

REFERENCE WELLPATH IDENTIFICATION			
Operator	SWN PRODUCTION COMPANY, LLC	Well	Shawn Couch OHI 205H
Field	Ohio	API/Legal	
Facility	Shawn Couch OHI Pad	Wellbore	Shawn Couch OHI 205H AWB
Slot	Slot #205		

REPORT SETUP INFORMATION			
Projection System	NAD83 / UTM Zone 17 North, US feet	Software System	WellArchitect® 6.0
North Reference	Grid	User	Atenjen
Scale	0.999615	Report Generated	4/6/2020 at 12:23:22 PM
Convergence at slot	0.27° East	Database	WA_MPL_EASTERNUS_Defn

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	0.00	-0.00	1755367.23	14580844.96	40°08'52.3250"N	80°35'19.1360"W
Facility Reference Pt			1755367.23	14580844.96	40°08'52.3250"N	80°35'19.1360"W
Field Reference Pt			0.00	0.00	0°00'0.0000"	85°29'19.4780"W

WELLPATH DATUM			
Calculation method	Minimum curvature	SDC 42 (KB) to Facility Vertical Datum	1272.50ft
Horizontal Reference Pt	Slot	SDC 42 (KB) to Mean Sea Level	1272.50ft
Vertical Reference Pt	SDC 42 (KB)	SDC 42 (KB) to Ground Level at Slot (Slot #205)	26.00ft
MD Reference Pt	SDC 42 (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	338.44°



Actual Wellpath Report

Shawn Couch OHI 205H AWP Proj: 15022'
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Slot	Slot #205		

WELLPATH DATA (179 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	23.870	0.00	0.00	0.00	0.00	1755367.23	14580844.96	40°08'52.3250"N	80°35'19.1360"W	0.00	0.000	0.00	0.00	0.00
26.00	0.000	23.870	26.00	0.00	0.00	0.00	1755367.23	14580844.96	40°08'52.3250"N	80°35'19.1360"W	0.00	0.000	0.00	0.00	0.00
50.00	0.640	23.870	50.00	0.09	0.12	0.05	1755367.29	14580845.08	40°08'52.3263"N	80°35'19.1353"W	0.13	23.870	2.67	2.67	0.00
100.00	0.690	24.710	100.00	0.50	0.65	0.29	1755367.53	14580845.61	40°08'52.3315"N	80°35'19.1322"W	0.71	24.224	0.10	0.10	1.68
150.00	0.460	24.220	149.99	0.85	1.11	0.50	1755367.73	14580846.07	40°08'52.3360"N	80°35'19.1295"W	1.22	24.344	0.46	-0.46	-0.98
200.00	0.230	23.570	199.99	1.06	1.38	0.62	1755367.86	14580846.34	40°08'52.3387"N	80°35'19.1279"W	1.52	24.276	0.46	-0.46	-1.30
250.00	0.130	22.010	249.99	1.17	1.53	0.69	1755367.92	14580846.49	40°08'52.3401"N	80°35'19.1271"W	1.67	24.157	0.20	-0.20	-3.12
300.00	0.050	353.120	299.99	1.23	1.60	0.70	1755367.94	14580846.56	40°08'52.3408"N	80°35'19.1268"W	1.75	23.719	0.18	-0.16	-57.78
350.00	0.130	73.690	349.99	1.25	1.64	0.76	1755367.99	14580846.60	40°08'52.3412"N	80°35'19.1262"W	1.81	24.745	0.26	0.16	161.14
400.00	0.200	351.100	399.99	1.33	1.74	0.80	1755368.03	14580846.70	40°08'52.3422"N	80°35'19.1256"W	1.92	24.578	0.45	0.14	-165.18
450.00	0.190	338.090	449.99	1.50	1.90	0.75	1755367.99	14580846.86	40°08'52.3438"N	80°35'19.1262"W	2.05	21.548	0.09	-0.02	-26.02
479.00	0.390	337.400	478.99	1.64	2.04	0.70	1755367.93	14580847.00	40°08'52.3452"N	80°35'19.1269"W	2.16	18.841	0.69	0.69	-2.38
566.00	1.040	332.790	565.98	2.72	3.02	0.22	1755367.45	14580847.97	40°08'52.3548"N	80°35'19.1330"W	3.02	4.199	0.75	0.75	-5.30
658.00	2.210	336.400	657.95	5.33	5.38	-0.87	1755366.36	14580850.34	40°08'52.3783"N	80°35'19.1469"W	5.45	350.815	1.28	1.27	3.92
771.00	3.230	346.260	770.82	10.66	10.47	-2.50	1755364.74	14580855.43	40°08'52.4287"N	80°35'19.1676"W	10.77	346.580	0.99	0.90	8.73
843.00	3.540	359.720	842.69	14.74	14.67	-2.99	1755364.24	14580859.62	40°08'52.4701"N	80°35'19.1737"W	14.97	348.471	1.18	0.43	18.69
955.00	4.160	21.110	954.45	20.95	21.91	-1.55	1755365.69	14580866.87	40°08'52.5417"N	80°35'19.1546"W	21.97	355.966	1.39	0.55	19.10
1048.00	4.670	42.360	1047.18	25.09	27.86	2.22	1755369.45	14580872.81	40°08'52.6002"N	80°35'19.1057"W	27.95	4.558	1.83	0.55	22.85
1137.00	5.400	53.230	1135.83	27.79	33.04	8.02	1755375.25	14580877.99	40°08'52.6512"N	80°35'19.0308"W	34.00	13.637	1.35	0.82	12.21
1228.00	6.100	65.340	1226.38	29.17	37.62	15.84	1755383.07	14580882.57	40°08'52.6961"N	80°35'18.9298"W	40.82	22.833	1.54	0.77	13.31
1318.00	7.260	65.150	1315.77	29.76	42.01	25.35	1755392.57	14580886.95	40°08'52.7390"N	80°35'18.8071"W	49.06	31.106	1.29	1.29	-0.21
1410.00	8.000	63.640	1406.95	30.62	47.29	36.36	1755403.58	14580892.24	40°08'52.7907"N	80°35'18.6650"W	59.66	37.552	0.83	0.80	-1.64
1503.00	8.100	64.210	1499.03	31.65	53.02	48.06	1755415.27	14580897.96	40°08'52.8468"N	80°35'18.5140"W	71.56	42.190	0.14	0.11	0.61
1596.00	9.140	68.730	1590.98	32.10	58.55	60.84	1755428.05	14580903.49	40°08'52.9008"N	80°35'18.3491"W	84.44	46.099	1.33	1.12	4.86
1688.00	9.520	75.030	1681.77	31.19	63.16	75.00	1755442.20	14580908.10	40°08'52.9458"N	80°35'18.1664"W	98.05	49.896	1.18	0.41	6.85
1780.00	9.360	78.190	1772.52	29.05	66.66	89.67	1755456.87	14580911.60	40°08'52.9797"N	80°35'17.9773"W	111.74	53.373	0.59	-0.17	3.43
1812.00	9.550	78.430	1804.09	28.14	67.73	94.82	1755462.02	14580912.66	40°08'52.9900"N	80°35'17.9109"W	116.52	54.463	0.61	0.59	0.75
1912.00	10.270	72.950	1902.60	26.00	72.00	111.47	1755478.66	14580916.94	40°08'53.0315"N	80°35'17.6963"W	132.70	57.140	1.19	0.72	-5.48
2003.00	11.820	76.870	1991.91	24.00	76.50	128.30	1755495.49	14580921.43	40°08'53.0751"N	80°35'17.4792"W	149.38	59.195	1.89	1.70	4.31
2096.00	12.870	76.850	2082.76	21.09	81.02	147.67	1755514.84	14580925.95	40°08'53.1189"N	80°35'17.2296"W	168.43	61.248	1.13	1.13	-0.02



Actual Wellpath Report

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Slot	Slot #205		

WELLPATH DATA (179 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]
2189.00	13.410	74.320	2173.32	18.47	86.29	168.13	1755535.30	14580931.22	40°08'53.1701"N	80°35'16.9657"W	188.99	62.832	0.85	0.58	-2.72
2282.00	13.190	81.960	2263.84	14.88	90.69	189.03	1755556.19	14580935.62	40°08'53.2126"N	80°35'16.6964"W	209.65	64.369	1.90	-0.24	8.22
2373.00	14.810	94.720	2352.15	7.30	91.19	210.90	1755578.05	14580936.11	40°08'53.2165"N	80°35'16.4147"W	229.77	66.618	3.82	1.78	14.02
2465.00	16.030	103.340	2440.85	-5.17	87.29	234.99	1755602.13	14580932.21	40°08'53.1768"N	80°35'16.1048"W	250.67	69.622	2.82	1.33	9.37
2553.00	17.370	104.730	2525.14	-19.90	81.14	259.51	1755626.65	14580926.07	40°08'53.1150"N	80°35'15.7893"W	271.90	72.637	1.59	1.52	1.58
2645.00	19.080	102.500	2612.52	-36.45	74.40	287.48	1755654.60	14580919.33	40°08'53.0471"N	80°35'15.4296"W	296.95	75.491	2.01	1.86	-2.42
2738.00	18.540	104.370	2700.55	-53.64	67.44	316.64	1755683.75	14580912.37	40°08'52.9769"N	80°35'15.0545"W	323.74	77.977	0.87	-0.58	2.01
2831.00	18.090	107.110	2788.84	-71.34	59.52	344.76	1755711.86	14580904.46	40°08'52.8974"N	80°35'14.6928"W	349.86	80.205	1.04	-0.48	2.95
2923.00	19.090	108.350	2876.04	-89.92	50.58	372.70	1755739.78	14580895.52	40°08'52.8078"N	80°35'14.3337"W	376.11	82.271	1.17	1.09	1.35
3016.00	20.630	111.330	2963.51	-110.83	39.83	402.39	1755769.47	14580884.78	40°08'52.7002"N	80°35'13.9519"W	404.36	84.347	1.98	1.66	3.20
3107.00	20.690	113.720	3048.66	-133.16	27.53	432.04	1755799.11	14580872.48	40°08'52.5773"N	80°35'13.5708"W	432.92	86.354	0.93	0.07	2.63
3196.00	21.670	113.500	3131.65	-155.96	14.66	461.51	1755828.56	14580859.61	40°08'52.4487"N	80°35'13.1921"W	461.74	88.181	1.10	1.10	-0.25
3283.00	21.900	110.020	3212.44	-178.10	2.70	491.49	1755858.53	14580847.66	40°08'52.3292"N	80°35'12.8068"W	491.49	89.686	1.51	0.26	-4.00
3372.00	20.700	108.690	3295.36	-199.28	-8.03	521.98	1755889.01	14580836.94	40°08'52.2218"N	80°35'12.4148"W	522.04	90.881	1.45	-1.35	-1.49
3465.00	20.670	110.660	3382.36	-220.93	-19.09	552.91	1755919.93	14580825.88	40°08'52.1111"N	80°35'12.0171"W	553.24	91.977	0.75	-0.03	2.12
3558.00	20.500	111.980	3469.43	-243.18	-30.97	583.37	1755950.38	14580814.00	40°08'51.9922"N	80°35'11.6256"W	584.19	93.039	0.53	-0.18	1.42
3651.00	20.790	113.430	3556.46	-266.07	-43.63	613.62	1755980.61	14580801.35	40°08'51.8658"N	80°35'11.2369"W	615.16	94.067	0.63	0.31	1.56
3743.00	21.840	111.550	3642.16	-289.30	-56.41	644.51	1756011.50	14580788.57	40°08'51.7381"N	80°35'10.8398"W	646.98	95.002	1.36	1.14	-2.04
3836.00	20.720	110.970	3728.82	-312.25	-68.65	675.97	1756042.94	14580776.34	40°08'51.6156"N	80°35'10.4355"W	679.44	95.799	1.23	-1.20	-0.62
3928.00	19.910	111.040	3815.10	-333.85	-80.10	705.78	1756072.74	14580764.89	40°08'51.5011"N	80°35'10.0522"W	710.32	96.475	0.88	-0.88	0.08
4021.00	20.470	107.890	3902.38	-354.91	-90.78	736.04	1756102.99	14580754.22	40°08'51.3942"N	80°35'9.6632"W	741.62	97.031	1.31	0.60	-3.39
4114.00	20.460	106.460	3989.51	-375.25	-100.38	767.10	1756134.04	14580744.62	40°08'51.2979"N	80°35'9.2638"W	773.64	97.455	0.54	-0.01	-1.54
4207.00	19.530	111.370	4076.91	-395.85	-110.65	797.17	1756164.10	14580734.35	40°08'51.1950"N	80°35'8.8772"W	804.81	97.902	2.06	-1.00	5.28
4300.00	20.830	109.050	4164.20	-417.20	-121.71	827.28	1756194.19	14580723.29	40°08'51.0843"N	80°35'8.4902"W	836.19	98.370	1.64	1.40	-2.49
4391.00	21.740	108.850	4249.00	-438.66	-132.44	858.52	1756225.42	14580712.57	40°08'50.9769"N	80°35'8.0885"W	868.68	98.770	1.00	1.00	-0.22
4484.00	22.330	108.390	4335.20	-461.17	-143.58	891.59	1756258.48	14580701.44	40°08'50.8653"N	80°35'7.6634"W	903.07	99.148	0.66	0.63	-0.49
4577.00	21.230	111.220	4421.57	-483.95	-155.25	924.05	1756290.93	14580689.77	40°08'50.7485"N	80°35'7.2460"W	937.00	99.537	1.63	-1.18	3.04
4669.00	21.410	108.510	4507.27	-506.07	-166.61	955.50	1756322.37	14580678.42	40°08'50.6347"N	80°35'6.8417"W	969.92	99.891	1.09	0.20	-2.95
4762.00	19.730	110.110	4594.34	-527.44	-177.40	986.34	1756353.19	14580667.63	40°08'50.5267"N	80°35'6.4452"W	1002.17	100.196	1.90	-1.81	1.72
4855.00	19.030	115.270	4682.08	-548.94	-189.27	1014.80	1756381.64	14580655.77	40°08'50.4081"N	80°35'6.0795"W	1032.30	100.565	1.99	-0.75	5.55

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4947.00	19.530	113.070	4768.92	-570.68	-201.69	1042.51	1756409.34	14580643.34	40°08'50.2840"N	80°35'5.7234"W	1061.84	100.950	0.96	0.54	-2.39
5040.00	20.750	114.460	4856.23	-593.46	-214.61	1071.81	1756438.63	14580630.43	40°08'50.1550"N	80°35'5.3469"W	1093.08	101.323	1.41	1.31	1.49
5133.00	21.360	112.160	4943.02	-617.02	-227.82	1102.49	1756469.30	14580617.23	40°08'50.0231"N	80°35'4.9526"W	1125.78	101.675	1.10	0.66	-2.47
5225.00	22.060	107.710	5028.50	-639.53	-239.39	1134.47	1756501.26	14580605.66	40°08'49.9072"N	80°35'4.5415"W	1159.45	101.916	1.94	0.76	-4.84
5318.00	21.940	110.350	5114.73	-662.19	-250.75	1167.39	1756534.18	14580594.31	40°08'49.7935"N	80°35'4.1182"W	1194.02	102.123	1.07	-0.13	2.84
5410.00	22.360	107.820	5199.94	-684.78	-262.08	1200.17	1756566.94	14580582.98	40°08'49.6800"N	80°35'3.6968"W	1228.45	102.318	1.13	0.46	-2.75
5502.00	22.250	101.570	5285.07	-705.40	-270.93	1233.90	1756600.65	14580574.13	40°08'49.5910"N	80°35'3.2630"W	1263.29	102.384	2.58	-0.12	-6.79
5593.00	17.160	81.200	5370.82	-717.81	-272.34	1264.10	1756630.84	14580572.73	40°08'49.5757"N	80°35'2.8742"W	1293.10	102.158	9.32	-5.59	-22.38
5686.00	15.700	57.240	5460.12	-718.39	-263.42	1288.27	1756655.00	14580581.64	40°08'49.6627"N	80°35'2.5625"W	1314.92	101.556	7.40	-1.57	-25.76
5779.00	19.410	42.030	5548.82	-709.07	-245.11	1309.21	1756675.94	14580599.94	40°08'49.8426"N	80°35'2.2916"W	1331.96	100.604	6.31	3.99	-16.35
5872.00	24.120	20.080	5635.31	-687.95	-215.72	1326.12	1756692.84	14580629.32	40°08'50.1323"N	80°35'2.0721"W	1343.55	99.240	10.03	5.06	-23.60
5965.00	28.270	7.910	5718.80	-654.53	-176.02	1335.69	1756702.40	14580669.01	40°08'50.5242"N	80°35'1.9466"W	1347.23	97.507	7.28	4.46	-13.09
6056.00	31.460	357.620	5797.75	-613.30	-130.90	1337.67	1756704.38	14580714.11	40°08'50.9699"N	80°35'1.9183"W	1344.06	95.589	6.62	3.51	-11.31
6149.00	34.480	352.360	5875.78	-564.81	-80.54	1333.16	1756699.88	14580764.45	40°08'51.4678"N	80°35'1.9734"W	1335.59	93.457	4.47	3.25	-5.66
6240.00	38.280	352.680	5949.04	-512.47	-27.04	1326.14	1756692.86	14580817.93	40°08'51.9969"N	80°35'2.0605"W	1326.42	91.168	4.18	4.18	0.35
6333.00	42.620	352.780	6019.79	-454.01	32.80	1318.51	1756685.23	14580877.75	40°08'52.5885"N	80°35'2.1552"W	1318.92	88.575	4.67	4.67	0.11
6421.00	48.030	351.450	6081.64	-393.23	94.76	1309.89	1756676.62	14580939.68	40°08'53.2012"N	80°35'2.2624"W	1313.32	85.862	6.24	6.15	-1.51
6468.00	53.440	350.430	6111.37	-357.71	130.68	1304.15	1756670.88	14580975.59	40°08'53.5564"N	80°35'2.3341"W	1310.68	84.278	11.63	11.51	-2.17
6514.00	57.060	349.640	6137.59	-320.69	167.89	1297.61	1756664.34	14581012.79	40°08'53.9245"N	80°35'2.4162"W	1308.43	82.628	7.99	7.87	-1.72
6547.00	61.130	348.430	6154.54	-292.87	195.68	1292.22	1756658.95	14581040.57	40°08'54.1993"N	80°35'2.4839"W	1306.95	81.389	12.73	12.33	-3.67
6577.00	64.690	348.240	6168.20	-266.56	221.84	1286.82	1756653.55	14581066.71	40°08'54.4580"N	80°35'2.5519"W	1305.80	80.219	11.88	11.87	-0.63
6607.00	68.110	348.340	6180.21	-239.48	248.75	1281.24	1756647.98	14581093.61	40°08'54.7243"N	80°35'2.6221"W	1305.16	79.013	11.40	11.40	0.33
6653.00	73.400	347.480	6195.36	-196.65	291.20	1272.14	1756638.88	14581136.05	40°08'55.1442"N	80°35'2.7367"W	1305.05	77.107	11.63	11.50	-1.87
6700.00	79.930	346.570	6206.20	-151.46	335.74	1261.87	1756628.62	14581180.57	40°08'55.5848"N	80°35'2.8662"W	1305.78	75.101	14.02	13.89	-1.94
6746.00	83.890	345.920	6212.67	-106.35	379.97	1251.05	1756617.80	14581224.78	40°08'56.0223"N	80°35'3.0030"W	1307.48	73.105	8.72	8.61	-1.41
6791.00	87.150	344.280	6216.18	-61.79	423.31	1239.51	1756606.27	14581268.11	40°08'56.4512"N	80°35'3.1489"W	1309.80	71.144	8.10	7.24	-3.64
6831.00	88.890	343.160	6217.57	-21.99	461.68	1228.31	1756595.06	14581306.47	40°08'56.8309"N	80°35'3.2909"W	1312.21	69.400	5.17	4.35	-2.80
6858.00	89.570	343.420	6217.93	4.91	487.54	1220.54	1756587.30	14581332.31	40°08'57.0868"N	80°35'3.3893"W	1314.31	68.226	2.70	2.52	0.96
6951.00	89.140	338.300	6218.98	97.79	575.37	1190.06	1756556.84	14581420.10	40°08'57.9561"N	80°35'3.7765"W	1321.85	64.197	5.52	-0.46	-5.51
7043.00	89.010	338.420	6220.46	189.78	660.87	1156.14	1756522.93	14581505.57	40°08'58.8026"N	80°35'4.2082"W	1331.69	60.247	0.19	-0.14	0.13



Actual Wellpath Report

Shawn Couch OHI 205H AWP Proj: 15022'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	SWN PRODUCTION COMPANY, LLC	Well	Shawn Couch OHI 205H
Field	Ohio	API/Legal	
Facility	Shawn Couch OHI Pad	Wellbore	Shawn Couch OHI 205H AWB
Slot	Slot #205		

WELLPATH DATA (179 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]
7135.00	89.110	338.550	6221.97	281.77	746.45	1122.40	1756489.20	14581591.12	40°08'59.6498"N	80°35'4.6375"W	1347.95	56.374	0.18	0.11	0.14
7225.00	90.830	338.460	6222.02	371.76	830.19	1089.43	1756456.24	14581674.82	40°09'0.4788"N	80°35'5.0571"W	1369.69	52.691	1.91	1.91	-0.10
7318.00	90.120	337.600	6221.25	464.76	916.43	1054.64	1756421.46	14581761.03	40°09'1.3327"N	80°35'5.5000"W	1397.17	49.011	1.20	-0.76	-0.92
7410.00	90.250	337.120	6220.95	556.74	1001.34	1019.22	1756386.06	14581845.91	40°09'2.1734"N	80°35'5.9509"W	1428.81	45.507	0.54	0.14	-0.52
7503.00	91.570	339.560	6219.47	649.72	1087.75	984.90	1756351.76	14581932.29	40°09'3.0289"N	80°35'6.3877"W	1467.39	42.159	2.98	1.42	2.62
7593.00	91.140	338.190	6217.34	739.69	1171.68	952.48	1756319.34	14582016.18	40°09'3.8598"N	80°35'6.8002"W	1509.98	39.108	1.60	-0.48	-1.52
7685.00	91.080	338.290	6215.56	831.67	1257.11	918.38	1756285.26	14582101.58	40°09'4.7055"N	80°35'7.2342"W	1556.83	36.150	0.13	-0.07	0.11
7778.00	90.920	337.910	6213.94	924.65	1343.38	883.69	1756250.59	14582187.82	40°09'5.5597"N	80°35'7.6757"W	1607.98	33.337	0.44	-0.17	-0.41
7871.00	90.920	338.160	6212.45	1017.64	1429.62	848.91	1756215.82	14582274.03	40°09'6.4135"N	80°35'8.1184"W	1662.67	30.702	0.27	0.00	0.27
7963.00	92.000	338.680	6210.10	1109.61	1515.14	815.09	1756182.01	14582359.51	40°09'7.2602"N	80°35'8.5489"W	1720.47	28.279	1.30	1.17	0.57
8053.00	91.600	338.780	6207.27	1199.56	1598.97	782.45	1756149.39	14582443.31	40°09'8.0901"N	80°35'8.9641"W	1780.15	26.075	0.46	-0.44	0.11
8146.00	91.420	338.600	6204.82	1292.53	1685.58	748.67	1756115.61	14582529.89	40°09'8.9475"N	80°35'9.3940"W	1844.37	23.949	0.27	-0.19	-0.19
8239.00	91.290	338.460	6202.62	1385.50	1772.10	714.64	1756081.60	14582616.38	40°09'9.8041"N	80°35'9.8271"W	1910.77	21.963	0.21	-0.14	-0.15
8328.00	91.450	338.470	6200.50	1474.48	1854.87	681.98	1756048.95	14582699.11	40°09'10.6235"N	80°35'10.2427"W	1976.27	20.187	0.18	0.18	0.01
8421.00	91.350	338.640	6198.22	1567.45	1941.40	647.99	1756014.97	14582785.61	40°09'11.4802"N	80°35'10.6753"W	2046.69	18.458	0.21	-0.11	0.18
8513.00	91.200	338.160	6196.18	1659.43	2026.92	614.13	1755981.12	14582871.10	40°09'12.3268"N	80°35'11.1062"W	2117.91	16.856	0.55	-0.16	-0.52
8606.00	91.170	338.590	6194.25	1752.41	2113.36	579.86	1755946.87	14582957.50	40°09'13.1825"N	80°35'11.5423"W	2191.46	15.343	0.46	-0.03	0.46
8698.00	91.450	339.010	6192.15	1844.38	2199.11	546.60	1755913.62	14583043.22	40°09'14.0315"N	80°35'11.9655"W	2266.02	13.958	0.55	0.30	0.46
8791.00	91.320	338.350	6189.90	1937.35	2285.72	512.80	1755879.83	14583129.79	40°09'14.8889"N	80°35'12.3956"W	2342.53	12.645	0.72	-0.14	-0.71
8884.00	91.350	338.530	6187.74	2030.33	2372.19	478.63	1755845.68	14583216.23	40°09'15.7449"N	80°35'12.8305"W	2419.99	11.407	0.20	0.03	0.19
8976.00	91.110	338.290	6185.76	2122.30	2457.71	444.79	1755811.85	14583301.72	40°09'16.5917"N	80°35'13.2612"W	2497.64	10.258	0.37	-0.26	-0.26
9069.00	91.080	338.180	6183.98	2215.29	2544.07	410.31	1755777.39	14583388.04	40°09'17.4466"N	80°35'13.7001"W	2576.94	9.162	0.12	-0.03	-0.12
9162.00	90.980	338.600	6182.31	2308.27	2630.51	376.07	1755743.15	14583474.46	40°09'18.3024"N	80°35'14.1359"W	2657.26	8.136	0.46	-0.11	0.45
9255.00	90.490	338.620	6181.12	2401.26	2717.10	342.15	1755709.25	14583561.01	40°09'19.1596"N	80°35'14.5675"W	2738.56	7.177	0.53	-0.53	0.02
9348.00	90.310	338.620	6180.47	2494.26	2803.70	308.25	1755675.36	14583647.57	40°09'20.0170"N	80°35'14.9990"W	2820.59	6.274	0.19	-0.19	0.00
9440.00	90.680	338.940	6179.68	2586.25	2889.46	274.95	1755642.08	14583733.30	40°09'20.8659"N	80°35'15.4227"W	2902.51	5.436	0.53	0.40	0.35
9533.00	89.450	338.670	6179.57	2679.25	2976.17	241.33	1755608.47	14583819.97	40°09'21.7243"N	80°35'15.8505"W	2985.93	4.636	1.35	-1.32	-0.29
9626.00	89.750	337.410	6180.22	2772.24	3062.41	206.55	1755573.70	14583906.19	40°09'22.5782"N	80°35'16.2933"W	3069.37	3.859	1.39	0.32	-1.35
9719.00	90.120	338.930	6180.32	2865.24	3148.74	171.97	1755539.14	14583992.48	40°09'23.4329"N	80°35'16.7335"W	3153.43	3.126	1.68	0.40	1.63
9808.00	90.150	338.540	6180.12	2954.24	3231.68	139.69	1755506.87	14584075.39	40°09'24.2540"N	80°35'17.1442"W	3234.70	2.475	0.44	0.03	-0.44

REFERENCE WELLPATH IDENTIFICATION

Operator	SWN PRODUCTION COMPANY, LLC	Well	Shawn Couch OHI 205H
Field	Ohio	API/Legal	
Facility	Shawn Couch OHI Pad	Wellbore	Shawn Couch OHI 205H AWB
Slot	Slot #205		

WELLPATH DATA (179 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]
9901.00	90.120	338.760	6179.90	3047.24	3318.30	105.83	1755473.03	14584161.98	40°09'25.1115"N	80°35'17.5751"W	3319.99	1.827	0.24	-0.03	0.24
9994.00	89.820	338.310	6179.94	3140.24	3404.85	71.80	1755439.01	14584248.49	40°09'25.9683"N	80°35'18.0083"W	3405.61	1.208	0.58	-0.32	-0.48
10086.00	91.510	341.930	6178.88	3232.17	3491.34	40.52	1755407.74	14584334.95	40°09'26.8245"N	80°35'18.4059"W	3491.58	0.665	4.34	1.84	3.93
10179.00	90.680	338.830	6177.10	3325.09	3578.92	9.31	1755376.54	14584422.49	40°09'27.6913"N	80°35'18.8027"W	3578.93	0.149	3.45	-0.89	-3.33
10272.00	91.020	338.410	6175.72	3418.08	3665.51	-24.59	1755342.65	14584509.05	40°09'28.5485"N	80°35'19.2342"W	3665.59	359.616	0.58	0.37	-0.45
10365.00	91.690	339.970	6173.52	3511.04	3752.41	-57.62	1755309.63	14584595.92	40°09'29.4088"N	80°35'19.6544"W	3752.85	359.120	1.83	0.72	1.68
10458.00	90.430	338.310	6171.80	3604.01	3839.30	-90.73	1755276.54	14584682.77	40°09'30.2689"N	80°35'20.0756"W	3840.37	358.646	2.24	-1.35	-1.78
10550.00	91.110	342.000	6170.56	3695.95	3925.81	-121.96	1755245.33	14584769.25	40°09'31.1253"N	80°35'20.4726"W	3927.70	358.221	4.08	0.74	4.01
10643.00	89.940	338.370	6169.71	3788.88	4013.28	-153.47	1755213.82	14584856.69	40°09'31.9911"N	80°35'20.8734"W	4016.22	357.810	4.10	-1.26	-3.90
10733.00	91.110	338.470	6168.89	3878.88	4096.97	-186.57	1755180.73	14584940.34	40°09'32.8196"N	80°35'21.2947"W	4101.21	357.393	1.30	1.30	0.11
10820.00	90.950	339.480	6167.32	3965.86	4178.16	-217.78	1755149.54	14585021.51	40°09'33.6234"N	80°35'21.6918"W	4183.83	357.016	1.18	-0.18	1.16
10906.00	90.800	339.620	6166.01	4051.83	4258.73	-247.83	1755119.50	14585102.05	40°09'34.4210"N	80°35'22.0739"W	4265.94	356.670	0.24	-0.17	0.16
10993.00	91.010	340.220	6164.63	4138.79	4340.43	-277.69	1755089.65	14585183.71	40°09'35.2297"N	80°35'22.4537"W	4349.31	356.339	0.73	0.24	0.69
11080.00	90.980	339.520	6163.12	4225.75	4422.11	-307.63	1755059.72	14585265.36	40°09'36.0382"N	80°35'22.8345"W	4432.79	356.021	0.81	-0.03	-0.80
11166.00	90.950	341.240	6161.67	4311.69	4503.10	-336.50	1755030.86	14585346.32	40°09'36.8398"N	80°35'23.2015"W	4515.65	355.726	2.00	-0.03	2.00
11259.00	90.220	336.350	6160.72	4404.65	4589.77	-370.13	1754997.25	14585432.96	40°09'37.6979"N	80°35'23.6294"W	4604.67	355.390	5.32	-0.78	-5.26
11352.00	90.980	336.610	6159.75	4497.59	4675.04	-407.24	1754960.15	14585518.19	40°09'38.5422"N	80°35'24.1024"W	4692.74	355.022	0.86	0.82	0.28
11441.00	90.710	336.730	6158.44	4586.54	4756.75	-442.48	1754924.92	14585599.87	40°09'39.3513"N	80°35'24.5514"W	4777.29	354.686	0.33	-0.30	0.13
11532.00	91.140	337.820	6156.97	4677.51	4840.68	-477.63	1754889.79	14585683.76	40°09'40.1822"N	80°35'24.9991"W	4864.18	354.365	1.29	0.47	1.20
11618.00	90.430	338.810	6155.79	4763.50	4920.58	-509.40	1754858.03	14585763.64	40°09'40.9733"N	80°35'25.4036"W	4946.88	354.090	1.42	-0.83	1.15
11711.00	90.650	336.340	6154.91	4856.48	5006.54	-544.88	1754822.57	14585849.56	40°09'41.8243"N	80°35'25.8554"W	5036.10	353.789	2.67	0.24	-2.66
11800.00	90.680	337.320	6153.88	4945.43	5088.35	-579.89	1754787.57	14585931.34	40°09'42.6344"N	80°35'26.3015"W	5121.29	353.498	1.10	0.03	1.10
11889.00	90.920	338.020	6152.64	5034.42	5170.67	-613.70	1754753.77	14586013.63	40°09'43.4494"N	80°35'26.7322"W	5206.96	353.231	0.83	0.27	0.79
11982.00	90.680	337.780	6151.34	5127.40	5256.83	-648.69	1754718.80	14586099.76	40°09'44.3024"N	80°35'27.1777"W	5296.70	352.965	0.36	-0.26	-0.26
12075.00	90.490	337.200	6150.39	5220.38	5342.74	-684.29	1754683.21	14586185.63	40°09'45.1530"N	80°35'27.6311"W	5386.38	352.701	0.66	-0.20	-0.62
12167.00	90.580	337.350	6149.53	5312.36	5427.59	-719.83	1754647.68	14586270.45	40°09'45.9931"N	80°35'28.0838"W	5475.12	352.445	0.19	0.10	0.16
12260.00	91.020	338.080	6148.23	5405.34	5513.64	-755.09	1754612.43	14586356.46	40°09'46.8450"N	80°35'28.5329"W	5565.10	352.202	0.92	0.47	0.78
12353.00	90.980	338.770	6146.61	5498.33	5600.11	-789.28	1754578.25	14586442.90	40°09'47.7010"N	80°35'28.9682"W	5655.46	351.978	0.74	-0.04	0.74
12442.00	90.950	338.250	6145.11	5587.32	5682.91	-821.88	1754545.67	14586525.67	40°09'48.5207"N	80°35'29.3832"W	5742.03	351.771	0.59	-0.03	-0.58
12535.00	90.950	337.400	6143.57	5680.30	5769.02	-856.98	1754510.58	14586611.75	40°09'49.3733"N	80°35'29.8301"W	5832.32	351.551	0.91	0.00	-0.91

REFERENCE WELLPATH IDENTIFICATION			
Operator	SWN PRODUCTION COMPANY, LLC	Well	Shawn Couch OHI 205H
Field	Ohio	API/Legal	
Facility	Shawn Couch OHI Pad	Wellbore	Shawn Couch OHI 205H AWB
Slot	Slot #205		

WELLPATH DATA (179 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]
12628.00	90.830	338.950	6142.12	5773.28	5855.34	-891.55	1754476.03	14586698.03	40°09'50.2279"N	80°35'30.2703"W	5922.82	351.342	1.67	-0.13	1.67
12717.00	90.460	337.580	6141.12	5862.27	5938.00	-924.51	1754443.09	14586780.67	40°09'51.0462"N	80°35'30.6899"W	6009.54	351.151	1.59	-0.42	-1.54
12804.00	90.400	339.990	6140.47	5949.26	6019.10	-955.98	1754411.62	14586861.73	40°09'51.8491"N	80°35'31.0906"W	6094.54	350.975	2.77	-0.07	2.77
12896.00	90.830	341.070	6139.48	6041.20	6105.83	-986.65	1754380.97	14586948.43	40°09'52.7075"N	80°35'31.4804"W	6185.04	350.821	1.26	0.47	1.17
12983.00	90.920	341.040	6138.15	6128.09	6188.11	-1014.89	1754352.74	14587030.68	40°09'53.5219"N	80°35'31.8393"W	6270.78	350.686	0.11	0.10	-0.03
13076.00	89.600	337.130	6137.73	6221.07	6274.96	-1048.08	1754319.56	14587117.49	40°09'54.3817"N	80°35'32.2617"W	6361.89	350.518	4.44	-1.42	-4.20
13165.00	89.600	337.150	6138.35	6310.04	6356.97	-1082.66	1754285.00	14587199.47	40°09'55.1936"N	80°35'32.7022"W	6448.50	350.335	0.02	0.00	-0.02
13257.00	89.850	337.170	6138.79	6402.02	6441.76	-1118.37	1754249.30	14587284.22	40°09'56.0331"N	80°35'33.1571"W	6538.12	350.151	0.27	0.27	0.02
13350.00	90.890	339.230	6138.19	6495.01	6528.10	-1152.90	1754214.78	14587370.53	40°09'56.8879"N	80°35'33.5968"W	6629.12	349.985	2.48	1.12	2.22
13440.00	90.060	338.410	6137.45	6585.00	6612.01	-1185.41	1754182.28	14587454.42	40°09'57.7186"N	80°35'34.0107"W	6717.43	349.836	1.30	-0.92	-0.91
13527.00	89.380	336.260	6137.87	6671.98	6692.29	-1218.94	1754148.77	14587534.66	40°09'58.5134"N	80°35'34.4378"W	6802.39	349.677	2.59	-0.78	-2.47
13616.00	90.620	336.940	6137.87	6760.93	6773.97	-1254.28	1754113.44	14587616.31	40°09'59.3221"N	80°35'34.8882"W	6889.11	349.510	1.59	1.39	0.76
13706.00	90.800	335.510	6136.76	6850.86	6856.32	-1290.56	1754077.17	14587698.63	40°10'0.1376"N	80°35'35.3507"W	6976.72	349.340	1.60	0.20	-1.59
13799.00	90.490	335.270	6135.71	6943.72	6940.87	-1329.29	1754038.46	14587783.14	40°10'0.9748"N	80°35'35.8445"W	7067.01	349.158	0.42	-0.33	-0.26
13889.00	90.520	335.120	6134.92	7033.57	7022.56	-1367.04	1754000.72	14587864.80	40°10'1.7838"N	80°35'36.3260"W	7154.38	348.984	0.17	0.03	-0.17
13981.00	90.580	334.880	6134.03	7125.40	7105.94	-1405.92	1753961.85	14587948.15	40°10'2.6095"N	80°35'36.8219"W	7243.68	348.808	0.27	0.07	-0.26
14071.00	90.550	335.280	6133.15	7215.24	7187.55	-1443.84	1753923.95	14588029.73	40°10'3.4177"N	80°35'37.3056"W	7331.14	348.642	0.45	-0.03	0.44
14160.00	90.650	336.950	6132.21	7304.16	7268.92	-1479.88	1753887.93	14588111.07	40°10'4.2235"N	80°35'37.7649"W	7418.04	348.492	1.88	0.11	1.88
14250.00	90.280	338.160	6131.48	7394.14	7352.10	-1514.24	1753853.58	14588194.22	40°10'5.0470"N	80°35'38.2026"W	7506.42	348.362	1.41	-0.41	1.34
14343.00	90.370	338.890	6130.96	7487.14	7438.64	-1548.28	1753819.55	14588280.73	40°10'5.9037"N	80°35'38.6361"W	7598.07	348.242	0.79	0.10	0.78
14435.00	90.430	338.330	6130.31	7579.14	7524.30	-1581.84	1753786.01	14588366.35	40°10'6.7517"N	80°35'39.0632"W	7688.78	348.128	0.61	0.07	-0.61
14525.00	90.550	341.020	6129.54	7669.11	7608.69	-1613.09	1753754.77	14588450.71	40°10'7.5870"N	80°35'39.4609"W	7777.80	348.030	2.99	0.13	2.99
14618.00	90.460	341.030	6128.72	7762.01	7696.63	-1643.33	1753724.54	14588538.61	40°10'8.4574"N	80°35'39.8452"W	7870.11	347.948	0.10	-0.10	0.01
14711.00	90.650	341.930	6127.82	7854.87	7784.81	-1672.87	1753695.01	14588626.76	40°10'9.3301"N	80°35'40.2205"W	7962.52	347.872	0.99	0.20	0.97
14803.00	90.550	341.260	6126.86	7946.73	7872.10	-1701.91	1753665.98	14588714.01	40°10'10.1940"N	80°35'40.5895"W	8053.97	347.801	0.74	-0.11	-0.73
14896.00	90.740	341.040	6125.81	8039.62	7960.11	-1731.96	1753635.94	14588801.99	40°10'11.0651"N	80°35'40.9714"W	8146.35	347.725	0.31	0.20	-0.24
14989.00	90.460	340.750	6124.84	8132.53	8047.98	-1762.40	1753605.52	14588889.83	40°10'11.9348"N	80°35'41.3583"W	8238.69	347.648	0.43	-0.30	-0.31
14997.00	90.490	340.820	6124.77	8140.52	8055.53	-1765.03	1753602.89	14588897.38	40°10'12.0096"N	80°35'41.3918"W	8246.63	347.641	0.95	0.37	0.87
15022.00‡	90.490	340.820	6124.56	8165.50	8079.14	-1773.24	1753594.68	14588920.98	40°10'12.2433"N	80°35'41.4962"W	8271.46	347.621	0.00	0.00	0.00

HOLE & CASING SECTIONS - Ref Wellbore: Shawn Couch OHI 205H AWB Ref Wellpath: Shawn Couch OHI 205H AWP Proj: 15022'									
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]
20in Conductor	26.00	100.00	74.00	26.00	100.00	0.00	0.00	0.65	0.29

HOLE & CASING SECTIONS - Ref Wellbore: Shawn Couch OHI 205H AWB Ref Wellpath: Shawn Couch OHI 205H AWP Proj: 15022'									
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	100.00	417.00	317.00	100.00	416.99	0.65	0.29	1.80	0.79
13.375in Casing Surface	26.00	417.00	391.00	26.00	416.99	0.00	0.00	1.80	0.79
12.25in Open Hole	417.00	1871.00	1454.00	416.99	1862.24	1.80	0.79	70.02	104.55
9.625in Casing Intermediate	26.00	1871.00	1845.00	26.00	1862.24	0.00	0.00	70.02	104.55
8.75in Open Hole	1871.00	6856.00	4985.00	1862.24	6217.91	70.02	104.55	485.62	1221.11
8.5in Open Hole	6856.00	15022.00	8166.00	6217.91	6124.56	485.62	1221.11	8079.14	-1773.24
5.5in Casing Production	26.00	15022.00	14996.00	26.00	6124.56	0.00	0.00	8079.14	-1773.24

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Shawn Couch OHI 205H BHL Rev-6	6223.00	8079.33	-1772.56	1753595.36	14588921.16	40°10'12.2450"N	80°35'41.4874"W	point
Shawn Couch OHI 205H LP Rev-4	6223.00	459.27	1238.54	1756605.30	14581304.05	40°08'56.8065"N	80°35'3.1592"W	point
Shawn Couch OHI Hardline 1	6500.00	7412.43	-1508.28	1753859.54	14588254.52	40°10'5.6428"N	80°35'38.1223"W	polygon
2D Polygon: dimensions not calculated								

REFERENCE WELLPATH IDENTIFICATION			
Operator	SWN PRODUCTION COMPANY, LLC	Well	Shawn Couch OHI 205H
Field	Ohio	API/Legal	
Facility	Shawn Couch OHI Pad	Wellbore	Shawn Couch OHI 205H AWB
Slot	Slot #205		

WELLPATH COMPOSITION - Ref Wellbore: Shawn Couch OHI 205H AWB Ref Wellpath: Shawn Couch OHI 205H AWP Proj: 15022'					
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date
26.00	400.00	Gyrodata 2015 - GC+WIR+DPIPE	01_Gyrodata Gyro <17 1/2"> (50'-400')	Shawn Couch OHI 205H AWB	3/30/2020
400.00	658.00	Gyrodata 2015 - GC+WIR+DPIPE	02_Gyrodata Gyro <12 1/4"> (450'-658')	Shawn Couch OHI 205H AWB	3/30/2020
658.00	771.00	OWSG MWD rev2 + HRGM	03_Premier MWD <12 1/4"> (771')	Shawn Couch OHI 205H AWB	3/30/2020
771.00	843.00	Gyrodata 2015 - GC+WIR+DPIPE	04_Gyrodata Gyro <12 1/4"> (843')	Shawn Couch OHI 205H AWB	3/30/2020
843.00	1812.00	OWSG MWD rev2 + HRGM	05_Premier MWD <12 1/4"> (955'-1812')	Shawn Couch OHI 205H AWB	3/30/2020
1812.00	6791.00	OWSG MWD rev2 + HRGM	06_Premier MWD <8 3/4"> 1912'-6791')	Shawn Couch OHI 205H AWB	3/30/2020
6791.00	15022.00	BH AutoTrak Curve (2019) (Short spacing)	07_BH AT Curve <8 1/2"> (6831'-14997')	Shawn Couch OHI 205H AWB	3/30/2020



Actual Wellpath Report

Shawn Couch OHI 205H AWP Proj: 15022'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	SWN PRODUCTION COMPANY, LLC	Well	Shawn Couch OHI 205H
Field	Ohio	API/Legal	
Facility	Shawn Couch OHI Pad	Wellbore	Shawn Couch OHI 205H AWB
Slot	Slot #205		

COMMENTS
<p>Wellpath general comments API: 47-069-00321-0000 BH Job #: 110333872A Rig: SDC 42 Duration: 04/02/2020 - 04/04/2020</p>