

Location: Ohio County, WV
Field: Ohio VW
Facility: Timmy Minch OHI Pad

Slot: 8H
Well: Timmy Minch OHI 8H
Wellbore: Timmy Minch OHI 8H AWB

Location Information

Facility Name			Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Timmy Minch OHI Pad			1739330.759	14558022.602	40°05'7.3880"N	80°38'46.8930"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
8H	-13.77	38.09	1739368.830	14558008.840	40°05'7.2505"N	80°38'46.4037"W
SDC 40 (KB) to Ground level (At Slot: 8H)					26ft	
Mean Sea Level to Ground level (At Slot: 8H)					-1208.2ft	
SDC 40 (KB) to Mean Sea Level					1234.2ft	

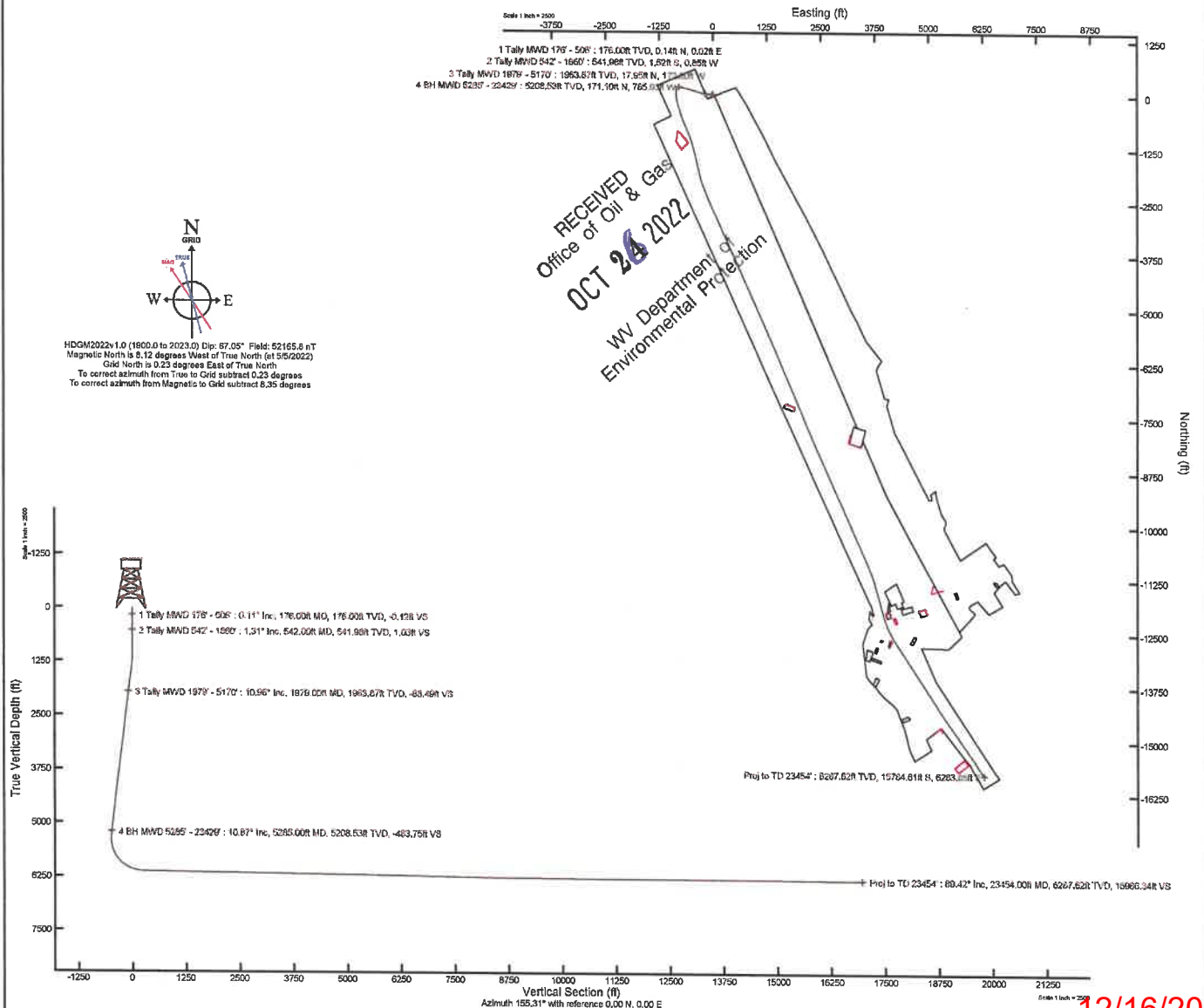
Plot reference wellpath is Timmy Minch OHI 8H awp 176° - 23429' Proj: 23454'
 True vertical depths are referenced to SDC 40 (KB)
 Reference wellpath measured depths are referenced to SDC 40 (KB)
 SDC 40 (KB) to Mean Sea Level: 1234.2 feet
 Mean Sea Level to Ground level (At Slot: 8H): -1208.2 feet
 Offset 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 2022-06-05; Database: WA_MPL_EASTERNUS_Defn

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
23454.00	89.420	147.070	6287.62	-15784.61	6283.65	1745650.03	14542230.39	40°02'31.0104"N	80°37'26.4188"W

API: 47069003350000
BH JOB: 111309774
DURATION: 05.24.2022 to 05.30.2022
RIG: SDC 40





Actual Wellpath Report

Timmy Minch OHI 8H awp 176' - 23429' Proj: 23454'



REFERENCE WELLPATH IDENTIFICATION			
Operator	SWN PRODUCTION COMPANY, LLC	Well	Timmy Minch OHI 8H
Field	Ohio VW	API	47069003350000
Facility	Timmy Minch OHI Pad	Wellbore	Timmy Minch OHI 8H AWB
Slot	8H		

REPORT SETUP INFORMATION			
Projection System	NAD83 / UTM Zone 17 North, US feet	Software System	WellArchitect® 6.0
North Reference	Grid	User	Tranlam
Scale	0.999611	Report Generated	6/6/2022 at 12:13:48 PM
Convergence at slot	0.23° 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	-13.77	38.09	1739368.83	14558008.84	40°05'7.2505"N	80°38'46.4037"W
Facility Reference Pt			1739330.76	14558022.60	40°05'7.3880"N	80°38'46.8930"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	1234.20ft
Horizontal Reference Pt	Slot	SDC 40 (KB) to Mean Sea Level	1234.20ft
Vertical Reference Pt	SDC 40 (KB)	SDC 40 (KB) to Ground Level at Slot (8H)	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	155.31°



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OCT 26 2022 Timmy Minch OHI 8H awp 176' - 23429' Proj: 23454'

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WV Department of
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REFERENCE WELLPATH IDENTIFICATION

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Field	Ohio VW	API	47069003350000
Facility	Timmy Minch OHI Pad	Wellbore	Timmy Minch OHI 8H AWB
Slot	8H		

WELLPATH DATA (261 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]
0.00†	0.000	6.180	0.00	0.00	0.00	0.00	1739368.83	14558008.84	40°05'7.2505"N	80°38'46.4037"W	0.00
26.00	0.000	6.180	26.00	0.00	0.00	0.00	1739368.83	14558008.84	40°05'7.2505"N	80°38'46.4037"W	0.00
176.00	0.110	6.180	176.00	-0.12	0.14	0.02	1739368.85	14558008.98	40°05'7.2519"N	80°38'46.4035"W	0.07
235.00	0.060	343.280	235.00	-0.20	0.23	0.01	1739368.84	14558009.07	40°05'7.2527"N	80°38'46.4035"W	0.10
326.00	0.090	321.300	326.00	-0.32	0.33	-0.05	1739368.78	14558009.17	40°05'7.2537"N	80°38'46.4043"W	0.05
416.00	0.060	251.330	416.00	-0.39	0.37	-0.13	1739368.70	14558009.21	40°05'7.2541"N	80°38'46.4054"W	0.10
506.00	1.440	198.580	505.99	0.43	-0.72	-0.54	1739368.29	14558008.12	40°05'7.2434"N	80°38'46.4107"W	1.56
542.00	1.310	204.190	541.98	1.03	-1.52	-0.85	1739367.98	14558007.32	40°05'7.2355"N	80°38'46.4148"W	0.52
598.00	1.570	200.360	597.96	1.99	-2.82	-1.38	1739367.45	14558006.02	40°05'7.2226"N	80°38'46.4216"W	0.49
689.00	1.400	221.360	688.93	3.32	-4.83	-2.55	1739366.28	14558004.01	40°05'7.2029"N	80°38'46.4368"W	0.62
779.00	2.300	247.780	778.89	3.69	-6.34	-4.95	1739363.88	14558002.51	40°05'7.1880"N	80°38'46.4677"W	1.35
870.00	4.060	252.550	869.74	3.20	-7.99	-9.71	1739359.12	14558000.85	40°05'7.1719"N	80°38'46.5291"W	1.95
961.00	4.460	250.670	960.49	2.47	-10.13	-16.12	1739352.71	14557998.71	40°05'7.1510"N	80°38'46.6117"W	0.47
1052.00	3.670	249.640	1051.26	1.92	-12.31	-22.19	1739346.65	14557996.53	40°05'7.1296"N	80°38'46.6899"W	0.87
1143.00	3.750	262.250	1142.07	0.83	-13.73	-27.87	1739340.97	14557995.12	40°05'7.1159"N	80°38'46.7630"W	0.90
1236.00	6.090	273.080	1234.72	-2.35	-13.87	-35.81	1739333.03	14557994.97	40°05'7.1148"N	80°38'46.8652"W	2.70
1326.00	8.410	279.580	1324.00	-8.29	-12.52	-47.07	1739321.78	14557996.32	40°05'7.1286"N	80°38'47.0100"W	2.73
1417.00	9.860	284.380	1413.85	-16.94	-9.48	-61.18	1739307.67	14557999.37	40°05'7.1592"N	80°38'47.1913"W	1.80
1507.00	11.310	287.650	1502.31	-27.75	-4.89	-77.06	1739291.80	14558003.95	40°05'7.2052"N	80°38'47.3953"W	1.74
1598.00	13.160	286.870	1591.24	-40.63	0.82	-95.48	1739273.39	14558009.66	40°05'7.2623"N	80°38'47.6320"W	2.04
1689.00	12.950	283.480	1679.89	-53.80	6.21	-115.30	1739253.57	14558015.04	40°05'7.3163"N	80°38'47.8869"W	0.87
1781.00	12.030	280.310	1769.71	-65.67	10.33	-134.76	1739234.12	14558019.16	40°05'7.3578"N	80°38'48.1370"W	1.25
1860.00	11.210	281.610	1847.09	-74.94	13.34	-150.38	1739218.50	14558022.18	40°05'7.3882"N	80°38'48.3378"W	1.09
1979.00	10.960	281.620	1963.87	-88.49	17.95	-172.80	1739196.10	14558026.78	40°05'7.4346"N	80°38'48.6259"W	0.21
2070.00	10.920	287.030	2053.22	-99.35	22.22	-189.51	1739179.39	14558031.05	40°05'7.4775"N	80°38'48.8407"W	1.13
2160.00	11.330	285.860	2141.53	-110.77	27.13	-206.17	1739162.74	14558035.96	40°05'7.5267"N	80°38'49.0548"W	0.52
2252.00	11.700	282.170	2231.68	-122.24	31.57	-223.98	1739144.94	14558040.39	40°05'7.5712"N	80°38'49.2837"W	0.90
2343.00	12.270	280.440	2320.70	-133.34	35.26	-242.51	1739126.42	14558044.09	40°05'7.6085"N	80°38'49.5219"W	0.74
2433.00	11.190	283.660	2408.82	-144.26	39.06	-260.40	1739108.53	14558047.88	40°05'7.6467"N	80°38'49.7519"W	1.40
2526.00	11.030	282.560	2500.07	-155.24	43.13	-277.85	1739091.09	14558051.95	40°05'7.6875"N	80°38'49.9762"W	0.29



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Actual Wellpath Report

WV Department of Environmental Protection
Timmy Minch OHI 8H awp 176' - 23429' Proj: 23454'
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REFERENCE WELLPATH IDENTIFICATION

Operator	SWN PRODUCTION COMPANY, LLC	Well	Timmy Minch OHI 8H
Field	Ohio VW	API	47069003350000
Facility	Timmy Minch OHI Pad	Wellbore	Timmy Minch OHI 8H AWB
Slot	8H		

WELLPATH DATA (261 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]
2617.00	11.670	280.350	2589.29	-165.80	46.67	-295.40	1739073.54	14558055.49	40°05'7.7233"N	80°38'50.2018"W	0.85
2708.00	10.000	284.370	2678.67	-176.06	50.29	-312.11	1739056.84	14558059.11	40°05'7.7596"N	80°38'50.4166"W	2.01
2799.00	9.610	284.650	2768.34	-185.86	54.17	-327.11	1739041.84	14558062.99	40°05'7.7986"N	80°38'50.6095"W	0.43
2890.00	10.000	283.330	2858.01	-195.54	57.91	-342.15	1739026.81	14558066.73	40°05'7.8362"N	80°38'50.8027"W	0.49
2980.00	10.250	281.640	2946.61	-205.09	61.33	-357.60	1739011.37	14558070.15	40°05'7.8705"N	80°38'51.0013"W	0.43
3070.00	9.680	288.190	3035.25	-214.99	65.31	-372.63	1738996.35	14558074.12	40°05'7.9104"N	80°38'51.1945"W	1.41
3161.00	10.550	292.090	3124.84	-226.26	70.83	-387.62	1738981.36	14558079.64	40°05'7.9656"N	80°38'51.3870"W	1.22
3254.00	11.050	291.190	3216.19	-238.87	77.25	-403.82	1738965.17	14558086.06	40°05'8.0297"N	80°38'51.5951"W	0.57
3346.00	10.980	289.590	3306.50	-251.31	83.38	-420.29	1738948.70	14558092.18	40°05'8.0909"N	80°38'51.8067"W	0.34
3436.00	10.760	287.340	3394.88	-262.92	88.75	-436.39	1738932.61	14558097.56	40°05'8.1446"N	80°38'52.0135"W	0.53
3529.00	10.600	285.200	3486.27	-274.22	93.58	-452.93	1738916.08	14558102.39	40°05'8.1930"N	80°38'52.2261"W	0.46
3620.00	11.040	285.370	3575.65	-285.20	98.09	-469.41	1738899.61	14558106.89	40°05'8.2382"N	80°38'52.4379"W	0.48
3710.00	10.800	283.770	3664.03	-295.99	102.38	-485.90	1738883.12	14558111.18	40°05'8.2812"N	80°38'52.6499"W	0.43
3801.00	10.790	284.950	3753.42	-306.72	106.61	-502.41	1738866.61	14558115.40	40°05'8.3236"N	80°38'52.8621"W	0.24
3892.00	11.620	286.810	3842.68	-318.23	111.45	-519.42	1738849.62	14558120.25	40°05'8.3722"N	80°38'53.0806"W	0.99
3983.00	11.330	285.170	3931.86	-330.03	116.44	-536.82	1738832.22	14558125.24	40°05'8.4222"N	80°38'53.3043"W	0.48
4074.00	11.490	285.160	4021.06	-341.57	121.15	-554.19	1738814.85	14558129.95	40°05'8.4694"N	80°38'53.5276"W	0.18
4165.00	10.840	282.290	4110.34	-352.52	125.34	-571.30	1738797.75	14558134.14	40°05'8.5115"N	80°38'53.7475"W	0.94
4255.00	10.570	288.100	4198.78	-363.22	129.71	-587.42	1738781.64	14558138.50	40°05'8.5553"N	80°38'53.9546"W	1.24
4346.00	11.370	284.930	4288.11	-374.61	134.61	-604.02	1738765.05	14558143.40	40°05'8.6044"N	80°38'54.1679"W	1.10
4437.00	12.170	282.600	4377.20	-386.14	139.02	-622.05	1738747.02	14558147.80	40°05'8.6486"N	80°38'54.3997"W	1.02
4531.00	12.410	279.260	4469.05	-397.79	142.80	-641.69	1738727.39	14558151.59	40°05'8.6868"N	80°38'54.6521"W	0.80
4621.00	11.330	276.340	4557.12	-407.75	145.34	-660.02	1738709.07	14558154.12	40°05'8.7125"N	80°38'54.8878"W	1.37
4712.00	10.170	281.920	4646.53	-417.15	147.98	-676.77	1738692.33	14558156.77	40°05'8.7393"N	80°38'55.1032"W	1.71
4802.00	11.070	284.970	4734.98	-427.40	151.86	-692.89	1738676.21	14558160.64	40°05'8.7783"N	80°38'55.3104"W	1.18
4894.00	12.210	282.080	4825.09	-438.86	156.17	-710.93	1738658.17	14558164.95	40°05'8.8216"N	80°38'55.5423"W	1.39
4986.00	11.600	281.050	4915.11	-450.09	159.98	-729.53	1738639.59	14558168.76	40°05'8.8600"N	80°38'55.7813"W	0.70
5077.00	11.070	279.620	5004.34	-460.36	163.20	-747.12	1738622.00	14558171.97	40°05'8.8924"N	80°38'56.0075"W	0.66
5170.00	11.000	281.800	5095.62	-470.66	166.50	-764.61	1738604.52	14558175.28	40°05'8.9258"N	80°38'56.2324"W	0.45
5285.00	10.870	282.550	5208.53	-483.75	171.10	-785.93	1738583.21	14558179.88	40°05'8.9721"N	80°38'56.5065"W	0.17



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Field	Ohio VW	API	47069003350000
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5376.00	10.920	274.000	5297.90	-493.08	173.57	-802.91	1738566.24	14558182.34	40°05'8.9971"N	80°38'56.7247"W	1.78
5469.00	10.820	237.210	5389.34	-496.09	169.45	-819.05	1738550.10	14558178.23	40°05'8.9570"N	80°38'56.9327"W	7.34
5560.00	13.380	210.740	5478.37	-488.90	155.76	-831.62	1738537.53	14558164.54	40°05'8.8223"N	80°38'57.0951"W	6.64
5652.00	17.800	196.180	5567.00	-472.21	133.09	-840.99	1738528.17	14558141.88	40°05'8.5986"N	80°38'57.2168"W	6.38
5743.00	23.670	189.940	5652.08	-446.64	101.71	-848.03	1738521.13	14558110.51	40°05'8.2887"N	80°38'57.3089"W	6.88
5830.00	29.330	184.230	5729.92	-413.59	63.22	-852.62	1738516.54	14558072.03	40°05'7.9085"N	80°38'57.3699"W	7.13
5921.00	36.490	178.830	5806.28	-369.20	13.86	-853.71	1738515.45	14558022.70	40°05'7.4209"N	80°38'57.3865"W	8.50
6012.00	42.980	173.450	5876.25	-314.84	-44.08	-849.62	1738519.55	14557964.77	40°05'6.8480"N	80°38'57.3367"W	8.07
6102.00	49.470	169.680	5938.49	-252.47	-108.29	-839.98	1738529.18	14557900.59	40°05'6.2132"N	80°38'57.2160"W	7.82
6193.00	55.240	166.310	5994.06	-182.21	-178.71	-824.92	1738544.23	14557830.20	40°05'5.5167"N	80°38'57.0258"W	6.98
6283.00	62.460	164.600	6040.58	-106.43	-253.20	-805.55	1738563.60	14557755.74	40°05'4.7799"N	80°38'56.7804"W	8.18
6376.00	69.570	163.270	6078.36	-22.48	-334.79	-782.02	1738587.11	14557674.18	40°05'3.9727"N	80°38'56.4819"W	7.76
6466.00	76.590	162.020	6104.54	62.87	-416.91	-756.34	1738612.79	14557592.09	40°05'3.1601"N	80°38'56.1556"W	7.91
6558.00	83.090	159.940	6120.76	152.93	-502.47	-726.83	1738642.29	14557506.57	40°05'2.3135"N	80°38'55.7803"W	7.41
6651.00	88.950	158.030	6127.22	245.47	-589.03	-693.57	1738675.53	14557420.04	40°05'1.4568"N	80°38'55.3568"W	6.63
6742.00	88.650	157.880	6129.12	336.36	-673.36	-659.42	1738709.67	14557335.74	40°05'0.6221"N	80°38'54.9217"W	0.37
6833.00	88.770	158.050	6131.17	427.23	-757.69	-625.29	1738743.79	14557251.45	40°04'59.7874"N	80°38'54.4869"W	0.23
6925.00	88.860	157.660	6133.07	519.12	-842.89	-590.62	1738778.44	14557166.28	40°04'58.9441"N	80°38'54.0452"W	0.43
7017.00	88.890	157.550	6134.88	611.03	-927.93	-555.57	1738813.47	14557081.27	40°04'58.1023"N	80°38'53.5987"W	0.12
7109.00	89.010	159.960	6136.57	702.84	-1013.66	-522.24	1738846.79	14556995.58	40°04'57.2539"N	80°38'53.1742"W	2.62
7202.00	88.890	162.150	6138.27	795.36	-1101.60	-492.06	1738876.97	14556907.67	40°04'56.3836"N	80°38'52.7904"W	2.36
7293.00	88.710	163.800	6140.18	885.52	-1188.59	-465.42	1738903.59	14556820.72	40°04'55.5229"N	80°38'52.4521"W	1.82
7384.00	88.770	165.450	6142.18	975.29	-1276.31	-441.30	1738927.70	14556733.03	40°04'54.6551"N	80°38'52.1463"W	1.81
7474.00	88.680	165.680	6144.18	1063.84	-1363.45	-418.87	1738950.12	14556645.93	40°04'53.7932"N	80°38'51.8621"W	0.27
7566.00	89.450	168.030	6145.68	1153.95	-1453.02	-397.95	1738971.03	14556556.39	40°04'52.9072"N	80°38'51.5976"W	2.69
7658.00	89.380	167.390	6146.62	1243.80	-1542.90	-378.37	1738990.61	14556466.54	40°04'52.0182"N	80°38'51.3503"W	0.70
7751.00	88.980	167.730	6147.95	1334.68	-1633.71	-358.34	1739010.63	14556375.77	40°04'51.1200"N	80°38'51.0972"W	0.56
7841.00	89.570	166.910	6149.09	1422.70	-1721.51	-338.58	1739030.38	14556288.01	40°04'50.2516"N	80°38'50.8475"W	1.12
7933.00	89.380	168.100	6149.93	1512.62	-1811.32	-318.68	1739050.27	14556198.23	40°04'49.3633"N	80°38'50.5961"W	1.31
8024.00	89.630	164.830	6150.72	1601.88	-1899.78	-297.39	1739071.56	14556109.80	40°04'48.4883"N	80°38'50.3266"W	3.60

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WV Department of
Environmental Protection

Actual Wellpath Report

Timmy Minch OHI 8H awp 176' - 23429' Proj: 23454'
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REFERENCE WELLPATH IDENTIFICATION

Operator	SWN PRODUCTION COMPANY, LLC	Well	Timmy Minch OHI 8H
Field	Ohio VW	API	47069003350000
Facility	Timmy Minch OHI Pad	Wellbore	Timmy Minch OHI 8H AWB
Slot	8H		

WELLPATH DATA (261 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]
8116.00	89.910	163.160	6151.09	1692.82	-1988.21	-272.02	1739096.91	14556021.41	40°04'47.6134"N	80°38'50.0048"W	1.84
8206.00	89.380	160.370	6151.65	1782.24	-2073.68	-243.86	1739125.06	14555935.97	40°04'46.7677"N	80°38'49.6469"W	3.16
8297.00	89.880	158.850	6152.24	1872.98	-2158.97	-212.16	1739156.75	14555850.71	40°04'45.9236"N	80°38'49.2434"W	1.76
8389.00	89.080	158.500	6153.07	1964.82	-2244.67	-178.70	1739190.20	14555765.05	40°04'45.0754"N	80°38'48.8174"W	0.95
8480.00	89.570	158.850	6154.14	2055.65	-2329.43	-145.61	1739223.27	14555680.32	40°04'44.2365"N	80°38'48.3961"W	0.66
8570.00	89.200	156.310	6155.11	2145.57	-2412.62	-111.29	1739257.58	14555597.17	40°04'43.4131"N	80°38'47.9588"W	2.85
8661.00	89.450	156.400	6156.18	2236.55	-2495.97	-74.80	1739294.06	14555513.84	40°04'42.5879"N	80°38'47.4936"W	0.29
8751.00	89.260	156.690	6157.19	2326.52	-2578.53	-38.98	1739329.87	14555431.32	40°04'41.7707"N	80°38'47.0370"W	0.39
8842.00	89.420	156.870	6158.24	2417.49	-2662.15	-3.10	1739365.73	14555347.73	40°04'40.9429"N	80°38'46.5798"W	0.26
8932.00	88.800	155.130	6159.64	2507.46	-2744.36	33.50	1739402.31	14555265.55	40°04'40.1291"N	80°38'46.1132"W	2.05
9022.00	89.380	156.740	6161.07	2597.44	-2826.52	70.19	1739438.99	14555183.42	40°04'39.3157"N	80°38'45.6453"W	1.90
9112.00	89.450	156.260	6161.99	2687.42	-2909.05	106.08	1739474.86	14555100.92	40°04'38.4987"N	80°38'45.1879"W	0.54
9203.00	89.020	156.770	6163.20	2778.39	-2992.51	142.34	1739511.11	14555017.50	40°04'37.6726"N	80°38'44.7257"W	0.73
9293.00	89.480	156.060	6164.38	2868.37	-3074.98	178.34	1739547.10	14554935.06	40°04'36.8561"N	80°38'44.2668"W	0.94
9383.00	89.450	155.970	6165.22	2958.36	-3157.21	214.93	1739583.67	14554852.87	40°04'36.0421"N	80°38'43.8004"W	0.11
9474.00	89.140	156.470	6166.34	3049.34	-3240.47	251.62	1739620.35	14554769.63	40°04'35.2178"N	80°38'43.3327"W	0.65
9564.00	89.080	156.080	6167.74	3139.31	-3322.86	287.82	1739656.54	14554687.28	40°04'34.4023"N	80°38'42.8711"W	0.44
9655.00	89.350	155.940	6168.99	3230.30	-3405.99	324.82	1739693.52	14554604.18	40°04'33.5793"N	80°38'42.3995"W	0.33
9746.00	89.140	155.690	6170.19	3321.29	-3489.00	362.10	1739730.79	14554521.21	40°04'32.7576"N	80°38'41.9242"W	0.36
9837.00	89.200	156.490	6171.50	3412.27	-3572.18	398.97	1739767.65	14554438.06	40°04'31.9341"N	80°38'41.4541"W	0.88
9927.00	88.980	155.210	6172.93	3502.25	-3654.29	435.79	1739804.45	14554355.98	40°04'31.1212"N	80°38'40.9847"W	1.44
10018.00	89.380	156.200	6174.24	3593.24	-3737.22	473.23	1739841.87	14554273.08	40°04'30.3002"N	80°38'40.5074"W	1.17
10108.00	89.290	156.410	6175.28	3683.22	-3819.63	509.39	1739878.02	14554190.71	40°04'29.4844"N	80°38'40.0464"W	0.25
10199.00	89.080	156.040	6176.57	3774.20	-3902.89	546.08	1739914.69	14554107.47	40°04'28.6601"N	80°38'39.5788"W	0.47
10290.00	89.290	156.170	6177.87	3865.18	-3986.09	582.93	1739951.53	14554024.31	40°04'27.8366"N	80°38'39.1090"W	0.27
10380.00	89.350	156.050	6178.94	3955.16	-4068.37	619.38	1739987.97	14553942.06	40°04'27.0220"N	80°38'38.6444"W	0.15
10471.00	89.200	155.920	6180.09	4046.15	-4151.49	656.41	1740024.98	14553858.98	40°04'26.1992"N	80°38'38.1723"W	0.22
10562.00	89.290	156.080	6181.29	4137.14	-4234.61	693.42	1740061.98	14553775.88	40°04'25.3762"N	80°38'37.7005"W	0.20
10652.00	89.380	156.020	6182.33	4227.12	-4316.86	729.95	1740098.50	14553693.67	40°04'24.5620"N	80°38'37.2349"W	0.12
10743.00	89.450	155.740	6183.26	4318.11	-4399.91	767.14	1740135.67	14553610.65	40°04'23.7398"N	80°38'36.7608"W	0.32

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Actual Wellpath Report

Timmy Minch OHI 8H awp 176' - 23429' Proj: 23454'
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Field	Ohio VW	API	47069003350000
Facility	Timmy Minch OHI Pad	Wellbore	Timmy Minch OHI 8H AWB
Slot	8H		

WELLPATH DATA (261 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]
10833.00	89.290	156.040	6184.25	4408.10	-4482.05	803.90	1740172.41	14553528.54	40°04'22.9266"N	80°38'36.2922"W	0.38
10924.00	89.420	155.760	6185.27	4499.09	-4565.11	841.05	1740209.56	14553445.51	40°04'22.1043"N	80°38'35.8185"W	0.34
11015.00	89.200	156.500	6186.37	4590.07	-4648.32	877.88	1740246.36	14553362.33	40°04'21.2806"N	80°38'35.3492"W	0.85
11105.00	88.980	155.950	6187.80	4680.05	-4730.67	914.15	1740282.63	14553280.01	40°04'20.4653"N	80°38'34.8868"W	0.66
11196.00	89.080	155.610	6189.34	4771.04	-4813.65	951.48	1740319.94	14553197.07	40°04'19.6439"N	80°38'34.4109"W	0.39
11287.00	89.750	156.350	6190.27	4862.02	-4896.77	988.52	1740356.96	14553113.99	40°04'18.8211"N	80°38'33.9387"W	1.10
11377.00	89.350	156.270	6190.98	4952.01	-4979.18	1024.68	1740393.11	14553031.61	40°04'18.0052"N	80°38'33.4779"W	0.45
11467.00	89.290	155.940	6192.04	5041.99	-5061.46	1061.13	1740429.55	14552949.36	40°04'17.1907"N	80°38'33.0132"W	0.37
11558.00	89.320	156.300	6193.15	5132.98	-5144.66	1097.97	1740466.37	14552866.19	40°04'16.3670"N	80°38'32.5437"W	0.40
11649.00	89.230	155.490	6194.30	5223.96	-5227.72	1135.13	1740503.52	14552783.16	40°04'15.5447"N	80°38'32.0700"W	0.90
11739.00	89.290	155.860	6195.46	5313.95	-5309.72	1172.20	1740540.57	14552701.19	40°04'14.7329"N	80°38'31.5974"W	0.42
11830.00	89.350	156.110	6196.54	5404.94	-5392.84	1209.23	1740577.59	14552618.11	40°04'13.9100"N	80°38'31.1254"W	0.28
11921.00	88.980	157.110	6197.87	5495.91	-5476.35	1245.35	1740613.70	14552534.63	40°04'13.0833"N	80°38'30.6651"W	1.17
12011.00	89.230	156.670	6199.27	5585.86	-5559.12	1280.67	1740649.00	14552451.89	40°04'12.2640"N	80°38'30.2151"W	0.56
12102.00	88.950	156.440	6200.72	5676.83	-5642.60	1316.88	1740685.19	14552368.45	40°04'11.4376"N	80°38'29.7537"W	0.40
12192.00	89.010	156.420	6202.32	5766.80	-5725.08	1352.86	1740721.16	14552286.00	40°04'10.6211"N	80°38'29.2952"W	0.07
12283.00	89.750	157.230	6203.31	5857.76	-5808.73	1388.67	1740756.95	14552202.38	40°04'9.7931"N	80°38'28.8389"W	1.21
12374.00	88.860	155.640	6204.41	5948.73	-5892.13	1425.04	1740793.32	14552119.01	40°04'8.9674"N	80°38'28.3753"W	2.00
12464.00	89.540	157.590	6205.67	6038.69	-5974.72	1460.76	1740829.02	14552036.45	40°04'8.1498"N	80°38'27.9202"W	2.29
12555.00	89.110	157.460	6206.74	6129.62	-6058.81	1495.54	1740863.79	14551952.40	40°04'7.3175"N	80°38'27.4772"W	0.49
12646.00	88.920	157.460	6208.30	6220.54	-6142.84	1530.42	1740898.65	14551868.40	40°04'6.4856"N	80°38'27.0329"W	0.21
12736.00	88.830	157.050	6210.07	6310.47	-6225.83	1565.21	1740933.43	14551785.45	40°04'5.6642"N	80°38'26.5897"W	0.47
12827.00	88.830	157.140	6211.93	6401.41	-6309.63	1600.62	1740968.83	14551701.67	40°04'4.8346"N	80°38'26.1386"W	0.10
12918.00	88.890	157.170	6213.74	6492.34	-6393.48	1635.95	1741004.14	14551617.86	40°04'4.0046"N	80°38'25.6887"W	0.07
13008.00	88.680	156.940	6215.65	6582.28	-6476.34	1671.02	1741039.20	14551535.03	40°04'3.1844"N	80°38'25.2418"W	0.35
13099.00	88.680	156.900	6217.74	6673.22	-6560.03	1706.69	1741074.85	14551451.37	40°04'2.3559"N	80°38'24.7874"W	0.04
13189.00	88.740	157.040	6219.77	6763.16	-6642.84	1741.89	1741110.04	14551368.60	40°04'1.5362"N	80°38'24.3390"W	0.17
13280.00	88.120	157.220	6222.26	6854.08	-6726.65	1777.24	1741145.38	14551284.81	40°04'0.7065"N	80°38'23.8886"W	0.71
13371.00	89.020	156.560	6224.53	6945.01	-6810.32	1812.95	1741181.07	14551201.18	40°03'59.8782"N	80°38'23.4337"W	1.23
13462.00	88.920	156.650	6226.17	7035.98	-6893.83	1849.07	1741217.18	14551117.70	40°03'59.0516"N	80°38'22.9734"W	0.15

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Actual Wellpath Report

Timmy Minch OHI 8H awp 176' - 23429' Proj: 23454'

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REFERENCE WELLPATH IDENTIFICATION

Operator	SWN PRODUCTION COMPANY, LLC	Well	Timmy Minch OHI 8H
Field	Ohio VW	API	47069003350000
Facility	Timmy Minch OHI Pad	Wellbore	Timmy Minch OHI 8H AWB
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WELLPATH DATA (261 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]
13552.00	89.080	157.480	6227.74	7125.92	-6976.70	1884.14	1741252.23	14551034.87	40°03'58.2312"N	80°38'22.5267"W	0.94
13643.00	89.080	157.250	6229.20	7216.85	-7060.68	1919.16	1741287.24	14550950.92	40°03'57.3999"N	80°38'22.0807"W	0.25
13734.00	88.950	157.020	6230.77	7307.79	-7144.52	1954.51	1741322.58	14550867.11	40°03'56.5700"N	80°38'21.6303"W	0.29
13825.00	89.140	157.390	6232.28	7398.73	-7228.40	1989.76	1741357.82	14550783.27	40°03'55.7397"N	80°38'21.1813"W	0.46
13915.00	89.140	156.960	6233.63	7488.67	-7311.34	2024.67	1741392.71	14550700.36	40°03'54.9186"N	80°38'20.7366"W	0.48
14006.00	88.800	156.940	6235.27	7579.62	-7395.06	2060.30	1741428.32	14550616.67	40°03'54.0899"N	80°38'20.2828"W	0.37
14096.00	89.020	157.080	6236.98	7669.56	-7477.90	2095.44	1741463.45	14550533.86	40°03'53.2698"N	80°38'19.8351"W	0.29
14187.00	89.320	157.560	6238.30	7760.50	-7561.85	2130.52	1741498.52	14550449.94	40°03'52.4388"N	80°38'19.3883"W	0.62
14277.00	89.200	157.560	6239.46	7850.42	-7645.03	2164.88	1741532.86	14550366.80	40°03'51.6154"N	80°38'18.9508"W	0.13
14368.00	89.080	156.780	6240.83	7941.36	-7728.89	2200.18	1741568.15	14550282.97	40°03'50.7853"N	80°38'18.5011"W	0.87
14458.00	89.290	156.890	6242.11	8031.32	-7811.63	2235.58	1741603.54	14550200.26	40°03'49.9663"N	80°38'18.0501"W	0.26
14551.00	89.080	156.890	6243.43	8124.27	-7897.16	2272.08	1741640.02	14550114.77	40°03'49.1196"N	80°38'17.5852"W	0.23
14642.00	89.170	157.410	6244.82	8215.22	-7981.01	2307.41	1741675.34	14550030.95	40°03'48.2896"N	80°38'17.1351"W	0.58
14732.00	89.170	157.130	6246.12	8305.15	-8064.01	2342.18	1741710.10	14549947.98	40°03'47.4680"N	80°38'16.6922"W	0.31
14822.00	89.540	157.370	6247.14	8395.10	-8147.00	2376.99	1741744.89	14549865.02	40°03'46.6464"N	80°38'16.2490"W	0.49
14913.00	88.580	154.800	6248.63	8486.07	-8230.17	2413.87	1741781.75	14549781.89	40°03'45.8230"N	80°38'15.7790"W	3.01
15003.00	89.600	155.790	6250.06	8576.05	-8311.92	2451.48	1741819.35	14549700.17	40°03'45.0137"N	80°38'15.2996"W	1.58
15094.00	89.420	155.270	6250.84	8667.05	-8394.74	2489.17	1741857.02	14549617.38	40°03'44.1937"N	80°38'14.8191"W	0.60
15184.00	89.970	156.210	6251.32	8757.04	-8476.79	2526.15	1741893.99	14549535.36	40°03'43.3814"N	80°38'14.3479"W	1.21
15275.00	89.660	156.190	6251.61	8848.03	-8560.05	2562.87	1741930.70	14549452.13	40°03'42.5571"N	80°38'13.8799"W	0.34
15366.00	89.570	155.830	6252.22	8939.02	-8643.19	2599.87	1741967.68	14549369.03	40°03'41.7340"N	80°38'13.4085"W	0.41
15456.00	89.690	156.260	6252.80	9029.01	-8725.43	2636.41	1742004.21	14549286.82	40°03'40.9198"N	80°38'12.9428"W	0.50
15547.00	89.880	155.830	6253.15	9120.01	-8808.59	2673.35	1742041.14	14549203.69	40°03'40.0965"N	80°38'12.4720"W	0.52
15638.00	89.720	155.960	6253.46	9211.00	-8891.66	2710.52	1742078.29	14549120.66	40°03'39.2742"N	80°38'11.9984"W	0.23
15729.00	89.660	156.510	6253.96	9301.99	-8974.94	2747.19	1742114.95	14549037.41	40°03'38.4497"N	80°38'11.5311"W	0.61
15820.00	89.690	156.220	6254.47	9392.97	-9058.31	2783.67	1742151.41	14548954.07	40°03'37.6244"N	80°38'11.0663"W	0.32
15911.00	89.780	156.480	6254.89	9483.95	-9141.66	2820.18	1742187.90	14548870.75	40°03'36.7992"N	80°38'10.6012"W	0.30
16001.00	89.600	156.080	6255.38	9573.94	-9224.06	2856.38	1742224.09	14548788.39	40°03'35.9835"N	80°38'10.1400"W	0.49
16092.00	89.720	155.970	6255.92	9664.93	-9307.21	2893.36	1742261.05	14548705.27	40°03'35.1603"N	80°38'9.6688"W	0.18
16183.00	89.750	156.090	6256.34	9755.92	-9390.36	2930.32	1742298.01	14548622.15	40°03'34.3371"N	80°38'9.1977"W	0.14



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16273.00	89.570	155.780	6256.87	9845.92	-9472.53	2967.02	1742334.69	14548540.01	40°03'33.5235"N	80°38'8.7301"W	0.40
16364.00	89.690	156.280	6257.46	9936.91	-9555.68	3003.99	1742371.65	14548456.89	40°03'32.7003"N	80°38'8.2590"W	0.57
16455.00	89.660	156.020	6257.98	10027.89	-9638.91	3040.79	1742408.43	14548373.70	40°03'31.8764"N	80°38'7.7902"W	0.29
16545.00	89.750	156.350	6258.44	10117.88	-9721.25	3077.13	1742444.75	14548291.39	40°03'31.0613"N	80°38'7.3272"W	0.38
16636.00	89.780	155.960	6258.81	10208.87	-9804.48	3113.91	1742481.53	14548208.19	40°03'30.2373"N	80°38'6.8584"W	0.43
16726.00	89.630	155.690	6259.28	10298.87	-9886.58	3150.77	1742518.37	14548126.12	40°03'29.4244"N	80°38'6.3888"W	0.34
16817.00	89.850	156.450	6259.69	10389.86	-9969.76	3187.68	1742555.27	14548042.98	40°03'28.6009"N	80°38'5.9185"W	0.87
16908.00	89.510	156.110	6260.20	10480.84	-10053.07	3224.29	1742591.86	14547959.70	40°03'27.7762"N	80°38'5.4521"W	0.53
16999.00	89.660	156.280	6260.86	10571.83	-10136.33	3261.02	1742628.57	14547876.47	40°03'26.9519"N	80°38'4.9841"W	0.25
17089.00	89.820	156.190	6261.27	10661.82	-10218.69	3297.28	1742664.83	14547794.14	40°03'26.1365"N	80°38'4.5221"W	0.20
17180.00	89.600	155.810	6261.73	10752.81	-10301.83	3334.30	1742701.82	14547711.04	40°03'25.3135"N	80°38'4.0505"W	0.48
17270.00	89.720	155.780	6262.26	10842.80	-10383.91	3371.20	1742738.71	14547628.99	40°03'24.5008"N	80°38'3.5803"W	0.14
17361.00	89.940	156.270	6262.53	10933.80	-10467.06	3408.17	1742775.67	14547545.87	40°03'23.6776"N	80°38'3.1091"W	0.59
17452.00	89.780	156.580	6262.75	11024.78	-10550.46	3444.57	1742812.05	14547462.50	40°03'22.8519"N	80°38'2.6455"W	0.38
17542.00	90.000	156.690	6262.93	11114.75	-10633.08	3480.26	1742847.73	14547379.91	40°03'22.0340"N	80°38'2.1909"W	0.27
17633.00	89.850	156.190	6263.05	11205.74	-10716.50	3516.63	1742884.09	14547296.53	40°03'21.2082"N	80°38'1.7275"W	0.57
17724.00	89.940	156.500	6263.21	11296.72	-10799.85	3553.15	1742920.59	14547213.21	40°03'20.3830"N	80°38'1.2624"W	0.35
17815.00	89.820	156.140	6263.40	11387.71	-10883.19	3589.69	1742957.12	14547129.90	40°03'19.5580"N	80°38'0.7968"W	0.42
17905.00	89.630	158.360	6263.84	11477.65	-10966.18	3624.50	1742991.91	14547046.94	40°03'18.7364"N	80°38'0.3536"W	2.48
17996.00	90.030	158.410	6264.11	11568.52	-11050.78	3658.02	1743025.42	14546962.38	40°03'17.8990"N	80°37'59.9270"W	0.44
18087.00	89.910	160.420	6264.15	11659.28	-11135.97	3690.01	1743057.40	14546877.22	40°03'17.0559"N	80°37'59.5201"W	2.21
18178.00	90.090	162.330	6264.15	11749.76	-11222.20	3719.07	1743086.45	14546791.03	40°03'16.2026"N	80°37'59.1510"W	2.11
18268.00	89.850	164.440	6264.20	11838.87	-11308.43	3744.81	1743112.17	14546704.82	40°03'15.3493"N	80°37'58.8246"W	2.36
18358.00	89.820	164.470	6264.46	11927.72	-11395.14	3768.92	1743136.28	14546618.15	40°03'14.4915"N	80°37'58.5190"W	0.05
18449.00	90.000	164.360	6264.60	12017.58	-11482.80	3793.37	1743160.72	14546530.53	40°03'13.6243"N	80°37'58.2093"W	0.23
18540.00	89.880	164.230	6264.70	12107.46	-11570.40	3818.01	1743185.34	14546442.96	40°03'12.7576"N	80°37'57.8972"W	0.19
18631.00	89.720	165.070	6265.02	12197.25	-11658.15	3842.09	1743209.42	14546355.24	40°03'11.8894"N	80°37'57.5920"W	0.94
18722.00	89.850	165.050	6265.36	12286.94	-11746.07	3865.55	1743232.87	14546267.36	40°03'11.0196"N	80°37'57.2950"W	0.14
18813.00	89.820	165.070	6265.62	12376.62	-11834.00	3889.02	1743256.33	14546179.47	40°03'10.1498"N	80°37'56.9980"W	0.04
18903.00	89.820	165.610	6265.90	12465.25	-11921.07	3911.79	1743279.09	14546092.43	40°03'9.2884"N	80°37'56.7097"W	0.60



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Actual Wellpath Report

Timmy Minch OHI 8H awp 176' - 23429' Proj: 23454'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	SWN PRODUCTION COMPANY, LLC	Well	Timmy Minch OHI 8H
Field	Ohio VW	API	4706900335000
Facility	Timmy Minch OHI Pad	Wellbore	Timmy Minch OHI 8H AWB
Slot	8H		

WELLPATH DATA (261 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]
18994.00	89.910	165.160	6266.12	12554.84	-12009.12	3934.75	1743302.05	14546004.41	40°03'8.4173"N	80°37'56.4191"W	0.50
19085.00	89.720	163.250	6266.41	12644.74	-12096.68	3959.52	1743326.80	14545916.89	40°03'7.5510"N	80°37'56.1053"W	2.11
19176.00	89.690	161.210	6266.88	12735.07	-12183.33	3987.29	1743354.57	14545830.27	40°03'6.6936"N	80°37'55.7528"W	2.24
19268.00	89.750	159.240	6267.33	12826.73	-12269.90	4018.42	1743385.68	14545743.73	40°03'5.8368"N	80°37'55.3571"W	2.14
19358.00	89.780	156.870	6267.70	12916.62	-12353.38	4052.05	1743419.30	14545660.29	40°03'5.0105"N	80°37'54.9291"W	2.63
19449.00	89.780	155.160	6268.05	13007.61	-12436.51	4089.04	1743456.27	14545577.19	40°03'4.1874"N	80°37'54.4579"W	1.88
19539.00	89.630	152.880	6268.51	13097.58	-12517.41	4128.46	1743495.68	14545496.32	40°03'3.3864"N	80°37'53.9552"W	2.54
19630.00	89.910	149.680	6268.88	13188.34	-12597.21	4172.18	1743539.38	14545416.56	40°03'2.5961"N	80°37'53.3972"W	3.53
19721.00	89.940	148.130	6268.99	13278.77	-12675.13	4219.18	1743586.36	14545338.66	40°03'1.8241"N	80°37'52.7971"W	1.70
19811.00	89.780	145.880	6269.21	13367.82	-12750.61	4268.19	1743635.35	14545263.21	40°03'1.0762"N	80°37'52.1709"W	2.51
19902.00	89.820	145.830	6269.53	13457.58	-12825.92	4319.26	1743686.41	14545187.93	40°03'0.3299"N	80°37'51.5181"W	0.07
19993.00	90.000	146.050	6269.67	13547.37	-12901.31	4370.23	1743737.35	14545112.57	40°02'59.5828"N	80°37'50.8668"W	0.31
20083.00	89.820	146.950	6269.82	13636.31	-12976.36	4419.90	1743787.01	14545037.55	40°02'58.8391"N	80°37'50.2320"W	1.02
20174.00	89.630	147.100	6270.25	13726.36	-13052.70	4469.43	1743836.51	14544961.24	40°02'58.0827"N	80°37'49.5992"W	0.27
20265.00	89.540	147.440	6270.91	13816.46	-13129.25	4518.63	1743885.70	14544884.72	40°02'57.3242"N	80°37'48.9707"W	0.39
20355.00	89.570	147.220	6271.61	13905.58	-13205.01	4567.21	1743934.26	14544808.99	40°02'56.5735"N	80°37'48.3500"W	0.25
20446.00	89.630	146.850	6272.25	13995.63	-13281.36	4616.73	1743983.75	14544732.68	40°02'55.8170"N	80°37'47.7174"W	0.41
20536.00	89.630	147.210	6272.83	14084.69	-13356.86	4665.70	1744032.71	14544657.20	40°02'55.0688"N	80°37'47.0917"W	0.40
20627.00	89.450	147.310	6273.56	14174.79	-13433.40	4714.92	1744081.90	14544580.69	40°02'54.3104"N	80°37'46.4629"W	0.23
20718.00	89.940	147.000	6274.04	14264.87	-13509.85	4764.27	1744131.24	14544504.27	40°02'53.5529"N	80°37'45.8324"W	0.64
20808.00	89.850	147.360	6274.21	14353.97	-13585.49	4813.05	1744180.00	14544428.66	40°02'52.8035"N	80°37'45.2092"W	0.41
20899.00	89.600	146.430	6274.64	14443.99	-13661.71	4862.75	1744229.68	14544352.47	40°02'52.0481"N	80°37'44.5742"W	1.06
20990.00	89.570	147.170	6275.30	14533.98	-13737.85	4912.58	1744279.49	14544276.35	40°02'51.2936"N	80°37'43.9376"W	0.81
21080.00	89.910	147.130	6275.71	14623.07	-13813.46	4961.40	1744328.29	14544200.78	40°02'50.5445"N	80°37'43.3139"W	0.38
21171.00	90.090	147.670	6275.71	14713.20	-13890.12	5010.43	1744377.30	14544124.14	40°02'49.7848"N	80°37'42.6876"W	0.63
21261.00	89.910	147.080	6275.71	14802.34	-13965.92	5058.95	1744425.80	14544048.37	40°02'49.0338"N	80°37'42.0678"W	0.69
21352.00	90.030	147.000	6275.76	14892.39	-14042.28	5108.46	1744475.29	14543972.05	40°02'48.2772"N	80°37'41.4353"W	0.16
21443.00	89.970	147.160	6275.76	14982.46	-14118.67	5157.91	1744524.73	14543895.69	40°02'47.5203"N	80°37'40.8035"W	0.19
21533.00	89.880	147.570	6275.88	15071.59	-14194.46	5206.45	1744573.24	14543819.93	40°02'46.7693"N	80°37'40.1834"W	0.47
21624.00	90.000	147.530	6275.97	15161.76	-14271.25	5255.28	1744622.05	14543743.17	40°02'46.0084"N	80°37'39.5597"W	0.14

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Actual Wellpath Report

Timmy Minch OHI 8H awp 176' - 23429' Proj: 23454'
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REFERENCE WELLPATH IDENTIFICATION				
Operator	SWN PRODUCTION COMPANY, LLC		Well	Timmy Minch OHI 8H
Field	Ohio VW		API	47069003350000
Facility	Timmy Minch OHI Pad		Wellbore	Timmy Minch OHI 8H AWB
Slot	8H			

WELLPATH DATA (261 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]
21714.00	89.910	147.020	6276.04	15250.88	-14346.96	5303.93	1744670.69	14543667.48	40°02'45.2582"N	80°37'38.9382"W	0.58
21805.00	89.970	145.210	6276.14	15340.70	-14422.50	5354.66	1744721.40	14543591.97	40°02'44.5096"N	80°37'38.2899"W	1.99
21895.00	90.030	145.130	6276.14	15429.30	-14496.38	5406.07	1744772.78	14543518.13	40°02'43.7774"N	80°37'37.6330"W	0.11
21987.00	89.820	144.750	6276.26	15519.79	-14571.69	5458.91	1744825.61	14543442.85	40°02'43.0310"N	80°37'36.9575"W	0.47
22078.00	90.000	145.260	6276.40	15609.33	-14646.23	5511.10	1744877.78	14543368.33	40°02'42.2922"N	80°37'36.2905"W	0.59
22168.00	89.570	145.130	6276.74	15697.93	-14720.13	5562.47	1744929.13	14543294.46	40°02'41.5598"N	80°37'35.6340"W	0.50
22259.00	89.540	144.950	6277.45	15787.46	-14794.71	5614.61	1744981.25	14543219.91	40°02'40.8206"N	80°37'34.9675"W	0.20
22349.00	89.660	145.540	6278.07	15876.08	-14868.65	5665.92	1745032.53	14543146.00	40°02'40.0878"N	80°37'34.3119"W	0.67
22440.00	89.320	145.190	6278.88	15965.71	-14943.52	5717.64	1745084.23	14543071.16	40°02'39.3458"N	80°37'33.6509"W	0.54
22531.00	89.510	145.250	6279.81	16055.29	-15018.26	5769.54	1745136.12	14542996.45	40°02'38.6050"N	80°37'32.9876"W	0.22
22622.00	89.510	145.230	6280.59	16144.89	-15093.02	5821.42	1745187.98	14542921.72	40°02'37.8641"N	80°37'32.3245"W	0.02
22713.00	89.690	145.320	6281.23	16234.49	-15167.81	5873.26	1745239.79	14542846.96	40°02'37.1229"N	80°37'31.6621"W	0.22
22803.00	89.510	145.220	6281.86	16323.11	-15241.77	5924.53	1745291.05	14542773.02	40°02'36.3898"N	80°37'31.0068"W	0.23
22895.00	89.540	144.890	6282.62	16413.64	-15317.18	5977.23	1745343.72	14542697.64	40°02'35.6424"N	80°37'30.3334"W	0.36
22986.00	89.660	145.370	6283.25	16503.21	-15391.84	6029.25	1745395.73	14542623.01	40°02'34.9025"N	80°37'29.6685"W	0.54
23076.00	89.780	147.550	6283.69	16592.13	-15466.85	6078.97	1745445.43	14542548.03	40°02'34.1591"N	80°37'29.0333"W	2.43
23166.00	89.230	147.210	6284.47	16681.26	-15542.65	6127.49	1745493.92	14542472.26	40°02'33.4080"N	80°37'28.4136"W	0.72
23258.00	89.660	147.220	6285.36	16772.34	-15619.99	6177.30	1745543.72	14542394.95	40°02'32.6417"N	80°37'27.7773"W	0.47
23350.00	89.110	147.140	6286.35	16863.41	-15697.30	6227.16	1745593.56	14542317.67	40°02'31.8756"N	80°37'27.1404"W	0.60
23429.00	89.420	147.070	6287.36	16941.60	-15763.63	6270.07	1745636.44	14542251.37	40°02'31.2183"N	80°37'26.5924"W	0.40
23454.00‡	89.420	147.070	6287.62	16966.34	-15784.61	6283.65	1745650.03	14542230.39	40°02'31.0104"N	80°37'26.4188"W	0.00



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Actual Wellpath Report

Timmy Minch OHI 8H awp 176' - 23429' Proj: 23454'

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WV Department of
Environmental Protection

REFERENCE WELLPATH IDENTIFICATION			
Operator	SWN PRODUCTION COMPANY, LLC	Well	Timmy Minch OHI 8H
Field	Ohio VW	API	47069003350000
Facility	Timmy Minch OHI Pad	Wellbore	Timmy Minch OHI 8H AWB
Slot	8H		

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Timmy Minch OHI 8H LP Rev 3	6117.00	-554.57	-727.95	1738641.16	14557454.49	40°05'1.7987"N	80°38'55.7974"W	point
Timmy Minch OHI 8H PBHL Rev 3	6275.00	-15924.52	6337.98	1745704.33	14542090.54	40°02'29.6256"N	80°37'25.7280"W	point
Timmy Minch OHI 8H WP1	6275.20	-11100.05	3687.74	1743055.13	14546913.13	40°03'17.4110"N	80°37'59.5474"W	point
Timmy Minch OHI 8H WP2	6275.20	-12060.27	3958.61	1743325.89	14545953.28	40°03'7.9108"N	80°37'56.1151"W	point
Timmy Minch OHI 8H WP3	6275.20	-12640.81	4196.60	1743563.79	14545372.97	40°03'2.1642"N	80°37'53.0856"W	point

WELLPATH COMPOSITION - Ref Wellbore: Timmy Minch OHI 8H AWB Ref Wellpath: Timmy Minch OHI 8H awp 176' - 23429' Proj: 23454'					
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date
26.00	506.00	OWSG MWD rev2 + HRGM	1 Tally MWD 176' - 506'	Timmy Minch OHI 8H AWB	5/23/2022
506.00	1860.00	OWSG MWD rev2 + HRGM	2 Tally MWD 542' - 1860'	Timmy Minch OHI 8H AWB	5/23/2022
1860.00	5170.00	OWSG MWD rev2 + HRGM	3 Tally MWD 1979' - 5170'	Timmy Minch OHI 8H AWB	5/23/2022
5170.00	23454.00	BH AutoTrak Curve/eXpress (2019) (HRGM, Short spacing)	4 BH MWD 5285' - 23429'	Timmy Minch OHI 8H AWB	5/23/2022