



NOBLE ENERGY

Location: Gilmer County, WV
 Field: Gilmer
 Facility: Norm Pad

Slot: Slot #1H
 Well: Norm 1H
 Wellbore: Norm 1H (PWP)



Location Information

Facility Name		Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	
Norm Pad		2015441.000	673234.000	38°50'55.740"N	80°56'44.830"W	
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Slot #1H	-53.02	28.97	2015470.000	673181.000	38°50'55.216"N	80°56'44.484"W
Precision 542 (RKB) to Mud line (AI Slot: Slot #1H)				18ft		
Mean Sea Level to Mud line (AI Slot: Slot #1H)				-810ft		
Precision 542 (RKB) to Mean Sea Level				828ft		

Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (Y100ft)	VS (ft)
Tie On	5587.00	25.700	134.100	5488.90	226.56	735.59	0.00	25.27
End of Tangent	5768.00	25.700	134.100	5648.20	172.54	791.33	0.00	94.50
End of 3D Arc	6303.11	69.873	165.750	5924.17	-215.79	961.69	12.70	517.13
End of Tangent	6560.42	69.873	165.750	5924.96	-562.11	1049.84	0.00	873.21
LP	6694.43	90.000	161.500	5925.00	-594.73	1059.23	12.50	907.18
PBHL	12094.44	90.000	161.500	5925.00	-5715.68	2772.68	0.00	6306.98

Targets

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Norm 1H Target Rev-1	1706.51	135.23	776.84	201826.76	67316.52	38°50'28.932"N	80°56'34.720"W	
Norm 1H LP Rev-3	6694.43	5625.00	-534.73	1059.23	201826.87	672238.90	38°50'45.337"N	80°50'31.078"W
Norm 1H PBHL Rev-2	12094.44	5925.00	-5715.68	2772.68	201826.00	673487.00	38°49'58.717"N	80°56'09.426"W
Norm 1H LP Rev-1	6629.80	447.24	1013.05	201840.36	673733.86	38°50'50.790"N	80°48'31.897"W	
Norm 1H PBHL Rev-1	6329.00	4715.68	2772.68	201826.00	673487.00	38°49'58.717"N	80°56'09.426"W	
Norm 1H PBHL Pad	8130.00	4715.68	2772.68	201826.00	673487.00	38°49'58.717"N	80°56'09.426"W	

Hole and Casing Sections

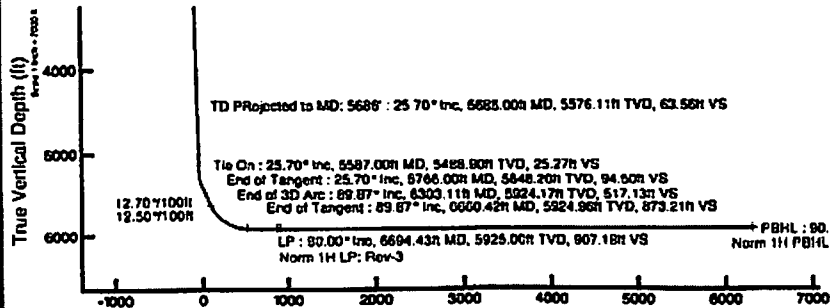
Name	Start MD (ft)	End MD (ft)	Interval (ft)	Start TVD (ft)	End TVD (ft)	Start Local N (ft)	Start Local E (ft)	End Local N (ft)	End Local E (ft)	Wellbore
13.375in Casing Surface	18.00	460.00	442.00	18.00	449.88	0.00	0.00	7.26	-3.71	Norm 1H (PWP)
8.625in Casing Intermediate	18.00	5625.30	5607.30	18.00	5709.08	0.00	0.00	151.14	812.38	Norm 1H (PWP)
8.75in Open Hole	6329.20	12094.44	6265.23	5728.00	6325.00	151.14	812.38	-3715.68	2772.68	Norm 1H (PWP)

Bottom Hole Location

MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
12094.44	90.000	161.500	5925.00	-5715.68	2772.68	201826.00	673487.00	38°49'58.717"N	80°56'09.426"W

Tie-On Position

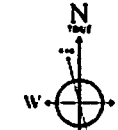
MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
5587.00	25.700	134.100	5488.90	226.56	735.59	201826.43	673427.58	38°50'57.415"N	80°54'25.166"W



Azimuth 161.00° with reference 0.00 N, 0.00 E

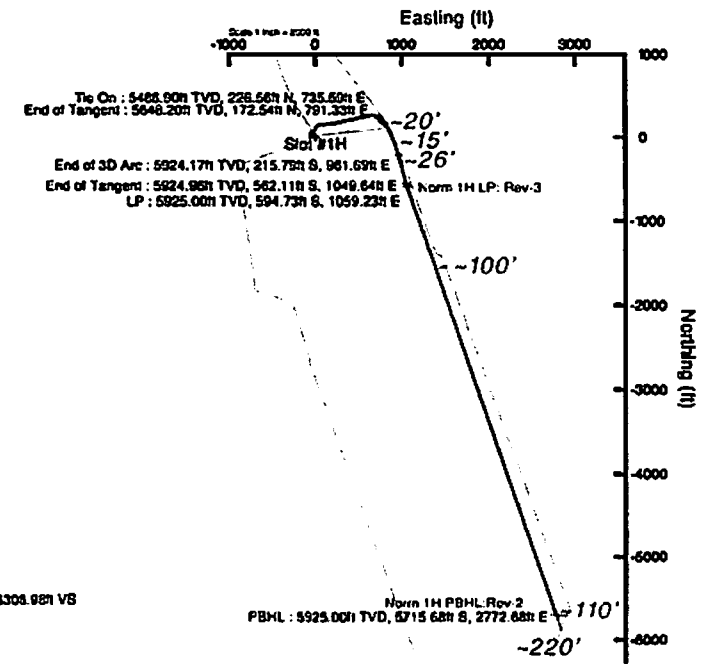
Plot reference wellpath is Norm 1H (PWP) Rev-C.0

True vertical depths are referenced to Precision 542 (P52)	Grid System: NAD83 / Lambert West Virginia CP, Southern Zone (4702), US feet
Measured depths are referenced to Precision 542 (RKB)	North Reference: True north
Precision 542 (P52) to Mean Sea Level 828 feet	Scale: True distance
Mean Sea Level to Mud line (AI Slot: Slot #1H): -810 feet	Depths are in feet
Coordinates are in feet referenced to 500	Created by Model on 22/Jan/2012



82234 (1645.6 to 2014 ft) Dip: 66.81° Inc: 62223.2 at
 Magnetic North is 8.18 degrees West of True North on 12/4/2012

To correct azimuth from Magnetic to True subtract 8.18 degrees
 For example: if the Magnetic North Azimuth = 80 degrees, then the True North Azimuth = 80 - 8.18 = 71.82



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Actual Wellpath Report

Norm 1H (AWP) [Curve]Proj:
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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY	Slot	Slot #1H
Area	Gilmer County, WV	Well	Norm 1H
Field	Gilmer	Wellbore	Norm 1H AWB
Facility	Norm Pad		

REPORT SETUP INFORMATION			
Projection System	NAD27 / Lambert West Virginia SP, Southern Zone (4702), US feet	Software System	WellArchitect@ 3.0.0
North Reference	True	User	Pricegeon
Scale	0.999993	Report Generated	3/7/2013 at 8:48:00 PM
Convergence at slot	0.03° East	Database/Source file	WellArchitectDB/Norm_1H_AWB.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-53.02	28.97	2015470.00	673181.00	38°50'55.216"N	80°56'44.464"W
Facility Reference Pt			2015441.00	673234.00	38°50'55.740"N	80°56'44.830"W
Field Reference Pt			0.00	0.00	36°47'50.602"N	87°50'06.103"W

WELLPATH DATUM			
Calculation method	Minimum curvature	Precision 542 (RKB) to Facility Vertical Datum	18.00ft
Horizontal Reference Pt	Slot	Precision 542 (RKB) to Mean Sea Level	828.00ft
Vertical Reference Pt	Precision 542 (RKB)	Precision 542 (RKB) to Mud Line at Slot (Slot #1H)	18.00ft
MD Reference Pt	Precision 542 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	161.00°



Actual Wellpath Report

Norm 1H (AWP) [Curve]Proj:
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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY	Slot	Slot #1H
Area	Gilmer County, WV	Well	Norm 1H
Field	Gilmer	Wellbore	Norm 1H AWB
Facility	Norm Pad		

WELLPATH DATA (202 stations) † = interpolated/extrapolated station							
MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	DLS (%/100ft)
0.00†	0.000	21.760	0.00	0.00	0.00	0.00	0.00
18.00	0.000	21.760	18.00	0.00	0.00	0.00	0.00
87.00	0.960	21.760	87.00	-0.44	0.54	0.21	1.39
117.00	1.640	5.230	116.99	-1.02	1.20	0.35	2.57
217.00	0.870	12.740	216.96	-2.97	3.36	0.64	0.79
304.00	1.110	333.590	303.95	-4.37	4.76	0.42	0.81
401.00	2.170	295.870	400.91	-6.60	6.41	-1.66	1.50
440.00	2.860	291.720	439.88	-7.75	7.09	-3.22	1.83
485.00	3.900	278.900	484.80	-9.20	7.74	-5.78	2.84
516.00	4.900	273.100	515.71	-10.19	7.97	-8.14	3.53
548.00	6.200	271.600	547.56	-11.31	8.10	-11.23	4.09
611.00	7.800	268.600	610.08	-13.80	8.09	-18.91	2.60
706.00	9.700	266.100	703.97	-17.84	7.39	-33.34	2.04
738.00	10.400	265.600	735.48	-19.27	6.98	-38.91	2.20
769.00	10.000	268.700	765.99	-20.79	6.70	-44.39	2.19
801.00	8.900	273.000	797.56	-22.56	6.77	-49.64	4.08
832.00	7.400	282.200	828.25	-24.50	7.32	-53.99	6.40
864.00	6.600	299.700	860.01	-26.95	8.67	-57.60	7.08
896.00	6.500	317.600	891.81	-29.99	10.91	-60.42	6.36
927.00	7.300	333.300	922.58	-33.55	13.97	-62.49	6.58
959.00	8.300	343.800	954.29	-37.87	18.00	-64.04	5.43
990.00	9.200	349.400	984.93	-42.56	22.59	-65.12	3.99
1022.00	9.900	358.500	1016.49	-47.72	27.85	-65.67	5.19
1054.00	10.400	8.000	1047.99	-52.91	33.46	-65.34	5.45
1085.00	10.900	17.200	1078.46	-57.77	39.04	-64.08	5.71
1117.00	11.500	29.200	1109.85	-62.34	44.71	-61.63	7.51
1148.00	11.800	37.500	1140.21	-66.15	49.92	-58.19	5.49
1180.00	11.700	44.200	1171.54	-69.42	54.85	-53.94	4.27
1212.00	12.000	52.700	1202.87	-71.93	59.19	-49.03	5.53
1243.00	12.400	57.500	1233.17	-73.71	62.93	-43.66	3.52
1275.00	12.500	60.900	1264.41	-75.12	66.46	-37.73	2.31
1306.00	12.100	61.800	1294.70	-76.23	69.63	-31.94	1.43
1338.00	11.100	59.200	1326.05	-77.40	72.79	-26.34	3.53
1370.00	10.200	55.600	1357.50	-78.78	75.97	-21.35	3.50
1401.00	9.100	48.400	1388.06	-80.45	79.15	-17.26	5.26
1465.00	7.900	33.000	1451.36	-85.10	86.20	-11.07	4.00
1559.00	8.800	17.900	1544.38	-94.83	98.46	-5.35	2.51
1649.00	9.900	20.700	1633.18	-106.29	112.25	-0.49	1.32
1738.00	11.000	35.100	1720.72	-117.16	126.35	7.09	3.17
1783.00	11.600	40.900	1764.85	-121.95	133.29	12.53	2.85
1828.00	10.100	49.800	1809.04	-125.64	139.25	18.50	4.99
1873.00	7.800	58.200	1853.50	-127.73	143.41	24.11	5.87
1918.00	7.000	65.000	1898.12	-128.71	146.18	29.19	2.63
1962.00	6.700	71.500	1941.81	-128.97	148.12	34.06	1.89
2007.00	7.200	76.900	1986.48	-128.63	149.60	39.29	1.83



Actual Wellpath Report

Norm 1H (AWP) [Curve]Proj:
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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY	Slot	Slot #1H
Area	Gilmer County, WV	Well	Norm 1H
Field	Gilmer	Wellbore	Norm 1H AWB
Facility	Norm Pad		

WELLPATH DATA (202 stations)							
MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	DLS (%/100ft)
2052.00	8.500	82.400	2031.06	-127.71	150.68	45.34	3.33
2097.00	9.600	87.200	2075.50	-126.00	151.30	52.38	2.96
2142.00	10.500	88.800	2119.80	-123.70	151.57	60.23	2.09
2186.00	11.100	91.100	2163.02	-121.02	151.57	68.47	1.68
2231.00	11.800	91.600	2207.13	-117.91	151.36	77.40	1.57
2276.00	11.400	86.600	2251.21	-115.10	151.49	86.44	2.40
2321.00	11.500	83.800	2295.32	-112.91	152.24	95.34	1.25
2366.00	11.600	76.800	2339.41	-111.46	153.76	104.20	3.12
2410.00	12.000	74.400	2382.48	-110.74	156.00	112.92	1.44
2455.00	12.400	73.000	2426.46	-110.29	158.67	122.04	1.11
2500.00	13.000	73.100	2470.36	-109.94	161.56	131.51	1.33
2545.00	12.600	78.700	2514.24	-109.10	163.99	141.16	2.90
2590.00	11.600	84.700	2558.24	-107.37	165.37	150.48	3.57
2635.00	11.400	90.400	2602.34	-104.82	165.76	159.43	2.56
2679.00	11.600	93.200	2645.46	-101.70	165.48	168.20	1.35
2724.00	10.900	92.200	2689.59	-98.45	165.06	176.97	1.61
2769.00	10.700	90.100	2733.80	-95.55	164.89	185.40	0.98
2814.00	10.200	82.600	2778.05	-93.38	165.40	193.53	3.22
2859.00	10.300	78.200	2822.34	-92.07	166.73	201.42	1.75
2904.00	10.600	75.600	2866.59	-91.24	168.59	209.36	1.24
2948.00	11.100	73.900	2909.80	-90.70	170.77	217.35	1.35
2993.00	11.300	74.400	2953.95	-90.22	173.15	225.76	0.49
3038.00	11.800	75.600	2998.03	-89.59	175.48	234.46	1.23
3083.00	12.300	76.200	3042.04	-88.79	177.77	243.57	1.15
3121.00	12.700	78.600	3079.14	-87.87	179.56	251.60	1.73
3177.00	12.900	72.660	3133.75	-86.87	182.64	263.60	2.38
3222.00	12.140	81.290	3177.69	-85.88	184.86	273.07	4.48
3267.00	11.620	80.310	3221.72	-84.30	186.33	282.22	1.24
3312.00	10.450	82.020	3265.89	-82.79	187.66	290.73	2.70
3357.00	10.070	80.960	3310.17	-81.33	188.85	298.66	0.94
3401.00	10.120	79.030	3353.49	-80.12	190.19	306.23	0.78
3446.00	10.700	78.980	3397.75	-78.99	191.74	314.23	1.29
3491.00	10.980	79.170	3441.95	-77.80	193.34	322.54	0.63
3536.00	11.120	76.630	3486.11	-76.77	195.15	330.97	1.13
3581.00	11.240	75.510	3530.26	-76.00	197.25	339.44	0.55
3625.00	11.420	73.950	3573.40	-75.43	199.53	347.78	0.81
3670.00	11.220	74.330	3617.52	-74.95	201.94	356.27	0.47
3715.00	10.310	78.400	3661.73	-74.18	203.94	364.43	2.63
3805.00	9.640	77.810	3705.37	-72.25	207.15	379.69	0.75
3894.00	9.350	75.310	3838.15	-70.82	210.55	393.97	0.57
3984.00	9.500	75.910	3926.94	-69.64	214.22	408.24	0.20
4073.00	10.590	80.640	4014.57	-67.64	217.33	423.44	1.54
4118.00	10.960	81.890	4058.78	-66.14	218.61	431.75	0.97
4163.00	11.050	80.510	4102.95	-64.62	219.93	440.24	0.62
4253.00	10.590	74.210	4191.36	-62.73	223.60	456.71	1.41



Actual Wellpath Report

Norm 1H (AWP) [Curve]Proj:
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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY	Slot	Slot #1H
Area	Gilmer County, WV	Well	Norm 1H
Field	Gilmer	Wellbore	Norm 1H AWB
Facility	Norm Pad		

WELLPATH DATA (202 stations)							
MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	DLS (%/100ft)
4298.00	10.600	70.860	4235.59	-62.51	226.08	464.59	1.37
4343.00	10.690	69.970	4279.81	-62.59	228.87	472.43	0.42
4387.00	11.030	69.170	4323.03	-62.80	231.76	480.19	0.85
4432.00	11.170	71.360	4367.18	-62.91	234.69	488.35	0.99
4477.00	10.980	76.430	4411.35	-62.48	237.08	496.64	2.20
4522.00	10.780	79.030	4455.54	-61.48	238.89	504.94	1.18
4566.00	10.730	79.950	4498.77	-60.27	240.39	513.01	0.41
4611.00	10.670	80.580	4542.98	-58.93	241.80	521.25	0.29
4656.00	10.900	78.420	4587.19	-57.68	243.34	529.53	1.03
4701.00	11.290	79.180	4631.35	-56.51	245.02	538.02	0.93
4791.00	11.560	81.570	4719.57	-53.60	247.99	555.59	0.61
4880.00	11.610	80.330	4806.75	-50.51	250.81	573.24	0.29
4925.00	11.150	77.280	4850.87	-49.30	252.52	581.95	1.68
4970.00	11.030	76.490	4895.03	-48.41	254.49	590.38	0.43
5059.00	10.070	73.680	4982.52	-47.23	258.66	606.13	1.22
5149.00	9.010	71.020	5071.28	-46.86	263.17	620.34	1.28
5183.00	9.020	67.330	5104.86	-47.03	265.06	625.32	1.70
5228.00	9.600	70.970	5149.26	-47.26	267.64	632.12	1.84
5273.00	10.920	76.240	5193.55	-46.87	269.88	639.81	3.60
5318.00	13.530	85.870	5237.53	-45.13	271.27	649.20	7.34
5363.00	16.560	95.650	5280.99	-41.11	271.02	660.84	8.76
5408.00	19.870	108.070	5323.74	-33.82	268.02	674.50	11.30
5453.00	23.260	116.770	5365.60	-22.83	261.64	689.71	10.34
5497.00	25.040	124.300	5405.75	-9.14	252.47	705.17	8.08
5542.00	25.880	129.230	5446.39	6.85	240.90	720.64	5.06
5587.00	25.700	134.100	5486.91	23.90	227.89	735.26	4.72
5680.00	26.740	140.410	5570.35	61.48	197.73	763.08	3.20
5744.00	29.180	141.470	5626.88	89.66	174.43	781.98	3.89
5789.00	35.360	143.750	5664.91	112.46	155.32	796.53	14.00
5834.00	43.480	145.140	5699.65	139.84	132.08	813.10	18.15
5879.00	51.070	146.720	5730.16	171.74	104.70	831.58	17.06
5924.00	57.630	151.520	5756.38	207.50	73.32	850.28	16.95
5969.00	62.480	154.770	5778.84	246.11	38.54	867.86	12.46
6013.00	65.340	158.700	5798.20	285.50	2.24	883.45	10.32
6058.00	67.660	160.940	5816.14	326.76	-36.49	897.67	6.89
6103.00	71.690	161.970	5831.77	368.94	-76.49	911.09	9.21
6148.00	75.630	162.440	5844.43	412.11	-117.60	924.28	8.81
6192.00	79.600	163.360	5853.86	455.03	-158.67	936.91	9.25
6237.00	80.110	163.560	5861.79	499.31	-201.13	949.52	1.21
6282.00	80.650	163.130	5869.31	543.64	-243.64	962.24	1.53
6327.00	81.330	163.570	5876.35	588.04	-286.22	974.97	1.79
6372.00	83.260	163.570	5882.39	632.59	-328.99	987.59	4.29
6417.00	83.860	163.020	5887.44	677.27	-371.82	1000.44	1.80
6461.00	84.400	163.190	5891.93	721.01	-413.70	1013.16	1.29
6506.00	84.760	162.920	5896.19	765.78	-456.55	1026.22	1.00



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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY	Slot	Slot #1H
Area	Gilmer County, WV	Well	Norm 1H
Field	Gilmer	Wellbore	Norm 1H AWB
Facility	Norm Pad		

WELLPATH DATA (202 stations)							
MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	DLS (%/100ft)
6551.00	85.350	163.160	5900.06	810.58	-499.43	1039.29	1.41
6596.00	85.960	162.510	5903.47	855.43	-542.30	1052.54	1.98
6640.00	85.930	161.820	5906.59	899.31	-584.08	1065.98	1.57
6685.00	86.640	161.480	5909.50	944.21	-626.71	1080.12	1.75
6730.00	86.990	160.980	5912.00	989.14	-669.25	1094.57	1.35
6775.00	87.350	160.280	5914.22	1034.09	-711.65	1109.48	1.75
6820.00	87.540	159.470	5916.23	1079.03	-753.86	1124.95	1.85
6862.00	87.840	158.760	5919.92	1120.98	-793.07	1139.91	1.83
6899.00	88.400	160.440	5919.14	1157.94	-827.73	1152.80	4.78
6962.00	88.620	162.960	5920.77	1220.91	-887.51	1172.57	4.01
7057.00	88.340	164.520	5923.29	1315.77	-978.68	1199.16	1.67
7152.00	88.800	163.670	5925.67	1410.60	-1070.01	1225.19	1.02
7246.00	88.640	163.910	5927.76	1504.46	-1160.25	1251.42	0.31
7341.00	84.050	161.470	5933.82	1599.20	-1250.74	1279.61	5.47
7436.00	83.800	161.500	5943.87	1693.66	-1340.31	1309.61	0.27
7531.00	88.060	161.370	5950.62	1788.40	-1430.12	1339.78	4.49
7625.00	91.600	160.390	5950.89	1882.38	-1518.92	1370.56	3.91
7720.00	91.810	159.240	5948.07	1977.31	-1608.05	1403.32	1.23
7815.00	90.060	161.530	5946.52	2072.29	-1697.51	1435.21	3.03
7910.00	89.880	162.680	5946.57	2167.27	-1787.91	1464.40	1.23
8005.00	90.590	161.700	5946.18	2262.24	-1878.36	1493.45	1.27
8094.00	90.680	161.870	5945.19	2351.23	-1962.89	1521.27	0.22
8184.00	90.860	160.870	5943.98	2441.22	-2048.17	1550.02	1.13
8273.00	89.260	161.120	5943.89	2530.22	-2132.31	1579.00	1.82
8363.00	88.800	162.270	5945.41	2620.19	-2217.75	1607.26	1.38
8453.00	89.200	161.930	5946.98	2710.16	-2303.38	1634.92	0.58
8542.00	87.840	162.500	5949.28	2799.11	-2388.09	1662.10	1.66
8632.00	87.690	161.960	5952.79	2889.02	-2473.73	1689.54	0.62
8721.00	87.810	162.120	5956.29	2977.94	-2558.33	1716.97	0.22
8811.00	89.260	162.170	5958.59	3067.89	-2643.97	1744.55	1.61
8901.00	90.400	161.110	5958.85	3157.88	-2729.38	1772.90	1.73
8990.00	91.750	159.830	5957.18	3246.86	-2813.24	1802.64	2.09
9080.00	91.880	159.320	5954.33	3336.78	-2897.54	1834.04	0.58
9170.00	92.460	159.650	5950.92	3426.69	-2981.77	1865.56	0.74
9259.00	92.490	159.280	5947.08	3515.57	-3065.04	1896.75	0.42
9349.00	91.630	160.530	5943.85	3605.49	-3149.50	1927.65	1.69
9438.00	89.780	161.340	5942.75	3694.48	-3233.61	1956.71	2.27
9528.00	89.720	163.020	5943.14	3784.46	-3319.29	1984.25	1.87
9617.00	87.540	162.930	5945.27	3873.38	-3404.36	2010.30	2.45
9707.00	87.910	162.600	5948.84	3963.26	-3490.25	2036.95	0.55
9796.00	88.220	161.360	5951.85	4052.20	-3574.84	2064.47	1.44
9886.00	88.340	160.480	5954.55	4142.16	-3659.85	2093.87	0.99
9975.00	89.260	160.550	5956.41	4231.13	-3743.74	2123.55	1.04
10065.00	89.290	161.720	5957.55	4321.12	-3828.89	2152.65	1.30
10155.00	87.160	161.590	5960.34	4411.07	-3914.27	2180.96	2.37



Actual Wellpath Report

Norm 1H (AWP) [Curve]Proj:

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY	Slot	Slot #1H
Area	Gilmer County, WV	Well	Norm 1H
Field	Gilmer	Wellbore	Norm 1H AWB
Facility	Norm Pad		

WELLPATH DATA (202 stations)							
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]
10244.00	87.040	161.780	5964.84	4499.95	-3998.66	2208.89	0.25
10334.00	86.950	161.540	5969.56	4589.82	-4083.97	2237.17	0.28
10424.00	90.490	162.980	5971.57	4679.76	-4169.65	2264.58	4.25
10513.00	90.550	162.680	5970.76	4768.71	-4254.68	2290.85	0.34
10603.00	90.680	161.390	5969.80	4858.69	-4340.29	2318.61	1.44
10693.00	91.290	161.790	5968.25	4948.67	-4425.67	2347.03	0.81
10782.00	90.310	162.780	5967.01	5037.63	-4510.44	2374.11	1.57
10872.00	89.940	162.330	5966.81	5127.60	-4596.30	2401.09	0.65
10962.00	91.050	162.540	5966.03	5217.57	-4682.09	2428.25	1.26
11051.00	89.510	163.270	5965.60	5306.51	-4767.16	2454.41	1.91
11141.00	90.180	163.270	5965.84	5396.44	-4853.35	2480.32	0.74
11231.00	88.250	161.910	5967.08	5486.39	-4939.21	2507.24	2.62
11320.00	88.460	162.190	5969.63	5575.34	-5023.84	2534.66	0.39
11410.00	88.490	162.380	5972.03	5665.29	-5109.55	2562.03	0.21
11499.00	88.030	161.270	5974.73	5754.24	-5194.07	2589.78	1.35
11589.00	88.090	160.880	5977.78	5844.18	-5279.15	2618.95	0.44
11678.00	88.860	160.790	5980.14	5933.15	-5363.19	2648.16	0.87
11768.00	89.040	160.540	5981.79	6023.13	-5448.10	2677.95	0.34
11858.00	89.170	160.320	5983.20	6113.12	-5532.89	2708.10	0.28
11948.00	89.630	160.950	5984.14	6203.11	-5617.79	2737.94	0.87
12001.00	89.820	160.430	5984.40	6256.11	-5667.81	2755.46	1.04
12053.00	89.820	160.430	5984.56	6308.11	-5716.80	2772.88	0.00

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Norm 1H PBHL:Rev-6		6004.00	-5715.68	2772.68	2018246.00	667467.00	38°49'58.717"N	80°56'09.426"W	point

WELLPATH COMPOSITION - Ref Wellbore: Norm 1H AWB Ref Wellpath: Norm 1H (AWP) [Curve]Proj:				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
18.00	440.00	Generic gyro - northseeking (Standard)	VES Gyro Surveys <87-440>	Norm 1H AWB
440.00	5587.00	NaviTrak (MagCorr)	BHI MWD Surveys (440')(485'-5587')	Norm 1H AWB
5587.00	12001.00	NaviTrak (Standard)	BHI MWD Surveys Curve (5587')(5680'-xx')	Norm 1H AWB
12001.00	12053.00	Blind Drilling (std)	Projection to bit	Norm 1H AWB