

1625 N. French Dr., Hobbs, NM 88240

District II

811 S. First St., Artesia, NM 88210

District III

1000 Rio Brazos Rd., Aztec, NM 87410

District IV

1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural ResourcesForm C-104
Revised August 1, 2011Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit one copy to appropriate District Office

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

¹ Operator name and Address Marathon Oil Permian LLC 990 Town & Country Blvd. Houston, TX 77024		² OGRID Number 372098
		³ Reason for Filing Code/ Effective Date NW / 4/1/2024
⁴ API Number 30 - 015-53641	⁵ Pool Name Purple Sage; Wolfcamp (Gas)	⁶ Pool Code 98220
⁷ Property Code 333836	⁸ Property Name Chaos WC Fed Com	⁹ Well Number 804H

II. ¹⁰ Surface Location

Ul or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South Line	Feet from the	East/West line	County
I	34	22S	28E		1702	SOUTH	496	EAST	EDDY

¹¹ Bottom Hole Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	32	22S	28E		2378	SOUTH	331	WEST	EDDY
¹² Lse Code F	¹³ Producing Method Code F	¹⁴ Gas Connection Date	¹⁵ C-129 Permit Number	¹⁶ C-129 Effective Date	¹⁷ C-129 Expiration Date				

III. Oil and Gas Transporters

¹⁸ Transporter OGRID	¹⁹ Transporter Name and Address	²⁰ O/G/W
371183	ETC TEXAS PIPELINE LTD 811 Westchester Dr., Ste 600, Dallas, TX 75225	G
34053	PLAINS MARKETING LP 333 Clay St., Suite 1900, Houston, TX 77002	O
330263	SAN MATEO RB PIPELINE, LLC 5400 LBJ Freeway, Ste. 1500, Dallas, TX 75240	W

IV. Well Completion Data

²¹ Spud Date 10/31/2023	²² Ready Date 4/1/2024	²³ TD 25,876'	²⁴ PBTB 25,811'	²⁵ Perforations 10,821' - 25,801'	²⁶ DHC, MC
²⁷ Hole Size	²⁸ Casing & Tubing Size	²⁹ Depth Set	³⁰ Sacks Cement		
17-1/2"	13-3/8", 54.5#, J55, BTC	276'	Lead: 373 sks, 1.33 yield, Class C		
12-1/4"	9-5/8", 40#, P110, BTC	9533'	Lead: 984 sks, 3.91 yield, Class C Tail: 1626 sks, 1.14 yield, Class C		
8-1/2"	5-1/2", 23#, P110, VTC	25851'	Lead: 1716 sks, 1.34 yield, Class H Tail: 4506 sks, 1.11 yield, Class H		

V. Well Test Data

³¹ Date New Oil 4/1/2024	³² Gas Delivery Date 4/1/2024	³³ Test Date 4/20/2024	³⁴ Test Length 24 hrs	³⁵ Tbg. Pressure	³⁶ Csg. Pressure 3141
³⁷ Choke Size 42/64	³⁸ Oil 1332	³⁹ Water 5544	⁴⁰ Gas 10973		⁴¹ Test Method Flowing
⁴² I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief. Signature: <i>Adrian Covarrubias</i>			OIL CONSERVATION DIVISION		
Printed name: Adrian Covarrubias			Approved by:		
Title: Adv. Regulatory Compliance Rep.			Title:		
E-mail Address: acovarrubias@marathonoil.com			Approval Date:		
Date: 5/14/2024		Phone: 713-296-3368			

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

☒ AMENDED REPORT

¹ API Number 30-015-53641	² Pool Code 98220	³ Pool Name PURPLE SAGE; WOLFCAMP (GAS)
⁴ Property Code 333836	⁵ Property Name CHAOS WC FED COM	⁶ Well Number 804H
⁷ OGRID No. 372098	⁸ Operator Name MARATHON OIL PERMIAN LLC	⁹ Elevation 3055'

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	34	22S	28E		1702'	SOUTH	496'	EAST	EDDY

UL or lot no. L	Section 32	Township 22S	Range 28E	Lot Idn	Feet from the 2378'	North/South line SOUTH	Feet from the 331'	East/West line WEST	County EDDY
¹² Dedicated Acres 1920		¹³ Joint or Infill		¹⁴ Consolidation Code		¹⁵ Order No.			

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BHL
FSL 2378' FWL 331', SECTION 32
25876' MEASURED DEPTH IN FEET
NAD 83, SPCS NM EAST
X:608234.70' / Y:490514.10'
LAT:32.34830823 / LON:-104.11670490
NAD 27, SPCS NM EAST
X:567052.56' / Y:490454.55'
LAT:32.34818833 / LON:-104.11620678

LTP
FSL 2378' FWL 406', SECTION 32
25801' MEASURED DEPTH IN FEET
NAD 83, SPCS NM EAST
X:608309.69' / Y:490515.40'
LAT:32.34831139 / LON:-104.11646206
NAD 27, SPCS NM EAST
X:567127.55' / Y:490455.85'
LAT:32.34819149 / LON:-104.11596395

PPP-5
FSL 2351' FEL 2565', SECTION 33
18335' MEASURED DEPTH IN FEET
NAD 83, SPCS NM EAST
X:615771.81' / Y:490556.64'
LAT:32.34838089 / LON:-104.09229790
NAD 27, SPCS NM EAST
X:574589.57' / Y:490497.09'
LAT:32.34826090 / LON:-104.09180064

PPP-4
FSL 2344' FEL 1283', SECTION 33
17051' MEASURED DEPTH IN FEET
NAD 83, SPCS NM EAST
X:617054.72' / Y:490551.37'
LAT:32.34835840 / LON:-104.08814359
NAD 27, SPCS NM EAST
X:575872.46' / Y:490491.72'
LAT:32.34823810 / LON:-104.08764650

PPP-3
FSL 2376' FEL 0', SECTION 33
15768' MEASURED DEPTH IN FEET
NAD 83, SPCS NM EAST
X:618336.94' / Y:490584.96'
LAT:32.34844259 / LON:-104.08399125
NAD 27, SPCS NM EAST
X:577154.67' / Y:490525.29'
LAT:32.34832224 / LON:-104.08349430

PPP-2
FSL 2363' FEL 2663', SECTION 34
13098' MEASURED DEPTH IN FEET
NAD 83, SPCS NM EAST
X:621004.22' / Y:490593.58'
LAT:32.34844892 / LON:-104.07535398
NAD 27, SPCS NM EAST
X:579821.91' / Y:490533.88'
LAT:32.34832825 / LON:-104.07485735

FTP/PPP-1
FSL 2360' FEL 388', SECTION 34
10821' MEASURED DEPTH IN FEET
NAD 83, SPCS NM EAST
X:623280.16' / Y:490598.26'
LAT:32.34844650 / LON:-104.06798399
NAD 27, SPCS NM EAST
X:582097.82' / Y:490538.53'
LAT:32.34832592 / LON:-104.06748762

KOP
FSL 2350' FWL 228', SECTION 35
9958' MEASURED DEPTH IN FEET
NAD 83, SPCS NM EAST
X:623896.37' / Y:490591.39'
LAT:32.34842340 / LON:-104.06598863
NAD 27, SPCS NM EAST
X:582714.02' / Y:490531.66'
LAT:32.34830279 / LON:-104.06549233

SHL
FSL 1702' FEL 496', SECTION 34
0' MEASURED DEPTH IN FEET
NAD 83, SPCS NM EAST
X:623191.99' / Y:489940.78'
LAT:32.34663974 / LON:-104.06827478
NAD 27, SPCS NM EAST
X:582009.63' / Y:489881.05'
LAT:32.34651917 / LON:-104.06777846

CORNER COORDINATES NAD 83, SPCS NM EAST	CORNER COORDINATES NAD 27, SPCS NM EAST
A - X: 623580.49' / Y: 493520.23'	A - X: 582398.22' / Y: 493460.43'
B - X: 623659.98' / Y: 490884.16'	B - X: 582477.64' / Y: 490824.42'
C - X: 623738.32' / Y: 488240.10'	C - X: 582555.91' / Y: 488180.43'
D - X: 621045.95' / Y: 488231.32'	D - X: 579863.58' / Y: 488171.68'
E - X: 618378.75' / Y: 488208.65'	E - X: 577196.42' / Y: 488149.04'
F - X: 613253.53' / Y: 488203.58'	F - X: 572071.26' / Y: 488144.03'
G - X: 607921.17' / Y: 488131.88'	G - X: 566738.97' / Y: 488072.40'
H - X: 607883.07' / Y: 493420.58'	H - X: 566701.00' / Y: 493360.96'
I - X: 613107.71' / Y: 493497.62'	I - X: 571925.58' / Y: 493437.94'
J - X: 618325.09' / Y: 493490.53'	J - X: 577142.89' / Y: 493430.79'
K - X: 620952.79' / Y: 493505.38'	K - X: 579770.56' / Y: 493445.61'

*MEASUREMENTS PROVIDED BY OTHERS	
FEDERAL LEASE ID	LENGTH
NMNM016102	2276.59'
NMNM016331	2668.82'
NMNM033278	1282.70'
NMNM019842A	1283.05'
NMNM019186	2583.89'
TOTAL	10095.05'

17 OPERATOR CERTIFICATION
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and 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 such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Adrian Covarrubias 5/7/2024
Signature Date

Adrian Covarrubias
Printed Name

E-mail Address

18 SURVEYOR 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. Data used for underground measurements were provided by others for reference only and does not constitute field measurements performed by Delta Field Services.
Date of Survey: MAY 06, 2024
Signature and Seal of Professional Surveyor

All bearings and coordinates refer to New Mexico State Plane coordinate system, East Zone, U.S. Survey Feet.
SHEET 1 OF 1
JOB No. R4099 001
REV 2 GM 5/6/2024



Marathon Oil Permian LLC

Eddy County, NM (NAD27-NME)

Chaos WC Federal Com

Chaos WC Federal Com 804H

OH / 73375

Design: Surveys (Cactus 171)

Standard Survey Report

01 December, 2023





Survey Report



Company:	Marathon Oil Permian LLC	Local Co-ordinate Reference:	Well Chaos WC Federal Com 804H
Project:	Eddy County, NM (NAD27-NME)	TVD Reference:	RKB @ 3078.60usft (Cactus 171)
Site:	Chaos WC Federal Com	MD Reference:	RKB @ 3078.60usft (Cactus 171)
Well:	Chaos WC Federal Com 804H	North Reference:	Grid
Wellbore:	OH / 73375	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Cactus 171)	Database:	USAEDMDB

Project	Eddy County, NM (NAD27-NME)		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	Chaos WC Federal Com		
Site Position:		Northing:	489,881.05 usft
From:	Map	Easting:	582,009.63 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 20' 47.468964 N
		Longitude:	104° 4' 4.002511 W

Well	Chaos WC Federal Com 804H		
Well Position	+N/-S	0.00 usft	Northing: 489,881.05 usft
	+E/-W	0.00 usft	Easting: 582,009.63 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft
Grid Convergence:	0.142 °	Ground Level:	3,055.00 usft

Wellbore	OH / 73375		
Magnetics	Model Name	Sample Date	Declination (°)
	IFR	2023-10-30	6.785
			59.950
			47,373.00000000

Design	Surveys (Cactus 171)		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)
	0.00	0.00	0.00
			269.61

Survey Program	Date	2023-12-01		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
141.00	25,876.00	Phoenix MWD Surveys (OH / 73375)	MWD+IFR1+MS	OWSG Rev. 2 MWD + IFR1 + Multi-Station Corre

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)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
141.00	0.13	158.30	141.00	-0.15	0.06	-0.06	0.09	0.09	0.00	
First Phoenix MWD Survey										
221.00	0.34	17.57	221.00	-0.01	0.16	-0.16	0.56	0.26	-175.91	
308.00	0.77	140.94	308.00	-0.21	0.61	-0.61	1.15	0.49	141.80	
395.00	0.87	128.25	394.99	-1.08	1.50	-1.49	0.24	0.11	-14.59	
489.00	0.82	136.22	488.98	-2.00	2.52	-2.51	0.14	-0.05	8.48	
580.00	0.75	156.72	579.97	-3.02	3.21	-3.19	0.32	-0.08	22.53	
671.00	0.49	200.71	670.96	-3.93	3.31	-3.28	0.57	-0.29	48.34	
764.00	0.60	226.98	763.96	-4.64	2.81	-2.78	0.29	0.12	28.25	



Survey Report



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Project:	Eddy County, NM (NAD27-NME)	TVD Reference:	RKB @ 3078.60usft (Cactus 171)
Site:	Chaos WC Federal Com	MD Reference:	RKB @ 3078.60usft (Cactus 171)
Well:	Chaos WC Federal Com 804H	North Reference:	Grid
Wellbore:	OH / 73375	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Cactus 171)	Database:	USAEDMDB

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)
855.00	0.59	251.00	854.96	-5.11	2.02	-1.98	0.27	-0.01	26.40
946.00	0.32	305.16	945.95	-5.12	1.37	-1.33	0.53	-0.30	59.52
1,037.00	0.46	334.09	1,036.95	-4.65	1.00	-0.97	0.26	0.15	31.79
1,129.00	0.47	355.38	1,128.95	-3.94	0.81	-0.78	0.19	0.01	23.14
1,222.00	0.49	349.27	1,221.94	-3.17	0.70	-0.68	0.06	0.02	-6.57
1,313.00	0.43	8.34	1,312.94	-2.45	0.68	-0.66	0.18	-0.07	20.96
1,408.00	0.37	345.76	1,407.94	-1.80	0.66	-0.65	0.18	-0.06	-23.77
1,502.00	0.16	323.08	1,501.94	-1.40	0.50	-0.49	0.25	-0.22	-24.13
1,597.00	0.22	1.85	1,596.94	-1.11	0.43	-0.42	0.15	0.06	40.81
1,692.00	0.11	352.75	1,691.94	-0.84	0.43	-0.42	0.12	-0.12	-9.58
1,786.00	0.20	159.83	1,785.94	-0.90	0.47	-0.46	0.33	0.10	177.74
1,880.00	0.15	145.44	1,879.94	-1.16	0.60	-0.59	0.07	-0.05	-15.31
1,975.00	0.80	118.06	1,974.93	-1.57	1.25	-1.24	0.71	0.68	-28.82
2,068.00	0.40	161.60	2,067.93	-2.18	1.93	-1.91	0.62	-0.43	46.82
2,162.00	0.44	206.07	2,161.93	-2.82	1.87	-1.85	0.34	0.04	47.31
2,258.00	0.49	202.62	2,257.92	-3.53	1.55	-1.53	0.06	0.05	-3.59
2,353.00	0.76	199.03	2,352.92	-4.50	1.19	-1.16	0.29	0.28	-3.78
2,447.00	0.86	203.22	2,446.91	-5.74	0.71	-0.67	0.12	0.11	4.46
2,542.00	0.27	237.09	2,541.90	-6.51	0.24	-0.20	0.69	-0.62	35.65
2,637.00	0.27	233.17	2,636.90	-6.77	-0.13	0.17	0.02	0.00	-4.13
2,731.00	0.38	260.79	2,730.90	-6.95	-0.61	0.66	0.20	0.12	29.38
2,826.00	0.37	241.46	2,825.90	-7.15	-1.19	1.24	0.13	-0.01	-20.35
2,921.00	0.32	222.50	2,920.90	-7.49	-1.64	1.69	0.13	-0.05	-19.96
3,015.00	0.21	255.43	3,014.90	-7.73	-1.98	2.04	0.20	-0.12	35.03
3,110.00	0.28	271.68	3,109.90	-7.77	-2.39	2.44	0.10	0.07	17.11
3,206.00	0.38	240.19	3,205.89	-7.92	-2.90	2.95	0.21	0.10	-32.80
3,301.00	0.29	251.36	3,300.89	-8.15	-3.40	3.45	0.12	-0.09	11.76
3,395.00	0.34	248.20	3,394.89	-8.33	-3.88	3.94	0.06	0.05	-3.36
3,490.00	0.33	275.93	3,489.89	-8.41	-4.42	4.47	0.17	-0.01	29.19
3,585.00	0.47	269.44	3,584.89	-8.38	-5.08	5.13	0.15	0.15	-6.83
3,679.00	0.34	261.03	3,678.88	-8.43	-5.74	5.80	0.15	-0.14	-8.95
3,773.00	0.48	270.31	3,772.88	-8.47	-6.41	6.46	0.16	0.15	9.87
3,868.00	0.41	313.84	3,867.88	-8.23	-7.05	7.11	0.35	-0.07	45.82
3,962.00	0.32	323.22	3,961.88	-7.79	-7.45	7.50	0.11	-0.10	9.98
4,057.00	0.49	352.22	4,056.88	-7.18	-7.66	7.71	0.27	0.18	30.53
4,151.00	0.26	46.87	4,150.87	-6.63	-7.56	7.61	0.43	-0.24	58.14
4,245.00	0.40	69.66	4,244.87	-6.37	-7.10	7.14	0.20	0.15	24.24
4,339.00	0.26	68.19	4,338.87	-6.18	-6.59	6.64	0.15	-0.15	-1.56
4,434.00	0.28	73.79	4,433.87	-6.03	-6.17	6.21	0.03	0.02	5.89
4,529.00	0.27	95.08	4,528.87	-5.99	-5.72	5.77	0.11	-0.01	22.41
4,622.00	0.42	101.22	4,621.87	-6.07	-5.17	5.21	0.17	0.16	6.60
4,717.00	0.24	83.42	4,716.86	-6.12	-4.63	4.67	0.22	-0.19	-18.74
4,811.00	0.35	73.07	4,810.86	-6.01	-4.16	4.20	0.13	0.12	-11.01



Survey Report



Company:	Marathon Oil Permian LLC	Local Co-ordinate Reference:	Well Chaos WC Federal Com 804H
Project:	Eddy County, NM (NAD27-NME)	TVD Reference:	RKB @ 3078.60usft (Cactus 171)
Site:	Chaos WC Federal Com	MD Reference:	RKB @ 3078.60usft (Cactus 171)
Well:	Chaos WC Federal Com 804H	North Reference:	Grid
Wellbore:	OH / 73375	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Cactus 171)	Database:	USAEDMDB

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)
4,905.00	0.16	58.71	4,904.86	-5.86	-3.78	3.82	0.21	-0.20	-15.28
5,000.00	0.23	43.90	4,999.86	-5.65	-3.53	3.57	0.09	0.07	-15.59
5,094.00	1.30	48.69	5,093.85	-4.81	-2.60	2.63	1.14	1.14	5.10
5,189.00	3.11	43.83	5,188.78	-2.24	0.00	0.02	1.91	1.91	-5.12
5,283.00	5.24	43.81	5,282.52	2.69	4.73	-4.75	2.27	2.27	-0.02
5,378.00	7.23	44.52	5,376.96	10.09	11.93	-12.00	2.10	2.09	0.75
5,472.00	9.32	46.02	5,469.97	19.59	21.55	-21.69	2.24	2.22	1.60
5,566.00	11.51	46.21	5,562.42	31.37	33.80	-34.02	2.33	2.33	0.20
5,661.00	13.51	45.46	5,655.16	45.71	48.56	-48.87	2.11	2.11	-0.79
5,755.00	14.61	45.48	5,746.34	61.73	64.84	-65.25	1.17	1.17	0.02
5,849.00	14.58	46.63	5,837.31	78.16	81.89	-82.42	0.31	-0.03	1.22
5,943.00	14.63	47.88	5,928.27	94.25	99.30	-99.93	0.34	0.05	1.33
6,038.00	14.56	48.89	6,020.21	110.15	117.19	-117.94	0.28	-0.07	1.06
6,134.00	14.60	50.01	6,113.11	125.86	135.55	-136.41	0.30	0.04	1.17
6,228.00	14.56	51.05	6,204.09	140.90	153.82	-154.77	0.28	-0.04	1.11
6,323.00	14.49	52.45	6,296.05	155.65	172.53	-173.58	0.38	-0.07	1.47
6,417.00	14.47	54.34	6,387.07	169.66	191.39	-192.54	0.50	-0.02	2.01
6,511.00	14.41	55.90	6,478.10	183.07	210.62	-211.86	0.42	-0.06	1.66
6,605.00	14.52	57.96	6,569.12	195.88	230.30	-231.62	0.56	0.12	2.19
6,700.00	14.37	59.75	6,661.11	208.13	250.57	-251.98	0.50	-0.16	1.88
6,795.00	14.35	59.83	6,753.15	219.99	270.94	-272.43	0.03	-0.02	0.08
6,889.00	14.52	60.42	6,844.18	231.66	291.25	-292.82	0.24	0.18	0.63
6,984.00	14.04	59.82	6,936.24	243.33	311.57	-313.22	0.53	-0.51	-0.63
7,078.00	14.27	59.95	7,027.39	254.86	331.46	-333.18	0.25	0.24	0.14
7,173.00	14.89	59.35	7,119.33	266.95	352.09	-353.90	0.67	0.65	-0.63
7,269.00	15.00	57.30	7,212.08	279.95	373.16	-375.06	0.56	0.11	-2.14
7,364.00	15.38	54.54	7,303.77	293.90	393.77	-395.76	0.86	0.40	-2.91
7,458.00	15.35	51.24	7,394.41	308.92	413.62	-415.71	0.93	-0.03	-3.51
7,554.00	15.47	47.55	7,486.96	325.52	432.98	-435.18	1.03	0.13	-3.84
7,649.00	15.48	46.91	7,578.51	342.73	451.58	-453.91	0.18	0.01	-0.67
7,743.00	15.60	46.85	7,669.08	359.94	469.97	-472.40	0.13	0.13	-0.06
7,838.00	15.45	46.47	7,760.61	377.39	488.46	-491.02	0.19	-0.16	-0.40
7,932.00	15.43	46.11	7,851.22	394.69	506.55	-509.22	0.10	-0.02	-0.38
8,027.00	15.56	45.94	7,942.77	412.31	524.81	-527.61	0.14	0.14	-0.18
8,121.00	15.02	46.01	8,033.44	429.54	542.64	-545.55	0.57	-0.57	0.07
8,215.00	14.97	46.06	8,124.24	446.42	560.14	-563.17	0.05	-0.05	0.05
8,309.00	14.87	45.51	8,215.07	463.30	577.49	-580.63	0.18	-0.11	-0.59
8,403.00	15.12	45.02	8,305.87	480.42	594.76	-598.02	0.30	0.27	-0.52
8,498.00	14.94	43.90	8,397.62	498.00	612.02	-615.40	0.36	-0.19	-1.18
8,591.00	14.87	42.83	8,487.49	515.39	628.44	-631.94	0.31	-0.08	-1.15
8,686.00	14.91	42.00	8,579.30	533.41	644.91	-648.53	0.23	0.04	-0.87
8,780.00	13.50	39.57	8,670.42	550.86	659.99	-663.73	1.63	-1.50	-2.59
8,875.00	10.58	36.66	8,763.32	566.40	672.27	-676.11	3.14	-3.07	-3.06



Survey Report



Company:	Marathon Oil Permian LLC	Local Co-ordinate Reference:	Well Chaos WC Federal Com 804H
Project:	Eddy County, NM (NAD27-NME)	TVD Reference:	RKB @ 3078.60usft (Cactus 171)
Site:	Chaos WC Federal Com	MD Reference:	RKB @ 3078.60usft (Cactus 171)
Well:	Chaos WC Federal Com 804H	North Reference:	Grid
Wellbore:	OH / 73375	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Cactus 171)	Database:	USAEDMDB

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)
8,969.00	7.72	30.91	8,856.12	578.75	680.66	-684.59	3.19	-3.04	-6.12
9,064.00	5.06	22.84	8,950.52	588.08	685.57	-689.55	2.95	-2.80	-8.49
9,158.00	3.83	13.43	9,044.24	594.96	687.91	-691.94	1.52	-1.31	-10.01
9,252.00	5.16	17.83	9,137.95	602.04	689.93	-694.01	1.46	1.41	4.68
9,347.00	6.45	22.55	9,232.46	611.03	693.28	-697.43	1.45	1.36	4.97
9,428.00	7.66	26.30	9,312.85	620.07	697.42	-701.63	1.60	1.49	4.63
9,582.00	5.40	12.85	9,465.85	636.34	703.58	-707.90	1.76	-1.47	-8.73
9,676.00	4.53	4.02	9,559.49	644.36	704.83	-709.19	1.23	-0.93	-9.39
9,770.00	3.22	344.63	9,653.28	650.61	704.39	-708.80	1.95	-1.39	-20.63
9,864.00	3.97	287.56	9,747.12	654.13	700.58	-705.02	3.72	0.80	-60.71
9,958.00	8.85	265.75	9,840.52	654.58	690.26	-694.70	5.71	5.19	-23.20
KOP: 9958.00' MD, 9840.52' TVD - Lat: 32.3483138, Long: -104.0655381									
10,053.00	19.76	265.66	9,932.43	652.82	666.89	-671.32	11.48	11.48	-0.09
10,147.00	28.83	271.12	10,018.03	652.06	628.30	-632.72	9.93	9.65	5.81
10,241.00	34.03	271.77	10,098.21	653.31	579.32	-583.75	5.54	5.53	0.69
10,336.00	40.13	267.82	10,173.98	652.97	522.09	-526.53	6.89	6.42	-4.16
10,430.00	50.60	266.39	10,239.93	649.52	455.39	-459.80	11.19	11.14	-1.52
10,525.00	62.46	268.55	10,292.23	646.13	376.36	-380.75	12.63	12.48	2.27
10,620.00	75.90	271.10	10,325.93	645.95	287.78	-292.17	14.37	14.15	2.68
10,714.00	88.78	273.93	10,338.43	650.06	194.92	-199.34	14.02	13.70	3.01
10,760.00	88.67	274.33	10,339.46	653.38	149.05	-153.49	0.90	-0.24	0.87
10,762.73	88.70	274.31	10,339.52	653.58	146.32	-150.77	1.25	0.96	-0.81
FTP: 10762.73' MD, 10339.52' TVD - Lat: 32.3483148, Long: -104.0672994									
10,876.00	89.78	273.39	10,341.03	661.18	33.32	-37.82	1.25	0.96	-0.81
10,971.00	89.45	271.36	10,341.66	665.12	-61.59	57.06	2.16	-0.35	-2.14
11,066.00	89.44	270.91	10,342.58	667.00	-156.56	152.02	0.47	-0.01	-0.47
11,161.00	89.38	270.01	10,343.56	667.76	-251.56	247.00	0.95	-0.06	-0.95
11,256.00	89.67	269.48	10,344.35	667.34	-346.55	342.00	0.64	0.31	-0.56
11,351.00	89.93	269.45	10,344.68	666.45	-441.55	437.00	0.28	0.27	-0.03
11,446.00	90.92	270.41	10,343.98	666.34	-536.54	531.99	1.45	1.04	1.01
11,541.00	90.78	270.62	10,342.57	667.19	-631.53	626.97	0.27	-0.15	0.22
11,635.00	90.50	270.14	10,341.52	667.82	-725.52	720.96	0.59	-0.30	-0.51
11,728.00	90.85	270.57	10,340.42	668.39	-818.51	813.94	0.60	0.38	0.46
11,824.00	90.55	269.80	10,339.25	668.70	-914.50	909.93	0.86	-0.31	-0.80
11,917.00	90.82	270.10	10,338.14	668.62	-1,007.49	1,002.92	0.43	0.29	0.32
12,012.00	91.16	270.93	10,336.50	669.47	-1,102.48	1,097.89	0.94	0.36	0.87
12,106.00	91.41	270.49	10,334.39	670.64	-1,196.44	1,191.85	0.54	0.27	-0.47
12,200.00	93.69	272.22	10,330.21	672.86	-1,290.32	1,285.71	3.04	2.43	1.84
12,295.00	92.13	270.71	10,325.38	675.28	-1,385.16	1,380.53	2.28	-1.64	-1.59
12,390.00	91.38	268.30	10,322.47	674.46	-1,480.10	1,475.48	2.66	-0.79	-2.54
12,484.00	90.81	267.86	10,320.68	671.31	-1,574.03	1,569.42	0.77	-0.61	-0.47
12,579.00	91.44	267.89	10,318.81	667.79	-1,668.95	1,664.36	0.66	0.66	0.03
12,674.00	91.99	268.48	10,315.97	664.78	-1,763.85	1,759.29	0.85	0.58	0.62
12,769.00	92.07	269.02	10,312.60	662.71	-1,858.77	1,854.22	0.57	0.08	0.57



Survey Report



Company:	Marathon Oil Permian LLC	Local Co-ordinate Reference:	Well Chaos WC Federal Com 804H
Project:	Eddy County, NM (NAD27-NME)	TVD Reference:	RKB @ 3078.60usft (Cactus 171)
Site:	Chaos WC Federal Com	MD Reference:	RKB @ 3078.60usft (Cactus 171)
Well:	Chaos WC Federal Com 804H	North Reference:	Grid
Wellbore:	OH / 73375	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Cactus 171)	Database:	USAEDMDB

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)
12,864.00	91.47	268.72	10,309.67	660.84	-1,953.71	1,949.16	0.71	-0.63	-0.32
12,958.00	91.44	267.59	10,307.28	657.81	-2,047.63	2,043.10	1.20	-0.03	-1.20
13,054.00	91.26	268.44	10,305.02	654.49	-2,143.54	2,139.04	0.90	-0.19	0.89
13,148.00	90.95	267.25	10,303.21	650.96	-2,237.46	2,232.97	1.31	-0.33	-1.27
13,244.00	89.61	266.71	10,302.74	645.90	-2,333.32	2,328.87	1.50	-1.40	-0.56
13,339.00	92.29	268.84	10,301.16	642.21	-2,428.22	2,423.79	3.60	2.82	2.24
13,434.00	90.18	266.99	10,299.12	638.75	-2,523.13	2,518.72	2.95	-2.22	-1.95
13,529.00	89.76	266.69	10,299.17	633.52	-2,617.98	2,613.61	0.54	-0.44	-0.32
13,624.00	90.04	266.78	10,299.33	628.11	-2,712.83	2,708.49	0.31	0.29	0.09
13,719.00	91.96	267.72	10,297.67	623.55	-2,807.70	2,803.39	2.25	2.02	0.99
13,814.00	92.16	269.54	10,294.26	621.28	-2,902.60	2,898.31	1.93	0.21	1.92
13,908.00	90.56	268.64	10,292.03	619.79	-2,996.56	2,992.27	1.95	-1.70	-0.96
14,003.00	90.70	269.59	10,290.98	618.32	-3,091.54	3,087.26	1.01	0.15	1.00
14,096.00	91.99	269.84	10,288.80	617.86	-3,184.52	3,180.24	1.41	1.39	0.27
14,191.00	90.90	271.92	10,286.40	619.32	-3,279.47	3,275.18	2.47	-1.15	2.19
14,286.00	94.02	274.68	10,282.33	624.78	-3,374.20	3,369.87	4.38	3.28	2.91
14,381.00	93.00	273.54	10,276.51	631.57	-3,468.78	3,464.40	1.61	-1.07	-1.20
14,474.00	92.97	273.10	10,271.67	636.95	-3,561.49	3,557.08	0.47	-0.03	-0.47
14,569.00	92.18	271.60	10,267.40	640.84	-3,656.32	3,651.87	1.78	-0.83	-1.58
14,664.00	91.79	270.79	10,264.11	642.82	-3,751.24	3,746.77	0.95	-0.41	-0.85
14,759.00	92.47	271.74	10,260.58	644.92	-3,846.15	3,841.67	1.23	0.72	1.00
14,854.00	92.07	270.96	10,256.81	647.15	-3,941.04	3,936.55	0.92	-0.42	-0.82
14,948.00	92.53	270.84	10,253.04	648.63	-4,034.96	4,030.45	0.51	0.49	-0.13
15,043.00	91.32	270.01	10,249.85	649.33	-4,129.90	4,125.38	1.54	-1.27	-0.87
15,138.00	91.46	269.64	10,247.55	649.04	-4,224.87	4,220.35	0.42	0.15	-0.39
15,232.00	91.01	269.65	10,245.52	648.46	-4,318.85	4,314.33	0.48	-0.48	0.01
15,327.00	90.65	268.47	10,244.14	646.90	-4,413.82	4,409.32	1.30	-0.38	-1.24
15,421.00	92.29	269.73	10,241.73	645.43	-4,507.77	4,503.28	2.20	1.74	1.34
15,516.00	92.55	270.25	10,237.72	645.41	-4,602.69	4,598.19	0.61	0.27	0.55
15,610.00	92.26	270.35	10,233.78	645.90	-4,696.60	4,692.10	0.33	-0.31	0.11
15,704.00	91.63	269.26	10,230.59	645.58	-4,790.55	4,786.04	1.34	-0.67	-1.16
15,799.00	91.16	268.35	10,228.27	643.60	-4,885.50	4,881.00	1.08	-0.49	-0.96
15,894.00	90.65	268.16	10,226.77	640.71	-4,980.44	4,975.96	0.57	-0.54	-0.20
15,989.00	91.35	268.57	10,225.11	638.00	-5,075.39	5,070.93	0.85	0.74	0.43
16,083.00	91.56	268.82	10,222.73	635.86	-5,169.33	5,164.88	0.35	0.22	0.27
16,178.00	91.56	269.00	10,220.14	634.05	-5,264.28	5,259.84	0.19	0.00	0.19
16,272.00	91.42	268.62	10,217.70	632.10	-5,358.23	5,353.80	0.43	-0.15	-0.40
16,367.00	90.75	267.61	10,215.90	628.97	-5,453.16	5,448.75	1.28	-0.71	-1.06
16,461.00	91.64	268.98	10,213.94	626.18	-5,547.09	5,542.70	1.74	0.95	1.46
16,555.00	91.25	268.62	10,211.57	624.21	-5,641.04	5,636.66	0.56	-0.41	-0.38
16,651.00	90.41	267.46	10,210.18	620.93	-5,736.97	5,732.61	1.49	-0.88	-1.21
16,745.00	91.55	268.62	10,208.57	617.71	-5,830.90	5,826.56	1.73	1.21	1.23
16,839.00	91.36	267.66	10,206.18	614.66	-5,924.82	5,920.50	1.04	-0.20	-1.02



Survey Report



Company:	Marathon Oil Permian LLC	Local Co-ordinate Reference:	Well Chaos WC Federal Com 804H
Project:	Eddy County, NM (NAD27-NME)	TVD Reference:	RKB @ 3078.60usft (Cactus 171)
Site:	Chaos WC Federal Com	MD Reference:	RKB @ 3078.60usft (Cactus 171)
Well:	Chaos WC Federal Com 804H	North Reference:	Grid
Wellbore:	OH / 73375	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Cactus 171)	Database:	USAEDMDB

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)	
16,934.00	91.36	268.79	10,203.93	611.72	-6,019.75	6,015.44	1.19	0.00	1.19	
17,029.00	91.38	269.87	10,201.66	610.61	-6,114.71	6,110.41	1.14	0.02	1.14	
17,124.00	91.49	270.43	10,199.28	610.86	-6,209.68	6,205.38	0.60	0.12	0.59	
17,219.00	90.35	269.87	10,197.75	611.11	-6,304.67	6,300.36	1.34	-1.20	-0.59	
17,314.00	91.49	270.91	10,196.23	611.75	-6,399.65	6,395.34	1.62	1.20	1.09	
17,409.00	90.33	268.98	10,194.72	611.66	-6,494.63	6,490.32	2.37	-1.22	-2.03	
17,503.00	90.28	269.06	10,194.22	610.05	-6,588.62	6,584.31	0.10	-0.05	0.09	
17,598.00	89.90	268.48	10,194.07	608.02	-6,683.59	6,679.30	0.73	-0.40	-0.61	
17,693.00	90.08	269.85	10,194.08	606.63	-6,778.58	6,774.29	1.45	0.19	1.44	
17,788.00	90.13	270.20	10,193.91	606.67	-6,873.58	6,869.29	0.37	0.05	0.37	
17,882.00	90.45	271.10	10,193.43	607.74	-6,967.57	6,963.27	1.02	0.34	0.96	
17,976.00	90.59	270.06	10,192.58	608.69	-7,061.56	7,057.26	1.12	0.15	-1.11	
18,070.00	91.09	271.02	10,191.20	609.58	-7,155.55	7,151.23	1.15	0.53	1.02	
18,165.00	91.79	271.48	10,188.82	611.65	-7,250.49	7,246.16	0.88	0.74	0.48	
18,259.00	91.24	271.34	10,186.33	613.96	-7,344.43	7,340.08	0.60	-0.59	-0.15	
18,353.00	91.27	271.67	10,184.27	616.43	-7,438.38	7,434.01	0.35	0.03	0.35	
18,448.00	90.82	270.12	10,182.54	617.91	-7,533.35	7,528.97	1.70	-0.47	-1.63	
18,542.00	91.32	270.80	10,180.78	618.67	-7,627.33	7,622.94	0.90	0.53	0.72	
18,637.00	91.07	270.66	10,178.80	619.88	-7,722.30	7,717.90	0.30	-0.26	-0.15	
18,732.00	91.41	271.33	10,176.75	621.53	-7,817.26	7,812.85	0.79	0.36	0.71	
18,825.00	90.99	270.14	10,174.80	622.72	-7,910.23	7,905.81	1.36	-0.45	-1.28	
18,921.00	91.49	270.99	10,172.72	623.66	-8,006.20	8,001.77	1.03	0.52	0.89	
19,015.00	91.16	270.72	10,170.55	625.07	-8,100.17	8,095.72	0.45	-0.35	-0.29	
19,110.00	92.19	272.84	10,167.77	628.02	-8,195.07	8,190.61	2.48	1.08	2.23	
19,204.00	91.67	272.37	10,164.61	632.29	-8,288.92	8,284.43	0.75	-0.55	-0.50	
19,299.00	91.52	271.25	10,161.96	635.29	-8,383.84	8,379.32	1.19	-0.16	-1.18	
19,394.00	92.38	272.50	10,158.73	638.39	-8,478.73	8,474.19	1.60	0.91	1.32	
19,489.00	90.78	270.05	10,156.11	640.50	-8,573.66	8,569.10	3.08	-1.68	-2.58	
19,583.00	90.56	269.83	10,155.01	640.40	-8,667.65	8,663.09	0.33	-0.23	-0.23	
19,678.00	90.90	269.99	10,153.80	640.26	-8,762.64	8,758.08	0.40	0.36	0.17	
19,772.00	90.92	269.91	10,152.31	640.17	-8,856.63	8,852.07	0.09	0.02	-0.09	
19,867.00	90.98	268.97	10,150.73	639.25	-8,951.61	8,947.05	0.99	0.06	-0.99	
19,961.00	90.78	269.61	10,149.29	638.08	-9,045.59	9,041.04	0.71	-0.21	0.68	
20,056.00	90.85	269.65	10,147.94	637.47	-9,140.58	9,136.03	0.08	0.07	0.04	
20,151.00	90.64	269.13	10,146.70	636.46	-9,235.57	9,231.02	0.59	-0.22	-0.55	
20,245.00	90.86	269.61	10,145.47	635.42	-9,329.55	9,325.01	0.56	0.23	0.51	
20,340.00	90.78	269.39	10,144.11	634.59	-9,424.54	9,420.00	0.25	-0.08	-0.23	
20,435.00	89.85	268.73	10,143.59	633.04	-9,519.52	9,515.00	1.20	-0.98	-0.69	
20,530.00	90.86	269.95	10,143.00	631.94	-9,614.51	9,609.99	1.67	1.06	1.28	
20,624.00	91.27	269.97	10,141.25	631.88	-9,708.50	9,703.97	0.44	0.44	0.02	
20,719.00	91.29	270.03	10,139.13	631.88	-9,803.47	9,798.95	0.07	0.02	0.06	
20,814.00	90.85	269.63	10,137.36	631.59	-9,898.46	9,893.93	0.63	-0.46	-0.42	
20,908.00	91.15	270.32	10,135.72	631.55	-9,992.44	9,987.91	0.80	0.32	0.73	
21,003.00	90.70	269.16	10,134.18	631.12	-10,087.43	10,082.90	1.31	-0.47	-1.22	



Survey Report



Company:	Marathon Oil Permian LLC	Local Co-ordinate Reference:	Well Chaos WC Federal Com 804H
Project:	Eddy County, NM (NAD27-NME)	TVD Reference:	RKB @ 3078.60usft (Cactus 171)
Site:	Chaos WC Federal Com	MD Reference:	RKB @ 3078.60usft (Cactus 171)
Well:	Chaos WC Federal Com 804H	North Reference:	Grid
Wellbore:	OH / 73375	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Cactus 171)	Database:	USAEDMDB

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)	
21,097.00	91.69	270.03	10,132.22	630.46	-10,181.40	10,176.87	1.40	1.05	0.93	
21,192.00	91.78	270.89	10,129.35	631.22	-10,276.35	10,271.82	0.91	0.09	0.91	
21,286.00	91.46	270.19	10,126.69	632.10	-10,370.31	10,365.77	0.82	-0.34	-0.74	
21,381.00	92.12	270.44	10,123.72	632.63	-10,465.26	10,460.71	0.74	0.69	0.26	
21,475.00	91.61	270.55	10,120.66	633.44	-10,559.21	10,554.65	0.56	-0.54	0.12	
21,569.00	91.10	269.08	10,118.44	633.13	-10,653.18	10,648.62	1.65	-0.54	-1.56	
21,664.00	91.15	268.37	10,116.57	631.02	-10,748.14	10,743.59	0.75	0.05	-0.75	
21,758.00	91.53	268.41	10,114.37	628.38	-10,842.07	10,837.55	0.41	0.40	0.04	
21,853.00	91.96	269.11	10,111.48	626.33	-10,937.01	10,932.49	0.86	0.45	0.74	
21,948.00	90.98	268.87	10,109.04	624.65	-11,031.96	11,027.45	1.06	-1.03	-0.25	
22,043.00	91.92	269.17	10,106.64	623.03	-11,126.91	11,122.42	1.04	0.99	0.32	
22,138.00	91.13	268.82	10,104.11	621.36	-11,221.86	11,217.38	0.91	-0.83	-0.37	
22,233.00	92.95	269.61	10,100.73	620.06	-11,316.79	11,312.31	2.09	1.92	0.83	
22,327.00	91.18	268.47	10,097.34	618.49	-11,410.71	11,406.24	2.24	-1.88	-1.21	
22,422.00	92.55	268.10	10,094.25	615.65	-11,505.62	11,501.16	1.49	1.44	-0.39	
22,516.00	91.02	267.19	10,091.32	611.78	-11,599.49	11,595.05	1.89	-1.63	-0.97	
22,611.00	91.61	266.46	10,089.14	606.52	-11,694.32	11,689.92	0.99	0.62	-0.77	
22,706.00	90.39	265.06	10,087.49	599.50	-11,789.04	11,784.68	1.95	-1.28	-1.47	
22,801.00	89.82	264.26	10,087.31	590.66	-11,883.62	11,879.33	1.03	-0.60	-0.84	
22,895.00	89.31	265.99	10,088.03	582.67	-11,977.28	11,973.03	1.92	-0.54	1.84	
22,990.00	89.33	266.88	10,089.15	576.77	-12,072.09	12,067.88	0.94	0.02	0.94	
23,084.00	90.01	267.45	10,089.69	572.12	-12,165.97	12,161.79	0.94	0.72	0.61	
23,178.00	90.25	270.04	10,089.48	570.06	-12,259.94	12,255.77	2.77	0.26	2.76	
23,274.00	89.48	268.63	10,089.71	568.94	-12,355.93	12,351.77	1.67	-0.80	-1.47	
23,368.00	89.76	268.75	10,090.33	566.80	-12,449.90	12,445.75	0.32	0.30	0.13	
23,463.00	90.13	269.31	10,090.42	565.19	-12,544.89	12,540.75	0.71	0.39	0.59	
23,557.00	89.38	268.28	10,090.82	563.21	-12,638.86	12,634.74	1.36	-0.80	-1.10	
23,651.00	89.08	268.08	10,092.09	560.23	-12,732.81	12,728.70	0.38	-0.32	-0.21	
23,745.00	90.24	269.02	10,092.65	557.85	-12,826.77	12,822.68	1.59	1.23	1.00	
23,839.00	91.35	270.67	10,091.34	557.59	-12,920.76	12,916.66	2.12	1.18	1.76	
23,934.00	90.61	270.16	10,089.72	558.28	-13,015.74	13,011.64	0.95	-0.78	-0.54	
24,029.00	90.98	269.89	10,088.40	558.32	-13,110.73	13,106.63	0.48	0.39	-0.28	
24,124.00	90.22	270.44	10,087.40	558.60	-13,205.72	13,201.62	0.99	-0.80	0.58	
24,219.00	89.61	269.35	10,087.54	558.42	-13,300.72	13,296.61	1.31	-0.64	-1.15	
24,313.00	91.07	270.77	10,086.99	558.52	-13,394.72	13,390.60	2.17	1.55	1.51	
24,407.00	91.52	270.18	10,084.86	559.30	-13,488.69	13,484.57	0.79	0.48	-0.63	
24,502.00	91.32	271.19	10,082.51	560.43	-13,583.65	13,579.52	1.08	-0.21	1.06	
24,596.00	90.16	270.48	10,081.29	561.80	-13,677.63	13,673.49	1.45	-1.23	-0.76	
24,691.00	90.44	270.29	10,080.80	562.44	-13,772.63	13,768.48	0.36	0.29	-0.20	
24,786.00	92.86	271.83	10,078.06	564.20	-13,867.56	13,863.40	3.02	2.55	1.62	
24,881.00	91.21	271.57	10,074.69	567.01	-13,962.46	13,958.27	1.76	-1.74	-0.27	
24,975.00	90.75	271.28	10,073.08	569.35	-14,056.41	14,052.21	0.58	-0.49	-0.31	
25,069.00	89.88	270.97	10,072.56	571.20	-14,150.39	14,146.18	0.98	-0.93	-0.33	



Survey Report



Company:	Marathon Oil Permian LLC	Local Co-ordinate Reference:	Well Chaos WC Federal Com 804H
Project:	Eddy County, NM (NAD27-NME)	TVD Reference:	RKB @ 3078.60usft (Cactus 171)
Site:	Chaos WC Federal Com	MD Reference:	RKB @ 3078.60usft (Cactus 171)
Well:	Chaos WC Federal Com 804H	North Reference:	Grid
Wellbore:	OH / 73375	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Cactus 171)	Database:	USAEDMDB

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)	
25,164.00	90.81	270.83	10,071.99	572.69	-14,245.38	14,241.15	0.99	0.98	-0.15	
25,258.00	91.52	270.74	10,070.08	573.98	-14,339.35	14,335.11	0.76	0.76	-0.10	
25,352.00	93.77	271.76	10,065.74	576.02	-14,433.22	14,428.96	2.63	2.39	1.09	
25,446.00	90.79	270.53	10,062.00	577.90	-14,527.11	14,522.84	3.43	-3.17	-1.31	
25,541.00	89.42	269.27	10,061.83	577.73	-14,622.11	14,617.84	1.96	-1.44	-1.33	
25,635.00	89.58	269.40	10,062.65	576.64	-14,716.10	14,711.83	0.22	0.17	0.14	
25,730.00	89.58	269.55	10,063.35	575.77	-14,811.09	14,806.83	0.16	0.00	0.16	
25,824.00	89.47	268.87	10,064.12	574.48	-14,905.08	14,900.82	0.73	-0.12	-0.72	
25,852.00	89.76	268.95	10,064.31	573.94	-14,933.07	14,928.82	1.07	1.04	0.29	
Final Phoenix MWD Survey										
25,876.00	89.76	268.95	10,064.41	573.50	-14,957.07	14,952.82	0.00	0.00	0.00	
Projection to TD - Lat: 32.3481883, Long: -104.1162068										

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
141.00	141.00	-0.15	0.06	First Phoenix MWD Survey	
9,958.00	9,840.52	654.58	690.26	KOP: 9958.00' MD, 9840.52' TVD	
9,958.00	9,840.52	654.58	690.26	Lat: 32.3483138, Long: -104.0655381	
10,762.73	10,339.52	653.58	146.32	FTP: 10762.73' MD, 10339.52' TVD	
10,762.73	10,339.52	653.58	146.32	Lat: 32.3483148, Long: -104.0672994	
25,852.00	10,064.31	573.94	-14,933.07	Final Phoenix MWD Survey	
25,876.00	10,064.41	573.50	-14,957.07	Projection to TD	
25,876.00	10,064.41	573.50	-14,957.07	Lat: 32.3481883, Long: -104.1162068	

Submit Copy To Appropriate District
Office
District I – (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II – (575) 748-1283
811 S. First St., Artesia, NM 88210
District III – (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV – (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM
87505

State of New Mexico
Energy, Minerals and Natural Resources

Form C-103
Revised July 18, 2013

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

WELL API NO. 30-015-53641
5. Indicate Type of Lease STATE ☐ FEE ☐
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name Chaos WC Federal Com
8. Well Number 804H
9. OGRID Number 372098
10. Pool name or Wildcat Purple Sage; Wolfcamp (Gas)
4. Well Location Unit Letter <u>I</u> : <u>1702</u> feet from the <u>South</u> line and <u>496</u> feet from the <u>East</u> line Section <u>34</u> Township <u>22S</u> Range <u>28E</u> NMPM County <u>EDDY</u>
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3055' GL

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐
DOWNHOLE COMMINGLE ☐
CLOSED-LOOP SYSTEM ☐
OTHER: ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐
COMMENCE DRILLING OPNS. ☐ P AND A ☐
CASING/CEMENT JOB ☐
OTHER: Completions ☒

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

2/19/2024 - Started Frac Prep operations.
2/20 - Pressure test production casing to 13,000 psi for 30 min, held, good test.
2/27 - MIRU.
2/29 - 3/17 Start frac operations with 3 shots per foot for a total of 2250 shots, 0.41-in. in size using 44,926,600 lbs of sand and 860,492 bbls fluid. Total interval from 10,821' to 25,801' MD.
3/17 - Finish frac operations. RDMO.
3/23 - 3/26 - Perform DO operations.

Marathon Oil Permian LLC request a tubing exception for this well.

Spud Date:

10/31/2023

Rig Release Date:

12/1/2023

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Adrian Covarrubias TITLE Adv. Regulatory Compliance Rep. DATE 5/14/2024

Type or print name Adrian Covarrubias E-mail address: acovarrubias@marathonoil.com PHONE: 713-296-3368

For State Use Only

APPROVED BY: _____ TITLE _____ DATE _____

Conditions of Approval (if any):

Submit To Appropriate District Office Two Copies District I 1625 N. French Dr., Hobbs, NM 88240 District II 811 S. First St., Artesia, NM 88210 District III 1000 Rio Brazos Rd., Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505		State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505				Form C-105 Revised April 3, 2017				
1. WELL API NO. 30-015-53641										
2. Type of Lease ☐ STATE ☐ FEE ☒ FED/INDIAN										
3. State Oil & Gas Lease No.										
WELL COMPLETION OR RECOMPLETION REPORT AND LOG										
4. Reason for filing: ☒ COMPLETION REPORT (Fill in boxes #1 through #31 for State and Fee wells only) ☐ C-144 CLOSURE ATTACHMENT (Fill in boxes #1 through #9, #15 Date Rig Released and #32 and/or #33; attach this and the plat to the C-144 closure report in accordance with 19.15.17.13.K NMAC)						5. Lease Name or Unit Agreement Name Chaos WC Fed Com				
						6. Well Number: 804H				
7. Type of Completion: ☒ NEW WELL ☐ WORKOVER ☐ DEEPENING ☐ PLUGBACK ☐ DIFFERENT RESERVOIR ☐ OTHER										
8. Name of Operator Marathon Oil Permian LLC						9. OGRID 372098				
10. Address of Operator 990 Town & Country Blvd. Houston, TX 77024						11. Pool name or Wildcat Purple Sage; Wolfcamp (Gas)				
12. Location	Unit Ltr	Section	Township	Range	Lot	Feet from the	N/S Line	Feet from the	E/W Line	County
Surface:	I	34	22S	28E		1702	S	496	E	EDDY
BH:	L	32	22S	28E		2378	S	331	W	EDDY
13. Date Spudded 10/31/2023	14. Date T.D. Reached 11/26/2023		15. Date Rig Released 12/1/2023			16. Date Completed (Ready to Produce) 4/1/2024		17. Elevations (DF and RKB, RT, GR, etc.) 3055' GL		
18. Total Measured Depth of Well 25,876'			19. Plug Back Measured Depth 25,811'			20. Was Directional Survey Made? Yes		21. Type Electric and Other Logs Run GR		
22. Producing Interval(s), of this completion - Top, Bottom, Name 10,821' - 25,801'; Wolfcamp										
23. CASING RECORD (Report all strings set in well)										
CASING SIZE		WEIGHT LB./FT.		DEPTH SET		HOLE SIZE		CEMENTING RECORD		AMOUNT PULLED
13-3/8"		54.5#, J55, BTC		276'		17-1/2"		373 sks, 1.33 yield, Class C		
9-5/8"		40#, P110, BTC		9533'		12-1/4"		Lead: 984 sks, 3.91 yield, Class C Tail: 1626 sks, 1.14 yield, Class C		
8-3/4"		23#, P110, VTC		25851'		5-1/2"		Lead: 1716 sks, 1.34 yield, Class C Tail: 4506 sks, 1.11 yield, Class H		
24. LINER RECORD						25. TUBING RECORD				
SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN	SIZE	DEPTH SET	PACKER SET			
26. Perforation record (interval, size, and number) 10,821' - 25,801', 0.41-in., 2250 shots					27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC.					
					DEPTH INTERVAL		AMOUNT AND KIND MATERIAL USED			
					10,821' - 25,801'		44,926,600 lbs sand			
					10,821' - 25,801'		36,140,664 gal fluid			
28. PRODUCTION										
Date First Production 4/1/2024		Production Method (Flowing, gas lift, pumping - Size and type pump) Flowing				Well Status (Prod. or Shut-in) Producing				
Date of Test 4/20/2024	Hours Tested 24	Choke Size 42/64	Prod'n For Test Period	Oil - Bbl 1332	Gas - MCF 10973	Water - Bbl. 5544	Gas - Oil Ratio			
Flow Tubing Press.	Casing Pressure 3141	Calculated 24-Hour Rate	Oil - Bbl.	Gas - MCF	Water - Bbl.	Oil Gravity - API - (Corr.)				
29. Disposition of Gas (Sold, used for fuel, vented, etc.) sold							30. Test Witnessed By			
31. List Attachments										
32. If a temporary pit was used at the well, attach a plat with the location of the temporary pit.							33. Rig Release Date:			
34. If an on-site burial was used at the well, report the exact location of the on-site burial:										
Latitude			Longitude			NAD83				
I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief										
Signature Adrian Covarrubias			Printed Name Adrian Covarrubias			Title Adv. Regulatory Compliance Rep			Date 5/2/2024	
E-mail Address acovarrubias@marathonoil.com										

This form is to be filed with the appropriate District Office of the Division not later than 20 days after the completion of any newly-drilled or deepened well and not later than 60 days after completion of closure. When submitted as a completion report, this shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, items 11, 12 and 26-31 shall be reported for each zone.

Southeastern New Mexico		Northwestern New Mexico	
T. Anhy	T. Canyon 2716'	T. Ojo Alamo	T. Penn A"
T. Salt	T. Strawn	T. Kirtland	T. Penn. "B"
B. Salt	T. Atoka	T. Fruitland	T. Penn. "C"
T. Yates	T. Miss	T. Pictured Cliffs	T. Penn. "D"
T. 7 Rivers	T. Devonian	T. Cliff House	T. Leadville
T. Queen	T. Silurian	T. Menefee	T. Madison
T. Grayburg	T. Montoya	T. Point Lookout	T. Elbert
T. San Andres	T. Simpson	T. Mancos	T. McCracken
T. Glorieta	T. McKee	T. Gallup	T. Ignacio Otzte
T. Paddock	T. Ellenburger	Base Greenhorn	T. Granite
T. Blinebry	T. Gr. Wash	T. Dakota	
T. Tubb	T. Delaware Sand	T. Morrison	
T. Drinkard	T. Bone Springs 6254'	T. Todilto	
T. Abo	T. Lamar 2687'	T. Entrada	
T. Wolfcamp 9654'	T. Cherry Canyon 3545'	T. Wingate	
T. Penn	T. Brushy Canyon 4742'	T. Chinle	
T. Cisco (Bough C)	T.	T. Permian	

No. 1, from.....to.....
No. 2, from.....to.....
No. 3, from.....to.....
No. 4, from.....to.....

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from.....to.....feet.....
 No. 2, from.....to.....feet.....
 No. 3, from.....to.....feet.....

From	To	Thickness In Feet	Lithology

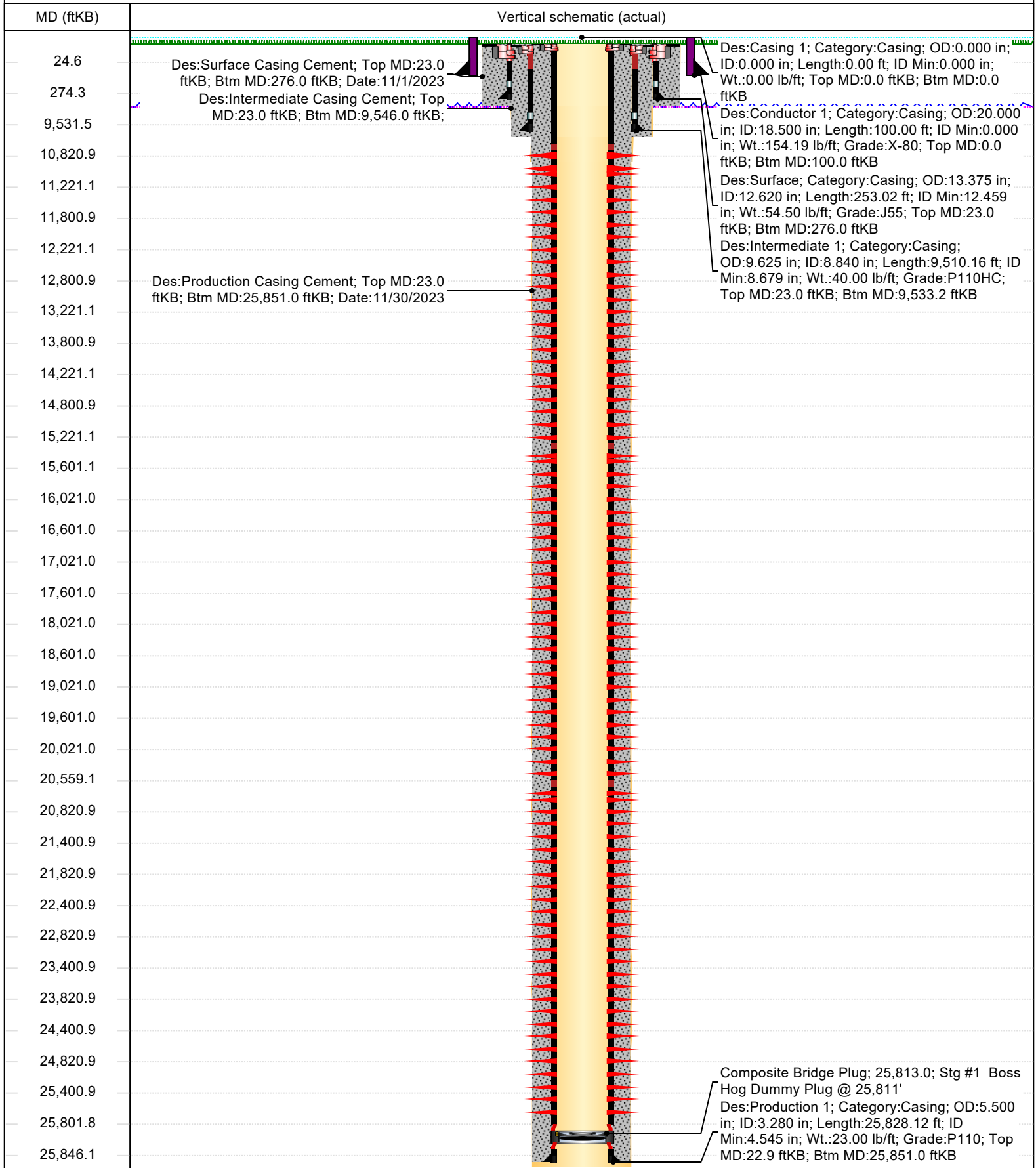


Wellbore Schematic

Well Name: CHAOS WC FED COM 804H

State/Province NEW MEXICO	Country UNITED STATES	Field Name PURPLE SAGE	Latitude (°) 32.34651920	Longitude (°) -104.06777850	North/South Distance (ft) 1,702.0	North/South Reference FSL
API/IPO UWI 3001553641	KB-Ground Distance (ft) 23.00	KB-Mud Line Distance (ft)	Ground Elevation (ft) 3,055.00	Drilling Rig Spud Date 10/31/2023	Well Original Completion Date 3/29/2024	Well First Production Date 4/1/2024

HORIZONTAL, CHAOS WC FED COM 804H, 5/1/2024 3:15:05 PM



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

ACKNOWLEDGMENTS

Action 344028

ACKNOWLEDGMENTS

Operator: MARATHON OIL PERMIAN LLC 990 Town & Country Blvd. Houston, TX 77024	OGRID: 372098
	Action Number: 344028
	Action Type: [C-104] Completion Packet (C-104C)

ACKNOWLEDGMENTS

☒	I hereby certify that the required Water Use Report has been, or will be, submitted for this wells completion.
☒	I hereby certify that the required FracFocus disclosure has been, or will be, submitted for this wells completion.

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

General Information
Phone: (505) 629-6116

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

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

CONDITIONS

Action 344028

CONDITIONS

Operator: MARATHON OIL PERMIAN LLC 990 Town & Country Blvd. Houston, TX 77024	OGRID: 372098
	Action Number: 344028
	Action Type: [C-104] Completion Packet (C-104C)

CONDITIONS

Created By	Condition	Condition Date
matthew.gomez	Please report TVD of the perforation interval on a form C-103Z.	12/16/2024
matthew.gomez	File 3160-4 within 10 days of BLM Approval.	12/16/2024