



Actual Wellpath Report

SWN A WTZ 1H AWB_ awp 100' - 17300' Proj: 17325
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AUG 04 2022

WV Department of
Environmental Protection



REFERENCE WELLPATH IDENTIFICATION			
Operator	SWN PRODUCTION COMPANY, LLC	Well	SWN A WTZ 1H
Field	Wetzel	API	47103034210000
Facility	SWN A WTZ Pad	Wellbore	SWN A WTZ 1H AWB
Slot	Slot 1H		

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	1/18/2022 at 6:42:09 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	3.64	112.02	1741796.75	14411395.17	39°40'57.6875"N	80°38'22.7650"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 (KB) to Facility Vertical Datum	1369.20ft
Horizontal Reference Pt	Slot	SDC 41 (KB) to Mean Sea Level	1369.20ft
Vertical Reference Pt	SDC 41 (KB)	SDC 41 (KB) to Ground Level at Slot (Slot 1H)	26.00ft
MD Reference Pt	SDC 41 (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	312.06°



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Facility	SWN A WTZ Pad	Wellbore	SWN A WTZ 1H AWB
Slot	Slot 1H		

WELLPATH DATA (193 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	246.860	0.00	0.00	0.00	0.00	1741796.75	14411395.17	39°40'57.6875"N	80°38'22.7650"W	0.00	0.000	0.00
26.00	0.000	246.860	26.00	0.00	0.00	0.00	1741796.75	14411395.17	39°40'57.6875"N	80°38'22.7650"W	0.00	0.000	0.00
100.00	0.220	246.860	100.00	0.06	-0.06	-0.13	1741796.62	14411395.11	39°40'57.6869"N	80°38'22.7667"W	0.14	246.860	0.30
200.00	0.240	317.220	200.00	0.35	0.02	-0.45	1741796.30	14411395.19	39°40'57.6877"N	80°38'22.7708"W	0.45	272.859	0.27
300.00	0.290	339.300	300.00	0.78	0.41	-0.68	1741796.07	14411395.58	39°40'57.6916"N	80°38'22.7737"W	0.80	301.224	0.11
400.00	0.280	345.570	400.00	1.21	0.89	-0.83	1741795.92	14411396.06	39°40'57.6963"N	80°38'22.7756"W	1.22	316.827	0.03
500.00	1.030	358.790	499.99	2.03	2.02	-0.91	1741795.84	14411397.19	39°40'57.7075"N	80°38'22.7766"W	2.22	335.733	0.76
600.00	3.420	358.370	599.91	4.71	5.90	-1.02	1741795.74	14411401.07	39°40'57.7459"N	80°38'22.7777"W	5.99	350.241	2.39
700.00	4.820	0.260	699.65	9.57	13.09	-1.08	1741795.67	14411408.25	39°40'57.8168"N	80°38'22.7782"W	13.13	355.278	1.41
800.00	5.100	359.130	799.27	15.40	21.73	-1.13	1741795.62	14411416.89	39°40'57.9023"N	80°38'22.7784"W	21.76	357.025	0.30
900.00	3.310	5.020	899.00	20.16	29.05	-0.94	1741795.81	14411424.21	39°40'57.9746"N	80°38'22.7756"W	29.07	358.138	1.84
1000.00	0.770	40.090	998.93	21.93	32.44	-0.26	1741796.49	14411427.60	39°40'58.0081"N	80°38'22.7667"W	32.44	359.543	2.72
1100.00	1.860	178.490	1098.91	20.83	31.33	0.22	1741796.97	14411426.49	39°40'57.9971"N	80°38'22.7606"W	31.33	0.396	2.49
1200.00	2.210	227.910	1198.86	19.91	28.42	-1.17	1741795.58	14411423.58	39°40'57.9684"N	80°38'22.7785"W	28.44	357.640	1.73
1300.00	3.240	238.670	1298.74	20.91	25.66	-5.02	1741791.74	14411420.82	39°40'57.9412"N	80°38'22.8279"W	26.14	348.937	1.15
1400.00	4.040	219.750	1398.55	21.58	21.48	-9.68	1741787.07	14411416.64	39°40'57.9001"N	80°38'22.8878"W	23.56	335.734	1.43
1500.00	5.610	201.000	1498.19	19.68	14.21	-13.69	1741783.07	14411409.37	39°40'57.8284"N	80°38'22.9394"W	19.73	316.066	2.21
1577.00	6.860	195.640	1574.74	16.28	6.26	-16.28	1741780.48	14411401.43	39°40'57.7500"N	80°38'22.9729"W	17.44	291.050	1.79
1610.00	7.120	194.510	1607.49	14.46	2.39	-17.32	1741779.44	14411397.56	39°40'57.7118"N	80°38'22.9864"W	17.48	277.845	0.89
1701.00	8.860	192.840	1697.61	8.43	-9.91	-20.29	1741776.47	14411385.27	39°40'57.5904"N	80°38'23.0251"W	22.58	243.975	1.93
1791.00	8.950	194.870	1786.52	1.85	-23.43	-23.63	1741773.13	14411371.75	39°40'57.4569"N	80°38'23.0684"W	33.28	225.239	0.36
1881.00	9.310	203.480	1875.39	-3.67	-36.88	-28.32	1741768.44	14411358.31	39°40'57.3242"N	80°38'23.1292"W	46.50	217.529	1.57
1973.00	10.860	208.860	1965.96	-8.02	-51.29	-35.47	1741761.29	14411343.90	39°40'57.1820"N	80°38'23.2214"W	62.36	214.667	1.97
2063.00	12.030	207.890	2054.17	-12.26	-67.01	-43.95	1741752.81	14411328.19	39°40'57.0270"N	80°38'23.3306"W	80.14	213.263	1.32
2153.00	14.090	207.230	2141.84	-17.36	-85.04	-53.35	1741743.42	14411310.16	39°40'56.8492"N	80°38'23.4518"W	100.39	212.104	2.29
2245.00	14.070	205.630	2231.08	-23.39	-105.08	-63.32	1741733.46	14411290.13	39°40'56.6515"N	80°38'23.5803"W	122.68	211.071	0.42
2335.00	14.000	201.770	2318.39	-30.26	-125.05	-72.09	1741724.69	14411270.16	39°40'56.4545"N	80°38'23.6935"W	144.34	209.961	1.04
2427.00	15.510	199.990	2407.36	-38.74	-146.95	-80.42	1741716.36	14411248.28	39°40'56.2384"N	80°38'23.8012"W	167.52	208.690	1.71
2519.00	15.010	201.030	2496.11	-47.63	-169.63	-88.90	1741707.89	14411225.61	39°40'56.0146"N	80°38'23.9108"W	191.51	207.658	0.62
2609.00	14.740	203.100	2583.10	-55.54	-191.04	-97.57	1741699.21	14411204.20	39°40'55.8033"N	80°38'24.0228"W	214.52	207.056	0.66



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Slot	Slot 1H		

WELLPATH DATA (193 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]
2701.00	15.550	203.800	2671.90	-63.20	-213.09	-107.14	1741689.65	14411182.16	39°40'55.5858"N	80°38'24.1464"W	238.51	206.693	0.90
2791.00	14.190	203.520	2758.88	-70.49	-234.24	-116.41	1741680.38	14411161.02	39°40'55.3771"N	80°38'24.2660"W	261.57	206.426	1.51
2836.00	13.700	204.070	2802.56	-73.89	-244.17	-120.79	1741676.01	14411151.10	39°40'55.2792"N	80°38'24.3225"W	272.41	206.321	1.13
2899.00	12.990	204.250	2863.86	-78.36	-257.43	-126.74	1741670.06	14411137.84	39°40'55.1484"N	80°38'24.3993"W	286.94	206.212	1.13
2990.00	14.540	207.160	2952.24	-84.43	-276.92	-136.15	1741660.65	14411118.36	39°40'54.9561"N	80°38'24.5207"W	308.58	206.182	1.87
3081.00	14.730	202.800	3040.29	-91.18	-297.75	-145.85	1741650.96	14411097.53	39°40'54.7506"N	80°38'24.6458"W	331.56	206.098	1.23
3173.00	15.700	205.070	3129.07	-98.68	-319.81	-155.66	1741641.15	14411075.48	39°40'54.5330"N	80°38'24.7724"W	355.68	205.953	1.24
3263.00	15.490	211.690	3215.76	-104.40	-341.07	-167.13	1741629.68	14411054.24	39°40'54.3234"N	80°38'24.9202"W	379.82	206.106	1.99
3355.00	15.340	210.000	3304.45	-109.15	-362.06	-179.67	1741617.15	14411033.25	39°40'54.1164"N	80°38'25.0817"W	404.19	206.393	0.51
3447.00	15.400	204.780	3393.16	-115.32	-383.69	-190.88	1741605.95	14411011.63	39°40'53.9031"N	80°38'25.2261"W	428.55	206.449	1.50
3537.00	13.920	207.970	3480.23	-121.51	-404.10	-200.96	1741595.87	14410991.22	39°40'53.7018"N	80°38'25.3562"W	451.32	206.441	1.87
3629.00	13.420	212.580	3569.63	-125.96	-422.87	-211.90	1741584.93	14410972.46	39°40'53.5167"N	80°38'25.4970"W	473.00	206.615	1.30
3720.00	13.200	210.870	3658.19	-129.72	-440.69	-222.92	1741573.92	14410954.65	39°40'53.3411"N	80°38'25.6389"W	493.86	206.832	0.50
3812.00	13.060	205.290	3747.78	-134.75	-459.11	-232.75	1741564.09	14410936.24	39°40'53.1595"N	80°38'25.7655"W	514.73	206.883	1.39
3902.00	14.480	205.360	3835.19	-140.92	-478.47	-241.91	1741554.93	14410916.89	39°40'52.9685"N	80°38'25.8837"W	536.15	206.821	1.58
3993.00	14.440	213.320	3923.32	-145.92	-498.23	-253.02	1741543.83	14410897.13	39°40'52.7736"N	80°38'26.0268"W	558.80	206.923	2.18
4086.00	14.050	212.050	4013.46	-149.64	-517.49	-265.38	1741531.47	14410877.88	39°40'52.5838"N	80°38'26.1859"W	581.57	207.150	0.54
4177.00	13.800	206.900	4101.79	-154.40	-536.53	-276.15	1741520.70	14410858.85	39°40'52.3960"N	80°38'26.3246"W	603.43	207.235	1.39
4268.00	13.450	200.520	4190.23	-161.12	-556.12	-284.77	1741512.09	14410839.26	39°40'52.2027"N	80°38'26.4359"W	624.79	207.116	1.69
4359.00	14.400	203.080	4278.56	-168.69	-576.44	-292.92	1741503.94	14410818.95	39°40'52.0022"N	80°38'26.5411"W	646.60	206.937	1.24
4450.00	14.790	210.260	4366.63	-174.75	-596.89	-303.21	1741493.66	14410798.51	39°40'51.8006"N	80°38'26.6738"W	669.49	206.930	2.03
4542.00	15.260	210.220	4455.49	-179.63	-617.49	-315.22	1741481.65	14410777.92	39°40'51.5974"N	80°38'26.8285"W	693.30	207.044	0.51
4633.00	14.380	204.650	4543.46	-185.47	-638.11	-325.96	1741470.92	14410757.31	39°40'51.3941"N	80°38'26.9669"W	716.55	207.059	1.84
4724.00	12.680	208.260	4631.93	-191.23	-657.18	-335.40	1741461.48	14410738.24	39°40'51.2060"N	80°38'27.0887"W	737.82	207.038	2.09
4815.00	12.270	212.600	4720.79	-195.20	-674.13	-345.34	1741451.54	14410721.31	39°40'51.0389"N	80°38'27.2167"W	757.44	207.125	1.12
4906.00	14.130	216.230	4809.38	-197.92	-691.23	-357.12	1741439.77	14410704.21	39°40'50.8703"N	80°38'27.3681"W	778.04	207.323	2.24
4997.00	15.740	215.050	4897.30	-200.56	-710.30	-370.77	1741426.12	14410685.15	39°40'50.6824"N	80°38'27.5438"W	801.25	207.564	1.80
5091.00	16.520	209.760	4987.61	-204.96	-732.34	-384.73	1741412.17	14410663.11	39°40'50.4652"N	80°38'27.7234"W	827.25	207.715	1.77
5184.00	17.430	208.680	5076.56	-211.00	-756.04	-397.98	1741398.93	14410639.43	39°40'50.2315"N	80°38'27.8941"W	854.39	207.762	1.04
5275.00	17.340	207.320	5163.40	-217.61	-780.05	-410.74	1741386.17	14410615.43	39°40'49.9947"N	80°38'28.0585"W	881.58	207.770	0.46



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5367.00	16.630	205.720	5251.39	-224.80	-804.09	-422.75	1741374.17	14410591.40	39°40'49.7576"N	80°38'28.2133"W	908.44	207.733	0.92
5457.00	15.520	202.450	5337.87	-232.46	-826.82	-432.94	1741363.98	14410568.67	39°40'49.5334"N	80°38'28.3448"W	933.31	207.637	1.59
5549.00	15.660	203.430	5426.48	-240.56	-849.59	-442.57	1741354.35	14410545.91	39°40'49.3087"N	80°38'28.4692"W	957.95	207.516	0.32
5639.00	15.480	207.450	5513.18	-247.47	-871.39	-452.94	1741343.99	14410524.12	39°40'49.0936"N	80°38'28.6029"W	982.08	207.465	1.22
5730.00	14.680	207.370	5601.05	-253.46	-892.41	-463.84	1741333.09	14410503.11	39°40'48.8864"N	80°38'28.7434"W	1005.75	207.464	0.88
5820.00	14.620	210.390	5688.12	-258.65	-912.33	-474.83	1741322.11	14410483.19	39°40'48.6899"N	80°38'28.8850"W	1028.50	207.495	0.85
5913.00	14.270	207.350	5778.18	-263.93	-932.64	-486.03	1741310.91	14410462.89	39°40'48.4897"N	80°38'29.0293"W	1051.69	207.526	0.90
6007.00	13.110	201.840	5869.52	-270.56	-952.83	-495.32	1741301.62	14410442.72	39°40'48.2905"N	80°38'29.1491"W	1073.88	207.467	1.86
6099.00	13.350	198.490	5959.08	-278.41	-972.58	-502.57	1741294.37	14410422.97	39°40'48.0955"N	80°38'29.2429"W	1094.76	207.327	0.87
6190.00	14.590	201.310	6047.38	-286.67	-993.23	-510.07	1741286.88	14410402.33	39°40'47.8918"N	80°38'29.3398"W	1116.54	207.183	1.55
6282.00	14.680	206.060	6136.40	-293.99	-1014.50	-519.40	1741277.55	14410381.07	39°40'47.6820"N	80°38'29.4603"W	1139.73	207.112	1.31
6373.00	14.060	206.540	6224.55	-300.13	-1034.74	-529.41	1741267.55	14410360.83	39°40'47.4823"N	80°38'29.5893"W	1162.31	207.096	0.69
6451.00	13.240	207.780	6300.35	-304.87	-1051.12	-537.80	1741259.16	14410344.46	39°40'47.3208"N	80°38'29.6975"W	1180.72	207.096	1.12
6566.00	14.350	222.490	6412.07	-308.01	-1073.29	-553.57	1741243.39	14410322.30	39°40'47.1023"N	80°38'29.9003"W	1207.64	207.283	3.19
6658.00	14.970	216.180	6501.08	-309.14	-1091.29	-568.29	1741228.68	14410304.31	39°40'46.9250"N	80°38'30.0895"W	1230.39	207.508	1.86
6749.00	15.260	220.300	6588.93	-310.71	-1109.91	-582.97	1741214.00	14410285.69	39°40'46.7416"N	80°38'30.2782"W	1253.70	207.710	1.22
6839.00	16.050	239.360	6675.65	-307.37	-1125.29	-601.35	1741195.63	14410270.32	39°40'46.5902"N	80°38'30.5141"W	1275.90	208.120	5.76
6931.00	18.340	258.930	6763.61	-294.90	-1134.56	-626.52	1741170.47	14410261.05	39°40'46.4996"N	80°38'30.8365"W	1296.06	208.908	6.72
7022.00	21.350	271.390	6849.23	-273.73	-1136.91	-657.15	1741139.85	14410258.70	39°40'46.4776"N	80°38'31.2284"W	1313.17	210.029	5.69
7114.00	25.170	284.280	6933.79	-243.69	-1131.67	-692.89	1741104.13	14410263.94	39°40'46.5308"N	80°38'31.6852"W	1326.95	211.478	6.90
7205.00	31.070	293.000	7014.05	-204.32	-1117.71	-733.31	1741063.72	14410277.90	39°40'46.6704"N	80°38'32.2015"W	1336.79	213.268	7.89
7295.00	36.080	303.560	7089.07	-156.09	-1093.95	-776.84	1741020.21	14410301.65	39°40'46.9069"N	80°38'32.7570"W	1341.72	215.379	8.53
7385.00	42.480	300.380	7158.71	-100.05	-1063.89	-825.20	1740971.88	14410331.69	39°40'47.2059"N	80°38'33.3739"W	1346.41	217.798	7.45
7476.00	49.860	299.740	7221.69	-35.89	-1031.05	-881.98	1740915.11	14410364.52	39°40'47.5326"N	80°38'34.0986"W	1356.82	220.544	8.13
7566.00	57.240	304.570	7275.14	35.37	-992.45	-943.12	1740853.99	14410403.11	39°40'47.9166"N	80°38'34.8786"W	1369.10	223.540	9.26
7658.00	64.290	304.550	7320.05	114.91	-946.94	-1009.20	1740787.95	14410448.60	39°40'48.3690"N	80°38'35.7213"W	1383.90	226.823	7.66
7748.00	73.910	308.810	7352.13	198.51	-896.71	-1076.47	1740720.70	14410498.81	39°40'48.8680"N	80°38'36.5792"W	1401.02	230.205	11.56
7840.00	84.020	308.150	7369.71	288.51	-840.60	-1147.07	1740650.13	14410554.90	39°40'49.4253"N	80°38'37.4793"W	1422.10	233.765	11.01
7931.00	93.050	311.850	7372.04	379.31	-782.19	-1216.67	1740580.56	14410613.29	39°40'50.0053"N	80°38'38.3666"W	1446.41	237.263	10.72
8023.00	92.740	311.700	7367.39	471.19	-720.98	-1285.19	1740512.06	14410674.47	39°40'50.6129"N	80°38'39.2399"W	1473.61	240.708	0.37



Actual Wellpath Report

SWN A WTZ 1H AWB_ awp 100' - 17300' Proj: 17300
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Environmental Protection



REFERENCE WELLPATH IDENTIFICATION

Operator	SWN PRODUCTION COMPANY, LLC	Well	SWN A WTZ 1H
Field	Wetzel	API	47103034210000
Facility	SWN A WTZ Pad	Wellbore	SWN A WTZ 1H AWB
Slot	Slot 1H		

WELLPATH DATA (193 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]
8113.00	92.550	311.760	7363.24	561.10	-661.13	-1352.29	1740444.99	14410734.29	39°40'51.2069"N	80°38'40.0950"W	1505.25	243.946	0.22
8205.00	92.650	312.080	7359.07	653.00	-599.73	-1420.67	1740376.63	14410795.67	39°40'51.8164"N	80°38'40.9665"W	1542.07	247.113	0.36
8297.00	92.990	311.690	7354.54	744.89	-538.39	-1489.08	1740308.25	14410856.99	39°40'52.4254"N	80°38'41.8384"W	1583.42	250.122	0.56
8388.00	93.360	312.350	7349.50	835.75	-477.57	-1556.58	1740240.78	14410917.79	39°40'53.0291"N	80°38'42.6987"W	1628.19	252.944	0.83
8478.00	92.160	311.730	7345.17	925.64	-417.37	-1623.34	1740174.04	14410977.96	39°40'53.6266"N	80°38'43.5495"W	1676.14	255.581	1.50
8568.00	91.880	312.590	7341.99	1015.59	-357.00	-1690.02	1740107.39	14411038.31	39°40'54.2259"N	80°38'44.3992"W	1727.31	258.072	1.00
8660.00	91.450	313.360	7339.32	1107.53	-294.31	-1757.30	1740040.14	14411100.97	39°40'54.8480"N	80°38'45.2567"W	1781.77	260.492	0.96
8750.00	91.660	311.760	7336.88	1197.49	-233.46	-1823.56	1739973.90	14411161.80	39°40'55.4519"N	80°38'46.1011"W	1838.45	262.704	1.79
8840.00	93.910	313.860	7332.50	1287.37	-172.38	-1889.50	1739907.98	14411222.86	39°40'56.0582"N	80°38'46.9415"W	1897.35	264.787	3.42
8931.00	91.200	312.470	7328.45	1378.25	-110.20	-1955.80	1739841.71	14411285.01	39°40'56.6753"N	80°38'47.7863"W	1958.91	266.775	3.35
9022.00	90.430	312.650	7327.15	1469.24	-48.66	-2022.82	1739774.71	14411346.53	39°40'57.2861"N	80°38'48.6405"W	2023.41	268.622	0.87
9115.00	92.120	312.640	7325.08	1562.21	14.33	-2091.21	1739706.35	14411409.49	39°40'57.9112"N	80°38'49.5120"W	2091.26	270.393	1.82
9205.00	91.170	311.890	7322.50	1652.17	74.83	-2157.79	1739639.80	14411469.97	39°40'58.5116"N	80°38'50.3605"W	2159.09	271.986	1.34
9297.00	92.710	311.860	7319.39	1744.11	136.21	-2226.25	1739571.37	14411531.32	39°40'59.1210"N	80°38'51.2331"W	2230.41	273.501	1.67
9389.00	91.320	311.810	7316.15	1836.05	197.53	-2294.75	1739502.89	14411592.62	39°40'59.7297"N	80°38'52.1062"W	2303.24	274.920	1.51
9480.00	91.420	311.530	7313.98	1927.02	258.01	-2362.71	1739434.96	14411653.08	39°41'0.3301"N	80°38'52.9724"W	2376.75	276.232	0.33
9570.00	91.290	311.290	7311.85	2016.99	317.53	-2430.19	1739367.51	14411712.57	39°41'0.9208"N	80°38'53.8325"W	2450.85	277.444	0.30
9660.00	91.690	310.460	7309.51	2106.94	376.40	-2498.22	1739299.51	14411771.43	39°41'1.5053"N	80°38'54.6997"W	2526.41	278.568	1.02
9753.00	92.060	311.100	7306.46	2199.87	437.11	-2568.60	1739229.15	14411832.11	39°41'2.1080"N	80°38'55.5969"W	2605.53	279.658	0.79
9844.00	90.920	310.120	7304.10	2290.81	496.32	-2637.66	1739160.12	14411891.30	39°41'2.6959"N	80°38'56.4773"W	2683.95	280.657	1.65
9937.00	91.880	311.200	7301.83	2383.75	556.90	-2708.19	1739089.62	14411951.85	39°41'3.2973"N	80°38'57.3763"W	2764.85	281.620	1.55
10028.00	91.820	309.050	7298.89	2474.64	615.51	-2777.73	1739020.11	14412010.44	39°41'3.8792"N	80°38'58.2629"W	2845.11	282.494	2.36
10119.00	91.820	311.310	7296.00	2565.54	674.19	-2847.21	1738950.65	14412069.10	39°41'4.4618"N	80°38'59.1488"W	2925.95	283.322	2.48
10211.00	92.060	310.430	7292.88	2657.47	734.36	-2916.74	1738881.14	14412129.24	39°41'5.0591"N	80°39'0.0351"W	3007.77	284.132	0.99
10302.00	93.200	312.830	7288.71	2748.36	794.74	-2984.68	1738813.23	14412189.60	39°41'5.6584"N	80°39'0.9011"W	3088.68	284.910	2.92
10394.00	91.790	312.090	7284.70	2840.27	856.78	-3052.49	1738745.45	14412251.62	39°41'6.2742"N	80°39'1.7653"W	3170.45	285.679	1.73
10484.00	92.590	312.610	7281.26	2930.20	917.37	-3118.96	1738679.01	14412312.18	39°41'6.8755"N	80°39'2.6125"W	3251.07	286.390	1.06
10576.00	92.830	312.440	7276.91	3022.10	979.48	-3186.68	1738611.31	14412374.27	39°41'7.4920"N	80°39'3.4757"W	3333.82	287.086	0.32
10667.00	92.430	312.720	7272.74	3113.00	1040.99	-3253.62	1738544.40	14412435.75	39°41'8.1024"N	80°39'4.3288"W	3416.09	287.742	0.54
10759.00	90.990	311.470	7269.99	3204.95	1102.63	-3321.85	1738476.20	14412497.37	39°41'8.7143"N	80°39'5.1985"W	3500.07	288.363	2.07



Actual Wellpath Report

SWN A WTZ 1H AWB_ awp 100' - 17300' Proj: 17322

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REFERENCE WELLPATH IDENTIFICATION

Operator	SWN PRODUCTION COMPANY, LLC	Well	SWN A WTZ 1H
Field	Wetzel	API	47103034210000
Facility	SWN A WTZ Pad	Wellbore	SWN A WTZ 1H AWB
Slot	Slot 1H		

WELLPATH DATA (193 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]
10851.00	91.320	312.030	7268.14	3296.93	1163.88	-3390.47	1738407.60	14412558.60	39°41'9.3222"N	80°39'6.0732"W	3584.68	288.946	0.71
10943.00	91.630	313.070	7265.77	3388.89	1226.07	-3458.23	1738339.87	14412620.76	39°41'9.9394"N	80°39'6.9368"W	3669.14	289.521	1.18
11035.00	91.690	312.760	7263.10	3480.85	1288.69	-3525.58	1738272.55	14412683.36	39°41'10.5608"N	80°39'7.7951"W	3753.72	290.079	0.34
11126.00	90.920	312.320	7261.03	3571.82	1350.20	-3592.61	1738205.55	14412744.84	39°41'11.1713"N	80°39'8.6495"W	3837.95	290.598	0.97
11217.00	90.650	311.710	7259.78	3662.81	1411.10	-3660.21	1738137.97	14412805.72	39°41'11.7758"N	80°39'9.5112"W	3922.80	291.083	0.73
11308.00	91.230	312.220	7258.29	3753.80	1471.94	-3727.86	1738070.34	14412866.54	39°41'12.3796"N	80°39'10.3736"W	4007.94	291.547	0.85
11399.00	92.590	312.000	7255.26	3844.74	1532.93	-3795.33	1738002.90	14412927.50	39°41'12.9849"N	80°39'11.2336"W	4093.22	291.994	1.51
11490.00	91.380	314.080	7252.11	3935.67	1594.99	-3861.80	1737936.46	14412989.54	39°41'13.6008"N	80°39'12.0807"W	4178.22	292.442	2.64
11578.00	92.520	311.770	7249.11	4023.60	1654.89	-3926.19	1737872.09	14413049.41	39°41'14.1952"N	80°39'12.9014"W	4260.71	292.855	2.93
11671.00	91.170	312.980	7246.12	4116.55	1717.53	-3994.86	1737803.45	14413112.03	39°41'14.8169"N	80°39'13.7767"W	4348.43	293.265	1.95
11762.00	91.110	312.700	7244.31	4207.52	1779.40	-4061.57	1737736.76	14413173.87	39°41'15.4309"N	80°39'14.6270"W	4434.25	293.658	0.31
11852.00	91.350	312.120	7242.38	4297.50	1840.08	-4128.01	1737670.36	14413234.53	39°41'16.0331"N	80°39'15.4738"W	4519.55	294.025	0.70
11943.00	90.650	312.680	7240.79	4388.48	1901.43	-4195.19	1737603.19	14413295.86	39°41'16.6420"N	80°39'16.3302"W	4605.98	294.382	0.99
12033.00	90.770	311.970	7239.67	4478.47	1962.03	-4261.73	1737536.68	14413356.43	39°41'17.2434"N	80°39'17.1783"W	4691.68	294.721	0.80
12125.00	92.430	312.370	7237.10	4570.43	2023.76	-4329.89	1737468.55	14413418.14	39°41'17.8561"N	80°39'18.0471"W	4779.49	295.051	1.86
12216.00	90.920	313.070	7234.44	4661.38	2085.47	-4396.71	1737401.75	14413479.83	39°41'18.4685"N	80°39'18.8988"W	4866.24	295.376	1.83
12306.00	90.460	312.850	7233.36	4751.37	2146.80	-4462.57	1737335.92	14413541.13	39°41'19.0771"N	80°39'19.7383"W	4952.10	295.691	0.57
12397.00	90.650	311.400	7232.48	4842.36	2207.83	-4530.06	1737268.46	14413602.14	39°41'19.6828"N	80°39'20.5986"W	5039.44	295.983	1.61
12487.00	91.480	311.730	7230.81	4932.34	2267.54	-4597.38	1737201.16	14413661.82	39°41'20.2754"N	80°39'21.4569"W	5126.17	296.254	0.99
12578.00	91.260	312.260	7228.63	5023.31	2328.40	-4665.00	1737133.57	14413722.66	39°41'20.8795"N	80°39'22.3187"W	5213.79	296.525	0.63
12668.00	91.450	312.350	7226.50	5113.29	2388.96	-4731.54	1737067.06	14413783.20	39°41'21.4805"N	80°39'23.1670"W	5300.43	296.789	0.23
12759.00	90.710	312.570	7224.79	5204.27	2450.38	-4798.66	1736999.96	14413844.60	39°41'22.0901"N	80°39'24.0226"W	5388.09	297.051	0.85
12851.00	90.740	313.050	7223.62	5296.25	2512.90	-4866.15	1736932.50	14413907.09	39°41'22.7104"N	80°39'24.8828"W	5476.68	297.312	0.52
12942.00	90.280	312.380	7222.81	5387.24	2574.63	-4933.01	1736865.67	14413968.79	39°41'23.3230"N	80°39'25.7350"W	5564.46	297.561	0.89
13034.00	90.370	312.550	7222.29	5479.24	2636.74	-5000.87	1736797.83	14414030.88	39°41'23.9394"N	80°39'26.6001"W	5653.42	297.801	0.21
13124.00	90.950	312.130	7221.25	5569.23	2697.35	-5067.39	1736731.33	14414091.47	39°41'24.5409"N	80°39'27.4481"W	5740.57	298.026	0.80
13216.00	90.920	312.850	7219.75	5661.22	2759.48	-5135.22	1736663.53	14414153.58	39°41'25.1576"N	80°39'28.3127"W	5829.69	298.252	0.78
13306.00	90.580	310.830	7218.57	5751.20	2819.51	-5202.27	1736596.51	14414213.58	39°41'25.7533"N	80°39'29.1674"W	5917.20	298.457	2.28
13398.00	91.110	311.860	7217.22	5843.18	2880.28	-5271.33	1736527.48	14414274.32	39°41'26.3565"N	80°39'30.0479"W	6006.90	298.652	1.26
13489.00	90.620	312.780	7215.84	5934.17	2941.54	-5338.60	1736460.23	14414335.56	39°41'26.9644"N	80°39'30.9055"W	6095.35	298.854	1.15



Actual Wellpath Report

SWN A WTZ 1H AWB_ awp 100' - 17300' Proj: 17325
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Environmental Protection



REFERENCE WELLPATH IDENTIFICATION			
Operator	SWN PRODUCTION COMPANY, LLC	Well	SWN A WTZ 1H
Field	Wetzel	API	47103034210000
Facility	SWN A WTZ Pad	Wellbore	SWN A WTZ 1H AWB
Slot	Slot 1H		

WELLPATH DATA (193 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]
13580.00	90.000	311.920	7215.35	6025.17	3002.84	-5405.85	1736393.01	14414396.84	39°41'27.5728"N	80°39'31.7628"W	6183.87	299.051	1.17
13670.00	90.520	311.190	7214.94	6115.16	3062.54	-5473.20	1736325.69	14414456.51	39°41'28.1653"N	80°39'32.6214"W	6271.77	299.229	1.00
13761.00	90.680	310.590	7213.99	6206.14	3122.10	-5541.99	1736256.92	14414516.05	39°41'28.7565"N	80°39'33.4984"W	6360.91	299.395	0.68
13854.00	90.830	311.720	7212.76	6299.12	3183.30	-5612.00	1736186.94	14414577.23	39°41'29.3640"N	80°39'34.3911"W	6451.98	299.563	1.23
13947.00	90.180	311.750	7211.94	6392.11	3245.21	-5681.40	1736117.57	14414639.11	39°41'29.9784"N	80°39'35.2758"W	6542.91	299.735	0.70
14037.00	90.150	311.700	7211.69	6482.11	3305.11	-5748.57	1736050.42	14414698.99	39°41'30.5729"N	80°39'36.1322"W	6630.97	299.896	0.06
14129.00	90.310	311.470	7211.32	6574.11	3366.17	-5817.38	1735981.64	14414760.02	39°41'31.1789"N	80°39'37.0095"W	6721.09	300.055	0.30
14220.00	90.710	312.090	7210.51	6665.10	3426.80	-5885.24	1735913.81	14414820.63	39°41'31.7806"N	80°39'37.8746"W	6810.21	300.211	0.81
14312.00	90.680	311.620	7209.39	6757.09	3488.18	-5953.76	1735845.31	14414881.99	39°41'32.3898"N	80°39'38.7482"W	6900.34	300.365	0.51
14403.00	90.180	311.540	7208.71	6848.09	3548.57	-6021.83	1735777.27	14414942.36	39°41'32.9892"N	80°39'39.6160"W	6989.62	300.510	0.56
14493.00	91.380	311.150	7207.48	6938.07	3608.02	-6089.39	1735709.74	14415001.78	39°41'33.5792"N	80°39'40.4774"W	7078.02	300.647	1.40
14583.00	91.850	311.710	7204.95	7028.03	3667.55	-6156.84	1735642.31	14415061.28	39°41'34.1700"N	80°39'41.3374"W	7166.42	300.782	0.81
14674.00	90.250	311.630	7203.28	7119.01	3728.03	-6224.80	1735574.38	14415121.75	39°41'34.7704"N	80°39'42.2039"W	7255.78	300.917	1.76
14767.00	91.050	310.530	7202.22	7211.99	3789.14	-6294.90	1735504.31	14415182.83	39°41'35.3769"N	80°39'43.0976"W	7347.34	301.045	1.46
14859.00	91.630	312.500	7200.07	7303.95	3850.10	-6363.76	1735435.47	14415243.77	39°41'35.9819"N	80°39'43.9757"W	7437.79	301.174	2.23
14952.00	90.520	312.090	7198.33	7396.93	3912.67	-6432.54	1735366.72	14415306.31	39°41'36.6028"N	80°39'44.8525"W	7529.05	301.311	1.27
15042.00	90.120	310.690	7197.82	7486.92	3972.17	-6500.06	1735299.23	14415365.79	39°41'37.1934"N	80°39'45.7133"W	7617.67	301.429	1.62
15133.00	90.400	311.000	7197.41	7577.90	4031.69	-6568.90	1735230.41	14415425.29	39°41'37.7841"N	80°39'46.5911"W	7707.46	301.540	0.46
15224.00	90.030	311.590	7197.07	7668.89	4091.74	-6637.27	1735162.07	14415485.32	39°41'38.3802"N	80°39'47.4629"W	7797.16	301.653	0.77
15315.00	90.650	310.460	7196.53	7759.87	4151.47	-6705.92	1735093.45	14415545.02	39°41'38.9730"N	80°39'48.3382"W	7886.95	301.761	1.42
15406.00	90.950	311.350	7195.26	7850.84	4211.05	-6774.69	1735024.71	14415604.58	39°41'39.5644"N	80°39'49.2151"W	7976.80	301.865	1.03
15496.00	91.020	312.170	7193.71	7940.83	4270.98	-6841.81	1734957.61	14415664.49	39°41'40.1592"N	80°39'50.0709"W	8065.46	301.974	0.91
15587.00	91.170	311.920	7191.97	8031.81	4331.92	-6909.38	1734890.07	14415725.40	39°41'40.7638"N	80°39'50.9324"W	8155.06	302.086	0.32
15678.00	90.950	311.470	7190.29	8122.79	4392.44	-6977.32	1734822.16	14415785.89	39°41'41.3645"N	80°39'51.7986"W	8244.78	302.192	0.55
15770.00	91.110	310.930	7188.64	8214.77	4453.03	-7046.53	1734752.97	14415846.46	39°41'41.9658"N	80°39'52.6811"W	8335.64	302.291	0.61
15861.00	91.480	311.870	7186.58	8305.74	4513.19	-7114.77	1734684.76	14415906.60	39°41'42.5629"N	80°39'53.5512"W	8425.49	302.389	1.11
15952.00	91.660	311.450	7184.09	8396.70	4573.66	-7182.73	1734616.82	14415967.04	39°41'43.1630"N	80°39'54.4177"W	8515.28	302.487	0.50
16044.00	90.060	310.870	7182.70	8488.68	4634.20	-7251.98	1734547.60	14416027.56	39°41'43.7639"N	80°39'55.3008"W	8606.22	302.580	1.85
16137.00	90.340	310.930	7182.38	8581.66	4695.09	-7322.28	1734477.33	14416088.43	39°41'44.3682"N	80°39'56.1972"W	8698.25	302.668	0.31
16228.00	90.150	311.240	7181.99	8672.64	4754.89	-7390.87	1734408.77	14416148.20	39°41'44.9618"N	80°39'57.0718"W	8788.28	302.755	0.40



Actual Wellpath Report

SWN A WTZ 1H AWB_ awp 100' - 17300' Proj: 17325
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REFERENCE WELLPATH IDENTIFICATION

Operator	SWN PRODUCTION COMPANY, LLC	Well	SWN A WTZ 1H
Field	Wetzel	API	47103034210000
Facility	SWN A WTZ Pad	Wellbore	SWN A WTZ 1H AWB
Slot	Slot 1H		

WELLPATH DATA (193 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]
16320.00	89.940	311.410	7181.92	8764.64	4815.64	-7459.96	1734339.71	14416208.93	39°41'45.5647"N	80°39'57.9527"W	8879.26	302.844	0.29
16412.00	89.880	311.040	7182.06	8856.63	4876.27	-7529.15	1734270.54	14416269.54	39°41'46.1664"N	80°39'58.8351"W	8970.29	302.929	0.41
16503.00	89.880	311.420	7182.25	8947.62	4936.25	-7597.59	1734202.13	14416329.49	39°41'46.7617"N	80°39'59.7077"W	9060.35	303.012	0.42
16593.00	90.060	312.710	7182.30	9037.61	4996.54	-7664.40	1734135.34	14416389.76	39°41'47.3600"N	80°40'0.5596"W	9149.24	303.101	1.45
16685.00	89.630	312.440	7182.55	9129.61	5058.78	-7732.15	1734067.62	14416451.98	39°41'47.9776"N	80°40'1.4234"W	9239.99	303.195	0.55
16776.00	89.850	311.830	7182.96	9220.61	5119.83	-7799.63	1734000.16	14416513.01	39°41'48.5834"N	80°40'2.2838"W	9329.90	303.282	0.71
16867.00	90.310	313.000	7182.84	9311.60	5181.21	-7866.81	1733933.01	14416574.36	39°41'49.1925"N	80°40'3.1403"W	9419.75	303.370	1.38
16958.00	90.150	312.300	7182.47	9402.60	5242.87	-7933.74	1733866.10	14416635.99	39°41'49.8042"N	80°40'3.9937"W	9509.57	303.458	0.79
17049.00	91.480	312.040	7181.18	9493.59	5303.95	-8001.18	1733798.69	14416697.05	39°41'50.4104"N	80°40'4.8535"W	9599.52	303.540	1.49
17139.00	91.510	313.510	7178.83	9583.55	5365.05	-8067.22	1733732.68	14416758.12	39°41'51.0166"N	80°40'5.6955"W	9688.33	303.626	1.63
17231.00	91.720	314.000	7176.23	9675.47	5428.65	-8133.64	1733666.28	14416821.70	39°41'51.6476"N	80°40'6.5423"W	9778.87	303.720	0.58
17300.00	91.290	313.680	7174.42	9744.41	5476.42	-8183.39	1733616.55	14416869.46	39°41'52.1216"N	80°40'7.1765"W	9846.78	303.791	0.78
17325.00‡	91.290	313.680	7173.86	9769.40	5493.68	-8201.47	1733598.48	14416886.71	39°41'52.2928"N	80°40'7.4069"W	9871.41	303.816	0.00

HOLE & CASING SECTIONS - Ref Wellbore: SWN A WTZ 1H AWB Ref Wellpath: SWN A WTZ 1H AWB_ awp 100' - 17300' Proj: 17325'

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
13.375in Casing	26.00	380.00	354.00	26.00	380.00	0.00	0.00	0.79	-0.81
9.625in Casing	26.00	2888.00	2862.00	26.00	2853.14	0.00	0.00	-255.17	-125.72
5.5in Casing	26.00	17325.00	17299.00	26.00	7173.86	0.00	0.00	5493.68	-8201.47



Actual Wellpath Report

SWN A WTZ 1H AWB_awp 100' - 17300' Proj: 17325'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	SWN PRODUCTION COMPANY, LLC	Well	SWN A WTZ 1H
Field	Wetzel	API	47103034210000
Facility	SWN A WTZ Pad	Wellbore	SWN A WTZ 1H AWB
Slot	Slot 1H		

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SWN A WTZ 1H BHL Rev 4	7152.04	5496.61	-8199.75	1733600.20	14416889.64	39°41'52.3217"N	80°40'7.3848"W	point
SWN A WTZ 1H BHL Rev-3	7168.20	5496.61	-8199.75	1733600.20	14416889.64	39°41'52.3217"N	80°40'7.3847"W	point
SWN A WTZ 1H LP Rev 4	7373.00	-784.33	-1238.73	1740558.51	14410611.15	39°40'49.9850"N	80°38'38.6488"W	point

WELLPATH COMPOSITION - Ref Wellbore: SWN A WTZ 1H AWB Ref Wellpath: SWN A WTZ 1H AWB_awp 100' - 17300' Proj: 17325'					
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date
26.00	1577.00	Gyrodatta 2015 - GC+WIR+DPIPE	1 Gyro 100' - 1577'	SWN A WTZ 1H AWB	1/10/2022
1577.00	6451.00	OWSG MWD rev2 + HRGM	2 Tally MWD 1610' - 6451'	SWN A WTZ 1H AWB	1/10/2022
6451.00	17325.00	BH AutoTrak Curve/eXpress (2019) (HRGM, Short spacing)	3 BH MWD 6566' - 17300'	SWN A WTZ 1H AWB	1/13/2022



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Well Name: SWN A WTZ 1H

47103034210000

LITHOLOGY/FORMATION	TOP DEPTH, MD (FT)	TOP DEPTH, TVD (FT)	BOTTOM DEPTH, MD (FT)	BOTTOM DEPTH, TVD (FT)	QUANTITY AND TYPE OF FLUID
Base of Fresh Water	0.00	0.00	307.00	307.00	
Top of Salt Water	1342.00	1342.00	NA	NA	
Pittsburgh Coal	1249.00	1247.00	1255.00	1252.00	
Pottsville (ss)	1315.00	1313.00	1782.00	1778.00	
Raven Cliff (ss)	1782.00	1778.00	2276.00	2262.00	
Maxton (ss)	2276.00	2262.00	2452.00	2431.00	
Big Injun (ss)	2452.00	2431.00	2708.00	2679.00	
Berea (siltstone)	3072.00	3032.00	3095.00	3054.00	
Rhinestreet (shale)	6778.00	6617.00	7193.00	7003.00	
Cashaqua (shale)	7193.00	7003.00	7378.00	7153.00	
Middlesex (shale)	7378.00	7153.00	7461.00	7211.00	
Burket (shale)	7461.00	7211.00	7513.00	7244.00	
Tully (ls)	7513.00	7244.00	7557.00	7270.00	
Mahantango (shale)	7557.00	7270.00	7761.00	7354.00	
Marcellus (shale)	7761.00	7354.00	NA	NA	GAS