



**Pro Directional
Survey Report**

OCT 16 2018



30-015-45344

RECEIVED

Company: Marathon Oil
Project: Eddy County, NM

Site: Rick Deckard State 25-28-4 (2-3-6-8-9)

Well: WA #2H
Wellbore: OH
Design: Prelim Plan A

Local Co-ordinate Reference: Well WA #2H
TVD Reference: Well @ 3026.00usft (GL: 3001' + KB: 25' (PD594))
MD Reference: Well @ 3026.00usft (GL: 3001' + KB: 25' (PD594))
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: WellPlanner1

Project	Eddy County, NM		
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	Rick Deckard State 25-28-4 (2-3-6-8-9)		
Site Position:		Northing:	423,513.57 usft
From:	Map	Easting:	573,687.59 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32.164132
		Longitude:	-104.095203
		Grid Convergence:	0.13 °

Well	WA #2H		
Well Position	+N/-S	0.00 usft	Northing: 423,513.53 usft
	+E/-W	0.00 usft	Easting: 573,717.61 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft
		Latitude:	32.164131
		Longitude:	-104.095106
		Ground Level:	3,001.00 usft

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination
	HDGM	5/7/2018	(°) 7.22
			Dip Angle (°) 59.92
			Field Strength (nT) 47,984.50

Design	Prelim Plan A		
Audit Notes:			
Version:	Phase:	PLAN	Tie On Depth: 0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.00	0.00	0.00
			Direction (°) 180.06

Survey Tool Program	Date 10/12/2018		
From	To	Survey (Wellbore)	Tool Name
(usft)	(usft)		
0.00	1,850.00	Prelim Plan A (OH)	MWD+IFR1
1,850.00	5,400.00	Prelim Plan A (OH)	MWD+IFR1
5,400.00	10,000.00	Prelim Plan A (OH)	MWD+IFR1
10,000.00	14,260.44	Prelim Plan A (OH)	MWD+IFR1
			Description
			OWSG MWD + IFR1
			OWSG MWD + IFR1
			OWSG MWD + IFR1
			OWSG MWD + IFR1

Planned Survey									
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Vertical	Dogleg	Build	Turn
Depth	(°)	(°)	Depth	(usft)	(usft)	Section	Rate	Rate	Rate
(usft)			(usft)			(usft)	(°/100usft)	(°/100usft)	(°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
[RickDeckard#2H]FTP									
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00

Company: Marathon Oil
Project: Eddy County, NM
Site: Rick Deckard State 25-28-4 (2-3-6-8-9)
Well: WA #2H
Wellbore: OH
Design: Prelim Plan A

Local Co-ordinate Reference: Well WA #2H
TVD Reference: Well @ 3026.00usft (GL: 3001' + KB: 25' (PD594))
MD Reference: Well @ 3026.00usft (GL: 3001' + KB: 25' (PD594))
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: WellPlanner1

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)
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	2.00	316.62	1,899.98	1.27	-1.20	-1.27	2.00	2.00	0.00
2,000.00	4.00	316.62	1,999.84	5.07	-4.79	-5.07	2.00	2.00	0.00
2,100.00	6.00	316.62	2,099.45	11.41	-10.78	-11.40	2.00	2.00	0.00
2,200.00	8.00	316.62	2,198.70	20.26	-19.15	-20.24	2.00	2.00	0.00
2,300.00	10.00	316.62	2,297.47	31.63	-29.89	-31.60	2.00	2.00	0.00
2,400.00	10.00	316.62	2,395.95	44.26	-41.82	-44.21	0.00	0.00	0.00
2,500.00	10.00	316.62	2,494.43	56.88	-53.74	-56.82	0.00	0.00	0.00
2,600.00	10.00	316.62	2,592.91	69.50	-65.67	-69.43	0.00	0.00	0.00
2,700.00	10.00	316.62	2,691.39	82.12	-77.60	-82.04	0.00	0.00	0.00
2,800.00	10.00	316.62	2,789.87	94.74	-89.52	-94.65	0.00	0.00	0.00
2,900.00	10.00	316.62	2,888.35	107.36	-101.45	-107.26	0.00	0.00	0.00
3,000.00	10.00	316.62	2,986.83	119.98	-113.38	-119.87	0.00	0.00	0.00
3,100.00	10.00	316.62	3,085.31	132.61	-125.30	-132.47	0.00	0.00	0.00
3,200.00	10.00	316.62	3,183.79	145.23	-137.23	-145.08	0.00	0.00	0.00
3,300.00	10.00	316.62	3,282.27	157.85	-149.15	-157.69	0.00	0.00	0.00
3,400.00	10.00	316.62	3,380.75	170.47	-161.08	-170.30	0.00	0.00	0.00
3,500.00	10.00	316.62	3,479.23	183.09	-173.01	-182.91	0.00	0.00	0.00
3,600.00	10.00	316.62	3,577.72	195.71	-184.93	-195.52	0.00	0.00	0.00
3,700.00	10.00	316.62	3,676.20	208.34	-196.86	-208.13	0.00	0.00	0.00
3,800.00	10.00	316.62	3,774.68	220.96	-208.78	-220.74	0.00	0.00	0.00
3,900.00	10.00	316.62	3,873.16	233.58	-220.71	-233.35	0.00	0.00	0.00
4,000.00	10.00	316.62	3,971.64	246.20	-232.64	-245.96	0.00	0.00	0.00
4,100.00	10.00	316.62	4,070.12	258.82	-244.56	-258.56	0.00	0.00	0.00
4,200.00	10.00	316.62	4,168.60	271.44	-256.49	-271.17	0.00	0.00	0.00
4,300.00	10.00	316.62	4,267.08	284.06	-268.42	-283.78	0.00	0.00	0.00
4,400.00	10.00	316.62	4,365.56	296.69	-280.34	-296.39	0.00	0.00	0.00
4,500.00	10.00	316.62	4,464.04	309.31	-292.27	-309.00	0.00	0.00	0.00
4,600.00	10.00	316.62	4,562.52	321.93	-304.19	-321.61	0.00	0.00	0.00

Company: Marathon Oil
Project: Eddy County, NM

Site: Rick Deckard State 25-28-4 (2-3-6-8-9)

Well: WA #2H
Wellbore: OH
Design: Prelim Plan A

Local Co-ordinate Reference: Well WA #2H
TVD Reference: Well @ 3026.00usft (GL: 3001' + KB: 25' (PD594))
MD Reference: Well @ 3026.00usft (GL: 3001' + KB: 25' (PD594))
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: WellPlanner1

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)
4,700.00	10.00	316.62	4,661.00	334.55	-316.12	-334.22	0.00	0.00	0.00
4,800.00	10.00	316.62	4,759.48	347.17	-328.05	-346.83	0.00	0.00	0.00
4,900.00	10.00	316.62	4,857.97	359.79	-339.97	-359.44	0.00	0.00	0.00
5,000.00	10.00	316.62	4,956.45	372.41	-351.90	-372.05	0.00	0.00	0.00
5,100.00	10.00	316.62	5,054.93	385.04	-363.83	-384.65	0.00	0.00	0.00
5,200.00	10.00	316.62	5,153.41	397.66	-375.75	-397.26	0.00	0.00	0.00
5,300.00	10.00	316.62	5,251.89	410.28	-387.68	-409.87	0.00	0.00	0.00
5,400.00	10.00	316.62	5,350.37	422.90	-399.60	-422.48	0.00	0.00	0.00
5,500.00	10.00	316.62	5,448.85	435.52	-411.53	-435.09	0.00	0.00	0.00
5,600.00	10.00	316.62	5,547.33	448.14	-423.46	-447.70	0.00	0.00	0.00
5,700.00	10.00	316.62	5,645.81	460.77	-435.38	-460.31	0.00	0.00	0.00
5,800.00	10.00	316.62	5,744.29	473.39	-447.31	-472.92	0.00	0.00	0.00
5,900.00	10.00	316.62	5,842.77	486.01	-459.24	-485.53	0.00	0.00	0.00
6,000.00	10.00	316.62	5,941.25	498.63	-471.16	-498.14	0.00	0.00	0.00
6,100.00	10.00	316.62	6,039.73	511.25	-483.09	-510.74	0.00	0.00	0.00
6,200.00	10.00	316.62	6,138.22	523.87	-495.01	-523.35	0.00	0.00	0.00
6,300.00	10.00	316.62	6,236.70	536.49	-506.94	-535.96	0.00	0.00	0.00
6,400.00	10.00	316.62	6,335.18	549.12	-518.87	-548.57	0.00	0.00	0.00
6,500.00	10.00	316.62	6,433.66	561.74	-530.79	-561.18	0.00	0.00	0.00
6,600.00	10.00	316.62	6,532.14	574.36	-542.72	-573.79	0.00	0.00	0.00
6,700.00	10.00	316.62	6,630.62	586.98	-554.65	-586.40	0.00	0.00	0.00
6,800.00	10.00	316.62	6,729.10	599.60	-566.57	-599.01	0.00	0.00	0.00
6,900.00	10.00	316.62	6,827.58	612.22	-578.50	-611.62	0.00	0.00	0.00
7,000.00	10.00	316.62	6,926.06	624.84	-590.42	-624.23	0.00	0.00	0.00
7,100.00	10.00	316.62	7,024.54	637.47	-602.35	-636.83	0.00	0.00	0.00
7,200.00	10.00	316.62	7,123.02	650.09	-614.28	-649.44	0.00	0.00	0.00
7,300.00	10.00	316.62	7,221.50	662.71	-626.20	-662.05	0.00	0.00	0.00
7,400.00	10.00	316.62	7,319.99	675.33	-638.13	-674.66	0.00	0.00	0.00
7,498.61	10.00	316.62	7,417.09	687.78	-649.89	-687.09	0.00	0.00	0.00
7,500.00	9.97	316.62	7,418.47	687.95	-650.05	-687.27	2.00	-2.00	0.00
7,600.00	7.97	316.62	7,517.24	699.29	-660.77	-698.59	2.00	-2.00	0.00
7,700.00	5.97	316.62	7,616.49	708.11	-669.10	-707.41	2.00	-2.00	0.00
7,800.00	3.97	316.62	7,716.11	714.41	-675.05	-713.70	2.00	-2.00	0.00
7,900.00	1.97	316.62	7,815.97	718.18	-678.61	-717.47	2.00	-2.00	0.00
7,998.61	0.00	0.00	7,914.56	719.41	-679.78	-718.70	2.00	-2.00	0.00
8,000.00	0.00	0.00	7,915.95	719.41	-679.78	-718.70	0.00	0.00	0.00
8,100.00	0.00	0.00	8,015.95	719.41	-679.78	-718.70	0.00	0.00	0.00
8,200.00	0.00	0.00	8,115.95	719.41	-679.78	-718.70	0.00	0.00	0.00
8,300.00	0.00	0.00	8,215.95	719.41	-679.78	-718.70	0.00	0.00	0.00
8,400.00	0.00	0.00	8,315.95	719.41	-679.78	-718.70	0.00	0.00	0.00
8,500.00	0.00	0.00	8,415.95	719.41	-679.78	-718.70	0.00	0.00	0.00
8,600.00	0.00	0.00	8,515.95	719.41	-679.78	-718.70	0.00	0.00	0.00

Company: Marathon Oil
Project: Eddy County, NM

Site: Rick Deckard State 25-28-4 (2-3-6-8-9)

Well: WA #2H
Wellbore: OH
Design: Prelim Plan A

Local Co-ordinate Reference: Well WA #2H
TVD Reference: Well @ 3026.00usft (GL: 3001' + KB: 25' (PD594))
MD Reference: Well @ 3026.00usft (GL: 3001' + KB: 25' (PD594))
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: WellPlanner1

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)
8,700.00	0.00	0.00	8,615.95	719.41	-679.78	-718.70	0.00	0.00	0.00
8,800.00	0.00	0.00	8,715.95	719.41	-679.78	-718.70	0.00	0.00	0.00
8,900.00	0.00	0.00	8,815.95	719.41	-679.78	-718.70	0.00	0.00	0.00
8,992.05	0.00	0.00	8,908.00	719.41	-679.78	-718.70	0.00	0.00	0.00
[RickDeckard#2H]KOP									
9,000.00	0.80	180.06	8,915.95	719.35	-679.78	-718.64	10.00	10.00	0.00
9,050.00	5.80	180.06	8,965.85	716.48	-679.78	-715.77	10.00	10.00	0.00
9,100.00	10.80	180.06	9,015.31	709.27	-679.79	-708.56	10.00	10.00	0.00
9,150.00	15.80	180.06	9,063.96	697.78	-679.80	-697.06	10.00	10.00	0.00
9,200.00	20.80	180.06	9,111.42	682.08	-679.82	-681.37	10.00	10.00	0.00
9,250.00	25.80	180.06	9,157.33	662.32	-679.84	-661.61	10.00	10.00	0.00
9,300.00	30.80	180.06	9,201.34	638.62	-679.86	-637.91	10.00	10.00	0.00
9,350.00	35.80	180.06	9,243.12	611.19	-679.89	-610.47	10.00	10.00	0.00
9,400.00	40.80	180.06	9,282.35	580.21	-679.92	-579.50	10.00	10.00	0.00
9,450.00	45.80	180.06	9,318.73	545.93	-679.95	-545.22	10.00	10.00	0.00
9,500.00	50.80	180.06	9,351.98	508.62	-679.99	-507.90	10.00	10.00	0.00
9,550.00	55.80	180.06	9,381.86	468.54	-680.03	-467.83	10.00	10.00	0.00
9,600.00	60.80	180.06	9,408.12	426.02	-680.07	-425.30	10.00	10.00	0.00
9,650.00	65.80	180.06	9,430.59	381.36	-680.12	-380.65	10.00	10.00	0.00
9,700.00	70.80	180.06	9,449.07	334.92	-680.17	-334.21	10.00	10.00	0.00
9,750.00	75.80	180.06	9,463.44	287.05	-680.21	-286.34	10.00	10.00	0.00
9,800.00	80.80	180.06	9,473.58	238.10	-680.26	-237.39	10.00	10.00	0.00
9,850.00	85.80	180.06	9,479.42	188.46	-680.31	-187.75	10.00	10.00	0.00
9,892.04	90.00	180.06	9,480.96	146.46	-680.36	-145.75	10.00	10.00	0.00
9,900.00	90.00	180.06	9,480.96	138.50	-680.36	-137.79	0.00	0.00	0.00
10,000.00	90.00	180.06	9,480.96	38.50	-680.46	-37.79	0.00	0.00	0.00
10,100.00	90.00	180.06	9,480.96	-61.50	-680.56	62.21	0.00	0.00	0.00
10,200.00	90.00	180.06	9,480.96	-161.50	-680.67	162.21	0.00	0.00	0.00
10,300.00	90.00	180.06	9,480.96	-261.50	-680.77	262.21	0.00	0.00	0.00
10,400.00	90.00	180.06	9,480.96	-361.50	-680.87	362.21	0.00	0.00	0.00
10,500.00	90.00	180.06	9,480.96	-461.50	-680.97	462.21	0.00	0.00	0.00
10,600.00	90.00	180.06	9,480.96	-561.50	-681.07	562.21	0.00	0.00	0.00
10,700.00	90.00	180.06	9,480.97	-661.50	-681.17	662.21	0.00	0.00	0.00
10,800.00	90.00	180.06	9,480.97	-761.50	-681.27	762.21	0.00	0.00	0.00
10,900.00	90.00	180.06	9,480.97	-861.50	-681.37	862.21	0.00	0.00	0.00
11,000.00	90.00	180.06	9,480.97	-961.50	-681.47	962.21	0.00	0.00	0.00
11,100.00	90.00	180.06	9,480.97	-1,061.50	-681.57	1,062.21	0.00	0.00	0.00
11,200.00	90.00	180.06	9,480.97	-1,161.50	-681.67	1,162.21	0.00	0.00	0.00
11,300.00	90.00	180.06	9,480.97	-1,261.50	-681.77	1,262.21	0.00	0.00	0.00
11,400.00	90.00	180.06	9,480.97	-1,361.50	-681.87	1,362.21	0.00	0.00	0.00
11,500.00	90.00	180.06	9,480.97	-1,461.50	-681.97	1,462.21	0.00	0.00	0.00
11,600.00	90.00	180.06	9,480.97	-1,561.50	-682.07	1,562.21	0.00	0.00	0.00



Pro Directional Survey Report



Company: Marathon Oil
Project: Eddy County, NM
Site: Rick Deckard State 25-28-4 (2-3-6-8-9)
Well: WA #2H
Wellbore: OH
Design: Prelim Plan A

Local Co-ordinate Reference: Well WA #2H
TVD Reference: Well @ 3026.00usft (GL: 3001' + KB: 25' (PD594))
MD Reference: Well @ 3026.00usft (GL: 3001' + KB: 25' (PD594))
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: WellPlanner1

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)
11,700.00	90.00	180.06	9,480.98	-1,661.50	-682.17	1,662.21	0.00	0.00	0.00
11,800.00	90.00	180.06	9,480.98	-1,761.50	-682.27	1,762.21	0.00	0.00	0.00
11,900.00	90.00	180.06	9,480.98	-1,861.50	-682.37	1,862.21	0.00	0.00	0.00
12,000.00	90.00	180.06	9,480.98	-1,961.50	-682.47	1,962.21	0.00	0.00	0.00
12,100.00	90.00	180.06	9,480.98	-2,061.50	-682.57	2,062.21	0.00	0.00	0.00
12,200.00	90.00	180.06	9,480.98	-2,161.50	-682.67	2,162.21	0.00	0.00	0.00
12,300.00	90.00	180.06	9,480.98	-2,261.50	-682.78	2,262.21	0.00	0.00	0.00
12,400.00	90.00	180.06	9,480.98	-2,361.50	-682.88	2,362.21	0.00	0.00	0.00
12,500.00	90.00	180.06	9,480.98	-2,461.50	-682.98	2,462.21	0.00	0.00	0.00
12,600.00	90.00	180.06	9,480.98	-2,561.50	-683.08	2,562.21	0.00	0.00	0.00
12,700.00	90.00	180.06	9,480.99	-2,661.50	-683.18	2,662.21	0.00	0.00	0.00
12,800.00	90.00	180.06	9,480.99	-2,761.50	-683.28	2,762.21	0.00	0.00	0.00
12,900.00	90.00	180.06	9,480.99	-2,861.50	-683.38	2,862.21	0.00	0.00	0.00
13,000.00	90.00	180.06	9,480.99	-2,961.50	-683.48	2,962.21	0.00	0.00	0.00
13,100.00	90.00	180.06	9,480.99	-3,061.50	-683.58	3,062.21	0.00	0.00	0.00
13,200.00	90.00	180.06	9,480.99	-3,161.50	-683.68	3,162.21	0.00	0.00	0.00
13,300.00	90.00	180.06	9,480.99	-3,261.50	-683.78	3,262.21	0.00	0.00	0.00
13,400.00	90.00	180.06	9,480.99	-3,361.50	-683.88	3,362.21	0.00	0.00	0.00
13,500.00	90.00	180.06	9,480.99	-3,461.50	-683.98	3,462.21	0.00	0.00	0.00
13,600.00	90.00	180.06	9,480.99	-3,561.50	-684.08	3,562.21	0.00	0.00	0.00
13,700.00	90.00	180.06	9,481.00	-3,661.50	-684.18	3,662.21	0.00	0.00	0.00
13,800.00	90.00	180.06	9,481.00	-3,761.50	-684.28	3,762.21	0.00	0.00	0.00
13,900.00	90.00	180.06	9,481.00	-3,861.50	-684.38	3,862.21	0.00	0.00	0.00
14,000.00	90.00	180.06	9,481.00	-3,961.50	-684.48	3,962.21	0.00	0.00	0.00
14,100.00	90.00	180.06	9,481.00	-4,061.50	-684.58	4,062.21	0.00	0.00	0.00
14,200.00	90.00	180.06	9,481.00	-4,161.50	-684.68	4,162.21	0.00	0.00	0.00
14,215.44	90.00	180.06	9,481.00	-4,176.94	-684.70	4,177.65	0.00	0.00	0.00
[RickDeckard#2H]LTP/BHL									
14,260.44	90.00	180.06	9,481.00	-4,221.94	-684.75	4,222.65	0.00	0.00	0.00

Company: Marathon Oil
Project: Eddy County, NM
Site: Rick Deckard State 25-28-4 (2-3-6-8-9)
Well: WA #2H
Wellbore: OH
Design: Prelim Plan A

Local Co-ordinate Reference: Well WA #2H
TVD Reference: Well @ 3026.00usft (GL: 3001' + KB: 25' (PD594))
MD Reference: Well @ 3026.00usft (GL: 3001' + KB: 25' (PD594))
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: WellPlanner1

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
[RickDeckard#2H]FTP - plan misses target center by 837.82usft at 0.00usft MD (0.00 TVD, 0.00 N, 0.00 E) - Point	0.00	0.00	0.00	489.41	-680.01	424,002.94	573,037.60	32.165481	-104.097300
[RickDeckard#2H]KOP - plan hits target center - Point	0.00	0.00	8,908.00	719.41	-679.78	424,232.94	573,037.83	32.166113	-104.097297
[RickDeckard#2H]LTP/B - plan hits target center - Point	0.00	0.00	9,481.00	-4,176.94	-684.70	419,336.59	573,032.91	32.152653	-104.097348

Checked By: _____ Approved By: _____ Date: _____

Marathon Oil Corporation

Marathon Oil
Eddy County, NM
Rick Deckard State 25-28-4 (2-3-6-8-9)
WA #2H
Prelim Plan A
GL: 3001' + KB: 25' (PD594)

US State Plane 1983 (E-rect solution)
NAD 1983 (NADCON CONUS)
Datum: 1986
New Mexico East 3001
Mean Sea Level

RKB Elevation: Well @ 3028.00 unit (GL: 3001' + KB: 25' (PD594))

N/S	E/W	Northing	Easting	Latitude	Longitude	Spot
0.00	0.00	423513.53	573717.81	32.164131	-104.065105	

SECTION DETAILS

Sec	MD	Inc	API	TVD	N/S	E/W	Diag	V-Sect
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	1800.00	0.00	0.00	1800.00	0.00	0.00	0.00	0.00
3	2300.00	10.00	316.62	2287.17	31.63	-29.89	2.00	-31.60
4	7498.61	10.00	316.62	7417.09	687.78	-649.99	0.00	-687.09
5	7998.61	0.00	0.00	7914.56	719.41	-679.78	2.00	-718.70
6	8992.05	0.00	0.00	8906.00	719.41	-679.78	0.00	-718.70
7	9892.04	90.00	180.06	9480.96	148.46	-580.36	10.00	-145.75
8	14215.44	90.00	180.06	9481.00	-4176.94	-584.70	0.00	4177.65
9	14260.44	90.00	180.06	9481.00	-4221.94	-584.75	0.00	4222.65

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	N/S	E/W	Northing	Easting
[RickDeckard#2H]FTP	0.00	489.41	-680.01	424002.94	573037.50
[RickDeckard#2H]KOP	8908.00	719.41	-679.78	424232.94	573037.83
[RickDeckard#2H]LTP/BHL	9481.00	-4176.94	-684.70	419336.59	573032.91

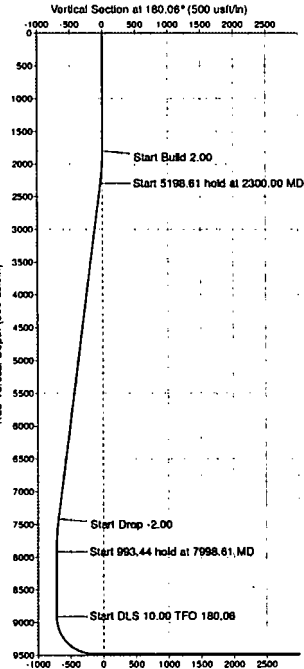


Azimuths to Grid North
True North: -5.13°
Magnetic North: 7.08°
Magnetic Field
Strength: 47984.5nT
Dip Angle: 66.92°
Date: 3/7/2016
Model: HDGM

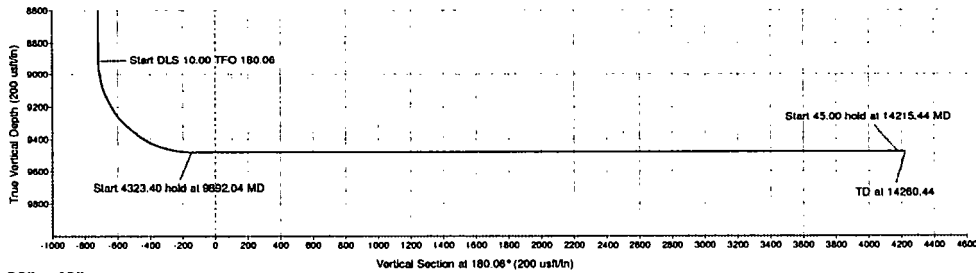
Azimuth Corrections

Total Magnetic Corr. (M to G): 7.08°

Declination (M to T): 7.22° East



Target Line: 9481' TVD @ 0° VS: 90° INC



36" x 48"

