



Location: Doddridge Co., WV
 Field: Doddridge
 Facility: Oxford Pad

NOBLE ENERGY

Slot: Slot C
 Well: OXFD1CHS
 Wellbore: OXFD1CHS PWB

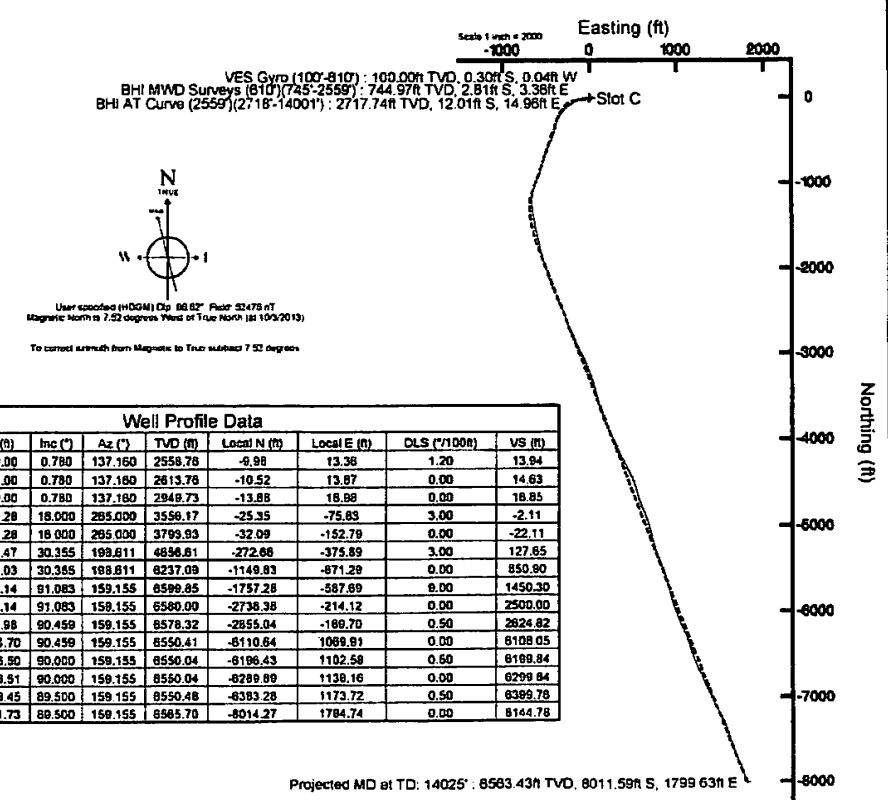
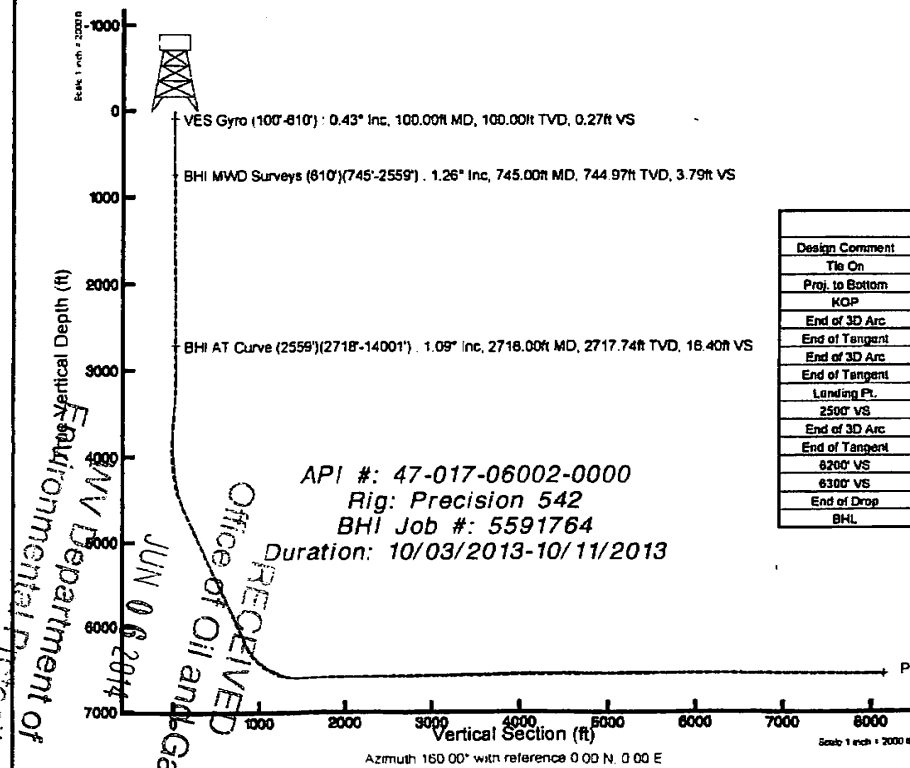


Plot reference wellpath is OXFD1CHS PWP Rev-C.0	
True vertical depths are referenced to Precision 542 (RT)	GM System: NAD83 / Lambert West Virginia SP, Meridian Zone (4701), US feet
Measured depths are referenced to Precision 542 (RT)	North Reference: True north
Precision 542 (RT) to Mean Sea Level: 1138.0 feet	South: True distance
Mean Sea Level to Mud line (At Slot: Slot C): -1120 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: stwds on 10/10/2013

Name	BD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
8200 VS	6300.01	8166.57	1102.63	142366.58	266282.50	387371.067N	804878.2137W	
8300 VS	6300.03	8202.04	1128.22	142360.78	266286.07	387371.747N	804877.7617W	
OXFD1CHS LP Rev-2	1402.73	8562.10	4614.27	1784.74	162402.77	387373.7017N	804878.4247W	
2500 VS	6300.14	8500.00	2730.38	214.12	162403.05	387373.8027N	804878.6457W	
OXFD1CHS LP Rev-2	7335.14	8598.85	-1752.28	581.60	162394.61	387375.5457N	804878.0517W	
OXFD1CHS LP Rev-1	8020.00	702.10	-490.50	102207.80	272441.01	387375.8027N	804878.6457W	

Location Information				
Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Oxford Pad	1624569.344	273233.052	39°14'33.293"N	80°49'32.081"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)
Slot C	-38.40	-11.24	1624557.540	273184.820
Precision 542 (RT) to Mud line (At Slot: Slot C)	18.68			
Mean Sea Level to Mud line (At Slot: Slot C)	-1120ft			
Precision 542 (RT) to Mean Sea Level	1138.6ft			

Well Date			
Slot	Well	Wellbore	Wellpath
Slot C	OXFD1CHS	OXFD1CHS AWP	OXFD1CHS AWP (Curve&Laterals) Prop: 14025
Slot C	OXFD1CHS	OXFD1CHS PWB	OXFD1CHS PWP Rev-C.0



Well Profile Data								
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	2559.00	0.780	137.160	2558.78	-6.98	13.36	1.20	13.94
Proj. to Bottom	2814.00	0.780	137.160	2813.78	-10.52	13.87	0.00	14.63
KOP	2950.00	0.780	137.160	2949.73	-13.88	18.88	0.00	18.85
End of 3D Arc	3568.28	18.000	285.000	3558.17	-25.35	-75.83	3.00	-2.11
End of Tangent	3818.28	18.000	285.000	3799.93	-32.09	-152.79	0.00	-22.11
End of 3D Arc	4748.47	30.355	188.811	4836.81	-272.88	-375.89	3.00	127.65
End of Tangent	8580.03	30.355	188.811	8237.09	-1149.83	-871.29	0.00	850.90
Landing Pt.	7336.14	81.083	159.155	8599.85	-1757.28	-587.69	8.00	1450.30
2500 VS	8398.14	91.083	159.155	8580.00	-2738.38	-214.12	0.00	2500.00
End of 3D Arc	8510.98	90.459	159.155	8578.32	-2855.04	-180.70	0.50	2824.82
End of Tangent	11894.70	90.459	159.155	8550.41	-8110.64	1089.81	0.00	8108.05
8200 VS	12058.50	90.000	159.155	8550.04	-8198.43	1102.58	0.50	8188.84
8300 VS	12188.51	90.000	159.155	8550.04	-8288.89	1138.16	0.00	8298.84
End of Drop	12288.45	89.500	159.155	8550.48	-8383.28	1173.72	0.50	8388.78
BHL	14031.73	88.500	159.155	8565.70	-8014.27	1784.74	0.00	8144.78

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Actual Wellpath Report

OXFD1CHS AWP (Curve&Lateral) Proj: 14025'
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REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY	Slot	Slot C
Area	Doddridge Co., WV	Well	OXFD1CHS
Field	Doddridge	Wellbore	OXFD1CHS AWB
Facility	Oxford Pad		

REPORT SETUP INFORMATION

Projection System	NAD27 / Lambert West Virginia SP, Northern Zone (4701), US feet	Software System	WellArchitect® 4.0.1
North Reference	True	User	Stewdenk
Scale	0.999963	Report Generated	10/15/2013 at 9:23:50 AM
Convergence at slot	n/a	Database/Source file	Well Architect Eastern/OXFD1CHS_AWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-38.40	-11.24	1624557.54	273194.82	39°14'32.913"N	80°49'32.224"W
Facility Reference Pt			1624569.34	273233.05	39°14'33.293"N	80°49'32.081"W
Field Reference Pt			0.00	0.00	38°17'12.460"N	86°28'23.077"W

WELLPATH DATUM

Calculation method	Minimum curvature	Precision 542 (RT) to Facility Vertical Datum	18.60ft
Horizontal Reference Pt	Slot	Precision 542 (RT) to Mean Sea Level	1138.60ft
Vertical Reference Pt	Precision 542 (RT)	Precision 542 (RT) to Mud Line at Slot (Slot C)	18.60ft
MD Reference Pt	Precision 542 (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	160.00°

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Actual Wellpath Report

OXFD1CHS AWP (Curve&Lateral) Proj: 14025'
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REFERENCE WELLPATH IDENTIFICATION			
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Area	Doddridge Co., WV	Well	OXFD1CHS
Field	Doddridge	Wellbore	OXFD1CHS AWB
Facility	Oxford Pad		

WELLPATH DATA (190 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	186.640	0.00	0.00	0.00	0.00	1624557.54	273194.82	39°14'32.913"N	80°49'32.224"W	0.00	0.000	0.00	0.00	0.00
18.60	0.000	186.640	18.60	0.00	0.00	0.00	1624557.54	273194.82	39°14'32.913"N	80°49'32.224"W	0.00	0.000	0.00	0.00	0.00
100.00	0.430	186.640	100.00	0.27	-0.30	-0.04	1624557.50	273194.52	39°14'32.910"N	80°49'32.224"W	0.31	186.640	0.53	0.53	0.00
200.00	0.170	209.290	200.00	0.71	-0.81	-0.15	1624557.38	273194.02	39°14'32.905"N	80°49'32.226"W	0.82	190.637	0.28	-0.26	22.65
300.00	0.450	183.500	300.00	1.16	-1.33	-0.25	1624557.27	273193.50	39°14'32.900"N	80°49'32.227"W	1.35	190.580	0.31	0.28	-25.79
400.00	0.370	152.020	399.99	1.84	-2.00	-0.12	1624557.39	273192.82	39°14'32.894"N	80°49'32.225"W	2.01	183.436	0.24	-0.08	-31.48
500.00	0.470	93.550	499.99	2.33	-2.31	0.44	1624557.95	273192.50	39°14'32.891"N	80°49'32.218"W	2.36	169.224	0.42	0.10	-58.47
600.00	0.450	107.280	599.99	2.73	-2.46	1.22	1624558.73	273192.35	39°14'32.889"N	80°49'32.208"W	2.74	153.499	0.11	-0.02	13.73
610.00	0.520	109.840	609.99	2.78	-2.48	1.31	1624558.81	273192.32	39°14'32.889"N	80°49'32.207"W	2.81	152.280	0.73	0.70	25.60
745.00	1.260	94.450	744.97	3.79	-2.81	3.36	1624560.86	273191.96	39°14'32.886"N	80°49'32.181"W	4.38	129.864	0.57	0.55	-11.40
798.00	1.010	86.730	797.96	4.16	-2.83	4.41	1624561.91	273191.93	39°14'32.885"N	80°49'32.168"W	5.24	122.655	0.55	-0.47	-14.57
893.00	0.570	51.700	892.95	4.26	-2.48	5.62	1624563.12	273192.25	39°14'32.889"N	80°49'32.152"W	6.14	113.869	0.67	-0.46	-36.87
988.00	1.140	74.350	987.94	4.18	-1.94	6.90	1624564.41	273192.78	39°14'32.894"N	80°49'32.136"W	7.16	105.688	0.69	0.60	23.84
1083.00	0.270	92.130	1082.93	4.33	-1.69	8.03	1624565.54	273193.01	39°14'32.897"N	80°49'32.122"W	8.21	101.887	0.93	-0.92	18.72
1178.00	0.210	95.610	1177.93	4.49	-1.72	8.43	1624565.94	273192.98	39°14'32.896"N	80°49'32.117"W	8.60	101.507	0.06	-0.06	3.66
1272.00	0.810	108.800	1271.93	4.98	-1.95	9.23	1624566.74	273192.74	39°14'32.894"N	80°49'32.107"W	9.43	101.912	0.65	0.64	14.03
1367.00	0.520	212.040	1366.92	5.67	-2.53	9.63	1624567.14	273192.15	39°14'32.888"N	80°49'32.101"W	9.96	104.705	1.11	-0.31	108.67
1462.00	0.500	77.880	1461.92	5.99	-2.81	9.81	1624567.31	273191.87	39°14'32.886"N	80°49'32.099"W	10.20	105.965	0.99	-0.02	-141.22
1557.00	0.840	67.800	1556.92	6.02	-2.46	10.86	1624568.36	273192.20	39°14'32.889"N	80°49'32.086"W	11.14	102.745	0.38	0.36	-10.61
1652.00	0.350	155.760	1651.91	6.29	-2.46	11.62	1624569.13	273192.19	39°14'32.889"N	80°49'32.076"W	11.88	101.940	0.95	-0.52	92.59
1746.00	0.870	139.910	1745.91	7.24	-3.27	12.20	1624569.69	273191.37	39°14'32.881"N	80°49'32.069"W	12.63	104.984	0.58	0.55	-16.86
1835.00	1.410	163.250	1834.89	8.97	-4.83	12.95	1624570.42	273189.80	39°14'32.866"N	80°49'32.059"W	13.82	110.455	0.79	0.61	26.22
1925.00	2.440	217.030	1924.84	11.12	-7.42	12.12	1624569.55	273187.22	39°14'32.840"N	80°49'32.070"W	14.21	121.484	2.19	1.14	59.76
2015.00	1.350	231.870	2014.79	12.49	-9.61	10.13	1624567.53	273185.07	39°14'32.818"N	80°49'32.095"W	13.96	133.477	1.32	-1.21	16.49
2104.00	0.650	61.580	2103.79	12.74	-10.01	9.75	1624567.14	273184.67	39°14'32.814"N	80°49'32.100"W	13.98	135.762	2.24	-0.79	-191.34
2194.00	0.900	64.580	2193.78	12.60	-9.47	10.84	1624568.24	273185.20	39°14'32.820"N	80°49'32.086"W	14.39	131.138	0.28	0.28	3.33
2283.00	0.400	66.090	2282.77	12.51	-9.04	11.75	1624569.16	273185.61	39°14'32.824"N	80°49'32.074"W	14.83	127.569	0.56	-0.56	1.70
2373.00	0.220	103.580	2372.77	12.59	-8.95	12.21	1624569.61	273185.69	39°14'32.825"N	80°49'32.069"W	15.14	126.258	0.29	-0.20	41.66
2463.00	0.430	126.750	2462.77	12.97	-9.20	12.65	1624570.05	273185.44	39°14'32.823"N	80°49'32.063"W	15.64	126.025	0.27	0.23	25.74
2552.00	0.820	142.460	2551.76	13.85	-9.90	13.30	1624570.69	273184.72	39°14'32.816"N	80°49'32.055"W	16.58	126.662	0.47	0.44	17.65

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Actual Wellpath Report

OXFDICHS AWP (Curve&Lateral) Proj: 14025'
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REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY	Slot	Slot C
Area	Doddridge Co., WV	Well	OXFDICHS
Field	Doddridge	Wellbore	OXFDICHS AWB
Facility	Oxford Pad		

WELLPATH DATA (190 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]
2559.00	0.780	137.160	2558.76	13.94	-9.98	13.36	1624570.76	273184.65	39°14'32.815"N	80°49'32.054"W	16.68	126.738	1.20	-0.57	-75.71
2718.00	1.090	145.280	2717.74	16.40	-12.01	14.96	1624572.32	273182.59	39°14'32.795"N	80°49'32.034"W	19.19	128.760	0.21	0.19	5.11
2808.00	0.280	58.250	2807.74	17.19	-12.60	15.64	1624572.99	273181.99	39°14'32.789"N	80°49'32.025"W	20.08	128.863	1.23	-0.90	-96.70
2897.00	0.090	273.830	2896.74	17.12	-12.48	15.75	1624573.10	273182.11	39°14'32.790"N	80°49'32.024"W	20.10	128.392	0.40	-0.21	-162.27
2987.00	0.740	246.430	2986.73	17.12	-12.71	15.15	1624572.50	273181.89	39°14'32.788"N	80°49'32.031"W	19.77	129.995	0.73	0.72	-30.44
3031.00	1.840	252.580	3030.72	17.11	-13.03	14.21	1624571.56	273181.58	39°14'32.785"N	80°49'32.043"W	19.28	132.520	2.52	2.50	13.98
3076.00	2.460	253.930	3075.69	17.01	-13.52	12.60	1624569.94	273181.12	39°14'32.780"N	80°49'32.064"W	18.48	137.020	1.38	1.38	3.00
3121.00	2.900	251.040	3120.64	16.92	-14.15	10.59	1624567.92	273180.51	39°14'32.774"N	80°49'32.089"W	17.68	143.192	1.02	0.98	-6.42
3165.00	3.530	256.800	3164.57	16.74	-14.83	8.22	1624565.54	273179.88	39°14'32.767"N	80°49'32.119"W	16.95	150.993	1.61	1.43	13.09
3210.00	4.440	258.740	3209.46	16.31	-15.48	5.16	1624562.47	273179.26	39°14'32.760"N	80°49'32.158"W	16.32	161.556	2.04	2.02	4.31
3255.00	5.460	266.970	3254.29	15.42	-15.94	1.32	1624558.62	273178.87	39°14'32.756"N	80°49'32.207"W	15.99	175.276	2.76	2.27	18.29
3301.00	7.600	281.930	3300.00	13.18	-15.42	-3.85	1624553.47	273179.46	39°14'32.761"N	80°49'32.273"W	15.89	194.002	5.91	4.65	32.52
3344.00	10.020	290.260	3342.49	9.25	-13.54	-10.14	1624547.20	273181.43	39°14'32.780"N	80°49'32.353"W	16.91	216.828	6.35	5.63	19.37
3389.00	12.420	292.970	3386.62	3.43	-10.29	-18.27	1624539.12	273184.80	39°14'32.812"N	80°49'32.456"W	20.97	240.599	5.46	5.33	6.02
3434.00	13.600	289.850	3430.47	-3.26	-6.61	-27.70	1624529.75	273188.62	39°14'32.848"N	80°49'32.576"W	28.48	256.581	3.05	2.62	-6.93
3478.00	14.240	278.600	3473.18	-9.17	-4.04	-37.92	1624519.57	273191.34	39°14'32.873"N	80°49'32.706"W	38.13	263.915	6.31	1.45	-25.57
3523.00	15.240	268.750	3516.71	-13.72	-3.34	-49.31	1624508.19	273192.20	39°14'32.880"N	80°49'32.851"W	49.42	266.120	5.99	2.22	-21.89
3568.00	16.510	263.490	3560.00	-17.11	-4.20	-61.57	1624495.91	273191.53	39°14'32.872"N	80°49'33.006"W	61.72	266.100	4.26	2.82	-11.69
3613.00	17.670	258.340	3603.01	-19.60	-6.30	-74.62	1624482.84	273189.62	39°14'32.851"N	80°49'33.172"W	74.88	265.171	4.24	2.58	-11.44
3657.00	18.740	254.700	3644.81	-21.14	-9.52	-87.97	1624469.44	273186.60	39°14'32.819"N	80°49'33.342"W	88.49	263.825	3.55	2.43	-8.27
3702.00	18.870	252.810	3687.41	-22.09	-13.58	-101.90	1624455.46	273182.75	39°14'32.779"N	80°49'33.519"W	102.80	262.411	1.38	0.29	-4.20
3747.00	18.840	249.280	3729.99	-22.36	-18.30	-115.65	1624441.64	273178.23	39°14'32.733"N	80°49'33.694"W	117.09	261.009	2.54	-0.07	-7.84
3791.00	18.630	246.100	3771.66	-21.79	-23.66	-128.72	1624428.49	273173.06	39°14'32.680"N	80°49'33.860"W	130.87	259.585	2.37	-0.48	-7.23
3836.00	18.430	241.860	3814.33	-20.30	-29.93	-141.56	1624415.56	273166.99	39°14'32.618"N	80°49'34.023"W	144.69	258.064	3.03	-0.44	-9.42
3881.00	17.830	233.310	3857.11	-17.31	-37.40	-153.36	1624403.65	273159.69	39°14'32.544"N	80°49'34.173"W	157.86	256.295	6.06	-1.33	-19.00
3926.00	18.290	230.570	3899.89	-12.98	-46.00	-164.34	1624392.55	273151.25	39°14'32.459"N	80°49'34.313"W	170.66	254.363	2.15	1.02	-6.09
3970.00	20.090	237.300	3941.45	-9.02	-54.47	-176.03	1624380.73	273142.96	39°14'32.375"N	80°49'34.461"W	184.27	252.807	6.48	4.09	15.30
4015.00	20.360	242.480	3983.68	-6.30	-62.26	-189.48	1624367.17	273135.36	39°14'32.298"N	80°49'34.632"W	199.45	251.810	4.02	0.60	11.51
4060.00	20.170	239.770	4025.89	-3.90	-69.79	-203.13	1624353.41	273128.04	39°14'32.224"N	80°49'34.806"W	214.78	251.040	2.13	-0.42	-6.02
4105.00	20.080	234.520	4068.15	-0.46	-78.18	-216.12	1624340.30	273119.84	39°14'32.141"N	80°49'34.971"W	229.83	250.114	4.02	-0.20	-11.67

06/13/2014

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Actual Wellpath Report

OXFD1CHS AWP (Curve&Lateral) Proj: 14025'
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REFERENCE WELLPATH IDENTIFICATION			
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Field	Doddridge	Wellbore	OXFD1CHS AWB
Facility	Oxford 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]
6121.00	30.460	200.380	5840.99	677.84	-935.51	-588.42	1623955.40	272268.13	39°14'23.667"N	80°49'39.702"W	1105.17	212.169	1.70	0.01	3.36
6210.00	30.250	202.650	5917.79	711.51	-977.34	-604.91	1623938.30	272226.55	39°14'23.253"N	80°49'39.912"W	1149.40	211.755	1.31	-0.24	2.55
6300.00	30.190	201.950	5995.56	745.01	-1019.25	-622.10	1623920.49	272184.90	39°14'22.839"N	80°49'40.130"W	1194.10	211.398	0.40	-0.07	-0.78
6389.00	30.200	198.490	6072.49	779.18	-1061.24	-637.57	1623904.41	272143.14	39°14'22.424"N	80°49'40.327"W	1238.03	210.996	1.96	0.01	-3.89
6479.00	30.160	196.040	6150.29	815.18	-1104.44	-650.99	1623890.35	272100.15	39°14'21.997"N	80°49'40.498"W	1282.02	210.516	1.37	-0.04	-2.72
6568.00	30.820	193.810	6226.99	852.20	-1148.07	-662.61	1623878.09	272056.70	39°14'21.566"N	80°49'40.645"W	1325.56	209.992	1.47	0.74	-2.51
6613.00	33.820	186.810	6265.03	872.97	-1171.71	-666.85	1623873.50	272033.12	39°14'21.332"N	80°49'40.699"W	1348.18	209.645	10.65	6.67	-15.56
6658.00	37.460	181.740	6301.60	896.87	-1197.84	-668.75	1623871.21	272007.03	39°14'21.074"N	80°49'40.723"W	1371.88	209.175	10.41	8.09	-11.27
6703.00	40.900	177.820	6336.48	923.62	-1226.25	-668.61	1623870.94	271978.62	39°14'20.793"N	80°49'40.721"W	1396.68	208.601	9.42	7.64	-8.71
6748.00	43.300	174.340	6369.87	952.60	-1256.34	-666.52	1623872.58	271948.50	39°14'20.496"N	80°49'40.695"W	1422.19	207.947	7.44	5.33	-7.73
6792.00	46.930	170.530	6400.92	983.04	-1287.22	-662.39	1623876.26	271917.57	39°14'20.191"N	80°49'40.642"W	1447.65	207.230	10.28	8.25	-8.66
6837.00	50.980	170.360	6430.47	1016.41	-1320.68	-656.76	1623881.39	271884.03	39°14'19.860"N	80°49'40.571"W	1474.97	206.441	9.00	9.00	-0.38
6882.00	55.120	170.050	6457.51	1051.79	-1356.11	-650.64	1623886.99	271848.51	39°14'19.510"N	80°49'40.493"W	1504.11	205.631	9.22	9.20	-0.69
6927.00	58.790	170.210	6482.04	1088.92	-1393.27	-644.17	1623892.90	271811.27	39°14'19.143"N	80°49'40.411"W	1534.97	204.813	8.16	8.16	0.36
6972.00	62.830	169.080	6503.99	1127.64	-1431.90	-637.11	1623899.40	271772.53	39°14'18.761"N	80°49'40.321"W	1567.24	203.986	9.24	8.98	-2.51
7017.00	64.660	169.100	6523.89	1167.49	-1471.53	-629.47	1623906.45	271732.80	39°14'18.369"N	80°49'40.224"W	1600.51	203.160	4.07	4.07	0.04
7061.00	65.300	170.050	6542.50	1206.81	-1510.74	-622.25	1623913.09	271693.49	39°14'17.981"N	80°49'40.132"W	1633.87	202.386	2.44	1.45	2.16
7106.00	68.390	169.470	6560.20	1247.58	-1551.45	-614.90	1623919.84	271652.67	39°14'17.579"N	80°49'40.039"W	1668.86	201.620	6.97	6.87	-1.29
7151.00	72.500	168.600	6575.25	1289.45	-1593.07	-606.83	1623927.29	271610.94	39°14'17.168"N	80°49'39.936"W	1704.73	200.853	9.31	9.13	-1.93
7196.00	76.460	167.930	6587.29	1332.35	-1635.51	-598.01	1623935.49	271568.37	39°14'16.748"N	80°49'39.824"W	1741.41	200.084	8.92	8.80	-1.49
7241.00	81.040	167.280	6596.07	1376.08	-1678.61	-588.54	1623944.32	271525.14	39°14'16.322"N	80°49'39.704"W	1778.79	199.321	10.28	10.18	-1.44
7286.00	84.920	166.030	6601.57	1420.44	-1722.05	-578.23	1623953.99	271481.55	39°14'15.893"N	80°49'39.573"W	1816.54	198.561	9.05	8.62	-2.78
7331.00	87.810	164.330	6604.42	1465.16	-1765.46	-566.74	1623964.83	271437.98	39°14'15.464"N	80°49'39.427"W	1854.20	197.797	7.45	6.42	-3.78
7375.00	90.800	164.330	6604.96	1509.02	-1807.82	-554.86	1623976.09	271395.45	39°14'15.045"N	80°49'39.276"W	1891.05	197.062	6.80	6.80	0.00
7420.00	91.690	163.540	6603.98	1553.90	-1851.05	-542.41	1623987.90	271352.04	39°14'14.618"N	80°49'39.117"W	1928.89	196.332	2.64	1.98	-1.76
7465.00	91.110	163.570	6602.88	1598.80	-1894.20	-529.68	1623999.99	271308.72	39°14'14.191"N	80°49'38.956"W	1966.86	195.623	1.29	-1.29	0.07
7555.00	91.600	162.270	6600.75	1688.66	-1980.20	-503.25	1624025.15	271222.34	39°14'13.341"N	80°49'38.620"W	2043.15	194.259	1.54	0.54	-1.44
7644.00	91.450	162.600	6598.38	1777.55	-2065.02	-476.40	1624050.74	271137.13	39°14'12.503"N	80°49'38.278"W	2119.26	192.991	0.41	-0.17	0.37
7734.00	91.420	160.550	6596.13	1867.48	-2150.38	-447.97	1624077.91	271051.37	39°14'11.659"N	80°49'37.917"W	2196.54	191.768	2.28	-0.03	-2.28
7823.00	91.480	160.300	6593.88	1956.45	-2234.21	-418.16	1624106.48	270967.11	39°14'10.831"N	80°49'37.538"W	2273.00	190.601	0.29	0.07	-0.28

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Actual Wellpath Report

OXFD1CHS AWP (Curve&Lateral) Proj: 14025'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY	Slot	Slot C
Area	Doddridge Co., WV	Well	OXFD1CHS
Field	Doddridge	Wellbore	OXFD1CHS AWP
Facility	Oxford Pad		

WELLPATH DATA (190 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]
7913.00	90.920	156.910	6591.99	2046.39	-2317.97	-385.34	1624138.06	270882.87	39°14'10.003"N	80°49'37.121"W	2349.78	189.438	3.82	-0.62	-3.77
8003.00	90.890	155.270	6590.57	2136.17	-2400.24	-348.87	1624173.31	270800.08	39°14'09.190"N	80°49'36.657"W	2425.46	188.270	1.82	-0.03	-1.82
8093.00	90.950	156.750	6589.12	2225.93	-2482.45	-312.28	1624208.68	270717.34	39°14'08.377"N	80°49'36.193"W	2502.01	187.170	1.65	0.07	1.64
8182.00	90.920	160.450	6587.67	2314.88	-2565.29	-279.82	1624239.92	270634.04	39°14'07.559"N	80°49'35.780"W	2580.50	186.225	4.16	-0.03	-4.16
8272.00	90.950	161.470	6586.20	2404.85	-2650.35	-250.46	1624268.01	270548.55	39°14'06.718"N	80°49'35.407"W	2662.16	185.398	1.13	0.03	1.13
8362.00	90.920	157.390	6584.73	2494.82	-2734.59	-218.85	1624298.38	270463.87	39°14'05.885"N	80°49'35.005"W	2743.33	184.576	4.53	-0.03	-4.53
8451.00	90.980	155.320	6583.26	2583.62	-2816.10	-183.16	1624332.86	270381.84	39°14'05.080"N	80°49'34.552"W	2822.05	183.721	2.33	0.07	-2.33
8541.00	91.020	154.880	6581.69	2673.28	-2897.72	-145.27	1624369.53	270299.67	39°14'04.273"N	80°49'34.070"W	2901.36	182.870	0.49	0.04	-0.49
8630.00	90.980	154.940	6580.13	2761.91	-2978.31	-107.54	1624406.07	270218.54	39°14'03.476"N	80°49'33.591"W	2980.25	182.068	0.08	-0.04	0.07
8720.00	90.950	155.310	6578.62	2851.58	-3059.95	-69.69	1624442.72	270136.35	39°14'02.669"N	80°49'33.109"W	3060.74	181.305	0.41	-0.03	0.41
8809.00	91.170	157.810	6576.97	2940.39	-3141.58	-34.29	1624476.90	270054.21	39°14'01.863"N	80°49'32.660"W	3141.77	180.625	2.82	0.25	2.81
8899.00	90.950	159.100	6575.31	3030.34	-3225.28	-1.25	1624508.70	269970.04	39°14'01.035"N	80°49'32.240"W	3225.28	180.022	1.45	-0.24	1.43
8988.00	91.230	161.920	6573.61	3119.31	-3309.15	28.44	1624537.15	269885.73	39°14'00.206"N	80°49'31.862"W	3309.28	179.508	3.18	0.31	3.17
9078.00	91.290	164.080	6571.63	3209.16	-3395.20	54.74	1624562.18	269799.32	39°13'59.356"N	80°49'31.528"W	3395.64	179.076	2.40	0.07	2.40
9167.00	91.230	165.140	6569.68	3297.85	-3480.98	78.36	1624584.53	269713.20	39°13'58.508"N	80°49'31.228"W	3481.86	178.710	1.19	-0.07	1.19
9256.00	91.140	164.010	6567.83	3386.55	-3566.76	102.02	1624606.92	269627.08	39°13'57.660"N	80°49'30.927"W	3568.22	178.362	1.27	-0.10	-1.27
9346.00	91.140	162.480	6566.04	3476.39	-3652.92	127.96	1624631.59	269540.56	39°13'56.809"N	80°49'30.598"W	3655.16	177.994	1.70	0.00	-1.70
9436.00	91.230	161.210	6564.18	3566.32	-3738.42	156.00	1624658.36	269454.65	39°13'55.964"N	80°49'30.241"W	3741.67	177.611	1.41	0.10	-1.41
9525.00	90.620	159.070	6562.75	3655.30	-3822.11	186.23	1624687.35	269370.53	39°13'55.136"N	80°49'29.857"W	3826.64	177.211	2.50	-0.69	-2.40
9615.00	90.740	152.440	6561.68	3745.00	-3904.12	223.16	1624723.07	269287.99	39°13'54.326"N	80°49'29.388"W	3910.49	176.728	7.37	0.13	-7.37
9704.00	90.460	154.460	6560.74	3833.41	-3983.72	262.94	1624761.66	269207.81	39°13'53.539"N	80°49'28.882"W	3992.39	176.224	2.29	-0.31	2.27
9794.00	90.710	154.470	6559.83	3922.98	-4064.93	301.73	1624799.25	269126.04	39°13'52.736"N	80°49'28.389"W	4076.11	175.755	0.28	0.28	0.01
9883.00	90.460	156.780	6558.92	4011.71	-4145.98	338.46	1624834.78	269044.45	39°13'51.935"N	80°49'27.923"W	4159.78	175.333	2.61	-0.28	2.60
9973.00	90.520	154.060	6558.15	4101.41	-4227.82	375.89	1624871.00	268962.08	39°13'51.126"N	80°49'27.447"W	4244.50	174.919	3.02	0.07	-3.02
10063.00	90.650	151.560	6557.23	4190.69	-4307.86	417.01	1624910.93	268881.44	39°13'50.335"N	80°49'26.925"W	4328.00	174.471	2.78	0.14	-2.78
10152.00	90.490	151.710	6556.34	4278.74	-4386.17	459.29	1624952.05	268802.52	39°13'49.561"N	80°49'26.387"W	4410.15	174.022	0.25	-0.18	0.17
10242.00	90.520	154.870	6555.55	4368.11	-4466.56	499.74	1624991.30	268721.55	39°13'48.767"N	80°49'25.873"W	4494.43	173.616	3.51	0.03	3.51
10332.00	90.220	165.290	6554.97	4457.98	-4551.05	530.36	1625020.67	268636.61	39°13'47.932"N	80°49'25.484"W	4581.85	173.353	11.58	-0.33	11.58
10421.00	90.250	165.510	6554.60	4546.59	-4637.18	552.79	1625041.83	268550.17	39°13'47.080"N	80°49'25.199"W	4670.01	173.202	0.25	0.03	0.25
10510.00	90.220	160.130	6554.24	4635.45	-4722.18	579.07	1625066.85	268464.80	39°13'46.240"N	80°49'24.865"W	4757.55	173.009	6.04	-0.03	-6.04

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Actual Wellpath Report

OXFD1CHS AWP (Curve&Lateral) Proj: 14025'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY	Slot	Slot C
Area	Doddridge Co., WV	Well	OXFD1CHS
Field	Doddridge	Wellbore	OXFD1CHS AWB
Facility	Oxford Pad		

WELLPATH DATA (190 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]
10600.00	90.310	154.900	6553.82	4725.33	-4805.30	613.48	1625100.03	268381.17	39°13'45.419"N	80°49'24.428"W	4844.31	172.725	5.81	0.10	-5.81
10690.00	90.220	158.150	6553.40	4815.15	-4887.84	649.32	1625134.65	268298.12	39°13'44.603"N	80°49'23.973"W	4930.78	172.433	3.61	-0.10	3.61
10780.00	90.150	165.140	6553.11	4905.06	-4973.21	677.65	1625161.71	268212.35	39°13'43.759"N	80°49'23.613"W	5019.17	172.241	7.77	-0.08	7.77
10869.00	90.250	165.080	6552.80	4993.70	-5059.22	700.52	1625183.31	268126.01	39°13'42.909"N	80°49'23.322"W	5107.49	172.117	0.13	0.11	-0.07
10959.00	90.250	165.300	6552.41	5083.33	-5146.23	723.52	1625205.03	268038.67	39°13'42.049"N	80°49'23.030"W	5196.84	171.997	0.24	0.00	0.24
11048.00	90.250	163.560	6552.02	5172.06	-5231.96	747.41	1625227.64	267952.60	39°13'41.202"N	80°49'22.726"W	5285.08	171.870	1.96	0.00	-1.96
11138.00	90.250	160.400	6551.63	5262.00	-5317.53	775.25	1625254.22	267866.63	39°13'40.356"N	80°49'22.373"W	5373.75	171.705	3.51	0.00	-3.51
11227.00	90.180	158.910	6551.29	5350.99	-5400.98	806.19	1625283.92	267782.74	39°13'39.531"N	80°49'21.979"W	5460.82	171.510	1.68	-0.08	-1.67
11317.00	90.220	160.100	6550.98	5440.99	-5485.28	837.70	1625314.18	267697.99	39°13'38.698"N	80°49'21.579"W	5548.88	171.317	1.32	0.04	1.32
11407.00	90.490	161.750	6550.42	5530.97	-5570.33	867.11	1625342.34	267612.52	39°13'37.857"N	80°49'21.205"W	5637.42	171.152	1.86	0.30	1.83
11496.00	90.490	164.300	6549.66	5619.84	-5655.45	893.09	1625367.06	267527.03	39°13'37.016"N	80°49'20.875"W	5725.53	171.026	2.87	0.00	2.87
11586.00	90.490	165.700	6548.89	5709.49	-5742.37	916.38	1625389.06	267439.77	39°13'36.157"N	80°49'20.579"W	5815.03	170.933	1.56	0.00	1.56
11675.00	89.880	165.880	6548.60	5798.03	-5828.65	938.23	1625409.63	267353.19	39°13'35.304"N	80°49'20.302"W	5903.68	170.856	0.71	-0.69	0.20
11765.00	89.910	161.920	6548.77	5887.81	-5915.10	963.19	1625433.31	267266.38	39°13'34.449"N	80°49'19.985"W	5993.01	170.751	4.40	0.03	-4.40
11855.00	89.880	160.310	6548.93	5977.79	-6000.26	992.31	1625461.18	267180.81	39°13'33.608"N	80°49'19.615"W	6081.76	170.609	1.79	-0.03	-1.79
11944.00	89.940	159.370	6549.07	6066.79	-6083.80	1022.99	1625490.61	267096.82	39°13'32.782"N	80°49'19.225"W	6169.21	170.455	1.06	0.07	-1.06
12034.00	89.880	157.750	6549.21	6156.75	-6167.57	1055.88	1625522.27	267012.58	39°13'31.954"N	80°49'18.807"W	6257.30	170.285	1.80	-0.07	-1.80
12123.00	89.600	156.590	6549.62	6245.64	-6249.60	1090.41	1625555.58	266930.06	39°13'31.143"N	80°49'18.368"W	6344.01	170.103	1.34	-0.31	-1.30
12213.00	89.690	158.920	6550.18	6335.57	-6332.89	1124.48	1625588.42	266846.27	39°13'30.320"N	80°49'17.935"W	6431.95	169.931	2.59	0.10	2.59
12303.00	89.570	162.730	6550.76	6425.54	-6417.88	1154.04	1625616.71	266760.86	39°13'29.480"N	80°49'17.560"W	6520.81	169.806	4.24	-0.13	4.23
12392.00	89.480	161.450	6551.50	6514.47	-6502.56	1181.41	1625642.83	266675.79	39°13'28.643"N	80°49'17.212"W	6609.01	169.703	1.44	-0.10	-1.44
12482.00	90.150	159.590	6551.79	6604.47	-6587.41	1211.42	1625671.58	266590.51	39°13'27.804"N	80°49'16.831"W	6697.87	169.580	2.20	0.74	-2.07
12572.00	90.120	154.050	6551.57	6694.29	-6670.11	1246.83	1625705.77	266507.30	39°13'26.987"N	80°49'16.381"W	6785.64	169.412	6.16	-0.03	-6.16
12662.00	90.090	156.210	6551.41	6783.96	-6751.76	1284.68	1625742.41	266425.11	39°13'26.180"N	80°49'15.900"W	6872.89	169.227	2.40	-0.03	2.40
12752.00	89.970	157.660	6551.36	6873.83	-6834.56	1319.94	1625776.44	266341.79	39°13'25.362"N	80°49'15.452"W	6960.85	169.069	1.62	-0.13	1.61
12841.00	90.090	155.360	6551.31	6962.66	-6916.18	1355.41	1625810.70	266259.66	39°13'24.555"N	80°49'15.001"W	7047.74	168.912	2.59	0.13	-2.58
12931.00	90.060	154.690	6551.20	7052.32	-6997.76	1393.41	1625847.49	266177.53	39°13'23.748"N	80°49'14.519"W	7135.14	168.738	0.75	-0.03	-0.74
13020.00	90.120	155.170	6551.06	7140.97	-7078.38	1431.12	1625884.01	266096.37	39°13'22.952"N	80°49'14.039"W	7221.60	168.570	0.54	0.07	0.54
13110.00	90.120	153.700	6550.87	7230.54	-7159.56	1469.96	1625921.64	266014.63	39°13'22.149"N	80°49'13.546"W	7308.91	168.398	1.63	0.00	-1.63
13199.00	90.150	153.980	6550.66	7319.03	-7239.45	1509.19	1625959.70	265934.18	39°13'21.360"N	80°49'13.047"W	7395.08	168.224	0.32	0.03	0.31

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Actual Wellpath Report

OXFD1CHS AWP (Curve&Lateral) Proj: 14025'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY	Slot	Slot C
Area	Doddridge Co., WV	Well	OXFD1CHS
Field	Doddridge	Wellbore	OXFD1CHS AWB
Facility	Oxford Pad		

WELLPATH DATA (190 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]
13289.00	88.920	154.390	6551.39	7408.56	-7320.46	1548.38	1625997.68	265852.59	39°13'20.559"N	80°49'12.550"W	7482.42	168.057	1.44	-1.37	0.46
13379.00	88.950	162.370	6553.07	7498.44	-7404.05	1581.51	1626029.57	265768.53	39°13'19.733"N	80°49'12.129"W	7571.07	167.943	8.87	0.03	8.87
13468.00	89.020	165.070	6554.64	7587.23	-7489.46	1606.46	1626053.25	265682.77	39°13'18.889"N	80°49'11.812"W	7659.81	167.894	3.03	0.08	3.03
13558.00	88.980	159.630	6556.21	7677.11	-7575.18	1633.73	1626079.26	265596.66	39°13'18.041"N	80°49'11.465"W	7749.35	167.829	6.04	-0.04	-6.04
13648.00	88.920	158.530	6557.86	7767.08	-7659.23	1665.86	1626110.14	265512.15	39°13'17.211"N	80°49'11.057"W	7838.29	167.729	1.22	-0.07	-1.22
13738.00	89.140	159.520	6559.39	7857.05	-7743.25	1698.07	1626141.11	265427.66	39°13'16.380"N	80°49'10.648"W	7927.26	167.631	1.13	0.24	1.10
13827.00	89.200	157.730	6560.68	7946.01	-7826.12	1730.50	1626172.32	265344.33	39°13'15.561"N	80°49'10.236"W	8015.16	167.531	2.01	0.07	-2.01
13917.00	89.230	159.100	6561.91	8035.97	-7909.80	1763.61	1626204.18	265260.17	39°13'14.734"N	80°49'09.815"W	8104.02	167.431	1.52	0.03	1.52
14001.00	89.170	161.410	6563.08	8119.95	-7988.84	1791.98	1626231.38	265180.72	39°13'13.953"N	80°49'09.455"W	8187.36	167.357	2.75	-0.07	2.75
14025.00	89.170	161.410	6563.43	8143.94	-8011.59	1799.63	1626238.70	265157.86	39°13'13.728"N	80°49'09.358"W	8211.23	167.340	0.00	0.00	0.00

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Actual Wellpath Report

OXFD1CHS AWP (Curve&Lateral) Proj: 14025'
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REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY	Slot	Slot C
Area	Doddridge Co., WV	Well	OXFD1CHS
Field	Doddridge	Wellbore	OXFD1CHS AWB
Facility	Oxford Pad		

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
6200' VS		6550.03	-6196.57	1102.63	1625568.58	266982.90	39°13'31.667"N	80°49'18.213"W	point
6300' VS		6550.03	-6290.04	1138.22	1625602.78	266888.92	39°13'50.744"N	80°49'17.761"W	point
OXFD1CHS BHL Rev-2		6565.70	-8014.27	1794.74	1626233.77	265155.25	39°13'13.701"N	80°49'09.420"W	point
2500' VS		6580.00	-2738.38	-214.12	1624303.05	270460.00	39°14'05.848"N	80°49'34.945"W	point
OXFD1CHS L.P Rev-2		6599.85	-1757.28	-587.69	1623944.01	271446.47	39°14'15.545"N	80°49'39.693"W	point
OXFD1CHS L.P Rev-1		6620.00	-762.18	-966.59	1623579.85	272447.01	39°14'25.380"N	80°49'44.509"W	point

WELLPATH COMPOSITION - Ref Wellbore: OXFD1CHS AWB Ref Wellpath: OXFD1CHS AWP (Curve&Lateral) Proj: 14025'

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
18.60	610.00	Generic gyro - northseeking (Standard)	VES Gyro (100'-610')	OXFD1CHS AWB
610.00	2559.00	NaviTrak (MagCorr)	BHI MWD Surveys (610')(745'-2559')	OXFD1CHS AWB
2559.00	14001.00	NaviTrak (MagCorr)	BHI MWD Surveys (2559')(2718'-14001')	OXFD1CHS AWB
14001.00	14025.00	Blind Drilling (std)	Projection to bit	OXFD1CHS AWB

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Actual Wellpath Report
OXFD1CHS AWP (Curve&Lateral) Proj: 14025'
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REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY	Slot	Slot C
Area	Doddridge Co., WV	Well	OXFD1CHS
Field	Doddridge	Wellbore	OXFD1CHS AWP
Facility	Oxford Pad		

COMMENTS

Wellpath general comments
API #: 47-017-06002-0000
Rig: Precision 542
BHI Job #: 5591764
Duration: 10/03/2013-10/11/2013
VES Gyro (100'-610')
BHI MWD Surveys (610')(745'-2559')
BHI AT Curve (2559')(2718'-14001')
Projected MD at TD: 14025'

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