



Actual Wellpath Report

Franz Thoman OHI 8H awp Proj: 25509'

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REFERENCE WELLPATH IDENTIFICATION

Operator	EXPAND ENERGY	Well	Franz Thoman OHI 8H
Field	Ohio	API	47069003720000
Facility	Franz Thoman OHI Pad	Wellbore	Franz Thoman OHI 8H AWB
Slot	8H		

REPORT SETUP INFORMATION

Projection System	NAD83 / UTM Zone 17 North, US feet	Software System	WellArchitect® 6.0
North Reference	Grid	User	Tranlam
Scale	0.999610	Report Generated	12/13/2024 at 3:52:24 PM
Convergence at slot	0.22° 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	11.00	-36.07	1735447.56	14576686.99	40°08'12.0525"N	80°39'35.9537"W
Facility Reference Pt			1735483.62	14576675.99	40°08'11.9423"N	80°39'35.4898"W
Field Reference Pt			0.00	0.00	0°00'0.0000"	85°29'19.4780"W

WELLPATH DATUM

Calculation method	Minimum curvature	SDC41 (KB) to Facility Vertical Datum	1163.10ft
Horizontal Reference Pt	Slot	SDC41 (KB) to Mean Sea Level	1163.10ft
Vertical Reference Pt	SDC41 (KB)	SDC41 (KB) to Ground Level at Slot (8H)	26.00ft
MD Reference Pt	SDC41 (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	154.36°

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WELLPATH DATA (272 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	94.560	0.00	0.00	0.00	0.00	1735447.56	14576686.99	40°08'12.0525"N	80°39'35.9537"W	0.00	0.000	0.00
26.00	0.000	94.560	26.00	0.00	0.00	0.00	1735447.56	14576686.99	40°08'12.0525"N	80°39'35.9537"W	0.00	0.000	0.00
176.00	0.580	94.560	176.00	0.38	-0.06	0.76	1735448.32	14576686.93	40°08'12.0518"N	80°39'35.9440"W	0.76	94.560	0.39
238.00	0.550	90.990	237.99	0.67	-0.09	1.37	1735448.93	14576686.90	40°08'12.0515"N	80°39'35.9361"W	1.37	93.785	0.07
327.00	0.510	115.800	326.99	1.17	-0.27	2.15	1735449.71	14576686.72	40°08'12.0497"N	80°39'35.9260"W	2.17	97.161	0.26
380.00	0.310	126.070	379.99	1.49	-0.46	2.48	1735450.04	14576686.53	40°08'12.0478"N	80°39'35.9218"W	2.52	100.451	0.40
448.00	0.370	158.190	447.99	1.87	-0.77	2.71	1735450.27	14576686.22	40°08'12.0447"N	80°39'35.9189"W	2.82	105.854	0.29
508.00	0.690	190.440	507.99	2.35	-1.30	2.72	1735450.27	14576685.69	40°08'12.0395"N	80°39'35.9188"W	3.01	115.658	0.71
599.00	1.690	187.540	598.96	3.92	-3.17	2.44	1735450.00	14576683.82	40°08'12.0210"N	80°39'35.9224"W	4.00	142.441	1.10
690.00	3.720	202.500	689.86	7.01	-7.23	1.13	1735448.69	14576679.76	40°08'11.9809"N	80°39'35.9395"W	7.32	171.084	2.34
781.00	5.430	196.630	780.57	12.17	-14.09	-1.23	1735446.33	14576672.91	40°08'11.9133"N	80°39'35.9702"W	14.14	184.981	1.95
871.00	5.060	201.770	870.19	18.00	-21.85	-3.92	1735443.64	14576665.15	40°08'11.8367"N	80°39'36.0052"W	22.20	190.166	0.66
961.00	4.920	197.930	959.85	23.49	-29.21	-6.58	1735440.98	14576657.79	40°08'11.7641"N	80°39'36.0398"W	29.94	192.692	0.40
1052.00	5.940	203.290	1050.44	29.41	-37.25	-9.64	1735437.92	14576649.76	40°08'11.6847"N	80°39'36.0797"W	38.48	194.513	1.25
1143.00	5.860	202.590	1140.96	35.60	-45.86	-13.29	1735434.28	14576641.15	40°08'11.5998"N	80°39'36.1271"W	47.75	196.158	0.12
1234.00	5.090	204.740	1231.54	41.26	-53.82	-16.76	1735430.80	14576633.19	40°08'11.5213"N	80°39'36.1722"W	56.37	197.300	0.88
1325.00	4.050	213.540	1322.25	45.49	-60.16	-20.23	1735427.34	14576626.85	40°08'11.4587"N	80°39'36.2171"W	63.47	198.583	1.38
1416.00	2.730	216.830	1413.09	48.13	-64.58	-23.30	1735424.27	14576622.44	40°08'11.4152"N	80°39'36.2569"W	68.65	199.842	1.47
1507.00	1.300	196.780	1504.03	49.90	-67.30	-24.90	1735422.67	14576619.72	40°08'11.3884"N	80°39'36.2776"W	71.76	200.303	1.73
1598.00	0.970	140.950	1595.02	51.41	-68.88	-24.71	1735422.86	14576618.13	40°08'11.3727"N	80°39'36.2753"W	73.18	199.735	1.21
1686.00	1.210	115.890	1683.00	52.86	-69.87	-23.41	1735424.16	14576617.15	40°08'11.3629"N	80°39'36.2585"W	73.69	198.521	0.60
1791.00	2.060	105.660	1787.96	54.97	-70.86	-20.59	1735426.98	14576616.16	40°08'11.3530"N	80°39'36.2223"W	73.79	196.203	0.85
1885.00	0.560	4.070	1881.94	55.69	-70.86	-18.93	1735428.64	14576616.16	40°08'11.3529"N	80°39'36.2010"W	73.35	194.959	2.38
1976.00	1.690	310.560	1972.92	54.08	-69.54	-19.92	1735427.65	14576617.47	40°08'11.3660"N	80°39'36.2136"W	72.34	195.984	1.57
2066.00	1.790	308.050	2062.88	51.60	-67.81	-22.04	1735425.53	14576619.20	40°08'11.3831"N	80°39'36.2408"W	71.31	198.001	0.14
2156.00	0.820	320.040	2152.86	49.72	-66.45	-23.56	1735424.01	14576620.56	40°08'11.3966"N	80°39'36.2603"W	70.51	199.518	1.11
2247.00	0.470	12.790	2243.85	48.79	-65.59	-23.89	1735423.68	14576621.42	40°08'11.4052"N	80°39'36.2645"W	69.81	200.014	0.72
2337.00	0.450	21.940	2333.85	48.27	-64.90	-23.68	1735423.89	14576622.11	40°08'11.4120"N	80°39'36.2618"W	69.09	200.043	0.08
2428.00	0.460	356.380	2424.85	47.69	-64.21	-23.57	1735424.00	14576622.81	40°08'11.4188"N	80°39'36.2603"W	68.40	200.155	0.22
2518.00	1.450	342.930	2514.83	46.23	-62.76	-23.92	1735423.65	14576624.26	40°08'11.4332"N	80°39'36.2648"W	67.16	200.867	1.12

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Slot	8H		

WELLPATH DATA (272 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]
2609.00	2.150	347.070	2605.79	43.42	-59.99	-24.64	1735422.93	14576627.02	40°08'11.4605"N	80°39'36.2740"W	64.86	202.332	0.78
2700.00	3.230	348.420	2696.69	39.27	-55.82	-25.54	1735422.03	14576631.19	40°08'11.5018"N	80°39'36.2853"W	61.38	204.587	1.19
2791.00	4.890	347.440	2787.45	33.01	-49.52	-26.90	1735420.67	14576637.49	40°08'11.5641"N	80°39'36.3025"W	56.36	208.510	1.83
2883.00	5.660	344.750	2879.06	24.72	-41.32	-28.95	1735418.63	14576645.69	40°08'11.6453"N	80°39'36.3284"W	50.45	215.014	0.88
2974.00	5.550	344.350	2969.63	15.98	-32.75	-31.31	1735416.26	14576654.25	40°08'11.7300"N	80°39'36.3585"W	45.31	223.714	0.13
3065.00	5.390	342.470	3060.21	7.41	-24.44	-33.79	1735413.79	14576662.56	40°08'11.8122"N	80°39'36.3899"W	41.70	234.123	0.26
3155.00	5.250	340.810	3149.83	-0.87	-16.52	-36.41	1735411.16	14576670.48	40°08'11.8906"N	80°39'36.4234"W	39.98	245.600	0.23
3245.00	5.090	337.430	3239.46	-8.94	-8.94	-39.30	1735408.28	14576678.05	40°08'11.9656"N	80°39'36.4601"W	40.30	257.181	0.38
3336.00	5.900	345.020	3330.04	-17.57	-0.70	-42.06	1735405.52	14576686.29	40°08'12.0472"N	80°39'36.4952"W	42.06	269.052	1.19
3427.00	6.330	348.500	3420.52	-27.03	8.74	-44.27	1735403.31	14576695.72	40°08'12.1405"N	80°39'36.5232"W	45.12	281.166	0.62
3517.00	6.030	345.570	3510.00	-36.48	18.18	-46.43	1735401.14	14576705.16	40°08'12.2338"N	80°39'36.5507"W	49.87	291.379	0.48
3608.00	5.650	344.000	3600.53	-45.59	27.11	-48.86	1735398.72	14576714.09	40°08'12.3222"N	80°39'36.5815"W	55.88	299.026	0.45
3698.00	5.480	340.190	3690.11	-54.23	35.41	-51.54	1735396.04	14576722.39	40°08'12.4044"N	80°39'36.6155"W	62.53	304.495	0.45
3788.00	5.290	337.160	3779.71	-62.65	43.28	-54.60	1735392.98	14576730.25	40°08'12.4822"N	80°39'36.6546"W	69.68	308.402	0.38
3879.00	5.030	334.720	3870.34	-70.83	50.75	-57.94	1735389.65	14576737.72	40°08'12.5562"N	80°39'36.6972"W	77.02	311.220	0.37
3972.00	5.080	342.140	3962.98	-78.98	58.36	-60.94	1735386.64	14576745.33	40°08'12.6315"N	80°39'36.7355"W	84.38	313.761	0.70
4064.00	5.340	344.860	4054.60	-87.23	66.37	-63.31	1735384.28	14576753.33	40°08'12.7107"N	80°39'36.7655"W	91.72	316.353	0.39
4155.00	5.180	340.550	4145.22	-95.48	74.33	-65.78	1735381.80	14576761.29	40°08'12.7895"N	80°39'36.7970"W	99.26	318.492	0.47
4246.00	4.910	336.410	4235.86	-103.45	81.77	-68.71	1735378.88	14576768.73	40°08'12.8631"N	80°39'36.8343"W	106.81	319.962	0.50
4337.00	5.260	345.500	4326.51	-111.44	89.38	-71.31	1735376.28	14576776.34	40°08'12.9384"N	80°39'36.8675"W	114.34	321.416	0.96
4427.00	5.530	346.280	4416.11	-119.73	97.59	-73.37	1735374.22	14576784.54	40°08'13.0196"N	80°39'36.8936"W	122.09	323.062	0.31
4518.00	5.140	342.360	4506.71	-128.05	105.73	-75.65	1735371.94	14576792.68	40°08'13.1002"N	80°39'36.9225"W	130.01	324.418	0.59
4609.00	6.040	348.090	4597.28	-136.74	114.30	-77.87	1735369.72	14576801.25	40°08'13.1849"N	80°39'36.9507"W	138.31	325.734	1.16
4700.00	6.330	348.910	4687.75	-146.25	123.91	-79.82	1735367.77	14576810.85	40°08'13.2799"N	80°39'36.9754"W	147.39	327.210	0.33
4790.00	5.900	343.310	4777.24	-155.62	133.21	-82.11	1735365.49	14576820.15	40°08'13.3719"N	80°39'37.0043"W	156.48	328.351	0.82
4881.00	5.440	340.050	4867.79	-164.53	141.74	-84.92	1735362.67	14576828.68	40°08'13.4564"N	80°39'37.0401"W	165.24	329.073	0.62
4971.00	5.250	347.170	4957.40	-172.79	149.77	-87.29	1735360.30	14576836.70	40°08'13.5358"N	80°39'37.0702"W	173.35	329.764	0.77
5079.00	5.400	342.940	5064.94	-182.64	159.44	-89.88	1735357.72	14576846.37	40°08'13.6315"N	80°39'37.1031"W	183.03	330.590	0.39
5169.00	5.450	342.680	5154.54	-191.05	167.57	-92.39	1735355.20	14576854.50	40°08'13.7119"N	80°39'37.1351"W	191.36	331.129	0.06
5260.00	0.610	126.060	5245.41	-194.91	171.42	-93.29	1735354.31	14576858.34	40°08'13.7499"N	80°39'37.1464"W	195.16	331.444	6.54



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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]
5351.00	9.100	149.520	5336.00	-187.29	164.92	-89.24	1735358.35	14576851.84	40°08'13.6855"N	80°39'37.0946"W	187.51	331.581	9.39
5441.00	16.190	147.520	5423.76	-167.72	148.18	-78.88	1735368.71	14576835.11	40°08'13.5197"N	80°39'36.9620"W	167.87	331.972	7.89
5532.00	24.750	150.270	5508.94	-136.06	120.88	-62.59	1735384.99	14576807.83	40°08'13.2494"N	80°39'36.7536"W	136.13	332.626	9.46
5622.00	33.030	151.320	5587.67	-92.70	82.94	-41.44	1735406.14	14576769.90	40°08'12.8736"N	80°39'36.4832"W	92.71	333.452	9.22
5713.00	41.900	151.710	5659.83	-37.47	34.33	-15.08	1735432.48	14576721.30	40°08'12.3922"N	80°39'36.1462"W	37.49	336.280	9.75
5802.00	50.230	153.650	5721.53	26.53	-22.60	14.24	1735461.79	14576664.40	40°08'11.8286"N	80°39'35.7715"W	26.71	147.786	9.49
5893.00	56.540	153.830	5775.78	99.53	-88.07	46.53	1735494.08	14576598.96	40°08'11.1804"N	80°39'35.3589"W	99.61	152.149	6.94
5985.00	67.190	155.970	5819.10	180.53	-161.46	80.83	1735528.36	14576525.60	40°08'10.4539"N	80°39'34.9210"W	180.56	153.407	11.76
6075.00	73.070	155.580	5849.68	265.11	-238.61	115.55	1735563.06	14576448.47	40°08'9.6901"N	80°39'34.4778"W	265.11	154.161	6.55
6176.00	80.700	155.090	5872.58	363.39	-327.93	156.57	1735604.07	14576359.19	40°08'8.8059"N	80°39'33.9540"W	363.39	154.478	7.57
6273.00	89.380	155.870	5880.96	459.92	-415.77	196.64	1735644.12	14576271.38	40°08'7.9364"N	80°39'33.4425"W	459.92	154.689	8.98
6369.00	89.290	156.320	5882.07	555.87	-503.53	235.53	1735683.00	14576183.66	40°08'7.0677"N	80°39'32.9460"W	555.89	154.931	0.48
6466.00	88.580	156.160	5883.87	652.80	-592.29	274.61	1735722.06	14576094.93	40°08'6.1890"N	80°39'32.4473"W	652.85	155.126	0.75
6562.00	88.650	156.140	5886.19	748.72	-680.07	313.41	1735760.85	14576007.19	40°08'5.3201"N	80°39'31.9520"W	748.81	155.257	0.08
6659.00	88.950	156.280	5888.23	845.65	-768.81	352.53	1735799.96	14575918.48	40°08'4.4417"N	80°39'31.4527"W	845.78	155.366	0.34
6755.00	89.380	156.440	5889.62	941.58	-856.74	391.02	1735838.43	14575830.58	40°08'3.5713"N	80°39'30.9615"W	941.76	155.468	0.48
6852.00	89.850	155.860	5890.28	1038.53	-945.46	430.25	1735877.64	14575741.90	40°08'2.6931"N	80°39'30.4610"W	1038.75	155.531	0.77
6948.00	87.690	155.640	5892.34	1134.47	-1032.96	469.66	1735917.04	14575654.44	40°08'1.8269"N	80°39'29.9578"W	1134.72	155.550	2.26
7045.00	87.910	156.050	5896.06	1231.37	-1121.40	509.33	1735956.69	14575566.03	40°08'0.9515"N	80°39'29.4515"W	1231.65	155.573	0.48
7142.00	87.880	156.330	5899.62	1328.26	-1210.08	548.46	1735995.80	14575477.38	40°08'0.0736"N	80°39'28.9521"W	1328.58	155.618	0.29
7239.00	88.890	155.880	5902.36	1425.17	-1298.73	587.73	1736035.06	14575388.76	40°07'59.1961"N	80°39'28.4508"W	1425.53	155.651	1.14
7335.00	88.920	156.080	5904.19	1521.11	-1386.40	626.80	1736074.12	14575301.13	40°07'58.3282"N	80°39'27.9522"W	1521.51	155.672	0.21
7430.00	89.260	155.830	5905.70	1616.07	-1473.15	665.51	1736112.81	14575214.42	40°07'57.4695"N	80°39'27.4582"W	1616.50	155.689	0.44
7525.00	88.950	155.280	5907.18	1711.03	-1559.62	704.82	1736152.10	14575127.98	40°07'56.6135"N	80°39'26.9564"W	1711.49	155.681	0.66
7621.00	89.380	155.960	5908.58	1807.00	-1647.05	744.44	1736191.71	14575040.58	40°07'55.7480"N	80°39'26.4506"W	1807.48	155.678	0.84
7716.00	89.420	155.540	5909.58	1901.96	-1733.67	783.45	1736230.71	14574954.00	40°07'54.8906"N	80°39'25.9526"W	1902.47	155.681	0.44
7812.00	90.220	154.350	5909.88	1997.96	-1820.63	824.11	1736271.35	14574867.07	40°07'54.0297"N	80°39'25.4336"W	1998.46	155.646	1.49
7907.00	89.230	155.930	5910.34	2092.94	-1906.82	864.04	1736311.27	14574780.92	40°07'53.1764"N	80°39'24.9237"W	2093.45	155.623	1.96
8098.00	89.200	155.690	5912.95	2283.86	-2081.03	942.30	1736389.49	14574606.77	40°07'51.4518"N	80°39'23.9248"W	2284.43	155.639	0.13
8194.00	89.450	156.260	5914.08	2379.82	-2168.71	981.38	1736428.56	14574519.13	40°07'50.5839"N	80°39'23.4261"W	2380.42	155.652	0.65



Actual Wellpath Report

Franz Thoman OHI 8H awp Proj: 25509'
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REFERENCE WELLPATH IDENTIFICATION

Operator	EXPAND ENERGY	Well	Franz Thoman OHI 8H
Field	Ohio	API	47069003720000
Facility	Franz Thoman OHI Pad	Wellbore	Franz Thoman OHI 8H AWB
Slot	8H		

WELLPATH DATA (272 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]
8290.00	89.200	155.620	5915.21	2475.77	-2256.36	1020.52	1736467.68	14574431.51	40°07'49.7162"N	80°39'22.9266"W	2476.42	155.663	0.72
8386.00	90.490	157.430	5915.47	2571.70	-2344.41	1058.76	1736505.90	14574343.50	40°07'48.8447"N	80°39'22.4387"W	2572.40	155.696	2.32
8481.00	89.660	156.990	5915.35	2666.58	-2431.99	1095.56	1736542.69	14574255.95	40°07'47.9778"N	80°39'21.9693"W	2667.37	155.750	0.99
8576.00	89.820	156.370	5915.78	2761.50	-2519.23	1133.16	1736580.28	14574168.74	40°07'47.1143"N	80°39'21.4895"W	2762.35	155.782	0.67
8672.00	89.970	158.020	5915.96	2857.38	-2607.72	1170.37	1736617.47	14574080.29	40°07'46.2384"N	80°39'21.0149"W	2858.32	155.829	1.73
8767.00	89.750	155.990	5916.19	2952.27	-2695.17	1207.48	1736654.57	14573992.87	40°07'45.3728"N	80°39'20.5415"W	2953.30	155.867	2.15
8863.00	89.720	155.920	5916.63	3048.24	-2782.84	1246.60	1736693.67	14573905.24	40°07'44.5050"N	80°39'20.0423"W	3049.29	155.870	0.08
8959.00	89.750	156.320	5917.08	3144.19	-2870.62	1285.46	1736732.51	14573817.49	40°07'43.6360"N	80°39'19.5464"W	3145.29	155.877	0.42
9055.00	89.940	156.170	5917.34	3240.14	-2958.49	1324.13	1736771.17	14573729.66	40°07'42.7662"N	80°39'19.0529"W	3241.29	155.888	0.25
9150.00	89.750	155.960	5917.59	3335.09	-3045.32	1362.67	1736809.70	14573642.87	40°07'41.9067"N	80°39'18.5611"W	3336.29	155.893	0.30
9245.00	90.340	155.950	5917.52	3430.06	-3132.07	1401.38	1736848.39	14573556.14	40°07'41.0479"N	80°39'18.0671"W	3431.29	155.895	0.62
9342.00	90.460	155.720	5916.84	3527.02	-3220.57	1441.09	1736888.08	14573467.68	40°07'40.1718"N	80°39'17.5604"W	3528.29	155.893	0.27
9438.00	90.340	155.720	5916.17	3622.99	-3308.08	1480.56	1736927.54	14573380.21	40°07'39.3056"N	80°39'17.0566"W	3624.28	155.889	0.13
9535.00	90.400	156.140	5915.55	3719.95	-3396.64	1520.12	1736967.09	14573291.68	40°07'38.4289"N	80°39'16.5517"W	3721.28	155.890	0.44
9631.00	89.780	156.030	5915.39	3815.91	-3484.40	1559.04	1737005.99	14573203.96	40°07'37.5602"N	80°39'16.0551"W	3817.28	155.895	0.66
9728.00	89.780	155.920	5915.77	3912.87	-3572.99	1598.53	1737045.46	14573115.40	40°07'36.6831"N	80°39'15.5512"W	3914.28	155.897	0.11
9824.00	89.720	156.070	5916.19	4008.83	-3660.69	1637.58	1737084.50	14573027.73	40°07'35.8150"N	80°39'15.0528"W	4010.28	155.899	0.17
9921.00	89.880	155.560	5916.52	4105.80	-3749.18	1677.32	1737124.22	14572939.28	40°07'34.9391"N	80°39'14.5457"W	4107.28	155.897	0.55
10017.00	90.520	156.400	5916.19	4201.76	-3836.86	1716.40	1737163.29	14572851.63	40°07'34.0711"N	80°39'14.0470"W	4203.27	155.899	1.10
10113.00	89.600	156.180	5916.09	4297.70	-3924.76	1755.00	1737201.87	14572763.77	40°07'33.2010"N	80°39'13.5545"W	4299.27	155.908	0.99
10209.00	89.630	156.090	5916.73	4393.65	-4012.55	1793.84	1737240.70	14572676.02	40°07'32.3319"N	80°39'13.0589"W	4395.27	155.913	0.10
10305.00	89.600	155.820	5917.38	4489.62	-4100.21	1832.95	1737279.80	14572588.38	40°07'31.4641"N	80°39'12.5598"W	4491.27	155.914	0.28
10401.00	89.570	158.630	5918.07	4585.48	-4188.72	1870.11	1737316.94	14572499.91	40°07'30.5881"N	80°39'12.0859"W	4587.23	155.941	2.93
10497.00	89.750	161.710	5918.64	4680.98	-4279.01	1902.67	1737349.49	14572409.65	40°07'29.6945"N	80°39'11.6712"W	4682.96	156.028	3.21
10593.00	89.690	164.400	5919.11	4775.86	-4370.84	1930.65	1737377.45	14572317.87	40°07'28.7861"N	80°39'11.3157"W	4778.24	156.168	2.80
10688.00	89.540	164.240	5919.75	4869.43	-4462.30	1956.32	1737403.12	14572226.44	40°07'27.8812"N	80°39'10.9898"W	4872.30	156.327	0.23
10783.00	89.660	164.480	5920.42	4962.98	-4553.78	1981.94	1737428.72	14572135.00	40°07'26.9762"N	80°39'10.6647"W	4966.38	156.480	0.28
10880.00	89.510	165.680	5921.12	5058.29	-4647.50	2006.91	1737453.68	14572041.31	40°07'26.0491"N	80°39'10.3479"W	5062.31	156.644	1.25
10977.00	89.510	168.340	5921.95	5152.92	-4742.01	2028.71	1737475.48	14571946.84	40°07'25.1143"N	80°39'10.0720"W	5157.74	156.838	2.74
11072.00	89.540	171.140	5922.74	5244.51	-4835.48	2045.63	1737492.39	14571853.41	40°07'24.1900"N	80°39'9.8589"W	5250.38	157.069	2.95



Actual Wellpath Report

Franz Thoman OHI 8H awp Proj: 25509'
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REFERENCE WELLPATH IDENTIFICATION

Operator	EXPAND ENERGY	Well	Franz Thoman OHI 8H
Field	Ohio	API	47069003720000
Facility	Franz Thoman OHI Pad	Wellbore	Franz Thoman OHI 8H AWB
Slot	8H		

WELLPATH DATA (272 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]
11168.00	89.480	172.480	5923.56	5336.08	-4930.49	2059.30	1737506.06	14571758.43	40°07'23.2505"N	80°39'9.6877"W	5343.27	157.331	1.40
11264.00	90.090	172.640	5923.92	5427.28	-5025.68	2071.73	1737518.48	14571663.27	40°07'22.3094"N	80°39'9.5325"W	5435.95	157.597	0.66
11361.00	88.950	169.340	5924.73	5520.20	-5121.47	2086.92	1737533.66	14571567.53	40°07'21.3622"N	80°39'9.3418"W	5530.34	157.830	3.60
11457.00	89.200	169.780	5926.28	5612.83	-5215.87	2104.32	1737551.05	14571473.17	40°07'20.4287"N	80°39'9.1226"W	5624.36	158.029	0.53
11554.00	89.110	169.790	5927.71	5706.33	-5311.32	2121.52	1737568.24	14571377.75	40°07'19.4848"N	80°39'8.9060"W	5719.35	158.227	0.09
11651.00	89.140	167.410	5929.19	5800.33	-5406.39	2140.69	1737587.41	14571282.72	40°07'18.5446"N	80°39'8.6640"W	5814.77	158.399	2.45
11747.00	89.140	165.870	5930.63	5894.12	-5499.78	2162.86	1737609.58	14571189.37	40°07'17.6209"N	80°39'8.3832"W	5909.78	158.532	1.60
11842.00	89.170	163.020	5932.03	5987.63	-5591.28	2188.33	1737635.04	14571097.90	40°07'16.7157"N	80°39'8.0600"W	6004.26	158.625	3.00
11938.00	89.140	160.330	5933.45	6082.83	-5682.39	2218.51	1737665.20	14571006.83	40°07'15.8141"N	80°39'7.6761"W	6100.11	158.673	2.80
12033.00	89.170	157.370	5934.85	6177.52	-5770.97	2252.78	1737699.46	14570918.28	40°07'14.9374"N	80°39'7.2395"W	6195.09	158.676	3.12
12129.00	89.260	157.580	5936.17	6273.37	-5859.64	2289.55	1737736.22	14570829.65	40°07'14.0598"N	80°39'6.7706"W	6291.06	158.658	0.24
12225.00	89.290	158.000	5937.38	6369.19	-5948.51	2325.84	1737772.49	14570740.81	40°07'13.1802"N	80°39'6.3080"W	6387.04	158.645	0.44
12320.00	89.260	157.380	5938.58	6464.02	-6036.39	2361.90	1737808.53	14570652.96	40°07'12.3103"N	80°39'5.8483"W	6482.02	158.631	0.65
12416.00	89.110	157.390	5939.95	6559.88	-6125.00	2398.81	1737845.43	14570564.39	40°07'11.4332"N	80°39'5.3776"W	6577.99	158.613	0.16
12511.00	89.140	157.330	5941.40	6654.74	-6212.67	2435.38	1737881.98	14570476.75	40°07'10.5655"N	80°39'4.9113"W	6672.95	158.595	0.07
12606.00	89.110	157.410	5942.85	6749.59	-6300.35	2471.93	1737918.52	14570389.11	40°07'9.6976"N	80°39'4.4453"W	6767.92	158.578	0.09
12702.00	89.480	156.950	5944.03	6845.47	-6388.82	2509.16	1737955.73	14570300.67	40°07'8.8219"N	80°39'3.9706"W	6863.89	158.558	0.61
12797.00	89.450	157.230	5944.92	6940.36	-6476.33	2546.14	1737992.70	14570213.20	40°07'7.9557"N	80°39'3.4990"W	6958.85	158.538	0.30
12893.00	89.660	157.420	5945.66	7036.23	-6564.90	2583.14	1738029.69	14570124.66	40°07'7.0790"N	80°39'3.0271"W	7054.83	158.521	0.29
12988.00	89.510	156.570	5946.35	7131.12	-6652.34	2620.27	1738066.80	14570037.25	40°07'6.2134"N	80°39'2.5536"W	7149.79	158.501	0.91
13084.00	89.450	155.450	5947.22	7227.08	-6740.05	2659.30	1738105.82	14569949.58	40°07'5.3452"N	80°39'2.0557"W	7245.70	158.468	1.17
13179.00	89.510	158.570	5948.09	7321.96	-6827.49	2696.40	1738142.90	14569862.18	40°07'4.4797"N	80°39'1.5826"W	7340.65	158.449	3.28
13274.00	89.630	159.020	5948.80	7416.67	-6916.05	2730.76	1738177.25	14569773.65	40°07'3.6032"N	80°39'1.1448"W	7435.64	158.454	0.49
13369.00	89.820	159.010	5949.25	7511.36	-7004.75	2764.78	1738211.26	14569684.98	40°07'2.7253"N	80°39'0.7114"W	7530.64	158.461	0.20
13464.00	89.540	158.700	5949.79	7606.06	-7093.35	2799.05	1738245.51	14569596.42	40°07'1.8484"N	80°39'0.2748"W	7625.64	158.466	0.44
13559.00	89.600	158.770	5950.50	7700.79	-7181.88	2833.50	1738279.95	14569507.92	40°07'0.9722"N	80°38'59.8358"W	7720.63	158.469	0.10
13655.00	89.600	159.260	5951.17	7796.47	-7271.51	2867.88	1738314.32	14569418.33	40°07'0.0852"N	80°38'59.3978"W	7816.62	158.476	0.51
13750.00	89.450	158.550	5951.96	7891.16	-7360.14	2902.07	1738348.49	14569329.73	40°06'59.2080"N	80°38'58.9622"W	7911.62	158.481	0.76
13846.00	89.350	158.350	5952.96	7986.91	-7449.43	2937.33	1738383.74	14569240.48	40°06'58.3243"N	80°38'58.5129"W	8007.61	158.481	0.23
13941.00	89.570	159.230	5953.86	8081.62	-7537.99	2971.70	1738418.09	14569151.96	40°06'57.4478"N	80°38'58.0751"W	8102.61	158.484	0.95



Actual Wellpath Report

Franz Thoman OHI 8H awp Proj: 25509'
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REFERENCE WELLPATH IDENTIFICATION

Operator	EXPAND ENERGY	Well	Franz Thoman OHI 8H
Field	Ohio	API	47069003720000
Facility	Franz Thoman OHI Pad	Wellbore	Franz Thoman OHI 8H AWB
Slot	8H		

WELLPATH DATA (272 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]
14037.00	89.510	158.540	5954.63	8177.32	-7627.54	3006.28	1738452.66	14569062.44	40°06'56.5615"N	80°38'57.6345"W	8198.60	158.489	0.72
14132.00	89.630	158.970	5955.34	8272.04	-7716.08	3040.70	1738487.07	14568973.93	40°06'55.6852"N	80°38'57.1959"W	8293.60	158.492	0.47
14227.00	89.480	158.620	5956.08	8366.75	-7804.64	3075.06	1738521.42	14568885.40	40°06'54.8087"N	80°38'56.7581"W	8388.59	158.495	0.40
14323.00	89.480	158.520	5956.95	8462.49	-7894.00	3110.14	1738556.48	14568796.08	40°06'53.9242"N	80°38'56.3112"W	8484.59	158.496	0.10
14418.00	89.570	158.960	5957.74	8557.21	-7982.53	3144.58	1738590.91	14568707.58	40°06'53.0480"N	80°38'55.8724"W	8579.58	158.499	0.47
14514.00	89.380	158.460	5958.62	8652.93	-8071.98	3179.44	1738625.75	14568618.17	40°06'52.1628"N	80°38'55.4283"W	8675.58	158.501	0.56
14609.00	89.450	158.760	5959.59	8747.66	-8160.43	3214.08	1738660.39	14568529.76	40°06'51.2873"N	80°38'54.9869"W	8770.57	158.502	0.32
14705.00	89.170	159.360	5960.74	8843.33	-8250.08	3248.39	1738694.68	14568440.14	40°06'50.4001"N	80°38'54.5499"W	8866.56	158.508	0.69
14800.00	89.260	159.800	5962.04	8937.93	-8339.10	3281.53	1738727.81	14568351.15	40°06'49.5190"N	80°38'54.1278"W	8961.54	158.520	0.47
14896.00	89.050	158.750	5963.46	9033.56	-8428.88	3315.50	1738761.76	14568261.41	40°06'48.6305"N	80°38'53.6952"W	9057.52	158.528	1.12
14991.00	89.170	158.880	5964.94	9128.26	-8517.45	3349.83	1738796.08	14568172.88	40°06'47.7540"N	80°38'53.2579"W	9152.50	158.531	0.19
15087.00	89.110	158.950	5966.38	9223.95	-8607.01	3384.36	1738830.60	14568083.35	40°06'46.8675"N	80°38'52.8180"W	9248.49	158.535	0.10
15182.00	89.200	158.910	5967.78	9318.64	-8695.65	3418.51	1738864.73	14567994.74	40°06'45.9903"N	80°38'52.3830"W	9343.48	158.539	0.10
15278.00	89.450	158.840	5968.91	9414.33	-8785.19	3453.11	1738899.31	14567905.24	40°06'45.1041"N	80°38'51.9423"W	9439.47	158.542	0.27
15373.00	89.420	158.910	5969.85	9509.03	-8873.80	3487.34	1738933.54	14567816.66	40°06'44.2271"N	80°38'51.5061"W	9534.46	158.546	0.08
15469.00	89.450	158.740	5970.79	9604.74	-8963.32	3522.02	1738968.20	14567727.18	40°06'43.3411"N	80°38'51.0644"W	9630.46	158.548	0.18
15564.00	89.380	158.640	5971.76	9699.46	-9051.82	3556.54	1739002.71	14567638.72	40°06'42.4652"N	80°38'50.6246"W	9725.45	158.550	0.13
15659.00	89.410	158.510	5972.76	9794.20	-9140.25	3591.24	1739037.39	14567550.32	40°06'41.5900"N	80°38'50.1825"W	9820.45	158.550	0.14
15755.00	89.350	158.680	5973.80	9889.93	-9229.62	3626.28	1739072.42	14567460.98	40°06'40.7054"N	80°38'49.7362"W	9916.44	158.550	0.19
15850.00	89.420	158.880	5974.82	9984.64	-9318.18	3660.66	1739106.78	14567372.46	40°06'39.8290"N	80°38'49.2982"W	10011.43	158.553	0.22
15945.00	89.450	157.460	5975.76	10079.43	-9406.36	3695.98	1739142.09	14567284.32	40°06'38.9562"N	80°38'48.8481"W	10106.42	158.549	1.49
16041.00	89.380	157.550	5976.74	10175.28	-9495.05	3732.71	1739178.81	14567195.66	40°06'38.0783"N	80°38'48.3799"W	10202.40	158.539	0.12
16136.00	89.420	157.520	5977.74	10270.13	-9582.83	3769.01	1739215.09	14567107.91	40°06'37.2094"N	80°38'47.9172"W	10297.38	158.530	0.05
16231.00	89.380	157.380	5978.73	10364.98	-9670.57	3805.44	1739251.51	14567020.21	40°06'36.3410"N	80°38'47.4528"W	10392.36	158.520	0.15
16327.00	89.380	157.270	5979.77	10460.85	-9759.14	3842.45	1739288.50	14566931.67	40°06'35.4642"N	80°38'46.9811"W	10488.34	158.509	0.11
16422.00	90.090	157.330	5980.21	10555.72	-9846.78	3879.11	1739325.15	14566844.07	40°06'34.5967"N	80°38'46.5137"W	10583.31	158.498	0.75
16518.00	90.090	158.110	5980.06	10651.56	-9935.61	3915.50	1739361.53	14566755.27	40°06'33.7174"N	80°38'46.0499"W	10679.30	158.491	0.81
16613.00	89.570	157.580	5980.34	10746.38	-10023.60	3951.33	1739397.34	14566667.32	40°06'32.8465"N	80°38'45.5933"W	10774.30	158.486	0.78
16708.00	89.630	156.970	5981.00	10841.25	-10111.22	3988.03	1739434.02	14566579.73	40°06'31.9792"N	80°38'45.1255"W	10869.27	158.475	0.65
16803.00	89.600	157.230	5981.64	10936.14	-10198.73	4024.99	1739470.98	14566492.25	40°06'31.1130"N	80°38'44.6542"W	10964.24	158.463	0.28



Actual Wellpath Report

Franz Thoman OHI 8H awp Proj: 25509'
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REFERENCE WELLPATH IDENTIFICATION

Operator	EXPAND ENERGY	Well	Franz Thoman OHI 8H
Field	Ohio	API	47069003720000
Facility	Franz Thoman OHI Pad	Wellbore	Franz Thoman OHI 8H AWB
Slot	8H		

WELLPATH DATA (272 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]
16899.00	89.940	157.310	5982.03	11032.02	-10287.27	4062.08	1739508.05	14566403.75	40°06'30.2365"N	80°38'44.1814"W	11060.22	158.453	0.36
16995.00	89.880	157.250	5982.18	11127.89	-10375.82	4099.16	1739545.12	14566315.23	40°06'29.3600"N	80°38'43.7087"W	11156.20	158.443	0.09
17090.00	89.850	157.340	5982.40	11222.77	-10463.46	4135.83	1739581.77	14566227.63	40°06'28.4925"N	80°38'43.2413"W	11251.18	158.433	0.10
17185.00	89.820	157.080	5982.67	11317.65	-10551.04	4172.63	1739618.56	14566140.08	40°06'27.6256"N	80°38'42.7722"W	11346.16	158.423	0.28
17280.00	89.600	157.100	5983.16	11412.54	-10638.55	4209.61	1739655.52	14566052.61	40°06'26.7594"N	80°38'42.3008"W	11441.13	158.412	0.23
17376.00	89.720	157.110	5983.73	11508.43	-10726.98	4246.96	1739692.86	14565964.21	40°06'25.8840"N	80°38'41.8247"W	11537.11	158.401	0.13
17471.00	89.630	155.810	5984.26	11603.36	-10814.08	4284.90	1739730.78	14565877.15	40°06'25.0219"N	80°38'41.3408"W	11632.05	158.385	1.37
17566.00	89.600	156.350	5984.90	11698.32	-10900.91	4323.42	1739769.28	14565790.35	40°06'24.1622"N	80°38'40.8496"W	11726.97	158.366	0.57
17662.00	88.980	156.350	5986.09	11794.25	-10988.84	4361.92	1739807.78	14565702.45	40°06'23.2917"N	80°38'40.3586"W	11822.90	158.350	0.65
17757.00	89.600	157.400	5987.27	11889.15	-11076.20	4399.23	1739845.07	14565615.13	40°06'22.4270"N	80°38'39.8829"W	11917.86	158.338	1.28
17853.00	89.570	156.410	5987.96	11985.05	-11164.51	4436.89	1739882.71	14565526.86	40°06'21.5529"N	80°38'39.4029"W	12013.83	158.327	1.03
17948.00	90.400	157.590	5987.99	12079.95	-11251.95	4474.00	1739919.81	14565439.45	40°06'20.6873"N	80°38'38.9297"W	12108.80	158.316	1.52
18044.00	90.180	157.380	5987.50	12175.80	-11340.63	4510.76	1739956.56	14565350.80	40°06'19.8095"N	80°38'38.4612"W	12204.79	158.310	0.32
18140.00	89.600	157.170	5987.69	12271.68	-11429.18	4547.85	1739993.63	14565262.29	40°06'18.9330"N	80°38'37.9885"W	12300.78	158.302	0.64
18236.00	89.630	157.500	5988.33	12367.55	-11517.76	4584.84	1740030.61	14565173.74	40°06'18.0561"N	80°38'37.5170"W	12396.76	158.294	0.35
18331.00	89.510	156.700	5989.05	12462.44	-11605.27	4621.81	1740067.56	14565086.26	40°06'17.1899"N	80°38'37.0458"W	12491.74	158.285	0.85
18426.00	89.480	157.400	5989.88	12557.33	-11692.75	4658.85	1740104.58	14564998.82	40°06'16.3240"N	80°38'36.5736"W	12586.71	158.276	0.74
18521.00	89.630	157.440	5990.62	12652.19	-11780.46	4695.33	1740141.05	14564911.14	40°06'15.4557"N	80°38'36.1087"W	12681.70	158.269	0.16
18616.00	89.570	157.440	5991.28	12747.05	-11868.19	4731.77	1740177.48	14564823.45	40°06'14.5873"N	80°38'35.6442"W	12776.68	158.263	0.06
18712.00	89.600	157.330	5991.98	12842.91	-11956.81	4768.69	1740214.38	14564734.86	40°06'13.7102"N	80°38'35.1737"W	12872.67	158.257	0.12
18807.00	89.630	157.400	5992.62	12937.78	-12044.49	4805.25	1740250.92	14564647.22	40°06'12.8422"N	80°38'34.7077"W	12967.66	158.250	0.08
18902.00	89.570	157.030	5993.28	13032.66	-12132.07	4842.04	1740287.70	14564559.67	40°06'11.9753"N	80°38'34.2388"W	13062.64	158.243	0.39
18997.00	89.630	157.690	5993.94	13127.53	-12219.75	4878.60	1740324.25	14564472.03	40°06'11.1074"N	80°38'33.7728"W	13157.62	158.236	0.70
19093.00	89.380	156.360	5994.77	13223.42	-12308.13	4916.07	1740361.71	14564383.68	40°06'10.2325"N	80°38'33.2951"W	13253.60	158.227	1.41
19188.00	89.570	157.240	5995.64	13318.33	-12395.44	4953.50	1740399.12	14564296.40	40°06'9.3682"N	80°38'32.8181"W	13348.56	158.217	0.95
19284.00	88.860	157.280	5996.96	13414.19	-12483.97	4990.60	1740436.21	14564207.91	40°06'8.4919"N	80°38'32.3451"W	13444.54	158.210	0.74
19380.00	88.920	156.720	5998.82	13510.07	-12572.32	5028.10	1740473.70	14564119.59	40°06'7.6173"N	80°38'31.8671"W	13540.50	158.202	0.59
19475.00	89.020	157.750	6000.53	13604.94	-12659.91	5064.86	1740510.43	14564032.04	40°06'6.7503"N	80°38'31.3987"W	13635.47	158.195	1.09
19570.00	88.640	157.430	6002.47	13699.77	-12747.72	5101.07	1740546.63	14563944.27	40°06'5.8812"N	80°38'30.9372"W	13730.45	158.191	0.52
19665.00	88.580	157.350	6004.77	13794.60	-12835.39	5137.58	1740583.13	14563856.63	40°06'5.0133"N	80°38'30.4719"W	13825.41	158.185	0.11



Actual Wellpath Report

Franz Thoman OHI 8H awp Proj: 25509'

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REFERENCE WELLPATH IDENTIFICATION

Operator	EXPAND ENERGY	Well	Franz Thoman OHI 8H
Field	Ohio	API	47069003720000
Facility	Franz Thoman OHI Pad	Wellbore	Franz Thoman OHI 8H AWB
Slot	8H		

WELLPATH DATA (272 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]
19760.00	88.370	157.280	6007.30	13889.45	-12923.01	5174.21	1740619.74	14563769.04	40°06'4.1460"N	80°38'30.0052"W	13920.36	158.179	0.23
19856.00	88.520	157.400	6009.90	13985.28	-13011.56	5211.18	1740656.70	14563680.52	40°06'3.2694"N	80°38'29.5340"W	14016.32	158.174	0.20
19951.00	88.860	158.130	6012.08	14080.09	-13099.48	5247.12	1740692.62	14563592.64	40°06'2.3992"N	80°38'29.0761"W	14111.29	158.171	0.85
20047.00	88.740	157.250	6014.09	14175.90	-13188.27	5283.55	1740729.04	14563503.89	40°06'1.5203"N	80°38'28.6118"W	14207.26	158.168	0.92
20142.00	89.480	158.150	6015.56	14270.73	-13276.15	5319.59	1740765.07	14563416.04	40°06'0.6504"N	80°38'28.1526"W	14302.25	158.165	1.23
20238.00	90.280	157.440	6015.76	14366.55	-13365.03	5355.87	1740801.34	14563327.19	40°05'59.7707"N	80°38'27.6903"W	14398.24	158.162	1.11
20333.00	89.480	157.990	6015.96	14461.39	-13452.93	5391.90	1740837.35	14563239.32	40°05'58.9006"N	80°38'27.2313"W	14493.24	158.159	1.02
20429.00	89.780	157.260	6016.58	14557.23	-13541.70	5428.44	1740873.88	14563150.59	40°05'58.0219"N	80°38'26.7657"W	14589.23	158.156	0.82
20524.00	89.820	154.600	6016.91	14652.19	-13628.44	5467.18	1740912.60	14563063.89	40°05'57.1633"N	80°38'26.2716"W	14684.15	158.141	2.80
20619.00	89.880	151.540	6017.16	14747.15	-13713.12	5510.20	1740955.61	14562979.24	40°05'56.3247"N	80°38'25.7224"W	14778.77	158.109	3.22
20715.00	89.910	149.380	6017.34	14842.92	-13796.64	5557.53	1741002.92	14562895.75	40°05'55.4975"N	80°38'25.1178"W	14873.92	158.060	2.25
20811.00	89.820	149.140	6017.57	14938.54	-13879.15	5606.60	1741051.97	14562813.28	40°05'54.6801"N	80°38'24.4906"W	14968.79	158.003	0.27
20906.00	89.850	149.290	6017.84	15033.16	-13960.76	5655.22	1741100.57	14562731.69	40°05'53.8717"N	80°38'23.8692"W	15062.69	157.948	0.16
21001.00	89.850	146.580	6018.09	15127.55	-14041.26	5705.65	1741150.98	14562651.23	40°05'53.0741"N	80°38'23.2245"W	15156.24	157.886	2.85
21097.00	89.820	143.690	6018.36	15222.30	-14120.02	5760.53	1741205.83	14562572.50	40°05'52.2936"N	80°38'22.5225"W	15249.88	157.806	3.01
21192.00	89.880	141.420	6018.61	15315.29	-14195.44	5818.28	1741263.56	14562497.11	40°05'51.5460"N	80°38'21.7832"W	15341.54	157.713	2.39
21287.00	89.750	139.000	6018.92	15407.40	-14268.43	5879.07	1741324.33	14562424.14	40°05'50.8223"N	80°38'21.0048"W	15432.17	157.607	2.55
21383.00	89.320	138.430	6019.70	15499.84	-14340.57	5942.41	1741387.65	14562352.04	40°05'50.1069"N	80°38'20.1935"W	15523.02	157.492	0.74
21478.00	89.690	138.440	6020.52	15591.19	-14411.65	6005.44	1741450.65	14562280.99	40°05'49.4020"N	80°38'19.3862"W	15612.84	157.378	0.39
21574.00	88.310	137.520	6022.19	15683.27	-14482.95	6069.69	1741514.87	14562209.71	40°05'48.6948"N	80°38'18.5632"W	15703.41	157.262	1.73
21669.00	87.880	132.330	6025.35	15772.78	-14549.98	6136.89	1741582.05	14562142.71	40°05'48.0297"N	80°38'17.7020"W	15791.24	157.131	5.48
21765.00	87.880	128.100	6028.91	15860.30	-14611.91	6210.13	1741655.26	14562080.81	40°05'47.4148"N	80°38'16.7627"W	15876.82	156.974	4.40
21860.00	87.970	127.780	6032.35	15945.32	-14670.28	6285.01	1741730.10	14562022.46	40°05'46.8349"N	80°38'15.8024"W	15959.90	156.809	0.35
21956.00	88.460	127.150	6035.34	16030.90	-14728.64	6361.17	1741806.23	14561964.12	40°05'46.2551"N	80°38'14.8254"W	16043.61	156.641	0.83
22051.00	88.430	127.370	6037.92	16115.44	-14786.14	6436.75	1741881.79	14561906.64	40°05'45.6839"N	80°38'13.8559"W	16126.43	156.475	0.23
22146.00	88.400	127.770	6040.54	16200.21	-14844.04	6512.02	1741957.03	14561848.76	40°05'45.1087"N	80°38'12.8904"W	16209.62	156.313	0.42
22242.00	88.310	127.160	6043.30	16285.79	-14902.41	6588.18	1742033.16	14561790.42	40°05'44.5288"N	80°38'11.9134"W	16293.74	156.150	0.64
22337.00	88.280	127.550	6046.13	16370.39	-14960.03	6663.66	1742108.61	14561732.82	40°05'43.9564"N	80°38'10.9452"W	16377.02	155.990	0.41
22433.00	88.710	127.350	6048.65	16455.97	-15018.38	6739.85	1742184.77	14561674.49	40°05'43.3766"N	80°38'9.9679"W	16461.39	155.831	0.49
22529.00	88.710	127.160	6050.81	16541.40	-15076.48	6816.24	1742261.13	14561616.41	40°05'42.7994"N	80°38'8.9880"W	16545.74	155.672	0.20



Actual Wellpath Report

Franz Thoman OHI 8H awp Proj: 25509'
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REFERENCE WELLPATH IDENTIFICATION

Operator	EXPAND ENERGY	Well	Franz Thoman OHI 8H
Field	Ohio	API	47069003720000
Facility	Franz Thoman OHI Pad	Wellbore	Franz Thoman OHI 8H AWB
Slot	8H		

WELLPATH DATA (272 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]
22625.00	88.830	128.630	6052.87	16627.32	-15135.43	6891.98	1742336.84	14561557.49	40°05'42.2138"N	80°38'8.0166"W	16630.71	155.518	1.54
22721.00	88.920	130.160	6054.75	16714.33	-15196.34	6966.15	1742410.98	14561496.60	40°05'41.6088"N	80°38'7.0654"W	16716.94	155.373	1.60
22816.00	88.740	131.190	6056.69	16801.31	-15258.25	7038.18	1742482.99	14561434.72	40°05'40.9942"N	80°38'6.1418"W	16803.28	155.238	1.10
22912.00	88.770	132.170	6058.78	16889.86	-15322.07	7109.87	1742554.64	14561370.92	40°05'40.3606"N	80°38'5.2228"W	16891.30	155.107	1.02
23007.00	88.400	135.300	6061.13	16978.74	-15387.72	7178.48	1742623.23	14561305.30	40°05'39.7090"N	80°38'4.3434"W	16979.76	154.991	3.32
23103.00	88.490	137.730	6063.73	17070.08	-15457.34	7244.51	1742689.24	14561235.71	40°05'39.0184"N	80°38'3.4974"W	17070.80	154.889	2.53
23199.00	88.430	140.270	6066.31	17162.61	-15529.76	7307.47	1742752.17	14561163.31	40°05'38.3001"N	80°38'2.6912"W	17163.11	154.801	2.65
23295.00	88.430	143.210	6068.94	17256.24	-15605.10	7366.88	1742811.56	14561088.00	40°05'37.5532"N	80°38'1.9307"W	17256.60	154.729	3.06
23390.00	88.310	145.330	6071.65	17349.73	-15682.19	7422.34	1742866.99	14561010.95	40°05'36.7892"N	80°38'1.2213"W	17349.99	154.672	2.23
23485.00	88.400	146.790	6074.37	17443.69	-15760.97	7475.35	1742919.99	14560932.20	40°05'36.0085"N	80°38'0.5433"W	17443.88	154.625	1.54
23581.00	88.370	149.470	6077.08	17539.08	-15842.45	7526.02	1742970.63	14560850.74	40°05'35.2012"N	80°37'59.8957"W	17539.22	154.590	2.79
23677.00	88.310	151.910	6079.86	17634.83	-15926.12	7572.99	1743017.58	14560767.11	40°05'34.3724"N	80°37'59.2958"W	17634.95	154.569	2.54
23773.00	88.250	151.860	6082.74	17730.70	-16010.76	7618.21	1743062.78	14560682.50	40°05'33.5342"N	80°37'58.7184"W	17730.80	154.554	0.08
23868.00	89.020	152.070	6085.01	17825.59	-16094.58	7662.84	1743107.40	14560598.71	40°05'32.7040"N	80°37'58.1485"W	17825.68	154.540	0.84
23964.00	88.250	152.020	6087.29	17921.48	-16179.36	7707.83	1743152.38	14560513.97	40°05'31.8644"N	80°37'57.5742"W	17921.56	154.527	0.80
24059.00	88.090	152.540	6090.33	18016.37	-16263.41	7752.00	1743196.52	14560429.95	40°05'31.0320"N	80°37'57.0103"W	18016.44	154.515	0.57
24154.00	88.000	153.740	6093.57	18111.29	-16348.11	7794.90	1743239.40	14560345.28	40°05'30.1933"N	80°37'56.4629"W	18111.36	154.508	1.27
24249.00	87.940	152.840	6096.93	18206.22	-16432.92	7837.57	1743282.06	14560260.51	40°05'29.3534"N	80°37'55.9184"W	18206.27	154.502	0.95
24345.00	88.370	153.270	6100.02	18302.14	-16518.45	7881.05	1743325.52	14560175.01	40°05'28.5064"N	80°37'55.3635"W	18302.19	154.494	0.63
24440.00	88.580	153.600	6102.55	18397.10	-16603.39	7923.52	1743367.98	14560090.10	40°05'27.6653"N	80°37'54.8216"W	18397.14	154.488	0.41
24535.00	88.460	153.540	6105.00	18492.06	-16688.44	7965.79	1743410.23	14560005.09	40°05'26.8232"N	80°37'54.2822"W	18492.10	154.484	0.14
24630.00	88.400	152.960	6107.61	18587.00	-16773.24	8008.53	1743452.96	14559920.32	40°05'25.9834"N	80°37'53.7368"W	18587.04	154.477	0.61
24725.00	88.460	153.570	6110.21	18681.95	-16858.05	8051.25	1743495.66	14559835.54	40°05'25.1435"N	80°37'53.1916"W	18681.98	154.471	0.64
24821.00	88.520	153.520	6112.74	18777.91	-16943.97	8094.01	1743538.40	14559749.66	40°05'24.2927"N	80°37'52.6461"W	18777.94	154.467	0.08
24916.00	88.340	153.150	6115.34	18872.85	-17028.83	8136.62	1743581.00	14559664.83	40°05'23.4524"N	80°37'52.1023"W	18872.88	154.461	0.43
25011.00	88.520	153.590	6117.95	18967.80	-17113.72	8179.19	1743623.55	14559579.97	40°05'22.6117"N	80°37'51.5592"W	18967.83	154.455	0.50
25107.00	88.520	153.620	6120.43	19063.76	-17199.68	8221.85	1743666.19	14559494.04	40°05'21.7605"N	80°37'51.0149"W	19063.79	154.451	0.03
25202.00	88.400	153.440	6122.98	19158.72	-17284.69	8264.18	1743708.50	14559409.06	40°05'20.9187"N	80°37'50.4748"W	19158.74	154.447	0.23
25297.00	88.550	153.810	6125.51	19253.68	-17369.78	8306.37	1743750.68	14559324.02	40°05'20.0762"N	80°37'49.9365"W	19253.70	154.442	0.42
25393.00	88.490	153.500	6127.99	19349.64	-17455.78	8348.96	1743793.25	14559238.05	40°05'19.2246"N	80°37'49.3932"W	19349.66	154.439	0.33



Actual Wellpath Report

Franz Thoman OHI 8H awp Proj: 25509'
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REFERENCE WELLPATH IDENTIFICATION

Operator	EXPAND ENERGY	Well	Franz Thoman OHI 8H
Field	Ohio	API	47069003720000
Facility	Franz Thoman OHI Pad	Wellbore	Franz Thoman OHI 8H AWB
Slot	8H		

WELLPATH DATA (272 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]
25484.00	88.490	153.620	6130.38	19440.60	-17537.23	8389.46	1743833.74	14559156.63	40°05'18.4180"N	80°37'48.8764"W	19440.61	154.434	0.13
25509.00‡	88.490	153.620	6131.04	19465.59	-17559.62	8400.57	1743844.84	14559134.25	40°05'18.1963"N	80°37'48.7347"W	19465.60	154.433	0.00

HOLE & CASING SECTIONS - Ref Wellbore: Franz Thoman OHI 8H AWB Ref Wellpath: Franz Thoman OHI 8H awp Proj: 25509'

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	437.00	411.00	26.00	436.99	0.00	0.00	-0.71	2.68
9.625in Casing	26.00	1759.00	1733.00	26.00	1755.98	0.00	0.00	-70.55	-21.62
5.5in Casing	26.00	25509.00	25483.00	26.00	6131.04	0.00	0.00	-17559.62	8400.57

TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Franz Thoman 8H wp2	5879.70	-4681.63	2102.65	1737549.39	14572007.19	40°07'25.7081"N	80°39'9.1171"W	point
Franz Thoman 8H wp3	5879.70	-6253.88	2448.70	1737895.30	14570435.56	40°07'10.1577"N	80°39'4.7420"W	point
Franz Thoman 8H wp5	5879.70	-14419.01	6289.79	1741734.88	14562273.63	40°05'49.3178"N	80°38'15.7277"W	point
Franz Thoman 8H LP rev 1	5880.00	-396.71	167.82	1735615.31	14576290.44	40°08'8.1259"N	80°39'33.8126"W	point
Franz Thoman 8H wp1	5928.91	-3917.32	1749.09	1737195.96	14572771.20	40°07'33.2747"N	80°39'13.6302"W	point
Franz Thoman 8H wp az	6020.70	-15481.78	7354.28	1742798.96	14561211.27	40°05'38.7723"N	80°38'2.0863"W	point
Franz Thoman 8H wp corner	6020.70	-13543.54	5430.21	1740875.64	14563148.75	40°05'58.0036"N	80°38'26.7430"W	point
Franz Thoman 8H wp4	6060.24	-13580.98	5569.11	1741014.49	14563111.33	40°05'57.6282"N	80°38'24.9575"W	point

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TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape

TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Franz Thoman 8H BHL rev 2	6125.16	-17559.53	8403.01	1743847.28	14559134.34	40°05'18.1971"N	80°37'48.7033"W	point

WELLPATH COMPOSITION - Ref Wellbore: Franz Thoman OHI 8H AWB Ref Wellpath: Franz Thoman OHI 8H awp Proj: 25509'

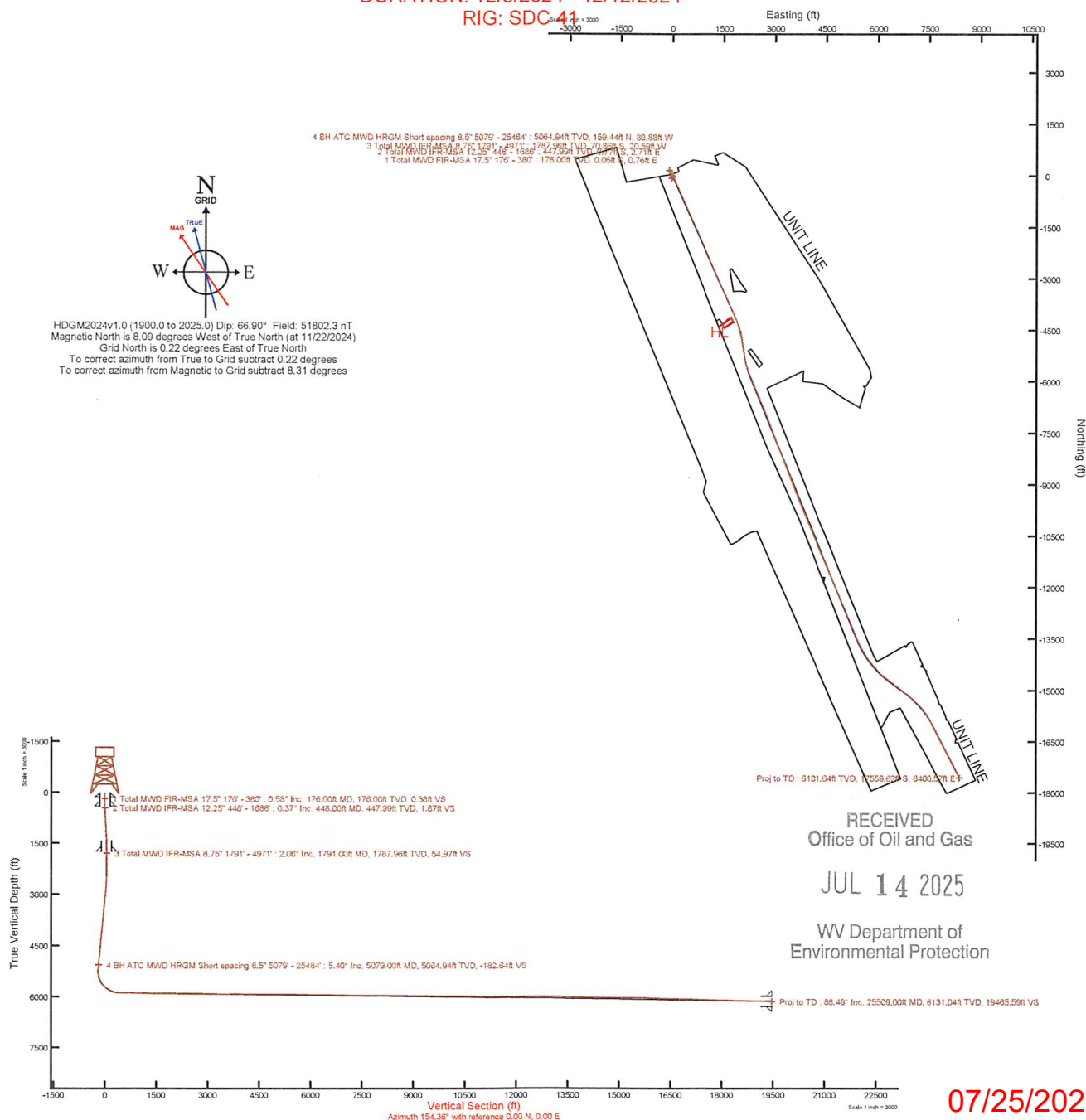
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date
26.00	380.00	OWSG MWD rev2 + IFR1 + Multi-Station Correction	1 Total MWD FIR-MSA 17.5" 176' - 380'	Franz Thoman OHI 8H AWB	12/7/2024
380.00	1686.00	OWSG MWD rev2 + IFR1 + Multi-Station Correction	2 Total MWD IFR-MSA 12.25" 448' - 1686'	Franz Thoman OHI 8H AWB	12/7/2024
1686.00	4971.00	OWSG MWD rev2 + HRGM	3 Total MWD IFR-MSA 8.75" 1791' - 4971'	Franz Thoman OHI 8H AWB	12/7/2024
4971.00	25509.00	BH AutoTrak Curve/eXpress (2019) (HRGM, Short spacing)	4 BH ATC MWD HRGM Short spacing 8.5" 5079' - 25484'	Franz Thoman OHI 8H AWB	12/7/2024

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Wellbore: Franz Thoman OHI 8H AWB

Created by: tranlam on 2024-12-13; Database: WA MPL EASTERNUS Defn



07/25/2025