



Actual Wellpath Report

SWN A WTZ 401H awp Proj: 17178'
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AUG 04 2022

WV Department of
Environmental Protection



REFERENCE WELLPATH IDENTIFICATION

Operator	SWN PRODUCTION COMPANY, LLC	Well	SWN A WTZ 401H
Field	Wetzel WV	API	47103034530000
Facility	SWN A WTZ Pad	Wellbore	SWN A WTZ 401H AWB
Slot	Slot 401H		

REPORT SETUP INFORMATION

Projection System	NAD83 / UTM Zone 17 North, US feet	Software System	WellArchitect® 6.0
North Reference	Grid	User	Tranlam
Scale	0.999612	Report Generated	2/24/2022 at 7:12:29 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	-15.07	103.65	1741788.38	14411376.47	39°40'57.5029"N	80°38'22.8731"W
Facility Reference Pt			1741684.77	14411391.54	39°40'57.6560"N	80°38'24.1980"W
Field Reference Pt			0.00	0.00	0°00'0.0000"	85°29'19.4780"W

WELLPATH DATUM

Calculation method	Minimum curvature	SDC 41 (RKB) to Facility Vertical Datum	1369.20ft
Horizontal Reference Pt	Slot	SDC 41 (RKB) to Mean Sea Level	1369.20ft
Vertical Reference Pt	SDC 41 (RKB)	SDC 41 (RKB) to Ground Level at Slot (Slot 401H)	26.00ft
MD Reference Pt	SDC 41 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	310.63°

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Facility	SWN A WTZ Pad	Wellbore	SWN A WTZ 401H AWB
Slot	Slot 401H		

WELLPATH DATA (192 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]
0.00†	0.000	304.090	0.00	0.00	0.00	0.00	1741788.38	14411376.47	39°40'57.5029"N	80°38'22.8731"W	0.00	0.000	0.00
26.00	0.000	304.090	26.00	0.00	0.00	0.00	1741788.38	14411376.47	39°40'57.5029"N	80°38'22.8731"W	0.00	0.000	0.00
150.00	0.090	304.090	150.00	0.10	0.05	-0.08	1741788.30	14411376.52	39°40'57.5035"N	80°38'22.8741"W	0.10	304.090	0.07
200.00	0.300	1.360	200.00	0.22	0.21	-0.11	1741788.27	14411376.68	39°40'57.5050"N	80°38'22.8745"W	0.23	332.052	0.52
250.00	0.240	317.750	250.00	0.41	0.42	-0.18	1741788.20	14411376.89	39°40'57.5071"N	80°38'22.8753"W	0.45	336.900	0.42
300.00	0.300	341.970	300.00	0.62	0.62	-0.29	1741788.09	14411377.09	39°40'57.5091"N	80°38'22.8767"W	0.68	334.985	0.26
338.00	0.330	348.500	338.00	0.79	0.82	-0.34	1741788.04	14411377.29	39°40'57.5110"N	80°38'22.8774"W	0.89	337.417	0.12
421.00	0.860	310.590	420.99	1.60	1.46	-0.86	1741787.52	14411377.93	39°40'57.5174"N	80°38'22.8840"W	1.69	329.440	0.76
512.00	2.130	296.240	511.96	3.93	2.65	-2.90	1741785.48	14411379.12	39°40'57.5293"N	80°38'22.9100"W	3.93	312.463	1.44
604.00	3.220	302.100	603.86	8.14	4.78	-6.62	1741781.76	14411381.25	39°40'57.5504"N	80°38'22.9575"W	8.17	305.835	1.22
696.00	4.180	291.110	695.67	13.85	7.36	-11.94	1741776.45	14411383.83	39°40'57.5762"N	80°38'23.0254"W	14.02	301.661	1.29
787.00	4.070	278.570	786.43	19.72	9.04	-18.22	1741770.16	14411385.50	39°40'57.5930"N	80°38'23.1057"W	20.34	296.376	1.00
880.00	3.050	238.910	879.27	23.29	8.25	-23.61	1741764.78	14411384.72	39°40'57.5854"N	80°38'23.1746"W	25.01	289.265	2.79
971.00	2.870	188.250	970.16	22.83	4.75	-26.01	1741762.38	14411381.21	39°40'57.5509"N	80°38'23.2055"W	26.44	280.341	2.79
1062.00	3.740	167.880	1061.01	19.25	-0.41	-25.71	1741762.68	14411376.06	39°40'57.4999"N	80°38'23.2020"W	25.71	269.084	1.59
1154.00	4.940	190.110	1152.75	14.84	-7.25	-25.78	1741762.61	14411369.23	39°40'57.4324"N	80°38'23.2031"W	26.78	254.300	2.22
1247.00	6.910	213.920	1245.26	12.16	-15.83	-29.60	1741758.79	14411360.64	39°40'57.3476"N	80°38'23.2525"W	33.57	241.861	3.34
1336.00	9.240	220.960	1333.38	11.57	-25.67	-37.28	1741751.12	14411350.81	39°40'57.2507"N	80°38'23.3512"W	45.26	235.444	2.84
1428.00	10.320	217.570	1424.04	11.18	-37.78	-47.14	1741741.26	14411338.70	39°40'57.1314"N	80°38'23.4780"W	60.41	231.290	1.33
1519.00	10.470	215.060	1513.55	9.94	-51.01	-56.86	1741731.54	14411325.48	39°40'57.0011"N	80°38'23.6030"W	76.39	228.105	0.52
1610.00	10.530	209.850	1603.03	7.58	-64.99	-65.75	1741722.66	14411311.50	39°40'56.8633"N	80°38'23.7174"W	92.45	225.333	1.05
1701.00	11.390	205.970	1692.37	3.75	-80.28	-73.82	1741714.58	14411296.22	39°40'56.7125"N	80°38'23.8214"W	109.06	222.600	1.24
1791.00	13.210	207.510	1780.30	-0.83	-97.39	-82.47	1741705.95	14411279.11	39°40'56.5437"N	80°38'23.9329"W	127.62	220.256	2.05
1882.00	15.940	211.120	1868.36	-5.26	-117.32	-93.73	1741694.69	14411259.20	39°40'56.3472"N	80°38'24.0779"W	150.16	218.623	3.16
1973.00	19.510	212.060	1955.03	-9.59	-140.90	-108.26	1741680.16	14411235.62	39°40'56.1147"N	80°38'24.2650"W	177.69	217.536	3.94
2064.00	21.710	209.870	2040.20	-15.00	-168.38	-124.71	1741663.72	14411208.16	39°40'55.8438"N	80°38'24.4768"W	209.53	216.526	2.56
2154.00	23.100	208.870	2123.40	-21.70	-198.27	-141.52	1741646.91	14411178.27	39°40'55.5490"N	80°38'24.6934"W	243.60	215.518	1.60
2245.00	22.320	211.210	2207.35	-28.17	-228.69	-159.10	1741629.34	14411147.87	39°40'55.2492"N	80°38'24.9198"W	278.59	214.826	1.31
2336.00	23.420	211.510	2291.20	-33.87	-258.89	-177.50	1741610.94	14411117.69	39°40'54.9515"N	80°38'25.1567"W	313.89	214.436	1.22
2428.00	25.370	210.350	2374.98	-40.28	-291.48	-197.02	1741591.44	14411085.10	39°40'54.6301"N	80°38'25.4080"W	351.82	214.056	2.18

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Facility	SWN A WTZ Pad	Wellbore	SWN A WTZ 401H AWB
Slot	Slot 401H		

WELLPATH DATA (192 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]
2519.00	26.560	208.790	2456.79	-47.93	-326.14	-216.67	1741571.79	14411050.46	39°40'54.2884"N	80°38'25.6611"W	391.55	213.598	1.51
2610.00	26.220	209.040	2538.31	-56.15	-361.55	-236.23	1741552.25	14411015.07	39°40'53.9392"N	80°38'25.9131"W	431.88	213.160	0.39
2701.00	24.430	210.440	2620.56	-63.52	-395.35	-255.52	1741532.96	14410981.28	39°40'53.6059"N	80°38'26.1616"W	470.73	212.875	2.07
2792.00	22.710	211.850	2703.97	-69.53	-426.50	-274.33	1741514.16	14410950.14	39°40'53.2988"N	80°38'26.4037"W	507.10	212.750	1.99
2878.00	19.260	211.910	2784.25	-74.21	-452.65	-290.59	1741497.90	14410924.00	39°40'53.0411"N	80°38'26.6130"W	537.89	212.700	4.01
2991.00	17.610	210.240	2891.45	-80.12	-483.24	-309.05	1741479.45	14410893.42	39°40'52.7395"N	80°38'26.8507"W	573.61	212.601	1.53
3085.00	24.100	209.320	2979.24	-86.46	-512.28	-325.63	1741462.88	14410864.39	39°40'52.4530"N	80°38'27.0642"W	607.01	212.442	6.91
3177.00	26.390	208.590	3062.45	-94.41	-546.62	-344.61	1741443.90	14410830.06	39°40'52.1145"N	80°38'27.3088"W	646.18	212.229	2.51
3267.00	28.780	209.480	3142.21	-102.77	-583.05	-364.85	1741423.68	14410793.65	39°40'51.7553"N	80°38'27.5695"W	687.79	212.037	2.69
3359.00	29.910	211.750	3222.41	-110.59	-621.83	-387.82	1741400.71	14410754.88	39°40'51.3729"N	80°38'27.8653"W	732.86	211.950	1.72
3450.00	30.100	212.680	3301.22	-117.25	-660.33	-412.08	1741376.46	14410716.39	39°40'50.9933"N	80°38'28.1775"W	778.36	211.966	0.55
3541.00	28.990	214.090	3380.38	-122.92	-697.80	-436.76	1741351.79	14410678.94	39°40'50.6240"N	80°38'28.4951"W	823.22	212.043	1.44
3633.00	29.240	213.110	3460.76	-128.40	-735.09	-461.53	1741327.03	14410641.67	39°40'50.2565"N	80°38'28.8139"W	867.97	212.123	0.59
3724.00	28.300	214.190	3540.52	-133.73	-771.55	-485.79	1741302.78	14410605.22	39°40'49.8971"N	80°38'29.1260"W	911.75	212.196	1.18
3816.00	28.390	213.500	3621.49	-138.89	-807.83	-510.12	1741278.46	14410568.96	39°40'49.5396"N	80°38'29.4390"W	955.41	212.271	0.37
3906.00	28.970	211.440	3700.45	-145.03	-844.27	-533.30	1741255.29	14410532.53	39°40'49.1803"N	80°38'29.7374"W	998.59	212.279	1.27
3997.00	28.190	211.720	3780.37	-151.87	-881.35	-556.09	1741232.50	14410495.46	39°40'48.8147"N	80°38'30.0308"W	1042.12	212.250	0.87
4088.00	27.730	210.400	3860.74	-158.96	-917.90	-578.11	1741210.50	14410458.93	39°40'48.4544"N	80°38'30.3143"W	1084.78	212.204	0.85
4178.00	28.090	208.340	3940.28	-167.19	-954.61	-598.76	1741189.85	14410422.24	39°40'48.0925"N	80°38'30.5803"W	1126.85	212.097	1.14
4270.00	27.960	209.900	4021.49	-175.82	-992.37	-619.80	1741168.83	14410384.49	39°40'47.7201"N	80°38'30.8513"W	1170.02	211.987	0.81
4360.00	28.110	209.900	4100.93	-183.69	-1029.04	-640.88	1741147.75	14410347.83	39°40'47.3585"N	80°38'31.1228"W	1212.29	211.915	0.17
4452.00	28.440	208.300	4181.95	-192.41	-1067.12	-662.07	1741126.57	14410309.77	39°40'46.9830"N	80°38'31.3958"W	1255.82	211.817	0.90
4555.00	28.290	209.190	4272.59	-202.49	-1110.02	-685.60	1741103.04	14410266.88	39°40'46.5600"N	80°38'31.6989"W	1304.68	211.702	0.44
4646.00	28.310	212.270	4352.72	-209.90	-1147.09	-707.64	1741081.01	14410229.83	39°40'46.1945"N	80°38'31.9827"W	1347.80	211.671	1.60
4738.00	28.290	212.100	4433.72	-216.31	-1184.01	-730.88	1741057.79	14410192.93	39°40'45.8306"N	80°38'32.2817"W	1391.42	211.687	0.09
4828.00	28.070	211.310	4513.05	-222.90	-1220.16	-753.21	1741035.46	14410156.78	39°40'45.4741"N	80°38'32.5693"W	1433.92	211.687	0.48
4919.00	27.700	212.040	4593.49	-229.53	-1256.38	-775.56	1741013.12	14410120.58	39°40'45.1170"N	80°38'32.8569"W	1476.48	211.687	0.55
5011.00	27.310	212.220	4675.09	-235.81	-1292.36	-798.16	1740990.54	14410084.61	39°40'44.7623"N	80°38'33.1478"W	1518.97	211.699	0.43
5101.00	27.300	211.810	4755.06	-241.99	-1327.37	-820.04	1740968.66	14410049.62	39°40'44.4172"N	80°38'33.4295"W	1560.25	211.708	0.21
5194.00	26.200	212.190	4838.11	-248.27	-1362.87	-842.22	1740946.49	14410014.13	39°40'44.0673"N	80°38'33.7150"W	1602.11	211.715	1.20

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5286.00	27.280	211.870	4920.27	-254.47	-1397.96	-864.17	1740924.54	14409979.05	39°40'43.7213"N	80°38'33.9975"W	1643.50	211.723	1.18
5377.00	27.350	212.030	5001.12	-260.77	-1433.40	-886.27	1740902.45	14409943.63	39°40'43.3720"N	80°38'34.2819"W	1685.26	211.729	0.11
5468.00	27.430	211.520	5081.92	-267.21	-1468.99	-908.32	1740880.42	14409908.06	39°40'43.0211"N	80°38'34.5657"W	1727.12	211.730	0.27
5559.00	27.490	211.750	5162.66	-273.77	-1504.71	-930.33	1740858.42	14409872.34	39°40'42.6689"N	80°38'34.8490"W	1769.09	211.727	0.13
5650.00	28.210	211.990	5243.12	-280.25	-1540.81	-952.77	1740835.98	14409836.26	39°40'42.3130"N	80°38'35.1379"W	1811.60	211.731	0.80
5740.00	29.040	212.010	5322.12	-286.72	-1577.38	-975.62	1740813.14	14409799.71	39°40'41.9526"N	80°38'35.4320"W	1854.71	211.737	0.92
5831.00	29.360	211.610	5401.56	-293.52	-1615.11	-999.02	1740789.75	14409761.99	39°40'41.5806"N	80°38'35.7332"W	1899.11	211.739	0.41
5924.00	29.290	211.580	5482.64	-300.68	-1653.90	-1022.88	1740765.89	14409723.21	39°40'41.1981"N	80°38'36.0404"W	1944.66	211.735	0.08
6015.00	28.920	211.700	5562.15	-307.59	-1691.59	-1046.10	1740742.68	14409685.54	39°40'40.8266"N	80°38'36.3393"W	1988.92	211.733	0.41
6106.00	29.520	212.110	5641.57	-314.33	-1729.30	-1069.58	1740719.21	14409647.85	39°40'40.4549"N	80°38'36.6415"W	2033.34	211.737	0.70
6198.00	29.360	211.830	5721.69	-321.14	-1767.66	-1093.53	1740695.28	14409609.50	39°40'40.0767"N	80°38'36.9496"W	2078.56	211.742	0.23
6290.00	29.450	211.680	5801.84	-328.11	-1806.07	-1117.30	1740671.52	14409571.11	39°40'39.6980"N	80°38'37.2556"W	2123.73	211.742	0.13
6380.00	29.700	211.880	5880.11	-334.94	-1843.83	-1140.69	1740648.13	14409533.36	39°40'39.3258"N	80°38'37.5568"W	2168.15	211.743	0.30
6473.00	26.940	211.880	5961.97	-341.65	-1881.29	-1163.99	1740624.84	14409495.92	39°40'38.9565"N	80°38'37.8566"W	2212.27	211.746	2.97
6565.00	27.480	211.510	6043.79	-348.19	-1917.08	-1186.09	1740602.75	14409460.14	39°40'38.6036"N	80°38'38.1411"W	2254.33	211.745	0.62
6657.00	27.300	211.630	6125.48	-354.85	-1953.14	-1208.25	1740580.60	14409424.09	39°40'38.2481"N	80°38'38.4263"W	2296.66	211.742	0.20
6747.00	27.630	211.840	6205.34	-361.27	-1988.44	-1230.08	1740558.78	14409388.80	39°40'37.9001"N	80°38'38.7074"W	2338.16	211.742	0.38
6838.00	27.400	212.170	6286.04	-367.58	-2024.09	-1252.36	1740536.50	14409353.17	39°40'37.5486"N	80°38'38.9941"W	2380.20	211.746	0.30
6929.00	27.420	211.550	6366.83	-373.96	-2059.67	-1274.48	1740514.40	14409317.60	39°40'37.1979"N	80°38'39.2787"W	2422.10	211.748	0.31
7021.00	27.440	211.470	6448.48	-380.68	-2095.81	-1296.63	1740492.26	14409281.48	39°40'36.8416"N	80°38'39.5639"W	2464.48	211.744	0.05
7113.00	27.620	211.680	6530.07	-387.37	-2132.03	-1318.89	1740470.00	14409245.27	39°40'36.4845"N	80°38'39.8505"W	2507.00	211.741	0.22
7203.00	27.690	212.200	6609.78	-393.68	-2167.48	-1340.99	1740447.91	14409209.83	39°40'36.1350"N	80°38'40.1349"W	2548.77	211.745	0.28
7294.00	27.710	218.460	6690.37	-397.58	-2201.95	-1365.42	1740423.49	14409175.38	39°40'35.7954"N	80°38'40.4491"W	2590.94	211.803	3.20
7384.00	27.700	229.280	6770.11	-395.23	-2232.00	-1394.31	1740394.61	14409145.34	39°40'35.4995"N	80°38'40.8201"W	2631.71	211.993	5.58
7474.00	28.450	244.570	6849.62	-383.37	-2254.88	-1429.57	1740359.37	14409122.47	39°40'35.2747"N	80°38'41.2722"W	2669.86	212.374	8.02
7565.00	32.170	253.720	6928.21	-361.33	-2270.99	-1472.44	1740316.51	14409106.36	39°40'35.1172"N	80°38'41.8213"W	2706.56	212.958	6.51
7656.00	35.420	265.260	7003.90	-329.53	-2279.98	-1522.04	1740266.93	14409097.38	39°40'35.0303"N	80°38'42.4561"W	2741.33	213.726	7.89
7746.00	40.830	272.230	7074.71	-288.10	-2280.99	-1577.50	1740211.50	14409096.37	39°40'35.0225"N	80°38'43.1654"W	2773.34	214.667	7.67
7838.00	45.750	279.920	7141.70	-236.14	-2274.13	-1640.09	1740148.93	14409103.23	39°40'35.0927"N	80°38'43.9656"W	2803.85	215.799	7.83
7930.00	49.600	286.550	7203.67	-175.77	-2258.46	-1706.19	1740082.85	14409118.89	39°40'35.2502"N	80°38'44.8102"W	2830.50	217.070	6.77

REFERENCE WELLPATH IDENTIFICATION

Operator	SWN PRODUCTION COMPANY, LLC	Well	SWN A WTZ 401H
Field	Wetzel WV	API	47103034530000
Facility	SWN A WTZ Pad	Wellbore	SWN A WTZ 401H AWB
Slot	Slot 401H		

WELLPATH DATA (192 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]
8021.00	55.570	293.250	7258.98	-108.21	-2233.74	-1774.00	1740015.07	14409143.60	39°40'35.4972"N	80°38'45.6761"W	2852.48	218.456	8.78
8112.00	63.600	295.750	7305.02	-32.87	-2201.16	-1845.31	1739943.79	14409176.17	39°40'35.8219"N	80°38'46.5866"W	2872.33	219.974	9.14
8203.00	72.010	298.580	7339.37	49.00	-2162.68	-1920.17	1739868.96	14409214.64	39°40'36.2051"N	80°38'47.5420"W	2892.10	221.601	9.68
8296.00	79.320	302.100	7362.38	137.59	-2117.16	-1997.84	1739791.32	14409260.14	39°40'36.6580"N	80°38'48.5331"W	2910.97	223.339	8.67
8386.00	82.290	305.530	7376.77	225.78	-2067.72	-2071.63	1739717.56	14409309.55	39°40'37.1494"N	80°38'49.4744"W	2926.97	225.054	5.00
8476.00	91.660	310.930	7381.52	315.45	-2012.17	-2142.12	1739647.10	14409365.08	39°40'37.7011"N	80°38'50.3730"W	2938.96	226.792	12.01
8567.00	92.190	311.720	7378.46	406.39	-1952.12	-2210.42	1739578.83	14409425.11	39°40'38.2973"N	80°38'51.2435"W	2949.02	228.551	1.04
8658.00	92.190	311.180	7374.98	497.31	-1891.92	-2278.57	1739510.70	14409485.28	39°40'38.8948"N	80°38'52.1122"W	2961.63	230.297	0.59
8748.00	91.660	307.730	7371.96	587.23	-1834.77	-2348.01	1739441.28	14409542.41	39°40'39.4623"N	80°38'52.9975"W	2979.86	231.995	3.88
8839.00	92.190	311.950	7368.90	678.15	-1776.52	-2417.83	1739371.49	14409600.64	39°40'40.0407"N	80°38'53.8875"W	3000.32	233.693	4.67
8929.00	93.480	310.170	7364.45	768.03	-1717.48	-2485.61	1739303.74	14409659.66	39°40'40.6269"N	80°38'54.7513"W	3021.25	235.357	2.44
9021.00	91.970	310.880	7360.07	859.92	-1657.77	-2555.46	1739233.92	14409719.35	39°40'41.2197"N	80°38'55.6417"W	3046.07	237.028	1.81
9113.00	92.000	310.850	7356.89	951.86	-1597.61	-2624.99	1739164.41	14409779.48	39°40'41.8169"N	80°38'56.5280"W	3072.94	238.675	0.05
9204.00	92.090	310.660	7353.64	1042.81	-1538.24	-2693.88	1739095.55	14409838.83	39°40'42.4063"N	80°38'57.4061"W	3102.12	240.273	0.23
9295.00	91.720	311.020	7350.61	1133.76	-1478.77	-2762.69	1739026.77	14409898.28	39°40'42.9967"N	80°38'58.2832"W	3133.56	241.841	0.57
9388.00	92.120	310.300	7347.50	1226.70	-1418.21	-2833.19	1738956.29	14409958.82	39°40'43.5980"N	80°38'59.1819"W	3168.33	243.409	0.89
9478.00	92.490	310.770	7343.88	1316.63	-1359.76	-2901.54	1738887.97	14410017.24	39°40'44.1782"N	80°39'0.0531"W	3204.35	244.891	0.66
9569.00	91.910	310.370	7340.39	1407.56	-1300.62	-2970.61	1738818.93	14410076.36	39°40'44.7653"N	80°39'0.9336"W	3242.86	246.355	0.77
9659.00	92.680	311.200	7336.78	1497.49	-1241.88	-3038.70	1738750.86	14410135.08	39°40'45.3485"N	80°39'1.8016"W	3282.68	247.771	1.26
9751.00	92.060	311.450	7332.98	1589.40	-1181.18	-3107.73	1738681.86	14410195.75	39°40'45.9510"N	80°39'2.6814"W	3324.63	249.189	0.73
9843.00	92.060	310.980	7329.67	1681.34	-1120.60	-3176.89	1738612.73	14410256.30	39°40'46.5523"N	80°39'3.5630"W	3368.74	250.570	0.51
9936.00	91.660	310.680	7326.65	1774.29	-1059.83	-3247.23	1738542.42	14410317.05	39°40'47.1557"N	80°39'4.4595"W	3415.80	251.924	0.54
10027.00	92.680	310.970	7323.21	1865.22	-1000.38	-3316.04	1738473.64	14410376.48	39°40'47.7458"N	80°39'5.3366"W	3463.65	253.212	1.17
10118.00	91.970	310.400	7319.51	1956.14	-941.11	-3384.98	1738404.72	14410435.73	39°40'48.3342"N	80°39'6.2155"W	3513.38	254.463	1.00
10209.00	92.120	310.880	7316.27	2047.09	-881.88	-3453.99	1738335.74	14410494.94	39°40'48.9222"N	80°39'7.0952"W	3564.80	255.677	0.55
10301.00	92.460	310.870	7312.59	2139.01	-821.72	-3523.50	1738266.25	14410555.07	39°40'49.5194"N	80°39'7.9813"W	3618.05	256.873	0.37
10392.00	91.690	310.440	7309.30	2229.95	-762.47	-3592.49	1738197.29	14410614.29	39°40'50.1076"N	80°39'8.8607"W	3672.52	258.017	0.97
10483.00	91.720	310.790	7306.59	2320.91	-703.26	-3661.54	1738128.27	14410673.48	39°40'50.6954"N	80°39'9.7409"W	3728.46	259.128	0.39
10574.00	91.390	310.240	7304.12	2411.88	-644.17	-3730.70	1738059.14	14410732.56	39°40'51.2821"N	80°39'10.6225"W	3785.90	260.204	0.70
10666.00	92.590	310.670	7300.92	2503.82	-584.51	-3800.66	1737989.21	14410792.19	39°40'51.8744"N	80°39'11.5144"W	3845.34	261.257	1.39

REFERENCE WELLPATH IDENTIFICATION

Operator	SWN PRODUCTION COMPANY, LLC	Well	SWN A WTZ 401H
Field	Wetzel WV	API	47103034530000
Facility	SWN A WTZ Pad	Wellbore	SWN A WTZ 401H AWB
Slot	Slot 401H		

WELLPATH DATA (192 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]
10757.00	92.090	310.950	7297.21	2594.74	-525.09	-3869.47	1737920.42	14410851.59	39°40'52.4643"N	80°39'12.3917"W	3904.94	262.272	0.63
10850.00	91.660	310.640	7294.17	2687.69	-464.36	-3939.84	1737850.07	14410912.30	39°40'53.0671"N	80°39'13.2887"W	3967.11	263.278	0.57
10941.00	91.630	310.610	7291.55	2778.65	-405.13	-4008.88	1737781.06	14410971.50	39°40'53.6551"N	80°39'14.1688"W	4029.30	264.229	0.05
11034.00	91.200	310.600	7289.26	2871.63	-344.62	-4079.47	1737710.50	14411031.98	39°40'54.2558"N	80°39'15.0686"W	4094.00	265.171	0.46
11125.00	91.380	310.990	7287.21	2962.60	-285.18	-4148.34	1737641.66	14411091.40	39°40'54.8458"N	80°39'15.9466"W	4158.13	266.067	0.47
11216.00	91.170	310.780	7285.18	3053.58	-225.63	-4217.12	1737572.90	14411150.93	39°40'55.4369"N	80°39'16.8234"W	4223.15	266.937	0.33
11306.00	91.630	310.550	7282.98	3143.55	-167.00	-4285.37	1737504.68	14411209.53	39°40'56.0190"N	80°39'17.6935"W	4288.62	267.768	0.57
11398.00	91.260	310.940	7280.66	3235.52	-106.97	-4355.05	1737435.03	14411269.54	39°40'56.6149"N	80°39'18.5817"W	4356.36	268.593	0.58
11488.00	91.290	310.720	7278.66	3325.50	-48.14	-4423.13	1737366.98	14411328.34	39°40'57.1988"N	80°39'19.4496"W	4423.39	269.376	0.25
11577.00	91.420	310.620	7276.56	3414.47	9.84	-4490.62	1737299.52	14411386.31	39°40'57.7745"N	80°39'20.3100"W	4490.63	270.126	0.18
11669.00	92.030	312.210	7273.79	3506.42	70.67	-4559.58	1737230.58	14411447.11	39°40'58.3782"N	80°39'21.1890"W	4560.12	270.888	1.85
11760.00	91.420	310.940	7271.05	3597.36	131.03	-4627.62	1737162.57	14411507.45	39°40'58.9773"N	80°39'22.0564"W	4629.47	271.622	1.55
11851.00	92.060	311.400	7268.29	3688.32	190.90	-4696.09	1737094.12	14411567.30	39°40'59.5717"N	80°39'22.9292"W	4699.97	272.328	0.87
11941.00	91.540	311.010	7265.46	3778.27	250.16	-4763.77	1737026.47	14411626.54	39°41'0.1599"N	80°39'23.7920"W	4770.33	273.006	0.72
12032.00	91.660	310.560	7262.92	3869.23	309.58	-4832.64	1736957.62	14411685.93	39°41'0.7497"N	80°39'24.6700"W	4842.55	273.665	0.51
12124.00	90.920	310.450	7260.85	3961.21	369.32	-4902.58	1736887.72	14411745.65	39°41'1.3427"N	80°39'25.5616"W	4916.47	274.308	0.81
12214.00	91.600	310.710	7258.87	4051.18	427.85	-4970.91	1736819.41	14411804.16	39°41'1.9238"N	80°39'26.4328"W	4989.29	274.919	0.81
12305.00	92.060	310.650	7255.96	4142.14	487.14	-5039.89	1736750.46	14411863.42	39°41'2.5123"N	80°39'27.3122"W	5063.38	275.521	0.51
12398.00	90.890	310.380	7253.57	4235.11	547.54	-5110.57	1736679.81	14411923.79	39°41'3.1118"N	80°39'28.2133"W	5139.81	276.115	1.29
12489.00	90.770	310.430	7252.25	4326.09	606.52	-5179.85	1736610.55	14411982.75	39°41'3.6973"N	80°39'29.0966"W	5215.24	276.678	0.14
12579.00	90.860	310.830	7250.97	4416.09	665.11	-5248.15	1736542.28	14412041.33	39°41'4.2790"N	80°39'29.9674"W	5290.13	277.223	0.46
12670.00	90.460	310.310	7249.92	4507.08	724.29	-5317.27	1736473.18	14412100.48	39°41'4.8665"N	80°39'30.8486"W	5366.37	277.757	0.72
12760.00	91.020	311.520	7248.76	4597.07	783.23	-5385.28	1736405.21	14412159.40	39°41'5.4515"N	80°39'31.7155"W	5441.93	278.275	1.48
12852.00	90.180	310.400	7247.79	4689.06	843.54	-5454.75	1736335.76	14412219.68	39°41'6.0501"N	80°39'32.6012"W	5519.58	278.791	1.52
12943.00	91.390	310.620	7246.55	4780.05	902.64	-5523.92	1736266.61	14412278.76	39°41'6.6368"N	80°39'33.4832"W	5597.19	279.280	1.35
13035.00	91.480	310.700	7244.24	4872.02	962.57	-5593.69	1736196.87	14412338.66	39°41'7.2317"N	80°39'34.3727"W	5675.91	279.764	0.13
13125.00	91.290	310.650	7242.07	4961.99	1021.21	-5661.93	1736128.66	14412397.28	39°41'7.8138"N	80°39'35.2427"W	5753.29	280.224	0.22
13217.00	91.420	311.320	7239.89	5053.97	1081.53	-5731.36	1736059.26	14412457.58	39°41'8.4125"N	80°39'36.1278"W	5832.51	280.686	0.74
13307.00	91.510	310.860	7237.59	5143.93	1140.66	-5799.17	1735991.48	14412516.69	39°41'8.9995"N	80°39'36.9923"W	5910.28	281.128	0.52
13399.00	91.660	310.950	7235.05	5235.90	1200.88	-5868.67	1735922.00	14412576.88	39°41'9.5972"N	80°39'37.8785"W	5990.28	281.565	0.19

REFERENCE WELLPATH IDENTIFICATION

Operator	SWN PRODUCTION COMPANY, LLC	Well	SWN A WTZ 401H
Field	Wetzel WV	API	47103034530000
Facility	SWN A WTZ Pad	Wellbore	SWN A WTZ 401H AWB
Slot	Slot 401H		

WELLPATH DATA (192 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]
13490.00	91.200	310.750	7232.78	5326.87	1260.39	-5937.49	1735853.21	14412636.36	39°41'10.1878"N	80°39'38.7558"W	6069.79	281.985	0.55
13581.00	90.990	310.400	7231.04	5417.85	1319.57	-6006.59	1735784.13	14412695.52	39°41'10.7753"N	80°39'39.6369"W	6149.83	282.390	0.45
13671.00	90.860	310.760	7229.58	5507.84	1378.10	-6074.94	1735715.81	14412754.04	39°41'11.3563"N	80°39'40.5083"W	6229.29	282.781	0.43
13763.00	90.550	310.550	7228.45	5599.83	1438.04	-6144.73	1735646.05	14412813.95	39°41'11.9512"N	80°39'41.3981"W	6310.76	283.172	0.41
13855.00	90.710	310.840	7227.44	5691.83	1498.02	-6214.48	1735576.33	14412873.91	39°41'12.5466"N	80°39'42.2874"W	6392.48	283.553	0.36
13948.00	90.400	310.410	7226.54	5784.82	1558.57	-6285.06	1735505.77	14412934.43	39°41'13.1477"N	80°39'43.1873"W	6475.43	283.927	0.57
14038.00	90.400	310.140	7225.91	5874.82	1616.75	-6353.73	1735437.13	14412992.59	39°41'13.7252"N	80°39'44.0628"W	6556.20	284.276	0.30
14130.00	90.310	310.110	7225.34	5966.81	1676.04	-6424.07	1735366.82	14413051.85	39°41'14.3138"N	80°39'44.9598"W	6639.11	284.622	0.10
14222.00	90.430	310.400	7224.75	6058.81	1735.49	-6494.28	1735296.63	14413111.28	39°41'14.9039"N	80°39'45.8550"W	6722.17	284.962	0.34
14313.00	90.490	310.330	7224.02	6149.80	1794.42	-6563.62	1735227.33	14413170.19	39°41'15.4889"N	80°39'46.7391"W	6804.48	285.290	0.10
14404.00	90.340	310.760	7223.36	6240.80	1853.57	-6632.76	1735158.20	14413229.32	39°41'16.0761"N	80°39'47.6207"W	6886.89	285.613	0.50
14494.00	90.310	310.420	7222.85	6330.80	1912.13	-6701.11	1735089.89	14413287.85	39°41'16.6573"N	80°39'48.4921"W	6968.58	285.926	0.38
14585.00	90.370	310.780	7222.31	6421.80	1971.35	-6770.20	1735020.82	14413347.05	39°41'17.2451"N	80°39'49.3731"W	7051.37	286.235	0.40
14675.00	90.220	310.620	7221.84	6511.80	2030.04	-6838.43	1734952.62	14413405.72	39°41'17.8276"N	80°39'50.2431"W	7133.39	286.534	0.24
14768.00	90.650	310.870	7221.14	6604.79	2090.74	-6908.89	1734882.19	14413466.39	39°41'18.4301"N	80°39'51.1414"W	7218.30	286.837	0.53
14860.00	91.450	310.790	7219.45	6696.78	2150.88	-6978.49	1734812.62	14413526.51	39°41'19.0270"N	80°39'52.0288"W	7302.44	287.130	0.87
14953.00	90.250	310.400	7218.07	6789.76	2211.38	-7049.10	1734742.04	14413586.99	39°41'19.6276"N	80°39'52.9291"W	7387.83	287.417	1.36
15044.00	91.110	310.390	7216.99	6880.76	2270.35	-7118.40	1734672.76	14413645.94	39°41'20.2130"N	80°39'53.8128"W	7471.68	287.690	0.95
15134.00	90.150	310.810	7216.00	6970.75	2328.92	-7186.72	1734604.46	14413704.48	39°41'20.7943"N	80°39'54.6840"W	7554.66	287.955	1.16
15225.00	90.460	310.640	7215.52	7061.75	2388.29	-7255.69	1734535.52	14413763.83	39°41'21.3836"N	80°39'55.5634"W	7638.65	288.220	0.39
15316.00	90.830	310.710	7214.49	7152.74	2447.60	-7324.70	1734466.54	14413823.11	39°41'21.9722"N	80°39'56.4433"W	7722.82	288.477	0.41
15407.00	91.260	310.570	7212.83	7243.73	2506.85	-7393.74	1734397.53	14413882.35	39°41'22.5604"N	80°39'57.3236"W	7807.16	288.729	0.50
15497.00	90.800	310.290	7211.22	7333.71	2565.21	-7462.24	1734329.06	14413940.68	39°41'23.1397"N	80°39'58.1971"W	7890.84	288.971	0.60
15588.00	90.890	310.510	7209.87	7424.70	2624.18	-7531.53	1734259.79	14413999.63	39°41'23.7250"N	80°39'59.0806"W	7975.60	289.210	0.26
15679.00	91.290	310.450	7208.14	7515.68	2683.25	-7600.73	1734190.61	14414058.67	39°41'24.3113"N	80°39'59.9631"W	8060.46	289.444	0.44
15771.00	90.920	310.680	7206.37	7607.67	2743.07	-7670.61	1734120.76	14414118.47	39°41'24.9050"N	80°40'0.8541"W	8146.33	289.677	0.47
15862.00	90.890	310.600	7204.93	7698.66	2802.33	-7739.65	1734051.75	14414177.70	39°41'25.4932"N	80°40'1.7345"W	8231.36	289.904	0.09
15953.00	90.890	310.660	7203.52	7789.64	2861.58	-7808.71	1733982.72	14414236.93	39°41'26.0813"N	80°40'2.6150"W	8316.52	290.126	0.07
16046.00	90.430	310.040	7202.45	7882.64	2921.79	-7879.58	1733911.88	14414297.11	39°41'26.6789"N	80°40'3.5187"W	8403.84	290.345	0.83
16138.00	91.080	310.700	7201.24	7974.63	2981.37	-7949.66	1733841.82	14414356.68	39°41'27.2704"N	80°40'4.4125"W	8490.33	290.558	1.01

REFERENCE WELLPATH IDENTIFICATION

Operator	SWN PRODUCTION COMPANY, LLC	Well	SWN A WTZ 401H
Field	Wetzel WV	API	47103034530000
Facility	SWN A WTZ Pad	Wellbore	SWN A WTZ 401H AWB
Slot	Slot 401H		

WELLPATH DATA (192 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]
16229.00	90.680	310.910	7199.84	8065.61	3040.83	-8018.54	1733772.97	14414416.11	39°41'27.8605"N	80°40'5.2907"W	8575.76	290.768	0.50
16321.00	90.550	310.620	7198.85	8157.61	3100.90	-8088.21	1733703.32	14414476.16	39°41'28.4567"N	80°40'6.1791"W	8662.26	290.976	0.35
16413.00	90.770	310.630	7197.79	8249.60	3160.80	-8158.04	1733633.53	14414536.03	39°41'29.0512"N	80°40'7.0695"W	8748.95	291.179	0.24
16504.00	90.860	310.550	7196.50	8340.59	3220.00	-8227.13	1733564.46	14414595.21	39°41'29.6388"N	80°40'7.9506"W	8834.82	291.375	0.13
16594.00	90.490	310.300	7195.44	8430.59	3278.35	-8295.64	1733495.98	14414653.55	39°41'30.2180"N	80°40'8.8242"W	8919.94	291.563	0.50
16686.00	91.020	310.820	7194.22	8522.58	3338.17	-8365.53	1733426.12	14414713.34	39°41'30.8117"N	80°40'9.7154"W	9006.97	291.754	0.81
16777.00	91.080	310.670	7192.56	8613.56	3397.56	-8434.46	1733357.21	14414772.70	39°41'31.4011"N	80°40'10.5944"W	9093.05	291.940	0.18
16868.00	90.890	310.640	7190.99	8704.55	3456.83	-8503.49	1733288.21	14414831.96	39°41'31.9895"N	80°40'11.4746"W	9179.27	292.123	0.21
16959.00	90.620	310.570	7189.79	8795.54	3516.06	-8572.57	1733219.15	14414891.15	39°41'32.5773"N	80°40'12.3556"W	9265.61	292.301	0.31
17050.00	90.890	310.620	7188.59	8886.53	3575.27	-8641.66	1733150.09	14414950.34	39°41'33.1649"N	80°40'13.2367"W	9352.05	292.476	0.30
17140.00	90.920	310.720	7187.17	8976.52	3633.91	-8709.92	1733081.86	14415008.96	39°41'33.7470"N	80°40'14.1070"W	9437.58	292.647	0.12
17178.00‡	90.920	310.720	7186.56	9014.52	3658.70	-8738.71	1733053.08	14415033.74	39°41'33.9930"N	80°40'14.4742"W	9473.71	292.718	0.00

TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SWN A WTZ 401H BHL Rev 2	7183.31	3660.89	-8737.82	1733053.97	14415035.93	39°41'34.0146"N	80°40'14.4627"W	point
SWN A WTZ 401H LP Rev 3	7377.00	-2011.19	-2126.12	1739663.09	14409366.06	39°40'37.7102"N	80°38'50.1684"W	point

Actual Wellpath Report

SWN A WTZ 401H awp Proj: 17178'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	SWN PRODUCTION COMPANY, LLC	Well	SWN A WTZ 401H
Field	Wetzel WV	API	47103034530000
Facility	SWN A WTZ Pad	Wellbore	SWN A WTZ 401H AWB
Slot	Slot 401H		

WELLPATH COMPOSITION - Ref Wellbore: SWN A WTZ 401H AWB Ref Wellpath: SWN A WTZ 401H awp Proj: 17178'					
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date
26.00	338.00	Gyrodata 2015 - GC+WIR+DPIPE	1 gyro 150'- 338'	SWN A WTZ 401H AWB	2/11/2022
338.00	2792.00	OWSG MWD rev2 + HRGM	2 Tally MWD 421' - 2792'	SWN A WTZ 401H AWB	2/11/2022
2792.00	4452.00	OWSG MWD rev2 + HRGM	3 Tally MWD 2878' - 4452'	SWN A WTZ 401H AWB	2/11/2022
4452.00	17178.00	BH AutoTrak Curve/eXpress (2019) (HRGM, Short spacing)	4 BH MWD 4555' - 17140'	SWN A WTZ 401H AWB	2/16/2022