

# SWN PRODUCTION COMPANY, LLC

Location: Wetzel County, WV  
 Field: Wetzel  
 Facility: William Ritchea WTZ Pad

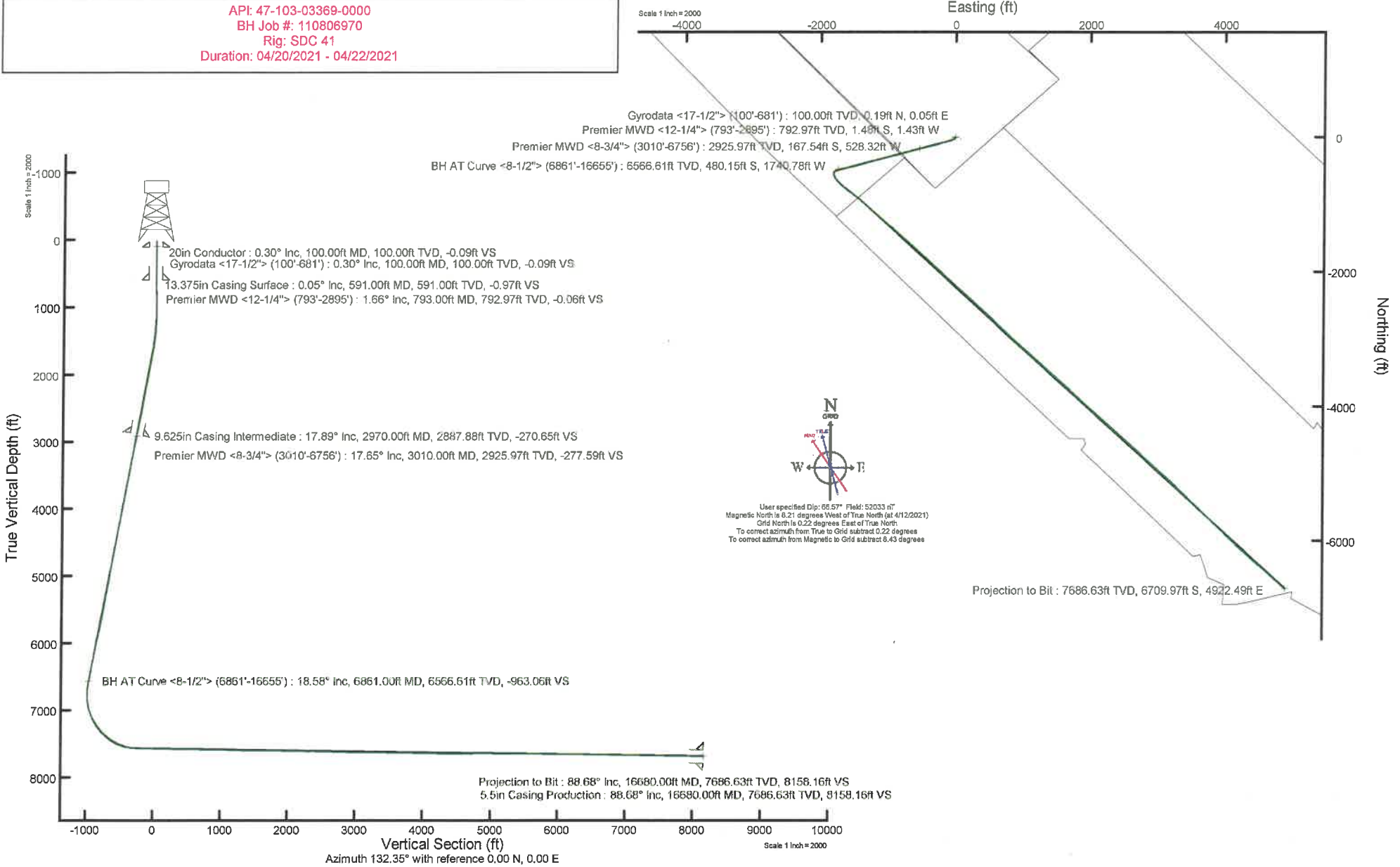
Slot: Slot 6H  
 Well: William Ritchea WTZ 6H  
 Wellbore: William Ritchea WTZ 6H PWB



## Location Information

Facility Name		Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	
William Ritchea WTZ Pad		1736263.630	14408607.520	39°40'10.5672"N	80°39'33.7968"W	
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Slot 6H	-2.49	28.24	1736291.860	14408605.030	39°40'10.5416"N	80°39'33.4358"W
SDC 41 (RKB) to Ground level (At Slot: Slot 6H)				26ft		
Mean Sea Level to Ground level (At Slot: Slot 6H)				-1563.4ft		
SDC 41 (RKB) to Mean Sea Level				1589.4ft		

API: 47-103-03369-0000  
 BH Job #: 110806970  
 Rig: SDC 41  
 Duration: 04/20/2021 - 04/22/2021



## REFERENCE WELLPATH IDENTIFICATION

Operator	SWN PRODUCTION COMPANY, LLC	Well	William Ritchea WTZ 6H
Field	Wetzel	API/Legal	
Facility	William Ritchea WTZ Pad	Wellbore	William Ritchea WTZ 6H AWP
Slot	Slot 6H		

## REPORT SETUP INFORMATION

Projection System	NAD83 / UTM Zone 17 North, US feet	Software System	WellArchitect® 6.0
North Reference	Grid	User	Atenjen
Scale	0.999611	Report Generated	4/22/2021 at 9:16:38 AM
Convergence at slot	0.22° 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	-2.49	28.24	1736291.86	14406605.03	39°40'10.5416"N	80°39'33.4358"W
Facility Reference Pt			1736263.63	14406607.52	39°40'10.5672"N	80°39'33.7968"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	1589.40ft
Horizontal Reference Pt	Slot	SDC 41 (RKB) to Mean Sea Level	1589.40ft
Vertical Reference Pt	SDC 41 (RKB)	SDC 41 (RKB) to Ground Level at Slot (Slot 6H)	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	132.35°



# Actual Wellpath Report

William Ritchea Wtz 6H AWP Proj: 16680'  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	SWN PRODUCTION COMPANY, LLC	Well	William Ritchea Wtz 6H
Field	Wetzel	API/Legal	
Facility	William Ritchea Wtz Pad	Wellbore	William Ritchea Wtz 6H AWB
Slot	Slot 6H		

## WELLPATH DATA (185 stations) † = interpolated, ‡ = extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]
0.00†	0.000	14.790	0.00	0.00	0.00	0.00	1736291.86	14406605.03	39°40'10.5416"N	80°39'33.4358"W	0.00	0.000	0.00	0.00	0.00
26.00	0.000	14.790	26.00	0.00	0.00	0.00	1736291.86	14406605.03	39°40'10.5416"N	80°39'33.4358"W	0.00	0.000	0.00	0.00	0.00
100.00	0.300	14.790	100.00	-0.09	0.19	0.05	1736291.91	14406605.22	39°40'10.5434"N	80°39'33.4351"W	0.19	14.790	0.41	0.41	0.00
200.00	0.240	349.130	200.00	-0.38	0.65	0.08	1736291.94	14406605.68	39°40'10.5479"N	80°39'33.4347"W	0.65	6.778	0.13	-0.06	-25.60
300.00	0.130	354.770	300.00	-0.63	0.96	0.03	1736291.89	14406605.99	39°40'10.5511"N	80°39'33.4354"W	0.97	1.600	0.11	-0.11	5.60
400.00	0.110	338.500	400.00	-0.80	1.17	-0.02	1736291.84	14406606.20	39°40'10.5531"N	80°39'33.4359"W	1.17	359.088	0.04	-0.02	-16.20
500.00	0.060	328.030	500.00	-0.94	1.30	-0.08	1736291.78	14406606.33	39°40'10.5544"N	80°39'33.4367"W	1.30	356.416	0.05	-0.05	-10.40
600.00	0.060	192.810	600.00	-0.96	1.29	-0.12	1736291.74	14406606.32	39°40'10.5544"N	80°39'33.4372"W	1.30	354.667	0.11	0.00	-135.20
681.00	0.840	210.490	680.99	-0.82	0.74	-0.43	1736291.43	14406605.77	39°40'10.5489"N	80°39'33.4412"W	0.86	329.794	0.97	0.96	21.80
793.00	1.660	201.020	792.97	-0.06	-1.48	-1.43	1736290.43	14406603.55	39°40'10.5270"N	80°39'33.4541"W	2.06	224.002	0.75	0.73	-8.40
885.00	2.610	204.120	884.90	1.08	-4.64	-2.76	1736289.10	14406600.40	39°40'10.4958"N	80°39'33.4713"W	5.40	210.801	1.04	1.03	3.30
977.00	4.120	209.150	976.74	2.49	-9.43	-5.23	1736286.63	14406595.60	39°40'10.4485"N	80°39'33.5031"W	10.79	209.000	1.67	1.64	5.40
1069.00	5.400	217.620	1068.42	3.60	-15.75	-9.48	1736282.38	14406589.29	39°40'10.3863"N	80°39'33.5578"W	18.38	211.050	1.53	1.39	9.20
1159.00	6.470	226.580	1157.94	3.58	-22.59	-15.75	1736276.12	14406582.45	39°40'10.3189"N	80°39'33.6383"W	27.54	214.886	1.57	1.19	9.90
1250.00	8.160	236.690	1248.20	1.60	-29.66	-24.87	1736267.00	14406575.38	39°40'10.2494"N	80°39'33.7553"W	38.71	219.982	2.33	1.86	11.10
1342.00	10.570	243.090	1338.97	-3.01	-37.07	-37.86	1736254.02	14406567.98	39°40'10.1766"N	80°39'33.9217"W	52.98	225.603	2.85	2.62	6.90
1435.00	12.300	249.060	1430.12	-10.48	-44.47	-54.72	1736237.17	14406560.58	39°40'10.1041"N	80°39'34.1376"W	70.51	230.898	2.25	1.86	6.40
1526.00	13.890	252.790	1518.76	-20.37	-51.17	-74.20	1736217.69	14406553.88	39°40'10.0387"N	80°39'34.3872"W	90.13	235.413	1.98	1.75	4.10
1618.00	15.160	256.490	1607.82	-32.72	-57.24	-96.45	1736195.45	14406547.81	39°40'9.9794"N	80°39'34.6720"W	112.16	239.311	1.71	1.38	4.00
1710.00	16.770	258.610	1696.27	-47.32	-62.68	-121.16	1736170.75	14406542.38	39°40'9.9267"N	80°39'34.9882"W	136.41	242.648	1.86	1.75	2.30
1802.00	18.180	255.330	1784.02	-62.98	-68.93	-148.06	1736143.86	14406536.13	39°40'9.8659"N	80°39'35.3325"W	163.32	245.034	1.87	1.53	-3.50
1894.00	20.290	253.230	1870.88	-78.99	-77.17	-177.22	1736114.71	14406527.89	39°40'9.7855"N	80°39'35.7058"W	193.29	246.469	2.41	2.29	-2.20
1986.00	21.520	251.220	1956.82	-95.32	-87.21	-208.47	1736083.47	14406517.86	39°40'9.6875"N	80°39'36.1059"W	225.97	247.300	1.55	1.34	-2.10
2077.00	20.510	250.760	2041.77	-110.96	-97.83	-239.32	1736052.63	14406507.24	39°40'9.5837"N	80°39'36.5010"W	258.55	247.766	1.12	-1.11	-0.50
2170.00	19.640	253.010	2129.12	-126.69	-107.77	-269.65	1736022.31	14406497.30	39°40'9.4866"N	80°39'36.8893"W	290.39	248.216	1.25	-0.94	2.40
2262.00	18.720	254.680	2216.01	-142.47	-116.19	-298.68	1735993.30	14406488.89	39°40'9.4045"N	80°39'37.2609"W	320.48	248.744	1.16	-1.00	1.80
2354.00	18.070	256.260	2303.31	-158.32	-123.48	-326.78	1735965.21	14406481.60	39°40'9.3335"N	80°39'37.6206"W	349.33	249.300	0.89	-0.71	1.70
2445.00	18.050	255.610	2389.83	-173.93	-130.33	-354.14	1735937.86	14406474.75	39°40'9.2668"N	80°39'37.9709"W	377.36	249.795	0.22	-0.02	-0.70
2536.00	17.920	256.980	2476.38	-189.62	-136.99	-381.44	1735910.57	14406468.09	39°40'9.2020"N	80°39'38.3203"W	405.29	250.245	0.49	-0.14	1.50
2627.00	17.590	256.910	2563.05	-205.37	-143.26	-408.47	1735883.55	14406461.83	39°40'9.1411"N	80°39'38.6663"W	432.87	250.673	0.36	-0.36	-0.00

**REFERENCE WELLPATH IDENTIFICATION**

Operator	SWN PRODUCTION COMPANY, LLC	Well	William Ritchea WTZ 6H
Field	Wetzel	API/Legal	
Facility	William Ritchea WTZ Pad	Wellbore	William Ritchea WTZ 6H AWB
Slot	Slot 6H		

**WELLPATH DATA (185 stations)**

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]
2717.00	18.950	258.590	2648.51	-221.73	-149.23	-436.04	1735855.99	14406455.86	39°40'9.0831"N	80°39'39.0192"W	460.87	251.107	1.62	1.51	1.8
2808.00	19.750	260.300	2734.37	-239.92	-154.74	-465.68	1735826.36	14406450.35	39°40'9.0297"N	80°39'39.3985"W	490.72	251.619	1.08	0.88	1.8
2895.00	18.360	258.580	2816.60	-257.06	-159.93	-493.61	1735798.45	14406445.16	39°40'8.9794"N	80°39'39.7558"W	518.87	252.047	1.72	-1.60	-1.9
3010.00	17.650	256.670	2925.97	-277.59	-167.54	-528.32	1735763.74	14406437.56	39°40'8.9056"N	80°39'40.2001"W	554.25	252.405	0.80	-0.62	-1.6
3101.00	21.000	256.250	3011.83	-294.47	-174.60	-557.59	1735734.48	14406430.50	39°40'8.8369"N	80°39'40.5748"W	584.29	252.613	3.68	3.68	-0.4
3193.00	22.310	255.010	3097.34	-313.09	-183.03	-590.48	1735701.61	14406422.07	39°40'8.7548"N	80°39'40.9957"W	618.19	252.778	1.51	1.42	-1.3
3285.00	21.570	253.350	3182.67	-331.22	-192.40	-623.55	1735668.56	14406412.71	39°40'8.6635"N	80°39'41.4190"W	652.56	252.852	1.05	-0.80	-1.8
3375.00	19.590	252.710	3266.93	-347.37	-201.62	-653.81	1735638.31	14406403.49	39°40'8.5734"N	80°39'41.8064"W	684.19	252.861	2.21	-2.20	-0.7
3466.00	19.630	249.910	3352.65	-362.15	-211.41	-682.73	1735609.40	14406393.71	39°40'8.4778"N	80°39'42.1768"W	714.71	252.795	1.03	0.04	-3.0
3556.00	19.290	251.040	3437.51	-376.28	-221.43	-710.99	1735581.15	14406383.69	39°40'8.3798"N	80°39'42.5386"W	744.67	252.701	0.56	-0.38	1.2
3649.00	18.850	258.110	3525.42	-392.44	-229.52	-740.22	1735551.93	14406375.60	39°40'8.3010"N	80°39'42.9128"W	774.99	252.773	2.53	-0.47	7.6
3740.00	18.710	258.110	3611.57	-409.56	-235.55	-768.89	1735523.27	14406369.57	39°40'8.2424"N	80°39'43.2797"W	804.16	252.967	0.15	-0.15	0.0
3831.00	19.140	253.560	3697.66	-425.82	-242.78	-797.48	1735494.69	14406362.34	39°40'8.1720"N	80°39'43.6457"W	833.62	253.068	1.69	0.47	-5.0
3923.00	19.630	250.650	3784.44	-440.96	-252.17	-826.53	1735465.66	14406352.96	39°40'8.0803"N	80°39'44.0176"W	864.14	253.033	1.18	0.53	-3.1
4013.00	19.320	253.700	3869.30	-455.88	-261.36	-855.08	1735437.11	14406343.77	39°40'7.9905"N	80°39'44.3832"W	894.13	253.004	1.18	-0.34	3.3
4104.00	18.050	261.790	3955.51	-472.67	-267.60	-883.49	1735408.72	14406337.54	39°40'7.9299"N	80°39'44.7468"W	923.13	253.149	3.17	-1.40	8.8
4194.00	17.580	257.900	4041.20	-489.43	-272.44	-910.58	1735381.64	14406332.70	39°40'7.8831"N	80°39'45.0935"W	950.46	253.343	1.42	-0.52	-4.3
4285.00	19.260	259.190	4127.53	-506.42	-278.13	-938.76	1735353.47	14406327.00	39°40'7.8279"N	80°39'45.4541"W	979.10	253.497	1.90	1.85	1.4
4376.00	19.670	256.860	4213.33	-524.09	-284.43	-968.42	1735323.82	14406320.71	39°40'7.7667"N	80°39'45.8337"W	1009.32	253.632	0.96	0.45	-2.5
4468.00	19.280	252.670	4300.08	-540.54	-292.48	-998.00	1735294.25	14406312.67	39°40'7.6883"N	80°39'46.2123"W	1039.97	253.666	1.58	-0.42	-4.5
4559.00	19.080	249.780	4386.03	-554.97	-302.09	-1026.30	1735265.97	14406303.06	39°40'7.5943"N	80°39'46.5747"W	1069.83	253.598	1.07	-0.22	-3.1
4651.00	19.010	255.800	4473.00	-570.16	-310.97	-1054.94	1735237.34	14406294.19	39°40'7.5077"N	80°39'46.9413"W	1099.81	253.576	2.14	-0.08	6.5
4742.00	18.360	254.360	4559.20	-585.93	-318.46	-1083.11	1735209.18	14406286.69	39°40'7.4346"N	80°39'47.3019"W	1128.95	253.615	0.88	-0.71	-1.5
4833.00	18.840	258.140	4645.45	-602.12	-325.35	-1111.29	1735181.01	14406279.81	39°40'7.3676"N	80°39'47.6626"W	1157.93	253.682	1.43	0.53	4.1
4924.00	17.830	256.740	4731.83	-618.58	-331.56	-1139.23	1735153.08	14406273.60	39°40'7.3073"N	80°39'48.0203"W	1186.50	253.773	1.21	-1.11	-1.5
5015.00	17.460	256.730	4818.55	-634.16	-337.89	-1166.08	1735126.24	14406267.27	39°40'7.2457"N	80°39'48.3639"W	1214.04	253.840	0.41	-0.41	-0.0
5105.00	17.350	256.250	4904.43	-649.27	-344.18	-1192.25	1735100.08	14406260.98	39°40'7.1845"N	80°39'48.6989"W	1240.94	253.898	0.20	-0.12	-0.5
5197.00	17.960	251.440	4992.10	-663.81	-351.96	-1219.02	1735073.31	14406253.21	39°40'7.1087"N	80°39'49.0417"W	1268.82	253.895	1.72	0.66	-5.2
5289.00	19.250	250.970	5079.29	-677.97	-361.42	-1246.81	1735045.54	14406243.75	39°40'7.0162"N	80°39'49.3974"W	1298.14	253.834	1.41	1.40	-0.5
5381.00	18.850	255.950	5166.26	-693.46	-369.97	-1275.57	1735016.79	14406235.20	39°40'6.9327"N	80°39'49.7656"W	1328.14	253.825	1.82	-0.43	5.4

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Field	Wetzel	API/Legal	
Facility	William Ritchea Wtz Pad	Wellbore	William Ritchea Wtz 6H AWP
Slot	Slot 6H		

## WELLPATH DATA (185 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]
5471.00	19.040	255.090	5251.38	-709.45	-377.28	-1303.86	1734988.51	14406227.90	39°40'6.8616"N	80°39'50.1277"W	1357.34	253.862	0.38	0.21	-0.90
5562.00	18.480	251.820	5337.55	-724.57	-385.60	-1331.90	1734960.48	14406219.58	39°40'6.7804"N	80°39'50.4868"W	1386.60	253.854	1.31	-0.62	-3.50
5653.00	17.720	256.960	5424.05	-739.54	-393.22	-1359.10	1734933.29	14406211.96	39°40'6.7060"N	80°39'50.8349"W	1414.84	253.863	1.94	-0.84	5.60
5743.00	17.600	254.880	5509.81	-754.63	-399.86	-1385.58	1734906.82	14406205.32	39°40'6.6414"N	80°39'51.1738"W	1442.12	253.902	0.71	-0.13	-2.30
5836.00	18.670	254.050	5598.19	-770.02	-407.62	-1413.46	1734878.95	14406197.57	39°40'6.5658"N	80°39'51.5308"W	1471.07	253.913	1.18	1.15	-0.80
5926.00	19.340	253.350	5683.28	-785.26	-415.85	-1441.59	1734850.83	14406189.34	39°40'6.4855"N	80°39'51.8909"W	1500.37	253.909	0.79	0.74	-0.70
6019.00	20.750	254.180	5770.65	-801.88	-424.75	-1472.20	1734820.24	14406180.44	39°40'6.3986"N	80°39'52.2827"W	1532.25	253.906	1.55	1.52	0.80
6110.00	20.330	257.440	5855.87	-819.47	-432.59	-1503.14	1734789.31	14406172.61	39°40'6.3223"N	80°39'52.6788"W	1564.15	253.945	1.34	-0.46	3.50
6203.00	19.550	261.520	5943.30	-838.59	-438.39	-1534.30	1734758.16	14406166.81	39°40'6.2661"N	80°39'53.0775"W	1595.70	254.054	1.71	-0.84	4.30
6295.00	19.770	259.790	6029.93	-857.77	-443.42	-1564.84	1734727.63	14406161.78	39°40'6.2175"N	80°39'53.4683"W	1626.45	254.179	0.68	0.24	-1.80
6387.00	18.240	256.280	6116.92	-875.27	-449.60	-1594.14	1734698.34	14406155.61	39°40'6.1576"N	80°39'53.8433"W	1656.33	254.250	2.08	-1.66	-3.80
6479.00	17.830	258.130	6204.40	-891.54	-455.91	-1621.91	1734670.58	14406149.30	39°40'6.0962"N	80°39'54.1987"W	1684.77	254.300	0.77	-0.45	2.00
6572.00	18.990	260.470	6292.64	-909.20	-461.34	-1650.77	1734641.74	14406143.87	39°40'6.0436"N	80°39'54.5680"W	1714.02	254.386	1.48	1.25	2.50
6664.00	18.680	257.720	6379.71	-926.97	-466.95	-1679.93	1734612.59	14406138.26	39°40'5.9892"N	80°39'54.9412"W	1743.62	254.466	1.02	-0.34	-2.90
6756.00	18.240	259.280	6466.98	-944.15	-472.77	-1708.47	1734584.06	14406132.45	39°40'5.9328"N	80°39'55.3065"W	1772.68	254.532	0.72	-0.48	1.70
6861.00	18.580	255.020	6566.61	-963.06	-480.15	-1740.78	1734551.76	14406125.07	39°40'5.8611"N	80°39'55.7199"W	1805.78	254.580	1.32	0.32	-4.00
6954.00	16.700	247.740	6655.24	-976.79	-489.04	-1767.46	1734525.09	14406116.18	39°40'5.7742"N	80°39'56.0616"W	1833.87	254.534	3.11	-2.02	-7.80
7046.00	13.490	229.050	6744.11	-983.71	-501.09	-1787.82	1734504.74	14406104.14	39°40'5.6558"N	80°39'56.3225"W	1856.71	254.343	6.29	-3.49	-20.30
7137.00	13.660	199.700	6832.67	-980.81	-518.18	-1799.47	1734493.09	14406087.05	39°40'5.4873"N	80°39'56.4723"W	1872.59	253.935	7.49	0.19	-32.20
7228.00	16.260	186.580	6920.61	-969.22	-540.97	-1804.56	1734488.01	14406064.28	39°40'5.2624"N	80°39'56.5384"W	1883.90	253.312	4.68	2.86	-14.40
7319.00	21.180	160.720	7006.91	-947.26	-569.20	-1800.58	1734491.99	14406036.05	39°40'4.9831"N	80°39'56.4889"W	1888.41	252.457	10.48	5.41	-28.40
7412.00	27.500	147.020	7091.67	-911.64	-603.14	-1783.31	1734509.25	14406002.13	39°40'4.6472"N	80°39'56.2697"W	1882.54	251.314	9.07	6.80	-14.70
7500.00	32.070	144.000	7168.03	-869.08	-639.10	-1758.51	1734534.04	14405966.18	39°40'4.2908"N	80°39'55.9542"W	1871.04	250.027	5.46	5.19	-3.40
7593.00	35.530	137.550	7245.32	-817.95	-679.04	-1725.73	1734566.80	14405926.26	39°40'3.8949"N	80°39'55.5370"W	1854.52	248.521	5.36	3.72	-6.90
7683.00	40.790	132.760	7316.08	-762.46	-718.33	-1686.46	1734606.06	14405886.98	39°40'3.5052"N	80°39'55.0367"W	1833.07	246.929	6.70	5.84	-5.30
7775.00	48.920	129.480	7381.25	-697.66	-760.86	-1637.55	1734654.95	14405844.47	39°40'3.0831"N	80°39'54.4132"W	1805.68	245.079	9.19	8.84	-3.50
7863.00	56.870	125.170	7434.32	-627.85	-803.25	-1581.72	1734710.76	14405802.10	39°40'2.6621"N	80°39'53.7014"W	1773.99	243.077	9.84	9.03	-4.90
7953.00	60.590	125.370	7481.02	-551.52	-847.66	-1518.93	1734773.53	14405757.70	39°40'2.2208"N	80°39'52.9005"W	1739.45	240.836	4.14	4.13	0.20
8042.00	68.820	126.780	7519.02	-471.60	-895.03	-1453.97	1734838.46	14405710.35	39°40'1.7503"N	80°39'52.0721"W	1707.37	238.385	9.36	9.25	1.50
8131.00	76.740	131.770	7545.36	-386.81	-948.84	-1388.29	1734904.11	14405656.56	39°40'1.2160"N	80°39'51.2348"W	1681.56	235.649	10.38	8.90	5.60

REFERENCE WELLPATH IDENTIFICATION			
Operator	SWN PRODUCTION COMPANY, LLC	Well	William Ritchea WTZ 6H
Field	Wetzel	API/Legal	
Facility	William Ritchea WTZ Pad	Wellbore	William Ritchea WTZ 6H AWB
Slot	Slot 6H		

WELLPATH DATA (185 stations)															
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]
8219.00	85.410	133.000	7559.00	-299.96	-1007.40	-1324.15	1734968.23	14405598.03	39°40'0.6350"N	80°39'50.4173"W	1663.79	232.736	9.95	9.85	1.4
8309.00	88.520	130.590	7563.77	-210.11	-1067.28	-1257.15	1735035.20	14405538.17	39°40'0.0407"N	80°39'49.5635"W	1649.10	229.670	4.37	3.46	-2.6
8401.00	88.710	130.230	7565.99	-118.19	-1126.90	-1187.12	1735105.20	14405478.57	39°39'59.4488"N	80°39'48.6709"W	1636.82	226.491	0.44	0.21	-0.3
8492.00	88.830	130.890	7567.94	-27.25	-1186.06	-1118.00	1735174.29	14405419.43	39°39'58.8616"N	80°39'47.7898"W	1629.93	223.308	0.74	0.13	0.7
8583.00	89.200	132.670	7569.51	63.72	-1246.68	-1050.16	1735242.11	14405358.84	39°39'58.2600"N	80°39'46.9252"W	1630.04	220.110	2.00	0.41	1.9
8676.00	88.180	130.260	7571.64	156.68	-1308.24	-980.49	1735311.75	14405297.30	39°39'57.6491"N	80°39'46.0373"W	1634.89	216.851	2.81	-1.10	-2.5
8767.00	88.430	130.460	7574.33	247.59	-1367.14	-911.18	1735381.04	14405238.42	39°39'57.0643"N	80°39'45.1538"W	1642.97	213.683	0.35	0.27	0.2
8856.00	88.460	131.450	7576.74	336.52	-1425.46	-843.99	1735448.20	14405180.13	39°39'56.4855"N	80°39'44.2974"W	1656.58	210.629	1.11	0.03	1.1
8947.00	88.830	131.040	7578.89	427.48	-1485.44	-775.59	1735516.58	14405120.17	39°39'55.8902"N	80°39'43.4256"W	1675.73	207.570	0.61	0.41	-0.4
9040.00	89.820	130.630	7579.99	520.44	-1546.24	-705.23	1735586.91	14405059.39	39°39'55.2867"N	80°39'42.5288"W	1699.48	204.517	1.15	1.06	-0.4
9129.00	89.260	130.960	7580.70	609.41	-1604.39	-637.86	1735654.25	14405001.27	39°39'54.7095"N	80°39'41.6701"W	1726.54	201.681	0.73	-0.63	0.3
9219.00	89.020	132.810	7582.06	699.39	-1664.47	-570.86	1735721.22	14404941.21	39°39'54.1133"N	80°39'40.8163"W	1759.64	198.930	2.07	-0.27	2.0
9310.00	88.710	133.440	7583.86	790.36	-1726.66	-504.46	1735787.60	14404879.04	39°39'53.4962"N	80°39'39.9702"W	1798.84	196.286	0.77	-0.34	0.6
9400.00	89.200	132.680	7585.50	880.34	-1788.10	-438.71	1735853.32	14404817.63	39°39'52.8865"N	80°39'39.1325"W	1841.13	193.785	1.00	0.54	-0.8
9492.00	88.740	132.900	7587.15	972.32	-1850.59	-371.21	1735920.80	14404755.17	39°39'52.2665"N	80°39'38.2723"W	1887.45	191.342	0.55	-0.50	0.2
9581.00	89.970	132.960	7588.16	1061.31	-1911.20	-306.05	1735985.93	14404694.58	39°39'51.6650"N	80°39'37.4420"W	1935.55	189.098	1.38	1.38	0.0
9673.00	87.600	130.230	7590.11	1153.27	-1972.25	-237.28	1736054.68	14404633.55	39°39'51.0590"N	80°39'36.5656"W	1986.47	186.860	3.93	-2.58	-2.9
9763.00	88.490	134.850	7593.18	1243.19	-2033.05	-171.02	1736120.91	14404572.78	39°39'50.4557"N	80°39'35.7213"W	2040.23	184.808	5.22	0.99	5.1
9854.00	88.310	131.290	7595.72	1334.13	-2095.16	-104.58	1736187.32	14404510.69	39°39'49.8394"N	80°39'34.8747"W	2097.77	182.858	3.92	-0.20	-3.9
9946.00	89.260	132.510	7597.67	1426.10	-2156.58	-36.12	1736255.75	14404449.29	39°39'49.2298"N	80°39'34.0023"W	2156.89	180.960	1.68	1.03	1.3
10037.00	89.320	132.840	7598.80	1517.10	-2218.26	30.78	1736322.63	14404387.64	39°39'48.6177"N	80°39'33.1499"W	2218.47	179.205	0.37	0.07	0.3
10127.00	89.170	131.800	7599.98	1607.09	-2278.85	97.32	1736389.14	14404327.07	39°39'48.0164"N	80°39'32.3020"W	2280.93	177.555	1.17	-0.17	-1.1
10217.00	89.110	131.800	7601.34	1697.07	-2338.83	164.40	1736456.20	14404267.12	39°39'47.4211"N	80°39'31.4471"W	2344.60	175.979	0.07	-0.07	0.0
10309.00	91.200	132.280	7601.09	1789.06	-2400.43	232.72	1736524.49	14404205.54	39°39'46.8098"N	80°39'30.5764"W	2411.69	174.462	2.33	2.27	0.5
10401.00	88.680	132.920	7601.18	1881.06	-2462.70	300.44	1736592.18	14404143.29	39°39'46.1918"N	80°39'29.7136"W	2480.96	173.045	2.83	-2.74	0.7
10493.00	89.050	132.670	7603.00	1973.03	-2525.19	367.93	1736659.65	14404080.83	39°39'45.5717"N	80°39'28.8536"W	2551.86	171.710	0.49	0.40	-0.2
10586.00	88.950	131.450	7604.63	2066.02	-2587.48	436.97	1736728.66	14404018.56	39°39'44.9535"N	80°39'27.9739"W	2624.12	170.414	1.32	-0.11	-1.3
10677.00	89.230	132.180	7606.07	2157.00	-2648.15	504.78	1736796.45	14403957.92	39°39'44.3514"N	80°39'27.1097"W	2695.83	169.208	0.86	0.31	0.8
10767.00	88.120	132.660	7608.15	2246.98	-2708.84	571.20	1736862.84	14403897.25	39°39'43.7491"N	80°39'26.2634"W	2768.41	168.093	1.34	-1.23	0.5
10859.00	91.140	135.360	7608.75	2338.92	-2772.75	637.36	1736928.97	14403833.37	39°39'43.1150"N	80°39'25.4206"W	2845.06	167.055	4.40	3.28	2.9

## REFERENCE WELLPATH IDENTIFICATION

Operator	SWN PRODUCTION COMPANY, LLC	Well	William Ritchea WTZ 6H
Field	Wetzel	API/Legal	
Facility	William Ritchea WTZ Pad	Wellbore	William Ritchea WTZ 6H AWB
Slot	Slot 6H		

## WELLPATH DATA (185 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]
10952.00	88.180	132.680	7609.30	2431.86	-2837.36	704.22	1736995.80	14403768.78	39°39'42.4739"N	80°39'24.5689"W	2923.44	166.061	4.29	-3.18	-2.81
11044.00	88.150	132.640	7612.25	2523.81	-2899.67	771.84	1737063.40	14403706.50	39°39'41.8556"N	80°39'23.7073"W	3000.64	165.095	0.05	-0.03	-0.00
11136.00	88.950	133.010	7614.57	2615.77	-2962.19	839.29	1737130.82	14403644.00	39°39'41.2352"N	80°39'22.8478"W	3078.79	164.181	0.96	0.87	0.41
11228.00	87.880	131.750	7617.12	2707.74	-3024.17	907.22	1737198.73	14403582.04	39°39'40.6200"N	80°39'21.9822"W	3157.32	163.301	1.80	-1.16	-1.31
11321.00	88.180	132.210	7620.32	2800.68	-3086.34	976.32	1737267.79	14403519.90	39°39'40.0030"N	80°39'21.1018"W	3237.08	162.446	0.59	0.32	0.41
11413.00	89.630	132.480	7622.07	2892.66	-3148.30	1044.30	1737335.75	14403457.96	39°39'39.3881"N	80°39'20.2356"W	3316.98	161.649	1.60	1.58	0.21
11502.00	89.170	131.810	7623.01	2981.65	-3208.02	1110.28	1737401.71	14403398.27	39°39'38.7954"N	80°39'19.3948"W	3394.72	160.909	0.91	-0.52	-0.71
11592.00	89.200	132.330	7624.29	3071.64	-3268.31	1177.09	1737468.49	14403338.00	39°39'38.1970"N	80°39'18.5436"W	3473.82	160.193	0.58	0.03	0.51
11681.00	89.600	132.330	7625.22	3160.64	-3328.24	1242.88	1737534.25	14403278.09	39°39'37.6022"N	80°39'17.7053"W	3552.74	159.523	0.45	0.45	0.01
11769.00	89.780	132.380	7625.69	3248.64	-3387.53	1307.91	1737599.26	14403218.83	39°39'37.0138"N	80°39'16.8767"W	3631.25	158.889	0.21	0.20	0.01
11858.00	89.050	132.730	7626.60	3337.63	-3447.71	1373.46	1737664.79	14403158.66	39°39'36.4165"N	80°39'16.0415"W	3711.22	158.279	0.91	-0.82	0.31
11946.00	88.920	132.240	7628.16	3425.62	-3507.14	1438.35	1737729.65	14403099.26	39°39'35.8268"N	80°39'15.2147"W	3790.63	157.700	0.58	-0.15	-0.51
12035.00	89.450	132.220	7629.43	3514.61	-3566.95	1504.24	1737795.51	14403039.47	39°39'35.2331"N	80°39'14.3751"W	3871.16	157.134	0.60	0.60	-0.01
12124.00	89.140	131.890	7630.52	3603.60	-3626.56	1570.32	1737861.57	14402979.89	39°39'34.6415"N	80°39'13.5332"W	3951.94	156.587	0.51	-0.35	-0.31
12213.00	88.460	131.830	7632.39	3692.57	-3685.94	1636.59	1737927.81	14402920.53	39°39'34.0522"N	80°39'12.6888"W	4032.94	156.058	0.77	-0.76	-0.01
12302.00	89.350	132.730	7634.09	3781.56	-3745.80	1702.43	1737993.62	14402860.69	39°39'33.4580"N	80°39'11.8500"W	4114.52	155.559	1.42	1.00	1.01
12393.00	88.950	132.950	7635.44	3872.54	-3807.67	1769.14	1738060.31	14402798.85	39°39'32.8440"N	80°39'10.9999"W	4198.60	155.079	0.50	-0.44	0.21
12483.00	88.830	132.770	7637.18	3962.52	-3868.88	1835.10	1738126.25	14402737.66	39°39'32.2366"N	80°39'10.1596"W	4282.04	154.624	0.24	-0.13	-0.21
12576.00	89.380	132.500	7638.63	4055.51	-3931.86	1903.51	1738194.63	14402674.71	39°39'31.6116"N	80°39'9.2880"W	4368.40	154.167	0.66	0.59	-0.21
12667.00	88.460	130.690	7640.35	4146.48	-3992.26	1971.55	1738262.64	14402614.33	39°39'31.0121"N	80°39'8.4210"W	4452.55	153.718	2.23	-1.01	-1.91
12755.00	88.920	129.760	7642.36	4234.40	-4049.07	2038.72	1738329.79	14402557.54	39°39'30.4480"N	80°39'7.5650"W	4533.37	153.275	1.18	0.52	-1.01
12844.00	90.030	135.350	7643.18	4323.35	-4109.24	2104.25	1738395.29	14402497.40	39°39'29.8509"N	80°39'6.7301"W	4616.68	152.884	6.40	1.25	6.21
12935.00	89.970	131.200	7643.18	4414.32	-4171.60	2170.49	1738461.50	14402435.06	39°39'29.2320"N	80°39'5.8863"W	4702.48	152.512	4.56	-0.07	-4.51
13025.00	89.630	131.640	7643.49	4504.31	-4231.15	2237.98	1738528.97	14402375.54	39°39'28.6410"N	80°39'5.0263"W	4786.56	152.124	0.62	-0.38	0.41
13115.00	89.940	132.650	7643.83	4594.31	-4291.54	2304.71	1738595.67	14402315.17	39°39'28.0416"N	80°39'4.1761"W	4871.24	151.763	1.17	0.34	1.11
13207.00	90.920	132.590	7643.14	4686.30	-4353.83	2372.41	1738663.34	14402252.91	39°39'27.4234"N	80°39'3.3137"W	4958.24	151.414	1.07	1.07	-0.01
13296.00	90.890	133.070	7641.73	4775.29	-4414.33	2437.67	1738728.58	14402192.43	39°39'26.8230"N	80°39'2.4822"W	5042.67	151.092	0.54	-0.03	0.51
13386.00	90.120	131.360	7640.94	4865.28	-4474.79	2504.32	1738795.20	14402131.99	39°39'26.2228"N	80°39'1.6330"W	5127.90	150.766	2.08	-0.86	-1.91
13478.00	89.350	131.660	7641.37	4957.27	-4535.77	2573.21	1738864.07	14402071.04	39°39'25.6176"N	80°39'0.7552"W	5214.84	150.433	0.90	-0.84	0.31
13569.00	89.850	132.310	7642.00	5048.26	-4596.64	2640.85	1738931.68	14402010.19	39°39'25.0134"N	80°38'59.8934"W	5301.24	150.122	0.90	0.55	0.71

REFERENCE WELLPATH IDENTIFICATION			
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Field	Wetzel	API/Legal	
Facility	William Ritchea WTZ Pad	Wellbore	William Ritchea WTZ 6H AWP
Slot	Slot 6H		

WELLPATH DATA (185 stations)															
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]
13659.00	89.450	132.050	7642.55	5138.26	-4657.07	2707.54	1738998.34	14401949.79	39°39'24.4136"N	80°38'59.0438"W	5386.93	149.827	0.53	-0.44	-0.21
13751.00	89.140	134.000	7643.68	5230.24	-4719.83	2774.79	1739065.57	14401887.05	39°39'23.7907"N	80°38'58.1871"W	5475.06	149.549	2.15	-0.34	2.11
13841.00	89.480	131.050	7644.77	5320.23	-4780.65	2841.11	1739131.86	14401826.25	39°39'23.1871"N	80°38'57.3422"W	5561.16	149.277	3.30	0.38	-3.21
13932.00	89.110	132.060	7645.89	5411.21	-4841.01	2909.20	1739199.92	14401765.91	39°39'22.5879"N	80°38'56.4746"W	5647.91	148.996	1.18	-0.41	1.11
14025.00	89.910	132.090	7646.68	5504.20	-4903.33	2978.23	1739268.92	14401703.62	39°39'21.9694"N	80°38'55.5952"W	5736.94	148.726	0.86	0.86	0.00
14116.00	89.850	132.150	7646.87	5595.20	-4964.36	3045.73	1739336.39	14401642.61	39°39'21.3636"N	80°38'54.7352"W	5824.20	148.470	0.09	-0.07	0.00
14208.00	89.290	132.660	7647.56	5687.20	-5026.40	3113.66	1739404.30	14401580.60	39°39'20.7479"N	80°38'53.8698"W	5912.66	148.223	0.82	-0.61	0.51
14300.00	89.290	133.070	7648.70	5779.19	-5088.98	3181.08	1739471.70	14401518.04	39°39'20.1268"N	80°38'53.0109"W	6001.42	147.991	0.45	0.00	0.41
14390.00	89.420	133.330	7649.72	5869.17	-5150.58	3246.69	1739537.28	14401456.46	39°39'19.5154"N	80°38'52.1752"W	6088.47	147.775	0.32	0.14	0.21
14483.00	89.660	133.830	7650.46	5962.15	-5214.69	3314.05	1739604.62	14401392.38	39°39'18.8792"N	80°38'51.3171"W	6178.67	147.563	0.60	0.26	0.51
14573.00	89.600	134.280	7651.04	6052.11	-5277.27	3378.73	1739669.27	14401329.82	39°39'18.2582"N	80°38'50.4932"W	6266.22	147.371	0.50	-0.07	0.51
14665.00	89.110	134.320	7652.08	6144.05	-5341.52	3444.57	1739735.08	14401265.60	39°39'17.6207"N	80°38'49.6547"W	6355.86	147.183	0.53	-0.53	0.00
14757.00	89.420	133.730	7653.26	6236.00	-5405.46	3510.72	1739801.20	14401201.69	39°39'16.9863"N	80°38'48.8122"W	6445.47	146.997	0.72	0.34	-0.61
14848.00	89.170	133.840	7654.38	6326.97	-5468.42	3576.41	1739866.87	14401138.75	39°39'16.3615"N	80°38'47.9755"W	6534.09	146.815	0.30	-0.27	0.11
14939.00	88.920	133.990	7655.90	6417.92	-5531.53	3641.95	1739932.39	14401075.67	39°39'15.7353"N	80°38'47.1407"W	6622.81	146.639	0.32	-0.27	0.11
15029.00	89.290	134.670	7657.30	6507.85	-5594.41	3706.33	1739996.73	14401012.81	39°39'15.1113"N	80°38'46.3208"W	6710.76	146.475	0.86	0.41	0.71
15120.00	88.680	132.870	7658.91	6598.81	-5657.35	3772.03	1740062.41	14400949.90	39°39'14.4868"N	80°38'45.4840"W	6799.54	146.307	2.09	-0.67	-1.91
15211.00	88.980	133.730	7660.77	6689.77	-5719.74	3838.24	1740128.60	14400887.53	39°39'13.8675"N	80°38'44.6406"W	6888.22	146.136	1.00	0.33	0.91
15302.00	89.170	134.040	7662.24	6780.73	-5782.82	3903.82	1740194.15	14400824.48	39°39'13.2416"N	80°38'43.8054"W	6977.16	145.978	0.40	0.21	0.31
15393.00	89.260	133.860	7663.49	6871.69	-5845.97	3969.33	1740259.63	14400761.35	39°39'12.6149"N	80°38'42.9710"W	7066.18	145.824	0.22	0.10	-0.21
15486.00	88.920	133.880	7664.96	6964.64	-5910.41	4036.36	1740326.64	14400696.93	39°39'11.9755"N	80°38'42.1172"W	7157.18	145.670	0.37	-0.37	0.00
15579.00	89.260	134.210	7666.44	7057.59	-5975.06	4103.20	1740393.45	14400632.31	39°39'11.3339"N	80°38'41.2659"W	7248.28	145.522	0.51	0.37	0.31
15669.00	89.230	133.930	7667.63	7147.54	-6037.65	4167.86	1740458.09	14400569.74	39°39'10.7128"N	80°38'40.4424"W	7336.50	145.382	0.31	-0.03	-0.31
15760.00	88.920	133.700	7669.10	7238.50	-6100.65	4233.51	1740523.72	14400506.77	39°39'10.0877"N	80°38'39.6062"W	7425.67	145.241	0.42	-0.34	-0.21
15850.00	89.080	131.300	7670.67	7328.48	-6161.43	4299.85	1740590.03	14400446.01	39°39'9.4843"N	80°38'38.7611"W	7513.46	145.090	2.67	0.18	-2.61
15941.00	88.680	131.250	7672.45	7419.44	-6221.45	4368.23	1740658.38	14400386.01	39°39'8.8885"N	80°38'37.8900"W	7601.84	144.926	0.44	-0.44	-0.00
16032.00	89.050	131.480	7674.25	7510.41	-6281.58	4436.52	1740726.64	14400325.91	39°39'8.2916"N	80°38'37.0200"W	7690.31	144.767	0.48	0.41	0.21
16123.00	88.650	131.150	7676.08	7601.38	-6341.64	4504.85	1740794.95	14400265.87	39°39'7.6953"N	80°38'36.1494"W	7778.83	144.612	0.57	-0.44	-0.31
16214.00	89.690	130.810	7677.39	7692.34	-6401.31	4573.54	1740863.61	14400206.22	39°39'7.1029"N	80°38'35.2742"W	7867.28	144.455	1.20	1.14	-0.31
16304.00	89.050	131.960	7678.38	7782.32	-6460.81	4641.06	1740931.11	14400146.75	39°39'6.5123"N	80°38'34.4140"W	7954.97	144.309	1.46	-0.71	1.21



## REFERENCE WELLPATH IDENTIFICATION

Operator	SWN PRODUCTION COMPANY, LLC	Well	William Ritchea WTZ 6H
Field	Wetzel	API/Legal	
Facility	William Ritchea WTZ Pad	Wellbore	William Ritchea WTZ 6H AWB
Slot	Slot 6H		

## WELLPATH DATA (185 stations) † = interpolated, ‡ = extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]
16397.00	89.170	132.740	7679.83	7875.31	-6523.45	4709.78	1740999.80	14400084.13	39°39'5.8905"N	80°38'33.5386"W	8045.96	144.172	0.85	0.13	0.8
16489.00	88.400	130.000	7681.78	7967.27	-6584.24	4778.80	1741068.79	14400023.37	39°39'5.2870"N	80°38'32.6593"W	8135.67	144.028	3.09	-0.84	-2.9
16579.00	88.520	131.590	7684.20	8057.20	-6643.02	4846.91	1741136.87	14399964.61	39°39'4.7034"N	80°38'31.7916"W	8223.27	143.885	1.77	0.13	1.7
16655.00	88.680	131.510	7686.05	8133.17	-6693.41	4903.77	1741193.71	14399914.24	39°39'4.2032"N	80°38'31.0672"W	8297.51	143.772	0.24	0.21	-0.1
16680.00 ‡	88.680	131.510	7686.63	8158.16	-6709.97	4922.49	1741212.42	14399897.68	39°39'4.0387"N	80°38'30.8288"W	8321.94	143.736	0.00	0.00	0.0

## WELLBORE & CASING SECTIONS - Ref Wellbore: William Ritchea WTZ 6H AWB    Ref Wellpath: William Ritchea WTZ 6H AWP Proj: 16680'

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]
2.0in Conductor	26.00	100.00	74.00	26.00	100.00	0.00	0.00	0.19	0.00
7.5in Open Hole	100.00	591.00	491.00	100.00	591.00	0.19	0.05	1.30	-0.12
3.375in Casing Surface	26.00	591.00	565.00	26.00	591.00	0.00	0.00	1.30	-0.12
2.25in Open Hole	591.00	2970.00	2379.00	591.00	2887.88	1.30	-0.12	-164.80	-516.43
0.625in Casing Intermediate	26.00	2970.00	2944.00	26.00	2887.88	0.00	0.00	-164.80	-516.43
1.75in Open Hole	2970.00	6823.00	3853.00	2887.88	6530.58	-164.80	-516.43	-477.18	-1729.08
1.5in Open Hole	6823.00	16680.00	9857.00	6530.58	7686.63	-477.18	-1729.08	-6709.97	4922.49
1.5in Casing Production	26.00	16680.00	16654.00	26.00	7686.63	0.00	0.00	-6709.97	4922.49

## REFERENCE WELLPATH IDENTIFICATION

Operator	SWN PRODUCTION COMPANY, LLC	Well	William Ritchea WTZ 6H
Field	Wetzel	API/Legal	
Facility	William Ritchea WTZ Pad	Wellbore	William Ritchea WTZ 6H AWB
Slot	Slot 6H		

## TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
William Ritchea WTZ 6H LP Rev-3	7561.00	-1027.10	-1304.09	1734988.28	14405578.34	39°40'0.4395"N	80°39'50.1618"W	point
William Ritchea WTZ 6H BHL Rev-6	7678.74	-6706.90	4926.88	1741216.81	14399900.76	39°39'4.0690"N	80°38'30.7725"W	point

## WELLPATH COMPOSITION - Ref Wellbore: William Ritchea WTZ 6H AWB      Ref Wellpath: William Ritchea WTZ 6H AWP Proj: 16680'

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date
26.00	681.00	Gyrodata 2015 - GC+WIR+DPIPE	01_Gyrodata <17-1/2"> (100'-681')	William Ritchea WTZ 6H AWB	4/16/2021
681.00	2895.00	OWSG MWD rev2 + HRGM	02_Premier MWD <12-1/4"> (793'-2895')	William Ritchea WTZ 6H AWB	4/16/2021
2895.00	6756.00	OWSG MWD rev2 + HRGM	03_Premier MWD <8-3/4"> (3010'-6756')	William Ritchea WTZ 6H AWB	4/16/2021
6756.00	16680.00	BH AutoTrak Curve/eXpress (2019) (HRGM, Short spacing)	04_BH AT Curve <8-1/2"> (6861'-16655')	William Ritchea WTZ 6H AWB	4/16/2021

**REFERENCE WELLPATH IDENTIFICATION**

Operator	SWN PRODUCTION COMPANY, LLC	Well	William Ritchea WTZ 6H
Field	Wetzel	API/Legal	
Facility	William Ritchea WTZ Pad	Wellbore	William Ritchea WTZ 6H AWB
Slot	Slot 6H		

**COMMENTS**

**Wellpath general comments**  
 API: 47-103-03369-0000  
 3H Job #: 110806970  
 Rig: SDC 41  
 Duration: 04/20/2021 - 04/22/2021