

Location: Ohio County, WV
Field: Ohio VW
Facility: Carl Rotter OHI Pad

Slot: Slot 10H
Well: Carl Rotter OHI 10H
Wellbore: Carl Rotter OHI 10H PWB

Bottom Hole Location

MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
23335.00	89.170	157.730	6793.83	-15145.27	6801.51	1775146.11	14548903.04	40°03'35.5716"N	80°31'6.5679"W

Plot reference wellpath is Carl Rotter OHI 10H AWP_ awp 50' - 23310' Proj: 23335'

True vertical depths are referenced to SDC 40 (KB)

Reference wellpath measured depths are referenced to SDC 40 (KB)

SDC 40 (KB) to Mean Sea Level: 1362.7 feet

Mean Sea Level to Ground level (At Slot: Slot 10H): -1336.7 feet

Offset wellpath MDs are referenced to each path's default: MD datum

Grid System: NAD83 / UTM Zone 17 North, US feet
North Reference: Grid north
Scale: True distance
Coordinates are in feet referenced to Slot
Depths are in feet
Created by: tranlam on 2022-05-05; Database: WA_MPL_EASTERNUS_Defn

Location Information

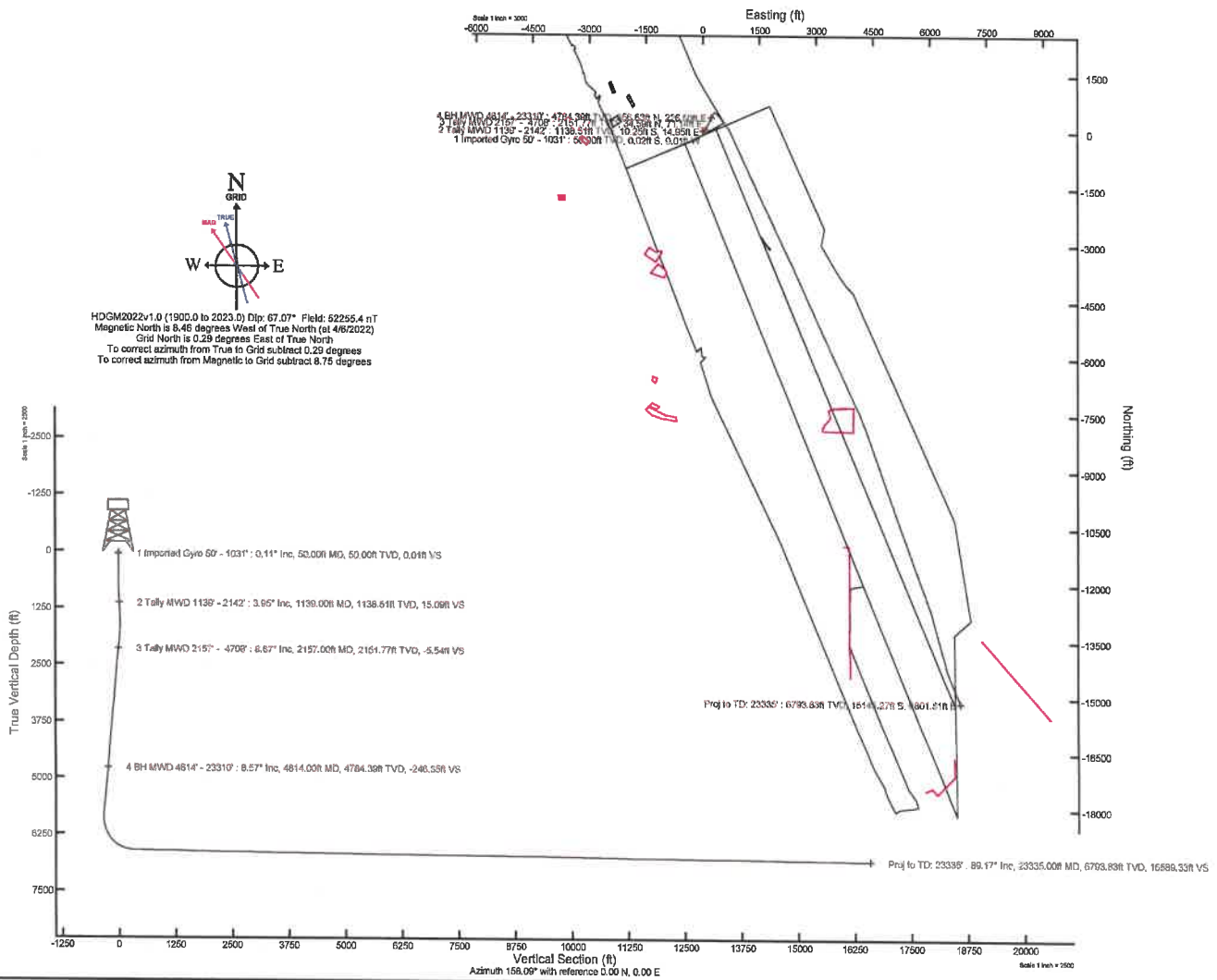
Facility Name		Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	
Carl Rotter OHI Pad		1768372.772	14564065.056	40°06'5.8140"N	80°32'32.7080"W	
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Slot 10H	-22.55	-25.58	1768347.200	14564042.510	40°06'5.5924"N	80°32'33.0387"W

SDC 40 (KB) to Ground level (At Slot: Slot 10H): 26ft

Mean Sea Level to Ground level (At Slot: Slot 10H): -1336.7ft

SDC 40 (KB) to Mean Sea Level: 1362.7ft

API: 47069002380000
BH JOB: 111260091
DURATION: 04-18-2022 to 04-24-2022
RIG: SDC 40



REFERENCE WELLPATH IDENTIFICATION

Operator	SWN PRODUCTION COMPANY, LLC	Well	Carl Rotter OHI 10H
Field	Ohio VW	API	47069003280000
Facility	Carl Rotter OHI Pad	Wellbore	Carl Rotter OHI 10H AWB
Slot	Slot 10H		

REPORT SETUP INFORMATION

Projection System	NAD83 / UTM Zone 17 North, US feet	Software System	WellArchitect® 6.0
North Reference	Grid	User	Tranlam
Scale	0.999619	Report Generated	5/5/2022 at 11:31:56 AM
Convergence at slot	0.29° 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	-22.55	-25.58	1768347.20	14564042.51	40°06'5.5924"N	80°32'33.0387"W
Facility Reference Pt			1768372.77	14564065.06	40°06'5.8140"N	80°32'32.7080"W
Field Reference Pt			0.00	0.00	0°00'0.0000"	85°29'19.4780"W

WELLPATH DATUM

Calculation method	Minimum curvature	SDC 40 (KB) to Facility Vertical Datum	1362.70ft
Horizontal Reference Pt	Slot	SDC 40 (KB) to Mean Sea Level	1362.70ft
Vertical Reference Pt	SDC 40 (KB)	SDC 40 (KB) to Ground Level at Slot (Slot 10H)	26.00ft
MD Reference Pt	SDC 40 (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	158.09°

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Facility	Carl Rotter OHI Pad	Wellbore	Carl Rotter OHI 10H AWB
Slot	Slot 10H		

WELLPATH DATA (272 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	DLS ["/100ft]	Comments
0.00†	0.000	210.550	0.00	0.00	0.00	0.00	1768347.20	14564042.51	40°06'5.5924"N	80°32'33.0387"W	0.00	
26.00	0.000	210.550	26.00	0.00	0.00	0.00	1768347.20	14564042.51	40°06'5.5924"N	80°32'33.0387"W	0.00	
50.00	0.110	210.550	50.00	0.01	-0.02	-0.01	1768347.19	14564042.49	40°06'5.5922"N	80°32'33.0389"W	0.46	1 Imported Gyro 50' - 1031'
100.00	0.070	263.150	100.00	0.04	-0.06	-0.07	1768347.13	14564042.45	40°06'5.5918"N	80°32'33.0396"W	0.17	
150.00	0.010	308.300	150.00	0.02	-0.07	-0.10	1768347.10	14564042.44	40°06'5.5918"N	80°32'33.0400"W	0.13	
200.00	0.050	204.520	200.00	0.03	-0.08	-0.11	1768347.09	14564042.43	40°06'5.5916"N	80°32'33.0402"W	0.11	
250.00	0.050	140.750	250.00	0.07	-0.12	-0.11	1768347.09	14564042.39	40°06'5.5912"N	80°32'33.0401"W	0.11	
300.00	0.020	184.900	300.00	0.10	-0.15	-0.09	1768347.11	14564042.36	40°06'5.5910"N	80°32'33.0399"W	0.08	
350.00	0.070	173.700	350.00	0.14	-0.18	-0.09	1768347.11	14564042.33	40°06'5.5906"N	80°32'33.0399"W	0.10	
400.00	0.080	184.310	400.00	0.20	-0.25	-0.09	1768347.11	14564042.26	40°06'5.5900"N	80°32'33.0399"W	0.03	
450.00	0.140	170.030	450.00	0.29	-0.34	-0.08	1768347.12	14564042.17	40°06'5.5890"N	80°32'33.0398"W	0.13	
500.00	0.120	122.380	500.00	0.39	-0.43	-0.03	1768347.17	14564042.08	40°06'5.5881"N	80°32'33.0391"W	0.21	
550.00	0.110	149.550	550.00	0.48	-0.50	0.04	1768347.24	14564042.01	40°06'5.5874"N	80°32'33.0382"W	0.11	
600.00	0.130	157.600	600.00	0.58	-0.60	0.09	1768347.29	14564041.91	40°06'5.5865"N	80°32'33.0376"W	0.05	
650.00	0.070	173.200	650.00	0.67	-0.68	0.11	1768347.31	14564041.83	40°06'5.5857"N	80°32'33.0373"W	0.13	
700.00	0.090	135.420	700.00	0.74	-0.74	0.14	1768347.34	14564041.77	40°06'5.5851"N	80°32'33.0369"W	0.11	
750.00	0.180	160.930	750.00	0.85	-0.84	0.20	1768347.40	14564041.67	40°06'5.5841"N	80°32'33.0362"W	0.21	
800.00	0.780	129.790	800.00	1.23	-1.13	0.48	1768347.68	14564041.38	40°06'5.5812"N	80°32'33.0326"W	1.27	
848.00	1.710	133.730	847.99	2.17	-1.84	1.25	1768348.45	14564040.68	40°06'5.5742"N	80°32'33.0227"W	1.94	
850.00	1.750	129.300	849.98	2.22	-1.88	1.30	1768348.50	14564040.64	40°06'5.5738"N	80°32'33.0221"W	6.98	
900.00	2.280	131.110	899.95	3.78	-3.01	2.64	1768349.84	14564039.50	40°06'5.5625"N	80°32'33.0050"W	1.07	
942.00	2.790	129.350	941.91	5.42	-4.21	4.06	1768351.25	14564038.30	40°06'5.5506"N	80°32'32.9868"W	1.23	
950.00	2.690	126.590	949.90	5.75	-4.45	4.36	1768351.56	14564038.07	40°06'5.5483"N	80°32'32.9829"W	2.07	
1000.00	3.620	119.130	999.83	7.98	-5.91	6.68	1768353.88	14564036.60	40°06'5.5336"N	80°32'32.9531"W	2.03	
1031.00	3.830	117.030	1030.76	9.52	-6.86	8.46	1768355.65	14564035.65	40°06'5.5242"N	80°32'32.9303"W	0.81	
1139.00	3.950	118.020	1138.51	15.09	-10.25	14.95	1768362.15	14564032.27	40°06'5.4904"N	80°32'32.8470"W	0.13	2 Tally MWD 1139' - 2142'
1231.00	3.740	125.490	1230.31	20.04	-13.48	20.19	1768367.39	14564029.04	40°06'5.4582"N	80°32'32.7797"W	0.59	
1322.00	3.300	129.150	1321.13	24.83	-16.85	24.64	1768371.83	14564025.66	40°06'5.4246"N	80°32'32.7227"W	0.54	
1414.00	2.970	121.880	1413.00	29.07	-19.78	28.72	1768375.91	14564022.73	40°06'5.3954"N	80°32'32.6704"W	0.56	
1506.00	3.180	94.570	1504.87	32.13	-21.25	33.29	1768380.47	14564021.27	40°06'5.3808"N	80°32'32.6118"W	1.59	

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Facility	Carl Rotter OHI Pad	Wellbore	Carl Rotter OHI 10H AWB
Slot	Slot 10H		

WELLPATH DATA (272 stations)												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
1596.00	4.100	63.810	1594.69	33.01	-20.03	38.66	1768385.85	14564022.49	40°06'5.3926"N	80°32'32.5425"W	2.36	
1688.00	5.070	48.350	1686.40	31.39	-15.87	44.65	1768391.83	14564026.64	40°06'5.4333"N	80°32'32.4652"W	1.70	
1779.00	5.570	35.820	1777.01	27.67	-9.62	50.24	1768397.42	14564032.89	40°06'5.4948"N	80°32'32.3928"W	1.39	
1869.00	6.340	26.040	1866.53	22.01	-1.61	54.98	1768402.16	14564040.90	40°06'5.5737"N	80°32'32.3313"W	1.41	
1960.00	7.880	21.970	1956.83	14.15	8.69	59.52	1768406.70	14564051.19	40°06'5.6752"N	80°32'32.2722"W	1.78	
2051.00	8.320	23.970	2046.92	5.07	20.49	64.53	1768411.70	14564062.99	40°06'5.7916"N	80°32'32.2070"W	0.57	
2142.00	8.530	25.920	2136.94	-4.05	32.58	70.15	1768417.32	14564075.07	40°06'5.9108"N	80°32'32.1338"W	0.39	
2157.00	8.670	26.390	2151.77	-5.54	34.59	71.14	1768418.31	14564077.09	40°06'5.9306"N	80°32'32.1209"W	1.04	3 Tally MWD 2157' - 4708'
2251.00	9.180	24.900	2244.63	-15.39	47.74	77.45	1768424.62	14564090.23	40°06'6.0602"N	80°32'32.0389"W	0.60	
2342.00	8.190	26.570	2334.59	-24.65	60.12	83.40	1768430.57	14564102.61	40°06'6.1823"N	80°32'31.9615"W	1.12	
2433.00	8.330	23.170	2424.64	-33.61	71.98	88.90	1768436.06	14564114.46	40°06'6.2992"N	80°32'31.8900"W	0.56	
2523.00	7.860	27.390	2513.75	-42.22	83.43	94.29	1768441.46	14564125.91	40°06'6.4121"N	80°32'31.8198"W	0.84	
2615.00	6.740	32.620	2605.00	-49.46	93.57	100.10	1768447.26	14564136.04	40°06'6.5119"N	80°32'31.7444"W	1.41	
2706.00	6.700	27.440	2695.38	-56.01	102.78	105.42	1768452.58	14564145.25	40°06'6.6027"N	80°32'31.6753"W	0.67	
2796.00	6.770	25.450	2784.76	-63.03	112.22	110.12	1768457.28	14564154.69	40°06'6.6958"N	80°32'31.6142"W	0.27	
2888.00	7.290	31.630	2876.06	-70.17	122.09	115.51	1768462.67	14564164.55	40°06'6.7930"N	80°32'31.5441"W	1.00	
2978.00	7.310	29.210	2965.34	-77.16	131.95	121.30	1768468.45	14564174.41	40°06'6.8902"N	80°32'31.4690"W	0.34	
3072.00	7.150	23.410	3058.59	-85.02	142.54	126.54	1768473.69	14564184.99	40°06'6.9946"N	80°32'31.4008"W	0.79	
3163.00	7.920	24.010	3148.80	-93.37	153.46	131.34	1768478.49	14564195.91	40°06'7.1023"N	80°32'31.3383"W	0.85	
3255.00	8.610	25.830	3239.85	-102.41	165.45	136.92	1768484.07	14564207.90	40°06'7.2205"N	80°32'31.2657"W	0.80	
3346.00	8.420	23.860	3329.84	-111.64	177.68	142.59	1768489.73	14564220.12	40°06'7.3410"N	80°32'31.1920"W	0.38	
3433.00	8.450	27.290	3415.90	-120.26	189.18	148.09	1768495.24	14564231.62	40°06'7.4544"N	80°32'31.1204"W	0.58	
3524.00	8.630	27.280	3505.89	-129.09	201.19	154.29	1768501.43	14564243.63	40°06'7.5728"N	80°32'31.0399"W	0.20	
3612.00	8.650	24.070	3592.90	-138.00	213.10	160.01	1768507.15	14564255.53	40°06'7.6902"N	80°32'30.9654"W	0.55	
3703.00	7.870	30.040	3682.95	-146.60	224.74	165.92	1768513.06	14564267.17	40°06'7.8049"N	80°32'30.8886"W	1.27	
3794.00	7.650	27.250	3773.12	-154.40	235.52	171.82	1768518.95	14564277.94	40°06'7.9111"N	80°32'30.8121"W	0.48	
3884.00	7.100	25.280	3862.38	-162.10	245.88	176.93	1768524.07	14564288.29	40°06'8.0132"N	80°32'30.7455"W	0.67	
3975.00	6.920	20.690	3952.70	-169.95	256.09	181.27	1768528.40	14564298.50	40°06'8.1139"N	80°32'30.6890"W	0.65	
4069.00	7.280	20.880	4045.98	-178.49	266.95	185.40	1768532.52	14564309.36	40°06'8.2210"N	80°32'30.6352"W	0.38	
4160.00	7.680	24.590	4136.20	-186.91	277.87	189.98	1768537.11	14564320.27	40°06'8.3287"N	80°32'30.5755"W	0.69	

REFERENCE WELLPATH IDENTIFICATION

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Field	Ohio VW	API	47069003280000
Facility	Carl Rotter OHI Pad	Wellbore	Carl Rotter OHI 10H AWB
Slot	Slot 10H		

WELLPATH DATA (272 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4251.00	7.410	25.220	4226.41	-195.09	288.71	195.01	1768542.14	14564331.11	40°06'8.4355"N	80°32'30.5100"W	0.31	
4342.00	6.880	20.440	4316.71	-203.11	299.12	199.42	1768546.54	14564341.52	40°06'8.5382"N	80°32'30.4527"W	0.87	
4434.00	7.770	25.690	4407.96	-211.37	309.89	204.04	1768551.16	14564352.28	40°06'8.6444"N	80°32'30.3925"W	1.21	
4525.00	7.370	24.290	4498.16	-219.56	320.76	209.10	1768556.22	14564363.14	40°06'8.7515"N	80°32'30.3266"W	0.48	
4617.00	7.910	23.380	4589.35	-228.10	331.94	214.04	1768561.16	14564374.33	40°06'8.8618"N	80°32'30.2623"W	0.60	
4708.00	7.880	27.730	4679.48	-236.54	343.21	219.43	1768566.55	14564385.59	40°06'8.9729"N	80°32'30.1922"W	0.66	
4814.00	8.570	27.820	4784.39	-246.35	356.63	226.50	1768573.61	14564399.00	40°06'9.1051"N	80°32'30.1004"W	0.65	4 BH MWD 4814' - 23310'
4906.00	8.540	27.970	4875.37	-255.19	368.73	232.90	1768580.01	14564411.09	40°06'9.2243"N	80°32'30.0172"W	0.04	
4997.00	8.440	27.570	4965.37	-263.88	380.61	239.16	1768586.27	14564422.98	40°06'9.3415"N	80°32'29.9358"W	0.13	
5087.00	8.510	27.800	5054.39	-272.48	392.36	245.32	1768592.43	14564434.72	40°06'9.4572"N	80°32'29.8557"W	0.09	
5178.00	8.660	26.890	5144.37	-281.34	404.43	251.56	1768598.67	14564446.78	40°06'9.5762"N	80°32'29.7746"W	0.22	
5268.00	7.530	27.290	5233.47	-289.66	415.71	257.33	1768604.43	14564458.06	40°06'9.6874"N	80°32'29.6997"W	1.26	
5359.00	7.700	27.160	5323.67	-297.55	426.43	262.85	1768609.95	14564468.78	40°06'9.7931"N	80°32'29.6280"W	0.19	
5451.00	7.820	26.950	5414.83	-305.71	437.50	268.50	1768615.59	14564479.84	40°06'9.9021"N	80°32'29.5545"W	0.13	
5542.00	7.710	26.830	5504.99	-313.80	448.46	274.06	1768621.15	14564490.80	40°06'10.0102"N	80°32'29.4822"W	0.12	
5633.00	7.450	26.700	5595.20	-321.73	459.18	279.46	1768626.56	14564501.51	40°06'10.1158"N	80°32'29.4119"W	0.29	
5723.00	7.580	27.460	5684.42	-329.45	469.66	284.82	1768631.91	14564511.99	40°06'10.2191"N	80°32'29.3423"W	0.18	
5816.00	7.550	27.020	5776.61	-337.46	480.54	290.43	1768637.52	14564522.87	40°06'10.3264"N	80°32'29.2694"W	0.07	
5908.00	7.750	53.500	5867.82	-343.00	489.62	298.16	1768645.25	14564531.94	40°06'10.4157"N	80°32'29.1693"W	3.80	
5999.00	8.140	98.310	5958.03	-341.30	492.34	309.48	1768656.56	14564534.66	40°06'10.4420"N	80°32'29.0235"W	6.65	
6091.00	14.060	119.460	6048.31	-329.28	485.90	325.67	1768672.75	14564528.22	40°06'10.3775"N	80°32'28.8155"W	7.71	
6182.00	19.070	130.600	6135.52	-307.43	470.77	346.61	1768693.67	14564513.10	40°06'10.2269"N	80°32'28.5471"W	6.50	
6273.00	25.720	135.380	6219.62	-275.99	447.01	371.79	1768718.85	14564489.35	40°06'9.9909"N	80°32'28.2246"W	7.57	
6364.00	33.270	135.360	6298.77	-234.70	415.15	403.25	1768750.29	14564457.50	40°06'9.6744"N	80°32'27.8219"W	8.30	
6455.00	41.120	137.620	6371.21	-183.56	375.23	441.01	1768788.05	14564417.59	40°06'9.2779"N	80°32'27.3386"W	8.75	
6546.00	48.830	139.400	6435.53	-122.99	327.04	483.54	1768830.55	14564369.43	40°06'8.7996"N	80°32'26.7945"W	8.58	
6636.00	57.340	142.860	6489.55	-54.21	271.01	528.55	1768875.55	14564313.41	40°06'8.2436"N	80°32'26.2190"W	9.94	
6727.00	64.710	143.130	6533.60	22.61	207.47	576.43	1768923.40	14564249.90	40°06'7.6133"N	80°32'25.6071"W	8.10	
6818.00	72.170	147.120	6567.03	105.02	138.06	624.71	1768971.67	14564180.52	40°06'6.9249"N	80°32'24.9904"W	9.15	
6909.00	79.070	148.030	6589.62	191.64	63.70	671.94	1769018.88	14564106.18	40°06'6.1876"N	80°32'24.3876"W	7.64	

REFERENCE WELLPATH IDENTIFICATION

Operator	SWN PRODUCTION COMPANY, LLC	Well	Carl Rotter OHI 10H
Field	Ohio VW	API	47069003280000
Facility	Carl Rotter OHI Pad	Wellbore	Carl Rotter OHI 10H AWB
Slot	Slot 10H		

WELLPATH DATA (272 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
6999.00	85.320	153.200	6601.84	279.97	-13.95	715.62	1769062.55	14564028.57	40°06'5.4181"N	80°32'23.8306"W	8.98	
7090.00	89.290	155.460	6606.12	370.65	-95.85	754.99	1769101.90	14563946.69	40°06'4.6067"N	80°32'23.3295"W	5.02	
7180.00	89.350	155.230	6607.19	460.54	-177.64	792.53	1769139.42	14563864.93	40°06'3.7965"N	80°32'22.8518"W	0.26	
7271.00	89.230	155.220	6608.32	551.42	-260.26	830.66	1769177.54	14563782.35	40°06'2.9781"N	80°32'22.3667"W	0.13	
7362.00	88.430	154.440	6610.18	642.26	-342.60	869.35	1769216.22	14563700.04	40°06'2.1625"N	80°32'21.8742"W	1.23	
7452.00	89.230	156.120	6612.01	732.13	-424.33	906.98	1769253.83	14563618.34	40°06'1.3529"N	80°32'21.3955"W	2.07	
7543.00	89.540	154.800	6612.99	823.02	-507.11	944.77	1769291.61	14563535.60	40°06'0.5330"N	80°32'20.9147"W	1.49	
7634.00	90.060	154.740	6613.31	913.87	-589.43	983.56	1769330.38	14563453.31	40°05'59.7175"N	80°32'20.4210"W	0.58	
7724.00	90.620	157.100	6612.77	1003.80	-671.59	1020.28	1769367.09	14563371.18	40°05'58.9037"N	80°32'19.9540"W	2.69	
7815.00	89.260	155.520	6612.87	1094.75	-754.91	1056.84	1769403.63	14563287.89	40°05'58.0784"N	80°32'19.4891"W	2.29	
7906.00	87.940	155.050	6615.09	1185.61	-837.55	1094.87	1769441.66	14563205.28	40°05'57.2598"N	80°32'19.0052"W	1.54	
7998.00	88.150	155.110	6618.23	1277.43	-920.94	1133.62	1769480.38	14563121.93	40°05'56.4338"N	80°32'18.5122"W	0.24	
8089.00	89.260	155.340	6620.29	1368.29	-1003.54	1171.74	1769518.49	14563039.36	40°05'55.6156"N	80°32'18.0271"W	1.25	
8180.00	88.860	155.430	6621.78	1459.18	-1086.26	1209.64	1769556.37	14562956.67	40°05'54.7962"N	80°32'17.5450"W	0.45	
8271.00	88.520	155.350	6623.86	1550.05	-1168.97	1247.52	1769594.25	14562873.99	40°05'53.9769"N	80°32'17.0630"W	0.38	
8363.00	88.490	155.660	6626.26	1641.93	-1252.66	1285.66	1769632.36	14562790.33	40°05'53.1479"N	80°32'16.5779"W	0.34	
8453.00	89.260	155.680	6628.03	1731.83	-1334.65	1322.73	1769669.42	14562708.37	40°05'52.3358"N	80°32'16.1064"W	0.86	
8544.00	89.080	155.110	6629.35	1822.72	-1417.38	1360.61	1769707.29	14562625.67	40°05'51.5163"N	80°32'15.6244"W	0.66	
8637.00	88.710	155.200	6631.14	1915.58	-1501.76	1399.68	1769746.34	14562541.33	40°05'50.6805"N	80°32'15.1273"W	0.41	
8727.00	89.200	154.470	6632.78	2005.42	-1583.20	1437.94	1769784.59	14562459.92	40°05'49.8737"N	80°32'14.6404"W	0.98	
8820.00	88.920	155.140	6634.31	2098.25	-1667.34	1477.53	1769824.16	14562375.81	40°05'49.0402"N	80°32'14.1367"W	0.78	
8911.00	89.290	155.770	6635.73	2189.14	-1750.11	1515.33	1769861.94	14562293.07	40°05'48.2204"N	80°32'13.6559"W	0.80	
9002.00	88.430	154.980	6637.54	2280.02	-1832.81	1553.24	1769899.84	14562210.40	40°05'47.4011"N	80°32'13.1736"W	1.28	
9092.00	89.260	154.120	6639.35	2369.83	-1914.06	1591.90	1769938.49	14562129.18	40°05'46.5962"N	80°32'12.6815"W	1.33	
9184.00	89.080	154.360	6640.69	2461.61	-1996.91	1631.88	1769978.46	14562046.37	40°05'45.7754"N	80°32'12.1726"W	0.33	
9274.00	88.980	155.100	6642.21	2551.44	-2078.29	1670.29	1770016.85	14561965.02	40°05'44.9693"N	80°32'11.6838"W	0.83	
9365.00	88.860	155.050	6643.93	2642.30	-2160.80	1708.64	1770055.18	14561882.54	40°05'44.1520"N	80°32'11.1959"W	0.14	
9455.00	89.260	154.680	6645.40	2732.15	-2242.26	1746.86	1770093.39	14561801.11	40°05'43.3450"N	80°32'10.7096"W	0.61	
9547.00	88.980	155.400	6646.82	2824.00	-2325.66	1785.68	1770132.19	14561717.74	40°05'42.5188"N	80°32'10.2157"W	0.84	
9638.00	88.980	155.180	6648.43	2914.88	-2408.31	1823.71	1770170.21	14561635.12	40°05'41.7001"N	80°32'9.7318"W	0.24	



Actual Wellpath Report

Carl Rotter OHI 10H AWB_ awp 50' - 23310' Proj: 23335'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	SWN PRODUCTION COMPANY, LLC	Well	Carl Rotter OHI 10H
Field	Ohio VW	API	47069003280000
Facility	Carl Rotter OHI Pad	Wellbore	Carl Rotter OHI 10H AWB
Slot	Slot 10H		

WELLPATH DATA (272 stations)												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS ["/100ft]	Comments
9728.00	89.480	155.570	6649.64	3004.77	-2490.12	1861.21	1770207.70	14561553.34	40°05'40.8897"N	80°32'9.2548"W	0.70	
9819.00	89.110	154.990	6650.76	3095.65	-2572.77	1899.26	1770245.73	14561470.72	40°05'40.0710"N	80°32'8.7708"W	0.76	
9910.00	89.200	155.070	6652.11	3186.52	-2655.26	1937.67	1770284.13	14561388.27	40°05'39.2539"N	80°32'8.2821"W	0.13	
10000.00	89.630	155.050	6653.03	3276.38	-2736.86	1975.62	1770322.06	14561306.70	40°05'38.4455"N	80°32'7.7993"W	0.48	
10092.00	89.600	154.370	6653.64	3368.22	-2820.04	2014.92	1770361.35	14561223.55	40°05'37.6215"N	80°32'7.2991"W	0.74	
10182.00	89.540	154.770	6654.32	3458.05	-2901.32	2053.57	1770399.98	14561142.30	40°05'36.8163"N	80°32'6.8074"W	0.45	
10273.00	89.290	154.730	6655.25	3548.89	-2983.62	2092.38	1770438.78	14561060.03	40°05'36.0010"N	80°32'6.3134"W	0.28	
10364.00	89.290	154.950	6656.38	3639.74	-3065.98	2131.07	1770477.45	14560977.70	40°05'35.1851"N	80°32'5.8212"W	0.24	
10455.00	89.230	154.660	6657.55	3730.58	-3148.32	2169.80	1770516.17	14560895.40	40°05'34.3695"N	80°32'5.3284"W	0.33	
10547.00	89.510	154.670	6658.56	3822.41	-3231.46	2209.17	1770555.52	14560812.29	40°05'33.5458"N	80°32'4.8274"W	0.30	
10638.00	89.350	154.890	6659.47	3913.25	-3313.78	2247.94	1770594.28	14560730.00	40°05'32.7303"N	80°32'4.3341"W	0.30	
10728.00	88.980	154.950	6660.78	4003.11	-3395.29	2286.09	1770632.41	14560648.52	40°05'31.9229"N	80°32'3.8488"W	0.42	
10819.00	89.230	154.620	6662.20	4093.94	-3477.61	2324.85	1770671.16	14560566.23	40°05'31.1074"N	80°32'3.3556"W	0.45	
10909.00	89.020	154.800	6663.57	4183.78	-3558.97	2363.29	1770709.59	14560484.90	40°05'30.3014"N	80°32'2.8664"W	0.31	
11000.00	89.820	155.370	6664.50	4274.64	-3641.50	2401.63	1770747.91	14560402.41	40°05'29.4838"N	80°32'2.3788"W	1.08	
11090.00	89.540	155.770	6665.00	4364.56	-3723.44	2438.85	1770785.11	14560320.50	40°05'28.6722"N	80°32'1.9054"W	0.54	
11181.00	90.180	155.920	6665.22	4455.49	-3806.47	2476.09	1770822.34	14560237.50	40°05'27.8497"N	80°32'1.4318"W	0.72	
11272.00	89.140	155.920	6665.76	4546.42	-3889.55	2513.21	1770859.45	14560154.45	40°05'27.0268"N	80°32'0.9597"W	1.14	
11364.00	89.600	155.880	6666.77	4638.34	-3973.53	2550.78	1770897.00	14560070.51	40°05'26.1950"N	80°32'0.4821"W	0.50	
11455.00	89.570	155.730	6667.43	4729.27	-4056.53	2588.07	1770934.28	14559987.54	40°05'25.3729"N	80°32'0.0078"W	0.17	
11547.00	88.980	156.060	6668.60	4821.19	-4140.50	2625.64	1770971.84	14559903.60	40°05'24.5411"N	80°31'59.5301"W	0.73	
11640.00	88.740	155.470	6670.45	4914.10	-4225.29	2663.81	1771009.99	14559818.84	40°05'23.7013"N	80°31'59.0448"W	0.68	
11730.00	89.230	155.690	6672.04	5004.00	-4307.22	2701.01	1771047.18	14559736.94	40°05'22.8897"N	80°31'58.5716"W	0.60	
11821.00	89.230	155.960	6673.26	5094.92	-4390.23	2738.28	1771084.43	14559653.96	40°05'22.0674"N	80°31'58.0978"W	0.30	
11911.00	88.920	155.530	6674.72	5184.83	-4472.28	2775.24	1771121.38	14559571.95	40°05'21.2547"N	80°31'57.6277"W	0.59	
12002.00	88.800	155.950	6676.53	5275.74	-4555.22	2812.63	1771158.75	14559489.03	40°05'20.4331"N	80°31'57.1524"W	0.48	
12093.00	88.980	155.540	6678.29	5366.64	-4638.18	2850.00	1771196.11	14559406.11	40°05'19.6114"N	80°31'56.6771"W	0.49	
12184.00	90.550	154.730	6678.66	5457.52	-4720.74	2888.26	1771234.36	14559323.58	40°05'18.7936"N	80°31'56.1904"W	1.94	
12275.00	90.030	155.930	6678.20	5548.41	-4803.43	2926.24	1771272.32	14559240.92	40°05'17.9744"N	80°31'55.7073"W	1.44	
12366.00	89.570	155.240	6678.52	5639.32	-4886.29	2963.86	1771309.92	14559158.09	40°05'17.1536"N	80°31'55.2290"W	0.91	

REFERENCE WELLPATH IDENTIFICATION

Operator	SWN PRODUCTION COMPANY, LLC	Well	Carl Rotter OHI 10H
Field	Ohio VW	API	47069003280000
Facility	Carl Rotter OHI Pad	Wellbore	Carl Rotter OHI 10H AWB
Slot	Slot 10H		

WELLPATH DATA (272 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS ["/100ft]	Comments
12456.00	89.260	156.300	6679.44	5729.24	-4968.36	3000.79	1771346.84	14559076.06	40°05'16.3407"N	80°31'54.7594"W	1.23	
12547.00	89.380	156.460	6680.52	5820.19	-5051.73	3037.25	1771383.29	14558992.72	40°05'15.5150"N	80°31'54.2959"W	0.22	
12638.00	89.850	156.350	6681.13	5911.15	-5135.12	3073.67	1771419.69	14558909.36	40°05'14.6890"N	80°31'53.8330"W	0.53	
12728.00	89.110	155.830	6681.95	6001.09	-5217.39	3110.15	1771456.16	14558827.12	40°05'13.8741"N	80°31'53.3692"W	1.00	
12819.00	89.450	155.290	6683.09	6092.00	-5300.23	3147.80	1771493.79	14558744.31	40°05'13.0535"N	80°31'52.8905"W	0.70	
12910.00	89.200	155.470	6684.16	6182.89	-5382.95	3185.70	1771531.68	14558661.63	40°05'12.2341"N	80°31'52.4084"W	0.34	
13000.00	89.480	155.920	6685.20	6272.80	-5464.97	3222.74	1771568.71	14558579.64	40°05'11.4217"N	80°31'51.9374"W	0.59	
13091.00	89.380	155.510	6686.10	6363.72	-5547.91	3260.17	1771606.12	14558496.73	40°05'10.6001"N	80°31'51.4615"W	0.46	
13182.00	89.820	155.310	6686.74	6454.62	-5630.65	3298.03	1771643.97	14558414.01	40°05'9.7804"N	80°31'50.9800"W	0.53	
13274.00	89.290	155.570	6687.45	6546.52	-5714.33	3336.27	1771682.19	14558330.37	40°05'8.9516"N	80°31'50.4937"W	0.64	
13365.00	89.660	155.560	6688.29	6637.42	-5797.17	3373.91	1771719.82	14558247.56	40°05'8.1309"N	80°31'50.0150"W	0.41	
13457.00	89.350	155.720	6689.08	6729.34	-5880.98	3411.86	1771757.75	14558163.79	40°05'7.3008"N	80°31'49.5325"W	0.38	
13547.00	89.450	155.130	6690.03	6819.23	-5962.82	3449.29	1771795.16	14558081.97	40°05'6.4900"N	80°31'49.0566"W	0.66	
13638.00	89.350	154.870	6690.98	6910.10	-6045.29	3487.74	1771833.61	14557999.54	40°05'5.6731"N	80°31'48.5674"W	0.31	
13728.00	89.750	156.750	6691.69	7000.02	-6127.38	3524.62	1771870.47	14557917.48	40°05'4.8599"N	80°31'48.0986"W	2.14	
13819.00	89.110	154.820	6692.59	7090.94	-6210.37	3561.94	1771907.77	14557834.52	40°05'4.0379"N	80°31'47.6241"W	2.23	
13910.00	89.200	155.380	6693.93	7181.80	-6292.90	3600.25	1771946.07	14557752.02	40°05'3.2203"N	80°31'47.1368"W	0.62	
14002.00	89.260	155.170	6695.17	7273.68	-6376.46	3638.73	1771984.53	14557668.50	40°05'2.3926"N	80°31'46.6475"W	0.24	
14092.00	89.380	155.260	6696.24	7363.56	-6458.16	3676.45	1772022.24	14557586.82	40°05'1.5832"N	80°31'46.1677"W	0.17	
14183.00	89.450	155.710	6697.17	7454.46	-6540.95	3714.21	1772059.99	14557504.06	40°05'0.7631"N	80°31'45.6876"W	0.50	
14274.00	89.720	155.940	6697.83	7545.39	-6623.97	3751.48	1772097.24	14557421.08	40°04'59.9408"N	80°31'45.2138"W	0.39	
14365.00	89.480	155.860	6698.46	7636.32	-6707.04	3788.63	1772134.38	14557338.05	40°04'59.1180"N	80°31'44.7414"W	0.28	
14456.00	89.820	155.790	6699.02	7727.25	-6790.05	3825.90	1772171.63	14557255.06	40°04'58.2956"N	80°31'44.2676"W	0.38	
14547.00	89.780	155.580	6699.33	7818.17	-6872.98	3863.37	1772209.09	14557172.16	40°04'57.4742"N	80°31'43.7912"W	0.23	
14638.00	89.510	155.860	6699.90	7909.09	-6955.93	3900.79	1772246.49	14557089.25	40°04'56.6525"N	80°31'43.3155"W	0.43	
14730.00	89.820	154.390	6700.44	8000.96	-7039.39	3939.48	1772285.17	14557005.82	40°04'55.8257"N	80°31'42.8234"W	1.63	
14820.00	89.850	154.790	6700.70	8090.79	-7120.68	3978.10	1772323.78	14556924.56	40°04'55.0204"N	80°31'42.3321"W	0.45	
14912.00	89.630	154.760	6701.11	8182.64	-7203.91	4017.31	1772362.97	14556841.36	40°04'54.1959"N	80°31'41.8334"W	0.24	
15003.00	89.750	154.750	6701.61	8273.48	-7286.22	4056.12	1772401.76	14556759.09	40°04'53.3805"N	80°31'41.3397"W	0.13	
15093.00	89.480	154.030	6702.21	8363.29	-7367.37	4095.02	1772440.65	14556677.96	40°04'52.5765"N	80°31'40.8448"W	0.85	

REFERENCE WELLPATH IDENTIFICATION

Operator	SWN PRODUCTION COMPANY, LLC	Well	Carl Rotter OHI 10H
Field	Ohio VW	API	47069003280000
Facility	Carl Rotter OHI Pad	Wellbore	Carl Rotter OHI 10H AWB
Slot	Slot 10H		

WELLPATH DATA (272 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
15184.00	89.910	156.560	6702.69	8454.17	-7450.04	4133.05	1772478.66	14556595.33	40°04'51.7576"N	80°31'40.3612"W	2.82	
15275.00	89.380	157.750	6703.26	8545.16	-7533.89	4168.38	1772513.98	14556511.50	40°04'50.9270"N	80°31'39.9124"W	1.43	
15365.00	89.420	157.870	6704.20	8635.15	-7617.22	4202.37	1772547.96	14556428.21	40°04'50.1018"N	80°31'39.4809"W	0.14	
15456.00	89.290	159.860	6705.23	8726.13	-7702.09	4235.17	1772580.75	14556343.37	40°04'49.2614"N	80°31'39.0646"W	2.19	
15547.00	89.600	160.090	6706.11	8817.08	-7787.59	4266.33	1772611.90	14556257.91	40°04'48.4149"N	80°31'38.6696"W	0.42	
15638.00	89.230	159.740	6707.04	8908.03	-7873.05	4297.58	1772643.14	14556172.48	40°04'47.5687"N	80°31'38.2734"W	0.56	
15730.00	89.540	159.920	6708.02	8999.98	-7959.40	4329.30	1772674.84	14556086.16	40°04'46.7137"N	80°31'37.8713"W	0.39	
15820.00	89.200	158.920	6709.01	9089.95	-8043.65	4360.94	1772706.47	14556001.94	40°04'45.8795"N	80°31'37.4701"W	1.17	
15911.00	89.690	160.150	6709.89	9180.91	-8128.90	4392.75	1772738.27	14555916.72	40°04'45.0354"N	80°31'37.0666"W	1.45	
16003.00	89.600	159.620	6710.46	9272.87	-8215.29	4424.39	1772769.89	14555830.37	40°04'44.1800"N	80°31'36.6655"W	0.58	
16093.00	89.350	161.250	6711.29	9362.78	-8300.09	4454.53	1772800.02	14555745.61	40°04'43.3405"N	80°31'36.2837"W	1.83	
16184.00	89.660	160.880	6712.08	9453.66	-8386.16	4484.05	1772829.54	14555659.57	40°04'42.4884"N	80°31'35.9097"W	0.53	
16274.00	89.290	160.720	6712.90	9543.55	-8471.15	4513.65	1772859.12	14555574.61	40°04'41.6469"N	80°31'35.5348"W	0.45	
16366.00	89.320	160.860	6714.02	9635.45	-8558.02	4543.92	1772889.38	14555487.77	40°04'40.7869"N	80°31'35.1513"W	0.16	
16458.00	88.980	160.620	6715.38	9727.34	-8644.86	4574.26	1772919.71	14555400.96	40°04'39.9271"N	80°31'34.7669"W	0.45	
16548.00	88.920	160.940	6717.03	9817.22	-8729.83	4603.89	1772949.32	14555316.03	40°04'39.0859"N	80°31'34.3917"W	0.36	
16639.00	88.680	160.380	6718.94	9908.11	-8815.67	4634.02	1772979.44	14555230.21	40°04'38.2360"N	80°31'34.0100"W	0.67	
16730.00	89.050	160.610	6720.74	9999.01	-8901.44	4664.39	1773009.81	14555144.49	40°04'37.3869"N	80°31'33.6251"W	0.48	
16820.00	89.110	160.880	6722.18	10088.90	-8986.39	4694.07	1773039.47	14555059.56	40°04'36.5458"N	80°31'33.2492"W	0.31	
16911.00	89.110	160.440	6723.60	10179.80	-9072.24	4724.20	1773069.59	14554973.74	40°04'35.6958"N	80°31'32.8674"W	0.48	
17002.00	89.260	161.080	6724.89	10270.69	-9158.15	4754.19	1773099.56	14554887.87	40°04'34.8453"N	80°31'32.4876"W	0.72	
17092.00	89.080	160.430	6726.19	10360.59	-9243.11	4783.85	1773129.21	14554802.94	40°04'34.0041"N	80°31'32.1119"W	0.75	
17183.00	89.910	161.100	6727.00	10451.48	-9329.03	4813.83	1773159.18	14554717.06	40°04'33.1535"N	80°31'31.7321"W	1.17	
17274.00	89.540	161.410	6727.43	10542.34	-9415.20	4843.07	1773188.41	14554630.92	40°04'32.3004"N	80°31'31.3619"W	0.53	
17364.00	88.680	160.550	6728.83	10632.21	-9500.28	4872.40	1773217.73	14554545.88	40°04'31.4582"N	80°31'30.9905"W	1.35	
17457.00	89.450	160.910	6730.35	10725.10	-9588.05	4903.08	1773248.40	14554458.13	40°04'30.5891"N	80°31'30.6017"W	0.91	
17548.00	88.680	160.480	6731.83	10816.00	-9673.92	4933.16	1773278.47	14554372.29	40°04'29.7390"N	80°31'30.2207"W	0.97	
17638.00	88.770	160.690	6733.84	10905.89	-9758.78	4963.07	1773308.37	14554287.47	40°04'28.8988"N	80°31'29.8418"W	0.25	
17730.00	88.770	160.420	6735.81	10997.78	-9845.52	4993.69	1773338.98	14554200.77	40°04'28.0401"N	80°31'29.4539"W	0.29	
17823.00	88.830	160.370	6737.76	11090.69	-9933.11	5024.89	1773370.16	14554113.21	40°04'27.1729"N	80°31'29.0586"W	0.08	

REFERENCE WELLPATH IDENTIFICATION

Operator	SWN PRODUCTION COMPANY, LLC	Well	Carl Rotter OHI 10H
Field	Ohio VW	API	47069003280000
Facility	Carl Rotter OHI Pad	Wellbore	Carl Rotter OHI 10H AWB
Slot	Slot 10H		

WELLPATH DATA (272 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
17914.00	89.200	161.170	6739.32	11181.57	-10019.02	5054.86	1773400.12	14554027.33	40°04'26.3223"N	80°31'28.6790"W	0.97	
18005.00	88.980	160.350	6740.77	11272.46	-10104.92	5084.84	1773430.09	14553941.46	40°04'25.4718"N	80°31'28.2992"W	0.93	
18095.00	89.510	161.230	6741.95	11362.35	-10189.90	5114.45	1773459.69	14553856.51	40°04'24.6305"N	80°31'27.9242"W	1.14	
18186.00	89.630	160.000	6742.64	11453.26	-10275.74	5144.65	1773489.88	14553770.71	40°04'23.7807"N	80°31'27.5416"W	1.36	
18277.00	89.880	160.220	6743.03	11544.20	-10361.31	5175.61	1773520.83	14553685.17	40°04'22.9334"N	80°31'27.1492"W	0.37	
18369.00	89.630	159.730	6743.42	11636.15	-10447.75	5207.11	1773552.32	14553598.77	40°04'22.0776"N	80°31'26.7499"W	0.60	
18461.00	89.260	159.760	6744.31	11728.11	-10534.05	5238.96	1773584.16	14553512.49	40°04'21.2230"N	80°31'26.3462"W	0.40	
18552.00	90.000	159.970	6744.90	11819.06	-10619.49	5270.29	1773615.47	14553427.09	40°04'20.3771"N	80°31'25.9492"W	0.85	
18644.00	89.380	159.440	6745.40	11911.02	-10705.78	5302.20	1773647.37	14553340.84	40°04'19.5227"N	80°31'25.5446"W	0.89	
18737.00	89.380	159.990	6746.40	12003.98	-10793.00	5334.44	1773679.59	14553253.64	40°04'18.6590"N	80°31'25.1359"W	0.59	
18829.00	89.750	159.380	6747.10	12095.94	-10879.28	5366.38	1773711.52	14553167.40	40°04'17.8048"N	80°31'24.7311"W	0.78	
18921.00	89.350	159.400	6747.82	12187.91	-10965.39	5398.76	1773743.89	14553081.33	40°04'16.9521"N	80°31'24.3204"W	0.44	
19011.00	89.450	160.490	6748.77	12277.86	-11049.92	5429.62	1773774.74	14552996.82	40°04'16.1151"N	80°31'23.9293"W	1.22	
19104.00	89.480	160.690	6749.64	12370.77	-11137.63	5460.53	1773805.63	14552909.15	40°04'15.2467"N	80°31'23.5378"W	0.22	
19194.00	89.510	160.930	6750.43	12460.66	-11222.63	5490.11	1773835.20	14552824.18	40°04'14.4052"N	80°31'23.1632"W	0.27	
19286.00	89.380	161.090	6751.32	12552.54	-11309.62	5520.04	1773865.13	14552737.23	40°04'13.5440"N	80°31'22.7841"W	0.22	
19377.00	89.570	160.990	6752.15	12643.41	-11395.68	5549.61	1773894.68	14552651.20	40°04'12.6920"N	80°31'22.4098"W	0.24	
19468.00	88.980	159.950	6753.30	12734.33	-11481.43	5580.03	1773925.09	14552565.48	40°04'11.8429"N	80°31'22.0244"W	1.31	
19559.00	89.380	159.600	6754.61	12825.28	-11566.81	5611.48	1773956.53	14552480.13	40°04'10.9975"N	80°31'21.6257"W	0.58	
19650.00	89.050	159.560	6755.85	12916.24	-11652.09	5643.23	1773988.27	14552394.89	40°04'10.1532"N	80°31'21.2232"W	0.37	
19741.00	89.750	160.100	6756.81	13007.19	-11737.50	5674.61	1774019.63	14552309.51	40°04'9.3074"N	80°31'20.8256"W	0.97	
19833.00	89.200	159.460	6757.65	13099.15	-11823.83	5706.40	1774051.41	14552223.22	40°04'8.4527"N	80°31'20.4226"W	0.92	
19924.00	89.170	159.850	6758.94	13190.10	-11909.14	5738.04	1774083.04	14552137.93	40°04'7.6079"N	80°31'20.0215"W	0.43	
20014.00	89.630	159.730	6759.89	13280.06	-11993.59	5769.13	1774114.12	14552053.51	40°04'6.7717"N	80°31'19.6275"W	0.53	
20104.00	89.780	159.990	6760.35	13370.01	-12078.09	5800.11	1774145.09	14551969.05	40°04'5.9350"N	80°31'19.2348"W	0.33	
20192.00	90.000	159.890	6760.52	13457.97	-12160.75	5830.30	1774175.26	14551886.42	40°04'5.1166"N	80°31'18.8522"W	0.27	
20282.00	89.720	160.640	6760.74	13547.90	-12245.46	5860.69	1774205.64	14551801.74	40°04'4.2778"N	80°31'18.4672"W	0.89	
20370.00	89.880	159.670	6761.05	13635.84	-12328.24	5890.56	1774235.50	14551719.00	40°04'3.4583"N	80°31'18.0887"W	1.12	
20458.00	90.150	159.770	6761.02	13723.81	-12410.78	5921.06	1774265.99	14551636.49	40°04'2.6410"N	80°31'17.7021"W	0.33	
20547.00	89.940	159.200	6760.95	13812.78	-12494.14	5952.25	1774297.17	14551553.16	40°04'1.8156"N	80°31'17.3067"W	0.68	

REFERENCE WELLPATH IDENTIFICATION			
Operator	SWN PRODUCTION COMPANY, LLC	Well	Carl Rotter OHI 10H
Field	Ohio VW	API	47069003280000
Facility	Carl Rotter OHI Pad	Wellbore	Carl Rotter OHI 10H AWB
Slot	Slot 10H		

WELLPATH DATA (272 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
20638.00	89.290	160.070	6761.56	13903.74	-12579.44	5983.92	1774328.83	14551467.89	40°04'0.9709"N	80°31'16.9053"W	1.19	
20730.00	89.290	162.190	6762.70	13995.60	-12666.49	6013.67	1774358.57	14551380.88	40°04'0.1091"N	80°31'16.5286"W	2.30	
20819.00	89.420	164.570	6763.71	14084.21	-12751.76	6039.12	1774384.01	14551295.64	40°03'59.2651"N	80°31'16.2072"W	2.68	
20912.00	88.860	164.770	6765.10	14176.59	-12841.44	6063.71	1774408.58	14551205.99	40°03'58.3776"N	80°31'15.8972"W	0.64	
21003.00	88.890	164.870	6766.89	14266.94	-12929.25	6087.53	1774432.40	14551118.22	40°03'57.5086"N	80°31'15.5968"W	0.11	
21093.00	89.050	165.190	6768.51	14356.27	-13016.18	6110.78	1774455.63	14551031.32	40°03'56.6483"N	80°31'15.3039"W	0.40	
21184.00	89.080	165.130	6769.99	14446.57	-13104.13	6134.08	1774478.93	14550943.40	40°03'55.7779"N	80°31'15.0102"W	0.07	
21275.00	89.140	164.780	6771.41	14536.90	-13192.00	6157.70	1774502.54	14550855.56	40°03'54.9083"N	80°31'14.7125"W	0.39	
21365.00	88.800	164.770	6773.02	14626.28	-13278.83	6181.33	1774526.16	14550768.77	40°03'54.0490"N	80°31'14.4146"W	0.38	
21457.00	89.020	164.940	6774.77	14717.62	-13367.62	6205.36	1774550.18	14550680.02	40°03'53.1703"N	80°31'14.1117"W	0.30	
21550.00	90.060	164.660	6775.52	14809.98	-13457.36	6229.74	1774574.56	14550590.31	40°03'52.2822"N	80°31'13.8043"W	1.16	
21641.00	90.090	164.910	6775.40	14900.36	-13545.17	6253.63	1774598.43	14550502.53	40°03'51.4132"N	80°31'13.5032"W	0.28	
21731.00	89.660	164.590	6775.60	14989.75	-13632.00	6277.30	1774622.09	14550415.74	40°03'50.5539"N	80°31'13.2048"W	0.60	
21823.00	89.570	164.550	6776.22	15081.16	-13720.68	6301.78	1774646.56	14550327.09	40°03'49.6762"N	80°31'12.8961"W	0.11	
21914.00	89.510	164.920	6776.95	15171.54	-13808.47	6325.73	1774670.51	14550239.33	40°03'48.8074"N	80°31'12.5941"W	0.41	
22004.00	89.600	164.960	6777.65	15260.90	-13895.37	6349.12	1774693.88	14550152.46	40°03'47.9474"N	80°31'12.2994"W	0.11	
22095.00	89.600	165.040	6778.28	15351.24	-13983.27	6372.67	1774717.43	14550064.60	40°03'47.0775"N	80°31'12.0025"W	0.09	
22183.00	89.480	165.260	6778.99	15438.57	-14068.33	6395.22	1774739.97	14549979.57	40°03'46.2357"N	80°31'11.7184"W	0.28	
22272.00	89.200	163.640	6780.01	15527.01	-14154.06	6419.08	1774763.82	14549893.87	40°03'45.3872"N	80°31'11.4175"W	1.85	
22361.00	89.540	162.520	6780.99	15615.66	-14239.20	6444.98	1774789.71	14549808.76	40°03'44.5445"N	80°31'11.0903"W	1.32	
22451.00	89.200	160.760	6781.98	15705.48	-14324.61	6473.33	1774818.04	14549723.39	40°03'43.6990"N	80°31'10.7317"W	1.99	
22541.00	89.380	158.450	6783.10	15795.44	-14408.96	6504.69	1774849.39	14549639.07	40°03'42.8638"N	80°31'10.3342"W	2.57	
22633.00	89.320	158.870	6784.14	15887.43	-14494.65	6538.16	1774882.86	14549553.42	40°03'42.0152"N	80°31'9.9096"W	0.46	
22724.00	89.320	158.660	6785.22	15978.41	-14579.46	6571.12	1774915.80	14549468.64	40°03'41.1753"N	80°31'9.4916"W	0.23	
22814.00	89.050	158.720	6786.50	16068.40	-14663.30	6603.82	1774948.49	14549384.83	40°03'40.3451"N	80°31'9.0769"W	0.31	
22905.00	89.110	157.490	6787.96	16159.39	-14747.72	6637.75	1774982.41	14549300.44	40°03'39.5090"N	80°31'8.6464"W	1.35	
22997.00	89.380	157.460	6789.17	16251.37	-14832.70	6672.99	1775017.64	14549215.50	40°03'38.6674"N	80°31'8.1990"W	0.30	
23087.00	89.350	157.730	6790.17	16341.37	-14915.90	6707.29	1775051.92	14549132.33	40°03'37.8434"N	80°31'7.7637"W	0.30	
23180.00	89.260	157.720	6791.30	16434.36	-15001.95	6742.54	1775087.16	14549046.31	40°03'36.9911"N	80°31'7.3163"W	0.10	
23270.00	88.860	157.510	6792.78	16524.34	-15085.16	6776.81	1775121.42	14548963.13	40°03'36.1670"N	80°31'6.8814"W	0.50	

REFERENCE WELLPATH IDENTIFICATION

Operator	SWN PRODUCTION COMPANY, LLC	Well	Carl Rotter OHI 10H
Field	Ohio VW	API	47069003280000
Facility	Carl Rotter OHI Pad	Wellbore	Carl Rotter OHI 10H AWB
Slot	Slot 10H		

WELLPATH DATA (272 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	DLS [°/100ft]	Comments
23310.00	89.170	157.730	6793.46	16564.33	-15122.14	6792.04	1775136.64	14548926.17	40°03'35.8008"N	80°31'6.6881"W	0.95	
23335.00‡	89.170	157.730	6793.83	16589.33	-15145.27	6801.51	1775146.11	14548903.04	40°03'35.5716"N	80°31'6.5679"W	0.00	Proj to TD: 23335'

TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Carl Rotter OHI 10H LP Rev 4	6603.00	-47.39	731.45	1769078.37	14563995.14	40°06'5.0868"N	80°32'23.6291"W	point
Carl Rotter OHI 10H BHL Rev 4	6766.00	-15145.54	6802.96	1775147.55	14548902.77	40°03'35.5689"N	80°31'6.5494"W	point
Carl Rotter OHI 10H Wp	6766.00	-14445.05	6516.30	1774861.00	14549603.00	40°03'42.5066"N	80°31'10.1874"W	point
Carl Rotter OHI Hardline	7001.70	-7371.26	3319.13	1771665.06	14556674.08	40°04'52.5786"N	80°31'50.8266"W	polygon
2D Polygon: dimensions not calculated								

REFERENCE WELLPATH IDENTIFICATION

Operator	SWN PRODUCTION COMPANY, LLC	Well	Carl Rotter OHI 10H
Field	Ohio VW	API	47069003280000
Facility	Carl Rotter OHI Pad	Wellbore	Carl Rotter OHI 10H AWB
Slot	Slot 10H		

WELLPATH COMPOSITION - Ref Wellbore: Carl Rotter OHI 10H AWB Ref Wellpath: Carl Rotter OHI 10H AWB_awp 50' - 23310' Proj: 23335'

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date
26.00	1031.00	BH Generic gyro - northseeking (Standard)	1 Imported Gyro 50' - 1031'	Carl Rotter OHI 10H AWB	4/18/2022
1031.00	2142.00	OWSG MWD rev2 + HRGM	2 Tally MWD 1139' - 2142'	Carl Rotter OHI 10H AWB	4/18/2022
2142.00	4708.00	OWSG MWD rev2 + HRGM	3 Tally MWD 2157' - 4708'	Carl Rotter OHI 10H AWB	4/18/2022
4708.00	23335.00	BH AutoTrak Curve/eXpress (2019) (HRGM, Short spacing)	4 BH MWD 4814' - 23310'	Carl Rotter OHI 10H AWB	4/18/2022