



EXPAND ENERGY



Location: Marshall County, WV
 Field: Marshall WV
 Facility: Michael Southworth MSH Pad

Slot: 6H
 Well: Michael Southworth MSH 6H
 Wellbore: Michael Southworth MSH 6H AWB

Plot reference wellpath is Michael Southworth MSH 6H awp Proj: 21040	Grid System: NAD83 / UTM Zone 17 North, US feet
True vertical depths are referenced to EDC 41 (RKB)	* = Wellpath was transformed from a different geodetic datum
Reference wellpath measured depths are referenced to EDC 41 (RKB)	North Reference: Grid north
EDC 41 (RKB) to Mean Sea Level: 1297.4 feet	Scale: True distance
Mean Sea Level to Ground level (At Slot: 6H): -1271.4 feet	Coordinates are in feet referenced to Slot
Offset wellpath MDs are referenced to each path's default MD datum	Depths are in feet
Created by: tranlam on 2025-03-07; Database: WA_MPL_EASTERNUS_Defn	

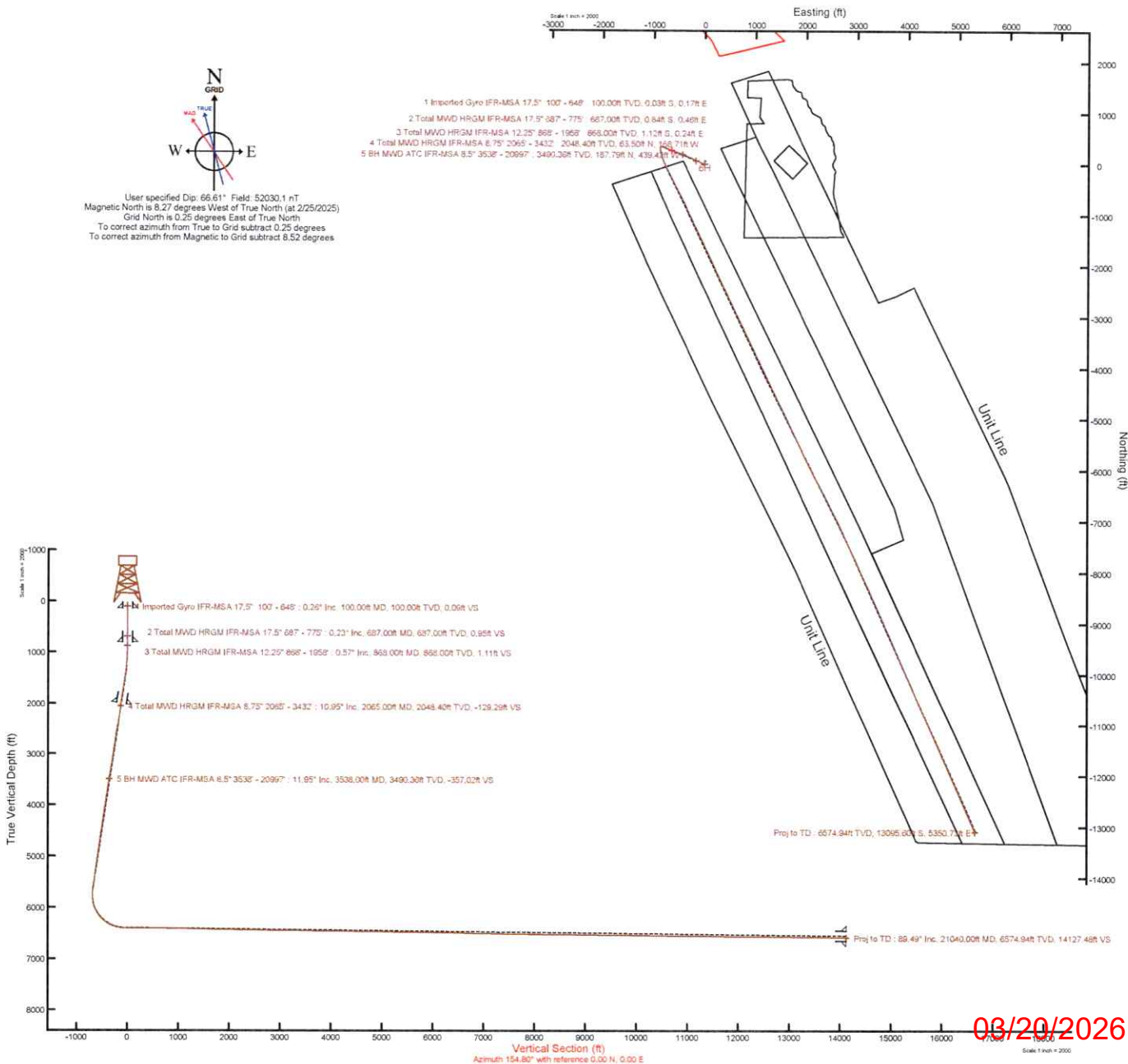
Location Information

Facility Name			Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Michael Southworth MSH Pad			1748280.060	14531637.500	40°00'46.1777"N	80°36'53.1795"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
6H	-66.24	-22.65	1748257.420	14531571.290	40°00'45.5241"N	80°36'53.4743"W
EDC 41 (RKB) to Ground level (At Slot: 6H)					26ft	
Mean Sea Level to Ground level (At Slot: 6H)					-1271.4ft	
EDC 41 (RKB) to Mean Sea Level					1297.4ft	

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
21040.00	89.490	156.310	6574.94	-13095.60	5350.73	1753606.07	14518480.78	39°58'35.8763"N	80°35'45.4702"W

API: 4705102514000
 BH JOB: 112553889
 DURATION: 3/6/2025 - 3/7/2025
 RIG: EDC 41



03/20/2026



Actual Wellpath Report

Michael Southworth MSH 6H awp Proj: 21040'
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REFERENCE WELLPATH IDENTIFICATION

Operator	EXPAND ENERGY	Well	Michael Southworth MSH 6H
Field	Marshall WV	API	47-051-02514-00-00
Facility	Michael Southworth MSH Pad	Wellbore	Michael Southworth MSH 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	0.999613	Report Generated	3/7/2025 at 9:12:23 PM
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	-66.24	-22.65	1748257.42	14531571.29	40°00'45.5241"N	80°36'53.4743"W
Facility Reference Pt			1748280.06	14531637.50	40°00'46.1777"N	80°36'53.1795"W
Field Reference Pt			0.00	0.00	0°00'0.0000"	85°29'19.4780"W

WELLPATH DATUM

Calculation method	Minimum curvature	EDC 41 (RKB) to Facility Vertical Datum	1297.40ft
Horizontal Reference Pt	Slot	EDC 41 (RKB) to Mean Sea Level	1297.40ft
Vertical Reference Pt	EDC 41 (RKB)	EDC 41 (RKB) to Ground Level at Slot (6H)	26.00ft
MD Reference Pt	EDC 41 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	154.80°



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Facility	Michael Southworth MSH Pad	Wellbore	Michael Southworth MSH 6H AWB
Slot	6H		

WELLPATH DATA (230 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	98.800	0.00	0.00	0.00	0.00	1748257.42	14531571.29	40°00'45.5241"N	80°36'53.4743"W	0.00	0.000	0.00
26.00	0.000	98.800	26.00	0.00	0.00	0.00	1748257.42	14531571.29	40°00'45.5241"N	80°36'53.4743"W	0.00	0.000	0.00
100.00	0.260	98.800	100.00	0.09	-0.03	0.17	1748257.59	14531571.26	40°00'45.5238"N	80°36'53.4722"W	0.17	98.800	0.35
150.00	0.090	143.120	150.00	0.20	-0.07	0.30	1748257.72	14531571.22	40°00'45.5233"N	80°36'53.4704"W	0.31	103.867	0.41
200.00	0.100	133.760	200.00	0.27	-0.14	0.36	1748257.78	14531571.15	40°00'45.5227"N	80°36'53.4697"W	0.38	110.878	0.04
250.00	0.090	134.700	250.00	0.35	-0.19	0.42	1748257.84	14531571.10	40°00'45.5221"N	80°36'53.4690"W	0.46	114.978	0.02
300.00	0.100	179.130	300.00	0.43	-0.27	0.44	1748257.86	14531571.03	40°00'45.5214"N	80°36'53.4686"W	0.52	120.801	0.14
350.00	0.080	226.240	350.00	0.48	-0.33	0.42	1748257.84	14531570.96	40°00'45.5208"N	80°36'53.4689"W	0.54	128.389	0.15
400.00	0.060	93.710	400.00	0.50	-0.36	0.42	1748257.84	14531570.93	40°00'45.5205"N	80°36'53.4689"W	0.55	130.428	0.26
450.00	0.110	188.280	450.00	0.56	-0.41	0.44	1748257.86	14531570.88	40°00'45.5200"N	80°36'53.4687"W	0.60	132.814	0.26
500.00	0.140	187.920	500.00	0.65	-0.52	0.42	1748257.84	14531570.77	40°00'45.5190"N	80°36'53.4689"W	0.67	140.522	0.06
550.00	0.120	106.350	550.00	0.73	-0.59	0.47	1748257.89	14531570.70	40°00'45.5182"N	80°36'53.4683"W	0.75	141.705	0.34
600.00	0.100	212.890	600.00	0.79	-0.64	0.49	1748257.91	14531570.65	40°00'45.5177"N	80°36'53.4680"W	0.81	142.484	0.35
648.00	0.150	210.350	648.00	0.85	-0.73	0.44	1748257.86	14531570.56	40°00'45.5168"N	80°36'53.4687"W	0.85	149.055	0.10
687.00	0.230	143.110	687.00	0.95	-0.84	0.46	1748257.88	14531570.45	40°00'45.5158"N	80°36'53.4684"W	0.96	151.252	0.57
775.00	0.080	106.850	775.00	1.17	-1.00	0.62	1748258.04	14531570.29	40°00'45.5142"N	80°36'53.4663"W	1.18	147.941	0.20
868.00	0.570	257.330	868.00	1.11	-1.12	0.24	1748257.66	14531570.17	40°00'45.5130"N	80°36'53.4713"W	1.14	168.097	0.69
958.00	1.610	280.730	957.98	0.27	-0.98	-1.44	1748255.98	14531570.31	40°00'45.5144"N	80°36'53.4929"W	1.75	235.806	1.23
1048.00	3.230	282.570	1047.90	-2.02	-0.19	-5.16	1748252.26	14531571.10	40°00'45.5224"N	80°36'53.5406"W	5.16	267.853	1.80
1139.00	4.900	292.590	1138.67	-6.47	1.86	-11.25	1748246.17	14531573.15	40°00'45.5429"N	80°36'53.6188"W	11.40	279.375	1.99
1229.00	6.850	294.420	1228.19	-13.41	5.55	-19.69	1748237.74	14531576.84	40°00'45.5798"N	80°36'53.7270"W	20.46	285.752	2.18
1320.00	8.420	290.890	1318.38	-22.34	10.17	-30.85	1748226.58	14531581.46	40°00'45.6259"N	80°36'53.8703"W	32.49	288.247	1.80
1411.00	10.170	290.440	1408.18	-32.89	15.35	-44.61	1748212.83	14531586.64	40°00'45.6777"N	80°36'54.0468"W	47.18	288.994	1.92
1502.00	11.110	294.170	1497.62	-45.29	21.75	-60.14	1748197.31	14531593.03	40°00'45.7416"N	80°36'54.2460"W	63.95	289.884	1.28
1593.00	11.930	295.440	1586.78	-59.21	29.38	-76.63	1748180.82	14531600.66	40°00'45.8177"N	80°36'54.4575"W	82.07	290.978	0.94
1683.00	12.960	291.700	1674.67	-73.77	37.11	-94.41	1748163.05	14531608.38	40°00'45.8948"N	80°36'54.6855"W	101.44	291.458	1.45
1775.00	13.000	289.890	1764.32	-88.63	44.44	-113.72	1748143.74	14531615.72	40°00'45.9681"N	80°36'54.9334"W	122.10	291.346	0.44
1865.00	12.060	288.780	1852.17	-102.33	50.91	-132.14	1748125.33	14531622.18	40°00'46.0329"N	80°36'55.1698"W	141.61	291.071	1.08
1958.00	10.830	289.120	1943.32	-115.18	56.90	-149.60	1748107.88	14531628.17	40°00'46.0928"N	80°36'55.3938"W	160.06	290.826	1.32
2065.00	10.950	288.980	2048.40	-129.29	63.50	-168.71	1748088.78	14531634.77	40°00'46.1588"N	80°36'55.6390"W	180.26	290.627	0.11



Actual Wellpath Report

Michael Southworth MSH 6H awp Proj: 21040'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	EXPAND ENERGY	Well	Michael Southworth MSH 6H
Field	Marshall WV	API	47-051-02514-00-00
Facility	Michael Southworth MSH Pad	Wellbore	Michael Southworth MSH 6H AWB
Slot	6H		

WELLPATH DATA (230 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]
2158.00	10.070	290.430	2139.83	-141.26	69.21	-184.68	1748072.81	14531640.48	40°00'46.2159"N	80°36'55.8439"W	197.22	290.545	0.99
2248.00	9.370	299.800	2228.55	-152.88	75.60	-198.41	1748059.09	14531646.86	40°00'46.2796"N	80°36'56.0200"W	212.33	290.859	1.92
2339.00	10.860	308.190	2318.14	-166.62	84.58	-211.58	1748045.92	14531655.84	40°00'46.3690"N	80°36'56.1888"W	227.86	291.790	2.30
2430.00	13.460	305.660	2407.09	-183.54	96.06	-226.92	1748030.59	14531667.31	40°00'46.4830"N	80°36'56.3854"W	246.42	292.944	2.92
2522.00	14.130	297.180	2496.44	-201.79	107.43	-245.61	1748011.90	14531678.68	40°00'46.5962"N	80°36'56.6250"W	268.08	293.625	2.31
2612.00	13.190	288.740	2583.90	-217.61	115.75	-265.11	1747992.41	14531687.00	40°00'46.6793"N	80°36'56.8751"W	289.28	293.587	2.45
2703.00	11.100	284.370	2672.86	-230.40	121.26	-283.43	1747974.10	14531692.50	40°00'46.7345"N	80°36'57.1102"W	308.28	293.163	2.51
2794.00	10.710	291.090	2762.22	-242.09	126.48	-299.81	1747957.73	14531697.72	40°00'46.7867"N	80°36'57.3204"W	325.40	292.873	1.46
2884.00	11.310	295.560	2850.57	-254.97	133.30	-315.57	1747941.97	14531704.53	40°00'46.8548"N	80°36'57.5226"W	342.57	292.899	1.16
2975.00	11.230	291.830	2939.82	-268.37	140.44	-331.85	1747925.70	14531711.68	40°00'46.9261"N	80°36'57.7314"W	360.34	292.938	0.81
3065.00	11.460	295.600	3028.06	-281.71	147.56	-348.05	1747909.51	14531718.80	40°00'46.9972"N	80°36'57.9392"W	378.04	292.976	0.86
3160.00	11.280	296.590	3121.19	-296.32	155.80	-364.87	1747892.69	14531727.03	40°00'47.0793"N	80°36'58.1549"W	396.74	293.123	0.28
3250.00	12.280	296.550	3209.30	-310.76	164.02	-381.30	1747876.27	14531735.24	40°00'47.1612"N	80°36'58.3657"W	415.08	293.275	1.11
3341.00	12.620	293.140	3298.16	-325.78	172.25	-399.10	1747858.48	14531743.47	40°00'47.2433"N	80°36'58.5939"W	434.68	293.345	0.89
3432.00	13.090	290.430	3386.88	-340.58	179.75	-417.90	1747839.69	14531750.97	40°00'47.3182"N	80°36'58.8351"W	454.92	293.274	0.84
3538.00	11.950	290.520	3490.36	-357.02	187.79	-439.42	1747818.17	14531759.01	40°00'47.3986"N	80°36'59.1113"W	477.87	293.140	1.08
3628.00	12.130	290.700	3578.38	-370.48	194.40	-457.00	1747800.60	14531765.61	40°00'47.4646"N	80°36'59.3368"W	496.62	293.044	0.20
3719.00	12.000	289.950	3667.37	-384.05	201.01	-474.83	1747782.77	14531772.22	40°00'47.5307"N	80°36'59.5657"W	515.62	292.944	0.22
3810.00	11.990	289.630	3756.38	-397.42	207.41	-492.63	1747764.98	14531778.62	40°00'47.5947"N	80°36'59.7940"W	534.51	292.832	0.07
3901.00	12.060	289.720	3845.38	-410.80	213.79	-510.48	1747747.14	14531785.00	40°00'47.6586"N	80°37'0.0231"W	553.44	292.724	0.08
3992.00	12.110	289.990	3934.37	-424.28	220.26	-528.40	1747729.23	14531791.47	40°00'47.7233"N	80°37'0.2530"W	572.47	292.629	0.08
4082.00	12.030	290.660	4022.38	-437.71	226.80	-546.05	1747711.59	14531798.00	40°00'47.7886"N	80°37'0.4795"W	591.27	292.556	0.18
4173.00	12.100	290.420	4111.37	-451.33	233.47	-563.86	1747693.78	14531804.67	40°00'47.8553"N	80°37'0.7080"W	610.28	292.493	0.09
4263.00	11.930	289.770	4199.39	-464.65	239.91	-581.45	1747676.19	14531811.11	40°00'47.9197"N	80°37'0.9338"W	629.00	292.421	0.24
4354.00	11.560	290.800	4288.49	-477.85	246.33	-598.83	1747658.83	14531817.52	40°00'47.9839"N	80°37'1.1567"W	647.51	292.360	0.47
4445.00	11.610	291.700	4377.64	-491.10	252.95	-615.86	1747641.80	14531824.15	40°00'48.0500"N	80°37'1.3753"W	665.78	292.330	0.21
4536.00	11.570	290.600	4466.78	-504.33	259.55	-632.91	1747624.76	14531830.74	40°00'48.1160"N	80°37'1.5940"W	684.06	292.298	0.25
4627.00	11.530	291.360	4555.94	-517.47	266.07	-649.92	1747607.75	14531837.26	40°00'48.1811"N	80°37'1.8123"W	702.28	292.264	0.17
4718.00	11.480	291.020	4645.11	-530.62	272.63	-666.84	1747590.84	14531843.82	40°00'48.2467"N	80°37'2.0294"W	720.42	292.237	0.09
4809.00	11.000	290.540	4734.36	-543.37	278.93	-683.43	1747574.26	14531850.11	40°00'48.3096"N	80°37'2.2422"W	738.16	292.202	0.54



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Slot	6H		

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4899.00	11.230	291.430	4822.67	-555.89	285.14	-699.62	1747558.07	14531856.32	40°00'48.3717"N	80°37'2.4501"W	755.50	292.174	0.32
4990.00	11.370	290.520	4911.91	-568.75	291.53	-716.27	1747541.42	14531862.70	40°00'48.4355"N	80°37'2.6637"W	773.33	292.146	0.25
5081.00	11.200	290.330	5001.15	-581.48	297.74	-732.96	1747524.74	14531868.91	40°00'48.4976"N	80°37'2.8778"W	791.13	292.108	0.19
5171.00	11.400	291.470	5089.41	-594.19	304.03	-749.44	1747508.28	14531875.20	40°00'48.5605"N	80°37'3.0892"W	808.76	292.081	0.33
5263.00	11.240	290.950	5179.62	-607.27	310.57	-766.27	1747491.45	14531881.74	40°00'48.6258"N	80°37'3.3052"W	826.81	292.062	0.21
5354.00	10.630	291.000	5268.96	-619.72	316.75	-782.39	1747475.34	14531887.91	40°00'48.6875"N	80°37'3.5120"W	844.07	292.040	0.67
5445.00	9.980	290.940	5358.50	-631.47	322.57	-797.59	1747460.14	14531893.74	40°00'48.7457"N	80°37'3.7070"W	860.35	292.020	0.71
5536.00	11.450	290.270	5447.91	-643.59	328.52	-813.43	1747444.31	14531899.68	40°00'48.8052"N	80°37'3.9103"W	877.26	291.992	1.62
5626.00	11.440	290.620	5536.12	-656.36	334.76	-830.16	1747427.58	14531905.92	40°00'48.8675"N	80°37'4.1250"W	895.11	291.961	0.08
5717.00	11.380	290.640	5625.32	-669.28	341.10	-847.01	1747410.74	14531912.26	40°00'48.9309"N	80°37'4.3412"W	913.11	291.935	0.07
5807.00	9.360	272.840	5713.87	-679.09	344.59	-862.63	1747395.12	14531915.75	40°00'48.9661"N	80°37'4.5418"W	928.91	291.775	4.18
5898.00	9.400	216.690	5803.83	-679.07	338.99	-874.49	1747383.27	14531910.15	40°00'48.9112"N	80°37'4.6944"W	937.89	291.189	9.67
5988.00	14.410	187.210	5891.94	-666.13	321.96	-880.29	1747377.47	14531893.13	40°00'48.7432"N	80°37'4.7700"W	937.32	290.090	8.59
6079.00	19.670	175.730	5978.94	-642.24	295.43	-880.57	1747377.19	14531866.60	40°00'48.4810"N	80°37'4.7751"W	928.81	288.546	6.84
6177.00	27.920	167.970	6068.55	-604.42	256.46	-874.55	1747383.21	14531827.65	40°00'48.0957"N	80°37'4.6998"W	911.38	286.344	8.99
6273.00	36.350	163.210	6149.79	-554.29	207.15	-861.62	1747396.13	14531778.36	40°00'47.6078"N	80°37'4.5364"W	886.18	283.518	9.16
6368.00	45.840	161.680	6221.30	-492.47	147.71	-842.74	1747415.01	14531718.94	40°00'47.0196"N	80°37'4.2969"W	855.58	279.941	10.04
6464.00	54.510	159.500	6282.73	-419.19	78.27	-818.18	1747439.56	14531649.53	40°00'46.3324"N	80°37'3.9851"W	821.91	275.465	9.20
6560.00	64.100	155.950	6331.69	-336.85	2.04	-786.81	1747470.91	14531573.33	40°00'45.5777"N	80°37'3.5862"W	786.82	270.148	10.48
6657.00	71.960	153.690	6367.95	-246.98	-79.28	-748.53	1747509.18	14531492.04	40°00'44.7725"N	80°37'3.0987"W	752.72	263.954	8.39
6752.00	79.520	153.030	6391.34	-155.00	-161.51	-707.27	1747550.43	14531409.84	40°00'43.9581"N	80°37'2.5729"W	725.47	257.136	7.99
6848.00	88.540	153.050	6401.31	-59.66	-246.53	-664.03	1747593.65	14531324.86	40°00'43.1161"N	80°37'2.0219"W	708.31	249.632	9.40
6944.00	89.490	153.470	6402.96	36.29	-332.25	-620.84	1747636.82	14531239.17	40°00'42.2672"N	80°37'1.4716"W	704.15	241.846	1.08
7039.00	89.300	152.520	6403.96	131.23	-416.88	-577.70	1747679.94	14531154.57	40°00'41.4289"N	80°37'0.9219"W	712.41	234.185	1.02
7135.00	90.840	152.700	6403.85	227.16	-502.12	-533.54	1747724.09	14531069.37	40°00'40.5848"N	80°37'0.3591"W	732.66	226.738	1.62
7230.00	89.670	152.070	6403.42	322.07	-586.29	-489.51	1747768.10	14530985.22	40°00'39.7510"N	80°36'59.7978"W	763.78	219.859	1.40
7327.00	89.860	153.040	6403.82	419.00	-672.37	-444.80	1747812.79	14530899.18	40°00'38.8985"N	80°36'59.2280"W	806.19	213.486	1.02
7423.00	89.830	154.430	6404.08	514.98	-758.46	-402.32	1747855.26	14530813.12	40°00'38.0459"N	80°36'58.6868"W	858.56	207.943	1.45
7518.00	89.800	154.540	6404.39	609.97	-844.20	-361.40	1747896.16	14530727.42	40°00'37.1970"N	80°36'58.1657"W	918.30	203.176	0.12
7614.00	89.640	153.970	6404.86	705.97	-930.66	-319.70	1747937.84	14530640.99	40°00'36.3407"N	80°36'57.6346"W	984.05	198.959	0.62



Actual Wellpath Report

Michael Southworth MSH 6H awp Proj: 21040'
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REFERENCE WELLPATH IDENTIFICATION

Operator	EXPAND ENERGY	Well	Michael Southworth MSH 6H
Field	Marshall WV	API	47-051-02514-00-00
Facility	Michael Southworth MSH Pad	Wellbore	Michael Southworth MSH 6H AWB
Slot	6H		

WELLPATH DATA (230 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]
7710.00	89.860	154.030	6405.28	801.96	-1016.95	-277.62	1747979.91	14530554.74	40°00'35.4862"N	80°36'57.0986"W	1054.16	195.269	0.24
7805.00	88.780	154.560	6406.40	896.95	-1102.54	-236.42	1748021.10	14530469.18	40°00'34.6386"N	80°36'56.5738"W	1127.60	192.103	1.27
7900.00	89.030	154.660	6408.22	991.93	-1188.35	-195.69	1748061.81	14530383.40	40°00'33.7889"N	80°36'56.0552"W	1204.35	189.351	0.28
7995.00	89.060	154.020	6409.80	1086.91	-1273.97	-154.56	1748102.92	14530297.82	40°00'32.9411"N	80°36'55.5313"W	1283.31	186.917	0.67
8091.00	88.690	154.510	6411.69	1182.89	-1360.43	-112.88	1748144.58	14530211.39	40°00'32.0849"N	80°36'55.0005"W	1365.10	184.743	0.64
8187.00	88.170	154.050	6414.32	1278.85	-1446.88	-71.24	1748186.21	14530124.97	40°00'31.2287"N	80°36'54.4701"W	1448.64	182.819	0.72
8282.00	88.500	154.590	6417.08	1373.80	-1532.46	-30.09	1748227.34	14530039.42	40°00'30.3812"N	80°36'53.9461"W	1532.76	181.125	0.67
8378.00	88.600	154.730	6419.51	1469.77	-1619.20	10.99	1748268.40	14529952.72	40°00'29.5223"N	80°36'53.4230"W	1619.24	179.611	0.18
8473.00	88.570	154.600	6421.85	1564.74	-1705.04	51.63	1748309.03	14529866.92	40°00'28.6723"N	80°36'52.9055"W	1705.82	178.266	0.14
8569.00	88.810	154.570	6424.05	1660.72	-1791.72	92.82	1748350.20	14529780.26	40°00'27.8139"N	80°36'52.3810"W	1794.12	177.035	0.25
8664.00	88.500	154.480	6426.28	1755.69	-1877.46	133.67	1748391.03	14529694.56	40°00'26.9649"N	80°36'51.8608"W	1882.21	175.928	0.34
8759.00	88.720	154.910	6428.58	1850.66	-1963.32	174.26	1748431.61	14529608.73	40°00'26.1147"N	80°36'51.3439"W	1971.04	174.928	0.51
8854.00	89.920	158.320	6429.71	1945.59	-2050.50	211.96	1748469.29	14529521.59	40°00'25.2516"N	80°36'50.8644"W	2061.42	174.098	3.80
8951.00	89.060	154.160	6430.57	2042.53	-2139.25	251.03	1748508.35	14529432.87	40°00'24.3728"N	80°36'50.3672"W	2153.93	173.307	4.38
9047.00	88.810	154.360	6432.36	2138.51	-2225.71	292.71	1748550.02	14529346.44	40°00'23.5166"N	80°36'49.8363"W	2244.88	172.508	0.33
9142.00	88.840	153.560	6434.31	2233.48	-2311.05	334.41	1748591.70	14529261.14	40°00'22.6715"N	80°36'49.3053"W	2335.12	171.766	0.84
9237.00	89.400	153.390	6435.77	2328.45	-2396.04	376.83	1748634.10	14529176.18	40°00'21.8298"N	80°36'48.7649"W	2425.49	171.062	0.62
9333.00	89.150	154.160	6436.98	2424.42	-2482.15	419.25	1748676.50	14529090.11	40°00'20.9770"N	80°36'48.2246"W	2517.31	170.413	0.84
9429.00	89.340	154.490	6438.25	2520.41	-2568.66	460.84	1748718.08	14529003.63	40°00'20.1203"N	80°36'47.6949"W	2609.67	169.829	0.40
9525.00	89.090	154.310	6439.56	2616.40	-2655.23	502.31	1748759.54	14528917.09	40°00'19.2630"N	80°36'47.1668"W	2702.33	169.287	0.32
9621.00	89.000	154.220	6441.16	2712.38	-2741.70	543.99	1748801.20	14528830.66	40°00'18.4068"N	80°36'46.6360"W	2795.14	168.777	0.13
9717.00	89.090	154.480	6442.76	2808.36	-2828.22	585.54	1748842.73	14528744.17	40°00'17.5499"N	80°36'46.1069"W	2888.20	168.303	0.29
9813.00	89.180	154.540	6444.21	2904.35	-2914.87	626.85	1748884.03	14528657.55	40°00'16.6919"N	80°36'45.5809"W	2981.51	167.863	0.11
9909.00	89.030	154.040	6445.71	3000.34	-3001.35	668.49	1748925.65	14528571.10	40°00'15.8354"N	80°36'45.0506"W	3074.90	167.443	0.54
10004.00	89.700	154.090	6446.76	3095.32	-3086.78	710.04	1748967.18	14528485.71	40°00'14.9894"N	80°36'44.5215"W	3167.39	167.046	0.71
10100.00	90.170	154.800	6446.87	3191.32	-3173.39	751.45	1749008.58	14528399.13	40°00'14.1318"N	80°36'43.9942"W	3261.15	166.678	0.89
10196.00	89.180	154.210	6447.42	3287.32	-3260.04	792.77	1749049.88	14528312.52	40°00'13.2737"N	80°36'43.4681"W	3355.05	166.332	1.20
10291.00	89.060	154.560	6448.87	3382.30	-3345.69	833.84	1749090.93	14528226.90	40°00'12.4255"N	80°36'42.9452"W	3448.03	166.005	0.39
10388.00	89.800	154.930	6449.84	3479.30	-3433.41	875.22	1749132.30	14528139.21	40°00'11.5568"N	80°36'42.4183"W	3543.21	165.699	0.85
10483.00	89.000	153.970	6450.83	3574.29	-3519.12	916.19	1749173.25	14528053.54	40°00'10.7081"N	80°36'41.8966"W	3636.43	165.407	1.32



Actual Wellpath Report

Michael Southworth MSH 6H awp Proj: 21040'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	EXPAND ENERGY	Well	Michael Southworth MSH 6H
Field	Marshall WV	API	47-051-02514-00-00
Facility	Michael Southworth MSH Pad	Wellbore	Michael Southworth MSH 6H AWB
Slot	6H		

WELLPATH DATA (230 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]
10579.00	89.090	154.650	6452.43	3670.27	-3605.62	957.80	1749214.85	14527967.08	40°00'9.8515"N	80°36'41.3668"W	3730.66	165.123	0.71
10674.00	89.030	154.160	6453.99	3765.25	-3691.28	998.83	1749255.86	14527881.44	40°00'9.0032"N	80°36'40.8443"W	3824.03	164.859	0.52
10770.00	88.900	154.460	6455.73	3861.24	-3777.78	1040.44	1749297.46	14527794.98	40°00'8.1466"N	80°36'40.3145"W	3918.43	164.602	0.34
10866.00	90.140	153.880	6456.53	3957.22	-3864.18	1082.27	1749339.27	14527708.61	40°00'7.2909"N	80°36'39.7819"W	4012.88	164.354	1.43
10961.00	89.030	154.220	6457.22	4052.21	-3949.60	1123.84	1749380.82	14527623.23	40°00'6.4450"N	80°36'39.2525"W	4106.38	164.117	1.22
11057.00	89.640	154.800	6458.33	4148.20	-4036.25	1165.15	1749422.11	14527536.61	40°00'5.5870"N	80°36'38.7265"W	4201.06	163.898	0.88
11152.00	89.610	154.570	6458.96	4243.20	-4122.12	1205.77	1749462.72	14527450.77	40°00'4.7366"N	80°36'38.2094"W	4294.86	163.695	0.24
11248.00	88.810	154.410	6460.28	4339.19	-4208.76	1247.11	1749504.04	14527364.17	40°00'3.8787"N	80°36'37.6830"W	4389.64	163.495	0.85
11343.00	89.340	154.500	6461.81	4434.17	-4294.46	1288.07	1749544.99	14527278.50	40°00'3.0300"N	80°36'37.1615"W	4483.47	163.304	0.57
11438.00	89.580	154.440	6462.71	4529.17	-4380.18	1329.01	1749585.91	14527192.81	40°00'2.1811"N	80°36'36.6402"W	4577.36	163.121	0.26
11534.00	89.520	154.250	6463.46	4625.16	-4466.71	1370.57	1749627.46	14527106.31	40°00'1.3242"N	80°36'36.1111"W	4672.26	162.942	0.21
11629.00	89.520	154.830	6464.26	4720.16	-4552.48	1411.41	1749668.28	14527020.58	40°00'0.4748"N	80°36'35.5911"W	4766.25	162.775	0.61
11724.00	88.970	154.410	6465.51	4815.15	-4638.31	1452.12	1749708.98	14526934.79	39°59'59.6249"N	80°36'35.0728"W	4860.30	162.616	0.73
11819.00	89.090	152.930	6467.12	4910.11	-4723.44	1494.25	1749751.09	14526849.69	39°59'58.7818"N	80°36'34.5363"W	4954.15	162.445	1.56
11915.00	89.210	154.050	6468.54	5006.08	-4809.33	1537.10	1749793.92	14526763.83	39°59'57.9311"N	80°36'33.9906"W	5048.99	162.276	1.17
12011.00	89.060	154.010	6469.99	5102.06	-4895.63	1579.13	1749835.94	14526677.57	39°59'57.0765"N	80°36'33.4553"W	5144.01	162.122	0.16
12106.00	89.090	154.910	6471.53	5197.04	-4981.33	1620.08	1749876.87	14526591.89	39°59'56.2278"N	80°36'32.9339"W	5238.16	161.984	0.95
12201.00	89.210	154.370	6472.93	5292.03	-5067.17	1660.77	1749917.54	14526506.09	39°59'55.3778"N	80°36'32.4160"W	5332.39	161.853	0.58
12297.00	89.670	154.370	6473.87	5388.02	-5153.72	1702.29	1749959.05	14526419.58	39°59'54.5207"N	80°36'31.8873"W	5427.58	161.721	0.48
12392.00	88.900	154.140	6475.06	5483.01	-5239.28	1743.55	1750000.30	14526334.05	39°59'53.6733"N	80°36'31.3620"W	5521.78	161.593	0.85
12488.00	88.870	154.340	6476.93	5578.99	-5325.72	1785.27	1750041.99	14526247.64	39°59'52.8173"N	80°36'30.8309"W	5616.98	161.468	0.21
12583.00	89.060	154.400	6478.64	5673.97	-5411.36	1826.35	1750083.06	14526162.03	39°59'51.9692"N	80°36'30.3078"W	5711.25	161.350	0.21
12679.00	89.430	154.650	6479.91	5769.96	-5498.02	1867.64	1750124.33	14526075.41	39°59'51.1110"N	80°36'29.7822"W	5806.57	161.238	0.47
12774.00	89.610	154.650	6480.70	5864.96	-5583.87	1908.31	1750164.99	14525989.59	39°59'50.2608"N	80°36'29.2644"W	5900.95	161.132	0.19
12869.00	89.090	154.540	6481.78	5959.95	-5669.68	1949.07	1750205.73	14525903.82	39°59'49.4111"N	80°36'28.7456"W	5995.34	161.029	0.56
12964.00	89.370	153.080	6483.06	6054.92	-5754.91	1990.99	1750247.64	14525818.61	39°59'48.5670"N	80°36'28.2118"W	6089.59	160.916	1.56
13060.00	88.970	153.140	6484.45	6150.87	-5840.52	2034.40	1750291.03	14525733.04	39°59'47.7190"N	80°36'27.6588"W	6184.70	160.795	0.42
13157.00	89.150	152.810	6486.04	6247.81	-5926.92	2078.47	1750335.08	14525646.67	39°59'46.8633"N	80°36'27.0974"W	6280.80	160.675	0.39
13253.00	89.000	153.050	6487.59	6343.75	-6012.39	2122.15	1750378.75	14525561.23	39°59'46.0168"N	80°36'26.5410"W	6375.92	160.559	0.29
13348.00	88.870	153.280	6489.36	6438.69	-6097.15	2165.03	1750421.61	14525476.51	39°59'45.1773"N	80°36'25.9949"W	6470.13	160.451	0.28



Actual Wellpath Report

Michael Southworth MSH 6H awp Proj: 21040'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	EXPAND ENERGY	Well	Michael Southworth MSH 6H
Field	Marshall WV	API	47-051-02514-00-00
Facility	Michael Southworth MSH Pad	Wellbore	Michael Southworth MSH 6H AWB
Slot	6H		

WELLPATH DATA (230 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]
13444.00	88.630	152.020	6491.45	6534.60	-6182.40	2209.13	1750465.69	14525391.30	39°59'44.3330"N	80°36'25.4332"W	6565.23	160.337	1.34
13540.00	87.550	150.620	6494.65	6630.36	-6266.57	2255.17	1750511.71	14525307.16	39°59'43.4992"N	80°36'24.8463"W	6660.00	160.208	1.84
13636.00	88.840	152.340	6497.67	6726.15	-6350.87	2300.98	1750557.51	14525222.89	39°59'42.6641"N	80°36'24.2625"W	6754.86	160.084	2.24
13731.00	89.030	153.030	6499.44	6821.07	-6435.26	2344.57	1750601.08	14525138.53	39°59'41.8282"N	80°36'23.7073"W	6849.06	159.982	0.75
13827.00	89.060	153.140	6501.04	6917.01	-6520.85	2388.02	1750644.51	14525052.97	39°59'40.9805"N	80°36'23.1539"W	6944.36	159.887	0.12
13922.00	88.840	153.020	6502.78	7011.95	-6605.54	2431.02	1750687.50	14524968.31	39°59'40.1417"N	80°36'22.6061"W	7038.68	159.795	0.26
14017.00	89.180	153.270	6504.42	7106.90	-6690.29	2473.93	1750730.39	14524883.60	39°59'39.3024"N	80°36'22.0596"W	7133.04	159.707	0.44
14114.00	89.090	153.200	6505.89	7203.85	-6776.88	2517.61	1750774.05	14524797.04	39°59'38.4447"N	80°36'21.5034"W	7229.42	159.620	0.12
14210.00	89.060	153.100	6507.44	7299.80	-6862.52	2560.96	1750817.38	14524711.43	39°59'37.5965"N	80°36'20.9512"W	7324.80	159.535	0.11
14306.00	89.210	152.720	6508.88	7395.74	-6947.98	2604.67	1750861.08	14524626.01	39°59'36.7500"N	80°36'20.3944"W	7420.16	159.450	0.43
14402.00	89.090	153.170	6510.31	7491.67	-7033.47	2648.33	1750904.72	14524540.56	39°59'35.9034"N	80°36'19.8383"W	7515.54	159.367	0.49
14497.00	89.400	155.190	6511.56	7586.66	-7118.97	2689.70	1750946.08	14524455.09	39°59'35.0566"N	80°36'19.3117"W	7610.14	159.302	2.15
14592.00	89.150	155.330	6512.76	7681.65	-7205.24	2729.46	1750985.82	14524368.85	39°59'34.2023"N	80°36'18.8058"W	7704.90	159.253	0.30
14688.00	89.270	155.520	6514.09	7777.63	-7292.54	2769.38	1751025.72	14524281.59	39°59'33.3378"N	80°36'18.2979"W	7800.68	159.205	0.23
14784.00	89.090	154.080	6515.46	7873.62	-7379.39	2810.25	1751066.58	14524194.77	39°59'32.4778"N	80°36'17.7777"W	7896.39	159.152	1.51
14879.00	89.370	155.130	6516.74	7968.61	-7465.20	2850.98	1751107.30	14524108.99	39°59'31.6280"N	80°36'17.2592"W	7991.08	159.098	1.14
14975.00	89.340	155.710	6517.82	8064.60	-7552.50	2890.91	1751147.21	14524021.73	39°59'30.7635"N	80°36'16.7512"W	8086.88	159.054	0.60
15072.00	89.550	154.960	6518.76	8161.59	-7640.64	2931.39	1751187.67	14523933.62	39°59'29.8907"N	80°36'16.2361"W	8183.67	159.010	0.80
15167.00	89.210	154.720	6519.79	8256.58	-7726.62	2971.78	1751228.04	14523847.67	39°59'29.0392"N	80°36'15.7221"W	8278.42	158.962	0.44
15263.00	89.340	154.550	6521.00	8352.57	-7813.36	3012.90	1751269.15	14523760.96	39°59'28.1803"N	80°36'15.1988"W	8374.14	158.913	0.22
15359.00	89.490	156.690	6521.98	8448.55	-7900.79	3052.52	1751308.76	14523673.57	39°59'27.3145"N	80°36'14.6947"W	8469.97	158.876	2.23
15454.00	89.550	155.810	6522.78	8543.52	-7987.74	3090.78	1751347.00	14523586.65	39°59'26.4536"N	80°36'14.2081"W	8564.87	158.847	0.93
15550.00	89.460	155.280	6523.61	8639.50	-8075.13	3130.52	1751386.73	14523499.30	39°59'25.5883"N	80°36'13.7025"W	8660.71	158.810	0.56
15645.00	89.340	155.440	6524.60	8734.49	-8161.47	3170.13	1751426.31	14523412.99	39°59'24.7333"N	80°36'13.1986"W	8755.53	158.773	0.21
15741.00	89.400	153.820	6525.66	8830.49	-8248.21	3211.26	1751467.43	14523326.29	39°59'23.8743"N	80°36'12.6752"W	8851.27	158.728	1.69
15837.00	89.490	154.950	6526.59	8926.48	-8334.76	3252.76	1751508.91	14523239.76	39°59'23.0171"N	80°36'12.1469"W	8947.00	158.681	1.18
15933.00	89.740	157.590	6527.23	9022.43	-8422.64	3291.38	1751547.53	14523151.93	39°59'22.1470"N	80°36'11.6557"W	9042.90	158.656	2.76
16028.00	89.670	155.190	6527.72	9117.39	-8509.68	3329.43	1751585.56	14523064.92	39°59'21.2852"N	80°36'11.1719"W	9137.82	158.632	2.53
16124.00	89.400	154.260	6528.50	9213.39	-8596.48	3370.42	1751626.53	14522978.15	39°59'20.4256"N	80°36'10.6503"W	9233.59	158.591	1.01
16220.00	89.430	155.180	6529.48	9309.38	-8683.29	3411.41	1751667.50	14522891.38	39°59'19.5660"N	80°36'10.1286"W	9329.37	158.552	0.96



Actual Wellpath Report

Michael Southworth MSH 6H awp Proj: 21040'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	EXPAND ENERGY	Well	Michael Southworth MSH 6H
Field	Marshall WV	API	47-051-02514-00-00
Facility	Michael Southworth MSH Pad	Wellbore	Michael Southworth MSH 6H AWB
Slot	6H		

WELLPATH DATA (230 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]
16316.00	89.670	156.350	6530.23	9405.36	-8770.82	3450.81	1751706.89	14522803.88	39°59'18.6992"N	80°36'9.6273"W	9425.25	158.523	1.24
16412.00	89.800	156.390	6530.68	9501.32	-8858.77	3489.29	1751745.36	14522715.96	39°59'17.8284"N	80°36'9.1380"W	9521.19	158.502	0.14
16507.00	89.240	156.400	6531.47	9596.28	-8945.82	3527.33	1751783.38	14522628.95	39°59'16.9665"N	80°36'8.6543"W	9616.12	158.481	0.59
16603.00	89.430	156.710	6532.59	9692.23	-9033.89	3565.53	1751821.56	14522540.91	39°59'16.0945"N	80°36'8.1687"W	9712.06	158.462	0.38
16698.00	89.090	156.070	6533.81	9787.19	-9120.93	3603.57	1751859.59	14522453.91	39°59'15.2326"N	80°36'7.6849"W	9806.99	158.442	0.76
16794.00	88.870	156.310	6535.52	9883.14	-9208.74	3642.32	1751898.32	14522366.13	39°59'14.3631"N	80°36'7.1921"W	9902.90	158.420	0.34
16890.00	89.030	156.450	6537.28	9979.09	-9296.68	3680.78	1751936.77	14522278.22	39°59'13.4923"N	80°36'6.7031"W	9998.82	158.400	0.22
16985.00	88.870	156.020	6539.02	10074.04	-9383.61	3719.05	1751975.03	14522191.32	39°59'12.6316"N	80°36'6.2163"W	10093.74	158.380	0.48
17080.00	89.030	156.530	6540.76	10169.00	-9470.57	3757.27	1752013.23	14522104.40	39°59'11.7706"N	80°36'5.7304"W	10188.66	158.360	0.56
17177.00	89.240	156.660	6542.23	10265.94	-9559.58	3795.80	1752051.74	14522015.43	39°59'10.8893"N	80°36'5.2405"W	10285.60	158.344	0.25
17272.00	89.740	157.780	6543.07	10360.85	-9647.16	3832.58	1752088.51	14521927.88	39°59'10.0221"N	80°36'4.7730"W	10380.58	158.333	1.29
17367.00	89.270	156.260	6543.90	10455.77	-9734.62	3869.66	1752125.58	14521840.45	39°59'9.1562"N	80°36'4.3016"W	10475.55	158.321	1.67
17463.00	89.210	156.070	6545.17	10551.73	-9822.42	3908.46	1752164.36	14521752.68	39°59'8.2868"N	80°36'3.8083"W	10571.47	158.302	0.21
17558.00	90.100	156.630	6545.74	10646.70	-9909.44	3946.56	1752202.45	14521665.70	39°59'7.4252"N	80°36'3.3238"W	10666.41	158.284	1.11
17653.00	89.270	156.080	6546.26	10741.66	-9996.46	3984.66	1752240.54	14521578.71	39°59'6.5635"N	80°36'2.8393"W	10761.36	158.267	1.05
17749.00	89.740	156.740	6547.09	10837.62	-10084.44	4023.08	1752278.94	14521490.77	39°59'5.6925"N	80°36'2.3508"W	10857.30	158.251	0.84
17844.00	89.490	155.670	6547.73	10932.58	-10171.36	4061.41	1752317.25	14521403.88	39°59'4.8318"N	80°36'1.8634"W	10952.24	158.233	1.16
17940.00	89.550	156.030	6548.53	11028.56	-10258.95	4100.68	1752356.51	14521316.32	39°59'3.9644"N	80°36'1.3639"W	11048.15	158.213	0.38
18036.00	89.640	155.860	6549.21	11124.54	-10346.61	4139.81	1752395.62	14521228.70	39°59'3.0964"N	80°36'0.8663"W	11144.08	158.193	0.20
18131.00	89.670	156.130	6549.79	11219.52	-10433.40	4178.46	1752434.26	14521141.95	39°59'2.2371"N	80°36'0.3748"W	11239.01	158.174	0.29
18227.00	89.520	156.420	6550.46	11315.49	-10521.28	4217.08	1752472.86	14521054.10	39°59'1.3669"N	80°35'59.8837"W	11334.95	158.158	0.34
18322.00	89.370	156.040	6551.38	11410.45	-10608.22	4255.37	1752511.14	14520967.20	39°59'0.5060"N	80°35'59.3968"W	11429.89	158.142	0.43
18418.00	89.210	156.440	6552.57	11506.41	-10696.07	4294.05	1752549.80	14520879.37	39°58'59.6361"N	80°35'58.9051"W	11525.83	158.126	0.45
18514.00	89.210	156.300	6553.90	11602.37	-10784.02	4332.53	1752588.26	14520791.47	39°58'58.7653"N	80°35'58.4159"W	11621.78	158.112	0.15
18609.00	89.370	156.130	6555.07	11697.33	-10870.94	4370.84	1752626.56	14520704.58	39°58'57.9046"N	80°35'57.9287"W	11716.72	158.097	0.25
18705.00	89.460	156.230	6556.05	11793.30	-10958.76	4409.61	1752665.31	14520616.79	39°58'57.0351"N	80°35'57.4358"W	11812.66	158.081	0.14
18800.00	90.320	155.920	6556.24	11888.27	-11045.59	4448.13	1752703.82	14520529.99	39°58'56.1752"N	80°35'56.9459"W	11907.60	158.065	0.96
18896.00	89.550	156.250	6556.35	11984.25	-11133.35	4487.05	1752742.72	14520442.27	39°58'55.3063"N	80°35'56.4510"W	12003.55	158.049	0.87
18992.00	89.340	156.450	6557.28	12080.21	-11221.28	4525.56	1752781.22	14520354.37	39°58'54.4356"N	80°35'55.9614"W	12099.50	158.036	0.30
19088.00	89.610	156.180	6558.16	12176.17	-11309.19	4564.12	1752819.76	14520266.49	39°58'53.5651"N	80°35'55.4711"W	12195.45	158.022	0.40



Actual Wellpath Report

Michael Southworth MSH 6H awp Proj: 21040'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	EXPAND ENERGY	Well	Michael Southworth MSH 6H
Field	Marshall WV	API	47-051-02514-00-00
Facility	Michael Southworth MSH Pad	Wellbore	Michael Southworth MSH 6H AWB
Slot	6H		

WELLPATH DATA (230 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]
19184.00	89.400	156.110	6558.99	12272.14	-11396.99	4602.94	1752858.57	14520178.73	39°58'52.6958"N	80°35'54.9775"W	12291.40	158.008	0.23
19279.00	89.370	156.130	6560.00	12367.11	-11483.85	4641.40	1752897.01	14520091.90	39°58'51.8357"N	80°35'54.4885"W	12386.34	157.993	0.04
19374.00	89.490	156.150	6560.95	12462.08	-11570.73	4679.82	1752935.42	14520005.06	39°58'50.9754"N	80°35'53.9999"W	12481.29	157.979	0.13
19470.00	89.550	156.280	6561.75	12558.05	-11658.57	4718.54	1752974.12	14519917.25	39°58'50.1056"N	80°35'53.5076"W	12577.24	157.965	0.15
19565.00	89.610	156.400	6562.45	12653.01	-11745.58	4756.66	1753012.23	14519830.27	39°58'49.2440"N	80°35'53.0229"W	12672.20	157.953	0.14
19661.00	89.610	156.270	6563.10	12748.97	-11833.51	4795.19	1753050.75	14519742.38	39°58'48.3734"N	80°35'52.5331"W	12768.16	157.941	0.14
19756.00	89.520	156.380	6563.83	12843.94	-11920.51	4833.34	1753088.88	14519655.41	39°58'47.5119"N	80°35'52.0481"W	12863.12	157.929	0.15
19851.00	89.640	156.010	6564.52	12938.91	-12007.43	4871.68	1753127.21	14519568.53	39°58'46.6513"N	80°35'51.5606"W	12958.07	157.916	0.41
19946.00	89.300	156.060	6565.40	13033.88	-12094.23	4910.27	1753165.78	14519481.76	39°58'45.7917"N	80°35'51.0700"W	13053.02	157.903	0.36
20137.00	89.580	156.240	6567.27	13224.82	-12268.92	4987.49	1753242.98	14519307.14	39°58'44.0620"N	80°35'50.0881"W	13243.92	157.878	0.17
20233.00	89.550	156.250	6568.00	13320.79	-12356.78	5026.17	1753281.63	14519219.31	39°58'43.1920"N	80°35'49.5964"W	13339.88	157.866	0.03
20328.00	89.490	156.320	6568.79	13415.75	-12443.75	5064.37	1753319.82	14519132.37	39°58'42.3308"N	80°35'49.1107"W	13434.84	157.855	0.10
20424.00	89.640	156.280	6569.52	13511.71	-12531.66	5102.96	1753358.39	14519044.51	39°58'41.4604"N	80°35'48.6202"W	13530.80	157.844	0.16
20520.00	89.550	156.210	6570.20	13607.68	-12619.52	5141.63	1753397.05	14518956.68	39°58'40.5904"N	80°35'48.1285"W	13626.76	157.832	0.12
20615.00	89.520	156.450	6570.97	13702.64	-12706.52	5179.77	1753435.17	14518869.70	39°58'39.7289"N	80°35'47.6437"W	13721.73	157.822	0.25
20711.00	89.210	156.080	6572.03	13798.61	-12794.40	5218.40	1753473.80	14518781.86	39°58'38.8588"N	80°35'47.1525"W	13817.68	157.811	0.50
20806.00	89.520	156.300	6573.09	13893.57	-12881.31	5256.75	1753512.13	14518694.99	39°58'37.9982"N	80°35'46.6649"W	13912.64	157.800	0.40
20901.00	89.610	156.340	6573.81	13988.54	-12968.31	5294.91	1753550.27	14518608.02	39°58'37.1368"N	80°35'46.1799"W	14007.61	157.790	0.10
20997.00	89.490	156.310	6574.56	14084.50	-13056.22	5333.45	1753588.80	14518520.14	39°58'36.2662"N	80°35'45.6898"W	14103.57	157.780	0.13
21040.00†	89.490	156.310	6574.94	14127.48	-13095.60	5350.73	1753606.07	14518480.78	39°58'35.8763"N	80°35'45.4702"W	14146.56	157.776	0.00

HOLE & CASING SECTIONS - Ref Wellbore: Michael Southworth MSH 6H AWB Ref Wellpath: Michael Southworth MSH 6H awp Proj: 21040'									
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	830.00	804.00	26.00	830.00	0.00	0.00	-1.05	0.52
9.625in Casing	26.00	2051.00	2025.00	26.00	2034.65	0.00	0.00	62.64	-166.19
5.5in Casing	26.00	21040.00	21014.00	26.00	6574.94	0.00	0.00	-13095.60	5350.73



Actual Wellpath Report

Michael Southworth MSH 6H awp Proj: 21040'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	EXPAND ENERGY	Well	Michael Southworth MSH 6H
Field	Marshall WV	API	47-051-02514-00-00
Facility	Michael Southworth MSH Pad	Wellbore	Michael Southworth MSH 6H AWB
Slot	6H		

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Michael Southworth MSH 6H wp1	6395.00	-880.92	-366.18	1747891.38	14530690.71	40°00'36.8342"N	80°36'58.2291"W	point
Michael Southworth MSH 6H LP Rev 2	6397.00	-258.87	-670.98	1747586.70	14531312.52	40°00'42.9944"N	80°37'2.1120"W	point
Michael Southworth MSH 6H wp2	6422.00	-2933.08	613.97	1748871.15	14528639.35	40°00'16.5124"N	80°36'45.7474"W	point
Michael Southworth MSH 6H wp3	6435.00	-4171.89	1203.29	1749460.24	14527401.02	40°00'4.2449"N	80°36'38.2440"W	point
Michael Southworth MSH 6H wp4	6481.00	-7344.91	2792.79	1751049.13	14524229.23	39°59'32.8192"N	80°36'18.0000"W	point
Michael Southworth MSH 6H BHL Rev 4	6543.00	-13088.97	5365.96	1753621.29	14518487.40	39°58'35.9411"N	80°35'45.2742"W	point



Actual Wellpath Report

Michael Southworth MSH 6H awp Proj: 21040'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	EXPAND ENERGY	Well	Michael Southworth MSH 6H
Field	Marshall WV	API	47-051-02514-00-00
Facility	Michael Southworth MSH Pad	Wellbore	Michael Southworth MSH 6H AWB
Slot	6H		

WELLPATH COMPOSITION - Ref Wellbore: Michael Southworth MSH 6H AWB Ref Wellpath: Michael Southworth MSH 6H awp Proj: 21040'					
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date
26.00	648.00	Gyrodata 2015 - GC+WIR+DPIPE	1 Imported Gyro IFR-MSA 17.5" 100' - 648'	Michael Southworth MSH 6H AWB	3/3/2025
648.00	775.00	Custom OWSG MWD+IFR1+SAG+FDIR (Approximation)	2 Total MWD HRGM IFR-MSA 17.5" 687' - 775'	Michael Southworth MSH 6H AWB	3/3/2025
775.00	1958.00	Custom OWSG MWD+IFR1+SAG+FDIR (Approximation)	3 Total MWD HRGM IFR-MSA 12.25" 868' - 1958'	Michael Southworth MSH 6H AWB	3/3/2025
1958.00	3432.00	Custom OWSG MWD+IFR1+SAG+FDIR (Approximation)	4 Total MWD HRGM IFR-MSA 8.75" 2065' - 3432'	Michael Southworth MSH 6H AWB	3/3/2025
3432.00	21040.00	Custom OWSG MWD+IFR1+SAG+FDIR (Approximation)	5 BH MWD ATC IFR-MSA 8.5" 3538' - 20997'	Michael Southworth MSH 6H AWB	3/3/2025