



# NOBLE ENERGY

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



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

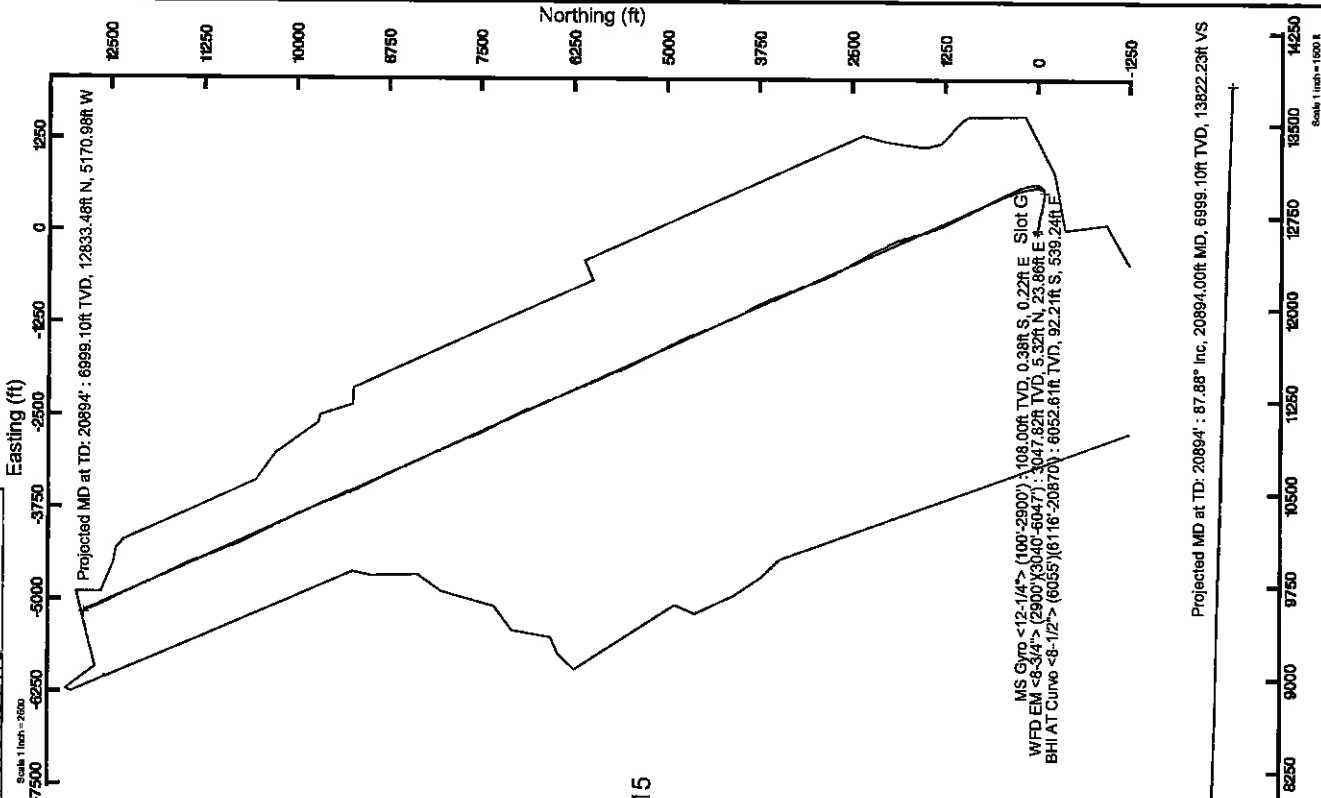
Vertical reference is OXF-97G-HS PWB PWB-01  
 True vertical depth is referenced to Precision 543 (RKB)  
 Measured depth is referenced to Precision 543 (RKB)  
 Precision 543 (RKB) to Mean Sea Level: 1351.381 feet  
 Mean Sea Level to Mad Line (At Slot Slot G): -1333.381 feet  
 Coordinates are in feet referenced to Slot  
 Created by: esawyer on 01/14/2016

Location Information			
Facility Name	Grid East (US FT)	Grid North (US FT)	Longitude
OXF-97 Pad	1830862.770	200864.260	80°48'13.980"W
Local E (ft)	Grid East (US FT)	Grid North (US FT)	Longitude
-39.08	1830862.700	200824.300	80°48'13.720"W
Slot G	Local E (ft)	Local N (ft)	Latitude
	19.03	181	39°13'58.511"N
Precision 543 (RKB) to Mad Line (At Slot Slot G)			181
Mean Sea Level to Mad Line (At Slot Slot G)			-1333.381
Precision 543 (RKB) to Mean Sea Level			1351.381

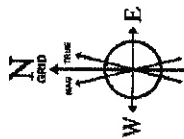
MS Gyro <12-1/4"> (100'-2900') : 0.56° Inc, 108.00R MD, 108.00R TVD, -0.44R VS

WFD EM <8-3/4"> (2900')(3040'-6047') : 0.71° Inc, 3048.00R MD, 3047.82R TVD, -5.08R VS

API: 47-017-06585-0000  
 BHI Job #: 7255479  
 Rig: Precision 543  
 Duration: 5/21/2015-5/30/2015



MS Gyro <12-1/4"> (100'-2900') : 108.00R TVD, 0.56R S, 0.22R E, Slot G  
 WFD EM <8-3/4"> (2900')(3040'-6047') : 3047.82R TVD, 5.32R N, 23.86R E #  
 BHI AT Curve <8-1/2"> (6055')(6116'-20870') : 6052.61R TVD, 92.21R S, 539.24R E



As specified (p-DGM) Dip: 86.89° Field: 62258 NT  
 Magnetic declination is 7.04 degrees West of True North (at 18/10/2016)  
 Grid North is 0.83 degrees West of True North  
 To calculate azimuth from True to Grid and Grid degree  
 To calculate azimuth from Magnetic to Grid subtract 6.81 degrees

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Projected MD at TD: 20894' : 87.88° Inc, 20894.00R MD, 6999.10R TVD, 13822.23R VS

Vertical Section (ft)  
 Azimuth 335.49° with reference 0.00 N, 0.00 E

Scale 1 inch = 1000 ft



# Actual Wellpath Report

OXF-97G-HS AWP Proj: 20894'  
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### REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY	Slot	Slot G
Area	Doddridge Co., WV	Well	OXF-97G-HS
Field	Doddridge	Wellbore	OXF-97G-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	01/Jun/2015 at 14:51
Convergence at slot	0.83° West	Database/Source file	WellArchitectEasternDB/OXF-97G-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	-39.98	19.93	1630682.70	269624.30	39°13'58.511"N	80°48'13.720"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	1351.39ft
Horizontal Reference Pt	Slot	Precision 543 (RKB) to Mean Sea Level	1351.39ft
Vertical Reference Pt	Precision 543 (RKB)	Precision 543 (RKB) to Mud Line at Slot (Slot G)	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°

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# Actual Wellpath Report

OXF-97G-HS AWP Proj: 20894'  
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## REFERENCE WELLPATH IDENTIFICATION

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

## WELLPATH DATA (253 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	149.840	0.00	0.00	0.00	0.00	1630682.70	269624.30	39°13'58.511"N	80°48'13.720"W	0.00	0.000	0.00	0.00	0.00
18.00	0.000	149.840	18.00	0.00	0.00	0.00	1630682.70	269624.30	39°13'58.511"N	80°48'13.720"W	0.00	0.000	0.00	0.00	0.00
108.00	0.560	149.840	108.00	-0.44	-0.38	0.22	1630682.92	269623.92	39°13'58.508"N	80°48'13.717"W	0.44	149.840	0.62	0.62	0.00
208.00	0.500	147.300	207.99	-1.36	-1.17	0.70	1630683.40	269623.13	39°13'58.500"N	80°48'13.711"W	1.36	149.028	0.06	-0.06	-2.54
308.00	0.310	141.460	307.99	2.81	1.58	1.1	1630683.87	269622.63	39°13'58.493"N	80°48'13.705"W	2.05	148.140	0.14	0.14	-3.14
408.00	0.420	97.790	407.99	-2.43	-1.87	1.76	1630684.46	269622.43	39°13'58.493"N	80°48'13.697"W	2.57	136.682	0.18	0.11	-23.67
508.00	0.540	113.660	507.99	-2.98	-2.11	2.56	1630685.26	269622.19	39°13'58.491"N	80°48'13.687"W	3.31	129.498	0.18	0.12	15.87
608.00	0.440	96.660	607.98	-3.53	-2.34	3.37	1630686.07	269621.96	39°13'58.489"N	80°48'13.676"W	4.10	124.791	0.18	-0.10	-17.00
708.00	0.190	49.490	707.98	-3.68	-2.28	3.88	1630686.58	269622.02	39°13'58.490"N	80°48'13.670"W	4.50	120.437	0.34	-0.25	-47.17
808.00	0.380	11.840	807.98	-2.82	-1.25	4.04	1630686.74	269623.05	39°13'58.500"N	80°48'13.668"W	4.23	107.229	0.10	0.04	14.69
1008.00	0.370	29.250	1007.98	-2.36	-0.65	4.27	1630686.97	269623.65	39°13'58.506"N	80°48'13.665"W	4.32	98.623	0.11	-0.01	17.41
1108.00	0.370	27.100	1107.97	-1.97	-0.08	4.57	1630687.27	269624.22	39°13'58.511"N	80°48'13.662"W	4.57	90.979	0.01	0.00	-2.15
1208.00	0.310	23.380	1207.97	-1.59	0.46	4.83	1630687.53	269624.76	39°13'58.517"N	80°48'13.658"W	4.85	84.585	0.06	-0.06	-3.72
1408.00	0.620	33.680	1407.96	-0.42	2.10	5.61	1630688.31	269626.40	39°13'58.533"N	80°48'13.649"W	5.99	69.484	0.13	0.04	12.16
1508.00	0.550	34.490	1507.96	0.12	2.94	6.18	1630688.88	269627.24	39°13'58.541"N	80°48'13.642"W	6.84	64.523	0.07	-0.07	0.81
1608.00	0.940	33.020	1607.95	0.80	4.03	6.90	1630689.60	269628.33	39°13'58.552"N	80°48'13.633"W	7.99	59.719	0.39	0.39	-1.47
1708.00	0.800	61.070	1707.94	1.30	5.05	7.95	1630690.65	269629.35	39°13'58.563"N	80°48'13.620"W	9.42	57.578	0.44	-0.14	28.05
1908.00	0.780	59.010	1907.93	1.25	6.08	10.31	1630693.01	269630.37	39°13'58.573"N	80°48'13.590"W	11.97	59.488	0.18	-0.03	-14.09
2008.00	0.950	43.750	2007.92	1.34	6.74	11.55	1630694.25	269631.04	39°13'58.580"N	80°48'13.574"W	13.38	59.721	0.23	0.22	4.74
2108.00	1.650	44.890	2107.90	1.38	7.48	13.09	1630695.79	269631.78	39°13'58.587"N	80°48'13.555"W	15.07	60.244	0.11	0.11	1.14
2208.00	0.900	61.990	2207.89	1.43	8.19	14.52	1630697.22	269632.49	39°13'58.594"N	80°48'13.537"W	16.67	60.567	0.23	-0.23	-2.90
2408.00	0.780	84.220	2407.87	1.06	8.97	17.13	1630699.83	269633.27	39°13'58.603"N	80°48'13.504"W	19.34	62.363	0.14	-0.01	10.42
2508.00	0.660	101.690	2507.85	0.45	8.91	18.46	1630701.16	269633.21	39°13'58.602"N	80°48'13.487"W	20.50	64.242	0.23	-0.02	17.30
2608.00	0.720	117.310	2607.83	-0.44	8.49	19.67	1630702.37	269632.79	39°13'58.598"N	80°48'13.471"W	21.42	66.659	0.21	-0.04	15.72
2708.00	0.780	126.940	2707.81	-1.53	7.79	20.77	1630703.47	269632.09	39°13'58.591"N	80°48'13.457"W	22.18	69.440	0.14	0.06	9.70
2808.00	0.600	140.290	2807.80	-2.30	7.11	21.78	1630704.57	269631.41	39°13'58.582"N	80°48'13.444"W	22.91	71.087	0.10	0.01	6.08

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# Actual Wellpath Report

OXF-97G-HS AWP Proj: 20894'  
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## REFERENCE WELLPATH IDENTIFICATION

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

## WELLPATH DATA (253 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	0.650	130.910	2907.83	-3.51	6.47	22.66	1630705.36	269630.77	39°13'58.579"N	80°48'13.433"W	23.57	74.059	0.12	0.04	10.62
3048.00	0.710	136.930	3047.82	-5.06	5.32	23.86	1630706.56	269629.62	39°13'58.567"N	80°48'13.418"W	24.44	77.429	0.07	0.04	4.30
3112.00	0.730	134.110	3111.81	-5.81	4.75	24.42	1630707.12	269629.05	39°13'58.562"N	80°48'13.410"W	24.88	79.001	0.06	0.03	-4.41
3172.00	0.650	130.820	3171.81	-6.48	4.26	24.95	1630707.65	269628.56	39°13'58.557"N	80°48'13.403"W	25.31	80.316	0.15	-0.13	-5.48
3295.00	0.750	129.110	3294.80	-7.89	3.25	26.13	1630708.83	269627.55	39°13'58.547"N	80°48'13.388"W	26.33	82.921	0.05	0.00	-3.49
3355.00	0.750	124.990	3354.79	-8.58	2.77	26.76	1630709.46	269627.07	39°13'58.543"N	80°48'13.380"W	26.90	84.085	0.09	0.00	-6.87
3416.00	0.690	117.360	3415.79	-9.21	2.37	27.41	1630710.11	269626.67	39°13'58.539"N	80°48'13.372"W	27.52	85.049	0.19	-0.10	-12.51
3476.00	0.630	145.740	3475.78	-9.82	1.94	27.92	1630710.62	269626.24	39°13'58.535"N	80°48'13.365"W	27.99	86.033	0.55	-0.10	47.30
3598.00	0.630	123.990	3597.78	-11.03	1.11	29.03	1630711.73	269625.41	39°13'58.527"N	80°48'13.351"W	29.05	87.802	0.13	-0.10	8.00
3658.00	0.630	115.240	3657.77	-11.56	0.79	30.00	1630712.30	269625.09	39°13'58.524"N	80°48'13.344"W	29.61	88.473	0.16	0.00	-14.58
3719.00	0.250	77.110	3718.77	-11.84	0.68	30.03	1630712.73	269624.98	39°13'58.522"N	80°48'13.338"W	30.04	88.711	0.75	-0.62	-62.51
3779.00	0.440	117.860	3778.77	-12.05	0.60	30.36	1630713.06	269624.90	39°13'58.522"N	80°48'13.334"W	30.37	88.873	0.50	0.32	67.92
3870.00	2.160	102.100	3869.75	-12.97	0.32	31.96	1630714.66	269624.62	39°13'58.519"N	80°48'13.314"W	31.96	89.428	3.78	3.70	28.87
3901.00	0.330	109.560	3900.72	-13.94	-0.10	33.38	1630716.07	269624.20	39°13'58.515"N	80°48'13.296"W	33.38	90.180	3.94	3.77	24.06
3961.00	0.280	106.900	3960.50	-17.32	-1.64	38.16	1630720.86	269622.66	39°13'58.501"N	80°48'13.235"W	38.19	92.464	4.93	4.92	-4.43
3991.00	0.750	106.080	3990.28	-19.69	-2.66	41.62	1630724.32	269621.64	39°13'58.491"N	80°48'13.190"W	41.71	93.663	4.21	4.20	-2.73
4055.00	0.800	105.860	4053.64	-25.60	-5.19	50.31	1630733.01	269619.11	39°13'58.467"N	80°48'13.079"W	50.58	95.895	0.62	0.56	-1.85
4085.00	0.900	105.990	4083.29	-28.49	-6.36	54.71	1630737.41	269617.94	39°13'58.456"N	80°48'13.023"W	55.08	96.635	2.09	1.87	-6.23
4115.00	0.850	103.110	4113.89	-31.48	-7.50	59.43	1630742.13	269616.80	39°13'58.446"N	80°48'12.963"W	59.90	97.193	2.15	2.10	-2.93
4145.00	0.810	104.110	4143.45	-34.67	-8.72	64.45	1630747.15	269615.58	39°13'58.435"N	80°48'12.899"W	65.03	97.702	1.95	1.87	3.33
4206.00	0.560	104.700	4204.44	-41.57	-11.82	75.16	1630757.86	269612.88	39°13'58.409"N	80°48'12.763"W	76.02	98.636	0.57	0.20	2.93
4236.00	1.180	105.560	4231.90	-45.18	-12.49	80.62	1630763.32	269611.41	39°13'58.396"N	80°48'12.693"W	81.65	99.087	2.13	2.07	2.67
4266.00	1.630	105.200	4261.31	-48.98	-14.47	86.34	1630769.04	269609.83	39°13'58.381"N	80°48'12.620"W	87.55	99.513	1.51	1.50	-1.00
4297.00	1.210	104.800	4291.64	-53.04	-16.11	92.53	1630775.22	269608.19	39°13'58.366"N	80°48'12.541"W	93.92	99.876	1.87	1.81	-2.42

01/27/2017





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OXF-97G-HS AWP Proj: 20894'  
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Area	Doddridge Co., WV	Well	OXF-97G-HS
Field	Doddridge	Wellbore	OXF-97G-HS AWB
Facility	OXF-97 Pad		

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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]
4387.00	13.780	95.690	4379.32	-64.17	-19.20	112.57	1630795.26	2696005.10	39°13'58.338"N	80°48'12.286"W	114.19	99.681	1.43	1.33	-2.23
4448.00	13.880	93.610	4438.55	-71.27	-20.38	127.10	1630809.79	2696003.92	39°13'58.328"N	80°48'12.101"W	128.72	99.111	0.83	0.16	-3.41
4478.00	13.750	93.990	4467.68	-74.67	-20.86	134.24	1630816.94	2696003.44	39°13'58.325"N	80°48'12.010"W	135.86	98.831	0.53	-0.43	1.27
4538.00	15.500	95.990	4525.73	-82.14	-22.19	149.33	1630832.03	2696002.11	39°13'58.314"N	80°48'11.818"W	150.97	98.452	3.04	2.92	3.33
4599.00	16.140	97.340	4584.38	-86.95	-23.30	163.98	1630848.08	2695999.84	39°13'58.303"N	80°48'11.616"W	167.75	98.157	1.54	1.51	1.88
4659.00	16.250	101.740	4641.96	-100.51	-27.20	182.60	1630865.30	2695997.10	39°13'58.269"N	80°48'11.394"W	184.62	98.473	1.67	-0.32	5.83
4723.00	15.940	102.310	4703.45	-111.07	-30.90	199.96	1630882.65	2695993.40	39°13'58.235"N	80°48'11.173"W	202.33	98.784	0.54	-0.48	0.89
4783.00	15.910	102.080	4761.14	-120.91	-34.38	216.05	1630898.74	2695899.92	39°13'58.203"N	80°48'10.968"W	218.77	99.041	0.12	-0.05	-0.38
4843.00	15.280	102.970	4818.94	-130.62	-37.87	231.80	1630914.49	2695864.43	39°13'58.170"N	80°48'10.767"W	234.87	99.279	1.12	-1.05	1.48
4904.00	14.910	103.150	4877.53	-140.35	-41.31	247.26	1630929.95	2695840.77	39°13'58.137"N	80°48'10.570"W	250.12	99.523	0.68	0.61	1.14
4964.00	14.970	105.110	4935.80	-150.05	-45.34	262.24	1630944.93	2695789.96	39°13'58.101"N	80°48'10.379"W	266.13	99.810	0.68	0.10	2.60
5025.00	15.260	105.160	4994.69	-160.20	-49.50	277.60	1630960.29	2695748.81	39°13'58.062"N	80°48'10.183"W	281.98	100.110	0.48	0.48	0.08
5091.00	15.490	101.990	5058.33	-170.99	-53.60	294.60	1630977.29	2695707.70	39°13'58.024"N	80°48'09.966"W	299.44	100.311	1.32	0.35	-4.80
5180.00	15.690	100.740	5144.06	-185.00	-58.31	318.05	1631000.74	2695659.99	39°13'57.981"N	80°48'09.668"W	323.35	100.389	0.44	0.22	-1.40
5240.00	15.330	100.900	5201.83	-194.36	-61.31	343.46	1631016.65	2695620.26	39°13'57.943"N	80°48'09.480"W	339.77	100.480	0.11	-0.14	0.24
5361.00	15.770	101.920	5318.32	-213.56	-67.81	366.06	1631048.74	2695556.49	39°13'57.894"N	80°48'09.056"W	372.28	100.495	0.26	0.12	0.88
5391.00	15.630	100.860	5347.20	-218.32	-69.42	374.01	1631056.70	2695548.89	39°13'57.879"N	80°48'08.954"W	380.40	100.514	1.06	-0.47	-3.53
5422.00	15.440	102.490	5377.06	-223.22	-71.10	382.14	1631064.83	2695533.21	39°13'57.864"N	80°48'08.851"W	388.70	100.539	1.54	-0.61	5.26
5479.00	14.690	98.240	5432.11	-231.70	-73.77	396.71	1631079.39	2695505.53	39°13'57.839"N	80°48'08.665"W	403.51	100.534	2.34	-1.32	-7.46
5570.00	14.190	97.340	5500.76	-241.76	-76.82	419.08	1631081.77	2695484.88	39°13'57.827"N	80°48'08.500"W	419.17	100.537	0.74	0.09	1.10
5660.00	12.630	94.990	5617.83	-254.36	-79.05	439.74	1631122.42	2695455.25	39°13'57.793"N	80°48'08.117"W	446.79	100.191	1.69	-1.59	-2.50
5724.00	12.750	96.990	5702.26	-261.49	-80.52	453.72	1631136.40	2695433.78	39°13'57.781"N	80°48'07.940"W	460.81	100.063	0.71	0.19	3.12
5781.00	12.940	101.490	5752.91	-268.53	-82.08	466.22	1631148.90	2695414.75	39°13'57.762"N	80°48'07.780"W	473.47	100.042	1.79	0.33	7.89
5842.00	13.560	100.990	5832.11	-276.70	-83.52	479.93	1631162.61	2695399.02	39°13'57.737"N	80°48'07.606"W	487.45	100.076	1.03	1.02	-0.82
5923.00	12.130	98.440	5900.10	-286.13	-85.17	499.41	1631181.77	2695383.34	39°13'57.708"N	80°48'07.452"W	497.87	100.070	0.61	1.17	4.17
6055.00	12.630	93.360	6000.10	-301.40	-87.00	525.84	1631208.52	2695328.81	39°13'57.683"N	80°48'07.021"W	533.74	99.871	1.03	0.41	-4.41
6116.00	12.780	92.760	6080.61	-307.61	-88.10	539.24	1631221.91	2695322.09	39°13'57.677"N	80°48'06.851"W	547.06	99.704	0.33	0.25	-0.98
6205.00	11.440	77.880	6139.65	-314.00	-90.83	557.70	1631240.38	2695333.47	39°13'57.694"N	80°48'06.616"W	565.05	99.251	3.80	-1.51	-16.72
6295.00	12.780	72.150	6229.64	-317.08	-92.91	575.91	1631258.58	2695338.40	39°13'57.745"N	80°48'06.386"W	582.28	98.484	2.00	1.49	-6.37
6384.00	12.310	64.420	6307.37	-317.10	-94.68	594.39	1631276.17	2695340.81	39°13'57.828"N	80°48'06.136"W	594.11	97.449	3.17	0.54	-4.44

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# Actual Wellpath Report

OXF-97G-HS AWP Proj: 20894'  
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## REFERENCE WELLPATH IDENTIFICATION

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

## WELLPATH DATA (253 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]
6474.00	15.480	47.470	6401.56	-312.33	-64.29	611.86	1631294.54	269560.01	39°13'57.964"N	80°48'05.933"W	615.23	95.998	4.08	2.42	-13.28
6563.00	20.340	39.670	6486.23	-301.91	-44.34	630.50	1631313.18	269579.96	39°13'58.164"N	80°48'05.700"W	632.06	94.023	6.08	5.46	-8.76
6654.00	28.680	16.270	6569.15	-278.39	-11.07	646.78	1631329.46	269613.23	39°13'58.495"N	80°48'05.499"W	646.88	90.981	13.91	9.16	-25.71
6744.00	38.180	358.980	6644.34	-236.34	37.69	652.36	1631335.04	269661.99	39°13'58.977"N	80°48'05.437"W	653.45	86.693	14.86	10.56	-19.21
6834.00	48.000	248.000	6709.52	-171.49	98.02	644.00	1631342.36	269724.92	39°13'59.370"N	80°48'05.340"W	653.39	81.215	13.04	11.24	-11.14
6921.00	56.640	343.670	6762.88	-109.99	165.40	627.91	1631310.58	269789.69	39°14'00.236"N	80°48'05.771"W	649.32	75.243	10.38	9.59	-5.03
7014.00	68.120	339.000	6805.94	-28.17	243.25	601.42	1631284.10	269867.54	39°14'01.002"N	80°48'06.122"W	648.75	67.979	13.12	12.34	-5.02
7100.00	75.260	335.410	6832.95	53.37	318.44	569.77	1631252.45	269942.72	39°14'01.740"N	80°48'06.538"W	652.71	60.800	9.20	8.30	-4.17
7190.00	87.050	334.530	6846.77	142.14	398.87	532.20	1631214.88	270023.15	39°14'02.530"N	80°48'07.031"W	665.08	53.150	13.14	13.10	-0.98
7279.00	90.920	334.300	6848.34	231.10	475.20	493.90	1631176.00	270101.18	39°14'03.318"N	80°48'07.348"W	688.21	45.409	11.57	11.35	0.00
7369.00	90.920	332.720	6846.90	321.04	559.83	454.01	1631136.69	270184.11	39°14'04.109"N	80°48'08.054"W	720.78	39.041	2.04	0.00	-2.04
7459.00	90.890	330.940	6845.48	410.84	639.15	411.52	1631094.21	270263.43	39°14'04.887"N	80°48'08.608"W	760.18	32.776	1.98	-0.03	-1.98
7548.00	90.860	331.310	6844.12	499.57	717.08	368.58	1631051.24	270341.35	39°14'05.651"N	80°48'09.169"W	806.25	27.201	0.42	-0.03	0.42
7638.00	90.310	333.090	6843.20	589.41	796.68	326.58	1631009.27	270420.95	39°14'06.432"N	80°48'09.717"W	861.02	22.290	2.07	-0.61	1.98
7727.00	90.400	332.170	6842.05	679.31	875.79	283.00	1630966.04	270500.18	39°14'07.218"N	80°48'10.269"W	921.24	18.972	0.72	0.00	0.00
7817.00	90.030	332.900	6842.31	768.19	955.72	244.43	1630927.13	270579.98	39°14'07.992"N	80°48'10.790"W	986.48	14.346	0.72	-0.41	0.59
7906.00	89.970	332.620	6842.31	857.09	1034.85	203.70	1630886.39	270659.11	39°14'08.768"N	80°48'11.322"W	1054.70	11.136	0.32	-0.07	-0.31
7996.00	88.920	333.220	6843.18	947.00	1114.98	162.73	1630845.42	270739.23	39°14'09.554"N	80°48'11.858"W	1126.79	8.304	1.34	-1.17	0.67
8086.00	88.890	335.600	6844.90	1036.96	1196.13	123.87	1630806.56	270820.38	39°14'10.350"N	80°48'12.366"W	1202.52	5.912	2.64	-0.03	2.64
8175.00	87.680	340.250	6846.44	1127.92	1277.19	87.51	1630770.22	270901.00	39°14'11.146"N	80°48'12.874"W	1280.35	3.972	1.39	0.00	0.00
8265.00	87.840	336.570	6850.77	1215.84	1359.76	51.55	1630734.24	270984.01	39°14'11.957"N	80°48'13.316"W	1360.73	2.171	0.30	-0.04	0.30
8354.00	88.650	337.300	6853.50	1304.06	1441.59	16.66	1630699.36	271065.83	39°14'12.761"N	80°48'13.774"W	1441.68	0.662	1.26	0.91	0.88
8443.00	89.600	347.370	6854.86	1393.06	1526.27	-10.31	1630672.39	271150.51	39°14'13.594"N	80°48'14.132"W	1526.31	359.613	11.36	1.07	11.31
8533.00	87.940	346.900	6856.79	1481.00	1613.99	-30.34	1630652.36	271238.23	39°14'14.458"N	80°48'14.403"W	1614.27	358.923	1.92	-1.84	-0.52
8623.00	88.930	343.330	6859.21	1569.21	1699.00	-50.00	1630630.38	271325.11	39°14'15.318"N	80°48'14.712"W	1701.50	358.202	0.00	0.00	0.00
8712.00	89.720	341.120	6860.27	1658.18	1785.69	-80.52	1630602.19	271409.92	39°14'16.147"N	80°48'15.072"W	1787.50	357.418	2.68	0.87	-2.54
8801.00	89.820	337.900	6860.62	1746.00	1869.06	-111.62	1630571.08	271493.29	39°14'16.967"N	80°48'15.483"W	1872.39	356.582	3.57	0.11	-3.57
8891.00	89.820	334.500	6860.91	1836.93	1951.41	-147.90	1630534.80	271575.64	39°14'17.776"N	80°48'15.959"W	1957.01	355.666	3.83	0.00	-3.83
8980.00	89.940	334.280	6861.05	1922.91	2031.67	-186.37	1630496.34	271655.89	39°14'18.563"N	80°48'16.463"W	2040.20	354.759	0.28	0.13	-0.25
9070.00	90.000	334.000	6861.17	2010.00	2112.00	-225.00	1630455.14	271730.00	39°14'19.340"N	80°48'16.970"W	2124.00	353.900	0.00	0.00	0.00

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# Actual Wellpath Report

OXF-97G-HS AWP Proj: 20894'  
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REFERENCE WELLPATH IDENTIFICATION		Slot	Slot G
Operator	NOBLE ENERGY	Well	OXF-97G-HS
Area	Doddridge Co., WV	Wellbore	OXF-97G-HS AWB
Field	Doddridge		
Facility	OXF-97 Pad		

## WELLPATH DATA (253 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]
9159.00	90.460	335.180	6860.74	2104.87	2193.06	-263.79	1630418.92	271817.27	39°14'20.147"N	80°48'17.476"W	2208.87	353.141	1.39	0.48	1.30
9248.00	90.460	330.650	6860.02	2193.76	2272.27	-304.30	1630378.41	271896.49	39°14'20.924"N	80°48'18.006"W	2292.56	352.372	5.09	0.00	-5.09
9338.00	90.220	327.770	6859.49	2283.20	2349.58	-350.36	1630332.35	271973.79	39°14'21.682"N	80°48'18.606"W	2375.56	351.519	3.21	-0.27	-3.20
9427.00	90.090	330.310	6859.25	2371.63	2425.89	-396.14	1630286.57	272050.10	39°14'22.429"N	80°48'19.201"W	2458.02	350.726	2.86	-0.15	2.85
9516.00	90.180	329.700	6858.64	2550.93	2582.44	-484.98	1630197.74	272206.64	39°14'23.964"N	80°48'20.359"W	2627.59	349.364	1.28	-0.08	-1.28
9606.00	90.220	329.100	6858.33	2639.42	2659.05	-530.28	1630152.44	272283.25	39°14'24.714"N	80°48'20.949"W	2711.41	348.722	0.68	0.04	-0.67
9786.00	90.180	332.860	6858.02	2729.13	2737.73	-573.93	1630108.79	272361.93	39°14'25.485"N	80°48'21.518"W	2797.24	348.160	4.18	-0.04	4.18
9875.00	90.650	334.960	6857.37	2818.09	2817.66	-613.07	1630069.65	272441.85	39°14'26.270"N	80°48'22.031"W	2883.58	347.725	2.42	0.53	2.36
10065.00	90.580	337.070	6856.41	2908.97	2899.88	-645.65	1629933.97	272521.97	39°14'27.180"N	80°48'22.511"W	2971.72	347.173	2.55	0.98	2.54
10054.00	90.650	339.470	6855.45	2996.96	2982.54	-682.60	1629800.13	272606.73	39°14'27.889"N	80°48'22.945"W	3059.65	347.109	2.70	0.08	2.70
10144.00	90.710	342.720	6854.38	3086.51	3067.67	-711.75	1629970.98	272691.85	39°14'28.726"N	80°48'23.331"W	3149.16	346.938	3.61	0.07	3.61
10233.00	90.620	339.570	6853.35	3175.05	3151.92	-740.38	1629942.35	272776.10	39°14'29.555"N	80°48'23.710"W	3237.71	346.781	3.34	-0.10	-3.34
10323.00	90.650	338.070	6852.35	3264.88	3235.89	-772.76	1629909.97	272860.06	39°14'30.380"N	80°48'24.137"W	3326.88	346.569	1.87	0.03	-1.87
10413.00	90.570	339.080	6851.41	3354.82	3318.76	-807.33	1629880.39	272946.94	39°14'31.211"N	80°48'24.516"W	3415.66	346.321	1.54	0.11	1.53
10502.00	90.680	341.040	6850.45	3443.67	3401.57	-840.36	1629842.37	273025.74	39°14'32.008"N	80°48'25.027"W	3503.84	346.123	5.60	0.15	5.60
10591.00	90.740	339.240	6849.35	3532.37	3485.26	-870.59	1629812.14	273109.43	39°14'32.831"N	80°48'25.427"W	3592.35	345.975	2.02	0.07	-2.02
10681.00	90.710	337.440	6848.21	3622.25	3568.90	-903.81	1629778.93	273193.06	39°14'33.652"N	80°48'25.864"W	3681.56	345.789	2.00	-0.03	-2.00
10770.00	90.680	336.170	6847.13	3711.22	3650.70	-938.86	1629743.88	273274.86	39°14'34.456"N	80°48'26.325"W	3769.49	345.578	1.43	-0.03	-1.43
10860.00	90.700	335.030	6846.02	3801.21	3732.78	-975.73	1629708.96	273356.94	39°14'35.247"N	80°48'26.786"W	3858.70	345.381	0.97	0.04	0.97
10952.00	90.400	329.820	6845.10	3893.05	3814.44	-1018.03	1629664.71	273438.60	39°14'36.062"N	80°48'27.361"W	3947.96	345.057	6.11	-0.37	-6.10
11039.00	90.430	327.370	6844.47	3979.41	3888.69	-1063.36	1629619.38	273512.84	39°14'36.790"N	80°48'27.951"W	4031.46	344.706	2.82	0.03	-2.82
11128.00	90.460	331.600	6843.78	4067.90	3965.34	-1108.54	1629574.20	273589.49	39°14'37.541"N	80°48'28.539"W	4117.38	344.381	4.75	0.03	4.75
11218.00	90.400	335.580	6843.10	4157.83	4045.93	-1148.56	1629534.18	273670.08	39°14'38.331"N	80°48'29.063"W	4205.80	344.152	4.42	-0.07	4.42
11308.00	90.780	338.610	6842.58	4247.87	4128.21	-1185.05	1629493.76	273751.33	39°14'39.150"N	80°48'29.547"W	4295.72	343.908	1.72	0.11	1.71
11397.00	90.680	335.370	6841.06	4336.81	4209.50	-1221.24	1629461.51	273833.64	39°14'39.937"N	80°48'30.017"W	4383.07	343.822	1.40	-0.10	-1.39
11487.00	90.710	333.490	6839.97	4426.78	4290.67	-1260.08	1629422.67	273914.81	39°14'40.734"N	80°48'30.526"W	4471.88	343.634	2.09	0.03	-2.09
11577.00	90.340	338.450	6839.14	4516.75	4372.84	-1296.72	1629386.03	273996.98	39°14'41.541"N	80°48'31.006"W	4561.06	343.483	5.53	-0.41	5.51
11666.00	90.340	338.260	6838.61	4605.63	4455.57	-1329.54	1629353.21	274079.70	39°14'42.354"N	80°48'31.439"W	4649.70	343.385	0.21	0.00	-0.21
11756.00	90.380	339.340	6837.19	4694.47	4538.34	-1363.78	1629321.07	274162.97	39°14'43.160"N	80°48'31.863"W	4738.42	343.309	0.17	0.00	0.16





# Actual Wellpath Report

OXF-97G-HS AWP Proj: 20894'  
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## REFERENCE WELLPATH IDENTIFICATION

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

## WELLPATH DATA (253 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]
11845.00	90.310	338.300	6837.67	4784.33	4622.45	-1394.26	1629288.49	274246.58	39°14'43.994"N	80°48'32.292"W	4828.15	343.215	1.14	0.03	-1.14
11934.00	90.340	337.290	6837.16	4873.25	4704.85	-1427.89	1629254.86	274328.97	39°14'44.803"N	80°48'32.735"W	4916.76	343.117	1.14	0.03	-1.13
12024.00	90.340	336.660	6836.63	4963.22	4787.68	-1463.09	1629219.66	274411.80	39°14'45.617"N	80°48'33.198"W	5006.25	343.007	0.70	0.00	-0.70
12114.00	90.250	333.570	6836.17	5053.21	4869.31	-1500.96	1629181.80	274493.43	39°14'46.418"N	80°48'33.694"W	5095.40	342.868	3.43	-0.10	-3.43
12292.00	90.120	330.640	6835.69	5230.72	5025.51	-1586.27	1629096.49	274649.62	39°14'47.949"N	80°48'34.807"W	5269.91	342.482	0.03	0.00	0.03
12382.00	89.880	332.210	6835.69	5320.49	5104.54	-1629.32	1629053.44	274728.65	39°14'48.724"N	80°48'35.369"W	5358.27	342.297	1.76	-0.27	1.74
12472.00	90.310	333.850	6835.54	5410.40	5184.75	-1670.13	1629012.63	274808.85	39°14'49.511"N	80°48'35.903"W	5447.11	342.145	1.88	0.48	1.82
12561.00	90.250	331.880	6835.11	5499.31	5263.95	-1710.72	1628972.04	274888.05	39°14'50.288"N	80°48'36.433"W	5534.96	341.996	2.21	-0.07	-2.21
12650.00	89.850	331.740	6834.69	5678.02	5422.39	-1794.01	1628888.76	275046.48	39°14'51.842"N	80°48'37.521"W	5711.46	341.693	1.17	-0.41	-1.10
12830.00	89.850	334.780	6834.92	5767.94	5502.75	-1834.50	1628848.27	275126.85	39°14'52.630"N	80°48'38.051"W	5800.49	341.563	3.38	0.00	3.38
12919.00	89.750	338.540	6835.23	5856.91	5584.46	-1869.76	1628813.02	275208.54	39°14'53.432"N	80°48'38.514"W	5889.15	341.489	4.23	-0.11	4.22
13009.00	89.320	338.990	6835.96	5946.76	5668.34	-1902.35	1628780.42	275292.43	39°14'54.257"N	80°48'38.944"W	5979.05	341.448	0.69	-0.48	0.50
13188.00	89.380	335.100	6838.00	6125.69	5831.65	-1975.50	1628707.28	275455.73	39°14'55.860"N	80°48'39.904"W	6157.17	341.286	0.43	0.03	0.43
13277.00	89.480	336.120	6838.88	6214.69	5912.70	-2012.25	1628670.53	275536.78	39°14'56.656"N	80°48'40.386"W	6245.73	341.205	1.15	0.11	1.15
13367.00	89.050	336.570	6840.03	6304.67	5995.13	-2048.36	1628634.42	275619.21	39°14'57.465"N	80°48'40.860"W	6335.41	341.136	0.69	-0.48	0.50
13457.00	89.110	336.010	6841.48	6394.65	6077.53	-2084.54	1628598.24	275701.60	39°14'58.274"N	80°48'41.335"W	6425.08	341.068	0.63	0.07	-0.62
13636.00	89.140	335.560	6844.28	6573.59	6241.76	-2155.67	1628527.11	275865.82	39°14'59.887"N	80°48'42.270"W	6603.52	340.947	2.02	0.07	-2.02
13726.00	88.980	334.750	6846.76	6663.59	6323.41	-2193.48	1628489.30	275947.47	39°15'00.689"N	80°48'42.766"W	6693.05	340.869	0.92	-0.18	-0.90
13815.00	89.480	336.830	6846.96	6752.56	6404.57	-2229.97	1628452.81	276028.63	39°15'01.486"N	80°48'43.244"W	6781.69	340.803	2.40	0.56	2.34
13905.00	89.450	338.440	6847.80	6842.49	6487.80	-2264.22	1628418.57	276111.85	39°15'02.303"N	80°48'43.695"W	6871.55	340.761	1.79	-0.03	1.79
14084.00	89.750	335.550	6849.39	7021.00	6573.32	-2332.54	1628350.25	276277.26	39°15'03.928"N	80°48'44.594"W	7050.25	340.680	2.90	0.41	-2.87
14173.00	90.310	337.410	6849.34	7110.50	6663.82	-2368.05	1628314.74	276358.86	39°15'04.729"N	80°48'45.061"W	7139.01	340.628	2.18	0.63	2.09
14263.00	90.150	338.560	6848.98	7200.00	6752.18	-2401.79	1628281.00	276442.29	39°15'05.549"N	80°48'45.505"W	7228.91	340.595	1.29	-0.18	1.28
14352.00	90.060	334.960	6848.82	7289.00	6840.02	-2436.90	1628245.89	276524.06	39°15'06.352"N	80°48'45.966"W	7317.70	340.548	4.05	-0.10	-4.04
14442.00	90.180	337.570	7379.00	7379.00	6927.39	-2473.13	1628209.04	276606.42	39°15'07.151"N	80°48'46.433"W	7407.04	340.500	1.30	0.11	1.30

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# Actual Wellpath Report

OXF-97G-HS AWP Proj: 20894'  
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## REFERENCE WELLPATH IDENTIFICATION

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

## WELLPATH DATA (253 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]
14531.00	90.220	334.530	6848.32	7468.17	7063.70	-2509.30	1628173.49	276687.73	39°15'07.959"N	80°48'46.917"W	7496.16	340.443	3.37	0.04	-3.37
14620.00	89.720	329.870	6848.37	7557.00	7142.41	-2550.80	1628132.00	276766.44	39°15'08.731"N	80°48'47.459"W	7584.23	340.347	5.27	-0.56	-5.24
14710.00	88.950	330.120	6849.41	7646.58	7220.34	-2595.80	1628087.00	276844.37	39°15'09.495"N	80°48'48.046"W	7672.78	340.226	0.90	-0.86	0.28
14800.00	88.890	329.970	6851.11	7736.16	7298.30	-2640.73	1628042.07	276922.33	39°15'10.259"N	80°48'48.631"W	7761.36	340.108	0.18	-0.07	-0.17
14890.00	89.240	332.740	6852.45	7824.91	7376.38	-2693.33	1627999.38	277000.49	39°15'11.024"N	80°48'49.165"W	7849.51	339.934	1.54	-0.51	1.46
14979.00	88.920	334.010	6853.79	7914.83	7456.81	-2723.77	1627959.03	277080.83	39°15'11.813"N	80°48'49.716"W	7938.70	339.877	1.75	-0.55	1.66
15068.00	88.430	335.490	6855.84	8003.80	7537.28	-2761.73	1627921.08	277161.30	39°15'12.603"N	80°48'50.214"W	8027.31	339.867	7.77	-0.17	7.78
15157.00	88.280	342.410	6858.40	8092.54	7620.26	-2793.66	1627889.14	277244.27	39°15'13.418"N	80°48'50.635"W	8116.21	339.866	5.90	-0.97	-5.82
15247.00	87.410	337.170	6861.79	8182.19	7704.63	-2824.72	1627858.09	277328.64	39°15'14.248"N	80°48'51.045"W	8206.11	339.866	2.34	0.14	2.22
15337.00	87.440	335.070	6865.73	8272.10	7786.84	-2861.12	1627821.48	277410.44	39°15'15.083"N	80°48'51.321"W	8295.13	339.866	2.15	0.97	1.92
15426.00	88.400	336.780	6868.91	8361.03	7868.04	-2897.40	1627785.41	277492.04	39°15'15.852"N	80°48'52.000"W	8384.57	339.735	3.73	-0.07	-3.73
15515.00	88.340	333.460	6871.44	8449.98	7948.74	-2934.82	1627747.99	277572.74	39°15'16.644"N	80°48'52.490"W	8473.23	339.669	0.11	-0.07	-0.09
15605.00	88.280	333.380	6874.09	8539.89	8029.19	-2975.07	1627707.74	277653.19	39°15'17.434"N	80°48'53.017"W	8562.65	339.618	3.11	0.69	3.03
15694.00	88.890	336.080	6876.29	8628.84	8109.64	-3013.05	1627669.76	277733.63	39°15'18.223"N	80°48'53.515"W	8651.29	339.568	1.99	0.03	-1.99
15784.00	89.450	338.080	6877.95	8718.79	8190.32	-3048.06	1627633.73	277816.55	39°15'19.083"N	80°48'54.429"W	8740.10	339.530	1.13	-0.14	-1.12
15873.00	89.480	336.310	6878.43	8807.75	8274.56	-3082.59	1627600.23	277898.55	39°15'19.843"N	80°48'54.913"W	8830.10	339.488	0.34	-0.34	0.02
15963.00	89.350	335.300	6879.34	8897.74	8356.65	-3119.47	1627563.35	277980.63	39°15'20.649"N	80°48'55.401"W	8919.90	339.452	1.42	-0.69	1.24
16052.00	89.050	335.320	6880.59	8986.73	8437.50	-3156.64	1627526.18	278061.48	39°15'21.443"N	80°48'55.883"W	9008.65	339.422	0.33	0.60	0.33
16142.00	88.430	336.440	6882.57	9076.70	8519.62	-3193.41	1627489.41	278143.60	39°15'22.249"N	80°48'56.359"W	9098.45	339.393	1.15	0.96	0.63
16231.00	88.400	334.150	6884.98	9166.06	8601.88	-3229.19	1627453.03	278225.05	39°15'23.088"N	80°48'56.826"W	9187.28	339.356	2.74	-0.30	-2.72
16321.00	89.320	336.700	6886.73	9255.63	8683.54	-3265.20	1627417.63	278307.52	39°15'23.858"N	80°48'57.311"W	9277.15	339.297	2.50	-0.03	-2.50
16410.00	89.050	334.280	6887.99	9344.62	8764.51	-3302.11	1627380.71	278388.48	39°15'24.653"N	80°48'57.842"W	9365.93	339.231	0.44	0.10	0.43
16500.00	89.020	332.030	6889.51	9434.52	8844.79	-3342.75	1627340.08	278468.76	39°15'25.441"N	80°48'58.384"W	9455.39	339.166	2.16	-0.24	-2.14
16589.00	89.110	332.410	6890.96	9523.37	8923.53	-3384.22	1627298.61	278547.49	39°15'26.213"N	80°48'58.926"W	9543.70	339.133	1.05	-0.07	1.04
16678.00	89.170	335.060	6892.50	9613.51	9003.22	-3424.94	1627258.79	278628.18	39°15'27.003"N	80°48'59.409"W	9633.17	339.083	2.03	-0.34	2.00
16769.00	88.950	333.130	6893.29	9703.26	9085.16	-3463.35	1627219.48	278709.12	39°15'27.799"N	80°48'59.938"W	9722.91	339.045	0.46	0.38	0.26
16858.00	88.890	334.060	6894.80	9792.20	9167.86	-3502.92	1627179.91	278788.81	39°15'28.581"N	80°48'59.938"W	9811.48	339.018	0.38	0.38	0.26
16948.00	88.580	335.860	6896.35	9882.17	9250.38	-3541.01	1627141.83	278870.33	39°15'29.381"N	80°49'00.437"W	9900.22	339.018	0.38	0.38	0.26
17037.00	88.920	336.090	6897.99	9971.10	9337.65	-3577.23	1627105.60	278951.59	39°15'30.179"N	80°49'00.913"W	9990.07	339.018	0.38	0.38	0.26
17127.00	89.080	337.330	6899.74	10060.10	9424.74	-3612.59	1627069.34	279032.44	39°15'30.981"N	80°49'01.389"W	10079.90	339.018	0.38	0.38	0.26

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# Actual Wellpath Report

OXF-97G-HS AWP Proj: 20894'

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## REFERENCE WELLPATH IDENTIFICATION

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

## WELLPATH DATA (253 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]
17217.00	88.920	342.510	6902.54	10150.77	9494.96	-3643.26	1627039.58	279118.90	39°15'31.823"N	80°49'01.783"W	10169.94	339.008	5.42	-0.18	5.42
17306.00	88.710	341.720	6904.38	10239.16	9579.64	-3670.58	1627012.25	279203.58	39°15'32.656"N	80°49'02.146"W	10258.79	339.035	0.92	-0.24	-0.89
17395.00	88.770	336.790	6906.33	10327.92	9662.83	-3702.09	1626980.75	279286.76	39°15'33.473"N	80°49'02.562"W	10347.74	339.037	5.54	0.07	-5.54
17485.00	89.140	334.050	6907.98	10417.90	9744.65	-3739.52	1626943.32	279368.58	39°15'34.276"N	80°49'03.053"W	10437.54	339.006	3.07	0.41	-3.04
17574.00	89.490	334.950	6909.11	10506.87	9824.44	-3777.97	1626906.47	279448.83	39°15'35.061"N	80°49'03.539"W	10527.34	338.997	0.63	0.63	0.63
17664.00	89.140	335.410	6910.66	10596.86	9906.51	-3815.89	1626866.96	279530.44	39°15'35.865"N	80°49'04.054"W	10616.03	338.934	0.73	0.00	0.73
17753.00	89.200	334.000	6911.95	10685.84	9986.97	-3853.91	1626828.94	279610.89	39°15'36.655"N	80°49'04.553"W	10704.77	338.899	1.59	0.07	-1.58
17843.00	88.920	335.450	6913.43	10775.81	10068.34	-3892.33	1626790.52	279692.26	39°15'37.453"N	80°49'05.056"W	10794.52	338.864	1.64	-0.31	1.61
17933.00	89.050	334.790	6915.02	10865.80	10149.98	-3930.19	1626752.66	279773.89	39°15'38.254"N	80°49'05.553"W	10884.32	338.833	0.75	0.14	-0.73
18022.00	88.680	332.320	6919.11	11044.56	10309.34	-4011.55	1626671.30	279933.25	39°15'39.818"N	80°49'06.617"W	11062.33	338.738	0.18	0.18	-0.04
18112.00	88.490	332.360	6921.33	11134.39	10389.03	-4053.32	1626629.53	280012.94	39°15'40.599"N	80°49'07.163"W	11151.74	338.687	0.22	-0.21	0.04
18292.00	88.580	332.500	6923.63	11224.24	10468.79	-4094.96	1626587.89	280092.69	39°15'41.381"N	80°49'07.707"W	11241.18	338.637	0.18	0.10	0.16
18381.00	88.280	334.470	6926.07	11313.14	10548.39	-4134.68	1626548.18	280172.29	39°15'42.162"N	80°49'08.227"W	11329.79	338.596	2.24	-0.34	2.21
18471.00	88.400	330.800	6928.08	11402.98	10628.77	-4176.82	1626508.84	280252.17	39°15'42.944"N	80°49'08.751"W	11418.25	338.554	1.11	1.11	1.11
18561.00	88.340	335.820	6931.24	11492.85	10708.63	-4216.42	1626466.44	280332.52	39°15'43.734"N	80°49'09.296"W	11508.82	338.508	5.58	-0.07	5.58
18650.00	88.250	337.480	6933.89	11581.79	10790.30	-4251.67	1626431.19	280414.19	39°15'44.536"N	80°49'09.759"W	11597.73	338.494	1.87	-0.10	1.87
18740.00	88.250	338.210	6936.64	11671.67	10873.61	-4285.60	1626397.26	280497.50	39°15'45.354"N	80°49'10.206"W	11687.68	338.489	0.81	0.00	0.81
18830.00	88.220	337.260	6939.41	11761.56	10956.86	-4319.68	1626363.18	280580.75	39°15'46.172"N	80°49'10.655"W	11777.63	338.483	1.06	-0.03	-1.06
18919.00	88.680	340.430	6943.94	11940.27	11123.01	-4386.06	1626326.81	280663.32	39°15'46.944"N	80°49'11.104"W	11867.58	338.473	0.82	0.82	0.82
19009.00	88.680	340.430	6943.94	11940.27	11123.01	-4386.06	1626296.81	280746.89	39°15'47.804"N	80°49'11.530"W	11956.54	338.480	3.17	0.03	3.17
19099.00	88.680	341.560	6946.02	12029.83	11208.08	-4415.36	1626267.51	280831.96	39°15'48.641"N	80°49'11.918"W	12046.43	338.498	1.26	0.00	1.26
19189.00	88.680	341.280	6948.09	12119.32	11293.37	-4444.03	1626238.84	280917.24	39°15'49.480"N	80°49'12.298"W	12136.29	338.520	0.31	0.00	-0.31
19278.00	89.020	339.490	6949.88	12207.98	11377.18	-4473.90	1626208.97	281001.05	39°15'50.304"N	80°49'12.694"W	12225.22	338.534	2.05	0.38	-2.01
19368.00	88.800	334.750	6951.74	12297.83	11460.94	-4503.77	1626179.40	281085.44	39°15'51.116"N	80°49'13.089"W	12314.15	338.542	1.12	0.04	1.12
19458.00	88.620	332.480	6953.96	12387.81	11540.67	-4548.83	1626149.05	281164.53	39°15'51.908"N	80°49'13.677"W	12404.79	338.488	2.54	0.04	-2.54
19547.00	88.550	333.470	6956.16	12476.70	11619.92	-4589.25	1626093.62	281243.78	39°15'52.686"N	80°49'14.205"W	12493.35	338.449	1.11	-0.08	1.11
19637.00	88.710	333.890	6958.31	12566.63	11700.57	-4629.15	1626053.73	281324.43	39°15'53.477"N	80°49'14.728"W	12583.02	338.415	0.50	0.18	0.47
19727.00	88.280	333.840	6960.67	12656.56	11781.34	-4668.78	1626014.10	281405.19	39°15'54.270"N	80°49'15.247"W	12672.70	338.382	0.48	-0.48	-0.06





# Actual Wellpath Report

OXF-97G-HS AWP Proj: 20894'  
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## REFERENCE WELLPATH IDENTIFICATION

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

## WELLPATH DATA (253 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]
19906.00	87.810	333.380	6966.61	12835.35	11941.36	-4748.77	1625934.11	281565.21	39°15'55.839"N	80°49'16.293"W	12850.95	338.314	0.40	-0.38	0.12
19996.00	88.430	334.520	6969.57	12925.26	12022.17	-4788.27	1625894.61	281646.02	39°15'56.632"N	80°49'16.811"W	12940.64	338.283	1.44	0.69	1.27
20086.00	88.250	335.300	6972.17	13015.22	12103.65	-4826.41	1625856.47	281727.49	39°15'57.432"N	80°49'17.311"W	13030.45	338.260	0.89	-0.20	0.87
20175.00	88.400	335.360	6974.78	13104.18	12184.49	-4863.55	1625819.34	281808.33	39°15'58.225"N	80°49'17.798"W	13119.29	338.240	0.18	0.17	0.07
20265.00	88.230	335.520	6977.41	13194.14	12266.21	-4901.15	1625781.73	281889.45	39°15'59.018"N	80°49'18.281"W	13209.14	338.220	1.11	-0.11	-0.16
20355.00	88.090	334.360	6980.28	13284.09	12347.60	-4939.47	1625743.42	281971.43	39°15'59.826"N	80°49'18.794"W	13298.93	338.197	0.97	-0.18	-0.96
20444.00	88.220	331.690	6983.15	13372.95	12426.87	-4979.81	1625703.08	282050.70	39°16'00.604"N	80°49'19.322"W	13387.52	338.163	3.00	0.15	-3.00
20534.00	88.150	332.100	6986.00	13462.73	12506.21	-5022.19	1625660.70	282130.04	39°16'01.382"N	80°49'19.875"W	13476.94	338.121	0.46	-0.08	0.46
20624.00	87.910	333.560	6989.09	13552.58	12586.23	-5063.26	1625619.63	282210.06	39°16'02.167"N	80°49'20.412"W	13566.50	338.086	1.64	-0.27	1.62
20713.00	87.980	333.420	6992.36	13641.50	12666.38	-5101.36	1625581.51	282289.37	39°16'02.951"N	80°49'20.941"W	13655.26	338.064	1.49	-0.15	1.04
20802.00	87.850	337.330	6995.68	13730.42	12747.98	-5137.20	1625545.69	282371.80	39°16'03.754"N	80°49'21.383"W	13744.16	338.051	2.14	-0.03	2.15
20870.00	87.880	339.100	6998.21	13798.30	12811.08	-5162.42	1625520.47	282434.89	39°16'04.374"N	80°49'21.715"W	13812.11	338.052	2.60	0.04	2.60
20894.00	87.880	339.100	6999.10	13822.23	12833.48	-5170.98	1625511.92	282457.30	39°16'04.595"N	80°49'21.828"W	13836.09	338.054	0.00	0.00	0.00



**Actual Wellpath Report**  
 OXF-97G-HS AWP Proj: 20894'  
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**REFERENCE WELLPATH IDENTIFICATION**

Operator	NOBLE ENERGY	Slot	Slot G
Area	Doddridge Co., WV	Well	OXF-97G-HS
Field	Doddridge	Wellbore	OXF-97G-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-97G-HS LP Rev-2		6865.00	534.61	450.58	1631133.26	270158.89	39°14'03.859"N	80°48'08.093"W	point
OXF-97G-HS BHL Rev-2		6996.00	12818.12	-5149.93	1625532.97	282441.93	39°16'04.446"N	80°49'21.557"W	point
OXF-97 LL		7198.39	39.98	-19.93	1630662.77	269664.28	39°13'58.904"N	80°48'13.980"W	polygon

**WELLPATH COMPOSITION - Ref Wellbore: OXF-97G-HS AWB Ref Wellpath: OXF-97G-HS AWP Proj: 20894'**

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
18.00	2908.00	Generic gyro - northseeking (Standard)	01_MS Gyro <12-1/4"> (100'-2900')	OXF-97G-HS AWB
2908.00	6055.00	ISWASA MWD, Rev. 2 (Standard)	02_WFD EM <8-3/4"> (2900')(3040'-6047')	OXF-97G-HS AWB
6055.00	20870.00	NaviTrak (AT Curve Short Spaced)	03_BHI AT Curve <8-1/2"> (6055')(6116'-20870')	OXF-97G-HS AWB
20870.00	20894.00	Blind Drilling (std)	Projection to bit	OXF-97G-HS AWB

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**Actual Wellpath Report**  
 OXF-97G-HS AWP Proj: 20894'  
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**REFERENCE WELLPATH IDENTIFICATION**

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

**COMMENTS**

Wellpath general comments  
 API: 47-017-06585-0000  
 BHI Job #: 7255479  
 Rig: Precision 543  
 Duration: 5/21/2015-5/30/2015  
 MS Gyro <12-1/4"> (100'-2900')  
 WFD EM <8-3/4"> (2900')(3040'-6047')  
 BHI AT Curve <8-1/2"> (6055')(6116'-20870')  
 Projected MD at TD: 20894'

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