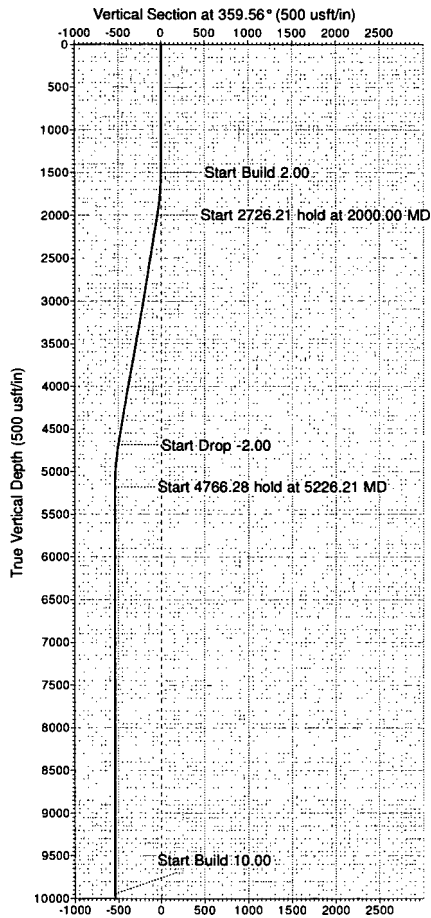




US State Plane 1927 (Exact solution)
NAD 1927 (NADCON CONUS)
Clarke 1866
New Mexico East 3001
Mean Sea Level

RKB Elevation: well @ 3546.50usft

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	441863.15	770170.21	32.211781	-103.459803	

SECTION DETAILS

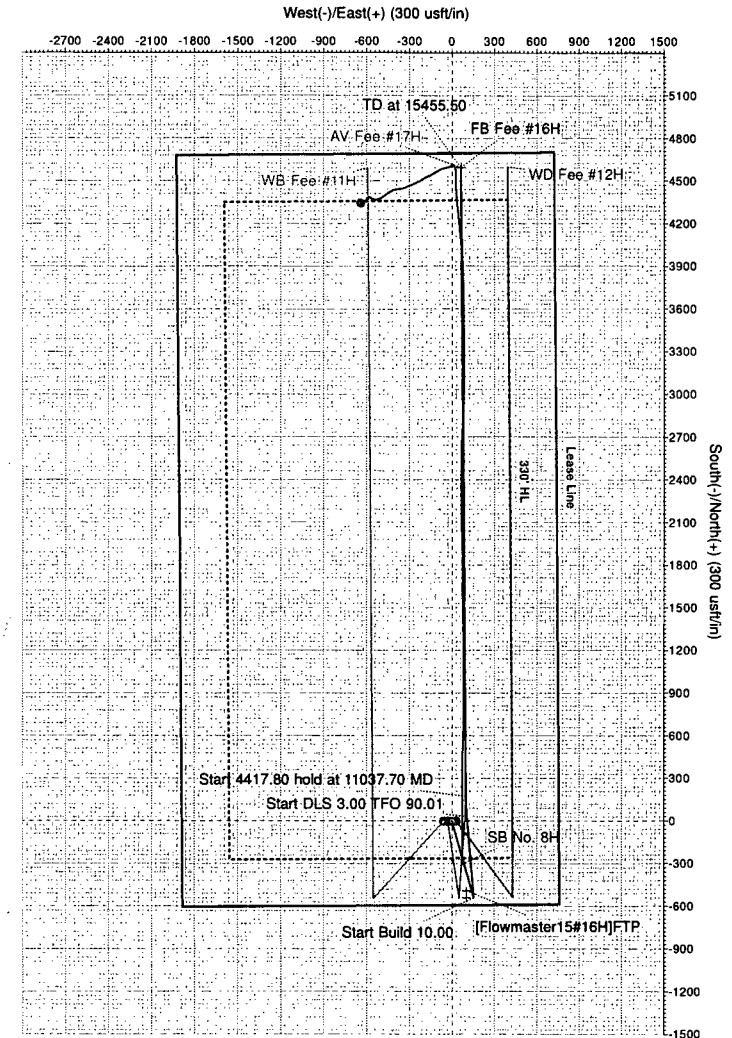
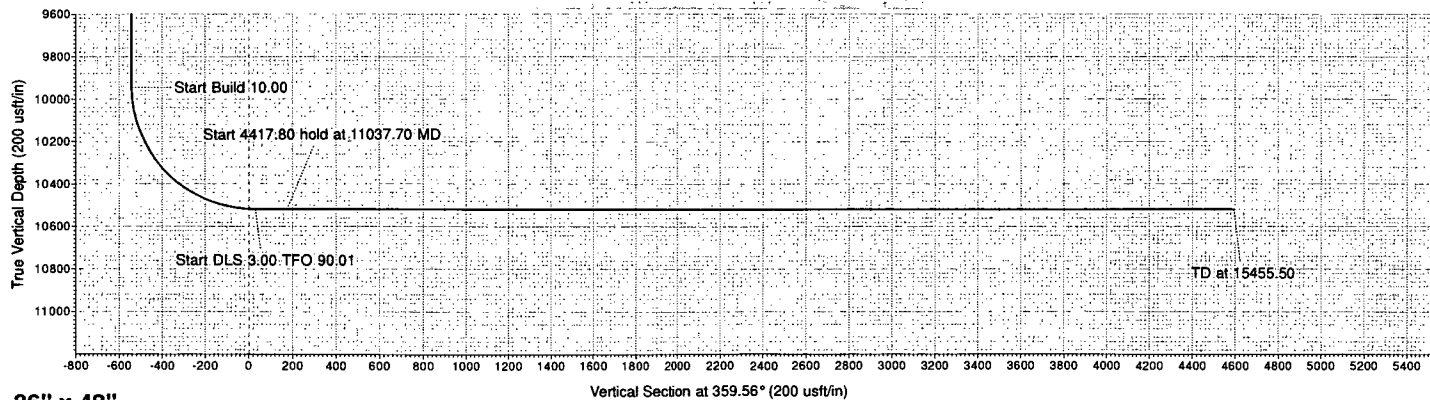
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	Vsect
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	1500.00	0.00	0.00	1500.00	0.00	0.00	0.00	0.00
3	2000.00	10.00	164.48	1997.47	-41.93	11.65	2.00	-42.02
4	4726.21	10.00	164.48	4682.26	-498.07	138.35	0.00	-499.11
5	5226.21	0.00	0.00	5179.72	-540.00	150.00	2.00	-541.14
6	9992.49	0.00	0.00	9946.00	-540.00	150.00	0.00	-541.14
7	10892.49	90.00	355.20	10518.96	30.95	102.06	10.00	30.16
8	11037.70	90.00	359.56	10518.96	175.97	95.42	3.00	175.24
9	15455.50	90.00	359.56	10519.00	4593.64	61.21	0.00	4593.03

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting
[Flowmaster15#16H]FTP	0.00	490.14	99.94	441373.01	770270.15
[Flowmaster15#16H]KOP	9946.00	-540.13	100.32	441323.02	770270.53
[Flowmaster15#16H]LTP/BHL	10519.00	4593.64	61.21	446456.79	770231.42



Target Line: 10519' TVD @ 0° VS, 90° INC



Azimuths to Grid North
True North: -0.47°
Magnetic North: 6.22°

Magnetic Field
Strength: 47939.1nT
Dip Angle: 59.90°
Date: 12/17/2018
Model: HDGM

Azimuth Corrections

Total Magnetic Corr. (M to G): 6.22°

Declination (M to T): 6.68° East

Company:	Marathon Oil	Local Co-ordinate Reference:	Well FB Fee #16H
Project:	Lea County, NM	TVD Reference:	well @ 3546.50usft
Site:	Flowmaster 15 (11-12-16-17)	MD Reference:	well @ 3546.50usft
Well:	FB Fee #16H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Prelim Plan A	Database:	WellPlanner1

Project	Lea 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	Flowmaster 15 (11-12-16-17)		
Site Position:		Northing:	441,863.44 usft
From:	Map	Easting:	770,110.06 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32.211783
		Longitude:	-103.459997
		Grid Convergence:	0.47 °

Well	FB Fee #16H		
Well Position	+N/-S	0.00 usft	Northing: 441,863.15 usft
	+E/-W	0.00 usft	Easting: 770,170.21 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft
		Latitude:	32.211781
		Longitude:	-103.459803
		Ground Level:	3,520.00 usft

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination
	HDGM	12/17/2018	(°) 6.68
			Dip Angle (°) 59.90
			Field Strength (nT) 47,939.10

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 (°) 359.56

Survey Tool Program	Date 12/17/2018		
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	15,455.50	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
[Flowmaster15#16H]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
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

Company:	Marathon Oil	Local Co-ordinate Reference:	Well FB Fee #16H
Project:	Lea County, NM	TVD Reference:	well @ 3546.50usft
Site:	Flowmaster 15 (11-12-16-17)	MD Reference:	well @ 3546.50usft
Well:	FB Fee #16H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Prelim Plan A	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)
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	2.00	164.48	1,599.98	-1.68	0.47	-1.69	2.00	2.00	0.00
1,700.00	4.00	164.48	1,699.84	-6.72	1.87	-6.74	2.00	2.00	0.00
1,800.00	6.00	164.48	1,799.45	-15.12	4.20	-15.15	2.00	2.00	0.00
1,900.00	8.00	164.48	1,898.70	-26.86	7.46	-26.92	2.00	2.00	0.00
2,000.00	10.00	164.48	1,997.47	-41.93	11.65	-42.02	2.00	2.00	0.00
2,100.00	10.00	164.48	2,095.95	-58.67	16.30	-58.79	0.00	0.00	0.00
2,200.00	10.00	164.48	2,194.43	-75.40	20.94	-75.56	0.00	0.00	0.00
2,300.00	10.00	164.48	2,292.91	-92.13	25.59	-92.32	0.00	0.00	0.00
2,400.00	10.00	164.48	2,391.39	-108.86	30.24	-109.09	0.00	0.00	0.00
2,500.00	10.00	164.48	2,489.87	-125.59	34.89	-125.86	0.00	0.00	0.00
2,600.00	10.00	164.48	2,588.35	-142.32	39.53	-142.62	0.00	0.00	0.00
2,700.00	10.00	164.48	2,686.83	-159.05	44.18	-159.39	0.00	0.00	0.00
2,800.00	10.00	164.48	2,785.31	-175.79	48.83	-176.16	0.00	0.00	0.00
2,900.00	10.00	164.48	2,883.79	-192.52	53.48	-192.92	0.00	0.00	0.00
3,000.00	10.00	164.48	2,982.27	-209.25	58.12	-209.69	0.00	0.00	0.00
3,100.00	10.00	164.48	3,080.75	-225.98	62.77	-226.45	0.00	0.00	0.00
3,200.00	10.00	164.48	3,179.23	-242.71	67.42	-243.22	0.00	0.00	0.00
3,300.00	10.00	164.48	3,277.72	-259.44	72.07	-259.99	0.00	0.00	0.00
3,400.00	10.00	164.48	3,376.20	-276.17	76.71	-276.75	0.00	0.00	0.00
3,500.00	10.00	164.48	3,474.68	-292.90	81.36	-293.52	0.00	0.00	0.00
3,600.00	10.00	164.48	3,573.16	-309.64	86.01	-310.29	0.00	0.00	0.00
3,700.00	10.00	164.48	3,671.64	-326.37	90.66	-327.05	0.00	0.00	0.00
3,800.00	10.00	164.48	3,770.12	-343.10	95.31	-343.82	0.00	0.00	0.00
3,900.00	10.00	164.48	3,868.60	-359.83	99.95	-360.59	0.00	0.00	0.00
4,000.00	10.00	164.48	3,967.08	-376.56	104.60	-377.35	0.00	0.00	0.00
4,100.00	10.00	164.48	4,065.56	-393.29	109.25	-394.12	0.00	0.00	0.00
4,200.00	10.00	164.48	4,164.04	-410.02	113.90	-410.89	0.00	0.00	0.00
4,300.00	10.00	164.48	4,262.52	-426.75	118.54	-427.65	0.00	0.00	0.00
4,400.00	10.00	164.48	4,361.00	-443.49	123.19	-444.42	0.00	0.00	0.00
4,500.00	10.00	164.48	4,459.48	-460.22	127.84	-461.19	0.00	0.00	0.00
4,600.00	10.00	164.48	4,557.97	-476.95	132.49	-477.95	0.00	0.00	0.00
4,700.00	10.00	164.48	4,656.45	-493.68	137.13	-494.72	0.00	0.00	0.00
4,726.21	10.00	164.48	4,682.26	-498.07	138.35	-499.11	0.00	0.00	0.00
4,800.00	8.52	164.48	4,755.08	-509.51	141.53	-510.58	2.00	-2.00	0.00

Company:	Marathon Oil	Local Co-ordinate Reference:	Well FB Fee #16H
Project:	Lea County, NM	TVD Reference:	well @ 3546.50usft
Site:	Flowmaster 15 (11-12-16-17)	MD Reference:	well @ 3546.50usft
Well:	FB Fee #16H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Prelim Plan A	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)
4,900.00	6.52	164.48	4,854.22	-522.12	145.03	-523.22	2.00	-2.00	0.00
5,000.00	4.52	164.48	4,953.75	-531.40	147.61	-532.52	2.00	-2.00	0.00
5,100.00	2.52	164.48	5,053.55	-537.32	149.26	-538.45	2.00	-2.00	0.00
5,200.00	0.52	164.48	5,153.51	-539.88	149.97	-541.02	2.00	-2.00	0.00
5,226.21	0.00	0.00	5,179.72	-540.00	150.00	-541.14	2.00	-2.00	0.00
5,300.00	0.00	0.00	5,253.51	-540.00	150.00	-541.14	0.00	0.00	0.00
5,400.00	0.00	0.00	5,353.51	-540.00	150.00	-541.14	0.00	0.00	0.00
5,500.00	0.00	0.00	5,453.51	-540.00	150.00	-541.14	0.00	0.00	0.00
5,600.00	0.00	0.00	5,553.51	-540.00	150.00	-541.14	0.00	0.00	0.00
5,700.00	0.00	0.00	5,653.51	-540.00	150.00	-541.14	0.00	0.00	0.00
5,800.00	0.00	0.00	5,753.51	-540.00	150.00	-541.14	0.00	0.00	0.00
5,900.00	0.00	0.00	5,853.51	-540.00	150.00	-541.14	0.00	0.00	0.00
6,000.00	0.00	0.00	5,953.51	-540.00	150.00	-541.14	0.00	0.00	0.00
6,100.00	0.00	0.00	6,053.51	-540.00	150.00	-541.14	0.00	0.00	0.00
6,200.00	0.00	0.00	6,153.51	-540.00	150.00	-541.14	0.00	0.00	0.00
6,300.00	0.00	0.00	6,253.51	-540.00	150.00	-541.14	0.00	0.00	0.00
6,400.00	0.00	0.00	6,353.51	-540.00	150.00	-541.14	0.00	0.00	0.00
6,500.00	0.00	0.00	6,453.51	-540.00	150.00	-541.14	0.00	0.00	0.00
6,600.00	0.00	0.00	6,553.51	-540.00	150.00	-541.14	0.00	0.00	0.00
6,700.00	0.00	0.00	6,653.51	-540.00	150.00	-541.14	0.00	0.00	0.00
6,800.00	0.00	0.00	6,753.51	-540.00	150.00	-541.14	0.00	0.00	0.00
6,900.00	0.00	0.00	6,853.51	-540.00	150.00	-541.14	0.00	0.00	0.00
7,000.00	0.00	0.00	6,953.51	-540.00	150.00	-541.14	0.00	0.00	0.00
7,100.00	0.00	0.00	7,053.51	-540.00	150.00	-541.14	0.00	0.00	0.00
7,200.00	0.00	0.00	7,153.51	-540.00	150.00	-541.14	0.00	0.00	0.00
7,300.00	0.00	0.00	7,253.51	-540.00	150.00	-541.14	0.00	0.00	0.00
7,400.00	0.00	0.00	7,353.51	-540.00	150.00	-541.14	0.00	0.00	0.00
7,500.00	0.00	0.00	7,453.51	-540.00	150.00	-541.14	0.00	0.00	0.00
7,600.00	0.00	0.00	7,553.51	-540.00	150.00	-541.14	0.00	0.00	0.00
7,700.00	0.00	0.00	7,653.51	-540.00	150.00	-541.14	0.00	0.00	0.00
7,800.00	0.00	0.00	7,753.51	-540.00	150.00	-541.14	0.00	0.00	0.00
7,900.00	0.00	0.00	7,853.51	-540.00	150.00	-541.14	0.00	0.00	0.00
8,000.00	0.00	0.00	7,953.51	-540.00	150.00	-541.14	0.00	0.00	0.00
8,100.00	0.00	0.00	8,053.51	-540.00	150.00	-541.14	0.00	0.00	0.00
8,200.00	0.00	0.00	8,153.51	-540.00	150.00	-541.14	0.00	0.00	0.00
8,300.00	0.00	0.00	8,253.51	-540.00	150.00	-541.14	0.00	0.00	0.00
8,400.00	0.00	0.00	8,353.51	-540.00	150.00	-541.14	0.00	0.00	0.00
8,500.00	0.00	0.00	8,453.51	-540.00	150.00	-541.14	0.00	0.00	0.00
8,600.00	0.00	0.00	8,553.51	-540.00	150.00	-541.14	0.00	0.00	0.00
8,700.00	0.00	0.00	8,653.51	-540.00	150.00	-541.14	0.00	0.00	0.00
8,800.00	0.00	0.00	8,753.51	-540.00	150.00	-541.14	0.00	0.00	0.00
8,900.00	0.00	0.00	8,853.51	-540.00	150.00	-541.14	0.00	0.00	0.00
9,000.00	0.00	0.00	8,953.51	-540.00	150.00	-541.14	0.00	0.00	0.00
9,100.00	0.00	0.00	9,053.51	-540.00	150.00	-541.14	0.00	0.00	0.00

Company:	Marathon Oil	Local Co-ordinate Reference:	Well FB Fee #16H
Project:	Lea County, NM	TVD Reference:	well @ 3546.50usft
Site:	Flowmaster 15 (11-12-16-17)	MD Reference:	well @ 3546.50usft
Well:	FB Fee #16H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Prelim Plan A	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)
9,200.00	0.00	0.00	9,153.51	-540.00	150.00	-541.14	0.00	0.00	0.00
9,300.00	0.00	0.00	9,253.51	-540.00	150.00	-541.14	0.00	0.00	0.00
9,400.00	0.00	0.00	9,353.51	-540.00	150.00	-541.14	0.00	0.00	0.00
9,500.00	0.00	0.00	9,453.51	-540.00	150.00	-541.14	0.00	0.00	0.00
9,600.00	0.00	0.00	9,553.51	-540.00	150.00	-541.14	0.00	0.00	0.00
9,700.00	0.00	0.00	9,653.51	-540.00	150.00	-541.14	0.00	0.00	0.00
9,800.00	0.00	0.00	9,753.51	-540.00	150.00	-541.14	0.00	0.00	0.00
9,900.00	0.00	0.00	9,853.51	-540.00	150.00	-541.14	0.00	0.00	0.00
9,992.49	0.00	0.00	9,946.00	-540.00	150.00	-541.14	0.00	0.00	0.00
9,992.51	0.00	355.20	9,946.03	-540.00	150.00	-541.14	0.00	0.00	0.00
[Flowmaster15#16H]KOP									
10,000.00	0.75	355.20	9,953.51	-539.95	150.00	-541.09	10.04	10.04	0.00
10,050.00	5.75	355.20	10,003.42	-537.13	149.76	-538.26	10.00	10.00	0.00
10,100.00	10.75	355.20	10,052.88	-529.98	149.16	-531.11	10.00	10.00	0.00
10,150.00	15.75	355.20	10,101.54	-518.56	148.20	-519.68	10.00	10.00	0.00
10,200.00	20.75	355.20	10,149.01	-502.96	146.89	-504.07	10.00	10.00	0.00
10,250.00	25.75	355.20	10,194.93	-483.30	145.24	-484.40	10.00	10.00	0.00
10,300.00	30.75	355.20	10,238.96	-459.72	143.26	-460.81	10.00	10.00	0.00
10,350.00	35.75	355.20	10,280.76	-432.41	140.97	-433.48	10.00	10.00	0.00
10,400.00	40.75	355.20	10,320.01	-401.57	138.38	-402.62	10.00	10.00	0.00
10,450.00	45.75	355.20	10,356.42	-367.44	135.51	-368.47	10.00	10.00	0.00
10,500.00	50.75	355.20	10,389.70	-330.28	132.39	-331.29	10.00	10.00	0.00
10,550.00	55.75	355.20	10,419.61	-290.37	129.04	-291.36	10.00	10.00	0.00
10,600.00	60.75	355.20	10,445.91	-248.02	125.48	-248.97	10.00	10.00	0.00
10,650.00	65.75	355.20	10,468.41	-203.54	121.75	-204.47	10.00	10.00	0.00
10,700.00	70.75	355.20	10,486.93	-157.28	117.86	-158.18	10.00	10.00	0.00
10,750.00	75.75	355.20	10,501.33	-109.58	113.86	-110.45	10.00	10.00	0.00
10,800.00	80.75	355.20	10,511.51	-60.81	109.76	-61.66	10.00	10.00	0.00
10,850.00	85.75	355.20	10,517.38	-11.35	105.61	-12.16	10.00	10.00	0.00
10,892.49	90.00	355.20	10,518.96	30.95	102.06	30.16	10.00	10.00	0.00
10,900.00	90.00	355.43	10,518.96	38.44	101.44	37.66	3.00	0.00	3.00
11,000.00	90.00	358.43	10,518.96	138.28	96.08	137.54	3.00	0.00	3.00
11,037.70	90.00	359.56	10,518.96	175.97	95.42	175.24	3.00	0.00	3.00
11,100.00	90.00	359.56	10,518.96	238.27	94.93	237.54	0.00	0.00	0.00
11,200.00	90.00	359.56	10,518.96	338.27	94.16	337.54	0.00	0.00	0.00
11,300.00	90.00	359.56	10,518.96	438.27	93.38	437.54	0.00	0.00	0.00
11,400.00	90.00	359.56	10,518.96	538.26	92.61	537.54	0.00	0.00	0.00
11,500.00	90.00	359.56	10,518.96	638.26	91.84	637.54	0.00	0.00	0.00
11,600.00	90.00	359.56	10,518.96	738.26	91.06	737.54	0.00	0.00	0.00
11,700.00	90.00	359.56	10,518.96	838.26	90.29	837.54	0.00	0.00	0.00
11,800.00	90.00	359.56	10,518.97	938.25	89.51	937.54	0.00	0.00	0.00
11,900.00	90.00	359.56	10,518.97	1,038.25	88.74	1,037.54	0.00	0.00	0.00
12,000.00	90.00	359.56	10,518.97	1,138.25	87.96	1,137.54	0.00	0.00	0.00

Company:	Marathon Oil	Local Co-ordinate Reference:	Well FB Fee #16H
Project:	Lea County, NM	TVD Reference:	well @ 3546.50usft
Site:	Flowmaster 15 (11-12-16-17)	MD Reference:	well @ 3546.50usft
Well:	FB Fee #16H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Prelim Plan A	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)
12,100.00	90.00	359.56	10,518.97	1,238.24	87.19	1,237.54	0.00	0.00	0.00
12,200.00	90.00	359.56	10,518.97	1,338.24	86.42	1,337.54	0.00	0.00	0.00
12,300.00	90.00	359.56	10,518.97	1,438.24	85.64	1,437.54	0.00	0.00	0.00
12,400.00	90.00	359.56	10,518.97	1,538.23	84.87	1,537.54	0.00	0.00	0.00
12,500.00	90.00	359.56	10,518.97	1,638.23	84.09	1,637.54	0.00	0.00	0.00
12,600.00	90.00	359.56	10,518.97	1,738.23	83.32	1,737.54	0.00	0.00	0.00
12,700.00	90.00	359.56	10,518.97	1,838.23	82.54	1,837.54	0.00	0.00	0.00
12,800.00	90.00	359.56	10,518.98	1,938.22	81.77	1,937.54	0.00	0.00	0.00
12,900.00	90.00	359.56	10,518.98	2,038.22	81.00	2,037.54	0.00	0.00	0.00
13,000.00	90.00	359.56	10,518.98	2,138.22	80.22	2,137.54	0.00	0.00	0.00
13,100.00	90.00	359.56	10,518.98	2,238.21	79.45	2,237.54	0.00	0.00	0.00
13,200.00	90.00	359.56	10,518.98	2,338.21	78.67	2,337.54	0.00	0.00	0.00
13,300.00	90.00	359.56	10,518.98	2,438.21	77.90	2,437.54	0.00	0.00	0.00
13,400.00	90.00	359.56	10,518.98	2,538.20	77.12	2,537.54	0.00	0.00	0.00
13,500.00	90.00	359.56	10,518.98	2,638.20	76.35	2,637.54	0.00	0.00	0.00
13,600.00	90.00	359.56	10,518.98	2,738.20	75.58	2,737.54	0.00	0.00	0.00
13,700.00	90.00	359.56	10,518.98	2,838.20	74.80	2,837.54	0.00	0.00	0.00
13,800.00	90.00	359.56	10,518.98	2,938.19	74.03	2,937.54	0.00	0.00	0.00
13,900.00	90.00	359.56	10,518.99	3,038.19	73.25	3,037.54	0.00	0.00	0.00
14,000.00	90.00	359.56	10,518.99	3,138.19	72.48	3,137.54	0.00	0.00	0.00
14,100.00	90.00	359.56	10,518.99	3,238.18	71.71	3,237.54	0.00	0.00	0.00
14,200.00	90.00	359.56	10,518.99	3,338.18	70.93	3,337.54	0.00	0.00	0.00
14,300.00	90.00	359.56	10,518.99	3,438.18	70.16	3,437.54	0.00	0.00	0.00
14,400.00	90.00	359.56	10,518.99	3,538.17	69.38	3,537.54	0.00	0.00	0.00
14,500.00	90.00	359.56	10,518.99	3,638.17	68.61	3,637.54	0.00	0.00	0.00
14,600.00	90.00	359.56	10,518.99	3,738.17	67.83	3,737.54	0.00	0.00	0.00
14,700.00	90.00	359.56	10,518.99	3,838.17	67.06	3,837.54	0.00	0.00	0.00
14,800.00	90.00	359.56	10,518.99	3,938.16	66.29	3,937.54	0.00	0.00	0.00
14,900.00	90.00	359.56	10,519.00	4,038.16	65.51	4,037.54	0.00	0.00	0.00
15,000.00	90.00	359.56	10,519.00	4,138.16	64.74	4,137.54	0.00	0.00	0.00
15,100.00	90.00	359.56	10,519.00	4,238.15	63.96	4,237.54	0.00	0.00	0.00
15,200.00	90.00	359.56	10,519.00	4,338.15	63.19	4,337.54	0.00	0.00	0.00
15,300.00	90.00	359.56	10,519.00	4,438.15	62.41	4,437.54	0.00	0.00	0.00
15,400.00	90.00	359.56	10,519.00	4,538.14	61.64	4,537.54	0.00	0.00	0.00
15,455.50	90.00	359.56	10,519.00	4,593.64	61.21	4,593.03	0.00	0.00	0.00

[Flowmaster15#16H]LTP/BHL

Company:	Marathon Oil	Local Co-ordinate Reference:	Well FB Fee #16H
Project:	Lea County, NM	TVD Reference:	well @ 3546.50usft
Site:	Flowmaster 15 (11-12-16-17)	MD Reference:	well @ 3546.50usft
Well:	FB Fee #16H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Prelim Plan A	Database:	WellPlanner1

Design Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
- Shape									
[Flowmaster15#16H]FTF	0.00	0.00	0.00	-490.14	99.94	441,373.01	770,270.15	32.210431	-103.459493
- plan misses target center by 500.23usft at 0.00usft MD (0.00 TVD, 0.00 N, 0.00 E)									
- Point									
[Flowmaster15#16H]KOI	0.00	0.00	9,946.00	-540.13	100.32	441,323.02	770,270.53	32.210294	-103.459493
- plan misses target center by 49.68usft at 9992.49usft MD (9946.00 TVD, -540.00 N, 150.00 E)									
- Point									
[Flowmaster15#16H]LTF	0.00	0.00	10,519.0	4,593.64	61.21	446,456.79	770,231.42	32.224406	-103.459484
			0						
- plan hits target center									
- Point									

Checked By: _____ Approved By: _____ Date: _____