

Location: Doddridge Co., WV
 Field: Doddridge
 Facility: OXF-97 Pad

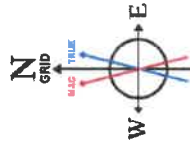
Slot: Slot H
 Well: OXF-97H-HS
 Wellbore: OXF-97H-HS PWB

True vertical depth is OXF-97H-HS PWB Raw-AD	Grid System: NAD27 / Lambert West Virginia SP, Northern Zone (N70), US Feet
True vertical depths are referenced to Precision 543 (RKB)	North Reference: Grid North
Measured depths are referenced to Precision 543 (RKB)	Scale: True distance
Precision 543 (RKB) to Mean Sea Level: 1351.41 feet	Depth is in feet
Mean Sea Level to Mud line (At Slot: Slot H): 1333.41 feet	Coordinates are in feet referenced to SNA
Coordinates are in feet referenced to SNA	Created by: admin on 05/17/2015

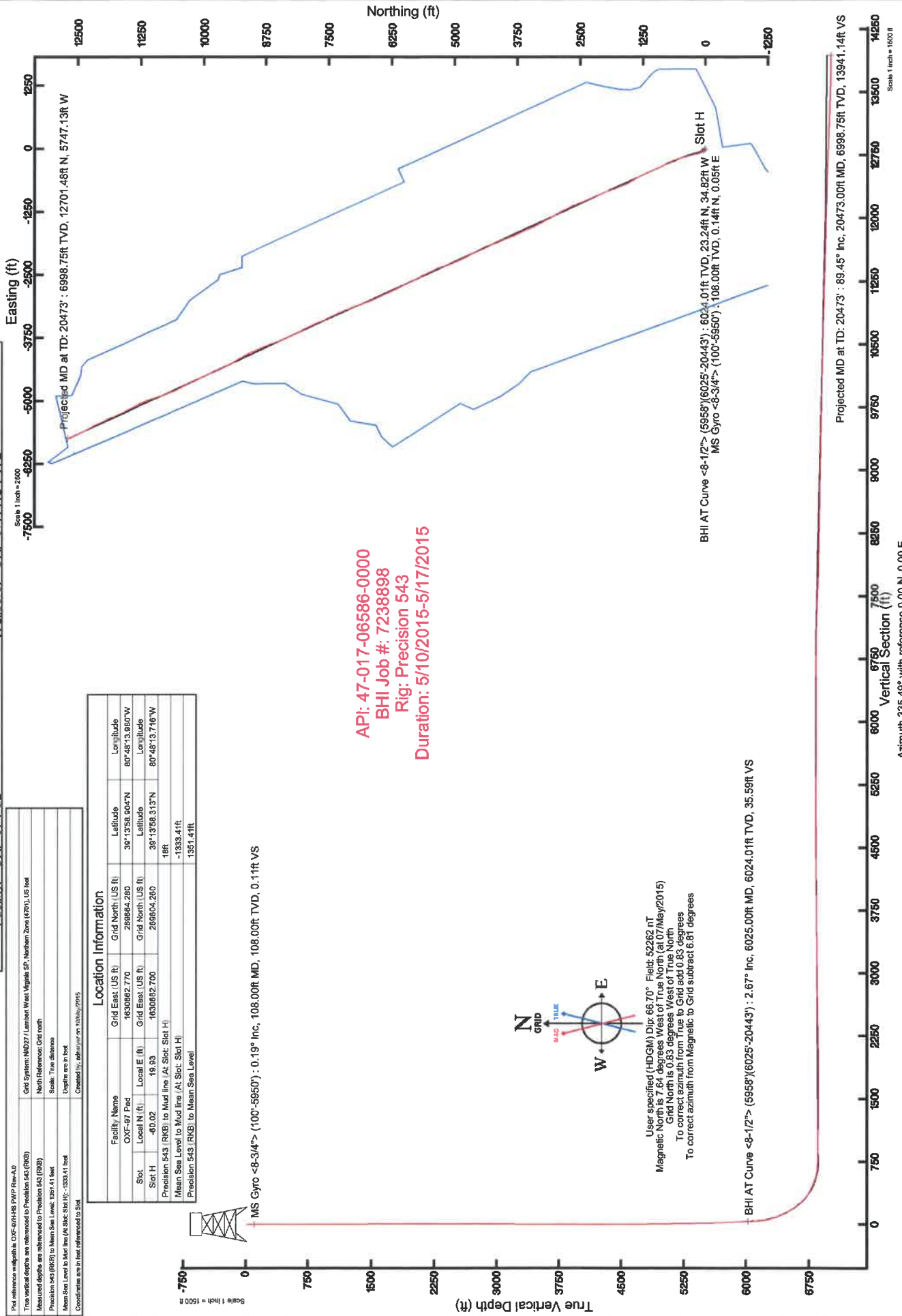
Location Information			
Facility Name	Grid East (US Ft)	Grid North (US Ft)	Latitude
OXF-97 Pad	1630862.770	268664.290	39°13'58.004"N
Local N (ft)	Local E (ft)	Grid North (US Ft)	Latitude
Slot H	1630862.700	268604.260	39°13'58.313"N
Precision 543 (RKB) to Mud line (At Slot: Slot H)	16ft		
Mean Sea Level to Mud line (At Slot: Slot H)	-1333.41ft		
Precision 543 (RKB) to Mean Sea Level	1351.41ft		

MS Gyro <8-3/4"> (100°-5950') : 0.19° Inc, 108.00ft MD, 108.00ft TVD, 0.11ft VS

User specified (HDGM) Dip: 66.70° Field: 52262 NT
 Magnetic North is 7.64 degrees West of True North (at 07/May/2015)
 Grid North is 0.83 degrees West of True North
 To correct azimuth from True to Grid add 0.83 degrees
 To correct azimuth from Magnetic to Grid subtract 6.81 degrees



BHI AT Curve <8-1/2"> (5958')(6025-20443') : 2.67° Inc, 6025.00ft MD, 6024.01ft TVD, 35.59ft VS



API: 47-017-06586-0000
 BHI Job #: 7238898
 Rig: Precision 543
 Duration: 5/10/2015-5/17/2015

Projected MD at TD: 20473' : 89.45° Inc, 20473.00ft MD, 6998.75ft TVD, 13941.14ft VS
 Vertical Section (ft)
 Azimuth 335.49° with reference 0.00 N, 0.00 E

BHI AT Curve <8-1/2"> (5958')(6025-20443') : 6024.01ft TVD, 23.24ft N, 34.82ft W
 MS Gyro <8-3/4"> (100°-5950') : 108.00ft TVD, 0.14ft N, 0.05ft E



Actual Wellpath Report

OXF-97H-HS AWP Proj: 20473'

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REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY	Slot	Slot H
Area	Doddridge Co., WV	Well	OXF-97H-HS
Field	Doddridge	Wellbore	OXF-97H-HS AWB
Facility	OXF-97 Pad		

REPORT SETUP INFORMATION

Projection System	NAD27 / Lambert West Virginia SP, Northern Zone (4701), US feet	Software System	WellArchitect@ 4.0.1
North Reference	Grid	User	Edsaryar
Scale	0.999964	Report Generated	19/May/2015 at 13:47
Convergence at slot	0.83° West	Database/Source file	WellArchitectEasternDB/OXF-97H-HS_AWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-60.02	19.93	1630682.70	269604.26	39°13'58.313"N	80°48'13.716"W
Facility Reference Pt			1630662.77	269664.28	39°13'58.904"N	80°48'13.980"W
Field Reference Pt			609601.22	0.00	38°23'48.753"N	84°21'09.765"W

WELLPATH DATUM

Calculation method	Minimum curvature	Precision 543 (RKB) to Facility Vertical Datum	1351.41ft
Horizontal Reference Pt	Slot	Precision 543 (RKB) to Mean Sea Level	1351.41ft
Vertical Reference Pt	Precision 543 (RKB)	Precision 543 (RKB) to Mud Line at Slot (Slot H)	18.00ft
MD Reference Pt	Precision 543 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	335.49°



Actual Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY	Slot	Slot H
Area	Doddridge Co., WV	Well	OXF-97H-HS
Field	Doddridge	Wellbore	OXF-97H-HS AWB
Facility	OXF-97 Pad		

WELLPATH DATA (224 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]
0.00†	0.000	20.000	0.00	0.00	0.00	0.00	1630682.70	269604.26	39°13'58.313"N	80°48'13.716"W	0.00	0.000	0.00	0.00	0.00
18.00	0.000	20.000	18.00	0.00	0.00	0.00	1630682.70	269604.26	39°13'58.313"N	80°48'13.716"W	0.00	0.000	0.00	0.00	0.00
108.00	0.190	20.000	108.00	0.11	0.14	0.05	1630682.75	269604.40	39°13'58.315"N	80°48'13.715"W	0.15	20.000	0.21	0.21	0.00
208.00	0.180	30.650	208.00	0.31	0.43	0.19	1630682.89	269604.69	39°13'58.318"N	80°48'13.714"W	0.47	23.539	0.04	-0.01	10.65
308.00	0.210	85.840	308.00	0.34	0.58	0.45	1630683.15	269604.84	39°13'58.319"N	80°48'13.710"W	0.73	37.868	0.18	0.03	55.19
408.00	0.070	159.730	408.00	0.22	0.54	0.65	1630683.35	269604.80	39°13'58.319"N	80°48'13.708"W	0.85	50.711	0.20	-0.14	73.89
508.00	0.080	262.700	508.00	0.18	0.47	0.61	1630683.31	269604.73	39°13'58.318"N	80°48'13.708"W	0.77	52.263	0.12	0.01	102.97
608.00	0.010	274.310	608.00	0.20	0.46	0.53	1630683.23	269604.72	39°13'58.318"N	80°48'13.709"W	0.70	48.895	0.07	-0.07	11.61
708.00	0.500	352.040	708.00	0.62	0.89	0.46	1630683.16	269605.15	39°13'58.322"N	80°48'13.710"W	1.01	27.201	0.50	0.49	77.73
808.00	0.470	351.170	807.99	1.44	1.73	0.34	1630683.04	269605.99	39°13'58.331"N	80°48'13.712"W	1.76	10.985	0.03	-0.03	-0.87
908.00	0.170	36.240	907.99	1.90	2.26	0.36	1630683.06	269606.52	39°13'58.336"N	80°48'13.712"W	2.28	9.086	0.37	-0.30	45.07
1008.00	0.200	38.580	1007.99	2.05	2.51	0.56	1630683.26	269606.77	39°13'58.338"N	80°48'13.709"W	2.57	12.508	0.03	0.03	2.34
1108.00	0.380	57.360	1107.99	2.18	2.83	0.95	1630683.65	269607.09	39°13'58.341"N	80°48'13.705"W	2.98	18.487	0.20	0.18	18.78
1208.00	0.590	46.450	1207.99	2.40	3.36	1.60	1630684.30	269607.62	39°13'58.347"N	80°48'13.696"W	3.72	25.425	0.23	0.21	-10.91
1308.00	0.590	57.530	1307.98	2.63	3.99	2.41	1630685.11	269608.25	39°13'58.353"N	80°48'13.686"W	4.66	31.068	0.11	0.00	11.08
1408.00	0.760	38.410	1407.97	3.01	4.79	3.25	1630685.95	269609.05	39°13'58.361"N	80°48'13.676"W	5.79	34.180	0.28	0.17	-19.12
1508.00	0.610	50.700	1507.97	3.45	5.65	4.08	1630686.78	269609.91	39°13'58.370"N	80°48'13.665"W	6.96	35.828	0.21	-0.15	12.29
1608.00	0.970	47.680	1607.96	3.84	6.55	5.11	1630687.81	269610.81	39°13'58.379"N	80°48'13.652"W	8.31	37.969	0.36	0.36	-3.02
1708.00	0.790	39.550	1707.95	4.40	7.65	6.18	1630688.88	269611.91	39°13'58.390"N	80°48'13.639"W	9.84	38.911	0.22	-0.18	-8.13
1808.00	0.690	85.610	1807.94	4.50	8.23	7.22	1630689.92	269612.49	39°13'58.396"N	80°48'13.626"W	10.95	41.245	0.59	-0.10	46.06
1908.00	0.540	43.980	1907.93	4.46	8.62	8.15	1630690.84	269612.88	39°13'58.400"N	80°48'13.614"W	11.86	43.389	0.46	-0.15	-41.63
2008.00	0.540	42.050	2007.93	4.82	9.31	8.79	1630691.49	269613.57	39°13'58.407"N	80°48'13.606"W	12.80	43.361	0.02	0.00	-1.93
2108.00	0.490	38.530	2107.92	5.20	9.99	9.37	1630692.07	269614.25	39°13'58.413"N	80°48'13.599"W	13.70	43.166	0.06	-0.05	-3.52
2208.00	0.340	50.900	2207.92	5.47	10.51	9.87	1630692.57	269614.77	39°13'58.419"N	80°48'13.593"W	14.42	43.187	0.17	-0.15	12.37
2308.00	0.410	54.320	2307.92	5.62	10.91	10.39	1630693.09	269615.17	39°13'58.423"N	80°48'13.586"W	15.06	43.601	0.07	0.07	3.42
2408.00	0.150	57.120	2407.92	5.70	11.19	10.79	1630693.49	269615.45	39°13'58.426"N	80°48'13.581"W	15.54	43.959	0.26	-0.26	2.80
2508.00	0.180	73.150	2507.92	5.70	11.30	11.05	1630693.75	269615.56	39°13'58.427"N	80°48'13.578"W	15.81	44.345	0.05	0.03	16.03
2608.00	0.340	148.930	2607.92	5.39	11.10	11.35	1630694.05	269615.35	39°13'58.425"N	80°48'13.574"W	15.87	45.655	0.34	0.16	75.78
2708.00	0.210	172.200	2707.92	4.92	10.66	11.53	1630694.23	269614.92	39°13'58.420"N	80°48'13.572"W	15.70	47.246	0.17	-0.13	23.27
2808.00	0.160	268.290	2807.92	4.79	10.47	11.42	1630694.11	269614.73	39°13'58.419"N	80°48'13.573"W	15.49	47.462	0.28	-0.05	96.09



Actual Wellpath Report

OXF-97H-HS AWP Proj: 20473'
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REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY	Slot	Slot H
Area	Doddridge Co., WV	Well	OXF-97H-HS
Field	Doddridge	Wellbore	OXF-97H-HS AWB
Facility	OXF-97 Pad		

WELLPATH DATA (224 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]
2908.00	0.260	249.420	2907.92	4.86	10.39	11.06	1630693.76	269614.65	39°13'58.418"N	80°48'13.577"W	15.18	46.798	0.12	0.10	-18.87
3008.00	0.240	109.170	3007.91	4.74	10.24	11.05	1630693.75	269614.50	39°13'58.416"N	80°48'13.578"W	15.07	47.171	0.47	-0.02	-140.25
3108.00	0.490	151.060	3107.91	4.16	9.80	11.45	1630694.15	269614.06	39°13'58.412"N	80°48'13.572"W	15.07	49.453	0.35	0.25	41.89
3208.00	0.490	170.600	3207.91	3.32	9.00	11.73	1630694.43	269613.26	39°13'58.404"N	80°48'13.569"W	14.79	52.495	0.17	0.00	19.54
3308.00	0.560	129.210	3307.91	2.47	8.27	12.18	1630694.88	269612.53	39°13'58.397"N	80°48'13.563"W	14.72	55.816	0.38	0.07	-41.39
3408.00	0.340	163.280	3407.90	1.74	7.68	12.64	1630695.34	269611.94	39°13'58.391"N	80°48'13.557"W	14.79	58.728	0.34	-0.22	34.07
3508.00	0.510	163.070	3507.90	1.01	6.97	12.86	1630695.56	269611.23	39°13'58.384"N	80°48'13.554"W	14.62	61.543	0.17	0.17	-0.21
3608.00	0.410	214.330	3607.90	0.38	6.25	12.79	1630695.48	269610.51	39°13'58.377"N	80°48'13.555"W	14.23	63.958	0.41	-0.10	51.26
3708.00	0.400	171.790	3707.89	-0.14	5.61	12.63	1630695.33	269609.87	39°13'58.371"N	80°48'13.557"W	13.82	66.070	0.29	-0.01	-42.54
3808.00	0.340	234.340	3807.89	-0.53	5.09	12.44	1630695.14	269609.35	39°13'58.365"N	80°48'13.559"W	13.44	67.759	0.39	-0.06	62.55
3908.00	0.380	237.620	3907.89	-0.64	4.74	11.92	1630694.62	269609.00	39°13'58.362"N	80°48'13.565"W	12.83	68.327	0.04	0.04	3.28
4008.00	0.360	235.990	4007.89	-0.73	4.38	11.38	1630694.08	269608.64	39°13'58.358"N	80°48'13.572"W	12.20	68.932	0.02	-0.02	-1.63
4108.00	0.260	226.280	4107.89	-0.86	4.05	10.96	1630693.66	269608.31	39°13'58.355"N	80°48'13.578"W	11.68	69.706	0.11	-0.10	-9.71
4208.00	0.450	279.020	4207.89	-0.72	3.96	10.40	1630693.10	269608.22	39°13'58.354"N	80°48'13.585"W	11.13	69.181	0.36	0.19	52.74
4308.00	0.590	260.750	4307.88	-0.36	3.94	9.51	1630692.21	269608.19	39°13'58.354"N	80°48'13.596"W	10.29	67.518	0.22	0.14	-18.27
4408.00	0.590	256.740	4407.88	-0.13	3.73	8.50	1630691.20	269607.99	39°13'58.352"N	80°48'13.609"W	9.28	66.281	0.04	0.00	-4.01
4508.00	0.880	280.530	4507.87	0.41	3.76	7.24	1630689.94	269608.02	39°13'58.352"N	80°48'13.625"W	8.16	62.587	0.42	0.29	23.79
4608.00	1.010	265.020	4607.85	1.15	3.82	5.61	1630688.31	269608.08	39°13'58.352"N	80°48'13.645"W	6.79	55.746	0.29	0.13	-15.51
4708.00	1.140	270.440	4707.84	1.86	3.75	3.74	1630686.44	269608.01	39°13'58.351"N	80°48'13.669"W	5.30	44.892	0.16	0.13	5.42
4808.00	1.130	293.230	4807.82	3.01	4.15	1.84	1630684.54	269608.41	39°13'58.355"N	80°48'13.693"W	4.54	23.880	0.45	-0.01	22.79
4908.00	1.320	291.010	4907.79	4.56	4.95	-0.14	1630682.56	269609.21	39°13'58.362"N	80°48'13.719"W	4.95	358.323	0.20	0.19	-2.22
5008.00	1.430	292.280	5007.77	6.30	5.84	-2.37	1630680.33	269610.10	39°13'58.371"N	80°48'13.747"W	6.30	337.857	0.11	0.11	1.27
5108.00	1.620	289.640	5107.73	8.19	6.78	-4.86	1630677.84	269611.02	39°13'58.380"N	80°48'13.779"W	8.35	324.379	0.20	0.19	-2.64
5208.00	1.300	290.750	5207.70	9.98	7.66	-7.66	1630675.45	269611.92	39°13'58.388"N	80°48'13.810"W	10.55	316.568	0.32	-0.32	1.11
5308.00	1.450	292.740	5307.67	11.71	8.55	-9.48	1630673.22	269612.81	39°13'58.397"N	80°48'13.838"W	12.77	312.053	0.16	0.15	1.99
5408.00	1.570	290.430	5407.63	13.61	9.52	-11.93	1630670.77	269613.78	39°13'58.406"N	80°48'13.869"W	15.26	308.585	0.13	0.12	-2.31
5508.00	1.790	290.750	5507.59	15.69	10.55	-14.68	1630668.03	269614.81	39°13'58.416"N	80°48'13.904"W	18.07	305.714	0.22	0.22	0.32
5608.00	2.080	293.500	5607.53	18.15	11.83	-17.80	1630664.90	269616.09	39°13'58.428"N	80°48'13.944"W	21.37	303.603	0.30	0.29	2.75
5708.00	2.390	293.620	5707.46	21.05	13.39	-21.37	1630661.33	269617.65	39°13'58.443"N	80°48'13.990"W	25.22	302.059	0.31	0.31	0.12
5808.00	3.090	305.920	5807.34	24.94	15.80	-25.47	1630657.23	269620.06	39°13'58.466"N	80°48'14.043"W	29.97	301.821	0.91	0.70	12.30



Actual Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY	Slot	Slot H
Area	Doddridge Co., WV	Well	OXF-97H-HS
Field	Doddridge	Wellbore	OXF-97H-HS AWB
Facility	OXF-97 Pad		

WELLPATH DATA (224 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]
5908.00	3.350	308.790	5907.19	29.90	19.22	-29.93	1630652.77	269623.47	39°13'58.499"N	80°48'14.100"W	35.57	302.702	0.31	0.26	2.87
5958.00	3.300	315.150	5957.10	32.55	21.15	-32.08	1630650.62	269625.41	39°13'58.518"N	80°48'14.128"W	38.43	303.396	0.74	-0.10	12.72
6025.00	2.670	297.670	6024.01	35.59	23.24	-34.82	1630647.88	269627.50	39°13'58.538"N	80°48'14.163"W	41.87	303.720	1.64	-0.94	-26.09
6115.00	3.580	308.850	6113.88	39.76	25.98	-38.87	1630643.83	269630.24	39°13'58.565"N	80°48'14.215"W	46.75	303.757	1.21	1.01	12.42
6204.00	8.120	322.650	6202.40	48.38	32.72	-44.85	1630637.85	269636.98	39°13'58.630"N	80°48'14.292"W	55.52	306.114	5.30	5.10	15.51
6294.00	15.380	328.770	6290.45	66.45	48.00	-54.91	1630627.79	269652.26	39°13'58.780"N	80°48'14.423"W	72.93	311.161	8.17	8.07	6.80
6383.00	21.960	335.910	6374.73	94.85	73.32	-67.83	1630614.87	269677.57	39°13'59.028"N	80°48'14.592"W	99.88	317.224	7.81	7.39	8.02
6473.00	27.080	341.220	6456.60	132.09	108.10	-81.31	1630601.39	269712.36	39°13'59.370"N	80°48'14.769"W	135.27	323.051	6.19	5.69	5.90
6562.00	29.830	343.160	6534.84	174.19	148.48	-94.25	1630588.46	269752.73	39°13'59.767"N	80°48'14.941"W	175.86	327.594	3.26	3.09	2.18
6652.00	35.750	348.110	6610.48	222.09	195.68	-106.16	1630576.54	269799.93	39°14'00.232"N	80°48'15.101"W	222.62	331.519	7.22	6.58	5.50
6741.00	46.190	345.330	6677.60	279.26	252.35	-119.69	1630563.02	269856.60	39°14'00.790"N	80°48'15.283"W	279.29	334.625	11.91	11.73	-3.12
6831.00	56.000	343.230	6734.05	348.40	319.65	-138.72	1630543.98	269923.90	39°14'01.453"N	80°48'15.538"W	348.46	336.540	11.05	10.90	-2.33
6920.00	65.350	345.320	6777.60	424.98	394.27	-159.67	1630523.04	269998.52	39°14'02.187"N	80°48'15.818"W	425.37	337.954	10.70	10.51	2.35
7010.00	68.410	343.620	6812.93	506.73	474.00	-181.84	1630500.87	270078.24	39°14'02.972"N	80°48'16.114"W	507.68	339.012	3.82	3.40	-1.89
7099.00	75.410	342.000	6840.55	590.58	554.76	-206.85	1630475.86	270159.00	39°14'03.766"N	80°48'16.447"W	592.07	339.552	8.05	7.87	-1.82
7189.00	85.810	340.660	6855.22	678.80	638.76	-235.25	1630447.46	270243.00	39°14'04.592"N	80°48'16.823"W	680.71	339.782	11.65	11.56	-1.49
7278.00	90.430	332.090	6858.14	767.63	720.16	-270.86	1630411.85	270324.39	39°14'05.392"N	80°48'17.291"W	769.41	339.388	10.93	5.19	-9.63
7368.00	89.880	334.690	6857.90	857.56	800.62	-311.17	1630371.54	270404.85	39°14'06.181"N	80°48'17.818"W	858.96	338.761	2.95	-0.61	2.89
7458.00	89.230	334.370	6858.60	947.55	881.87	-349.87	1630332.84	270486.09	39°14'06.978"N	80°48'18.325"W	948.74	338.360	0.80	-0.72	-0.36
7547.00	89.630	336.100	6859.48	1036.54	962.68	-387.15	1630295.57	270566.90	39°14'07.772"N	80°48'18.813"W	1037.61	338.092	2.00	0.45	1.94
7637.00	87.720	335.420	6861.57	1126.51	1044.71	-424.09	1630258.63	270648.93	39°14'08.577"N	80°48'19.298"W	1127.51	337.906	2.25	-2.12	-0.76
7726.00	88.890	333.600	6864.20	1215.45	1125.01	-462.37	1630220.35	270729.23	39°14'09.365"N	80°48'19.799"W	1216.32	337.658	2.43	1.31	-2.04
7816.00	89.940	335.670	6865.12	1305.43	1206.32	-500.92	1630181.80	270810.54	39°14'10.163"N	80°48'20.304"W	1306.19	337.450	2.58	1.17	2.30
7905.00	89.970	334.520	6865.19	1394.43	1287.05	-538.40	1630144.32	270891.26	39°14'10.956"N	80°48'20.795"W	1395.12	337.299	1.29	0.03	-1.29
7995.00	89.780	331.170	6865.38	1484.32	1367.12	-579.47	1630103.25	270971.32	39°14'11.741"N	80°48'21.332"W	1484.85	337.030	3.73	-0.21	-3.72
8085.00	90.280	328.870	6865.34	1573.90	1445.07	-624.44	1630058.29	271049.27	39°14'12.505"N	80°48'21.918"W	1574.21	336.630	2.62	0.56	-2.56
8174.00	89.880	329.610	6865.21	1662.37	1521.55	-669.96	1630012.77	271125.75	39°14'13.254"N	80°48'22.510"W	1662.51	336.236	0.95	-0.45	0.83
8264.00	90.550	336.740	6864.87	1752.24	1601.81	-710.54	1629972.18	271206.01	39°14'14.042"N	80°48'23.041"W	1752.33	336.078	7.96	0.74	7.92
8353.00	90.340	336.670	6864.18	1841.22	1683.55	-745.74	1629936.99	271287.75	39°14'14.844"N	80°48'23.503"W	1841.32	336.109	0.25	-0.24	-0.08
8442.00	90.400	339.240	6863.61	1930.12	1766.04	-779.14	1629903.59	271370.23	39°14'15.655"N	80°48'23.943"W	1930.27	336.194	2.89	0.07	2.89



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REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY	Slot	Slot H
Area	Doddridge Co., WV	Well	OXF-97H-HS
Field	Doddridge	Wellbore	OXF-97H-HS AWB
Facility	OXF-97 Pad		

WELLPATH DATA (224 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]
8532.00	90.460	340.830	6862.93	2019.84	1850.62	-809.87	1629872.86	271454.81	39°14'16.486"N	80°48'24.349"W	2020.07	336.365	1.77	0.07	1.77
8622.00	90.800	341.210	6861.94	2109.41	1935.72	-839.14	1629843.59	271539.91	39°14'17.323"N	80°48'24.737"W	2109.78	336.563	0.57	0.38	0.42
8711.00	91.020	336.680	6860.53	2198.21	2018.75	-871.10	1629811.63	271622.93	39°14'18.139"N	80°48'25.158"W	2198.67	336.660	5.10	0.25	-5.09
8800.00	91.050	335.520	6858.92	2287.19	2100.10	-907.15	1629775.58	271704.28	39°14'18.938"N	80°48'25.631"W	2287.65	336.638	1.30	0.03	-1.30
8890.00	91.140	335.940	6857.20	2377.18	2182.13	-944.14	1629738.60	271786.31	39°14'19.743"N	80°48'26.117"W	2377.62	336.603	0.48	0.10	0.47
8979.00	91.290	336.130	6855.31	2466.15	2263.44	-980.28	1629702.46	271867.62	39°14'20.542"N	80°48'26.591"W	2466.60	336.583	0.27	0.17	0.21
9069.00	90.280	337.060	6854.08	2556.12	2346.03	-1016.03	1629666.71	271950.20	39°14'21.353"N	80°48'27.060"W	2556.59	336.583	1.53	-1.12	1.03
9158.00	90.800	338.200	6853.24	2645.06	2428.32	-1049.90	1629632.84	272032.49	39°14'22.161"N	80°48'27.506"W	2645.57	336.619	1.41	0.58	1.28
9247.00	90.740	338.560	6852.05	2733.94	2511.06	-1082.68	1629600.06	272115.22	39°14'22.974"N	80°48'27.938"W	2734.52	336.676	0.41	-0.07	0.40
9337.00	90.770	339.120	6850.86	2823.77	2594.98	-1115.17	1629567.57	272199.14	39°14'23.799"N	80°48'28.366"W	2824.45	336.745	0.62	0.03	0.62
9426.00	90.740	334.090	6849.69	2912.72	2676.63	-1150.49	1629532.25	272280.79	39°14'24.601"N	80°48'28.830"W	2913.41	336.741	5.65	-0.03	-5.65
9516.00	90.800	334.560	6848.48	3002.69	2757.74	-1189.48	1629493.26	272361.89	39°14'25.397"N	80°48'29.311"W	3003.33	336.668	0.53	0.07	0.52
9606.00	90.710	332.170	6847.29	3092.62	2838.17	-1229.82	1629452.92	272442.32	39°14'26.186"N	80°48'29.869"W	3093.17	336.572	2.66	-0.10	-2.66
9695.00	90.800	331.080	6846.12	3181.41	2916.47	-1272.12	1629410.63	272520.62	39°14'26.953"N	80°48'30.421"W	3181.84	336.434	1.23	0.10	-1.22
9785.00	90.710	329.490	6844.93	3271.02	2994.63	-1316.72	1629366.03	272598.77	39°14'27.719"N	80°48'31.002"W	3271.32	336.265	1.77	-0.10	-1.77
9874.00	90.800	330.150	6843.76	3359.58	3071.56	-1361.46	1629321.29	272675.70	39°14'28.473"N	80°48'31.585"W	3359.77	336.095	0.75	0.10	0.74
9964.00	90.710	333.490	6842.57	3449.37	3150.87	-1403.95	1629278.80	272755.01	39°14'29.251"N	80°48'32.139"W	3449.50	335.983	3.71	-0.10	3.71
10053.00	90.650	332.390	6841.52	3538.28	3230.12	-1444.44	1629238.32	272834.26	39°14'30.028"N	80°48'32.669"W	3538.37	335.907	1.24	-0.07	-1.24
10143.00	90.580	331.170	6840.55	3628.08	3309.42	-1486.99	1629195.76	272913.55	39°14'30.806"N	80°48'33.224"W	3628.14	335.805	1.36	-0.08	-1.36
10232.00	90.740	334.270	6839.52	3716.96	3388.50	-1527.78	1629154.98	272992.64	39°14'31.582"N	80°48'33.757"W	3717.00	335.731	3.49	0.18	3.48
10322.00	90.520	335.030	6838.54	3806.95	3469.83	-1566.31	1629116.45	273073.96	39°14'32.380"N	80°48'34.262"W	3806.97	335.705	0.88	-0.24	0.84
10412.00	90.650	336.810	6837.62	3896.94	3551.99	-1603.02	1629079.74	273156.12	39°14'33.186"N	80°48'34.744"W	3896.97	335.710	1.98	0.14	1.98
10501.00	90.710	335.950	6836.56	3985.92	3633.53	-1638.68	1629044.08	273237.69	39°14'33.987"N	80°48'35.212"W	3985.95	335.725	0.97	0.07	-0.97
10590.00	90.580	333.120	6835.56	4074.89	3713.87	-1676.94	1629005.82	273317.95	39°14'34.776"N	80°48'35.713"W	4074.92	335.699	3.18	-0.15	-3.18
10680.00	90.620	336.100	6834.62	4164.87	3795.16	-1715.53	1628967.24	273399.28	39°14'35.573"N	80°48'36.218"W	4164.89	335.676	3.31	0.04	3.31
10859.00	90.710	340.620	6832.54	4343.58	3961.49	-1781.51	1628901.25	273565.60	39°14'37.208"N	80°48'37.088"W	4343.64	335.786	2.53	0.05	2.53
10948.00	90.220	334.610	6831.81	4432.48	4043.75	-1815.39	1628867.38	273647.85	39°14'38.016"N	80°48'37.534"W	4432.55	335.823	6.77	-0.55	-6.75
11038.00	90.220	338.640	6831.47	4522.44	4126.34	-1851.09	1628831.68	273730.44	39°14'38.827"N	80°48'38.003"W	4522.52	335.839	4.48	0.00	4.48
11127.00	90.220	341.380	6831.13	4611.15	4209.97	-1881.51	1628801.26	273814.07	39°14'39.649"N	80°48'38.405"W	4611.28	335.919	3.08	0.00	3.08
11217.00	90.150	342.000	6830.84	4700.63	4295.41	-1909.79	1628772.99	273899.51	39°14'40.489"N	80°48'38.780"W	4700.84	336.030	0.69	-0.08	0.69



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REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY	Slot	Slot H
Area	Doddridge Co., WV	Well	OXF-97H-HS
Field	Doddridge	Wellbore	OXF-97H-HS AWB
Facility	OXF-97 Pad		

WELLPATH DATA (224 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]
11307.00	89.880	337.020	6830.81	4790.38	4379.69	-1941.28	1628741.49	273983.79	39°14'41.318"N	80°48'39.196"W	4790.64	336.095	5.54	-0.30	-5.53
11396.00	89.940	333.190	6830.95	4879.36	4460.41	-1978.74	1628704.04	274064.50	39°14'42.110"N	80°48'39.687"W	4879.61	336.077	4.30	0.07	-4.30
11486.00	89.880	329.650	6831.09	4969.12	4539.43	-2021.79	1628660.99	274143.52	39°14'42.885"N	80°48'40.249"W	4969.31	335.993	3.93	-0.07	-3.93
11576.00	89.850	333.560	6831.31	5058.89	4618.58	-2064.58	1628618.20	274222.67	39°14'43.661"N	80°48'40.807"W	5059.03	335.915	4.34	-0.03	4.34
11665.00	89.880	332.590	6831.52	5147.81	4697.94	-2104.88	1628577.90	274302.02	39°14'44.439"N	80°48'41.334"W	5147.92	335.866	1.09	0.03	-1.09
11754.00	89.820	332.510	6831.75	5236.70	4776.92	-2145.90	1628536.88	274380.99	39°14'45.214"N	80°48'41.870"W	5236.78	335.809	0.11	-0.07	-0.09
11844.00	89.780	332.930	6832.06	5326.59	4856.90	-2187.16	1628495.63	274460.98	39°14'45.998"N	80°48'42.409"W	5326.65	335.757	0.47	-0.04	0.47
11933.00	89.570	335.450	6832.57	5415.56	4937.02	-2225.90	1628456.88	274541.09	39°14'46.785"N	80°48'42.917"W	5415.61	335.731	2.84	-0.24	2.83
12023.00	89.940	339.530	6832.95	5505.48	5020.14	-2260.35	1628422.44	274624.21	39°14'47.601"N	80°48'43.370"W	5505.54	335.760	4.55	0.41	4.53
12112.00	89.780	338.920	6833.17	5594.29	5103.36	-2291.92	1628390.87	274707.42	39°14'48.419"N	80°48'43.786"W	5594.38	335.815	0.71	-0.18	-0.69
12202.00	89.910	342.630	6833.41	5683.89	5188.32	-2321.55	1628361.24	274792.39	39°14'49.254"N	80°48'44.179"W	5684.04	335.894	4.12	0.14	4.12
12291.00	89.940	343.330	6833.53	5772.13	5273.42	-2347.60	1628335.19	274877.48	39°14'50.092"N	80°48'44.526"W	5772.37	336.003	0.79	0.03	0.79
12381.00	89.970	334.780	6833.60	5861.88	5357.40	-2379.74	1628303.05	274961.46	39°14'50.917"N	80°48'44.950"W	5862.16	336.049	9.50	0.03	-9.50
12471.00	89.780	331.240	6833.80	5951.78	5437.58	-2420.58	1628262.21	275041.64	39°14'51.703"N	80°48'45.484"W	5952.02	336.003	3.94	-0.21	-3.93
12560.00	89.940	333.690	6834.01	6040.65	5516.50	-2461.72	1628221.07	275120.55	39°14'52.477"N	80°48'46.021"W	6040.84	335.951	2.76	0.18	2.75
12649.00	89.970	336.270	6834.08	6129.64	5597.14	-2499.36	1628183.44	275201.19	39°14'53.269"N	80°48'46.515"W	6129.82	335.937	2.90	0.03	2.90
12739.00	90.340	333.020	6833.84	6219.61	5678.46	-2537.89	1628144.90	275282.50	39°14'54.067"N	80°48'47.019"W	6219.79	335.919	3.63	0.41	-3.61
12829.00	90.000	331.510	6833.57	6309.47	5758.11	-2579.78	1628103.02	275362.16	39°14'54.848"N	80°48'47.567"W	6309.60	335.866	1.72	-0.38	-1.68
12918.00	90.740	333.620	6833.00	6398.34	5837.10	-2620.78	1628062.02	275441.14	39°14'55.623"N	80°48'48.102"W	6398.45	335.821	2.51	0.83	2.37
13008.00	90.150	333.950	6832.30	6488.30	5917.84	-2660.53	1628022.27	275521.87	39°14'56.415"N	80°48'48.623"W	6488.39	335.792	0.75	-0.66	0.37
13097.00	90.120	334.580	6832.09	6577.28	5998.01	-2699.18	1627983.62	275602.04	39°14'57.202"N	80°48'49.129"W	6577.36	335.772	0.71	-0.03	0.71
13187.00	89.910	333.270	6832.07	6667.24	6078.85	-2738.74	1627944.07	275682.88	39°14'57.995"N	80°48'49.647"W	6667.31	335.747	1.47	-0.23	-1.46
13276.00	90.000	332.170	6832.14	6756.14	6157.95	-2779.53	1627903.28	275761.97	39°14'58.771"N	80°48'50.180"W	6756.19	335.707	1.24	0.10	-1.24
13366.00	89.660	337.000	6832.40	6846.10	6239.21	-2818.14	1627864.67	275843.24	39°14'59.568"N	80°48'50.686"W	6846.14	335.692	5.38	-0.38	5.37
13456.00	89.170	336.960	6833.32	6936.07	6322.04	-2853.33	1627829.47	275926.06	39°15'00.382"N	80°48'51.148"W	6936.12	335.709	0.55	-0.54	-0.04
13545.00	88.950	333.940	6834.78	7025.04	6402.97	-2890.30	1627792.51	276006.99	39°15'01.176"N	80°48'51.633"W	7025.09	335.706	3.40	-0.25	-3.39
13635.00	88.520	333.960	6836.77	7114.99	6483.81	-2929.82	1627752.99	276087.83	39°15'01.969"N	80°48'52.150"W	7115.03	335.683	0.48	-0.48	0.02
13725.00	88.310	334.900	6839.26	7204.94	6564.96	-2968.65	1627714.17	276168.98	39°15'02.766"N	80°48'52.659"W	7204.97	335.668	1.07	-0.23	1.04
13814.00	88.370	337.830	6841.84	7293.88	6646.46	-3004.31	1627678.50	276250.46	39°15'03.566"N	80°48'53.128"W	7293.92	335.676	3.29	0.07	3.29
13904.00	88.280	340.300	6844.47	7383.66	6730.47	-3036.45	1627646.36	276334.48	39°15'04.392"N	80°48'53.552"W	7383.72	335.717	2.75	-0.10	2.74



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REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY	Slot	Slot H
Area	Doddridge Co., WV	Well	OXF-97H-HS
Field	Doddridge	Wellbore	OXF-97H-HS AWB
Facility	OXF-97 Pad		

WELLPATH DATA (224 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]
13993.00	87.820	340.530	6847.50	7472.28	6814.27	-3066.27	1627616.55	276418.28	39°15'05.216"N	80°48'53.946"W	7472.37	335.773	0.58	-0.52	0.26
14083.00	87.780	337.710	6850.95	7562.02	6898.29	-3098.32	1627584.50	276502.29	39°15'06.041"N	80°48'54.369"W	7562.14	335.813	3.13	-0.04	-3.13
14172.00	87.780	338.460	6854.40	7650.87	6980.80	-3131.51	1627551.31	276584.80	39°15'06.852"N	80°48'54.806"W	7651.01	335.840	0.84	0.00	0.84
14262.00	88.280	337.280	6857.50	7740.73	7064.12	-3165.39	1627517.43	276668.11	39°15'07.670"N	80°48'55.253"W	7740.90	335.863	1.42	0.56	-1.31
14351.00	89.290	337.830	6859.38	7829.65	7146.36	-3199.36	1627483.46	276750.35	39°15'08.478"N	80°48'55.700"W	7829.84	335.882	1.29	1.13	0.62
14441.00	89.200	337.960	6860.57	7919.57	7229.73	-3233.23	1627449.59	276833.72	39°15'09.297"N	80°48'56.146"W	7919.77	335.905	0.18	-0.10	0.14
14530.00	88.740	335.760	6862.17	8008.52	7311.56	-3268.20	1627414.63	276915.54	39°15'10.101"N	80°48'56.605"W	8008.74	335.916	2.52	-0.52	-2.47
14619.00	89.110	334.620	6863.84	8097.50	7392.33	-3305.53	1627377.29	276996.31	39°15'10.894"N	80°48'57.095"W	8097.72	335.908	1.35	0.42	-1.28
14709.00	88.890	333.470	6865.41	8187.46	7473.23	-3344.92	1627337.91	277077.21	39°15'11.688"N	80°48'57.611"W	8187.66	335.887	1.30	-0.24	-1.28
14799.00	88.710	332.660	6867.29	8277.36	7553.45	-3385.68	1627297.15	277157.43	39°15'12.474"N	80°48'58.144"W	8277.53	335.857	0.92	-0.20	-0.90
14888.00	88.950	336.220	6869.11	8366.31	7633.71	-3424.06	1627258.77	277237.68	39°15'13.262"N	80°48'58.647"W	8366.47	335.842	4.01	0.27	4.00
14977.00	88.830	337.970	6870.86	8456.25	7716.60	-3459.08	1627223.75	277320.57	39°15'14.076"N	80°48'59.107"W	8456.43	335.855	1.95	-0.13	1.94
15067.00	88.770	336.610	6872.72	8545.19	7798.68	-3493.43	1627189.40	277402.64	39°15'14.882"N	80°48'59.559"W	8545.38	335.870	1.53	-0.07	-1.53
15156.00	90.710	336.250	6873.12	8634.17	7880.25	-3529.02	1627153.81	277484.21	39°15'15.683"N	80°49'00.027"W	8634.37	335.876	2.22	2.18	-0.40
15246.00	88.620	332.120	6873.65	8724.12	7961.24	-3568.20	1627114.64	277565.20	39°15'16.478"N	80°49'00.540"W	8724.30	335.858	5.14	-2.32	-4.59
15336.00	88.680	329.510	6875.77	8813.79	8039.79	-3612.07	1627070.77	277643.74	39°15'17.248"N	80°49'01.112"W	8813.92	335.807	2.90	0.07	-2.90
15425.00	88.710	334.950	6877.80	8902.59	8118.49	-3653.51	1627029.33	277722.44	39°15'18.020"N	80°49'01.653"W	8902.70	335.771	6.11	0.03	6.11
15514.00	88.890	338.090	6879.66	8991.54	8200.09	-3688.96	1626993.88	277804.04	39°15'18.821"N	80°49'02.119"W	8991.66	335.779	3.53	0.20	3.53
15604.00	89.200	336.500	6881.16	9081.48	8283.10	-3723.69	1626959.15	277887.05	39°15'19.636"N	80°49'02.576"W	9081.61	335.794	1.80	0.34	-1.77
15693.00	89.110	333.130	6882.48	9170.45	8363.62	-3761.56	1626921.29	277967.56	39°15'20.427"N	80°49'03.072"W	9170.58	335.784	3.79	-0.10	-3.79
15783.00	89.200	335.390	6883.80	9260.42	8444.68	-3800.63	1626882.21	278048.62	39°15'21.222"N	80°49'03.584"W	9260.53	335.769	2.51	0.10	2.51
15872.00	88.860	340.180	6885.31	9349.31	8527.03	-3834.27	1626848.58	278130.97	39°15'22.031"N	80°49'04.027"W	9349.44	335.788	5.39	-0.38	5.38
15962.00	88.890	341.520	6887.08	9438.90	8612.04	-3863.79	1626819.06	278215.97	39°15'22.867"N	80°49'04.418"W	9439.07	335.837	1.49	0.03	1.49
16051.00	88.920	338.570	6888.78	9527.59	8695.67	-3894.15	1626788.70	278299.60	39°15'23.689"N	80°49'04.820"W	9527.80	335.876	3.31	0.03	-3.31
16141.00	88.980	338.980	6890.43	9617.43	8779.55	-3926.73	1626756.12	278383.48	39°15'24.513"N	80°49'05.249"W	9617.68	335.903	0.46	0.07	0.46
16230.00	88.680	335.570	6892.25	9706.35	8861.61	-3961.10	1626721.75	278465.53	39°15'25.319"N	80°49'05.702"W	9706.62	335.916	3.85	-0.34	-3.83
16320.00	88.620	337.720	6894.37	9796.30	8944.21	-3996.77	1626686.09	278548.13	39°15'26.130"N	80°49'06.170"W	9796.58	335.922	2.39	-0.07	2.39
16409.00	88.650	337.350	6896.49	9885.22	9026.43	-4030.76	1626652.09	278630.35	39°15'26.938"N	80°49'06.618"W	9885.52	335.937	0.42	0.03	-0.42
16499.00	88.740	333.380	6898.54	9975.18	9108.20	-4068.26	1626614.59	278712.12	39°15'27.741"N	80°49'07.110"W	9975.47	335.932	4.41	0.10	-4.41
16588.00	88.710	331.960	6900.52	10064.05	9187.25	-4109.11	1626573.74	278791.16	39°15'28.516"N	80°49'07.644"W	10064.31	335.903	1.60	-0.03	-1.60



Actual Wellpath Report

OXF-97H-HS AWP Proj: 20473'
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REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY	Slot	Slot H
Area	Doddridge Co., WV	Well	OXF-97H-HS
Field	Doddridge	Wellbore	OXF-97H-HS AWB
Facility	OXF-97 Pad		

WELLPATH DATA (224 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]
16678.00	88.770	328.290	6902.50	10153.61	9265.25	-4153.92	1626528.93	278869.16	39°15'29.280"N	80°49'08.228"W	10153.82	335.852	4.08	0.07	-4.08
16768.00	88.680	328.110	6904.50	10242.87	9341.72	-4201.34	1626481.52	278945.63	39°15'30.029"N	80°49'08.845"W	10243.00	335.785	0.22	-0.10	-0.20
16857.00	88.770	329.880	6906.48	10331.27	9417.99	-4247.17	1626435.69	279021.89	39°15'30.776"N	80°49'09.442"W	10331.36	335.726	1.99	0.10	1.99
16947.00	88.580	331.670	6908.56	10420.94	9496.51	-4291.10	1626391.76	279100.41	39°15'31.546"N	80°49'10.015"W	10421.00	335.684	2.00	-0.21	1.99
17036.00	88.710	334.850	6910.67	10509.83	9575.96	-4331.13	1626351.74	279179.85	39°15'32.325"N	80°49'10.539"W	10509.88	335.663	3.58	0.15	3.57
17126.00	88.610	335.330	6912.77	10599.81	9657.56	-4369.02	1626313.84	279261.46	39°15'33.126"N	80°49'11.036"W	10599.85	335.658	0.54	-0.11	0.53
17216.00	88.770	337.560	6914.83	10689.76	9740.03	-4404.98	1626277.89	279343.93	39°15'33.936"N	80°49'11.508"W	10689.81	335.665	2.48	0.18	2.48
17305.00	88.430	338.400	6917.00	10778.65	9822.52	-4438.34	1626244.53	279426.41	39°15'34.746"N	80°49'11.947"W	10778.71	335.684	1.02	-0.38	0.94
17394.00	88.180	337.800	6919.64	10867.52	9905.06	-4471.52	1626211.35	279508.94	39°15'35.557"N	80°49'12.385"W	10867.60	335.704	0.73	-0.28	-0.67
17484.00	88.400	335.180	6922.32	10957.46	9987.54	-4507.40	1626175.47	279591.43	39°15'36.367"N	80°49'12.856"W	10957.54	335.710	2.92	0.24	-2.91
17573.00	89.230	332.440	6924.16	11046.39	10067.38	-4546.67	1626136.20	279671.26	39°15'37.151"N	80°49'13.370"W	11046.46	335.695	3.22	0.93	-3.08
17663.00	88.740	332.690	6925.76	11136.26	10147.25	-4588.13	1626094.75	279751.12	39°15'37.934"N	80°49'13.912"W	11136.32	335.670	0.61	-0.54	0.28
17752.00	88.830	335.140	6927.65	11225.20	10227.16	-4627.25	1626055.62	279831.03	39°15'38.718"N	80°49'14.424"W	11225.25	335.656	2.75	0.10	2.75
17842.00	87.570	334.860	6930.47	11315.15	10308.68	-4665.27	1626017.61	279912.55	39°15'39.518"N	80°49'14.923"W	11315.19	335.651	1.43	-1.40	-0.31
17932.00	88.920	334.910	6933.23	11405.10	10390.13	-4703.45	1625979.43	279994.00	39°15'40.317"N	80°49'15.424"W	11405.14	335.644	1.50	1.50	0.06
18021.00	89.010	331.220	6934.84	11493.99	10469.45	-4743.75	1625939.13	280073.32	39°15'41.096"N	80°49'15.951"W	11494.02	335.625	4.15	0.10	-4.15
18111.00	87.660	334.720	6937.45	11583.85	10549.57	-4784.63	1625898.26	280153.43	39°15'41.881"N	80°49'16.485"W	11583.87	335.604	4.17	-1.50	3.89
18201.00	88.740	341.040	6940.28	11673.68	10632.86	-4818.48	1625864.40	280236.72	39°15'42.700"N	80°49'16.931"W	11673.71	335.621	7.12	1.20	7.02
18290.00	88.710	336.920	6942.26	11762.47	10715.90	-4850.39	1625832.50	280319.76	39°15'43.516"N	80°49'17.352"W	11762.52	335.647	4.63	-0.03	-4.63
18380.00	88.710	339.200	6944.29	11852.36	10799.36	-4884.00	1625798.88	280403.21	39°15'44.336"N	80°49'17.795"W	11852.41	335.665	2.53	0.00	2.53
18470.00	89.110	341.120	6946.00	11942.04	10884.00	-4914.54	1625768.34	280487.84	39°15'45.168"N	80°49'18.199"W	11942.12	335.699	2.18	0.44	2.13
18560.00	88.620	340.510	6947.79	12031.63	10968.98	-4944.11	1625738.77	280572.83	39°15'46.003"N	80°49'18.591"W	12031.74	335.737	0.87	-0.54	-0.68
18649.00	88.150	343.410	6950.29	12120.02	11053.56	-4971.66	1625711.23	280657.83	39°15'46.835"N	80°49'18.977"W	12120.18	335.783	3.30	-0.53	3.26
18739.00	88.460	340.230	6952.96	12209.42	11139.02	-4999.73	1625683.16	280742.86	39°15'47.675"N	80°49'19.330"W	12209.63	335.827	3.55	0.34	-3.53
18829.00	88.580	335.690	6955.28	12299.28	11222.39	-5033.48	1625649.41	280826.23	39°15'48.495"N	80°49'19.775"W	12299.51	335.843	5.04	0.13	-5.04
18919.00	88.400	333.160	6957.65	12389.23	11303.54	-5072.31	1625610.58	280907.37	39°15'49.291"N	80°49'20.284"W	12389.45	335.832	2.82	-0.20	-2.81
19008.00	88.120	332.410	6960.36	12478.09	11382.65	-5113.00	1625569.90	280986.48	39°15'50.067"N	80°49'20.816"W	12478.28	335.811	0.90	-0.31	-0.84
19098.00	88.120	332.820	6963.31	12567.92	11462.52	-5154.37	1625528.52	281066.35	39°15'50.850"N	80°49'21.356"W	12568.09	335.788	0.46	0.00	0.46
19188.00	88.090	334.120	6966.29	12657.82	11543.00	-5194.55	1625488.35	281146.82	39°15'51.640"N	80°49'21.882"W	12657.97	335.771	1.44	-0.03	1.44
19277.00	87.820	334.480	6969.46	12746.74	11623.15	-5233.12	1625449.78	281226.97	39°15'52.426"N	80°49'22.388"W	12746.88	335.761	0.51	-0.30	0.40



Actual Wellpath Report

OXF-97H-HS AWP Proj: 20473'
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REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY	Slot	Slot H
Area	Doddridge Co., WV	Well	OXF-97H-HS
Field	Doddridge	Wellbore	OXF-97H-HS AWB
Facility	OXF-97 Pad		

WELLPATH DATA (224 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]
19367.00	88.000	334.870	6972.74	12836.67	11704.44	-5271.59	1625411.31	281308.26	39°15'53.224"N	80°49'22.892"W	12836.81	335.754	0.48	0.20	0.43
19457.00	87.720	336.810	6976.10	12926.60	11786.50	-5308.40	1625374.50	281390.31	39°15'54.029"N	80°49'23.375"W	12926.74	335.754	2.18	-0.31	2.16
19546.00	87.820	336.090	6979.57	13015.52	11868.02	-5343.93	1625338.97	281471.83	39°15'54.830"N	80°49'23.842"W	13015.67	335.759	0.82	0.11	-0.81
19636.00	88.060	333.610	6982.80	13105.45	11949.43	-5382.15	1625300.75	281553.24	39°15'55.629"N	80°49'24.343"W	13105.59	335.753	2.77	0.27	-2.76
19726.00	87.910	334.160	6985.97	13195.36	12030.19	-5421.75	1625261.16	281634.00	39°15'56.421"N	80°49'24.862"W	13195.49	335.740	0.63	-0.17	0.61
19815.00	88.460	334.170	6988.79	13284.29	12110.26	-5460.51	1625222.40	281714.06	39°15'57.207"N	80°49'25.370"W	13284.41	335.729	0.62	0.62	0.01
19905.00	88.000	332.140	6991.57	13374.17	12190.51	-5501.13	1625181.78	281794.31	39°15'57.994"N	80°49'25.901"W	13374.27	335.712	2.31	-0.51	-2.26
19995.00	88.210	331.050	6994.54	13463.91	12269.63	-5543.92	1625138.99	281873.43	39°15'58.770"N	80°49'26.460"W	13463.99	335.685	1.23	0.23	-1.21
20085.00	88.460	330.670	6997.16	13553.58	12348.21	-5587.73	1625095.19	281952.00	39°15'59.540"N	80°49'27.031"W	13553.63	335.653	0.51	0.28	-0.42
20174.00	88.740	334.020	6999.33	13642.41	12427.01	-5629.02	1625053.90	282030.80	39°16'00.313"N	80°49'27.571"W	13642.45	335.631	3.78	0.31	3.76
20264.00	89.380	334.910	7000.81	13732.38	12508.20	-5667.81	1625015.11	282111.99	39°16'01.109"N	80°49'28.080"W	13732.41	335.623	1.22	0.71	0.99
20354.00	92.090	338.080	6999.66	13822.34	12590.71	-5703.69	1624979.23	282194.50	39°16'01.920"N	80°49'28.551"W	13822.38	335.629	4.63	3.01	3.52
20443.00	89.450	338.890	6998.46	13911.20	12673.49	-5736.32	1624946.59	282277.28	39°16'02.733"N	80°49'28.982"W	13911.25	335.647	3.10	-2.97	0.91
20473.00	89.450	338.890	6998.75	13941.14	12701.48	-5747.13	1624935.79	282305.26	39°16'03.008"N	80°49'29.124"W	13941.20	335.654	0.00	0.00	0.00



Actual Wellpath Report

OXF-97H-HS AWP Proj: 20473'

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REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY	Slot	Slot H
Area	Doddridge Co., WV	Well	OXF-97H-HS
Field	Doddridge	Wellbore	OXF-97H-HS AWB
Facility	OXF-97 Pad		

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
OXF-97H-HS LP Rev-2		6863.00	687.88	-269.76	1630412.95	270292.11	39°14'05.073"N	80°48'17.271"W	point
OXF-97H-HS BHL Rev-2		6950.00	12693.86	-5743.73	1624939.19	282297.64	39°16'02.933"N	80°49'29.080"W	point
OXF-97 LL		7198.41	60.02	-19.93	1630662.77	269664.28	39°13'58.904"N	80°48'13.980"W	polygon

WELLPATH COMPOSITION - Ref Wellbore: OXF-97H-HS AWB Ref Wellpath: OXF-97H-HS AWP Proj: 20473'

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
18.00	5958.00	Generic gyro - northseeking (Standard)	01_MS Gyro <8-3/4"> (100'-5950')	OXF-97H-HS AWB
5958.00	20443.00	NaviTrak (AT Curve Short Spaced)	02_BHI AT Curve <8-1/2"> (5958')(6025'-20443')	OXF-97H-HS AWB
20443.00	20473.00	Blind Drilling (std)	Projection to bit	OXF-97H-HS AWB



Actual Wellpath Report

OXF-97H-HS AWP Proj: 20473'

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REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY	Slot	Slot H
Area	Doddridge Co., WV	Well	OXF-97H-HS
Field	Doddridge	Wellbore	OXF-97H-HS AWB
Facility	OXF-97 Pad		

COMMENTS

Wellpath general comments

API: 47-017-06586-0000

BHI Job #: 7238898

Rig: Precision 543

Duration: 5/10/2015-5/17/2015

MS Gyro <8-3/4"> (100'-5950')

BHI AT Curve <8-1/2"> (5958')(6025'-20443')

Projected MD at TD: 20473'