



Actual Wellpath Report

WEB-13A-HS AWP Proj: 13220'
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REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY	Slot	Slot A
Area	Marshall County, WV	Well	WEB-13A-HS
Field	Marshall	Wellbore	WEB-13A-HS AWB
Facility	WEB-13 Pad		

51-01662

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	0.999957	Report Generated	2/21/2014 at 10:50:22 AM
Convergence at slot	0.67° West	Database/Source file	Well Architect Eastern US/WEB-13A-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	0.00	0.00	1705652.83	531290.75	39°57'14.242"N	80°32'59.873"W
Facility Reference Pt			1705652.83	531290.75	39°57'14.242"N	80°32'59.873"W
Field Reference Pt			609601.22	0.00	38°23'48.753"N	84°21'09.765"W

WELLPATH DATUM

Calculation method	Minimum curvature	Nomac 79 (RT) to Facility Vertical Datum	1270.52ft
Horizontal Reference Pt	Slot	Nomac 79 (RT) to Mean Sea Level	1270.52ft
Vertical Reference Pt	Nomac 79 (RT)	Nomac 79 (RT) to Mud Line at Slot (Slot A)	1270.52ft
MD Reference Pt	Nomac 79 (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	143.00°

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WELLPATH DATA (197 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	108.440	0.00	0.00	0.00	0.00	1705652.83	531290.75	39°57'14.242"N	80°32'59.873"W	0.00	0.000	0.00	0.00	0.00
26.00	0.000	108.440	26.00	0.00	0.00	0.00	1705652.83	531290.75	39°57'14.242"N	80°32'59.873"W	0.00	0.000	0.00	0.00	0.00
126.00	0.210	108.440	126.00	0.15	-0.06	0.17	1705653.00	531290.69	39°57'14.241"N	80°32'59.871"W	0.18	108.440	0.21	0.21	0.00
226.00	0.400	103.250	226.00	0.57	-0.20	0.69	1705653.52	531290.55	39°57'14.240"N	80°32'59.864"W	0.71	105.908	0.19	0.19	-5.19
326.00	0.330	94.670	326.00	1.03	-0.30	1.31	1705654.14	531290.45	39°57'14.239"N	80°32'59.856"W	1.35	102.833	0.09	-0.07	-8.58
426.00	0.190	79.710	426.00	1.30	-0.29	1.76	1705654.59	531290.46	39°57'14.239"N	80°32'59.851"W	1.79	99.435	0.15	-0.14	-14.96
526.00	0.230	84.410	525.99	1.48	-0.24	2.13	1705654.96	531290.51	39°57'14.239"N	80°32'59.846"W	2.14	96.544	0.04	0.04	4.70
626.00	0.520	96.230	625.99	1.89	-0.27	2.78	1705655.61	531290.48	39°57'14.239"N	80°32'59.838"W	2.79	95.627	0.30	0.29	11.82
726.00	0.630	99.440	725.99	2.60	-0.41	3.77	1705656.60	531290.34	39°57'14.238"N	80°32'59.825"W	3.79	96.251	0.11	0.11	3.21
826.00	0.500	104.790	825.98	3.34	-0.61	4.74	1705657.57	531290.14	39°57'14.236"N	80°32'59.812"W	4.78	97.396	0.14	-0.13	5.35
926.00	0.440	107.420	925.98	4.00	-0.84	5.52	1705658.35	531289.91	39°57'14.234"N	80°32'59.802"W	5.59	98.657	0.06	-0.06	2.63
1026.00	0.180	111.230	1025.98	4.44	-1.01	6.04	1705658.87	531289.74	39°57'14.232"N	80°32'59.796"W	6.12	99.525	0.26	-0.26	3.81
1126.00	0.300	117.000	1125.98	4.81	-1.19	6.42	1705659.25	531289.56	39°57'14.231"N	80°32'59.791"W	6.53	100.495	0.12	0.12	5.77
1139.00	0.340	118.920	1138.98	4.88	-1.22	6.48	1705659.31	531289.53	39°57'14.230"N	80°32'59.790"W	6.59	100.685	0.32	0.31	14.77
1231.00	0.520	107.910	1230.97	5.47	-1.48	7.12	1705659.95	531289.27	39°57'14.228"N	80°32'59.782"W	7.27	101.772	0.21	0.20	-11.97
1262.00	0.360	78.300	1261.97	5.62	-1.51	7.35	1705660.18	531289.24	39°57'14.228"N	80°32'59.779"W	7.50	101.590	0.88	-0.52	-95.52
1290.00	0.700	30.630	1289.97	5.60	-1.34	7.52	1705660.35	531289.41	39°57'14.229"N	80°32'59.776"W	7.64	100.116	1.89	1.21	-170.25
1325.00	1.120	9.930	1324.97	5.28	-0.82	7.69	1705660.52	531289.93	39°57'14.234"N	80°32'59.774"W	7.73	96.094	1.51	1.20	-59.14
1357.00	1.590	0.840	1356.96	4.72	-0.07	7.75	1705660.58	531290.68	39°57'14.242"N	80°32'59.774"W	7.75	90.508	1.61	1.47	-28.41
1383.00	2.470	350.840	1382.94	3.94	0.85	7.66	1705660.49	531291.60	39°57'14.251"N	80°32'59.775"W	7.71	83.707	3.64	3.38	-38.46
1408.00	2.560	350.550	1407.92	2.97	1.93	7.49	1705660.32	531292.68	39°57'14.262"N	80°32'59.777"W	7.73	75.560	0.36	0.36	-1.16
1452.00	3.460	349.860	1451.86	0.91	4.20	7.09	1705659.92	531294.95	39°57'14.284"N	80°32'59.783"W	8.24	59.338	2.05	2.05	-1.57
1484.00	4.100	346.340	1483.79	-1.00	6.27	6.65	1705659.48	531297.02	39°57'14.304"N	80°32'59.789"W	9.14	46.706	2.13	2.00	-11.00
1515.00	5.040	347.150	1514.69	-3.26	8.67	6.09	1705658.92	531299.42	39°57'14.328"N	80°32'59.796"W	10.59	35.067	3.04	3.03	2.61
1578.00	5.690	340.760	1577.41	-8.76	14.32	4.44	1705657.27	531305.07	39°57'14.384"N	80°32'59.818"W	14.99	17.236	1.40	1.03	-10.14
1625.00	5.940	339.860	1624.17	-13.31	18.80	2.84	1705655.67	531309.55	39°57'14.428"N	80°32'59.840"W	19.01	8.580	0.57	0.53	-1.91
1671.00	6.000	338.650	1669.92	-17.90	23.27	1.14	1705653.97	531314.02	39°57'14.472"N	80°32'59.862"W	23.30	2.809	0.30	0.13	-2.63
1737.00	5.870	334.680	1735.57	-24.53	29.54	-1.56	1705651.27	531320.29	39°57'14.533"N	80°32'59.898"W	29.58	356.982	0.65	-0.20	-6.02
1764.00	5.880	335.310	1762.43	-27.23	32.04	-2.73	1705650.10	531322.79	39°57'14.558"N	80°32'59.913"W	32.16	355.138	0.24	0.04	2.33
1799.00	5.630	338.090	1797.25	-30.64	35.26	-4.12	1705648.72	531326.01	39°57'14.590"N	80°32'59.931"W	35.50	353.344	1.07	-0.71	7.94

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Operator	NOBLE ENERGY	Slot	Slot A
Area	Marshall County, WV	Well	WEB-13A-HS
Field	Marshall	Wellbore	WEB-13A-HS AWB
Facility	WEB-13 Pad		

15-010979

WELLPATH DATA (197 stations)																
MD	Inclination	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Build Rate	Turn Rate		
[ft]	[°]	[ft]	[ft]	[ft]	[ft]	[US ft]	[US ft]			[ft]	[°]	[°/100ft]	[%/100ft]	[%/100ft]		
1831.00	5.120	338.220	1829.11	-33.53	38.05	1705647.60	5313328.79	39°57'14.617"N	80°32'59.946"W	38.40	352.172	1.59	-1.59	0.41		
1859.00	4.760	336.750	1857.00	-35.87	40.27	1705646.68	5313311.02	39°57'14.639"N	80°32'59.958"W	40.74	351.314	1.36	-1.29	-5.25		
1894.00	3.780	336.030	1891.91	-38.40	42.66	1705645.64	5313333.41	39°57'14.662"N	80°32'59.972"W	43.26	350.428	2.80	-2.80	-2.06		
1915.00	3.120	339.350	1912.87	-39.62	43.83	1705645.15	5313343.58	39°57'14.674"N	80°32'59.978"W	44.50	350.065	3.28	-3.14	15.81		
1954.00	1.850	341.070	1951.83	-41.24	45.42	1705644.57	5313361.17	39°57'14.689"N	80°32'59.986"W	46.16	349.698	3.26	-3.26	4.41		
1989.00	1.300	337.140	1986.82	-42.16	46.32	1705644.24	5313373.07	39°57'14.698"N	80°32'59.991"W	47.11	349.489	1.60	-1.57	-11.23		
2020.00	1.320	338.260	2017.81	-42.85	46.97	1705643.97	5313377.2	39°57'14.705"N	80°32'59.994"W	47.80	349.316	0.10	0.10	3.61		
2048.00	1.080	346.780	2045.80	-43.40	47.53	1705643.79	5313382.8	39°57'14.710"N	80°33'00.000"W	48.38	349.229	1.07	-0.86	30.43		
2115.00	0.130	78.210	2112.80	-43.95	48.16	1705643.72	5313383.91	39°57'14.717"N	80°33'00.000"W	49.02	349.286	1.63	-1.42	136.46		
2143.00	0.280	128.520	2140.80	-43.87	48.13	1705643.80	5313383.87	39°57'14.716"N	80°33'00.000"W	48.96	349.376	0.79	0.54	179.68		
2234.00	0.440	162.530	2331.80	-43.09	47.28	1705643.97	5313383.03	39°57'14.708"N	80°32'59.994"W	48.11	349.389	0.31	0.23	-38.57		
2428.00	0.630	185.220	2425.79	-42.37	46.42	1705644.03	5313373.17	39°57'14.699"N	80°32'59.993"W	47.25	349.271	0.30	0.20	24.14		
2523.00	0.480	191.580	2520.79	-41.72	45.51	1705643.91	5313362.6	39°57'14.690"N	80°32'59.995"W	46.38	348.907	0.17	-0.16	6.69		
2618.00	0.430	201.350	2615.79	-41.27	44.79	1705643.70	5313353.54	39°57'14.683"N	80°33'00.000"W	45.71	348.475	0.10	-0.05	10.28		
2714.00	0.420	213.490	2711.78	-40.96	44.16	1705643.37	5313343.91	39°57'14.677"N	80°33'00.001"W	45.17	347.911	0.09	-0.01	12.65		
2809.00	0.590	231.700	2806.78	-40.84	43.57	1705642.80	5313343.2	39°57'14.671"N	80°33'00.009"W	44.71	347.030	0.24	0.18	19.17		
2903.00	0.570	252.130	2900.77	-40.98	43.13	1705641.97	5313333.87	39°57'14.667"N	80°33'00.019"W	44.47	345.866	0.22	-0.02	21.73		
2998.00	0.790	267.390	2995.77	-41.50	42.95	1705640.87	5313333.70	39°57'14.665"N	80°33'00.033"W	44.59	344.435	0.30	0.23	16.06		
3104.00	1.120	278.660	3101.75	-42.66	43.07	1705639.11	5313333.82	39°57'14.666"N	80°33'00.056"W	45.21	342.335	0.36	0.31	10.63		
3183.00	0.570	283.500	3180.74	-43.51	43.28	1705637.97	5313343.03	39°57'14.668"N	80°33'00.071"W	45.76	341.047	0.70	-0.70	6.13		
3247.00	0.060	327.440	3244.74	-43.79	43.39	1705637.64	5313343.13	39°57'14.669"N	80°33'00.075"W	45.97	340.703	0.83	-0.80	68.66		
3341.00	0.030	69.500	3338.74	-43.83	43.44	1705637.64	5313343.18	39°57'14.669"N	80°33'00.075"W	46.02	340.719	0.08	-0.03	108.57		
3436.00	0.040	186.170	3433.74	-43.80	43.41	1705637.66	5313343.16	39°57'14.669"N	80°33'00.075"W	45.99	340.733	0.06	0.01	122.81		
3468.00	0.990	56.530	3465.74	-43.78	43.55	1705637.89	5313343.30	39°57'14.670"N	80°33'00.072"W	46.05	341.060	3.17	2.97	-405.12		
3499.00	2.030	61.760	3496.73	-43.68	43.96	1705638.59	5313343.71	39°57'14.674"N	80°33'00.063"W	46.21	342.053	3.38	3.35	16.87		
3531.00	2.260	21.730	3528.71	-43.92	44.81	1705639.33	5313335.56	39°57'14.683"N	80°33'00.053"W	46.80	343.229	4.64	0.72	-125.09		
3563.00	2.710	334.690	3560.68	-44.99	46.08	1705639.24	5313336.83	39°57'14.695"N	80°33'00.055"W	48.05	343.564	6.33	1.41	-147.00		
3594.00	3.900	307.590	3591.63	-46.72	47.39	1705638.09	5313338.14	39°57'14.708"N	80°33'00.070"W	49.63	342.718	6.23	3.84	-87.42		
3626.00	5.290	292.650	3623.53	-49.04	48.62	1705635.86	5313339.37	39°57'14.720"N	80°33'00.098"W	51.50	340.763	5.70	4.34	-46.69		



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Area	Marshall County, WV	Well	WEB-13A-HS
Field	Marshall	Wellbore	WEB-13A-HS AWB
Facility	WEB-13 Pad		

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WELLPATH DATA (197 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]
3658.00	6.890	284.730	3655.35	-51.82	49.68	-20.19	1705632.65	531340.43	39°57'14.730"N	80°33'00.140"W	53.62	337.887	5.64	5.00	-24.75
3690.00	8.000	280.320	3687.08	-54.97	50.57	-24.23	1705628.60	531341.31	39°57'14.739"N	80°33'00.192"W	56.07	334.394	3.90	3.47	-13.78
3721.00	8.800	277.840	3717.75	-58.22	51.28	-28.70	1705624.13	531342.02	39°57'14.745"N	80°33'00.249"W	58.76	330.759	2.83	2.58	-8.00
3753.00	9.690	275.500	3749.33	-61.77	51.87	-33.81	1705619.02	531342.61	39°57'14.750"N	80°33'00.315"W	61.91	326.901	3.02	2.78	-7.31
3785.00	10.380	271.280	3780.84	-65.38	52.19	-39.37	1705613.46	531342.94	39°57'14.753"N	80°33'00.387"W	65.38	322.968	3.15	2.16	-13.19
3817.00	11.020	268.720	3812.28	-68.95	52.19	-45.31	1705607.52	531342.93	39°57'14.752"N	80°33'00.463"W	69.11	319.032	2.49	2.00	-8.00
3849.00	11.310	265.570	3843.68	-72.42	51.88	-51.50	1705601.33	531342.62	39°57'14.748"N	80°33'00.542"W	73.10	315.208	2.11	0.91	-9.84
3880.00	11.640	265.070	3874.06	-75.72	51.37	-57.65	1705595.19	531342.12	39°57'14.743"N	80°33'00.621"W	77.21	311.706	1.11	1.06	-1.61
3912.00	11.610	264.230	3905.40	-79.10	50.77	-64.07	1705588.77	531341.52	39°57'14.736"N	80°33'00.703"W	81.74	308.396	0.54	-0.09	-2.62
3944.00	11.920	264.400	3936.73	-82.49	50.12	-70.56	1705582.28	531340.87	39°57'14.729"N	80°33'00.787"W	86.55	305.390	0.97	0.97	0.53
3975.00	12.770	265.650	3967.01	-86.01	49.55	-77.16	1705575.67	531340.30	39°57'14.722"N	80°33'00.871"W	91.70	302.708	2.87	2.74	4.03
4007.00	13.550	267.190	3998.17	-90.02	49.10	-84.43	1705568.40	531339.85	39°57'14.717"N	80°33'00.965"W	97.67	300.180	2.67	2.44	4.81
4039.00	14.970	271.040	4029.19	-94.68	48.99	-92.31	1705560.53	531339.74	39°57'14.715"N	80°33'01.066"W	104.50	297.956	5.33	4.44	12.03
4070.00	15.940	273.160	4059.07	-99.89	49.30	-100.56	1705552.27	531340.05	39°57'14.717"N	80°33'01.172"W	112.00	296.115	3.62	3.13	6.84
4102.00	16.610	272.150	4089.78	-105.61	49.71	-109.52	1705543.31	531340.46	39°57'14.720"N	80°33'01.287"W	120.27	294.414	2.27	2.09	-3.16
4133.00	17.300	269.780	4119.44	-111.17	49.86	-118.56	1705534.28	531340.61	39°57'14.721"N	80°33'01.403"W	128.62	292.810	3.15	2.23	-7.65
4164.00	18.400	268.670	4148.94	-116.78	49.73	-128.06	1705524.78	531340.48	39°57'14.718"N	80°33'01.525"W	137.38	291.223	3.71	3.55	-3.58
4196.00	19.080	267.090	4179.25	-122.66	49.35	-138.33	1705514.51	531340.09	39°57'14.713"N	80°33'01.657"W	146.87	289.633	2.65	2.13	-4.94
4227.00	19.040	262.870	4208.55	-128.02	48.46	-148.41	1705504.43	531339.21	39°57'14.703"N	80°33'01.786"W	156.12	288.084	4.45	-0.13	-13.61
4259.00	20.570	264.860	4238.66	-133.59	47.31	-159.19	1705493.65	531338.06	39°57'14.691"N	80°33'01.924"W	166.07	286.552	5.22	4.78	6.22
4291.00	22.350	270.230	4268.44	-140.24	46.83	-170.87	1705481.96	531337.58	39°57'14.685"N	80°33'02.074"W	177.17	285.327	8.28	5.56	16.78
4336.00	24.290	275.370	4309.77	-151.65	47.73	-188.65	1705464.19	531338.48	39°57'14.692"N	80°33'02.303"W	194.59	284.199	6.24	4.31	11.42
4385.00	25.410	273.600	4354.23	-165.29	49.34	-209.17	1705443.66	531340.08	39°57'14.705"N	80°33'02.566"W	214.91	283.271	2.74	2.29	-3.61
4427.00	26.660	272.230	4391.97	-177.11	50.27	-227.58	1705425.26	531341.02	39°57'14.712"N	80°33'02.803"W	233.07	282.455	3.30	2.98	-3.26
4481.00	29.070	272.730	4439.70	-193.16	51.36	-252.80	1705400.04	531342.11	39°57'14.720"N	80°33'03.127"W	257.96	281.485	4.48	4.46	0.93
4529.00	31.780	273.910	4481.09	-208.89	52.78	-277.06	1705375.78	531343.53	39°57'14.731"N	80°33'03.439"W	282.04	280.786	5.78	5.65	2.46
4576.00	32.960	274.200	4520.78	-225.42	54.56	-302.16	1705350.68	531345.31	39°57'14.746"N	80°33'03.761"W	307.05	280.236	2.53	2.51	0.62
4671.00	32.420	269.040	4600.75	-257.43	56.03	-353.41	1705299.44	531346.78	39°57'14.754"N	80°33'04.419"W	357.82	279.009	2.99	-0.57	-5.43
4766.00	33.180	267.500	4680.61	-287.14	54.47	-404.84	1705248.01	531345.22	39°57'14.733"N	80°33'05.079"W	408.49	277.663	1.19	0.80	-1.62
4860.00	33.010	268.800	4759.36	-316.69	52.81	-456.14	1705196.71	531343.56	39°57'14.711"N	80°33'05.738"W	459.18	276.604	0.78	-0.18	1.38



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Actual Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY	Slot	Slot A
Area	Marshall County, WV	Well	WEB-13A-HS
Field	Marshall	Wellbore	WEB-13A-HS AWB
Facility	WEB-13 Pad		

2-09110-15

WELLPATH DATA (197 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grd East [US ft]	Grd North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]
4955.00	32.700	273.910	4839.18	-348.63	54.02	-507.62	1705145.23	531344.77	39°57'14.71"N	80°33'06.39"W	510.49	276.074	2.94	-0.33	5.38
5050.00	32.890	274.520	4919.04	-382.54	57.80	-558.94	1705093.92	531348.55	39°57'14.74"N	80°33'07.05"W	561.92	275.904	0.40	0.20	0.64
5144.00	33.080	270.370	4997.89	-415.03	59.98	-610.04	1705042.82	531350.72	39°57'14.76"N	80°33'07.71"W	612.98	275.615	2.41	0.20	-4.41
5239.00	32.800	273.770	5077.63	-447.57	61.84	-661.64	1704991.22	531352.58	39°57'14.77"N	80°33'08.37"W	664.53	275.339	1.97	-0.29	3.58
5333.00	30.440	273.130	5157.67	-479.55	64.81	-710.83	1704942.03	531355.56	39°57'14.800"N	80°33'09.010"W	713.78	275.210	2.54	-2.51	-0.68
5428.00	29.930	272.150	5239.79	-510.02	67.01	-758.55	1704894.32	531357.76	39°57'14.816"N	80°33'09.623"W	761.50	275.049	0.75	-0.54	-1.03
5523.00	31.930	274.190	5321.28	-541.54	69.74	-807.29	1704845.58	531360.49	39°57'14.837"N	80°33'10.249"W	810.30	274.937	2.38	2.11	2.15
5617.00	34.060	275.970	5400.11	-575.85	74.29	-858.27	1704794.60	531365.04	39°57'14.877"N	80°33'10.904"W	861.48	274.947	2.49	2.27	1.89
5712.00	33.630	276.520	5479.02	-612.10	80.05	-910.86	1704742.01	531370.79	39°57'14.927"N	80°33'11.581"W	914.37	275.022	0.56	-0.45	0.58
5807.00	33.060	274.780	5558.38	-647.48	85.19	-962.82	1704690.05	531375.94	39°57'14.972"N	80°33'12.249"W	966.59	275.057	1.17	-0.60	-1.83
5901.00	32.160	271.920	5637.56	-680.28	88.17	-1013.38	1704639.49	531378.92	39°57'14.996"N	80°33'12.898"W	1017.21	274.973	1.90	-0.96	-3.04
5996.00	32.110	271.150	5718.01	-711.76	89.52	-1063.89	1704588.98	531380.31	39°57'15.003"N	80°33'13.547"W	1067.65	274.810	0.43	-0.05	-0.81
6090.00	32.190	271.360	5797.60	-742.69	90.57	-1113.90	1704538.98	531381.27	39°57'15.008"N	80°33'14.189"W	1117.58	274.648	0.10	0.09	0.10
6185.00	31.880	271.650	5878.35	-773.71	91.70	-1163.93	1704488.95	531382.45	39°57'15.013"N	80°33'14.832"W	1167.54	274.505	0.86	-0.85	0.13
6217.00	29.220	263.390	5905.99	-782.83	91.00	-1180.03	1704472.86	531381.75	39°57'15.004"N	80°33'15.038"W	1183.53	274.410	14.25	-6.75	-24.91
6248.00	28.530	254.640	5933.14	-789.39	88.17	-1194.69	1704458.20	531378.91	39°57'14.975"N	80°33'15.226"W	1197.94	274.221	13.80	-2.23	-28.23
6280.00	28.180	248.070	5961.31	-794.18	83.32	-1209.07	1704443.81	531374.07	39°57'14.925"N	80°33'15.410"W	1211.94	273.942	9.81	-1.09	-20.53
6311.00	26.920	239.420	5988.81	-796.87	77.01	-1221.91	1704430.98	531367.76	39°57'14.861"N	80°33'15.574"W	1224.33	273.606	13.52	-4.06	-27.90
6343.00	25.630	232.210	6017.51	-797.58	69.08	-1233.62	1704419.27	531359.83	39°57'14.782"N	80°33'15.722"W	1235.55	273.205	10.75	-4.03	-22.53
6375.00	25.400	227.480	6046.39	-796.83	60.20	-1244.15	1704408.74	531350.95	39°57'14.693"N	80°33'15.857"W	1245.60	272.770	6.41	-0.72	-14.78
6407.00	25.560	224.640	6075.28	-795.16	50.65	-1254.06	1704398.83	531341.40	39°57'14.597"N	80°33'15.983"W	1255.08	272.313	3.85	0.50	-8.87
6439.00	26.070	222.700	6104.09	-792.90	40.57	-1263.67	1704389.21	531331.32	39°57'14.496"N	80°33'16.105"W	1264.33	271.839	3.08	1.59	-6.06
6470.00	26.680	220.280	6131.86	-790.15	30.26	-1272.79	1704380.09	531321.01	39°57'14.393"N	80°33'16.220"W	1273.15	271.362	3.99	1.97	-7.81
6502.00	26.900	214.630	6160.43	-786.29	18.82	-1281.55	1704371.33	531309.57	39°57'14.279"N	80°33'16.331"W	1281.69	270.841	7.99	0.69	-17.66
6533.00	26.720	207.310	6188.10	-781.05	6.85	-1288.74	1704364.15	531297.60	39°57'14.160"N	80°33'16.421"W	1288.76	270.305	10.66	-0.58	-23.61
6565.00	25.970	201.840	6216.78	-774.31	-6.05	-1294.65	1704358.24	531284.70	39°57'14.032"N	80°33'16.495"W	1294.66	269.732	7.94	-2.34	-17.09
6596.00	25.160	193.170	6244.76	-766.57	-18.77	-1298.67	1704354.21	531271.98	39°57'13.906"N	80°33'16.545"W	1298.81	269.172	12.34	-2.61	-27.97
6628.00	27.420	189.010	6273.45	-757.10	-32.67	-1301.38	1704351.51	531258.08	39°57'13.768"N	80°33'16.578"W	1301.79	268.562	9.11	7.06	-13.00
6660.00	29.080	191.180	6301.64	-746.79	-47.58	-1304.04	1704348.85	531243.17	39°57'13.621"N	80°33'16.610"W	1304.91	267.910	6.10	5.19	6.78
6691.00	30.830	191.970	6328.50	-736.55	-62.74	-1307.15	1704345.74	531228.01	39°57'13.470"N	80°33'16.647"W	1308.65	267.252	5.79	5.65	2.55

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY	Slot	Slot A
Area	Marshall County, WV	Well	WEB-13A-HS
Field	Marshall	Wellbore	WEB-13A-HS AWB
Facility	WEB-13 Pad		

WELLPATH DATA (197 stations)															
MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Build Rate	Turn Rate
[ft]	[°]	[°]	[ft]	[ft]	[ft]	[ft]	[US ft]	[US ft]			[ft]	[°]	[°/100ft]	[°/100ft]	[°/100ft]
8840.00	89.510	138.770	6680.45	1257.28	-1749.13	-232.02	1705420.82	529541.70	39°56'56.930"N	80°33'02.590"W	1764.45	187.556	2.88	0.00	-2.88
8745.00	89.510	141.510	6679.63	1162.41	-1676.21	-292.90	1705359.95	529614.61	39°56'57.644"N	80°33'03.382"W	1701.61	189.912	0.84	0.00	-0.84
8651.00	89.510	142.300	6678.83	1068.43	-1602.24	-350.89	1705301.96	529688.58	39°56'58.368"N	80°33'04.138"W	1640.21	192.533	1.55	-0.06	1.55
8556.00	89.570	140.830	6678.07	973.47	-1527.83	-409.94	1705242.91	529762.99	39°56'59.096"N	80°33'04.907"W	1581.87	195.020	3.04	0.00	-3.04
8461.00	89.570	143.720	6677.35	878.49	-1452.70	-468.06	1705184.79	529838.12	39°56'59.832"N	80°33'05.665"W	1526.24	197.859	0.87	-0.03	-0.87
8366.00	89.600	144.550	6676.67	783.51	-1375.71	-523.72	1705129.14	529915.10	39°57'00.586"N	80°33'06.391"W	1472.03	200.841	1.02	0.84	0.58
8271.00	88.800	144.000	6675.34	688.55	-1298.60	-579.18	1705073.68	529992.21	39°57'01.342"N	80°33'07.115"W	1421.90	204.037	0.99	-0.03	0.99
8176.00	88.830	143.060	6673.37	593.57	-1222.22	-635.64	1705017.22	530068.59	39°57'02.090"N	80°33'07.851"W	1377.63	207.477	1.86	0.03	-1.86
8081.00	88.800	144.830	6671.41	498.61	-1145.44	-691.54	1704961.33	530145.37	39°57'02.843"N	80°33'08.580"W	1338.00	211.121	1.12	-0.13	1.12
7987.00	88.920	143.780	6669.54	404.65	-1069.11	-746.37	1704906.49	530221.69	39°57'03.590"N	80°33'09.296"W	1303.87	214.920	4.17	0.16	4.17
7892.00	88.770	139.820	6667.62	309.71	-994.48	-805.10	1704847.77	530296.31	39°57'04.321"N	80°33'10.061"W	1279.52	218.992	1.03	-0.03	1.03
7797.00	88.800	138.840	6665.61	214.93	-922.45	-866.99	1704785.88	530368.35	39°57'05.026"N	80°33'10.866"W	1265.93	223.225	4.88	-0.19	-4.87
7702.00	88.980	143.470	6663.77	120.02	-848.49	-926.55	1704726.32	530442.30	39°57'05.750"N	80°33'11.642"W	1256.36	227.518	1.86	0.03	-1.86
7607.00	88.950	145.240	6662.05	25.07	-771.30	-981.90	1704670.97	530519.48	39°57'06.506"N	80°33'12.365"W	1248.62	231.850	0.70	-0.66	0.23
7513.00	89.570	145.020	6660.84	-68.86	-694.19	-1035.64	1704617.24	530596.59	39°57'07.262"N	80°33'13.066"W	1246.77	236.166	2.09	0.33	2.07
7467.00	89.420	144.070	6660.43	-114.84	-656.72	-1062.32	1704590.56	530634.06	39°57'07.629"N	80°33'13.414"W	1248.92	238.276	2.17	1.63	-1.43
7418.00	88.620	144.770	6659.59	-163.82	-616.88	-1090.82	1704562.05	530673.90	39°57'08.020"N	80°33'13.786"W	1253.17	240.511	6.23	4.13	-4.67
7323.00	84.700	149.210	6654.06	-258.38	-537.39	-1142.47	1704510.41	530753.39	39°57'08.799"N	80°33'14.461"W	1262.55	244.809	6.59	6.32	-1.88
7229.00	78.760	150.980	6640.54	-350.65	-456.79	-1188.84	1704464.04	530833.98	39°57'09.590"N	80°33'15.069"W	1273.58	248.981	9.00	8.74	-2.17
7182.00	74.650	152.000	6629.74	-395.88	-416.61	-1210.67	1704442.22	530874.16	39°57'09.985"N	80°33'15.355"W	1280.35	251.011	12.26	11.00	-5.69
7134.00	69.370	154.730	6614.91	-440.77	-375.83	-1231.14	1704421.74	530914.94	39°57'10.385"N	80°33'15.624"W	1287.23	253.024	10.80	9.64	-5.30
7081.00	64.260	157.540	6594.05	-488.20	-331.30	-1250.86	1704402.02	530959.46	39°57'10.823"N	80°33'15.884"W	1293.99	255.165	11.53	10.88	-4.31
7039.00	59.690	159.350	6574.32	-523.93	-296.84	-1264.49	1704388.39	530993.93	39°57'11.162"N	80°33'16.064"W	1298.87	256.789	9.98	9.62	-3.15
6986.00	54.590	161.020	6545.57	-566.45	-254.98	-1279.60	1704373.29	531035.79	39°57'11.574"N	80°33'16.265"W	1304.75	258.731	9.84	8.12	-6.98
6944.00	51.180	163.950	6520.23	-598.02	-223.05	-1289.69	1704363.20	531067.71	39°57'11.888"N	80°33'16.399"W	1308.84	260.188	9.74	8.37	-6.61
6893.00	46.910	167.320	6486.80	-633.56	-185.77	-1299.28	1704353.61	531104.99	39°57'12.255"N	80°33'16.528"W	1312.49	261.863	9.86	8.16	-7.81
6850.00	43.400	170.680	6456.48	-660.96	-155.86	-1305.12	1704347.77	531134.90	39°57'12.550"N	80°33'16.607"W	1314.39	263.190	10.17	8.90	-7.48
6798.00	38.770	174.570	6417.29	-690.68	-122.00	-1309.56	1704343.33	531168.76	39°57'12.884"N	80°33'16.669"W	1315.23	264.678	13.76	11.26	-13.37
6755.00	33.930	180.320	6382.66	-711.71	-96.57	-1310.76	1704342.13	531194.18	39°57'13.136"N	80°33'16.689"W	1314.32	265.786	11.77	5.94	-18.69
6723.00	32.030	186.300	6355.81	-724.99	-79.20	-1309.78	1704343.11	531211.55	39°57'13.307"N	80°33'16.679"W	1312.17	266.540	9.97	3.75	-17.72

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REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY
Area	Marshall County, WV
Field	Marshall
Facility	WEB-13 Pad
Slot	Slot A
Well	WEB-13A-HS
Wellbore	WEB-13A-HS AWB

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WELLPATH DATA (197 stations)

MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Build Rate	Turn Rate
[ft]	[°]	[°]	[ft]	[ft]	[ft]	[ft]	[US ft]	[US ft]			[ft]	[°]	[%/100ft]	[%/100ft]	[%/100ft]
8935.00	89.510	139.030	6681.26	1352.04	-1820.71	-169.57	1705483.27	529470.12	39°56'56.230"N	80°33'01.777"W	1828.59	185.321	0.27	0.00	0.27
9030.00	89.660	139.050	6681.95	1446.81	-1892.45	-107.30	1705545.54	529398.38	39°56'55.528"N	80°33'00.967"W	1895.49	183.245	0.16	0.02	0.16
9125.00	89.820	142.670	6682.38	1541.72	-1966.12	-47.34	1705605.49	529324.72	39°56'54.807"N	80°33'00.186"W	1966.69	181.379	3.81	3.81	0.17
9219.00	89.380	146.930	6683.03	1635.65	-2042.91	6.83	1705659.66	529247.93	39°56'54.055"N	80°32'59.479"W	2042.92	179.808	4.56	4.53	-0.47
9314.00	88.800	145.700	6684.54	1730.48	-2121.95	59.51	1705712.34	529168.89	39°56'53.280"N	80°32'58.791"W	2122.78	178.394	1.43	1.29	-0.61
9409.00	89.020	143.030	6686.35	1825.43	-2199.14	114.85	1705767.67	529091.71	39°56'52.523"N	80°32'58.069"W	2202.14	177.011	2.82	2.81	0.23
9503.00	89.660	141.570	6687.43	1919.41	-2273.51	172.32	1705825.15	529017.34	39°56'51.795"N	80°32'57.320"W	2280.03	175.665	1.70	1.55	0.68
9597.00	89.380	143.990	6688.22	2013.40	-2348.35	229.18	1705882.00	528942.50	39°56'51.062"N	80°32'56.579"W	2359.51	174.426	2.59	2.57	-0.30
9692.00	89.260	141.850	6689.35	2108.39	-2424.13	286.45	1705939.26	528866.72	39°56'50.320"N	80°32'55.832"W	2441.00	173.261	2.26	2.25	-0.13
9786.00	89.510	142.650	6690.36	2202.37	-2498.45	343.99	1705996.81	528792.41	39°56'49.592"N	80°32'55.082"W	2522.02	172.161	0.89	0.85	0.27
9881.00	89.480	143.900	6691.19	2297.37	-2574.59	400.80	1706053.61	528716.27	39°56'48.846"N	80°32'54.341"W	2605.60	171.152	1.32	1.32	-0.03
9975.00	89.450	144.400	6692.07	2391.34	-2650.78	455.85	1706108.65	528640.09	39°56'48.099"N	80°32'53.623"W	2689.69	170.242	0.53	0.53	-0.03
10070.00	89.480	146.200	6692.96	2486.27	-2728.79	510.05	1706162.85	528562.08	39°56'47.335"N	80°32'52.916"W	2776.05	169.413	1.71	1.71	0.03
10165.00	89.450	144.230	6693.85	2581.19	-2806.73	564.36	1706217.17	528484.15	39°56'46.571"N	80°32'52.207"W	2862.90	168.631	1.88	1.88	-0.03
10260.00	89.290	144.680	6694.89	2676.13	-2884.50	618.91	1706271.71	528406.38	39°56'45.809"N	80°32'51.495"W	2950.15	167.890	1.54	1.53	-0.17
10355.00	89.540	144.740	6695.86	2771.05	-2962.51	673.11	1706325.91	528328.37	39°56'44.281"N	80°32'50.099"W	3038.02	167.199	1.02	1.02	-0.26
10449.00	89.450	147.040	6696.69	2864.92	-3040.33	725.82	1706378.61	528250.56	39°56'44.491"N	80°32'49.440"W	3125.77	166.573	2.45	2.45	-0.10
10544.00	89.540	148.920	6697.53	2959.56	-3120.87	776.18	1706428.98	528170.02	39°56'43.491"N	80°32'48.765"W	3215.94	166.034	1.98	1.98	0.09
10638.00	89.450	144.310	6698.36	3053.34	-3199.34	827.89	1706480.68	528091.56	39°56'42.722"N	80°32'48.163"W	3304.72	165.492	4.90	4.90	-0.10
10733.00	89.110	136.890	6699.55	3148.18	-3272.69	888.14	1706540.93	528018.21	39°56'42.004"N	80°32'47.980"W	3391.06	164.817	7.82	7.81	-0.36
10828.00	89.140	140.240	6701.00	3242.87	-3343.89	950.99	1706603.78	527947.01	39°56'41.307"N	80°32'47.163"W	3476.49	164.124	3.53	3.53	0.03
10923.00	89.290	142.460	6702.30	3337.82	-3418.07	1010.32	1706663.10	527872.83	39°56'40.581"N	80°32'46.390"W	3564.26	163.533	2.34	2.34	0.16
11017.00	89.050	141.840	6703.67	3431.80	-3492.29	1067.99	1706720.77	527798.62	39°56'39.854"N	80°32'45.638"W	3651.94	162.996	0.71	0.66	-0.26
11112.00	88.980	142.790	6705.30	3526.78	-3567.46	1126.06	1706778.84	527723.45	39°56'39.118"N	80°32'44.882"W	3740.96	162.482	1.00	1.00	-0.07
11207.00	88.770	142.260	6707.16	3621.75	-3642.84	1183.84	1706836.62	527648.08	39°56'38.380"N	80°32'44.128"W	3830.37	161.997	0.60	0.56	-0.22
11301.00	89.260	140.440	6708.78	3715.70	-3716.23	1242.54	1706895.32	527574.68	39°56'37.661"N	80°32'43.364"W	3918.46	161.512	2.00	1.94	0.52
11396.00	89.450	141.530	6709.85	3810.63	-3790.04	1302.34	1706955.11	527500.88	39°56'36.939"N	80°32'42.585"W	4007.56	161.036	1.16	1.15	0.20
11491.00	89.540	142.630	6710.69	3905.61	-3864.98	1360.72	1707013.49	527425.94	39°56'36.205"N	80°32'41.825"W	4097.52	160.605	1.16	1.16	0.09
11586.00	89.480	142.590	6711.50	4000.61	-3940.46	1418.41	1707071.17	527350.47	39°56'35.466"N	80°32'41.073"W	4187.97	160.203	0.08	0.04	-0.06
11680.00	89.510	139.200	6712.33	4094.53	-4013.39	1477.69	1707130.45	527277.54	39°56'34.752"N	80°32'40.301"W	4276.78	159.787	3.61	3.61	0.03

HOLE & CASING SECTIONS - Ref Wellbore: WEB-13A-HS AWB Ref Wellpath: WEB-13A-HS AWP Proj: 13220

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
30in Conductor	26.00	66.00	40.00	26.00	66.00	0.00	0.00	-0.01	0.03
20in Casing Surface	26.00	448.10	422.10	26.00	448.10	0.00	0.00	-0.28	1.84
13.375in Casing Intermediate	26.00	1176.00	1150.00	26.00	1175.98	0.00	0.00	-1.33	6.70

WELLPATH DATA (197 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]
11775.00	89.480	137.800	6713.17	4189.23	-4084.53	1540.63	1707193.39	527206.40	39°56'34.056"N	80°32'39.482"W	4365.43	159.334	1.47	-0.03	-1.47
11870.00	89.510	138.810	6714.00	4283.90	-4155.47	1603.82	1707256.58	527135.47	39°56'33.362"N	80°32'38.660"W	4454.23	158.896	1.06	0.03	1.06
11965.00	89.510	140.210	6714.82	4378.72	-4227.71	1665.50	1707318.25	527063.23	39°56'32.656"N	80°32'37.858"W	4543.94	158.498	1.47	0.00	1.47
12060.00	89.480	142.590	6715.65	4473.67	-4301.95	1724.76	1707377.51	526989.00	39°56'31.929"N	80°32'37.086"W	4634.82	158.153	2.51	-0.03	2.51
12154.00	89.570	141.980	6716.43	4567.66	-4376.30	1782.26	1707435.01	526914.64	39°56'31.201"N	80°32'36.337"W	4725.30	157.841	0.66	0.10	-0.65
12249.00	89.510	144.320	6717.20	4662.65	-4452.32	1839.23	1707491.98	526838.63	39°56'30.456"N	80°32'35.594"W	4817.25	157.555	2.46	-0.06	2.46
12343.00	89.540	147.060	6717.97	4756.54	-4529.95	1892.21	1707544.95	526761.00	39°56'29.695"N	80°32'34.902"W	4909.27	157.329	2.91	0.03	2.91
12438.00	89.080	148.520	6719.12	4851.20	-4610.32	1942.84	1707595.58	526680.64	39°56'28.906"N	80°32'34.240"W	5002.97	157.149	1.61	-0.48	1.54
12532.00	88.980	147.290	6720.71	4944.84	-4689.94	1992.78	1707645.52	526601.02	39°56'28.125"N	80°32'33.587"W	5095.75	156.979	1.31	-0.11	-1.31
12627.00	89.170	144.180	6722.24	5039.70	-4768.43	2046.25	1707698.99	526522.53	39°56'27.356"N	80°32'32.889"W	5188.94	156.775	3.28	0.20	-3.27
12722.00	89.420	142.890	6723.41	5134.69	-4844.83	2102.71	1707755.44	526446.14	39°56'26.607"N	80°32'32.153"W	5281.45	156.539	1.38	0.26	-1.36
12817.00	89.450	144.750	6724.35	5229.67	-4921.50	2158.78	1707811.52	526369.47	39°56'25.856"N	80°32'31.422"W	5374.15	156.316	1.96	0.03	1.96
12912.00	89.510	145.650	6725.21	5324.60	-4999.51	2213.00	1707865.73	526291.47	39°56'25.091"N	80°32'30.714"W	5467.40	156.124	0.95	0.06	0.95
13006.00	89.450	147.200	6726.07	5418.42	-5077.82	2264.98	1707917.71	526213.16	39°56'24.324"N	80°32'30.035"W	5560.07	155.961	1.65	-0.06	1.65
13100.00	89.450	145.280	6726.97	5512.26	-5155.96	2317.21	1707969.94	526135.02	39°56'23.557"N	80°32'29.353"W	5652.73	155.800	2.04	0.00	-2.04
13194.00	89.380	142.080	6727.93	5606.24	-5231.68	2372.88	1708025.60	526059.30	39°56'22.815"N	80°32'28.627"W	5744.65	155.603	3.40	-0.07	-3.40
13220.00	89.380	142.080	6728.21	5632.24	-5252.19	2388.85	1708041.58	526038.79	39°56'22.615"N	80°32'28.419"W	5769.94	155.543	0.00	0.00	0.00

REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY
Area	Marshall County, WV
Field	Marshall
Facility	WEB-13 Pad
Wellbore	WEB-13A-HS AWB
Well	WEB-13A-HS
Slot	Slot A



2014/10/01



Actual Wellpath Report

WEB-13A-HS AWP Proj: 13220'

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REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY	Slot	Slot A
Area	Marshall County, WV	Well	WEB-13A-HS
Field	Marshall	Wellbore	WEB-13A-HS AWB
Facility	WEB-13 Pad		

51-0162

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
WEB-13A-HS LP Rev-2		6663.00	-600.08	-1099.80	1704553.08	530690.70	39°57'08.184"N	80°33'13.904"W	point
WEB-13A-HS BHL Rev-2		6713.61	-5231.36	2390.13	1708042.85	526059.62	39°56'22.821"N	80°32'28.406"W	point
WEB-13 LL		7226.00	0.00	0.00	1705652.83	531290.75	39°57'14.242"N	80°32'59.873"W	polygon

WELLPATH COMPOSITION - Ref Wellbore: WEB-13A-HS AWB Ref Wellpath: WEB-13A-HS AWP Proj: 13220'

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
26.00	1139.00	Generic gyro - northseeking (Standard)	01_VES Gyro <13-3/8"> (100'-1113')	WEB-13A-HS AWB
1139.00	3104.00	ISCWSA MWD, Rev. 2 (Standard)	02_APS <12-1/4"> (1139')(1231'-3104')	WEB-13A-HS AWB
3104.00	13194.00	NaviTrak (MagCorr)	03_BHI AT Curve <8-3/4"> (3104')(3183'-13194')	WEB-13A-HS AWB
13194.00	13220.00	Blind Drilling (std)	Projection to bit	WEB-13A-HS AWB



Actual Wellpath Report

WEB-13A-HS AWP Proj: 13220'

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REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY	Slot	Slot A
Area	Marshall County, WV	Well	WEB-13A-HS
Field	Marshall	Wellbore	WEB-13A-HS AWB
Facility	WEB-13 Pad		

5101662

COMMENTS

Wellpath general comments

API: 47-051-01662-0000

BHI Job #: 6117774A

Rig: Nomac 79

Duration: 2/3/2014-2/9/2014

VES Gyro <13-3/8"> (100'-1113')

APS <12-1/4"> (1139')(1231'-3104')

BHI AT Curve <8-3/4"> (3104')(3183'-13194')

Projected MD at TD: 13220'

Received
Office of Oil & Gas

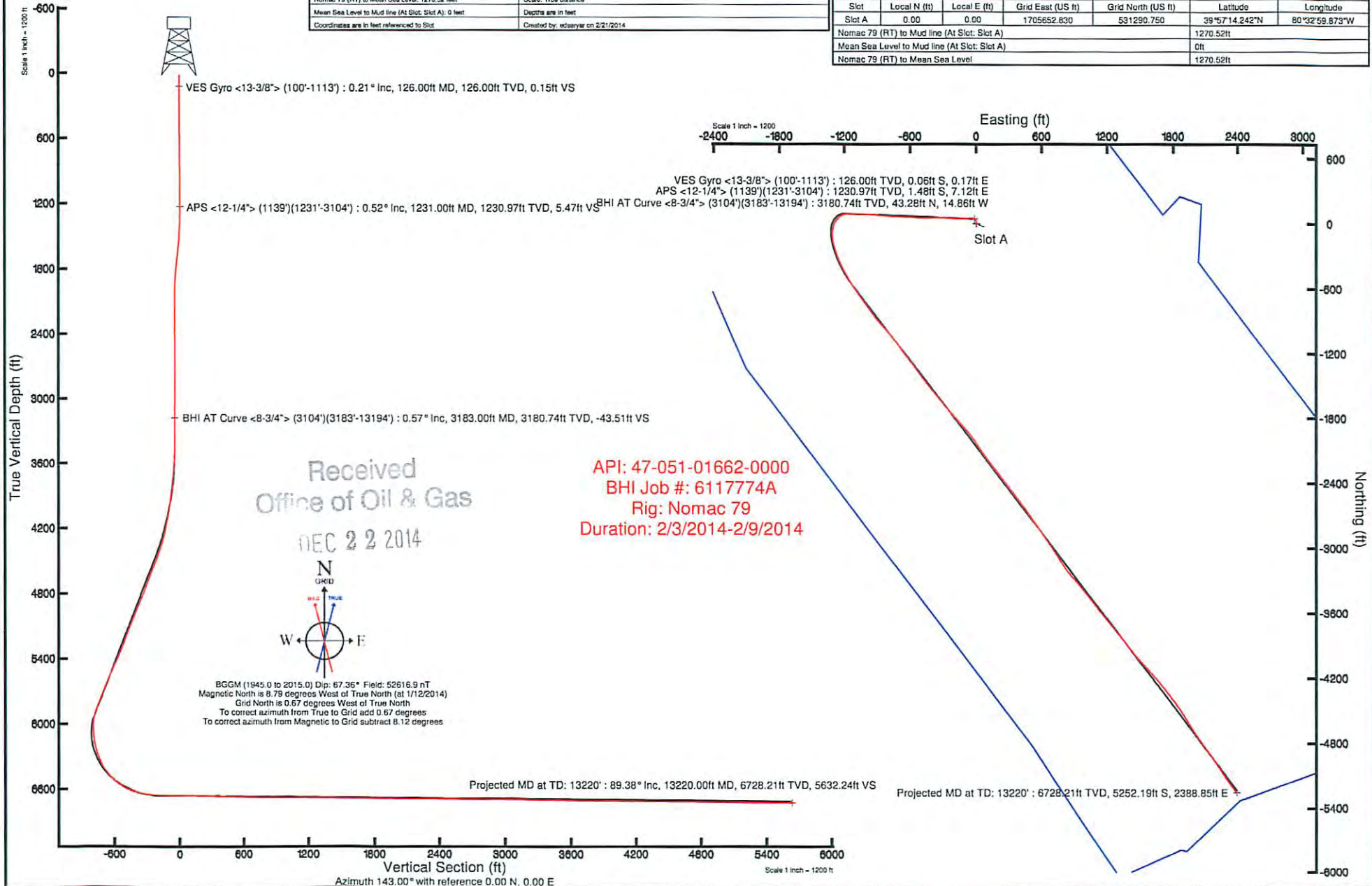
DEC 22 2014

Location: Marshall County, WV
 Field: Marshall
 Facility: WEB-13 Pad

Slot: Slot A
 Well: WEB-13A-HS
 Wellbore: WEB-13A-HS PWB

Plot reference wellpath is WEB-13A-HS PWP Rev B 0	
True vertical depths are referenced to Nomac 79 (RT)	Grid System: NAD27 / Lambert West Virginia SP, Northern Zone (4701), US feet
Measured depths are referenced to Nomac 79 (RT)	North Reference: Grid north
Nomac 79 (RT) to Mean Sea Level: 1270.52 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: Slot A): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: edasysar on 2/21/2014

Location Information					
Facility Name		Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
WEB-13 Pad		1705652.830	531290.750	39°57'14.242"N	80°32'59.873"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude
Slot A	0.00	0.00	1705652.830	531290.750	39°57'14.242"N
Nomac 79 (RT) to Mud line (At Slot: Slot A)				1270.52ft	
Mean Sea Level to Mud line (At Slot: Slot A)				0ft	
Nomac 79 (RT) to Mean Sea Level				1270.52ft	



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