

Location: Ohio County, WV      Slot: Slot #210  
 Field: Ohio      Well: Glenn Didriksen OHI 210H  
 Facility: Glenn Didriksen OHI Pad 1      Wellbore: Glenn Didriksen OHI 210H PWB

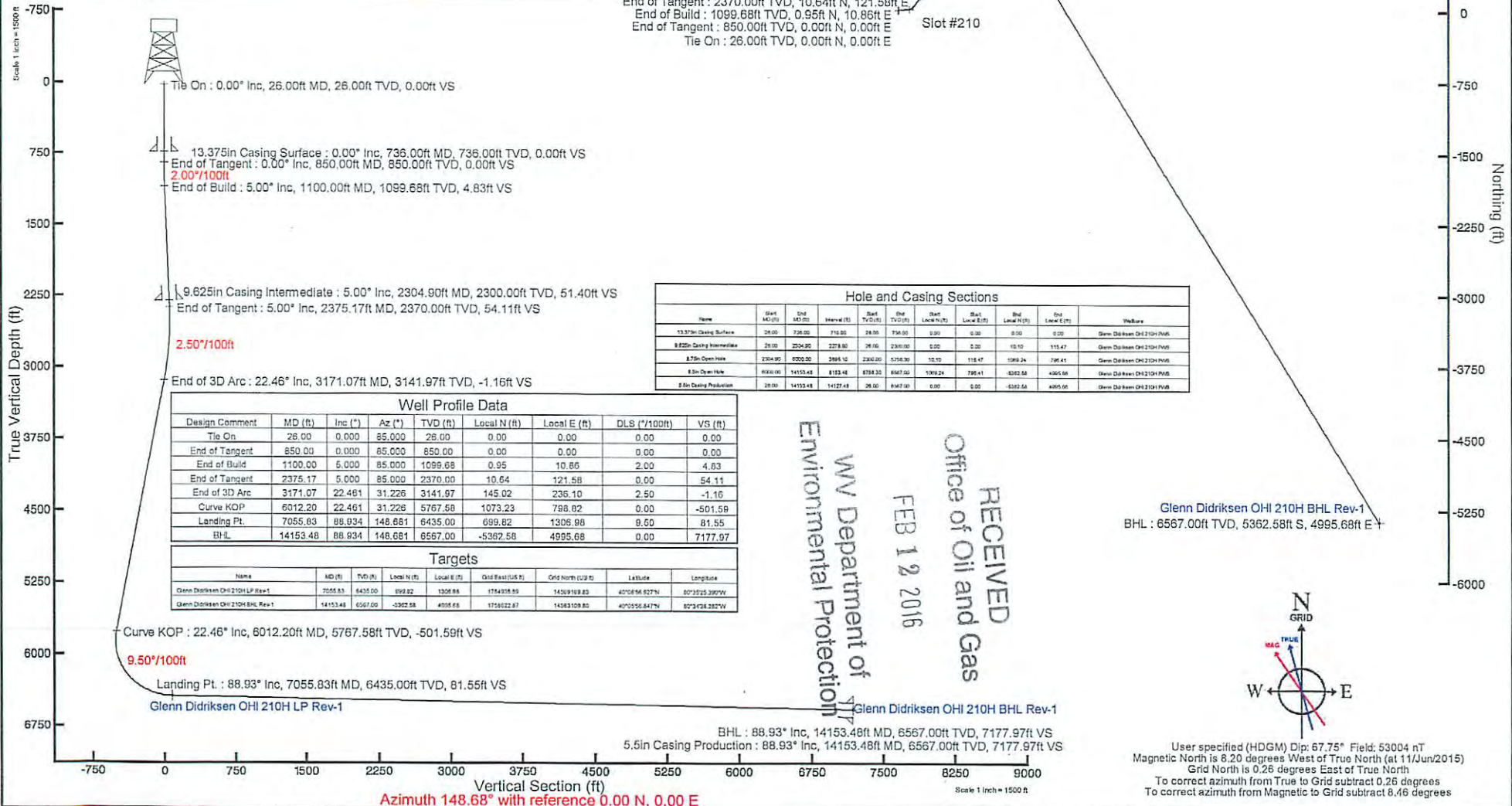
**Plot reference wellpath is Glenn Didriksen OHI 210H PWP Rev-A.0**

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 #210): -1382 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: edgarvyr on 11/Jun/2015

**Location Information**

Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude		
Glenn Didriksen OHI Pad 1	1753630.700	14588481.840	40°09'50.184"N	80°35'42.155"W		
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Slot #210	-11.54	-7.58	1753629.120	14588470.300	40°09'50.070"N	80°35'42.253"W

**SWN 40 (RKB) to Mud line (At Slot: Slot #210)**      **26ft**  
**Mean Sea Level to Mud line (At Slot: Slot #210)**      **-1382ft**  
**SWN 40 (RKB) to Mean Sea Level**      **1408ft**



Curve KOP : 5767.58ft TVD, 1073.23ft N, 798.82ft E  
 Landing Pt. : 6435.00ft TVD, 699.82ft N, 1306.98ft E  
 Glenn Didriksen OHI 210H LP Rev-1  
 End of 3D Arc : 3141.97ft TVD, 145.02ft N, 236.10ft E  
 End of Tangent : 2370.00ft TVD, 10.64ft N, 121.58ft E  
 End of Build : 1099.68ft TVD, 0.95ft N, 10.86ft E  
 End of Tangent : 850.00ft TVD, 0.00ft N, 0.00ft E  
 Tie On : 26.00ft TVD, 0.00ft N, 0.00ft E

**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	26.00	736.00	710.00	26.00	736.00	0.00	0.00	0.00	0.00	Glenn Didriksen OHI 210H PWB
8.25in Casing Intermediate	26.00	2304.90	2278.90	26.00	2304.90	0.00	0.00	10.10	115.47	Glenn Didriksen OHI 210H PWB
5.5in Open Hole	2304.90	3252.20	947.30	2304.90	3252.20	10.10	115.47	1306.24	798.41	Glenn Didriksen OHI 210H PWB
5.5in Open Hole	3252.20	4115.48	863.28	3252.20	4115.48	115.47	115.47	1306.24	798.41	Glenn Didriksen OHI 210H PWB
5.5in Casing Production	4115.48	4995.68	880.20	4115.48	4995.68	115.47	115.47	1306.24	798.41	Glenn Didriksen OHI 210H PWB

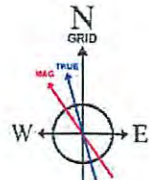
**Well Profile Data**

Design Comment	MD (ft)	Inc. (")	Az. (")	TVD (ft)	Local N (ft)	Local E (ft)	DLS (*/100ft)	VS (ft)
Tie On	26.00	0.00	85.000	26.00	0.00	0.00	0.00	0.00
End of Tangent	850.00	0.00	85.000	850.00	0.00	0.00	0.00	0.00
End of Build	1100.00	5.00	85.000	1099.68	0.95	10.86	2.00	4.83
End of Tangent	2375.17	5.00	85.000	2370.00	10.64	121.58	0.00	54.11
End of 3D Arc	3171.07	22.46	31.226	3141.97	145.02	236.10	2.50	-1.16
Curve KOP	6012.20	22.46	31.226	5767.58	1073.23	798.82	0.00	-501.58
Landing Pt.	7055.83	88.93	148.681	6435.00	699.82	1306.98	9.60	81.55
BHL	14153.48	88.93	148.681	6567.00	-5362.58	4995.68	0.00	7177.97

**Targets**

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Glenn Didriksen OHI 210H LP Rev-1	7055.83	6435.00	699.82	1306.98	14588481.84	14588470.30	40°09'50.070"N	80°35'42.253"W
Glenn Didriksen OHI 210H BHL Rev-1	14153.48	6567.00	-5362.58	4995.68	1753629.12	14588470.30	40°09'50.070"N	80°35'42.253"W

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User specified (HDGM) Dip: 67.75° Field: 53004 nT  
 Magnetic North is 8.20 degrees West of True North (at 11/Jun/2015)  
 Grid North is 0.26 degrees East of True North  
 To correct azimuth from True to Grid subtract 0.26 degrees  
 To correct azimuth from Magnetic to Grid subtract 8.46 degrees

**Azimuth 148.68° with reference 0.00 N, 0.00 E**





**Planned Wellpath Report**  
 Glenn Didriksen OHI 210H PWP Rev-A.0  
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**REFERENCE WELLPATH IDENTIFICATION**

Operator	SOUTHWESTERN ENERGY	Slot	Slot #210
Area	Ohio County, WV	Well	Glenn Didriksen OHI 210H
Field	Ohio	Wellbore	Glenn Didriksen OHI 210H 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	Edsaryar
Scale	0.999615	Report Generated	11/Jun/2015 at 13:10
Convergence at slot	0.26° East	Database/Source file	WellArchitectEasternDB/Glenn_Didriksen_OHI_210H_PWB.xml

**WELLPATH LOCATION**

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-11.54	-7.58	1753629.12	14568470.30	40°06'50.070"N	80°35'42.253"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 #210)	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	148.68°

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REFERENCE WELLPATH IDENTIFICATION			
Operator	SOUTHWESTERN ENERGY	WV Department of	Slot
Area	Ohio County, WV	Environmental Protection	Slot #210
Field	Ohio		Well
Facility	Glenn Didriksen OHI Pad 1		Wellbore
			Glenn Didriksen OHI 210H
			Glenn Didriksen OHI 210H PWB

WELLPATH DATA (150 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	85.000	0.00	0.00	0.00	0.00	1753629.12	14568470.30	40°06'50.070"N	80°35'42.253"W	0.00	0.000	0.00	0.00	0.00
26.00	0.000	85.000	26.00	0.00	0.00	0.00	1753629.12	14568470.30	40°06'50.070"N	80°35'42.253"W	0.00	0.000	0.00	0.00	0.00
126.00†	0.000	85.000	126.00	0.00	0.00	0.00	1753629.12	14568470.30	40°06'50.070"N	80°35'42.253"W	0.00	0.000	0.00	0.00	0.00
226.00†	0.000	85.000	226.00	0.00	0.00	0.00	1753629.12	14568470.30	40°06'50.070"N	80°35'42.253"W	0.00	0.000	0.00	0.00	0.00
326.00†	0.000	85.000	326.00	0.00	0.00	0.00	1753629.12	14568470.30	40°06'50.070"N	80°35'42.253"W	0.00	0.000	0.00	0.00	0.00
426.00†	0.000	85.000	426.00	0.00	0.00	0.00	1753629.12	14568470.30	40°06'50.070"N	80°35'42.253"W	0.00	0.000	0.00	0.00	0.00
526.00†	0.000	85.000	526.00	0.00	0.00	0.00	1753629.12	14568470.30	40°06'50.070"N	80°35'42.253"W	0.00	0.000	0.00	0.00	0.00
626.00†	0.000	85.000	626.00	0.00	0.00	0.00	1753629.12	14568470.30	40°06'50.070"N	80°35'42.253"W	0.00	0.000	0.00	0.00	0.00
726.00†	0.000	85.000	726.00	0.00	0.00	0.00	1753629.12	14568470.30	40°06'50.070"N	80°35'42.253"W	0.00	0.000	0.00	0.00	0.00
826.00†	0.000	85.000	826.00	0.00	0.00	0.00	1753629.12	14568470.30	40°06'50.070"N	80°35'42.253"W	0.00	0.000	0.00	0.00	0.00
850.00	0.000	85.000	850.00	0.00	0.00	0.00	1753629.12	14568470.30	40°06'50.070"N	80°35'42.253"W	0.00	0.000	0.00	0.00	0.00
926.00†	1.520	85.000	925.99	0.45	0.09	1.00	1753630.12	14568470.39	40°06'50.071"N	80°35'42.240"W	1.01	85.000	2.00	2.00	0.00
1026.00†	3.520	85.000	1025.89	2.40	0.47	5.38	1753634.50	14568470.77	40°06'50.075"N	80°35'42.184"W	5.40	85.000	2.00	2.00	0.00
1100.00	5.000	85.000	1099.68	4.83	0.95	10.86	1753639.98	14568471.25	40°06'50.079"N	80°35'42.113"W	10.90	85.000	2.00	2.00	0.00
1126.00†	5.000	85.000	1125.58	5.84	1.15	13.12	1753642.23	14568471.45	40°06'50.081"N	80°35'42.084"W	13.17	85.000	0.00	0.00	0.00
1226.00†	5.000	85.000	1225.20	9.70	1.91	21.80	1753650.91	14568472.21	40°06'50.088"N	80°35'41.972"W	21.88	85.000	0.00	0.00	0.00
1326.00†	5.000	85.000	1324.82	13.57	2.67	30.48	1753659.59	14568472.97	40°06'50.095"N	80°35'41.861"W	30.60	85.000	0.00	0.00	0.00
1426.00†	5.000	85.000	1424.44	17.43	3.43	39.16	1753668.27	14568473.73	40°06'50.102"N	80°35'41.749"W	39.31	85.000	0.00	0.00	0.00
1526.00†	5.000	85.000	1524.06	21.30	4.19	47.85	1753676.95	14568474.48	40°06'50.109"N	80°35'41.637"W	48.03	85.000	0.00	0.00	0.00
1626.00†	5.000	85.000	1623.68	25.16	4.95	56.53	1753685.63	14568475.24	40°06'50.117"N	80°35'41.525"W	56.75	85.000	0.00	0.00	0.00
1726.00†	5.000	85.000	1723.30	29.02	5.71	65.21	1753694.31	14568476.00	40°06'50.124"N	80°35'41.413"W	65.46	85.000	0.00	0.00	0.00
1826.00†	5.000	85.000	1822.92	32.89	6.46	73.89	1753702.99	14568476.76	40°06'50.131"N	80°35'41.302"W	74.18	85.000	0.00	0.00	0.00
1926.00†	5.000	85.000	1922.54	36.75	7.22	82.58	1753711.66	14568477.52	40°06'50.138"N	80°35'41.190"W	82.89	85.000	0.00	0.00	0.00
2026.00†	5.000	85.000	2022.16	40.62	7.98	91.26	1753720.34	14568478.28	40°06'50.145"N	80°35'41.078"W	91.61	85.000	0.00	0.00	0.00
2126.00†	5.000	85.000	2121.78	44.48	8.74	99.94	1753729.02	14568479.04	40°06'50.152"N	80°35'40.966"W	100.32	85.000	0.00	0.00	0.00
2226.00†	5.000	85.000	2221.40	48.35	9.50	108.62	1753737.70	14568479.80	40°06'50.159"N	80°35'40.854"W	109.04	85.000	0.00	0.00	0.00
2326.00†	5.000	85.000	2321.02	52.21	10.26	117.31	1753746.38	14568480.56	40°06'50.166"N	80°35'40.743"W	117.75	85.000	0.00	0.00	0.00
2375.17	5.000	85.000	2370.00	54.11	10.64	121.58	1753750.65	14568480.93	40°06'50.170"N	80°35'40.688"W	122.04	85.000	0.00	0.00	0.00
2426.00†	5.657	73.245	2420.61	55.72	11.55	126.18	1753755.25	14568481.85	40°06'50.179"N	80°35'40.628"W	126.71	84.769	2.50	1.29	-23.13
2526.00†	7.429	57.573	2519.96	56.84	16.44	136.36	1753765.43	14568486.73	40°06'50.227"N	80°35'40.497"W	137.35	83.125	2.50	1.77	-15.67





**REFERENCE WELLPATH IDENTIFICATION** FEB 12 2016

Operator	SOUTHWESTERN ENERGY	Slot	Slot #210
Area	Ohio County, WV	Well	Glenn Didriksen OHI 210H
Field	Ohio	Wellbore	Glenn Didriksen OHI 210H PWB
Facility	Glenn Didriksen OHI Pad 1		

**WELLPATH DATA (150 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]
2626.00†	9.531	48.320	2618.87	55.22	25.41	148.00	1753777.06	14568495.70	40°06'50.315"N	80°35'40.347"W	150.17	80.257	2.50	2.10	-9.25
2726.00†	11.789	42.479	2717.14	50.88	38.45	161.08	1753790.14	14568508.74	40°06'50.443"N	80°35'40.178"W	165.61	76.573	2.50	2.26	-5.84
2826.00†	14.127	38.520	2814.59	43.83	55.54	175.59	1753804.64	14568525.82	40°06'50.611"N	80°35'39.990"W	184.16	72.447	2.50	2.34	-3.96
2926.00†	16.512	35.675	2911.03	34.07	76.64	191.48	1753820.52	14568546.91	40°06'50.819"N	80°35'39.784"W	206.24	68.187	2.50	2.39	-2.84
3026.00†	18.926	33.535	3006.28	21.62	101.70	208.73	1753837.77	14568571.96	40°06'51.066"N	80°35'39.561"W	232.18	64.022	2.50	2.41	-2.14
3126.00†	21.360	31.865	3100.16	6.51	130.69	227.30	1753856.33	14568600.94	40°06'51.352"N	80°35'39.320"W	262.20	60.103	2.50	2.43	-1.67
3171.07	22.461	31.226	3141.97	-1.16	145.02	236.10	1753865.13	14568615.27	40°06'51.493"N	80°35'39.206"W	277.08	58.440	2.50	2.44	-1.42
3226.00†	22.461	31.226	3192.74	-10.84	162.97	246.98	1753876.00	14568633.21	40°06'51.670"N	80°35'39.065"W	295.90	56.581	0.00	0.00	0.00
3326.00†	22.461	31.226	3285.15	-28.45	195.64	266.79	1753895.80	14568665.86	40°06'51.992"N	80°35'38.808"W	330.83	53.747	0.00	0.00	0.00
3426.00†	22.461	31.226	3377.56	-46.06	228.31	286.59	1753915.60	14568698.52	40°06'52.314"N	80°35'38.551"W	366.42	51.458	0.00	0.00	0.00
3526.00†	22.461	31.226	3469.98	-63.68	260.98	306.40	1753935.40	14568731.18	40°06'52.635"N	80°35'38.294"W	402.48	49.577	0.00	0.00	0.00
3626.00†	22.461	31.226	3562.39	-81.29	293.65	326.20	1753955.20	14568763.84	40°06'52.957"N	80°35'38.037"W	438.91	48.006	0.00	0.00	0.00
3726.00†	22.461	31.226	3654.81	-98.91	326.32	346.01	1753975.00	14568796.49	40°06'53.279"N	80°35'37.780"W	475.61	46.677	0.00	0.00	0.00
3826.00†	22.461	31.226	3747.22	-116.52	358.99	365.82	1753994.80	14568829.15	40°06'53.601"N	80°35'37.524"W	512.54	45.540	0.00	0.00	0.00
3926.00†	22.461	31.226	3839.63	-134.13	391.66	385.62	1754014.59	14568861.81	40°06'53.923"N	80°35'37.267"W	549.64	44.555	0.00	0.00	0.00
4026.00†	22.461	31.226	3932.05	-151.75	424.33	405.43	1754034.39	14568894.47	40°06'54.245"N	80°35'37.010"W	586.88	43.695	0.00	0.00	0.00
4126.00†	22.461	31.226	4024.46	-169.36	457.00	425.24	1754054.19	14568927.13	40°06'54.567"N	80°35'36.753"W	624.24	42.938	0.00	0.00	0.00
4226.00†	22.461	31.226	4116.88	-186.98	489.67	445.04	1754073.99	14568959.78	40°06'54.889"N	80°35'36.496"W	661.70	42.266	0.00	0.00	0.00
4326.00†	22.461	31.226	4209.29	-204.59	522.34	464.85	1754093.79	14568992.44	40°06'55.211"N	80°35'36.239"W	699.23	41.667	0.00	0.00	0.00
4426.00†	22.461	31.226	4301.70	-222.20	555.01	484.65	1754113.59	14569025.10	40°06'55.533"N	80°35'35.982"W	736.84	41.128	0.00	0.00	0.00
4526.00†	22.461	31.226	4394.12	-239.82	587.68	504.46	1754133.39	14569057.76	40°06'55.855"N	80°35'35.726"W	774.50	40.642	0.00	0.00	0.00
4626.00†	22.461	31.226	4486.53	-257.43	620.35	524.27	1754153.18	14569090.41	40°06'56.177"N	80°35'35.469"W	812.22	40.202	0.00	0.00	0.00
4726.00†	22.461	31.226	4578.95	-275.04	653.02	544.07	1754172.98	14569123.07	40°06'56.499"N	80°35'35.212"W	849.97	39.800	0.00	0.00	0.00
4826.00†	22.461	31.226	4671.36	-292.66	685.69	563.88	1754192.78	14569155.73	40°06'56.821"N	80°35'34.955"W	887.77	39.432	0.00	0.00	0.00
4926.00†	22.461	31.226	4763.77	-310.27	718.36	583.69	1754212.58	14569188.39	40°06'57.143"N	80°35'34.698"W	925.60	39.095	0.00	0.00	0.00
5026.00†	22.461	31.226	4856.19	-327.89	751.03	603.49	1754232.38	14569221.04	40°06'57.465"N	80°35'34.441"W	963.46	38.784	0.00	0.00	0.00
5126.00†	22.461	31.226	4948.60	-345.50	783.70	623.30	1754252.18	14569253.70	40°06'57.787"N	80°35'34.184"W	1001.35	38.496	0.00	0.00	0.00
5226.00†	22.461	31.226	5041.02	-363.11	816.38	643.11	1754271.98	14569286.36	40°06'58.109"N	80°35'33.928"W	1039.26	38.230	0.00	0.00	0.00
5326.00†	22.461	31.226	5133.43	-380.73	849.05	662.91	1754291.77	14569319.02	40°06'58.431"N	80°35'33.671"W	1077.19	37.982	0.00	0.00	0.00
5426.00†	22.461	31.226	5225.85	-398.34	881.72	682.72	1754311.57	14569351.67	40°06'58.753"N	80°35'33.414"W	1115.13	37.751	0.00	0.00	0.00





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# Planned Wellpath Report

Glenn Didriksen OHI 210H PWP Rev-A.0

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REFERENCE WELLPATH IDENTIFICATION			
Operator	SOUTHWESTERN ENERGY	Slot	Slot #210
Area	Ohio County, WV	Well	Glenn Didriksen OHI 210H
Field	Ohio	Wellbore	Glenn Didriksen OHI 210H PWB
Facility	Glenn Didriksen OHI Pad 1		

## WELLPATH DATA (150 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]
5526.00†	22.461	31.226	5318.26	-415.96	914.39	702.52	1754331.37	14569384.33	40°06'59.075"N	80°35'33.157"W	1153.10	37.535	0.00	0.00	0.00
5626.00†	22.461	31.226	5410.67	-433.57	947.06	722.33	1754351.17	14569416.99	40°06'59.396"N	80°35'32.900"W	1191.08	37.333	0.00	0.00	0.00
5726.00†	22.461	31.226	5503.09	-451.18	979.73	742.14	1754370.97	14569449.65	40°06'59.718"N	80°35'32.643"W	1229.08	37.144	0.00	0.00	0.00
5826.00†	22.461	31.226	5595.50	-468.80	1012.40	761.94	1754390.77	14569482.30	40°07'00.040"N	80°35'32.386"W	1267.08	36.966	0.00	0.00	0.00
5926.00†	22.461	31.226	5687.92	-486.41	1045.07	781.75	1754410.57	14569514.96	40°07'00.362"N	80°35'32.130"W	1305.10	36.798	0.00	0.00	0.00
6012.20	22.461	31.226	5767.58	-501.59	1073.23	798.82	1754427.63	14569543.11	40°07'00.640"N	80°35'31.908"W	1337.88	36.661	0.00	0.00	0.00
6026.00†	21.916	34.384	5780.35	-503.87	1077.61	801.64	1754430.45	14569547.49	40°07'00.683"N	80°35'31.872"W	1343.08	36.646	9.50	-3.95	22.88
6126.00†	20.086	60.619	5873.91	-510.98	1101.49	827.20	1754456.00	14569571.36	40°07'00.918"N	80°35'31.541"W	1377.51	36.906	9.50	-1.83	26.24
6226.00†	22.353	86.331	5967.33	-501.55	1111.15	861.22	1754490.01	14569581.02	40°07'01.012"N	80°35'31.103"W	1405.83	37.778	9.50	2.27	25.71
6326.00†	27.728	105.008	6058.04	-475.84	1106.34	902.76	1754531.53	14569576.21	40°07'00.962"N	80°35'30.568"W	1427.92	39.214	9.50	5.37	18.68
6426.00†	34.795	117.331	6143.55	-434.56	1087.17	950.69	1754579.44	14569557.05	40°07'00.771"N	80°35'29.953"W	1444.21	41.169	9.50	7.07	12.32
6526.00†	42.717	125.749	6221.53	-378.82	1054.18	1003.69	1754632.42	14569524.07	40°07'00.442"N	80°35'29.272"W	1455.57	43.595	9.50	7.92	8.42
6626.00†	51.092	131.911	6289.82	-310.18	1008.26	1060.30	1754689.01	14569478.17	40°06'59.986"N	80°35'28.546"W	1463.16	46.441	9.50	8.38	6.16
6726.00†	59.722	136.748	6346.57	-230.49	950.69	1118.98	1754747.66	14569420.63	40°06'59.414"N	80°35'27.795"W	1468.31	49.648	9.50	8.63	4.84
6826.00†	68.500	140.792	6390.20	-141.96	883.04	1178.11	1754806.77	14569353.00	40°06'58.743"N	80°35'27.037"W	1472.31	53.147	9.50	8.78	4.04
6926.00†	77.364	144.370	6419.53	-47.01	807.17	1236.07	1754864.71	14569277.15	40°06'57.991"N	80°35'26.296"W	1476.27	56.855	9.50	8.86	3.58
7026.00†	86.273	147.707	6433.75	51.75	725.14	1291.27	1754919.89	14569195.16	40°06'57.178"N	80°35'25.590"W	1480.95	60.683	9.50	8.91	3.34
7055.83	88.934	148.681	6435.00 <sup>1</sup>	81.55	699.82	1306.98	1754935.59	14569169.85	40°06'56.927"N	80°35'25.390"W	1482.55	61.833	9.50	8.92	3.27
7126.00†	88.934	148.681	6436.31	151.71	639.88	1343.45	1754972.05	14569109.94	40°06'56.333"N	80°35'24.924"W	1488.05	64.532	0.00	0.00	0.00
7226.00†	88.934	148.681	6438.16	251.69	554.47	1395.42	1755024.00	14569024.55	40°06'55.486"N	80°35'24.260"W	1501.54	68.330	0.00	0.00	0.00
7326.00†	88.934	148.681	6440.02	351.67	469.06	1447.39	1755075.95	14568939.17	40°06'54.640"N	80°35'23.596"W	1521.49	72.044	0.00	0.00	0.00
7426.00†	88.934	148.681	6441.88	451.66	383.64	1499.36	1755127.90	14568853.79	40°06'53.793"N	80°35'22.932"W	1547.66	75.648	0.00	0.00	0.00
7526.00†	88.934	148.681	6443.74	551.64	298.23	1551.33	1755179.85	14568768.41	40°06'52.947"N	80°35'22.268"W	1579.74	79.118	0.00	0.00	0.00
7626.00†	88.934	148.681	6445.60	651.62	212.81	1603.30	1755231.80	14568683.03	40°06'52.101"N	80°35'21.604"W	1617.36	82.439	0.00	0.00	0.00
7726.00†	88.934	148.681	6447.46	751.60	127.40	1655.27	1755283.75	14568597.65	40°06'51.254"N	80°35'20.941"W	1660.17	85.599	0.00	0.00	0.00
7826.00†	88.934	148.681	6449.32	851.59	41.98	1707.24	1755335.70	14568512.27	40°06'50.408"N	80°35'20.277"W	1707.76	88.591	0.00	0.00	0.00
7926.00†	88.934	148.681	6451.18	951.57	-43.43	1759.21	1755387.65	14568426.89	40°06'49.561"N	80°35'19.613"W	1759.75	91.414	0.00	0.00	0.00
8026.00†	88.934	148.681	6453.04	1051.55	-128.84	1811.18	1755439.60	14568341.51	40°06'48.715"N	80°35'18.949"W	1815.76	94.069	0.00	0.00	0.00
8126.00†	88.934	148.681	6454.90	1151.54	-214.26	1863.15	1755491.55	14568256.13	40°06'47.868"N	80°35'18.285"W	1875.43	96.560	0.00	0.00	0.00
8226.00†	88.934	148.681	6456.76	1251.52	-299.67	1915.13	1755543.50	14568170.74	40°06'47.022"N	80°35'17.622"W	1938.43	98.893	0.00	0.00	0.00





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Environmental Protection

**REFERENCE WELLPATH IDENTIFICATION**

Operator	SOUTHWESTERN ENERGY	Slot	Slot #210
Area	Ohio County, WV	Well	Glenn Didriksen OHI 210H
Field	Ohio	Wellbore	Glenn Didriksen OHI 210H PWB
Facility	Glenn Didriksen OHI Pad 1		

**WELLPATH DATA (150 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]
8326.00†	88.934	148.681	6458.62	1351.50	-385.09	1967.10	1755595.45	14568085.36	40°06'46.176"N	80°35'16.958"W	2004.43	101.076	0.00	0.00	0.00
8426.00†	88.934	148.681	6460.48	1451.48	-470.50	2019.07	1755647.40	14567999.98	40°06'45.329"N	80°35'16.294"W	2073.16	103.117	0.00	0.00	0.00
8526.00†	88.934	148.681	6462.34	1551.47	-555.91	2071.04	1755699.36	14567914.60	40°06'44.483"N	80°35'15.630"W	2144.35	105.025	0.00	0.00	0.00
8626.00†	88.934	148.681	6464.20	1651.45	-641.33	2123.01	1755751.31	14567829.22	40°06'43.636"N	80°35'14.966"W	2217.76	106.809	0.00	0.00	0.00
8726.00†	88.934	148.681	6466.06	1751.43	-726.74	2174.98	1755803.26	14567743.84	40°06'42.790"N	80°35'14.303"W	2293.18	108.476	0.00	0.00	0.00
8826.00†	88.934	148.681	6467.92	1851.41	-812.16	2226.95	1755855.21	14567658.46	40°06'41.943"N	80°35'13.639"W	2370.42	110.037	0.00	0.00	0.00
8926.00†	88.934	148.681	6469.78	1951.40	-897.57	2278.92	1755907.16	14567573.08	40°06'41.097"N	80°35'12.975"W	2449.31	111.497	0.00	0.00	0.00
9026.00†	88.934	148.681	6471.64	2051.38	-982.99	2330.89	1755959.11	14567487.70	40°06'40.250"N	80°35'12.311"W	2529.69	112.866	0.00	0.00	0.00
9126.00†	88.934	148.681	6473.50	2151.36	-1068.40	2382.86	1756011.06	14567402.31	40°06'39.404"N	80°35'11.647"W	2611.42	114.150	0.00	0.00	0.00
9226.00†	88.934	148.681	6475.36	2251.35	-1153.81	2434.83	1756063.01	14567316.93	40°06'38.558"N	80°35'10.984"W	2694.38	115.355	0.00	0.00	0.00
9326.00†	88.934	148.681	6477.22	2351.33	-1239.23	2486.80	1756114.96	14567231.55	40°06'37.711"N	80°35'10.320"W	2778.47	116.488	0.00	0.00	0.00
9426.00†	88.934	148.681	6479.08	2451.31	-1324.64	2538.77	1756166.91	14567146.17	40°06'36.865"N	80°35'09.656"W	2863.57	117.554	0.00	0.00	0.00
9526.00†	88.934	148.681	6480.94	2551.29	-1410.06	2590.75	1756218.86	14567060.79	40°06'36.018"N	80°35'08.992"W	2949.61	118.558	0.00	0.00	0.00
9626.00†	88.934	148.681	6482.80	2651.28	-1495.47	2642.72	1756270.81	14566975.41	40°06'35.172"N	80°35'08.329"W	3036.51	119.505	0.00	0.00	0.00
9726.00†	88.934	148.681	6484.66	2751.26	-1580.88	2694.69	1756322.76	14566890.03	40°06'34.325"N	80°35'07.665"W	3124.19	120.399	0.00	0.00	0.00
9826.00†	88.934	148.681	6486.52	2851.24	-1666.30	2746.66	1756374.71	14566804.65	40°06'33.479"N	80°35'07.001"W	3212.58	121.244	0.00	0.00	0.00
9926.00†	88.934	148.681	6488.38	2951.22	-1751.71	2798.63	1756426.66	14566719.27	40°06'32.632"N	80°35'06.337"W	3301.64	122.043	0.00	0.00	0.00
10026.00†	88.934	148.681	6490.24	3051.21	-1837.13	2850.60	1756478.62	14566633.88	40°06'31.786"N	80°35'05.674"W	3391.31	122.801	0.00	0.00	0.00
10126.00†	88.934	148.681	6492.10	3151.19	-1922.54	2902.57	1756530.57	14566548.50	40°06'30.939"N	80°35'05.010"W	3481.53	123.519	0.00	0.00	0.00
10226.00†	88.934	148.681	6493.96	3251.17	-2007.96	2954.54	1756582.52	14566463.12	40°06'30.093"N	80°35'04.346"W	3572.28	124.201	0.00	0.00	0.00
10326.00†	88.934	148.681	6495.82	3351.16	-2093.37	3006.51	1756634.47	14566377.74	40°06'29.246"N	80°35'03.682"W	3663.51	124.849	0.00	0.00	0.00
10426.00†	88.934	148.681	6497.68	3451.14	-2178.78	3058.48	1756686.42	14566292.36	40°06'28.400"N	80°35'03.019"W	3755.18	125.465	0.00	0.00	0.00
10526.00†	88.934	148.681	6499.54	3551.12	-2264.20	3110.45	1756738.37	14566206.98	40°06'27.554"N	80°35'02.355"W	3847.27	126.052	0.00	0.00	0.00
10626.00†	88.934	148.681	6501.40	3651.10	-2349.61	3162.42	1756790.32	14566121.60	40°06'26.707"N	80°35'01.691"W	3939.75	126.612	0.00	0.00	0.00
10726.00†	88.934	148.681	6503.26	3751.09	-2435.03	3214.39	1756842.27	14566036.22	40°06'25.861"N	80°35'01.028"W	4032.58	127.145	0.00	0.00	0.00
10826.00†	88.934	148.681	6505.12	3851.07	-2520.44	3266.37	1756894.22	14565950.84	40°06'25.014"N	80°35'00.364"W	4125.74	127.655	0.00	0.00	0.00
10926.00†	88.934	148.681	6506.98	3951.05	-2605.85	3318.34	1756946.17	14565865.45	40°06'24.168"N	80°34'59.700"W	4219.22	128.142	0.00	0.00	0.00
11026.00†	88.934	148.681	6508.84	4051.03	-2691.27	3370.31	1756998.12	14565780.07	40°06'23.321"N	80°34'59.037"W	4312.99	128.608	0.00	0.00	0.00
11126.00†	88.934	148.681	6510.70	4151.02	-2776.68	3422.28	1757050.07	14565694.69	40°06'22.475"N	80°34'58.373"W	4407.03	129.054	0.00	0.00	0.00
11226.00†	88.934	148.681	6512.56	4251.00	-2862.10	3474.25	1757102.02	14565609.31	40°06'21.628"N	80°34'57.709"W	4501.33	129.482	0.00	0.00	0.00





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Operator	SOUTHWESTERN ENERGY WV Department of Environmental Protection	Slot	Slot #210
Area	Ohio County, WV	Well	Glenn Didriksen OHI 210H
Field	Ohio	Wellbore	Glenn Didriksen OHI 210H PWB
Facility	Glenn Didriksen OHI Pad 1		

WELLPATH DATA (150 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]
11326.00†	88.934	148.681	6514.42	4350.98	-2947.51	3526.22	1757153.97	14565523.93	40°06'20.782"N	80°34'57.046"W	4595.87	129.892	0.00	0.00	0.00
11426.00†	88.934	148.681	6516.28	4450.96	-3032.93	3578.19	1757205.92	14565438.55	40°06'19.935"N	80°34'56.382"W	4690.64	130.285	0.00	0.00	0.00
11526.00†	88.934	148.681	6518.13	4550.95	-3118.34	3630.16	1757257.88	14565353.17	40°06'19.089"N	80°34'55.718"W	4785.61	130.663	0.00	0.00	0.00
11626.00†	88.934	148.681	6519.99	4650.93	-3203.75	3682.13	1757309.83	14565267.79	40°06'18.242"N	80°34'55.055"W	4880.79	131.026	0.00	0.00	0.00
11726.00†	88.934	148.681	6521.85	4750.91	-3289.17	3734.10	1757361.78	14565182.41	40°06'17.396"N	80°34'54.391"W	4976.16	131.375	0.00	0.00	0.00
11826.00†	88.934	148.681	6523.71	4850.90	-3374.58	3786.07	1757413.73	14565097.03	40°06'16.549"N	80°34'53.727"W	5071.70	131.711	0.00	0.00	0.00
11926.00†	88.934	148.681	6525.57	4950.88	-3460.00	3838.04	1757465.68	14565011.64	40°06'15.703"N	80°34'53.064"W	5167.41	132.035	0.00	0.00	0.00
12026.00†	88.934	148.681	6527.43	5050.86	-3545.41	3890.01	1757517.63	14564926.26	40°06'14.856"N	80°34'52.400"W	5263.28	132.346	0.00	0.00	0.00
12126.00†	88.934	148.681	6529.29	5150.84	-3630.82	3941.99	1757569.58	14564840.88	40°06'14.010"N	80°34'51.736"W	5359.30	132.647	0.00	0.00	0.00
12226.00†	88.934	148.681	6531.15	5250.83	-3716.24	3993.96	1757621.53	14564755.50	40°06'13.163"N	80°34'51.073"W	5455.47	132.937	0.00	0.00	0.00
12326.00†	88.934	148.681	6533.01	5350.81	-3801.65	4045.93	1757673.48	14564670.12	40°06'12.317"N	80°34'50.409"W	5551.76	133.217	0.00	0.00	0.00
12426.00†	88.934	148.681	6534.87	5450.79	-3887.07	4097.90	1757725.43	14564584.74	40°06'11.470"N	80°34'49.745"W	5648.19	133.488	0.00	0.00	0.00
12526.00†	88.934	148.681	6536.73	5550.77	-3972.48	4149.87	1757777.38	14564499.36	40°06'10.624"N	80°34'49.082"W	5744.74	133.749	0.00	0.00	0.00
12626.00†	88.934	148.681	6538.59	5650.76	-4057.90	4201.84	1757829.33	14564413.98	40°06'09.777"N	80°34'48.418"W	5841.40	134.002	0.00	0.00	0.00
12726.00†	88.934	148.681	6540.45	5750.74	-4143.31	4253.81	1757881.28	14564328.60	40°06'08.931"N	80°34'47.755"W	5938.17	134.246	0.00	0.00	0.00
12826.00†	88.934	148.681	6542.31	5850.72	-4228.72	4305.78	1757933.23	14564243.21	40°06'08.085"N	80°34'47.091"W	6035.05	134.483	0.00	0.00	0.00
12926.00†	88.934	148.681	6544.17	5950.71	-4314.14	4357.75	1757985.18	14564157.83	40°06'07.238"N	80°34'46.427"W	6132.03	134.712	0.00	0.00	0.00
13026.00†	88.934	148.681	6546.03	6050.69	-4399.55	4409.72	1758037.13	14564072.45	40°06'06.392"N	80°34'45.764"W	6229.10	134.934	0.00	0.00	0.00
13126.00†	88.934	148.681	6547.89	6150.67	-4484.97	4461.69	1758089.09	14563987.07	40°06'05.545"N	80°34'45.100"W	6326.27	135.149	0.00	0.00	0.00
13226.00†	88.934	148.681	6549.75	6250.65	-4570.38	4513.66	1758141.04	14563901.69	40°06'04.699"N	80°34'44.437"W	6423.51	135.358	0.00	0.00	0.00
13326.00†	88.934	148.681	6551.61	6350.64	-4655.79	4565.64	1758192.99	14563816.31	40°06'03.852"N	80°34'43.773"W	6520.85	135.560	0.00	0.00	0.00
13426.00†	88.934	148.681	6553.47	6450.62	-4741.21	4617.61	1758244.94	14563730.93	40°06'03.006"N	80°34'43.109"W	6618.26	135.757	0.00	0.00	0.00
13526.00†	88.934	148.681	6555.33	6550.60	-4826.62	4669.58	1758296.89	14563645.55	40°06'02.159"N	80°34'42.446"W	6715.75	135.947	0.00	0.00	0.00
13626.00†	88.934	148.681	6557.19	6650.58	-4912.04	4721.55	1758348.84	14563560.17	40°06'01.313"N	80°34'41.782"W	6813.30	136.133	0.00	0.00	0.00
13726.00†	88.934	148.681	6559.05	6750.57	-4997.45	4773.52	1758400.79	14563474.78	40°06'00.466"N	80°34'41.119"W	6910.93	136.313	0.00	0.00	0.00
13826.00†	88.934	148.681	6560.91	6850.55	-5082.87	4825.49	1758452.74	14563389.40	40°05'59.620"N	80°34'40.455"W	7008.63	136.488	0.00	0.00	0.00
13926.00†	88.934	148.681	6562.77	6950.53	-5168.28	4877.46	1758504.69	14563304.02	40°05'58.773"N	80°34'39.792"W	7106.39	136.658	0.00	0.00	0.00
14026.00†	88.934	148.681	6564.63	7050.52	-5253.69	4929.43	1758556.64	14563218.64	40°05'57.927"N	80°34'39.128"W	7204.21	136.824	0.00	0.00	0.00
14126.00†	88.934	148.681	6566.49	7150.50	-5339.11	4981.40	1758608.59	14563133.26	40°05'57.080"N	80°34'38.465"W	7302.08	136.985	0.00	0.00	0.00
14153.48	88.934	148.681	6567.00 <sup>2</sup>	7177.97	-5362.58	4995.68	1758622.87	14563109.80	40°05'56.847"N	80°34'38.282"W	7328.99	137.029	0.00	0.00	0.00





# Planned Wellpath Report

Glenn Didriksen OHI 210H PWP Rev-A.0  
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### REFERENCE WELLPATH IDENTIFICATION

Operator	SOUTHWESTERN ENERGY	Slot	Slot #210
Area	Ohio County, WV	Well	Glenn Didriksen OHI 210H
Field	Ohio	Wellbore	Glenn Didriksen OHI 210H PWB
Facility	Glenn Didriksen OHI Pad 1		

### HOLE & CASING SECTIONS - Ref Wellbore: Glenn Didriksen OHI 210H PWB Ref Wellpath: Glenn Didriksen OHI 210H PWP Rev-A.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	0.00	0.00
9.625in Casing Intermediate	26.00	2304.90	2278.90	26.00	2300.00	0.00	0.00	10.10	115.47
8.75in Open Hole	2304.90	6000.00	3695.10	2300.00	5756.30	10.10	115.47	1069.24	796.41
8.5in Open Hole	6000.00	14153.48	8153.48	5756.30	6567.00	1069.24	796.41	-5362.58	4995.68
5.5in Casing Production	26.00	14153.48	14127.48	26.00	6567.00	0.00	0.00	-5362.58	4995.68

### TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
1) Glenn Didriksen OHI 210H LP Rev-1	7055.83	6435.00	699.82	1306.98	1754935.59	14569169.85	40°06'56.927"N	80°35'25.390"W	point
2) Glenn Didriksen OHI 210H BHL Rev-1	14153.48	6567.00	-5362.58	4995.68	1758622.87	14563109.80	40°05'56.847"N	80°34'38.282"W	point

### SURVEY PROGRAM - Ref Wellbore: Glenn Didriksen OHI 210H PWB Ref Wellpath: Glenn Didriksen OHI 210H PWP Rev-A.0

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
26.00	750.00	Generic gyro - northseeking (Standard)		Glenn Didriksen OHI 210H PWB
750.00	6000.00	NaviTrak (MagCorr)		Glenn Didriksen OHI 210H PWB
6000.00	14153.48	NaviTrak (MagCorr)		Glenn Didriksen OHI 210H PWB

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