

### REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY	Slot	Slot C
Area	Tyler County, WV	Well	SHR-40C-HS
Field	Tyler	Wellbore	SHR-40C-HS AWB
Facility	SHR-40 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	0.999947	Report Generated	03/Jun/2015 at 12:09
Convergence at slot	0.85° West	Database/Source file	WellArchitectEasternDB/SHR-40C-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	-33.67	-20.84	1622901.75	336008.79	39°24'53.464"N	80°50'05.129"W
Facility Reference Pt			1622922.59	336042.46	39°24'53.800"N	80°50'04.870"W
Field Reference Pt			609601.22	0.00	38°23'48.753"N	84°21'09.765"W

### WELLPATH DATUM

Calculation method	Minimum curvature	Precision 542 (RKB) to Facility Vertical Datum	788.86ft
Horizontal Reference Pt	Slot	Precision 542 (RKB) to Mean Sea Level	788.86ft
Vertical Reference Pt	Precision 542 (RKB)	Precision 542 (RKB) to Mud Line at Slot (Slot C)	19.40ft
MD Reference Pt	Precision 542 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	160.00°



# Actual Wellpath Report

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## 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	13.370	0.00	0.00	0.00	0.00	1622901.75	336008.79	39°24'53.464"N	80°50'05.129"W	0.00	0.000	0.00	0.00	0.00
19.40	0.000	13.370	19.40	0.00	0.00	0.00	1622901.75	336008.79	39°24'53.464"N	80°50'05.129"W	0.00	0.000	0.00	0.00	0.00
104.00	0.330	13.370	104.00	-0.20	0.24	0.06	1622901.81	336009.03	39°24'53.467"N	80°50'05.128"W	0.24	13.370	0.39	0.00	0.00
204.00	0.320	351.060	204.00	-0.72	0.79	0.08	1622901.83	336009.58	39°24'53.472"N	80°50'05.128"W	0.80	5.727	0.13	-0.01	-22.31
304.00	0.180	51.210	304.00	-1.04	1.17	0.16	1622901.91	336009.96	39°24'53.476"N	80°50'05.127"W	1.18	7.736	0.28	-0.14	60.15
404.00	0.190	44.520	404.00	-1.16	1.38	0.40	1622902.15	336010.17	39°24'53.478"N	80°50'05.124"W	1.44	16.016	0.02	0.01	-6.69
504.00	0.150	27.270	504.00	-1.32	1.62	0.57	1622902.32	336010.41	39°24'53.480"N	80°50'05.122"W	1.72	19.511	0.06	-0.04	-17.25
604.00	0.240	49.520	604.00	-1.49	1.87	0.79	1622902.54	336010.66	39°24'53.483"N	80°50'05.119"W	2.03	22.965	0.12	0.09	22.25
704.00	0.140	42.290	704.00	-1.62	2.10	1.03	1622902.78	336010.89	39°24'53.485"N	80°50'05.116"W	2.34	26.252	0.10	-0.10	-7.25
804.00	0.050	99.660	803.99	-1.65	2.18	1.16	1622902.91	336010.97	39°24'53.486"N	80°50'05.115"W	2.47	28.005	0.12	-0.09	57.37
904.00	0.440	113.120	903.99	-1.37	2.02	1.56	1622903.31	336010.81	39°24'53.484"N	80°50'05.110"W	2.55	37.572	0.39	0.39	13.46
1004.00	0.540	107.030	1003.99	-0.82	1.73	2.36	1622904.11	336010.52	39°24'53.482"N	80°50'05.099"W	2.93	53.696	0.11	0.10	-6.09
1104.00	0.570	87.280	1103.99	-0.39	1.62	3.31	1622905.06	336010.41	39°24'53.481"N	80°50'05.087"W	3.68	63.914	0.19	0.03	-19.75
1204.00	0.320	99.540	1203.98	-0.10	1.60	4.08	1622905.83	336010.39	39°24'53.481"N	80°50'05.077"W	4.38	68.628	0.27	-0.25	12.26
1304.00	0.200	88.040	1303.98	0.09	1.56	4.53	1622906.28	336010.35	39°24'53.480"N	80°50'05.072"W	4.79	71.039	0.13	-0.12	-11.50
1404.00	0.230	87.780	1403.98	0.20	1.57	4.90	1622906.65	336010.36	39°24'53.480"N	80°50'05.067"W	5.15	72.250	0.03	0.03	-0.26
1504.00	0.200	94.030	1503.98	0.33	1.57	5.28	1622907.03	336010.36	39°24'53.480"N	80°50'05.062"W	5.51	73.483	0.04	-0.03	6.25
1604.00	0.280	90.380	1603.98	0.49	1.55	5.70	1622907.45	336010.34	39°24'53.480"N	80°50'05.057"W	5.90	74.767	0.08	0.08	-3.65
1704.00	0.320	92.200	1703.98	0.68	1.54	6.22	1622907.97	336010.33	39°24'53.480"N	80°50'05.050"W	6.41	76.103	0.04	0.04	1.82
1804.00	0.280	91.670	1803.98	0.88	1.52	6.74	1622908.49	336010.31	39°24'53.480"N	80°50'05.044"W	6.91	77.289	0.04	-0.04	-0.53
1904.00	0.270	107.240	1903.98	1.11	1.44	7.21	1622908.96	336010.23	39°24'53.480"N	80°50'05.038"W	7.36	78.678	0.08	-0.01	15.57
2004.00	0.220	109.790	2003.97	1.38	1.31	7.62	1622909.37	336010.10	39°24'53.478"N	80°50'05.032"W	7.73	80.248	0.05	-0.05	2.55
2104.00	0.210	150.640	2103.97	1.68	1.08	7.89	1622909.64	336009.87	39°24'53.476"N	80°50'05.029"W	7.96	82.172	0.15	-0.01	40.85
2204.00	0.240	154.400	2203.97	2.07	0.74	8.07	1622909.82	336009.53	39°24'53.473"N	80°50'05.026"W	8.10	84.788	0.03	0.03	3.76
2304.00	0.390	192.700	2303.97	2.56	0.22	8.09	1622909.83	336009.01	39°24'53.468"N	80°50'05.026"W	8.09	88.476	0.25	0.15	38.30
2404.00	0.490	199.060	2403.97	3.18	-0.52	7.87	1622909.62	336008.27	39°24'53.460"N	80°50'05.029"W	7.89	93.787	0.11	0.10	6.36
2504.00	0.450	199.480	2503.97	3.82	-1.30	7.60	1622909.35	336007.49	39°24'53.453"N	80°50'05.032"W	7.71	99.673	0.04	-0.04	0.42
2604.00	0.430	195.130	2603.96	4.43	-2.03	7.37	1622909.12	336006.76	39°24'53.445"N	80°50'05.035"W	7.64	105.382	0.04	-0.02	-4.35
2704.00	0.250	192.810	2703.96	4.92	-2.60	7.22	1622908.97	336006.19	39°24'53.440"N	80°50'05.037"W	7.68	109.812	0.18	-0.18	-2.32
2804.00	0.170	220.820	2803.96	5.17	-2.93	7.08	1622908.83	336005.86	39°24'53.436"N	80°50'05.038"W	7.66	112.468	0.13	-0.08	28.01



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Facility	SHR-40 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]
2904.00	0.250	249.300	2903.96	5.25	-3.12	6.78	1622908.53	336005.67	39°24'53.434"N	80°50'05.042"W	7.46	114.696	0.13	0.08	28.48
3004.00	0.380	230.470	3003.96	5.36	-3.41	6.32	1622908.07	336005.38	39°24'53.431"N	80°50'05.048"W	7.18	118.322	0.16	0.13	-18.83
3104.00	0.340	191.240	3103.96	5.73	-3.91	6.00	1622907.75	336004.88	39°24'53.426"N	80°50'05.052"W	7.16	123.052	0.24	-0.04	-39.23
3204.00	0.160	190.850	3203.95	6.10	-4.34	5.92	1622907.67	336004.45	39°24'53.422"N	80°50'05.053"W	7.34	126.214	0.18	-0.18	-0.39
3304.00	0.190	248.630	3303.95	6.22	-4.53	5.74	1622907.49	336004.26	39°24'53.420"N	80°50'05.055"W	7.31	128.299	0.17	0.03	57.78
3404.00	0.310	234.340	3403.95	6.30	-4.75	5.37	1622907.12	336004.04	39°24'53.418"N	80°50'05.060"W	7.17	131.523	0.13	0.12	-14.29
3504.00	0.270	197.010	3503.95	6.56	-5.13	5.08	1622906.83	336003.66	39°24'53.414"N	80°50'05.063"W	7.22	135.320	0.19	-0.04	-37.33
3604.00	0.180	210.560	3603.95	6.85	-5.49	4.93	1622906.68	336003.30	39°24'53.411"N	80°50'05.065"W	7.38	138.111	0.10	-0.09	13.55
3704.00	0.140	248.960	3703.95	6.95	-5.67	4.73	1622906.48	336003.12	39°24'53.409"N	80°50'05.068"W	7.39	140.157	0.11	-0.04	38.40
3804.00	0.340	233.190	3803.95	7.04	-5.90	4.38	1622906.13	336002.89	39°24'53.407"N	80°50'05.072"W	7.35	143.372	0.21	0.20	-15.77
3904.00	0.390	215.510	3903.95	7.32	-6.35	3.95	1622905.70	336002.44	39°24'53.402"N	80°50'05.078"W	7.48	148.133	0.12	0.05	-17.68
4004.00	0.430	217.200	4003.95	7.71	-6.93	3.52	1622905.27	336001.86	39°24'53.396"N	80°50'05.083"W	7.77	153.039	0.04	0.04	1.69
4104.00	0.310	208.830	4103.94	8.10	-7.46	3.17	1622904.92	336001.33	39°24'53.391"N	80°50'05.087"W	8.11	157.011	0.13	-0.12	-8.37
4204.00	0.260	238.960	4203.94	8.32	-7.82	2.84	1622904.59	336000.97	39°24'53.387"N	80°50'05.091"W	8.32	160.025	0.16	-0.05	30.13
4304.00	0.360	237.020	4303.94	8.43	-8.10	2.38	1622904.13	336000.69	39°24'53.384"N	80°50'05.097"W	8.45	163.614	0.10	0.10	-1.94
4404.00	0.550	248.410	4403.94	8.51	-8.45	1.67	1622903.42	336000.34	39°24'53.381"N	80°50'05.106"W	8.62	168.802	0.21	0.19	11.39
4478.00	0.570	228.060	4477.93	8.66	-8.83	1.07	1622902.82	335999.96	39°24'53.377"N	80°50'05.114"W	8.89	173.095	0.27	0.03	-27.50
4523.00	0.290	217.380	4522.93	8.81	-9.07	0.83	1622902.58	335999.72	39°24'53.375"N	80°50'05.117"W	9.11	174.748	0.64	-0.62	-23.73
4567.00	1.040	51.100	4566.93	8.74	-8.91	1.08	1622902.83	335999.88	39°24'53.376"N	80°50'05.114"W	8.97	173.107	3.01	1.70	-377.91
4655.00	3.840	69.160	4654.84	8.44	-7.36	4.45	1622906.20	336001.43	39°24'53.392"N	80°50'05.071"W	8.60	148.813	3.26	3.18	20.52
4699.00	4.900	63.580	4698.71	8.20	-6.00	7.51	1622909.26	336002.79	39°24'53.406"N	80°50'05.032"W	9.61	128.593	2.59	2.41	-12.68
4743.00	5.590	62.990	4742.53	7.73	-4.19	11.11	1622912.85	336004.60	39°24'53.424"N	80°50'04.987"W	11.87	110.656	1.57	1.57	-1.34
4787.00	6.480	66.600	4786.29	7.32	-2.23	15.29	1622917.04	336006.56	39°24'53.444"N	80°50'04.934"W	15.45	98.286	2.20	2.02	8.20
4831.00	7.550	70.340	4829.96	7.19	-0.27	20.29	1622922.04	336008.52	39°24'53.465"N	80°50'04.871"W	20.30	90.758	2.64	2.43	8.50
4875.00	8.530	71.590	4873.52	7.30	1.73	26.11	1622927.86	336010.52	39°24'53.485"N	80°50'04.797"W	26.17	86.200	2.26	2.23	2.84
4919.00	9.860	70.900	4916.96	7.45	4.00	32.77	1622934.52	336012.79	39°24'53.509"N	80°50'04.712"W	33.01	83.044	3.03	3.02	-1.57
4963.00	10.540	75.250	4960.26	7.88	6.26	40.22	1622941.97	336015.05	39°24'53.532"N	80°50'04.618"W	40.70	81.160	2.33	1.55	9.89
5007.00	11.510	74.890	5003.45	8.62	8.42	48.35	1622950.10	336017.21	39°24'53.555"N	80°50'04.515"W	49.08	80.116	2.21	2.20	-0.82
5052.00	12.790	74.570	5047.44	9.40	10.92	57.49	1622959.23	336019.71	39°24'53.581"N	80°50'04.399"W	58.51	79.244	2.85	2.84	-0.71
5096.00	14.250	74.490	5090.22	10.21	13.66	67.40	1622969.15	336022.45	39°24'53.609"N	80°50'04.273"W	68.77	78.540	3.32	3.32	-0.18



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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]
5140.00	16.030	75.210	5132.69	11.19	16.66	78.49	1622980.24	336025.45	39°24'53.640"N	80°50'04.132"W	80.24	78.015	4.07	4.05	1.64
5184.00	17.820	75.800	5174.78	12.42	19.87	90.89	1622992.64	336028.65	39°24'53.674"N	80°50'03.975"W	93.04	77.671	4.09	4.07	1.34
5228.00	19.480	73.900	5216.47	13.60	23.55	104.47	1623006.22	336032.34	39°24'53.712"N	80°50'03.803"W	107.09	77.296	4.02	3.77	-4.32
5273.00	21.070	73.470	5258.68	14.60	27.93	119.44	1623021.18	336036.72	39°24'53.758"N	80°50'03.613"W	122.66	76.836	3.55	3.53	-0.96
5317.00	22.740	72.730	5299.50	15.48	32.71	135.14	1623036.88	336041.50	39°24'53.807"N	80°50'03.414"W	139.04	76.394	3.85	3.80	-1.68
5361.00	24.550	72.440	5339.81	16.28	37.99	151.98	1623053.72	336046.78	39°24'53.862"N	80°50'03.200"W	156.65	75.964	4.12	4.11	-0.66
5405.00	26.100	71.880	5379.58	16.98	43.76	169.89	1623071.63	336052.55	39°24'53.922"N	80°50'02.973"W	175.44	75.556	3.56	3.52	-1.27
5449.00	27.490	73.740	5418.85	17.96	49.62	188.84	1623090.58	336058.40	39°24'53.982"N	80°50'02.733"W	195.25	75.279	3.69	3.16	4.23
5493.00	28.430	75.210	5457.72	19.58	55.13	208.72	1623110.46	336063.92	39°24'54.040"N	80°50'02.481"W	215.88	75.203	2.65	2.14	3.34
5537.00	30.250	76.040	5496.07	21.70	60.48	229.60	1623131.34	336069.27	39°24'54.096"N	80°50'02.215"W	237.43	75.243	4.24	4.14	1.89
5582.00	31.780	76.850	5534.64	24.30	65.91	252.14	1623153.88	336074.70	39°24'54.153"N	80°50'01.929"W	260.61	75.350	3.52	3.40	1.80
5626.00	33.690	76.230	5571.65	27.01	71.45	275.28	1623177.01	336080.24	39°24'54.211"N	80°50'01.636"W	284.40	75.449	4.41	4.34	-1.41
5670.00	35.950	76.370	5607.77	29.77	77.40	299.69	1623201.42	336086.19	39°24'54.273"N	80°50'01.326"W	309.52	75.518	5.14	5.14	0.32
5714.00	38.100	75.190	5642.90	32.43	83.92	325.37	1623227.10	336092.70	39°24'54.341"N	80°50'01.000"W	336.01	75.538	5.15	4.89	-2.68
5758.00	40.300	72.500	5676.99	34.28	91.67	352.07	1623253.80	336100.45	39°24'54.422"N	80°50'00.661"W	363.80	75.406	6.32	5.00	-6.11
5802.00	40.810	72.690	5710.42	35.57	100.22	379.36	1623281.09	336109.01	39°24'54.510"N	80°50'00.315"W	392.38	75.201	1.19	1.16	0.43
5846.00	41.160	71.290	5743.64	36.57	109.15	406.81	1623308.53	336117.93	39°24'54.603"N	80°49'59.967"W	421.19	74.981	2.23	0.80	-3.18
5891.00	42.000	71.680	5777.30	37.35	118.63	435.13	1623336.85	336127.41	39°24'54.700"N	80°49'59.608"W	451.01	74.750	1.95	1.87	0.87
5937.00	43.630	70.330	5811.04	37.89	128.81	464.68	1623366.41	336137.59	39°24'54.805"N	80°49'59.234"W	482.20	74.507	4.07	3.54	-2.93
6009.00	45.620	72.390	5862.29	39.11	144.96	512.60	1623414.33	336153.74	39°24'54.972"N	80°49'58.626"W	532.71	74.210	3.42	2.76	2.86
6036.00	45.910	72.260	5881.12	39.89	150.83	531.04	1623432.76	336159.61	39°24'55.033"N	80°49'58.392"W	552.04	74.144	1.13	1.07	-0.48
6125.00	49.220	84.220	5941.29	49.45	163.99	595.15	1623496.86	336172.77	39°24'55.172"N	80°49'57.578"W	617.33	74.594	10.58	3.72	13.44
6215.00	51.920	92.480	5998.50	71.39	165.89	664.52	1623566.24	336174.67	39°24'55.201"N	80°49'56.695"W	684.92	75.983	7.69	3.00	9.18
6304.00	54.530	99.660	6051.82	102.75	158.29	735.32	1623637.03	336167.07	39°24'55.136"N	80°49'55.791"W	752.16	77.852	7.09	2.93	8.07
6394.00	57.990	110.170	6101.90	145.60	138.94	807.43	1623709.13	336147.72	39°24'54.956"N	80°49'54.869"W	819.29	80.236	10.44	3.84	11.68
6483.00	60.870	121.020	6147.26	200.29	105.82	876.33	1623778.03	336114.60	39°24'54.638"N	80°49'53.985"W	882.69	83.115	10.98	3.24	12.19
6573.00	62.890	128.450	6189.72	265.06	60.60	941.46	1623843.16	336069.38	39°24'54.201"N	80°49'53.147"W	943.41	86.317	7.62	2.24	8.26
6663.00	69.110	134.050	6226.34	337.11	6.37	1003.15	1623904.84	336015.16	39°24'53.674"N	80°49'52.350"W	1003.17	89.636	8.95	6.91	6.22
6753.00	76.400	136.620	6253.00	415.18	-54.74	1063.50	1623965.19	335954.05	39°24'53.079"N	80°49'51.570"W	1064.90	92.947	8.55	8.10	2.86
6843.00	77.870	142.170	6273.06	497.28	-121.34	1120.57	1624022.26	335887.46	39°24'52.429"N	80°49'50.830"W	1127.12	96.180	6.23	1.63	6.17



# Actual Wellpath Report

SHR-40C-HS AWP Proj: 16414'

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## REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY	Slot	Slot C
Area	Tyler County, WV	Well	SHR-40C-HS
Field	Tyler	Wellbore	SHR-40C-HS AWB
Facility	SHR-40 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]
6932.00	82.030	149.930	6288.61	582.25	-193.98	1169.43	1624071.11	335814.82	39°24'51.719"N	80°49'50.194"W	1185.40	99.418	9.77	4.67	8.72
7022.00	88.150	158.700	6296.32	671.35	-274.68	1208.20	1624109.89	335734.12	39°24'50.927"N	80°49'49.685"W	1239.04	102.808	11.85	6.80	9.74
7111.00	89.420	161.450	6298.21	760.32	-358.33	1238.52	1624140.21	335650.48	39°24'50.105"N	80°49'49.283"W	1289.32	106.136	3.40	1.43	3.09
7201.00	89.510	163.560	6299.05	850.22	-444.15	1265.58	1624167.26	335564.66	39°24'49.260"N	80°49'48.922"W	1341.25	109.339	2.35	0.10	2.34
7290.00	89.380	161.210	6299.91	939.13	-528.97	1292.51	1624194.19	335479.85	39°24'48.426"N	80°49'48.563"W	1396.56	112.257	2.64	-0.15	-2.64
7380.00	89.690	162.230	6300.64	1029.09	-614.43	1320.74	1624222.41	335394.40	39°24'47.586"N	80°49'48.187"W	1456.66	114.949	1.18	0.34	1.13
7470.00	89.690	163.580	6301.13	1118.97	-700.45	1347.19	1624248.87	335308.38	39°24'46.740"N	80°49'47.834"W	1518.40	117.471	1.50	0.00	1.50
7559.00	89.630	162.650	6301.66	1207.84	-785.61	1373.04	1624274.72	335223.23	39°24'45.902"N	80°49'47.489"W	1581.90	119.777	1.05	-0.07	-1.04
7649.00	90.120	162.500	6301.86	1297.75	-871.48	1399.99	1624301.66	335137.36	39°24'45.057"N	80°49'47.129"W	1649.07	121.902	0.57	0.54	-0.17
7738.00	89.940	164.640	6301.81	1386.57	-956.84	1425.16	1624326.84	335052.00	39°24'44.217"N	80°49'46.792"W	1716.57	123.877	2.41	-0.20	2.40
7828.00	90.090	161.420	6301.79	1476.43	-1042.91	1451.43	1624353.10	334965.94	39°24'43.370"N	80°49'46.442"W	1787.26	125.699	3.58	0.17	-3.58
7917.00	89.940	160.160	6301.76	1565.42	-1126.95	1480.71	1624382.38	334881.90	39°24'42.544"N	80°49'46.053"W	1860.78	127.274	1.43	-0.17	-1.42
8007.00	90.060	156.290	6301.76	1655.36	-1210.51	1514.09	1624415.76	334798.34	39°24'41.723"N	80°49'45.612"W	1938.51	128.642	4.30	0.13	-4.30
8097.00	90.090	155.840	6301.64	1745.15	-1292.77	1550.60	1624452.27	334716.09	39°24'40.916"N	80°49'45.131"W	2018.82	129.819	0.50	0.03	-0.50
8186.00	89.970	161.100	6301.60	1834.08	-1375.53	1583.25	1624484.92	334633.33	39°24'40.103"N	80°49'44.699"W	2097.33	130.984	5.91	-0.13	5.91
8276.00	90.180	160.710	6301.48	1924.07	-1460.58	1612.70	1624514.36	334548.29	39°24'39.266"N	80°49'44.308"W	2175.80	132.166	0.49	0.23	-0.43
8366.00	90.000	161.990	6301.34	2014.05	-1545.85	1641.48	1624543.14	334463.02	39°24'38.428"N	80°49'43.926"W	2254.80	133.282	1.44	-0.20	1.42
8455.00	89.940	161.910	6301.39	2102.99	-1630.47	1669.05	1624570.71	334378.41	39°24'37.596"N	80°49'43.558"W	2333.28	134.330	0.11	-0.07	-0.09
8545.00	89.970	160.550	6301.46	2192.97	-1715.68	1698.01	1624599.67	334293.20	39°24'36.758"N	80°49'43.173"W	2413.88	135.297	1.51	0.03	-1.51
8634.00	90.090	159.180	6301.41	2281.97	-1799.24	1728.65	1624630.30	334209.64	39°24'35.937"N	80°49'42.767"W	2495.10	136.146	1.55	0.13	-1.54
8724.00	90.030	160.010	6301.31	2371.97	-1883.60	1760.03	1624661.68	334125.30	39°24'35.108"N	80°49'42.352"W	2577.91	136.942	0.92	-0.07	0.92
8813.00	90.000	157.910	6301.29	2460.95	-1966.66	1791.98	1624693.63	334042.24	39°24'34.291"N	80°49'41.929"W	2660.62	137.661	2.36	-0.03	-2.36
8903.00	90.060	157.520	6301.24	2550.87	-2049.93	1826.11	1624727.76	333958.97	39°24'33.473"N	80°49'41.479"W	2745.34	138.305	0.44	0.07	-0.43
8992.00	90.150	156.860	6301.08	2639.77	-2131.97	1860.61	1624762.26	333876.93	39°24'32.668"N	80°49'41.024"W	2829.70	138.888	0.75	0.10	-0.74
9082.00	90.060	157.830	6300.92	2729.67	-2215.03	1895.28	1624796.92	333793.88	39°24'31.852"N	80°49'40.566"W	2915.20	139.448	1.08	-0.10	1.08
9171.00	89.910	157.480	6300.94	2818.59	-2297.35	1929.11	1624830.76	333711.57	39°24'31.043"N	80°49'40.120"W	2999.88	139.979	0.43	-0.17	-0.39
9261.00	89.970	158.320	6301.03	2908.53	-2380.73	1962.97	1624864.61	333628.19	39°24'30.224"N	80°49'39.673"W	3085.63	140.494	0.94	0.07	0.93
9350.00	89.880	160.160	6301.15	2997.52	-2463.95	1994.52	1624896.16	333544.97	39°24'29.406"N	80°49'39.255"W	3170.04	141.011	2.07	-0.10	2.07
9440.00	90.000	159.360	6301.24	3087.52	-2548.39	2025.65	1624927.29	333460.54	39°24'28.577"N	80°49'38.843"W	3255.39	141.520	0.90	0.13	-0.89
9529.00	90.060	159.600	6301.20	3176.52	-2631.74	2056.85	1624958.49	333377.19	39°24'27.757"N	80°49'38.430"W	3340.17	141.990	0.28	0.07	0.27



# Actual Wellpath Report

SHR-40C-HS AWP Proj: 16414'

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## REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY	Slot	Slot C
Area	Tyler County, WV	Well	SHR-40C-HS
Field	Tyler	Wellbore	SHR-40C-HS AWB
Facility	SHR-40 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]
9619.00	90.000	159.940	6301.15	3266.51	-2716.19	2087.97	1624989.61	333292.75	39°24'26.927"N	80°49'38.017"W	3425.98	142.450	0.38	-0.07	0.38
9708.00	90.150	160.360	6301.03	3355.51	-2799.90	2118.19	1625019.83	333209.04	39°24'26.104"N	80°49'37.617"W	3510.87	142.892	0.50	0.17	0.47
9797.00	90.250	164.960	6300.72	3444.39	-2884.84	2144.71	1625046.34	333124.11	39°24'25.269"N	80°49'37.263"W	3594.73	143.371	5.17	0.11	5.17
9887.00	90.310	163.970	6300.28	3534.12	-2971.55	2168.81	1625070.45	333037.41	39°24'24.416"N	80°49'36.940"W	3678.84	143.876	1.10	0.07	-1.10
9976.00	90.280	161.850	6299.83	3623.00	-3056.61	2194.97	1625096.60	332952.35	39°24'23.579"N	80°49'36.590"W	3763.08	144.318	2.38	-0.03	-2.38
10066.00	90.460	161.250	6299.24	3712.96	-3141.98	2223.45	1625125.08	332866.98	39°24'22.739"N	80°49'36.212"W	3849.13	144.715	0.70	0.20	-0.67
10156.00	90.370	160.090	6298.59	3802.95	-3226.91	2253.24	1625154.86	332782.06	39°24'21.904"N	80°49'35.816"W	3935.73	145.075	1.29	-0.10	-1.29
10245.00	90.280	160.260	6298.09	3891.95	-3310.63	2283.42	1625185.05	332698.34	39°24'21.081"N	80°49'35.416"W	4021.73	145.405	0.22	-0.10	0.19
10335.00	90.370	159.540	6297.58	3981.95	-3395.15	2314.35	1625215.97	332613.83	39°24'20.251"N	80°49'35.006"W	4108.92	145.719	0.81	0.10	-0.80
10424.00	90.340	162.380	6297.03	4070.92	-3479.27	2343.38	1625245.00	332529.71	39°24'19.424"N	80°49'34.620"W	4194.85	146.039	3.19	-0.03	3.19
10514.00	90.280	160.320	6296.54	4160.89	-3564.53	2372.16	1625273.78	332444.45	39°24'18.585"N	80°49'34.238"W	4281.71	146.357	2.29	-0.07	-2.29
10603.00	90.210	158.660	6296.16	4249.89	-3647.89	2403.34	1625304.96	332361.10	39°24'17.766"N	80°49'33.825"W	4368.43	146.622	1.87	-0.08	-1.87
10693.00	90.400	158.500	6295.68	4339.86	-3731.67	2436.21	1625337.83	332277.32	39°24'16.943"N	80°49'33.391"W	4456.51	146.862	0.28	0.21	-0.18
10783.00	90.150	156.260	6295.25	4429.76	-3814.74	2470.82	1625372.44	332194.26	39°24'16.127"N	80°49'32.934"W	4545.02	147.069	2.50	-0.28	-2.49
10872.00	90.120	158.430	6295.04	4518.65	-3896.87	2505.10	1625406.71	332112.13	39°24'15.320"N	80°49'32.482"W	4632.62	147.265	2.44	-0.03	2.44
10962.00	89.970	158.090	6294.97	4608.61	-3980.47	2538.44	1625440.05	332028.54	39°24'14.499"N	80°49'32.042"W	4720.99	147.473	0.41	-0.17	-0.38
11051.00	89.750	161.150	6295.18	4697.60	-4063.89	2569.43	1625471.04	331945.12	39°24'13.679"N	80°49'31.631"W	4808.03	147.697	3.45	-0.25	3.44
11141.00	89.850	163.600	6295.50	4787.52	-4149.66	2596.67	1625498.28	331859.36	39°24'12.835"N	80°49'31.268"W	4895.14	147.963	2.72	0.11	2.72
11230.00	90.000	163.100	6295.61	4876.36	-4234.92	2622.18	1625523.78	331774.10	39°24'11.997"N	80°49'30.927"W	4981.00	148.235	0.59	0.17	-0.56
11320.00	90.000	156.860	6295.61	4966.32	-4319.44	2652.97	1625554.58	331689.58	39°24'11.166"N	80°49'30.519"W	5069.11	148.442	6.93	0.00	-6.93
11409.00	89.910	154.610	6295.68	5055.07	-4400.58	2689.54	1625591.15	331608.45	39°24'10.369"N	80°49'30.038"W	5157.39	148.568	2.53	-0.10	-2.53
11499.00	90.090	153.350	6295.68	5144.57	-4481.45	2729.03	1625630.63	331527.58	39°24'09.576"N	80°49'29.520"W	5247.00	148.660	1.41	0.20	-1.40
11589.00	89.850	156.420	6295.73	5234.20	-4562.93	2767.22	1625668.82	331446.11	39°24'08.776"N	80°49'29.018"W	5336.47	148.765	3.42	-0.27	3.41
11679.00	90.150	159.180	6295.73	5324.12	-4646.25	2801.22	1625702.82	331362.79	39°24'07.958"N	80°49'28.569"W	5425.36	148.914	3.08	0.33	3.07
11768.00	90.030	160.250	6295.59	5413.12	-4729.73	2832.08	1625733.67	331279.32	39°24'07.137"N	80°49'28.161"W	5512.81	149.088	1.21	-0.13	1.20
11858.00	90.220	162.390	6295.40	5503.09	-4814.99	2860.90	1625762.50	331194.07	39°24'06.299"N	80°49'27.777"W	5600.79	149.283	2.39	0.21	2.38
11947.00	90.120	164.710	6295.13	5591.91	-4900.34	2886.10	1625787.69	331108.72	39°24'05.459"N	80°49'27.440"W	5687.08	149.504	2.61	-0.11	2.61
12037.00	90.150	164.760	6294.92	5681.61	-4987.16	2909.80	1625811.39	331021.90	39°24'04.605"N	80°49'27.122"W	5773.97	149.738	0.06	0.03	0.06
12126.00	90.220	161.910	6294.63	5770.45	-5072.41	2935.32	1625836.91	330936.65	39°24'03.766"N	80°49'26.781"W	5860.50	149.943	3.20	0.08	-3.20
12216.00	90.250	162.670	6294.26	5860.37	-5158.15	2962.70	1625864.28	330850.92	39°24'02.922"N	80°49'26.416"W	5948.45	150.128	0.85	0.03	0.84



# Actual Wellpath Report

SHR-40C-HS AWP Proj: 16414'  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY	Slot	Slot C
Area	Tyler County, WV	Well	SHR-40C-HS
Field	Tyler	Wellbore	SHR-40C-HS AWB
Facility	SHR-40 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]
12306.00	90.220	162.390	6293.89	5950.29	-5243.99	2989.71	1625891.30	330765.08	39°24'02.078"N	80°49'26.056"W	6036.38	150.312	0.31	-0.03	-0.31
12395.00	90.000	158.680	6293.72	6039.27	-5327.89	3019.37	1625920.95	330681.19	39°24'01.253"N	80°49'25.663"W	6123.97	150.459	4.18	-0.25	-4.17
12485.00	89.850	154.730	6293.84	6129.10	-5410.54	3054.95	1625956.53	330598.55	39°24'00.442"N	80°49'25.194"W	6213.43	150.550	4.39	-0.17	-4.39
12574.00	89.780	155.470	6294.13	6217.77	-5491.27	3092.42	1625994.00	330517.82	39°23'59.649"N	80°49'24.701"W	6302.15	150.614	0.84	-0.08	0.83
12664.00	89.970	157.740	6294.32	6307.61	-5573.86	3128.16	1626029.74	330435.23	39°23'58.838"N	80°49'24.231"W	6391.66	150.698	2.53	0.21	2.52
12754.00	89.940	161.670	6294.40	6397.59	-5658.26	3159.37	1626060.94	330350.84	39°23'58.009"N	80°49'23.817"W	6480.55	150.823	4.37	-0.03	4.37
12843.00	89.910	161.420	6294.51	6486.56	-5742.68	3187.54	1626089.12	330266.42	39°23'57.179"N	80°49'23.443"W	6568.01	150.967	0.28	-0.03	-0.28
12933.00	89.850	164.190	6294.70	6576.44	-5828.65	3214.14	1626115.72	330180.46	39°23'56.333"N	80°49'23.088"W	6656.12	151.126	3.08	-0.07	3.08
13023.00	90.000	160.970	6294.82	6666.34	-5914.51	3241.08	1626142.66	330094.60	39°23'55.488"N	80°49'22.729"W	6744.33	151.278	3.58	0.17	-3.58
13112.00	89.940	159.460	6294.86	6755.33	-5998.25	3271.21	1626172.78	330010.86	39°23'54.665"N	80°49'22.329"W	6832.27	151.394	1.70	-0.07	-1.70
13202.00	89.880	159.560	6295.01	6845.33	-6082.56	3302.71	1626204.28	329926.56	39°23'53.836"N	80°49'21.912"W	6921.38	151.499	0.13	-0.07	0.11
13291.00	89.970	160.540	6295.12	6934.33	-6166.22	3333.08	1626234.65	329842.91	39°23'53.014"N	80°49'21.510"W	7009.40	151.607	1.11	0.10	1.10
13381.00	89.880	161.310	6295.24	7024.32	-6251.27	3362.49	1626264.06	329757.86	39°23'52.178"N	80°49'21.119"W	7098.22	151.725	0.86	-0.10	0.86
13470.00	89.940	159.620	6295.38	7113.31	-6335.15	3392.25	1626293.82	329673.99	39°23'51.353"N	80°49'20.724"W	7186.20	151.833	1.90	0.07	-1.90
13560.00	89.970	159.060	6295.45	7203.30	-6419.36	3424.00	1626325.57	329589.78	39°23'50.526"N	80°49'20.304"W	7275.44	151.925	0.62	0.03	-0.62
13649.00	90.180	160.680	6295.33	7292.30	-6502.92	3454.63	1626356.19	329506.22	39°23'49.704"N	80°49'19.898"W	7363.59	152.021	1.84	0.24	1.82
13739.00	90.310	161.460	6294.95	7382.28	-6588.05	3483.83	1626385.39	329421.10	39°23'48.867"N	80°49'19.510"W	7452.48	152.130	0.88	0.14	0.87
13828.00	90.180	164.550	6294.57	7471.15	-6673.15	3509.84	1626411.40	329336.00	39°23'48.030"N	80°49'19.163"W	7539.89	152.257	3.47	-0.15	3.47
13918.00	90.180	163.540	6294.29	7560.92	-6759.69	3534.58	1626436.14	329249.47	39°23'47.179"N	80°49'18.832"W	7628.01	152.395	1.12	0.00	-1.12
14008.00	90.120	158.350	6294.05	7650.88	-6844.72	3563.95	1626465.51	329164.44	39°23'46.342"N	80°49'18.442"W	7716.99	152.495	5.77	-0.07	-5.77
14097.00	90.090	153.670	6293.89	7739.64	-6926.01	3600.13	1626501.68	329083.15	39°23'45.544"N	80°49'17.966"W	7805.80	152.535	5.26	-0.03	-5.26
14187.00	90.090	153.860	6293.75	7829.11	-7006.74	3639.91	1626541.46	329002.43	39°23'44.752"N	80°49'17.444"W	7895.78	152.549	0.21	0.00	0.21
14276.00	90.250	153.340	6293.48	7917.55	-7086.46	3679.48	1626581.03	328922.72	39°23'43.970"N	80°49'16.925"W	7984.77	152.560	0.61	0.18	-0.58
14366.00	90.280	159.070	6293.06	8007.32	-7168.77	3715.78	1626617.33	328840.41	39°23'43.162"N	80°49'16.447"W	8074.55	152.601	6.37	0.03	6.37
14456.00	90.120	163.480	6292.75	8097.27	-7253.99	3744.66	1626646.21	328755.20	39°23'42.324"N	80°49'16.064"W	8163.51	152.696	4.90	-0.18	4.90
14545.00	90.090	164.220	6292.59	8186.07	-7339.48	3769.42	1626670.96	328669.71	39°23'41.483"N	80°49'15.732"W	8250.85	152.816	0.83	-0.03	0.83
14635.00	90.280	161.910	6292.30	8275.93	-7425.57	3795.63	1626697.18	328583.63	39°23'40.636"N	80°49'15.382"W	8339.42	152.926	2.58	0.21	-2.57
14724.00	90.220	164.160	6291.91	8364.80	-7510.69	3821.60	1626723.14	328498.51	39°23'39.799"N	80°49'15.036"W	8427.04	153.032	2.53	-0.07	2.53
14814.00	90.280	161.960	6291.52	8454.67	-7596.78	3847.82	1626749.36	328412.43	39°23'38.952"N	80°49'14.686"W	8515.68	153.137	2.45	0.07	-2.44
14904.00	90.310	160.910	6291.05	8544.64	-7682.09	3876.48	1626778.01	328327.12	39°23'38.113"N	80°49'14.305"W	8604.74	153.224	1.17	0.03	-1.17



# Actual Wellpath Report

SHR-40C-HS AWP Proj: 16414'  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY	Slot	Slot C
Area	Tyler County, WV	Well	SHR-40C-HS
Field	Tyler	Wellbore	SHR-40C-HS AWB
Facility	SHR-40 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]
14993.00	90.180	161.150	6290.67	8633.62	-7766.26	3905.41	1626806.94	328242.96	39°23'37.285"N	80°49'13.920"W	8692.93	153.304	0.31	-0.15	0.27
15083.00	90.150	162.240	6290.41	8723.58	-7851.70	3933.67	1626835.21	328157.52	39°23'36.445"N	80°49'13.544"W	8781.97	153.389	1.21	-0.03	1.21
15173.00	90.150	157.760	6290.18	8813.56	-7936.25	3964.45	1626865.98	328072.97	39°23'35.614"N	80°49'13.137"W	8871.35	153.456	4.98	0.00	-4.98
15262.00	90.220	156.680	6289.89	8902.45	-8018.31	3998.91	1626900.44	327990.92	39°23'34.808"N	80°49'12.682"W	8960.16	153.494	1.22	0.08	-1.21
15352.00	90.150	157.880	6289.60	8992.35	-8101.32	4033.67	1626935.20	327907.91	39°23'33.992"N	80°49'12.224"W	9049.97	153.531	1.34	-0.08	1.33
15441.00	90.220	157.470	6289.31	9081.27	-8183.65	4067.47	1626969.00	327825.59	39°23'33.184"N	80°49'11.778"W	9138.74	153.572	0.47	0.08	-0.46
15531.00	90.120	155.170	6289.04	9171.08	-8266.07	4103.62	1627005.14	327743.17	39°23'32.374"N	80°49'11.302"W	9228.63	153.598	2.56	-0.11	-2.56
15620.00	90.060	156.520	6288.90	9259.85	-8347.27	4140.04	1627041.56	327661.97	39°23'31.577"N	80°49'10.823"W	9317.56	153.620	1.52	-0.07	1.52
15710.00	90.090	161.350	6288.79	9349.80	-8431.23	4172.38	1627073.90	327578.02	39°23'30.752"N	80°49'10.396"W	9407.15	153.671	5.37	0.03	5.37
15800.00	90.180	160.130	6288.57	9439.79	-8516.19	4202.06	1627103.58	327493.06	39°23'29.917"N	80°49'10.002"W	9496.47	153.737	1.36	0.10	-1.36
15889.00	90.280	158.140	6288.22	9528.78	-8599.35	4233.76	1627135.28	327409.91	39°23'29.100"N	80°49'09.583"W	9585.07	153.787	2.24	0.11	-2.24
15979.00	90.220	159.890	6287.82	9618.76	-8683.38	4265.99	1627167.51	327325.88	39°23'28.274"N	80°49'09.157"W	9674.70	153.836	1.95	-0.07	1.94
16068.00	90.150	163.630	6287.54	9707.70	-8767.89	4293.84	1627195.36	327241.38	39°23'27.443"N	80°49'08.786"W	9762.84	153.908	4.20	-0.08	4.20
16158.00	90.060	168.210	6287.37	9797.20	-8855.16	4315.73	1627217.24	327154.11	39°23'26.584"N	80°49'08.491"W	9850.86	154.017	5.09	-0.10	5.09
16248.00	90.280	169.690	6287.11	9886.10	-8943.49	4332.98	1627234.49	327065.78	39°23'25.713"N	80°49'08.255"W	9937.85	154.151	1.66	0.24	1.64
16337.00	90.180	166.440	6286.75	9974.21	-9030.56	4351.38	1627252.89	326978.73	39°23'24.855"N	80°49'08.004"W	10024.24	154.273	3.65	-0.11	-3.65
16390.00	90.280	163.200	6286.53	10027.01	-9081.70	4365.26	1627266.77	326927.58	39°23'24.352"N	80°49'07.818"W	10076.35	154.328	6.12	0.19	-6.11
16414.00	90.280	163.200	6286.42	10050.97	-9104.68	4372.19	1627273.71	326904.61	39°23'24.126"N	80°49'07.725"W	10100.06	154.349	0.00	0.00	0.00



### REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY	Slot	Slot C
Area	Tyler County, WV	Well	SHR-40C-HS
Field	Tyler	Wellbore	SHR-40C-HS AWB
Facility	SHR-40 Pad		

### TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SHR-40C-HS BHL Rev-3		6267.19	-9095.63	4395.30	1627296.81	326913.66	39°23'24.219"N	80°49'07.433"W	point
SHR-40C-HS LP Plat		6294.90	-333.00	1205.97	1624107.65	335675.81	39°24'50.350"N	80°49'49.703"W	point
SHR-40C-HS LP Rev-3		6300.00	-264.07	1180.88	1624082.57	335744.73	39°24'51.028"N	80°49'50.035"W	point
SHR-40 Pad LL		6599.36	33.67	20.84	1622922.59	336042.46	39°24'53.800"N	80°50'04.870"W	polygon

### WELLPATH COMPOSITION - Ref Wellbore: SHR-40C-HS AWB Ref Wellpath: SHR-40C-HS AWP Proj: 16414'

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
19.40	4404.00	Generic gyro - northseeking (Standard)	01 MS Gyro <8-3/4"> (100'-4400')	SHR-40C-HS AWB
4404.00	5937.00	ISWISA MWD, Rev. 2 (Standard)	02 SDI EM <8-3/4"> (4400')(4474'-5933')	SHR-40C-HS AWB
5937.00	16390.00	NaviTrak (AT Curve Short Spaced)	03 BHI AT Curve <8-3/4"> (5937')(6009'-16390')	SHR-40C-HS AWB
16390.00	16414.00	Blind Drilling (std)	Projection to bit	SHR-40C-HS AWB



# Actual Wellpath Report

SHR-40C-HS AWP Proj: 16414'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY	Slot	Slot C
Area	Tyler County, WV	Well	SHR-40C-HS
Field	Tyler	Wellbore	SHR-40C-HS AWB
Facility	SHR-40 Pad		

## COMMENTS

### Wellpath general comments

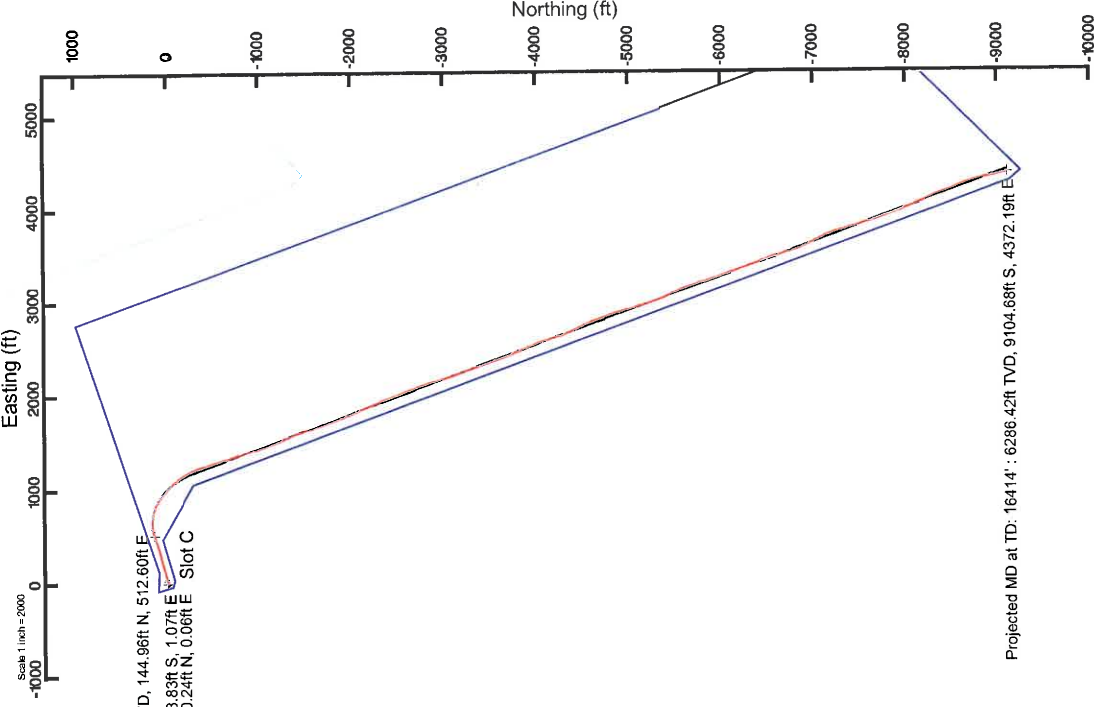
API: 47-095-02205-0000  
 BHI Job #: 7255736  
 Rig: Precision 542  
 Duration: 5/24/2015-5/29/2015  
 MS Gyro <8-3/4"> (100'-4400')  
 SDI EM <8-3/4"> (4400')(4474'-5933')  
 BHI AT Curve <8-3/4"> (5937')(6009'-16390')  
 Projected MD at TD: 16414'

Location: Tyler County, WV  
 Field: Tyler  
 Facility: SHR-40 Pad

Slot: Slot C  
 Well: SHR-40C-HS  
 Wellbore: SHR-40C-HS.PWB

Plot reference wellpath is SHR-40C-HS.PWB Rev=C 0  
 This vertical depths are referenced to Precision 542 (RKB)  
 Measured depths are referenced to Precision 542 (RKB)  
 Precision 542 (RKB) to Mean Sea Level: 788.86 feet  
 Mean Sea Level to Mid line (At Slot, Slot C): -789.46 feet  
 Coordinates are in feet referenced to Slot  
 Created by: edstanyar on 03/June/2015

Location Information			
Facility Name	Grid East (US ft)	Latitude	Longitude
SHR-40 Pad	1622922.589	39°24'53.800"N	80°50'04.870"W
Slot	Local E (ft)	Grid North (US ft)	Longitude
Slot C	-33.67	1622901.750	39°24'53.464"N
Comment	Renamed well - 8/18/14		
Precision 542 (RKB) to Mid line (At Slot, Slot C)	19.4ft		
Mean Sea Level to Mid line (At Slot, Slot C)	-789.46ft		
Precision 542 (RKB) to Mean Sea Level	788.86ft		



MS Gyro <8-3/4"> (100°-4400') : 0.33° Inc, 104.00ft MD, 104.00ft TVD, -0.20ft VS

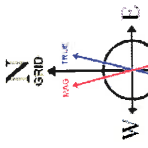
SDI EM <8-3/4"> (4400')(4474'-5933') : 0.57° Inc, 4478.00ft MD, 4477.93ft TVD, 8.66ft VS

BHI AT Curve <8-3/4"> (5937')(6009'-16390') : 45.62° Inc, 6009.00ft MD, 5862.29ft TVD, 39.11ft VS

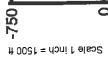
Projected MD at TD: 16414' : 6286.42ft TVD, 9104.68ft S, 4372.19ft E

Projected MD at TD: 16414' : 90.28° Inc, 16414.00ft MD, 6286.42ft TVD, 10050.97ft VS

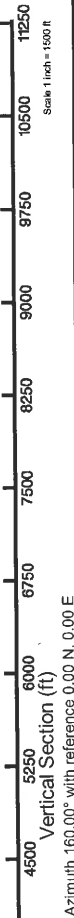
API: 47-095-02205-0000  
 BHI Job #: 7255736  
 Rig: Precision 542  
 Duration: 5/24/2015-5/29/2015



User specifies (HDGM) Dip: 66.91° Field: 52314 nT  
 Magnetic North is 7.59 degrees West of True North (at 12/May/2015)  
 Grid North is 0.85 degrees West of True North  
 To correct azimuth from True to Grid add 85.74 degrees  
 To correct azimuth from Magnetic to Grid subtract 6.74 degrees



Scale 1 inch = 1500 ft



Scale 1 inch = 1500 ft