



# Actual Wellpath Report

Hudson S-2HM AWP Proj: 20912'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	EQT (TUG HILL OPERATING, LLC)	Well	Hudson S-2HM
Field	Marshall	API	47-051-02249-0000
Facility	Hudson	Wellbore	Hudson S-2HM AWB
Slot	Slot 02		

REPORT SETUP INFORMATION			
Projection System	NAD83 / UTM Zone 17 North, US feet	Software System	WellArchitect® 6.0
North Reference	Grid	User	Meyedavr
Scale	0.999610	Report Generated	3/12/2024 at 2:17:07 AM
Convergence at slot	0.21° 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	11.78	0.88	1732304.53	14464560.93	39°49'43.6728"N	80°40'21.7380"W
Facility Reference Pt			1732303.65	14464549.15	39°49'43.5564"N	80°40'21.7498"W
Field Reference Pt			1920470.12	14528304.49	40°00'0.0000"N	80°00'0.0000"W

WELLPATH DATUM			
Calculation method	Minimum curvature	Patterson 294 (RKB) to Facility Vertical Datum	1374.00ft
Horizontal Reference Pt	Slot	Patterson 294 (RKB) to Mean Sea Level	1374.00ft
Vertical Reference Pt	Patterson 294 (RKB)	Patterson 294 (RKB) to Ground Level at Slot (Slot 02)	28.00ft
MD Reference Pt	Patterson 294 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	162.02°

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Field	Marshall	API	47-051-02249-0000
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Slot	Slot 02		

**WELLPATH DATA (244 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]	Build Rate [°/100ft]	Turn Rate [°/100ft]
0.00	† 0.000	155.210	0.00	0.00	0.00	0.00	1732304.53	14464560.93	39°49'43.6728"N	80°40'21.7380"W	0.00	0.000	0.00	0.00	0.00
28.00	0.000	155.210	28.00	0.00	0.00	0.00	1732304.53	14464560.93	39°49'43.6728"N	80°40'21.7380"W	0.00	0.000	0.00	0.00	0.00
203.00	0.630	155.210	203.00	0.96	-0.87	0.40	1732304.93	14464560.06	39°49'43.6641"N	80°40'21.7329"W	0.96	155.210	0.36	0.36	0.00
233.00	0.940	125.420	232.99	1.32	-1.17	0.67	1732305.20	14464559.76	39°49'43.6612"N	80°40'21.7294"W	1.35	149.999	1.68	1.03	-99.30
263.00	1.460	90.310	262.99	1.63	-1.31	1.26	1732305.79	14464559.62	39°49'43.6598"N	80°40'21.7220"W	1.82	136.220	2.92	1.73	-117.03
294.00	2.010	101.190	293.97	2.02	-1.42	2.18	1732306.71	14464559.51	39°49'43.6587"N	80°40'21.7101"W	2.60	122.996	2.06	1.77	35.10
324.00	1.930	119.240	323.96	2.65	-1.77	3.14	1732307.67	14464559.16	39°49'43.6552"N	80°40'21.6978"W	3.60	119.360	2.08	-0.27	60.17
354.00	1.830	60.570	353.94	2.93	-1.78	4.00	1732308.53	14464559.15	39°49'43.6551"N	80°40'21.6868"W	4.38	113.975	6.15	-0.33	-195.57
384.00	1.740	59.620	383.93	2.73	-1.31	4.81	1732309.34	14464559.62	39°49'43.6596"N	80°40'21.6764"W	4.99	105.267	0.32	-0.30	-3.17
414.00	1.110	65.040	413.92	2.60	-0.96	5.47	1732310.00	14464559.97	39°49'43.6631"N	80°40'21.6680"W	5.55	99.959	2.15	-2.10	18.07
444.00	0.280	69.930	443.92	2.56	-0.81	5.80	1732310.33	14464560.12	39°49'43.6646"N	80°40'21.6637"W	5.85	97.972	2.77	-2.77	16.30
474.00	0.170	318.760	473.92	2.52	-0.75	5.84	1732310.37	14464560.18	39°49'43.6651"N	80°40'21.6632"W	5.89	97.353	1.25	-0.37	-370.57
486.00	0.500	274.900	485.92	2.48	-0.74	5.77	1732310.30	14464560.19	39°49'43.6653"N	80°40'21.6640"W	5.82	97.260	3.29	2.75	-365.50
510.00	0.440	279.180	509.91	2.40	-0.71	5.58	1732310.11	14464560.22	39°49'43.6656"N	80°40'21.6665"W	5.62	97.272	0.29	-0.25	17.83
541.00	0.420	283.280	540.91	2.29	-0.67	5.35	1732309.88	14464560.26	39°49'43.6660"N	80°40'21.6694"W	5.39	97.104	0.12	-0.06	13.23
573.00	0.730	247.880	572.91	2.24	-0.72	5.05	1732309.58	14464560.21	39°49'43.6655"N	80°40'21.6733"W	5.10	98.080	1.43	0.97	-110.62
605.00	0.910	266.880	604.91	2.19	-0.81	4.60	1732309.13	14464560.12	39°49'43.6647"N	80°40'21.6790"W	4.67	99.942	1.01	0.56	59.38
637.00	0.870	245.290	636.91	2.15	-0.92	4.13	1732308.66	14464560.01	39°49'43.6635"N	80°40'21.6851"W	4.23	102.591	1.05	-0.12	-67.47
668.00	0.750	262.980	667.90	2.14	-1.05	3.71	1732308.24	14464559.88	39°49'43.6623"N	80°40'21.6904"W	3.86	105.721	0.89	-0.39	57.06
700.00	0.590	230.860	699.90	2.16	-1.18	3.38	1732307.91	14464559.75	39°49'43.6611"N	80°40'21.6947"W	3.58	109.177	1.25	-0.50	-100.38
730.00	0.700	254.660	729.90	2.21	-1.32	3.08	1732307.61	14464559.61	39°49'43.6596"N	80°40'21.6985"W	3.35	113.200	0.96	0.37	79.33
762.00	0.670	282.430	761.90	2.10	-1.33	2.71	1732307.24	14464559.60	39°49'43.6595"N	80°40'21.7033"W	3.02	116.174	1.03	-0.09	86.78
794.00	0.240	289.280	793.89	1.97	-1.27	2.47	1732307.00	14464559.66	39°49'43.6602"N	80°40'21.7064"W	2.77	117.259	1.35	-1.34	21.41
825.00	0.430	303.090	824.89	1.84	-1.19	2.31	1732306.84	14464559.74	39°49'43.6610"N	80°40'21.7085"W	2.59	117.197	0.66	0.61	44.55
857.00	0.480	321.690	856.89	1.62	-1.01	2.12	1732306.65	14464559.92	39°49'43.6627"N	80°40'21.7108"W	2.35	115.543	0.48	0.16	58.13
888.00	0.460	347.120	887.89	1.37	-0.79	2.01	1732306.54	14464560.14	39°49'43.6649"N	80°40'21.7122"W	2.16	111.445	0.67	-0.06	82.03
920.00	0.610	345.660	919.89	1.08	-0.50	1.94	1732306.47	14464560.43	39°49'43.6678"N	80°40'21.7131"W	2.01	104.456	0.47	0.47	-4.56
951.00	0.620	341.510	950.89	0.74	-0.18	1.85	1732306.38	14464560.75	39°49'43.6709"N	80°40'21.7143"W	1.86	95.626	0.15	0.03	-13.39
983.00	0.990	1.940	982.89	0.31	0.26	1.80	1732306.33	14464561.19	39°49'43.6753"N	80°40'21.7148"W	1.82	81.855	1.45	1.16	63.84
1015.00	0.880	356.030	1014.88	-0.19	0.78	1.80	1732306.33	14464561.71	39°49'43.6804"N	80°40'21.7149"W	1.96	66.542	0.46	-0.34	-18.47
1046.00	0.840	337.370	1045.88	-0.64	1.23	1.69	1732306.22	14464562.16	39°49'43.6849"N	80°40'21.7162"W	2.09	54.067	0.91	-0.13	-60.19
1071.00	0.370	338.940	1070.88	-0.91	1.47	1.59	1732306.12	14464562.40	39°49'43.6873"N	80°40'21.7175"W	2.17	47.279	1.88	-1.88	6.28

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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]	Build Rate ["/100ft]	Turn Rate ["/100ft]	
1146.00	0.300	303.830	1145.88	-1.30	1.81	1.34	1732305.87	14464562.74	39°49'43.6906"N	80°40'21.7207"W	2.25	36.629	0.28	-0.09	-46.81	
1240.00	1.880	312.200	1239.86	-2.84	2.98	0.00	1732304.53	14464563.91	39°49'43.7023"N	80°40'21.7379"W	2.98	359.932	1.68	1.68	8.90	
1304.00	2.690	290.420	1303.81	-4.68	4.21	-2.19	1732302.34	14464565.14	39°49'43.7145"N	80°40'21.7659"W	4.74	332.523	1.83	1.27	-34.03	
1336.00	3.500	312.570	1335.76	-6.00	5.13	-3.61	1732300.92	14464566.06	39°49'43.7237"N	80°40'21.7841"W	6.28	324.859	4.47	2.53	69.22	
1431.00	5.380	276.400	1430.49	-10.36	7.59	-10.18	1732294.35	14464568.52	39°49'43.7482"N	80°40'21.8681"W	12.69	306.722	3.46	1.98	-38.07	
1526.00	7.110	280.070	1524.92	-14.96	9.11	-20.39	1732284.14	14464570.04	39°49'43.7636"N	80°40'21.9990"W	22.34	294.085	1.87	1.82	3.86	
1620.00	8.070	295.060	1618.11	-22.20	12.93	-32.10	1732272.43	14464573.86	39°49'43.8018"N	80°40'22.1490"W	34.60	291.938	2.33	1.02	15.95	
1715.00	10.160	306.770	1711.91	-33.60	20.77	-44.85	1732259.68	14464581.70	39°49'43.8797"N	80°40'22.3121"W	49.43	294.847	2.93	2.20	12.33	
1778.00	10.330	308.440	1773.90	-42.84	27.61	-53.73	1732250.80	14464588.54	39°49'43.9477"N	80°40'22.4256"W	60.40	297.196	0.54	0.27	2.65	
1873.00	10.220	308.580	1867.38	-56.97	38.16	-66.99	1732237.54	14464599.09	39°49'44.0525"N	80°40'22.5951"W	77.09	299.667	0.12	-0.12	0.15	
1968.00	10.520	306.370	1960.83	-71.05	48.56	-80.56	1732223.97	14464609.49	39°49'44.1558"N	80°40'22.7687"W	94.06	301.079	0.52	0.32	-2.33	
2063.00	11.190	303.170	2054.13	-85.28	58.74	-95.26	1732209.27	14464619.67	39°49'44.2570"N	80°40'22.9567"W	111.91	301.661	0.95	0.71	-3.37	
2157.00	11.110	300.980	2146.36	-99.21	68.39	-110.66	1732193.87	14464629.32	39°49'44.3530"N	80°40'23.1537"W	130.09	301.719	0.46	-0.09	-2.33	

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Field	Marshall	API	47-051-02249-0000
Facility	Hudson	Wellbore	Hudson S-2HM AWB
Slot	Slot 02		

WELLPATH DATA (244 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]	Build Rate [°/100ft]	Turn Rate [°/100ft]	
2252.00	11.220	301.850	2239.56	-113.18	77.98	-126.36	1732178.18	14464638.91	39°49'44.4483"N	80°40'23.3545"W	148.48	301.682	0.21	0.12	0.92	
2319.00	11.130	300.080	2305.29	-122.97	84.66	-137.49	1732167.04	14464645.59	39°49'44.5148"N	80°40'23.4970"W	161.46	301.624	0.53	-0.13	-2.64	
2392.00	10.690	298.900	2376.97	-133.15	91.47	-149.51	1732155.02	14464652.40	39°49'44.5825"N	80°40'23.6508"W	175.27	301.457	0.68	-0.60	-1.62	
2455.00	9.320	296.080	2439.01	-140.97	96.53	-159.21	1732145.32	14464657.46	39°49'44.6329"N	80°40'23.7750"W	186.19	301.230	2.31	-2.17	-4.48	
2550.00	9.680	299.060	2532.71	-152.16	103.80	-173.10	1732131.43	14464664.73	39°49'44.7052"N	80°40'23.9527"W	201.84	300.948	0.64	0.38	3.14	
2645.00	12.090	299.420	2625.99	-165.33	112.56	-188.75	1732115.78	14464673.49	39°49'44.7925"N	80°40'24.1530"W	219.77	300.810	2.54	2.54	0.38	
2739.00	14.250	297.210	2717.51	-180.79	122.69	-207.62	1732096.91	14464683.62	39°49'44.8933"N	80°40'24.3944"W	241.16	300.581	2.36	2.30	-2.35	
2834.00	16.120	292.070	2809.20	-197.57	132.99	-230.24	1732074.29	14464693.92	39°49'44.9959"N	80°40'24.6840"W	265.89	300.012	2.42	1.97	-5.41	
2929.00	20.990	291.620	2899.23	-216.91	144.22	-258.30	1732046.23	14464705.15	39°49'45.1080"N	80°40'25.0433"W	295.83	299.178	5.13	5.13	-0.47	
3023.00	24.340	291.720	2985.96	-240.03	157.60	-291.95	1732012.58	14464718.53	39°49'45.2414"N	80°40'25.4742"W	331.77	298.361	3.56	3.56	0.11	
3118.00	27.780	291.900	3071.29	-266.74	173.11	-330.69	1731973.84	14464734.04	39°49'45.3961"N	80°40'25.9702"W	373.26	297.631	3.62	3.62	0.19	
3213.00	32.170	289.230	3153.57	-296.24	189.70	-375.14	1731929.39	14464750.63	39°49'45.5618"N	80°40'26.5394"W	420.38	296.825	4.83	4.62	-2.81	
3308.00	35.800	286.350	3232.33	-327.22	205.86	-425.70	1731878.83	14464766.79	39°49'45.7234"N	80°40'27.1869"W	472.86	295.808	4.18	3.82	-3.03	
3498.00	42.110	284.440	3380.01	-392.78	237.42	-540.83	1731763.70	14464798.35	39°49'46.0396"N	80°40'28.6618"W	590.65	293.701	3.38	3.32	-1.01	
3593.00	42.380	287.060	3450.34	-428.24	254.76	-602.29	1731702.24	14464815.69	39°49'46.2132"N	80°40'29.4491"W	653.96	292.928	1.88	0.28	2.76	
3687.00	41.790	288.680	3520.11	-465.13	274.09	-662.25	1731642.28	14464835.02	39°49'46.4064"N	80°40'30.2170"W	716.73	292.483	1.31	-0.63	1.72	
3782.00	41.810	288.230	3590.93	-502.74	294.13	-722.32	1731582.22	14464855.06	39°49'46.6067"N	80°40'30.9863"W	779.91	292.156	0.32	0.02	-0.47	
3876.00	42.470	288.310	3660.63	-540.03	313.90	-782.20	1731522.33	14464874.83	39°49'46.8043"N	80°40'31.7533"W	842.84	291.866	0.70	0.70	0.09	
3971.00	42.900	287.340	3730.46	-577.71	333.62	-843.52	1731461.01	14464894.55	39°49'47.0014"N	80°40'32.5386"W	907.10	291.579	0.83	0.45	-1.02	
4066.00	42.250	287.690	3800.42	-615.03	352.96	-904.81	1731399.72	14464913.89	39°49'47.1949"N	80°40'33.3236"W	971.22	291.310	0.73	-0.68	0.37	
4160.00	41.970	287.530	3870.16	-651.71	372.03	-964.89	1731339.64	14464932.96	39°49'47.3855"N	80°40'34.0931"W	1034.13	291.085	0.32	-0.30	-0.17	
4255.00	42.020	288.140	3940.76	-688.91	391.49	-1025.40	1731279.14	14464952.42	39°49'47.5802"N	80°40'34.8681"W	1097.59	290.897	0.43	0.05	0.64	
4349.00	41.810	287.900	4010.71	-725.82	410.92	-1085.11	1731219.42	14464971.85	39°49'47.7743"N	80°40'35.6329"W	1160.31	290.741	0.28	-0.22	-0.26	
4444.00	42.210	287.200	4081.30	-762.76	430.09	-1145.73	1731158.80	14464991.02	39°49'47.9660"N	80°40'36.4093"W	1223.79	290.575	0.65	0.42	-0.74	
4539.00	42.190	286.850	4151.67	-799.37	448.77	-1206.75	1731097.79	14465009.70	39°49'48.1529"N	80°40'37.1908"W	1287.49	290.400	0.25	-0.02	-0.37	
4634.00	42.060	286.850	4222.13	-835.76	467.25	-1267.73	1731036.80	14465028.17	39°49'48.3377"N	80°40'37.9720"W	1351.10	290.232	0.14	-0.14	0.00	
4728.00	42.520	286.190	4291.67	-871.59	485.23	-1328.37	1730976.16	14465046.16	39°49'48.5177"N	80°40'38.7487"W	1414.22	290.066	0.68	0.49	-0.70	
4823.00	42.510	285.770	4361.69	-907.45	502.90	-1390.09	1730914.44	14465063.83	39°49'48.6946"N	80°40'39.5393"W	1478.26	289.889	0.30	-0.01	-0.44	
4918.00	41.680	286.160	4432.19	-943.01	520.42	-1451.32	1730853.22	14465081.35	39°49'48.8699"N	80°40'40.3236"W	1541.80	289.727	0.92	-0.87	0.41	
5013.00	40.580	286.330	4503.74	-978.16	537.90	-1511.31	1730793.22	14465098.83	39°49'49.0449"N	80°40'41.0921"W	1604.18	289.591	1.16	-1.16	0.18	
5108.00	39.610	285.690	4576.41	-1012.36	554.77	-1570.12	1730734.41	14465115.70	39°49'49.2138"N	80°40'41.8454"W	1665.25	289.460	1.11	-1.02	-0.67	
5203.00	42.660	289.680	4647.97	-1048.83	573.81	-1629.61	1730674.93	14465134.74	39°49'49.4042"N	80°40'42.6074"W	1727.68	289.398	4.23	3.21	4.20	

WELLPATH DATA (244 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]	Build Rate [°/100ft]	Turn Rate [°/100ft]
5299.00	43.270	288.750	4718.22	-1088.38	595.34	-1691.39	1730613.14	14465156.27	39°49'49.6192"N	80°40'43.3986"W	1793.11	289.391	0.92	0.64	-0.97
5393.00	43.150	287.220	4786.73	-1126.18	615.21	-1752.60	1730551.93	14465176.14	39°49'49.8179"N	80°40'44.1826"W	1857.45	289.343	1.12	-0.13	-1.63
5489.00	43.410	286.670	4856.62	-1163.86	634.40	-1815.56	1730488.98	14465195.32	39°49'50.0097"N	80°40'44.9890"W	1923.20	289.261	0.48	0.27	-0.57
5584.00	43.390	286.580	4925.65	-1200.93	653.07	-1878.10	1730426.43	14465214.00	39°49'50.1966"N	80°40'45.7902"W	1988.41	289.174	0.07	-0.02	-0.09
5679.00	42.670	286.670	4995.09	-1237.75	671.62	-1940.22	1730364.31	14465232.55	39°49'50.3821"N	80°40'46.5858"W	2053.17	289.094	0.76	-0.76	0.09
5773.00	42.570	286.670	5064.26	-1273.93	689.88	-2001.19	1730303.34	14465250.80	39°49'50.5648"N	80°40'47.3669"W	2116.77	289.021	0.11	-0.11	0.00
5868.00	42.710	286.990	5134.15	-1310.67	708.51	-2062.79	1730241.74	14465269.44	39°49'50.7512"N	80°40'48.1558"W	2181.07	288.956	0.27	0.15	0.34
5963.00	43.030	288.650	5203.77	-1348.48	728.29	-2124.32	1730180.22	14465289.22	39°49'50.9489"N	80°40'48.9439"W	2245.69	288.923	1.24	0.34	1.75
6058.00	43.800	288.300	5272.78	-1387.27	748.98	-2186.24	1730118.29	14465309.91	39°49'51.1556"N	80°40'49.7370"W	2310.98	288.911	0.85	0.81	-0.37
6152.00	44.370	287.740	5340.30	-1425.71	769.21	-2248.43	1730056.10	14465330.13	39°49'51.3578"N	80°40'50.5336"W	2376.37	288.886	0.73	0.61	-0.60
6247.00	44.020	287.060	5408.41	-1464.06	789.01	-2311.63	1729992.91	14465349.94	39°49'51.5559"N	80°40'51.3430"W	2442.57	288.846	0.62	-0.37	-0.72
6342.00	41.730	284.670	5478.03	-1500.07	806.71	-2373.78	1729930.76	14465367.63	39°49'51.7330"N	80°40'52.1392"W	2507.11	288.770	2.96	-2.41	-2.52
6437.00	41.190	283.830	5549.23	-1533.62	822.19	-2434.74	1729869.79	14465383.12	39°49'51.8882"N	80°40'52.9202"W	2569.82	288.659	0.82	-0.57	-0.88

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# Actual Wellpath Report

Hudson S-2HM AWP Proj: 20912'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	EQT (TUG HILL OPERATING, LLC)	Well	Hudson S-2HM
Field	Marshall	API	47-051-02249-0000
Facility	Hudson	Wellbore	Hudson S-2HM AWB
Slot	Slot 02		

## WELLPATH DATA (244 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]	Build Rate [°/100ft]	Turn Rate [°/100ft]
6532.00	41.610	285.760	5620.49	-1567.63	838.24	-2495.48	1729809.06	14465399.16	39°49'52.0490"N	80°40'53.6982"W	2632.50	288.567	1.41	0.44	2.03
6627.00	40.030	285.750	5692.38	-1602.12	855.10	-2555.24	1729749.29	14465416.03	39°49'52.2178"N	80°40'54.4638"W	2694.52	288.503	1.66	-1.66	-0.01
6723.00	39.820	285.880	5766.00	-1636.39	871.89	-2614.52	1729690.02	14465432.82	39°49'52.3859"N	80°40'55.2232"W	2756.07	288.442	0.24	-0.22	0.14
6818.00	40.060	286.760	5838.84	-1670.76	889.03	-2673.05	1729631.49	14465449.95	39°49'52.5574"N	80°40'55.9730"W	2817.01	288.397	0.65	0.25	0.93
6913.00	41.120	286.970	5910.98	-1706.07	906.96	-2732.20	1729572.33	14465467.89	39°49'52.7367"N	80°40'56.7307"W	2878.80	288.364	1.13	1.12	0.22
6974.00	43.890	287.170	5955.95	-1729.74	919.06	-2771.60	1729532.94	14465479.99	39°49'52.8577"N	80°40'57.2353"W	2920.00	288.345	4.55	4.54	0.33
7059.00	41.910	283.660	6018.22	-1761.60	934.46	-2827.35	1729477.19	14465495.39	39°49'53.0120"N	80°40'57.9495"W	2977.77	288.289	3.65	-2.33	-4.13
7154.00	37.280	273.890	6091.48	-1789.01	943.92	-2886.97	1729417.56	14465504.85	39°49'53.1076"N	80°40'58.7136"W	3037.37	288.106	8.16	-4.87	-10.28
7250.00	34.160	258.850	6169.56	-1803.07	940.68	-2942.55	1729361.99	14465501.61	39°49'53.0775"N	80°40'59.4264"W	3089.25	287.728	9.68	-3.25	-15.67
7345.00	32.850	242.270	6248.94	-1801.88	923.49	-2991.63	1729312.91	14465484.42	39°49'52.9093"N	80°41'0.0565"W	3130.92	287.155	9.71	-1.38	-17.45
7440.00	32.850	224.380	6328.94	-1785.53	893.02	-3032.55	1729271.98	14465453.94	39°49'52.6094"N	80°41'0.5827"W	3161.30	286.408	10.19	0.00	-18.83
7534.00	34.300	211.690	6407.35	-1756.52	852.21	-3064.34	1729240.20	14465413.13	39°49'52.2071"N	80°41'0.9922"W	3180.63	285.541	7.61	1.54	-13.50
7629.00	38.880	198.620	6483.73	-1715.17	801.07	-3087.97	1729216.57	14465362.00	39°49'51.7023"N	80°41'1.2975"W	3190.18	284.543	9.49	4.82	-13.76
7724.00	44.720	186.950	6554.63	-1660.80	739.49	-3101.56	1729202.97	14465300.42	39°49'51.0940"N	80°41'1.4746"W	3188.50	283.410	10.22	6.15	-12.28
7819.00	50.910	176.800	6618.48	-1594.68	669.33	-3103.56	1729200.98	14465230.26	39°49'50.4005"N	80°41'1.5033"W	3174.91	282.170	10.24	6.52	-10.68
7913.00	57.940	169.510	6673.18	-1519.76	593.58	-3094.25	1729210.29	14465154.51	39°49'49.6512"N	80°41'1.3874"W	3150.67	280.859	9.78	7.48	-7.76
8008.00	65.320	162.880	6718.33	-1436.50	512.57	-3074.17	1729230.37	14465073.50	39°49'48.8496"N	80°41'1.1336"W	3116.61	279.466	9.90	7.77	-6.98
8103.00	72.940	159.380	6752.16	-1347.83	428.67	-3045.42	1729259.12	14464989.60	39°49'48.0192"N	80°41'0.7688"W	3075.44	278.012	8.73	8.02	-3.68
8198.00	81.310	156.600	6773.31	-1255.54	342.91	-3010.71	1729293.82	14464903.84	39°49'47.1701"N	80°41'0.3276"W	3030.18	276.498	9.26	8.81	-2.93
8293.00	88.640	151.770	6781.63	-1161.89	257.81	-2969.52	1729335.01	14464818.74	39°49'46.3273"N	80°40'59.8033"W	2980.69	274.962	9.23	7.72	-5.08
8388.00	88.420	151.900	6784.07	-1068.41	174.09	-2924.69	1729379.84	14464735.02	39°49'45.4980"N	80°40'59.2323"W	2929.87	273.406	0.27	-0.23	0.14
8483.00	88.240	148.670	6786.84	-975.45	91.63	-2877.63	1729426.90	14464652.56	39°49'44.6811"N	80°40'58.6326"W	2879.09	271.824	3.40	-0.19	-3.40
8578.00	88.820	148.710	6789.28	-883.04	10.49	-2828.28	1729476.26	14464490.26	39°49'43.8772"N	80°40'58.0034"W	2828.30	270.212	0.61	0.61	0.04
8673.00	88.820	148.690	6791.23	-790.62	-70.67	-2778.94	1729525.60	14464490.26	39°49'43.0732"N	80°40'57.3744"W	2779.83	268.543	0.02	0.00	-0.02
8768.00	88.730	148.590	6793.26	-698.22	-151.77	-2729.51	1729575.03	14464409.16	39°49'42.2696"N	80°40'56.7443"W	2733.72	266.817	0.14	-0.09	-0.11
8863.00	88.820	149.370	6795.29	-605.69	-233.16	-2680.56	1729623.97	14464327.77	39°49'41.4632"N	80°40'56.1204"W	2690.68	265.029	0.83	0.09	0.82
8958.00	88.760	149.690	6797.30	-512.96	-315.03	-2632.40	1729672.14	14464245.90	39°49'40.6522"N	80°40'55.5066"W	2651.18	263.176	0.34	-0.06	0.34
9053.00	88.730	149.340	6799.38	-420.23	-396.87	-2584.22	1729720.32	14464164.06	39°49'39.8413"N	80°40'54.8925"W	2614.51	261.269	0.37	-0.03	-0.37
9147.00	88.760	149.680	6801.44	-328.49	-477.86	-2536.53	1729768.00	14464083.07	39°49'39.0390"N	80°40'54.2848"W	2581.15	259.331	0.36	0.03	0.36
9242.00	88.640	149.440	6803.59	-235.75	-559.74	-2488.42	1729816.12	14464001.19	39°49'38.2278"N	80°40'53.6715"W	2550.59	257.323	0.28	-0.13	-0.25
9337.00	88.790	149.460	6805.72	-143.05	-641.53	-2440.14	1729864.39	14463919.40	39°49'37.4174"N	80°40'53.0563"W	2523.06	255.270	0.16	0.16	0.02
9432.00	88.980	150.000	6807.57	-50.24	-723.56	-2392.26	1729912.27	14463837.37	39°49'36.6047"N	80°40'52.4461"W	2499.29	253.172	0.60	0.20	0.57

WELLPATH DATA (244 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]	Build Rate [°/100ft]	Turn Rate [°/100ft]
9527.00	89.190	149.750	6809.09	42.62	-805.72	-2344.59	1729959.95	14463755.21	39°49'35.7908"N	80°40'51.8386"W	2479.17	251.035	0.34	0.22	-0.26
9622.00	89.100	149.980	6810.51	135.48	-887.87	-2296.90	1730007.63	14463673.06	39°49'34.9770"N	80°40'51.2309"W	2462.53	248.866	0.26	-0.09	0.24
9716.00	88.850	149.390	6812.19	227.29	-969.01	-2249.46	1730055.07	14463591.93	39°49'34.1732"N	80°40'50.6263"W	2449.30	246.695	0.68	-0.27	-0.63
9811.00	88.970	149.530	6814.00	320.00	-1050.81	-2201.20	1730103.34	14463510.12	39°49'33.3627"N	80°40'50.0112"W	2439.15	244.481	0.19	0.13	0.15
9906.00	87.990	148.730	6816.52	412.58	-1132.32	-2152.47	1730152.06	14463428.61	39°49'32.5551"N	80°40'49.3902"W	2432.14	242.253	1.33	-1.03	-0.84
10000.00	87.930	149.390	6819.86	504.12	-1212.90	-2104.17	1730200.36	14463348.04	39°49'31.7568"N	80°40'48.7746"W	2428.72	240.040	0.70	-0.06	0.70
10096.00	88.570	149.670	6822.79	597.81	-1295.60	-2055.52	1730249.02	14463265.33	39°49'30.9375"N	80°40'48.1545"W	2429.76	237.777	0.73	0.67	0.29
10191.00	88.390	149.540	6825.31	690.55	-1377.51	-2007.47	1730297.07	14463183.42	39°49'30.1259"N	80°40'47.5422"W	2434.64	235.542	0.23	-0.19	-0.14
10285.00	88.820	149.580	6827.60	782.31	-1458.53	-1959.86	1730344.68	14463102.40	39°49'29.3233"N	80°40'46.9354"W	2443.02	233.343	0.46	0.46	0.04
10380.00	88.850	149.330	6829.53	875.02	-1540.33	-1911.59	1730392.95	14463020.60	39°49'28.5129"N	80°40'46.3203"W	2454.95	231.139	0.26	0.03	-0.26
10475.00	88.700	148.960	6831.57	967.61	-1621.87	-1862.88	1730441.66	14462939.06	39°49'27.7050"N	80°40'45.6995"W	2469.97	228.956	0.42	-0.16	-0.39
10570.00	89.130	150.150	6833.36	1060.35	-1703.75	-1814.75	1730489.79	14462857.18	39°49'26.8938"N	80°40'45.0861"W	2489.19	226.807	1.33	0.45	1.25
10665.00	88.360	149.380	6835.45	1153.16	-1785.81	-1766.92	1730537.61	14462775.12	39°49'26.0808"N	80°40'44.4767"W	2512.20	224.695	1.15	-0.81	-0.81

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# Actual Wellpath Report

Hudson S-2HM AWP Proj: 20912'

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REFERENCE WELLPATH IDENTIFICATION				
Operator	EQT (TUG HILL OPERATING, LLC)		Well	Hudson S-2HM
Field	Marshall		API	47-051-02249-0000
Facility	Hudson		Wellbore	Hudson S-2HM AWB
Slot	Slot 02			

## WELLPATH DATA (244 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]	Build Rate [°/100ft]	Turn Rate [°/100ft]
10760.00	88.230	149.510	6838.27	1245.84	-1867.58	-1718.65	1730585.88	14462693.35	39°49'25.2707"N	80°40'43.8615"W	2538.03	222.622	0.19	-0.14	0.14
10856.00	88.300	149.420	6841.18	1339.50	-1950.23	-1669.90	1730634.64	14462610.70	39°49'24.4519"N	80°40'43.2403"W	2567.48	220.572	0.12	0.07	-0.09
10951.00	88.390	150.000	6843.92	1432.28	-2032.23	-1622.00	1730682.53	14462528.71	39°49'23.6395"N	80°40'42.6299"W	2600.16	218.595	0.62	0.09	-0.61
11046.00	88.360	149.670	6846.62	1525.10	-2114.33	-1574.28	1730730.25	14462446.61	39°49'22.8261"N	80°40'42.0219"W	2636.05	216.671	0.35	-0.03	-0.35
11141.00	88.360	149.390	6849.33	1617.82	-2196.17	-1526.13	1730778.40	14462364.76	39°49'22.0152"N	80°40'41.4083"W	2674.37	214.796	0.29	0.00	-0.29
11236.00	88.390	149.410	6852.03	1710.48	-2277.91	-1477.79	1730826.74	14462283.02	39°49'21.2054"N	80°40'40.7923"W	2715.28	212.973	0.04	0.03	0.02
11331.00	88.600	149.810	6854.52	1803.23	-2359.83	-1429.75	1730874.78	14462201.10	39°49'20.3938"N	80°40'40.1801"W	2759.16	211.210	0.48	0.22	0.42
11426.00	88.420	149.920	6856.99	1896.07	-2441.96	-1382.07	1730922.46	14462118.97	39°49'19.5801"N	80°40'39.5726"W	2805.94	209.508	0.22	-0.19	0.12
11521.00	88.330	149.830	6859.69	1988.91	-2524.10	-1334.41	1730970.12	14462036.84	39°49'18.7664"N	80°40'38.9653"W	2855.12	207.864	0.13	-0.09	-0.09
11615.00	88.510	149.420	6862.28	2080.68	-2605.17	-1286.90	1731017.63	14461955.77	39°49'17.9633"N	80°40'38.3599"W	2905.68	206.288	0.48	0.19	-0.44
11710.00	88.300	149.110	6864.92	2173.30	-2686.79	-1238.37	1731066.17	14461874.15	39°49'17.1546"N	80°40'37.7414"W	2958.44	204.745	0.39	-0.22	-0.33
11805.00	88.270	149.230	6867.77	2265.88	-2768.33	-1189.70	1731114.83	14461792.61	39°49'16.3467"N	80°40'37.1212"W	3013.14	203.256	0.13	-0.03	0.13
11900.00	88.360	149.320	6870.56	2358.50	-2849.96	-1141.18	1731163.35	14461710.98	39°49'15.5379"N	80°40'36.5030"W	3069.95	201.822	0.13	0.09	0.09
11994.00	88.110	149.640	6873.46	2450.21	-2930.90	-1093.47	1731211.06	14461630.04	39°49'14.7361"N	80°40'35.8950"W	3128.23	200.460	0.43	-0.27	0.34
12089.00	88.230	149.460	6876.49	2542.93	-3012.75	-1045.35	1731259.18	14461548.18	39°49'13.9251"N	80°40'35.2818"W	3188.95	199.136	0.23	0.13	-0.19
12184.00	88.140	149.630	6879.50	2635.64	-3094.60	-997.22	1731307.31	14461466.33	39°49'13.1141"N	80°40'34.6686"W	3251.31	197.861	0.20	-0.09	0.18
12279.00	88.080	149.580	6882.63	2728.36	-3176.50	-949.18	1731355.35	14461384.44	39°49'12.3027"N	80°40'34.0564"W	3315.28	196.637	0.08	-0.06	-0.05
12374.00	88.140	149.460	6885.77	2821.06	-3258.33	-901.02	1731403.51	14461302.61	39°49'11.4920"N	80°40'33.4428"W	3380.61	195.458	0.14	0.06	-0.13
12468.00	88.140	148.870	6888.82	2912.66	-3339.00	-852.87	1731451.67	14461221.94	39°49'10.6928"N	80°40'32.8291"W	3446.20	194.328	0.63	0.00	-0.63
12564.00	88.330	148.830	6891.77	3006.09	-3421.12	-803.23	1731501.30	14461139.82	39°49'9.8791"N	80°40'32.1966"W	3514.15	193.213	0.20	0.20	-0.04
12658.00	88.540	149.670	6894.34	3097.73	-3501.87	-755.19	1731549.34	14461059.07	39°49'9.0790"N	80°40'31.5844"W	3582.37	192.170	0.92	0.22	0.89
12753.00	87.990	149.000	6897.22	3190.37	-3583.55	-706.76	1731597.77	14460977.39	39°49'8.2698"N	80°40'30.9673"W	3652.58	191.157	0.91	-0.58	-0.71
12848.00	88.510	149.960	6900.12	3283.06	-3665.35	-658.54	1731645.99	14460895.59	39°49'7.4594"N	80°40'30.3528"W	3724.03	190.185	1.15	0.55	1.01
12943.00	88.570	150.080	6902.54	3375.95	-3747.61	-611.08	1731693.45	14460813.33	39°49'6.6444"N	80°40'29.7482"W	3797.10	189.261	0.14	0.06	0.13
13037.00	88.390	149.680	6905.03	3467.81	-3828.89	-563.93	1731740.60	14460732.05	39°49'5.8391"N	80°40'29.1475"W	3870.19	188.378	0.47	-0.19	-0.43
13132.00	88.360	149.630	6907.73	3560.57	-3910.84	-515.95	1731788.58	14460650.10	39°49'5.0272"N	80°40'28.5362"W	3944.73	187.516	0.06	-0.03	-0.05
13227.00	88.480	150.250	6910.35	3653.43	-3993.03	-468.38	1731836.15	14460567.91	39°49'4.2129"N	80°40'27.9302"W	4020.41	186.690	0.66	0.13	0.65
13321.00	88.020	149.090	6913.22	3745.21	-4074.13	-420.94	1731883.59	14460486.81	39°49'3.4095"N	80°40'27.3257"W	4095.81	185.899	1.33	-0.49	-1.23
13416.00	88.140	149.660	6916.40	3837.86	-4155.83	-372.57	1731931.96	14460405.11	39°49'2.6000"N	80°40'26.7095"W	4172.50	185.123	0.61	0.13	0.60
13511.00	88.140	150.070	6919.48	3930.68	-4237.95	-324.90	1731979.63	14460322.99	39°49'1.7864"N	80°40'26.1022"W	4250.38	184.384	0.43	0.00	0.43
13606.00	88.140	149.850	6922.57	4023.53	-4320.14	-277.37	1732027.16	14460240.80	39°49'0.9721"N	80°40'25.4966"W	4329.04	183.674	0.23	0.00	-0.23
13701.00	88.140	149.600	6925.65	4116.31	-4402.14	-229.50	1732075.03	14460158.80	39°49'0.1597"N	80°40'24.8868"W	4408.12	182.984	0.26	0.00	-0.26



**WELLPATH DATA (244 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]	Build Rate ["/100ft]	Turn Rate ["/100ft]
13796.00	88.050	149.170	6928.81	4208.95	-4483.85	-181.15	1732123.38	14460077.08	39°48'59.3501"N	80°40'24.2707"W	4487.51	182.314	0.46	-0.09	-0.45
13891.00	88.140	149.810	6931.97	4301.64	-4565.65	-132.95	1732171.58	14459995.28	39°48'58.5396"N	80°40'23.6565"W	4567.59	181.668	0.68	0.09	0.67
13986.00	88.080	149.320	6935.10	4394.35	-4647.52	-84.85	1732219.68	14459913.42	39°48'57.7285"N	80°40'23.0437"W	4648.29	181.046	0.52	-0.06	-0.52
14082.00	88.290	149.160	6938.14	4487.93	-4729.97	-35.77	1732268.76	14459830.97	39°48'56.9116"N	80°40'22.4185"W	4730.11	180.433	0.27	0.22	-0.17
14177.00	88.230	149.050	6941.02	4580.48	-4811.46	12.98	1732317.51	14459749.48	39°48'56.1043"N	80°40'21.7972"W	4811.47	179.845	0.13	-0.06	-0.12
14272.00	88.360	149.300	6943.85	4673.06	-4893.00	61.64	1732366.17	14459667.94	39°48'55.2963"N	80°40'21.1772"W	4893.39	179.278	0.30	0.14	0.26
14366.00	88.260	149.160	6946.62	4764.69	-4973.73	109.71	1732414.24	14459587.21	39°48'54.4964"N	80°40'20.5648"W	4974.94	178.736	0.18	-0.11	-0.15
14461.00	88.510	149.090	6949.30	4857.26	-5055.24	158.44	1732462.97	14459505.70	39°48'53.6889"N	80°40'19.9439"W	5057.72	178.205	0.27	0.26	-0.07
14556.00	88.570	149.070	6951.72	4949.82	-5136.71	207.24	1732511.77	14459424.23	39°48'52.8816"N	80°40'19.3221"W	5140.89	177.690	0.07	0.06	-0.02
14651.00	88.660	149.150	6954.02	5042.39	-5218.21	256.00	1732560.53	14459342.73	39°48'52.0741"N	80°40'18.7008"W	5224.49	177.191	0.13	0.09	0.08
14747.00	88.600	149.340	6956.31	5135.99	-5300.68	305.07	1732609.60	14459260.26	39°48'51.2570"N	80°40'18.0756"W	5309.46	176.706	0.21	-0.06	0.20
14842.00	88.540	149.160	6958.68	5228.61	-5382.30	353.63	1732658.16	14459178.64	39°48'50.4483"N	80°40'17.4569"W	5393.91	176.241	0.20	-0.06	-0.19
14937.00	88.630	149.390	6961.03	5321.24	-5463.94	402.15	1732706.68	14459097.00	39°48'49.6394"N	80°40'16.8387"W	5478.72	175.791	0.26	0.09	0.24

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# Actual Wellpath Report

Hudson S-2HM AWP Proj: 20912'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	EQT (TUG HILL OPERATING, LLC)	Well	Hudson S-2HM
Field	Marshall	API	47-051-02249-0000
Facility	Hudson	Wellbore	Hudson S-2HM AWB
Slot	Slot 02		

## WELLPATH DATA (244 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]	Build Rate [°/100ft]	Turn Rate [°/100ft]
15032.00	88.690	148.990	6963.25	5413.84	-5545.51	450.80	1732755.33	14459015.43	39°48'48.8312"N	80°40'16.2189"W	5563.81	175.353	0.43	0.06	-0.42
15127.00	88.820	148.270	6965.31	5506.24	-5626.61	500.24	1732804.77	14458934.33	39°48'48.0277"N	80°40'15.5889"W	5648.80	174.919	0.77	0.14	-0.76
15222.00	89.220	149.440	6966.94	5598.72	-5707.90	549.37	1732853.90	14458853.04	39°48'47.2222"N	80°40'14.9630"W	5734.28	174.502	1.30	0.42	1.23
15317.00	89.150	149.150	6968.29	5691.38	-5789.57	597.87	1732902.40	14458771.37	39°48'46.4130"N	80°40'14.3450"W	5820.36	174.104	0.31	-0.07	-0.31
15412.00	89.460	149.260	6969.44	5784.01	-5871.17	646.50	1732951.03	14458689.77	39°48'45.6045"N	80°40'13.7254"W	5906.66	173.716	0.35	0.33	0.12
15507.00	88.720	149.150	6970.95	5876.63	-5952.77	695.14	1732999.66	14458608.17	39°48'44.7960"N	80°40'13.1058"W	5993.22	173.339	0.79	-0.78	-0.12
15602.00	88.690	149.170	6973.10	5969.22	-6034.31	743.82	1733048.35	14458526.63	39°48'43.9880"N	80°40'12.4855"W	6079.98	172.973	0.04	-0.03	0.02
15697.00	88.630	149.150	6975.32	6061.82	-6115.86	792.51	1733097.04	14458445.08	39°48'43.1801"N	80°40'11.8652"W	6166.99	172.617	0.07	-0.06	-0.02
15792.00	88.940	149.510	6977.33	6154.47	-6197.55	840.96	1733145.49	14458363.39	39°48'42.3706"N	80°40'11.2480"W	6254.35	172.273	0.50	0.33	0.38
15887.00	88.510	149.260	6979.45	6247.15	-6279.29	889.33	1733193.86	14458281.65	39°48'41.5608"N	80°40'10.6318"W	6341.95	171.939	0.52	-0.45	-0.26
15982.00	88.720	149.190	6981.74	6339.76	-6360.89	937.92	1733242.45	14458200.06	39°48'40.7523"N	80°40'10.0127"W	6429.66	171.612	0.23	0.22	-0.07
16077.00	88.850	149.290	6983.76	6432.39	-6442.50	986.50	1733291.03	14458118.44	39°48'39.9436"N	80°40'9.3939"W	6517.59	171.294	0.17	0.14	0.11
16172.00	88.750	149.440	6985.75	6525.06	-6524.23	1034.90	1733339.42	14458036.72	39°48'39.1339"N	80°40'8.7773"W	6605.80	170.987	0.19	-0.11	0.16
16267.00	89.150	149.220	6987.49	6617.73	-6605.92	1083.35	1733387.87	14457955.02	39°48'38.3244"N	80°40'8.1601"W	6694.17	170.687	0.48	0.42	-0.23
16362.00	89.250	149.450	6988.82	6710.40	-6687.63	1131.79	1733436.32	14457873.31	39°48'37.5149"N	80°40'7.5429"W	6782.73	170.394	0.26	0.11	0.24
16457.00	89.520	149.790	6989.84	6803.18	-6769.58	1179.84	1733484.36	14457791.36	39°48'36.7029"N	80°40'6.9310"W	6871.63	170.114	0.46	0.28	0.36
16552.00	89.460	149.600	6990.68	6895.98	-6851.60	1227.77	1733532.30	14457709.35	39°48'35.8903"N	80°40'6.3204"W	6960.73	169.841	0.21	-0.06	-0.20
16647.00	89.770	149.240	6991.32	6988.69	-6933.38	1276.10	1733580.63	14457627.56	39°48'35.0800"N	80°40'5.7047"W	7049.84	169.571	0.50	0.33	-0.38
16742.00	89.890	149.190	6991.60	7081.33	-7015.00	1324.72	1733629.25	14457545.95	39°48'34.2713"N	80°40'5.0853"W	7138.98	169.306	0.14	0.13	-0.05
16837.00	90.010	149.500	6991.68	7174.02	-7096.72	1373.16	1733677.69	14457464.22	39°48'33.4616"N	80°40'4.4683"W	7228.35	169.049	0.35	0.13	0.33
16932.00	89.770	149.280	6991.87	7266.72	-7178.48	1421.53	1733726.06	14457382.46	39°48'32.6515"N	80°40'3.8521"W	7317.88	168.799	0.34	-0.25	-0.23
17027.00	89.680	149.360	6992.32	7359.39	-7260.18	1470.00	1733774.53	14457300.76	39°48'31.8420"N	80°40'3.2346"W	7407.51	168.554	0.13	-0.09	0.08
17122.00	89.640	149.570	6992.89	7452.12	-7342.01	1518.27	1733822.80	14457218.94	39°48'31.0313"N	80°40'2.6198"W	7497.35	168.316	0.23	-0.04	0.22
17217.00	89.520	149.940	6993.58	7544.95	-7424.07	1566.12	1733870.65	14457136.87	39°48'30.2182"N	80°40'2.0103"W	7587.46	168.088	0.41	-0.13	0.39
17313.00	89.370	149.300	6994.51	7638.70	-7506.89	1614.67	1733919.19	14457054.06	39°48'29.3976"N	80°40'1.3919"W	7678.58	167.861	0.68	-0.16	-0.67
17408.00	89.550	149.150	6995.41	7731.34	-7588.51	1663.27	1733967.80	14456972.44	39°48'28.5889"N	80°40'0.7728"W	7768.65	167.637	0.25	0.19	-0.16
17503.00	89.400	148.600	6996.28	7823.85	-7669.83	1712.38	1734016.90	14456891.12	39°48'27.7832"N	80°40'0.1472"W	7858.66	167.414	0.60	-0.16	-0.58
17598.00	89.340	149.290	6997.32	7916.38	-7751.21	1761.38	1734065.91	14456809.74	39°48'26.9768"N	80°39'59.5229"W	7948.81	167.198	0.73	-0.06	0.73
17693.00	89.490	149.220	6998.29	8009.02	-7832.85	1809.94	1734114.47	14456728.10	39°48'26.1679"N	80°39'58.9043"W	8039.24	166.989	0.17	0.16	-0.07
17787.00	89.640	149.490	6999.01	8100.73	-7913.72	1857.86	1734162.38	14456647.23	39°48'25.3666"N	80°39'58.2940"W	8128.87	166.788	0.33	0.16	0.29
17882.00	90.230	149.960	6999.11	8193.56	-7995.76	1905.75	1734210.28	14456565.18	39°48'24.5537"N	80°39'57.6840"W	8219.74	166.594	0.79	0.62	0.49
17977.00	90.170	150.110	6998.78	8286.48	-8078.06	1953.20	1734257.73	14456482.88	39°48'23.7383"N	80°39'57.0797"W	8310.84	166.407	0.17	-0.06	0.16

WELLPATH DATA (244 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]	Build Rate [°/100ft]	Turn Rate [°/100ft]
18071.00	90.110	149.430	6998.55	8378.34	-8159.28	2000.53	1734305.05	14456401.67	39°48'22.9336"N	80°39'56.4770"W	8400.95	166.224	0.73	-0.06	-0.72
18166.00	89.980	149.100	6998.48	8471.00	-8240.93	2049.08	1734353.60	14456320.01	39°48'22.1245"N	80°39'55.8585"W	8491.86	166.037	0.37	-0.14	-0.35
18261.00	90.040	149.070	6998.46	8563.59	-8322.44	2097.89	1734402.41	14456238.51	39°48'21.3169"N	80°39'55.2368"W	8582.78	165.852	0.07	0.06	-0.03
18356.00	90.040	149.400	6998.40	8656.23	-8404.07	2146.48	1734451.01	14456156.88	39°48'20.5081"N	80°39'54.6178"W	8673.85	165.672	0.35	0.00	0.35
18451.00	90.110	149.260	6998.27	8748.91	-8485.78	2194.94	1734499.46	14456075.17	39°48'19.6985"N	80°39'54.0006"W	8765.06	165.498	0.16	0.07	-0.15
18546.00	90.350	149.650	6997.89	8841.64	-8567.60	2243.22	1734547.74	14455993.35	39°48'18.8878"N	80°39'53.3856"W	8856.39	165.328	0.48	0.25	0.41
18641.00	90.260	149.310	6997.38	8934.37	-8649.43	2291.46	1734595.99	14455911.51	39°48'18.0770"N	80°39'52.7712"W	8947.82	165.162	0.37	-0.09	-0.36
18736.00	90.410	149.560	6996.83	9027.08	-8731.23	2339.77	1734644.30	14455829.72	39°48'17.2665"N	80°39'52.1559"W	9039.30	164.999	0.31	0.16	0.26
18832.00	90.040	149.070	6996.45	9120.73	-8813.79	2388.76	1734693.29	14455747.16	39°48'16.4484"N	80°39'51.5319"W	9131.76	164.836	0.64	-0.39	-0.51
18927.00	89.950	149.190	6996.46	9213.34	-8895.33	2437.50	1734742.03	14455665.62	39°48'15.6405"N	80°39'50.9110"W	9223.25	164.676	0.16	-0.09	0.13
19021.00	90.040	148.900	6996.47	9304.94	-8975.94	2485.85	1734790.38	14455585.01	39°48'14.8417"N	80°39'50.2951"W	9313.81	164.520	0.32	0.10	-0.31
19116.00	90.290	149.940	6996.19	9397.65	-9057.73	2534.18	1734838.71	14455503.22	39°48'14.0314"N	80°39'49.6796"W	9405.56	164.369	1.13	0.26	1.09
19211.00	89.980	150.120	6995.97	9490.58	-9140.03	2581.64	1734886.17	14455420.92	39°48'13.2160"N	80°39'49.0752"W	9497.63	164.227	0.38	-0.33	0.19

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# Actual Wellpath Report

Hudson S-2HM AWP Proj: 20912'

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## REFERENCE WELLPATH IDENTIFICATION

Operator	EQT (TUG HILL OPERATING, LLC)	Well	Hudson S-2HM
Field	Marshall	API	47-051-02249-0000
Facility	Hudson	Wellbore	Hudson S-2HM AWB
Slot	Slot 02		

## WELLPATH DATA (244 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]	Build Rate ["/100ft]	Turn Rate ["/100ft]
19307.00	90.530	150.540	6995.54	9584.58	-9223.44	2629.16	1734933.68	14455337.51	39°48'12.3896"N	80°39'48.4702"W	9590.84	164.090	0.72	0.57	0.44
19402.00	90.600	150.350	6994.61	9677.65	-9306.07	2676.02	1734980.54	14455254.88	39°48'11.5709"N	80°39'47.8735"W	9683.18	163.957	0.21	0.07	-0.20
19497.00	90.530	150.180	6993.67	9770.65	-9388.56	2723.13	1735027.66	14455172.39	39°48'10.7536"N	80°39'47.2736"W	9775.51	163.825	0.19	-0.07	-0.18
19592.00	90.630	150.270	6992.71	9863.64	-9471.01	2770.31	1735074.83	14455089.94	39°48'9.9367"N	80°39'46.6729"W	9867.86	163.696	0.14	0.11	0.09
19687.00	90.440	149.090	6991.82	9956.44	-9553.01	2818.26	1735122.79	14455007.94	39°48'9.1242"N	80°39'46.0622"W	9960.05	163.563	1.26	-0.20	-1.24
19782.00	91.400	150.270	6990.30	10049.23	-9635.01	2866.21	1735170.74	14454925.94	39°48'8.3118"N	80°39'45.4515"W	10052.29	163.433	1.60	1.01	1.24
19876.00	89.920	149.290	6989.21	10141.08	-9716.22	2913.52	1735218.05	14454844.73	39°48'7.5071"N	80°39'44.8491"W	10143.65	163.308	1.89	-1.57	-1.04
19972.00	89.860	149.370	6989.40	10234.74	-9798.79	2962.49	1735267.02	14454762.15	39°48'6.6889"N	80°39'44.2254"W	10236.83	163.178	0.10	-0.06	0.08
20066.00	89.830	149.390	6989.65	10326.46	-9879.69	3010.37	1735314.89	14454681.26	39°48'5.8874"N	80°39'44.2254"W	10328.14	163.054	0.04	-0.03	0.02
20161.00	90.410	149.600	6989.45	10419.20	-9961.54	3058.59	1735363.12	14454599.41	39°48'5.0764"N	80°39'43.0015"W	10420.52	162.931	0.65	0.61	0.22
20256.00	90.530	149.590	6988.67	10511.97	-10043.47	3106.67	1735411.19	14454517.48	39°48'4.2646"N	80°39'42.3892"W	10512.98	162.812	0.13	0.13	-0.01
20351.00	90.620	149.560	6987.72	10604.73	-10125.38	3154.78	1735459.30	14454435.57	39°48'3.4529"N	80°39'41.7766"W	10605.47	162.694	0.10	0.09	-0.03
20446.00	89.920	150.170	6987.27	10697.60	-10207.54	3202.47	1735506.99	14454353.41	39°48'2.6389"N	80°39'41.1693"W	10698.12	162.581	0.98	-0.74	0.64
20541.00	89.830	147.690	6987.48	10790.13	-10288.91	3251.49	1735556.02	14454272.04	39°48'1.8327"N	80°39'40.5448"W	10790.45	162.462	2.61	-0.09	-2.61
20637.00	88.040	149.510	6989.26	10883.48	-10370.83	3301.50	1735606.02	14454190.13	39°48'1.0209"N	80°39'39.9079"W	10883.65	162.341	2.66	-1.86	1.90
20731.00	88.220	149.090	6992.33	10975.13	-10451.61	3349.46	1735653.99	14454109.34	39°48'0.2204"N	80°39'39.2970"W	10975.20	162.231	0.49	0.19	-0.45
20826.00	89.020	148.990	6994.62	11067.67	-10533.05	3398.32	1735702.84	14454027.90	39°47'59.4134"N	80°39'38.6748"W	11067.69	162.119	0.85	0.84	-0.11
20887.00	89.150	149.290	6995.59	11127.13	-10585.41	3429.61	1735734.13	14453975.54	39°47'58.8947"N	80°39'38.2763"W	11127.13	162.048	0.54	0.21	0.49
20912.00†	89.150	149.290	6995.96	11151.51	-10606.90	3442.37	1735746.90	14453954.05	39°47'58.6817"N	80°39'38.1138"W	11151.51	162.020	0.00	0.00	0.00

## HOLE & CASING SECTIONS - Ref Wellbore: Hudson S-2HM AWB Ref Wellpath: Hudson S-2HM AWP Proj: 20912'

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]
30in Conductor	28.00	148.00	120.00	28.00	148.00	0.00	0.00	-0.41	0.19
13.375in Casing Surface	28.00	1104.00	1076.00	28.00	1103.88	0.00	0.00	1.65	1.50
9.625in Casing Intermediate	28.00	2355.00	2327.00	28.00	2340.62	0.00	0.00	88.08	-143.46
8.75in Open Hole	2355.00	6974.00	4619.00	2340.62	5955.95	88.08	-143.46	919.06	-2771.60

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Hudson S-2HM T1	6784.00	258.81	-2969.55	1729334.99	14464819.74	39°49'46.3372"N	80°40'59.8036"W	point
Hudson S-2HM T2	7059.20	-10605.66	3435.14	1735739.66	14453955.29	39°47'58.6942"N	80°39'38.2064"W	point

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# Actual Wellpath Report

Hudson S-2HM AWP Proj: 20912'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	EQT (TUG HILL OPERATING, LLC)	Well	Hudson S-2HM
Field	Marshall	API	47-051-02249-0000
Facility	Hudson	Wellbore	Hudson S-2HM AWB
Slot	Slot 02		

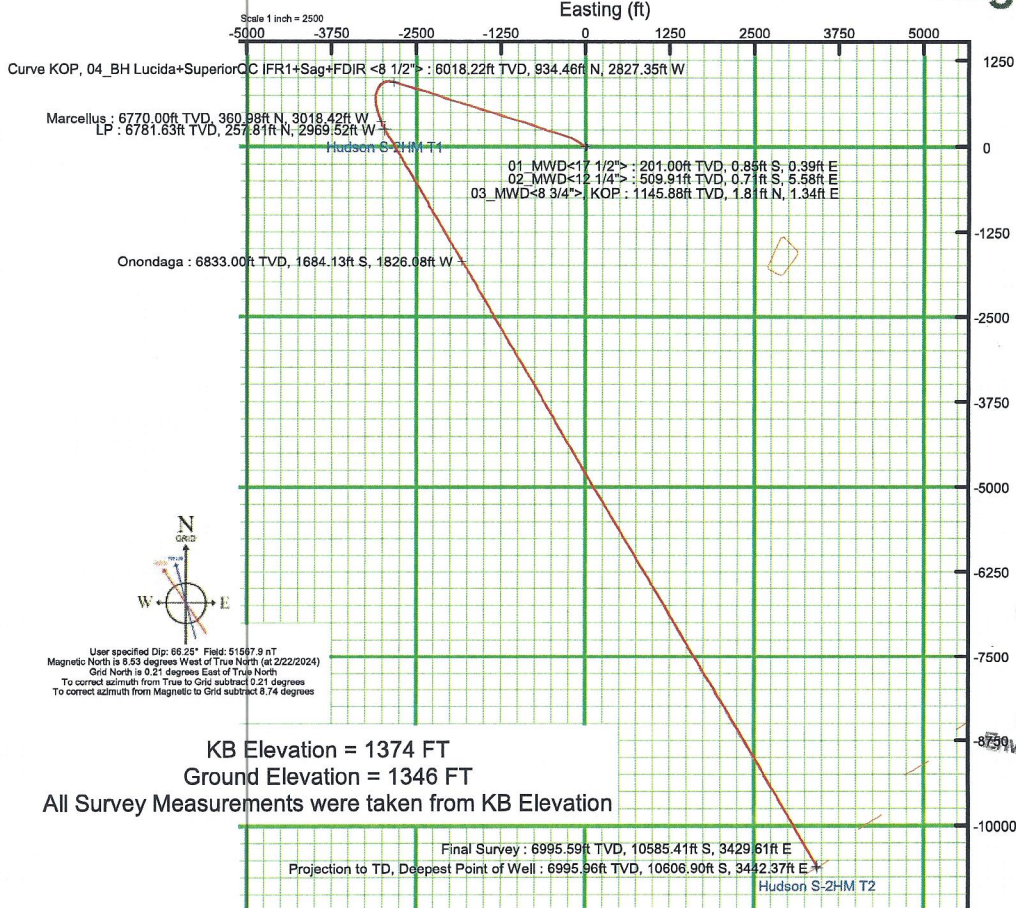
WELLPATH COMPOSITION - Ref Wellbore: Hudson S-2HM AWB Ref Wellpath: Hudson S-2HM AWP Proj: 20912'					
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date
28.00	486.00	OWSG MWD rev2 - Standard	01 MWD<17-1/2">(203'-486')	Hudson S-2HM AWB	12/7/2023
486.00	1071.00	OWSG MWD rev2 - Standard	02 MWD<12-1/4">(510'-1071')	Hudson S-2HM AWB	12/7/2023
1071.00	6974.00	OWSG MWD rev2 - Standard	03 MWD<8 3/4">(1146'-6974')	Hudson S-2HM AWB	3/2/2024
6974.00	20912.00	OWSG MWD rev2 + IFR1 + Sag + Multi-Station Correction	04 BH Lucida+SuperiorQC IFR1+Sag+FDIR <8 1/2"> (7059'-20887')	Hudson S-2HM AWB	3/2/2024

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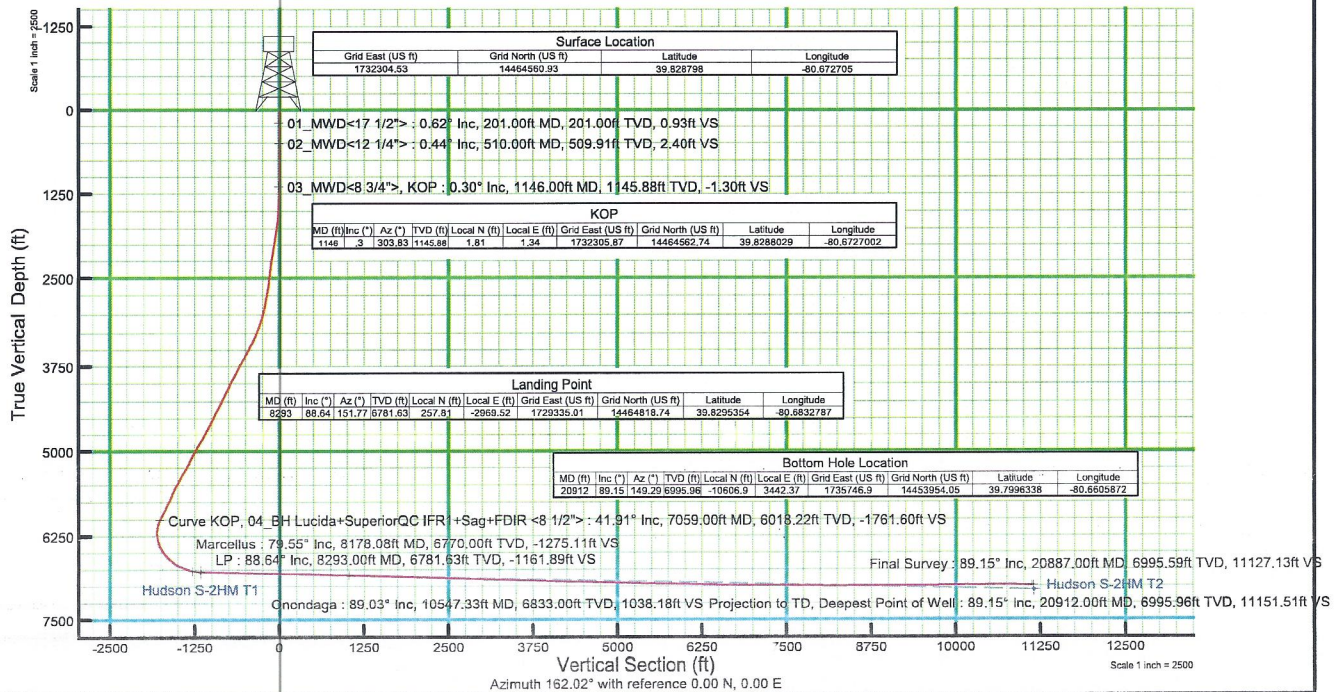
# EQT (TUG HILL OPERATING, LLC)

Location: Marshall County, WV Slot: Slot 02  
 Field: Marshall Well: Hudson S-2HM  
 Facility: Hudson Wellbore: Hudson S-2HM AWB



User specified Dip: 88.25° Field: 51567.9 nT  
 Magnetic North is 8.53 degrees West of True North (at 2/22/2024)  
 Grid North is 0.21 degrees East of True North  
 To correct azimuth from True to Grid subtract 0.21 degrees  
 To correct azimuth from Magnetic to Grid subtract 8.74 degrees

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02/07/2025