



Actual Wellpath Report
 MND-6C-HS AWP Proj: 17895'
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REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY	Slot	Slot C
Area	Marshall County, WV	Well	MND-6C-HS
Field	Marshall	Wellbore	MND-6C-HS AWP
Facility	MND-6 Pad		

REPORT SETUP INFORMATION

Projection System	NAD27 / Lambert West Virginia SP, Northern Zone (4701), US feet	Software System	WellArchitect® 4.0.1
North Reference	Grid	User	Edsaryar
Scale	0.999946	Report Generated	17/Nov/2014 at 11:34
Convergence at slot	0.82° West	Database/Source file	WellArchitectEasternDB\MND-6C-HS_AWP.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	11.53	-34.20	1637143.58	482523.76	39°49'03.484"N	80°47'30.524"W
Facility Reference Pt			1637177.78	482512.23	39°49'03.375"N	80°47'30.083"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 (RKB) to Facility Vertical Datum	746.87ft
Horizontal Reference Pt	Slot	Nomac 79 (RKB) to Mean Sea Level	746.87ft
Vertical Reference Pt	Nomac 79 (RKB)	Nomac 79 (RKB) to Mud Line at Slot (Slot C)	26.00ft
MD Reference Pt	Nomac 79 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	325.00°

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Field	Marshall	Wellbore	MIND-6C-HS AWP
Facility	MIND-6 Pad		

WELLPATH DATA (198 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	260.800	0.00	0.00	0.00	0.00	1637143.58	482523.76	39°49'03.484"N	80°47'30.524"W	0.00	0.000	0.00	0.00	0.00
26.00	0.000	260.800	26.00	0.00	0.00	0.00	1637143.58	482523.76	39°49'03.484"N	80°47'30.524"W	0.00	0.000	0.00	0.00	0.00
50.00	0.180	260.800	50.00	0.02	-0.01	-0.04	1637143.54	482523.75	39°49'03.484"N	80°47'30.524"W	0.04	270.800	0.75	0.75	0.00
100.00	0.310	279.240	100.00	0.14	0.00	-0.25	1637143.33	482523.76	39°49'03.484"N	80°47'30.527"W	0.25	270.723	0.30	0.26	36.88
150.00	0.310	255.750	150.00	0.29	-0.01	-0.51	1637143.07	482523.75	39°49'03.484"N	80°47'30.530"W	0.51	269.057	0.25	0.00	46.98
200.00	0.550	273.930	200.00	0.49	-0.03	-0.88	1637142.70	482523.73	39°49'03.483"N	80°47'30.535"W	0.88	268.360	0.55	0.48	36.36
250.00	0.720	289.840	249.99	0.89	0.10	-1.42	1637142.16	482523.86	39°49'03.485"N	80°47'30.542"W	1.42	273.944	0.49	0.34	31.82
260.00	0.750	300.560	259.99	1.00	0.15	-1.53	1637142.05	482523.91	39°49'03.485"N	80°47'30.543"W	1.54	275.674	1.41	0.30	107.20
311.00	0.270	285.360	310.99	1.40	0.35	-1.94	1637141.64	482524.11	39°49'03.487"N	80°47'30.548"W	1.97	280.334	0.97	-0.94	-29.80
329.00	0.100	14.690	328.99	1.44	0.38	-1.97	1637141.61	482524.14	39°49'03.487"N	80°47'30.549"W	2.01	280.906	1.59	-0.94	496.28
338.00	0.550	283.650	337.99	1.48	0.40	-2.01	1637141.57	482524.16	39°49'03.487"N	80°47'30.549"W	2.05	281.183	6.23	5.00	-1011.56
432.00	0.570	354.160	431.99	2.23	0.97	-2.50	1637141.08	482524.73	39°49'03.493"N	80°47'30.556"W	2.68	291.202	0.69	0.02	75.01
522.00	0.270	194.750	521.99	2.48	1.21	-2.60	1637140.98	482524.97	39°49'03.495"N	80°47'30.557"W	2.87	294.962	0.92	-0.33	-177.12
616.00	0.470	210.300	615.98	2.18	0.66	-2.85	1637140.73	482524.42	39°49'03.490"N	80°47'30.560"W	2.93	283.094	0.24	0.21	16.54
806.00	1.010	12.100	805.98	2.99	1.63	-2.89	1637140.69	482525.39	39°49'03.499"N	80°47'30.561"W	3.32	295.365	0.77	0.28	85.16
901.00	3.860	322.990	900.89	6.76	5.00	-4.64	1637138.94	482528.76	39°49'03.533"N	80°47'30.584"W	6.82	317.128	3.46	3.00	-51.69
996.00	4.910	342.820	995.61	13.83	11.44	-7.77	1637135.81	482535.20	39°49'03.596"N	80°47'30.625"W	13.83	325.819	1.93	1.11	20.87
1090.00	4.400	326.130	1089.31	21.26	18.28	-10.97	1637132.61	482542.04	39°49'03.663"N	80°47'30.667"W	21.31	329.035	1.53	-0.54	-17.76
1184.00	3.560	330.040	1183.08	27.77	23.80	-14.43	1637129.15	482547.56	39°49'03.717"N	80°47'30.713"W	27.83	328.764	0.94	-0.89	4.16
1279.00	3.650	325.170	1277.89	33.74	28.84	-17.63	1637125.95	482552.59	39°49'03.766"N	80°47'30.755"W	33.80	328.554	0.34	0.09	-5.13
1374.00	4.370	330.910	1372.66	40.36	34.48	-21.12	1637122.46	482558.24	39°49'03.822"N	80°47'30.801"W	40.44	328.512	0.87	0.76	6.04
1461.00	3.480	326.890	1459.46	46.30	39.59	-24.17	1637119.41	482563.35	39°49'03.872"N	80°47'30.841"W	46.39	328.591	1.07	-1.02	-4.62
1562.00	1.200	245.290	1560.38	49.55	41.72	-26.81	1637116.77	482565.47	39°49'03.892"N	80°47'30.875"W	49.59	327.272	3.48	-2.26	-80.79
1657.00	1.300	222.450	1655.36	49.49	40.50	-28.44	1637115.14	482564.26	39°49'03.880"N	80°47'30.895"W	49.49	324.925	0.53	0.11	-24.04
1750.00	1.240	221.750	1748.34	49.03	38.98	-29.82	1637113.76	482562.73	39°49'03.865"N	80°47'30.913"W	49.08	322.578	0.07	-0.06	-0.75
1846.00	1.140	220.290	1844.32	48.55	37.47	-31.13	1637112.45	482561.23	39°49'03.850"N	80°47'30.929"W	48.72	320.280	0.11	-0.10	-1.52
1941.00	1.110	215.290	1939.30	48.00	36.00	-32.28	1637111.31	482559.76	39°49'03.835"N	80°47'30.944"W	48.35	318.123	0.11	-0.03	-5.26
2006.00	1.040	219.500	2004.29	47.63	35.03	-33.01	1637110.57	482558.79	39°49'03.825"N	80°47'30.953"W	48.14	316.698	0.16	-0.11	6.48
2139.00	0.790	223.680	2137.27	47.13	33.44	-34.42	1637109.17	482557.19	39°49'03.809"N	80°47'30.971"W	47.98	314.174	0.19	-0.19	3.14
2234.00	0.690	243.030	2232.26	47.08	32.70	-35.38	1637108.20	482556.46	39°49'03.802"N	80°47'30.983"W	48.18	312.751	0.28	-0.11	20.37



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Area	Marshall County, WV	Well	MND-6C-HS
Field	Marshall	Wellbore	MND-6C-HS AWP
Facility	MND-6 Pad		

WELLPATH DATA (198 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]
2329.00	1.280	301.320	2327.25	48.13	33.00	-36.79	1637106.79	482556.75	39°49'03.805"N	80°47'31.001"W	49.42	311.885	1.15	0.62	61.36
2423.00	1.930	311.450	2421.21	50.63	34.59	-38.88	1637104.71	482558.35	39°49'03.820"N	80°47'31.028"W	52.04	311.660	0.75	0.69	10.78
2518.00	1.640	304.400	2516.17	53.46	36.42	-41.20	1637102.38	482560.17	39°49'03.838"N	80°47'31.058"W	54.99	311.475	0.38	-0.31	-7.42
2613.00	1.390	355.390	2611.14	55.73	38.33	-42.41	1637101.17	482562.09	39°49'03.857"N	80°47'31.074"W	57.17	312.108	1.39	-0.26	53.67
2708.00	1.110	352.880	2706.11	57.53	40.39	-42.62	1637100.96	482564.15	39°49'03.877"N	80°47'31.077"W	58.72	313.465	0.30	-0.29	-2.64
2802.00	0.840	332.340	2800.10	59.02	41.91	-43.05	1637100.53	482565.67	39°49'03.892"N	80°47'31.083"W	60.08	314.229	0.47	-0.29	-21.85
2897.00	0.730	311.510	2895.09	60.30	42.93	-43.83	1637099.75	482566.68	39°49'03.902"N	80°47'31.093"W	61.35	314.405	0.32	-0.12	-21.93
2992.00	0.600	321.710	2990.09	61.39	43.72	-44.59	1637098.99	482567.48	39°49'03.909"N	80°47'31.103"W	62.45	314.435	0.18	-0.14	10.74
3086.00	0.440	305.590	3084.08	62.22	44.31	-45.19	1637098.39	482568.07	39°49'03.915"N	80°47'31.111"W	63.29	314.441	0.23	-0.17	-17.15
3181.00	0.550	301.060	3179.08	62.98	44.76	-45.87	1637097.71	482568.52	39°49'03.920"N	80°47'31.120"W	64.09	314.296	0.12	0.12	-4.77
3276.00	1.330	355.600	3274.07	64.35	46.10	-46.35	1637097.23	482569.85	39°49'03.933"N	80°47'31.126"W	65.37	314.843	1.16	0.82	57.41
3371.00	0.920	344.620	3365.05	66.01	47.93	-46.64	1637096.95	482571.69	39°49'03.951"N	80°47'31.130"W	66.88	315.784	0.49	-0.43	-11.56
3466.00	0.650	330.100	3464.04	67.27	49.13	-47.11	1637096.47	482572.89	39°49'03.963"N	80°47'31.136"W	68.07	316.206	0.35	-0.28	-15.28
3561.00	1.520	11.780	3559.02	68.67	50.83	-47.12	1637096.46	482574.59	39°49'03.979"N	80°47'31.137"W	69.31	317.172	1.18	0.92	43.87
3656.00	0.960	354.790	3654.00	70.22	52.86	-46.93	1637096.65	482576.62	39°49'03.999"N	80°47'31.135"W	70.69	318.398	0.70	-0.59	-17.88
3750.00	0.430	41.280	3747.99	70.99	53.91	-46.77	1637096.81	482577.67	39°49'04.010"N	80°47'31.133"W	71.37	319.054	0.78	-0.56	49.46
3845.00	1.200	120.440	3842.99	70.17	53.67	-45.68	1637097.90	482577.43	39°49'04.008"N	80°47'31.119"W	70.48	319.600	1.26	0.81	83.33
3940.00	0.610	119.400	3937.97	68.81	52.92	-44.38	1637099.20	482576.68	39°49'04.000"N	80°47'31.102"W	69.07	320.015	0.62	-0.62	-1.09
4035.00	0.250	157.380	4033.97	68.15	52.48	-43.86	1637099.72	482576.24	39°49'03.996"N	80°47'31.095"W	68.40	320.113	0.46	-0.38	39.98
4130.00	0.370	299.200	4127.97	68.22	52.44	-44.05	1637099.53	482576.20	39°49'03.996"N	80°47'31.098"W	68.49	319.970	0.62	0.13	149.28
4224.00	0.490	286.930	4221.97	68.81	52.70	-44.70	1637098.88	482576.46	39°49'03.998"N	80°47'31.106"W	69.11	319.699	0.16	0.13	-13.05
4319.00	0.640	288.600	4316.96	69.56	52.99	-45.59	1637097.99	482576.75	39°49'04.001"N	80°47'31.118"W	69.90	319.294	0.16	0.16	1.76
4414.00	0.710	298.220	4411.96	70.51	53.44	-46.61	1637096.97	482577.20	39°49'04.005"N	80°47'31.131"W	70.91	318.904	0.14	0.07	10.13
4509.00	0.650	285.470	4506.95	71.45	53.86	-47.65	1637095.93	482577.62	39°49'04.009"N	80°47'31.144"W	71.91	318.502	0.17	-0.06	-13.42
4603.00	1.320	2.060	4600.94	72.73	55.09	-48.13	1637095.46	482578.84	39°49'04.021"N	80°47'31.150"W	73.15	318.859	1.41	0.71	81.48
4697.00	0.990	347.670	4694.92	74.34	55.96	-48.26	1637095.77	482580.72	39°49'04.040"N	80°47'31.152"W	74.66	319.728	0.46	-0.35	-15.31
4792.00	0.830	326.940	4789.91	75.79	58.34	-48.81	1637094.77	482582.10	39°49'04.053"N	80°47'31.160"W	76.07	320.082	0.38	-0.17	-21.82
4824.00	0.770	313.930	4821.90	76.23	58.68	-49.09	1637094.49	482582.44	39°49'04.057"N	80°47'31.163"W	76.51	320.086	0.60	-0.19	-40.66
4859.00	0.430	292.690	4856.90	76.57	58.90	-49.38	1637094.20	482582.65	39°49'04.059"N	80°47'31.167"W	76.86	320.022	1.14	-0.97	-60.69
4954.00	0.070	159.010	4951.90	76.82	58.98	-49.69	1637093.89	482582.74	39°49'04.067"N	80°47'31.171"W	77.12	319.886	0.51	-0.38	-140.72



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Area	Marshall County, WV	Well	MND-6C-HS
Field	Marshall	Wellbore	MND-6C-HS AWB
Facility	MND-6 Pad		

WELLPATH DATA (198 stations)

MD	Inclination [°]	Azimuth [°]	TYD [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]
5048.00	0.130	309.940	5045.90	76.86	59.00	-49.75	1637093.83	482582.75	39°49'04.060"N	80°47'31.172"W	77.17	319.859	0.21	0.06	160.56
5143.00	0.330	300.320	5140.90	77.22	59.20	-50.07	1637093.51	482582.96	39°49'04.062"N	80°47'31.176"W	77.54	319.777	0.21	0.21	-10.13
5237.00	1.250	337.170	5234.89	78.46	60.28	-50.70	1637092.88	482584.04	39°49'04.072"N	80°47'31.184"W	78.77	319.935	1.07	0.98	39.20
5332.00	6.340	344.500	5329.65	84.42	66.30	-52.51	1637091.08	482590.05	39°49'04.131"N	80°47'31.209"W	84.57	321.622	5.37	5.36	7.72
5427.00	13.620	342.880	5423.15	100.04	82.06	-57.21	1637086.38	482603.82	39°49'04.287"N	80°47'31.272"W	100.04	325.119	7.67	7.66	-1.71
5522.00	17.620	340.810	5514.63	124.53	106.34	-65.23	1637078.35	482630.10	39°49'04.525"N	80°47'31.379"W	124.75	328.475	4.25	4.21	-2.18
5616.00	25.470	347.070	5602.00	157.00	139.53	-74.44	1637069.14	482663.29	39°49'04.852"N	80°47'31.503"W	158.15	331.919	8.69	8.35	6.66
5711.00	35.520	350.360	5683.76	200.98	186.78	-83.66	1637059.92	482710.52	39°49'05.318"N	80°47'31.630"W	204.66	335.871	10.72	10.58	3.46
5805.00	45.650	338.790	5755.16	258.53	245.26	-100.46	1637043.13	482769.01	39°49'05.893"N	80°47'31.856"W	265.04	337.726	13.39	10.78	-12.31
5899.00	56.350	329.350	5814.31	330.49	310.53	-132.70	1637030.85	482834.28	39°49'16.534"N	80°47'32.281"W	337.70	336.861	13.76	11.38	-10.04
5994.00	67.360	326.560	5859.06	414.01	381.36	-177.16	1636966.43	482905.10	39°49'07.227"N	80°47'32.864"W	420.50	335.083	11.87	11.59	-2.94
6088.00	76.330	327.620	5888.32	503.18	456.28	-225.62	1636917.97	482980.02	39°49'07.961"N	80°47'33.499"W	509.02	333.688	9.60	9.54	1.13
6183.00	82.720	328.420	5905.58	596.41	535.48	-275.07	1636868.53	483059.21	39°49'08.736"N	80°47'34.147"W	602.00	332.811	6.78	6.73	0.84
6278.00	91.880	327.010	5910.05	691.10	615.62	-325.70	1636817.90	483139.34	39°49'09.521"N	80°47'34.811"W	696.47	332.118	9.76	9.64	-1.48
6373.00	89.750	318.580	5908.70	785.97	691.20	-383.09	1636760.52	483214.92	39°49'10.260"N	80°47'35.560"W	790.26	331.003	9.15	8.87	-8.87
6467.00	91.910	318.480	5907.34	879.31	761.62	-445.33	1636698.28	483285.34	39°49'10.947"N	80°47'36.370"W	882.26	329.685	2.30	2.30	-0.11
6562.00	90.830	323.560	5905.06	974.03	835.43	-505.05	1636638.56	483359.14	39°49'11.668"N	80°47'37.149"W	976.22	328.846	5.47	5.47	5.35
6657.00	90.980	326.890	5903.56	1069.00	913.44	-559.22	1636584.40	483437.15	39°49'12.431"N	80°47'37.858"W	1071.03	328.525	3.51	3.51	3.51
6752.00	91.050	326.710	5901.88	1163.94	992.92	-611.23	1636533.39	483516.62	39°49'13.209"N	80°47'38.539"W	1165.97	328.384	0.20	0.07	-0.19
6847.00	90.740	325.670	5900.39	1258.90	1071.84	-664.08	1636479.54	483595.54	39°49'13.981"N	80°47'39.231"W	1260.89	328.219	1.14	-0.33	-1.09
6941.00	90.990	326.780	5898.98	1352.87	1149.97	-716.33	1636427.29	483673.66	39°49'14.746"N	80°47'39.915"W	1354.83	328.081	1.21	0.27	1.18
7036.00	90.400	324.340	5897.82	1447.85	1228.30	-770.05	1636373.57	483752.00	39°49'15.512"N	80°47'40.618"W	1449.73	327.916	2.64	-0.62	-2.57
7130.00	90.800	320.670	5896.84	1541.74	1302.87	-827.25	1636316.37	483826.56	39°49'16.241"N	80°47'41.365"W	1543.31	327.587	3.93	0.43	-3.90
7225.00	89.720	320.510	5896.41	1636.46	1376.27	-887.56	1636256.06	483899.95	39°49'16.957"N	80°47'42.151"W	1637.64	327.182	1.15	-1.14	-0.17
7320.00	88.220	326.300	5898.12	1731.36	1452.49	-944.17	1636199.47	483976.17	39°49'17.703"N	80°47'42.896"W	1732.39	326.975	6.25	-1.58	6.09
7415.00	91.690	330.930	5898.19	1826.13	1533.33	-993.62	1636150.52	484057.23	39°49'18.497"N	80°47'43.539"W	1827.31	327.060	6.09	3.65	4.87
7510.00	91.050	330.480	5895.99	1920.63	1616.38	-1040.09	1636103.55	484140.05	39°49'19.309"N	80°47'44.150"W	1922.10	327.240	0.82	-0.67	-0.47
7604.00	90.800	330.900	5894.40	2014.16	1698.34	-1086.10	1636057.54	484222.00	39°49'20.112"N	80°47'44.755"W	2015.93	327.401	0.52	-0.27	0.45
7700.00	91.020	330.110	5892.88	2109.70	1781.89	-1133.36	1636010.28	484305.55	39°49'20.931"N	80°47'45.376"W	2111.78	327.542	0.85	0.23	-0.82
7794.00	91.020	326.460	5891.20	2203.52	1861.82	-1182.76	1635960.89	484385.48	39°49'21.714"N	80°47'46.024"W	2205.74	327.573	3.88	9.00	-3.88

REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY	Slot	Slot C
Area	Marshall County, WV	Well	MND-6C-HS
Field	Marshall	Wellbore	MND-6C-HS AWP
Facility	MND-6 Pad		

WELLPATH DATA (198 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]
7889.00	90.950	325.020	5889.57	2298.49	1940.33	-1236.23	1635907.42	48463.98	39°49'22.482"N	80°47'46.723"W	2300.68	327.498	1.52	-0.07	-1.52
7983.00	91.020	322.390	5887.95	2392.45	2016.07	-1291.86	1635851.79	48433.72	39°49'23.222"N	80°47'47.450"W	2394.46	327.349	2.80	0.07	-2.80
8078.00	90.860	320.790	5886.40	2487.26	2090.50	-1350.87	1635792.78	484614.14	39°49'23.949"N	80°47'48.220"W	2488.98	327.130	1.69	-0.17	-1.68
8173.00	90.830	318.470	5884.99	2581.83	2162.86	-1412.39	1635731.27	484686.50	39°49'24.656"N	80°47'49.022"W	2583.18	326.855	2.44	-0.03	-2.44
8268.00	90.830	319.680	5883.62	2676.31	2234.63	-1474.62	1635669.05	484758.27	39°49'25.366"N	80°47'49.833"W	2677.33	326.579	1.27	0.00	-1.27
8363.00	90.770	323.800	5882.29	2771.13	2309.20	-1533.43	1635610.24	484832.84	39°49'26.084"N	80°47'50.600"W	2771.97	326.414	4.34	-0.06	4.34
8458.00	90.890	320.440	5880.91	2865.98	2384.17	-1591.74	1635551.93	484907.80	39°49'26.817"N	80°47'51.361"W	2866.69	326.272	3.54	0.13	-3.54
8553.00	90.890	319.980	5879.44	2960.64	2457.16	-1652.53	1635491.14	484980.78	39°49'27.530"N	80°47'52.154"W	2961.16	326.078	0.48	0.00	-0.48
8647.00	90.370	325.030	5878.40	3054.51	2531.71	-1709.73	1635433.95	485055.33	39°49'28.258"N	80°47'52.901"W	3054.95	325.968	5.40	-0.55	5.37
8742.00	91.420	326.480	5876.92	3149.46	2610.23	-1763.18	1635380.50	485133.84	39°49'29.026"N	80°47'53.600"W	3149.93	325.961	1.88	1.11	1.53
8837.00	90.370	325.620	5875.44	3244.46	2689.02	-1816.22	1635327.46	485212.63	39°49'29.797"N	80°47'54.295"W	3244.92	325.964	1.43	-1.11	-0.91
8931.00	90.890	327.630	5874.40	3338.41	2767.51	-1867.93	1635275.75	485291.12	39°49'30.566"N	80°47'55.972"W	3338.90	325.983	2.21	0.55	2.14
9026.00	91.020	331.060	5872.82	3433.11	2849.21	-1916.35	1635227.33	485372.81	39°49'31.366"N	80°47'55.607"W	3433.72	326.076	3.61	0.14	3.61
9121.00	91.080	333.030	5871.08	3527.37	2933.11	-1960.88	1635182.81	485456.70	39°49'32.189"N	80°47'56.194"W	3528.19	326.236	2.07	0.06	2.07
9215.00	91.020	331.170	5869.36	3620.63	3016.16	-2004.85	1635138.84	485539.76	39°49'33.003"N	80°47'57.413"W	3621.70	326.388	1.98	-0.06	-1.98
9310.00	91.600	326.970	5867.18	3715.35	3097.61	-2053.66	1635090.04	485621.20	39°49'33.801"N	80°47'57.413"W	3716.55	326.456	4.46	0.61	-4.42
9405.00	91.110	321.750	5864.93	3810.28	3174.77	-2108.98	1635034.72	485698.35	39°49'34.556"N	80°47'58.136"W	3811.43	326.404	5.52	-0.52	-5.49
9499.00	90.830	321.820	5863.34	3904.12	3248.62	-2167.12	1634976.58	485772.20	39°49'35.277"N	80°47'58.895"W	3905.11	326.293	0.31	-0.30	0.07
9594.00	90.650	324.870	5862.12	3999.06	3324.81	-2223.82	1634919.88	485848.39	39°49'36.022"N	80°47'59.636"W	3999.97	326.223	3.22	-0.19	3.21
9689.00	90.650	329.280	5861.04	4093.97	3404.53	-2275.44	1634868.26	485928.10	39°49'36.802"N	80°48'00.312"W	4094.93	326.243	4.64	0.00	4.64
9783.00	90.830	329.520	5859.82	4187.68	3485.43	-2323.29	1634820.42	486009.00	39°49'37.595"N	80°48'00.941"W	4188.79	326.314	0.32	0.19	0.26
9878.00	91.140	323.620	5858.19	4282.59	3564.67	-2375.60	1634768.12	486080.23	39°49'38.370"N	80°48'01.626"W	4283.73	326.319	6.22	0.33	-6.21
9973.00	91.080	316.930	5856.35	4377.20	3637.68	-2436.27	1634707.45	486161.24	39°49'39.083"N	80°48'02.417"W	4378.14	326.189	7.04	-0.06	-7.04
10068.00	91.010	312.510	5854.61	4470.63	3704.50	-2503.74	1634639.98	486228.05	39°49'39.734"N	80°48'03.294"W	4471.24	325.947	4.65	-0.07	-4.65
10163.00	90.650	313.420	5853.24	4563.54	3769.24	-2573.25	1634570.47	486292.79	39°49'40.364"N	80°48'04.197"W	4563.86	325.679	1.03	-0.38	0.96
10257.00	90.580	320.700	5852.23	4656.57	3838.00	-2637.24	1634506.49	486361.55	39°49'41.024"N	80°48'05.029"W	4656.75	325.506	7.74	-0.07	7.74
10352.00	90.770	326.820	5851.11	4751.49	3914.58	-2693.37	1634450.36	486438.13	39°49'41.783"N	80°48'05.763"W	4751.65	325.471	6.44	0.20	6.44
10446.00	90.490	332.150	5850.07	4845.17	3995.53	-2741.08	1634402.65	486519.07	39°49'42.576"N	80°48'06.390"W	4845.39	325.548	5.68	-0.30	5.67
10541.00	90.770	333.680	5849.03	4939.25	4080.10	-2784.33	1634359.41	486603.64	39°49'43.405"N	80°48'06.960"W	4939.61	325.690	1.64	0.29	1.61
10637.00	90.620	331.020	5847.86	5034.45	4165.13	-2828.87	1634314.86	486688.55	39°49'44.239"N	80°48'07.546"W	5034.96	325.816	2.78	-0.16	-2.77



Actual Wellpath Report

MND-6C-HS AWP Proj: 17895'
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REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY	Slot	Slot C
Area	Marshall County, WV	Well	MND-6C-HS
Field	Marshall	Wellbore	MND-6C-HS AWP
Facility	MND-6 Pad		

WELLPATH DATA (198 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]
10732.00	90.950	327.810	5846.56	5129.14	4246.89	-2877.20	1634266.54	486770.41	39°49'45.040"N	80°48'08.181"W	5129.75	325.883	3.40	0.35	-3.38
10827.00	90.950	325.100	5844.99	5224.09	4326.05	-2929.68	1634214.06	486649.57	39°49'45.815"N	80°48'08.868"W	5224.73	325.893	2.83	0.00	-2.85
10922.00	91.260	321.970	5843.15	5319.03	4402.43	-2986.13	1634157.62	486525.94	39°49'46.561"N	80°48'09.606"W	5319.62	325.851	3.31	0.33	-3.29
11017.00	91.110	320.780	5841.19	5413.82	4476.63	-3045.41	1634098.33	487000.14	39°49'47.286"N	80°48'10.379"W	5414.31	325.773	1.26	-0.16	-1.25
11112.00	91.230	321.840	5839.25	5508.60	4550.76	-3104.79	1634038.97	487074.27	39°49'48.010"N	80°48'11.154"W	5509.01	325.696	1.12	0.13	-1.12
11207.00	91.230	322.020	5837.21	5603.44	4625.54	-3163.35	1633980.40	487149.04	39°49'48.741"N	80°48'11.918"W	5603.78	325.632	0.19	0.00	0.19
11301.00	91.350	320.180	5835.09	5697.20	4698.67	-3222.36	1633921.40	487222.17	39°49'49.455"N	80°48'12.688"W	5697.47	325.558	1.96	0.13	-1.96
11396.00	91.020	322.280	5833.13	5791.97	4772.72	-3281.84	1633861.93	487296.21	39°49'50.178"N	80°48'13.464"W	5792.17	325.487	2.24	-0.35	-2.21
11490.00	90.830	327.130	5831.61	5885.92	4849.41	-3336.12	1633807.64	487372.90	39°49'50.928"N	80°48'14.174"W	5886.13	325.474	5.16	-0.20	-5.16
11586.00	91.140	330.510	5829.96	5981.68	4931.51	-3385.81	1633757.96	487455.00	39°49'51.732"N	80°48'14.826"W	5981.94	325.528	3.54	0.32	-3.52
11680.00	90.920	330.160	5828.27	6075.26	5013.18	-3433.33	1633711.44	487536.66	39°49'52.533"N	80°48'15.438"W	6075.60	325.602	0.44	-0.23	-0.37
11775.00	91.020	328.590	5826.66	6169.97	5094.92	-3480.71	1633663.06	487618.39	39°49'53.334"N	80°48'16.073"W	6170.38	325.660	1.66	0.11	-1.65
11870.00	90.920	328.090	5825.05	6264.79	5175.77	-3530.57	1633613.21	487699.24	39°49'54.125"N	80°48'16.727"W	6265.26	325.701	0.54	-0.11	-0.53
11965.00	90.860	327.460	5823.58	6359.67	5256.12	-3581.22	1633562.56	487779.59	39°49'54.912"N	80°48'17.391"W	6360.19	325.732	0.67	-0.06	-0.66
12059.00	90.800	326.550	5822.22	6453.60	5334.95	-3632.40	1633511.38	487858.42	39°49'55.684"N	80°48'18.062"W	6454.15	325.750	0.97	-0.06	-0.97
12154.00	90.920	324.950	5820.79	6548.58	5413.47	-3685.86	1633457.92	487936.93	39°49'56.452"N	80°48'18.762"W	6549.14	325.750	1.69	0.13	-1.68
12249.00	90.950	322.880	5819.24	6643.54	5490.23	-3741.81	1633401.98	488013.68	39°49'57.202"N	80°48'19.493"W	6644.07	325.686	2.18	0.03	-2.18
12344.00	90.920	323.200	5817.69	6738.47	5566.13	-3798.92	1633344.87	488089.58	39°49'57.944"N	80°48'20.239"W	6738.96	325.686	0.34	-0.03	-0.34
12438.00	90.860	324.110	5816.23	6832.44	5641.83	-3854.62	1633289.17	488165.28	39°49'58.684"N	80°48'20.967"W	6832.89	325.658	0.97	-0.06	0.97
12533.00	90.740	328.260	5814.90	6927.39	5720.74	-3907.47	1633236.33	488244.18	39°49'59.454"N	80°48'21.659"W	6927.85	325.665	4.37	-0.13	4.37
12628.00	90.830	327.020	5813.60	7022.27	5800.97	-3958.31	1633185.49	488324.41	39°50'00.242"N	80°48'22.326"W	7022.79	325.692	1.31	0.09	-1.31
12722.00	90.740	324.680	5812.31	7116.25	5878.75	-4011.07	1633132.73	488402.18	39°50'01.003"N	80°48'23.017"W	7116.77	325.694	2.49	-0.10	-2.49
12816.00	90.740	322.590	5811.10	7210.21	5954.44	-4066.80	1633077.01	488477.86	39°50'01.743"N	80°48'23.745"W	7210.70	325.667	2.22	0.00	-2.22
12911.00	90.860	321.960	5809.77	7305.09	6029.57	-4124.92	1633018.89	488552.99	39°50'02.477"N	80°48'24.504"W	7305.52	325.623	0.68	0.13	-0.66
13006.00	90.830	321.180	5808.37	7399.91	6103.98	-4183.96	1632959.85	488627.46	39°50'03.204"N	80°48'25.275"W	7400.28	325.571	0.82	-0.03	-0.82
13100.00	90.800	323.270	5807.03	7493.99	6178.27	-4241.53	1632902.28	488701.68	39°50'03.930"N	80°48'26.026"W	7494.11	325.529	2.22	-0.03	2.22
13195.00	90.830	323.560	5805.68	7588.74	6254.54	-4298.15	1632845.67	488777.95	39°50'04.675"N	80°48'26.766"W	7589.03	325.503	0.31	0.03	0.31
13290.00	90.830	324.060	5804.31	7683.71	6331.21	-4354.24	1632789.58	488854.61	39°50'05.425"N	80°48'27.499"W	7683.98	325.482	0.53	0.00	0.53
13385.00	90.770	323.330	5802.98	7778.67	6407.76	-4410.48	1632733.34	488931.16	39°50'06.173"N	80°48'28.235"W	7778.92	325.460	0.77	-0.06	-0.77
13479.00	90.520	323.560	5801.92	7872.63	6483.26	-4466.46	1632677.37	489006.66	39°50'06.911"N	80°48'28.966"W	7872.86	325.436	0.36	0.27	0.24

REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY	Slot	Slot C
Area	Marshall County, WV	Well	MND-6C-HS
Field	Marshall	Wellbore	MND-6C-HS AWP
Facility	MND-6 Pad		

WELLPATH DATA (198 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)
13575.00	90.620	325.750	5800.97	7968.62	6561.56	-4521.99	1632621.84	489084.95	39°50'07.677"N	80°48'29.692"W	7968.84	325.427	2.28	0.10	2.28
13669.00	90.430	328.900	5800.10	8062.53	6640.67	-4572.73	1632571.10	489164.06	39°50'08.451"N	80°48'30.358"W	8062.78	325.449	3.36	-0.20	3.35
13764.00	90.610	329.740	5799.24	8157.25	6722.37	-4621.20	1632522.63	489245.75	39°50'09.252"N	80°48'30.994"W	8157.56	325.494	0.90	0.19	0.88
13859.00	90.890	328.600	5798.00	8251.99	6803.93	-4669.88	1632473.96	489327.31	39°50'10.051"N	80°48'31.633"W	8252.35	325.536	1.24	0.29	-1.20
13954.00	90.860	328.750	5796.55	8346.79	6885.08	-4719.27	1632424.57	489401.45	39°50'10.845"N	80°48'32.281"W	8347.20	325.572	0.16	-0.03	0.16
14048.00	91.320	337.130	5794.76	8439.78	6968.70	-4761.99	1632381.86	489492.07	39°50'11.666"N	80°48'32.845"W	8440.33	325.654	8.93	0.49	8.91
14143.00	91.170	332.110	5792.69	8533.40	7034.48	-4802.68	1632341.17	489577.85	39°50'12.507"N	80°48'33.382"W	8534.13	325.753	5.29	-0.16	-5.28
14237.00	91.140	326.890	5790.80	8627.05	7135.43	-4850.36	1632293.49	489658.79	39°50'13.300"N	80°48'34.009"W	8627.88	325.794	5.55	-0.03	-5.55
14332.00	91.290	323.920	5788.78	8722.02	7213.60	-4904.28	1632239.57	489736.96	39°50'14.065"N	80°48'34.714"W	8722.85	325.790	3.13	0.16	-3.13
14427.00	91.320	319.590	5786.62	8816.82	7288.18	-4963.06	1632186.79	489811.53	39°50'14.794"N	80°48'35.482"W	8817.57	325.746	4.56	0.03	-4.56
14521.00	91.290	317.270	5784.47	8910.17	7358.48	-5025.41	1632118.45	489881.83	39°50'15.479"N	80°48'36.294"W	8910.78	325.669	2.47	-0.03	-2.47
14616.00	90.800	315.610	5782.74	9004.10	7427.31	-5090.87	1632053.00	489950.65	39°50'16.150"N	80°48'37.146"W	9004.54	325.572	1.82	-0.52	-1.75
14710.00	90.800	316.870	5781.43	9096.99	7495.19	-5155.87	1631987.99	490018.53	39°50'16.811"N	80°48'37.992"W	9097.30	325.476	1.34	0.00	1.34
14805.00	90.680	323.340	5780.20	9191.58	7568.03	-5216.77	1631927.10	490091.37	39°50'17.522"N	80°48'38.786"W	9191.83	325.421	6.81	-0.13	6.81
14900.00	90.890	327.060	5778.90	9286.56	7646.02	-5270.97	1631872.90	490169.35	39°50'18.285"N	80°48'39.495"W	9286.81	325.419	3.92	0.22	3.92
14994.00	90.890	326.190	5777.44	9380.51	7724.51	-5322.67	1631821.20	490247.84	39°50'19.053"N	80°48'40.173"W	9380.77	325.431	0.93	0.00	-0.93
15089.00	90.800	327.930	5776.04	9475.43	7804.22	-5374.32	1631769.55	490327.55	39°50'19.834"N	80°48'40.850"W	9475.72	325.447	1.83	-0.09	1.83
15183.00	90.800	327.820	5774.73	9569.30	7883.82	-5424.31	1631719.58	490407.14	39°50'20.613"N	80°48'41.505"W	9569.63	325.471	0.12	0.00	-0.12
15278.00	90.860	324.850	5773.35	9664.26	7962.87	-5476.96	1631666.93	490486.19	39°50'21.387"N	80°48'42.195"W	9664.60	325.479	3.13	0.06	-3.13
15373.00	90.920	324.520	5771.87	9759.24	8040.38	-5531.87	1631612.02	490563.70	39°50'22.145"N	80°48'42.913"W	9759.58	325.472	0.35	0.06	-0.35
15468.00	90.890	325.570	5770.37	9854.23	8118.24	-5586.29	1631557.60	490641.54	39°50'22.906"N	80°48'43.625"W	9854.56	325.468	1.11	-0.03	1.11
15563.00	91.200	337.600	5768.63	9948.42	8201.62	-5631.40	1631512.49	490724.93	39°50'23.724"N	80°48'44.219"W	9948.83	325.526	12.67	0.33	12.66
15658.00	91.450	334.270	5766.44	10041.65	8288.33	-5670.13	1631473.77	490811.63	39°50'24.575"N	80°48'44.732"W	10042.25	325.624	3.51	0.26	-3.51
15753.00	91.480	324.850	5764.00	10136.21	8370.12	-5718.19	1631425.71	490893.41	39°50'25.376"N	80°48'45.363"W	10136.89	325.660	9.91	0.03	-9.92
15847.00	91.480	320.210	5761.57	10230.07	8444.68	-5775.34	1631368.57	490967.97	39°50'26.105"N	80°48'46.110"W	10230.69	325.632	4.93	0.00	-4.94
15942.00	91.350	319.030	5759.23	10324.62	8517.02	-5836.86	1631307.04	491040.31	39°50'26.811"N	80°48'46.912"W	10325.14	325.576	1.25	-0.14	-1.24
16036.00	90.800	319.850	5757.46	10418.16	8588.42	-5897.97	1631245.93	491111.70	39°50'27.507"N	80°48'47.709"W	10418.59	325.521	1.05	-0.59	0.87
16130.00	90.800	318.280	5756.15	10511.65	8659.42	-5959.55	1631184.36	491182.70	39°50'28.200"N	80°48'48.511"W	10511.99	325.464	1.67	0.00	-1.67
16225.00	90.830	320.000	5754.80	10606.14	8731.26	-6021.70	1631122.22	491254.54	39°50'28.901"N	80°48'49.321"W	10606.40	325.407	1.81	0.03	1.81
16320.00	90.460	322.210	5753.73	10700.90	8805.19	-6081.34	1631062.53	491328.46	39°50'29.623"N	80°48'50.100"W	10701.13	325.369	2.36	-0.39	2.33



Actual Wellpath Report
MIND-6C-HS AWP Proj: 17895'
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02/03/2017

REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY	Slot	Slot C
Area	Marshall County, WV	Well	MIND-6C-HS
Field	Marshall	Wellbore	MIND-6C-HS AWP
Facility	MIND-6 Pad		

WELLPATH DATA (198 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]
16415.00	91.020	323.290	5752.50	10795.82	8880.81	-6138.84	1631005.09	491404.07	39°50'30.362"N	80°48'50.851"W	10796.02	325.346	1.28	0.59	1.14
16510.00	91.230	327.470	5750.64	10890.78	8958.95	-6192.79	1630951.14	491482.21	39°50'31.126"N	80°48'51.557"W	10890.98	325.346	4.40	0.22	4.40
16605.00	91.290	327.480	5748.55	10985.67	9039.03	-6243.85	1630900.08	491562.29	39°50'31.910"N	80°48'52.227"W	10985.89	325.365	0.06	0.06	0.01
16700.00	91.290	323.420	5746.41	11080.62	9117.24	-6297.70	1630846.23	491640.49	39°50'32.675"N	80°48'52.932"W	11080.85	325.365	4.27	0.00	-4.27
16794.00	91.170	323.830	5744.39	11174.57	9192.91	-6353.44	1630790.49	491716.16	39°50'33.415"N	80°48'53.660"W	11174.78	325.351	0.45	-0.13	0.44
16889.00	91.050	325.460	5742.55	11269.55	9270.37	-6408.40	1630735.54	491793.61	39°50'34.172"N	80°48'54.379"W	11269.75	325.345	1.72	-0.13	1.72
16984.00	91.200	325.580	5740.69	11364.53	9348.67	-6462.17	1630681.77	491871.91	39°50'34.938"N	80°48'55.083"W	11364.73	325.346	0.20	0.16	0.13
17079.00	91.110	326.530	5738.77	11459.49	9427.46	-6515.21	1630628.74	491950.69	39°50'35.709"N	80°48'55.778"W	11459.71	325.352	1.00	-0.09	1.00
17173.00	90.620	329.300	5737.35	11553.35	9507.08	-6565.13	1630578.82	492030.32	39°50'36.489"N	80°48'56.433"W	11553.59	325.373	2.99	-0.52	2.95
17268.00	90.680	328.850	5736.27	11648.10	9588.57	-6613.94	1630530.00	492111.80	39°50'37.287"N	80°48'57.074"W	11648.39	325.403	0.48	0.06	-0.47
17362.00	90.710	327.040	5735.13	11741.97	9668.23	-6663.83	1630480.12	492191.46	39°50'38.067"N	80°48'57.728"W	11742.29	325.423	1.93	0.03	-1.93
17457.00	90.680	325.650	5733.98	11836.93	9747.30	-6716.47	1630427.48	492270.52	39°50'38.841"N	80°48'58.418"W	11837.27	325.431	1.46	-0.03	-1.46
17552.00	90.710	323.170	5732.83	11931.91	9824.55	-6771.75	1630372.21	492347.76	39°50'39.596"N	80°48'59.141"W	11932.24	325.423	2.61	0.03	-2.61
17647.00	90.800	322.140	5731.58	12026.82	9900.06	-6829.37	1630314.59	492423.27	39°50'40.334"N	80°48'59.894"W	12027.12	325.401	1.09	0.09	-1.08
17741.00	90.460	321.200	5730.54	12120.66	9973.80	-6887.67	1630256.30	492497.00	39°50'41.054"N	80°49'00.655"W	12120.91	325.377	1.06	-0.36	-1.00
17836.00	90.460	320.420	5729.78	12215.40	10047.42	-6947.69	1630196.27	492570.62	39°50'41.773"N	80°49'01.438"W	12215.61	325.337	0.82	0.00	-0.82
17870.00	90.400	320.750	5729.52	12249.30	10073.69	-6969.28	1630174.69	492596.89	39°50'42.029"N	80°49'01.720"W	12249.49	325.323	0.99	-0.18	0.97
17895.00	90.400	320.750	5729.35	12274.23	10093.05	-6985.10	1630158.87	492616.25	39°50'42.218"N	80°49'01.926"W	12274.41	325.314	0.00	0.00	0.00

Actual Wellpath Report

MNND-6C-HS AWP Proj: 17895'
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REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY	Slot	Slot C
Area	Marshall County, WV	Well	MNND-6C-HS
Field	Marshall	Wellbore	MNND-6C-HS AWB
Facility	MNND-6 Pad		

TARGETS

Name	MD [ft]	TVDD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
MNND-6C-HS BHL Rev-2		5734.56	10099.18	-6977.48	1630166.49	492622.38	39°50'42.280"N	80°49'01.830"W	point
MNND-6C-HS LP Rev-2		5917.00	585.91	-316.21	1636827.39	483109.64	39°49'09.229"N	80°47'34.684"W	point
MNND-6 Pad LL		6499.89	7.74	29.08	1637172.66	482531.50	39°49'03.564"N	80°47'30.152"W	polygon

WELLPATH COMPOSITION - Ref Wellbore: MNND-6C-HS AWB Rel Wellpath: MNND-6C-HS AWP Proj: 17895'

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
26.00	260.00	Generic gyro - northseeking (Standard)	01_Gyro <14-3/4"> (50'-260')	MNND-6C-HS AWB
260.00	616.00	ISCWSA MWD, Rev. 2 (Standard)	02_APS EM <14-3/4"> (260')(311'-616') Proj: 758'	MNND-6C-HS AWB
616.00	2006.00	ISCWSA MWD, Rev. 2 (Standard)	03_APS EM <12-1/4"> (616')(758'-2006') Proj: 2062'	MNND-6C-HS AWB
2006.00	4792.00	NavITrak (MagCorr)	04_BHI MWD <8-3/4"> (2006')(2139'-4792')	MNND-6C-HS AWB
4792.00	17870.00	NavITrak (AT Curve Short Spaced)	05_BHI AT Curve <8-3/4"> (4792')(4824'-17870') Projection to bit	MNND-6C-HS AWB
17870.00	17895.00	Blind Drilling (std)		MNND-6C-HS AWB



Actual Wellpath Report
 MNND-6C-HS AWP Proj: 17895'
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REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY	Slot	Slot C
Area	Marshall County, WV	Well	MNND-6C-HS
Field	Marshall	Wellbore	MNND-6C-HS AWP
Facility	MND-6 Pad		

COMMENTS

Wellpath general comments
 API: 47-051-01745-0000
 BHI Job #: 6650270A
 Rig: Normac 79
 Duration: 10/23/2014-10/30/2014
 Gyro <14-3/4"> (50'-260')
 APS EM <14-3/4"> (260')(311'-616')
 APS EM <12-1/4"> (616')(758'-2006')
 BHI MWD <8-3/4"> (2006')(2139'-4792')
 BHI AT Curve <8-3/4"> (4792')(4824'-17870')
 Projected MD at TD: 17895'

RECEIVED
 Office of Oil and Gas
 JAN 12 2015
 WV Department of
 Environmental Protection
BAKER Hughes
 02/03/2017

Location: Marshall County, WV
 Field: Marshall
 Facility: MND-6 Pad

Slot: Slot C
 Well: MND-6C-HS
 Wellbore: MND-6C-HS PWB

Facility Name		Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
MND-6 Pad		1537177.780	482512.230	39°49'03.375"N	80°47'30.083"W
Slot C		Local N (ft)	Grid East (US ft)	Latitude	Longitude
Slot C		11.53	1537143.580	39°49'03.464"N	80°47'30.524"W
Mean Sea Level to Mud line (M Slot: Slot C)		2561			
Nommer 79 (RKG) to Mean Sea Level		746.87ft			

Location Information

True vertical depth are referenced to Nommer 79 (RKG)	Grid System: NAD27 / Lambert West Virginia Spher. Meridian Zone (1793), US Feet
Measured depths are referenced to Nommer 79 (RKG)	North Reference: Grid North
Nommer 79 (RKG) to Mean Sea Level: 746.87 feet	Scale: True distance
Mean Sea Level to Mud line (M Slot: Slot C): -721.87 feet	Display area in feet
Coordinates are in feet referenced to Slot	Created by: cadogan on 1/16/2014

