

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY	Slot	Slot C
Area	Marshall County, WV	Well	WEB-13C-HS
Field	Marshall	Wellbore	WEB-13C-HS AWB
Facility	WEB-13 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	Frisjesl
Scale	0.999957	Report Generated	4/14/2014 at 2:36:11 PM
Convergence at slot	0.67° West	Database/Source file	WA_EasternUS/WEB-13C-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	-22.39	55.95	1705708.78	531268.36	39°57'14.027"N	80°32'59.151"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	1271.10ft
Horizontal Reference Pt	Slot	Nomac 79 (RT) to Mean Sea Level	1271.10ft
Vertical Reference Pt	Nomac 79 (RT)	Nomac 79 (RT) to Mud Line at Slot (Slot C)	1271.10ft
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°

5-01664

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Actual Wellpath Report
WEB-13C-HS AWP Prof: 12440
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REFERENCE WELLPATH IDENTIFICATION

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

WELLPATH DATA (147 stations) † = interpolated/extrapolated station

MID	Inclination	Azimuth	TVP	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS
[ft]	[°]	[°]	[ft]	[ft]	[ft]	[ft]	[ft]	[ft]			[ft]	[°/100ft]	
4326.00	0.110	326.650	4325.83	-21.40	23.85	-3.92	1705708.78	531268.36	39°57'14.027"N	80°32'59.151"W	0.00	0.00	0.00
4231.00	0.340	321.770	4230.83	-21.03	23.55	-3.69	1705705.09	531291.91	39°57'14.259"N	80°32'59.202"W	23.84	351.090	0.25
4136.00	0.430	355.890	4135.84	-20.45	22.97	-3.49	1705705.29	531291.33	39°57'14.253"N	80°32'59.200"W	23.23	351.357	0.28
4041.00	0.520	324.920	4040.84	-19.72	22.26	-3.22	1705705.56	531290.62	39°57'14.246"N	80°32'59.196"W	22.49	351.774	0.44
3945.00	0.930	315.080	3944.85	-18.51	21.35	-2.42	1705706.36	531289.71	39°57'14.238"N	80°32'59.186"W	21.49	353.540	0.13
3850.00	1.050	314.570	3849.86	-16.88	20.20	-1.25	1705707.53	531288.56	39°57'14.226"N	80°32'59.171"W	20.24	356.449	0.62
3755.00	0.480	303.260	3754.87	-15.65	19.37	-0.30	1705708.48	531287.53	39°57'14.218"N	80°32'59.158"W	19.37	359.111	0.30
3660.00	0.680	324.160	3659.88	-14.71	18.69	0.36	1705709.14	531287.05	39°57'14.212"N	80°32'59.150"W	18.70	1.110	0.09
3565.00	0.720	317.850	3564.88	-13.55	17.79	1.09	1705709.87	531286.15	39°57'14.203"N	80°32'59.140"W	17.83	3.515	0.29
3471.00	0.770	338.550	3470.89	-12.36	16.77	1.72	1705710.50	531285.13	39°57'14.193"N	80°32'59.132"W	16.86	5.858	0.28
3376.00	0.640	357.580	3375.90	-11.30	15.64	1.98	1705710.76	531284.00	39°57'14.182"N	80°32'59.128"W	15.77	7.199	0.18
3281.00	0.580	12.420	3280.90	-10.55	14.64	1.90	1705710.67	531283.00	39°57'14.172"N	80°32'59.129"W	14.77	7.374	0.25
3126.00	0.320	334.370	3125.91	-9.62	13.49	1.91	1705710.69	531281.85	39°57'14.160"N	80°32'59.129"W	13.62	8.075	0.11
3026.00	0.270	314.790	3025.91	-9.11	13.07	2.20	1705710.98	531281.43	39°57'14.156"N	80°32'59.125"W	13.25	9.562	0.05
2926.00	0.320	318.810	2925.91	-8.60	12.71	2.57	1705711.35	531281.07	39°57'14.153"N	80°32'59.120"W	12.97	11.432	0.05
2826.00	0.320	305.520	2825.91	-8.06	12.35	3.00	1705711.78	531280.71	39°57'14.149"N	80°32'59.115"W	12.71	13.645	0.06
2726.00	0.370	301.620	2725.91	-7.49	12.02	3.50	1705712.28	531280.38	39°57'14.146"N	80°32'59.108"W	12.52	16.236	0.12
2626.00	0.280	316.420	2625.91	-6.95	11.68	3.94	1705712.72	531280.04	39°57'14.143"N	80°32'59.103"W	12.33	18.666	0.07
2526.00	0.220	325.800	2525.92	-6.52	11.34	4.22	1705713.00	531279.70	39°57'14.139"N	80°32'59.099"W	12.10	20.415	0.18
2426.00	0.040	335.950	2425.92	-6.29	11.15	4.34	1705713.12	531279.51	39°57'14.138"N	80°32'59.097"W	11.97	21.282	0.01
2326.00	0.040	325.890	2325.92	-6.22	11.09	4.38	1705713.16	531279.45	39°57'14.137"N	80°32'59.097"W	11.92	21.539	0.09
2226.00	0.110	283.000	2225.92	-6.11	11.04	4.49	1705713.27	531279.40	39°57'14.136"N	80°32'59.095"W	11.92	22.134	0.15
2126.00	0.120	198.990	2125.92	-6.10	11.12	4.62	1705713.40	531279.48	39°57'14.137"N	80°32'59.094"W	12.04	22.558	0.12
2026.00	0.220	177.370	2025.92	-6.32	11.41	4.64	1705713.42	531279.77	39°57'14.140"N	80°32'59.094"W	12.32	22.147	0.06
1926.00	0.260	167.480	1925.92	-6.68	11.82	4.59	1705713.56	531280.18	39°57'14.144"N	80°32'59.094"W	12.68	21.200	0.06
1826.00	0.210	173.580	1825.92	-7.05	12.22	4.52	1705713.50	531280.58	39°57'14.148"N	80°32'59.095"W	13.05	20.273	0.15
1726.00	0.240	212.810	1725.92	-7.28	12.58	4.61	1705713.59	531280.94	39°57'14.152"N	80°32'59.094"W	13.40	20.115	0.24
1626.00	0.340	258.530	1625.92	-7.22	12.82	5.01	1705713.79	531281.18	39°57'14.154"N	80°32'59.089"W	13.76	21.359	0.29
1526.00	0.300	311.680	1525.92	-6.84	12.70	5.50	1705714.28	531281.06	39°57'14.153"N	80°32'59.083"W	13.84	23.408	0.16
1426.00	0.380	334.720	1425.92	-6.25	12.23	5.84	1705714.62	531280.59	39°57'14.148"N	80°32'59.078"W	13.55	25.513	0.25
1326.00	0.400	12.390	1325.93	-5.70	11.59	5.90	1705714.68	531279.95	39°57'14.142"N	80°32'59.077"W	13.00	26.994	0.45
1226.00	0.790	35.450	1225.93	-5.27	10.69	5.43	1705714.21	531279.04	39°57'14.133"N	80°32'59.083"W	11.98	26.931	0.09
1126.00	0.830	41.170	1125.94	-4.91	9.58	4.55	1705713.33	531277.94	39°57'14.122"N	80°32'59.094"W	10.60	25.416	0.07
1026.00	0.870	37.190	1025.95	-4.56	8.43	3.62	1705712.40	531276.79	39°57'14.111"N	80°32'59.106"W	9.17	23.219	0.26
926.00	0.650	26.980	925.96	-4.10	7.32	2.90	1705711.68	531275.68	39°57'14.099"N	80°32'59.115"W	7.87	21.614	0.11
826.00	0.750	23.890	825.97	-3.53	6.21	2.38	1705711.16	531274.57	39°57'14.089"N	80°32'59.122"W	6.65	20.933	0.09
726.00	0.830	20.240	725.98	-2.82	4.94	1.86	1705710.64	531273.30	39°57'14.076"N	80°32'59.128"W	5.28	20.662	0.48
626.00	0.830	19.420	625.98	-2.26	3.97	1.51	1705710.29	531272.33	39°57'14.066"N	80°32'59.133"W	4.25	20.823	0.21
526.00	0.560	22.370	525.99	-1.84	3.23	1.22	1705710.00	531271.59	39°57'14.059"N	80°32'59.136"W	3.45	20.728	0.10
426.00	0.460	20.230	425.99	-1.38	2.40	0.90	1705709.68	531270.76	39°57'14.051"N	80°32'59.140"W	2.56	20.493	0.06
326.00	0.510	24.400	325.99	-0.95	1.62	0.57	1705709.35	531269.98	39°57'14.043"N	80°32'59.144"W	1.72	19.543	0.15
226.00	0.370	18.410	226.00	-0.55	0.91	0.29	1705709.07	531269.27	39°57'14.036"N	80°32'59.148"W	0.95	17.657	0.01
126.00	0.360	17.270	126.00	-0.18	0.30	0.09	1705708.87	531268.66	39°57'14.030"N	80°32'59.150"W	0.31	17.270	0.36
26.00	0.000	17.270	26.00	0.00	0.00	0.00	1705708.78	531268.36	39°57'14.027"N	80°32'59.151"W	0.00	0.000	0.00
0.00†	0.000	17.270	0.00	0.00	0.00	0.00	1705708.78	531268.36	39°57'14.027"N	80°32'59.151"W	0.00	0.000	0.00

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Actual Wellpath Report
WEB-13C-HS AWP Proj: 12440



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

WELLPATH DATA (147 stations)

MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS
[ft]	[°]	[°]	[ft]	[ft]	[ft]	[ft]	[US ft]	[US ft]			[ft]	[°]	[ft/100ft]
4420.00	0.280	346.240	4419.83	-21.70	24.14	-4.02	1705704.76	531292.50	39°57'14.265"N	80°32'59.207"W	24.48	350.546	0.19
4514.00	0.440	329.200	4513.83	-22.27	24.68	-4.26	1705704.32	531293.04	39°57'14.270"N	80°32'59.210"W	25.04	350.206	0.20
4609.00	0.440	314.080	4608.83	-22.99	25.24	-4.71	1705704.07	531293.60	39°57'14.276"N	80°32'59.216"W	25.68	349.434	0.12
4704.00	0.370	331.330	4703.83	-23.66	25.77	-5.12	1705703.66	531294.13	39°57'14.281"N	80°32'59.221"W	26.27	348.766	0.15
4799.00	0.370	314.420	4798.82	-24.26	26.25	-5.48	1705703.30	531294.61	39°57'14.286"N	80°32'59.226"W	26.82	348.200	0.11
4895.00	0.470	312.070	4894.82	-24.96	26.73	-6.00	1705702.78	531295.09	39°57'14.290"N	80°32'59.232"W	27.40	347.354	0.11
4989.00	0.650	307.840	4988.82	-25.85	27.32	-6.71	1705702.08	531295.68	39°57'14.296"N	80°32'59.242"W	28.13	346.209	0.20
5084.00	0.660	313.960	5083.81	-26.91	28.03	-7.52	1705701.48	531296.39	39°57'14.303"N	80°32'59.252"W	29.02	344.972	0.07
5179.00	0.520	297.250	5178.81	-27.84	28.60	-8.30	1705700.86	531296.96	39°57'14.309"N	80°32'59.262"W	29.78	343.816	0.23
5242.00	0.670	301.730	5241.80	-28.44	28.93	-8.87	1705699.91	531297.29	39°57'14.312"N	80°32'59.270"W	30.26	342.955	0.25
5332.00	2.600	27.900	5331.77	-29.96	31.09	-8.52	1705700.26	531299.44	39°57'14.333"N	80°32'59.266"W	32.23	344.669	2.87
5381.00	6.250	27.820	5380.61	-31.65	34.47	-6.84	1705701.94	531302.83	39°57'14.367"N	80°32'59.245"W	35.14	348.769	7.48
5427.00	10.340	26.130	5426.12	-34.58	40.39	-3.86	1705704.92	531308.75	39°57'14.426"N	80°32'59.207"W	40.58	354.546	8.91
5475.00	10.100	27.330	5473.36	-38.35	48.00	-0.03	1705708.75	531316.36	39°57'14.501"N	80°32'59.159"W	48.00	359.968	0.67
5522.00	10.060	32.600	5519.64	-41.57	55.12	4.08	1705712.86	531323.48	39°57'14.572"N	80°32'59.107"W	55.27	423.0	1.96
5572.00	9.650	36.420	5568.90	-44.29	62.17	8.92	1705717.70	531330.53	39°57'14.642"N	80°32'59.046"W	62.81	8.163	1.54
5616.00	10.050	35.920	5612.25	-46.47	68.25	13.36	1705722.14	531336.60	39°57'14.703"N	80°32'58.990"W	69.54	11.076	0.93
5666.00	10.070	37.330	5661.48	-48.93	75.26	18.57	1705727.35	531343.61	39°57'14.773"N	80°32'58.924"W	77.51	13.861	0.49
5711.00	10.040	39.690	5705.79	-50.89	81.40	23.46	1705732.24	531349.76	39°57'14.834"N	80°32'58.862"W	84.72	16.077	0.92
5761.00	10.060	40.090	5755.02	-52.87	88.10	29.06	1705737.83	531356.45	39°57'14.901"N	80°32'58.792"W	92.77	18.253	0.15
5805.00	10.040	38.370	5798.35	-54.70	94.05	33.91	1705742.69	531362.40	39°57'14.960"N	80°32'58.730"W	99.97	19.829	0.68
5854.00	9.990	37.670	5846.60	-56.90	100.76	39.16	1705747.94	531369.11	39°57'15.027"N	80°32'58.664"W	108.10	21.239	0.27
5900.00	9.670	38.270	5891.93	-59.00	106.99	43.94	1705752.77	531375.35	39°57'15.089"N	80°32'58.603"W	115.66	22.327	0.71
5949.00	10.000	38.770	5940.21	-61.17	113.58	49.09	1705757.82	531381.94	39°57'15.155"N	80°32'58.538"W	123.74	23.776	0.85
5995.00	9.570	41.680	5985.54	-62.90	119.55	54.14	1705762.92	531387.91	39°57'15.214"N	80°32'58.474"W	131.24	24.363	1.42
6089.00	10.270	44.930	6078.13	-65.61	131.32	65.25	1705774.03	531399.68	39°57'15.332"N	80°32'58.333"W	146.64	26.422	0.95
6184.00	14.500	89.680	6171.10	-59.68	137.40	83.17	1705791.95	531403.45	39°57'15.394"N	80°32'58.104"W	160.61	31.188	10.69
6234.00	15.680	110.270	6219.41	-50.25	135.09	95.78	1705804.56	531403.45	39°57'15.373"N	80°32'57.942"W	165.60	35.337	10.92
6279.00	18.250	120.870	6262.46	-38.60	129.37	107.54	1705816.31	531397.72	39°57'15.318"N	80°32'57.790"W	168.23	39.735	8.91
6325.00	21.500	123.420	6305.72	-23.98	121.03	120.76	1705829.53	531389.38	39°57'15.237"N	80°32'57.619"W	170.97	44.937	7.31
6373.00	25.410	123.050	6349.74	-6.01	110.56	154.74	1705845.19	531378.92	39°57'15.133"N	80°32'57.412"W	175.84	51.043	8.15
6421.00	30.310	124.020	6392.17	15.14	98.16	155.42	1705864.11	531366.52	39°57'15.015"N	80°32'57.171"W	183.82	57.24	10.25
6469.00	35.800	128.380	6432.39	40.20	82.65	176.49	1705885.26	531351.01	39°57'14.864"N	80°32'56.898"W	194.88	64.905	12.46
6512.00	40.980	131.310	6466.08	66.20	65.52	196.95	1705905.72	531333.88	39°57'14.697"N	80°32'56.633"W	207.56	71.598	12.77
6564.00	47.060	133.900	6503.46	101.73	41.05	223.50	1705932.27	531309.40	39°57'14.458"N	80°32'56.288"W	227.24	79.594	12.19
6611.00	51.270	134.970	6534.19	136.88	16.15	248.88	1705957.65	531284.51	39°57'14.215"N	80°32'55.958"W	249.40	86.288	9.12
6659.00	55.810	135.760	6562.70	175.13	-11.32	275.99	1705984.76	531257.04	39°57'13.947"N	80°32'55.606"W	276.22	92.349	9.55
6707.00	60.920	136.470	6587.87	215.69	-40.77	304.30	1706013.07	531227.59	39°57'13.659"N	80°32'55.238"W	307.02	97.631	10.72
6800.00	70.610	140.330	6626.83	299.71	-103.68	360.42	1706069.19	531164.68	39°57'13.044"N	80°32'54.508"W	375.04	106.049	13.58
6848.00	73.390	141.210	6641.66	345.32	-139.04	389.29	1706098.05	531129.32	39°57'12.698"N	80°32'54.132"W	413.37	109.656	6.05
6943.00	81.790	142.050	6662.06	437.99	-211.73	446.82	1706155.58	531056.64	39°57'11.986"N	80°32'53.383"W	494.44	115.354	8.88
7030.00	86.240	142.960	6671.96	532.45	-286.67	504.31	1706213.07	530981.70	39°57'11.252"N	80°32'52.633"W	580.10	119.616	4.78
7071.00	89.080	143.540	6673.31	565.42	-313.09	524.04	1706232.79	530955.29	39°57'10.993"N	80°32'52.376"W	610.44	120.856	8.78
7132.00	89.350	141.430	6674.15	626.41	-361.47	561.18	1706269.93	530906.91	39°57'10.520"N	80°32'51.892"W	667.52	122.786	3.49

57-01664



Actual Wellpath Report

WEB-13C-HS AWP Proj: 12440'

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REFERENCE WELLPATH IDENTIFICATION

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

WELLPATH DATA (147 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]
7227.00	89.450	138.910	6675.14	721.28	-434.41	622.02	1706330.77	530833.97	39°57'09.806"N	80°32'51.100"W	758.70	124.930	2.65
7322.00	89.320	138.540	6676.16	816.01	-505.80	684.68	1706393.43	530762.58	39°57'09.107"N	80°32'50.285"W	851.25	126.455	0.41
7417.00	89.380	139.200	6677.24	910.75	-577.35	747.17	1706455.91	530691.03	39°57'08.408"N	80°32'49.472"W	944.25	127.694	0.70
7512.00	89.380	140.680	6678.27	1005.61	-650.06	808.30	1706517.05	530618.33	39°57'07.696"N	80°32'48.676"W	1037.27	128.807	1.56
7606.00	89.260	143.840	6679.38	1099.58	-724.38	865.83	1706574.57	530544.01	39°57'06.968"N	80°32'47.926"W	1128.89	129.917	3.36
7701.00	89.380	147.180	6680.51	1194.47	-802.66	919.61	1706628.35	530465.73	39°57'06.201"N	80°32'47.224"W	1220.64	131.115	3.52
7796.00	89.600	149.070	6681.36	1289.08	-883.33	969.77	1706678.51	530385.07	39°57'05.410"N	80°32'46.568"W	1311.77	132.329	2.00
7891.00	89.480	147.860	6682.12	1383.65	-964.30	1019.46	1706728.19	530304.11	39°57'04.615"N	80°32'45.918"W	1403.27	133.407	1.28
7986.00	89.420	142.870	6683.03	1478.53	-1042.43	1073.43	1706782.16	530225.97	39°57'03.849"N	80°32'45.213"W	1496.30	134.161	5.25
8080.00	89.480	143.070	6683.94	1572.53	-1117.47	1130.04	1706838.77	530150.94	39°57'03.114"N	80°32'44.475"W	1589.26	134.680	0.22
8175.00	89.600	144.100	6684.70	1667.52	-1193.92	1186.43	1706895.16	530074.49	39°57'02.365"N	80°32'43.740"W	1683.17	135.180	1.09
8270.00	89.480	145.710	6685.46	1762.46	-1271.64	1241.05	1706949.77	529996.77	39°57'01.604"N	80°32'43.027"W	1776.87	135.698	1.70
8365.00	89.630	144.730	6686.20	1857.38	-1349.67	1295.23	1707003.96	529918.75	39°57'00.839"N	80°32'42.319"W	1870.62	136.179	1.04
8460.00	89.720	142.590	6686.74	1952.37	-1426.19	1351.53	1707060.24	529842.24	39°57'00.089"N	80°32'41.585"W	1964.85	136.540	2.25
8555.00	89.380	144.160	6687.48	2047.36	-1502.42	1408.20	1707116.91	529766.00	39°56'59.342"N	80°32'40.846"W	2059.20	136.854	1.69
8649.00	89.510	144.630	6688.39	2141.33	-1578.85	1462.92	1707171.63	529689.58	39°56'58.593"N	80°32'40.132"W	2152.42	137.183	0.52
8744.00	89.690	140.920	6689.06	2236.31	-1654.48	1520.38	1707229.09	529613.96	39°56'57.853"N	80°32'39.383"W	2246.96	137.419	3.91
8839.00	89.510	137.570	6689.72	2331.09	-1726.43	1582.39	1707291.10	529542.01	39°56'57.149"N	80°32'38.576"W	2341.90	137.493	3.53
8934.00	89.320	138.800	6690.69	2425.75	-1797.23	1645.72	1707354.43	529471.21	39°56'56.456"N	80°32'37.753"W	2436.89	137.520	1.31
9029.00	89.480	140.750	6691.69	2520.59	-1869.75	1707.06	1707415.77	529398.69	39°56'55.747"N	80°32'36.954"W	2531.81	137.604	2.06
9123.00	89.260	144.720	6692.72	2614.56	-1944.54	1763.97	1707472.67	529323.90	39°56'55.014"N	80°32'36.212"W	2625.42	137.788	4.23
9218.00	89.380	145.360	6693.85	2709.50	-2022.39	1818.40	1707527.10	529246.06	39°56'54.251"N	80°32'35.502"W	2719.68	138.040	0.69
9313.00	89.420	143.650	6694.84	2804.45	-2099.73	1873.55	1707582.25	529168.72	39°56'53.493"N	80°32'34.782"W	2814.09	138.258	1.80
9408.00	89.480	142.110	6695.75	2899.45	-2175.48	1930.88	1707639.57	529092.98	39°56'52.751"N	80°32'34.035"W	2908.78	138.409	1.62
9502.00	89.320	143.080	6696.74	2993.44	-2250.14	1987.98	1707696.67	529018.32	39°56'52.020"N	80°32'33.291"W	3002.53	138.540	1.05
9596.00	89.380	142.020	6697.80	3087.43	-2324.76	2045.13	1707753.82	528943.70	39°56'51.289"N	80°32'32.546"W	3096.30	138.661	1.13
9691.00	89.480	143.380	6698.75	3182.42	-2400.33	2102.69	1707811.38	528868.14	39°56'50.549"N	80°32'31.796"W	3191.06	138.782	1.44
9785.00	89.480	147.710	6699.60	3276.30	-2477.81	2155.86	1707864.54	528790.66	39°56'49.789"N	80°32'31.102"W	3284.40	138.975	4.61
9879.00	89.450	151.560	6700.48	3369.65	-2558.90	2203.37	1707912.05	528709.57	39°56'48.993"N	80°32'30.480"W	3376.80	139.270	4.10
9974.00	89.540	146.210	6701.32	3464.11	-2640.20	2252.44	1707961.12	528628.28	39°56'48.196"N	80°32'29.837"W	3470.47	139.531	5.63
10068.00	89.420	142.630	6702.17	3558.06	-2716.64	2307.12	1708015.80	528551.85	39°56'47.447"N	80°32'29.124"W	3564.12	139.660	3.81
10164.00	89.480	140.440	6703.09	3654.02	-2791.79	2366.83	1708075.50	528476.69	39°56'46.711"N	80°32'28.346"W	3660.06	139.709	2.28
10259.00	89.450	138.680	6703.98	3748.84	-2864.09	2428.45	1708137.12	528404.40	39°56'46.003"N	80°32'27.545"W	3755.05	139.706	1.85
10353.00	89.450	139.600	6704.88	3842.62	-2935.18	2489.94	1708198.61	528333.31	39°56'45.308"N	80°32'26.744"W	3849.04	139.692	0.98
10448.00	89.420	141.640	6705.82	3937.53	-3008.60	2550.21	1708258.87	528259.89	39°56'44.589"N	80°32'25.960"W	3944.02	139.714	2.15
10543.00	89.450	138.960	6706.76	4032.41	-3081.69	2610.88	1708319.55	528186.81	39°56'43.874"N	80°32'25.170"W	4039.00	139.728	2.82
10637.00	89.380	137.140	6707.72	4126.05	-3151.59	2673.71	1708382.37	528116.91	39°56'43.190"N	80°32'24.353"W	4132.95	139.690	1.94
10732.00	89.450	139.720	6708.69	4220.74	-3222.66	2736.74	1708445.40	528045.85	39°56'42.495"N	80°32'23.533"W	4227.91	139.661	2.72
10827.00	89.420	143.520	6709.62	4315.69	-3297.11	2795.71	1708504.36	527971.40	39°56'41.766"N	80°32'22.765"W	4322.84	139.704	4.00
10922.00	89.480	145.500	6710.54	4410.65	-3374.45	2850.86	1708559.51	527894.06	39°56'41.008"N	80°32'22.046"W	4417.50	139.808	2.09
11016.00	89.510	145.690	6711.37	4504.55	-3452.01	2903.97	1708612.62	527816.51	39°56'40.248"N	80°32'21.352"W	4511.03	139.928	0.20
11111.00	89.420	145.900	6712.25	4599.43	-3530.57	2957.37	1708666.02	527737.95	39°56'39.478"N	80°32'20.655"W	4605.54	140.049	0.24
11206.00	89.450	146.680	6713.19	4694.27	-3609.59	3010.09	1708718.74	527658.93	39°56'38.703"N	80°32'19.966"W	4699.98	140.175	0.82
11300.00	89.200	145.390	6714.30	4788.13	-3687.55	3062.60	1708771.25	527580.98	39°56'37.939"N	80°32'19.281"W	4793.49	140.289	1.40
11395.00	89.230	143.280	6715.60	4883.09	-3764.72	3117.99	1708826.63	527503.81	39°56'37.182"N	80°32'18.558"W	4888.24	140.368	2.22

51-0164

Actual Wellpath Report

WEB-13C-HS AWP Proj: 12440'

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DEC 22 2014

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

WELLPATH DATA (147 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]
11490.00	89.230	139.880	6716.88	4978.04	-3839.13	3177.01	1708885.64	527429.40	39°56'36.454"N	80°32'17.790"W	4983.20	140.391	3.58
11584.00	89.200	140.290	6718.16	5071.90	-3911.22	3237.32	1708945.95	527357.32	39°56'35.748"N	80°32'17.005"W	5077.19	140.385	0.44
11679.00	89.570	143.650	6719.18	5166.87	-3986.04	3295.83	1709004.46	527282.50	39°56'35.016"N	80°32'16.242"W	5172.14	140.415	3.56
11774.00	89.380	143.920	6720.05	5261.86	-4062.68	3351.96	1709060.59	527205.86	39°56'34.265"N	80°32'15.510"W	5266.97	140.475	0.35
11869.00	89.450	141.660	6721.02	5356.85	-4138.33	3409.40	1709118.03	527130.22	39°56'33.524"N	80°32'14.762"W	5361.88	140.516	2.38
11963.00	89.380	140.730	6721.98	5450.79	-4211.58	3468.30	1709176.93	527056.97	39°56'32.806"N	80°32'13.995"W	5455.87	140.528	0.99
12059.00	89.510	141.620	6722.91	5546.74	-4286.36	3528.49	1709237.11	526982.19	39°56'32.074"N	80°32'13.211"W	5551.86	140.539	0.94
12153.00	89.420	142.710	6723.79	5640.72	-4360.60	3586.14	1709294.76	526907.96	39°56'31.347"N	80°32'12.460"W	5645.82	140.566	1.16
12248.00	89.450	144.210	6724.73	5735.71	-4436.92	3642.70	1709351.32	526831.64	39°56'30.600"N	80°32'11.723"W	5740.69	140.614	1.58
12342.00	89.420	144.410	6725.66	5829.68	-4513.26	3697.54	1709406.15	526755.30	39°56'29.851"N	80°32'11.007"W	5834.49	140.674	0.22
12413.00	89.450	144.110	6726.36	5900.66	-4570.89	3739.01	1709447.62	526697.68	39°56'29.287"N	80°32'10.466"W	5905.35	140.717	0.42
12440.00	89.450	144.110	6726.61	5927.66	-4592.76	3754.83	1709463.44	526675.81	39°56'29.072"N	80°32'10.260"W	5932.30	140.732	0.00

HOLE & CASING SECTIONS - Ref Wellbore: WEB-13C-HS AWB Ref Wellpath: WEB-13C-HS AWP Proj: 12440'

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	0.05	0.01
20in Casing Surface	26.00	439.20	413.20	26.00	439.19	0.00	0.00	2.50	0.93
13.375in Casing Intermediate	26.00	1203.00	1177.00	26.00	1202.93	0.00	0.00	10.43	5.24
9.625in Casing Intermediate	26.00	3182.00	3156.00	26.00	3181.91	0.00	0.00	13.82	1.82

5191664

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

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
WEB-13C-HS LP:Rev-1		6675.00	-268.04	491.04	1706199.80	531000.33	39°57'11.435"N	80°32'52.806"W	point
WEB-13C-HS BHL Plat		6694.00	-4580.68	3740.84	1709449.45	526687.89	39°56'29.190"N	80°32'10.441"W	point
WEB-13C-HS LP Plat		6694.00	-200.16	439.88	1706148.64	531068.21	39°57'12.100"N	80°32'53.474"W	point
WEB-13C-HS BHL:Rev-1		6731.55	-4580.68	3740.84	1709449.45	526687.89	39°56'29.190"N	80°32'10.441"W	point
WEB-13 LL		7226.58	22.39	-55.95	1705652.83	531290.75	39°57'14.242"N	80°32'59.873"W	polygon

WELLPATH COMPOSITION - Ref Wellbore: WEB-13C-HS AWB Ref Wellpath: WEB-13C-HS AWP Proj: 12440'				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
26.00	3126.00	Generic gyro - northseeking (Standard)	01_VES Gyro <12-1/4"> (100'-3100')	WEB-13C-HS AWB
3126.00	12413.00	NaviTrak (AT Curve Short Spaced)	02_BHI ATCurve 8 3/4" (3126')(3281'-12413')	WEB-13C-HS AWB
12413.00	12440.00	Blind Drilling (std)	Projection to bit	WEB-13C-HS AWB

Received
Office of Oil & Gas
DEC 22 2014

P 9910-15

REFERENCE WELLPATH IDENTIFICATION

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

51-01664

COMMENTS

Wellpath general comments
 API#: 47-051-01664-0000
 Rig: Nomac 79
 BHI Job#: 6200141
 Duration: 04/03/14-04/07/14
 VES Gyro Surveys: (126'-3126')
 BHI ATCurve Surveys: (3126')(3281'-12413')
 TD Projected to MD: 12440'

Received
 Office of Oil & Gas
 DEC 22 2014



NOBLE ENERGY



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

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

51-01664

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	Longitude
Slot C	-22.39	55.95	1705708.780	531268.360	39°57'14.027"N	80°32'59.151"W
Nomac 79 (RT) to Mud line (At Slot: Slot C)					1271.1ft	
Mean Sea Level to Mud line (At Slot: Slot C)					0ft	
Nomac 79 (RT) to Mean Sea Level					1271.1ft	

Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	3126.00	0.320	334.370	3125.91	13.49	1.91	0.00	-9.62
KOP	5322.50	0.320	334.370	5322.37	24.55	-3.39	0.00	-21.65
End of 3D Arc	5446.47	10.063	36.686	5445.70	33.57	2.94	8.00	-25.04
End of Tangent	6093.03	10.063	36.686	6082.31	124.16	70.43	0.00	-56.77
Landing Pt.	7015.24	89.400	143.000	6675.00	-268.04	491.04	10.00	509.58
BHL	12415.54	89.400	143.000	6731.55	-4580.68	3740.84	0.00	5909.58

Targets

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
WEB-13C-HS LP Rev-1	7015.24	6675.00	-268.04	491.04	1706199.80	531000.33	39°57'11.435"N	80°32'52.806"W
WEB-13C-HS BHL Plat		6684.00	-4580.68	3740.84	1708449.45	526687.89	39°56'29.190"N	80°32'10.441"W
WEB-13C-HS LP Plat		6684.00	-200.16	439.88	1706148.84	531068.21	39°57'12.100"N	80°32'53.474"W
WEB-13C-HS BHL Rev-1	12415.54	6731.55	-4580.68	3740.84	1708449.45	526687.89	39°56'29.190"N	80°32'10.441"W
WEB-13 LL		7225.58	22.39	-55.95	1705652.83	531290.75	39°57'14.242"N	80°32'59.873"W

Plot reference wellpath is WEB-13C-HS (PWP) Rev-A-D
 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: 1271.1 feet Scale: True distance
 Mean Sea Level to Mud line (At Slot: Slot C): 0 feet Depths are in feet
 Coordinates are in feet referenced to Slot Created by: fitjesd on 4/14/2014

