

SOUTHWESTERN ENERGY



Location: Ohio County, WV
 Field: Ohio
 Facility: Glenn Didriksen OHI Pad 1

Slot: Slot #205
 Well: Glenn Didriksen OHI 205H
 Wellbore: Glenn Didriksen OHI 205H PWB

Plot reference wellpath is Glenn Didriksen OHI 205H PWP Rev-C.0

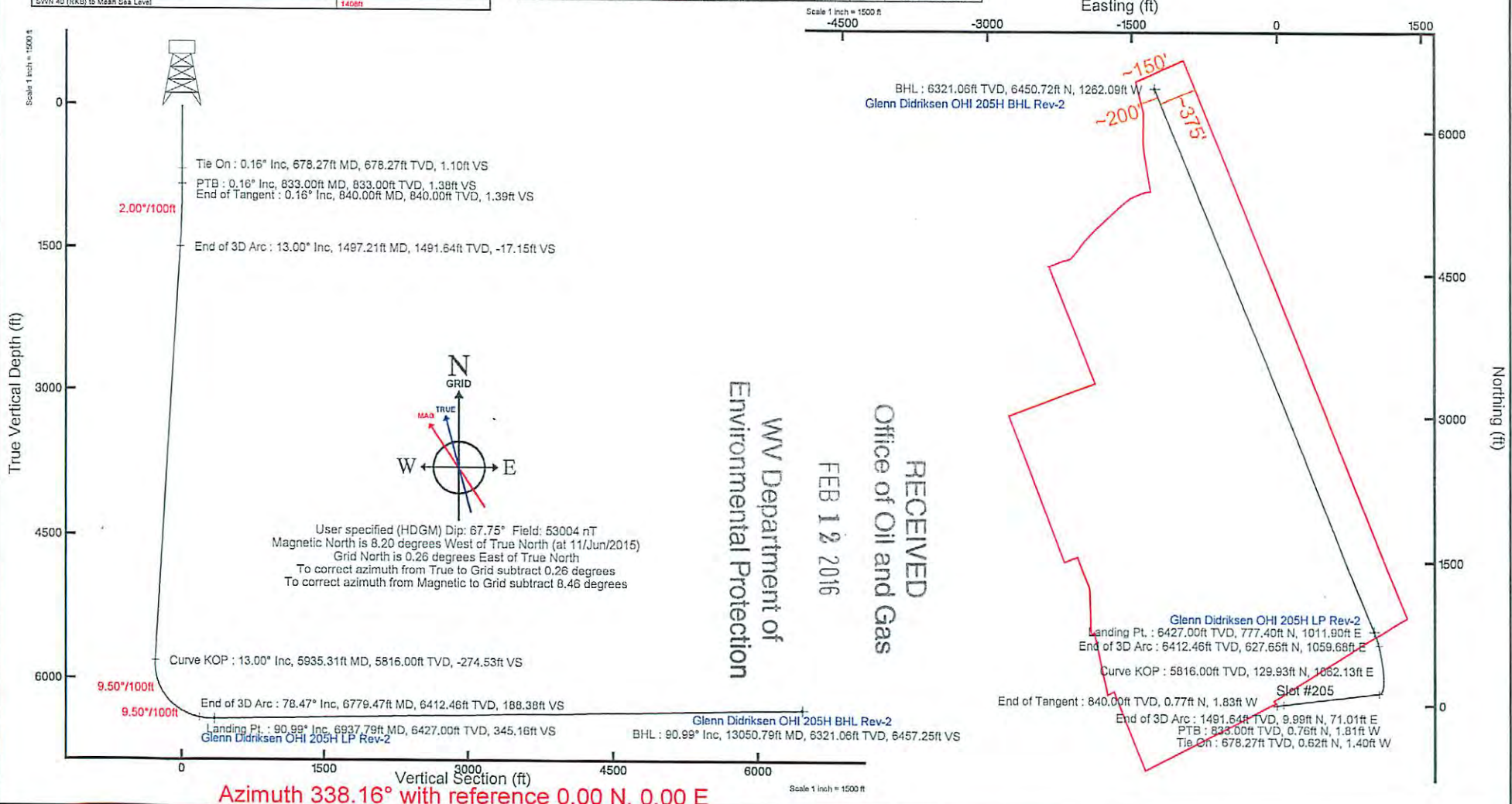
True vertical depths are referenced to SWN 40 (RKB)	Grid System: NAD83 / UTM Zone 17 North, US feet
Measured depths are referenced to SWN 40 (RKB)	North Reference: Grid north
SWN 40 (RKB) to Mean Sea Level: 1408 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: Slot #205): -1382 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: pottball on 27/Jun/2015

Targets						
Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)
Glenn Didriksen OHI 205H BHL Rev-1	833.00	833.00	6450.72	-1382.00	13050.79	6321.06
Glenn Didriksen OHI 205H LP Rev-2	777.40	777.40	6450.72	-1382.00	13050.79	6321.06

Well Profile Data							
Design Comment	MD (ft)	Incl. (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	V/S (ft)
Tie On	678.27	0.160	286.880	678.27	0.62	-1.40	1.10
PTB	833.00	0.160	288.880	833.00	0.78	-1.81	1.38
End of Tangent	840.00	0.160	288.880	840.00	0.77	-1.83	1.39
End of 3D Arc	1497.21	13.000	83.100	1491.64	9.99	71.01	-17.15
Curve KOP	5935.31	13.000	83.100	5816.00	129.93	1062.13	0.00
End of 3D Arc	6779.47	78.467	346.536	6412.46	627.65	1059.60	0.50
Landing Pt.	6937.79	90.993	338.158	6427.00	777.40	1011.00	9.50
BHL	13050.79	00.000	238.158	6321.06	6450.72	-1262.09	0.00

Location Information			
Facility Name	Grid East (US ft)	Grid North (US ft)	Longitude
Glenn Didriksen OHI Pad 1	1793644.310	14568481.840	80°35'42.155"W
Slot	Local N (ft)	Local E (ft)	Longitude
Slot #205	11.97	7.51	80°35'42.056"W
SWN 40 (RKB) to Mud line (At Slot: Slot #205)	26ft		
Mean Sea Level to Mud line (At Slot: Slot #205)	-1382ft		
SWN 40 (RKB) to Mean Sea Level	1408ft		

Hole and Casing Sections									
Name	Start Depth (ft)	End Depth (ft)	Interval (ft)	Start Date	End Date	Wellbore			
12.21 in Cement Surface	28.00	134.00	106.00	2010	2010	Glenn Didriksen OHI 205H PWB			
8.75 in Open Hole	228.83	5935.31	5706.48	2010	2010	Glenn Didriksen OHI 205H PWB			
8.75 in Open Hole	6002.00	10937.79	4935.79	2010	2010	Glenn Didriksen OHI 205H PWB			
8.75 in Open Hole	6002.00	10937.79	4935.79	2010	2010	Glenn Didriksen OHI 205H PWB			



Azimuth 338.16° with reference 0.00 N, 0.00 E

Planned Wellpath Report

Glenn Didriksen OHI 205H PWP Rev-C.0

Page 1 of 8



REFERENCE WELLPATH IDENTIFICATION

Operator	SOUTHWESTERN ENERGY	Slot	Slot #205
Area	Ohio County, WV	Well	Glenn Didriksen OHI 205H
Field	Ohio	Wellbore	Glenn Didriksen OHI 205H PWB
Facility	Glenn Didriksen OHI Pad 1		

REPORT SETUP INFORMATION

Projection System	NAD83 / UTM Zone 17 North, US feet	Software System	WellArchitect@ 4.0.1
North Reference	Grid	User	Gottbral
Scale	0.999615	Report Generated	27/Jun/2015 at 21:44
Convergence at slot	0.26° East	Database/Source file	WANorthEast/Glenn_Didriksen_OHI_205H_PWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	11.97	7.61	1753644.31	14568493.81	40°06'50.302"N	80°35'42.056"W
Facility Reference Pt			1753636.70	14568481.84	40°06'50.184"N	80°35'42.155"W
Field Reference Pt			0.00	0.00	0°00'00.000"	85°29'19.478"W

WELLPATH DATUM

Calculation method	Minimum curvature	SWN 40 (RKB) to Facility Vertical Datum	26.00ft
Horizontal Reference Pt	Slot	SWN 40 (RKB) to Mean Sea Level	1408.00ft
Vertical Reference Pt	SWN 40 (RKB)	SWN 40 (RKB) to Mud Line at Slot (Slot #205)	26.00ft
MD Reference Pt	SWN 40 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	338.16°

RECEIVED
Office of Oil and Gas
FEB 12 2016
WV Department of
Environmental Protection

03/04/2016

27/Jun/2015

Planned Wellpath Report

Glenn Didriksen OHI 205H PWP Rev-C.0

Page 2 of 8



REFERENCE WELLPATH IDENTIFICATION

Operator	SOUTHWESTERN ENERGY	Slot	Slot #205
Area	Ohio County, WV	Well	Glenn Didriksen OHI 205H
Field	Ohio	Wellbore	Glenn Didriksen OHI 205H PWB
Facility	Glenn Didriksen OHI Pad 1		

WELLPATH DATA (139 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	268.390	0.00	0.00	0.00	0.00	1753644.31	14568493.81	40°06'50.302"N	80°35'42.056"W	0.00	0.000	0.00	0.00	0.00
26.00	0.000	268.390	26.00	0.00	0.00	0.00	1753644.31	14568493.81	40°06'50.302"N	80°35'42.056"W	0.00	0.000	0.00	0.00	0.00
100.00	0.070	268.390	100.00	0.02	0.00	-0.05	1753644.26	14568493.81	40°06'50.302"N	80°35'42.057"W	0.05	268.390	0.09	0.09	0.00
200.00	0.170	293.600	200.00	0.14	0.06	-0.24	1753644.07	14568493.87	40°06'50.303"N	80°35'42.059"W	0.25	283.110	0.11	0.10	25.21
300.00	0.050	325.570	300.00	0.29	0.15	-0.40	1753643.91	14568493.96	40°06'50.304"N	80°35'42.061"W	0.43	290.648	0.13	-0.12	31.97
400.00	0.240	287.080	400.00	0.46	0.25	-0.63	1753643.68	14568494.06	40°06'50.304"N	80°35'42.064"W	0.68	291.661	0.20	0.19	-38.49
500.00	0.150	325.620	500.00	0.72	0.42	-0.90	1753643.41	14568494.23	40°06'50.306"N	80°35'42.068"W	0.99	294.912	0.15	-0.09	38.54
600.00	0.210	280.290	600.00	0.95	0.56	-1.16	1753643.15	14568494.37	40°06'50.308"N	80°35'42.071"W	1.28	295.831	0.15	0.06	-45.33
678.27	0.160	288.980	678.27	1.10	0.62	-1.40	1753642.91	14568494.43	40°06'50.308"N	80°35'42.074"W	1.53	293.905	0.07	-0.06	11.10
778.27†	0.160	288.980	778.27	1.28	0.71	-1.66	1753642.65	14568494.52	40°06'50.309"N	80°35'42.078"W	1.81	293.146	0.00	0.00	0.00
833.00	0.160	288.980	833.00	1.38	0.76	-1.81	1753642.50	14568494.57	40°06'50.310"N	80°35'42.079"W	1.96	292.822	0.00	0.00	0.00
840.00	0.160	288.980	840.00	1.39	0.77	-1.83	1753642.48	14568494.58	40°06'50.310"N	80°35'42.080"W	1.98	292.784	0.00	0.00	0.00
878.27†	0.625	77.052	878.27	1.40	0.83	-1.67	1753642.64	14568494.64	40°06'50.310"N	80°35'42.078"W	1.87	296.412	2.00	1.21	386.94
978.27†	2.622	81.890	978.22	0.77	1.28	1.12	1753645.43	14568495.09	40°06'50.315"N	80°35'42.042"W	1.70	41.294	2.00	2.00	4.84
1078.27†	4.622	82.545	1078.02	-0.78	2.12	7.38	1753651.69	14568495.93	40°06'50.323"N	80°35'41.961"W	7.68	73.959	2.00	2.00	0.65
1178.27†	6.621	82.804	1177.53	-3.23	3.37	17.10	1753661.40	14568497.18	40°06'50.335"N	80°35'41.836"W	17.43	78.858	2.00	2.00	0.26
1278.27†	8.621	82.944	1276.64	-6.61	5.01	30.26	1753674.55	14568498.82	40°06'50.350"N	80°35'41.666"W	30.67	80.597	2.00	2.00	0.14
1378.27†	10.621	83.031	1375.23	-10.88	7.05	46.84	1753691.14	14568500.86	40°06'50.370"N	80°35'41.453"W	47.37	81.442	2.00	2.00	0.09
1478.27†	12.621	83.091	1473.18	-16.06	9.48	66.84	1753711.12	14568503.29	40°06'50.393"N	80°35'41.195"W	67.51	81.926	2.00	2.00	0.06
1497.21	13.000	83.100	1491.64	-17.15	9.99	71.01	1753715.29	14568503.79	40°06'50.397"N	80°35'41.142"W	71.71	81.994	2.00	2.00	0.05
1578.27†	13.000	83.100	1570.63	-21.85	12.18	89.11	1753733.39	14568505.98	40°06'50.418"N	80°35'40.908"W	89.94	82.218	0.00	0.00	0.00
1678.27†	13.000	83.100	1668.06	-27.65	14.88	111.44	1753755.71	14568508.68	40°06'50.444"N	80°35'40.621"W	112.43	82.395	0.00	0.00	0.00
1778.27†	13.000	83.100	1765.50	-33.45	17.58	133.78	1753778.03	14568511.39	40°06'50.470"N	80°35'40.333"W	134.93	82.512	0.00	0.00	0.00
1878.27†	13.000	83.100	1862.94	-39.25	20.29	156.11	1753800.36	14568514.09	40°06'50.495"N	80°35'40.046"W	157.42	82.596	0.00	0.00	0.00
1978.27†	13.000	83.100	1960.37	-45.04	22.99	178.44	1753822.68	14568516.79	40°06'50.521"N	80°35'39.758"W	179.91	82.659	0.00	0.00	0.00

RECEIVED
Office of Oil and Gas
FEB 12 2016
WV Department of
Environmental Protection

03/04/2016

27/Jun/2015

Planned Wellpath Report

Glenn Didriksen OHI 205H PWP Rev-C.0



Operator	SOUTHWESTERN ENERGY
Area	Ohio County, WV
Field	Ohio
Facility	Glenn Didriksen OHI Pad 1
	Wellbore
	Glenn Didriksen OHI 205H PWB
	Well
	Glenn Didriksen OHI 205H
	Slot
	Slot #205

REFERENCE WELLPATH IDENTIFICATION

MD	Inclination	Azimuth	TVD	Vert	East	Grid East	Grid North	Latitude	Longitude	Closure	Dir	DLS	Build	Turn
[ft]	[°]	[°]	[ft]	[ft]	[ft]	[ft]	[ft]	[ft]	[ft]	[ft]	[ft]	[%/100ft]	[ft]	[%/100ft]
2078.27	13.000	83.100	2057.81	-50.84	25.69	200.77	1753845.00	40°06'50.547"N	80°35'39.470"W	202.41	82.708	0.00	0.00	0.00
2178.27	13.000	83.100	2155.25	-56.64	28.39	223.10	1753867.33	40°06'50.573"N	80°35'39.183"W	224.90	82.747	0.00	0.00	0.00
2278.27	13.000	83.100	2252.69	-62.44	31.10	245.44	1753889.65	40°06'50.598"N	80°35'38.895"W	247.40	82.779	0.00	0.00	0.00
2378.27	13.000	83.100	2350.12	-68.24	33.80	267.77	1753911.97	40°06'50.624"N	80°35'38.608"W	269.89	82.806	0.00	0.00	0.00
2478.27	13.000	83.100	2447.56	-74.04	36.50	290.10	1753934.30	40°06'50.650"N	80°35'38.320"W	292.39	82.829	0.00	0.00	0.00
2578.27	13.000	83.100	2545.00	-79.84	39.20	312.43	1753956.62	40°06'50.675"N	80°35'38.033"W	314.88	82.848	0.00	0.00	0.00
2678.27	13.000	83.100	2642.43	-85.64	41.91	334.77	1753978.95	40°06'50.701"N	80°35'37.745"W	337.38	82.865	0.00	0.00	0.00
2778.27	13.000	83.100	2739.87	-91.44	44.61	357.10	1754001.27	40°06'50.727"N	80°35'37.457"W	359.87	82.880	0.00	0.00	0.00
2878.27	13.000	83.100	2837.31	-97.24	47.31	379.43	1754023.59	40°06'50.752"N	80°35'37.170"W	382.37	82.893	0.00	0.00	0.00
2978.27	13.000	83.100	2934.74	-103.04	50.01	401.76	1754045.92	40°06'50.778"N	80°35'36.882"W	404.86	82.904	0.00	0.00	0.00
3078.27	13.000	83.100	3032.18	-108.84	52.72	424.09	1754068.24	40°06'50.804"N	80°35'36.595"W	427.36	82.914	0.00	0.00	0.00
3178.27	13.000	83.100	3129.62	-114.64	55.42	446.43	1754090.56	40°06'50.830"N	80°35'36.307"W	449.85	82.924	0.00	0.00	0.00
3278.27	13.000	83.100	3227.06	-120.44	58.12	468.76	1754112.89	40°06'50.855"N	80°35'36.019"W	472.35	82.932	0.00	0.00	0.00
3378.27	13.000	83.100	3324.49	-126.24	60.82	491.09	1754135.21	40°06'50.881"N	80°35'35.732"W	494.84	82.940	0.00	0.00	0.00
3478.27	13.000	83.100	3421.93	-132.04	63.53	513.42	1754157.53	40°06'50.907"N	80°35'35.444"W	517.34	82.947	0.00	0.00	0.00
3578.27	13.000	83.100	3519.37	-137.84	66.23	535.75	1754179.86	40°06'50.932"N	80°35'35.157"W	539.83	82.953	0.00	0.00	0.00
3678.27	13.000	83.100	3616.80	-143.63	68.93	558.09	1754202.18	40°06'50.958"N	80°35'34.869"W	562.33	82.959	0.00	0.00	0.00
3778.27	13.000	83.100	3714.24	-149.43	71.63	580.42	1754224.50	40°06'50.984"N	80°35'34.581"W	584.82	82.964	0.00	0.00	0.00
3878.27	13.000	83.100	3811.68	-155.23	74.33	602.75	1754246.83	40°06'51.009"N	80°35'34.294"W	607.32	82.969	0.00	0.00	0.00
3978.27	13.000	83.100	3909.11	-161.03	77.04	625.08	1754269.15	40°06'51.035"N	80°35'34.006"W	629.81	82.974	0.00	0.00	0.00
4078.27	13.000	83.100	4006.55	-166.83	79.74	647.42	1754291.48	40°06'51.061"N	80°35'33.719"W	652.31	82.978	0.00	0.00	0.00
4178.27	13.000	83.100	4103.99	-172.63	82.44	669.75	1754313.80	40°06'51.086"N	80°35'33.431"W	674.80	82.982	0.00	0.00	0.00
4278.27	13.000	83.100	4201.43	-178.43	85.14	692.08	1754336.12	40°06'51.112"N	80°35'33.143"W	697.30	82.986	0.00	0.00	0.00
4378.27	13.000	83.100	4298.86	-184.23	87.85	714.41	1754358.45	40°06'51.138"N	80°35'32.856"W	719.79	82.990	0.00	0.00	0.00
4478.27	13.000	83.100	4396.30	-190.03	90.55	736.74	1754380.77	40°06'51.164"N	80°35'32.568"W	742.29	82.993	0.00	0.00	0.00

WELLPATH DATA (139 stations) † = interpolated/extrapolated station

RECEIVED
Office of Oil and Gas

FEB 12 2016

WV Department of
Environmental Protection

Planned Wellpath Report

Glenn Didriksen OHI 205H PWP Rev-C.0

Page 4 of 8



REFERENCE WELLPATH IDENTIFICATION

Operator	SOUTHWESTERN ENERGY	Slot	Slot #205
Area	Ohio County, WV	Well	Glenn Didriksen OHI 205H
Field	Ohio	Wellbore	Glenn Didriksen OHI 205H PWB
Facility	Glenn Didriksen OHI Pad 1		

WELLPATH DATA (139 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]
4578.27†	13.000	83.100	4493.74	-195.83	93.25	759.08	1754403.09	14568587.03	40°06'51.189"N	80°35'32.281"W	764.78	82.996	0.00	0.00	0.00
4678.27†	13.000	83.100	4591.17	-201.63	95.95	781.41	1754425.42	14568589.73	40°06'51.215"N	80°35'31.993"W	787.28	82.999	0.00	0.00	0.00
4778.27†	13.000	83.100	4688.61	-207.43	98.66	803.74	1754447.74	14568592.43	40°06'51.241"N	80°35'31.705"W	809.77	83.002	0.00	0.00	0.00
4878.27†	13.000	83.100	4786.05	-213.23	101.36	826.07	1754470.06	14568595.13	40°06'51.266"N	80°35'31.418"W	832.27	83.005	0.00	0.00	0.00
4978.27†	13.000	83.100	4883.48	-219.03	104.06	848.41	1754492.39	14568597.83	40°06'51.292"N	80°35'31.130"W	854.76	83.007	0.00	0.00	0.00
5078.27†	13.000	83.100	4980.92	-224.83	106.76	870.74	1754514.71	14568600.53	40°06'51.318"N	80°35'30.843"W	877.26	83.010	0.00	0.00	0.00
5178.27†	13.000	83.100	5078.36	-230.63	109.47	893.07	1754537.03	14568603.23	40°06'51.343"N	80°35'30.555"W	899.75	83.012	0.00	0.00	0.00
5278.27†	13.000	83.100	5175.80	-236.43	112.17	915.40	1754559.36	14568605.94	40°06'51.369"N	80°35'30.267"W	922.25	83.014	0.00	0.00	0.00
5378.27†	13.000	83.100	5273.23	-242.22	114.87	937.73	1754581.68	14568608.64	40°06'51.395"N	80°35'29.980"W	944.74	83.016	0.00	0.00	0.00
5478.27†	13.000	83.100	5370.67	-248.02	117.57	960.07	1754604.00	14568611.34	40°06'51.420"N	80°35'29.692"W	967.24	83.018	0.00	0.00	0.00
5578.27†	13.000	83.100	5468.11	-253.82	120.28	982.40	1754626.33	14568614.04	40°06'51.446"N	80°35'29.405"W	989.73	83.020	0.00	0.00	0.00
5678.27†	13.000	83.100	5565.54	-259.62	122.98	1004.73	1754648.65	14568616.74	40°06'51.472"N	80°35'29.117"W	1012.23	83.022	0.00	0.00	0.00
5778.27†	13.000	83.100	5662.98	-265.42	125.68	1027.06	1754670.98	14568619.44	40°06'51.498"N	80°35'28.829"W	1034.72	83.023	0.00	0.00	0.00
5878.27†	13.000	83.100	5760.42	-271.22	128.38	1049.40	1754693.30	14568622.15	40°06'51.523"N	80°35'28.542"W	1057.22	83.025	0.00	0.00	0.00
5935.31	13.000	83.100	5816.00	-274.53	129.93	1062.13	1754706.03	14568623.69	40°06'51.538"N	80°35'28.378"W	1070.05	83.026	0.00	0.00	0.00
5978.27†	12.992	64.872	5857.87	-275.50	132.56	1071.31	1754715.20	14568626.32	40°06'51.563"N	80°35'28.260"W	1079.48	82.946	9.50	-0.02	-42.44
6078.27†	17.183	31.339	5954.58	-265.98	149.99	1089.21	1754733.09	14568643.74	40°06'51.735"N	80°35'28.028"W	1099.49	82.159	9.50	4.19	-33.53
6178.27†	24.481	13.901	6048.07	-240.25	182.79	1101.90	1754745.78	14568676.53	40°06'52.059"N	80°35'27.863"W	1116.96	80.581	9.50	7.30	-17.44
6278.27†	32.877	4.514	6135.77	-199.02	230.07	1109.03	1754752.91	14568723.79	40°06'52.525"N	80°35'27.768"W	1132.64	78.280	9.50	8.40	-9.39
6378.27†	41.710	358.684	6215.27	-143.41	290.53	1110.40	1754754.28	14568784.22	40°06'53.123"N	80°35'27.747"W	1147.78	75.338	9.50	8.83	-5.83
6478.27†	50.749	354.601	6284.39	-74.96	362.50	1105.98	1754749.87	14568856.17	40°06'53.834"N	80°35'27.800"W	1163.88	71.853	9.50	9.04	-4.08
6578.27†	59.899	351.461	6341.23	4.45	444.01	1095.90	1754739.78	14568937.65	40°06'54.640"N	80°35'27.925"W	1182.43	67.944	9.50	9.15	-3.14
6678.27†	69.110	348.860	6384.24	92.65	532.83	1080.41	1754724.30	14569026.43	40°06'55.519"N	80°35'28.119"W	1204.65	63.749	9.50	9.21	-2.60
6778.27†	78.356	346.562	6412.22	187.22	626.50	1059.96	1754703.86	14569120.07	40°06'56.445"N	80°35'28.376"W	1231.27	59.414	9.50	9.25	-2.30
6779.47	78.467	346.535	6412.46	188.38	627.65	1059.68	1754703.58	14569121.21	40°06'56.457"N	80°35'28.380"W	1231.61	59.362	9.50	9.26	-2.20

RECEIVED
Office of Oil and Gas
FEB 12 2016
WV Department of
Environmental Protection

Planned Wellpath Report

Glenn Didriksen OHI 205H PWP Rev-C.0

Page 5 of 8



REFERENCE WELLPATH IDENTIFICATION

Operator	SOUTHWESTERN ENERGY	Slot	Slot #205
Area	Ohio County, WV	Well	Glenn Didriksen OHI 205H
Field	Ohio	Wellbore	Glenn Didriksen OHI 205H PWB
Facility	Glenn Didriksen OHI Pad 1		

WELLPATH DATA (139 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]
6878.27†	86.272	341.271	6425.58	285.71	721.62	1032.53	1754676.44	14569215.15	40°06'57.386"N	80°35'28.724"W	1259.70	55.051	9.50	7.90	-5.33
6937.79	90.993	338.158	6427.00†	345.16	777.40	1011.90	1754655.82	14569270.91	40°06'57.939"N	80°35'28.986"W	1276.05	52.467	9.50	7.93	-5.23
6978.27†	90.993	338.158	6426.30	385.64	814.97	996.84	1754640.77	14569308.47	40°06'58.311"N	80°35'29.178"W	1287.59	50.732	0.00	0.00	0.00
7078.27†	90.993	338.158	6424.57	485.62	907.78	959.65	1754603.58	14569401.24	40°06'59.229"N	80°35'29.651"W	1320.98	46.591	0.00	0.00	0.00
7178.27†	90.993	338.158	6422.83	585.61	1000.59	922.45	1754566.40	14569494.01	40°07'00.148"N	80°35'30.124"W	1360.91	42.673	0.00	0.00	0.00
7278.27†	90.993	338.158	6421.10	685.59	1093.39	885.25	1754529.21	14569586.78	40°07'01.067"N	80°35'30.598"W	1406.83	38.995	0.00	0.00	0.00
7378.27†	90.993	338.158	6419.37	785.58	1186.20	848.05	1754492.03	14569679.55	40°07'01.986"N	80°35'31.071"W	1458.17	35.562	0.00	0.00	0.00
7478.27†	90.993	338.158	6417.63	885.56	1279.01	810.85	1754454.84	14569772.32	40°07'02.905"N	80°35'31.544"W	1514.38	32.373	0.00	0.00	0.00
7578.27†	90.993	338.158	6415.90	985.55	1371.82	773.65	1754417.66	14569865.10	40°07'03.823"N	80°35'32.018"W	1574.93	29.421	0.00	0.00	0.00
7678.27†	90.993	338.158	6414.17	1085.53	1464.62	736.45	1754380.47	14569957.87	40°07'04.742"N	80°35'32.491"W	1639.35	26.694	0.00	0.00	0.00
7778.27†	90.993	338.158	6412.43	1185.52	1557.43	699.25	1754343.29	14570050.64	40°07'05.661"N	80°35'32.964"W	1707.20	24.179	0.00	0.00	0.00
7878.27†	90.993	338.158	6410.70	1285.50	1650.24	662.05	1754306.10	14570143.41	40°07'06.580"N	80°35'33.438"W	1778.09	21.860	0.00	0.00	0.00
7978.27†	90.993	338.158	6408.97	1385.49	1743.05	624.85	1754268.92	14570236.18	40°07'07.499"N	80°35'33.911"W	1851.66	19.722	0.00	0.00	0.00
8078.27†	90.993	338.158	6407.24	1485.47	1835.85	587.65	1754231.73	14570328.95	40°07'08.417"N	80°35'34.384"W	1927.61	17.750	0.00	0.00	0.00
8178.27†	90.993	338.158	6405.50	1585.46	1928.66	550.45	1754194.55	14570421.72	40°07'09.336"N	80°35'34.858"W	2005.68	15.929	0.00	0.00	0.00
8278.27†	90.993	338.158	6403.77	1685.44	2021.47	513.25	1754157.36	14570514.50	40°07'10.255"N	80°35'35.331"W	2085.61	14.246	0.00	0.00	0.00
8378.27†	90.993	338.158	6402.04	1785.43	2114.28	476.05	1754120.18	14570607.27	40°07'11.174"N	80°35'35.804"W	2167.21	12.689	0.00	0.00	0.00
8478.27†	90.993	338.158	6400.30	1885.41	2207.08	438.86	1754083.00	14570700.04	40°07'12.093"N	80°35'36.278"W	2250.29	11.246	0.00	0.00	0.00
8578.27†	90.993	338.158	6398.57	1985.40	2299.89	401.66	1754045.81	14570792.81	40°07'13.011"N	80°35'36.751"W	2334.70	9.906	0.00	0.00	0.00
8678.27†	90.993	338.158	6396.84	2085.38	2392.70	364.46	1754008.63	14570885.58	40°07'13.930"N	80°35'37.224"W	2420.30	8.661	0.00	0.00	0.00
8778.27†	90.993	338.158	6395.10	2185.37	2485.51	327.26	1753971.44	14570978.35	40°07'14.849"N	80°35'37.698"W	2506.96	7.501	0.00	0.00	0.00
8878.27†	90.993	338.158	6393.37	2285.35	2578.31	290.06	1753934.26	14571071.12	40°07'15.768"N	80°35'38.171"W	2594.58	6.419	0.00	0.00	0.00
8978.27†	90.993	338.158	6391.64	2385.34	2671.12	252.86	1753897.07	14571163.90	40°07'16.687"N	80°35'38.645"W	2683.06	5.408	0.00	0.00	0.00
9078.27†	90.993	338.158	6389.90	2485.32	2763.93	215.66	1753859.89	14571256.67	40°07'17.605"N	80°35'39.118"W	2772.33	4.462	0.00	0.00	0.00
9178.27†	90.993	338.158	6388.17	2585.31	2856.74	178.46	1753822.70	14571349.44	40°07'18.524"N	80°35'39.591"W	2862.30	3.575	0.00	0.00	0.00

RECEIVED
Office of Oil and Gas
FEB 12 2016
WV Department of
Environmental Protection

03/04/2016

27/Jun/2015

Planned Wellpath Report

Glenn Didriksen OHI 205H PWP Rev-C.0

Page 6 of 8



REFERENCE WELLPATH IDENTIFICATION

Operator	SOUTHWESTERN ENERGY	Slot	Slot #205
Area	Ohio County, WV	Well	Glenn Didriksen OHI 205H
Field	Ohio	Wellbore	Glenn Didriksen OHI 205H PWB
Facility	Glenn Didriksen OHI Pad 1		

WELLPATH DATA (139 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]
9278.27†	90.993	338.158	6386.44	2685.29	2949.54	141.26	1753785.52	14571442.21	40°07'19.443"N	80°35'40.065"W	2952.92	2.742	0.00	0.00	0.00
9378.27†	90.993	338.158	6384.71	2785.28	3042.35	104.06	1753748.33	14571534.98	40°07'20.362"N	80°35'40.538"W	3044.13	1.959	0.00	0.00	0.00
9478.27†	90.993	338.158	6382.97	2885.26	3135.16	66.86	1753711.15	14571627.75	40°07'21.281"N	80°35'41.012"W	3135.87	1.222	0.00	0.00	0.00
9578.27†	90.993	338.158	6381.24	2985.25	3227.96	29.66	1753673.96	14571720.52	40°07'22.199"N	80°35'41.485"W	3228.10	0.526	0.00	0.00	0.00
9678.27†	90.993	338.158	6379.51	3085.23	3320.77	-7.54	1753636.78	14571813.30	40°07'23.118"N	80°35'41.958"W	3320.78	359.870	0.00	0.00	0.00
9778.27†	90.993	338.158	6377.77	3185.22	3413.58	-44.74	1753599.59	14571906.07	40°07'24.037"N	80°35'42.432"W	3413.87	359.249	0.00	0.00	0.00
9878.27†	90.993	338.158	6376.04	3285.20	3506.39	-81.93	1753562.41	14571998.84	40°07'24.956"N	80°35'42.905"W	3507.34	358.661	0.00	0.00	0.00
9978.27†	90.993	338.158	6374.31	3385.19	3599.19	-119.13	1753525.22	14572091.61	40°07'25.875"N	80°35'43.379"W	3601.17	358.104	0.00	0.00	0.00
10078.27†	90.993	338.158	6372.57	3485.17	3692.00	-156.33	1753488.04	14572184.38	40°07'26.793"N	80°35'43.852"W	3695.31	357.575	0.00	0.00	0.00
10178.27†	90.993	338.158	6370.84	3585.16	3784.81	-193.53	1753450.85	14572277.15	40°07'27.712"N	80°35'44.326"W	3789.75	357.073	0.00	0.00	0.00
10278.27†	90.993	338.158	6369.11	3685.14	3877.62	-230.73	1753413.67	14572369.92	40°07'28.631"N	80°35'44.799"W	3884.47	356.595	0.00	0.00	0.00
10378.27†	90.993	338.158	6367.38	3785.13	3970.42	-267.93	1753376.48	14572462.70	40°07'29.550"N	80°35'45.272"W	3979.45	356.139	0.00	0.00	0.00
10478.27†	90.993	338.158	6365.64	3885.11	4063.23	-305.13	1753339.30	14572555.47	40°07'30.469"N	80°35'45.746"W	4074.67	355.705	0.00	0.00	0.00
10578.27†	90.993	338.158	6363.91	3985.10	4156.04	-342.33	1753302.11	14572648.24	40°07'31.387"N	80°35'46.219"W	4170.11	355.291	0.00	0.00	0.00
10678.27†	90.993	338.158	6362.18	4085.08	4248.85	-379.53	1753264.93	14572741.01	40°07'32.306"N	80°35'46.693"W	4265.76	354.896	0.00	0.00	0.00
10778.27†	90.993	338.158	6360.44	4185.07	4341.65	-416.73	1753227.74	14572833.78	40°07'33.225"N	80°35'47.166"W	4361.61	354.517	0.00	0.00	0.00
10878.27†	90.993	338.158	6358.71	4285.05	4434.46	-453.93	1753190.56	14572926.55	40°07'34.144"N	80°35'47.640"W	4457.63	354.155	0.00	0.00	0.00
10978.27†	90.993	338.158	6356.98	4385.04	4527.27	-491.13	1753153.37	14573019.32	40°07'35.063"N	80°35'48.113"W	4553.83	353.809	0.00	0.00	0.00
11078.27†	90.993	338.158	6355.24	4485.02	4620.08	-528.33	1753116.19	14573112.10	40°07'35.981"N	80°35'48.587"W	4650.19	353.476	0.00	0.00	0.00
11178.27†	90.993	338.158	6353.51	4585.01	4712.88	-565.53	1753079.00	14573204.87	40°07'36.900"N	80°35'49.060"W	4746.69	353.157	0.00	0.00	0.00
11278.27†	90.993	338.158	6351.78	4684.99	4805.69	-602.72	1753041.82	14573297.64	40°07'37.819"N	80°35'49.533"W	4843.34	352.851	0.00	0.00	0.00
11378.27†	90.993	338.158	6350.05	4784.98	4898.50	-639.92	1753004.63	14573390.41	40°07'38.738"N	80°35'50.007"W	4940.12	352.557	0.00	0.00	0.00
11478.27†	90.993	338.158	6348.31	4884.96	4991.30	-677.12	1752967.45	14573483.18	40°07'39.657"N	80°35'50.480"W	5037.02	352.274	0.00	0.00	0.00
11578.27†	90.993	338.158	6346.58	4984.95	5084.11	-714.32	1752930.26	14573575.95	40°07'40.575"N	80°35'50.954"W	5134.05	352.002	0.00	0.00	0.00
11678.27†	90.993	338.158	6344.85	5084.93	5176.92	-751.52	1752893.08	14573668.72	40°07'41.494"N	80°35'51.427"W	5231.18	351.740	0.00	0.00	0.00

RECEIVED
Office of Oil and Gas
FEB 12 2016
WV Department of
Environmental Protection

Planned Wellpath Report

Glenn Didriksen OHI 205H PWP Rev-C.0

Page 7 of 8



REFERENCE WELLPATH IDENTIFICATION

Operator	SOUTHWESTERN ENERGY	Slot	Slot #205
Area	Ohio County, WV	Well	Glenn Didriksen OHI 205H
Field	Ohio	Wellbore	Glenn Didriksen OHI 205H PWB
Facility	Glenn Didriksen OHI Pad 1		

WELLPATH DATA (139 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]
11778.27†	90.993	338.158	6343.11	5184.92	5269.73	-788.72	1752855.89	14573761.50	40°07'42.413"N	80°35'51.901"W	5328.42	351.488	0.00	0.00	0.00
11878.27†	90.993	338.158	6341.38	5284.90	5362.53	-825.92	1752818.71	14573854.27	40°07'43.332"N	80°35'52.374"W	5425.76	351.244	0.00	0.00	0.00
11978.27†	90.993	338.158	6339.65	5384.89	5455.34	-863.12	1752781.52	14573947.04	40°07'44.250"N	80°35'52.848"W	5523.20	351.009	0.00	0.00	0.00
12078.27†	90.993	338.158	6337.91	5484.87	5548.15	-900.32	1752744.34	14574039.81	40°07'45.169"N	80°35'53.321"W	5620.72	350.783	0.00	0.00	0.00
12178.27†	90.993	338.158	6336.18	5584.86	5640.96	-937.52	1752707.15	14574132.58	40°07'46.088"N	80°35'53.795"W	5718.33	350.564	0.00	0.00	0.00
12278.27†	90.993	338.158	6334.45	5684.84	5733.76	-974.72	1752669.97	14574225.35	40°07'47.007"N	80°35'54.268"W	5816.02	350.352	0.00	0.00	0.00
12378.27†	90.993	338.158	6332.71	5784.83	5826.57	-1011.92	1752632.78	14574318.12	40°07'47.926"N	80°35'54.742"W	5913.79	350.148	0.00	0.00	0.00
12478.27†	90.993	338.158	6330.98	5884.81	5919.38	-1049.12	1752595.60	14574410.90	40°07'48.844"N	80°35'55.215"W	6011.63	349.950	0.00	0.00	0.00
12578.27†	90.993	338.158	6329.25	5984.80	6012.19	-1086.32	1752558.42	14574503.67	40°07'49.763"N	80°35'55.689"W	6109.54	349.758	0.00	0.00	0.00
12678.27†	90.993	338.158	6327.52	6084.78	6104.99	-1123.51	1752521.23	14574596.44	40°07'50.682"N	80°35'56.162"W	6207.51	349.572	0.00	0.00	0.00
12778.27†	90.993	338.158	6325.78	6184.77	6197.80	-1160.71	1752484.05	14574689.21	40°07'51.601"N	80°35'56.636"W	6305.55	349.393	0.00	0.00	0.00
12878.27†	90.993	338.158	6324.05	6284.75	6290.61	-1197.91	1752446.86	14574781.98	40°07'52.520"N	80°35'57.109"W	6403.65	349.218	0.00	0.00	0.00
12978.27†	90.993	338.158	6322.32	6384.74	6383.42	-1235.11	1752409.68	14574874.75	40°07'53.438"N	80°35'57.583"W	6501.81	349.049	0.00	0.00	0.00
13050.79	90.993	338.158	6321.06 ²	6457.25	6450.72	-1262.09	1752382.71	14574942.03	40°07'54.105"N	80°35'57.926"W	6573.03	348.930	0.00	0.00	0.00

HOLE & CASING SECTIONS - Ref Wellbore: Glenn Didriksen OHI 205H PWB Ref Wellpath: Glenn Didriksen OHI 205H PWP Rev-C.0

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 Surface	26.00	736.00	710.00	26.00	736.00	0.00	0.00	0.67	-1.55
9.625in Casing Intermediate	26.00	2326.83	2300.83	26.00	2300.00	0.00	0.00	32.41	256.28
8.75in Open Hole	2326.83	5900.00	3573.17	2300.00	5781.59	32.41	256.28	128.97	1054.25
8.5in Open Hole	5900.00	13050.79	7150.79	5781.59	6321.06	128.97	1054.25	6450.72	-1262.09
5.5in Casing Production	26.00	13050.79	13024.79	26.00	6321.06	0.00	0.00	6450.72	-1262.09

RECEIVED
Office of Oil and Gas
FEB 12 2016
WV Department of
Environmental Protection

03/04/2016

27/Jun/2015

Planned Wellpath Report

Glenn Didriksen OHI 205H PWP Rev-C.0

Page 8 of 8



REFERENCE WELLPATH IDENTIFICATION

Operator	SOUTHWESTERN ENERGY	Slot	Slot #205
Area	Ohio County, WV	Well	Glenn Didriksen OHI 205H
Field	Ohio	Wellbore	Glenn Didriksen OHI 205H PWB
Facility	Glenn Didriksen OHI Pad 1		

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Glenn Didriksen OHI 205H BHL Rev-1		6319.00	6558.38	-1305.25	1752339.57	14575049.65	40°07'55.170"N	80°35'58.476"W	point
2) Glenn Didriksen OHI 205H BHL Rev-2	13050.79	6321.06	6450.72	-1262.09	1752382.71	14574942.03	40°07'54.105"N	80°35'57.926"W	point
1) Glenn Didriksen OHI 205H LP Rev-2	6937.79	6427.00	777.40	1011.90	1754655.82	14569270.91	40°06'57.939"N	80°35'28.986"W	point

SURVEY PROGRAM - Ref Wellbore: Glenn Didriksen OHI 205H PWB Ref Wellpath: Glenn Didriksen OHI 205H PWP Rev-C.0

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
26.00	678.27	Generic gyro - northseeking (Standard)		Glenn Didriksen OHI 205H AWB
678.27	5935.00	NaviTrak (MagCorr)		Glenn Didriksen OHI 205H PWB
5935.00	13050.79	NaviTrak (AT Curve Short Spaced)		Glenn Didriksen OHI 205H PWB

RECEIVED
Office of Oil and Gas
FEB 12 2016
WV Department of
Environmental Protection

03/04/2016

27/Jun/2015