



Actual Wellpath Report

Simms 5H (AWP) Proj: 11492'

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REFERENCE WELLPATH IDENTIFICATION

Operator	GASTAR EXPLORATION USA, INC.	Slot	Slot #5
Area	Marshall County, WV	Well	Simms 5H
Field	Marshall	Wellbore	Simms 5H (AWB)
Facility	Simms Unit		

REPORT SETUP INFORMATION

Projection System	NAD83 / UTM Zone 17 North, US feet	Software System	WellArchitect@ 4.0.1
North Reference	Grid	User	Kroschr
Scale	0.999605	Report Generated	13/Jun/2014 at 15:02
Convergence at slot	0.15° East	Database/Source file	WA_Pennsylvania/Simms_5H_AWB_.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-2.23	26.25	1704991.90	14434315.80	39°44'45.493"N	80°46'12.955"W
Facility Reference Pt			1704965.66	14434318.03	39°44'45.516"N	80°46'13.291"W
Field Reference Pt			0.00	0.00	0°00'00.000"	85°29'19.478"W

WELLPATH DATUM

Calculation method	Minimum curvature	Nomac 323 (RT) to Facility Vertical Datum	1249.40ft
Horizontal Reference Pt	Slot	Nomac 323 (RT) to Mean Sea Level	1249.40ft
Vertical Reference Pt	Nomac 323 (RT)	Nomac 323 (RT) to Mud Line at Slot (Slot #5)	1249.40ft
MD Reference Pt	Nomac 323 (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	109.20°



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Area	Marshall County, WV	Well	Simms 5H
Field	Marshall	Wellbore	Simms 5H (AWB)
Facility	Simms Unit		

WELLPATH DATA (147 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]
0.00†	0.000	136.530	0.00	0.00	0.00	0.00	1704991.90	14434315.80	39°44'45.493"N	80°46'12.955"W	0.00	0.000	0.00
29.40	0.000	136.530	29.40	0.00	0.00	0.00	1704991.90	14434315.80	39°44'45.493"N	80°46'12.955"W	0.00	0.000	0.00
119.40	0.590	136.530	119.40	0.41	-0.34	0.32	1704992.22	14434315.46	39°44'45.490"N	80°46'12.951"W	0.46	136.530	0.66
219.40	0.730	139.900	219.39	1.42	-1.20	1.08	1704992.98	14434314.60	39°44'45.481"N	80°46'12.941"W	1.61	137.859	0.15
319.40	0.880	148.430	319.38	2.56	-2.34	1.90	1704993.79	14434313.46	39°44'45.470"N	80°46'12.931"W	3.01	140.973	0.19
419.40	0.410	145.930	419.38	3.44	-3.29	2.50	1704994.40	14434312.51	39°44'45.460"N	80°46'12.923"W	4.13	142.785	0.47
519.40	0.620	136.070	519.37	4.21	-3.98	3.07	1704994.97	14434311.83	39°44'45.454"N	80°46'12.916"W	5.03	142.287	0.23
619.40	0.320	138.990	619.37	4.94	-4.58	3.63	1704995.53	14434311.23	39°44'45.448"N	80°46'12.909"W	5.84	141.555	0.30
719.40	0.430	135.560	719.37	5.51	-5.05	4.08	1704995.98	14434310.75	39°44'45.443"N	80°46'12.903"W	6.49	141.099	0.11
819.40	0.320	131.190	819.36	6.11	-5.51	4.55	1704996.45	14434310.30	39°44'45.439"N	80°46'12.897"W	7.14	140.423	0.11
919.40	0.390	122.410	919.36	6.70	-5.87	5.05	1704996.95	14434309.93	39°44'45.435"N	80°46'12.891"W	7.74	139.313	0.09
1019.40	0.210	109.970	1019.36	7.21	-6.12	5.51	1704997.41	14434309.68	39°44'45.432"N	80°46'12.885"W	8.23	137.999	0.19
1119.40	0.250	84.640	1119.36	7.60	-6.16	5.90	1704997.80	14434309.64	39°44'45.432"N	80°46'12.880"W	8.53	136.244	0.11
1219.40	0.260	71.920	1219.36	7.97	-6.07	6.33	1704998.23	14434309.73	39°44'45.433"N	80°46'12.874"W	8.77	133.790	0.06
1319.40	0.430	45.120	1319.36	8.32	-5.73	6.81	1704998.71	14434310.07	39°44'45.436"N	80°46'12.868"W	8.90	130.086	0.23
1419.40	0.420	57.600	1419.35	8.71	-5.27	7.39	1704999.28	14434310.53	39°44'45.441"N	80°46'12.861"W	9.08	125.515	0.09
1519.40	0.310	68.330	1519.35	9.14	-4.98	7.95	1704999.85	14434310.83	39°44'45.444"N	80°46'12.853"W	9.38	122.049	0.13
1619.40	0.390	61.670	1619.35	9.58	-4.71	8.50	1705000.40	14434311.09	39°44'45.446"N	80°46'12.846"W	9.72	119.018	0.09
1719.40	0.380	67.390	1719.35	10.05	-4.43	9.11	1705001.00	14434311.38	39°44'45.449"N	80°46'12.839"W	10.12	115.924	0.04
1819.40	0.290	75.460	1819.35	10.51	-4.23	9.66	1705001.55	14434311.57	39°44'45.451"N	80°46'12.832"W	10.54	113.681	0.10
1919.40	0.420	85.200	1919.34	11.06	-4.14	10.27	1705002.16	14434311.66	39°44'45.452"N	80°46'12.824"W	11.07	111.965	0.14
2019.40	0.440	97.990	2019.34	11.77	-4.16	11.01	1705002.91	14434311.64	39°44'45.452"N	80°46'12.814"W	11.77	110.711	0.10
2119.40	0.380	99.090	2119.34	12.47	-4.27	11.72	1705003.62	14434311.53	39°44'45.451"N	80°46'12.805"W	12.47	110.015	0.06
2219.40	0.400	108.180	2219.34	13.15	-4.43	12.38	1705004.27	14434311.37	39°44'45.449"N	80°46'12.797"W	13.15	109.693	0.06
2319.40	0.310	115.020	2319.33	13.77	-4.65	12.96	1705004.85	14434311.15	39°44'45.447"N	80°46'12.789"W	13.77	109.759	0.10
2419.40	0.320	143.420	2419.33	14.27	-4.99	13.37	1705005.26	14434310.81	39°44'45.443"N	80°46'12.784"W	14.27	110.480	0.15
2519.40	0.170	224.200	2519.33	14.43	-5.32	13.43	1705005.32	14434310.48	39°44'45.440"N	80°46'12.783"W	14.45	111.621	0.34
2619.40	0.240	273.850	2619.33	14.17	-5.42	13.12	1705005.01	14434310.39	39°44'45.439"N	80°46'12.787"W	14.19	112.432	0.18
2719.40	0.090	253.640	2719.33	13.90	-5.42	12.83	1705004.73	14434310.38	39°44'45.439"N	80°46'12.791"W	13.93	112.909	0.16
2819.40	0.430	244.210	2819.33	13.57	-5.61	12.42	1705004.32	14434310.19	39°44'45.437"N	80°46'12.796"W	13.63	114.303	0.34
2859.40	0.580	225.740	2859.33	13.38	-5.82	12.14	1705004.04	14434309.99	39°44'45.435"N	80°46'12.800"W	13.46	115.596	0.55
2918.40	2.760	13.580	2918.31	13.10	-4.64	12.26	1705004.15	14434311.16	39°44'45.447"N	80°46'12.798"W	13.11	110.741	5.53
2949.40	4.770	20.610	2949.24	13.06	-2.71	12.89	1705004.78	14434313.09	39°44'45.466"N	80°46'12.790"W	13.17	101.877	6.64
2981.40	6.460	23.820	2981.09	13.24	0.18	14.08	1705005.98	14434315.98	39°44'45.494"N	80°46'12.775"W	14.09	89.261	5.37
3012.40	7.640	26.970	3011.85	13.66	3.61	15.72	1705007.62	14434319.41	39°44'45.528"N	80°46'12.754"W	16.13	77.056	4.00
3076.40	8.570	28.090	3075.21	14.97	11.61	19.90	1705011.79	14434327.41	39°44'45.607"N	80°46'12.700"W	23.04	59.732	1.47
3139.40	7.010	35.350	3137.63	16.77	18.89	24.33	1705016.22	14434334.68	39°44'45.679"N	80°46'12.643"W	30.80	52.177	2.92
3171.40	5.630	43.540	3169.43	17.96	21.62	26.54	1705018.43	14434337.41	39°44'45.706"N	80°46'12.614"W	34.24	50.837	5.14
3202.40	4.370	48.830	3200.32	19.17	23.50	28.48	1705020.37	14434339.29	39°44'45.725"N	80°46'12.590"W	36.92	50.473	4.32
3234.40	3.400	55.340	3232.24	20.33	24.84	30.18	1705022.07	14434340.63	39°44'45.738"N	80°46'12.568"W	39.09	50.539	3.33
3266.40	2.780	52.890	3264.20	21.32	25.85	31.58	1705023.47	14434341.64	39°44'45.748"N	80°46'12.550"W	40.81	50.696	1.98
3297.40	2.100	50.500	3295.17	22.03	26.67	32.62	1705024.50	14434342.45	39°44'45.756"N	80°46'12.537"W	42.13	50.732	2.22
3329.40	1.940	45.330	3327.15	22.58	27.42	33.45	1705025.34	14434343.21	39°44'45.763"N	80°46'12.526"W	43.25	50.661	0.76
3361.40	1.820	39.420	3359.13	22.99	28.19	34.16	1705026.05	14434343.98	39°44'45.771"N	80°46'12.517"W	44.29	50.468	0.71
3391.40	2.000	34.710	3389.11	23.29	28.99	34.76	1705026.65	14434344.78	39°44'45.779"N	80°46'12.509"W	45.26	50.173	0.80



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Field	Marshall		Wellbore	Simms 5H (AWB)
Facility	Simms Unit			

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]
3454.40	1.820	36.720	3452.08	23.89	30.70	35.99	1705027.87	14434346.48	39°44'45.795"N	80°46'12.493"W	47.30	49.536	0.30
3517.40	1.160	30.790	3515.06	24.32	32.05	36.91	1705028.80	14434347.83	39°44'45.809"N	80°46'12.481"W	48.88	49.035	1.07
3581.40	0.880	24.440	3579.05	24.49	33.05	37.45	1705029.33	14434348.84	39°44'45.819"N	80°46'12.475"W	49.95	48.568	0.47
3644.40	0.710	33.590	3642.04	24.64	33.82	37.86	1705029.75	14434349.60	39°44'45.826"N	80°46'12.469"W	50.76	48.231	0.34
3708.40	0.670	3.070	3706.04	24.63	34.52	38.10	1705029.99	14434350.31	39°44'45.833"N	80°46'12.466"W	51.41	47.824	0.57
3771.40	0.550	333.140	3769.03	24.31	35.16	37.98	1705029.87	14434350.94	39°44'45.840"N	80°46'12.468"W	51.76	47.214	0.53
3834.40	0.950	11.650	3832.03	24.02	35.94	37.95	1705029.84	14434351.72	39°44'45.847"N	80°46'12.468"W	52.27	46.562	0.99
3898.40	1.670	36.280	3896.01	24.23	37.21	38.61	1705030.50	14434353.00	39°44'45.860"N	80°46'12.459"W	53.62	46.060	1.40
3961.40	2.060	40.610	3958.98	24.91	38.81	39.89	1705031.78	14434354.59	39°44'45.876"N	80°46'12.443"W	55.66	45.788	0.66
4024.40	1.950	31.690	4021.94	25.56	40.58	41.19	1705033.08	14434356.37	39°44'45.893"N	80°46'12.426"W	57.82	45.428	0.52
4087.40	2.000	38.540	4084.90	26.15	42.35	42.44	1705034.32	14434358.14	39°44'45.911"N	80°46'12.410"W	59.96	45.059	0.38
4150.40	2.070	34.530	4147.86	26.82	44.15	43.77	1705035.65	14434359.93	39°44'45.928"N	80°46'12.393"W	62.17	44.753	0.25
4213.40	1.710	28.210	4210.83	27.26	45.92	44.86	1705036.74	14434361.70	39°44'45.946"N	80°46'12.379"W	64.19	44.333	0.66
4276.40	1.490	21.480	4273.80	27.44	47.51	45.60	1705037.49	14434363.29	39°44'45.961"N	80°46'12.370"W	65.85	43.830	0.46
4339.40	1.150	21.090	4336.79	27.50	48.86	46.13	1705038.01	14434364.64	39°44'45.975"N	80°46'12.363"W	67.20	43.356	0.54
4402.40	1.130	16.930	4399.77	27.49	50.04	46.54	1705038.42	14434365.82	39°44'45.986"N	80°46'12.358"W	68.34	42.923	0.14
4464.40	1.170	0.350	4461.76	27.27	51.26	46.72	1705038.60	14434367.04	39°44'45.998"N	80°46'12.355"W	69.36	42.348	0.54
4526.40	1.270	356.830	4523.75	26.80	52.58	46.69	1705038.57	14434368.36	39°44'46.011"N	80°46'12.356"W	70.32	41.603	0.20
4589.40	1.450	348.490	4586.73	26.13	54.06	46.49	1705038.37	14434369.84	39°44'46.026"N	80°46'12.358"W	71.30	40.696	0.42
4652.40	0.990	352.100	4649.72	25.47	55.38	46.26	1705038.14	14434371.16	39°44'46.039"N	80°46'12.361"W	72.16	39.871	0.74
4715.40	0.800	358.460	4712.71	25.07	56.36	46.17	1705038.05	14434372.13	39°44'46.049"N	80°46'12.362"W	72.85	39.326	0.34
4778.40	0.990	1.150	4775.70	24.74	57.34	46.17	1705038.05	14434373.12	39°44'46.059"N	80°46'12.362"W	73.62	38.840	0.31
4841.40	1.060	351.800	4838.69	24.31	58.46	46.10	1705037.98	14434374.24	39°44'46.070"N	80°46'12.363"W	74.45	38.256	0.29
4903.40	0.670	9.460	4900.68	23.98	59.39	46.07	1705037.96	14434375.16	39°44'46.079"N	80°46'12.363"W	75.16	37.806	0.75
4966.40	0.690	89.960	4963.68	24.28	59.75	46.51	1705038.40	14434375.53	39°44'46.082"N	80°46'12.358"W	75.72	37.900	1.39
5029.40	1.050	100.030	5026.67	25.21	59.65	47.46	1705039.34	14434375.43	39°44'46.081"N	80°46'12.345"W	76.23	38.508	0.62
5092.40	0.980	114.960	5089.66	26.31	59.32	48.52	1705040.40	14434375.10	39°44'46.078"N	80°46'12.332"W	76.64	39.279	0.43
5155.40	0.790	119.970	5152.66	27.27	58.88	49.38	1705041.26	14434374.65	39°44'46.074"N	80°46'12.321"W	76.85	39.988	0.33
5216.40	0.880	130.580	5213.65	28.12	58.36	50.10	1705041.98	14434374.14	39°44'46.069"N	80°46'12.312"W	76.92	40.646	0.29
5279.40	0.770	111.420	5276.64	29.00	57.89	50.87	1705042.74	14434373.67	39°44'46.064"N	80°46'12.302"W	77.06	41.302	0.47
5342.40	0.930	54.480	5339.64	29.71	58.04	51.68	1705043.55	14434373.81	39°44'46.065"N	80°46'12.292"W	77.71	41.682	1.31
5405.40	1.240	48.230	5402.63	30.34	58.79	52.60	1705044.48	14434374.56	39°44'46.073"N	80°46'12.280"W	78.88	41.821	0.53
5468.40	1.200	38.090	5465.61	30.89	59.76	53.52	1705045.39	14434375.54	39°44'46.082"N	80°46'12.268"W	80.22	41.844	0.35
5531.40	0.850	45.620	5528.60	31.31	60.61	54.26	1705046.13	14434376.38	39°44'46.091"N	80°46'12.258"W	81.34	41.836	0.59
5594.40	0.280	309.860	5591.60	31.37	61.03	54.47	1705046.35	14434376.81	39°44'46.095"N	80°46'12.256"W	81.81	41.749	1.46
5657.40	0.090	312.530	5654.60	31.18	61.16	54.32	1705046.20	14434376.94	39°44'46.096"N	80°46'12.258"W	81.80	41.607	0.30
5720.40	0.410	267.480	5717.60	30.93	61.19	54.06	1705045.93	14434376.96	39°44'46.096"N	80°46'12.261"W	81.65	41.459	0.56
5783.40	0.200	221.230	5780.60	30.68	61.10	53.76	1705045.64	14434376.87	39°44'46.095"N	80°46'12.265"W	81.38	41.345	0.49
5845.40	0.120	237.120	5842.60	30.60	60.98	53.63	1705045.51	14434376.75	39°44'46.094"N	80°46'12.266"W	81.21	41.332	0.15
5907.40	0.190	210.880	5904.60	30.53	60.86	53.52	1705045.40	14434376.63	39°44'46.093"N	80°46'12.268"W	81.04	41.333	0.16
5970.40	0.240	231.240	5967.60	30.44	60.68	53.37	1705045.25	14434376.46	39°44'46.091"N	80°46'12.270"W	80.81	41.331	0.14
6031.40	0.400	196.830	6028.59	30.38	60.40	53.21	1705045.09	14434376.17	39°44'46.089"N	80°46'12.272"W	80.49	41.378	0.40
6094.40	0.440	227.730	6091.59	30.28	60.03	52.96	1705044.84	14434375.80	39°44'46.085"N	80°46'12.275"W	80.05	41.424	0.36
6129.00	0.470	212.630	6126.19	30.18	59.82	52.79	1705044.67	14434375.59	39°44'46.083"N	80°46'12.277"W	79.78	41.429	0.36
6198.00	0.370	177.030	6195.19	30.20	59.36	52.65	1705044.53	14434375.13	39°44'46.078"N	80°46'12.279"W	79.34	41.573	0.40



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Operator	GASTAR EXPLORATION USA, INC.	Slot	Slot #5
Area	Marshall County, WV	Well	Simms 5H
Field	Marshall	Wellbore	Simms 5H (AWB)
Facility	Simms Unit		

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]
6293.00	0.600	187.850	6290.19	30.41	58.56	52.60	1705044.48	14434374.33	39°44'46.070"N	80°46'12.280"W	78.71	41.931	0.26
6389.00	0.700	187.680	6386.18	30.63	57.48	52.45	1705044.33	14434373.26	39°44'46.060"N	80°46'12.282"W	77.81	42.381	0.10
6484.00	0.990	189.000	6481.17	30.89	56.09	52.24	1705044.12	14434371.87	39°44'46.046"N	80°46'12.284"W	76.65	42.965	0.31
6579.00	1.220	198.030	6576.15	31.06	54.32	51.80	1705043.68	14434370.10	39°44'46.029"N	80°46'12.290"W	75.06	43.641	0.30
6675.00	1.440	196.000	6672.13	31.14	52.19	51.15	1705043.03	14434367.97	39°44'46.008"N	80°46'12.298"W	73.08	44.426	0.23
6770.00	1.740	193.750	6767.09	31.35	49.64	50.48	1705042.36	14434365.42	39°44'45.982"N	80°46'12.307"W	70.80	45.481	0.32
6865.00	2.310	191.840	6862.03	31.73	46.37	49.75	1705041.63	14434362.15	39°44'45.950"N	80°46'12.317"W	68.00	47.014	0.60
6958.00	2.880	192.640	6954.93	32.24	42.25	48.85	1705040.73	14434358.03	39°44'45.909"N	80°46'12.328"W	64.59	49.143	0.61
7053.00	3.280	187.880	7049.80	33.04	37.23	47.96	1705039.84	14434353.02	39°44'45.860"N	80°46'12.340"W	60.71	52.176	0.50
7147.00	3.560	187.490	7143.63	34.16	31.67	47.21	1705039.09	14434347.46	39°44'45.805"N	80°46'12.350"W	56.85	56.140	0.30
7242.00	3.250	187.330	7238.46	35.32	26.08	46.48	1705038.36	14434341.87	39°44'45.750"N	80°46'12.359"W	53.29	60.704	0.33
7338.00	2.990	184.590	7334.32	36.51	20.88	45.93	1705037.81	14434336.67	39°44'45.698"N	80°46'12.366"W	50.46	65.550	0.31
7433.00	2.530	180.560	7429.21	37.80	16.32	45.71	1705037.59	14434332.11	39°44'45.653"N	80°46'12.369"W	48.54	70.356	0.53
7525.00	2.260	171.420	7521.13	39.30	12.49	45.96	1705037.84	14434328.29	39°44'45.615"N	80°46'12.366"W	47.63	74.794	0.51
7620.00	2.780	172.920	7616.04	41.19	8.35	46.53	1705038.41	14434324.15	39°44'45.574"N	80°46'12.359"W	47.27	79.820	0.55
7715.00	3.100	179.630	7710.91	43.07	3.50	46.83	1705038.71	14434319.30	39°44'45.526"N	80°46'12.355"W	46.96	85.726	0.49
7810.00	2.760	181.170	7805.79	44.64	-1.36	46.80	1705038.68	14434314.44	39°44'45.478"N	80°46'12.356"W	46.82	91.660	0.37
7904.00	2.850	176.900	7899.68	46.23	-5.95	46.88	1705038.76	14434309.85	39°44'45.433"N	80°46'12.355"W	47.25	97.237	0.24
7998.00	2.990	173.580	7993.55	48.17	-10.72	47.28	1705039.16	14434305.08	39°44'45.386"N	80°46'12.350"W	48.48	102.778	0.23
8094.00	2.660	178.890	8089.44	50.03	-15.44	47.60	1705039.48	14434300.37	39°44'45.339"N	80°46'12.346"W	50.04	107.969	0.44
8189.00	2.800	176.860	8184.33	51.68	-19.96	47.77	1705039.65	14434295.85	39°44'45.295"N	80°46'12.344"W	51.77	112.675	0.18
8284.00	2.730	179.400	8279.22	53.32	-24.54	47.92	1705039.80	14434291.27	39°44'45.249"N	80°46'12.342"W	53.84	117.114	0.15
8379.00	2.840	182.160	8374.11	54.78	-29.15	47.86	1705039.74	14434286.66	39°44'45.204"N	80°46'12.343"W	56.04	121.348	0.18
8474.00	3.150	182.910	8468.98	56.20	-34.11	47.63	1705039.52	14434281.70	39°44'45.155"N	80°46'12.346"W	58.59	125.606	0.33
8570.00	3.040	180.710	8564.84	57.75	-39.29	47.47	1705039.35	14434276.53	39°44'45.104"N	80°46'12.349"W	61.62	129.614	0.17
8664.00	3.190	182.210	8658.70	59.30	-44.40	47.34	1705039.22	14434271.42	39°44'45.053"N	80°46'12.350"W	64.90	133.163	0.18
8758.00	2.650	186.480	8752.57	60.55	-49.17	46.99	1705038.87	14434266.65	39°44'45.006"N	80°46'12.355"W	68.01	136.297	0.62
8854.00	2.360	190.340	8848.48	61.34	-53.32	46.39	1705038.27	14434262.50	39°44'44.965"N	80°46'12.363"W	70.67	138.977	0.35
8947.00	2.340	178.810	8941.41	62.30	-57.10	46.08	1705037.96	14434258.72	39°44'44.928"N	80°46'12.367"W	73.38	141.095	0.51
9042.00	1.680	196.080	9036.35	63.05	-60.38	45.74	1705037.62	14434255.45	39°44'44.895"N	80°46'12.371"W	75.74	142.856	0.94
9136.00	1.400	188.020	9130.31	63.35	-62.84	45.19	1705037.08	14434252.99	39°44'44.871"N	80°46'12.378"W	77.40	144.275	0.38
9245.00	1.000	192.530	9239.29	63.71	-65.08	44.80	1705036.68	14434250.74	39°44'44.849"N	80°46'12.384"W	79.01	145.458	0.38
9322.00	1.230	172.540	9316.27	64.16	-66.56	44.76	1705036.65	14434249.27	39°44'44.834"N	80°46'12.384"W	80.21	146.078	0.58
9417.00	1.330	174.070	9411.25	65.09	-68.67	45.01	1705036.89	14434247.16	39°44'44.813"N	80°46'12.381"W	82.10	146.756	0.11
9511.00	1.180	165.650	9505.23	66.09	-70.69	45.36	1705037.24	14434245.14	39°44'44.793"N	80°46'12.377"W	83.99	147.311	0.25
9605.00	1.240	157.540	9599.21	67.30	-72.57	45.99	1705037.87	14434243.26	39°44'44.775"N	80°46'12.369"W	85.91	147.635	0.19
9700.00	1.130	147.120	9694.19	68.72	-74.31	46.89	1705038.77	14434241.52	39°44'44.758"N	80°46'12.357"W	87.86	147.745	0.25
9795.00	0.900	137.190	9789.17	70.12	-75.64	47.91	1705039.79	14434240.19	39°44'44.744"N	80°46'12.344"W	89.53	147.651	0.30
9890.00	0.930	119.070	9884.16	71.54	-76.56	49.09	1705040.97	14434239.27	39°44'44.735"N	80°46'12.329"W	90.95	147.333	0.30
9984.00	0.770	120.240	9978.15	72.91	-77.25	50.30	1705042.18	14434238.58	39°44'44.728"N	80°46'12.314"W	92.18	146.930	0.17
10078.00	0.500	123.290	10072.14	73.93	-77.79	51.19	1705043.07	14434238.04	39°44'44.723"N	80°46'12.302"W	93.12	146.654	0.29
10173.00	0.180	214.570	10167.14	74.29	-78.14	51.45	1705043.33	14434237.69	39°44'44.719"N	80°46'12.299"W	93.56	146.638	0.56
10266.00	0.620	272.680	10260.14	73.77	-78.24	50.87	1705042.75	14434237.59	39°44'44.719"N	80°46'12.306"W	93.32	146.971	0.59
10337.00	0.790	278.470	10331.14	72.92	-78.15	50.00	1705041.88	14434237.68	39°44'44.719"N	80°46'12.317"W	92.78	147.390	0.26
10468.00	1.200	285.220	10462.12	70.66	-77.66	47.78	1705039.66	14434238.17	39°44'44.724"N	80°46'12.346"W	91.18	148.397	0.32



Actual Wellpath Report

Simms 5H (AWP) Proj: 11492'

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REFERENCE WELLPATH IDENTIFICATION

Operator	GASTAR EXPLORATION USA, INC.	Slot	Slot #5
Area	Marshall County, WV	Well	Simms 5H
Field	Marshall	Wellbore	Simms 5H (AWB)
Facility	Simms Unit		

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]
10564.00	1.370	287.420	10558.09	68.51	-77.05	45.72	1705037.60	14434238.78	39°44'44.730"N	80°46'12.372"W	89.59	149.318	0.18
10659.00	1.210	146.800	10653.08	68.17	-77.55	45.18	1705037.06	14434238.28	39°44'44.726"N	80°46'12.379"W	89.75	149.774	2.56
10754.00	1.080	292.700	10748.07	68.07	-78.04	44.91	1705036.79	14434237.79	39°44'44.721"N	80°46'12.383"W	90.04	150.084	2.30
10849.00	1.130	293.730	10843.06	66.25	-77.32	43.22	1705035.10	14434238.51	39°44'44.728"N	80°46'12.404"W	88.58	150.795	0.06
10944.00	1.190	306.290	10938.04	64.37	-76.36	41.57	1705033.45	14434239.47	39°44'44.737"N	80°46'12.425"W	86.94	151.437	0.27
11039.00	1.330	300.000	11033.01	62.34	-75.22	39.82	1705031.70	14434240.61	39°44'44.749"N	80°46'12.448"W	85.11	152.106	0.21
11134.00	1.480	302.800	11127.99	60.07	-74.01	37.83	1705029.72	14434241.82	39°44'44.761"N	80°46'12.473"W	83.12	152.924	0.17
11230.00	1.360	304.460	11223.96	57.76	-72.69	35.85	1705027.74	14434243.14	39°44'44.774"N	80°46'12.498"W	81.05	153.748	0.13
11325.00	1.390	308.240	11318.93	55.59	-71.34	34.02	1705025.90	14434244.49	39°44'44.787"N	80°46'12.522"W	79.04	154.507	0.10
11420.00	1.280	299.970	11413.90	53.46	-70.10	32.19	1705024.08	14434245.73	39°44'44.799"N	80°46'12.545"W	77.14	155.333	0.23
11431.00	1.250	295.620	11424.90	53.22	-69.98	31.98	1705023.87	14434245.84	39°44'44.801"N	80°46'12.548"W	76.94	155.443	0.91
11492.00	1.250	295.620	11485.89	51.89	-69.41	30.78	1705022.67	14434246.42	39°44'44.806"N	80°46'12.563"W	75.93	156.086	0.00

HOLE & CASING SECTIONS - Ref Wellbore: Simms 5H (AWB) Ref Wellpath: Simms 5H (AWP) Proj: 11492'

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]
13.375in Casing	29.40	2779.40	2750.00	29.40	2779.33	0.00	0.00	-5.50	12.65



Actual Wellpath Report

Simms 5H (AWP) Proj: 11492'

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REFERENCE WELLPATH IDENTIFICATION

Operator	GASTAR EXPLORATION USA, INC.	Slot	Slot #5
Area	Marshall County, WV	Well	Simms 5H
Field	Marshall	Wellbore	Simms 5H (AWB)
Facility	Simms Unit		

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Simms 5H TP Plat		11127.40	1087.33	376.55	1705368.30	14435402.70	39°44'56.229"N	80°46'08.098"W	point
Simms 5H LP Rev-2		11250.00	848.56	1088.91	1706080.38	14435164.02	39°44'53.851"N	80°45'58.986"W	point
Simms 5H PBHL:Rev-2		11287.35	-558.92	5130.64	1710120.50	14433757.10	39°44'39.834"N	80°45'07.291"W	point
Simms 5H LP Rev-3		11300.00	848.56	1088.91	1706080.38	14435164.02	39°44'53.851"N	80°45'58.986"W	point
Simms 5H PBHL:Rev-3		11337.35	-558.92	5130.64	1710120.50	14433757.10	39°44'39.834"N	80°45'07.291"W	point

WELLPATH COMPOSITION - Ref Wellbore: Simms 5H (AWB) Ref Wellpath: Simms 5H (AWP) Proj: 11492'

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
29.40	2859.40	Generic gyro - northseeking (Standard)	02_VES Gyro <17-1/2"> (100'-2840')	Simms 5H (AWB)
2859.40	6094.40	ISCWSA MWD, Rev. 2 (Standard)	03_BHI APS <12-1/4"> (2840')(2899'-6094.4') Proj:6200'	Simms 5H (AWB)
6094.40	10337.00	NaviTrak (MagCorr)	04_BHI MWD Surveys (LCP) <12-1/4"> (6094.4')(6129'-10337')	Simms 5H (AWB)
10337.00	11431.00	NaviTrak (MagCorr)	05_BHI MWD Surveys 8 1/2" (10337')(10468'-11431')	Simms 5H (AWB)
11431.00	11492.00	Blind Drilling (std)	Projection to bit	Simms 5H (AWB)



Actual Wellpath Report

Simms 5H (AWP) Proj: 11492'

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REFERENCE WELLPATH IDENTIFICATION

Operator	GASTAR EXPLORATION USA, INC.	Slot	Slot #5
Area	Marshall County, WV	Well	Simms 5H
Field	Marshall	Wellbore	Simms 5H (AWB)
Facility	Simms Unit		

COMMENTS

Wellpath general comments

API:47-051-01731-0100

Rig: Nomac 323

BHI Job #: 6272852

Duration: 05.10.2014 - 06.12.2014

VES Gyro (100'-2840')

BHI APS (2840')(2899'-6129') Proj:6200'

BHI MWD Surveys (6094.4')(6129'-10337')

BHI MWD Surveys (10337')(10468'-11431')

TD Projected to MD: 11492'