

SWN PRODUCTION COMPANY, LLC

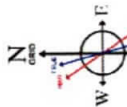
Location: Brooke County, WV
 Slot: Slot 6H
 Well: State of WV DNR C BRK 6H
 Field: Brooke
 Wellbore: State of WV DNR C BRK 6H PWB
 Facility: State of WV DNR C BRK Pad

Grid System: NAD83 UTM Zone 17 North, US Feet
 North Reference: Grid North
 Scale: True distance
 Coordinates are in feet referenced to Slot
 Depths are in feet
 Created by: atmpen on 2021-03-03; Database: WA_MPL_EASTERNUS_Defn

Location Information			
Facility Name	Grid East (US ft)	Grid North (US ft)	Longitude
State of WV DNR C BRK Pad	1769295.332	14637176.548	80°32'15.9300"W
Slot	Local N (ft)	Local E (ft)	Longitude
Slot 6H	-18.94	7.01	80°32'15.8408"W
Slot 6H	1769302.340	14637157.620	26ft
SDC 40 (KB) to Ground level (At Slot: Slot 6H)			-986.8ft
Mean Sea Level to Ground level (At Slot: Slot 6H)			1014.8ft
SDC 40 (KB) to Mean Sea Level			

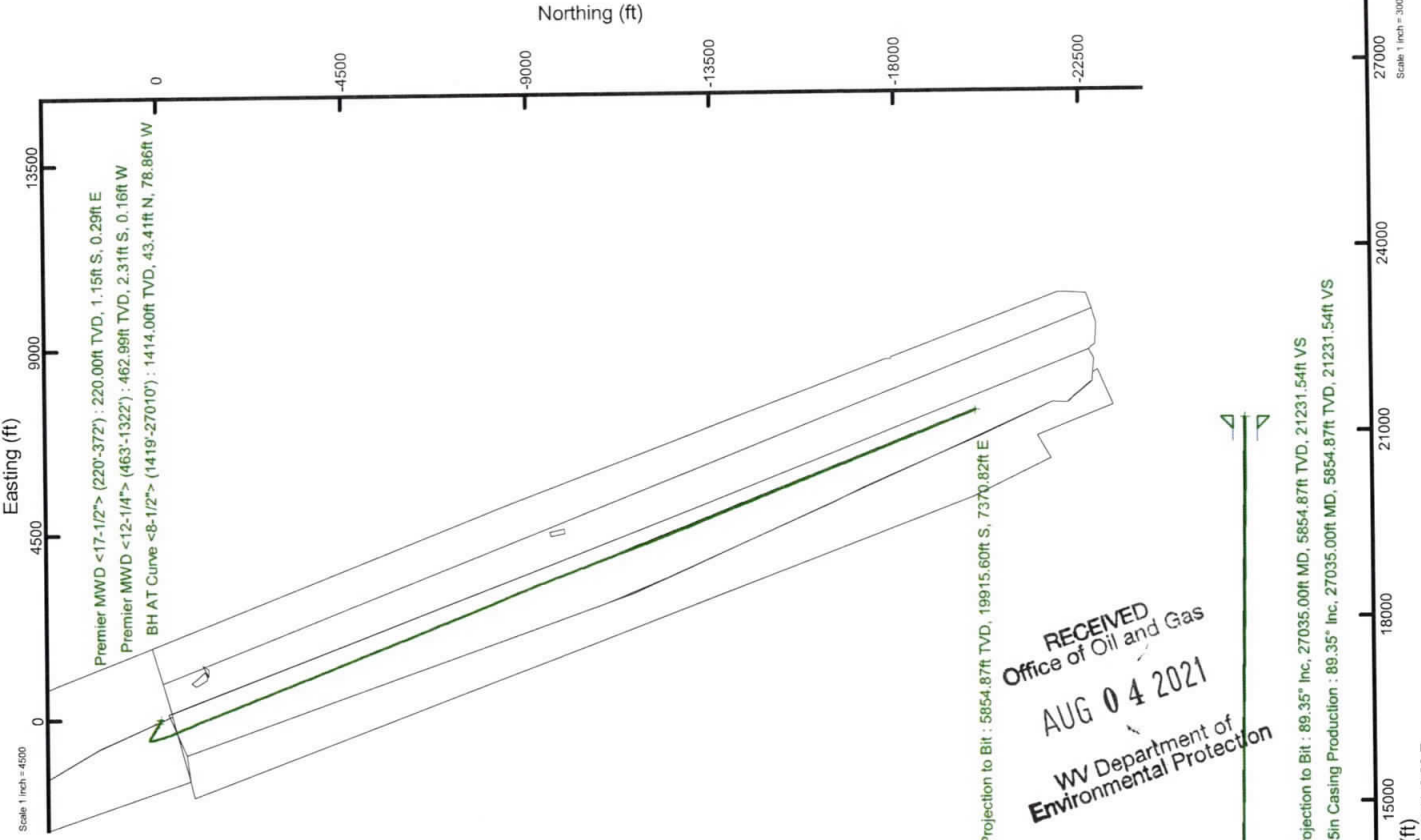
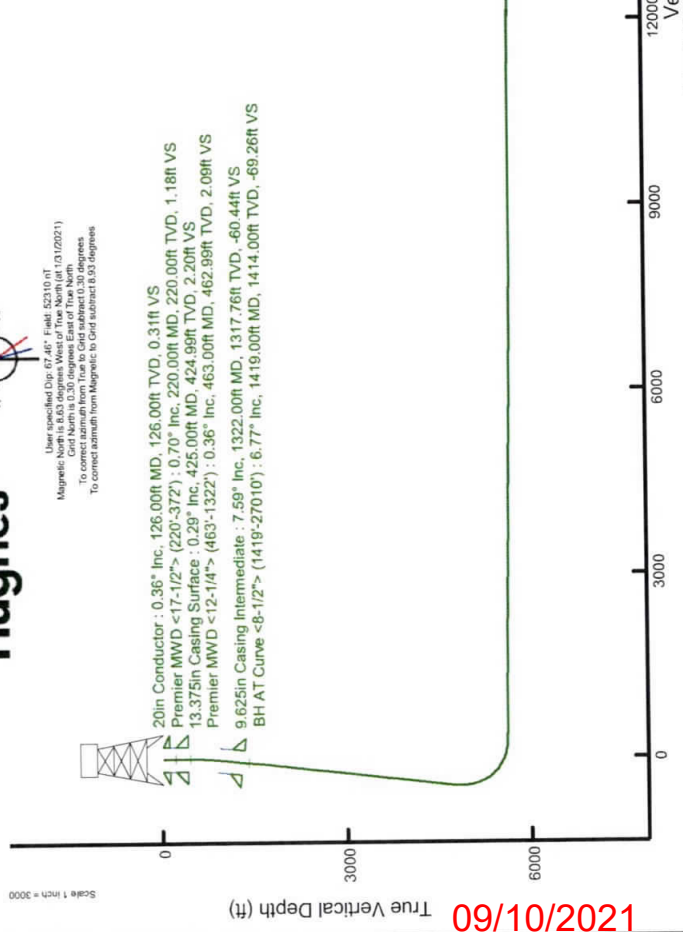
Comments

API: 47-009-00316-0000
 BH Job #: 110769281
 Rig: SDC 40
 Duration: 02/15/2021 - 02/24/2021



Use specified Dip (7.45° Field: 52310.0°)
 Magnetic North is 6.63 degrees West of True North (at 13120251)
 Grid North is 0.30 degrees East of True North
 To correct azimuth from Magnetic to Grid subtract 6.93 degrees
 To correct azimuth from Magnetic to Grid subtract 6.93 degrees

20in Conductor : 0.36° Inc, 126.00ft MD, 126.00ft TVD, 0.31ft VS
 Premier MWD <17-1/2"> (220°-372°) : 0.70° Inc, 220.00ft MD, 220.00ft TVD, 1.18ft VS
 13.375in Casing Surface : 0.29° Inc, 425.00ft MD, 424.99ft TVD, 2.20ft VS
 Premier MWD <12-1/4"> (463°-1322°) : 0.36° Inc, 463.00ft MD, 462.99ft TVD, 2.09ft VS
 9.625in Casing Intermediate : 7.59° Inc, 1322.00ft MD, 1317.76ft TVD, -60.44ft VS
 BH AT Curve <8-1/2"> (1419°-27010°) : 6.77° Inc, 1419.00ft MD, 1414.00ft TVD, -69.26ft VS



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Projection to Bit : 89.35° Inc, 27035.00ft MD, 5854.87ft TVD, 21231.54ft VS
 5.5in Casing Production : 89.35° Inc, 27035.00ft MD, 5854.87ft TVD, 21231.54ft VS

Vertical Section (ft)
 Azimuth 158.54° with reference 0.00 N, 0.00 E

2021/10/60

REFERENCE WELLPATH IDENTIFICATION

Operator	SWN PRODUCTION COMPANY, LLC	Well	State of WV DNR C BRK 6H
Field	Brooke	API/Legal	
Facility	State of WV DNR C BRK Pad	Wellbore	State of WV DNR C BRK 6H AWB
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	0.999619	Report Generated	2/26/2021 at 8:21:16 AM
Convergence at slot	0.30° 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	-18.94	7.01	1769302.34	14637157.62	40°18'8.3325"N	80°32'15.8408"W
Facility Reference Pt			1769295.33	14637176.55	40°18'8.5200"N	80°32'15.9300"W
Field Reference Pt			0.00	0.00	0°00'0.0000"	85°29'19.4780"W

WELLPATH DATUM

Calculation method	Minimum curvature	SDC 40 (KB) to Facility Vertical Datum	1014.80ft
Horizontal Reference Pt	Slot	SDC 40 (KB) to Mean Sea Level	1014.80ft
Vertical Reference Pt	SDC 40 (KB)	SDC 40 (KB) to Ground Level at Slot (Slot 6H)	26.00ft
MD Reference Pt	SDC 40 (KB)	Section origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	158.54°

APPROVED
4 2021
Department of Environmental Protection

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Operator	SWN PRODUCTION COMPANY, LLC	Well	State of WV DNR C BRK 6H
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Facility	State of WV DNR C BRK Pad	Wellbore	State of WV DNR C BRK 6H AWB
Slot	Slot 6H		

WELLPATH DATA (289 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	165.630	0.00	0.00	0.00	0.00	1769302.34	14637157.62	40°18'8.3325"N	80°32'15.8408"W	0.00	0.000	0.00	0.00	0.00
26.00	0.000	165.630	26.00	0.00	0.00	0.00	1769302.34	14637157.62	40°18'8.3325"N	80°32'15.8408"W	0.00	0.000	0.00	0.00	0.00
220.00	0.700	165.630	220.00	1.18	-1.15	0.29	1769302.63	14637156.47	40°18'8.3212"N	80°32'15.8371"W	1.19	165.630	0.36	0.36	0.00
310.00	0.360	182.620	309.99	1.98	-1.96	0.42	1769302.76	14637155.66	40°18'8.3131"N	80°32'15.8355"W	2.01	167.989	0.41	-0.38	18.88
372.00	0.290	230.030	371.99	2.21	-2.26	0.29	1769302.63	14637155.36	40°18'8.3102"N	80°32'15.8372"W	2.28	172.721	0.43	-0.11	76.47
463.00	0.360	290.580	462.99	2.09	-2.31	-0.16	1769302.18	14637155.32	40°18'8.3097"N	80°32'15.8430"W	2.31	183.862	0.37	0.08	66.54
493.00	0.660	280.930	492.99	1.93	-2.24	-0.41	1769301.93	14637155.38	40°18'8.3104"N	80°32'15.8463"W	2.28	190.460	1.04	1.00	-32.17
584.00	2.770	299.730	583.94	-0.06	-1.05	-2.84	1769299.50	14637156.57	40°18'8.3223"N	80°32'15.8775"W	3.03	249.696	2.37	2.32	20.66
675.00	3.990	300.120	674.78	-4.26	1.63	-7.49	1769294.86	14637159.25	40°18'8.3490"N	80°32'15.9373"W	7.66	282.279	1.34	1.34	0.43
766.00	4.200	301.870	765.55	-9.41	4.98	-13.05	1769289.29	14637162.60	40°18'8.3824"N	80°32'16.0089"W	13.97	290.871	0.27	0.23	1.92
856.00	5.520	300.610	855.22	-15.47	8.92	-19.58	1769282.77	14637166.54	40°18'8.4217"N	80°32'16.0929"W	21.52	294.498	1.47	1.47	-1.40
947.00	6.500	302.720	945.72	-23.10	13.93	-27.68	1769274.67	14637171.55	40°18'8.4716"N	80°32'16.1971"W	30.99	296.722	1.10	1.08	2.32
1038.00	6.950	301.500	1036.10	-31.67	19.60	-36.71	1769265.65	14637177.21	40°18'8.5281"N	80°32'16.3132"W	41.61	298.095	0.52	0.49	-1.34
1128.00	7.410	301.950	1125.39	-40.67	25.51	-46.27	1769256.08	14637183.12	40°18'8.5870"N	80°32'16.4363"W	52.84	298.869	0.51	0.51	0.50
1219.00	7.410	301.400	1215.63	-50.06	31.67	-56.26	1769246.10	14637189.28	40°18'8.6484"N	80°32'16.5648"W	64.57	299.379	0.08	0.00	-0.60
1310.00	7.520	297.550	1305.86	-59.24	37.49	-66.55	1769235.81	14637195.09	40°18'8.7064"N	80°32'16.6972"W	76.38	299.391	0.56	0.12	-4.23
1322.00	7.590	299.590	1317.76	-60.44	38.24	-67.94	1769234.43	14637195.85	40°18'8.7139"N	80°32'16.7150"W	77.96	299.375	2.31	0.58	17.00
1419.00	6.770	290.590	1414.00	-69.26	43.41	-78.86	1769223.51	14637201.02	40°18'8.7656"N	80°32'16.8557"W	90.02	298.834	1.43	-0.85	-9.28
1514.00	6.230	296.490	1508.39	-76.83	47.68	-88.71	1769213.66	14637205.29	40°18'8.8083"N	80°32'16.9826"W	100.72	298.258	0.90	-0.57	6.21
1609.00	8.310	297.620	1602.62	-85.85	53.17	-99.41	1769202.97	14637210.77	40°18'8.8630"N	80°32'17.1203"W	112.74	298.138	2.19	2.19	1.19
1704.00	8.490	301.180	1696.60	-96.61	59.98	-111.49	1769190.89	14637217.58	40°18'8.9310"N	80°32'17.2758"W	126.60	298.278	0.58	0.19	3.75
1799.00	8.420	301.520	1790.57	-107.74	67.25	-123.42	1769178.96	14637224.84	40°18'9.0034"N	80°32'17.4292"W	140.55	298.583	0.09	-0.07	0.36
1894.00	8.260	300.420	1884.56	-118.66	74.34	-135.24	1769167.15	14637231.93	40°18'9.0741"N	80°32'17.5812"W	154.32	298.797	0.24	-0.17	-1.16
1989.00	8.400	300.670	1978.56	-129.52	81.38	-147.09	1769155.31	14637238.92	40°18'9.1438"N	80°32'17.7338"W	168.08	298.940	0.15	0.15	0.26
2084.00	8.420	300.610	2072.54	-140.47	88.41	-158.05	1769143.36	14637246.00	40°18'9.2144"N	80°32'17.8876"W	181.97	299.070	0.02	0.02	-0.06
2179.00	8.380	300.730	2166.52	-151.43	95.49	-170.93	1769131.42	14637253.08	40°18'9.2850"N	80°32'18.0412"W	195.84	299.183	0.05	-0.04	0.13
2274.00	8.490	300.460	2260.49	-162.42	102.59	-182.93	1769119.43	14637260.17	40°18'9.3557"N	80°32'18.1955"W	209.77	299.277	0.12	0.12	-0.28
2369.00	8.380	301.430	2354.47	-173.46	109.75	-194.93	1769107.49	14637267.33	40°18'9.4271"N	80°32'18.3493"W	223.70	299.381	0.19	-0.12	1.02
2464.00	8.270	300.500	2448.46	-184.36	116.83	-206.72	1769095.70	14637274.40	40°18'9.4976"N	80°32'18.5010"W	237.45	299.473	0.18	-0.12	-0.98
2559.00	8.130	300.790	2542.49	-195.05	123.83	-218.38	1769084.04	14637281.31	40°18'9.5665"N	80°32'18.6510"W	251.00	299.536	0.15	-0.15	0.31

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Slot	Slot 6H		

WELLPATH DATA (289 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]
2654.00	8.140	300.540	2636.54	-205.66	130.59	-229.94	1769072.48	14637288.16	40°18'9.6348"N	80°32'18.7998"W	264.44	299.593	0.04	0.01	-0.26
2749.00	7.990	301.250	2730.60	-216.21	137.43	-241.38	1769061.05	14637295.00	40°18'9.7030"N	80°32'18.9469"W	277.76	299.655	0.19	-0.16	0.75
2844.00	8.120	301.670	2824.66	-226.83	144.38	-252.74	1769049.70	14637301.94	40°18'9.7723"N	80°32'19.0930"W	291.07	299.738	0.15	0.14	0.44
2939.00	8.040	301.160	2918.72	-237.48	151.34	-264.13	1769038.31	14637308.90	40°18'9.8416"N	80°32'19.2396"W	304.42	299.812	0.11	-0.08	-0.54
3033.00	8.060	302.250	3011.79	-248.02	158.26	-275.33	1769027.12	14637315.82	40°18'9.9106"N	80°32'19.3837"W	317.57	299.890	0.16	0.02	1.16
3128.00	8.080	302.200	3105.85	-258.76	165.37	-286.61	1769015.84	14637322.93	40°18'9.9814"N	80°32'19.5288"W	330.90	299.984	0.02	0.02	-0.05
3223.00	8.010	301.400	3199.92	-269.42	172.38	-297.91	1769004.54	14637329.93	40°18'10.0512"N	80°32'19.6742"W	344.19	300.054	0.14	-0.07	-0.84
3317.00	8.010	301.650	3293.00	-279.88	179.22	-309.08	1768993.38	14637336.78	40°18'10.1195"N	80°32'19.8179"W	357.28	300.108	0.04	0.00	0.27
3412.00	8.500	301.000	3387.01	-290.74	186.31	-320.73	1768981.73	14637343.86	40°18'10.1901"N	80°32'19.9678"W	370.92	300.153	0.53	0.52	-0.68
3507.00	8.310	300.970	3480.99	-301.74	193.46	-332.63	1768969.83	14637351.01	40°18'10.2614"N	80°32'20.1209"W	384.80	300.183	0.20	-0.20	-0.03
3602.00	8.280	300.900	3575.00	-312.60	200.51	-344.39	1768958.08	14637358.05	40°18'10.3316"N	80°32'20.2722"W	398.51	300.209	0.03	-0.03	-0.07
3696.00	8.330	300.810	3668.01	-323.35	207.47	-356.04	1768946.43	14637365.01	40°18'10.4010"N	80°32'20.4222"W	412.08	300.230	0.05	0.05	-0.10
3791.00	8.410	300.490	3762.00	-334.26	214.52	-367.94	1768934.54	14637372.06	40°18'10.4713"N	80°32'20.5752"W	425.91	300.244	0.10	0.08	-0.34
3886.00	8.460	300.850	3855.97	-345.26	221.63	-379.93	1768922.56	14637379.16	40°18'10.5422"N	80°32'20.7295"W	439.85	300.257	0.08	0.05	0.38
3982.00	8.360	300.600	3950.94	-356.35	228.80	-392.00	1768910.49	14637386.34	40°18'10.6137"N	80°32'20.8848"W	453.89	300.272	0.11	-0.10	-0.26
4077.00	8.340	300.280	4044.93	-367.21	235.79	-403.89	1768898.60	14637393.32	40°18'10.6833"N	80°32'21.0378"W	467.68	300.277	0.05	-0.02	-0.34
4172.00	8.200	300.690	4138.95	-377.97	242.72	-415.67	1768886.83	14637400.25	40°18'10.7525"N	80°32'21.1893"W	481.35	300.282	0.16	-0.15	0.43
4267.00	8.440	301.050	4232.95	-388.85	249.78	-427.47	1768875.04	14637407.30	40°18'10.8228"N	80°32'21.3411"W	495.09	300.299	0.26	0.25	0.38
4362.00	8.420	300.370	4326.92	-399.85	256.89	-439.44	1768863.07	14637414.41	40°18'10.8937"N	80°32'21.4952"W	509.02	300.310	0.11	-0.02	-0.72
4457.00	8.360	300.570	4420.90	-410.76	263.92	-451.39	1768851.13	14637421.44	40°18'10.9637"N	80°32'21.6489"W	522.88	300.314	0.07	-0.06	0.21
4552.00	8.270	300.650	4514.91	-421.60	270.92	-463.21	1768839.31	14637428.43	40°18'11.0335"N	80°32'21.8011"W	536.62	300.322	0.10	-0.09	0.08
4647.00	8.280	300.390	4608.92	-432.37	277.86	-474.99	1768827.53	14637435.37	40°18'11.1027"N	80°32'21.9526"W	550.29	300.327	0.04	0.01	-0.27
4742.00	8.500	300.590	4702.90	-443.29	284.89	-486.93	1768815.59	14637442.40	40°18'11.1728"N	80°32'22.1063"W	564.15	300.331	0.23	0.23	0.21
4837.00	5.630	280.970	4797.18	-451.33	289.35	-497.56	1768804.97	14637446.86	40°18'11.2174"N	80°32'22.2631"W	575.58	300.180	3.91	-3.02	-20.65
4932.00	5.560	214.320	4891.82	-451.24	286.44	-504.73	1768797.80	14637443.95	40°18'11.1890"N	80°32'22.3359"W	580.35	299.575	6.46	-0.07	-70.16
5027.00	9.160	185.240	4986.05	-441.89	275.10	-508.02	1768794.54	14637442.20	40°18'11.0771"N	80°32'22.3791"W	577.72	298.436	5.34	3.79	-30.61
5122.00	15.460	180.340	5079.80	-423.16	254.67	-508.02	1768793.74	14637412.20	40°18'10.8753"N	80°32'22.3905"W	568.97	296.590	6.65	6.56	-5.10
5217.00	22.100	171.290	5168.76	-394.24	224.63	-506.19	1768796.35	14637382.16	40°18'10.5783"N	80°32'22.3589"W	553.79	293.930	7.69	7.06	-9.63
5312.00	28.580	163.770	5254.60	-354.13	185.09	-497.12	1768805.41	14637342.64	40°18'10.1871"N	80°32'22.2445"W	530.46	290.422	7.60	6.82	-7.92
5407.00	36.070	164.860	5335.67	-303.10	135.69	-483.30	1768819.23	14637293.26	40°18'9.6983"N	80°32'22.0694"W	501.99	285.683	7.83	7.80	1.14

Gas
of
Protection

2021

REFERENCE WELLPATH IDENTIFICATION

Operator	SWN PRODUCTION COMPANY, LLC		Well	State of WV DNR C BRK 6H	
Field	Brooke		API/Legal		
Facility	State of WV DNR C BRK Pad		Wellbore	State of WV DNR C BRK 6H AWB	
Slot	Slot 6H				

WELLPATH DATA (289 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]
5503.00	44.750	166.050	5407.93	-242.03	76.13	-467.90	1768834.62	14637233.72	40°18'9.1089"N	80°32'21.8747"W	474.06	279.241	9.17	9.14	1.25
5598.00	53.040	165.040	5470.34	-171.04	6.88	-450.01	1768852.50	14637164.50	40°18'8.4237"N	80°32'21.6484"W	450.07	270.876	8.76	8.73	-1.06
5692.00	60.940	162.670	5521.51	-92.62	-68.75	-428.04	1768874.46	14637088.90	40°18'7.6752"N	80°32'21.3700"W	433.53	260.876	8.67	8.40	-2.52
5787.00	69.370	158.800	5561.40	-6.57	-150.00	-399.54	1768902.95	14637007.68	40°18'6.8709"N	80°32'21.0075"W	426.77	249.422	9.61	8.87	-4.07
5882.00	74.230	158.310	5591.07	83.65	-233.97	-366.55	1768935.93	14636923.74	40°18'6.0394"N	80°32'20.5874"W	434.86	237.450	5.14	5.12	-0.52
5977.00	81.290	158.440	5611.19	176.43	-320.22	-332.36	1768970.11	14636837.52	40°18'5.1853"N	80°32'20.1519"W	461.52	226.065	7.43	7.43	0.14
6072.00	89.780	158.240	5618.58	271.05	-408.17	-297.43	1769005.02	14636749.61	40°18'4.3145"N	80°32'19.7070"W	505.04	216.081	8.94	8.94	-0.21
6172.00	89.450	157.370	5619.26	371.04	-500.75	-259.66	1769042.78	14636657.06	40°18'3.3976"N	80°32'19.2257"W	564.07	207.408	0.93	-0.33	-0.87
6267.00	89.970	157.830	5619.74	466.03	-588.58	-223.46	1769078.97	14636569.26	40°18'2.5278"N	80°32'18.7644"W	629.57	200.789	0.73	0.55	0.48
6362.00	89.420	157.090	5620.24	561.01	-676.32	-187.04	1769115.37	14636481.55	40°18'1.6589"N	80°32'18.3003"W	701.71	195.459	0.97	-0.58	-0.78
6458.00	89.600	157.450	5621.06	656.98	-764.87	-149.95	1769152.45	14636393.05	40°18'0.7821"N	80°32'17.8276"W	779.42	191.092	0.42	0.19	0.38
6553.00	89.170	156.520	5622.08	751.94	-852.30	-112.81	1769189.57	14636303.65	40°17'59.9162"N	80°32'17.3541"W	859.73	187.540	1.08	-0.45	-0.98
6648.00	89.200	156.860	5623.43	846.88	-939.53	-75.22	1769227.15	14636218.45	40°17'59.0522"N	80°32'16.8749"W	942.54	184.577	0.36	0.03	0.36
6743.00	89.230	158.570	5624.74	941.86	-1027.43	-39.20	1769263.16	14636130.59	40°17'58.1818"N	80°32'16.4159"W	1028.17	182.185	1.80	0.03	1.80
6838.00	89.260	158.940	5625.99	1036.85	-1115.96	-4.78	1769297.56	14636042.08	40°17'57.3052"N	80°32'15.9776"W	1115.97	180.245	0.39	0.03	0.39
6933.00	89.140	158.310	5627.31	1131.84	-1204.42	29.84	1769332.17	14635953.66	40°17'56.4293"N	80°32'15.5368"W	1204.79	178.581	0.68	-0.13	-0.66
7028.00	89.750	159.100	5628.23	1226.83	-1292.93	64.34	1769366.66	14635865.19	40°17'55.5529"N	80°32'15.0975"W	1294.53	177.151	1.05	0.64	0.83
7123.00	89.450	159.260	5628.90	1321.82	-1381.72	98.11	1769400.41	14635776.43	40°17'54.6737"N	80°32'14.6677"W	1385.20	175.939	0.36	-0.32	0.17
7218.00	89.260	158.560	5629.97	1416.82	-1470.35	132.29	1769434.58	14635687.83	40°17'53.7962"N	80°32'14.2325"W	1476.29	174.859	0.76	-0.20	-0.74
7313.00	89.290	158.850	5631.17	1511.81	-1558.86	166.79	1769469.06	14635599.36	40°17'52.9198"N	80°32'13.7933"W	1567.76	173.893	0.31	0.03	0.31
7408.00	89.420	159.080	5632.24	1606.80	-1647.52	200.88	1769503.15	14635510.73	40°17'52.0419"N	80°32'13.3592"W	1659.72	173.048	0.28	0.14	0.24
7503.00	89.320	158.880	5633.28	1701.79	-1736.20	234.96	1769537.21	14635422.09	40°17'51.1639"N	80°32'12.9254"W	1752.02	172.293	0.24	-0.11	-0.21
7598.00	89.510	158.690	5634.25	1796.78	-1824.75	269.33	1769571.57	14635333.57	40°17'50.2870"N	80°32'12.4878"W	1844.52	171.604	0.28	0.20	-0.20
7693.00	89.480	159.320	5635.09	1891.78	-1913.44	303.37	1769605.59	14635244.91	40°17'49.4089"N	80°32'12.0545"W	1937.34	170.991	0.66	-0.03	0.66
7788.00	89.170	158.070	5636.21	1986.77	-2001.94	337.88	1769640.09	14635156.45	40°17'48.5325"N	80°32'11.6151"W	2030.25	170.420	1.36	-0.33	-1.32
7883.00	89.380	158.900	5637.41	2081.76	-2090.31	372.72	1769674.92	14635068.11	40°17'47.6575"N	80°32'11.1714"W	2123.28	169.890	0.90	0.22	0.87
7978.00	89.230	158.660	5638.56	2176.75	-2178.87	407.10	1769709.29	14634979.59	40°17'46.7807"N	80°32'10.7337"W	2216.57	169.417	0.30	-0.16	-0.25
8073.00	89.350	158.340	5639.74	2271.74	-2267.25	441.92	1769744.09	14634891.24	40°17'45.9055"N	80°32'10.2904"W	2309.92	168.971	0.36	0.13	-0.34
8168.00	89.720	159.090	5640.51	2366.74	-2355.76	476.40	1769778.56	14634802.76	40°17'45.0290"N	80°32'9.8513"W	2403.45	168.567	0.88	0.39	0.79
8263.00	89.380	158.750	5641.27	2462.73	-2445.34	510.93	1769813.07	14634713.22	40°17'44.1421"N	80°32'9.4118"W	2498.14	168.198	0.50	-0.35	-0.35

State of West Virginia
Department of Environmental Protection
Oil and Gas
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REFERENCE WELLPATH IDENTIFICATION

Operator	SWN PRODUCTION COMPANY, LLC	Well	State of WV DNR C BRK 6H
Field	Brooke	API/Legal	
Facility	State of WV DNR C BRK Pad	Wellbore	State of WV DNR C BRK 6H AWB
Slot	Slot 6H		

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WELLPATH DATA (289 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]
8359.00	88.920	158.470	5642.67	2557.72	-2533.78	545.57	1769847.70	14634624.81	40°17'43.2663"N	80°32'8.9707"W	2591.85	167.849	0.57	-0.48	-0.29
8454.00	89.260	159.010	5644.18	2652.71	-2622.31	580.02	1769882.13	14634536.32	40°17'42.3898"N	80°32'8.5322"W	2685.69	167.528	0.67	0.36	0.57
8549.00	88.830	158.670	5645.77	2747.70	-2710.89	614.30	1769916.41	14634447.77	40°17'41.5127"N	80°32'8.0957"W	2779.62	167.232	0.58	-0.45	-0.36
8644.00	88.860	158.720	5647.68	2842.68	-2799.38	648.81	1769950.90	14634359.31	40°17'40.6364"N	80°32'7.6563"W	2873.58	166.951	0.06	0.03	0.05
8739.00	88.830	158.580	5649.60	2937.66	-2887.84	683.39	1769985.47	14634270.89	40°17'39.7605"N	80°32'7.2161"W	2967.60	166.686	0.15	-0.03	-0.15
8834.00	89.020	158.540	5651.38	3032.64	-2976.25	718.11	1770020.18	14634182.51	40°17'38.8850"N	80°32'6.7740"W	3061.66	166.435	0.20	0.20	-0.04
8929.00	89.080	159.030	5652.95	3127.63	-3064.80	752.48	1770054.54	14634093.99	40°17'38.0082"N	80°32'6.3364"W	3155.83	166.205	0.52	0.06	0.52
9024.00	88.800	158.580	5654.71	3222.61	-3153.36	786.82	1770088.86	14634005.47	40°17'37.1314"N	80°32'5.8993"W	3250.04	165.990	0.56	-0.29	-0.47
9119.00	88.740	158.760	5656.75	3317.59	-3241.83	821.37	1770123.40	14633917.03	40°17'36.2553"N	80°32'5.4594"W	3344.27	165.782	0.20	-0.06	0.19
9214.00	89.510	158.790	5658.20	3412.57	-3330.38	855.76	1770157.77	14633828.52	40°17'35.3786"N	80°32'5.0216"W	3438.57	165.589	0.81	0.81	0.03
9309.00	89.320	158.680	5659.17	3507.57	-3418.90	890.21	1770192.21	14633740.03	40°17'34.5020"N	80°32'4.5830"W	3532.90	165.405	0.23	-0.20	-0.12
9404.00	89.350	158.520	5660.27	3602.56	-3507.35	924.87	1770226.86	14633651.62	40°17'33.6262"N	80°32'4.1417"W	3627.24	165.228	0.17	0.03	0.17
9499.00	89.510	158.560	5661.22	3697.56	-3595.76	959.63	1770261.60	14633563.24	40°17'32.7508"N	80°32'3.6992"W	3721.61	165.057	0.17	0.17	0.04
9594.00	89.450	158.730	5662.08	3792.55	-3684.23	994.22	1770296.18	14633474.80	40°17'31.8747"N	80°32'3.2588"W	3816.02	164.898	0.19	-0.06	0.18
9689.00	89.380	158.540	5663.05	3887.55	-3772.70	1028.83	1770330.77	14633386.37	40°17'30.9987"N	80°32'2.8182"W	3910.46	164.746	0.21	-0.07	-0.20
9783.00	89.350	158.500	5664.09	3981.54	-3860.16	1063.25	1770365.18	14633298.94	40°17'30.1326"N	80°32'2.3800"W	4003.92	164.600	0.05	-0.03	-0.04
9878.00	89.200	158.290	5665.30	4076.53	-3948.48	1098.22	1770400.14	14633210.65	40°17'29.2580"N	80°32'1.9347"W	4098.37	164.457	0.27	-0.16	-0.22
9973.00	89.380	158.610	5666.47	4171.53	-4036.83	1133.12	1770435.02	14633122.33	40°17'28.3832"N	80°32'1.4904"W	4192.85	164.321	0.39	0.19	0.34
10068.00	89.480	158.350	5667.42	4266.52	-4125.21	1167.96	1770469.85	14633033.99	40°17'27.5081"N	80°32'1.0467"W	4287.36	164.192	0.29	0.11	-0.27
10163.00	89.320	158.000	5668.41	4361.51	-4213.39	1203.28	1770505.16	14632945.84	40°17'26.6348"N	80°32'0.5970"W	4381.84	164.061	0.41	-0.17	-0.37
10258.00	89.290	158.290	5669.56	4456.50	-4301.56	1238.64	1770540.51	14632857.71	40°17'25.7617"N	80°32'0.1466"W	4476.34	163.936	0.31	-0.03	0.31
10353.00	89.010	157.450	5670.97	4551.49	-4389.55	1274.42	1770576.28	14632769.75	40°17'24.8904"N	80°31'59.6909"W	4570.81	163.810	0.93	-0.29	-0.88
10448.00	89.350	158.600	5672.33	4646.47	-4477.64	1309.97	1770611.81	14632681.70	40°17'24.0181"N	80°31'59.2382"W	4665.32	163.693	1.26	0.36	1.21
10543.00	89.140	157.980	5673.59	4741.46	-4565.89	1345.11	1770646.93	14632593.48	40°17'23.1442"N	80°31'58.7908"W	4759.90	163.585	0.69	-0.22	-0.65
10638.00	89.200	158.240	5674.96	4836.45	-4654.03	1380.52	1770682.33	14632505.37	40°17'22.2713"N	80°31'58.3398"W	4854.47	163.478	0.28	0.06	0.27
10733.00	88.980	158.430	5676.47	4931.44	-4742.31	1415.59	1770717.39	14632417.13	40°17'21.3972"N	80°31'57.8933"W	4949.08	163.380	0.31	-0.23	0.20
10828.00	89.140	158.380	5678.03	5026.42	-4830.63	1450.55	1770752.33	14632328.84	40°17'20.5226"N	80°31'57.4481"W	5043.72	163.286	0.18	0.17	-0.05
10923.00	88.950	157.420	5679.61	5121.40	-4918.64	1486.28	1770788.05	14632240.87	40°17'19.6511"N	80°31'56.9930"W	5138.29	163.187	1.03	-0.20	-1.01
11018.00	89.140	158.510	5681.20	5216.38	-5006.68	1521.92	1770823.68	14632152.85	40°17'18.7792"N	80°31'56.5392"W	5232.89	163.092	1.16	0.20	1.15
11113.00	89.050	158.470	5682.70	5311.37	-5095.06	1556.75	1770858.49	14632064.52	40°17'17.9041"N	80°31'56.0957"W	5327.58	163.010	0.10	-0.09	-0.04

MAY 04 2021

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Field	Brooke	API/Legal	
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Slot	Slot 6H		

WELLPATH DATA (289 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]
11208.00	88.740	157.700	5684.53	5406.35	-5183.17	1592.20	1770893.93	14631976.43	40°17'17.0315"N	80°31'55.6443"W	5422.21	162.924	0.87	-0.33	-0.81
11303.00	89.200	158.840	5686.24	5501.33	-5271.41	1627.36	1770929.08	14631888.23	40°17'16.1577"N	80°31'55.1965"W	5516.89	162.844	1.29	0.48	1.20
11398.00	89.080	158.750	5687.66	5596.32	-5359.97	1661.72	1770963.43	14631799.71	40°17'15.2808"N	80°31'54.7592"W	5611.64	162.775	0.16	-0.13	-0.09
11493.00	89.080	158.730	5689.19	5691.31	-5448.49	1696.16	1770997.86	14631711.22	40°17'14.4043"N	80°31'54.3208"W	5706.40	162.708	0.02	0.00	-0.02
11588.00	89.110	158.840	5690.69	5786.29	-5537.04	1730.54	1771032.22	14631622.70	40°17'13.5275"N	80°31'53.8833"W	5801.17	162.644	0.12	0.03	0.12
11683.00	89.380	158.150	5691.94	5881.29	-5625.42	1765.36	1771067.02	14631534.36	40°17'12.6523"N	80°31'53.4400"W	5895.92	162.577	0.78	0.28	-0.73
11778.00	89.200	158.730	5693.12	5976.28	-5713.76	1800.27	1771101.92	14631446.04	40°17'11.7775"N	80°31'52.9956"W	5990.66	162.512	0.64	-0.19	0.61
11873.00	89.660	158.480	5694.06	6071.27	-5802.21	1834.92	1771136.56	14631357.63	40°17'10.9017"N	80°31'52.5545"W	6085.44	162.451	0.55	0.48	-0.26
11968.00	89.260	159.110	5694.96	6166.27	-5890.78	1869.28	1771170.91	14631269.10	40°17'10.0247"N	80°31'52.1172"W	6180.25	162.395	0.79	-0.42	0.66
12063.00	89.510	158.490	5695.98	6261.26	-5979.34	1903.63	1771205.24	14631180.57	40°17'9.1477"N	80°31'51.6800"W	6275.06	162.340	0.70	0.26	-0.65
12158.00	89.450	158.470	5696.84	6356.26	-6067.71	1938.48	1771240.08	14631092.23	40°17'8.2726"N	80°31'51.2364"W	6369.84	162.283	0.07	-0.06	-0.02
12254.00	89.540	158.360	5697.69	6452.25	-6156.98	1973.80	1771275.38	14631003.00	40°17'7.3887"N	80°31'50.7868"W	6465.62	162.225	0.15	0.09	-0.11
12349.00	89.420	158.410	5698.55	6547.25	-6245.29	2008.79	1771310.36	14630914.72	40°17'6.5142"N	80°31'50.3413"W	6560.41	162.170	0.14	-0.13	0.05
12444.00	89.260	157.710	5699.64	6642.24	-6333.41	2044.28	1771345.84	14630826.64	40°17'5.6416"N	80°31'49.8893"W	6655.16	162.111	0.76	-0.17	-0.74
12539.00	89.200	157.920	5700.92	6737.22	-6421.37	2080.15	1771381.69	14630738.71	40°17'4.7705"N	80°31'49.4325"W	6749.89	162.051	0.23	-0.06	0.22
12634.00	89.480	158.630	5702.01	6832.21	-6509.61	2115.31	1771416.84	14630650.50	40°17'3.8967"N	80°31'48.9849"W	6844.68	161.998	0.80	0.29	0.75
12729.00	89.380	158.250	5702.96	6927.21	-6597.96	2150.22	1771451.74	14630562.19	40°17'3.0218"N	80°31'48.5405"W	6939.49	161.950	0.41	-0.11	-0.40
12824.00	89.230	158.110	5704.11	7022.20	-6686.15	2185.53	1771487.03	14630474.03	40°17'2.1485"N	80°31'48.0909"W	7034.28	161.899	0.22	-0.16	-0.15
12919.00	89.480	158.420	5705.18	7117.19	-6774.39	2220.71	1771522.20	14630385.83	40°17'1.2747"N	80°31'47.6431"W	7129.09	161.850	0.42	0.26	0.33
13014.00	89.570	158.300	5705.97	7212.19	-6862.69	2255.74	1771557.22	14630297.56	40°17'0.4003"N	80°31'47.1971"W	7223.91	161.805	0.16	0.09	-0.13
13109.00	89.720	158.330	5706.56	7307.18	-6950.97	2290.84	1771592.30	14630209.32	40°16'59.5262"N	80°31'46.7502"W	7318.73	161.759	0.16	0.16	0.03
13204.00	89.480	158.370	5707.22	7402.18	-7039.26	2325.89	1771627.34	14630121.05	40°16'58.6518"N	80°31'46.3040"W	7413.57	161.716	0.26	-0.25	0.04
13299.00	89.540	158.430	5708.03	7497.18	-7127.59	2360.86	1771662.30	14630032.76	40°16'57.7772"N	80°31'45.8589"W	7508.41	161.674	0.09	0.06	0.06
13394.00	89.450	158.720	5708.87	7592.17	-7216.02	2395.56	1771696.98	14629944.37	40°16'56.9015"N	80°31'45.4172"W	7603.26	161.635	0.32	-0.09	0.31
13490.00	89.320	158.520	5709.90	7688.17	-7305.41	2430.56	1771731.96	14629855.01	40°16'56.0163"N	80°31'44.9718"W	7699.13	161.597	0.25	-0.14	-0.21
13585.00	89.290	158.510	5711.05	7783.16	-7393.82	2465.35	1771766.74	14629766.65	40°16'55.1411"N	80°31'44.5290"W	7793.98	161.560	0.03	-0.03	-0.01
13680.00	90.120	157.540	5711.54	7878.15	-7481.89	2500.90	1771802.28	14629678.59	40°16'54.2687"N	80°31'44.0763"W	7888.80	161.517	1.34	0.87	-1.02
13775.00	89.380	158.180	5711.95	7973.15	-7569.89	2536.70	1771838.07	14629590.63	40°16'53.3973"N	80°31'43.6204"W	7983.61	161.474	1.03	-0.78	0.67
13870.00	89.820	158.360	5712.62	8068.14	-7658.13	2571.87	1771873.22	14629502.42	40°16'52.5234"N	80°31'43.1727"W	8078.46	161.436	0.50	0.46	0.19
13965.00	89.350	158.920	5713.31	8163.14	-7746.61	2606.47	1771907.81	14629413.98	40°16'51.6473"N	80°31'42.7323"W	8173.35	161.404	0.77	-0.49	0.59

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Protection

09/10/2021

REFERENCE WELLPATH IDENTIFICATION

Operator	SWN PRODUCTION COMPANY, LLC	Well	State of WV DNR C BRK 6H
Field	Brooke	API/Legal	
Facility	State of WV DNR C BRK Pad	Wellbore	State of WV DNR C BRK 6H AWB
Slot	Slot 6H		

WELLPATH DATA (289 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]
14061.00	90.250	158.730	5713.64	8259.14	-7836.12	2641.14	1771942.47	14629324.50	40°16'50.7609"N	80°31'42.2911"W	8269.25	161.374	0.96	0.94	-0.20
14156.00	89.850	158.440	5713.56	8354.14	-7924.56	2675.83	1771977.15	14629236.09	40°16'49.8851"N	80°31'41.8496"W	8364.14	161.342	0.52	-0.42	-0.31
14251.00	90.000	157.650	5713.68	8449.13	-8012.67	2711.35	1772012.65	14629148.02	40°16'49.0126"N	80°31'41.3974"W	8458.98	161.305	0.85	0.16	-0.83
14346.00	89.880	157.800	5713.78	8544.12	-8100.58	2747.36	1772048.65	14629060.14	40°16'48.1420"N	80°31'40.9388"W	8553.80	161.265	0.20	-0.13	0.16
14441.00	90.180	158.580	5713.73	8639.12	-8188.78	2782.65	1772083.93	14628971.97	40°16'47.2686"N	80°31'40.4895"W	8648.66	161.232	0.88	0.32	0.82
14536.00	89.820	157.540	5713.73	8734.11	-8276.90	2818.15	1772119.41	14628883.89	40°16'46.3960"N	80°31'40.0376"W	8743.51	161.197	1.16	-0.38	-1.09
14631.00	90.000	158.140	5713.88	8829.11	-8364.88	2853.98	1772155.23	14628795.94	40°16'45.5247"N	80°31'39.5813"W	8838.35	161.161	0.66	0.19	0.63
14726.00	89.690	158.200	5714.14	8924.10	-8453.07	2889.31	1772190.54	14628707.79	40°16'44.6514"N	80°31'39.1316"W	8933.22	161.129	0.33	-0.33	0.06
14821.00	89.850	157.810	5714.52	9019.10	-8541.16	2924.89	1772226.11	14628619.74	40°16'43.7791"N	80°31'38.6786"W	9028.08	161.096	0.44	0.17	-0.41
14917.00	89.880	158.290	5714.75	9115.10	-8630.20	2960.77	1772261.98	14628530.73	40°16'42.8973"N	80°31'38.2217"W	9123.95	161.064	0.50	0.03	0.50
15012.00	89.970	158.420	5714.87	9210.09	-8718.50	2995.81	1772297.01	14628442.46	40°16'42.0229"N	80°31'37.7757"W	9218.84	161.036	0.17	0.09	0.14
15107.00	90.060	158.100	5714.85	9305.09	-8806.74	3031.00	1772332.18	14628354.25	40°16'41.1490"N	80°31'37.3278"W	9313.73	161.008	0.35	0.09	-0.34
15202.00	89.880	158.070	5714.90	9400.09	-8894.87	3066.46	1772367.62	14628266.15	40°16'40.2762"N	80°31'36.8764"W	9408.61	160.979	0.19	-0.19	-0.03
15297.00	89.880	157.990	5715.09	9495.09	-8982.98	3102.00	1772403.15	14628178.08	40°16'39.4038"N	80°31'36.4239"W	9503.49	160.949	0.08	0.00	-0.08
15392.00	90.090	158.160	5715.12	9590.08	-9071.10	3137.47	1772438.61	14628089.99	40°16'38.5310"N	80°31'35.9723"W	9598.37	160.921	0.28	0.22	0.18
15487.00	90.430	158.160	5714.69	9685.08	-9159.29	3172.81	1772473.94	14628001.84	40°16'37.6578"N	80°31'35.5225"W	9693.26	160.894	0.36	0.36	0.00
15582.00	90.180	157.990	5714.18	9780.08	-9247.41	3208.28	1772509.40	14627913.75	40°16'36.7851"N	80°31'35.0709"W	9788.14	160.866	0.32	-0.26	-0.18
15677.00	90.400	159.510	5713.70	9875.07	-9335.95	3242.71	1772543.81	14627825.25	40°16'35.9084"N	80°31'34.6328"W	9883.07	160.846	1.62	0.23	1.60
15772.00	90.280	159.080	5713.14	9970.06	-9424.81	3276.30	1772577.39	14627736.42	40°16'35.0285"N	80°31'34.2056"W	9978.04	160.831	0.47	-0.13	-0.45
15868.00	89.850	159.400	5713.03	10066.05	-9514.58	3310.33	1772611.40	14627646.69	40°16'34.1396"N	80°31'33.7728"W	10074.00	160.816	0.56	-0.45	0.33
15963.00	89.720	159.210	5713.39	10161.04	-9603.45	3343.90	1772644.96	14627557.85	40°16'33.2597"N	80°31'33.3458"W	10168.97	160.802	0.24	-0.14	-0.20
16058.00	89.850	159.430	5713.74	10256.03	-9692.33	3377.45	1772678.50	14627469.01	40°16'32.3796"N	80°31'32.9191"W	10263.93	160.788	0.27	0.14	0.23
16153.00	89.940	159.150	5713.92	10351.03	-9781.19	3411.05	1772712.08	14627380.18	40°16'31.4998"N	80°31'32.4918"W	10358.90	160.775	0.31	0.09	-0.29
16248.00	89.510	159.390	5714.37	10446.02	-9870.04	3444.67	1772745.69	14627292.51	40°16'30.6200"N	80°31'32.0641"W	10453.87	160.761	0.52	-0.45	0.25
16343.00	89.750	159.290	5714.99	10541.01	-9958.82	3478.19	1772779.20	14627202.51	40°16'29.7399"N	80°31'31.6378"W	10548.84	160.748	0.27	0.25	-0.11
16438.00	89.570	159.260	5715.55	10636.00	-10047.28	3511.81	1772812.80	14627113.69	40°16'28.8601"N	80°31'31.2102"W	10643.80	160.735	0.19	-0.19	-0.03
16533.00	90.150	159.920	5715.78	10730.98	-10136.81	3544.94	1772845.92	14627024.69	40°16'27.9785"N	80°31'30.7890"W	10738.78	160.725	0.92	0.61	0.69
16628.00	89.690	159.180	5715.91	10825.96	-10225.82	3578.13	1772879.10	14626935.71	40°16'27.0972"N	80°31'30.3669"W	10833.76	160.714	0.92	-0.48	-0.78
16723.00	89.380	158.880	5716.69	10920.96	-10314.51	3612.13	1772913.08	14626847.04	40°16'26.2188"N	80°31'29.9344"W	10928.72	160.700	0.45	-0.33	-0.32
16818.00	89.720	159.140	5717.43	11015.95	-10403.22	3646.15	1772947.10	14626758.38	40°16'25.3406"N	80°31'29.5016"W	11023.68	160.685	0.45	0.36	0.27

Gas
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Slot	Slot 6H		

WELLPATH DATA (289 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]
16913.00	89.630	159.540	5717.97	11110.94	-10492.11	3679.67	1772980.60	14626669.53	40°16'24.4604"N	80°31'29.0753"W	11118.65	160.674	0.43	-0.09	0.42
17009.00	89.480	159.450	5718.72	11206.92	-10582.02	3713.30	1773014.22	14626579.65	40°16'23.5701"N	80°31'28.6477"W	11214.63	160.664	0.18	-0.16	-0.09
17104.00	89.510	159.270	5719.55	11301.91	-10670.92	3746.78	1773047.69	14626490.78	40°16'22.6899"N	80°31'28.2219"W	11309.60	160.653	0.19	0.03	-0.19
17199.00	89.110	159.510	5720.70	11396.89	-10759.84	3780.22	1773081.11	14626401.91	40°16'21.8095"N	80°31'27.7966"W	11404.57	160.642	0.49	-0.42	0.25
17294.00	89.110	159.360	5722.17	11491.87	-10848.77	3813.59	1773114.47	14626313.00	40°16'20.9289"N	80°31'27.3723"W	11499.53	160.632	0.16	0.00	-0.16
17389.00	89.080	159.410	5723.67	11586.85	-10937.68	3847.03	1773147.90	14626224.13	40°16'20.0486"N	80°31'26.9470"W	11594.50	160.622	0.06	-0.03	0.05
17484.00	89.350	159.510	5724.97	11681.82	-11026.63	3880.36	1773181.22	14626135.21	40°16'19.1678"N	80°31'26.5232"W	11689.47	160.613	0.30	0.28	0.11
17579.00	89.260	159.620	5726.13	11776.80	-11115.64	3913.53	1773214.37	14626046.23	40°16'18.2864"N	80°31'26.1015"W	11784.45	160.604	0.15	-0.09	0.12
17674.00	89.600	159.730	5727.07	11871.78	-11204.72	3946.52	1773247.35	14625957.19	40°16'17.4044"N	80°31'25.6820"W	11879.43	160.597	0.38	0.36	0.12
17769.00	90.060	160.880	5727.35	11966.73	-11294.16	3978.54	1773279.36	14625867.78	40°16'16.5189"N	80°31'25.2752"W	11974.43	160.594	1.30	0.48	1.21
17865.00	88.920	159.530	5728.21	12062.68	-11384.49	4011.05	1773311.85	14625777.50	40°16'15.6247"N	80°31'24.8621"W	12070.42	160.591	1.84	-1.19	-1.41
17959.00	89.600	159.960	5729.42	12156.65	-11472.66	4043.59	1773344.38	14625689.35	40°16'14.7516"N	80°31'24.4484"W	12164.40	160.585	0.86	0.72	0.46
18054.00	88.980	159.180	5730.60	12251.63	-11561.68	4076.75	1773377.52	14625600.37	40°16'13.8702"N	80°31'24.0268"W	12259.38	160.577	1.05	-0.65	-0.82
18149.00	88.490	159.800	5732.70	12346.59	-11650.64	4110.02	1773410.79	14625511.45	40°16'12.9894"N	80°31'23.6037"W	12354.34	160.569	0.83	-0.52	0.65
18244.00	89.450	159.620	5734.40	12441.56	-11739.73	4142.96	1773443.71	14625422.39	40°16'12.1073"N	80°31'23.1850"W	12449.31	160.562	1.03	1.01	-0.19
18339.00	89.110	159.420	5735.60	12536.54	-11828.71	4176.20	1773476.94	14625333.44	40°16'11.2261"N	80°31'22.7624"W	12544.29	160.554	0.42	-0.36	-0.21
18434.00	89.110	159.410	5737.07	12631.51	-11917.64	4209.59	1773510.32	14625244.55	40°16'10.3456"N	80°31'22.3378"W	12639.26	160.546	0.01	0.00	-0.01
18529.00	89.140	159.810	5738.52	12726.48	-12006.68	4242.69	1773543.40	14625155.54	40°16'09.4640"N	80°31'21.9170"W	12734.23	160.539	0.42	0.03	0.42
18624.00	88.520	159.200	5740.46	12821.45	-12095.64	4275.94	1773576.65	14625066.61	40°16'08.5831"N	80°31'21.4942"W	12829.20	160.531	0.92	-0.65	-0.64
18719.00	89.080	158.280	5742.45	12916.43	-12184.16	4310.38	1773611.07	14624978.13	40°16'07.7066"N	80°31'21.0561"W	12924.13	160.518	1.13	0.59	-0.97
18814.00	89.080	158.790	5743.98	13011.42	-12272.56	4345.14	1773645.82	14624889.76	40°16'06.8312"N	80°31'20.6138"W	13019.06	160.503	0.54	0.00	0.54
18909.00	89.380	158.290	5745.26	13106.41	-12360.96	4379.89	1773680.56	14624801.39	40°16'05.9558"N	80°31'20.1717"W	13113.99	160.489	0.61	0.32	-0.53
19004.00	89.420	158.290	5746.25	13201.40	-12449.22	4415.03	1773715.68	14624713.17	40°16'05.0818"N	80°31'19.7245"W	13208.92	160.473	0.04	0.04	0.00
19099.00	89.380	158.010	5747.25	13296.39	-12537.39	4450.39	1773751.02	14624625.03	40°16'04.2086"N	80°31'19.2745"W	13303.84	160.457	0.30	-0.04	-0.29
19194.00	89.660	158.790	5748.04	13391.39	-12625.71	4485.36	1773785.98	14624536.74	40°16'03.3340"N	80°31'18.8296"W	13398.77	160.442	0.87	0.29	0.82
19289.00	89.450	158.470	5748.78	13486.39	-12714.18	4519.97	1773820.58	14624448.31	40°16'02.4579"N	80°31'18.3892"W	13493.72	160.429	0.40	-0.22	-0.34
19384.00	89.350	158.490	5749.77	13581.38	-12802.34	4554.82	1773855.42	14624359.97	40°16'01.5828"N	80°31'17.9458"W	13588.66	160.416	0.11	-0.11	0.02
19479.00	89.510	158.050	5750.72	13676.37	-12890.81	4589.99	1773890.57	14624271.76	40°16'00.7089"N	80°31'17.4983"W	13683.59	160.401	0.49	0.17	-0.46
19574.00	89.350	158.270	5751.66	13771.37	-12978.87	4625.33	1773925.90	14624183.62	40°15'59.8357"N	80°31'17.0485"W	13778.51	160.385	0.29	-0.17	0.23
19669.00	89.290	158.290	5752.79	13866.36	-13067.32	4660.48	1773961.04	14624095.40	40°15'58.9618"N	80°31'16.6012"W	13873.44	160.371	0.07	-0.06	0.02

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Slot	Slot 6H		

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19765.00	89.320	158.060	5753.96	13962.35	-13156.33	4696.17	1773996.71	14624006.32	40°15'58.0793"N	80°31'16.1471"W	13969.37	160.356	0.24	0.03	-0.24
19859.00	89.170	158.520	5755.20	14056.34	-13243.66	4730.94	1774031.47	14623919.03	40°15'57.2145"N	80°31'15.7047"W	14063.30	160.342	0.51	-0.16	0.49
19955.00	89.110	158.290	5756.64	14152.33	-13332.91	4766.27	1774066.78	14623829.82	40°15'56.3307"N	80°31'15.2552"W	14159.23	160.329	0.25	-0.06	-0.24
20050.00	89.350	158.340	5757.91	14247.32	-13421.18	4801.37	1774101.87	14623741.58	40°15'55.4565"N	80°31'14.8085"W	14254.16	160.316	0.26	0.25	0.05
20145.00	89.230	158.410	5759.09	14342.31	-13509.49	4836.38	1774136.86	14623653.31	40°15'54.5821"N	80°31'14.3631"W	14349.10	160.303	0.15	-0.13	0.07
20240.00	89.200	158.170	5760.39	14437.30	-13597.74	4871.51	1774171.99	14623565.09	40°15'53.7081"N	80°31'13.9160"W	14444.04	160.289	0.25	-0.03	-0.25
20335.00	89.080	158.390	5761.82	14532.29	-13685.98	4906.67	1774207.13	14623476.88	40°15'52.8342"N	80°31'13.4687"W	14538.97	160.276	0.26	-0.13	0.23
20430.00	89.080	158.250	5763.34	14627.28	-13774.25	4941.76	1774242.20	14623388.64	40°15'51.9601"N	80°31'13.0222"W	14633.90	160.264	0.15	0.00	-0.15
20525.00	89.050	158.320	5764.89	14722.26	-13862.50	4976.90	1774277.34	14623300.43	40°15'51.0862"N	80°31'12.5751"W	14728.83	160.251	0.08	-0.03	0.07
20620.00	88.800	158.440	5766.68	14817.25	-13950.80	5011.90	1774312.32	14623212.16	40°15'50.2117"N	80°31'12.1298"W	14823.76	160.239	0.29	-0.26	0.13
20715.00	89.140	158.560	5768.38	14912.23	-14039.18	5046.71	1774347.12	14623123.82	40°15'49.3366"N	80°31'11.6869"W	14918.70	160.228	0.38	0.36	0.13
20810.00	88.890	158.160	5770.02	15007.22	-14127.47	5081.74	1774382.13	14623035.56	40°15'48.4622"N	80°31'11.2413"W	15013.64	160.216	0.50	-0.26	-0.42
20905.00	89.630	158.720	5771.24	15102.21	-14215.81	5116.65	1774417.03	14622947.25	40°15'47.5874"N	80°31'10.7972"W	15108.59	160.205	0.98	0.78	0.59
21000.00	89.260	158.420	5772.16	15197.20	-14304.24	5151.35	1774451.72	14622858.86	40°15'46.7117"N	80°31'10.3556"W	15203.54	160.195	0.50	-0.39	-0.32
21095.00	89.450	158.430	5773.23	15292.20	-14392.58	5186.28	1774486.64	14622770.55	40°15'45.8369"N	80°31'9.9112"W	15298.49	160.184	0.20	0.20	0.01
21190.00	89.350	157.970	5774.23	15387.19	-14480.78	5221.56	1774521.90	14622682.39	40°15'44.9634"N	80°31'9.4624"W	15393.43	160.171	0.50	-0.11	-0.48
21285.00	89.420	158.280	5775.25	15482.18	-14568.93	5256.96	1774557.28	14622594.27	40°15'44.0904"N	80°31'9.0120"W	15488.36	160.159	0.33	0.07	0.33
21381.00	89.480	158.290	5776.17	15578.18	-14658.12	5292.47	1774592.79	14622505.12	40°15'43.2072"N	80°31'8.5601"W	15584.31	160.147	0.06	0.06	0.01
21475.00	89.510	158.330	5777.00	15672.17	-14745.46	5327.21	1774627.51	14622417.81	40°15'42.3423"N	80°31'8.1181"W	15678.26	160.136	0.05	0.03	0.04
21570.00	89.450	158.340	5777.86	15767.17	-14833.74	5362.28	1774662.57	14622329.56	40°15'41.4680"N	80°31'7.6719"W	15773.21	160.125	0.06	-0.06	0.01
21665.00	89.260	158.060	5778.93	15862.16	-14921.94	5397.56	1774697.83	14622241.39	40°15'40.5945"N	80°31'7.2231"W	15868.15	160.114	0.36	-0.20	-0.29
21761.00	89.480	158.670	5779.98	15958.15	-15011.17	5432.95	1774733.21	14622152.19	40°15'39.7108"N	80°31'6.7728"W	15964.10	160.103	0.68	0.23	0.64
21856.00	89.380	158.080	5780.93	16054.15	-15100.48	5467.96	1774768.21	14622063.92	40°15'38.8363"N	80°31'6.3274"W	16059.05	160.093	0.63	-0.11	-0.62
21951.00	89.540	158.850	5781.82	16151.14	-15189.75	5502.83	1774803.06	14621975.59	40°15'37.9613"N	80°31'5.8839"W	16154.00	160.084	0.83	0.17	0.81
22046.00	89.080	158.620	5782.92	16248.13	-15278.07	5537.28	1774837.50	14621887.10	40°15'37.0846"N	80°31'5.4457"W	16248.97	160.076	0.54	-0.48	-0.24
22091.00	88.980	158.290	5784.58	16345.12	-15366.42	5572.17	1774872.37	14621798.78	40°15'36.2097"N	80°31'5.0019"W	16343.92	160.066	0.36	-0.11	-0.35
22136.00	89.140	158.660	5786.14	16442.11	-15454.98	5607.02	1774907.21	14621710.45	40°15'35.3347"N	80°31'4.5586"W	16438.87	160.057	0.42	0.17	0.39
22181.00	88.860	158.460	5787.79	16539.09	-15543.50	5641.74	1774941.92	14621622.08	40°15'34.4591"N	80°31'4.1170"W	16533.82	160.049	0.36	-0.29	-0.21
22226.00	89.080	158.310	5789.50	16636.08	-15632.80	5676.73	1774976.89	14621533.80	40°15'33.5847"N	80°31'3.6719"W	16628.77	160.039	0.28	0.23	-0.16
22271.00	89.050	158.430	5791.05	16733.06	-15721.10	5711.74	1775011.89	14621445.54	40°15'32.7102"N	80°31'3.2265"W	16723.72	160.030	0.13	-0.03	0.13

REFERENCE WELLPATH IDENTIFICATION

Operator	SWN PRODUCTION COMPANY, LLC	Well	State of WV DNR C BRK 6H
Field	Brooke	API/Legal	
Facility	State of WV DNR C BRK Pad	Wellbore	State of WV DNR C BRK 6H AWB
Slot	Slot 6H		

WELLPATH DATA (289 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]
22616.00	89.110	158.580	5792.58	16813.05	-15806.48	5746.54	1775046.68	14621357.19	40°15'31.8350"N	80°31'2.7837"W	16818.67	160.021	0.17	0.06	0.16
22711.00	88.770	158.090	5794.33	16908.03	-15894.76	5781.61	1775081.74	14621268.95	40°15'30.9608"N	80°31'2.3376"W	16913.61	160.011	0.63	-0.36	-0.52
22806.00	88.680	157.840	5796.45	17003.01	-15982.79	5817.24	1775117.35	14621180.95	40°15'30.0889"N	80°31'1.8842"W	17008.53	160.000	0.28	-0.09	-0.26
22901.00	89.170	158.040	5798.23	17097.98	-16070.82	5852.92	1775153.01	14621092.95	40°15'29.2171"N	80°31'1.4303"W	17103.45	159.989	0.56	0.52	0.21
22996.00	89.110	158.550	5799.66	17192.97	-16159.08	5888.05	1775188.13	14621004.73	40°15'28.3431"N	80°31'0.9834"W	17198.40	159.979	0.54	-0.06	0.54
23091.00	88.860	158.290	5801.34	17287.96	-16247.41	5922.98	1775223.05	14620916.44	40°15'27.4684"N	80°31'0.5390"W	17293.35	159.971	0.38	-0.26	-0.27
23186.00	89.050	158.490	5803.07	17382.94	-16335.71	5957.96	1775258.02	14620828.16	40°15'26.5939"N	80°31'0.0940"W	17388.30	159.962	0.29	0.20	0.21
23281.00	89.110	158.380	5804.60	17477.93	-16424.05	5992.88	1775292.92	14620739.86	40°15'25.7191"N	80°30'59.6499"W	17483.25	159.954	0.13	0.06	-0.12
23376.00	89.200	158.280	5806.00	17572.92	-16512.33	6027.95	1775327.98	14620651.62	40°15'24.8449"N	80°30'59.2037"W	17578.20	159.945	0.14	0.09	-0.11
23471.00	89.110	158.670	5807.40	17667.91	-16600.69	6062.80	1775362.82	14620563.29	40°15'23.9698"N	80°30'58.7604"W	17673.16	159.937	0.42	-0.09	0.41
23566.00	89.320	158.740	5808.70	17762.90	-16689.20	6097.30	1775397.31	14620474.81	40°15'23.0934"N	80°30'58.3217"W	17768.13	159.931	0.23	0.22	0.07
23661.00	89.290	158.720	5809.85	17857.89	-16777.72	6131.76	1775431.75	14620386.33	40°15'22.2168"N	80°30'57.8835"W	17863.10	159.924	0.04	-0.03	-0.02
23756.00	89.230	158.500	5811.08	17952.88	-16866.17	6166.41	1775466.39	14620297.91	40°15'21.3409"N	80°30'57.4429"W	17958.07	159.917	0.24	-0.06	-0.23
23851.00	89.350	158.230	5812.26	18047.87	-16954.47	6201.43	1775501.39	14620209.64	40°15'20.4664"N	80°30'56.9974"W	18053.03	159.909	0.31	0.13	-0.28
23946.00	89.230	158.970	5813.43	18142.87	-17042.91	6236.09	1775536.04	14620121.23	40°15'19.5906"N	80°30'56.5565"W	18147.99	159.902	0.79	-0.13	0.78
24041.00	88.980	158.420	5814.92	18237.85	-17131.41	6270.60	1775570.54	14620032.77	40°15'18.7142"N	80°30'56.1177"W	18242.96	159.896	0.64	-0.26	-0.58
24137.00	88.920	158.130	5816.68	18333.84	-17220.58	6306.13	1775606.06	14619943.64	40°15'17.8312"N	80°30'55.6657"W	18338.91	159.887	0.31	-0.06	-0.30
24232.00	89.570	158.420	5817.93	18428.83	-17308.82	6341.29	1775641.20	14619855.43	40°15'16.9573"N	80°30'55.2184"W	18433.86	159.879	0.75	0.68	0.31
24327.00	89.450	158.730	5818.74	18523.82	-17397.25	6375.99	1775675.89	14619767.03	40°15'16.0815"N	80°30'54.7771"W	18528.83	159.872	0.35	-0.13	0.33
24422.00	89.450	158.270	5819.65	18618.82	-17485.64	6410.81	1775710.69	14619678.68	40°15'15.2063"N	80°30'54.3343"W	18623.80	159.865	0.48	0.00	-0.48
24517.00	89.350	157.980	5820.65	18713.81	-17573.79	6446.20	1775746.07	14619590.56	40°15'14.3332"N	80°30'53.8841"W	18718.75	159.857	0.32	-0.11	-0.31
24612.00	89.570	158.570	5821.54	18808.80	-17662.04	6481.37	1775781.22	14619502.35	40°15'13.4593"N	80°30'53.4368"W	18813.71	159.849	0.66	0.23	0.62
24707.00	89.600	158.870	5822.23	18903.80	-17750.56	6515.84	1775815.69	14619413.86	40°15'12.5827"N	80°30'52.9984"W	18908.69	159.843	0.32	0.03	0.32
24802.00	89.290	158.750	5823.15	18998.80	-17839.13	6550.18	1775850.01	14619325.32	40°15'11.7056"N	80°30'52.5618"W	19003.67	159.838	0.35	-0.33	-0.13
24897.00	89.320	158.330	5824.30	19093.79	-17927.54	6584.93	1775884.75	14619236.95	40°15'10.8301"N	80°30'52.1198"W	19098.64	159.831	0.44	0.03	-0.44
24992.00	89.320	158.860	5825.43	19188.72	-18015.98	6619.60	1775919.41	14619148.54	40°15'9.9543"N	80°30'51.6789"W	19193.61	159.825	0.56	0.00	0.56
25087.00	89.290	158.520	5826.58	19283.72	-18104.48	6664.12	1775953.91	14619060.08	40°15'9.0779"N	80°30'51.2399"W	19288.58	159.820	0.36	-0.03	-0.36
25182.00	89.110	158.370	5827.91	19378.78	-18192.85	6698.02	1775988.80	14618971.76	40°15'8.2030"N	80°30'50.7961"W	19383.55	159.813	0.25	-0.19	-0.16
25277.00	88.920	158.170	5829.54	19473.73	-18281.05	6732.19	1776023.95	14618883.56	40°15'7.3291"N	80°30'50.3488"W	19478.50	159.805	0.29	-0.20	-0.21
25373.00	88.980	158.290	5831.30	19568.77	-18370.20	6767.99	1776059.54	14618794.46	40°15'6.4464"N	80°30'49.8960"W	19574.45	159.798	0.14	0.06	0.12

Gas
Protection

REFERENCE WELLPATH IDENTIFICATION

Operator	SWN PRODUCTION COMPANY, LLC	Well	State of WV DNR C BRK 6H
Field	Brooke	API/Legal	
Facility	State of WV DNR C BRK Pad	Wellbore	State of WV DNR C BRK 6H AWB
Slot	Slot 6H		

WELLPATH DATA (289 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]
25468.00	88.950	158.960	5833.02	19664.72	-18458.65	6794.41	1776094.14	14618706.04	40°15'5.5705"N	80°30'49.4558"W	19669.41	159.792	0.71	-0.03	0.71
25563.00	88.950	158.090	5834.76	19759.70	-18547.04	6829.18	1776128.90	14618617.68	40°15'4.6951"N	80°30'49.0135"W	19764.37	159.786	0.92	0.00	-0.92
25658.00	89.050	158.640	5836.42	19854.68	-18635.33	6864.20	1776163.91	14618529.42	40°15'3.8207"N	80°30'48.5681"W	19859.33	159.779	0.59	0.11	0.58
25753.00	88.770	158.220	5838.23	19949.67	-18723.66	6899.12	1776198.82	14618441.13	40°15'2.9460"N	80°30'48.1240"W	19954.28	159.773	0.53	-0.29	-0.44
25848.00	89.170	158.410	5839.93	20044.65	-18811.93	6934.22	1776233.90	14618352.90	40°15'2.0719"N	80°30'47.6777"W	20049.24	159.766	0.47	0.42	0.20
25943.00	89.350	158.210	5841.16	20139.64	-18900.19	6969.32	1776268.99	14618264.67	40°15'1.1978"N	80°30'47.2311"W	20144.20	159.759	0.28	0.19	-0.21
26038.00	89.350	158.360	5842.24	20234.63	-18988.45	7004.47	1776304.13	14618176.45	40°15'0.3238"N	80°30'46.7841"W	20239.16	159.752	0.16	0.00	0.16
26133.00	89.380	158.340	5843.29	20329.63	-19076.74	7039.52	1776339.16	14618088.19	40°14'59.4494"N	80°30'46.3384"W	20334.13	159.745	0.04	0.03	-0.02
26228.00	89.420	158.540	5844.29	20424.62	-19165.09	7074.42	1776374.06	14617999.87	40°14'58.5745"N	80°30'45.8945"W	20429.10	159.739	0.21	0.04	0.21
26323.00	89.140	158.180	5845.48	20519.61	-19253.38	7109.46	1776409.07	14617911.61	40°14'57.7000"N	80°30'45.4489"W	20524.06	159.733	0.48	-0.29	-0.38
26418.00	89.290	158.870	5846.78	20614.60	-19341.78	7144.23	1776443.83	14617823.25	40°14'56.8246"N	80°30'45.0067"W	20619.03	159.727	0.74	0.16	0.73
26513.00	89.380	158.670	5847.88	20709.60	-19430.33	7178.63	1776478.22	14617734.74	40°14'55.9478"N	80°30'44.5694"W	20714.01	159.723	0.23	0.09	-0.21
26608.00	89.140	158.400	5849.11	20804.59	-19518.73	7213.39	1776512.97	14617646.37	40°14'55.0723"N	80°30'44.1274"W	20808.98	159.718	0.38	-0.25	-0.28
26703.00	89.260	158.330	5850.44	20899.58	-19607.03	7248.41	1776547.98	14617558.10	40°14'54.1979"N	80°30'43.6820"W	20903.95	159.711	0.15	0.13	-0.07
26798.00	89.200	158.690	5851.71	20994.57	-19695.42	7283.21	1776582.76	14617469.75	40°14'53.3225"N	80°30'43.2395"W	20998.92	159.706	0.38	-0.06	0.38
26893.00	89.200	158.470	5853.04	21089.56	-19783.85	7317.90	1776617.44	14617381.35	40°14'52.4468"N	80°30'42.7984"W	21093.89	159.701	0.23	0.00	-0.23
26988.00	89.260	157.970	5854.32	21184.55	-19872.06	7353.15	1776652.67	14617293.18	40°14'51.5732"N	80°30'42.3501"W	21188.85	159.694	0.53	0.06	-0.53
27010.00	89.350	157.890	5854.58	21206.55	-19892.44	7361.41	1776660.93	14617272.80	40°14'51.3713"N	80°30'42.2450"W	21210.84	159.692	0.55	0.41	-0.36
27035.00†	89.350	157.890	5854.87	21231.54	-19915.60	7370.82	1776670.34	14617249.65	40°14'51.1420"N	80°30'42.1253"W	21235.82	159.690	0.00	0.00	0.00

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REFERENCE WELLPATH IDENTIFICATION

Operator	SWN PRODUCTION COMPANY, LLC		Well	State of WV DNR C BRK 6H	
Field	Brooke		API/Legal		
Facility	State of WV DNR C BRK Pad		Wellbore	State of WV DNR C BRK 6H AWB	
Slot	Slot 6H				

HOLE & CASING SECTIONS - Ref Wellbore: State of WV DNR C BRK 6H AWB Ref Wellpath: State of WV DNR C BRK 6H AWP Proj: 27035'

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]
20in Conductor	26.00	126.00	100.00	26.00	126.00	0.00	0.00	-0.31	0.08
17.5in Open Hole	126.00	425.00	299.00	126.00	424.99	-0.31	0.08	-2.35	0.05
13.375in Casing Surface	26.00	425.00	399.00	26.00	424.99	0.00	0.00	-2.35	0.05
12.25in Open Hole	425.00	1408.00	983.00	424.99	1403.08	-2.35	0.05	42.94	-77.64
9.625in Casing Intermediate	26.00	1322.00	1296.00	26.00	1317.76	0.00	0.00	38.24	-67.94
8.5in Open Hole	1408.00	27035.00	25627.00	1403.08	5854.87	42.94	-77.64	-19915.60	7370.82
5.5in Casing Production	26.00	27035.00	27009.00	26.00	5854.87	0.00	0.00	-19915.60	7370.82

TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
State of WV DNR C BRK 6H LP Rev-4	5616.00	-371.59	-307.80	1768994.66	14636786.17	40°18'4.6764"N	80°32'19.8384"W	point
State of WV DNR C BRK 6H BHL Rev-9	5835.91	-19914.01	7376.31	1776675.82	14617251.24	40°14'51.1574"N	80°30'42.0544"W	point

WELLPATH COMPOSITION - Ref Wellbore: State of WV DNR C BRK 6H AWB Ref Wellpath: State of WV DNR C BRK 6H AWP Proj: 27035'

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date
26.00	372.00	OWSG MWD rev2 + HRGM	01 Premier MWD <17-1/2"> (220°-372')	State of WV DNR C BRK 6H AWB	1/25/2021
372.00	1322.00	OWSG MWD rev2 + HRGM	02 Premier MWD <12-1/4"> (463°-1322')	State of WV DNR C BRK 6H AWB	1/25/2021
1322.00	27035.00	BH AutoTrak Curve/Extras (2019) (HRGM, Short spacing)	03 BH AT Curve <8-1/2"> (1419°-27010')	State of WV DNR C BRK 6H AWB	2/12/2021

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REFERENCE WELLPATH IDENTIFICATION

Operator	SWN PRODUCTION COMPANY, LLC		Well	State of WV DNR C BRK 6H
Field	Brooke		API/Legal	
Facility	State of WV DNR C BRK Pad		Wellbore	State of WV DNR C BRK 6H AWB
Slot	Slot 6H			

COMMENTS

Wellpath general comments
 API: 47-009-00316-0000
 BH Job #: 110769281
 Rig: SDC 40
 Duration: 02/15/2021 - 02/24/2021

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