



SWN PRODUCTION COMPANY, LLC



Location: Brooke County, WV
 Field: Brooke
 Facility: Samuel Jones BRK Pad

Slot: 8H
 Well: Samuel Jones BRK 8H
 Wellbore: Samuel Jones BRK 8H AWB

Plot reference wellpath is Samuel Jones BRK 8H awp Proj: 21787	Grid System: NAD83 / UTM Zone 17 North, US feet
True vertical depths are referenced to SDC 40 (KB)	North Reference: Grid north
Reference wellpath measured depths are referenced to SDC 40 (KB)	Scale: True distance
SDC 40 (KB) to Mean Sea Level: 1232.2 feet	Coordinates are in feet referenced to Slot
Mean Sea Level to Ground level (At Slot: 8H): -1206.2 feet	Depths are in feet
Offset wellpath MDs are referenced to each path's default MD datum	Created by: tranlam on 2023-07-17; Database: WA_MPL_EASTERNUS_Defn

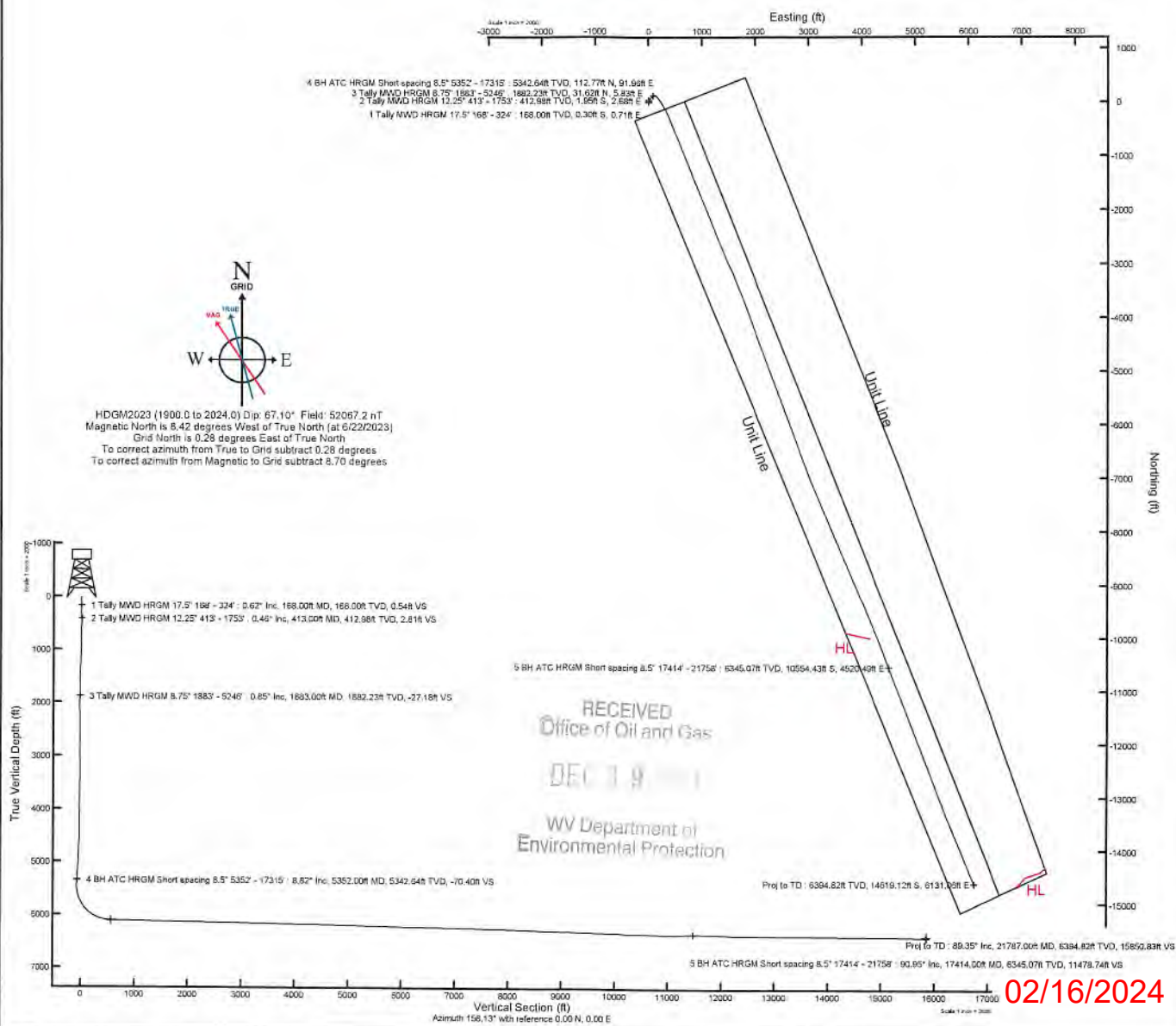
Location Information

Facility Name			Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Samuel Jones BRK Pad			1762985.776	14596395.998	40°11'25.6980"N	80°33'40.0020"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
8H	10.26	21.76	1763007.530	14596406.250	40°11'25.7983"N	80°33'39.7209"W
SDC 40 (KB) to Ground level (At Slot: 8H)					26ft	
Mean Sea Level to Ground level (At Slot: 8H)					-1206.2ft	
SDC 40 (KB) to Mean Sea Level					1232.2ft	

Bottom Hole Location

MD (ft)	Inc (")	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
21787.00	89.350	157.760	6394.82	-14619.12	6131.06	1769136.23	14581792.76	40°09'1.0269"N	80°32'21.6972"W

API: 4700900336000
 BH JOB: 111880293
 DURATION: 07.06.2023 to 07.11.2023
 RIG: SDC 40



REFERENCE WELLPATH IDENTIFICATION

Operator	SWN PRODUCTION COMPANY, LLC	Well	Samuel Jones BRK 8H
Field	Brooke	API	47009003360000
Facility	Samuel Jones BRK Pad	Wellbore	Samuel Jones BRK 8H AWB
Slot	8H		

REPORT SETUP INFORMATION

Projection System	NAD83 / UTM Zone 17 North, US feet	Software System	WellArchitect® 6.0
North Reference	Grid	User	Tranlam
Scale	0.999617	Report Generated	7/17/2023 at 9:09:39 PM
Convergence at slot	0.28° 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	10.26	21.76	1763007.53	14596406.25	40°11'25.7983"N	80°33'39.7209"W
Facility Reference Pt			1762985.78	14596396.00	40°11'25.6980"N	80°33'40.0020"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	1232.20ft
Horizontal Reference Pt	Slot	SDC 40 (KB) to Mean Sea Level	1232.20ft
Vertical Reference Pt	SDC 40 (KB)	SDC 40 (KB) to Ground Level at Slot (8H)	26.00ft
MD Reference Pt	SDC 40 (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	158.13°

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Actual Wellpath Report

Samuel Jones BRK 8H awp Proj: 21787
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REFERENCE WELLPATH IDENTIFICATION			
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Field	Brooke	API	47009003360000
Facility	Samuel Jones BRK Pad	Wellbore	Samuel Jones BRK 8H AWB
Slot	8H		

WELLPATH DATA (231 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	113.150	0.00	0.00	0.00	0.00	1763007.53	14596406.25	40°11'25.7983"N	80°33'39.7209"W	0.00	0.000	0.00
26.00	0.000	113.150	26.00	0.00	0.00	0.00	1763007.53	14596406.25	40°11'25.7983"N	80°33'39.7209"W	0.00	0.000	0.00
168.00	0.620	113.150	168.00	0.54	-0.30	0.71	1763008.24	14596405.95	40°11'25.7953"N	80°33'39.7118"W	0.77	113.150	0.44
229.00	0.600	135.340	228.99	1.07	-0.66	1.23	1763008.76	14596405.59	40°11'25.7917"N	80°33'39.7051"W	1.40	118.095	0.39
281.00	0.800	116.280	280.99	1.59	-1.01	1.75	1763009.28	14596405.24	40°11'25.7882"N	80°33'39.6984"W	2.02	120.056	0.59
324.00	0.600	137.330	323.99	2.03	-1.31	2.17	1763009.70	14596404.94	40°11'25.7852"N	80°33'39.6930"W	2.54	121.119	0.75
413.00	0.460	146.830	412.98	2.81	-1.95	2.68	1763010.21	14596404.30	40°11'25.7788"N	80°33'39.6865"W	3.32	126.045	0.19
503.00	0.190	354.830	502.98	3.02	-2.11	2.87	1763010.40	14596404.14	40°11'25.7773"N	80°33'39.6841"W	3.56	126.302	0.70
594.00	0.730	330.060	593.98	2.31	-1.45	2.57	1763010.09	14596404.80	40°11'25.7838"N	80°33'39.6880"W	2.95	119.553	0.62
684.00	0.950	323.280	683.97	1.02	-0.36	1.83	1763009.36	14596405.89	40°11'25.7946"N	80°33'39.6973"W	1.87	101.104	0.27
775.00	0.900	5.510	774.96	-0.35	0.96	1.45	1763008.98	14596407.21	40°11'25.8077"N	80°33'39.7022"W	1.74	56.613	0.73
865.00	1.060	10.030	864.95	-1.68	2.48	1.66	1763009.19	14596408.73	40°11'25.8227"N	80°33'39.6993"W	2.99	33.862	0.20
956.00	1.400	16.180	955.92	-3.27	4.38	2.12	1763009.65	14596410.62	40°11'25.8414"N	80°33'39.6933"W	4.86	25.850	0.40
1046.00	1.820	23.830	1045.89	-5.14	6.74	3.00	1763010.53	14596412.99	40°11'25.8647"N	80°33'39.6818"W	7.38	24.024	0.52
1136.00	2.730	19.850	1135.82	-7.73	10.06	4.31	1763011.84	14596416.31	40°11'25.8975"N	80°33'39.6648"W	10.95	23.182	1.03
1227.00	3.750	20.390	1226.67	-11.55	14.89	6.08	1763013.61	14596421.13	40°11'25.9451"N	80°33'39.6416"W	16.08	22.217	1.12
1318.00	3.550	15.490	1317.49	-16.00	20.40	7.87	1763015.40	14596426.64	40°11'25.9994"N	80°33'39.6182"W	21.86	21.103	0.41
1408.00	2.650	10.960	1407.35	-19.96	25.12	9.01	1763016.54	14596431.36	40°11'26.0461"N	80°33'39.6032"W	26.69	19.732	1.04
1499.00	1.830	2.140	1498.28	-23.05	28.64	9.47	1763016.99	14596434.88	40°11'26.0808"N	80°33'39.5971"W	30.16	18.288	0.97
1589.00	1.090	339.010	1588.25	-25.22	30.88	9.21	1763016.74	14596437.11	40°11'26.1029"N	80°33'39.6003"W	32.22	16.613	1.04
1680.00	0.660	282.390	1679.24	-26.38	31.80	8.39	1763015.92	14596438.03	40°11'26.1121"N	80°33'39.6108"W	32.88	14.782	1.00
1753.00	0.680	261.320	1752.24	-26.72	31.82	7.55	1763015.08	14596438.06	40°11'26.1124"N	80°33'39.6216"W	32.70	13.350	0.34
1883.00	0.850	265.250	1882.23	-27.18	31.62	5.83	1763013.36	14596437.86	40°11'26.1105"N	80°33'39.6438"W	32.16	10.441	0.14
1974.00	0.940	287.530	1973.22	-27.85	31.79	4.44	1763011.97	14596438.03	40°11'26.1122"N	80°33'39.6616"W	32.10	7.956	0.39
2065.00	0.460	215.410	2064.21	-28.13	31.72	3.52	1763011.05	14596437.96	40°11'26.1116"N	80°33'39.6736"W	31.92	6.332	1.00
2155.00	0.640	163.660	2154.21	-27.43	30.94	3.45	1763010.98	14596437.18	40°11'26.1039"N	80°33'39.6745"W	31.14	6.365	0.56
2246.00	0.620	131.120	2245.20	-26.49	30.13	3.97	1763011.49	14596436.37	40°11'26.0959"N	80°33'39.6679"W	30.39	7.498	0.39
2338.00	0.670	144.660	2337.20	-25.52	29.37	4.65	1763012.18	14596435.61	40°11'26.0883"N	80°33'39.6591"W	29.73	9.002	0.17
2430.00	0.500	125.890	2429.19	-24.66	28.69	5.29	1763012.82	14596434.93	40°11'26.0816"N	80°33'39.6510"W	29.18	10.443	0.28
2521.00	0.570	81.070	2520.19	-24.22	28.53	6.06	1763013.58	14596434.77	40°11'26.0799"N	80°33'39.6411"W	29.17	11.987	0.45

REFERENCE WELLPATH IDENTIFICATION

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Field	Brooke	API	47009003360000
Facility	Samuel Jones BRK Pad	Wellbore	Samuel Jones BRK 8H AWB
Slot	8H		

WELLPATH DATA (231 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]
2613.00	0.470	64.150	2612.19	-24.14	28.77	6.85	1763014.38	14596435.00	40°11'26.0822"N	80°33'39.6308"W	29.57	13.392	0.20
2703.00	0.630	33.480	2702.18	-24.45	29.34	7.45	1763014.98	14596435.58	40°11'26.0878"N	80°33'39.6230"W	30.27	14.255	0.37
2793.00	0.870	12.390	2792.17	-25.30	30.42	7.87	1763015.40	14596436.66	40°11'26.0985"N	80°33'39.6175"W	31.42	14.512	0.40
2884.00	0.290	165.230	2883.17	-25.64	30.87	8.08	1763015.61	14596437.11	40°11'26.1030"N	80°33'39.6148"W	31.91	14.668	1.25
2974.00	0.730	173.540	2973.17	-24.86	30.08	8.20	1763015.73	14596436.32	40°11'26.0951"N	80°33'39.6133"W	31.18	15.253	0.49
3066.00	0.570	200.730	3065.16	-23.96	29.07	8.11	1763015.63	14596435.31	40°11'26.0852"N	80°33'39.6146"W	30.18	15.582	0.37
3156.00	0.240	205.120	3155.16	-23.50	28.48	7.87	1763015.40	14596434.72	40°11'26.0794"N	80°33'39.6177"W	29.55	15.444	0.37
3247.00	0.280	213.770	3246.16	-23.25	28.12	7.66	1763015.19	14596434.36	40°11'26.0758"N	80°33'39.6204"W	29.15	15.243	0.06
3340.00	0.350	296.660	3339.16	-23.33	28.06	7.28	1763014.81	14596434.30	40°11'26.0752"N	80°33'39.6253"W	28.99	14.550	0.45
3431.00	0.310	294.770	3430.16	-23.72	28.29	6.81	1763014.34	14596434.53	40°11'26.0775"N	80°33'39.6314"W	29.10	13.538	0.05
3521.00	0.720	313.040	3520.15	-24.41	28.78	6.18	1763013.71	14596435.02	40°11'26.0824"N	80°33'39.6395"W	29.43	12.115	0.49
3613.00	0.890	305.910	3612.14	-25.53	29.59	5.18	1763012.70	14596435.83	40°11'26.0905"N	80°33'39.6523"W	30.04	9.922	0.21
3703.00	0.130	110.100	3702.14	-26.06	29.97	4.71	1763012.23	14596436.21	40°11'26.0942"N	80°33'39.6584"W	30.33	8.925	1.13
3794.00	0.550	71.430	3793.14	-25.96	30.07	5.22	1763012.75	14596436.31	40°11'26.0952"N	80°33'39.6518"W	30.52	9.843	0.50
3885.00	0.410	5.470	3884.13	-26.23	30.53	5.68	1763013.19	14596436.77	40°11'26.0997"N	80°33'39.6480"W	31.05	10.506	0.59
3977.00	0.350	355.150	3976.13	-26.79	31.14	5.67	1763013.20	14596437.38	40°11'26.1057"N	80°33'39.6459"W	31.65	10.319	0.10
4067.00	0.540	338.910	4066.13	-27.48	31.81	5.49	1763013.02	14596438.05	40°11'26.1124"N	80°33'39.6481"W	32.28	9.799	0.25
4158.00	0.750	329.910	4157.12	-28.49	32.73	5.04	1763012.57	14596438.96	40°11'26.1214"N	80°33'39.6539"W	33.11	8.757	0.26
4251.00	0.850	330.170	4250.12	-29.78	33.85	4.39	1763011.92	14596440.09	40°11'26.1326"N	80°33'39.6622"W	34.14	7.394	0.11
4342.00	0.650	50.950	4341.11	-30.60	34.76	4.46	1763011.99	14596441.00	40°11'26.1416"N	80°33'39.6613"W	35.05	7.308	1.08
4479.00	2.170	48.560	4478.06	-31.70	36.97	7.01	1763014.53	14596443.20	40°11'26.1633"N	80°33'39.6283"W	37.63	10.731	1.11
4525.00	1.750	36.570	4524.04	-32.36	38.11	8.08	1763015.60	14596444.34	40°11'26.1745"N	80°33'39.6144"W	38.96	11.967	1.27
4616.00	4.100	44.580	4614.91	-34.38	41.54	11.19	1763018.71	14596447.78	40°11'26.2083"N	80°33'39.5741"W	43.02	15.074	2.61
4706.00	5.450	44.290	4704.60	-37.40	46.89	16.43	1763023.96	14596453.13	40°11'26.2609"N	80°33'39.5062"W	49.69	19.311	1.50
4797.00	7.700	50.260	4794.99	-41.02	53.89	24.14	1763031.66	14596460.11	40°11'26.3296"N	80°33'39.4065"W	59.05	24.130	2.58
4887.00	9.720	51.270	4883.95	-45.07	62.49	34.70	1763042.22	14596468.72	40°11'26.4142"N	80°33'39.2698"W	71.48	29.043	2.25
4978.00	10.470	52.060	4973.54	-49.59	72.38	47.22	1763054.73	14596478.61	40°11'26.5113"N	80°33'39.1079"W	86.42	33.116	0.84
5069.00	9.480	46.950	5063.17	-54.58	82.58	59.21	1763066.72	14596488.80	40°11'26.6115"N	80°33'38.9527"W	101.62	35.641	1.46
5159.00	9.260	48.250	5151.97	-59.72	92.47	70.03	1763077.54	14596498.68	40°11'26.7086"N	80°33'38.8126"W	115.99	37.140	0.34
5246.00	8.800	46.200	5237.89	-64.59	101.73	80.06	1763087.56	14596507.94	40°11'26.7997"N	80°33'38.6829"W	129.46	38.201	0.65

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Slot	8H			

WELLPATH DATA (231 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]
5352.00	8.820	48.100	5342.64	-70.40	112.77	91.96	1763099.45	14596518.98	40°11'26.9082"N	80°33'38.5288"W	145.51	39.195	0.28
5443.00	8.920	50.480	5432.55	-74.93	121.92	102.59	1763110.08	14596528.12	40°11'26.9981"N	80°33'38.3912"W	159.34	40.080	0.42
5534.00	10.680	96.670	5522.35	-73.04	125.44	116.43	1763123.92	14596531.64	40°11'27.0321"N	80°33'38.2126"W	171.15	42.868	8.60
5634.00	16.250	124.910	5619.67	-56.88	116.34	137.15	1763144.63	14596522.54	40°11'26.9412"N	80°33'37.9463"W	179.84	49.694	8.47
5731.00	23.380	135.680	5710.90	-27.70	94.78	161.75	1763169.22	14596500.99	40°11'26.7269"N	80°33'37.6306"W	187.47	59.633	8.21
5827.00	31.280	144.160	5796.16	14.16	60.89	189.70	1763197.15	14596467.12	40°11'26.3907"N	80°33'37.2727"W	199.23	72.204	9.17
5924.00	39.760	146.160	5875.04	69.04	14.62	221.78	1763229.22	14596420.87	40°11'25.9320"N	80°33'36.8623"W	222.26	86.227	8.82
6020.00	47.920	149.530	5944.23	134.42	-41.68	257.00	1763264.43	14596364.58	40°11'25.3738"N	80°33'36.4120"W	260.36	99.213	8.84
6117.00	56.740	150.700	6003.45	210.38	-108.21	295.18	1763302.60	14596298.08	40°11'24.7145"N	80°33'35.9244"W	314.39	110.132	9.14
6213.00	65.180	153.360	6050.01	293.75	-182.30	334.43	1763341.83	14596224.02	40°11'23.9805"N	80°33'35.4233"W	380.89	118.595	9.12
6310.00	73.790	155.640	6083.98	384.33	-264.23	373.46	1763380.84	14596142.12	40°11'23.1689"N	80°33'34.9257"W	457.48	125.281	9.14
6407.00	82.350	158.040	6104.02	479.12	-351.41	410.72	1763418.09	14596054.97	40°11'22.3056"N	80°33'34.4512"W	540.54	130.551	9.15
6503.00	89.200	158.270	6111.08	574.80	-440.23	446.32	1763453.68	14595966.19	40°11'21.4262"N	80°33'33.9981"W	626.90	134.606	7.14
6600.00	88.770	157.830	6112.80	671.78	-530.18	482.57	1763489.92	14595876.27	40°11'20.5355"N	80°33'33.5367"W	716.91	137.691	0.63
6696.00	89.020	157.770	6114.65	767.76	-619.05	518.84	1763526.17	14595787.44	40°11'19.6555"N	80°33'33.0751"W	807.72	140.033	0.27
6793.00	88.090	156.490	6117.10	864.71	-708.39	556.52	1763563.84	14595698.13	40°11'18.7708"N	80°33'32.5953"W	900.85	141.846	1.63
6889.00	88.860	158.820	6119.66	960.67	-797.14	593.00	1763600.31	14595609.41	40°11'17.8920"N	80°33'32.1309"W	993.52	143.354	2.56
6986.00	88.620	158.140	6121.79	1057.64	-887.36	628.58	1763635.87	14595519.23	40°11'16.9987"N	80°33'31.6783"W	1087.44	144.687	0.74
7082.00	88.340	157.220	6124.33	1153.61	-976.13	665.02	1763672.30	14595430.49	40°11'16.1197"N	80°33'31.2144"W	1181.14	145.734	1.00
7179.00	88.220	157.040	6127.25	1250.55	-1065.47	702.70	1763709.96	14595341.19	40°11'15.2350"N	80°33'30.7346"W	1276.33	146.594	0.22
7276.00	88.610	158.140	6129.93	1347.50	-1155.11	739.67	1763746.91	14595251.59	40°11'14.3474"N	80°33'30.2641"W	1371.64	147.367	1.20
7372.00	89.260	159.070	6131.71	1443.48	-1244.48	774.68	1763781.91	14595162.25	40°11'13.4626"N	80°33'29.8187"W	1465.90	148.098	1.18
7469.00	89.420	160.690	6132.83	1540.43	-1335.55	808.05	1763815.26	14595071.22	40°11'12.5610"N	80°33'29.3946"W	1560.97	148.825	1.68
7566.00	88.920	157.890	6134.24	1637.39	-1426.26	842.34	1763849.55	14594980.54	40°11'11.6629"N	80°33'28.9585"W	1656.43	149.434	2.93
7662.00	89.050	157.190	6135.94	1733.37	-1514.96	879.01	1763886.20	14594891.87	40°11'10.7845"N	80°33'28.4918"W	1751.51	149.877	0.74
7758.00	88.980	157.640	6137.59	1829.35	-1603.59	915.87	1763923.05	14594803.28	40°11'9.9069"N	80°33'28.0225"W	1846.71	150.268	0.47
7855.00	89.080	157.610	6139.23	1926.33	-1693.27	952.79	1763959.96	14594713.63	40°11'9.0188"N	80°33'27.5525"W	1942.93	150.634	0.11
7951.00	89.050	156.880	6140.80	2022.30	-1781.79	989.92	1763997.07	14594625.15	40°11'8.1423"N	80°33'27.0799"W	2038.31	150.944	0.76
8048.00	88.860	156.490	6142.57	2119.26	-1870.85	1028.31	1764035.44	14594536.12	40°11'7.2603"N	80°33'26.5910"W	2134.83	151.205	0.45
8145.00	88.950	156.230	6144.42	2216.23	-1960.36	1065.64	1764072.76	14594446.65	40°11'6.3740"N	80°33'26.1158"W	2231.27	151.472	1.80

REFERENCE WELLPATH IDENTIFICATION				
Operator	SWN PRODUCTION COMPANY, LLC		Well	Samuel Jones BRK 8H
Field	Brooke		API	47009003360000
Facility	Samuel Jones BRK Pad		Wellbore	Samuel Jones BRK 8H AWB
Slot	8H			

WELLPATH DATA (231 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]
8241.00	89.230	157.850	6145.94	2312.21	-2049.38	1101.53	1764108.64	14594357.66	40°11'5.4925"N	80°33'25.6590"W	2326.66	151.742	0.49
8337.00	88.950	157.320	6147.47	2408.20	-2138.12	1138.13	1764145.22	14594268.96	40°11'4.6138"N	80°33'25.1931"W	2422.17	151.973	0.62
8434.00	89.510	158.390	6148.77	2505.18	-2227.95	1174.69	1764181.77	14594179.16	40°11'3.7243"N	80°33'24.7279"W	2518.66	152.199	1.24
8627.00	89.020	158.120	6151.25	2698.17	-2407.20	1246.19	1764253.24	14593999.97	40°11'1.9494"N	80°33'23.8182"W	2710.65	152.630	0.29
8723.00	89.230	158.980	6152.71	2794.15	-2496.54	1281.29	1764288.33	14593910.67	40°11'1.0648"N	80°33'23.3717"W	2806.14	152.832	0.92
8820.00	89.050	156.660	6154.17	2891.13	-2586.35	1317.90	1764324.93	14593820.90	40°11'0.1756"N	80°33'22.9058"W	2902.77	152.998	2.40
8917.00	88.580	157.000	6156.18	2988.09	-2675.50	1356.06	1764363.07	14593731.78	40°10'59.2927"N	80°33'22.4199"W	2999.54	153.122	0.60
9014.00	89.320	156.730	6157.95	3085.05	-2764.69	1394.17	1764401.16	14593642.63	40°10'58.4095"N	80°33'21.9347"W	3096.32	153.239	0.81
9111.00	88.740	157.020	6159.60	3182.01	-2853.88	1432.26	1764439.23	14593553.47	40°10'57.5262"N	80°33'21.4497"W	3193.12	153.350	0.67
9207.00	89.110	156.420	6161.40	3277.96	-2942.05	1470.19	1764477.15	14593465.33	40°10'56.6531"N	80°33'20.9667"W	3288.94	153.448	0.73
9304.00	88.920	153.840	6163.06	3374.81	-3030.03	1510.97	1764517.92	14593377.38	40°10'55.7816"N	80°33'20.4469"W	3385.87	153.496	2.67
9400.00	88.580	153.300	6165.16	3470.48	-3115.98	1553.89	1764560.63	14593291.47	40°10'54.9302"N	80°33'19.9020"W	3481.85	153.498	0.66
9497.00	89.480	158.470	6166.80	3567.36	-3204.47	1593.31	1764600.22	14593203.01	40°10'54.0538"N	80°33'19.3974"W	3578.72	153.563	5.41
9594.00	88.610	158.370	6168.42	3664.34	-3294.66	1628.98	1764635.88	14593112.86	40°10'53.1608"N	80°33'18.9436"W	3675.37	153.691	0.90
9690.00	88.770	158.190	6170.61	3760.32	-3383.82	1664.49	1764671.38	14593023.73	40°10'52.2779"N	80°33'18.4918"W	3771.04	153.808	0.25
9787.00	88.680	157.630	6172.77	3857.29	-3473.67	1700.96	1764707.84	14592933.91	40°10'51.3882"N	80°33'18.0277"W	3867.78	153.910	0.58
9883.00	88.310	157.550	6175.29	3953.25	-3562.39	1737.55	1764744.41	14592845.23	40°10'50.5097"N	80°33'17.5621"W	3963.55	153.999	0.39
9980.00	88.860	159.450	6177.69	4050.22	-3652.61	1773.09	1764779.93	14592755.04	40°10'49.6164"N	80°33'17.1101"W	4060.22	154.107	2.04
10076.00	88.370	159.070	6180.01	4146.17	-3742.36	1807.07	1764813.91	14592665.33	40°10'48.7278"N	80°33'16.6780"W	4155.82	154.226	0.65
10172.00	88.740	159.410	6182.48	4242.12	-3832.10	1841.09	1764847.91	14592575.62	40°10'47.8393"N	80°33'16.2456"W	4251.43	154.339	0.52
10269.00	89.080	158.790	6184.27	4339.09	-3922.70	1875.69	1764882.49	14592485.06	40°10'46.9423"N	80°33'15.8057"W	4348.08	154.445	0.73
10365.00	89.510	162.690	6185.46	4434.96	-4013.31	1907.34	1764914.14	14592394.49	40°10'46.0454"N	80°33'15.4037"W	4443.49	154.580	4.09
10462.00	88.460	158.510	6187.18	4531.84	-4104.76	1939.55	1764946.33	14592303.07	40°10'45.1400"N	80°33'14.9947"W	4539.93	154.709	4.44
10558.00	88.370	159.960	6189.83	4627.78	-4194.49	1973.57	1764980.34	14592213.37	40°10'44.2517"N	80°33'14.5622"W	4635.59	154.802	1.51
10655.00	89.050	159.260	6182.01	4724.72	-4285.39	2007.36	1765014.12	14592122.51	40°10'43.3517"N	80°33'14.1328"W	4732.23	154.901	1.01
10752.00	88.860	159.020	6193.78	4821.69	-4376.02	2041.89	1765048.64	14592031.92	40°10'42.4545"N	80°33'13.6938"W	4828.96	154.986	0.32
10848.00	88.890	160.050	6195.67	4917.64	-4465.94	2075.45	1765082.18	14591942.03	40°10'41.5642"N	80°33'13.2673"W	4924.64	155.074	1.07
10945.00	88.430	158.610	6197.94	5014.59	-4556.67	2109.68	1765116.40	14591851.34	40°10'40.6659"N	80°33'12.8322"W	5021.35	155.156	1.56
11041.00	88.400	158.810	6200.59	5110.55	-4646.08	2144.52	1765151.23	14591761.96	40°10'39.7806"N	80°33'12.3891"W	5117.13	155.223	0.21
11138.00	88.210	159.630	6203.46	5207.49	-4736.73	2178.92	1765185.61	14591671.34	40°10'38.8831"N	80°33'11.9518"W	5213.86	155.297	0.87



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Actual Wellpath Report

Samuel Jones BRK 8H awp Proj: 21787'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	SWN PRODUCTION COMPANY, LLC	Well	Samuel Jones BRK 8H
Field	Brooke	API	47009003360000
Facility	Samuel Jones BRK Pad	Wellbore	Samuel Jones BRK 8H AWB
Slot	8H		

WELLPATH DATA (231 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]
11234.00	88.710	159.070	6206.04	5303.43	-4826.53	2212.76	1765219.44	14591581.58	40°10'37.9940"N	80°33'11.5216"W	5309.59	155.370	0.78
11331.00	88.950	159.380	6208.02	5400.39	-4917.20	2247.16	1765253.83	14591490.94	40°10'37.0963"N	80°33'11.0844"W	5406.35	155.440	0.40
11427.00	88.800	159.840	6209.91	5496.34	-5007.17	2280.60	1765287.26	14591401.01	40°10'36.2056"N	80°33'10.6594"W	5502.08	155.512	0.50
11523.00	88.430	159.430	6212.23	5592.28	-5097.14	2314.00	1765320.64	14591311.07	40°10'35.3148"N	80°33'10.2350"W	5597.81	155.583	0.58
11620.00	88.800	159.110	6214.57	5689.23	-5187.84	2348.33	1765354.95	14591220.41	40°10'34.4169"N	80°33'9.7986"W	5694.58	155.646	0.50
11717.00	88.800	159.140	6216.60	5786.20	-5278.45	2382.88	1765389.50	14591129.83	40°10'33.5197"N	80°33'9.3593"W	5791.39	155.704	0.03
11813.00	88.490	159.280	6218.87	5882.15	-5368.17	2416.95	1765423.55	14591040.14	40°10'32.6314"N	80°33'8.9263"W	5887.18	155.761	0.35
11910.00	88.400	159.830	6221.51	5979.09	-5459.03	2450.82	1765457.40	14590949.32	40°10'31.7319"N	80°33'8.4959"W	5983.94	155.822	0.57
12007.00	88.490	159.070	6224.14	6076.02	-5549.82	2484.85	1765491.43	14590858.56	40°10'30.8330"N	80°33'8.0633"W	6080.71	155.880	0.79
12103.00	88.680	158.840	6226.51	6171.98	-5639.39	2519.32	1765525.88	14590769.03	40°10'29.9462"N	80°33'7.6252"W	6176.54	155.928	0.31
12200.00	88.710	159.840	6228.72	6268.94	-5730.13	2553.53	1765560.08	14590678.33	40°10'29.0478"N	80°33'7.1903"W	6273.35	155.981	1.03
12297.00	88.430	159.610	6231.14	6365.87	-5821.09	2587.13	1765593.67	14590587.40	40°10'28.1472"N	80°33'6.7633"W	6370.11	156.038	0.37
12393.00	88.740	157.050	6233.51	6461.83	-5910.27	2622.57	1765629.09	14590498.25	40°10'27.2642"N	80°33'6.3126"W	6466.00	156.072	2.69
12490.00	89.170	160.550	6235.28	6558.79	-6000.68	2657.64	1765664.14	14590407.88	40°10'26.3691"N	80°33'5.8668"W	6562.86	156.112	3.63
12586.00	88.650	158.990	6237.11	6654.73	-6090.74	2690.82	1765697.32	14590317.86	40°10'25.4775"N	80°33'5.4451"W	6658.65	156.165	1.71
12683.00	89.260	160.040	6238.87	6751.69	-6181.59	2724.76	1765731.25	14590227.04	40°10'24.5780"N	80°33'5.0138"W	6755.47	156.213	1.25
12779.00	88.830	159.790	6240.47	6847.63	-6271.73	2757.73	1765764.20	14590136.93	40°10'23.6855"N	80°33'4.5950"W	6851.26	156.265	0.52
12876.00	89.320	159.800	6242.04	6944.57	-6362.75	2791.22	1765797.68	14590045.95	40°10'22.7844"N	80°33'4.1694"W	6948.06	156.314	0.51
12973.00	89.020	160.170	6243.45	7041.51	-6453.88	2824.42	1765830.86	14589954.85	40°10'21.8822"N	80°33'3.7477"W	7044.86	156.364	0.49
13069.00	89.050	161.000	6245.06	7137.41	-6544.41	2856.33	1765862.76	14589864.36	40°10'20.9860"N	80°33'3.3426"W	7140.58	156.421	0.87
13166.00	89.230	159.020	6246.52	7234.34	-6635.55	2889.48	1765895.90	14589773.25	40°10'20.0837"N	80°33'2.9215"W	7237.38	156.469	2.05
13262.00	88.950	158.940	6248.04	7330.32	-6725.15	2923.91	1765930.32	14589683.68	40°10'19.1966"N	80°33'2.4838"W	7333.28	156.502	0.30
13359.00	88.400	159.780	6250.29	7427.27	-6815.90	2958.09	1765964.49	14589592.97	40°10'18.2981"N	80°33'2.0494"W	7430.13	156.539	1.03
13456.00	88.490	158.260	6252.92	7524.22	-6906.44	2992.81	1765999.19	14589502.47	40°10'17.4017"N	80°33'1.6080"W	7527.00	156.571	1.57
13552.00	88.680	159.040	6255.29	7620.18	-6996.82	3027.75	1766034.12	14589413.12	40°10'16.5167"N	80°33'1.1638"W	7622.91	156.597	0.84
13649.00	88.340	157.910	6257.81	7717.15	-7086.02	3063.33	1766069.68	14589322.95	40°10'15.6235"N	80°33'0.7114"W	7719.82	156.621	1.22
13745.00	90.550	156.680	6258.74	7813.12	-7174.57	3100.38	1766106.71	14589234.44	40°10'14.7467"N	80°33'0.2399"W	7815.81	156.629	2.63
13842.00	87.660	156.950	6260.26	7910.08	-7263.72	3138.56	1766144.88	14589145.33	40°10'13.8638"N	80°32'59.7539"W	7912.78	156.631	2.99
13938.00	87.910	156.930	6263.97	8005.98	-7351.98	3176.13	1766182.44	14589057.10	40°10'12.9897"N	80°32'59.2756"W	8008.71	156.635	0.26
14035.00	87.970	156.330	6267.45	8102.89	-7440.96	3214.58	1766220.88	14588968.15	40°10'12.1085"N	80°32'58.7861"W	8105.65	156.635	0.62

REFERENCE WELLPATH IDENTIFICATION

Operator	SWN PRODUCTION COMPANY, LLC	Well	Samuel Jones BRK 8H
Field	Brooke	API	47009003360000
Facility	Samuel Jones BRK Pad	Wellbore	Samuel Jones BRK 8H AWB
Slot	8H		

WELLPATH DATA (231 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]
14131.00	88.310	156.680	6270.57	8198.80	-7528.96	3252.84	1766259.11	14588880.19	40°10'11.2370"N	80°32'58.2991"W	8201.60	156.634	0.51
14228.00	87.480	157.380	6274.13	8295.71	-7618.21	3290.66	1766296.93	14588790.98	40°10'10.3532"N	80°32'57.8177"W	8298.53	156.638	1.12
14324.00	87.720	156.540	6278.15	8391.61	-7706.47	3328.20	1766334.45	14588702.75	40°10'9.4791"N	80°32'57.3399"W	8394.44	156.642	0.91
14421.00	86.610	157.260	6282.95	8488.47	-7795.58	3366.21	1766372.45	14588613.67	40°10'8.5966"N	80°32'56.8561"W	8491.32	156.645	1.36
14517.00	88.680	157.980	6286.89	8584.37	-7884.27	3402.73	1766408.95	14588525.01	40°10'7.7183"N	80°32'56.3915"W	8587.22	156.656	2.28
14613.00	88.180	156.780	6289.53	8680.33	-7972.85	3438.64	1766445.85	14588436.47	40°10'6.8411"N	80°32'55.9219"W	8683.17	156.664	1.35
14710.00	87.910	156.310	6292.83	8777.23	-8061.78	3478.23	1766484.42	14588347.57	40°10'5.9604"N	80°32'55.4307"W	8780.11	156.662	0.56
14806.00	87.880	156.850	6296.36	8873.13	-8149.81	3516.36	1766522.53	14588259.57	40°10'5.0885"N	80°32'54.9453"W	8876.05	156.662	0.56
14903.00	88.090	156.200	6299.77	8970.04	-8238.73	3554.97	1766561.13	14588170.69	40°10'4.2079"N	80°32'54.4537"W	8972.99	156.660	0.70
14998.00	88.830	158.630	6302.35	9065.99	-8327.33	3591.82	1766597.97	14588082.12	40°10'3.3306"N	80°32'53.9848"W	9068.94	156.668	2.65
15096.00	87.510	155.020	6305.45	9162.89	-8416.44	3629.97	1766636.10	14587993.05	40°10'2.4481"N	80°32'53.4993"W	9165.87	156.670	3.96
15192.00	88.620	158.500	6308.69	9258.79	-8504.59	3667.82	1766673.94	14587904.94	40°10'1.5751"N	80°32'53.0175"W	9261.80	156.671	3.80
15289.00	88.210	154.450	6311.38	9355.70	-8593.47	3706.52	1766712.62	14587816.09	40°10'0.6948"N	80°32'52.5249"W	9358.74	156.669	4.19
15385.00	87.630	156.660	6314.86	9451.53	-8680.80	3746.21	1766752.30	14587728.79	40°09'59.8298"N	80°32'52.0193"W	9454.65	156.657	2.38
15482.00	88.280	156.900	6318.32	9548.44	-8769.89	3784.43	1766790.51	14587639.74	40°09'58.9476"N	80°32'51.5328"W	9551.59	156.659	0.71
15578.00	88.400	157.290	6321.10	9644.38	-8858.28	3821.78	1766827.84	14587551.38	40°09'58.0722"N	80°32'51.0576"W	9647.55	156.663	0.42
15675.00	88.710	156.820	6323.55	9741.34	-8947.58	3859.58	1766865.63	14587462.12	40°09'57.1879"N	80°32'50.5765"W	9744.51	156.667	0.58
15771.00	87.380	154.770	6326.83	9837.19	-9035.08	3898.92	1766904.95	14587374.65	40°09'56.3212"N	80°32'50.0756"W	9840.44	156.658	2.54
15867.00	88.650	158.880	6330.15	9933.09	-9123.26	3936.66	1766942.68	14587286.50	40°09'55.4479"N	80°32'49.5952"W	9936.36	156.660	4.48
15964.00	89.820	156.620	6331.45	10030.07	-9213.02	3973.39	1766979.39	14587196.77	40°09'54.5590"N	80°32'49.1281"W	10033.32	156.670	2.62
16060.00	87.480	153.960	6333.71	10125.91	-9300.20	4013.50	1767019.49	14587109.63	40°09'53.6956"N	80°32'48.6171"W	10129.25	156.657	3.69
16157.00	88.980	158.570	6336.71	10222.78	-9388.92	4052.51	1767058.48	14587020.94	40°09'52.8168"N	80°32'48.1205"W	10226.18	156.654	5.00
16253.00	87.480	156.910	6339.67	10318.73	-9477.72	4088.86	1767094.81	14586932.18	40°09'51.9375"N	80°32'47.6582"W	10322.11	156.664	2.33
16350.00	89.720	157.520	6342.04	10415.68	-9567.12	4126.41	1767132.35	14586842.81	40°09'51.0522"N	80°32'47.1804"W	10419.07	156.669	2.39
16446.00	89.320	156.490	6342.85	10511.66	-9655.49	4163.91	1767169.84	14586754.48	40°09'50.1771"N	80°32'46.7031"W	10515.06	156.672	1.15
16543.00	88.650	157.150	6344.56	10608.62	-9744.64	4202.08	1767208.00	14586665.36	40°09'49.2941"N	80°32'46.2173"W	10612.05	156.673	0.97
16640.00	88.120	154.430	6347.30	10705.49	-9833.06	4241.84	1767247.74	14586576.97	40°09'48.4183"N	80°32'45.7110"W	10708.99	156.665	2.86
16736.00	87.720	157.270	6350.78	10801.34	-9920.60	4281.09	1767286.97	14586489.47	40°09'47.5514"N	80°32'45.2113"W	10804.90	156.658	2.99
16832.00	87.910	158.070	6354.44	10897.26	-10009.33	4317.54	1767323.40	14586400.77	40°09'46.6726"N	80°32'44.7477"W	10900.82	156.667	0.86
16929.00	88.580	159.230	6357.41	10994.21	-10099.63	4352.83	1767358.69	14586310.51	40°09'45.7785"N	80°32'44.2890"W	10997.71	156.684	1.38

Actual Wellpath Report

Samuel Jones BRK 8H awp Proj: 21787'
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REFERENCE WELLPATH IDENTIFICATION

Operator	SWN PRODUCTION COMPANY, LLC	Well	Samuel Jones BRK 8H
Field	Brooke	API	47009003360000
Facility	Samuel Jones BRK Pad	Wellbore	Samuel Jones BRK 8H AWB
Slot	8H		

WELLPATH DATA (231 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]
17026.00	90.340	160.170	6358.33	11091.17	-10190.60	4386.48	1767392.32	14586219.57	40°09'44.8779"N	80°32'43.8716"W	11094.57	156.711	2.06
17122.00	91.450	159.430	6356.83	11187.11	-10280.68	4419.63	1767425.45	14586129.53	40°09'43.9860"N	80°32'43.4506"W	11190.42	156.737	1.39
17218.00	92.710	160.110	6353.34	11283.01	-10370.70	4452.80	1767458.62	14586039.55	40°09'43.0948"N	80°32'43.0293"W	11286.22	156.763	1.49
17315.00	93.020	159.850	6348.50	11379.84	-10461.72	4485.96	1767491.77	14585948.56	40°09'42.1937"N	80°32'42.6081"W	11382.95	156.790	0.42
17414.00	90.950	159.300	6345.07	11478.74	-10554.43	4520.49	1767526.28	14585855.88	40°09'41.2757"N	80°32'42.1696"W	11481.77	156.814	2.16
17511.00	88.980	158.810	6345.13	11575.72	-10645.02	4555.16	1767560.94	14585765.33	40°09'40.3788"N	80°32'41.7289"W	11578.69	156.833	2.09
17607.00	88.950	159.230	6346.86	11671.69	-10734.64	4589.53	1767595.29	14585675.74	40°09'39.4914"N	80°32'41.2922"W	11674.60	156.851	0.44
17704.00	88.830	158.540	6348.74	11768.67	-10825.11	4624.47	1767630.22	14585585.30	40°09'38.5956"N	80°32'40.8482"W	11771.52	156.868	0.72
17800.00	87.720	158.760	6351.63	11864.62	-10914.48	4659.40	1767665.14	14585495.97	40°09'37.7107"N	80°32'40.4042"W	11867.43	156.882	1.18
17897.00	88.030	158.320	6355.23	11961.55	-11004.89	4694.86	1767700.59	14585405.79	40°09'36.8175"N	80°32'39.9534"W	11964.32	156.896	0.55
17994.00	86.800	158.590	6359.60	12058.45	-11094.82	4730.45	1767736.16	14585315.70	40°09'35.9250"N	80°32'39.5010"W	12061.19	156.908	1.30
18090.00	87.350	158.730	6364.50	12154.32	-11184.12	4765.34	1767771.03	14585226.43	40°09'35.0408"N	80°32'39.0576"W	12157.02	156.922	0.59
18187.00	88.340	159.060	6368.15	12251.24	-11274.55	4800.24	1767805.92	14585136.04	40°09'34.1454"N	80°32'38.6140"W	12253.89	156.938	1.08
18284.00	88.740	158.680	6370.62	12348.20	-11365.00	4835.20	1767840.87	14585045.62	40°09'33.2498"N	80°32'38.1698"W	12350.80	156.953	0.57
18380.00	89.110	158.260	6372.42	12444.18	-11454.29	4870.42	1767876.08	14584956.37	40°09'32.3657"N	80°32'37.7220"W	12446.75	156.965	0.58
18476.00	89.880	159.370	6373.27	12540.17	-11543.79	4905.11	1767910.75	14584866.90	40°09'31.4795"N	80°32'37.2812"W	12542.70	156.979	1.41
18573.00	89.660	158.970	6373.66	12637.15	-11634.45	4939.60	1767945.23	14584776.28	40°09'30.5818"N	80°32'36.8429"W	12639.63	156.996	0.47
18669.00	89.850	158.610	6374.07	12733.14	-11723.95	4974.33	1767979.95	14584686.81	40°09'29.6957"N	80°32'36.4015"W	12735.58	157.009	0.42
18766.00	90.180	158.410	6374.04	12830.14	-11814.20	5009.87	1768015.47	14584596.59	40°09'28.8020"N	80°32'35.9499"W	12832.54	157.020	0.40
18863.00	89.910	158.410	6373.96	12927.14	-11904.40	5045.56	1768051.15	14584506.43	40°09'27.9089"N	80°32'35.4961"W	12929.52	157.031	0.28
18959.00	89.940	158.480	6374.09	13023.14	-11993.68	5080.83	1768086.41	14584417.18	40°09'27.0248"N	80°32'35.0478"W	13025.49	157.041	0.08
19056.00	90.280	158.610	6373.90	13120.13	-12083.96	5116.31	1768121.87	14584326.94	40°09'26.1308"N	80°32'34.5968"W	13122.45	157.052	0.38
19152.00	89.570	158.650	6374.03	13216.13	-12173.36	5151.29	1768156.84	14584237.57	40°09'25.2456"N	80°32'34.1522"W	13218.42	157.064	0.74
19248.00	89.480	158.540	6374.83	13312.12	-12262.74	5186.33	1768191.86	14584148.23	40°09'24.3606"N	80°32'33.7070"W	13314.38	157.075	0.15
19345.00	89.480	158.680	6375.71	13409.11	-12353.05	5221.72	1768227.24	14584057.96	40°09'23.4664"N	80°32'33.2571"W	13411.34	157.086	0.12
19442.00	90.000	159.030	6376.15	13506.11	-12443.51	5256.72	1768262.23	14583967.53	40°09'22.5707"N	80°32'32.8123"W	13508.29	157.099	0.66
19538.00	90.000	158.950	6376.15	13602.09	-12533.13	5291.14	1768296.64	14583877.95	40°09'21.6834"N	80°32'32.3750"W	13604.24	157.112	0.08
19635.00	90.250	159.080	6375.93	13699.08	-12623.69	5325.88	1768331.36	14583787.42	40°09'20.7866"N	80°32'31.9336"W	13701.19	157.125	0.29
19731.00	89.570	158.600	6376.09	13795.07	-12713.22	5360.53	1768366.00	14583697.92	40°09'19.9002"N	80°32'31.4933"W	13797.15	157.137	0.87
19828.00	89.750	159.080	6376.66	13892.07	-12803.68	5395.55	1768401.00	14583607.50	40°09'19.0045"N	80°32'31.0483"W	13894.10	157.149	0.53

REFERENCE WELLPATH IDENTIFICATION				
Operator	SWN PRODUCTION COMPANY, LLC		Well	Samuel Jones BRK 8H
Field	Brooke		API	47009003360000
Facility	Samuel Jones BRK Pad		Wellbore	Samuel Jones BRK 8H AWB
Slot	8H			

WELLPATH DATA (231 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]
19924.00	89.510	158.760	6377.28	13988.05	-12893.25	5430.08	1768435.52	14583517.96	40°09'18.1176"N	80°32'30.6096"W	13990.05	157.161	0.42
20021.00	89.480	158.620	6378.14	14085.05	-12983.61	5465.33	1768470.75	14583427.63	40°09'17.2228"N	80°32'30.1616"W	14087.02	157.172	0.15
20117.00	89.290	158.870	6379.17	14181.03	-13073.08	5500.13	1768505.54	14583338.20	40°09'16.3369"N	80°32'29.7194"W	14182.97	157.182	0.33
20214.00	89.880	159.530	6379.87	14278.01	-13163.75	5534.57	1768539.97	14583247.56	40°09'15.4392"N	80°32'29.2819"W	14279.91	157.196	0.91
20310.00	89.450	158.850	6380.43	14374.00	-13253.49	5568.67	1768574.06	14583157.86	40°09'14.5507"N	80°32'28.8486"W	14375.85	157.209	0.84
20407.00	89.540	157.840	6381.28	14470.99	-13343.64	5604.47	1768609.84	14583067.75	40°09'13.6580"N	80°32'28.3936"W	14472.83	157.217	1.05
20503.00	89.660	157.730	6381.96	14566.99	-13432.51	5640.76	1768646.12	14582978.91	40°09'12.7779"N	80°32'27.9321"W	14568.82	157.221	0.17
20600.00	89.750	157.440	6382.45	14663.98	-13522.18	5677.75	1768683.09	14582889.27	40°09'11.8899"N	80°32'27.4618"W	14665.82	157.223	0.31
20696.00	89.540	157.710	6383.05	14759.97	-13610.92	5714.37	1768719.70	14582800.57	40°09'11.0111"N	80°32'26.9961"W	14761.81	157.226	0.36
20793.00	89.450	157.950	6383.90	14856.97	-13700.74	5750.97	1768756.29	14582710.78	40°09'10.1216"N	80°32'26.5307"W	14858.80	157.229	0.26
20889.00	89.230	157.370	6385.01	14952.96	-13789.53	5787.46	1768792.76	14582622.03	40°09'9.2424"N	80°32'26.0667"W	14954.79	157.232	0.65
20986.00	89.350	157.120	6386.21	15049.94	-13878.97	5824.97	1768830.26	14582532.62	40°09'8.3566"N	80°32'25.5895"W	15051.79	157.232	0.29
21083.00	89.570	157.410	6387.13	15146.92	-13968.43	5862.46	1768867.73	14582443.19	40°09'7.4706"N	80°32'25.1127"W	15148.78	157.233	0.38
21179.00	89.140	157.670	6388.21	15242.91	-14057.15	5899.13	1768904.39	14582354.51	40°09'6.5921"N	80°32'24.6464"W	15244.77	157.234	0.52
21275.00	89.140	158.050	6389.65	15338.90	-14146.06	5935.31	1768940.56	14582265.64	40°09'5.7116"N	80°32'24.1864"W	15340.76	157.238	0.40
21372.00	89.510	156.760	6390.79	15435.88	-14235.60	5972.57	1768977.81	14582176.12	40°09'4.8248"N	80°32'23.7125"W	15437.75	157.239	1.38
21469.00	89.140	157.540	6391.93	15532.86	-14324.98	6010.24	1769015.46	14582086.78	40°09'3.9397"N	80°32'23.2334"W	15534.74	157.239	0.89
21565.00	89.850	158.310	6392.78	15628.86	-14413.94	6046.32	1769051.52	14581997.85	40°09'3.0587"N	80°32'22.7748"W	15630.73	157.243	1.09
21662.00	89.380	157.020	6393.43	15725.85	-14503.66	6083.18	1769088.37	14581908.17	40°09'2.1703"N	80°32'22.3061"W	15727.72	157.246	1.42
21758.00	89.350	157.760	6394.50	15821.83	-14592.28	6120.08	1769125.26	14581819.59	40°09'1.2927"N	80°32'21.8367"W	15823.71	157.247	0.77
21787.00‡	89.350	157.760	6394.82	15850.83	-14619.12	6131.06	1769136.23	14581792.76	40°09'1.0269"N	80°32'21.6972"W	15852.71	157.247	0.00

HOLE & CASING SECTIONS - Ref Wellbore: Samuel Jones BRK 8H AWB Ref Wellpath: Samuel Jones BRK 8H awp Proj: 21787'									
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	338.00	312.00	26.00	337.99	0.00	0.00	-1.42	2.27
9.625in Casing	26.00	1826.00	1800.00	26.00	1825.23	0.00	0.00	31.70	6.63



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Actual Wellpath Report

Samuel Jones BRK 8H awp Proj: 21787'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	SWN PRODUCTION COMPANY, LLC	Well	Samuel Jones BRK 8H
Field	Brooke	API	47009003360000
Facility	Samuel Jones BRK Pad	Wellbore	Samuel Jones BRK 8H AWB
Slot	8H		

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Samuel Jones BRK 8H LP rev 2	6113.00	-430.47	435.51	1763442.87	14595975.94	40°11'21.5231"N	80°33'34.1368"W	point
Samuel Jones BRK 8H BHL rev 1	6378.00	-14620.61	6129.04	1769134.21	14581791.26	40°09'1.0122"N	80°32'21.7233"W	point

WELLPATH COMPOSITION - Ref Wellbore: Samuel Jones BRK 8H AWB Ref Wellpath: Samuel Jones BRK 8H awp Proj: 21787'					
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date
26.00	324.00	OWSG MWD rev2 + HRGM	1 Tally MWD HRGM 17.5" 168' - 324'	Samuel Jones BRK 8H AWB	7/6/2023
324.00	1753.00	OWSG MWD rev2 + HRGM	2 Tally MWD HRGM 12.25" 413' - 1753'	Samuel Jones BRK 8H AWB	7/6/2023
1753.00	5246.00	OWSG MWD rev2 + HRGM	3 Tally MWD HRGM 8.75" 1883' - 5246'	Samuel Jones BRK 8H AWB	7/6/2023
5246.00	17315.00	BH AutoTrak Curve/eXpress (2019) (HRGM, Short spacing)	4 BH ATC HRGM Short spacing 8.5" 5352' - 17315'	Samuel Jones BRK 8H AWB	7/6/2023
17315.00	21787.00	BH AutoTrak Curve/eXpress (2019) (HRGM, Short spacing)	5 BH ATC HRGM Short spacing 8.5" 17414' - 21758'	Samuel Jones BRK 8H AWB	7/6/2023