

OSPREY 10 581H

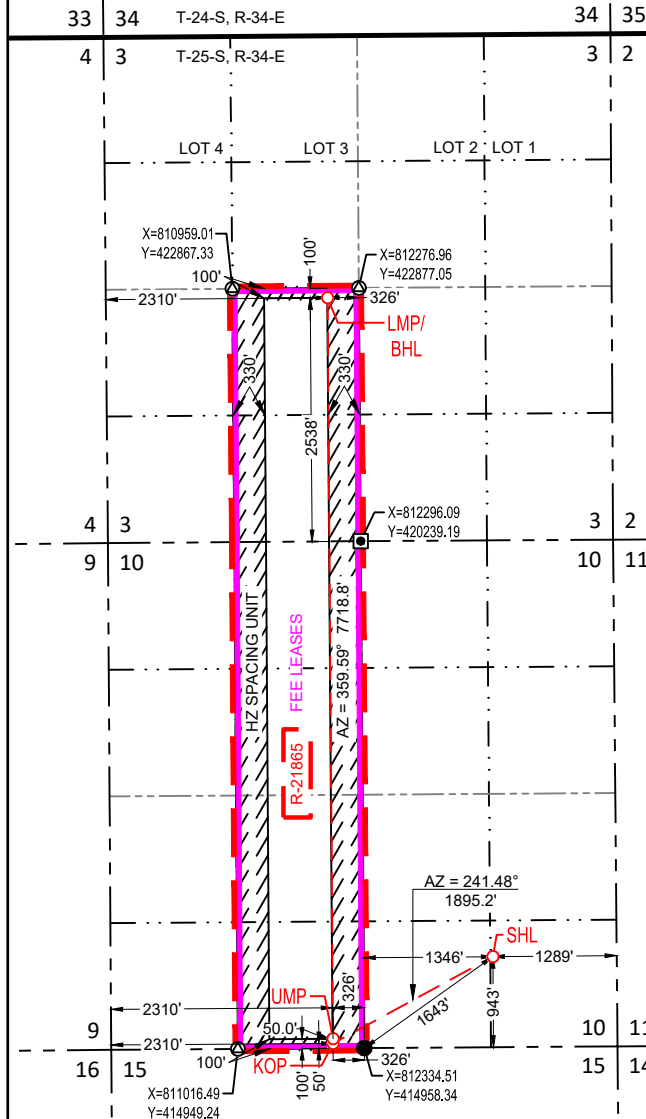
SURFACE LOCATION (SHL)

NEW MEXICO EAST
NAD 1983
X=813673 Y=415911
LAT.: N 32.1403595
LONG.: W 103.4534689
NAD 1927X=772487 Y=415853
LAT.: N 32.1402350
LONG.: W 103.4530004
943' FSL 1289' FEL

KICK OFF POINT (KOP)

NEW MEXICO EAST
NAD 1983
X=812008 Y=415006
LAT.: N 32.1379098
LONG.: W 103.4588722
NAD 1927X=770822 Y=414948
LAT.: N 32.1377853
LONG.: W 103.4584036
50' FSL 2310' FWL

UPPER MOST PERF. (UMP)

NEW MEXICO EAST
NAD 1983
X=812008 Y=415056
LAT.: N 32.1380472
LONG.: W 103.4588720
NAD 1927X=770821 Y=414998
LAT.: N 32.1379227
LONG.: W 103.4584033
100' FSL 2310' FWLLOWER MOST PERF. (LMP)
BOTTOM HOLE LOCATION (BHL)NEW MEXICO EAST
NAD 1983
X=811952 Y=422775
LAT.: N 32.1592639
LONG.: W 103.4588500
NAD 1927X=770766 Y=422717
LAT.: N 32.1591396
LONG.: W 103.4583802
2538' FSL 2310' FWL

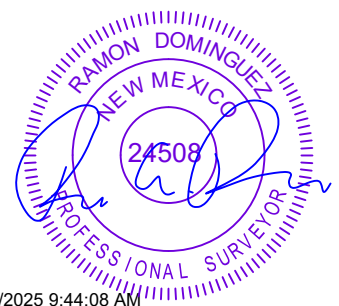
SURVEYORS CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

04/04/2025

Date of Survey

Signature and Seal of Professional Surveyor:



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

Form APD Conditions

Permit 388193

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address: EOG RESOURCES INC [7377] 5509 Champions Drive Midland, TX 79706	API Number: 30-025-54646
	Well: OSPREY 10 #581H

OCD Reviewer	Condition
matthew.gomez	A [C-103] Sub. Drilling (C-103N) is required within (10) days of spud.
matthew.gomez	Notify the OCD 24 hours prior to casing & cement.
matthew.gomez	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.
matthew.gomez	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.
matthew.gomez	Cement is required to circulate on both surface and intermediate1 strings of casing.
matthew.gomez	If cement does not circulate on any string, a Cement Bond Log (CBL) is required for that string of casing.
matthew.gomez	File As Drilled C-102 and a directional Survey with C-104 completion packet.



EOG Batch Casing

Pad Name: Osprey 10

SHL: Section 10, Township 25-S, Range 34-E, LEA County, NM

Well Name	API #	Surface		Intermediate		Production	
		MD	TVD	MD	TVD	MD	TVD
OSPREY 10 #1H	30-025-*****	985	985	5,179	5,161	16,680	9,100
OSPREY 10 #111H	30-025-*****	985	985	5,218	5,161	17,108	9,490
OSPREY 10 #112H	30-025-*****	985	985	5,173	5,161	17,065	9,490
OSPREY 10 #113H	30-025-*****	985	985	5,260	5,161	17,150	9,490
OSPREY 10 #510H (501H)	30-025-53056	985	985	5,223	5,161	18,863	11,240
OSPREY 10 #511H (502H)	30-025-53057	985	985	5,163	5,161	18,805	11,240
OSPREY 10 #512H	30-025-*****	985	985	5,461	5,161	19,077	11,240
OSPREY 10 #520H (101H)	30-025-53053	985	985	5,280	5,161	19,049	11,372
OSPREY 10 #521H (102H)	30-025-53054	985	985	5,178	5,161	18,952	11,372
OSPREY 10 #522H	30-025-*****	985	985	5,640	5,161	19,354	11,372
OSPREY 10 #523H	30-025-*****	985	985	5,352	5,161	19,114	11,372
OSPREY 10 #524H	30-025-*****	985	985	5,378	5,161	19,138	11,372
OSPREY 10 #581H	30-025-*****	985	985	5,472	5,161	19,694	11,848
OSPREY 10 #597H	30-025-*****	985	985	11,671	11,472	19,655	11,904
OSPREY 10 #613H	30-025-*****	985	985	11,711	11,472	19,800	12,015
OSPREY 10 #614H	30-025-*****	985	985	11,717	11,472	19,806	12,015



EOG Batch Casing

GEOLOGIC NAME OF SURFACE FORMATION:

Permian

ESTIMATED TOPS OF IMPORTANT GEOLOGICAL MARKERS:

Rustler	875'
Tamarisk Anhydrite	960'
Top of Salt	1,255'
Base of Salt	5,061'
Lamar	5,323'
Bell Canyon	5,346'
Cherry Canyon	6,301'
Brushy Canyon	7,887'
Bone Spring Lime	9,298'
Leonard (Avalon) Shale	9,335'
1st Bone Spring Sand	10,317'
2nd Bone Spring Shale	10,533'
2nd Bone Spring Sand	10,836'
3rd Bone Spring Carb	11,372'
3rd Bone Spring Sand	11,904'

ESTIMATED DEPTHS OF ANTICIPATED FRESH WATER, OIL OR GAS:

Upper Permian Sands	0- 400'	Fresh Water
Bell Canyon	5,346'	Oil
Cherry Canyon	6,301'	Oil
Brushy Canyon	7,887'	Oil
Leonard (Avalon) Shale	9,335'	Oil
1st Bone Spring Sand	10,317'	Oil
2nd Bone Spring Shale	10,533'	Oil
2nd Bone Spring Sand	10,836'	Oil

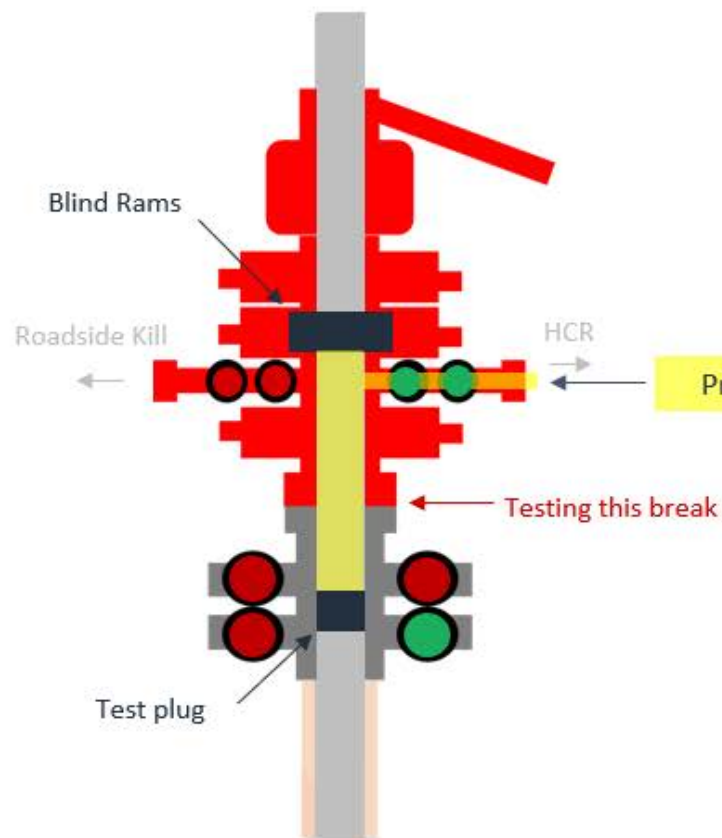
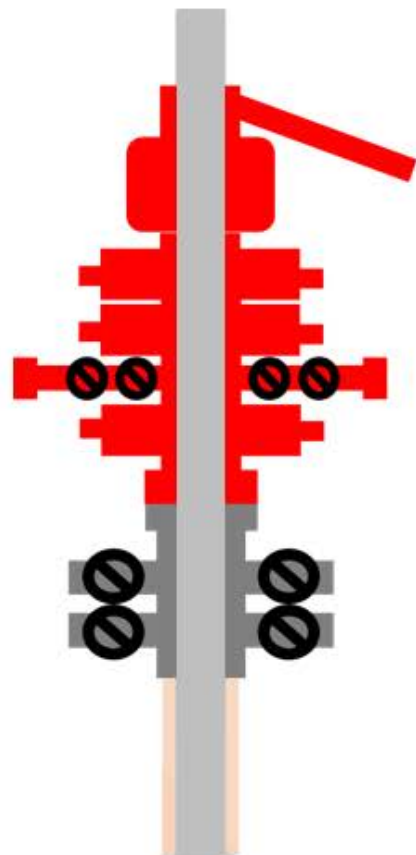
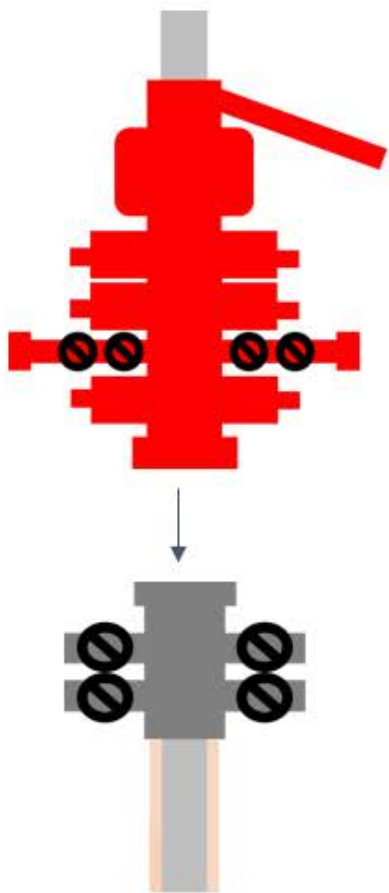
No other Formations are expected to give up oil, gas or fresh water in measurable quantities. Surface fresh water sands will be protected by setting surface casing at 990' and circulating cement back to surface.

**Break-test BOP & Offline Cementing:**

EOG Resources Inc. (EOG) respectfully requests a variance from the minimum standards for well control equipment testing of ECFR Title 43 Part 3172.6(b)(9)(iv) to allow a testing schedule of the blow out preventer (BOP) and blow out prevention equipment (BOPE) along with Batch Drilling & Offline cement operations to include the following:

- Full BOPE test at first installation on the pad.
- Full BOPE test every 30 days.
- This test will be conducted for 5M rated hole intervals only.
- Each rig requesting the break-test variance is capable of picking up the BOP without damaging components using winches, following API Standard 53, Well Control Equipment Systems for Drilling Wells (Fifth edition, December 2018, Annex C. Table C.4) which recognizes break testing as an acceptable practice.
- Function tests will be performed on the following BOP elements:
 - Annular ð during each full BOPE test
 - Upper Pipe Rams ð On trip ins where FIT required
 - Blind Rams ð Every trip
 - Lower Pipe Rams ð during each full BOPE test
- Break testing BOP and BOPE coupled with batch drilling operations and option to offline cement and/or remediate (if needed) any surface or intermediate sections, according to attached offline cementing support documentation.
- After the well section is secured, the BOP will be disconnected from the wellhead and walked with the rig to another well on the pad.
- TA cap will also be installed per Wellhead vendor procedure and pressure inside the casing will be monitored via the valve on the TA cap as per standard batch drilling ops.

Break Test Diagram (HCR valve)



Steps

1. Set plug in wellhead (lower barrier)
2. Close Blind Rams (upper barrier)
3. Close roadside kill
4. Open HCR (pressure application)
5. Open wellhead valves below test plug to ensure if leak past test plug, pressure won't be applied to wellbore
6. Tie BOP testers high pressure line to main choke manifold crown valve
7. Pressure up to test break
8. Bleed test pressure from BOP testing unit

Break Test Diagram (Test Joint)



Steps

1. Set plug in with test joint wellhead (lower barrier)
2. Close Upper Pipe Rams (upper barrier)
3. Close roadside kill
4. Close HCR
5. Open wellhead valves below test plug to ensure if leak past test plug, pressure won't be applied to wellbore
6. Tie BOP testers high pressure line to top of test joint
7. Pressure up to test break
8. Bleed test pressure from BOP testing unit



Midland

Lea County, NM (NAD 83 NME)

Osprey 10

#581H

OH

Plan: Plan #0.1 RT

Standard Planning Report

21 April, 2025



Planning Report

Database:	PEDMB	Local Co-ordinate Reference:	Well #581H
Company:	Midland	TVD Reference:	kb = 26' @ 3359.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	kb = 26' @ 3359.0usft
Site:	Osprey 10	North Reference:	Grid
Well:	#581H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1 RT		

Project	Lea County, NM (NAD 83 NME)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Osprey 10				
Site Position:		Northing:	415,148.00 usft	Latitude:	32° 8' 18.063 N
From:	Map	Easting:	809,711.00 usft	Longitude:	103° 27' 58.640 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "		

Well	#581H					
Well Position	+N/-S	0.0 usft	Northing:	415,911.00 usft	Latitude:	32° 8' 25.295 N
	+E/-W	0.0 usft	Easting:	813,673.00 usft	Longitude:	103° 27' 12.492 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	3,333.0 usft
Grid Convergence:		0.47 °				

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2025	4/21/2025	6.20	59.71	47,006.47877633

Design	Plan #0.1 RT				
Audit Notes:					
Version:	Phase:	PLAN	Tie On Depth:	0.0	
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	345.92	

Plan Survey Tool Program	Date	4/21/2025			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.0	19,694.4	Plan #0.1 RT (OH)	EOG MWD+IFR1	
				MWD + IFR1	



Planning Report

Database:	PEDMB	Local Co-ordinate Reference:	Well #581H
Company:	Midland	TVD Reference:	kb = 26' @ 3359.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	kb = 26' @ 3359.0usft
Site:	Osprey 10	North Reference:	Grid
Well:	#581H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1 RT		

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,085.0	0.00	0.00	1,085.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,974.6	17.79	241.47	1,960.4	-65.4	-120.4	2.00	2.00	0.00	241.47	
7,279.6	17.79	241.47	7,011.6	-839.6	-1,544.6	0.00	0.00	0.00	0.00	
8,169.2	0.00	0.00	7,887.0	-905.0	-1,665.0	2.00	-2.00	0.00	180.00	
11,652.7	0.00	0.00	11,370.5	-905.0	-1,665.0	0.00	0.00	0.00	0.00	KOP(Osprey 10 #581
11,873.1	26.46	0.00	11,583.2	-855.0	-1,665.0	12.00	12.00	0.00	0.00	FTP(Osprey 10 #581
12,402.7	90.00	359.58	11,847.9	-427.5	-1,667.2	12.00	12.00	-0.08	-0.47	
19,694.4	90.00	359.58	11,848.0	6,864.0	-1,721.0	0.00	0.00	0.00	0.00	PBHL(Osprey 10 #58



Planning Report

Database:	PEDMB	Local Co-ordinate Reference:	Well #581H
Company:	Midland	TVD Reference:	kb = 26' @ 3359.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	kb = 26' @ 3359.0usft
Site:	Osprey 10	North Reference:	Grid
Well:	#581H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1 RT		

Planned 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
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	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
1,085.0	0.00	0.00	1,085.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.30	241.47	1,100.0	0.0	0.0	0.0	2.00	2.00	0.00
1,200.0	2.30	241.47	1,200.0	-1.1	-2.0	-0.6	2.00	2.00	0.00
1,300.0	4.30	241.47	1,299.8	-3.9	-7.1	-2.0	2.00	2.00	0.00
1,400.0	6.30	241.47	1,399.4	-8.3	-15.2	-4.3	2.00	2.00	0.00
1,500.0	8.30	241.47	1,498.6	-14.3	-26.4	-7.5	2.00	2.00	0.00
1,600.0	10.30	241.47	1,597.2	-22.0	-40.6	-11.5	2.00	2.00	0.00
1,700.0	12.30	241.47	1,695.3	-31.4	-57.8	-16.4	2.00	2.00	0.00
1,800.0	14.30	241.47	1,792.6	-42.4	-78.0	-22.2	2.00	2.00	0.00
1,900.0	16.30	241.47	1,889.1	-55.0	-101.2	-28.7	2.00	2.00	0.00
1,974.6	17.79	241.47	1,960.4	-65.4	-120.4	-34.2	2.00	2.00	0.00
2,000.0	17.79	241.47	1,984.6	-69.1	-127.2	-36.1	0.00	0.00	0.00
2,100.0	17.79	241.47	2,079.8	-83.7	-154.0	-43.8	0.00	0.00	0.00
2,200.0	17.79	241.47	2,175.0	-98.3	-180.9	-51.4	0.00	0.00	0.00
2,300.0	17.79	241.47	2,270.2	-112.9	-207.7	-59.0	0.00	0.00	0.00
2,400.0	17.79	241.47	2,365.4	-127.5	-234.6	-66.6	0.00	0.00	0.00
2,500.0	17.79	241.47	2,460.6	-142.1	-261.4	-74.3	0.00	0.00	0.00
2,600.0	17.79	241.47	2,555.9	-156.7	-288.3	-81.9	0.00	0.00	0.00
2,700.0	17.79	241.47	2,651.1	-171.3	-315.1	-89.5	0.00	0.00	0.00
2,800.0	17.79	241.47	2,746.3	-185.9	-342.0	-97.1	0.00	0.00	0.00
2,900.0	17.79	241.47	2,841.5	-200.5	-368.8	-104.8	0.00	0.00	0.00
3,000.0	17.79	241.47	2,936.7	-215.1	-395.7	-112.4	0.00	0.00	0.00
3,100.0	17.79	241.47	3,031.9	-229.7	-422.5	-120.0	0.00	0.00	0.00
3,200.0	17.79	241.47	3,127.2	-244.3	-449.4	-127.6	0.00	0.00	0.00
3,300.0	17.79	241.47	3,222.4	-258.8	-476.2	-135.3	0.00	0.00	0.00
3,400.0	17.79	241.47	3,317.6	-273.4	-503.1	-142.9	0.00	0.00	0.00
3,500.0	17.79	241.47	3,412.8	-288.0	-529.9	-150.5	0.00	0.00	0.00
3,600.0	17.79	241.47	3,508.0	-302.6	-556.8	-158.1	0.00	0.00	0.00
3,700.0	17.79	241.47	3,603.2	-317.2	-583.6	-165.8	0.00	0.00	0.00
3,800.0	17.79	241.47	3,698.5	-331.8	-610.4	-173.4	0.00	0.00	0.00
3,900.0	17.79	241.47	3,793.7	-346.4	-637.3	-181.0	0.00	0.00	0.00
4,000.0	17.79	241.47	3,888.9	-361.0	-664.1	-188.6	0.00	0.00	0.00
4,100.0	17.79	241.47	3,984.1	-375.6	-691.0	-196.3	0.00	0.00	0.00
4,200.0	17.79	241.47	4,079.3	-390.2	-717.8	-203.9	0.00	0.00	0.00
4,300.0	17.79	241.47	4,174.5	-404.8	-744.7	-211.5	0.00	0.00	0.00
4,400.0	17.79	241.47	4,269.8	-419.4	-771.5	-219.1	0.00	0.00	0.00
4,500.0	17.79	241.47	4,365.0	-434.0	-798.4	-226.8	0.00	0.00	0.00
4,600.0	17.79	241.47	4,460.2	-448.5	-825.2	-234.4	0.00	0.00	0.00
4,700.0	17.79	241.47	4,555.4	-463.1	-852.1	-242.0	0.00	0.00	0.00
4,800.0	17.79	241.47	4,650.6	-477.7	-878.9	-249.6	0.00	0.00	0.00
4,900.0	17.79	241.47	4,745.9	-492.3	-905.8	-257.3	0.00	0.00	0.00
5,000.0	17.79	241.47	4,841.1	-506.9	-932.6	-264.9	0.00	0.00	0.00
5,100.0	17.79	241.47	4,936.3	-521.5	-959.5	-272.5	0.00	0.00	0.00



Planning Report

Database:	PEDMB	Local Co-ordinate Reference:	Well #581H
Company:	Midland	TVD Reference:	kb = 26' @ 3359.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	kb = 26' @ 3359.0usft
Site:	Osprey 10	North Reference:	Grid
Well:	#581H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1 RT		

Planned 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)
5,200.0	17.79	241.47	5,031.5	-536.1	-986.3	-280.1	0.00	0.00	0.00
5,300.0	17.79	241.47	5,126.7	-550.7	-1,013.2	-287.8	0.00	0.00	0.00
5,400.0	17.79	241.47	5,221.9	-565.3	-1,040.0	-295.4	0.00	0.00	0.00
5,500.0	17.79	241.47	5,317.2	-579.9	-1,066.8	-303.0	0.00	0.00	0.00
5,600.0	17.79	241.47	5,412.4	-594.5	-1,093.7	-310.6	0.00	0.00	0.00
5,700.0	17.79	241.47	5,507.6	-609.1	-1,120.5	-318.3	0.00	0.00	0.00
5,800.0	17.79	241.47	5,602.8	-623.7	-1,147.4	-325.9	0.00	0.00	0.00
5,900.0	17.79	241.47	5,698.0	-638.2	-1,174.2	-333.5	0.00	0.00	0.00
6,000.0	17.79	241.47	5,793.2	-652.8	-1,201.1	-341.1	0.00	0.00	0.00
6,100.0	17.79	241.47	5,888.5	-667.4	-1,227.9	-348.8	0.00	0.00	0.00
6,200.0	17.79	241.47	5,983.7	-682.0	-1,254.8	-356.4	0.00	0.00	0.00
6,300.0	17.79	241.47	6,078.9	-696.6	-1,281.6	-364.0	0.00	0.00	0.00
6,400.0	17.79	241.47	6,174.1	-711.2	-1,308.5	-371.6	0.00	0.00	0.00
6,500.0	17.79	241.47	6,269.3	-725.8	-1,335.3	-379.3	0.00	0.00	0.00
6,600.0	17.79	241.47	6,364.5	-740.4	-1,362.2	-386.9	0.00	0.00	0.00
6,700.0	17.79	241.47	6,459.8	-755.0	-1,389.0	-394.5	0.00	0.00	0.00
6,800.0	17.79	241.47	6,555.0	-769.6	-1,415.9	-402.1	0.00	0.00	0.00
6,900.0	17.79	241.47	6,650.2	-784.2	-1,442.7	-409.8	0.00	0.00	0.00
7,000.0	17.79	241.47	6,745.4	-798.8	-1,469.6	-417.4	0.00	0.00	0.00
7,100.0	17.79	241.47	6,840.6	-813.4	-1,496.4	-425.0	0.00	0.00	0.00
7,200.0	17.79	241.47	6,935.8	-828.0	-1,523.2	-432.6	0.00	0.00	0.00
7,279.6	17.79	241.47	7,011.6	-839.6	-1,544.6	-438.7	0.00	0.00	0.00
7,300.0	17.38	241.47	7,031.1	-842.5	-1,550.0	-440.2	2.00	-2.00	0.00
7,400.0	15.38	241.47	7,127.0	-856.0	-1,574.8	-447.3	2.00	-2.00	0.00
7,500.0	13.38	241.47	7,223.9	-867.8	-1,596.6	-453.5	2.00	-2.00	0.00
7,600.0	11.38	241.47	7,321.5	-878.1	-1,615.5	-458.8	2.00	-2.00	0.00
7,700.0	9.38	241.47	7,419.9	-886.7	-1,631.3	-463.3	2.00	-2.00	0.00
7,800.0	7.38	241.47	7,518.8	-893.7	-1,644.1	-467.0	2.00	-2.00	0.00
7,900.0	5.38	241.47	7,618.2	-899.0	-1,653.9	-469.7	2.00	-2.00	0.00
8,000.0	3.38	241.47	7,717.9	-902.6	-1,660.6	-471.7	2.00	-2.00	0.00
8,100.0	1.38	241.47	7,817.8	-904.6	-1,664.3	-472.7	2.00	-2.00	0.00
8,169.2	0.00	0.00	7,887.0	-905.0	-1,665.0	-472.9	2.00	-2.00	0.00
8,200.0	0.00	0.00	7,917.8	-905.0	-1,665.0	-472.9	0.00	0.00	0.00
8,300.0	0.00	0.00	8,017.8	-905.0	-1,665.0	-472.9	0.00	0.00	0.00
8,400.0	0.00	0.00	8,117.8	-905.0	-1,665.0	-472.9	0.00	0.00	0.00
8,500.0	0.00	0.00	8,217.8	-905.0	-1,665.0	-472.9	0.00	0.00	0.00
8,600.0	0.00	0.00	8,317.8	-905.0	-1,665.0	-472.9	0.00	0.00	0.00
8,700.0	0.00	0.00	8,417.8	-905.0	-1,665.0	-472.9	0.00	0.00	0.00
8,800.0	0.00	0.00	8,517.8	-905.0	-1,665.0	-472.9	0.00	0.00	0.00
8,900.0	0.00	0.00	8,617.8	-905.0	-1,665.0	-472.9	0.00	0.00	0.00
9,000.0	0.00	0.00	8,717.8	-905.0	-1,665.0	-472.9	0.00	0.00	0.00
9,100.0	0.00	0.00	8,817.8	-905.0	-1,665.0	-472.9	0.00	0.00	0.00
9,200.0	0.00	0.00	8,917.8	-905.0	-1,665.0	-472.9	0.00	0.00	0.00
9,300.0	0.00	0.00	9,017.8	-905.0	-1,665.0	-472.9	0.00	0.00	0.00
9,400.0	0.00	0.00	9,117.8	-905.0	-1,665.0	-472.9	0.00	0.00	0.00
9,500.0	0.00	0.00	9,217.8	-905.0	-1,665.0	-472.9	0.00	0.00	0.00
9,600.0	0.00	0.00	9,317.8	-905.0	-1,665.0	-472.9	0.00	0.00	0.00
9,700.0	0.00	0.00	9,417.8	-905.0	-1,665.0	-472.9	0.00	0.00	0.00
9,800.0	0.00	0.00	9,517.8	-905.0	-1,665.0	-472.9	0.00	0.00	0.00
9,900.0	0.00	0.00	9,617.8	-905.0	-1,665.0	-472.9	0.00	0.00	0.00
10,000.0	0.00	0.00	9,717.8	-905.0	-1,665.0	-472.9	0.00	0.00	0.00
10,100.0	0.00	0.00	9,817.8	-905.0	-1,665.0	-472.9	0.00	0.00	0.00
10,200.0	0.00	0.00	9,917.8	-905.0	-1,665.0	-472.9	0.00	0.00	0.00
10,300.0	0.00	0.00	10,017.8	-905.0	-1,665.0	-472.9	0.00	0.00	0.00



Planning Report

Database:	PEDMB	Local Co-ordinate Reference:	Well #581H
Company:	Midland	TVD Reference:	kb = 26' @ 3359.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	kb = 26' @ 3359.0usft
Site:	Osprey 10	North Reference:	Grid
Well:	#581H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1 RT		

Planned 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)
10,400.0	0.00	0.00	10,117.8	-905.0	-1,665.0	-472.9	0.00	0.00	0.00
10,500.0	0.00	0.00	10,217.8	-905.0	-1,665.0	-472.9	0.00	0.00	0.00
10,600.0	0.00	0.00	10,317.8	-905.0	-1,665.0	-472.9	0.00	0.00	0.00
10,700.0	0.00	0.00	10,417.8	-905.0	-1,665.0	-472.9	0.00	0.00	0.00
10,800.0	0.00	0.00	10,517.8	-905.0	-1,665.0	-472.9	0.00	0.00	0.00
10,900.0	0.00	0.00	10,617.8	-905.0	-1,665.0	-472.9	0.00	0.00	0.00
11,000.0	0.00	0.00	10,717.8	-905.0	-1,665.0	-472.9	0.00	0.00	0.00
11,100.0	0.00	0.00	10,817.8	-905.0	-1,665.0	-472.9	0.00	0.00	0.00
11,200.0	0.00	0.00	10,917.8	-905.0	-1,665.0	-472.9	0.00	0.00	0.00
11,300.0	0.00	0.00	11,017.8	-905.0	-1,665.0	-472.9	0.00	0.00	0.00
11,400.0	0.00	0.00	11,117.8	-905.0	-1,665.0	-472.9	0.00	0.00	0.00
11,500.0	0.00	0.00	11,217.8	-905.0	-1,665.0	-472.9	0.00	0.00	0.00
11,600.0	0.00	0.00	11,317.8	-905.0	-1,665.0	-472.9	0.00	0.00	0.00
11,652.7	0.00	0.00	11,370.5	-905.0	-1,665.0	-472.9	0.00	0.00	0.00
11,675.0	2.68	0.00	11,392.8	-904.5	-1,665.0	-472.4	12.00	12.00	0.00
11,700.0	5.68	0.00	11,417.7	-902.7	-1,665.0	-470.6	12.00	12.00	0.00
11,725.0	8.68	0.00	11,442.5	-899.5	-1,665.0	-467.6	12.00	12.00	0.00
11,750.0	11.68	0.00	11,467.1	-895.1	-1,665.0	-463.3	12.00	12.00	0.00
11,775.0	14.68	0.00	11,491.5	-889.4	-1,665.0	-457.8	12.00	12.00	0.00
11,800.0	17.68	0.00	11,515.5	-882.5	-1,665.0	-451.0	12.00	12.00	0.00
11,825.0	20.68	0.00	11,539.1	-874.2	-1,665.0	-443.1	12.00	12.00	0.00
11,850.0	23.68	0.00	11,562.2	-864.8	-1,665.0	-433.9	12.00	12.00	0.00
11,873.1	26.46	0.00	11,583.2	-855.0	-1,665.0	-424.4	12.00	12.00	0.00
11,875.0	26.68	360.00	11,584.9	-854.2	-1,665.0	-423.6	12.00	12.00	-0.22
11,900.0	29.68	359.95	11,606.9	-842.4	-1,665.0	-412.1	12.00	12.00	-0.20
11,925.0	32.68	359.91	11,628.3	-829.4	-1,665.0	-399.6	12.00	12.00	-0.16
11,950.0	35.68	359.87	11,649.0	-815.4	-1,665.1	-386.0	12.00	12.00	-0.14
11,975.0	38.68	359.84	11,668.9	-800.3	-1,665.1	-371.3	12.00	12.00	-0.12
12,000.0	41.68	359.81	11,688.0	-784.1	-1,665.1	-355.6	12.00	12.00	-0.11
12,025.0	44.68	359.79	11,706.2	-767.0	-1,665.2	-339.0	12.00	12.00	-0.09
12,050.0	47.68	359.77	11,723.5	-749.0	-1,665.3	-321.5	12.00	12.00	-0.08
12,075.0	50.68	359.75	11,739.9	-730.1	-1,665.3	-303.2	12.00	12.00	-0.08
12,100.0	53.68	359.73	11,755.2	-710.3	-1,665.4	-284.0	12.00	12.00	-0.07
12,125.0	56.68	359.72	11,769.5	-689.8	-1,665.5	-264.1	12.00	12.00	-0.07
12,150.0	59.68	359.70	11,782.6	-668.6	-1,665.6	-243.4	12.00	12.00	-0.06
12,175.0	62.68	359.69	11,794.7	-646.7	-1,665.8	-222.1	12.00	12.00	-0.06
12,200.0	65.68	359.67	11,805.6	-624.2	-1,665.9	-200.3	12.00	12.00	-0.05
12,225.0	68.68	359.66	11,815.3	-601.1	-1,666.0	-177.9	12.00	12.00	-0.05
12,250.0	71.68	359.65	11,823.7	-577.6	-1,666.2	-155.1	12.00	12.00	-0.05
12,275.0	74.68	359.63	11,831.0	-553.7	-1,666.3	-131.8	12.00	12.00	-0.05
12,300.0	77.68	359.62	11,836.9	-529.4	-1,666.5	-108.2	12.00	12.00	-0.05
12,325.0	80.68	359.61	11,841.6	-504.9	-1,666.6	-84.4	12.00	12.00	-0.05
12,350.0	83.68	359.60	11,845.0	-480.1	-1,666.8	-60.3	12.00	12.00	-0.04
12,375.0	86.68	359.59	11,847.1	-455.2	-1,667.0	-36.1	12.00	12.00	-0.04
12,400.0	89.68	359.58	11,847.9	-430.2	-1,667.2	-11.8	12.00	12.00	-0.04
12,402.7	90.00	359.58	11,847.9	-427.5	-1,667.2	-9.2	12.00	12.00	-0.04
12,500.0	90.00	359.58	11,847.9	-330.2	-1,667.9	85.3	0.00	0.00	0.00
12,600.0	90.00	359.58	11,847.9	-230.2	-1,668.6	182.5	0.00	0.00	0.00
12,700.0	90.00	359.58	11,847.9	-130.2	-1,669.4	279.7	0.00	0.00	0.00
12,800.0	90.00	359.58	11,847.9	-30.2	-1,670.1	376.9	0.00	0.00	0.00
12,900.0	90.00	359.58	11,847.9	69.8	-1,670.9	474.0	0.00	0.00	0.00
13,000.0	90.00	359.58	11,847.9	169.8	-1,671.6	571.2	0.00	0.00	0.00
13,100.0	90.00	359.58	11,848.0	269.8	-1,672.3	668.4	0.00	0.00	0.00
13,200.0	90.00	359.58	11,848.0	369.8	-1,673.1	765.6	0.00	0.00	0.00



Planning Report

Database:	PEDMB	Local Co-ordinate Reference:	Well #581H
Company:	Midland	TVD Reference:	kb = 26' @ 3359.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	kb = 26' @ 3359.0usft
Site:	Osprey 10	North Reference:	Grid
Well:	#581H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1 RT		

Planned 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)
13,300.0	90.00	359.58	11,848.0	469.8	-1,673.8	862.7	0.00	0.00	0.00
13,400.0	90.00	359.58	11,848.0	569.8	-1,674.5	959.9	0.00	0.00	0.00
13,500.0	90.00	359.58	11,848.0	669.8	-1,675.3	1,057.1	0.00	0.00	0.00
13,600.0	90.00	359.58	11,848.0	769.8	-1,676.0	1,154.3	0.00	0.00	0.00
13,700.0	90.00	359.58	11,848.0	869.8	-1,676.8	1,251.4	0.00	0.00	0.00
13,800.0	90.00	359.58	11,848.0	969.7	-1,677.5	1,348.6	0.00	0.00	0.00
13,900.0	90.00	359.58	11,848.0	1,069.7	-1,678.2	1,445.8	0.00	0.00	0.00
14,000.0	90.00	359.58	11,848.0	1,169.7	-1,679.0	1,542.9	0.00	0.00	0.00
14,100.0	90.00	359.58	11,848.0	1,269.7	-1,679.7	1,640.1	0.00	0.00	0.00
14,200.0	90.00	359.58	11,848.0	1,369.7	-1,680.4	1,737.3	0.00	0.00	0.00
14,300.0	90.00	359.58	11,848.0	1,469.7	-1,681.2	1,834.5	0.00	0.00	0.00
14,400.0	90.00	359.58	11,848.0	1,569.7	-1,681.9	1,931.6	0.00	0.00	0.00
14,500.0	90.00	359.58	11,848.0	1,669.7	-1,682.7	2,028.8	0.00	0.00	0.00
14,600.0	90.00	359.58	11,848.0	1,769.7	-1,683.4	2,126.0	0.00	0.00	0.00
14,700.0	90.00	359.58	11,848.0	1,869.7	-1,684.1	2,223.2	0.00	0.00	0.00
14,800.0	90.00	359.58	11,848.0	1,969.7	-1,684.9	2,320.3	0.00	0.00	0.00
14,900.0	90.00	359.58	11,848.0	2,069.7	-1,685.6	2,417.5	0.00	0.00	0.00
15,000.0	90.00	359.58	11,848.0	2,169.7	-1,686.4	2,514.7	0.00	0.00	0.00
15,100.0	90.00	359.58	11,848.0	2,269.7	-1,687.1	2,611.9	0.00	0.00	0.00
15,200.0	90.00	359.58	11,848.0	2,369.7	-1,687.8	2,709.0	0.00	0.00	0.00
15,300.0	90.00	359.58	11,848.0	2,469.7	-1,688.6	2,806.2	0.00	0.00	0.00
15,400.0	90.00	359.58	11,848.0	2,569.7	-1,689.3	2,903.4	0.00	0.00	0.00
15,500.0	90.00	359.58	11,848.0	2,669.7	-1,690.0	3,000.6	0.00	0.00	0.00
15,600.0	90.00	359.58	11,848.0	2,769.7	-1,690.8	3,097.7	0.00	0.00	0.00
15,700.0	90.00	359.58	11,848.0	2,869.7	-1,691.5	3,194.9	0.00	0.00	0.00
15,800.0	90.00	359.58	11,848.0	2,969.7	-1,692.3	3,292.1	0.00	0.00	0.00
15,900.0	90.00	359.58	11,848.0	3,069.7	-1,693.0	3,389.3	0.00	0.00	0.00
16,000.0	90.00	359.58	11,848.0	3,169.7	-1,693.7	3,486.4	0.00	0.00	0.00
16,100.0	90.00	359.58	11,848.0	3,269.7	-1,694.5	3,583.6	0.00	0.00	0.00
16,200.0	90.00	359.58	11,848.0	3,369.7	-1,695.2	3,680.8	0.00	0.00	0.00
16,300.0	90.00	359.58	11,848.0	3,469.7	-1,695.9	3,778.0	0.00	0.00	0.00
16,400.0	90.00	359.58	11,848.0	3,569.7	-1,696.7	3,875.1	0.00	0.00	0.00
16,500.0	90.00	359.58	11,848.0	3,669.7	-1,697.4	3,972.3	0.00	0.00	0.00
16,600.0	90.00	359.58	11,848.0	3,769.7	-1,698.2	4,069.5	0.00	0.00	0.00
16,700.0	90.00	359.58	11,848.0	3,869.7	-1,698.9	4,166.7	0.00	0.00	0.00
16,800.0	90.00	359.58	11,848.0	3,969.7	-1,699.6	4,263.8	0.00	0.00	0.00
16,900.0	90.00	359.58	11,848.0	4,069.7	-1,700.4	4,361.0	0.00	0.00	0.00
17,000.0	90.00	359.58	11,848.0	4,169.7	-1,701.1	4,458.2	0.00	0.00	0.00
17,100.0	90.00	359.58	11,848.0	4,269.7	-1,701.9	4,555.4	0.00	0.00	0.00
17,200.0	90.00	359.58	11,848.0	4,369.7	-1,702.6	4,652.5	0.00	0.00	0.00
17,300.0	90.00	359.58	11,848.0	4,469.7	-1,703.3	4,749.7	0.00	0.00	0.00
17,400.0	90.00	359.58	11,848.0	4,569.6	-1,704.1	4,846.9	0.00	0.00	0.00
17,500.0	90.00	359.58	11,848.0	4,669.6	-1,704.8	4,944.1	0.00	0.00	0.00
17,600.0	90.00	359.58	11,848.0	4,769.6	-1,705.5	5,041.2	0.00	0.00	0.00
17,700.0	90.00	359.58	11,848.0	4,869.6	-1,706.3	5,138.4	0.00	0.00	0.00
17,800.0	90.00	359.58	11,848.0	4,969.6	-1,707.0	5,235.6	0.00	0.00	0.00
17,900.0	90.00	359.58	11,848.0	5,069.6	-1,707.8	5,332.8	0.00	0.00	0.00
18,000.0	90.00	359.58	11,848.0	5,169.6	-1,708.5	5,429.9	0.00	0.00	0.00
18,100.0	90.00	359.58	11,848.0	5,269.6	-1,709.2	5,527.1	0.00	0.00	0.00
18,200.0	90.00	359.58	11,848.0	5,369.6	-1,710.0	5,624.3	0.00	0.00	0.00
18,300.0	90.00	359.58	11,848.0	5,469.6	-1,710.7	5,721.5	0.00	0.00	0.00
18,400.0	90.00	359.58	11,848.0	5,569.6	-1,711.4	5,818.6	0.00	0.00	0.00
18,500.0	90.00	359.58	11,848.0	5,669.6	-1,712.2	5,915.8	0.00	0.00	0.00
18,600.0	90.00	359.58	11,848.0	5,769.6	-1,712.9	6,013.0	0.00	0.00	0.00

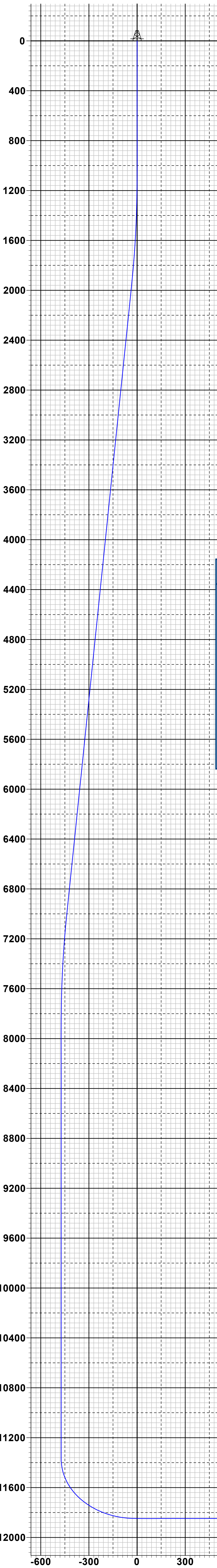


Planning Report

Database:	PEDMB	Local Co-ordinate Reference:	Well #581H
Company:	Midland	TVD Reference:	kb = 26' @ 3359.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	kb = 26' @ 3359.0usft
Site:	Osprey 10	North Reference:	Grid
Well:	#581H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1 RT		

Planned 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)
18,700.0	90.00	359.58	11,848.0	5,869.6	-1,713.7	6,110.1	0.00	0.00	0.00
18,800.0	90.00	359.58	11,848.0	5,969.6	-1,714.4	6,207.3	0.00	0.00	0.00
18,900.0	90.00	359.58	11,848.0	6,069.6	-1,715.1	6,304.5	0.00	0.00	0.00
19,000.0	90.00	359.58	11,848.0	6,169.6	-1,715.9	6,401.7	0.00	0.00	0.00
19,100.0	90.00	359.58	11,848.0	6,269.6	-1,716.6	6,498.8	0.00	0.00	0.00
19,200.0	90.00	359.58	11,848.0	6,369.6	-1,717.4	6,596.0	0.00	0.00	0.00
19,300.0	90.00	359.58	11,848.0	6,469.6	-1,718.1	6,693.2	0.00	0.00	0.00
19,400.0	90.00	359.58	11,848.0	6,569.6	-1,718.8	6,790.4	0.00	0.00	0.00
19,500.0	90.00	359.58	11,848.0	6,669.6	-1,719.6	6,887.5	0.00	0.00	0.00
19,600.0	90.00	359.58	11,848.0	6,769.6	-1,720.3	6,984.7	0.00	0.00	0.00
19,694.4	90.00	359.58	11,848.0	6,864.0	-1,721.0	7,076.5	0.00	0.00	0.00

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
KOP(Osprey 10 #581H) - plan hits target center - Point	0.00	0.00	11,370.5	-905.0	-1,665.0	415,006.00	812,008.00	32° 8' 16.474 N	103° 27' 31.941 W
FTP(Osprey 10 #581H) - plan hits target center - Point	0.00	0.00	11,583.2	-855.0	-1,665.0	415,056.00	812,008.00	32° 8' 16.969 N	103° 27' 31.936 W
PBHL(Osprey 10 #581H) - plan hits target center - Point	0.00	0.00	11,848.0	6,864.0	-1,721.0	422,775.00	811,952.00	32° 9' 33.353 N	103° 27' 31.858 W

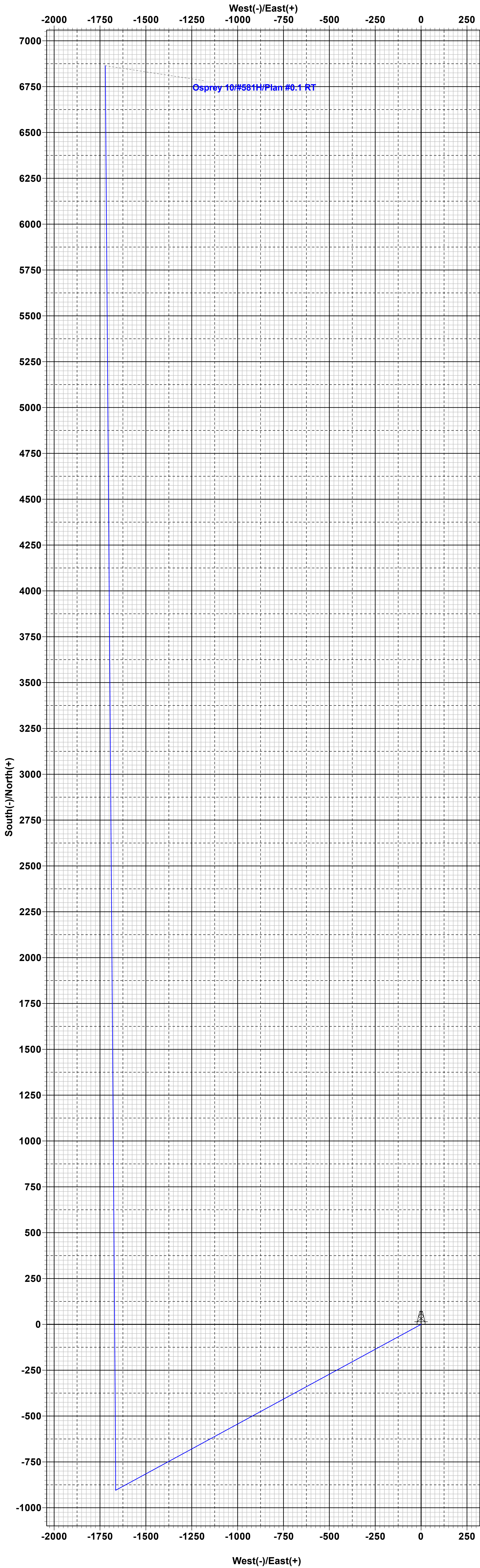


To convert a Magnetic Direction to a Grid Direction, Add 5.73°
To convert a Magnetic Direction to a True Direction, Add 6.20° East
To convert a True Direction to a Grid Direction, Subtract 0.47°

WELL DETAILS: #581H				
3333.0				
kb = 26' @ 3359.0usft				
Northing	Easting	Latitude	Longitude	
415911.00	813673.00	32° 8' 25.295 N	103° 27' 12.492 W	

SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1085.0	0.00	0.00	1085.0	0.0	0.0	0.00	0.00	0.0	
3	1974.6	17.79	241.47	1960.4	-65.4	-120.4	2.00	241.47	-34.2	
4	7279.6	17.79	241.47	7011.6	-839.6	-1544.6	0.00	0.00	-438.7	
5	8169.2	0.00	0.00	7887.0	-905.0	-1665.0	2.00	180.00	-472.9	
6	11652.7	0.00	0.00	11370.5	-905.0	-1665.0	0.00	0.00	-472.9	KOP(Osprey 10 #581H)
7	11873.1	26.46	0.00	11583.2	-855.0	-1665.0	12.00	0.00	-424.4	FTP(Osprey 10 #581H)
8	12402.7	90.00	359.58	11847.9	-427.5	-1667.2	12.00	-0.47	-9.2	
9	19694.4	90.00	359.58	11848.0	6864.0	-1721.0	0.00	0.00	7076.5	PBHL(Osprey 10 #581H)

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)					
Name	TVD	+N/-S	+E/-W	Northing	Easting
KOP(Osprey 10 #581H)	11370.5	-905.0	-1665.0	415006.00	812008.00
FTP(Osprey 10 #581H)	11583.2	-855.0	-1665.0	415056.00	812008.00
PBHL(Osprey 10 #581H)	11848.0	6864.0	-1721.0	422775.00	811952.00



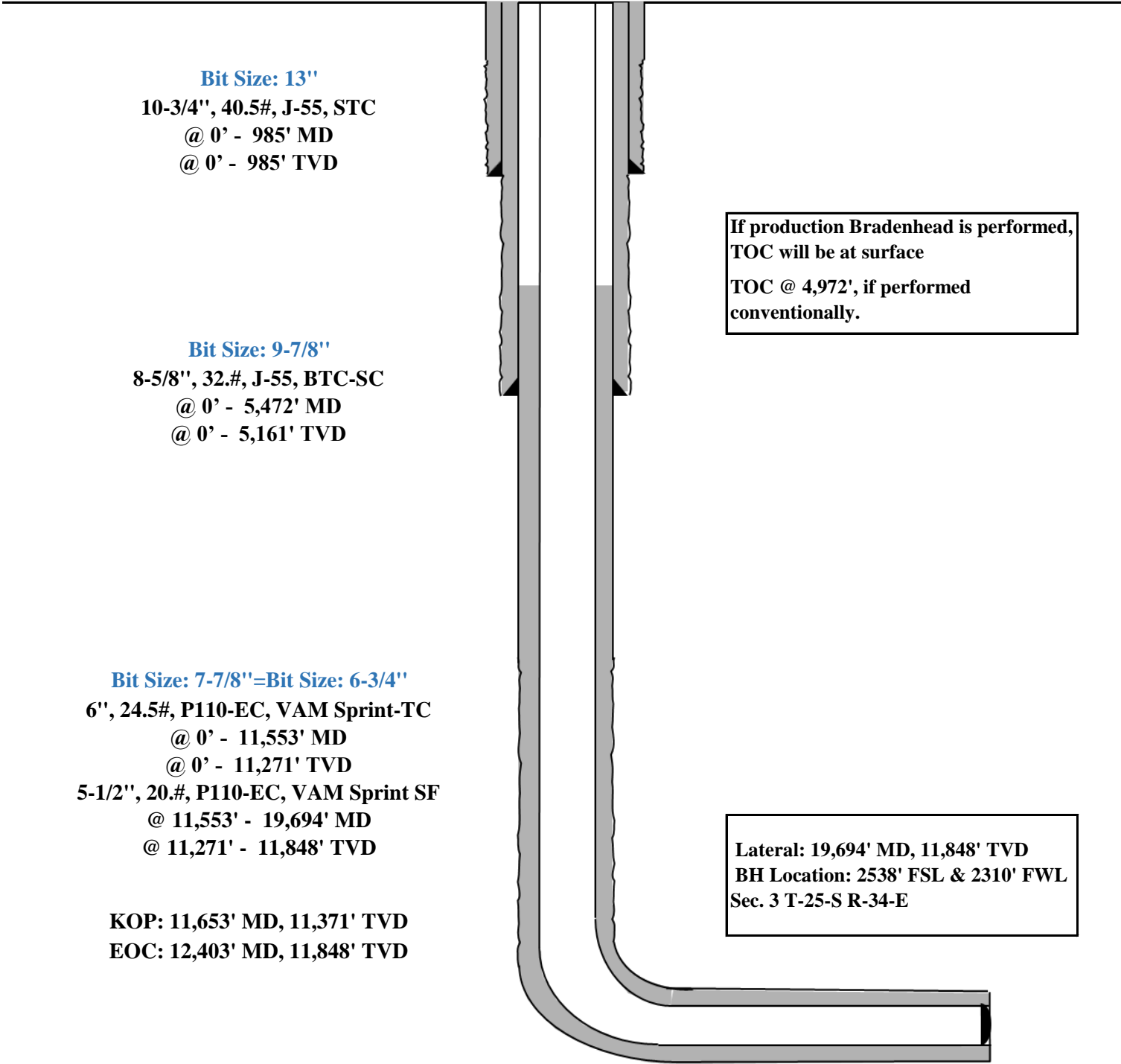


OSPREY 10 #581H
LEA County, New Mexico
Proposed Wellbore

943' FSL
1289' FEL
Section 10
T-25-S, R-34-E

KB: 3358'
GL: 3333'

API: 30-025-*****



**OSPREY 10 #581H****Permit Information:**

Well Name: OSPREY 10 581H

Location: SHL: 943' FSL & 1289' FEL, Section 10, T-25-S, R-34-E, LEA Co., N.M.

BHL: 2538' FSL & 2310' FWL, Section 3, T-25-S, R-34-E, LEA Co., N.M.

Casing Program:

Hole Size	Interval MD From (ft) To (ft)		Interval TVD From (ft) To (ft)		Csg OD	Weight	Grade	Conn
13"	0	985	0	985	10-3/4"	40.5#	J-55	STC
9-7/8"	0	5,472	0	5,161	8-5/8"	32#	J-55	BTC-SC
7-7/8"	0	11,553	0	11,271	6"	24.5#	P110-EC	VAM Sprint-TC
6-3/4"	11,553	19,694	11,271	11,848	5-1/2"	20#	P110-EC	VAM Sprint SF

**For highlighted rows above, variance is requested to run entire string of either or casing string above due to availability.

Cement Program:

Depth MD	No. Sacks	Wt. ppg	Yld Ft3/sk	Slurry Description
985'	220	13.5	1.73	Class C/H + additives (TOC @ Surface)
	100	14.8	1.34	Class C/H + additives
5,470'	430	12.7	1.11	Tail: Class C/H + additives + expansion additives (TOC @ 2000')
	250	14.8	1.5	Lead: Class C/H + additives (TOC @ 4,129')
19,694'	910	10.5	3.21	Lead: Class C/H + additives (TOC @ 4,972')
	960	13.2	1.52	Tail: Class C/H + additives (TOC @ 11,653')

Mud Program:

Section	Depth	Type	Weight (ppg)	Viscosity	Water Loss
Surface	0 – 990'	Fresh - Gel	8.6-9.2	28-34	N/c
Intermediate	990' – 5,160'	Brine	9.0-10.5	28-34	N/c
Production	5,160' – 19,694' Lateral	Oil Base	8.8-9.5	58-68	N/c - 6



OSPREY 10 #581H

TUBING REQUIREMENTS:

EOG respectfully requests an exception to the following NMOCD rule:

- 19.15.16.10 Casing AND TUBING REQUIREMENTS:
J (3): "The operator shall set tubing as near the bottom as practical and tubing perforations shall not be more than 250 feet above top of pay zone."

With horizontal flowing and gas lifted wells an end of tubing depth placed at or slightly above KOP is a conservative way to ensure the tubing stays clean from debris, plugging, and allows for fewer well interventions post offset completion. The deeper the tubulars are run into the curve, the higher the probability is that the tubing will become stuck in sand and or well debris as the well produces over time. An additional consideration for EOT placement during artificial lift installations is avoiding the high dog leg severity and inclinations found in the curve section of the wellbore to help improve reliability and performance. Dog leg severity and inclinations tend not to hamper gas lifted or flowing wells, but they do effect other forms of artificial lift like rod pump or ESP (electric submersible pump). Keeping the EOT above KOP is an industry best practice for those respective forms of artificial lift.

**OSPREY 10 #581H****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/Escapes 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.



OSPREY 10 #581H

■ **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.



OSPREY 10 #581H
Emergency Assistance Telephone List

PUBLIC SAFETY: **911 or**

Lea County Sheriff'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 Safety/Carlsbad		(575) 748-9718
---------------------------------	--	----------------

Highway Department		(575) 885-3281
--------------------	--	----------------

New Mexico Oil Conservation		(575) 476-3440
-----------------------------	--	----------------

NMOCD Inspection Group - South		(575) 626-0830
--------------------------------	--	----------------

U.S. Dept. of Labor		(575) 887-1174
---------------------	--	----------------

EOG Resources, Inc.

EOG / Midland	Office	(432) 686-3600
---------------	--------	----------------

Company Drilling Consultants:

David Dominque	Cell	(985) 518-5839
----------------	------	----------------

Mike Vann	Cell	(817) 980-5507
-----------	------	----------------

Drilling Engineer

Stephen Davis	Cell	(432) 235-9789
---------------	------	----------------

Matt Day	Cell	(432) 296-4456
----------	------	----------------

Drilling Manager

Branden Keener	Office	(432) 686-3752
----------------	--------	----------------

	Cell	(210) 294-3729
--	------	----------------

Drilling Superintendent

Steve Kelly	Office	(432) 686-3706
-------------	--------	----------------

	Cell	(210) 416-7894
--	------	----------------

H&P Drilling

H&P Drilling	Office	(432) 563-5757
--------------	--------	----------------

H&P 651 Drilling Rig	Rig	(903) 509-7131
----------------------	-----	----------------

Tool Pusher:

Johnathan Craig	Cell	(817) 760-6374
-----------------	------	----------------

Brad Garrett

Safety:

Brian Chandler (HSE Manager)	Office	(432) 686-3695
------------------------------	--------	----------------

	Cell	(817) 239-0251
--	------	----------------



OSPREY 10 #581H

GEOLOGIC NAME OF SURFACE FORMATION:

Permian

ESTIMATED TOPS OF IMPORTANT GEOLOGICAL MARKERS:

Rustler	875'
Tamarisk Anhydrite	960'
Top of Salt	1,255'
Base of Salt	5,061'
Lamar	5,323'
Bell Canyon	5,346'
Cherry Canyon	6,301'
Brushy Canyon	7,887'
Bone Spring Lime	9,298'
Leonard (Avalon) Shale	9,335'
1st Bone Spring Sand	10,317'
2nd Bone Spring Shale	10,533'
2nd Bone Spring Sand	10,836'
3rd Bone Spring Carb	11,372'
3rd Bone Spring Sand	11,904'
TD	11,848'

ESTIMATED DEPTHS OF ANTICIPATED FRESH WATER, OIL OR GAS:

Upper Permian Sands	0- 400' Fresh Water
Lamar	5,323' Oil
Cherry Canyon	6,301' Oil
Brushy Canyon	7,887' Oil
Bone Spring Lime	9,298' Oil
Leonard (Avalon) Shale	9,335' Oil
1st Bone Spring Sand	10,317' Oil
2nd Bone Spring Shale	10,533' Oil
2nd Bone Spring Sand	10,836' Oil

State of New Mexico
Energy, Minerals and Natural Resources DepartmentSubmit Electronically
Via E-permittingOil 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 Resources, Inc. **OGRID:** 7377 **Date:** 04/24/2025**II. Type:** ☒ Original ☐ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☐ Other.

If Other, please describe: _____

III. Well(s): Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
OSPREY 10 581H		P-10-25S-34E	943' FSL & 1289' FEL	+/- 1000	+/- 3500	+/- 3000

IV. Central Delivery Point Name: OSPREY 10 CTB [See 19.15.27.9(D)(1) NMAC]**V. Anticipated Schedule:** Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
OSPREY 10 581H		05/26/25	06/26/25	09/1/25	10/1/25	10/15/25

VI. Separation Equipment: ☒ Attach a complete description of how Operator will size separation equipment to optimize gas capture.**VII. Operational Practices:** ☒ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.**VIII. Best Management Practices:** ☒ Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

Section 2 – Enhanced Plan

EFFECTIVE APRIL 1, 2022

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

☒ Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

IX. Anticipated Natural Gas Production:

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF

X. Natural Gas Gathering System (NGGS):

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in

XI. Map. ☐ Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

XII. Line Capacity. The natural gas gathering system ☐ will ☐ will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.

XIII. Line Pressure. Operator ☐ does ☐ does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).

☐ Attach Operator's plan to manage production in response to the increased line pressure.

XIV. Confidentiality: ☐ Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.

Section 3 - Certifications

Effective May 25, 2021

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

☒ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

☐ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system.

If Operator checks this box, Operator will select one of the following:

Well Shut-In. ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

Venting and Flaring Plan. ☐ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- (a) power generation on lease;
- (b) power generation for grid;
- (c) compression on lease;
- (d) liquids removal on lease;
- (e) reinjection for underground storage;
- (f) reinjection for temporary storage;
- (g) reinjection for enhanced oil recovery;
- (h) fuel cell production; and
- (i) other alternative beneficial uses approved by the division.

Section 4 - Notices

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

(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: <i>Kayla McConnell</i>
Printed Name: KAYLA MCCONNELL
Title: Regulatory Specialist
E-mail Address: KAYLA_MCCONNELL@EOGRESOURCES.COM
Date: 04/24/2025
Phone: (432) 265-6804
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 will 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.