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Directional Survey**

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DISTRICT II-ARTESIA O.C.D.

Marathon Oil Permian, LLC

Eddy County, NM (NAD27)

Fiddle Fee 24-28-23

WXY #9H 30.015-44042

OH

Survey: SDI Survey #1

Standard Survey Report

21 March, 2018



Survey Report

Company: Marathon Oil Permian, LLC	Local Co-ordinate Reference: Well WXY #9H
Project: Eddy County, NM (NAD27)	TVD Reference: KB = 26.5' @ 3023.50usft (H&P 498)
Site: Fiddle Fee 24-28-23	MD Reference: KB = 26.5' @ 3023.50usft (H&P 498)
Well: WXY #9H	North Reference: Grid
Wellbore: OH	Survey Calculation Method: Minimum Curvature
Design: OH	Database: Midland District

Project Eddy County, NM (NAD27)		
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		Using geodetic scale factor

Site Fiddle Fee 24-28-23			
Site Position:	Northing: 439,935.99 usft	Latitude: 32° 12' 33.182 N	
From: Map	Easting: 582,860.46 usft	Longitude: 104° 3' 55.538 W	
Position Uncertainty: 0.00 usft	Slot Radius: 13-3/16 "	Grid Convergence: 0.14 °	

Well WXY #9H			
Well Position	Northing: 439,886.00 usft	Latitude: 32° 12' 32.687 N	
+N/-S 0.00 usft	Easting: 582,860.46 usft	Longitude: 104° 3' 55.540 W	
+E/-W 0.00 usft	Wellhead Elevation: 0.00 usft	Ground Level: 2,997.00 usft	
Position Uncertainty 0.00 usft			

Wellbore OH					
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
	HDGM	12/13/2017	(°) 7.23	(°) 60.00	(nT) 48,049

Design OH					
Audit Notes:					
Version: 1.0	Phase: ACTUAL	Tie On Depth:	0.00		
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(usft)	(usft)	(usft)	(bearing)	
	0.00	0.00	0.00	90.79	

Survey Program		Date 3/21/2018
From	To	Survey (Wellbore)
(usft)	(usft)	
126.50	516.00	Gyro Survey (OH)
705.00	14,517.00	SDI Survey #1 (OH)
		Tool Name
		Keeper
		MWD+HDGM
		Description
		Keeper Standard Rate Gyro
		OWSG MWD + HDGM

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
516.00	0.89	216.56	515.98	-2.94	-2.39	-2.34	0.00	0.00	0.00
705.00	0.84	138.26	704.96	-5.16	-2.34	-2.27	0.58	-0.03	-41.43
800.00	0.11	193.90	799.96	-5.76	-1.90	-1.82	0.82	-0.77	58.57
895.00	0.11	256.11	894.96	-5.87	-2.01	-1.92	0.12	0.00	65.48
990.00	0.30	336.59	989.96	-5.67	-2.19	-2.11	0.32	0.20	84.72
1,084.00	0.39	317.00	1,083.96	-5.21	-2.51	-2.44	0.16	0.10	-20.84
1,175.00	0.27	330.00	1,174.96	-4.80	-2.83	-2.76	0.15	-0.13	14.29
1,270.00	0.48	273.36	1,269.96	-4.58	-3.34	-3.27	0.42	0.22	-59.62
1,365.00	0.42	249.79	1,364.95	-4.68	-4.06	-4.00	0.20	-0.06	-24.81
1,459.00	0.54	233.76	1,458.95	-5.06	-4.74	-4.67	0.19	0.13	-17.05

Survey Report

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Project: Eddy County, NM (NAD27)
Site: Fiddle Fee 24-28-23
Well: WXY #9H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well WXY #9H
TVD Reference: KB = 26.5' @ 3023.50usft (H&P 498)
MD Reference: KB = 26.5' @ 3023.50usft (H&P 498)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Midland District

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
1,554.00	0.54	239.59	1,553.94	-5.55	-5.49	-5.41	0.06	0.00	6.14
1,648.00	0.82	239.59	1,647.94	-6.11	-6.45	-6.37	0.30	0.30	0.00
1,743.00	0.60	232.70	1,742.93	-6.76	-7.43	-7.34	0.25	-0.23	-7.25
1,838.00	0.59	219.87	1,837.93	-7.44	-8.14	-8.04	0.14	-0.01	-13.51
1,932.00	0.54	165.33	1,931.92	-8.24	-8.34	-8.23	0.55	-0.05	-58.02
2,027.00	1.15	135.84	2,026.91	-9.35	-7.56	-7.43	0.77	0.64	-31.04
2,122.00	1.53	135.50	2,121.89	-10.94	-6.01	-5.86	0.40	0.40	-0.36
2,217.00	2.18	128.72	2,216.84	-12.98	-3.71	-3.53	0.72	0.68	-7.14
2,311.00	1.04	127.01	2,310.80	-14.61	-1.63	-1.43	1.21	-1.21	-1.82
2,406.00	0.71	128.51	2,405.79	-15.49	-0.49	-0.27	0.35	-0.35	1.58
2,500.00	0.81	132.35	2,499.78	-16.30	0.46	0.69	0.12	0.11	4.09
2,562.00	0.57	123.26	2,561.77	-16.77	1.04	1.27	0.42	-0.39	-14.66
2,762.00	0.24	106.03	2,761.77	-17.43	2.28	2.52	0.17	-0.17	-8.62
2,862.00	0.26	121.82	2,861.77	-17.61	2.67	2.91	0.07	0.02	15.79
2,957.00	0.24	94.34	2,956.77	-17.74	3.05	3.30	0.13	-0.02	-28.93
3,052.00	2.01	173.07	3,051.75	-19.40	3.45	3.72	2.08	1.86	82.87
3,147.00	4.19	189.02	3,146.60	-24.49	3.11	3.45	2.45	2.29	16.79
3,241.00	7.07	183.94	3,240.14	-33.65	2.17	2.64	3.11	3.06	-5.40
3,336.00	9.55	187.28	3,334.14	-47.30	0.77	1.43	2.66	2.61	3.52
3,431.00	9.41	187.59	3,427.84	-62.82	-1.25	-0.39	0.16	-0.15	0.33
3,525.00	9.72	200.04	3,520.54	-77.89	-4.99	-3.91	2.22	0.33	13.24
3,620.00	10.08	200.54	3,614.13	-93.21	-10.65	-9.36	0.39	0.38	0.53
3,715.00	9.78	200.07	3,707.70	-108.57	-16.34	-14.84	0.33	-0.32	-0.49
3,810.00	9.83	198.50	3,801.32	-123.84	-21.68	-19.97	0.29	0.05	-1.65
3,905.00	9.95	198.02	3,894.90	-139.34	-26.79	-24.87	0.15	0.13	-0.51
3,999.00	9.43	196.16	3,987.56	-154.46	-31.45	-29.31	0.65	-0.55	-1.98
4,093.00	9.37	197.23	4,080.30	-169.16	-35.86	-33.52	0.20	-0.06	1.14
4,188.00	8.91	199.59	4,174.09	-183.48	-40.61	-38.08	0.62	-0.48	2.48
4,282.00	9.01	199.90	4,266.95	-197.26	-45.56	-42.84	0.12	0.11	0.33
4,377.00	8.93	198.82	4,360.79	-211.23	-50.47	-47.55	0.20	-0.08	-1.14
4,472.00	9.35	197.91	4,454.58	-225.56	-55.22	-52.11	0.47	0.44	-0.96
4,566.00	9.30	198.22	4,547.34	-240.04	-59.95	-56.63	0.08	-0.05	0.33
4,661.00	9.52	196.77	4,641.06	-254.85	-64.61	-61.09	0.34	0.23	-1.53
4,756.00	9.17	197.37	4,734.80	-269.60	-69.14	-65.42	0.38	-0.37	0.63
4,850.00	9.09	197.89	4,827.61	-283.81	-73.66	-69.74	0.12	-0.09	0.55
4,945.00	8.78	196.93	4,921.45	-297.89	-78.07	-73.96	0.36	-0.33	-1.01
5,039.00	9.83	194.44	5,014.22	-312.52	-82.16	-77.85	1.20	1.12	-2.65
5,133.00	9.49	194.47	5,106.88	-327.80	-86.10	-81.57	0.36	-0.36	0.03
5,228.00	9.42	194.38	5,200.59	-342.91	-89.99	-85.25	0.08	-0.07	-0.09
5,322.00	8.85	196.11	5,293.40	-357.31	-93.90	-88.97	0.67	-0.61	1.84
5,417.00	11.17	196.22	5,386.95	-373.17	-98.50	-93.35	2.44	2.44	0.12
5,512.00	10.94	196.40	5,480.18	-390.65	-103.62	-98.22	0.24	-0.24	0.19
5,606.00	10.47	195.23	5,572.55	-407.45	-108.38	-102.75	0.55	-0.50	-1.24

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Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Midland District

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Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,701.00	10.00	195.25	5,666.04	-423.74	-112.82	-106.97	0.49	-0.49	0.02
5,795.00	9.38	194.68	5,758.69	-439.02	-116.91	-110.84	0.67	-0.66	-0.61
5,890.00	9.00	193.88	5,852.48	-453.72	-120.65	-114.38	0.42	-0.40	-0.84
5,984.00	8.44	195.43	5,945.39	-467.51	-124.25	-117.79	0.65	-0.60	1.65
6,079.00	9.46	194.81	6,039.23	-481.78	-128.10	-121.45	1.08	1.07	-0.65
6,173.00	9.57	194.53	6,131.94	-496.81	-132.04	-125.17	0.13	0.12	-0.30
6,268.00	8.99	194.68	6,225.69	-511.64	-135.90	-128.83	0.61	-0.61	0.16
6,362.00	9.36	192.99	6,318.49	-526.19	-139.48	-132.21	0.49	0.39	-1.80
6,457.00	7.98	198.32	6,412.40	-539.98	-143.29	-135.83	1.68	-1.45	5.61
6,551.00	7.32	198.03	6,505.57	-551.87	-147.19	-139.57	0.70	-0.70	-0.31
6,646.00	6.24	204.59	6,599.90	-562.32	-151.21	-143.45	1.40	-1.14	6.91
6,740.00	5.72	208.79	6,693.39	-571.07	-155.59	-147.71	0.72	-0.55	4.47
6,835.00	5.84	215.76	6,787.91	-579.14	-160.70	-152.70	0.75	0.13	7.34
6,929.00	5.90	217.07	6,881.42	-586.87	-166.41	-158.30	0.16	0.06	1.39
7,024.00	5.94	224.17	6,975.91	-594.30	-172.77	-164.56	0.77	0.04	7.47
7,118.00	7.95	219.95	7,069.22	-602.77	-180.34	-172.01	2.20	2.14	-4.49
7,213.00	9.26	211.52	7,163.15	-614.32	-188.55	-180.07	1.91	1.38	-8.87
7,307.00	8.49	198.21	7,256.03	-627.36	-194.68	-186.01	2.33	-0.82	-14.16
7,402.00	7.11	187.69	7,350.16	-639.85	-197.66	-188.81	2.08	-1.45	-11.07
7,496.00	4.73	174.44	7,443.65	-649.47	-198.06	-189.08	2.90	-2.53	-14.10
7,591.00	4.87	159.91	7,538.32	-657.16	-196.29	-187.21	1.28	0.15	-15.29
7,685.00	6.48	167.39	7,631.86	-666.09	-193.76	-184.56	1.88	1.71	7.96
7,780.00	7.83	180.34	7,726.13	-677.79	-192.63	-183.27	2.21	1.42	13.63
7,874.00	7.68	183.38	7,819.27	-690.46	-193.04	-183.50	0.46	-0.16	3.23
7,969.00	6.49	189.15	7,913.54	-702.10	-194.27	-184.57	1.46	-1.25	6.07
8,064.00	6.23	202.05	8,007.96	-712.18	-197.06	-187.22	1.53	-0.27	13.58
8,158.00	5.82	204.16	8,101.44	-721.25	-200.92	-190.96	0.50	-0.44	2.24
8,348.00	3.52	184.78	8,290.81	-735.86	-205.35	-195.19	1.45	-1.21	-10.20
8,442.00	1.79	210.75	8,384.71	-740.00	-206.34	-196.12	2.20	-1.84	27.63
8,537.00	1.57	246.32	8,479.67	-741.79	-208.30	-198.05	1.10	-0.23	37.44
8,631.00	1.55	266.54	8,573.64	-742.39	-210.74	-200.49	0.58	-0.02	21.51
8,725.00	0.71	158.67	8,667.62	-743.01	-211.80	-201.54	2.01	-0.89	-114.76
8,815.00	0.61	158.89	8,757.62	-743.97	-211.43	-201.15	0.11	-0.11	0.24
8,905.00	0.24	236.37	8,847.61	-744.53	-211.41	-201.12	0.67	-0.41	86.09
9,004.00	0.26	267.04	8,946.61	-744.65	-211.81	-201.52	0.13	0.02	30.98
9,099.00	2.30	89.95	9,041.59	-744.66	-210.12	-199.83	2.69	2.15	-186.41
9,193.00	8.64	89.10	9,135.12	-744.55	-201.16	-190.88	6.75	6.74	-0.90
9,243.00	11.49	76.11	9,184.35	-743.29	-192.57	-182.30	7.25	5.70	-25.98
9,288.00	14.72	76.47	9,228.17	-740.88	-182.66	-172.42	7.18	7.18	0.80
9,319.00	16.53	80.02	9,258.02	-739.19	-174.48	-164.27	6.60	5.84	11.45
9,351.00	18.92	82.42	9,288.50	-737.72	-164.86	-154.67	7.81	7.47	7.50
9,383.00	21.72	84.23	9,318.51	-736.44	-153.82	-143.65	8.97	8.75	5.66
9,474.00	33.42	91.44	9,399.06	-735.37	-111.86	-101.71	13.35	12.86	7.92

Survey Report

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Project: Eddy County, NM (NAD27)
Site: Fiddle Fee 24-28-23
Well: WXY #9H
Wellbore: OH
Design: OH

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9,572.00	45.12	93.12	9,474.80	-737.95	-49.99	-39.81	11.99	11.94	1.71
9,653.36	57.45	93.85	9,525.58	-741.83	13.25	23.47	15.18	15.16	0.89
FTP[FF#9H]									
9,666.00	59.37	93.94	9,532.20	-742.57	23.99	34.23	15.18	15.16	0.74
9,761.00	74.42	93.83	9,569.38	-748.46	110.92	121.23	15.84	15.84	-0.12
9,780.00	77.72	93.87	9,573.95	-749.70	129.32	139.64	17.37	17.37	0.21
9,845.00	86.44	93.10	9,582.90	-753.61	193.52	203.89	13.47	13.42	-1.18
9,940.00	87.35	92.73	9,588.04	-758.43	288.25	298.68	1.03	0.96	-0.39
10,034.00	88.22	92.53	9,591.68	-762.74	382.08	392.56	0.95	0.93	-0.21
10,129.00	91.44	89.79	9,591.96	-764.66	477.04	487.54	4.45	3.39	-2.88
10,223.00	86.00	88.56	9,594.06	-763.31	570.97	581.44	5.93	-5.79	-1.31
10,317.00	92.05	90.69	9,595.66	-762.70	664.91	675.36	6.82	6.44	2.27
10,411.00	88.52	89.70	9,595.19	-763.02	758.89	769.34	3.90	-3.76	-1.05
10,506.00	87.95	88.22	9,598.11	-761.30	853.83	864.24	1.67	-0.60	-1.56
10,600.00	88.59	88.10	9,600.95	-758.28	947.73	958.10	0.69	0.68	-0.13
10,694.00	87.75	86.61	9,603.95	-753.94	1,041.58	1,051.88	1.82	-0.89	-1.59
10,789.00	87.18	87.31	9,608.16	-748.91	1,136.35	1,146.57	0.95	-0.60	0.74
10,883.00	89.77	89.28	9,610.66	-746.12	1,230.27	1,240.44	3.46	2.76	2.10
10,978.00	90.17	92.89	9,610.71	-747.91	1,325.23	1,335.42	3.82	0.42	3.80
11,071.00	89.63	91.60	9,610.87	-751.56	1,418.16	1,428.39	1.50	-0.58	-1.39
11,166.00	89.03	90.75	9,611.98	-753.51	1,513.13	1,523.38	1.10	-0.63	-0.89
11,260.00	89.90	93.10	9,612.86	-756.66	1,607.07	1,617.35	2.67	0.93	2.50
11,355.00	89.09	92.34	9,613.70	-761.17	1,701.96	1,712.29	1.17	-0.85	-0.80
11,449.00	89.50	91.33	9,614.85	-764.18	1,795.90	1,806.26	1.16	0.44	-1.07
11,543.00	90.74	90.98	9,614.66	-766.08	1,889.88	1,900.26	1.37	1.32	-0.37
11,638.00	86.24	92.14	9,617.16	-768.66	1,984.78	1,995.19	4.89	-4.74	1.22
11,732.00	86.57	91.26	9,623.05	-771.44	2,078.56	2,089.00	1.00	0.35	-0.94
11,827.00	87.69	92.67	9,627.81	-774.70	2,173.38	2,183.85	1.89	1.18	1.48
11,921.00	91.11	93.36	9,628.79	-779.64	2,267.23	2,277.76	3.71	3.64	0.73
12,016.00	90.34	92.76	9,627.59	-784.71	2,362.08	2,372.68	1.03	-0.81	-0.63
12,111.00	90.50	92.05	9,626.89	-788.70	2,457.00	2,467.64	0.77	0.17	-0.75
12,204.00	88.05	90.54	9,628.07	-790.80	2,549.96	2,560.62	3.09	-2.63	-1.62
12,298.00	88.42	89.90	9,630.97	-791.16	2,643.91	2,654.57	0.79	0.39	-0.68
12,393.00	87.85	88.77	9,634.06	-790.06	2,738.85	2,749.48	1.33	-0.60	-1.19
12,487.00	87.99	87.67	9,637.47	-787.14	2,832.74	2,843.33	1.18	0.15	-1.17
12,581.00	88.36	88.80	9,640.46	-784.25	2,926.65	2,937.18	1.26	0.39	1.20
12,677.00	87.62	90.60	9,643.83	-783.74	3,022.58	3,033.10	2.03	-0.77	1.88
12,770.00	88.42	89.96	9,647.04	-784.20	3,115.53	3,126.04	1.10	0.86	-0.69
12,865.00	88.76	89.16	9,649.38	-783.47	3,210.49	3,220.99	0.91	0.36	-0.84
12,959.00	87.04	89.95	9,652.83	-782.74	3,304.42	3,314.90	2.01	-1.83	0.84
13,053.00	90.64	91.25	9,654.73	-783.72	3,398.38	3,408.86	4.07	3.83	1.38
13,148.00	90.67	90.59	9,653.64	-785.25	3,493.36	3,503.86	0.70	0.03	-0.69
13,242.00	89.76	89.55	9,653.29	-785.36	3,587.36	3,597.85	1.47	-0.97	-1.11
13,336.00	85.03	92.52	9,657.56	-787.05	3,681.21	3,691.71	5.94	-5.03	3.16

Survey Report

Company: Marathon Oil Permian, LLC
Project: Eddy County, NM (NAD27)
Site: Fiddle Fee 24-28-23
Well: WXY #9H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well WXY #9H
TVD Reference: KB = 26.5' @ 3023.50usft (H&P 498)
MD Reference: KB = 26.5' @ 3023.50usft (H&P 498)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Midland District

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
13,431.00	85.50	91.52	9,665.41	-790.39	3,775.82	3,786.36	1.16	0.49	-1.05
13,525.00	88.56	92.13	9,670.27	-793.38	3,869.64	3,880.21	3.32	3.26	0.65
13,620.00	88.56	92.44	9,672.66	-797.17	3,964.53	3,975.15	0.33	0.00	0.33
13,714.00	88.12	92.12	9,675.39	-800.90	4,058.42	4,069.08	0.58	-0.47	-0.34
13,809.00	87.58	92.15	9,678.95	-804.44	4,153.29	4,163.98	0.57	-0.57	0.03
13,903.00	87.38	91.96	9,683.08	-807.81	4,247.14	4,257.87	0.29	-0.21	-0.20
13,997.00	89.77	92.37	9,685.42	-811.36	4,341.03	4,351.81	2.58	2.54	0.44
14,091.00	90.30	92.03	9,685.36	-814.97	4,434.96	4,445.78	0.67	0.56	-0.36
14,185.00	87.35	91.21	9,687.29	-817.62	4,528.89	4,539.74	3.26	-3.14	-0.87
14,279.00	88.22	90.32	9,690.92	-818.88	4,622.81	4,633.66	1.32	0.93	-0.95
14,374.00	89.56	90.27	9,692.76	-819.37	4,717.79	4,728.64	1.41	1.41	-0.05
14,470.00	89.80	89.26	9,693.30	-818.97	4,813.79	4,824.62	1.08	0.25	-1.05
FINAL MWD Survey (14470.00' MD) - BHL[FF#9H]									
14,517.00	89.80	89.26	9,693.46	-818.37	4,860.78	4,871.61	0.00	0.00	0.00
FINAL Proj. to Bit (14517.00' MD)									

Survey Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
14,470.00	9,693.30	-818.97	4,813.79	FINAL MWD Survey (14470.00' MD)
14,517.00	9,693.46	-818.37	4,860.78	FINAL Proj. to Bit (14517.00' MD)

Checked By: _____ Approved By: _____ Date: _____



EDDY COUNTY, NM (NAD27)
FIDDLE FEE 24-28-23
WXY #9H

FINAL AS-DRILLED
H&P 498

WELL DETAILS:

+N/-S	+E/-W	Ground Level:	2997.00
0.00	0.00	North	438866.00
		East	582860.46 32° 12' 32.687 N 104° 3' 55.540 W

SECTION DETAILS

MD	INC	AZI	TVD	+N/-S	+E/-W	DLEG	TFACE	VSECT	TARGET
0.00	0.00	0.30	0.00	0.00	0.00	0.30	0.00	0.00	
3000.00	0.00	0.00	3000.00	0.00	0.00	0.00	0.00	0.00	
3500.00	10.00	194.00	3457.47	-42.23	-10.53	2.00	194.00	-6.95	
7515.00	10.00	194.00	7515.00	-718.72	-176.20	0.00	0.00	-169.27	
8015.00	0.00	0.00	7948.93	-760.95	-189.73	2.00	150.00	-179.22	
9064.37	0.00	0.00	8943.00	-760.95	-189.73	0.00	0.00	-179.22	
9418.07	88.40	90.79	9570.74	-768.67	-367.18	10.00	90.79	-377.74	
13985.53	88.40	90.79	9695.00	-830.32	-4815.48	0.00	0.00	-826.47	BHL[FF#9H]
14443.55	88.40	90.79	9695.26	-830.32	-4815.48	0.00	0.00	-826.47	

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	North	East
FTP[FF#9H]	9541.00	-763.61	-0.13	439122.45	582860.33
BHL[FF#9H]	9695.00	-830.32	-4815.48	439055.75	587675.54

DRILLING TARGET: 9559' TVD @ OVS // 88.4° INC.

WINDOW: 10' UP // 10' DOWN



To convert Magnetic North to Grid, Add 7.09°
To convert True North to Grid, Subtract 0.14°

Azimuths to Grid North
True North: -0.14°
Magnetic North: 7.09°
Magnetic Field
Strength: 48048.5nT
Dip Angle: 60.00°
Date: 12/13/2017
Model: HDGM

CASING DETAILS

No casing data is available

SITE DETAILS: Fiddle Fee 24-28-23
Site Centre Northing: 439835.99
Easting: 582860.46

Positional Uncertainty: 0.00
Convergence: 0.14
Local North: Grid

Map System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone Name: New Mexico East 3001

Local Origin: Well WXY #9H, Grid North

Latitude: 32° 12' 32.687 N
Longitude: 104° 3' 55.540 W

Grid East: 582860.46
Grid North: 439889.00
Scale Factor: 1.000

Geomagnetic Model: HDGM
Sample Date: 13-Dec-17
Magnetic Declination: 7.23°
Dip Angle from Horizontal: 60.00°
Magnetic Field Strength: 48049

To convert Magnetic North to Grid, Add 7.09°
To convert Magnetic North to True, Add 7.23° East
To convert True North to Grid, Subtract 0.14°

PROJECT DETAILS: Eddy County, NM (NAD27)
Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001

System Datum: Mean Sea Level

