

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Pecos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

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

RECEIVED

JAN 09 2020

Form C-102

Revised August 1, 2011

Submit one copy to appropriate
District Office

AMENDED REPORT
As-Drilled

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-45344		² Pool Code 98220		³ Pool Name PURPLE SAGE; WOLFCAMP (GAS)				
⁴ Property Code 326317 <i>FRMLY: 321636</i>		Property Name RICK DECKARD 4 WA STATE		⁶ Well Number 2H				
⁷ OGRID No. 372098		⁸ Operator Name MARATHON OIL PERMIAN LLC		⁹ Elevation 3001'				
¹⁰ Surface Location								
UL or lot no. C	Section 4	Township T25S	Range R28E	Lot Idn 820	Feet from the NORTH	Feet from the 1682	East/West line WEST	County EDDY
¹¹ Bottom Hole Location If Different From Surface								
UL or lot no. M	Section 4	Township T25S	Range R28E	Lot Idn 285	Feet from the SOUTH	Feet from the 1007	East/West line WEST	County EDDY
¹² Dedicated Acres 321.12		¹³ Joint or Infill		¹⁴ Consolidation Code		¹⁵ Order No.		

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

¹⁶		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. <i>Adrian Covarrubias</i> 1/6/2020 Signature Date Adrian Covarrubias Printed Name E-mail Address	
¹⁸ SURVEYOR CERTIFICATION			
I hereby certify that the well surface location shown on this plat was plotted from field notes of the as-staked 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 R-Squared Global. DECEMBER 10, 2019 Date of Survey Signature and Seal of Professional Surveyor Certificate Number DAVID W. MYERS 11403			

DISTANCES/AREAS RELATIVE TO NAD83 COMBINED SCALE FACTOR: 0.999915284
CONVERGENCE: 0.1265074856; NOTE: ALL DIMENSIONS IN U.S. FEET

1	12/10/2019	DEF
REV.	DATE	BY

SHEET 1 OF 1
R3899_005



PRODIRECTIONAL



Marathon Oil Corporation

Rick Deckard State 25-28-4 WA No. 2H
Eddy County, NM

July 08, 2019

Job# LNM1443919
API# 30-015-45344

RECEIVED

JAN 09 2020

EMNRD-OCD ARTESIA

Survey Completion Report



PRODIRECTIONAL

Survey Certification Letter

July 08, 2019



Marathon Oil
Corporation

Operator Name: Marathon Oil
Well Name: Rick Deckard State 25-28-4 WA No. 2H
County/Parish: Eddy County,
State: NM
Rig Name: Precision 594
Job Number: LNM1443919

This is to certify the surveys performed on the referenced well by Professional Directional Ent., Inc. are true and correct MWD Surveys, data provided as follows:

Surveyor	Surveyed Depths	Projection to Bit	Dates Performed	Type of Survey
ProDirectional	509' MD – 14,265' MD	14,330' MD	05/02/19 – 06/06/19	MWD

Sincerely,

Mike Coats
Regulatory Specialist
Professional Directional

850 Conroe Park West Drive | Conroe, TX 77303 | Phone: 936.441.7266

prodirectional.com

The Standard of Excellence in Directional Supervision



Marathon Oil

Marathon Oil

**Eddy County, NM
Rick Deckard State 25-28-4 WA
No. 2H
OH**

Survey: ProDirectional

Survey Report

08 July, 2019



Company:	Marathon Oil	Local Co-ordinate Reference:	Well No. 2H
Project:	Eddy County, NM(NAD 83)	TVD Reference:	Well @ 3026.01usft
Site:	Rick Deckard State 25-28-4 WA	MD Reference:	Well @ 3026.01usft
Well:	No. 2H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	MWD-91'-14265', PTB: 14330'	Database:	WellPlanner1

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

Site		Rick Deckard State 25-28-4 WA			
Site Position:		Northing:		419,553.09 usft	
From:	Map	Easting:		617,306.90 usft	
Position Uncertainty:		Slot Radius:		Grid Convergence:	
0.00 usft		13-3/16 "		32.153192	
				-104.087853	
				0.13 °	

Well	No. 2H, LNM1443919					
Well Position	+N/-S	0.00 usft	Northing:	423,571.66 usft	Latitude:	32.164253
	+E/-W	0.00 usft	Easting:	614,901.37 usft	Longitude:	-104.095597
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	3,001.01 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	4/10/2019	7.12	59.88	47,886.80

Design		MWD-91'-14265', PTB: 14330'			
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	180.06	



ProDirectional Survey Report



Company: Marathon Oil
Project: Eddy County, NM(NAD 83)
Site: Rick Deckard State 25-28-4 WA
Well: No. 2H
Wellbore: OH
Design: MWD-91'-14265', PTB: 14330'

Local Co-ordinate Reference: Well No. 2H
TVD Reference: Well @ 3026.01usft
MD Reference: Well @ 3026.01usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: WellPlanner1

Survey Program		Date 7/8/2019		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
91.00	411.00	Survey #1 (OH)	NS-GYRO-MS	North sensing gyrocompassing m/s
509.00	14,330.00	Survey #2 (OH)	MWD+HDGM	OWSG MWD + HRGM

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	423,571.66	614,901.37
91.00	0.70	236.87	91.00	0.30	-0.30	-0.47	0.56	236.87	423,571.36	614,900.90
180.00	0.40	262.87	179.99	0.64	-0.64	-1.23	1.39	242.51	423,571.02	614,900.14
262.00	0.90	269.87	261.99	0.68	-0.68	-2.16	2.26	252.59	423,570.98	614,899.21
357.00	1.20	259.87	356.97	0.86	-0.85	-3.88	3.98	257.61	423,570.81	614,897.49
411.00	1.20	223.87	410.96	1.37	-1.36	-4.83	5.02	254.27	423,570.30	614,896.54
509.00	1.10	235.70	508.94	2.64	-2.63	-6.32	6.84	247.40	423,569.03	614,895.05
Pro MWD First Survey: 509' MD										
599.00	0.50	242.40	598.93	3.31	-3.30	-7.38	8.08	245.92	423,568.36	614,893.99
690.00	2.60	53.80	689.91	2.27	-2.26	-6.07	6.48	249.54	423,569.40	614,895.30
781.00	3.00	60.20	780.80	-0.14	0.14	-2.33	2.34	273.40	423,571.80	614,899.04
873.00	2.40	55.40	872.69	-2.43	2.43	1.34	2.77	28.88	423,574.09	614,902.71
966.00	0.80	65.60	965.66	-3.81	3.80	3.53	5.19	42.90	423,575.46	614,904.90
1,057.00	0.20	219.60	1,056.65	-3.95	3.94	4.01	5.63	45.49	423,575.60	614,905.38
1,146.00	0.30	260.30	1,145.65	-3.79	3.78	3.68	5.28	44.22	423,575.44	614,905.05
1,235.00	0.40	93.70	1,234.65	-3.73	3.73	3.76	5.29	45.29	423,575.39	614,905.13
1,324.00	0.60	81.50	1,323.65	-3.78	3.77	4.53	5.90	50.23	423,575.43	614,905.90
1,414.00	0.60	72.40	1,413.64	-3.99	3.99	5.45	6.75	53.82	423,575.65	614,906.82
1,503.00	0.80	35.80	1,502.64	-4.64	4.63	6.26	7.78	53.49	423,576.29	614,907.63
1,593.00	0.50	352.00	1,592.63	-5.54	5.53	6.57	8.59	49.91	423,577.19	614,907.94
1,682.00	0.80	352.70	1,681.63	-6.54	6.53	6.44	9.17	44.59	423,578.19	614,907.81

Company:	Marathon Oil	Local Co-ordinate Reference:	Well No. 2H
Project:	Eddy County, NM(NAD 83)	TVD Reference:	Well @ 3026.01usft
Site:	Rick Deckard State 25-28-4 WA	MD Reference:	Well @ 3026.01usft
Well:	No. 2H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	MWD-91'-14265', PTB: 14330'	Database:	WellPlanner1

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)	
1,772.00	0.50	41.00	1,771.62	-7.46	7.45	6.61	9.96	41.60	423,579.11	614,907.98	
1,861.00	1.30	77.70	1,860.61	-7.97	7.96	7.86	11.18	44.63	423,579.62	614,909.23	
1,951.00	1.10	45.80	1,950.59	-8.79	8.78	9.47	12.91	47.18	423,580.44	614,910.84	
2,040.00	1.60	350.50	2,039.57	-10.61	10.60	9.88	14.49	42.99	423,582.26	614,911.25	
2,130.00	2.90	341.90	2,129.50	-14.01	14.00	8.97	16.63	32.63	423,585.66	614,910.34	
2,219.00	3.50	337.70	2,218.36	-18.66	18.66	7.23	20.01	21.20	423,590.32	614,908.60	
2,308.00	4.30	336.00	2,307.15	-24.22	24.22	4.85	24.70	11.32	423,595.88	614,906.22	
2,397.00	5.30	321.90	2,395.84	-30.50	30.50	0.95	30.52	1.79	423,602.16	614,902.32	
2,441.00	6.30	311.30	2,439.62	-33.69	33.69	-2.11	33.76	356.41	423,605.35	614,899.26	
2,583.00	6.40	304.10	2,580.75	-43.26	43.27	-14.52	45.64	341.45	423,614.93	614,886.85	
2,672.00	8.10	310.90	2,669.04	-50.13	50.16	-23.37	55.34	335.02	423,621.82	614,878.00	
2,761.00	10.90	324.40	2,756.82	-61.08	61.11	-33.01	69.46	331.62	423,632.77	614,868.36	
2,850.00	13.00	326.60	2,843.88	-76.27	76.31	-43.42	87.80	330.36	423,647.97	614,857.95	
2,940.00	13.20	326.40	2,931.54	-93.26	93.32	-54.68	108.16	329.63	423,664.98	614,846.69	
3,029.00	13.20	326.10	3,018.19	-110.15	110.22	-65.97	128.45	329.10	423,681.88	614,835.40	
3,118.00	14.10	322.00	3,104.68	-127.11	127.20	-78.31	149.37	328.38	423,698.86	614,823.06	
3,207.00	14.60	316.60	3,190.90	-143.79	143.89	-92.69	171.16	327.21	423,715.55	614,808.68	
3,297.00	14.70	316.90	3,277.98	-160.36	160.47	-108.29	193.59	325.99	423,732.13	614,793.08	
3,386.00	13.90	316.20	3,364.22	-176.30	176.43	-123.41	215.31	325.03	423,748.09	614,777.96	
3,476.00	11.60	305.90	3,452.01	-189.40	189.54	-138.22	234.59	323.90	423,761.20	614,763.15	
3,565.00	12.00	304.50	3,539.13	-199.87	200.03	-153.09	251.89	322.57	423,771.69	614,748.28	
3,655.00	11.60	305.10	3,627.22	-210.36	210.53	-168.21	269.48	321.38	423,782.19	614,733.16	
3,743.00	11.60	307.00	3,713.43	-220.75	220.94	-182.51	286.58	320.44	423,792.60	614,718.86	
3,832.00	11.30	312.80	3,800.66	-232.05	232.25	-196.06	303.94	319.83	423,803.91	614,705.31	
3,921.00	10.90	318.00	3,888.00	-244.21	244.43	-208.09	321.01	319.59	423,816.09	614,693.28	
4,011.00	10.40	316.70	3,976.44	-256.44	256.67	-219.35	337.63	319.48	423,828.33	614,682.02	
4,100.00	10.10	316.20	4,064.02	-267.91	268.15	-230.26	353.44	319.35	423,839.81	614,671.11	

Company: Marathon Oil
Project: Eddy County, NM(NAD 83)
Site: Rick Deckard State 25-28-4 WA
Well: No. 2H
Wellbore: OH
Design: MWD-91'-14265', PTB: 14330'

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:
Database:

Well No. 2H
 Well @ 3026.01usft
 Well @ 3026.01usft
 Grid
 Minimum Curvature
 WellPlanner1

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)	
4,189.00	10.10	316.70	4,151.65	-279.21	279.46	-241.01	369.03	319.22	423,851.12	614,660.36	
4,278.00	10.40	316.60	4,239.22	-290.71	290.97	-251.89	384.85	319.12	423,862.63	614,649.48	
4,368.00	10.50	316.60	4,327.73	-302.56	302.84	-263.10	401.16	319.02	423,874.50	614,638.27	
4,457.00	10.70	315.70	4,415.21	-314.35	314.64	-274.44	417.52	318.90	423,886.30	614,626.93	
4,546.00	10.60	315.00	4,502.68	-326.04	326.34	-286.00	433.93	318.77	423,898.00	614,615.37	
4,636.00	9.60	314.30	4,591.28	-337.13	337.44	-297.23	449.68	318.63	423,909.10	614,604.14	
4,725.00	8.90	311.50	4,679.13	-346.86	347.18	-307.70	463.91	318.45	423,918.84	614,593.67	
4,815.00	9.00	314.30	4,768.03	-356.38	356.71	-317.95	477.84	318.29	423,928.37	614,583.42	
4,904.00	8.80	312.20	4,855.96	-365.80	366.15	-327.97	491.56	318.15	423,937.81	614,573.40	
4,993.00	9.20	311.70	4,943.86	-375.10	375.45	-338.33	505.40	317.98	423,947.11	614,563.04	
5,082.00	9.40	313.90	5,031.69	-384.86	385.23	-348.88	519.73	317.83	423,956.89	614,552.49	
5,171.00	8.90	313.00	5,119.56	-394.58	394.96	-359.15	533.84	317.72	423,966.62	614,542.22	
5,261.00	9.10	313.60	5,208.45	-404.23	404.62	-369.40	547.88	317.61	423,976.28	614,531.97	
5,350.00	8.50	312.90	5,296.41	-413.55	413.95	-379.31	561.45	317.50	423,985.61	614,522.06	
5,439.00	9.10	319.00	5,384.36	-423.33	423.74	-388.75	575.05	317.47	423,995.40	614,512.62	
5,529.00	9.40	326.70	5,473.19	-434.84	435.25	-397.45	589.42	317.60	424,006.91	614,503.92	
5,618.00	8.60	324.20	5,561.10	-446.30	446.72	-405.33	603.21	317.78	424,018.38	614,496.04	
5,707.00	9.30	325.80	5,649.01	-457.64	458.07	-413.27	616.94	317.94	424,029.73	614,488.10	
5,797.00	10.90	326.90	5,737.61	-470.77	471.21	-422.00	632.56	318.15	424,042.87	614,479.37	
5,886.00	10.10	326.20	5,825.12	-484.30	484.75	-430.94	648.61	318.36	424,056.41	614,470.43	
5,975.00	9.00	323.00	5,912.89	-496.33	496.79	-439.47	663.28	318.50	424,068.45	614,461.90	
6,065.00	8.10	320.70	6,001.89	-506.85	507.32	-447.73	676.63	318.57	424,078.98	614,453.64	
6,155.00	7.50	318.40	6,091.06	-516.14	516.62	-455.64	688.84	318.59	424,088.28	614,445.73	
6,244.00	6.60	318.70	6,179.38	-524.32	524.81	-462.87	699.77	318.59	424,096.47	614,438.50	
6,334.00	5.50	315.80	6,268.88	-531.29	531.78	-469.29	709.25	318.57	424,103.44	614,432.08	
6,423.00	6.40	315.50	6,357.40	-537.88	538.38	-475.74	718.46	318.53	424,110.04	614,425.63	
6,512.00	6.20	311.40	6,445.86	-544.59	545.10	-482.83	728.18	318.47	424,116.76	614,418.54	

Company:	Marathon Oil	Local Co-ordinate Reference:	Well No. 2H
Project:	Eddy County, NM(NAD 83)	TVD Reference:	Well @ 3026.01usft
Site:	Rick Deckard State 25-28-4 WA	MD Reference:	Well @ 3026.01usft
Well:	No. 2H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	MWD-91'-14265', PTB: 14330'	Database:	WellPlanner1

Survey											
MD (usft)	Inc. (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)	
6,601.00	6.60	308.60	6,534.31	-550.95	551.47	-490.43	737.99	318.35	424,123.13	614,410.94	
6,691.00	6.30	307.10	6,623.74	-557.15	557.67	-498.41	747.94	318.21	424,129.33	614,402.96	
6,780.00	7.30	306.80	6,712.11	-563.47	564.00	-506.83	758.27	318.06	424,135.66	614,394.54	
6,870.00	9.00	309.60	6,801.20	-571.38	571.92	-516.84	770.85	317.90	424,143.58	614,384.53	
6,959.00	7.60	302.70	6,889.27	-578.98	579.53	-527.15	783.42	317.71	424,151.19	614,374.22	
7,048.00	6.20	311.00	6,977.62	-585.31	585.87	-535.73	793.88	317.56	424,157.53	614,365.64	
7,139.00	6.00	313.70	7,068.11	-591.81	592.38	-542.88	803.51	317.50	424,164.04	614,358.49	
7,228.00	6.70	311.20	7,156.56	-598.43	599.01	-550.15	813.31	317.43	424,170.67	614,351.22	
7,318.00	5.90	321.50	7,246.02	-605.51	606.09	-556.98	823.15	317.42	424,177.75	614,344.39	
7,407.00	5.40	318.50	7,334.59	-612.22	612.81	-562.60	831.90	317.45	424,184.47	614,338.77	
7,497.00	4.90	309.80	7,424.22	-617.84	618.44	-568.36	839.94	317.42	424,190.10	614,333.01	
7,586.00	4.80	319.40	7,512.91	-623.10	623.70	-573.70	847.43	317.39	424,195.36	614,327.67	
7,675.00	4.90	342.80	7,601.60	-629.55	630.16	-577.25	854.59	317.51	424,201.82	614,324.12	
7,765.00	4.40	347.30	7,691.30	-636.59	637.20	-579.15	861.06	317.73	424,208.86	614,322.22	
7,854.00	3.50	345.80	7,780.09	-642.55	643.16	-580.57	866.44	317.93	424,214.82	614,320.80	
7,943.00	3.60	337.90	7,868.92	-647.77	648.38	-582.28	871.47	318.07	424,220.04	614,319.09	
8,032.00	3.80	318.60	7,957.74	-652.57	653.19	-585.28	877.05	318.14	424,224.85	614,316.09	
8,121.00	4.90	312.90	8,046.48	-657.37	657.99	-590.02	883.78	318.12	424,229.65	614,311.35	
8,210.00	4.60	308.40	8,135.17	-662.17	662.79	-595.60	891.08	318.06	424,234.45	614,305.77	
8,300.00	3.70	299.20	8,224.94	-665.82	666.45	-600.96	897.39	317.96	424,238.11	614,300.41	
8,389.00	4.20	303.50	8,313.73	-669.01	669.65	-606.19	903.27	317.85	424,241.31	614,295.18	
8,478.00	4.70	309.10	8,402.46	-673.11	673.75	-611.74	910.03	317.76	424,245.41	614,289.63	
8,568.00	3.50	294.20	8,492.23	-676.55	677.20	-617.10	916.20	317.66	424,248.86	614,284.27	
8,657.00	3.00	269.90	8,581.09	-677.66	678.31	-621.91	920.26	317.48	424,249.97	614,279.46	
8,747.00	3.20	253.10	8,670.96	-676.92	677.57	-626.67	922.94	317.24	424,249.23	614,274.70	
8,837.00	3.00	246.10	8,760.83	-675.23	675.89	-631.23	924.81	316.96	424,247.55	614,270.14	
8,926.00	3.00	247.60	8,849.71	-673.39	674.06	-635.51	926.40	316.69	424,245.72	614,265.86	

Company: Marathon Oil
Project: Eddy County, NM(NAD 83)
Site: Rick Deckard State 25-28-4 WA
Well: No. 2H
Wellbore: OH
Design: MWD-91'-14265', PTB: 14330'

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:
Database:

Well No. 2H
Well @ 3026.01usft
Well @ 3026.01usft
Grid
Minimum Curvature
WellPlanner1

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)	
9,015.00	3.00	243.10	8,938.58	-671.45	672.12	-639.74	927.90	316.41	424,243.78	614,261.63	
9,098.00	2.80	233.80	9,021.48	-669.26	669.94	-643.31	928.80	316.16	424,241.60	614,258.06	
9,188.00	7.30	202.40	9,111.12	-662.67	663.35	-647.27	926.81	315.70	424,235.01	614,254.10	
9,277.00	18.90	195.60	9,197.66	-643.49	644.17	-653.32	917.49	314.60	424,215.83	614,248.05	
9,366.00	28.10	193.10	9,279.19	-609.10	609.80	-661.96	900.03	312.65	424,181.46	614,239.41	
9,455.00	32.80	182.10	9,355.96	-564.53	565.23	-667.61	874.75	310.25	424,136.89	614,233.76	
9,545.00	40.90	173.20	9,427.97	-510.79	511.49	-665.00	838.96	307.57	424,083.15	614,236.37	
9,634.00	52.70	175.40	9,488.79	-446.35	447.04	-658.69	796.07	304.16	424,018.70	614,242.68	
9,724.00	62.30	175.40	9,537.09	-370.78	371.47	-652.61	750.93	299.65	423,943.13	614,248.76	
9,813.00	71.80	180.10	9,571.77	-289.02	289.70	-649.52	711.19	294.04	423,861.36	614,251.85	
9,903.00	83.10	182.80	9,591.30	-201.34	202.03	-651.78	682.38	287.22	423,773.69	614,249.59	
9,992.00	93.80	183.40	9,593.70	-112.63	113.32	-656.59	666.30	279.79	423,684.98	614,244.78	
10,008.00	94.10	183.60	9,592.60	-96.70	97.39	-657.56	664.74	278.42	423,669.05	614,243.81	
10,098.00	94.90	183.90	9,585.54	-7.16	7.86	-663.43	663.48	270.68	423,579.52	614,237.94	
10,187.00	92.70	182.90	9,579.64	81.48	-80.78	-668.70	673.56	263.11	423,490.88	614,232.67	
10,277.00	93.10	182.10	9,575.08	171.29	-170.58	-672.62	693.91	255.77	423,401.08	614,228.75	
10,366.00	94.20	181.40	9,569.42	260.07	-259.36	-675.33	723.42	248.99	423,312.30	614,226.04	
10,456.00	92.80	180.30	9,563.92	349.89	-349.18	-676.66	761.44	242.70	423,222.48	614,224.71	
10,545.00	93.60	181.00	9,558.96	438.74	-438.03	-677.67	806.91	237.12	423,133.63	614,223.70	
10,635.00	92.10	180.70	9,554.48	528.62	-527.91	-679.00	860.08	232.14	423,043.75	614,222.37	
10,725.00	90.80	180.10	9,552.20	618.59	-617.87	-679.63	918.51	227.72	422,953.79	614,221.74	
10,814.00	90.90	180.30	9,550.88	707.58	-706.86	-679.94	980.80	223.89	422,864.80	614,221.43	
10,903.00	90.30	180.40	9,549.95	796.57	-795.86	-680.49	1,047.11	220.53	422,775.80	614,220.88	
10,993.00	89.00	180.50	9,550.50	886.56	-885.85	-681.19	1,117.48	217.56	422,685.81	614,220.18	
11,082.00	88.80	179.80	9,552.21	975.55	-974.83	-681.42	1,189.39	214.95	422,596.83	614,219.95	
11,172.00	89.10	179.60	9,553.86	1,065.53	-1,064.82	-680.95	1,263.94	212.60	422,506.84	614,220.42	
11,261.00	89.30	179.20	9,555.10	1,154.51	-1,153.80	-680.02	1,339.29	210.51	422,417.86	614,221.35	

Company:	Marathon Oil	Local Co-ordinate Reference:	Well No. 2H
Project:	Eddy County, NM(NAD 83)	TVD Reference:	Well @ 3026.01usft
Site:	Rick Deckard State 25-28-4 WA	MD Reference:	Well @ 3026.01usft
Well:	No. 2H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	MWD-91'-14265', PTB: 14330'	Database:	WellPlanner1

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)	
11,350.00	90.90	179.70	9,554.95	1,243.51	-1,242.80	-679.17	1,416.27	208.66	422,328.86	614,222.20	
11,439.00	92.10	179.80	9,552.62	1,332.47	-1,331.76	-678.78	1,494.77	207.01	422,239.90	614,222.59	
11,528.00	90.70	179.30	9,550.44	1,421.44	-1,420.73	-678.08	1,574.25	205.51	422,150.93	614,223.29	
11,618.00	90.10	179.20	9,549.81	1,511.43	-1,510.72	-676.90	1,655.44	204.14	422,060.94	614,224.47	
11,707.00	90.00	178.30	9,549.74	1,600.40	-1,599.70	-674.96	1,736.26	202.88	421,971.96	614,226.41	
11,796.00	88.60	177.30	9,550.82	1,689.33	-1,688.62	-671.54	1,817.26	201.69	421,883.04	614,229.83	
11,885.00	88.90	177.50	9,552.77	1,778.21	-1,777.51	-667.51	1,898.71	200.58	421,794.15	614,233.86	
11,975.00	89.80	180.00	9,553.79	1,868.17	-1,867.47	-665.55	1,982.53	199.62	421,704.19	614,235.82	
12,064.00	90.10	180.70	9,553.86	1,957.17	-1,956.47	-666.09	2,066.75	198.80	421,615.19	614,235.28	
12,153.00	89.20	180.50	9,554.41	2,046.16	-2,045.47	-667.02	2,151.48	198.06	421,526.19	614,234.35	
12,243.00	90.60	180.60	9,554.56	2,136.16	-2,135.46	-667.89	2,237.47	197.37	421,436.20	614,233.48	
12,332.00	89.90	179.90	9,554.18	2,225.15	-2,224.46	-668.27	2,322.67	196.72	421,347.20	614,233.10	
12,421.00	89.10	179.50	9,554.95	2,314.15	-2,313.45	-667.81	2,407.91	196.10	421,258.21	614,233.56	
12,510.00	89.70	179.40	9,555.89	2,403.14	-2,402.44	-666.95	2,493.30	195.52	421,169.22	614,234.42	
12,599.00	90.20	180.10	9,555.96	2,492.14	-2,491.44	-666.56	2,579.07	194.98	421,080.22	614,234.81	
12,689.00	89.50	180.10	9,556.20	2,582.13	-2,581.44	-666.72	2,666.15	194.48	420,990.22	614,234.65	
12,778.00	89.00	180.80	9,557.36	2,671.12	-2,670.43	-667.42	2,752.57	194.03	420,901.23	614,233.95	
12,867.00	89.50	180.80	9,558.53	2,760.11	-2,759.41	-668.66	2,839.27	193.62	420,812.25	614,232.71	
12,957.00	90.60	180.50	9,558.45	2,850.10	-2,849.40	-669.68	2,927.04	193.23	420,722.26	614,231.69	
13,046.00	91.00	180.40	9,557.21	2,939.09	-2,938.39	-670.38	3,013.89	192.85	420,633.27	614,230.99	
13,136.00	92.30	180.70	9,554.62	3,029.05	-3,028.35	-671.25	3,101.85	192.50	420,543.31	614,230.12	
13,225.00	93.20	180.20	9,550.35	3,117.94	-3,117.24	-671.95	3,188.84	192.16	420,454.42	614,229.42	
13,314.00	91.30	180.70	9,546.85	3,206.87	-3,206.17	-672.64	3,275.97	191.85	420,365.49	614,228.73	
13,403.00	90.20	179.90	9,545.69	3,295.86	-3,295.15	-673.11	3,363.20	191.55	420,276.51	614,228.26	
13,492.00	89.10	179.60	9,546.23	3,384.85	-3,384.15	-672.72	3,450.37	191.24	420,187.51	614,228.65	
13,581.00	90.40	180.10	9,546.62	3,473.85	-3,473.15	-672.49	3,537.65	190.96	420,098.51	614,228.88	
13,670.00	92.10	181.50	9,544.68	3,562.82	-3,562.11	-673.73	3,625.27	190.71	420,009.55	614,227.64	

Company:	Marathon Oil	Local Co-ordinate Reference:	Well No. 2H
Project:	Eddy County, NM(NAD 83)	TVD Reference:	Well @ 3026.01usft
Site:	Rick Deckard State 25-28-4 WA	MD Reference:	Well @ 3026.01usft
Well:	No. 2H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	MWD-91'-14265', PTB: 14330'	Database:	WellPlanner1

Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)
13,757.00	90.30	181.40	9,542.86	3,649.77	-3,649.06	-675.93	3,711.14	190.49	419,922.60	614,225.44
13,846.00	90.40	181.40	9,542.31	3,738.74	-3,738.03	-678.11	3,799.04	190.28	419,833.63	614,223.26
13,935.00	90.50	180.80	9,541.61	3,827.72	-3,827.01	-679.81	3,886.92	190.07	419,744.65	614,221.56
14,024.00	88.50	181.20	9,542.39	3,916.70	-3,915.99	-681.37	3,974.83	189.87	419,655.67	614,220.00
14,114.00	88.30	181.00	9,544.90	4,006.65	-4,005.94	-683.09	4,063.76	189.68	419,565.72	614,218.28
14,203.00	88.60	181.30	9,547.31	4,095.60	-4,094.89	-684.88	4,151.77	189.49	419,476.77	614,216.49
14,265.00	88.00	180.50	9,549.15	4,157.57	-4,156.85	-685.85	4,213.05	189.37	419,414.81	614,215.52
Last Survey: 14265' MD										
14,330.00	88.00	180.50	9,551.42	4,222.53	-4,221.81	-686.42	4,277.25	189.23	419,349.85	614,214.95
PTB: 14330' MD										

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
509.00	508.94	-2.63	-6.32	Pro MWD First Survey: 509' MD
14,265.00	9,549.15	-4,156.85	-685.85	Last Survey: 14265' MD
14,330.00	9,551.42	-4,221.81	-686.42	PTB: 14330' MD