

SOUTHWESTERN ENERGY

Location: Ohio County, WV
 Slot: Slot 205H
 Field: Dallas Hall OHI 205H
 Well: Dallas Hall OHI 205H PWB
 Facility: Dallas Hall OHI Pad Wellbore: Dallas Hall OHI 205H PWB

Plot reference wellpath is Dallas Hall OHI 205H PWB Rev-B.0	Grid System: NAD83 / UTM Zone 17 North, US feet
True vertical depths are referenced to SDC 41 (KB)	North Reference: Grid north
Measured depths are referenced to SDC 41 (KB)	Scale: True distance
SDC 41 (KB) to Mean Sea Level: 1300 feet	Depths are in feet
Mean Sea Level to Ground level (At Slot: Slot 205H): -1274 feet	Created by: atenjen on 2019-01-25
Coordinates are in feet referenced to Slot	Database: WA_MPL_EASTERNUS_Defn

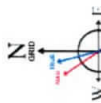


Location Information

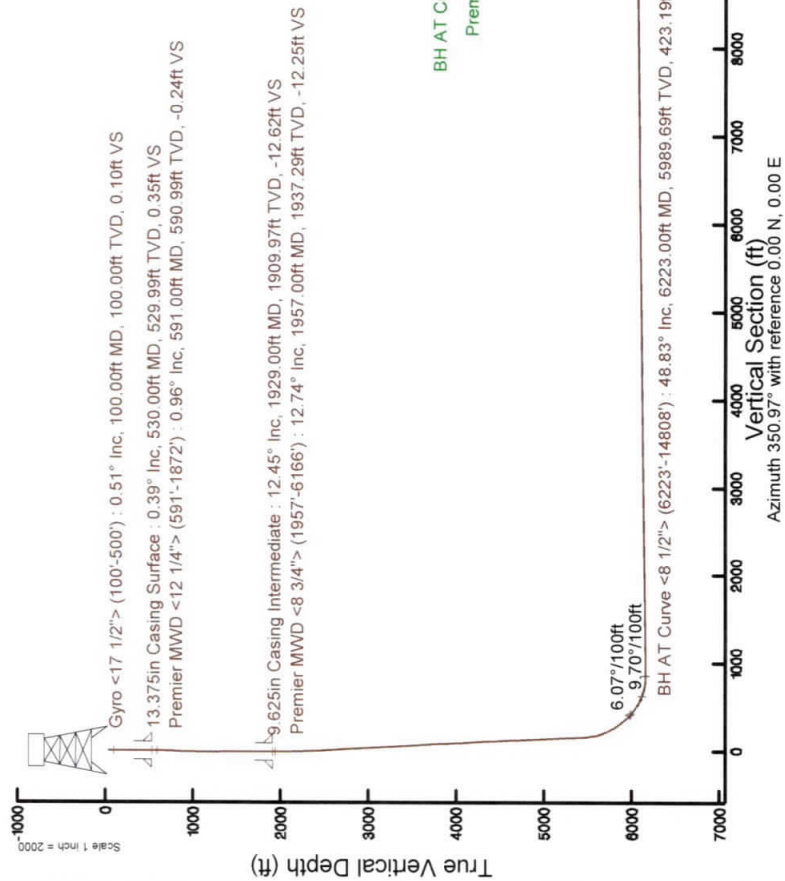
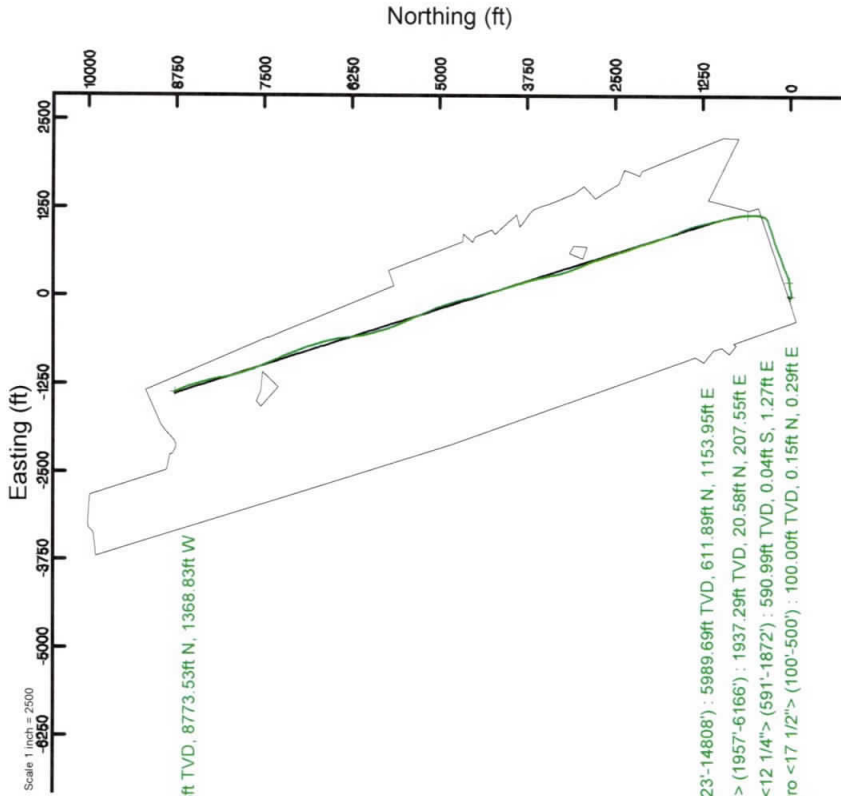
Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Dallas Hall OHI Pad	1748601.815	14575539.433	40° 08' 00.176" N	80° 36' 46.588" W
Slot	Local N (ft)	Local E (ft)	Latitude	Longitude
Slot 205H	-25.65	11.92	40° 07' 59.922" N	80° 36' 46.436" W
Comment: Slot 1				
SDC 41 (KB) to Ground level (At Slot: Slot 205H)			26ft	
Mean Sea Level to Ground level (At Slot: Slot 205H)			-127.4ft	
SDC 41 (KB) to Mean Sea Level			1300ft	

Comments

API: 47-069-00279-0000
 BH Job #: 109522417
 Rig: SDC 41
 Duration: 01/11/2019 - 01/14/2019



User specified Dip: 67.45° Field: 52606 nT
 Magnetic North is 5.11 degrees West of True North (at 31/Dec/2018)
 To correct azimuth from True to Grid subtract 0.25 degrees
 To correct azimuth from Magnetic to Grid subtract 8.36 degrees



Actual Wellpath Report

Dallas Hall OHI 205 AWP Proj: 14832'

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REFERENCE WELLPATH IDENTIFICATION

Operator	SOUTHWESTERN ENERGY	Slot	Slot 205H
Area	Ohio County, WV	Well	Dallas Hall OHI 205H
Field	Ohio	Wellbore	Dallas Hall OHI 205 AWB
Facility	Dallas Hall OHI Pad		

REPORT SETUP INFORMATION

Projection System	NAD83 / UTM Zone 17 North, US feet	Software System	WellArchitect® 5.1
North Reference	Grid	User	Atenjen
Scale	0.999613	Report Generated	25/Jan/2019 at 14:05
Convergence at slot	0.25° East	Database/Source file	WA_MPL_EASTERNUS_Defn/Dallas_Hall_OHI_205_AWP_Proj_14832_.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-25.65	11.92	1748613.73	14575513.79	40°07'59.922"N	80°36'46.436"W
Facility Reference Pt			1748601.82	14575539.43	40°08'00.176"N	80°36'46.588"W
Field Reference Pt			0.00	0.00	0°00'00.000"	85°29'19.478"W

WELLPATH DATUM

Calculation method	Minimum curvature	SDC 41 (KB) to Facility Vertical Datum	1300.00ft
Horizontal Reference Pt	Slot	SDC 41 (KB) to Mean Sea Level	1300.00ft
Vertical Reference Pt	SDC 41 (KB)	SDC 41 (KB) to Ground Level at Slot (Slot 205H)	26.00ft
MD Reference Pt	SDC 41 (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	350.97°

Actual Wellpath Report

Dallas Hall OHI 205 AWP Proj: 14832'

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Area	Ohio County, WV	Well	Dallas Hall OHI 205H
Field	Ohio	Wellbore	Dallas Hall OHI 205 AWB
Facility	Dallas Hall OHI Pad		

WELLPATH DATA (177 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	63.540	0.00	0.00	0.00	0.00	1748613.73	14575513.79	40°07'59.922"N	80°36'46.436"W	0.00	0.000	0.00	0.00	0.00
26.00	0.000	63.540	26.00	0.00	0.00	0.00	1748613.73	14575513.79	40°07'59.922"N	80°36'46.436"W	0.00	0.000	0.00	0.00	0.00
100.00	0.510	63.540	100.00	0.10	0.15	0.29	1748614.02	14575513.94	40°07'59.923"N	80°36'46.432"W	0.33	63.540	0.69	0.69	85.86
200.00	0.230	45.630	200.00	0.35	0.49	0.84	1748614.57	14575514.28	40°07'59.927"N	80°36'46.425"W	0.97	59.882	0.30	-0.28	-17.91
300.00	0.320	62.370	300.00	0.55	0.76	1.23	1748614.96	14575514.54	40°07'59.929"N	80°36'46.420"W	1.44	58.399	0.12	0.09	16.74
400.00	0.020	100.590	400.00	0.64	0.88	1.49	1748615.22	14575514.67	40°07'59.931"N	80°36'46.417"W	1.73	59.426	0.30	-0.30	38.22
500.00	0.170	152.890	500.00	0.49	0.75	1.58	1748615.31	14575514.54	40°07'59.929"N	80°36'46.416"W	1.74	64.674	0.16	0.15	52.30
591.00	0.960	209.210	590.99	-0.24	-0.04	1.27	1748615.00	14575513.75	40°07'59.922"N	80°36'46.420"W	1.27	91.776	0.96	0.87	61.89
682.00	1.930	198.830	681.96	-2.19	-2.16	0.40	1748614.13	14575511.64	40°07'59.901"N	80°36'46.431"W	2.19	169.490	1.10	1.07	-11.41
773.00	3.190	126.820	772.89	-5.36	-5.12	1.93	1748615.66	14575508.67	40°07'59.871"N	80°36'46.411"W	5.48	159.335	3.49	1.38	-79.13
863.00	6.520	109.620	862.56	-9.61	-8.34	8.75	1748622.48	14575505.45	40°07'59.839"N	80°36'46.324"W	12.09	133.622	4.00	3.70	-19.11
976.00	10.110	92.580	974.37	-14.69	-10.94	24.71	1748638.43	14575502.85	40°07'59.813"N	80°36'46.118"W	27.03	113.886	3.82	3.18	-15.08
1067.00	11.740	82.650	1063.72	-16.56	-10.12	41.87	1748655.59	14575503.68	40°07'59.820"N	80°36'45.897"W	43.08	103.584	2.73	1.79	-10.91
1158.00	12.540	87.410	1152.69	-17.94	-8.49	60.93	1748674.63	14575505.31	40°07'59.835"N	80°36'45.652"W	61.51	97.930	1.41	0.88	5.23
1251.00	12.150	74.290	1243.56	-17.94	-5.38	80.44	1748694.14	14575508.41	40°07'59.865"N	80°36'45.401"W	80.62	93.827	3.04	-0.42	-14.11
1343.00	10.750	66.870	1333.73	-14.72	0.61	97.65	1748711.34	14575514.40	40°07'59.924"N	80°36'45.179"W	97.65	89.641	2.21	-1.52	-8.07
1436.00	9.800	70.360	1425.24	-11.15	6.68	113.08	1748726.77	14575520.47	40°07'59.983"N	80°36'44.980"W	113.28	86.619	1.22	-1.02	3.75
1529.00	9.560	82.450	1516.92	-9.89	10.35	128.19	1748741.87	14575524.14	40°08'00.019"N	80°36'44.785"W	128.61	85.382	2.20	-0.26	13.00
1622.00	9.830	86.690	1608.59	-10.88	11.83	143.77	1748757.45	14575525.61	40°08'00.033"N	80°36'44.584"W	144.26	85.297	0.82	0.29	4.56
1714.00	10.370	85.040	1699.17	-12.25	13.00	159.86	1748773.53	14575526.78	40°08'00.044"N	80°36'44.377"W	160.39	85.352	0.67	0.59	-1.79
1807.00	11.080	82.400	1790.54	-13.07	14.90	177.06	1748790.72	14575528.69	40°08'00.062"N	80°36'44.156"W	177.69	85.189	0.93	0.76	-2.84
1872.00	11.860	79.710	1854.25	-13.08	16.92	189.82	1748803.48	14575530.71	40°08'00.081"N	80°36'43.991"W	190.58	84.906	1.45	1.20	-4.14
1957.00	12.740	77.080	1937.29	-12.25	20.58	207.55	1748821.20	14575534.36	40°08'00.116"N	80°36'43.763"W	208.57	84.338	1.23	1.04	-3.09
2003.00	13.210	76.420	1982.12	-11.49	22.95	217.61	1748831.25	14575536.73	40°08'00.139"N	80°36'43.633"W	218.81	83.980	1.07	1.02	-1.43
2096.00	12.300	76.950	2072.82	-9.95	27.68	237.59	1748851.22	14575541.46	40°08'00.185"N	80°36'43.376"W	239.19	83.355	0.99	-0.98	0.57
2189.00	12.880	76.270	2163.59	-8.41	32.38	257.30	1748870.93	14575546.15	40°08'00.231"N	80°36'43.121"W	259.33	82.828	0.64	0.62	-0.73
2282.00	13.440	73.230	2254.15	-6.11	37.95	277.72	1748891.34	14575551.73	40°08'00.285"N	80°36'42.858"W	280.30	82.218	0.96	0.60	-3.27
2374.00	12.190	72.060	2343.85	-3.16	44.03	297.20	1748910.82	14575557.80	40°08'00.344"N	80°36'42.607"W	300.45	81.573	1.39	-1.36	-1.27
2467.00	12.390	68.550	2434.72	0.51	50.70	315.83	1748929.44	14575564.47	40°08'00.409"N	80°36'42.367"W	319.87	80.879	0.83	0.22	-3.77
2560.00	12.950	66.550	2525.46	5.25	58.50	334.68	1748948.28	14575572.27	40°08'00.486"N	80°36'42.124"W	339.75	80.085	0.76	0.60	-2.15

Actual Wellpath Report

Dallas Hall OHI 205 AWP Proj: 14832'

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Area	Ohio County, WV	Well	Dallas Hall OHI 205H
Field	Ohio	Wellbore	Dallas Hall OHI 205 AWB
Facility	Dallas Hall OHI Pad		

WELLPATH DATA (177 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]
2653.00	13.430	64.320	2616.00	10.94	67.33	353.97	1748967.56	14575581.09	40°08'00.572"N	80°36'41.875"W	360.32	79.231	0.75	0.52	-2.40
2746.00	13.350	68.290	2706.48	16.39	75.98	373.68	1748987.26	14575589.74	40°08'00.657"N	80°36'41.621"W	381.32	78.507	0.99	-0.09	4.27
2838.00	13.580	67.510	2795.95	21.23	84.04	393.53	1749007.10	14575597.80	40°08'00.735"N	80°36'41.365"W	402.40	77.945	0.32	0.25	-0.85
2930.00	14.480	70.410	2885.21	25.86	92.03	414.34	1749027.91	14575605.78	40°08'00.814"N	80°36'41.096"W	424.44	77.478	1.24	0.98	3.15
3023.00	15.000	69.300	2975.14	30.42	100.18	436.55	1749050.11	14575613.93	40°08'00.893"N	80°36'40.810"W	447.90	77.076	0.64	0.56	-1.19
3116.00	14.700	71.250	3065.04	34.85	108.23	458.99	1749072.54	14575621.98	40°08'00.972"N	80°36'40.521"W	471.57	76.732	0.63	-0.32	2.10
3208.00	14.830	69.380	3154.00	39.18	116.13	481.06	1749094.60	14575629.87	40°08'01.049"N	80°36'40.236"W	494.88	76.429	0.54	0.14	-2.03
3301.00	15.370	71.140	3243.79	43.68	124.30	503.86	1749117.40	14575638.04	40°08'01.129"N	80°36'39.942"W	518.97	76.142	0.76	0.58	1.89
3394.00	15.680	68.890	3333.40	48.41	132.81	527.25	1749140.77	14575646.55	40°08'01.212"N	80°36'39.640"W	543.72	75.862	0.73	0.33	-2.42
3486.00	15.720	71.540	3421.97	53.06	141.24	550.67	1749164.18	14575654.97	40°08'01.294"N	80°36'39.338"W	568.49	75.615	0.78	0.04	2.88
3579.00	15.800	68.670	3511.47	57.82	149.83	574.41	1749187.92	14575663.56	40°08'01.378"N	80°36'39.032"W	593.63	75.381	0.84	0.09	-3.09
3672.00	15.870	65.480	3600.95	63.91	159.71	597.78	1749211.27	14575673.44	40°08'01.474"N	80°36'38.731"W	618.74	75.041	0.94	0.08	-3.43
3765.00	15.740	67.780	3690.43	70.19	169.76	621.02	1749234.51	14575683.48	40°08'01.573"N	80°36'38.431"W	643.81	74.711	0.69	-0.14	2.47
3858.00	14.900	71.700	3780.13	74.99	178.29	644.05	1749257.53	14575692.01	40°08'01.656"N	80°36'38.134"W	668.27	74.527	1.43	-0.90	4.22
3950.00	14.290	67.240	3869.16	79.59	186.39	665.75	1749279.23	14575700.11	40°08'01.735"N	80°36'37.854"W	691.35	74.359	1.39	-0.66	-4.85
4043.00	14.560	69.870	3959.23	84.57	194.86	687.31	1749300.78	14575708.57	40°08'01.818"N	80°36'37.576"W	714.40	74.172	0.76	0.29	2.83
4136.00	15.250	72.300	4049.10	88.66	202.60	709.94	1749323.40	14575716.31	40°08'01.893"N	80°36'37.284"W	738.28	74.073	1.00	0.74	2.61
4229.00	16.550	70.410	4138.54	92.93	210.76	734.07	1749347.52	14575724.47	40°08'01.973"N	80°36'36.973"W	763.73	73.981	1.50	1.40	-2.03
4321.00	16.400	66.310	4226.77	98.62	220.37	758.31	1749371.75	14575734.07	40°08'02.067"N	80°36'36.661"W	789.68	73.796	1.27	-0.16	-4.46
4413.00	16.180	70.680	4315.08	104.20	229.83	782.30	1749395.73	14575743.53	40°08'02.159"N	80°36'36.351"W	815.37	73.628	1.35	-0.24	4.75
4505.00	16.130	74.940	4403.45	107.83	237.39	806.74	1749420.16	14575751.09	40°08'02.233"N	80°36'36.036"W	840.94	73.603	1.29	-0.05	4.63
4596.00	15.400	70.140	4491.03	111.43	244.78	830.31	1749443.72	14575758.48	40°08'02.305"N	80°36'35.732"W	865.64	73.574	1.64	-0.80	-5.27
4689.00	15.850	71.790	4580.59	115.77	252.94	853.99	1749467.39	14575766.64	40°08'02.385"N	80°36'35.427"W	890.66	73.501	0.68	0.48	1.77
4782.00	16.500	75.750	4669.91	119.00	260.16	878.86	1749492.25	14575773.85	40°08'02.455"N	80°36'35.106"W	916.56	73.510	1.38	0.70	4.26
4874.00	16.230	72.950	4758.19	121.98	267.15	903.81	1749517.19	14575780.84	40°08'02.523"N	80°36'34.785"W	942.47	73.533	0.91	-0.29	-3.04
4967.00	15.600	68.920	4847.62	126.41	275.46	927.91	1749541.28	14575789.14	40°08'02.604"N	80°36'34.474"W	967.93	73.466	1.37	-0.68	-4.33
5059.00	15.990	73.170	4936.15	130.71	283.58	951.58	1749564.94	14575797.26	40°08'02.683"N	80°36'34.169"W	992.93	73.406	1.33	0.42	4.62
5149.00	16.220	72.640	5022.62	134.21	290.92	975.44	1749588.79	14575804.59	40°08'02.755"N	80°36'33.861"W	1017.90	73.393	0.30	0.26	-0.59
5240.00	15.550	68.180	5110.15	138.76	299.24	998.90	1749612.24	14575812.92	40°08'02.836"N	80°36'33.559"W	1042.76	73.323	1.53	-0.74	-4.90
5332.00	15.740	71.390	5198.74	143.56	307.81	1022.17	1749635.50	14575821.48	40°08'02.920"N	80°36'33.259"W	1067.51	73.241	0.96	0.21	3.49

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Field	Ohio	Wellbore	Dallas Hall OHI 205 AWB
Facility	Dallas Hall OHI Pad		

WELLPATH DATA (177 stations)

MD	Inclination	Azimuth	TVD	Vert.Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Build Rate	Turn Rate
	[°]	[°]	[ft]	[ft]	[ft]	[ft]	[US ft]	[US ft]			[ft]	[°]	[°/100ft]	[°/100ft]	[°/100ft]
5425.00	16.170	76.680	5288.16	146.63	314.82	1046.73	1749660.05	14575828.49	40°08'02.988"N	80°36'32.942"W	1093.05	73.261	1.63	0.46	5.69
5518.00	15.580	73.760	5377.62	149.17	321.29	1071.32	1749684.63	14575834.96	40°08'03.051"N	80°36'32.625"W	1118.46	73.306	1.07	-0.63	-3.14
5564.00	15.190	72.140	5421.97	150.87	324.87	1082.99	1749696.30	14575838.53	40°08'03.086"N	80°36'32.475"W	1130.67	73.302	1.26	-0.85	-3.52
5609.00	15.270	62.710	5465.40	153.63	329.40	1093.87	1749707.17	14575843.06	40°08'03.130"N	80°36'32.334"W	1142.39	73.241	5.50	0.18	-20.96
5656.00	16.240	52.010	5510.64	158.75	336.28	1104.55	1749717.85	14575849.94	40°08'03.197"N	80°36'32.196"W	1154.61	73.067	6.51	2.06	-22.77
5702.00	18.190	42.050	5554.59	166.38	345.57	1114.43	1749727.73	14575859.23	40°08'03.289"N	80°36'32.069"W	1166.78	72.772	7.67	4.24	-21.65
5748.00	19.750	33.260	5598.10	176.64	357.41	1123.51	1749736.80	14575871.06	40°08'03.405"N	80°36'31.951"W	1178.98	72.353	7.07	3.39	-19.11
5795.00	21.830	25.600	5642.04	189.71	371.93	1131.64	1749744.93	14575885.58	40°08'03.548"N	80°36'31.846"W	1191.19	71.806	7.28	4.43	-16.30
5841.00	24.800	19.950	5684.29	205.19	388.72	1138.63	1749751.92	14575902.36	40°08'03.714"N	80°36'31.755"W	1203.15	71.150	8.08	6.46	-12.28
5888.00	27.120	14.190	5726.55	223.67	408.38	1144.62	1749757.90	14575922.01	40°08'03.908"N	80°36'31.676"W	1215.29	70.365	7.29	4.94	-12.26
5934.00	30.400	10.030	5766.87	244.31	430.01	1149.22	1749762.50	14575943.63	40°08'04.122"N	80°36'31.616"W	1227.03	69.485	8.35	7.13	-9.04
5980.00	33.510	6.330	5805.90	267.56	454.10	1152.65	1749765.93	14575967.71	40°08'04.360"N	80°36'31.570"W	1238.87	68.497	7.99	6.76	-8.04
6027.00	36.120	2.710	5844.49	293.64	480.84	1154.73	1749768.01	14575994.44	40°08'04.624"N	80°36'31.542"W	1250.85	67.393	7.08	5.55	-7.70
6073.00	38.770	0.320	5881.01	321.14	508.79	1155.45	1749768.74	14576022.38	40°08'04.900"N	80°36'31.531"W	1262.52	66.234	6.57	5.76	-5.20
6119.00	41.550	359.300	5916.16	350.45	538.46	1155.35	1749768.63	14576052.04	40°08'05.193"N	80°36'31.531"W	1274.66	65.012	6.21	6.04	-2.22
6166.00	44.400	359.500	5950.54	382.14	570.49	1155.01	1749768.30	14576084.06	40°08'05.510"N	80°36'31.533"W	1288.22	63.714	6.07	6.06	0.43
6223.00	48.830	357.630	5989.69	423.19	611.89	1153.95	1749767.23	14576125.44	40°08'05.919"N	80°36'31.545"W	1306.14	62.065	8.13	7.77	-3.28
6242.00	49.560	356.650	6002.10	437.49	626.25	1153.23	1749766.52	14576139.80	40°08'06.061"N	80°36'31.553"W	1312.30	61.496	5.48	3.84	-5.16
6289.00	53.400	354.730	6031.37	474.13	662.91	1150.46	1749763.74	14576176.44	40°08'06.423"N	80°36'31.587"W	1327.78	60.049	8.77	8.17	-4.09
6335.00	58.540	351.910	6057.11	512.20	700.75	1145.99	1749759.28	14576214.27	40°08'06.797"N	80°36'31.642"W	1343.26	58.555	12.27	11.17	-6.13
6381.00	62.850	350.150	6079.62	552.30	740.36	1139.73	1749753.02	14576253.86	40°08'07.189"N	80°36'31.720"W	1359.08	56.993	9.95	9.37	-3.83
6428.00	66.630	349.640	6099.67	594.79	782.20	1132.27	1749745.56	14576295.68	40°08'07.603"N	80°36'31.814"W	1376.18	55.362	8.10	8.04	-1.09
6474.00	70.270	349.470	6116.57	637.55	824.26	1124.51	1749737.81	14576337.73	40°08'08.019"N	80°36'31.912"W	1394.25	53.759	7.92	7.91	-0.37
6521.00	74.190	349.040	6130.91	682.28	868.23	1116.17	1749729.47	14576381.68	40°08'08.454"N	80°36'32.017"W	1414.09	52.122	8.39	8.34	-0.91
6567.00	78.460	348.200	6141.78	726.93	912.03	1107.35	1749720.65	14576425.47	40°08'08.887"N	80°36'32.128"W	1434.58	50.524	9.45	9.28	-1.83
6612.00	82.120	347.560	6149.37	771.21	955.39	1098.04	1749711.34	14576468.81	40°08'09.316"N	80°36'32.245"W	1455.49	48.974	8.25	8.13	-1.42
6657.00	85.960	346.120	6154.04	815.84	998.96	1087.85	1749701.15	14576512.37	40°08'09.747"N	80°36'32.374"W	1476.94	47.439	9.11	8.53	-3.20
6704.00	90.680	344.500	6155.42	862.58	1044.39	1075.94	1749689.25	14576557.78	40°08'10.196"N	80°36'32.525"W	1499.47	45.852	10.62	10.04	-3.45
6796.00	90.590	344.620	6154.40	954.00	1133.07	1051.44	1749664.77	14576646.42	40°08'11.073"N	80°36'32.835"W	1545.76	42.860	0.16	-0.10	0.13
6888.00	90.550	347.130	6153.48	1045.62	1222.27	1029.00	1749642.33	14576735.59	40°08'11.956"N	80°36'33.119"W	1597.75	40.093	2.73	-0.04	2.73

Actual Wellpath Report

Dallas Hall OHI 205 AWP Proj: 14832'

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REFERENCE WELLPATH IDENTIFICATION

Operator	SOUTHWESTERN ENERGY	Slot	Slot 205H
Area	Ohio County, WV	Well	Dallas Hall OHI 205H
Field	Ohio	Wellbore	Dallas Hall OHI 205 AWB
Facility	Dallas Hall OHI Pad		

WELLPATH DATA (177 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]
6978.00	90.620	348.440	6152.57	1135.48	1310.23	1009.96	1749623.29	14576823.51	40°08'12.826"N	80°36'33.359"W	1654.30	37.626	1.46	0.08	1.46
7070.00	90.620	342.350	6151.57	1226.99	1399.21	986.77	1749600.12	14576912.46	40°08'13.706"N	80°36'33.653"W	1712.16	35.193	6.62	0.00	-6.62
7161.00	90.620	337.270	6150.58	1316.24	1484.59	955.37	1749568.73	14576997.80	40°08'14.551"N	80°36'34.052"W	1765.43	32.762	5.58	0.00	-5.58
7253.00	90.830	337.900	6149.42	1405.73	1569.63	920.30	1749533.67	14577082.81	40°08'15.393"N	80°36'34.499"W	1819.53	30.384	0.72	0.23	0.68
7343.00	90.830	338.630	6148.12	1493.52	1653.22	886.97	1749500.36	14577166.37	40°08'16.221"N	80°36'34.923"W	1876.13	28.214	0.81	0.00	0.81
7435.00	90.950	340.320	6146.69	1583.66	1739.37	854.72	1749468.12	14577252.48	40°08'17.073"N	80°36'35.334"W	1938.03	26.169	1.84	0.13	1.84
7525.00	90.770	339.500	6145.34	1671.98	1823.88	823.81	1749437.22	14577336.96	40°08'17.910"N	80°36'35.727"W	2001.30	24.308	0.93	-0.20	-0.91
7617.00	90.830	340.310	6144.05	1762.26	1910.27	792.20	1749405.63	14577423.32	40°08'18.765"N	80°36'36.129"W	2068.02	22.524	0.88	0.07	0.88
7708.00	90.710	344.290	6142.83	1852.19	1996.94	764.55	1749377.98	14577509.95	40°08'19.623"N	80°36'36.480"W	2138.29	20.950	4.38	-0.13	4.37
7800.00	90.890	341.530	6141.54	1943.26	2084.86	737.51	1749350.96	14577597.84	40°08'20.493"N	80°36'36.823"W	2211.46	19.481	3.01	0.20	-3.00
7892.00	90.770	341.320	6140.21	2033.98	2172.06	708.21	1749321.67	14577685.00	40°08'21.356"N	80°36'37.195"W	2284.60	18.059	0.26	-0.13	-0.23
7983.00	90.830	340.150	6138.94	2123.52	2257.95	678.19	1749291.66	14577770.86	40°08'22.206"N	80°36'37.577"W	2357.60	16.718	1.29	0.07	-1.29
8075.00	90.650	341.130	6137.75	2214.02	2344.74	647.69	1749261.17	14577857.62	40°08'23.065"N	80°36'37.965"W	2432.55	15.442	1.08	-0.20	1.07
8167.00	90.740	341.180	6136.64	2304.67	2431.80	617.98	1749231.47	14577944.65	40°08'23.926"N	80°36'38.343"W	2509.10	14.258	0.11	0.10	0.05
8260.00	90.650	341.750	6135.51	2396.39	2519.97	588.42	1749201.92	14578032.78	40°08'24.799"N	80°36'38.718"W	2587.76	13.143	0.62	-0.10	0.61
8353.00	90.770	342.620	6134.36	2488.29	2608.50	559.97	1749173.48	14578121.28	40°08'25.675"N	80°36'39.080"W	2667.93	12.116	0.94	0.13	0.94
8445.00	90.740	342.280	6133.14	2579.26	2696.21	532.23	1749145.75	14578208.96	40°08'26.543"N	80°36'39.432"W	2748.24	11.167	0.37	-0.03	-0.37
8537.00	90.770	340.800	6131.93	2670.01	2783.47	503.10	1749116.64	14578296.18	40°08'27.407"N	80°36'39.802"W	2828.57	10.245	1.61	0.03	-1.61
8630.00	90.340	338.470	6131.03	2761.19	2870.65	470.74	1749084.29	14578383.32	40°08'28.269"N	80°36'40.214"W	2908.99	9.313	2.55	-0.46	-2.51
8722.00	90.590	336.830	6130.28	2850.70	2955.73	435.76	1749049.32	14578468.37	40°08'29.112"N	80°36'40.659"W	2987.68	8.387	1.80	0.27	-1.78
8815.00	90.800	336.610	6129.15	2940.84	3041.15	399.01	1749012.58	14578553.76	40°08'29.957"N	80°36'41.128"W	3067.22	7.475	0.33	0.23	-0.24
8908.00	90.770	339.500	6127.88	3031.47	3127.40	364.26	1748977.85	14578639.97	40°08'30.811"N	80°36'41.571"W	3148.54	6.643	3.11	-0.03	3.11
8999.00	90.620	343.090	6126.78	3121.15	3213.57	335.08	1748948.68	14578726.11	40°08'31.664"N	80°36'41.941"W	3230.99	5.953	3.95	-0.16	3.95
9091.00	90.950	344.790	6125.52	3212.45	3301.97	309.63	1748923.24	14578814.47	40°08'32.539"N	80°36'42.264"W	3316.45	5.357	1.88	0.36	1.85
9183.00	90.590	348.160	6124.28	3304.14	3391.39	288.12	1748901.74	14578903.87	40°08'33.423"N	80°36'42.536"W	3403.61	4.856	3.68	-0.39	3.66
9275.00	90.590	348.240	6123.33	3396.03	3481.45	269.31	1748882.94	14578993.88	40°08'34.314"N	80°36'42.773"W	3491.85	4.423	0.09	0.00	0.09
9368.00	90.550	348.170	6122.41	3488.92	3572.48	250.30	1748863.93	14579084.88	40°08'35.214"N	80°36'43.013"W	3581.24	4.008	0.09	-0.04	-0.08
9459.00	90.430	345.260	6121.63	3579.65	3661.03	229.39	1748843.03	14579173.40	40°08'36.090"N	80°36'43.277"W	3668.21	3.585	3.20	-0.13	-3.20
9551.00	90.550	343.130	6120.84	3671.00	3749.54	204.34	1748817.99	14579261.88	40°08'36.966"N	80°36'43.595"W	3755.11	3.119	2.32	0.13	-2.32
9644.00	90.680	342.560	6119.84	3763.06	3838.40	176.91	1748790.57	14579350.70	40°08'37.845"N	80°36'43.943"W	3842.47	2.639	0.63	0.14	-0.61

Actual Wellpath Report

Dallas Hall OHI 205 AWP Proj: 14832'

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REFERENCE WELLPATH IDENTIFICATION

Operator	Slot	Slot 205H
SOUTHWESTERN ENERGY	Well	Dallas Hall OHI 205H
Ohio County, WV	Wellbore	Dallas Hall OHI 205 AWB
Ohio		
Dallas Hall OHI Pad		

WELLPATH DATA (177 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]
9737.00	90.830	342.690	6118.62	3855.07	3927.15	149.14	1748762.81	14579439.41	40°08'38.724"N	80°36'44.295"W	3929.98	2.175	0.21	0.16	0.14
9830.00	90.620	343.590	6117.44	3947.19	4016.14	122.17	1748735.85	14579528.37	40°08'39.604"N	80°36'44.638"W	4018.00	1.742	0.99	-0.23	0.97
9922.00	90.830	343.270	6116.28	4038.39	4104.32	95.93	1748709.63	14579616.51	40°08'40.477"N	80°36'44.970"W	4105.44	1.339	0.42	0.23	-0.35
10015.00	90.620	343.570	6115.10	4130.58	4193.44	69.40	1748683.10	14579705.60	40°08'41.359"N	80°36'45.307"W	4194.02	0.948	0.39	-0.23	0.32
10107.00	90.710	344.100	6114.03	4221.86	4281.80	43.79	1748657.50	14579793.92	40°08'42.233"N	80°36'45.632"W	4282.02	0.586	0.58	0.10	0.58
10200.00	90.740	344.680	6112.86	4314.24	4371.36	18.76	1748632.49	14579883.45	40°08'43.119"N	80°36'45.949"W	4371.40	0.246	0.62	0.03	0.62
10293.00	90.710	344.520	6111.68	4406.66	4461.01	-5.93	1748607.80	14579973.07	40°08'44.006"N	80°36'46.262"W	4461.02	359.924	0.18	-0.03	-0.17
10386.00	90.650	345.850	6110.57	4499.17	4550.91	-29.71	1748584.03	14580062.94	40°08'44.895"N	80°36'46.563"W	4551.01	359.626	1.43	-0.06	1.43
10478.00	90.490	345.730	6109.66	4590.79	4640.09	-52.29	1748561.46	14580152.08	40°08'45.778"N	80°36'46.849"W	4640.39	359.354	0.22	-0.17	-0.13
10571.00	90.620	344.700	6108.76	4683.32	4730.01	-76.02	1748537.74	14580241.96	40°08'46.667"N	80°36'47.150"W	4730.62	359.079	1.12	0.14	-1.11
10664.00	90.370	342.770	6107.96	4775.57	4819.28	-102.07	1748511.70	14580331.20	40°08'47.550"N	80°36'47.480"W	4820.36	358.787	2.09	-0.27	-2.08
10757.00	90.620	343.600	6107.15	4867.71	4908.30	-128.97	1748484.81	14580420.18	40°08'48.431"N	80°36'47.821"W	4909.99	358.495	0.93	0.27	0.89
10849.00	90.710	339.300	6106.08	4958.42	4995.49	-158.23	1748455.56	14580507.34	40°08'49.294"N	80°36'48.193"W	4998.00	358.186	4.67	0.10	-4.67
10942.00	90.650	336.910	6104.98	5049.07	5081.77	-192.91	1748420.20	14580593.59	40°08'50.148"N	80°36'48.635"W	5085.43	357.826	2.57	-0.06	-2.57
11035.00	90.550	337.970	6104.01	5139.48	5167.65	-228.58	1748385.24	14580679.43	40°08'50.998"N	80°36'49.090"W	5172.70	357.467	1.14	-0.11	1.14
11128.00	90.710	335.960	6102.98	5229.71	5253.23	-264.97	1748348.86	14580764.97	40°08'51.846"N	80°36'49.553"W	5259.90	357.112	2.17	0.17	-2.16
11220.00	90.550	338.940	6101.97	5319.14	5338.18	-300.24	1748313.60	14580849.89	40°08'52.687"N	80°36'50.003"W	5346.61	356.781	3.24	-0.17	3.24
11313.00	90.620	335.260	6101.02	5409.41	5423.83	-336.42	1748277.44	14580935.51	40°08'53.535"N	80°36'50.464"W	5434.25	356.451	3.96	0.08	-3.96
11405.00	90.590	334.090	6100.05	5497.71	5506.98	-375.77	1748238.10	14581018.63	40°08'54.358"N	80°36'50.966"W	5519.79	356.096	1.27	-0.03	-1.27
11498.00	90.490	337.100	6099.17	5587.36	5591.66	-414.19	1748199.70	14581103.27	40°08'55.196"N	80°36'51.456"W	5606.98	355.764	3.24	-0.11	3.24
11591.00	90.430	340.010	6098.43	5678.18	5678.21	-448.19	1748165.71	14581189.79	40°08'56.053"N	80°36'51.899"W	5695.87	355.487	3.13	-0.06	3.13
11683.00	90.710	343.270	6097.51	5768.94	5765.51	-477.16	1748136.75	14581277.06	40°08'56.917"N	80°36'52.257"W	5785.22	355.269	3.56	0.30	3.54
11776.00	90.770	343.650	6096.31	5861.14	5854.65	-503.64	1748110.29	14581366.17	40°08'57.799"N	80°36'52.593"W	5876.27	355.083	0.41	0.06	0.41
11869.00	90.830	343.830	6095.01	5953.39	5943.92	-529.68	1748084.26	14581455.40	40°08'58.682"N	80°36'52.924"W	5967.48	354.908	0.20	0.06	0.19
11962.00	90.710	347.540	6093.76	6045.97	6034.01	-552.66	1748061.28	14581545.46	40°08'59.574"N	80°36'53.215"W	6059.27	354.767	3.99	-0.13	3.99
12055.00	90.800	352.430	6092.53	6138.92	6125.56	-568.83	1748045.12	14581636.97	40°09'00.479"N	80°36'53.418"W	6151.91	354.695	5.26	0.10	5.26
12147.00	90.620	350.930	6091.39	6230.90	6216.58	-582.14	1748031.81	14581727.95	40°09'01.379"N	80°36'53.594"W	6243.78	354.650	1.64	-0.20	-1.63
12240.00	90.830	353.850	6090.22	6323.86	6308.74	-594.46	1748019.51	14581820.08	40°09'02.290"N	80°36'53.737"W	6336.69	354.617	3.15	0.23	3.14
12332.00	90.800	351.930	6088.91	6415.79	6400.02	-605.84	1748008.12	14581911.33	40°09'03.193"N	80°36'53.879"W	6428.63	354.592	2.09	-0.03	-2.09
12424.00	90.650	348.660	6087.74	6507.76	6490.69	-621.35	1747992.62	14582001.95	40°09'04.090"N	80°36'54.074"W	6520.36	354.532	3.56	-0.16	-3.55

Actual Wellpath Report

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BAKER HUGHES
a GE company

REFERENCE WELLPATH IDENTIFICATION

Operator	Slot	Slot 205H
SOUTHWESTERN ENERGY	Well	Dallas Hall OHI 205H
Area	Wellbore	Dallas Hall OHI 205 AWP
Field		
Facility		

WELLPATH DATA (177 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 [°]	D.L.S. ["/100ft]	Build Rate ["/100ft]	Turn Rate ["/100ft]
12514.00	90.710	345.300	6086.68	6597.53	6578.35	-641.62	1747972.36	14582089.59	40°09'04.957"N	80°36'54.330"W	6609.57	354.429	3.73	0.07	-3.73
12607.00	90.550	344.850	6085.65	6690.03	6668.21	-665.57	1747948.42	14582179.41	40°09'05.846"N	80°36'54.633"W	6701.34	354.300	0.51	-0.17	-0.48
12700.00	90.740	343.140	6084.61	6782.33	6757.60	-691.21	1747922.79	14582268.76	40°09'06.730"N	80°36'54.958"W	6792.86	354.160	1.85	0.20	-1.84
12793.00	90.830	341.520	6083.33	6874.26	6846.20	-719.43	1747894.58	14582357.33	40°09'07.607"N	80°36'55.317"W	6883.90	354.001	1.74	0.10	-1.74
12886.00	90.800	339.830	6082.01	6965.75	6933.95	-750.21	1747863.82	14582445.04	40°09'08.475"N	80°36'55.708"W	6974.41	353.825	1.82	-0.03	-1.82
12978.00	90.770	339.420	6080.75	7055.95	7020.18	-782.23	1747831.80	14582531.24	40°09'09.329"N	80°36'56.116"W	7063.63	353.642	0.45	-0.03	-0.45
13070.00	90.800	339.730	6079.49	7146.13	7106.39	-814.34	1747799.71	14582617.42	40°09'10.182"N	80°36'56.525"W	7152.90	353.463	0.34	0.03	0.34
13163.00	90.740	336.980	6078.24	7236.86	7192.82	-848.63	1747765.43	14582703.81	40°09'11.038"N	80°36'56.961"W	7242.71	353.271	2.96	-0.06	-2.96
13255.00	90.770	335.920	6077.03	7325.92	7277.14	-885.39	1747728.68	14582788.11	40°09'11.873"N	80°36'57.430"W	7330.81	353.063	1.15	0.03	-1.15
13348.00	90.830	336.110	6075.73	7415.76	7362.11	-923.19	1747690.90	14582873.03	40°09'12.714"N	80°36'57.912"W	7419.76	352.853	0.21	0.06	0.20
13441.00	90.770	337.580	6074.43	7505.94	7447.60	-959.75	1747654.35	14582958.50	40°09'13.560"N	80°36'58.378"W	7509.19	352.657	1.58	-0.06	1.58
13533.00	90.770	338.750	6073.19	7595.64	7532.99	-993.97	1747620.15	14583043.86	40°09'14.406"N	80°36'58.814"W	7598.29	352.483	1.27	0.00	1.27
13626.00	90.650	338.730	6072.04	7686.52	7619.66	-1027.69	1747586.44	14583130.49	40°09'15.263"N	80°36'59.244"W	7688.65	352.319	0.13	-0.13	-0.02
13718.00	90.680	339.550	6070.97	7776.56	7705.62	-1060.45	1747553.70	14583216.42	40°09'16.114"N	80°36'59.661"W	7778.25	352.164	0.89	0.03	0.89
13810.00	90.770	343.060	6069.81	7867.23	7792.75	-1089.93	1747524.23	14583303.51	40°09'16.976"N	80°37'00.036"W	7868.60	352.038	3.82	0.10	3.82
13903.00	90.680	344.390	6068.63	7959.48	7882.01	-1115.99	1747498.18	14583392.74	40°09'17.860"N	80°37'00.366"W	7960.62	351.941	1.43	-0.10	1.43
13996.00	90.710	346.620	6067.50	8052.04	7972.04	-1139.26	1747474.91	14583482.73	40°09'18.750"N	80°37'00.661"W	8053.03	351.867	2.40	0.03	2.40
14089.00	90.400	349.190	6066.60	8144.90	8062.96	-1158.75	1747455.43	14583573.62	40°09'19.650"N	80°37'00.907"W	8145.80	351.822	2.78	-0.33	2.76
14181.00	90.490	349.030	6065.89	8236.85	8153.30	-1176.13	1747438.06	14583663.92	40°09'20.543"N	80°37'01.126"W	8237.69	351.792	0.20	0.10	-0.17
14274.00	90.430	346.510	6065.14	8329.69	8244.18	-1195.83	1747418.37	14583754.77	40°09'21.442"N	80°37'01.374"W	8330.46	351.747	2.71	-0.06	-2.71
14367.00	90.370	345.790	6064.49	8422.36	8334.47	-1218.09	1747396.12	14583845.03	40°09'22.335"N	80°37'01.656"W	8423.02	351.685	0.78	-0.06	-0.77
14459.00	90.550	344.900	6063.75	8513.91	8423.48	-1241.36	1747372.85	14583933.99	40°09'23.216"N	80°37'01.951"W	8514.46	351.617	0.99	0.20	-0.97
14552.00	90.340	342.820	6063.03	8606.19	8512.80	-1267.21	1747347.01	14584023.29	40°09'24.100"N	80°37'02.279"W	8606.61	351.533	2.25	-0.23	-2.24
14644.00	90.460	339.540	6062.39	8696.84	8599.87	-1296.89	1747317.35	14584110.32	40°09'24.961"N	80°37'02.656"W	8697.11	351.424	3.57	0.13	-3.57
14736.00	90.370	336.840	6061.72	8786.55	8685.28	-1331.06	1747283.18	14584195.69	40°09'25.807"N	80°37'03.092"W	8786.68	351.287	2.94	-0.10	-2.93
14808.00	90.490	336.830	6061.18	8856.36	8751.47	-1359.39	1747254.87	14584261.86	40°09'26.462"N	80°37'03.453"W	8856.42	351.171	0.17	0.17	-0.01
14832.00	90.490	336.830	6060.98	8879.64	8773.53	-1368.83	1747245.43	14584283.91	40°09'26.680"N	80°37'03.573"W	8879.67	351.132	0.00	0.00	0.00

REFERENCE WELLPATH IDENTIFICATION	
Operator	SOUTHWESTERN ENERGY
Area	Ohio County, WV
Field	Ohio
Facility	Dallas Hall OHI Pad
Slot	Slot 205H
Well	Dallas Hall OHI 205H
Wellbore	Dallas Hall OHI 205 AWB

HOLE & CASING SECTIONS - Ref Wellbore: Dallas Hall OHI 205 AWB Ref Wellpath: Dallas Hall OHI 205 AWP Proj: 14832'									
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]
17.5in Open Hole	26.00	530.00	504.00	26.00	529.99	0.00	0.00	0.61	1.57
13.375in Casing Surface	26.00	530.00	504.00	26.00	529.99	0.00	0.00	0.61	1.57
12.25in Open Hole	530.00	1929.00	1399.00	529.99	1909.97	0.61	1.57	19.26	201.59
9.625in Casing Intermediate	26.00	1929.00	1903.00	26.00	1909.97	0.00	0.00	19.26	201.59
8.75in Open Hole	1929.00	6237.00	4308.00	1909.97	5998.86	19.26	201.59	622.46	1153.45
8.5in Open Hole	6237.00	14832.00	8595.00	5998.86	6060.98	622.46	1153.45	8773.53	-1368.83
5.5in Casing Production	26.00	14832.00	14806.00	26.00	6060.98	0.00	0.00	8773.53	-1368.83

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Dallas Hall OHI 205H BHL Rev-2	6061.00	8776.97	-1394.23	1747220.04	14584287.35	40°09'26.715"N	80°37'03.900"W	point
Dallas Hall OHI 205H LP Rev-2	6155.02	1085.70	1061.41	1749674.73	14576599.07	40°08'10.605"N	80°36'32.709"W	point
Dallas Hall OHI 205H LP Rev-3	6155.02	1039.95	1075.30	1749688.61	14576553.34	40°08'10.152"N	80°36'32.533"W	point

WELLPATH COMPOSITION - Ref Wellbore: Dallas Hall OHI 205 AWB Ref Wellpath: Dallas Hall OHI 205 AWP Proj: 14832'		Log Name/Comment
Start MD [ft]	End MD [ft]	Positional Uncertainty Model
26.00	500.00	VESI GyroFlex v4
500.00	1872.00	OWSG MWD rev2 + HRGM
1872.00	6166.00	OWSG MWD rev2 + HRGM
6166.00	14808.00	BHI AutoTrak Curve (Short)
14808.00	14832.00	Blind Drilling (std)
		Projection to bit
		01 Gyro <17 1/2"> (100'-500')
		02 Premier MWD <12 1/4"> (591'-1872')
		03 Premier MWD <8 3/4"> (1957'-6166')
		04 BH AT Curve <8 1/2"> (6223'-14808')
		Dallas Hall OHI 205 AWB
		Dallas Hall OHI 205 AWB
		Dallas Hall OHI 205 AWB
		Dallas Hall OHI 205 AWB
		Dallas Hall OHI 205 AWB

Actual Wellpath Report

Dallas Hall OHI 205 AWP Proj: 14832'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	SOUTHWESTERN ENERGY	Slot	Slot 205H
Area	Ohio County, WV	Well	Dallas Hall OHI 205H
Field	Ohio	Wellbore	Dallas Hall OHI 205 AWB
Facility	Dallas Hall OHI Pad		

COMMENTS
<p>Wellpath general comments API: 47-069-00279-0000 BH Job #: 109522417 Rig: SDC 41 Duration: 01/11/2019 - 01/14/2019</p>