

Location: Marshall County, WV
Field: Marshall
Facility: O E Burge MSH Pad

Slot: Slot 3H
Well: O E Burge MSH 3H
Wellbore: O E Burge MSH 3H PWB

Plot reference wellpath is O E Burge MSH 3H AWB_awp 100' - 100' - 21460' Proj: 21485'

Grid System: NAD83 / UTM Zone 17 North, US feet

True vertical depths are referenced to SDC 41 (KB)

North Reference: Grid north

Reference wellpath measured depths are referenced to SDC 41 (KB)

Scale: True distance

SDC 41 (KB) to Mean Sea Level: 1368.1 feet

Coordinates are in feet referenced to Slot

Mean Sea Level to Ground level (At Slot: Slot 3H): -1342.1 feet

Depths are in feet

Offset wellpath MDs are referenced to each path's default MD datum

Created by: trenlam on 2021-11-16; Database: WA_MPL

JUN 7 2022

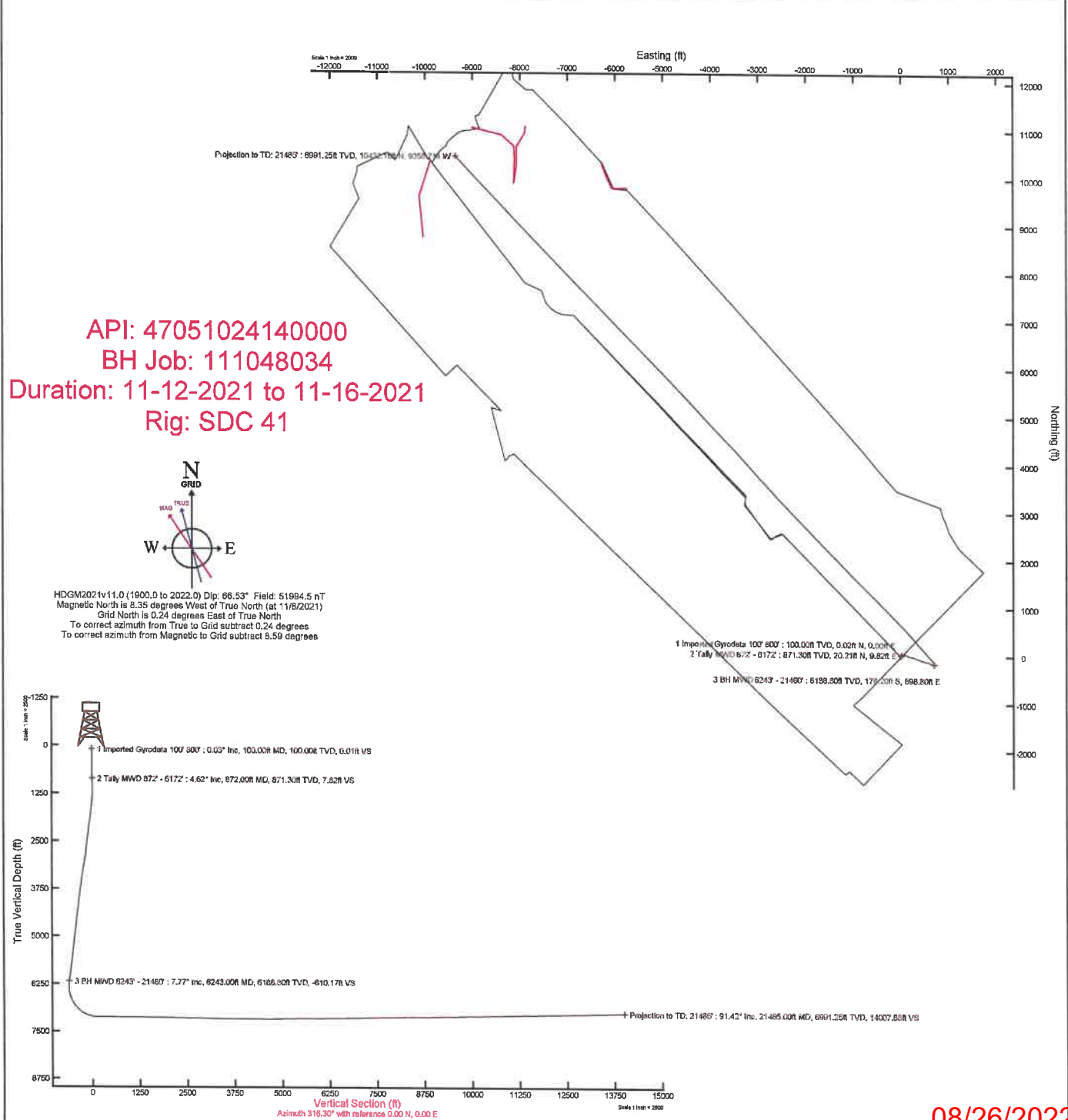
WV Department of Environmental Protection

Location Information

Facility Name			Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
O E Burge MSH Pad			1743922.680	14436242.940	39°45'3.2616"N	80°37'54.2568"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Slot 3H	-0.64	1.98	1743924.680	14436242.300	39°45'3.2552"N	80°37'54.2315"W
SDC 41 (KB) to Ground level (At Slot: Slot 3H)					26ft	
Mean Sea Level to Ground level (At Slot: Slot 3H)					-1342.1ft	
SDC 41 (KB) to Mean Sea Level					1368.1ft	

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
21485.00	91.420	316.870	6991.25	10432.16	-9358.71	1734569.60	14446670.40	39°46'46.7158"N	80°39'53.5529"W





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Environmental Protection

Actual Wellpath Report

O E Burge MSH 3H AWB_ awp 100' - 100' - 21460' Proj: 21485'

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REFERENCE WELLPATH IDENTIFICATION

Operator	SWN PRODUCTION COMPANY, LLC	Well	O E Burge MSH 3H
Field	Marshall	API	47051024140000
Facility	O E Burge MSH Pad	Wellbore	O E Burge MSH 3H AWB
Slot	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	11/16/2021 at 11:51:56 AM
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	-0.64	1.98	1743924.66	14436242.30	39°45'3.2552"N	80°37'54.2315"W
Facility Reference Pt			1743922.68	14436242.94	39°45'3.2616"N	80°37'54.2568"W
Field Reference Pt			0.00	0.00	0°00'0.0000"	85°29'19.4780"W

WELLPATH DATUM

Calculation method	Minimum curvature	SDC 41 (KB) to Facility Vertical Datum	1368.10ft
Horizontal Reference Pt	Slot	SDC 41 (KB) to Mean Sea Level	1368.10ft
Vertical Reference Pt	SDC 41 (KB)	SDC 41 (KB) to Ground Level at Slot (Slot 3H)	26.00ft
MD Reference Pt	SDC 41 (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	316.30°

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Field	Marshall	API	47051024140000
Facility	O E Burge MSH Pad	Wellbore	O E Burge MSH 3H AWB
Slot	Slot 3H		

WELLPATH DATA (241 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	7.630	0.00	0.00	0.00	0.00	1743924.66	14436242.30	39°45'3.2552"N	80°37'54.2315"W	0.00	0.000	0.00
26.00	0.000	7.630	26.00	0.00	0.00	0.00	1743924.66	14436242.30	39°45'3.2552"N	80°37'54.2315"W	0.00	0.000	0.00
100.00	0.030	7.630	100.00	0.01	0.02	0.00	1743924.66	14436242.32	39°45'3.2553"N	80°37'54.2315"W	0.02	7.630	0.04
200.00	0.060	287.190	200.00	0.07	0.06	-0.04	1743924.62	14436242.36	39°45'3.2558"N	80°37'54.2321"W	0.07	324.045	0.06
300.00	0.130	81.530	300.00	0.05	0.09	0.02	1743924.68	14436242.39	39°45'3.2561"N	80°37'54.2313"W	0.09	11.104	0.19
400.00	0.280	80.290	400.00	-0.15	0.15	0.37	1743925.03	14436242.45	39°45'3.2566"N	80°37'54.2268"W	0.40	67.904	0.15
500.00	1.090	42.500	499.99	-0.22	0.89	1.25	1743925.91	14436243.19	39°45'3.2639"N	80°37'54.2154"W	1.54	54.553	0.89
600.00	2.230	29.490	599.95	0.40	3.29	2.86	1743927.51	14436245.59	39°45'3.2875"N	80°37'54.1948"W	4.35	40.969	1.19
700.00	3.510	22.840	699.82	2.19	7.80	5.00	1743929.66	14436250.10	39°45'3.3321"N	80°37'54.1671"W	9.27	32.657	1.32
800.00	4.910	22.210	799.55	5.15	14.59	7.81	1743932.46	14436256.88	39°45'3.3990"N	80°37'54.1308"W	16.54	28.157	1.40
872.00	4.620	17.080	871.30	7.82	20.21	9.82	1743934.48	14436262.50	39°45'3.4545"N	80°37'54.1047"W	22.47	25.922	0.72
964.00	4.350	9.830	963.02	11.71	27.19	11.51	1743936.16	14436269.48	39°45'3.5234"N	80°37'54.0828"W	29.53	22.939	0.68
1057.00	3.220	21.160	1055.82	14.91	33.10	13.05	1743937.71	14436275.39	39°45'3.5818"N	80°37'54.0627"W	35.58	21.520	1.45
1103.00	2.770	26.740	1101.75	15.83	35.30	14.02	1743938.67	14436277.59	39°45'3.6034"N	80°37'54.0502"W	37.98	21.660	1.16
1150.00	2.650	49.190	1148.70	16.16	37.02	15.35	1743940.01	14436279.31	39°45'3.6204"N	80°37'54.0330"W	40.08	22.522	2.26
1196.00	3.180	63.910	1194.64	15.72	38.28	17.30	1743941.96	14436280.56	39°45'3.6328"N	80°37'54.0080"W	42.01	24.324	1.98
1242.00	3.930	78.260	1240.55	14.50	39.16	19.99	1743944.64	14436281.45	39°45'3.6414"N	80°37'53.9735"W	43.97	27.045	2.52
1288.00	4.680	78.960	1286.42	12.65	39.84	23.38	1743948.03	14436282.13	39°45'3.6479"N	80°37'53.9301"W	46.19	30.403	1.63
1335.00	5.270	81.130	1333.25	10.39	40.54	27.39	1743952.04	14436282.83	39°45'3.6547"N	80°37'53.8787"W	48.93	34.045	1.32
1426.00	6.220	95.020	1423.79	4.29	40.75	36.43	1743961.08	14436283.04	39°45'3.6564"N	80°37'53.7629"W	54.67	41.795	1.84
1518.00	7.060	104.500	1515.18	-4.26	38.90	46.87	1743971.51	14436281.19	39°45'3.6377"N	80°37'53.6294"W	60.91	50.308	1.50
1610.00	7.610	111.930	1606.43	-14.61	35.21	58.00	1743982.63	14436277.50	39°45'3.6008"N	80°37'53.4871"W	67.85	58.737	1.19
1700.00	8.380	111.720	1695.55	-26.00	30.56	69.62	1743994.25	14436272.85	39°45'3.5543"N	80°37'53.3386"W	76.03	66.301	0.86
1791.00	8.180	103.920	1785.61	-37.50	26.55	82.06	1744006.69	14436268.84	39°45'3.5142"N	80°37'53.1795"W	86.25	72.073	1.25
1881.00	8.260	101.360	1874.68	-48.21	23.73	94.62	1744019.24	14436266.02	39°45'3.4859"N	80°37'53.0189"W	97.55	75.918	0.42
1970.00	7.980	106.510	1962.79	-58.81	20.72	106.81	1744031.43	14436263.01	39°45'3.4556"N	80°37'52.8630"W	108.80	79.022	0.88
2062.00	8.390	106.960	2053.85	-70.20	16.95	119.35	1744043.96	14436259.24	39°45'3.4178"N	80°37'52.7026"W	120.55	81.919	0.45
2152.00	8.410	110.240	2142.89	-81.84	12.75	131.81	1744056.41	14436255.05	39°45'3.3758"N	80°37'52.5433"W	132.42	84.473	0.53
2241.00	8.740	112.160	2230.89	-93.86	7.95	144.17	1744068.78	14436250.25	39°45'3.3279"N	80°37'52.3852"W	144.39	86.843	0.49
2329.00	9.180	111.850	2317.82	-106.35	2.82	156.88	1744081.48	14436245.12	39°45'3.2766"N	80°37'52.2228"W	156.91	88.971	0.50

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Field	Marshall	API	47051024140000
Facility	O E Burge MSH Pad	Wellbore	O E Burge MSH 3H AWB
Slot	Slot 3H		

WELLPATH DATA (241 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]
2419.00	9.300	110.890	2406.65	-119.45	-2.45	170.34	1744094.93	14436239.85	39°45'3.2240"N	80°37'52.0508"W	170.36	90.823	0.22
2508.00	8.370	109.410	2494.60	-131.73	-7.16	183.17	1744107.76	14436235.14	39°45'3.1769"N	80°37'51.8868"W	183.31	92.240	1.08
2598.00	7.490	103.480	2583.74	-142.50	-10.71	195.05	1744119.63	14436231.60	39°45'3.1414"N	80°37'51.7348"W	195.34	93.143	1.33
2688.00	7.330	98.210	2672.98	-151.95	-12.90	206.44	1744131.02	14436229.41	39°45'3.1193"N	80°37'51.5892"W	206.84	93.575	0.78
2795.00	6.750	95.360	2779.18	-162.07	-14.46	219.45	1744144.03	14436227.85	39°45'3.1033"N	80°37'51.4226"W	219.93	93.769	0.63
2886.00	9.210	99.090	2869.29	-171.91	-16.11	231.97	1744156.54	14436226.20	39°45'3.0865"N	80°37'51.2624"W	232.53	93.972	2.76
2974.00	11.110	104.100	2955.91	-184.70	-19.29	247.15	1744171.71	14436223.02	39°45'3.0545"N	80°37'51.0682"W	247.90	94.462	2.38
3062.00	12.280	104.130	3042.08	-199.79	-23.64	264.45	1744189.01	14436218.67	39°45'3.0108"N	80°37'50.8470"W	265.50	95.108	1.33
3151.00	12.260	109.020	3129.05	-216.20	-29.03	282.56	1744207.11	14436213.28	39°45'2.9568"N	80°37'50.6154"W	284.05	95.865	1.17
3239.00	11.350	113.500	3215.19	-232.49	-35.53	299.34	1744223.88	14436206.79	39°45'2.8919"N	80°37'50.4010"W	301.44	96.768	1.47
3330.00	9.230	118.040	3304.72	-247.68	-42.53	313.99	1744238.53	14436199.79	39°45'2.8221"N	80°37'50.2137"W	316.86	97.713	2.49
3420.00	9.270	116.940	3393.55	-261.37	-49.21	326.82	1744251.36	14436193.11	39°45'2.7556"N	80°37'50.0497"W	330.51	98.562	0.20
3513.00	7.790	108.230	3485.52	-274.00	-54.57	339.49	1744264.02	14436187.75	39°45'2.7020"N	80°37'49.8879"W	343.85	99.132	2.11
3606.00	8.390	104.990	3577.60	-285.36	-58.30	352.03	1744276.55	14436184.03	39°45'2.6647"N	80°37'49.7275"W	356.82	99.403	0.81
3696.00	8.970	114.170	3666.57	-297.47	-62.87	364.77	1744289.29	14436179.46	39°45'2.6190"N	80°37'49.5646"W	370.15	99.779	1.67
3786.00	7.900	117.000	3755.60	-309.81	-68.55	376.69	1744301.20	14436173.78	39°45'2.5624"N	80°37'49.4124"W	382.87	100.314	1.27
3879.50	7.580	114.040	3848.25	-321.58	-73.98	388.04	1744312.55	14436168.35	39°45'2.5082"N	80°37'49.2672"W	395.03	100.794	0.55
3969.50	8.490	106.050	3937.36	-332.81	-78.23	399.85	1744324.35	14436164.10	39°45'2.4657"N	80°37'49.1163"W	407.43	101.071	1.60
4061.00	9.160	101.030	4027.78	-344.59	-81.50	413.49	1744337.99	14436160.84	39°45'2.4329"N	80°37'48.9419"W	421.45	101.150	1.11
4151.00	8.610	103.980	4116.70	-356.13	-84.49	427.06	1744351.55	14436157.84	39°45'2.4027"N	80°37'48.7683"W	435.34	101.191	0.79
4241.00	7.600	114.470	4205.81	-367.35	-88.59	439.01	1744363.50	14436153.75	39°45'2.3618"N	80°37'48.6154"W	447.86	101.408	1.99
4332.00	7.710	114.470	4296.00	-378.61	-93.61	450.05	1744374.53	14436148.73	39°45'2.3117"N	80°37'48.4744"W	459.68	101.750	0.12
4423.00	7.840	111.810	4386.16	-389.92	-98.44	461.37	1744385.85	14436143.90	39°45'2.2635"N	80°37'48.3298"W	471.75	102.045	0.42
4515.00	7.760	107.910	4477.31	-401.09	-102.68	473.10	1744397.58	14436139.66	39°45'2.2211"N	80°37'48.1798"W	484.12	102.246	0.58
4606.00	8.020	104.890	4567.45	-411.92	-106.20	485.08	1744409.55	14436136.14	39°45'2.1858"N	80°37'48.0266"W	496.57	102.349	0.54
4702.00	7.900	100.780	4662.52	-423.00	-109.16	498.04	1744422.50	14436133.18	39°45'2.1561"N	80°37'47.8609"W	509.86	102.363	0.61
4794.00	8.470	102.190	4753.59	-433.76	-111.77	510.87	1744435.33	14436130.57	39°45'2.1297"N	80°37'47.6967"W	522.95	102.341	0.66
4883.00	8.670	99.260	4841.59	-444.54	-114.24	523.90	1744448.35	14436128.11	39°45'2.1049"N	80°37'47.5300"W	536.21	102.301	0.54
4974.00	8.570	101.600	4931.56	-455.59	-116.70	537.31	1744461.76	14436125.64	39°45'2.0799"N	80°37'47.3585"W	549.84	102.254	0.40
5066.00	7.970	109.570	5022.61	-466.92	-120.22	550.03	1744474.48	14436122.13	39°45'2.0447"N	80°37'47.1957"W	563.02	102.329	1.40

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Slot	Slot 3H		

WELLPATH DATA (241 stations)													
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5157.00	7.890	107.790	5112.74	-478.04	-124.24	561.92	1744486.37	14436118.11	39°45'2.0045"N	80°37'47.0437"W	575.50	102.467	0.28
5249.00	7.340	111.850	5203.93	-488.94	-128.36	573.39	1744497.83	14436113.99	39°45'1.9633"N	80°37'46.8971"W	587.58	102.618	0.84
5342.00	7.000	111.240	5296.20	-499.48	-132.62	584.19	1744508.62	14436109.73	39°45'1.9207"N	80°37'46.7591"W	599.05	102.790	0.37
5433.00	7.420	112.230	5386.48	-509.87	-136.85	594.80	1744519.22	14436105.50	39°45'1.8785"N	80°37'46.6235"W	610.34	102.957	0.48
5527.00	7.670	111.990	5479.67	-521.13	-141.50	606.23	1744530.65	14436100.86	39°45'1.8321"N	80°37'46.4774"W	622.52	103.138	0.27
5619.00	7.760	110.560	5570.84	-532.32	-145.98	617.74	1744542.16	14436096.38	39°45'1.7873"N	80°37'46.3303"W	634.75	103.296	0.23
5712.00	7.770	109.470	5662.98	-543.59	-150.28	629.54	1744553.96	14436092.08	39°45'1.7444"N	80°37'46.1793"W	647.23	103.426	0.16
5804.00	7.850	107.660	5754.13	-554.65	-154.26	641.40	1744565.81	14436088.10	39°45'1.7046"N	80°37'46.0278"W	659.68	103.523	0.28
5897.00	8.290	110.050	5846.21	-566.24	-158.48	653.74	1744578.15	14436083.88	39°45'1.6623"N	80°37'45.8699"W	672.68	103.627	0.59
5987.00	8.270	112.360	5935.27	-577.97	-163.17	665.83	1744590.23	14436079.20	39°45'1.6155"N	80°37'45.7155"W	685.53	103.770	0.37
6079.00	8.070	112.400	6026.34	-589.92	-168.15	677.92	1744602.31	14436074.22	39°45'1.5658"N	80°37'45.5610"W	698.46	103.930	0.22
6172.00	7.750	111.130	6118.45	-601.57	-172.89	689.80	1744614.19	14436069.47	39°45'1.5184"N	80°37'45.4091"W	711.14	104.071	0.39
6243.00	7.770	109.250	6188.80	-610.17	-176.20	698.80	1744623.18	14436066.17	39°45'1.4853"N	80°37'45.2941"W	720.67	104.152	0.36
6334.00	5.580	98.010	6279.18	-619.13	-178.85	708.99	1744633.37	14436063.52	39°45'1.4588"N	80°37'45.1638"W	731.20	104.158	2.79
6425.00	5.390	19.170	6369.88	-620.65	-175.42	714.78	1744639.16	14436066.95	39°45'1.4924"N	80°37'45.0894"W	735.99	103.789	7.65
6514.00	10.100	342.110	6458.09	-611.71	-164.03	713.75	1744638.13	14436078.33	39°45'1.6050"N	80°37'45.1019"W	732.36	102.943	7.46
6606.00	15.440	328.580	6547.80	-592.46	-145.89	704.88	1744629.27	14436096.47	39°45'1.7846"N	80°37'45.2146"W	719.82	101.693	6.61
6697.00	21.370	324.290	6634.11	-564.18	-122.07	688.87	1744613.27	14436120.28	39°45'2.0207"N	80°37'45.4182"W	699.61	100.048	6.68
6788.00	27.750	314.760	6716.87	-526.53	-93.65	664.12	1744588.52	14436148.69	39°45'2.3026"N	80°37'45.7337"W	670.69	98.026	8.23
6880.00	32.850	317.110	6796.28	-480.14	-60.26	631.91	1744556.32	14436182.06	39°45'2.6339"N	80°37'46.1443"W	634.77	95.448	5.69
6973.00	40.520	317.580	6870.80	-424.63	-19.42	594.30	1744518.73	14436222.89	39°45'3.0390"N	80°37'46.6236"W	594.62	91.871	8.25
7065.00	47.090	318.560	6937.16	-361.02	27.96	551.80	1744476.24	14436270.24	39°45'3.5089"N	80°37'47.1653"W	552.51	87.100	7.18
7154.00	53.720	317.900	6993.86	-292.51	79.06	506.12	1744430.59	14436321.33	39°45'4.0159"N	80°37'47.7474"W	512.26	81.121	7.47
7245.00	63.850	316.810	7040.96	-214.80	136.21	453.44	1744377.93	14436378.45	39°45'4.5828"N	80°37'48.4188"W	473.46	73.281	11.18
7336.00	69.340	317.260	7077.09	-131.33	197.30	396.55	1744321.06	14436439.52	39°45'5.1889"N	80°37'49.1440"W	442.92	63.548	6.05
7428.00	76.430	318.400	7104.15	-43.49	262.43	337.57	1744262.10	14436504.63	39°45'5.8350"N	80°37'49.8957"W	427.58	52.138	7.80
7520.00	83.860	320.880	7119.89	46.92	331.46	278.94	1744203.49	14436573.63	39°45'6.5195"N	80°37'50.6427"W	433.21	40.082	8.50
7612.00	90.310	318.340	7124.56	138.60	401.40	219.43	1744144.01	14436643.54	39°45'7.2131"N	80°37'51.4009"W	457.46	28.664	7.53
7704.00	90.090	319.010	7124.24	230.52	470.49	158.68	1744083.28	14436712.60	39°45'7.8984"N	80°37'52.1751"W	496.53	18.638	0.77
7796.00	89.480	317.700	7124.59	322.45	539.23	97.55	1744022.17	14436781.32	39°45'8.5803"N	80°37'52.9542"W	547.99	10.254	1.57

REFERENCE WELLPATH IDENTIFICATION			
Operator	SWN PRODUCTION COMPANY, LLC	Well	O E Burge MSH 3H
Field	Marshall	API	47051024140000
Facility	O E Burge MSH Pad	Wellbore	O E Burge MSH 3H AWB
Slot	Slot 3H		

WELLPATH DATA (241 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]
7887.00	89.200	316.560	7125.64	413.44	605.92	35.64	1743960.29	14436847.99	39°45'9.2418"N	80°37'53.7433"W	606.97	3.367	1.29
7980.00	90.250	315.190	7126.08	506.43	672.68	-29.10	1743895.57	14436914.71	39°45'9.9042"N	80°37'54.5687"W	673.31	357.523	1.86
8073.00	88.460	315.990	7127.13	599.41	739.10	-94.17	1743830.52	14436981.12	39°45'10.5633"N	80°37'55.3984"W	745.08	352.739	2.11
8165.00	90.250	315.030	7128.17	691.39	804.73	-158.64	1743766.08	14437046.71	39°45'11.2144"N	80°37'56.2203"W	820.21	348.848	2.21
8256.00	89.820	315.940	7128.11	782.38	869.61	-222.44	1743702.31	14437111.58	39°45'11.8583"N	80°37'57.0338"W	897.61	345.652	1.11
8347.00	89.420	315.890	7128.71	873.38	934.98	-285.75	1743639.02	14437176.91	39°45'12.5068"N	80°37'57.8409"W	977.67	343.006	0.44
8440.00	89.750	315.450	7129.39	966.37	1001.50	-350.73	1743574.06	14437243.41	39°45'13.1669"N	80°37'58.6695"W	1061.14	340.699	0.59
8531.00	89.320	315.550	7130.13	1057.36	1066.41	-414.51	1743510.31	14437308.29	39°45'13.8109"N	80°37'59.4827"W	1144.13	338.759	0.49
8624.00	90.920	315.080	7129.93	1150.34	1132.52	-479.91	1743444.94	14437374.38	39°45'14.4670"N	80°38'0.3165"W	1230.01	337.035	1.79
8714.00	89.110	314.570	7129.91	1240.31	1195.97	-543.74	1743381.13	14437437.80	39°45'15.0965"N	80°38'1.1305"W	1313.77	335.551	2.09
8806.00	90.000	315.780	7130.62	1332.28	1261.22	-608.59	1743316.31	14437503.02	39°45'15.7440"N	80°38'1.9574"W	1400.37	334.241	1.63
8898.00	88.680	315.470	7131.68	1424.27	1326.97	-672.93	1743252.00	14437568.75	39°45'16.3964"N	80°38'2.7777"W	1487.84	333.110	1.47
8989.00	90.710	315.210	7132.17	1515.25	1391.69	-736.89	1743188.06	14437633.45	39°45'17.0386"N	80°38'3.5932"W	1574.74	332.099	2.25
9079.00	88.830	315.430	7132.53	1605.23	1455.68	-800.17	1743124.81	14437697.42	39°45'17.6735"N	80°38'4.4001"W	1661.11	331.203	2.10
9170.00	90.740	315.150	7132.87	1696.21	1520.35	-864.18	1743060.81	14437762.06	39°45'18.3152"N	80°38'5.2164"W	1748.79	330.386	2.12
9261.00	88.860	314.060	7133.19	1787.17	1584.25	-928.97	1742996.06	14437825.93	39°45'18.9493"N	80°38'6.0426"W	1836.52	329.614	2.39
9352.00	89.880	314.470	7134.19	1878.10	1647.76	-994.13	1742930.92	14437889.42	39°45'19.5796"N	80°38'6.8736"W	1924.42	328.897	1.21
9443.00	88.460	316.660	7135.51	1969.08	1712.72	-1057.83	1742867.25	14437954.36	39°45'20.2242"N	80°38'7.6858"W	2013.06	328.299	2.87
9536.00	88.800	314.900	7137.73	2062.04	1779.35	-1122.66	1742802.43	14438020.96	39°45'20.8853"N	80°38'8.5125"W	2103.92	327.751	1.93
9627.00	88.950	315.860	7139.52	2153.01	1844.11	-1186.57	1742738.55	14438085.69	39°45'21.5278"N	80°38'9.3274"W	2192.87	327.241	1.07
9719.00	87.910	316.520	7142.04	2244.98	1910.48	-1250.23	1742674.91	14438152.03	39°45'22.1862"N	80°38'10.1391"W	2283.20	326.799	1.34
9811.00	90.770	316.160	7143.10	2336.96	1977.02	-1313.74	1742611.44	14438218.55	39°45'22.8464"N	80°38'10.9487"W	2373.71	326.396	3.13
9902.00	87.970	313.900	7144.10	2427.92	2041.39	-1378.04	1742547.16	14438282.89	39°45'23.4851"N	80°38'11.7687"W	2462.98	325.979	3.95
9994.00	89.450	316.440	7146.17	2519.87	2106.61	-1442.87	1742482.35	14438348.09	39°45'24.1323"N	80°38'12.5955"W	2553.37	325.592	3.19
10084.00	88.710	316.890	7147.61	2609.85	2172.06	-1504.63	1742420.62	14438413.52	39°45'24.7816"N	80°38'13.3828"W	2642.30	325.289	0.96
10176.00	89.290	315.670	7149.22	2701.84	2238.54	-1568.20	1742357.07	14438479.97	39°45'25.4411"N	80°38'14.1934"W	2733.19	324.987	1.47
10268.00	89.200	316.850	7150.43	2793.83	2305.01	-1631.80	1742293.49	14438546.41	39°45'26.1005"N	80°38'15.0043"W	2824.15	324.704	1.29
10360.00	88.710	315.010	7152.11	2885.80	2371.09	-1695.78	1742229.54	14438612.47	39°45'26.7562"N	80°38'15.8200"W	2915.09	324.428	2.07
10451.00	89.080	314.580	7153.86	2976.76	2435.20	-1760.34	1742165.00	14438676.55	39°45'27.3923"N	80°38'16.6434"W	3004.83	324.138	0.62
10543.00	89.380	318.080	7155.10	3068.73	2501.73	-1823.85	1742101.52	14438743.05	39°45'28.0523"N	80°38'17.4532"W	3095.98	323.907	3.82

REFERENCE WELLPATH IDENTIFICATION				
Operator	SWN PRODUCTION COMPANY, LLC		Well	O E Burge MSH 3H
Field	Marshall		API	47051024140000
Facility	O E Burge MSH Pad		Wellbore	O E Burge MSH 3H AWB
Slot	Slot 3H			

WELLPATH DATA (241 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]
10635.00	89.260	316.570	7156.19	3160.71	2569.36	-1886.21	1742039.19	14438810.66	39°45'28.7232"N	80°38'18.2481"W	3187.38	323.717	1.65
10726.00	89.570	315.110	7157.12	3251.70	2634.64	-1949.60	1741975.82	14438875.91	39°45'29.3708"N	80°38'19.0564"W	3277.54	323.499	1.64
10817.00	90.220	315.570	7157.29	3342.68	2699.36	-2013.56	1741911.88	14438940.61	39°45'30.0130"N	80°38'19.8721"W	3367.64	323.279	0.88
10907.00	89.380	316.540	7157.60	3432.68	2764.16	-2076.02	1741849.45	14439005.38	39°45'30.6559"N	80°38'20.6685"W	3456.94	323.092	1.43
10998.00	89.290	315.110	7158.66	3523.67	2829.42	-2139.42	1741786.07	14439070.62	39°45'31.3034"N	80°38'21.4770"W	3547.22	322.906	1.57
11088.00	89.850	315.390	7159.33	3613.65	2893.34	-2202.78	1741722.74	14439134.51	39°45'31.9376"N	80°38'22.2850"W	3636.43	322.717	0.70
11179.00	89.630	316.560	7159.75	3704.65	2958.77	-2266.02	1741659.52	14439199.91	39°45'32.5867"N	80°38'23.0914"W	3726.82	322.553	1.31
11271.00	89.660	316.620	7160.32	3796.64	3025.60	-2329.25	1741596.32	14439266.72	39°45'33.2497"N	80°38'23.8975"W	3818.33	322.409	0.07
11361.00	89.540	315.800	7160.95	3886.64	3090.57	-2391.53	1741534.07	14439331.66	39°45'33.8942"N	80°38'24.6916"W	3907.81	322.267	0.92
11453.00	89.780	316.190	7161.49	3978.64	3156.74	-2455.44	1741470.18	14439397.81	39°45'34.5507"N	80°38'25.5066"W	3999.27	322.123	0.50
11544.00	89.630	316.190	7161.96	4069.64	3222.41	-2518.43	1741407.21	14439463.45	39°45'35.2022"N	80°38'26.3099"W	4089.80	321.991	0.16
11636.00	89.570	317.860	7162.60	4161.62	3289.72	-2581.15	1741344.52	14439530.73	39°45'35.8699"N	80°38'27.1094"W	4181.45	321.882	1.82
11728.00	89.720	316.800	7163.17	4253.61	3357.36	-2643.50	1741282.19	14439598.35	39°45'36.5408"N	80°38'27.9044"W	4273.17	321.784	1.16
11819.00	90.280	317.060	7163.17	4344.60	3423.84	-2705.64	1741220.07	14439664.80	39°45'37.2002"N	80°38'28.6967"W	4363.85	321.683	0.68
11911.00	88.740	317.540	7163.96	4436.58	3491.44	-2768.03	1741157.71	14439732.38	39°45'37.8708"N	80°38'29.4921"W	4455.58	321.592	1.75
12002.00	89.750	318.830	7165.16	4527.52	3559.26	-2828.69	1741097.07	14439800.17	39°45'38.5434"N	80°38'30.2654"W	4546.41	321.524	1.80
12094.00	89.510	317.890	7165.75	4619.46	3628.01	-2889.82	1741035.97	14439868.90	39°45'39.2253"N	80°38'31.0446"W	4638.27	321.462	1.05
12186.00	89.540	317.020	7166.52	4711.43	3695.79	-2952.02	1740973.79	14439936.65	39°45'39.8976"N	80°38'31.8377"W	4730.04	321.384	0.95
12278.00	92.920	319.900	7164.54	4803.33	3764.61	-3013.01	1740912.83	14440005.45	39°45'40.5802"N	80°38'32.6151"W	4821.88	321.328	4.83
12370.00	91.850	317.810	7160.71	4895.15	3833.83	-3073.48	1740852.38	14440074.64	39°45'41.2666"N	80°38'33.3859"W	4913.71	321.282	2.55
12463.00	92.190	317.100	7157.43	4988.07	3902.30	-3136.33	1740789.56	14440143.08	39°45'41.9458"N	80°38'34.1872"W	5006.45	321.211	0.85
12555.00	90.520	316.600	7155.26	5080.04	3969.40	-3199.23	1740726.68	14440210.16	39°45'42.6114"N	80°38'34.9892"W	5098.16	321.132	1.89
12647.00	90.710	316.850	7154.27	5172.03	4036.38	-3262.29	1740663.64	14440277.11	39°45'43.2758"N	80°38'35.7933"W	5189.88	321.054	0.34
12737.00	90.710	317.210	7153.15	5262.01	4102.23	-3323.63	1740602.33	14440342.93	39°45'43.9290"N	80°38'36.5754"W	5279.66	320.986	0.40
12829.00	90.620	317.200	7152.09	5354.00	4169.73	-3386.13	1740539.85	14440410.41	39°45'44.5985"N	80°38'37.3723"W	5371.46	320.921	0.10
12921.00	90.550	317.010	7151.15	5445.98	4237.13	-3448.74	1740477.26	14440477.78	39°45'45.2670"N	80°38'38.1707"W	5463.25	320.857	0.22
13014.00	90.580	316.770	7150.23	5538.97	4305.02	-3512.30	1740413.73	14440545.64	39°45'45.9405"N	80°38'38.9810"W	5556.03	320.790	0.26
13106.00	90.800	316.780	7149.12	5630.96	4372.05	-3575.30	1740350.75	14440612.65	39°45'46.6054"N	80°38'39.7844"W	5647.80	320.725	0.24
13197.00	90.400	316.240	7148.17	5721.96	4438.07	-3637.93	1740288.15	14440678.64	39°45'47.2603"N	80°38'40.5830"W	5738.55	320.658	0.74
13288.00	91.110	316.590	7146.97	5812.95	4503.98	-3700.66	1740225.44	14440744.52	39°45'47.9141"N	80°38'41.3830"W	5829.30	320.592	0.87

REFERENCE WELLPATH IDENTIFICATION			
Operator	SWN PRODUCTION COMPANY, LLC	Well	O E Burge MSH 3H
Field	Marshall	API	47051024140000
Facility	O E Burge MSH Pad	Wellbore	O E Burge MSH 3H AWB
Slot	Slot 3H		

WELLPATH DATA (241 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]
13378.00	90.280	316.550	7145.88	5902.94	4569.33	-3762.53	1740163.60	14440809.85	39°45'48.5624"N	80°38'42.1719"W	5919.07	320.531	0.92
13468.00	90.580	316.630	7145.20	5992.94	4634.71	-3824.37	1740101.78	14440875.21	39°45'49.2109"N	80°38'42.9605"W	6008.86	320.472	0.34
13560.00	90.800	316.720	7144.10	6084.93	4701.63	-3887.49	1740038.68	14440942.10	39°45'49.8748"N	80°38'43.7654"W	6100.65	320.415	0.26
13650.00	90.310	316.930	7143.22	6174.92	4767.27	-3949.07	1739977.13	14441007.71	39°45'50.5258"N	80°38'44.5506"W	6190.47	320.363	0.59
13742.00	90.520	316.980	7142.56	6266.91	4834.50	-4011.87	1739914.36	14441074.91	39°45'51.1927"N	80°38'45.3514"W	6282.31	320.313	0.23
13834.00	90.120	316.200	7142.04	6358.91	4901.33	-4075.09	1739851.16	14441141.72	39°45'51.8556"N	80°38'46.1576"W	6374.12	320.259	0.95
13926.00	90.250	316.280	7141.75	6450.91	4967.78	-4138.72	1739787.56	14441208.14	39°45'52.5148"N	80°38'46.9691"W	6465.89	320.202	0.17
14018.00	90.370	316.270	7141.25	6542.91	5034.26	-4202.31	1739723.99	14441274.60	39°45'53.1743"N	80°38'47.7800"W	6557.68	320.147	0.13
14111.00	90.830	316.300	7140.28	6635.90	5101.48	-4266.57	1739659.75	14441341.79	39°45'53.8411"N	80°38'48.5996"W	6650.47	320.093	0.50
14202.00	90.860	316.720	7138.93	6726.89	5167.49	-4329.19	1739597.15	14441407.78	39°45'54.4959"N	80°38'49.3982"W	6741.28	320.045	0.46
14292.00	91.320	315.750	7137.22	6816.87	5232.47	-4391.44	1739534.94	14441472.73	39°45'55.1405"N	80°38'50.1919"W	6831.07	319.994	1.19
14384.00	91.660	316.620	7134.83	6908.84	5298.83	-4455.11	1739471.29	14441539.07	39°45'55.7989"N	80°38'51.0040"W	6922.83	319.944	1.02
14476.00	91.290	316.980	7132.46	7000.80	5365.88	-4518.07	1739408.36	14441606.09	39°45'56.4639"N	80°38'51.8068"W	7014.67	319.903	0.56
14566.00	90.890	317.110	7130.75	7090.78	5431.74	-4579.38	1739347.06	14441671.92	39°45'57.1171"N	80°38'52.5887"W	7104.54	319.866	0.47
14657.00	91.020	316.600	7129.23	7181.76	5498.12	-4641.60	1739284.87	14441738.28	39°45'57.7756"N	80°38'53.3822"W	7195.40	319.828	0.58
14747.00	91.420	316.390	7127.32	7271.74	5563.39	-4703.55	1739222.95	14441803.52	39°45'58.4230"N	80°38'54.1721"W	7285.23	319.787	0.50
14839.00	91.510	316.840	7124.96	7363.71	5630.22	-4766.72	1739159.80	14441870.33	39°45'59.0860"N	80°38'54.9778"W	7377.06	319.748	0.50
14929.00	91.600	316.810	7122.52	7453.67	5695.83	-4828.28	1739098.26	14441935.91	39°45'59.7367"N	80°38'55.7628"W	7466.91	319.713	0.11
15021.00	91.720	317.020	7119.86	7545.63	5763.00	-4891.10	1739035.47	14442003.05	39°46'0.4029"N	80°38'56.5639"W	7558.77	319.679	0.26
15113.00	91.290	317.050	7117.44	7637.59	5830.30	-4953.78	1738972.81	14442070.32	39°46'1.0705"N	80°38'57.3632"W	7650.64	319.647	0.47
15203.00	91.230	315.770	7115.46	7727.57	5895.47	-5015.81	1738910.80	14442135.47	39°46'1.7169"N	80°38'58.1544"W	7740.47	319.609	1.42
15294.00	91.140	315.140	7113.58	7818.54	5960.31	-5079.63	1738847.01	14442200.28	39°46'2.3602"N	80°38'58.9684"W	7831.22	319.561	0.70
15384.00	91.080	315.330	7111.84	7908.50	6024.20	-5143.00	1738783.66	14442264.15	39°46'2.9940"N	80°38'59.7767"W	7920.95	319.512	0.22
15475.00	91.350	315.850	7109.91	7999.48	6089.19	-5206.67	1738720.02	14442329.11	39°46'3.6387"N	80°39'0.5888"W	8011.71	319.467	0.64
15565.00	90.980	315.440	7108.08	8089.45	6153.53	-5269.57	1738657.14	14442393.43	39°46'4.2770"N	80°39'1.3912"W	8101.50	319.425	0.61
15656.00	90.650	315.990	7106.78	8180.44	6218.66	-5333.10	1738593.63	14442458.54	39°46'4.9232"N	80°39'2.2015"W	8192.30	319.384	0.70
15746.00	91.050	315.900	7105.45	8270.43	6283.34	-5395.68	1738531.08	14442523.19	39°46'5.5647"N	80°39'2.9996"W	8282.13	319.346	0.46
15838.00	90.980	315.910	7103.82	8362.41	6349.40	-5459.69	1738467.10	14442589.22	39°46'6.2201"N	80°39'3.8160"W	8373.95	319.309	0.08
15928.00	90.860	315.610	7102.37	8452.39	6413.87	-5522.47	1738404.34	14442653.67	39°46'6.8596"N	80°39'4.6168"W	8463.77	319.271	0.36
16018.00	90.340	315.670	7101.43	8542.38	6478.21	-5585.39	1738341.45	14442717.99	39°46'7.4979"N	80°39'5.4194"W	8553.58	319.233	0.58

REFERENCE WELLPATH IDENTIFICATION			
Operator	SWN PRODUCTION COMPANY, LLC	Well	O E Burge MSH 3H
Field	Marshall	API	47051024140000
Facility	O E Burge MSH Pad	Wellbore	O E Burge MSH 3H AWB
Slot	Slot 3H		

WELLPATH DATA (241 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]
16109.00	90.370	315.470	7100.87	8633.37	6543.19	-5649.09	1738277.77	14442782.94	39°46'8.1426"N	80°39'6.2320"W	8644.40	319.194	0.22
16200.00	90.520	316.270	7100.16	8724.37	6608.51	-5712.45	1738214.43	14442848.23	39°46'8.7905"N	80°39'7.0402"W	8735.24	319.160	0.89
16291.00	90.370	316.070	7099.45	8815.36	6674.15	-5775.47	1738151.44	14442913.85	39°46'9.4417"N	80°39'7.8439"W	8826.12	319.129	0.27
16382.00	91.480	315.840	7097.98	8906.35	6739.55	-5838.73	1738088.21	14442979.23	39°46'10.0904"N	80°39'8.6508"W	8916.97	319.096	1.25
16473.00	90.650	315.450	7096.29	8997.33	6804.61	-5902.33	1738024.63	14443044.26	39°46'10.7358"N	80°39'9.4621"W	9007.79	319.062	1.01
16563.00	91.170	316.060	7094.86	9087.31	6869.07	-5965.12	1737961.87	14443108.70	39°46'11.3753"N	80°39'10.2630"W	9097.63	319.029	0.89
16655.00	90.710	315.330	7093.35	9179.29	6934.90	-6029.37	1737897.64	14443174.50	39°46'12.0283"N	80°39'11.0826"W	9189.46	318.996	0.94
16746.00	91.080	315.970	7091.93	9270.27	6999.97	-6092.97	1737834.06	14443239.54	39°46'12.6737"N	80°39'11.8939"W	9280.29	318.963	0.81
16838.00	91.200	315.220	7090.10	9362.25	7065.68	-6157.34	1737769.72	14443305.22	39°46'13.3256"N	80°39'12.7149"W	9372.12	318.930	0.83
16929.00	90.220	315.860	7088.97	9453.23	7130.62	-6221.07	1737706.02	14443370.14	39°46'13.9698"N	80°39'13.5279"W	9462.95	318.897	1.29
17018.00	91.600	316.030	7087.56	9542.22	7194.57	-6282.94	1737644.16	14443434.07	39°46'14.6042"N	80°39'14.3172"W	9551.82	318.870	1.56
17109.00	91.260	315.630	7085.29	9633.18	7259.83	-6346.33	1737580.80	14443499.30	39°46'15.2515"N	80°39'15.1258"W	9642.67	318.841	0.58
17198.00	91.170	316.490	7083.40	9722.16	7323.90	-6408.07	1737519.08	14443563.34	39°46'15.8871"N	80°39'15.9133"W	9731.54	318.816	0.97
17285.00	90.890	315.610	7081.84	9809.15	7386.52	-6468.44	1737458.74	14443625.94	39°46'16.5083"N	80°39'16.6834"W	9818.43	318.791	1.06
17376.00	91.140	314.060	7080.23	9900.10	7450.67	-6532.96	1737394.24	14443690.07	39°46'17.1447"N	80°39'17.5065"W	9909.19	318.755	1.73
17465.00	91.140	317.420	7078.45	9989.07	7514.39	-6595.06	1737332.17	14443753.76	39°46'17.7767"N	80°39'18.2986"W	9998.04	318.728	3.77
17556.00	90.980	315.020	7076.77	10080.04	7580.07	-6658.00	1737269.25	14443819.42	39°46'18.4283"N	80°39'19.1015"W	10088.93	318.705	2.64
17648.00	91.390	315.610	7074.87	10172.01	7645.47	-6722.69	1737204.59	14443884.79	39°46'19.0770"N	80°39'19.9267"W	10180.75	318.675	0.78
17739.00	91.230	315.930	7072.79	10262.98	7710.66	-6786.14	1737141.16	14443949.95	39°46'19.7237"N	80°39'20.7362"W	10271.61	318.649	0.39
17830.00	91.510	316.230	7070.61	10353.95	7776.19	-6849.25	1737078.08	14444015.46	39°46'20.3737"N	80°39'21.5412"W	10362.50	318.626	0.45
17921.00	91.320	315.770	7068.36	10444.93	7841.63	-6912.44	1737014.91	14444080.87	39°46'21.0228"N	80°39'22.3473"W	10453.37	318.604	0.55
18013.00	91.480	315.850	7066.12	10536.89	7907.58	-6976.55	1736950.83	14444146.79	39°46'21.6770"N	80°39'23.1651"W	10545.24	318.579	0.19
18104.00	91.320	315.260	7063.89	10627.86	7972.52	-7040.25	1736887.15	14444211.72	39°46'22.3212"N	80°39'23.9777"W	10636.08	318.553	0.67
18194.00	91.320	315.730	7061.82	10717.83	8036.69	-7103.32	1736824.10	14444275.86	39°46'22.9578"N	80°39'24.7823"W	10725.93	318.528	0.52
18286.00	91.350	316.900	7059.68	10809.80	8103.20	-7166.85	1736760.60	14444342.34	39°46'23.6175"N	80°39'25.5927"W	10817.84	318.509	1.27
18376.00	91.380	316.970	7057.53	10899.77	8168.94	-7228.29	1736699.19	14444408.05	39°46'24.2694"N	80°39'26.3763"W	10907.78	318.496	0.08
18467.00	91.290	316.280	7055.41	10990.74	8235.06	-7290.77	1736636.74	14444474.15	39°46'24.9253"N	80°39'27.1732"W	10998.71	318.481	0.76
18558.00	91.420	316.440	7053.26	11081.72	8300.90	-7353.55	1736573.98	14444539.97	39°46'25.5783"N	80°39'27.9741"W	11089.62	318.463	0.23
18650.00	91.540	316.690	7050.88	11173.68	8367.68	-7416.78	1736510.77	14444606.72	39°46'26.2407"N	80°39'28.7807"W	11181.54	318.448	0.30
18741.00	91.350	316.300	7048.59	11264.65	8433.67	-7479.41	1736448.17	14444672.68	39°46'26.8952"N	80°39'29.5795"W	11272.46	318.432	0.48

REFERENCE WELLPATH IDENTIFICATION				
Operator	SWN PRODUCTION COMPANY, LLC		Well	O E Burge MSH 3H
Field	Marshall		API	47051024140000
Facility	O E Burge MSH Pad		Wellbore	O E Burge MSH 3H AWB
Slot	Slot 3H			

WELLPATH DATA (241 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]
18831.00	91.320	316.350	7046.49	11354.63	8498.74	-7541.54	1736386.06	14444737.73	39°46'27.5406"N	80°39'30.3721"W	11362.37	318.415	0.06
18922.00	91.320	316.140	7044.40	11445.61	8564.46	-7604.46	1736323.17	14444803.42	39°46'28.1924"N	80°39'31.1747"W	11453.28	318.398	0.23
19013.00	91.200	316.540	7042.40	11536.58	8630.27	-7667.27	1736260.38	14444869.21	39°46'28.8452"N	80°39'31.9759"W	11544.20	318.382	0.46
19105.00	90.220	315.640	7041.26	11628.57	8696.55	-7731.06	1736196.61	14444935.46	39°46'29.5026"N	80°39'32.7898"W	11636.12	318.364	1.45
19197.00	91.420	316.780	7039.94	11720.56	8762.95	-7794.72	1736132.98	14445001.84	39°46'30.1612"N	80°39'33.6019"W	11728.04	318.347	1.80
19289.00	91.140	317.020	7037.88	11812.53	8830.11	-7857.57	1736070.16	14445068.97	39°46'30.8273"N	80°39'34.4035"W	11819.99	318.335	0.40
19381.00	90.830	317.080	7036.30	11904.51	8897.44	-7920.24	1736007.50	14445136.27	39°46'31.4950"N	80°39'35.2030"W	11911.95	318.325	0.34
19471.00	90.950	316.040	7034.90	11994.50	8962.78	-7982.12	1735945.65	14445201.58	39°46'32.1431"N	80°39'35.9923"W	12001.90	318.312	1.16
19562.00	91.320	317.460	7033.10	12085.48	9029.04	-8044.46	1735883.34	14445267.83	39°46'32.8003"N	80°39'36.7874"W	12092.85	318.300	1.61
19653.00	91.080	317.280	7031.20	12176.44	9095.98	-8106.07	1735821.75	14445334.74	39°46'33.4641"N	80°39'37.5734"W	12183.81	318.294	0.33
19745.00	91.880	316.410	7028.82	12268.40	9163.07	-8168.98	1735758.87	14445401.80	39°46'34.1295"N	80°39'38.3758"W	12275.75	318.283	1.28
19838.00	90.890	317.150	7026.57	12361.37	9230.82	-8232.64	1735695.23	14445469.53	39°46'34.8015"N	80°39'39.1879"W	12368.69	318.271	1.33
19928.00	90.620	317.010	7025.39	12451.35	9296.73	-8293.93	1735633.97	14445535.40	39°46'35.4551"N	80°39'39.9696"W	12458.66	318.263	0.34
20020.00	91.050	316.320	7024.05	12543.34	9363.63	-8357.05	1735570.86	14445602.29	39°46'36.1187"N	80°39'40.7749"W	12550.62	318.251	0.88
20111.00	91.570	317.680	7021.96	12634.31	9430.17	-8419.10	1735508.84	14445668.79	39°46'36.7785"N	80°39'41.5664"W	12641.57	318.242	1.60
20203.00	90.800	316.710	7020.06	12726.28	9497.65	-8481.60	1735446.37	14445736.25	39°46'37.4477"N	80°39'42.3636"W	12733.53	318.234	1.35
20295.00	91.200	316.690	7018.46	12818.26	9564.60	-8544.68	1735383.31	14445803.17	39°46'38.1117"N	80°39'43.1684"W	12825.49	318.223	0.44
20385.00	91.350	316.780	7016.45	12908.24	9630.12	-8606.35	1735321.66	14445868.66	39°46'38.7615"N	80°39'43.9550"W	12915.43	318.213	0.19
20475.00	91.140	316.120	7014.50	12998.21	9695.33	-8668.35	1735259.69	14445933.85	39°46'39.4083"N	80°39'44.7459"W	13005.37	318.201	0.77
20566.00	91.780	317.350	7012.18	13089.18	9761.57	-8730.69	1735197.37	14446000.07	39°46'40.0653"N	80°39'45.5413"W	13096.31	318.191	1.52
20658.00	91.050	316.930	7009.91	13181.14	9828.99	-8793.25	1735134.83	14446067.46	39°46'40.7339"N	80°39'46.3393"W	13188.26	318.183	0.92
20749.00	91.110	317.070	7008.19	13272.12	9895.53	-8855.30	1735072.81	14446133.97	39°46'41.3938"N	80°39'47.1309"W	13279.23	318.175	0.17
20841.00	92.000	317.120	7005.70	13364.07	9962.89	-8917.91	1735010.22	14446201.31	39°46'42.0618"N	80°39'47.9295"W	13371.18	318.168	0.97
20933.00	90.620	317.010	7003.59	13456.04	10030.23	-8980.56	1734947.60	14446268.62	39°46'42.7296"N	80°39'48.7287"W	13463.13	318.160	1.50
21024.00	91.290	316.630	7002.08	13547.02	10096.58	-9042.82	1734885.36	14446334.94	39°46'43.3876"N	80°39'49.5230"W	13554.10	318.151	0.85
21115.00	91.540	316.770	6999.83	13637.99	10162.78	-9105.21	1734822.99	14446401.12	39°46'44.0442"N	80°39'50.3189"W	13645.04	318.142	0.31
21207.00	91.450	316.810	6997.43	13729.96	10229.82	-9168.18	1734760.05	14446468.13	39°46'44.7090"N	80°39'51.1222"W	13736.98	318.133	0.11
21299.00	91.260	316.640	6995.25	13821.93	10296.78	-9231.23	1734697.03	14446535.07	39°46'45.3731"N	80°39'51.9265"W	13828.93	318.123	0.28
21392.00	91.080	316.660	6993.35	13914.91	10364.39	-9295.06	1734633.23	14446602.65	39°46'46.0437"N	80°39'52.7408"W	13921.88	318.113	0.19
21460.00	91.420	316.870	6991.87	13982.89	10413.92	-9341.63	1734586.67	14446652.16	39°46'46.5349"N	80°39'53.3349"W	13989.84	318.107	0.59

REFERENCE WELLPATH IDENTIFICATION			
Operator	SWN PRODUCTION COMPANY, LLC	Well	O E Burge MSH 3H
Field	Marshall	API	47051024140000
Facility	O E Burge MSH Pad	Wellbore	O E Burge MSH 3H AWB
Slot	Slot 3H		

WELLPATH DATA (241 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]
21485.00‡	91.420	316.870	6991.25	14007.88	10432.16	-9358.71	1734569.60	14446670.40	39°46'46.7158"N	80°39'53.5529"W	14014.83	318.105	0.00

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
O E Burge MSH 3H BHL Rev 3	6974.90	10421.13	-9371.42	1734556.89	14446659.37	39°46'46.6072"N	80°39'53.7162"W	point
O E Burge MSH 3H LP Rev 4	7121.90	360.21	244.68	1744169.24	14436602.37	39°45'6.8050"N	80°37'51.0799"W	point

WELLPATH COMPOSITION - Ref Wellbore: O E Burge MSH 3H AWB Ref Wellpath: O E Burge MSH 3H AWB_awp 100' - 100' - 21460' Proj: 21485'					
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date
26.00	800.00	Gyrodatta 2015 - GC+WIR+DPIPE	1 Imported Gyrodatta 100' - 800'	O E Burge MSH 3H AWB	11/9/2021
800.00	6172.00	OWSG MWD rev2 + HRGM	2 Tally MWD 872' - 6172'	O E Burge MSH 3H AWB	11/9/2021
6172.00	21485.00	BH AutoTrak Curve/eXpress (2019) (HRGM, Short spacing)	3 BH MWD 6243' - 21460'	O E Burge MSH 3H AWB	11/12/2021