



SWN PRODUCTION COMPANY, LLC



Location: Marshall County, WV
Field: Marshall
Facility: BW Edge MSH Pad

Slot: 3H
Well: BW Edge MSH 3H
Wellbore: BW Edge MSH 3H AWB

Plot reference wellpath is BW Edge MSH 3H awp Proj: 16130	Grid System: NAD83 / UTM Zone 17 North, US feet
True vertical depths are referenced to SDC40 (KB)	North Reference: Grid north
Reference wellpath measured depths are referenced to SDC40 (KB)	Scale: True distance
SDC40 (KB) to Mean Sea Level: 1279.7 feet	Coordinates are in feet referenced to Slot
Mean Sea Level to Ground level (At Slot: 3H): -1253.7 feet	Depths are in feet
Offset wellpath MDs are referenced to each path's default MD datum	Created by: tranlam on 2023-03-28; Database: WA_MPL_EASTERNUS_Defn

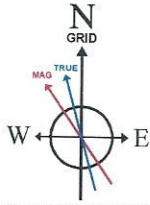
Location Information

Facility Name			Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
BW Edge MSH Pad			1744732.480	14529346.800	40°00'23.6808"N	80°37'38.9136"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
3H	-20.69	-19.23	1744713.260	14529326.120	40°00'23.4771"N	80°37'39.1618"W
SDC40 (KB) to Ground level (At Slot: 3H)					26ft	
Mean Sea Level to Ground level (At Slot: 3H)					-1253.7ft	
SDC40 (KB) to Mean Sea Level					1279.7ft	

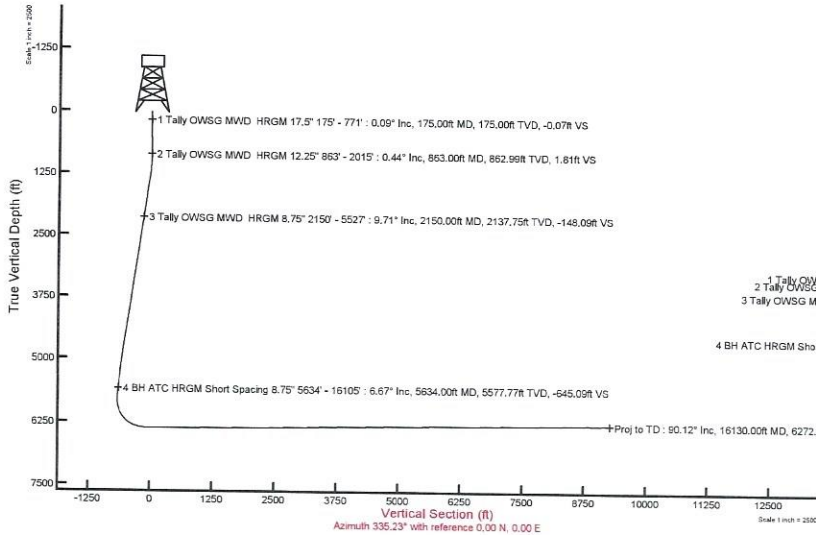
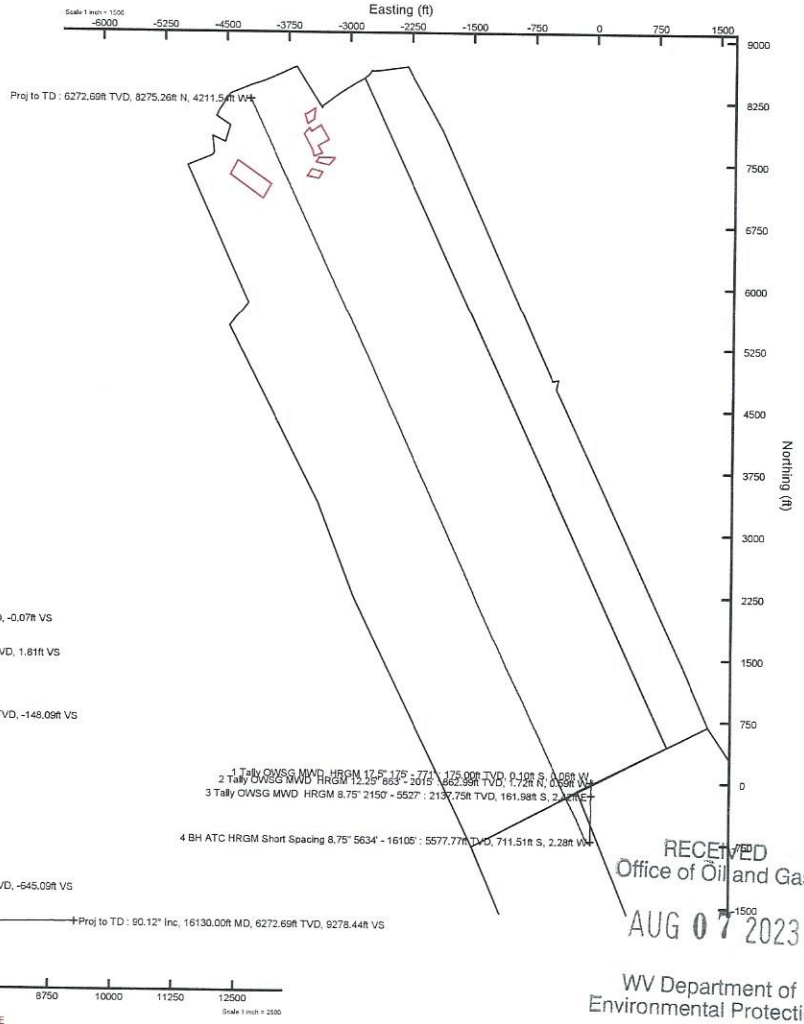
Bottom Hole Location

MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
16130.00	90.120	335.300	6272.69	8275.26	-4211.54	1740503.36	14537598.15	40°01'45.4254"N	80°38'32.8566"W

API: 47051024670000
 BH JOB: 111670444
 DURATION: 03.21.2023 to 03.24.2023
 RIG: SDC 40



HDGM2023 (1900.0 to 2024.0) Dip: 66.82° Field: 52106.5 nT
 Magnetic North is 8.23 degrees West of True North (at 3/13/2023)
 Grid North is 0.24 degrees East of True North
 To correct azimuth from True to Grid subtract 0.24 degrees
 To correct azimuth from Magnetic to Grid subtract 8.47 degrees



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03/15/2024

REFERENCE WELLPATH IDENTIFICATION			
Operator	SWN PRODUCTION COMPANY, LLC	Well	BW Edge MSH 3H
Field	Marshall	API	47051024670000
Facility	BW Edge MSH Pad	Wellbore	BW Edge MSH 3H AWB
Slot	3H		

REPORT SETUP INFORMATION			
Projection System	NAD83 / UTM Zone 17 North, US feet	Software System	WellArchitect® 6.0
North Reference	Grid	User	Tranlam
Scale	0.999612	Report Generated	3/28/2023 at 2:02:13 PM
Convergence at slot	0.24° 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	-20.69	-19.23	1744713.26	14529326.12	40°00'23.4771"N	80°37'39.1618"W
Facility Reference Pt			1744732.48	14529346.80	40°00'23.6808"N	80°37'38.9136"W
Field Reference Pt			0.00	0.00	0°00'0.0000"	85°29'19.4780"W

WELLPATH DATUM			
Calculation method	Minimum curvature	SDC40 (KB) to Facility Vertical Datum	1279.70ft
Horizontal Reference Pt	Slot	SDC40 (KB) to Mean Sea Level	1279.70ft
Vertical Reference Pt	SDC40 (KB)	SDC40 (KB) to Ground Level at Slot (3H)	26.00ft
MD Reference Pt	SDC40 (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	335.23°

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Field	Marshall	API	47051024670000
Facility	BW Edge MSH Pad	Wellbore	BW Edge MSH 3H AWB
Slot	3H		

WELLPATH DATA (174 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	210.350	0.00	0.00	0.00	0.00	1744713.26	14529326.12	40°00'23.4771"N	80°37'39.1618"W	0.00	0.000	0.00	
26.00	0.000	210.350	26.00	0.00	0.00	0.00	1744713.26	14529326.12	40°00'23.4771"N	80°37'39.1618"W	0.00	0.000	0.00	
175.00	0.090	210.350	175.00	-0.07	-0.10	-0.06	1744713.20	14529326.02	40°00'23.4761"N	80°37'39.1626"W	0.12	210.350	0.06	
235.00	0.090	173.170	235.00	-0.14	-0.19	-0.08	1744713.18	14529325.93	40°00'23.4752"N	80°37'39.1628"W	0.20	202.313	0.10	
324.00	0.130	154.630	324.00	-0.31	-0.35	-0.03	1744713.23	14529325.77	40°00'23.4737"N	80°37'39.1622"W	0.35	184.221	0.06	
413.00	0.050	44.170	413.00	-0.39	-0.41	0.04	1744713.30	14529325.71	40°00'23.4730"N	80°37'39.1613"W	0.41	173.834	0.17	
503.00	0.250	333.920	503.00	-0.18	-0.21	-0.01	1744713.25	14529325.91	40°00'23.4751"N	80°37'39.1620"W	0.21	183.962	0.26	
593.00	0.380	346.680	593.00	0.31	0.26	-0.17	1744713.09	14529326.38	40°00'23.4797"N	80°37'39.1640"W	0.31	326.785	0.16	
661.00	0.320	11.180	661.00	0.68	0.66	-0.18	1744713.08	14529326.78	40°00'23.4837"N	80°37'39.1642"W	0.69	344.475	0.23	
729.00	0.340	336.040	729.00	1.04	1.04	-0.23	1744713.03	14529327.15	40°00'23.4873"N	80°37'39.1647"W	1.06	347.488	0.29	
771.00	0.280	350.390	771.00	1.26	1.25	-0.30	1744712.96	14529327.37	40°00'23.4895"N	80°37'39.1656"W	1.29	346.617	0.23	
863.00	0.440	314.640	862.99	1.81	1.72	-0.59	1744712.67	14529327.84	40°00'23.4941"N	80°37'39.1693"W	1.82	341.177	0.29	
953.00	0.830	200.540	952.99	1.67	1.35	-1.06	1744712.20	14529327.47	40°00'23.4905"N	80°37'39.1754"W	1.72	321.888	1.21	
1044.00	2.830	178.690	1043.94	-0.85	-1.51	-1.24	1744712.02	14529324.61	40°00'23.4622"N	80°37'39.1779"W	1.96	219.396	2.29	
1136.00	5.150	175.000	1135.71	-6.82	-7.90	-0.83	1744712.43	14529318.23	40°00'23.3991"N	80°37'39.1729"W	7.94	185.994	2.54	
1226.00	7.460	172.760	1225.16	-16.20	-17.72	0.26	1744713.52	14529308.41	40°00'23.3020"N	80°37'39.1595"W	17.72	179.161	2.58	
1317.00	9.480	173.470	1315.16	-28.95	-31.02	1.86	1744715.12	14529295.11	40°00'23.1704"N	80°37'39.1397"W	31.08	176.576	2.22	
1407.00	9.960	174.300	1403.87	-43.34	-46.13	3.47	1744716.73	14529280.01	40°00'23.0211"N	80°37'39.1197"W	46.26	175.696	0.56	
1498.00	9.380	179.870	1493.58	-57.52	-61.38	4.27	1744717.53	14529264.76	40°00'22.8704"N	80°37'39.1103"W	61.53	176.020	1.21	
1589.00	8.820	183.810	1583.43	-70.39	-75.76	3.82	1744717.08	14529250.39	40°00'22.7283"N	80°37'39.1168"W	75.85	177.110	0.92	
1680.00	8.630	184.210	1673.38	-82.49	-89.53	2.86	1744716.12	14529236.63	40°00'22.5923"N	80°37'39.1299"W	89.57	178.171	0.22	
1771.00	8.410	182.170	1763.38	-94.39	-102.99	2.11	1744715.37	14529223.17	40°00'22.4593"N	80°37'39.1403"W	103.01	178.828	0.41	
1862.00	9.040	180.330	1853.32	-106.80	-116.78	1.81	1744715.07	14529209.38	40°00'22.3229"N	80°37'39.1448"W	116.80	179.111	0.76	
1953.00	8.820	180.930	1943.22	-119.56	-130.91	1.66	1744714.92	14529195.26	40°00'22.1834"N	80°37'39.1476"W	130.92	179.274	0.26	
2015.00	8.740	179.950	2004.49	-128.12	-140.37	1.59	1744714.84	14529185.80	40°00'22.0898"N	80°37'39.1490"W	140.38	179.353	0.27	
2150.00	9.710	175.860	2137.75	-148.09	-161.98	2.42	1744715.68	14529164.20	40°00'21.8762"N	80°37'39.1395"W	162.00	179.145	0.87	
2241.00	9.570	179.810	2227.46	-162.16	-177.20	3.00	1744716.25	14529148.99	40°00'21.7258"N	80°37'39.1329"W	177.23	179.032	0.74	
2332.00	9.300	189.170	2317.24	-175.14	-192.03	1.85	1744715.11	14529134.17	40°00'21.5794"N	80°37'39.1484"W	192.04	179.448	1.71	
2423.00	9.660	192.510	2407.00	-187.31	-206.74	-0.98	1744712.28	14529119.46	40°00'21.4341"N	80°37'39.1855"W	206.74	180.271	0.72	
2514.00	9.430	183.690	2496.74	-199.94	-221.63	-3.11	1744710.15	14529104.57	40°00'21.2870"N	80°37'39.2137"W	221.66	180.804	1.63	

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Facility	BW Edge MSH Pad	Wellbore	BW Edge MSH 3H AWB
Slot	3H		

WELLPATH DATA (174 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
2607.00	8.370	174.420	2588.63	-213.03	-235.98	-2.94	1744710.32	14529090.24	40°00'21.1453"N	80°37'39.2123"W	235.99	180.715	1.91	
2699.00	8.150	169.400	2679.67	-225.68	-249.05	-1.09	1744712.17	14529077.17	40°00'21.0160"N	80°37'39.1893"W	249.05	180.251	0.82	
2790.00	8.760	172.320	2769.68	-238.56	-262.26	1.02	1744714.28	14529063.96	40°00'20.8854"N	80°37'39.1628"W	262.26	179.777	0.82	
2880.00	9.330	179.240	2858.57	-251.77	-276.34	2.03	1744715.29	14529049.88	40°00'20.7461"N	80°37'39.1506"W	276.35	179.578	1.36	
2971.00	9.530	179.330	2948.34	-265.39	-291.25	2.22	1744715.48	14529034.98	40°00'20.5988"N	80°37'39.1490"W	291.26	179.563	0.22	
3061.00	9.440	177.650	3037.11	-279.01	-306.08	2.61	1744715.87	14529020.16	40°00'20.4523"N	80°37'39.1448"W	306.09	179.512	0.32	
3153.00	9.120	175.480	3127.90	-292.83	-320.88	3.49	1744716.75	14529005.36	40°00'20.3059"N	80°37'39.1342"W	320.90	179.376	0.52	
3243.00	9.140	176.860	3216.76	-306.16	-335.13	4.45	1744717.70	14528991.12	40°00'20.1651"N	80°37'39.1227"W	335.16	179.240	0.24	
3337.00	9.700	180.840	3309.50	-320.24	-350.51	4.74	1744718.00	14528975.75	40°00'20.0131"N	80°37'39.1198"W	350.54	179.225	0.91	
3429.00	9.740	180.100	3400.17	-334.29	-366.04	4.61	1744717.87	14528960.23	40°00'19.8597"N	80°37'39.1222"W	366.07	179.278	0.14	
3519.00	9.290	183.680	3488.94	-347.59	-380.90	4.13	1744717.39	14528945.37	40°00'19.7128"N	80°37'39.1292"W	380.92	179.378	0.83	
3611.00	8.870	182.740	3579.78	-360.41	-395.39	3.32	1744716.58	14528930.88	40°00'19.5696"N	80°37'39.1405"W	395.41	179.519	0.48	
3701.00	8.180	180.850	3668.79	-372.33	-408.73	2.89	1744716.15	14528917.55	40°00'19.4378"N	80°37'39.1467"W	408.74	179.595	0.83	
3792.00	8.320	180.990	3758.85	-384.10	-421.78	2.68	1744715.94	14528904.50	40°00'19.3088"N	80°37'39.1501"W	421.79	179.636	0.16	
3883.00	8.880	182.630	3848.82	-396.27	-435.38	2.24	1744715.50	14528890.91	40°00'19.1745"N	80°37'39.1564"W	435.39	179.705	0.67	
3974.00	9.060	182.240	3938.71	-408.89	-449.56	1.64	1744714.90	14528876.74	40°00'19.0344"N	80°37'39.1649"W	449.56	179.791	0.21	
4064.00	9.680	180.390	4027.51	-422.05	-464.21	1.31	1744714.57	14528862.09	40°00'18.8897"N	80°37'39.1699"W	464.21	179.838	0.77	
4155.00	10.130	181.270	4117.15	-436.16	-479.86	1.08	1744714.34	14528846.45	40°00'18.7350"N	80°37'39.1737"W	479.86	179.871	0.52	
4246.00	9.300	179.260	4206.85	-450.07	-495.21	1.00	1744714.26	14528831.10	40°00'18.5833"N	80°37'39.1756"W	495.21	179.884	0.99	
4337.00	9.040	181.490	4296.68	-463.20	-509.71	0.91	1744714.17	14528816.61	40°00'18.4400"N	80°37'39.1775"W	509.71	179.898	0.48	
4427.00	10.330	185.720	4385.40	-476.49	-524.81	-0.08	1744713.18	14528801.52	40°00'18.2908"N	80°37'39.1910"W	524.81	180.008	1.64	
4518.00	10.200	183.970	4474.95	-490.59	-540.96	-1.45	1744711.81	14528785.37	40°00'18.1312"N	80°37'39.2095"W	540.97	180.153	0.37	
4613.00	9.270	178.170	4568.58	-505.01	-557.00	-1.79	1744711.47	14528769.33	40°00'17.9727"N	80°37'39.2147"W	557.01	180.184	1.42	
4705.00	9.330	178.270	4659.37	-518.70	-571.86	-1.32	1744711.94	14528754.48	40°00'17.8259"N	80°37'39.2096"W	571.87	180.133	0.07	
4796.00	9.230	180.040	4749.18	-532.11	-586.54	-1.11	1744712.15	14528739.81	40°00'17.6809"N	80°37'39.2076"W	586.54	180.108	0.33	
4888.00	8.270	180.870	4840.11	-544.77	-600.53	-1.21	1744712.05	14528725.82	40°00'17.5426"N	80°37'39.2097"W	600.53	180.116	1.05	
4978.00	8.730	183.710	4929.12	-556.61	-613.82	-1.75	1744711.51	14528712.54	40°00'17.4113"N	80°37'39.2173"W	613.82	180.164	0.69	
5070.00	8.740	181.460	5020.05	-569.02	-627.77	-2.38	1744710.88	14528698.59	40°00'17.2734"N	80°37'39.2262"W	627.78	180.217	0.37	
5162.00	8.570	180.010	5111.00	-581.51	-641.62	-2.56	1744710.70	14528684.75	40°00'17.1366"N	80°37'39.2292"W	641.62	180.229	0.30	
5254.00	8.990	179.910	5201.94	-594.20	-655.59	-2.55	1744710.71	14528670.79	40°00'16.9986"N	80°37'39.2298"W	655.59	180.223	0.36	

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Facility	BW Edge MSH Pad	Wellbore	BW Edge MSH 3H AWB
Slot	3H		

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5345.00	9.140	179.930	5291.81	-607.16	-669.85	-2.53	1744710.73	14528656.53	40°00'16.8576"N	80°37'39.2304"W	669.86	180.217	0.26	
5437.00	8.970	180.380	5382.66	-620.29	-684.33	-2.57	1744710.69	14528642.05	40°00'16.7145"N	80°37'39.2316"W	684.34	180.215	0.20	
5527.00	8.140	178.450	5471.66	-632.50	-697.72	-2.45	1744710.82	14528628.67	40°00'16.5822"N	80°37'39.2307"W	697.72	180.201	0.98	
5634.00	6.670	180.390	5577.77	-645.09	-711.51	-2.28	1744710.98	14528614.89	40°00'16.4459"N	80°37'39.2294"W	711.51	180.184	1.39	
5725.00	7.070	186.530	5668.12	-654.66	-722.35	-2.96	1744710.31	14528604.05	40°00'16.3388"N	80°37'39.2386"W	722.36	180.234	0.92	
5815.00	6.360	225.200	5757.54	-661.10	-731.37	-7.12	1744706.14	14528595.03	40°00'16.2498"N	80°37'39.2927"W	731.41	180.558	4.99	
5905.00	9.050	265.030	5846.78	-660.41	-735.50	-17.72	1744695.54	14528590.90	40°00'16.2094"N	80°37'39.4291"W	735.72	181.380	6.46	
5996.00	14.310	308.990	5936.03	-647.87	-729.03	-33.63	1744679.64	14528597.37	40°00'16.2740"N	80°37'39.6332"W	729.81	182.641	10.96	
6091.00	22.400	328.680	6026.20	-619.28	-706.12	-52.22	1744661.06	14528620.27	40°00'16.5012"N	80°37'39.8708"W	708.05	184.229	10.62	
6188.00	32.420	335.330	6112.22	-574.79	-666.59	-72.73	1744640.55	14528659.79	40°00'16.8927"N	80°37'40.1323"W	670.55	186.227	10.79	
6284.00	43.240	337.360	6187.94	-516.02	-612.70	-96.20	1744617.09	14528713.66	40°00'17.4263"N	80°37'40.4310"W	620.21	188.923	11.34	
6381.00	53.420	336.130	6252.34	-443.69	-546.24	-124.83	1744588.48	14528780.09	40°00'18.0842"N	80°37'40.7953"W	560.32	192.872	10.54	
6477.00	62.780	333.940	6303.02	-362.28	-472.48	-159.26	1744554.06	14528853.83	40°00'18.8145"N	80°37'41.2338"W	498.60	198.627	9.94	
6574.00	73.330	333.600	6339.22	-272.47	-391.89	-198.98	1744514.36	14528934.38	40°00'19.6126"N	80°37'41.7398"W	439.51	206.919	10.88	
6671.00	80.290	333.150	6361.34	-178.14	-307.52	-241.28	1744472.08	14529018.72	40°00'20.4481"N	80°37'42.2789"W	390.87	218.118	7.19	
6767.00	87.260	333.920	6371.75	-82.80	-222.14	-283.78	1744429.59	14529104.07	40°00'21.2936"N	80°37'42.8205"W	360.38	231.947	7.30	
6864.00	90.280	333.260	6373.83	14.12	-135.29	-326.91	1744386.48	14529190.88	40°00'22.1536"N	80°37'43.3701"W	353.80	247.518	3.19	
6961.00	90.620	335.170	6373.07	111.10	-47.96	-369.10	1744344.30	14529278.18	40°00'23.0184"N	80°37'43.9076"W	372.20	262.597	2.00	
7057.00	90.000	335.120	6372.55	207.10	39.15	-409.45	1744303.97	14529365.26	40°00'23.8809"N	80°37'44.4215"W	411.32	275.462	0.65	
7153.00	90.860	337.130	6371.83	303.08	126.93	-448.30	1744265.13	14529453.00	40°00'24.7499"N	80°37'44.9161"W	465.92	285.809	2.28	
7250.00	89.910	333.570	6371.17	400.06	215.07	-488.75	1744224.70	14529541.11	40°00'25.6226"N	80°37'45.4312"W	533.98	293.752	3.80	
7346.00	90.620	334.960	6370.73	496.04	301.55	-530.43	1744183.03	14529627.55	40°00'26.4789"N	80°37'45.9622"W	610.15	299.618	1.63	
7443.00	90.430	336.540	6369.84	593.03	389.98	-570.27	1744143.21	14529715.95	40°00'27.3545"N	80°37'46.4694"W	690.86	304.366	1.64	
7540.00	89.850	336.030	6369.60	690.01	478.79	-609.28	1744104.22	14529804.72	40°00'28.2337"N	80°37'46.9660"W	774.89	308.161	0.80	
7636.00	90.000	335.440	6369.73	786.01	566.31	-648.73	1744064.78	14529892.21	40°00'29.1002"N	80°37'47.4683"W	861.14	311.119	0.63	
7733.00	89.940	332.730	6369.78	882.98	653.55	-691.12	1744022.41	14529979.41	40°00'29.9640"N	80°37'48.0084"W	951.19	313.399	2.79	
7830.00	90.740	335.350	6369.20	979.95	740.75	-733.58	1743979.97	14530066.58	40°00'30.8275"N	80°37'48.5494"W	1042.52	315.279	2.82	
7926.00	90.030	335.590	6368.56	1075.95	828.08	-773.43	1743940.13	14530153.88	40°00'31.6922"N	80°37'49.0569"W	1133.10	316.954	0.78	
8022.00	90.860	335.540	6367.81	1171.94	915.48	-813.14	1743900.43	14530241.24	40°00'32.5575"N	80°37'49.5626"W	1224.46	318.388	0.87	
8118.00	89.910	334.000	6367.16	1268.93	1003.22	-854.49	1743859.11	14530328.95	40°00'33.4263"N	80°37'50.0892"W	1317.80	319.577	1.87	

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REFERENCE WELLPATH IDENTIFICATION			
Operator	SWN PRODUCTION COMPANY, LLC	Well	BW Edge MSH 3H
Field	Marshall	API	47051024670000
Facility	BW Edge MSH Pad	Wellbore	BW Edge MSH 3H AWB
Slot	3H		

WELLPATH DATA (174 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
8215.00	90.220	333.340	6367.05	1364.89	1089.26	-897.07	1743816.54	14530414.96	40°00'34.2783"N	80°37'50.6318"W	1411.10	320.527	0.76	
8312.00	90.150	333.950	6366.74	1461.86	1176.18	-940.13	1743773.50	14530501.84	40°00'35.1390"N	80°37'51.1806"W	1505.73	321.364	0.63	
8408.00	90.710	334.430	6366.02	1557.84	1262.60	-981.92	1743731.72	14530588.22	40°00'35.9947"N	80°37'51.7131"W	1599.48	322.128	0.77	
8505.00	90.770	334.170	6364.77	1654.82	1349.99	-1023.98	1743689.67	14530675.59	40°00'36.8601"N	80°37'52.2490"W	1694.41	322.819	0.28	
8602.00	90.400	336.140	6363.78	1751.81	1438.01	-1064.74	1743648.94	14530763.57	40°00'37.7316"N	80°37'52.7681"W	1789.28	323.483	2.07	
8699.00	90.580	335.870	6362.95	1848.79	1526.62	-1104.18	1743609.51	14530852.15	40°00'38.6089"N	80°37'53.2703"W	1884.09	324.122	0.33	
8795.00	91.450	336.180	6361.25	1944.77	1614.32	-1143.18	1743570.52	14530939.82	40°00'39.4772"N	80°37'53.7668"W	1978.11	324.696	0.96	
8892.00	88.860	330.650	6360.98	2041.67	1701.03	-1186.57	1743527.15	14531026.48	40°00'40.3358"N	80°37'54.3199"W	2073.99	325.102	6.29	
8988.00	90.950	335.770	6361.14	2137.58	1786.69	-1229.82	1743483.91	14531112.11	40°00'41.1841"N	80°37'54.8712"W	2169.04	325.459	5.76	
9085.00	91.200	335.500	6359.32	2234.56	1875.03	-1269.83	1743443.92	14531200.42	40°00'42.0587"N	80°37'55.3807"W	2264.56	325.893	0.38	
9182.00	90.620	335.530	6357.78	2331.54	1963.30	-1310.03	1743403.74	14531288.65	40°00'42.9326"N	80°37'55.8926"W	2360.24	326.286	0.60	
9278.00	91.260	335.040	6356.21	2427.53	2050.49	-1350.16	1743363.62	14531375.81	40°00'43.7959"N	80°37'56.4037"W	2455.09	326.637	0.84	
9375.00	90.490	335.420	6354.73	2524.52	2138.56	-1390.80	1743323.00	14531463.84	40°00'44.6679"N	80°37'56.9213"W	2551.03	326.962	0.89	
9472.00	91.020	336.190	6353.45	2621.50	2227.03	-1430.55	1743283.27	14531552.28	40°00'45.5438"N	80°37'57.4275"W	2646.91	327.285	0.96	
9568.00	91.230	336.930	6351.56	2717.46	2315.09	-1468.73	1743245.10	14531640.31	40°00'46.4156"N	80°37'57.9135"W	2741.68	327.608	0.80	
9666.00	89.540	336.250	6350.90	2815.42	2405.02	-1507.66	1743206.18	14531730.20	40°00'47.3058"N	80°37'58.4091"W	2838.51	327.917	1.86	
9762.00	91.600	335.580	6349.95	2911.41	2492.65	-1546.84	1743167.03	14531817.80	40°00'48.1734"N	80°37'58.9079"W	2933.60	328.178	2.26	
9859.00	91.080	334.640	6347.68	3008.38	2580.61	-1587.65	1743126.23	14531905.73	40°00'49.0444"N	80°37'59.4278"W	3029.88	328.399	1.11	
9955.00	91.480	335.510	6345.54	3104.35	2667.65	-1628.10	1743085.80	14531992.73	40°00'49.9061"N	80°37'59.9431"W	3125.23	328.604	1.00	
10052.00	91.820	335.750	6342.74	3201.31	2755.97	-1668.10	1743045.81	14532081.02	40°00'50.7806"N	80°38'0.4526"W	3221.48	328.815	0.43	
10149.00	90.310	335.470	6340.94	3298.29	2844.30	-1708.15	1743005.77	14532169.31	40°00'51.6550"N	80°38'0.9626"W	3317.80	329.013	1.58	
10245.00	90.770	335.470	6340.04	3394.28	2931.63	-1748.01	1742965.93	14532256.60	40°00'52.5197"N	80°38'1.4702"W	3413.20	329.194	0.48	
10341.00	91.940	336.000	6337.77	3490.25	3019.12	-1787.45	1742926.51	14532344.06	40°00'53.3859"N	80°38'1.9725"W	3508.57	329.373	1.34	
10438.00	90.620	335.030	6335.60	3587.22	3107.37	-1827.64	1742886.33	14532432.28	40°00'54.2597"N	80°38'2.4844"W	3605.00	329.538	1.69	
10535.00	91.570	335.490	6333.75	3684.20	3195.45	-1868.22	1742845.76	14532520.33	40°00'55.1317"N	80°38'3.0014"W	3701.51	329.687	1.09	
10632.00	91.320	334.640	6331.30	3781.17	3283.38	-1909.11	1742804.90	14532608.22	40°00'56.0023"N	80°38'3.5221"W	3798.06	329.824	0.91	
10728.00	90.580	335.130	6329.71	3877.15	3370.29	-1949.85	1742764.17	14532695.10	40°00'56.8629"N	80°38'4.0412"W	3893.68	329.949	0.92	
10825.00	90.860	336.520	6328.49	3974.14	3458.77	-1989.57	1742724.47	14532783.55	40°00'57.7389"N	80°38'4.5470"W	3990.17	330.092	1.46	
10921.00	90.490	335.210	6327.36	4070.12	3546.37	-2028.81	1742685.24	14532871.11	40°00'58.6061"N	80°38'5.0468"W	4085.69	330.227	1.42	
11018.00	90.710	334.640	6326.34	4167.12	3634.23	-2069.92	1742644.15	14532958.93	40°00'59.4760"N	80°38'5.5705"W	4182.37	330.336	0.63	

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Field	Marshall	API	47051024670000
Facility	BW Edge MSH Pad	Wellbore	BW Edge MSH 3H AWB
Slot	3H		

WELLPATH DATA (174 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
11114.00	90.740	334.860	6325.13	4263.11	3721.05	-2110.87	1742603.21	14533045.72	40°01'0.3356"N	80°38'6.0923"W	4278.08	330.435	0.23	
11210.00	92.060	335.780	6322.78	4359.07	3808.25	-2150.94	1742563.16	14533132.89	40°01'1.1990"N	80°38'6.6027"W	4373.71	330.542	1.68	
11307.00	90.430	335.960	6320.67	4456.04	3896.75	-2190.58	1742523.53	14533221.35	40°01'2.0752"N	80°38'7.1076"W	4470.27	330.657	1.69	
11403.00	90.370	335.790	6320.00	4552.03	3984.36	-2229.82	1742484.31	14533308.93	40°01'2.9426"N	80°38'7.6073"W	4565.88	330.767	0.19	
11500.00	90.060	335.370	6319.64	4649.03	4072.68	-2269.92	1742444.22	14533397.22	40°01'3.8170"N	80°38'8.1180"W	4662.54	330.867	0.54	
11596.00	91.690	336.010	6318.17	4745.01	4160.16	-2309.44	1742404.72	14533484.66	40°01'4.6830"N	80°38'8.6213"W	4758.20	330.964	1.82	
11693.00	90.180	336.030	6316.59	4841.99	4248.77	-2348.85	1742365.32	14533573.24	40°01'5.5603"N	80°38'9.1233"W	4854.81	331.065	1.56	
11789.00	89.540	335.860	6316.83	4937.98	4336.43	-2387.98	1742326.21	14533660.86	40°01'6.4282"N	80°38'9.6216"W	4950.47	331.159	0.69	
11886.00	89.690	335.270	6317.48	5034.97	4424.74	-2428.11	1742286.10	14533749.14	40°01'7.3025"N	80°38'10.1327"W	5047.18	331.244	0.63	
11982.00	89.570	334.040	6318.10	5130.97	4511.50	-2469.20	1742245.02	14533835.86	40°01'8.1615"N	80°38'10.6563"W	5143.01	331.308	1.29	
12079.00	92.000	336.110	6316.77	5227.94	4599.45	-2510.07	1742204.17	14533923.77	40°01'9.0323"N	80°38'11.1770"W	5239.79	331.377	3.29	
12176.00	90.710	335.930	6314.47	5324.91	4688.05	-2549.48	1742164.77	14534012.34	40°01'9.9094"N	80°38'11.6789"W	5336.44	331.462	1.34	
12272.00	91.760	335.530	6312.41	5420.88	4775.54	-2588.93	1742125.34	14534099.80	40°01'10.7757"N	80°38'12.1814"W	5432.16	331.537	1.17	
12369.00	91.510	336.160	6309.64	5517.83	4864.01	-2628.61	1742085.68	14534188.24	40°01'11.6515"N	80°38'12.6867"W	5528.85	331.612	0.70	
12465.00	91.630	336.050	6307.01	5613.78	4951.75	-2667.48	1742046.82	14534275.94	40°01'12.5202"N	80°38'13.1817"W	5624.52	331.689	0.17	
12562.00	90.800	336.440	6304.95	5710.75	5040.51	-2706.54	1742007.77	14534364.67	40°01'13.3989"N	80°38'13.6792"W	5721.20	331.766	0.95	
12658.00	89.050	335.750	6305.08	5806.73	5128.27	-2745.44	1741968.89	14534452.39	40°01'14.2677"N	80°38'14.1746"W	5816.93	331.837	1.96	
12754.00	90.370	334.450	6305.56	5902.73	5215.34	-2785.86	1741928.48	14534539.43	40°01'15.1298"N	80°38'14.6896"W	5912.77	331.890	1.93	
12850.00	90.710	335.170	6304.66	5998.72	5302.21	-2826.72	1741887.64	14534626.26	40°01'15.9899"N	80°38'15.2102"W	6008.64	331.937	0.83	
12946.00	90.650	335.240	6303.52	6094.71	5389.35	-2866.98	1741847.40	14534713.37	40°01'16.8527"N	80°38'15.7231"W	6104.48	331.988	0.10	
13043.00	90.430	334.830	6302.60	6191.71	5477.28	-2907.91	1741806.48	14534801.27	40°01'17.7233"N	80°38'16.2447"W	6201.34	332.036	0.48	
13139.00	90.520	335.160	6301.81	6287.70	5564.28	-2948.49	1741765.92	14534888.24	40°01'18.5846"N	80°38'16.7617"W	6297.21	332.081	0.36	
13236.00	90.620	335.670	6300.84	6384.70	5652.49	-2988.85	1741725.58	14534976.40	40°01'19.4579"N	80°38'17.2758"W	6394.04	332.132	0.54	
13332.00	90.520	334.900	6299.89	6480.69	5739.69	-3028.98	1741685.46	14535063.57	40°01'20.3212"N	80°38'17.7871"W	6489.89	332.178	0.81	
13429.00	90.520	335.130	6299.01	6577.69	5827.61	-3069.95	1741644.51	14535151.46	40°01'21.1917"N	80°38'18.3091"W	6586.77	332.220	0.24	
13525.00	91.020	334.320	6297.72	6673.67	5914.41	-3110.93	1741603.54	14535238.22	40°01'22.0512"N	80°38'18.8314"W	6682.67	332.256	0.99	
13622.00	90.490	335.300	6296.44	6770.66	6002.17	-3152.22	1741562.27	14535325.96	40°01'22.9201"N	80°38'19.3575"W	6779.57	332.292	1.15	
13718.00	90.580	335.040	6295.54	6866.66	6089.29	-3192.53	1741521.98	14535413.04	40°01'23.7827"N	80°38'19.8711"W	6875.44	332.333	0.29	
13815.00	90.400	334.700	6294.71	6963.65	6177.11	-3233.72	1741480.80	14535500.82	40°01'24.6522"N	80°38'20.3960"W	6972.35	332.368	0.40	
13911.00	90.370	335.180	6294.07	7059.65	6264.07	-3274.38	1741440.16	14535587.75	40°01'25.5132"N	80°38'20.9141"W	7068.25	332.403	0.50	

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Facility	BW Edge MSH Pad		Wellbore	BW Edge MSH 3H AWB
Slot	3H			

WELLPATH DATA (174 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
14008.00	90.060	334.960	6293.70	7156.65	6352.03	-3315.27	1741399.29	14535675.68	40°01'26.3840"N	80°38'21.4351"W	7165.14	332.439	0.39	
14105.00	90.460	335.160	6293.26	7253.64	6439.99	-3356.17	1741358.40	14535763.60	40°01'27.2549"N	80°38'21.9563"W	7262.04	332.474	0.46	
14201.00	90.890	334.490	6292.13	7349.63	6526.86	-3397.00	1741317.58	14535850.44	40°01'28.1150"N	80°38'22.4766"W	7357.96	332.505	0.83	
14297.00	90.710	334.850	6290.79	7445.62	6613.62	-3438.07	1741276.53	14535937.17	40°01'28.9740"N	80°38'23.0000"W	7453.88	332.532	0.42	
14394.00	90.520	334.800	6289.75	7542.61	6701.40	-3479.33	1741235.29	14536024.91	40°01'29.8432"N	80°38'23.5258"W	7550.80	332.562	0.20	
14490.00	90.710	335.110	6288.72	7638.60	6788.37	-3519.97	1741194.67	14536111.85	40°01'30.7042"N	80°38'24.0436"W	7646.71	332.592	0.38	
14586.00	90.800	335.490	6287.46	7734.60	6875.58	-3560.08	1741154.57	14536199.02	40°01'31.5676"N	80°38'24.5547"W	7742.59	332.626	0.41	
14683.00	90.770	334.900	6286.13	7831.59	6963.62	-3600.77	1741113.89	14536287.03	40°01'32.4393"N	80°38'25.0732"W	7839.49	332.657	0.61	
14780.00	90.550	335.190	6285.01	7928.58	7051.56	-3641.69	1741072.99	14536374.93	40°01'33.3100"N	80°38'25.5947"W	7936.40	332.686	0.38	
14876.00	90.770	334.840	6283.90	8024.57	7138.57	-3682.24	1741032.46	14536461.91	40°01'34.1714"N	80°38'26.1113"W	8032.31	332.714	0.43	
14973.00	90.250	335.100	6283.04	8121.57	7226.46	-3723.27	1740991.44	14536549.76	40°01'35.0416"N	80°38'26.6343"W	8129.23	332.741	0.60	
15069.00	90.400	333.970	6282.50	8217.56	7313.13	-3764.55	1740950.18	14536636.40	40°01'35.8997"N	80°38'27.1604"W	8225.19	332.762	1.19	
15165.00	90.580	334.680	6281.68	8313.54	7399.65	-3806.14	1740908.60	14536722.88	40°01'36.7564"N	80°38'27.6906"W	8321.15	332.780	0.76	
15262.00	91.480	335.750	6279.93	8410.52	7487.69	-3846.80	1740867.96	14536810.90	40°01'37.6281"N	80°38'28.2086"W	8418.04	332.808	1.44	
15358.00	91.020	335.170	6277.84	8506.50	7575.00	-3886.66	1740828.12	14536898.17	40°01'38.4925"N	80°38'28.7165"W	8513.92	332.838	0.77	
15455.00	91.200	335.450	6275.96	8603.48	7663.12	-3927.17	1740787.62	14536986.25	40°01'39.3649"N	80°38'29.2327"W	8610.81	332.866	0.34	
15551.00	90.650	335.320	6274.41	8699.47	7750.38	-3967.15	1740747.66	14537073.48	40°01'40.2288"N	80°38'29.7421"W	8706.70	332.894	0.59	
15647.00	90.860	335.120	6273.14	8795.46	7837.53	-4007.38	1740707.44	14537160.60	40°01'41.0917"N	80°38'30.2548"W	8802.62	332.919	0.30	
15744.00	89.230	335.200	6273.07	8892.45	7925.56	-4048.13	1740666.71	14537248.59	40°01'41.9632"N	80°38'30.7740"W	8899.54	332.943	1.68	
15840.00	90.090	334.770	6273.64	8988.45	8012.55	-4088.72	1740626.13	14537335.55	40°01'42.8245"N	80°38'31.2914"W	8995.48	332.965	1.00	
15937.00	90.310	334.670	6273.30	9085.45	8100.26	-4130.15	1740584.72	14537423.22	40°01'43.6929"N	80°38'31.8193"W	9092.43	332.984	0.25	
16033.00	90.150	335.100	6272.91	9181.44	8187.18	-4170.89	1740543.99	14537510.11	40°01'44.5535"N	80°38'32.3386"W	9188.38	333.004	0.48	
16105.00	90.120	335.300	6272.74	9253.44	8252.54	-4201.09	1740513.81	14537575.45	40°01'45.2006"N	80°38'32.7235"W	9260.33	333.021	0.28	
16130.00‡	90.120	335.300	6272.69	9278.44	8275.26	-4211.54	1740503.36	14537598.15	40°01'45.4254"N	80°38'32.8566"W	9285.31	333.027	0.00	

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REFERENCE WELLPATH IDENTIFICATION			
Operator	SWN PRODUCTION COMPANY, LLC	Well	BW Edge MSH 3H
Field	Marshall	API	47051024670000
Facility	BW Edge MSH Pad	Wellbore	BW Edge MSH 3H AWB
Slot	3H		

HOLE & CASING SECTIONS - Ref Wellbore: BW Edge MSH 3H AWB Ref Wellpath: BW Edge MSH 3H awp Proj: 16130'									
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	827.00	801.00	26.00	826.99	0.00	0.00	1.53	-0.42
9.625in Casing	26.00	2084.00	2058.00	26.00	2072.65	0.00	0.00	-151.14	1.81
5.5in Casing	26.00	16130.00	16104.00	26.00	6272.69	0.00	0.00	8275.26	-4211.54

TARGETS									
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape	
BW Edge MSH 3H BHL Rev-3	6274.00	8277.07	-4206.99	1740507.91	14537599.96	40°01'45.4432"N	80°38'32.7981"W	point	
BW Edge MSH 3H LP Rev 4	6374.00	-166.18	-311.31	1744402.07	14529160.01	40°00'21.8477"N	80°37'43.1714"W	point	
BW Edge MSH 3H LP Rev-3	6386.00	-166.18	-311.31	1744402.07	14529160.01	40°00'21.8477"N	80°37'43.1714"W	point	

WELLPATH COMPOSITION - Ref Wellbore: BW Edge MSH 3H AWB Ref Wellpath: BW Edge MSH 3H awp Proj: 16130'					
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date
26.00	771.00	OWSG MWD rev2 + HRGM	1 Tally OWSG MWD HRGM 17.5" 175' - 771'	BW Edge MSH 3H AWB	3/20/2023
771.00	2015.00	OWSG MWD rev2 + HRGM	2 Tally OWSG MWD HRGM 12.25" 863' - 2015'	BW Edge MSH 3H AWB	3/20/2023
2015.00	5527.00	OWSG MWD rev2 + HRGM	3 Tally OWSG MWD HRGM 8.75" 2150' - 5527'	BW Edge MSH 3H AWB	3/20/2023
5527.00	16130.00	BH AutoTrak Curve/eXpress (2019) (HRGM, Short spacing)	4 BH ATC HRGM Short Spacing 8.75" 5634' - 16105'	BW Edge MSH 3H AWB	3/20/2023

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