

Location: Brooke County, WV
Field: Brooke
Facility: Mike Ryniawec BRK Pad

Slot: 6H
Well: Mike Ryniawec BRK 6H
Wellbore: Mike Ryniawec BRK 6H AWB

Plot reference wellpath is Mike Ryniawec BRK 6H awp Proj: 23599	Grid System: NAD83 / UTM Zone 17 North, US feet
True vertical depths are referenced to Patterson 571 (KB)	North Reference: Grid north
Reference wellpath measured depths are referenced to Patterson 571 (KB)	Scale: True distance
Patterson 571 (KB) to Mean Sea Level: 1172.7 feet	Coordinates are in feet referenced to Slot
Mean Sea Level to Ground level (At Slot: 6H): -1147.7 feet	Depths are in feet
Offset wellpath MDs are referenced to each path's default MD datum	Created by: tranlam on 2023-04-28; Database: WA_MPL_EASTERNUS_Defn

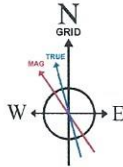
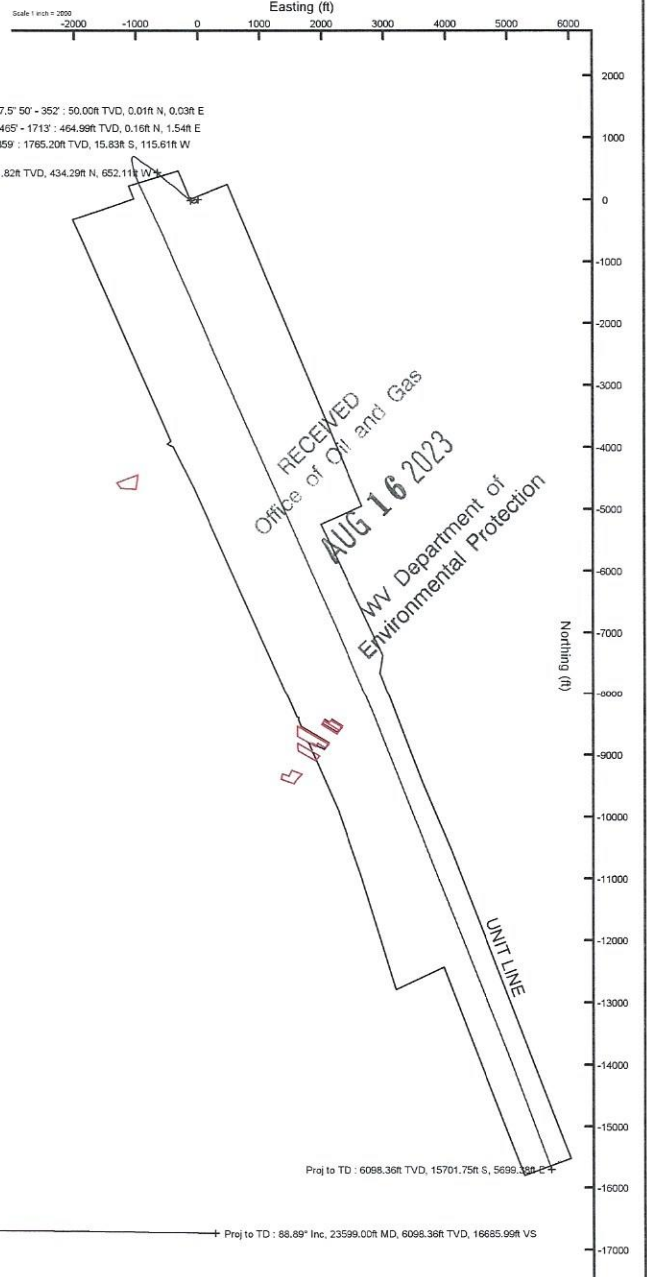
Location Information

Facility Name			Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Mike Ryniawec BRK Pad			1749526.450	14596413.310	40°11'26.4908"N	80°36'33.4967"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
6H	-20.08	4.88	1749531.330	14596393.240	40°11'26.2921"N	80°36'33.4349"W
Patterson 571 (KB) to Ground level (At Slot: 6H)					25ft	
Mean Sea Level to Ground level (At Slot: 6H)					-1147.7ft	
Patterson 571 (KB) to Mean Sea Level					1172.7ft	

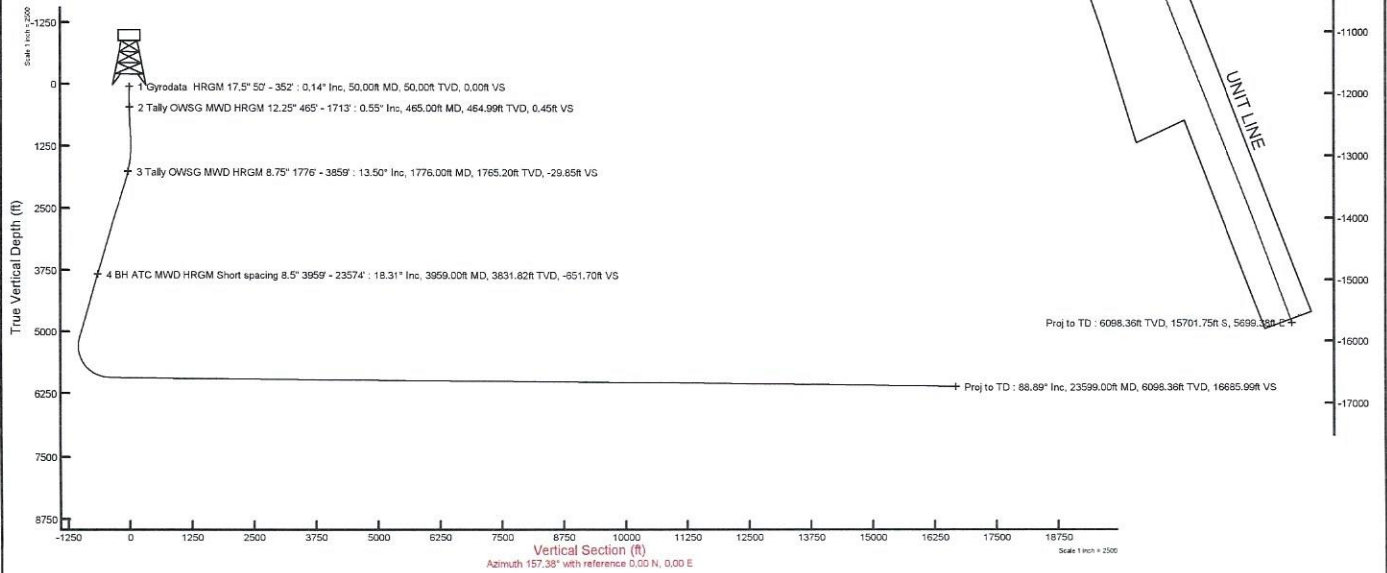
Bottom Hole Location

MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
23599.00	88.890	159.900	6098.36	-15701.75	5699.38	1755228.49	14580697.59	40°08'50.8745"N	80°35'20.9321"W

API: 47009003290000
BH JOB: 111670473
DURATION: 04.19.2023 to 04.26.2023
RIG: Patterson 571



HDGM2023 (1800.0 to 2024.0) Dip: 67.11° Field: 52048.3 nT
Magnetic North is 8.26 degrees West of True North (at 4/10/2023)
Grid North is 0.25 degrees East of True North
To correct azimuth from True to Grid subtract 0.25 degrees
To correct azimuth from Magnetic to Grid subtract 8.51 degrees



REFERENCE WELLPATH IDENTIFICATION

Operator	SWN PRODUCTION COMPANY, LLC	Well	Mike Ryniawec BRK 6H
Field	Brooke	API	47009003290000
Facility	Mike Ryniawec BRK Pad	Wellbore	Mike Ryniawec BRK 6H AWB
Slot	6H		

REPORT SETUP INFORMATION

Projection System	NAD83 / UTM Zone 17 North, US feet	Software System	WellArchitect® 6.0
North Reference	Grid	User	Tranlam
Scale	0.999614	Report Generated	4/28/2023 at 9:47:30 AM
Convergence at slot	0.25° 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	-20.08	4.88	1749531.33	14596393.24	40°11'26.2921"N	80°36'33.4349"W
Facility Reference Pt			1749526.45	14596413.31	40°11'26.4908"N	80°36'33.4967"W
Field Reference Pt			0.00	0.00	0°00'0.0000"	85°29'19.4780"W

WELLPATH DATUM

Calculation method	Minimum curvature	Patterson 571 (KB) to Facility Vertical Datum	1172.70ft
Horizontal Reference Pt	Slot	Patterson 571 (KB) to Mean Sea Level	1172.70ft
Vertical Reference Pt	Patterson 571 (KB)	Patterson 571 (KB) to Ground Level at Slot (6H)	25.00ft
MD Reference Pt	Patterson 571 (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	157.38°

RECEIVED
Department of Oil and Gas
Environmental Protection
April 16 2023

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Field	Brooke	API	47009003290000
Facility	Mike Ryniawec BRK Pad	Wellbore	Mike Ryniawec BRK 6H AWB
Slot	6H		

WELLPATH DATA (255 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]	Comments
0.00	0.000	67.240	0.00	0.00	0.00	0.00	1749531.33	14596393.24	40°11'26.2921"N	80°36'33.4349"W	0.00	0.000	0.00	
25.00	0.000	67.240	25.00	0.00	0.00	0.00	1749531.33	14596393.24	40°11'26.2921"N	80°36'33.4349"W	0.00	0.000	0.00	
50.00	0.140	67.240	50.00	0.00	0.01	0.03	1749531.36	14596393.25	40°11'26.2923"N	80°36'33.4346"W	0.03	67.240	0.56	
100.00	0.230	96.420	100.00	0.05	0.02	0.18	1749531.51	14596393.26	40°11'26.2924"N	80°36'33.4326"W	0.19	82.508	0.26	
150.00	0.250	76.630	150.00	0.11	0.04	0.39	1749531.72	14596393.28	40°11'26.2925"N	80°36'33.4299"W	0.39	84.402	0.17	
200.00	0.280	81.980	200.00	0.16	0.08	0.62	1749531.95	14596393.32	40°11'26.2929"N	80°36'33.4270"W	0.62	82.569	0.08	
250.00	0.290	80.950	250.00	0.22	0.12	0.86	1749532.19	14596393.36	40°11'26.2933"N	80°36'33.4238"W	0.87	82.251	0.02	
300.00	0.450	62.000	300.00	0.23	0.23	1.16	1749532.49	14596393.47	40°11'26.2944"N	80°36'33.4200"W	1.18	78.821	0.40	
352.00	0.430	69.090	352.00	0.22	0.40	1.52	1749532.85	14596393.63	40°11'26.2960"N	80°36'33.4153"W	1.57	75.468	0.11	
465.00	0.550	223.860	464.99	0.45	0.16	1.54	1749532.87	14596393.40	40°11'26.2936"N	80°36'33.4150"W	1.55	84.257	0.85	
528.00	1.690	223.630	527.98	0.95	-0.74	-0.69	1749532.02	14596392.51	40°11'26.2849"N	80°36'33.4260"W	1.01	136.659	1.81	
622.00	3.200	220.270	621.89	2.70	-3.74	-1.96	1749529.37	14596389.50	40°11'26.2553"N	80°36'33.4604"W	4.22	207.639	1.61	
715.00	5.760	222.150	714.60	5.87	-9.18	-6.77	1749524.56	14596384.06	40°11'26.2017"N	80°36'33.5227"W	11.41	216.399	2.76	
810.00	6.100	218.330	809.09	10.36	-16.68	-13.10	1749518.24	14596376.57	40°11'26.1279"N	80°36'33.6047"W	21.21	218.149	0.55	
904.00	6.800	212.910	902.50	15.93	-25.27	-19.22	1749512.12	14596367.98	40°11'26.0433"N	80°36'33.6840"W	31.75	217.261	0.99	
998.00	6.730	210.980	995.84	22.35	-34.66	-25.08	1749506.26	14596358.59	40°11'25.9507"N	80°36'33.7600"W	42.78	215.888	0.25	
1093.00	6.280	223.480	1090.24	27.76	-43.20	-31.52	1749499.82	14596350.05	40°11'25.8666"N	80°36'33.8435"W	53.48	216.113	1.56	
1187.00	6.570	239.080	1183.65	30.62	-49.70	-39.67	1749491.67	14596343.56	40°11'25.8028"N	80°36'33.9489"W	63.59	218.599	1.88	
1281.00	6.430	254.480	1277.06	30.74	-53.87	-49.36	1749481.99	14596339.39	40°11'25.7620"N	80°36'34.0740"W	73.06	222.497	1.85	
1375.00	6.320	277.400	1370.49	27.50	-54.61	-59.56	1749471.79	14596338.65	40°11'25.7551"N	80°36'34.2055"W	80.81	227.482	2.69	
1470.00	7.930	294.570	1464.76	20.08	-51.21	-70.71	1749460.65	14596342.05	40°11'25.7891"N	80°36'34.3489"W	87.31	234.085	2.79	
1564.00	9.630	304.720	1557.62	8.70	-44.04	-83.07	1749448.29	14596349.22	40°11'25.8606"N	80°36'34.5078"W	94.02	242.071	2.44	
1650.00	11.580	311.700	1642.19	-5.10	-34.26	-95.49	1749435.88	14596358.99	40°11'25.9577"N	80°36'34.6673"W	101.45	250.260	2.64	
1713.00	12.800	312.890	1703.81	-16.96	-25.47	-105.24	1749426.13	14596367.77	40°11'26.0450"N	80°36'34.7924"W	108.28	256.393	1.55	
1776.00	13.500	302.980	1765.20	29.85	-15.83	-115.61	1749415.77	14596377.42	40°11'26.1408"N	80°36'34.9255"W	116.69	262.204	1.62	
1964.00	18.370	311.590	1945.92	-76.54	18.82	-153.84	1749377.55	14596412.05	40°11'26.4848"N	80°36'35.4162"W	154.99	276.973	2.60	
2059.00	19.400	310.560	2035.80	-104.10	39.01	-177.02	1749354.37	14596432.24	40°11'26.6854"N	80°36'35.7138"W	181.27	282.429	1.14	
2157.00	20.770	309.260	2027.84	-133.95	60.59	-202.85	1749328.56	14596453.81	40°11'26.8998"N	80°36'36.0453"W	211.70	286.632	1.47	
2252.00	20.610	304.870	2016.72	-162.91	80.81	-229.61	1749301.81	14596474.02	40°11'27.1007"N	80°36'36.3890"W	243.41	289.391	1.64	
2346.00	20.440	310.440	2304.76	-191.50	100.92	-255.68	1749275.75	14596494.12	40°11'27.3006"N	80°36'36.7237"W	274.87	291.540	2.08	

Actual Wellpath Report

Mike Ryniawec BRK 6H awp Proj: 23599'

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Field	Brooke	API	47009003290000
Facility	Mike Ryniawec BRK Pad	Wellbore	Mike Ryniawec BRK 6H AWB
Slot	6H		

WELLPATH DATA (255 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]	Comments
2440.00	20.150	310.800	2392.93	-220.61	122.15	-280.42	1749251.01	14596515.34	40°11'27.5114"N	80°36'37.0414"W	305.87	293.537	0.34	
2534.00	19.890	314.700	2481.25	-249.84	143.98	-304.05	1749227.40	14596537.16	40°11'27.7281"N	80°36'37.3446"W	336.41	295.339	1.45	
2629.00	19.800	314.410	2570.61	-279.57	166.60	-327.03	1749204.43	14596559.78	40°11'27.9527"N	80°36'37.6394"W	367.02	296.996	0.14	
2723.00	20.180	308.710	2658.95	-308.45	187.89	-351.06	1749180.41	14596581.05	40°11'28.1641"N	80°36'37.9478"W	398.17	298.156	2.11	
2818.00	18.410	307.000	2748.62	-335.78	207.16	-375.82	1749155.65	14596600.32	40°11'28.3656"N	80°36'38.2659"W	429.14	298.864	1.96	
2912.00	17.280	304.390	2838.09	-360.29	223.98	-399.20	1749132.28	14596617.13	40°11'28.5228"N	80°36'38.5661"W	457.74	299.296	1.47	
3007.00	18.500	306.220	2928.50	-385.02	240.86	-423.00	1749108.49	14596634.00	40°11'28.6906"N	80°36'38.8719"W	486.77	299.657	1.41	
3102.00	19.010	304.680	3018.45	-410.94	258.57	-447.89	1749083.62	14596651.71	40°11'28.8667"N	80°36'39.1916"W	517.17	299.998	0.75	
3196.00	19.290	306.820	3107.25	-437.20	276.58	-472.91	1749058.61	14596669.72	40°11'29.0458"N	80°36'39.5129"W	547.85	300.322	0.80	
3291.00	19.290	308.070	3196.92	-464.39	295.66	-497.82	1749033.70	14596688.79	40°11'29.2355"N	80°36'39.8329"W	579.00	300.707	0.43	
3389.00	18.160	310.820	3289.73	-492.17	315.63	-522.12	1749009.41	14596708.75	40°11'29.4338"N	80°36'40.1449"W	610.11	301.153	1.46	
3483.00	17.050	312.460	3379.33	-517.77	334.51	-543.38	1748988.16	14596727.62	40°11'29.6213"N	80°36'40.4177"W	638.09	301.617	1.29	
3578.00	17.510	311.980	3470.04	-543.31	353.47	-564.28	1748967.27	14596746.57	40°11'29.8096"N	80°36'40.6859"W	665.84	302.064	0.51	
3665.00	17.570	312.890	3564.35	-569.41	391.50	-605.87	1748925.70	14596784.58	40°11'30.1871"N	80°36'41.2197"W	721.35	302.869	0.15	
3759.00	19.960	313.490	3648.35	-594.41	412.20	-627.91	1748903.67	14596805.28	40°11'30.3927"N	80°36'41.5025"W	751.11	303.283	2.55	
3859.00	18.310	311.200	3737.35	-621.99	434.29	-652.11	1748879.47	14596827.36	40°11'30.6121"N	80°36'41.8132"W	783.49	303.663	1.81	
3959.00	18.310	311.200	3831.82	-651.70	434.29	-652.11	1748879.47	14596827.36	40°11'30.6121"N	80°36'41.8132"W	783.49	303.663	1.81	
4053.00	18.400	304.940	3921.05	-677.47	452.52	-675.38	1748856.21	14596845.58	40°11'30.7932"N	80°36'42.1120"W	812.97	303.823	2.10	
4148.00	18.710	304.040	4011.11	-702.85	469.63	-700.30	1748831.30	14596862.69	40°11'30.9634"N	80°36'42.4321"W	843.19	303.846	0.44	
4242.00	18.490	303.520	4100.20	-727.83	486.30	-725.22	1748806.39	14596879.35	40°11'31.1292"N	80°36'42.7523"W	873.17	303.844	0.29	
4336.00	18.680	304.070	4189.30	-752.78	502.97	-750.12	1748781.51	14596896.01	40°11'31.2949"N	80°36'43.0722"W	903.13	303.843	0.28	
4431.00	18.660	303.770	4279.30	-778.16	519.94	-775.35	1748756.28	14596912.98	40°11'31.4637"N	80°36'43.3964"W	933.54	303.845	0.10	
4525.00	17.880	303.170	4368.56	-802.61	536.19	-799.93	1748731.71	14596929.22	40°11'31.6254"N	80°36'43.7122"W	963.01	303.834	0.85	
4620.00	18.010	304.390	4458.94	-826.99	552.47	-824.26	1748707.39	14596945.49	40°11'31.7873"N	80°36'44.0247"W	992.28	303.832	0.42	
4714.00	18.580	304.040	4548.18	-851.69	569.06	-848.66	1748683.00	14596962.08	40°11'31.9523"N	80°36'44.3382"W	1021.79	303.843	0.62	
4809.00	18.590	304.090	4638.23	-876.99	586.02	-873.74	1748657.93	14596979.03	40°11'32.1210"N	80°36'44.6605"W	1052.06	303.850	0.02	
4903.00	18.680	303.860	4727.30	-902.07	602.80	-898.65	1748633.03	14596995.81	40°11'32.2879"N	80°36'44.9805"W	1082.10	303.853	0.12	
4998.00	18.930	308.340	4817.24	-928.23	620.84	-923.37	1748608.32	14597013.84	40°11'32.4672"N	80°36'45.2980"W	1112.68	303.915	1.54	
5092.00	18.800	307.850	4906.19	-954.73	639.59	-947.29	1748584.41	14597032.58	40°11'32.6535"N	80°36'45.6052"W	1142.99	304.026	0.22	
5186.00	18.320	307.330	4995.30	-980.75	657.92	-970.93	1748560.77	14597050.91	40°11'32.8357"N	80°36'45.9089"W	1172.85	304.122	0.51	
5280.00	18.880	307.600	5084.39	-1006.80	676.26	-994.66	1748537.06	14597069.23	40°11'33.0179"N	80°36'46.2135"W	1202.78	304.211	0.60	

by

REFERENCE WELLPATH IDENTIFICATION

Operator	SWN PRODUCTION COMPANY, LLC	Well	Mike Ryniawec BRK 6H
Field	Brooke	API	47009003290000
Facility	Mike Ryniawec BRK Pad	Wellbore	Mike Ryniawec BRK 6H AWB
Slot	6H		

WELLPATH DATA (255 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]	Comments
5375.00	14.150	297.030	5175.46	-1029.02	690.94	-1017.19	1748514.54	14597083.91	40°11'33.1640"N	80°36'46.5030"W	1229.66	304.187	5.89	
5469.00	10.530	260.370	5267.41	-1039.72	694.73	-1035.92	1748495.81	14597087.70	40°11'33.2022"N	80°36'46.7442"W	1247.31	303.847	8.98	
5564.00	10.890	218.540	5360.89	-1037.34	686.24	-1050.10	1748481.64	14597079.22	40°11'33.1190"N	80°36'46.9273"W	1254.44	303.165	8.02	
5658.00	16.000	188.560	5452.39	-1021.95	666.45	-1057.57	1748474.17	14597059.43	40°11'32.9237"N	80°36'47.0247"W	1250.04	302.218	9.03	
5753.00	23.840	177.200	5541.67	-992.63	634.27	-1058.98	1748473.16	14597027.26	40°11'32.6057"N	80°36'47.0396"W	1234.06	300.929	9.17	
5847.00	31.750	172.200	5624.77	-950.77	590.72	-1054.29	1748477.45	14596983.73	40°11'32.1752"N	80°36'46.9867"W	1208.50	299.262	8.77	
5942.00	40.040	166.810	5701.68	-896.36	536.09	-1043.90	1748487.83	14596929.12	40°11'31.6349"N	80°36'46.8560"W	1173.51	297.182	9.33	
6036.00	48.880	165.010	5768.71	-831.30	472.32	-1027.81	1748503.91	14596865.38	40°11'31.0041"N	80°36'46.6522"W	1131.15	294.681	9.50	
6130.00	57.140	162.070	5825.23	-756.72	400.42	-1006.46	1748525.26	14596793.51	40°11'30.2927"N	80°36'46.3811"W	1083.19	291.695	9.13	
6225.00	66.030	158.730	5870.40	-673.38	321.84	-978.37	1748553.34	14596714.95	40°11'29.5149"N	80°36'46.0236"W	1029.95	288.209	9.85	
6319.00	74.420	155.870	5902.18	-585.01	240.34	-944.22	1748587.48	14596633.49	40°11'28.7080"N	80°36'45.5881"W	974.32	284.281	9.37	
6412.00	79.230	154.520	5923.37	-494.56	158.17	-906.23	1748625.45	14596551.35	40°11'27.8944"N	80°36'45.1032"W	919.93	279.901	5.36	
6507.00	89.380	154.620	5932.79	-400.26	72.91	-865.69	1748665.97	14596466.12	40°11'27.0502"N	80°36'44.5856"W	868.76	274.814	10.68	
6601.00	88.920	153.390	5934.18	-306.44	-11.57	-824.50	1748707.15	14596381.68	40°11'26.2136"N	80°36'44.0596"W	824.58	269.196	1.40	
6696.00	88.770	155.640	5936.10	-211.58	-97.30	-783.63	1748748.00	14596295.98	40°11'25.3646"N	80°36'43.5378"W	789.65	262.922	2.37	
6789.00	89.380	156.310	5937.60	-118.62	-182.23	-745.77	1748785.85	14596211.08	40°11'24.5237"N	80°36'43.0548"W	767.72	256.269	0.97	
6884.00	89.660	154.970	5938.39	-23.67	-268.77	-706.59	1748825.01	14596124.58	40°11'23.6668"N	80°36'42.5548"W	755.98	249.174	1.44	
6978.00	88.920	154.790	5939.56	70.23	-353.87	-666.69	1748864.90	14596039.51	40°11'22.8241"N	80°36'42.0455"W	754.79	242.041	0.81	
7071.00	89.080	154.440	5941.18	163.11	-437.88	-626.83	1748904.75	14595955.53	40°11'21.9923"N	80°36'41.5366"W	764.62	235.063	0.41	
7166.00	89.630	155.440	5942.25	258.01	-523.93	-586.59	1748944.97	14595869.51	40°11'21.1402"N	80°36'41.0230"W	786.51	228.230	1.20	
7260.00	89.290	156.690	5943.14	351.98	-609.84	-548.46	1748983.08	14595783.64	40°11'20.2896"N	80°36'40.5365"W	820.19	221.967	1.38	
7355.00	89.780	157.210	5943.91	446.98	-697.25	-511.26	1749020.26	14595696.26	40°11'19.4241"N	80°36'40.0821"W	864.61	216.251	0.75	
7449.00	88.920	156.650	5944.97	540.96	-783.53	-473.98	1749057.53	14595610.01	40°11'18.5699"N	80°36'39.5866"W	915.74	211.171	1.54	
7544.00	89.470	156.480	5946.56	635.93	-870.49	-435.75	1749095.75	14595523.09	40°11'17.7090"N	80°36'39.0989"W	973.46	206.592	0.52	
7639.00	89.630	157.300	5947.55	730.92	-957.86	-398.46	1749133.02	14595435.76	40°11'16.8440"N	80°36'38.6234"W	1037.43	202.587	0.99	
7733.00	89.260	156.700	5948.46	824.91	-1044.38	-361.74	1749169.73	14595349.27	40°11'15.9874"N	80°36'38.1551"W	1105.25	199.104	0.75	
7828.00	89.140	156.540	5949.79	919.89	-1131.57	-324.04	1749207.41	14595262.11	40°11'15.1242"N	80°36'37.6743"W	1177.05	195.980	0.21	
7922.00	88.920	155.670	5951.38	1013.86	-1217.50	-285.97	1749245.47	14595176.21	40°11'14.2733"N	80°36'37.1887"W	1250.63	193.218	0.95	
8017.00	89.570	156.120	5952.63	1108.81	-1304.21	-247.18	1749284.25	14595089.54	40°11'13.4148"N	80°36'36.6937"W	1327.42	190.732	0.83	
8111.00	89.540	156.020	5953.36	1202.79	-1390.13	-209.05	1749322.36	14595003.65	40°11'12.5641"N	80°36'36.2073"W	1405.76	188.552	0.11	

Actual Wellpath Report

Mike Ryniawec BRK 6H awp Proj: 23599'

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REFERENCE WELLPATH IDENTIFICATION

Operator	SWN PRODUCTION COMPANY, LLC	Well	Mike Ryniawec BRK 6H
Field	Brooke	API	47009003290000
Facility	Mike Ryniawec BRK Pad	Wellbore	Mike Ryniawec BRK 6H AWB
Slot	6H		

WELLPATH DATA (255 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]	Comments
8206.00	89.290	155.880	5954.33	1297.75	-1476.87	-170.34	1749361.06	14594916.94	40°11'11.7052"N	80°36'35.7134"W	1486.66	186.579	0.30	
8300.00	89.720	156.740	5955.14	1391.73	-1562.95	-132.57	1749398.81	14594830.90	40°11'10.8630"N	80°36'35.2317"W	1568.56	184.848	1.02	
8395.00	89.820	157.020	5955.53	1486.73	-1650.32	-95.27	1749436.10	14594743.56	40°11'9.9880"N	80°36'34.7560"W	1653.07	183.304	0.31	
8489.00	89.140	155.910	5956.38	1580.71	-1736.49	-57.74	1749473.62	14594657.42	40°11'9.1348"N	80°36'34.2773"W	1737.45	181.904	1.38	
8584.00	89.820	157.000	5957.24	1675.69	-1823.58	-19.79	1749511.55	14594570.37	40°11'8.2726"N	80°36'33.7933"W	1823.69	180.622	1.35	
8679.00	90.310	156.640	5957.13	1770.69	-1910.91	17.61	1749548.93	14594483.07	40°11'7.4080"N	80°36'33.3164"W	1910.99	179.472	0.64	
8773.00	90.000	156.240	5956.88	1864.67	-1997.07	55.18	1749586.49	14594396.94	40°11'6.5549"N	80°36'32.8372"W	1997.83	178.417	0.54	
8868.00	89.540	156.310	5957.26	1959.65	-2084.04	93.40	1749624.69	14594310.01	40°11'5.6938"N	80°36'32.3497"W	2086.13	177.434	0.49	
8962.00	89.820	156.720	5957.78	2053.64	-2170.25	130.86	1749662.14	14594223.83	40°11'4.8402"N	80°36'31.8719"W	2174.20	176.549	0.53	
9057.00	89.910	156.930	5958.01	2148.64	-2257.59	168.25	1749699.51	14594136.53	40°11'3.9755"N	80°36'31.3952"W	2263.85	175.738	0.24	
9152.00	89.350	156.510	5958.62	2243.63	-2344.85	205.79	1749737.04	14594049.30	40°11'3.1116"N	80°36'30.9164"W	2353.87	174.984	0.74	
9246.00	89.820	156.650	5959.30	2337.62	-2431.11	243.15	1749774.39	14593963.08	40°11'2.2576"N	80°36'30.4400"W	2443.23	174.288	0.52	
9341.00	89.660	156.310	5959.73	2432.60	-2518.21	281.06	1749812.28	14593876.01	40°11'1.3952"N	80°36'29.9565"W	2533.85	173.631	0.40	
9435.00	89.200	156.120	5960.67	2526.58	-2604.22	318.97	1749850.16	14593790.03	40°11'0.5436"N	80°36'29.4729"W	2623.68	173.017	0.53	
9530.00	89.720	156.730	5961.56	2621.56	-2691.29	356.97	1749888.16	14593703.00	40°10'59.6815"N	80°36'28.9884"W	2714.86	172.445	0.84	
9625.00	89.540	156.090	5962.18	2716.54	-2778.35	394.98	1749926.16	14593615.97	40°10'58.8196"N	80°36'28.5035"W	2806.28	171.909	0.70	
9719.00	89.450	155.860	5963.01	2810.51	-2864.20	433.25	1749964.41	14593530.15	40°10'57.9695"N	80°36'28.0153"W	2896.78	171.398	0.26	
9814.00	89.170	155.550	5964.15	2905.47	-2950.88	472.11	1750003.25	14593443.50	40°10'57.1112"N	80°36'27.5196"W	2988.41	170.910	0.29	
9908.00	89.450	156.050	5965.28	2999.44	-3036.72	510.41	1750041.55	14593357.70	40°10'56.2613"N	80°36'27.0310"W	3079.31	170.459	0.37	
10003.00	89.260	156.380	5966.35	3094.41	-3123.61	548.80	1750079.92	14593270.84	40°10'55.4010"N	80°36'26.5414"W	3171.45	170.035	0.31	
10098.00	89.720	157.080	5967.20	3189.40	-3210.84	586.41	1750117.51	14593183.64	40°10'54.5373"N	80°36'26.0619"W	3263.95	169.650	0.97	
10193.00	89.170	156.320	5968.12	3284.38	-3298.09	623.98	1750155.07	14593096.43	40°10'53.6735"N	80°36'25.5827"W	3356.60	169.287	0.99	
10287.00	89.110	155.750	5969.53	3378.35	-3383.98	662.16	1750193.23	14593010.58	40°10'52.8231"N	80°36'25.0958"W	3448.15	168.929	0.61	
10381.00	89.350	155.800	5970.79	3472.30	-3469.69	700.72	1750231.78	14592924.89	40°10'51.9744"N	80°36'24.6038"W	3539.74	168.582	0.26	
10476.00	89.290	156.250	5971.92	3567.27	-3556.49	739.32	1750270.37	14592838.13	40°10'51.1150"N	80°36'24.1114"W	3632.52	168.257	0.48	
10571.00	89.320	155.720	5973.07	3662.23	-3643.26	777.98	1750309.01	14592751.39	40°10'50.2558"N	80°36'23.6183"W	3725.40	167.946	0.56	
10666.00	89.450	155.930	5974.09	3757.19	-3729.92	816.89	1750347.90	14592664.76	40°10'49.3977"N	80°36'23.1221"W	3818.33	167.647	0.26	
10760.00	89.080	155.940	5975.30	3851.15	-3815.75	855.21	1750386.21	14592578.98	40°10'48.5480"N	80°36'22.6332"W	3910.41	167.367	0.39	
10855.00	89.450	155.290	5976.52	3946.10	-3902.26	894.43	1750425.41	14592492.49	40°10'47.6913"N	80°36'22.1328"W	4003.46	167.090	0.79	
10949.00	90.030	155.620	5976.94	4040.05	-3987.77	933.48	1750464.45	14592407.02	40°10'46.8446"N	80°36'21.6347"W	4095.57	166.825	0.71	

Actual Wellpath Report

Mike Ryniawec BRK 6H awp Proj: 23599'

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REFERENCE WELLPATH IDENTIFICATION	
Operator	SWN PRODUCTION COMPANY, LLC
Field	Brooke
Facility	Mike Ryniawec BRK Pad
Slot	6H
Well	Mike Ryniawec BRK 6H
API	47009003290000
Wellbore	Mike Ryniawec BRK 6H AWB

WELLPATH DATA (255 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]	Comments
11043.00	89.940	155.970	5976.97	4134.01	-4073.50	972.02	1750502.97	14592321.32	40°10'45.9957"N	80°36'21.1430"W	4187.87	166.579	0.38	
11137.00	89.080	155.710	5977.77	4227.97	-4159.27	1010.49	1750541.43	14592235.59	40°10'45.1465"N	80°36'20.6523"W	4280.26	166.345	0.96	
11232.00	90.220	156.160	5978.35	4322.94	-4246.01	1049.23	1750580.15	14592148.88	40°10'44.2877"N	80°36'20.1582"W	4373.72	166.120	1.29	
11326.00	89.510	156.180	5978.57	4416.92	-4331.99	1087.21	1750618.11	14592062.93	40°10'43.4363"N	80°36'19.6739"W	4466.34	165.911	0.76	
11420.00	89.450	155.950	5979.43	4510.89	-4417.90	1125.34	1750656.23	14591977.05	40°10'42.5856"N	80°36'19.1875"W	4558.98	165.709	0.25	
11514.00	90.220	155.760	5979.70	4604.85	-4503.68	1163.79	1750694.67	14591891.31	40°10'41.7363"N	80°36'18.6971"W	4651.62	165.511	0.84	
11609.00	89.510	155.720	5979.92	4699.81	-4590.29	1202.82	1750733.69	14591804.73	40°10'40.8787"N	80°36'18.1991"W	4745.27	165.317	0.75	
11703.00	89.570	156.260	5980.67	4793.78	-4676.15	1241.07	1750771.92	14591718.90	40°10'40.0286"N	80°36'17.7113"W	4838.04	165.136	0.58	
11798.00	89.290	155.810	5981.62	4888.75	-4762.96	1279.65	1750810.49	14591632.13	40°10'39.1691"N	80°36'17.2192"W	4931.87	164.962	0.56	
11892.00	89.850	156.170	5982.33	4982.72	-4848.82	1317.90	1750848.72	14591546.30	40°10'38.3189"N	80°36'16.7314"W	5024.73	164.794	0.71	
11987.00	89.380	156.070	5982.96	5077.69	-4935.69	1356.36	1750887.16	14591459.47	40°10'37.4588"N	80°36'16.2410"W	5118.66	164.634	0.51	
12081.00	90.030	156.520	5983.45	5171.68	-5021.76	1394.15	1750924.94	14591373.44	40°10'36.6066"N	80°36'15.7591"W	5211.69	164.484	0.84	
12176.00	89.570	156.420	5983.78	5266.66	-5108.86	1432.07	1750962.85	14591286.37	40°10'35.7442"N	80°36'15.2755"W	5305.77	164.341	0.50	
12270.00	89.540	155.790	5984.51	5360.64	-5194.80	1470.15	1751000.91	14591200.46	40°10'34.8933"N	80°36'14.7899"W	5398.82	164.198	0.67	
12364.00	89.320	156.180	5985.44	5454.60	-5280.65	1508.40	1751039.15	14591114.64	40°10'34.0432"N	80°36'14.3020"W	5491.87	164.058	0.48	
12458.00	89.420	156.410	5986.48	5548.58	-5366.72	1546.19	1751076.92	14591028.61	40°10'33.1910"N	80°36'13.8201"W	5585.01	163.928	0.27	
12553.00	89.600	156.420	5987.29	5643.56	-5453.78	1584.20	1751114.91	14590941.58	40°10'32.3290"N	80°36'13.3355"W	5679.21	163.803	0.19	
12647.00	89.420	155.820	5988.09	5737.54	-5539.73	1622.25	1751152.95	14590855.66	40°10'31.4780"N	80°36'12.8502"W	5772.37	163.678	0.67	
12740.00	89.630	156.650	5988.87	5830.51	-5624.84	1659.73	1751190.41	14590770.59	40°10'30.6353"N	80°36'12.3723"W	5864.60	163.560	0.92	
12834.00	89.720	156.040	5989.40	5924.50	-5710.94	1697.44	1751228.11	14590684.52	40°10'29.7828"N	80°36'11.8914"W	5957.86	163.447	0.66	
12928.00	89.630	156.580	5989.93	6018.48	-5797.02	1735.21	1751265.87	14590598.48	40°10'28.9305"N	80°36'11.4099"W	6051.14	163.336	0.58	
13022.00	89.380	156.170	5990.74	6112.46	-5883.13	1772.88	1751303.52	14590512.39	40°10'28.0778"N	80°36'10.9295"W	6144.46	163.230	0.51	
13117.00	89.080	156.750	5992.02	6207.44	-5970.22	1810.82	1751341.44	14590425.34	40°10'27.2156"N	80°36'10.4458"W	6238.80	163.127	0.69	
13211.00	89.130	155.820	5993.51	6301.41	-6056.27	1848.62	1751379.23	14590339.32	40°10'26.3636"N	80°36'9.9638"W	6332.13	163.026	0.99	
13305.00	89.600	156.320	5994.56	6395.38	-6142.19	1886.74	1751417.34	14590253.44	40°10'25.5129"N	80°36'9.4776"W	6425.44	162.924	0.74	
13400.00	89.720	156.190	5995.13	6490.36	-6229.14	1925.00	1751455.58	14590166.52	40°10'24.6519"N	80°36'8.9899"W	6519.80	162.827	0.19	
13495.00	89.720	155.970	5995.59	6585.33	-6315.98	1963.51	1751494.08	14590079.71	40°10'23.7921"N	80°36'8.4987"W	6614.15	162.731	0.23	
13589.00	89.750	156.250	5996.03	6679.31	-6401.93	2001.58	1751532.13	14589993.80	40°10'22.9411"N	80°36'8.0132"W	6707.53	162.638	0.30	
13684.00	89.780	156.230	5996.42	6774.29	-6488.87	2039.86	1751570.40	14589906.89	40°10'22.0802"N	80°36'7.5252"W	6801.95	162.549	0.04	
13778.00	89.570	156.280	5996.95	6868.27	-6574.91	2077.71	1751608.23	14589820.88	40°10'21.2282"N	80°36'7.0426"W	6895.39	162.463	0.23	

Actual Wellpath Report

Mike Ryniawec BRK 6H awp Proj: 23599'

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REFERENCE WELLPATH IDENTIFICATION

Operator	SWN PRODUCTION COMPANY, LLC	Well	Mike Ryniawec BRK 6H
Field	Brooke	API	47009003290000
Facility	Mike Ryniawec BRK Pad	Wellbore	Mike Ryniawec BRK 6H AWB
Slot	6H		

WELLPATH DATA (255 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]	Comments
13873.00	89.660	156.190	5997.59	6963.25	-6661.86	2115.99	1751646.50	14589733.97	40°10'20.3674"N	80°36'6.5544"W	6989.83	162.379	0.13	
13966.00	89.660	156.120	5998.14	7056.23	-6746.92	2153.59	1751684.08	14589648.94	40°10'19.5252"N	80°36'6.0750"W	7082.29	162.297	0.08	
14061.00	89.690	155.820	5998.68	7151.19	-6833.68	2192.27	1751722.75	14589562.21	40°10'18.6660"N	80°36'5.5817"W	7176.72	162.214	0.32	
14155.00	89.820	156.090	5999.08	7245.16	-6919.53	2230.57	1751761.04	14589476.40	40°10'17.8161"N	80°36'5.0933"W	7270.16	162.133	0.32	
14250.00	89.750	157.510	5999.44	7340.16	-7006.84	2268.00	1751798.44	14589389.12	40°10'16.9516"N	80°36'4.6163"W	7364.75	162.064	1.50	
14344.00	89.450	157.340	6000.09	7434.15	-7093.64	2304.08	1751834.52	14589302.36	40°10'16.0922"N	80°36'4.1565"W	7458.45	162.006	0.37	
14438.00	89.170	157.070	6001.22	7528.15	-7180.29	2340.50	1751870.92	14589215.74	40°10'15.2343"N	80°36'3.6924"W	7552.12	161.946	0.41	
14533.00	89.630	157.200	6002.22	7623.14	-7267.82	2377.41	1751907.81	14589128.25	40°10'14.3677"N	80°36'3.2220"W	7646.78	161.886	0.50	
14628.00	89.380	156.970	6003.04	7718.14	-7355.32	2414.40	1751944.79	14589040.78	40°10'13.5014"N	80°36'2.7506"W	7741.45	161.827	0.36	
14722.00	89.380	157.210	6004.06	7812.13	-7441.90	2450.99	1751981.36	14588954.23	40°10'12.6442"N	80°36'2.2842"W	7835.12	161.771	0.26	
14816.00	89.570	157.720	6004.92	7906.12	-7528.72	2487.01	1752017.37	14588867.45	40°10'11.7847"N	80°36'1.8252"W	7928.86	161.720	0.58	
14909.00	89.290	157.430	6005.84	7999.12	-7614.68	2522.49	1752052.84	14588781.52	40°10'10.9336"N	80°36'1.3732"W	8021.61	161.672	0.43	
15004.00	89.540	157.080	6006.81	8094.11	-7702.29	2559.21	1752089.55	14588693.95	40°10'10.0663"N	80°36'0.9052"W	8116.33	161.620	0.45	
15099.00	89.720	157.450	6007.43	8189.11	-7789.90	2595.93	1752126.25	14588606.36	40°10'9.1988"N	80°36'0.4374"W	8211.05	161.570	0.43	
15192.00	89.660	157.010	6007.93	8282.11	-7875.65	2631.92	1752162.23	14588520.65	40°10'8.3498"N	80°35'59.9787"W	8303.79	161.521	0.48	
15287.00	89.570	157.460	6008.57	8377.11	-7963.25	2668.68	1752198.97	14588433.08	40°10'7.4826"N	80°35'59.5103"W	8398.52	161.473	0.48	
15381.00	89.690	157.230	6009.18	8471.10	-8050.00	2704.89	1752235.17	14588346.37	40°10'6.6237"N	80°35'59.0489"W	8492.28	161.427	0.28	
15476.00	89.750	157.440	6009.64	8566.10	-8137.66	2741.49	1752271.76	14588258.74	40°10'5.7558"N	80°35'58.5825"W	8587.04	161.382	0.23	
15570.00	89.690	157.260	6010.10	8660.10	-8224.41	2777.69	1752307.94	14588172.03	40°10'4.8970"N	80°35'58.1212"W	8680.81	161.338	0.20	
15664.00	89.320	156.800	6010.93	8754.10	-8310.95	2814.37	1752344.61	14588085.52	40°10'4.0401"N	80°35'57.6537"W	8774.54	161.292	0.63	
15758.00	88.830	158.210	6012.43	8848.08	-8397.78	2850.33	1752380.56	14587998.72	40°10'3.1804"N	80°35'57.1956"W	8868.32	161.252	1.59	
15853.00	89.140	158.450	6014.11	8943.05	-8486.06	2885.41	1752415.62	14587910.48	40°10'2.3066"N	80°35'56.7489"W	8963.19	161.221	0.41	
15947.00	89.230	158.320	6015.45	9037.03	-8573.44	2920.03	1752450.23	14587823.13	40°10'1.4415"N	80°35'56.3080"W	9057.06	161.192	0.17	
16041.00	89.350	158.560	6016.61	9131.01	-8660.79	2954.72	1752484.91	14587735.81	40°10'0.5768"N	80°35'55.8662"W	9150.94	161.162	0.13	
16135.00	89.660	158.670	6017.43	9224.99	-8748.26	2989.15	1752519.32	14587648.38	40°09'59.7109"N	80°35'55.4279"W	9244.84	161.135	0.47	
16230.00	89.570	158.420	6018.06	9319.96	-8836.67	3023.90	1752554.05	14587560.00	40°09'58.8356"N	80°35'54.9855"W	9339.74	161.109	0.28	
16324.00	89.690	158.310	6018.67	9413.95	-8924.05	3058.55	1752588.70	14587472.66	40°09'57.9706"N	80°35'54.5441"W	9433.63	161.082	0.17	
16418.00	90.000	158.660	6018.93	9507.93	-9011.50	3093.03	1752623.16	14587385.24	40°09'57.1049"N	80°35'54.1052"W	9527.54	161.056	0.50	
16514.00	89.380	158.600	6019.45	9603.91	-9100.90	3128.01	1752658.12	14587295.88	40°09'56.2199"N	80°35'53.6598"W	9623.45	161.032	0.65	
16609.00	89.850	158.620	6020.08	9698.88	-9189.35	3162.65	1752692.76	14587207.46	40°09'55.3443"N	80°35'53.2187"W	9718.36	161.008	0.50	

Actual Wellpath Report

Mike Ryniawec BRK 6H awp Proj: 23599'
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REFERENCE WELLPATH IDENTIFICATION

Operator	SWN PRODUCTION COMPANY, LLC	Well	Mike Ryniawec BRK 6H
Field	Brooke	API	47009003290000
Facility	Mike Ryniawec BRK Pad	Wellbore	Mike Ryniawec BRK 6H AWB
Slot	6H		

WELLPATH DATA (255 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]	Comments
16702.00	89.970	158.320	6020.23	9791.86	-9275.86	3196.78	1752726.87	14587120.98	40°09'54.4879"N	80°35'52.7841"W	9811.27	160.984	0.35	
16796.00	89.850	158.350	6020.38	9885.85	-9363.22	3231.49	1752761.56	14587033.66	40°09'53.6230"N	80°35'52.3422"W	9905.17	160.959	0.13	
16889.00	89.780	158.450	6020.68	9978.84	-9449.69	3265.72	1752795.78	14586947.22	40°09'52.7670"N	80°35'51.9063"W	9998.08	160.935	0.13	
16984.00	89.910	158.390	6020.93	10073.82	-9538.03	3300.66	1752830.71	14586858.91	40°09'51.8925"N	80°35'51.4614"W	10092.99	160.912	0.15	
17078.00	89.540	158.180	6021.39	10167.81	-9625.36	3335.44	1752865.48	14586771.62	40°09'51.0280"N	80°35'51.0185"W	10186.89	160.887	0.45	
17173.00	89.660	158.890	6022.05	10262.79	-9713.77	3370.20	1752900.23	14586683.25	40°09'50.1528"N	80°35'50.5759"W	10281.81	160.866	0.76	
17268.00	89.820	158.470	6022.48	10357.76	-9802.26	3404.74	1752934.75	14586594.78	40°09'49.2767"N	80°35'50.1362"W	10376.74	160.846	0.47	
17362.00	89.450	158.410	6023.08	10451.74	-9889.69	3439.29	1752969.28	14586507.40	40°09'48.4113"N	80°35'49.6964"W	10470.65	160.824	0.40	
17456.00	89.600	158.090	6023.86	10545.73	-9976.99	3474.12	1753004.10	14586420.12	40°09'47.5470"N	80°35'49.2529"W	10564.56	160.801	0.38	
17550.00	89.780	158.400	6024.37	10639.71	-10064.29	3508.96	1753038.92	14586332.85	40°09'46.6827"N	80°35'48.8093"W	10658.46	160.779	0.38	
17644.00	89.260	157.770	6025.15	10733.70	-10151.50	3544.04	1753073.99	14586245.68	40°09'45.8193"N	80°35'48.3625"W	10752.35	160.755	0.87	
17738.00	89.230	158.200	6026.39	10827.69	-10238.64	3579.27	1753109.21	14586158.58	40°09'44.9567"N	80°35'47.9138"W	10846.24	160.731	0.46	
17833.00	89.540	158.610	6027.41	10922.67	-10326.96	3614.23	1753144.16	14586070.29	40°09'44.0823"N	80°35'47.4686"W	10941.15	160.711	0.54	
17927.00	89.970	158.660	6027.81	11016.65	-10414.50	3648.48	1753178.39	14585982.78	40°09'43.2157"N	80°35'47.0327"W	11035.09	160.693	0.46	
18020.00	89.290	158.350	6028.42	11109.62	-10501.03	3682.55	1753212.45	14585896.29	40°09'42.3591"N	80°35'46.5989"W	11128.02	160.675	0.80	
18114.00	89.480	158.690	6029.42	11203.60	-10588.50	3716.97	1753246.86	14585808.86	40°09'41.4932"N	80°35'46.1607"W	11221.95	160.657	0.41	
18209.00	89.450	158.540	6030.31	11298.57	-10676.95	3751.61	1753281.48	14585720.43	40°09'40.6175"N	80°35'45.7197"W	11316.89	160.640	0.16	
18303.00	90.120	158.880	6030.66	11392.55	-10764.54	3785.74	1753315.60	14585632.88	40°09'39.7505"N	80°35'45.2852"W	11410.83	160.624	0.80	
18397.00	89.290	158.330	6031.15	11486.52	-10852.06	3820.03	1753349.88	14585545.40	40°09'38.8841"N	80°35'44.8487"W	11504.77	160.607	1.06	
18492.00	89.420	158.490	6032.22	11581.50	-10940.39	3854.99	1753384.82	14585457.10	40°09'38.0096"N	80°35'44.4037"W	11599.70	160.589	0.22	
18586.00	88.890	158.330	6033.60	11675.48	-11027.78	3889.57	1753419.39	14585369.74	40°09'37.1445"N	80°35'43.9634"W	11693.62	160.572	0.59	
18680.00	88.800	158.050	6035.50	11769.45	-11115.03	3924.49	1753454.29	14585282.52	40°09'36.2806"N	80°35'43.5188"W	11787.52	160.553	0.31	
18774.00	89.140	158.490	6037.19	11863.42	-11202.34	3959.28	1753489.07	14585195.25	40°09'35.4163"N	80°35'43.0758"W	11881.43	160.535	0.59	
18869.00	89.050	157.970	6038.69	11958.40	-11290.55	3994.51	1753524.29	14585107.07	40°09'34.5430"N	80°35'42.6272"W	11976.34	160.517	0.56	
18963.00	89.600	158.260	6039.72	12052.38	-11377.80	4029.47	1753559.24	14585019.85	40°09'33.6793"N	80°35'42.1821"W	12070.26	160.498	0.80	
19058.00	89.020	158.050	6040.79	12147.37	-11466.01	4064.74	1753594.49	14584931.69	40°09'32.8060"N	80°35'41.7330"W	12165.17	160.480	0.78	
19152.00	89.420	158.520	6042.07	12241.35	-11553.33	4099.52	1753629.25	14584844.40	40°09'31.9416"N	80°35'41.2902"W	12259.10	160.464	0.66	
19247.00	88.890	158.270	6043.47	12336.32	-11641.64	4134.49	1753664.22	14584756.12	40°09'31.0673"N	80°35'40.8449"W	12354.02	160.448	0.62	
19342.00	89.600	158.340	6044.72	12431.30	-11729.91	4169.61	1753699.32	14584667.89	40°09'30.1935"N	80°35'40.3979"W	12448.95	160.431	0.75	
19436.00	89.420	158.250	6045.53	12525.28	-11817.24	4204.37	1753734.07	14584580.59	40°09'29.3289"N	80°35'39.9553"W	12542.88	160.415	0.21	

REFERENCE WELLPATH IDENTIFICATION

Operator	SWN PRODUCTION COMPANY, LLC	Well	Mike Ryniawec BRK 6H
Field	Brooke	API	47009003290000
Facility	Mike Ryniawec BRK Pad	Wellbore	Mike Ryniawec BRK 6H AWB
Slot	6H		

WELLPATH DATA (255 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]	Comments
19531.00	89.940	158.560	6046.06	12620.27	-11905.57	4239.33	1753769.02	14584492.30	40°09'28.4545"N	80°35'39.5102"W	12637.82	160.400	0.64	
19625.00	89.970	158.420	6046.13	12714.25	-11993.02	4273.80	1753803.47	14584404.88	40°09'27.5887"N	80°35'39.0714"W	12731.77	160.386	0.15	
19720.00	89.570	158.510	6046.51	12809.23	-12081.39	4308.67	1753838.33	14584316.54	40°09'26.7139"N	80°35'38.6275"W	12826.71	160.372	0.43	
19814.00	89.570	158.070	6047.22	12903.22	-12168.72	4343.44	1753873.08	14584229.25	40°09'25.8493"N	80°35'38.1848"W	12920.65	160.357	0.47	
19909.00	89.380	158.390	6048.09	12998.20	-12256.94	4378.67	1753908.30	14584141.06	40°09'24.9759"N	80°35'37.7363"W	13015.58	160.341	0.39	
20004.00	90.030	158.730	6048.58	13093.18	-12345.36	4413.40	1753943.01	14584052.67	40°09'24.1006"N	80°35'37.2943"W	13110.53	160.328	0.77	
20098.00	88.580	157.560	6049.72	13187.16	-12432.60	4448.39	1753977.99	14583965.47	40°09'23.2389"N	80°35'36.8488"W	13204.45	160.313	1.98	
20193.00	89.110	158.300	6051.63	13282.14	-12520.62	4484.07	1754013.66	14583877.49	40°09'22.3655"N	80°35'36.3944"W	13299.35	160.296	0.96	
20287.00	89.450	158.580	6052.82	13376.11	-12608.03	4518.61	1754048.19	14583790.10	40°09'21.5001"N	80°35'35.9547"W	13393.30	160.283	0.47	
20380.00	88.830	157.980	6054.21	13469.09	-12694.42	4553.03	1754082.59	14583703.75	40°09'20.6449"N	80°35'35.5166"W	13486.23	160.269	0.93	
20474.00	89.230	158.880	6055.80	13563.06	-12781.82	4587.58	1754117.13	14583616.38	40°09'19.7796"N	80°35'35.0768"W	13580.17	160.256	1.05	
20568.00	89.420	157.730	6056.91	13657.04	-12869.16	4622.32	1754151.86	14583529.08	40°09'18.9150"N	80°35'34.6344"W	13674.10	160.243	1.24	
20663.00	89.690	158.180	6057.65	13752.03	-12957.21	4657.98	1754187.50	14583441.06	40°09'18.0433"N	80°35'34.1804"W	13769.02	160.227	0.55	
20758.00	89.690	158.320	6058.16	13847.02	-13045.45	4693.18	1754222.69	14583352.86	40°09'17.1697"N	80°35'33.7323"W	13863.97	160.213	0.15	
20851.00	89.290	158.370	6058.99	13940.00	-13131.88	4727.50	1754256.99	14583266.46	40°09'16.3141"N	80°35'33.2954"W	13956.91	160.201	0.43	
20944.00	89.380	158.070	6060.07	14032.98	-13218.23	4762.00	1754291.48	14583180.14	40°09'15.4591"N	80°35'32.8562"W	14049.85	160.188	0.34	
21038.00	89.050	158.200	6061.36	14126.97	-13305.46	4797.01	1754326.47	14583092.94	40°09'14.5956"N	80°35'32.4105"W	14143.78	160.174	0.38	
21132.00	89.050	158.460	6062.92	14220.94	-13392.81	4831.71	1754361.17	14583005.63	40°09'13.7308"N	80°35'31.9687"W	14237.72	160.162	0.28	
21227.00	89.350	158.579	6064.24	14315.91	-13481.20	4866.50	1754395.94	14582917.28	40°09'12.8558"N	80°35'31.5259"W	14332.67	160.151	0.34	
21321.00	89.380	158.470	6065.28	14409.89	-13568.66	4900.92	1754430.35	14582829.85	40°09'11.9899"N	80°35'31.0878"W	14426.63	160.141	0.11	
21416.00	89.050	158.980	6066.58	14504.85	-13657.18	4935.39	1754464.80	14582741.36	40°09'11.1136"N	80°35'30.6492"W	14521.59	160.131	0.64	
21510.00	89.320	158.470	6067.82	14598.82	-13744.76	4969.49	1754498.89	14582653.81	40°09'10.2466"N	80°35'30.2152"W	14615.55	160.122	0.61	
21605.00	89.920	158.400	6069.38	14693.79	-13833.11	5004.39	1754533.78	14582565.50	40°09'9.3720"N	80°35'29.7710"W	14710.50	160.111	0.42	
21700.00	89.086	158.620	6071.04	14788.76	-13921.50	5039.17	1754568.55	14582477.15	40°09'8.4969"N	80°35'29.3283"W	14805.45	160.101	0.27	
21794.00	89.480	159.400	6072.22	14882.71	-14009.25	5072.84	1754602.20	14582389.43	40°09'7.6282"N	80°35'28.8999"W	14899.43	160.094	0.93	
21888.00	89.480	159.779	6073.07	14976.64	-14097.35	5105.63	1754634.98	14582301.37	40°09'6.7562"N	80°35'28.4829"W	14993.42	160.091	0.39	
21982.00	89.080	159.460	6074.25	15070.56	-14185.45	5138.37	1754667.70	14582213.30	40°09'5.8841"N	80°35'28.0664"W	15087.41	160.088	0.54	
22076.00	89.320	159.180	6075.57	15164.49	-14273.39	5171.56	1754700.88	14582125.40	40°09'5.0136"N	80°35'27.6442"W	15181.39	160.083	0.39	
22170.00	88.950	159.670	6076.99	15258.42	-14361.38	5204.59	1754733.90	14582037.44	40°09'4.1425"N	80°35'27.2241"W	15275.37	160.079	0.65	
22265.00	89.110	159.180	6078.59	15353.35	-14450.31	5237.97	1754767.27	14581948.55	40°09'3.2622"N	80°35'26.7994"W	15370.35	160.075	0.54	

REFERENCE WELLPATH IDENTIFICATION	
Operator	SWN PRODUCTION COMPANY, LLC
Field	Brooke
Facility	Mike Ryniawec BRK Pad
Slot	6H
Well	Mike Ryniawec BRK 6H
API	47009003290000
Wellbore	Mike Ryniawec BRK 6H AWB

WELLPATH DATA (255 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]	Comments
22358.00	90.310	159.950	6079.06	15446.28	-14537.45	5270.44	1754799.73	14581861.44	40°09'2.3996"N	80°35'26.3865"W	15463.35	160.072	1.53	
22453.00	89.780	159.410	6078.99	15541.20	-14626.54	5303.43	1754832.70	14581772.38	40°09'1.5178"N	80°35'25.9669"W	15558.34	160.070	0.80	
22546.00	90.120	159.390	6079.07	15634.14	-14713.59	5336.15	1754865.41	14581685.36	40°09'0.6560"N	80°35'25.5507"W	15651.34	160.066	0.37	
22641.00	88.920	159.750	6079.87	15729.07	-14802.61	5369.31	1754898.56	14581596.36	40°08'59.7748"N	80°35'25.1290"W	15746.33	160.063	1.32	
22735.00	89.200	160.010	6081.41	15822.96	-14890.86	5401.64	1754930.88	14581508.16	40°08'58.9012"N	80°35'24.7179"W	15840.31	160.062	0.41	
22830.00	88.980	159.600	6082.92	15917.87	-14980.01	5434.43	1754963.65	14581419.05	40°08'58.0188"N	80°35'24.3009"W	15935.30	160.060	0.49	
22924.00	88.620	159.740	6084.89	16011.77	-15068.14	5467.09	1754996.29	14581330.96	40°08'57.1465"N	80°35'23.8857"W	16029.28	160.058	0.41	
23018.00	88.920	159.360	6086.90	16105.68	-15156.19	5499.92	1755029.11	14581242.94	40°08'56.2748"N	80°35'23.4681"W	16123.25	160.055	0.51	
23112.00	89.290	159.910	6088.37	16199.60	-15244.30	5532.63	1755061.81	14581154.86	40°08'55.4026"N	80°35'23.0521"W	16217.24	160.053	0.71	
23206.00	88.830	159.460	6089.91	16293.51	-15332.44	5565.26	1755094.43	14581066.75	40°08'54.5301"N	80°35'22.6372"W	16311.22	160.050	0.68	
23300.00	88.620	159.800	6092.01	16387.41	-15420.54	5597.97	1755127.13	14580978.68	40°08'53.6580"N	80°35'22.2212"W	16405.20	160.048	0.43	
23395.00	88.740	160.180	6094.19	16482.29	-15509.79	5630.47	1755159.61	14580889.48	40°08'52.7746"N	80°35'21.8080"W	16500.17	160.048	0.42	
23489.00	88.830	160.560	6096.19	16576.14	-15598.30	5662.04	1755191.17	14580801.00	40°08'51.8985"N	80°35'21.4067"W	16594.15	160.050	0.42	
23574.00	88.890	159.900	6097.88	16661.02	-15678.28	5690.79	1755219.91	14580721.05	40°08'51.1069"N	80°35'21.0413"W	16679.13	160.050	0.78	
23599.00#	88.890	159.900	6098.36	16685.99	-15701.75	5699.38	1755228.49	14580697.59	40°08'50.8745"N	80°35'20.9321"W	16704.13	160.050	0.00	

HOLE & CASING SECTIONS - Ref Wellbore: Mike Ryniawec BRK 6H AWB								Ref Wellpath: Mike Ryniawec BRK 6H awp Proj: 23599'			
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	25.00	447.00	422.00	25.00	446.99	0.00	0.00	0.27	1.64		
9.625in Casing	25.00	1715.00	1690.00	25.00	1705.76	0.00	0.00	-25.18	-105.56		

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REFERENCE WELLPATH IDENTIFICATION			
Operator	SWN PRODUCTION COMPANY, LLC	Well	Mike Ryniawec BRK 6H
Field	Brooke	API	47009003290000
Facility	Mike Ryniawec BRK Pad	Wellbore	Mike Ryniawec BRK 6H AWB
Slot	6H		

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Mike Ryniawec BRK 6H LP Rev 6	5933.00	82.56	-873.18	1748658.49	14596475.77	40°11'27.1458"N	80°36'44.6816"W	point
Mike Ryniawec BRK 6H WP11	6016.15	-3900.97	910.21	1750441.19	14592493.79	40°10'47.7034"N	80°36'21.9294"W	point
Mike Ryniawec BRK 6H WP22	6026.29	-8294.56	2807.44	1752337.68	14588101.91	40°10'4.2025"N	80°35'57.7421"W	point
Mike Ryniawec BRK 6H WP33	6040.95	-13478.42	4873.08	1754402.51	14582920.06	40°09'12.8830"N	80°35'31.4411"W	point
Mike Ryniawec BRK 6H BHL Rev 6	6110.00	-15849.86	5761.18	1755290.28	14580549.54	40°08'49.4081"N	80°35'20.1450"W	point

WELLPATH COMPOSITION - Ref Wellbore: Mike Ryniawec BRK 6H AWB Ref Wellpath: Mike Ryniawec BRK 6H awp Proj: 23599'						
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date	
25.00	352.00	Gyrodata 2015 - GC+WIR+DPIPE	1 Gyrodata HRGM 17.5" 50' - 352'	Mike Ryniawec BRK 6H AWB	4/19/2023	
352.00	1713.00	OWSG MWD rev2 + HRGM	2 Tally OWSG MWD HRGM 12.25" 465' - 1713'	Mike Ryniawec BRK 6H AWB	4/19/2023	
1713.00	3859.00	OWSG MWD rev2 + HRGM	3 Tally OWSG MWD HRGM 8.75" 1776' - 3859'	Mike Ryniawec BRK 6H AWB	4/19/2023	
3859.00	23599.00	BH AutoTrack CurveXpress (2019) (HRGM, Short spacing)	4 BH ATC MWD HRGM Short spacing 8.5" 3959' - 23574'	Mike Ryniawec BRK 6H AWB	4/19/2023	

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