



Marathon Oil
Lea County, NM
Flowmaster 15 (11-12-16-17)
FB Fee #16H
Prelim Plan B

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

RKB Elevation: well @ 3541.00usft

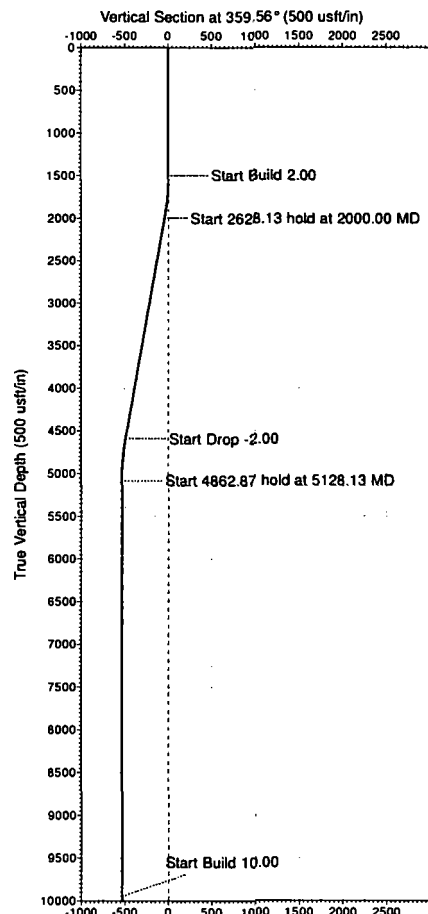
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Spot
0.00	0.00	441903.17	770440.21	32.211885	-103.458929	

SECTION DETAILS

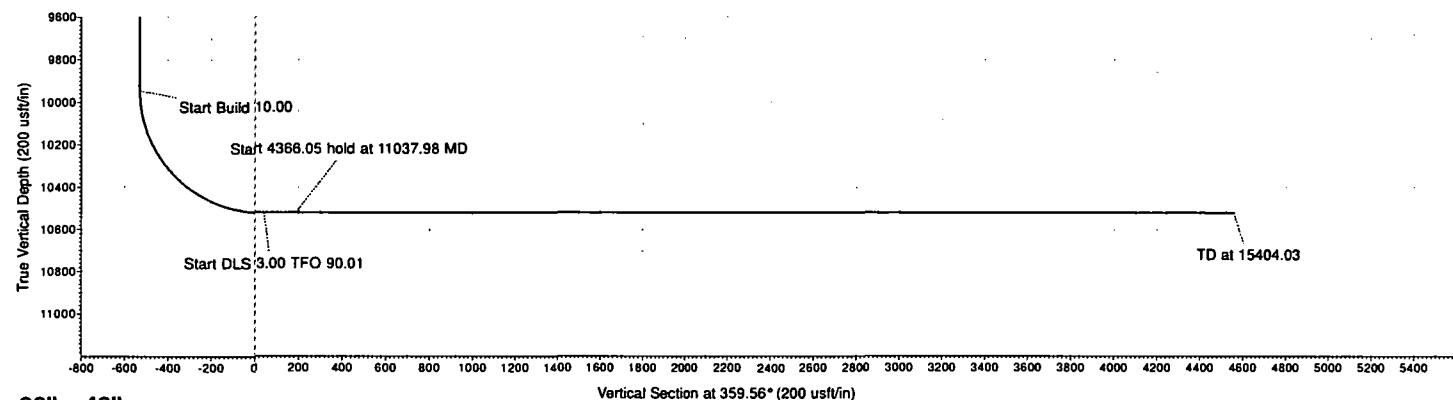
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	VSect
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	1500.00	0.00	0.00	1500.00	0.00	0.00	0.00	0.00
3	2000.00	10.00	192.78	1997.47	-42.45	-9.61	2.00	-42.37
4	4628.13	10.00	192.78	4585.67	-487.55	-110.39	0.00	-486.69
5	5128.13	0.00	0.00	5083.13	-530.00	-120.00	2.00	-529.06
6	9991.00	0.00	0.00	9946.00	-530.00	-120.00	0.00	-529.06
7	10891.00	90.00	355.15	10518.96	40.91	-168.44	10.00	42.20
8	11037.98	90.00	359.58	10518.96	187.70	-175.22	3.00	189.04
9	15404.03	90.00	359.58	10519.00	4553.62	-208.79	0.00	4555.09

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

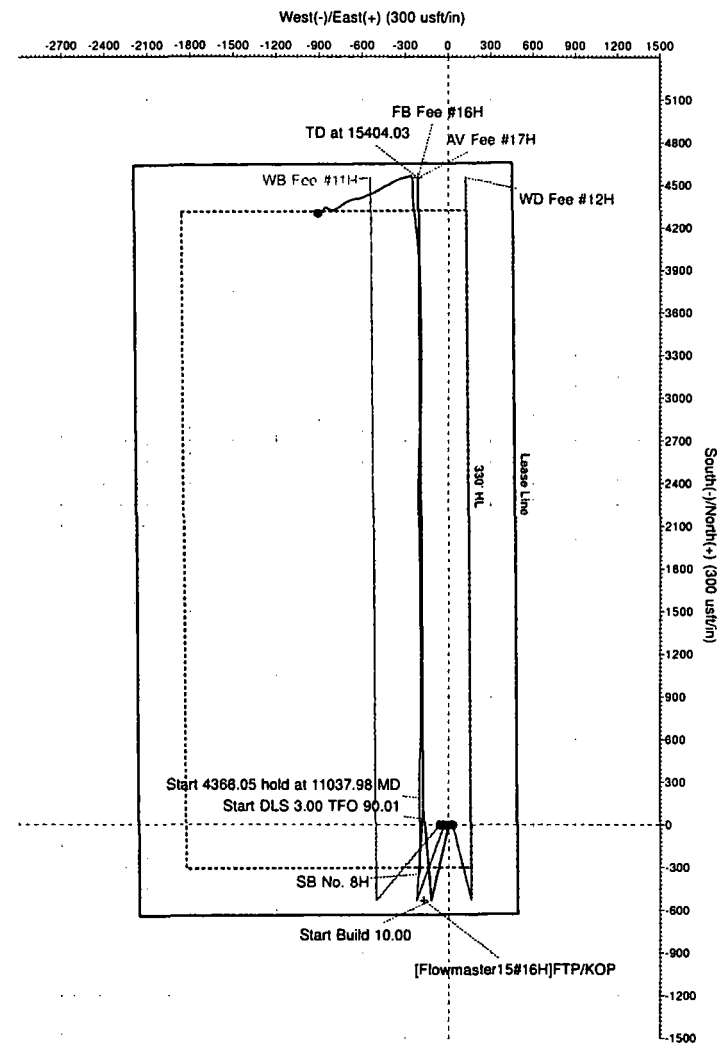
Name	TVD	+N/-S	+E/-W	Northing	Easting
[Flowmaster15#16H]FTP/KOP	9946.00	-530.16	-170.08	441373.01	770270.15
[Flowmaster15#16H]LTP/BHL	10519.00	4553.62	-208.79	446456.79	770231.42



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



36" x 48"



Azimuths to Grid North
True North: -0.47°
Magnetic North: 6.22°
Magnetic Field
Strength: 47946.8nT
Dip Angle: 59.88°
Date: 12/17/2018
Model: ICDGM

Azimuth Corrections

Total Magnetic Corr. (M to G): 6.22°

Declination (M to T): 6.68° East

Company: Marathon Oil
Project: Lea County, NM
Site: Flowmaster 15 (11-12-16-17)
Well: FB Fee #16H
Wellbore: OH
Design: Prelim Plan B

Local Co-ordinate Reference: Well FB Fee #16H
TVD Reference: well @ 3541.00usft
MD Reference: well @ 3541.00usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
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 "	
				Grid Convergence:	
				32.211783	
				-103.459997	
				0.47 °	

Well	FB Fee #16H					
Well Position	+N/-S	0.00 usft	Northing:	441,903.17 usft	Latitude:	32.211885
	+E/-W	0.00 usft	Easting:	770,440.21 usft	Longitude:	-103.458929
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	3,515.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	12/17/2018	6.68	59.88	47,946.80

Design	Prelim Plan B				
Audit Notes:					
Version:	Phase:	PLAN	Tie On Depth:	0.00	
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	359.56	

Survey Tool Program	Date 5/9/2019				
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.00	1,850.00	Prelim Plan B (OH)	MWD+HDGM	OWSG MWD + HRGM	
1,850.00	5,400.00	Prelim Plan B (OH)	MWD+HDGM	OWSG MWD + HRGM	
5,400.00	10,000.00	Prelim Plan B (OH)	MWD+HDGM	OWSG MWD + HRGM	
10,000.00	15,403.99	Prelim Plan B (OH)	MWD+HDGM	OWSG MWD + HRGM	

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
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	
700.00	0.00	0.00	700.00	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 @ 3541.00usft
Site:	Flowmaster 15 (11-12-16-17)	MD Reference:	well @ 3541.00usft
Well:	FB Fee #16H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Prelim Plan B	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)
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	192.76	1,599.98	-1.70	-0.39	-1.70	2.00	2.00	0.00
1,700.00	4.00	192.76	1,699.84	-6.81	-1.54	-6.79	2.00	2.00	0.00
1,800.00	6.00	192.76	1,799.45	-15.31	-3.47	-15.28	2.00	2.00	0.00
1,900.00	8.00	192.76	1,898.70	-27.19	-6.16	-27.14	2.00	2.00	0.00
2,000.00	10.00	192.76	1,997.47	-42.45	-9.61	-42.37	2.00	2.00	0.00
2,100.00	10.00	192.76	2,095.95	-59.38	-13.45	-59.28	0.00	0.00	0.00
2,200.00	10.00	192.76	2,194.43	-76.32	-17.28	-76.19	0.00	0.00	0.00
2,300.00	10.00	192.76	2,292.91	-93.26	-21.11	-93.09	0.00	0.00	0.00
2,400.00	10.00	192.76	2,391.39	-110.19	-24.95	-110.00	0.00	0.00	0.00
2,500.00	10.00	192.76	2,489.87	-127.13	-28.78	-126.90	0.00	0.00	0.00
2,600.00	10.00	192.76	2,588.35	-144.06	-32.62	-143.81	0.00	0.00	0.00
2,700.00	10.00	192.76	2,686.83	-161.00	-36.45	-160.72	0.00	0.00	0.00
2,800.00	10.00	192.76	2,785.31	-177.94	-40.29	-177.62	0.00	0.00	0.00
2,900.00	10.00	192.76	2,883.79	-194.87	-44.12	-194.53	0.00	0.00	0.00
3,000.00	10.00	192.76	2,982.27	-211.81	-47.96	-211.43	0.00	0.00	0.00
3,100.00	10.00	192.76	3,080.75	-228.75	-51.79	-228.34	0.00	0.00	0.00
3,200.00	10.00	192.76	3,179.23	-245.68	-55.63	-245.25	0.00	0.00	0.00
3,300.00	10.00	192.76	3,277.72	-262.62	-59.46	-262.15	0.00	0.00	0.00
3,400.00	10.00	192.76	3,376.20	-279.55	-63.30	-279.06	0.00	0.00	0.00
3,500.00	10.00	192.76	3,474.68	-296.49	-67.13	-295.97	0.00	0.00	0.00
3,600.00	10.00	192.76	3,573.16	-313.43	-70.96	-312.87	0.00	0.00	0.00
3,700.00	10.00	192.76	3,671.64	-330.36	-74.80	-329.78	0.00	0.00	0.00
3,800.00	10.00	192.76	3,770.12	-347.30	-78.63	-346.68	0.00	0.00	0.00
3,900.00	10.00	192.76	3,868.60	-364.23	-82.47	-363.59	0.00	0.00	0.00
4,000.00	10.00	192.76	3,967.08	-381.17	-86.30	-380.50	0.00	0.00	0.00
4,100.00	10.00	192.76	4,065.56	-398.11	-90.14	-397.40	0.00	0.00	0.00
4,200.00	10.00	192.76	4,164.04	-415.04	-93.97	-414.31	0.00	0.00	0.00
4,300.00	10.00	192.76	4,262.52	-431.98	-97.81	-431.21	0.00	0.00	0.00
4,400.00	10.00	192.76	4,361.00	-448.92	-101.64	-448.12	0.00	0.00	0.00
4,500.00	10.00	192.76	4,459.48	-465.85	-105.48	-465.03	0.00	0.00	0.00
4,600.00	10.00	192.76	4,557.97	-482.79	-109.31	-481.93	0.00	0.00	0.00
4,628.13	10.00	192.76	4,585.67	-487.55	-110.39	-486.69	0.00	0.00	0.00
4,700.00	8.56	192.76	4,656.60	-498.86	-112.95	-497.97	2.00	-2.00	0.00
4,800.00	6.56	192.76	4,755.72	-511.69	-115.85	-510.79	2.00	-2.00	0.00
4,900.00	4.56	192.76	4,855.24	-521.15	-118.00	-520.22	2.00	-2.00	0.00

Company:	Marathon Oil	Local Co-ordinate Reference:	Well FB Fee #16H
Project:	Lea County, NM	TVD Reference:	well @ 3541.00usft
Site:	Flowmaster 15 (11-12-16-17)	MD Reference:	well @ 3541.00usft
Well:	FB Fee #16H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Prelim Plan B	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)
5,000.00	2.56	192.76	4,955.05	-527.21	-119.37	-526.27	2.00	-2.00	0.00
5,100.00	0.56	192.76	5,055.00	-529.87	-119.97	-528.93	2.00	-2.00	0.00
5,128.13	0.00	0.00	5,083.13	-530.00	-120.00	-529.06	2.00	-2.00	0.00
5,200.00	0.00	0.00	5,155.00	-530.00	-120.00	-529.06	0.00	0.00	0.00
5,300.00	0.00	0.00	5,255.00	-530.00	-120.00	-529.06	0.00	0.00	0.00
5,400.00	0.00	0.00	5,355.00	-530.00	-120.00	-529.06	0.00	0.00	0.00
5,500.00	0.00	0.00	5,455.00	-530.00	-120.00	-529.06	0.00	0.00	0.00
5,600.00	0.00	0.00	5,555.00	-530.00	-120.00	-529.06	0.00	0.00	0.00
5,700.00	0.00	0.00	5,655.00	-530.00	-120.00	-529.06	0.00	0.00	0.00
5,800.00	0.00	0.00	5,755.00	-530.00	-120.00	-529.06	0.00	0.00	0.00
5,900.00	0.00	0.00	5,855.00	-530.00	-120.00	-529.06	0.00	0.00	0.00
6,000.00	0.00	0.00	5,955.00	-530.00	-120.00	-529.06	0.00	0.00	0.00
6,100.00	0.00	0.00	6,055.00	-530.00	-120.00	-529.06	0.00	0.00	0.00
6,200.00	0.00	0.00	6,155.00	-530.00	-120.00	-529.06	0.00	0.00	0.00
6,300.00	0.00	0.00	6,255.00	-530.00	-120.00	-529.06	0.00	0.00	0.00
6,400.00	0.00	0.00	6,355.00	-530.00	-120.00	-529.06	0.00	0.00	0.00
6,500.00	0.00	0.00	6,455.00	-530.00	-120.00	-529.06	0.00	0.00	0.00
6,600.00	0.00	0.00	6,555.00	-530.00	-120.00	-529.06	0.00	0.00	0.00
6,700.00	0.00	0.00	6,655.00	-530.00	-120.00	-529.06	0.00	0.00	0.00
6,800.00	0.00	0.00	6,755.00	-530.00	-120.00	-529.06	0.00	0.00	0.00
6,900.00	0.00	0.00	6,855.00	-530.00	-120.00	-529.06	0.00	0.00	0.00
7,000.00	0.00	0.00	6,955.00	-530.00	-120.00	-529.06	0.00	0.00	0.00
7,100.00	0.00	0.00	7,055.00	-530.00	-120.00	-529.06	0.00	0.00	0.00
7,200.00	0.00	0.00	7,155.00	-530.00	-120.00	-529.06	0.00	0.00	0.00
7,300.00	0.00	0.00	7,255.00	-530.00	-120.00	-529.06	0.00	0.00	0.00
7,400.00	0.00	0.00	7,355.00	-530.00	-120.00	-529.06	0.00	0.00	0.00
7,500.00	0.00	0.00	7,455.00	-530.00	-120.00	-529.06	0.00	0.00	0.00
7,600.00	0.00	0.00	7,555.00	-530.00	-120.00	-529.06	0.00	0.00	0.00
7,700.00	0.00	0.00	7,655.00	-530.00	-120.00	-529.06	0.00	0.00	0.00
7,800.00	0.00	0.00	7,755.00	-530.00	-120.00	-529.06	0.00	0.00	0.00
7,900.00	0.00	0.00	7,855.00	-530.00	-120.00	-529.06	0.00	0.00	0.00
8,000.00	0.00	0.00	7,955.00	-530.00	-120.00	-529.06	0.00	0.00	0.00
8,100.00	0.00	0.00	8,055.00	-530.00	-120.00	-529.06	0.00	0.00	0.00
8,200.00	0.00	0.00	8,155.00	-530.00	-120.00	-529.06	0.00	0.00	0.00
8,300.00	0.00	0.00	8,255.00	-530.00	-120.00	-529.06	0.00	0.00	0.00
8,400.00	0.00	0.00	8,355.00	-530.00	-120.00	-529.06	0.00	0.00	0.00
8,500.00	0.00	0.00	8,455.00	-530.00	-120.00	-529.06	0.00	0.00	0.00
8,600.00	0.00	0.00	8,555.00	-530.00	-120.00	-529.06	0.00	0.00	0.00
8,700.00	0.00	0.00	8,655.00	-530.00	-120.00	-529.06	0.00	0.00	0.00
8,800.00	0.00	0.00	8,755.00	-530.00	-120.00	-529.06	0.00	0.00	0.00
8,900.00	0.00	0.00	8,855.00	-530.00	-120.00	-529.06	0.00	0.00	0.00
9,000.00	0.00	0.00	8,955.00	-530.00	-120.00	-529.06	0.00	0.00	0.00
9,100.00	0.00	0.00	9,055.00	-530.00	-120.00	-529.06	0.00	0.00	0.00
9,200.00	0.00	0.00	9,155.00	-530.00	-120.00	-529.06	0.00	0.00	0.00

Company:	Marathon Oil	Local Co-ordinate Reference:	Well FB Fee #16H
Project:	Lea County, NM	TVD Reference:	well @ 3541.00usft
Site:	Flowmaster 15 (11-12-16-17)	MD Reference:	well @ 3541.00usft
Well:	FB Fee #16H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Prelim Plan B	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)
9,300.00	0.00	0.00	9,255.00	-530.00	-120.00	-529.06	0.00	0.00	0.00
9,400.00	0.00	0.00	9,355.00	-530.00	-120.00	-529.06	0.00	0.00	0.00
9,500.00	0.00	0.00	9,455.00	-530.00	-120.00	-529.06	0.00	0.00	0.00
9,600.00	0.00	0.00	9,555.00	-530.00	-120.00	-529.06	0.00	0.00	0.00
9,700.00	0.00	0.00	9,655.00	-530.00	-120.00	-529.06	0.00	0.00	0.00
9,800.00	0.00	0.00	9,755.00	-530.00	-120.00	-529.06	0.00	0.00	0.00
9,900.00	0.00	0.00	9,855.00	-530.00	-120.00	-529.06	0.00	0.00	0.00
9,991.00	0.00	0.00	9,946.00	-530.00	-120.00	-529.06	0.00	0.00	0.00
9,991.03	0.00	355.15	9,946.03	-530.00	-120.00	-529.06	0.00	0.00	0.00
[Flowmaster15#16H]FTP/KOP									
10,000.00	0.90	355.15	9,955.00	-529.93	-120.01	-528.99	10.04	10.04	0.00
10,050.00	5.90	355.15	10,004.90	-526.98	-120.26	-526.04	10.00	10.00	0.00
10,100.00	10.90	355.15	10,054.35	-519.70	-120.87	-518.75	10.00	10.00	0.00
10,150.00	15.90	355.15	10,102.97	-508.16	-121.85	-507.21	10.00	10.00	0.00
10,200.00	20.90	355.15	10,150.40	-492.44	-123.19	-491.47	10.00	10.00	0.00
10,250.00	25.90	355.15	10,196.27	-472.66	-124.87	-471.68	10.00	10.00	0.00
10,300.00	30.90	355.15	10,240.24	-448.97	-126.88	-447.98	10.00	10.00	0.00
10,350.00	35.90	355.15	10,281.97	-421.55	-129.20	-420.54	10.00	10.00	0.00
10,400.00	40.90	355.15	10,321.14	-390.61	-131.83	-389.59	10.00	10.00	0.00
10,450.00	45.90	355.15	10,357.46	-356.39	-134.73	-355.35	10.00	10.00	0.00
10,500.00	50.90	355.15	10,390.64	-319.15	-137.89	-318.08	10.00	10.00	0.00
10,550.00	55.90	355.15	10,420.45	-279.16	-141.28	-278.07	10.00	10.00	0.00
10,600.00	60.90	355.15	10,446.64	-236.74	-144.88	-235.62	10.00	10.00	0.00
10,650.00	65.90	355.15	10,469.02	-192.21	-148.66	-191.06	10.00	10.00	0.00
10,700.00	70.90	355.15	10,487.42	-145.90	-152.59	-144.72	10.00	10.00	0.00
10,750.00	75.90	355.15	10,501.70	-98.17	-156.64	-96.96	10.00	10.00	0.00
10,800.00	80.90	355.15	10,511.75	-49.38	-160.78	-48.15	10.00	10.00	0.00
10,850.00	85.90	355.15	10,517.49	0.09	-164.98	1.36	10.00	10.00	0.00
10,891.00	90.00	355.15	10,518.96	40.91	-168.44	42.20	10.00	10.00	0.00
10,900.00	90.00	355.42	10,518.96	49.88	-169.18	51.18	3.00	0.00	3.00
11,000.00	90.00	358.42	10,518.96	149.72	-174.55	151.06	3.00	0.00	3.00
11,037.98	90.00	359.56	10,518.96	187.70	-175.22	189.04	3.00	0.00	3.00
11,100.00	90.00	359.56	10,518.96	249.72	-175.70	251.06	0.00	0.00	0.00
11,200.00	90.00	359.56	10,518.96	349.71	-176.47	351.06	0.00	0.00	0.00
11,300.00	90.00	359.56	10,518.96	449.71	-177.24	451.06	0.00	0.00	0.00
11,400.00	90.00	359.56	10,518.96	549.71	-178.01	551.06	0.00	0.00	0.00
11,500.00	90.00	359.56	10,518.96	649.70	-178.78	651.06	0.00	0.00	0.00
11,600.00	90.00	359.56	10,518.96	749.70	-179.54	751.06	0.00	0.00	0.00
11,700.00	90.00	359.56	10,518.97	849.70	-180.31	851.06	0.00	0.00	0.00
11,800.00	90.00	359.56	10,518.97	949.69	-181.08	951.06	0.00	0.00	0.00
11,900.00	90.00	359.56	10,518.97	1,049.69	-181.85	1,051.06	0.00	0.00	0.00
12,000.00	90.00	359.56	10,518.97	1,149.69	-182.62	1,151.06	0.00	0.00	0.00
12,100.00	90.00	359.56	10,518.97	1,249.69	-183.39	1,251.06	0.00	0.00	0.00

Company:	Marathon Oil	Local Co-ordinate Reference:	Well FB Fee #16H
Project:	Lea County, NM	TVD Reference:	well @ 3541.00usft
Site:	Flowmaster 15 (11-12-16-17)	MD Reference:	well @ 3541.00usft
Well:	FB Fee #16H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Prelim Plan B	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)
12,200.00	90.00	359.56	10,518.97	1,349.68	-184.16	1,351.06	0.00	0.00	0.00
12,300.00	90.00	359.56	10,518.97	1,449.68	-184.93	1,451.06	0.00	0.00	0.00
12,400.00	90.00	359.56	10,518.97	1,549.68	-185.70	1,551.06	0.00	0.00	0.00
12,500.00	90.00	359.56	10,518.97	1,649.67	-186.46	1,651.06	0.00	0.00	0.00
12,600.00	90.00	359.56	10,518.97	1,749.67	-187.23	1,751.06	0.00	0.00	0.00
12,700.00	90.00	359.56	10,518.97	1,849.67	-188.00	1,851.06	0.00	0.00	0.00
12,800.00	90.00	359.56	10,518.98	1,949.66	-188.77	1,951.06	0.00	0.00	0.00
12,900.00	90.00	359.56	10,518.98	2,049.66	-189.54	2,051.06	0.00	0.00	0.00
13,000.00	90.00	359.56	10,518.98	2,149.66	-190.31	2,151.06	0.00	0.00	0.00
13,100.00	90.00	359.56	10,518.98	2,249.66	-191.08	2,251.06	0.00	0.00	0.00
13,200.00	90.00	359.56	10,518.98	2,349.65	-191.85	2,351.06	0.00	0.00	0.00
13,300.00	90.00	359.56	10,518.98	2,449.65	-192.61	2,451.06	0.00	0.00	0.00
13,400.00	90.00	359.56	10,518.98	2,549.65	-193.38	2,551.06	0.00	0.00	0.00
13,500.00	90.00	359.56	10,518.98	2,649.64	-194.15	2,651.06	0.00	0.00	0.00
13,600.00	90.00	359.56	10,518.98	2,749.64	-194.92	2,751.06	0.00	0.00	0.00
13,700.00	90.00	359.56	10,518.98	2,849.64	-195.69	2,851.06	0.00	0.00	0.00
13,800.00	90.00	359.56	10,518.98	2,949.64	-196.46	2,951.06	0.00	0.00	0.00
13,900.00	90.00	359.56	10,518.99	3,049.63	-197.23	3,051.06	0.00	0.00	0.00
14,000.00	90.00	359.56	10,518.99	3,149.63	-198.00	3,151.06	0.00	0.00	0.00
14,100.00	90.00	359.56	10,518.99	3,249.63	-198.76	3,251.06	0.00	0.00	0.00
14,200.00	90.00	359.56	10,518.99	3,349.62	-199.53	3,351.06	0.00	0.00	0.00
14,300.00	90.00	359.56	10,518.99	3,449.62	-200.30	3,451.06	0.00	0.00	0.00
14,400.00	90.00	359.56	10,518.99	3,549.62	-201.07	3,551.06	0.00	0.00	0.00
14,500.00	90.00	359.56	10,518.99	3,649.61	-201.84	3,651.06	0.00	0.00	0.00
14,600.00	90.00	359.56	10,518.99	3,749.61	-202.61	3,751.06	0.00	0.00	0.00
14,700.00	90.00	359.56	10,518.99	3,849.61	-203.38	3,851.06	0.00	0.00	0.00
14,800.00	90.00	359.56	10,518.99	3,949.61	-204.15	3,951.06	0.00	0.00	0.00
14,900.00	90.00	359.56	10,519.00	4,049.60	-204.92	4,051.06	0.00	0.00	0.00
15,000.00	90.00	359.56	10,519.00	4,149.60	-205.68	4,151.06	0.00	0.00	0.00
15,100.00	90.00	359.56	10,519.00	4,249.60	-206.45	4,251.06	0.00	0.00	0.00
15,200.00	90.00	359.56	10,519.00	4,349.59	-207.22	4,351.06	0.00	0.00	0.00
15,300.00	90.00	359.56	10,519.00	4,449.59	-207.99	4,451.06	0.00	0.00	0.00
15,404.03	90.00	359.56	10,519.00	4,553.62	-208.79	4,555.09	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 @ 3541.00usft
Site:	Flowmaster 15 (11-12-16-17)	MD Reference:	well @ 3541.00usft
Well:	FB Fee #16H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Prelim Plan B	Database:	WellPlanner1

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
[Flowmaster15#16H]FTF	0.00	0.00	9,946.00	-530.16	-170.06	441,373.01	770,270.15	32.210431	-103.459493
- plan misses target center by 50.06usft at 9991.00usft MD (9946.00 TVD, -530.00 N, -120.00 E)									
- Point									
[Flowmaster15#16H]LTF	0.00	0.00	10,519.0	4,553.62	-208.79	446,456.79	770,231.42	32.224406	-103.459484
			0						
- plan hits target center									
- Point									

Checked By: _____ Approved By: _____ Date: _____