



Actual Wellpath Report

Knob Creek S-7HM AWB Proj: 15592'

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REFERENCE WELLPATH IDENTIFICATION

Operator	EQT (TUG HILL OPERATING, LLC)	Well	Knob Creek S-7HM
Field	Marshall	API	47-051-02282-0000
Facility	Knob Creek	Wellbore	Knob Creek S-7HM AWB
Slot	Slot 07		

REPORT SETUP INFORMATION

Projection System	NAD83 / UTM Zone 17 North, US feet	Software System	WellArchitect® 6.0
North Reference	Grid	User	Scurdan
Scale	0.999608	Report Generated	11/9/2023 at 11:19:43 AM
Convergence at slot	0.19° 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	37.51	29.95	1723173.47	14443149.77	39°46'12.3051"N	80°42'19.7258"W
Facility Reference Pt			1723143.53	14443112.27	39°46'11.9353"N	80°42'20.1110"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	765.00ft
Horizontal Reference Pt	Slot	Patterson 294 (RKB) to Mean Sea Level	765.00ft
Vertical Reference Pt	Patterson 294 (RKB)	Patterson 294 (RKB) to Ground Level at Slot (Slot 07)	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	153.95°

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Facility	Knob Creek	Wellbore	Knob Creek S-7HM AWB
Slot	Slot 07		

WELLPATH DATA (240 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	19.290	0.00	0.00	0.00	0.00	1723173.47	14443149.77	39°46'12.3051"N	80°42'19.7258"W	0.00	0.000	0.00	0.00	0.00
28.00	0.000	19.290	28.00	0.00	0.00	0.00	1723173.47	14443149.77	39°46'12.3051"N	80°42'19.7258"W	0.00	0.000	0.00	0.00	0.00
173.00	0.150	19.290	173.00	-0.13	0.18	0.06	1723173.53	14443149.95	39°46'12.3068"N	80°42'19.7250"W	0.19	19.290	0.10	0.10	0.00
204.00	0.150	49.130	204.00	-0.17	0.24	0.11	1723173.58	14443150.01	39°46'12.3075"N	80°42'19.7244"W	0.27	23.638	0.25	0.00	96.26
233.00	0.150	354.740	233.00	-0.22	0.31	0.13	1723173.60	14443150.08	39°46'12.3081"N	80°42'19.7241"W	0.33	23.293	0.47	0.00	-187.55
263.00	0.180	358.040	263.00	-0.30	0.39	0.13	1723173.60	14443150.16	39°46'12.3089"N	80°42'19.7242"W	0.41	17.890	0.10	0.10	11.00
293.00	0.190	316.970	293.00	-0.39	0.48	0.09	1723173.56	14443150.25	39°46'12.3098"N	80°42'19.7246"W	0.48	10.846	0.43	0.03	-136.90
322.00	0.110	290.750	322.00	-0.45	0.52	0.03	1723173.50	14443150.29	39°46'12.3102"N	80°42'19.7254"W	0.52	3.557	0.36	-0.28	-90.41
354.00	0.140	245.620	354.00	-0.48	0.52	-0.03	1723173.44	14443150.29	39°46'12.3102"N	80°42'19.7262"W	0.52	356.460	0.31	0.09	-141.03
385.00	0.130	247.490	385.00	-0.48	0.49	-0.10	1723173.37	14443150.26	39°46'12.3099"N	80°42'19.7271"W	0.50	348.518	0.04	-0.03	6.03
417.00	0.210	249.080	417.00	-0.49	0.45	-0.19	1723173.28	14443150.22	39°46'12.3095"N	80°42'19.7282"W	0.49	337.505	0.25	0.25	4.97
448.00	0.090	258.180	448.00	-0.50	0.43	-0.26	1723173.21	14443150.20	39°46'12.3093"N	80°42'19.7292"W	0.50	328.252	0.39	-0.39	29.35
479.00	0.170	270.500	479.00	-0.53	0.42	-0.33	1723173.14	14443150.19	39°46'12.3093"N	80°42'19.7301"W	0.54	321.662	0.27	0.26	39.74
491.00	0.090	282.810	491.00	-0.54	0.42	-0.36	1723173.11	14443150.19	39°46'12.3093"N	80°42'19.7304"W	0.56	319.628	0.70	-0.67	102.58
507.00	0.190	306.950	507.00	-0.57	0.44	-0.39	1723173.08	14443150.21	39°46'12.3095"N	80°42'19.7308"W	0.59	318.338	0.71	0.62	150.87
539.00	0.160	288.700	539.00	-0.65	0.49	-0.48	1723172.99	14443150.26	39°46'12.3099"N	80°42'19.7319"W	0.68	315.612	0.20	-0.09	-57.03
570.00	0.160	297.450	570.00	-0.72	0.52	-0.56	1723172.91	14443150.29	39°46'12.3103"N	80°42'19.7329"W	0.77	313.135	0.08	0.00	28.23
602.00	0.210	302.560	602.00	-0.80	0.58	-0.65	1723172.82	14443150.35	39°46'12.3108"N	80°42'19.7341"W	0.87	311.624	0.16	0.16	15.97
633.00	0.220	341.440	633.00	-0.91	0.66	-0.71	1723172.76	14443150.43	39°46'12.3116"N	80°42'19.7349"W	0.97	312.838	0.46	0.03	125.42
665.00	0.340	348.690	665.00	-1.06	0.81	-0.75	1723172.72	14443150.58	39°46'12.3131"N	80°42'19.7354"W	1.11	317.237	0.39	0.38	22.66
696.00	0.280	350.510	696.00	-1.22	0.98	-0.78	1723172.69	14443150.75	39°46'12.3148"N	80°42'19.7358"W	1.25	321.334	0.20	-0.19	5.87
727.00	0.400	332.710	727.00	-1.40	1.15	-0.85	1723172.63	14443150.92	39°46'12.3165"N	80°42'19.7366"W	1.43	323.674	0.51	0.39	-57.42
759.00	0.490	335.020	759.00	-1.65	1.37	-0.95	1723172.52	14443151.14	39°46'12.3187"N	80°42'19.7380"W	1.67	325.198	0.29	0.28	7.22
791.00	0.600	337.800	790.99	-1.96	1.65	-1.08	1723172.40	14443151.42	39°46'12.3214"N	80°42'19.7395"W	1.97	326.940	0.35	0.34	8.69
823.00	0.570	332.800	822.99	-2.28	1.95	-1.21	1723172.26	14443151.72	39°46'12.3244"N	80°42'19.7412"W	2.29	328.134	0.18	-0.09	-15.62
854.00	0.640	333.100	853.99	-2.61	2.24	-1.36	1723172.11	14443152.01	39°46'12.3273"N	80°42'19.7431"W	2.62	328.736	0.23	0.23	0.97
886.00	0.800	327.110	885.99	-3.01	2.59	-1.56	1723171.91	14443152.36	39°46'12.3307"N	80°42'19.7457"W	3.02	328.873	0.55	0.50	-18.72
917.00	0.830	325.340	916.99	-3.45	2.95	-1.81	1723171.66	14443152.72	39°46'12.3343"N	80°42'19.7488"W	3.46	328.534	0.13	0.10	-5.71
949.00	0.850	325.860	948.98	-3.91	3.34	-2.07	1723171.40	14443153.11	39°46'12.3382"N	80°42'19.7522"W	3.93	328.185	0.07	0.06	1.63
981.00	0.830	329.300	980.98	-4.38	3.74	-2.32	1723171.15	14443153.51	39°46'12.3421"N	80°42'19.7554"W	4.40	328.118	0.17	-0.06	10.75



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Slot	Slot 07		

WELLPATH DATA (240 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]
1012.00	0.810	327.780	1011.98	-4.82	4.11	-2.56	1723170.92	14443153.88	39°46'12.3458"N	80°42'19.7584"W	4.84	328.157	0.10	-0.06	-4.90
1044.00	0.790	329.220	1043.97	-5.26	4.50	-2.79	1723170.68	14443154.26	39°46'12.3496"N	80°42'19.7613"W	5.29	328.186	0.09	-0.06	4.50
1076.00	0.760	332.190	1075.97	-5.70	4.87	-3.00	1723170.47	14443154.64	39°46'12.3533"N	80°42'19.7640"W	5.72	328.374	0.16	-0.09	9.28
1108.00	0.750	333.820	1107.97	-6.12	5.25	-3.19	1723170.28	14443155.02	39°46'12.3570"N	80°42'19.7665"W	6.14	328.691	0.07	-0.03	5.09
1140.00	0.630	332.320	1139.96	-6.50	5.59	-3.37	1723170.10	14443155.36	39°46'12.3604"N	80°42'19.7687"W	6.53	328.953	0.38	-0.38	-4.69
1171.00	0.420	330.330	1170.96	-6.79	5.84	-3.50	1723169.97	14443155.61	39°46'12.3629"N	80°42'19.7704"W	6.81	329.060	0.68	-0.68	-6.42
1203.00	0.320	324.730	1202.96	-6.99	6.02	-3.61	1723169.86	14443155.78	39°46'12.3647"N	80°42'19.7718"W	7.02	329.026	0.33	-0.31	-17.50
1235.00	0.360	315.150	1234.96	-7.18	6.16	-3.73	1723169.74	14443155.93	39°46'12.3661"N	80°42'19.7734"W	7.20	328.781	0.22	0.12	-29.94
1265.00	0.390	317.370	1264.96	-7.36	6.30	-3.87	1723169.60	14443156.07	39°46'12.3675"N	80°42'19.7751"W	7.40	328.453	0.11	0.10	7.40
1297.00	0.450	314.520	1296.96	-7.59	6.47	-4.03	1723169.44	14443156.24	39°46'12.3692"N	80°42'19.7772"W	7.63	328.068	0.20	0.19	-8.91
1328.00	0.520	313.800	1327.96	-7.83	6.65	-4.22	1723169.25	14443156.42	39°46'12.3710"N	80°42'19.7796"W	7.88	327.609	0.23	0.23	-2.32
1360.00	0.630	322.210	1359.96	-8.14	6.89	-4.43	1723169.04	14443156.66	39°46'12.3733"N	80°42'19.7823"W	8.20	327.251	0.43	0.34	26.28
1392.00	0.660	318.410	1391.96	-8.49	7.17	-4.66	1723168.81	14443156.94	39°46'12.3761"N	80°42'19.7852"W	8.55	326.957	0.16	0.09	-11.87
1423.00	0.760	314.660	1422.95	-8.86	7.45	-4.93	1723168.54	14443157.22	39°46'12.3788"N	80°42'19.7886"W	8.93	326.506	0.36	0.32	-12.10
1455.00	0.910	311.030	1454.95	-9.29	7.76	-5.27	1723168.20	14443157.53	39°46'12.3820"N	80°42'19.7930"W	9.38	325.826	0.50	0.47	-11.34
1487.00	1.110	312.330	1486.94	-9.81	8.14	-5.69	1723167.78	14443157.91	39°46'12.3857"N	80°42'19.7984"W	9.93	325.035	0.63	0.62	4.06
1519.00	1.400	313.330	1518.94	-10.47	8.62	-6.21	1723167.27	14443158.38	39°46'12.3904"N	80°42'19.8049"W	10.62	324.239	0.91	0.91	3.13
1550.00	1.740	312.100	1549.93	-11.26	9.19	-6.83	1723166.64	14443158.96	39°46'12.3961"N	80°42'19.8129"W	11.45	323.385	1.10	1.10	-3.97
1582.00	2.150	309.500	1581.91	-12.26	9.90	-7.65	1723165.82	14443159.67	39°46'12.4032"N	80°42'19.8234"W	12.51	322.290	1.31	1.28	-8.12
1614.00	2.810	309.260	1613.88	-13.51	10.78	-8.72	1723164.75	14443160.54	39°46'12.4119"N	80°42'19.8371"W	13.87	321.010	2.06	2.06	-0.75
1645.00	3.400	309.250	1644.83	-15.04	11.84	-10.02	1723163.45	14443161.61	39°46'12.4224"N	80°42'19.8537"W	15.51	319.747	1.90	1.90	-0.03
1677.00	3.900	308.050	1676.77	-16.88	13.11	-11.62	1723161.86	14443162.88	39°46'12.4350"N	80°42'19.8740"W	17.52	318.460	1.58	1.56	-3.75
1709.00	4.330	311.050	1708.68	-18.97	14.58	-13.38	1723160.09	14443164.34	39°46'12.4496"N	80°42'19.8966"W	19.79	317.439	1.50	1.34	9.38
1740.00	4.750	311.640	1739.59	-21.24	16.20	-15.23	1723158.25	14443165.96	39°46'12.4656"N	80°42'19.9201"W	22.23	316.769	1.36	1.35	1.90
1772.00	5.140	311.710	1771.47	-23.79	18.03	-17.29	1723156.19	14443167.79	39°46'12.4838"N	80°42'19.9464"W	24.98	316.208	1.22	1.22	0.22
1803.00	5.310	310.390	1802.34	-26.39	19.88	-19.42	1723154.06	14443169.65	39°46'12.5022"N	80°42'19.9736"W	27.79	315.683	0.67	0.55	-4.26
1835.00	5.210	309.290	1834.20	-29.07	21.76	-21.67	1723151.81	14443171.53	39°46'12.5209"N	80°42'20.0024"W	30.71	315.127	0.44	-0.31	-3.44
1867.00	5.100	307.340	1866.07	-31.66	23.55	-23.92	1723149.56	14443173.31	39°46'12.5386"N	80°42'20.0312"W	33.57	314.546	0.65	-0.34	-6.09
1898.00	5.080	304.190	1896.95	-34.08	25.15	-26.15	1723147.33	14443174.91	39°46'12.5545"N	80°42'20.0597"W	36.29	313.883	0.90	-0.06	-10.16
1930.00	5.210	300.270	1928.82	-36.52	26.68	-28.58	1723144.90	14443176.44	39°46'12.5697"N	80°42'20.0907"W	39.10	313.033	1.17	0.41	-12.25



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1962.00	5.590	297.740	1960.68	-38.99	28.14	-31.22	1723142.27	14443177.90	39°46'12.5842"N	80°42'20.1244"W	42.03	312.034	1.40	1.19	-7.91
1994.00	5.930	296.240	1992.52	-41.56	29.60	-34.08	1723139.41	14443179.35	39°46'12.5987"N	80°42'20.1610"W	45.14	310.975	1.16	1.06	-4.69
2025.00	5.970	295.300	2023.35	-44.08	30.99	-36.97	1723136.51	14443180.75	39°46'12.6126"N	80°42'20.1980"W	48.24	309.974	0.34	0.13	-3.03
2057.00	5.530	293.450	2055.19	-46.55	32.32	-39.89	1723133.60	14443182.08	39°46'12.6258"N	80°42'20.2353"W	51.34	309.014	1.49	-1.38	-5.78
2087.00	5.190	291.810	2085.06	-48.66	33.40	-42.48	1723131.01	14443183.15	39°46'12.6365"N	80°42'20.2684"W	54.03	308.177	1.24	-1.13	-5.47
2119.00	5.060	289.760	2116.93	-50.74	34.41	-45.15	1723128.34	14443184.17	39°46'12.6466"N	80°42'20.3026"W	56.77	307.315	0.70	-0.41	-6.41
2150.00	4.940	287.560	2147.81	-52.64	35.28	-47.71	1723125.78	14443185.03	39°46'12.6553"N	80°42'20.3353"W	59.33	306.481	0.73	-0.39	-7.10
2182.00	4.720	288.090	2179.70	-54.51	36.10	-50.27	1723123.22	14443185.86	39°46'12.6711"N	80°42'20.3983"W	64.26	305.010	0.84	-0.84	-0.84
2213.00	4.460	287.830	2210.60	-56.24	36.87	-52.63	1723120.86	14443186.62	39°46'12.6786"N	80°42'20.4274"W	66.56	304.412	0.24	-0.16	2.26
2244.00	4.410	288.530	2241.51	-57.91	37.61	-54.91	1723118.58	14443187.37	39°46'12.6786"N	80°42'20.4274"W	68.24	304.033	0.81	-0.57	7.61
2267.00	4.280	290.280	2264.44	-59.15	38.19	-56.55	1723116.94	14443187.95	39°46'12.6844"N	80°42'20.4485"W	74.75	302.846	1.32	-1.32	0.77
2374.00	2.870	291.100	2371.23	-64.00	40.54	-62.80	1723110.70	14443190.30	39°46'12.7078"N	80°42'20.5283"W	76.28	302.597	0.37	-0.34	-2.81
2406.00	2.760	290.200	2403.19	-65.14	41.10	-64.27	1723109.23	14443190.85	39°46'12.7133"N	80°42'20.5471"W	77.94	302.388	1.78	1.59	15.31
2438.00	3.270	295.100	2435.15	-66.41	41.75	-65.82	1723107.68	14443191.50	39°46'12.7198"N	80°42'20.5670"W	80.16	302.334	4.93	4.53	28.28
2470.00	4.720	304.150	2467.07	-68.27	42.88	-67.73	1723105.76	14443192.63	39°46'12.7310"N	80°42'20.5915"W	83.16	302.497	5.70	5.52	15.06
2501.00	6.430	308.820	2497.92	-70.94	44.68	-70.14	1723103.36	14443194.43	39°46'12.7489"N	80°42'20.6222"W	87.04	302.832	3.72	3.62	6.75
2533.00	7.590	310.980	2529.68	-74.51	47.19	-73.13	1723100.37	14443196.94	39°46'12.7738"N	80°42'20.6604"W	91.24	303.173	0.67	0.16	-4.91
2565.00	7.640	309.410	2561.40	-78.39	49.93	-76.37	1723097.13	14443199.68	39°46'12.8010"N	80°42'20.7018"W	95.43	303.396	1.12	-0.56	-7.34
2597.00	7.460	307.060	2593.12	-82.18	52.53	-79.67	1723093.83	14443202.28	39°46'12.8268"N	80°42'20.7440"W	99.40	303.529	0.68	-0.61	-2.32
2628.00	7.270	306.340	2623.87	-85.71	54.90	-82.86	1723090.64	14443204.65	39°46'12.8504"N	80°42'20.7847"W	103.34	303.570	1.79	-1.16	-11.09
2660.00	6.900	302.790	2655.62	-89.15	57.14	-86.11	1723087.40	14443206.89	39°46'12.8726"N	80°42'20.8261"W	107.12	303.525	0.86	-0.78	-3.09
2692.00	6.650	301.800	2687.40	-92.37	59.16	-89.30	1723084.21	14443208.91	39°46'12.8926"N	80°42'20.8669"W	110.72	303.548	2.06	-1.09	15.53
2724.00	6.300	306.770	2719.20	-95.50	61.19	-92.28	1723081.23	14443210.93	39°46'12.9128"N	80°42'20.9050"W	114.11	303.722	2.12	-1.12	16.91
2756.00	5.940	312.180	2751.01	-98.60	63.35	-94.91	1723078.60	14443213.10	39°46'12.9342"N	80°42'20.9387"W	117.26	303.947	0.37	-0.35	-0.97
2787.00	5.830	311.880	2781.85	-101.55	65.48	-97.27	1723076.24	14443215.22	39°46'12.9553"N	80°42'20.9688"W	120.41	304.158	0.36	0.35	0.61
2818.00	5.940	312.070	2812.69	-104.49	67.61	-99.64	1723073.87	14443217.35	39°46'12.9764"N	80°42'20.9990"W	123.46	304.340	0.55	-0.37	-3.93
2848.00	5.830	310.890	2842.53	-107.34	69.64	-101.94	1723071.57	14443219.39	39°46'12.9966"N	80°42'21.0284"W	126.63	304.467	1.18	-0.69	-9.66
2880.00	5.610	307.800	2874.37	-110.23	71.67	-104.40	1723069.11	14443221.41	39°46'13.0167"N	80°42'21.0599"W	129.69	304.542	0.72	-0.72	-0.78
2912.00	5.380	307.550	2906.22	-112.98	73.54	-106.83	1723066.68	14443223.28	39°46'13.0353"N	80°42'21.0909"W	132.46	304.581	0.97	-0.63	-7.97
2942.00	5.190	305.160	2936.09	-115.43	75.18	-109.05	1723064.46	14443224.92	39°46'13.0516"N	80°42'21.1193"W					



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Actual Wellpath Report

Knob Creek S-7HM AWB Proj: 15592'

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REFERENCE WELLPATH IDENTIFICATION

Operator	EQT (TUG HILL OPERATING, LLC)	Well	Knob Creek S-7HM
Field	Marshall	API	47-051-02282-0000
Facility	Knob Creek	Wellbore	Knob Creek S-7HM AWB
Slot	Slot 07		

WELLPATH DATA (240 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]
2974.00	5.020	304.340	2967.97	-117.92	76.80	-111.39	1723062.12	14443226.54	39°46'13.0677"N	80°42'21.1492"W	135.30	304.584	0.58	-0.53	-2.56
3006.00	4.980	302.340	2999.85	-120.32	78.33	-113.72	1723059.79	14443228.07	39°46'13.0829"N	80°42'21.1789"W	138.09	304.559	0.56	-0.12	-6.25
3037.00	4.670	300.830	3030.74	-122.52	79.70	-115.94	1723057.57	14443229.44	39°46'13.0965"N	80°42'21.2073"W	140.69	304.505	1.08	-1.00	-4.87
3069.00	4.820	305.060	3062.63	-124.79	81.14	-118.16	1723055.35	14443230.88	39°46'13.1108"N	80°42'21.2357"W	143.34	304.476	1.19	0.47	13.22
3101.00	5.040	309.990	3094.51	-127.25	82.81	-120.34	1723053.18	14443232.55	39°46'13.1274"N	80°42'21.2635"W	146.08	304.535	1.49	0.69	15.41
3132.00	4.960	309.860	3125.39	-129.72	84.55	-122.41	1723051.11	14443234.29	39°46'13.1446"N	80°42'21.2899"W	148.77	304.633	0.26	-0.26	-0.42
3164.00	4.830	308.610	3157.27	-132.20	86.28	-124.53	1723048.99	14443236.01	39°46'13.1618"N	80°42'21.3170"W	151.49	304.716	0.53	-0.41	-3.91
3196.00	4.660	305.250	3189.16	-134.56	87.87	-126.64	1723046.88	14443237.60	39°46'13.1775"N	80°42'21.3440"W	154.14	304.754	1.02	-0.53	-10.50
3227.00	5.220	310.140	3220.05	-136.95	89.50	-128.75	1723044.77	14443239.24	39°46'13.1938"N	80°42'21.3709"W	156.80	304.806	2.26	1.81	15.77
3259.00	6.300	312.320	3251.89	-139.91	91.62	-131.16	1723042.36	14443241.36	39°46'13.2148"N	80°42'21.4017"W	159.99	304.937	3.44	3.37	6.81
3290.00	7.630	314.140	3282.66	-143.43	94.20	-133.89	1723039.63	14443243.94	39°46'13.2404"N	80°42'21.4366"W	163.71	305.129	4.35	4.29	5.87
3322.00	9.060	315.170	3314.32	-147.82	97.47	-137.19	1723036.33	14443247.20	39°46'13.2728"N	80°42'21.4787"W	168.29	305.392	4.49	4.47	3.22
3354.00	10.180	314.980	3345.87	-152.88	101.25	-140.97	1723032.56	14443250.98	39°46'13.3103"N	80°42'21.5269"W	173.57	305.688	3.50	3.50	-0.59
3387.00	10.680	314.450	3378.32	-158.52	105.46	-145.22	1723028.31	14443255.19	39°46'13.3520"N	80°42'21.5811"W	179.47	305.987	1.54	1.52	-1.61
3417.00	10.860	312.840	3407.79	-163.77	109.33	-149.27	1723024.26	14443259.05	39°46'13.3903"N	80°42'21.6329"W	185.03	306.219	1.17	0.60	-5.37
3449.00	11.740	312.250	3439.17	-169.61	113.56	-153.89	1723019.64	14443263.29	39°46'13.4324"N	80°42'21.6919"W	191.26	306.425	2.77	2.75	-1.84
3481.00	12.960	312.050	3470.43	-175.96	118.16	-158.97	1723014.56	14443267.88	39°46'13.4779"N	80°42'21.7567"W	198.07	306.623	3.81	3.81	-0.62
3513.00	13.600	310.490	3501.58	-182.75	123.00	-164.49	1723009.04	14443272.72	39°46'13.5260"N	80°42'21.8273"W	205.40	306.788	2.29	2.00	-4.88
3544.00	13.970	308.550	3531.68	-189.47	127.70	-170.19	1723003.35	14443277.42	39°46'13.5726"N	80°42'21.9000"W	212.77	306.882	1.91	1.19	-6.26
3576.00	14.750	309.120	3562.68	-196.66	132.68	-176.37	1722997.17	14443282.40	39°46'13.6220"N	80°42'21.9790"W	220.71	306.953	2.48	2.44	1.78
3607.00	16.010	311.880	3592.57	-204.20	138.02	-182.62	1722990.92	14443287.74	39°46'13.6750"N	80°42'22.0588"W	228.91	307.082	4.70	4.06	8.90
3639.00	17.360	313.260	3623.22	-212.76	144.24	-189.38	1722984.16	14443293.95	39°46'13.7367"N	80°42'22.1451"W	238.06	307.295	4.40	4.22	4.31
3656.00	18.320	314.720	3639.41	-217.65	147.86	-193.13	1722980.42	14443297.57	39°46'13.7726"N	80°42'22.1929"W	243.23	307.438	6.23	5.65	8.59
3740.00	19.370	309.330	3718.91	-242.78	165.98	-213.28	1722960.27	14443315.68	39°46'13.9523"N	80°42'22.4503"W	270.26	307.890	2.42	1.25	-6.42
3835.00	20.920	309.280	3808.10	-272.52	186.70	-238.60	1722934.96	14443336.40	39°46'14.1579"N	80°42'22.7737"W	302.97	308.043	1.63	1.63	-0.05
3931.00	22.690	309.290	3897.22	-304.92	209.28	-266.20	1722907.38	14443358.97	39°46'14.3820"N	80°42'23.1262"W	338.62	308.174	1.84	1.84	0.01
4026.00	24.240	309.190	3984.36	-339.29	233.21	-295.50	1722878.09	14443382.89	39°46'14.6194"N	80°42'23.5004"W	376.44	308.281	1.63	1.63	-0.11
4121.00	25.550	307.070	4070.54	-375.27	257.88	-326.96	1722846.64	14443407.55	39°46'14.8642"N	80°42'23.9023"W	416.42	308.264	1.67	1.38	-2.23
4216.00	26.920	304.620	4155.75	-412.29	282.45	-361.01	1722812.61	14443432.11	39°46'15.1081"N	80°42'24.3373"W	458.37	308.040	1.84	1.44	-2.58
4311.00	28.900	304.890	4239.70	-451.11	307.80	-397.54	1722776.09	14443457.45	39°46'15.3599"N	80°42'24.8041"W	502.77	307.750	2.09	2.08	0.28

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Field	Marshall	API	47-051-02282-0000
Facility	Knob Creek	Wellbore	Knob Creek S-7HM AWB
Slot	Slot 07		

WELLPATH DATA (240 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]
4405.00	29.160	305.030	4321.89	-491.01	333.94	-434.92	1722738.72	14443483.58	39°46'15.6194"N	80°42'25.2817"W	548.34	307.518	0.29	0.28	0.15
4500.00	28.880	305.010	4404.96	-531.35	360.39	-472.66	1722700.99	14443510.01	39°46'15.8820"N	80°42'25.7640"W	594.38	307.324	0.29	-0.29	-0.02
4596.00	28.780	304.980	4489.06	-571.85	386.94	-510.59	1722663.09	14443536.55	39°46'16.1456"N	80°42'26.2485"W	640.64	307.156	0.11	-0.10	-0.03
4691.00	28.770	305.160	4572.33	-611.90	413.21	-548.01	1722625.67	14443562.82	39°46'16.4064"N	80°42'26.7268"W	686.34	307.017	0.09	-0.01	0.19
4786.00	29.150	304.790	4655.45	-652.14	439.58	-585.71	1722587.99	14443589.17	39°46'16.6682"N	80°42'27.2084"W	732.31	306.889	0.44	0.40	-0.39
4881.00	29.230	304.620	4738.39	-692.56	465.96	-623.80	1722549.92	14443615.54	39°46'16.9302"N	80°42'27.6951"W	778.61	306.759	0.12	0.08	-0.18
4976.00	28.960	304.640	4821.40	-732.84	492.21	-661.81	1722511.92	14443641.78	39°46'17.1908"N	80°42'28.1808"W	824.78	306.639	0.28	-0.28	0.02
5071.00	29.250	304.670	4904.40	-773.14	518.48	-699.82	1722473.93	14443668.05	39°46'17.4517"N	80°42'28.6665"W	870.96	306.534	0.31	0.31	0.03
5166.00	29.140	304.600	4987.34	-813.55	544.82	-737.94	1722435.82	14443694.38	39°46'17.7132"N	80°42'29.1537"W	917.27	306.438	0.12	-0.12	-0.07
5261.00	28.840	304.830	5070.43	-853.72	571.04	-775.79	1722397.98	14443720.59	39°46'17.9736"N	80°42'29.6373"W	963.30	306.356	0.34	-0.32	0.24
5357.00	28.210	304.960	5154.78	-893.80	597.27	-813.39	1722360.40	14443746.80	39°46'18.2340"N	80°42'30.1178"W	1009.13	306.290	0.66	-0.66	0.14
5452.00	28.340	304.910	5238.44	-933.15	623.04	-850.29	1722323.52	14443772.56	39°46'18.4898"N	80°42'30.5892"W	1054.12	306.232	0.14	0.14	-0.05
5546.00	26.780	304.820	5321.77	-971.16	647.90	-885.97	1722287.85	14443797.41	39°46'18.7367"N	80°42'31.0452"W	1097.59	306.178	1.66	-1.66	-0.10
5642.00	25.870	299.560	5407.83	-1007.34	670.58	-921.95	1722251.89	14443820.09	39°46'18.9620"N	80°42'31.5050"W	1140.03	306.031	2.61	-0.95	-5.48
5736.00	16.670	270.960	5495.56	-1030.49	680.98	-953.41	1722220.43	14443830.48	39°46'19.0657"N	80°42'31.9076"W	1171.63	305.536	14.49	-9.79	-30.43
5831.00	13.070	254.210	5587.40	-1038.60	678.28	-977.39	1722196.46	14443827.78	39°46'19.0399"N	80°42'32.2148"W	1189.69	304.759	5.87	-3.79	-17.63
5926.00	13.610	217.900	5680.00	-1035.60	666.52	-994.63	1722179.24	14443816.02	39°46'18.9242"N	80°42'32.4360"W	1197.30	303.827	8.70	0.57	-38.22
5926.00	13.610	217.900	5680.00	-1035.60	666.52	-994.63	1722179.24	14443816.02	39°46'18.9242"N	80°42'32.5744"W	1193.43	302.605	8.40	5.17	-24.35
6021.00	18.520	194.770	5771.35	-1019.25	643.07	-1005.36	1722168.51	14443792.59	39°46'18.6928"N	80°42'32.6262"W	1178.47	301.080	8.80	6.79	-15.29
6116.00	24.970	180.240	5859.61	-989.80	608.37	-1009.29	1722164.57	14443757.90	39°46'18.3500"N	80°42'32.6262"W	1178.47	301.080	8.80	6.79	-15.29
6210.00	31.390	168.210	5942.49	-948.21	564.48	-1004.37	1722169.50	14443714.03	39°46'17.9161"N	80°42'32.5650"W	1152.12	299.337	9.09	6.83	-12.80
6304.00	40.450	163.180	6018.55	-894.26	511.21	-990.51	1722183.35	14443660.77	39°46'17.3891"N	80°42'32.3897"W	1114.65	297.298	10.13	9.64	-5.35
6400.00	50.130	160.020	6086.02	-826.72	446.61	-968.85	1722205.00	14443596.21	39°46'16.7501"N	80°42'32.1151"W	1066.84	294.748	10.35	10.08	-3.29
6494.00	59.430	158.110	6140.18	-750.32	375.00	-941.38	1722232.46	14443524.62	39°46'16.0415"N	80°42'31.7662"W	1013.32	291.720	10.03	9.89	-2.03
6590.00	68.210	154.570	6182.50	-664.34	296.22	-906.76	1722267.07	14443445.88	39°46'15.2619"N	80°42'31.3260"W	953.92	288.091	9.72	9.15	-3.69
6684.00	76.230	152.820	6211.18	-574.91	216.07	-867.10	1722306.72	14443365.75	39°46'14.4684"N	80°42'30.8215"W	893.61	283.992	8.71	8.53	-1.86
6779.00	84.540	149.840	6227.04	-481.43	133.98	-822.18	1722351.62	14443283.70	39°46'13.6557"N	80°42'30.2496"W	833.02	279.255	9.28	8.75	-3.14
6874.00	88.890	149.760	6232.48	-386.86	52.03	-774.48	1722399.30	14443201.78	39°46'12.8443"N	80°42'29.6422"W	776.23	273.843	4.58	4.58	-0.08
6969.00	89.160	149.650	6234.10	-292.13	-29.99	-726.56	1722447.19	14443119.80	39°46'12.0322"N	80°42'29.0320"W	727.18	267.637	0.31	0.28	-0.12
7064.00	89.470	149.630	6235.23	-197.41	-111.95	-678.55	1722495.19	14443037.86	39°46'11.2206"N	80°42'28.4205"W	687.72	260.631	0.33	0.33	-0.02
7159.00	89.290	149.740	6236.26	-102.68	-193.96	-630.60	1722543.12	14442955.89	39°46'10.4087"N	80°42'27.8099"W	659.76	252.903	0.22	-0.19	0.12



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7254.00	89.540	149.440	6237.23	-7.96	-275.88	-582.52	1722591.18	14442874.00	39°46'9.5975"N	80°42'27.1975"W	644.55	244.657	0.41	0.26	-0.32
7349.00	89.290	149.410	6238.20	86.74	-357.67	-534.20	1722639.48	14442792.24	39°46'8.7876"N	80°42'26.5821"W	642.88	236.196	0.27	-0.26	-0.03
7443.00	89.380	149.430	6239.29	180.44	-438.59	-486.38	1722687.28	14442711.35	39°46'7.9864"N	80°42'25.9731"W	654.93	227.957	0.10	0.10	0.02
7538.00	89.690	149.020	6240.06	275.11	-520.21	-437.77	1722735.87	14442629.76	39°46'7.1782"N	80°42'25.3540"W	679.90	220.082	0.54	0.33	-0.43
7633.00	89.450	149.320	6240.78	369.78	-601.78	-389.09	1722784.54	14442548.22	39°46'6.3705"N	80°42'24.7340"W	716.61	212.885	0.40	-0.25	0.32
7728.00	89.350	149.570	6241.77	464.48	-683.59	-340.79	1722832.81	14442466.45	39°46'5.5604"N	80°42'24.1189"W	763.83	206.498	0.28	-0.11	0.26
7823.00	89.380	149.570	6242.82	559.20	-765.50	-292.68	1722880.90	14442384.57	39°46'4.7494"N	80°42'23.5062"W	819.54	200.924	0.03	0.03	0.00
7918.00	89.290	148.930	6243.93	653.87	-847.13	-244.11	1722929.45	14442302.97	39°46'3.9410"N	80°42'22.8877"W	881.61	196.075	0.68	-0.09	-0.67
8013.00	89.130	148.760	6245.24	748.49	-928.43	-194.97	1722978.58	14442221.71	39°46'3.1361"N	80°42'22.2617"W	948.68	191.860	0.25	-0.17	-0.18
8108.00	89.070	149.660	6246.73	843.15	-1010.02	-146.34	1723027.18	14442140.14	39°46'2.3281"N	80°42'21.6425"W	1020.57	188.244	0.95	-0.06	0.95
8203.00	89.010	149.230	6248.32	937.84	-1091.82	-98.06	1723075.45	14442058.38	39°46'1.5182"N	80°42'21.0275"W	1096.22	185.132	0.46	-0.06	-0.45
8297.00	89.040	149.330	6249.92	1031.52	-1172.62	-50.04	1723123.45	14441977.61	39°46'0.7181"N	80°42'20.4161"W	1173.69	182.444	0.11	0.03	0.11
8392.00	88.830	149.210	6251.69	1126.18	-1254.26	-1.51	1723171.96	14441896.00	39°45'59.9096"N	80°42'19.7979"W	1254.27	180.069	0.25	-0.22	-0.13
8487.00	88.920	149.060	6253.55	1220.83	-1335.80	47.22	1723220.67	14441814.50	39°45'59.1023"N	80°42'19.1774"W	1336.63	177.976	0.18	0.09	-0.16
8582.00	89.040	149.350	6255.24	1315.49	-1417.39	95.85	1723269.28	14441732.94	39°45'58.2944"N	80°42'18.5581"W	1420.62	176.131	0.33	0.13	0.31
8677.00	88.740	148.870	6257.08	1410.13	-1498.90	144.61	1723318.02	14441651.46	39°45'57.4873"N	80°42'17.9370"W	1505.86	174.489	0.60	-0.32	-0.51
8772.00	89.070	149.650	6258.90	1504.80	-1580.53	193.16	1723366.55	14441569.86	39°45'56.6789"N	80°42'17.3188"W	1592.29	173.032	0.89	0.35	0.82
8867.00	88.890	149.110	6260.59	1599.48	-1662.27	241.54	1723414.91	14441488.15	39°45'55.8695"N	80°42'16.7027"W	1679.73	171.732	0.60	-0.19	-0.57
8961.00	88.980	149.560	6262.34	1693.16	-1743.11	289.47	1723462.83	14441407.34	39°45'55.0690"N	80°42'16.0923"W	1766.99	170.571	0.49	0.10	0.48
9056.00	89.320	148.990	6263.75	1787.83	-1824.77	338.00	1723511.34	14441325.72	39°45'54.2605"N	80°42'15.4742"W	1855.81	169.506	0.70	0.36	-0.60
9151.00	89.070	149.450	6265.08	1882.50	-1906.38	386.62	1723559.93	14441244.14	39°45'53.4524"N	80°42'14.8552"W	1945.19	168.536	0.55	-0.26	0.48
9246.00	89.070	148.790	6266.62	1977.15	-1987.90	435.37	1723608.66	14441162.65	39°45'52.6451"N	80°42'14.2343"W	2035.02	167.647	0.69	0.00	-0.69
9341.00	88.980	149.460	6268.24	2071.80	-2069.43	484.11	1723657.39	14441081.16	39°45'51.8378"N	80°42'13.6136"W	2125.30	166.833	0.71	-0.09	0.71
9436.00	89.070	149.530	6269.86	2166.49	-2151.27	532.33	1723705.59	14440999.35	39°45'51.0275"N	80°42'12.9996"W	2216.15	166.101	0.12	0.09	0.07
9532.00	88.920	149.400	6271.54	2262.19	-2233.94	581.09	1723754.33	14440916.71	39°45'50.2088"N	80°42'12.3786"W	2308.28	165.419	0.21	-0.16	-0.14
9626.00	88.920	149.340	6273.31	2355.87	-2314.81	628.98	1723802.20	14440835.87	39°45'49.4081"N	80°42'11.7689"W	2398.74	164.799	0.06	0.00	-0.06
9721.00	88.860	149.000	6275.15	2450.52	-2396.37	677.65	1723850.86	14440754.34	39°45'48.6004"N	80°42'11.1490"W	2490.34	164.210	0.36	-0.06	-0.36
9816.00	88.920	149.340	6276.99	2545.17	-2477.93	726.33	1723899.52	14440672.82	39°45'47.7928"N	80°42'10.5291"W	2582.19	163.663	0.36	0.06	0.36
9911.00	89.040	148.650	6278.68	2639.80	-2559.34	775.26	1723948.42	14440591.44	39°45'46.9866"N	80°42'9.9061"W	2674.19	163.148	0.74	0.13	-0.73
10006.00	88.860	148.960	6280.42	2734.40	-2640.59	824.46	1723997.60	14440510.22	39°45'46.1820"N	80°42'9.2795"W	2766.31	162.660	0.38	-0.19	0.33



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Actual Wellpath Report

Knob Creek S-7HM AWB Proj: 15592'

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REFERENCE WELLPATH IDENTIFICATION

Operator	EQT (TUG HILL OPERATING, LLC)	Well	Knob Creek S-7HM
Field	Marshall	API	47-051-02282-0000
Facility	Knob Creek	Wellbore	Knob Creek S-7HM AWB
Slot	Slot 07		

WELLPATH DATA (240 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]
10101.00	86.890	148.840	6282.29	2829.02	-2721.92	873.52	1724046.64	14440428.92	39°45'45.3767"N	80°42'8.6547"W	2858.65	162.208	0.13	0.03	-0.13
10196.00	88.950	148.790	6284.08	2923.62	-2803.18	922.70	1724095.81	14440347.69	39°45'44.5720"N	80°42'8.0284"W	2951.14	161.780	0.08	0.06	-0.05
10291.00	89.380	149.710	6285.46	3018.29	-2884.82	971.27	1724144.35	14440266.09	39°45'43.7637"N	80°42'7.4100"W	3043.93	161.393	1.07	0.45	0.97
10386.00	89.010	150.460	6286.80	3113.06	-2967.15	1018.64	1724191.71	14440183.79	39°45'42.9484"N	80°42'6.8068"W	3137.13	161.052	0.88	-0.39	0.79
10482.00	89.010	150.250	6288.46	3208.86	-3050.57	1066.12	1724239.17	14440100.40	39°45'42.1224"N	80°42'6.2025"W	3231.50	160.736	0.22	0.00	-0.22
10577.00	89.080	150.160	6290.04	3303.64	-3133.00	1113.32	1724286.35	14440018.00	39°45'41.3062"N	80°42'5.6016"W	3324.93	160.437	0.12	0.07	-0.09
10672.00	89.350	149.720	6291.34	3398.40	-3215.22	1160.90	1724333.91	14439935.82	39°45'40.4922"N	80°42'4.9958"W	3418.38	160.147	0.54	0.28	-0.46
10767.00	89.080	150.040	6292.64	3493.15	-3297.38	1208.56	1724381.56	14439853.69	39°45'39.6786"N	80°42'4.3889"W	3511.89	159.871	0.44	-0.28	0.34
10861.00	89.290	150.060	6293.98	3586.92	-3378.82	1255.49	1724428.46	14439772.28	39°45'38.8722"N	80°42'3.7915"W	3604.54	159.616	0.22	0.22	0.02
10957.00	88.960	150.410	6295.45	3682.71	-3462.14	1303.14	1724476.10	14439688.99	39°45'38.0472"N	80°42'3.1849"W	3699.27	159.374	0.50	-0.34	0.36
11051.00	88.460	149.690	6297.56	3776.47	-3543.57	1350.06	1724523.00	14439607.60	39°45'37.2409"N	80°42'2.5876"W	3792.04	159.144	0.93	-0.53	-0.77
11146.00	89.290	150.040	6299.43	3871.21	-3625.71	1397.74	1724570.66	14439525.49	39°45'36.4275"N	80°42'1.9806"W	3885.81	158.918	0.95	0.87	0.37
11241.00	88.990	149.660	6300.85	3965.95	-3707.85	1445.45	1724618.35	14439443.38	39°45'35.6142"N	80°42'1.3732"W	3979.64	158.702	0.51	-0.32	-0.40
11336.00	89.360	150.040	6302.22	4060.70	-3789.99	1493.16	1724666.04	14439361.27	39°45'34.8009"N	80°42'0.7658"W	4073.52	158.497	0.56	0.39	0.40
11431.00	88.400	149.140	6304.08	4155.41	-3871.90	1541.24	1724714.10	14439279.39	39°45'33.9898"N	80°42'0.1536"W	4167.38	158.295	1.39	-1.01	-0.95
11526.00	88.370	149.860	6306.76	4250.08	-3953.73	1589.44	1724762.28	14439197.60	39°45'33.1796"N	80°41'59.5400"W	4261.25	158.099	0.76	-0.03	0.76
11621.00	88.860	150.310	6309.05	4344.84	-4036.04	1636.80	1724809.62	14439115.32	39°45'32.3645"N	80°41'58.9371"W	4355.31	157.925	0.70	0.52	0.47
11716.00	88.890	150.000	6310.92	4439.61	-4118.43	1684.07	1724856.87	14439032.96	39°45'31.5487"N	80°41'58.3354"W	4449.44	157.760	0.33	0.03	-0.33
11811.00	88.990	149.980	6312.68	4534.37	-4200.68	1731.57	1724904.36	14438950.75	39°45'30.7343"N	80°41'57.7306"W	4543.57	157.598	0.11	0.11	-0.02
11906.00	89.050	150.180	6314.30	4629.14	-4283.01	1778.95	1724951.72	14438868.45	39°45'29.9191"N	80°41'57.1275"W	4637.76	157.444	0.22	0.06	0.21
12001.00	88.830	149.750	6316.06	4723.89	-4365.23	1826.49	1724999.24	14438786.26	39°45'29.1049"N	80°41'56.5223"W	4731.95	157.295	0.51	-0.23	-0.45
12096.00	88.860	149.960	6317.97	4818.63	-4447.37	1874.19	1725046.92	14438704.15	39°45'28.2916"N	80°41'55.9150"W	4826.15	157.149	0.22	0.03	0.22
12191.00	88.770	149.560	6319.94	4913.35	-4529.42	1922.03	1725094.74	14438622.13	39°45'27.4791"N	80°41'55.3061"W	4920.35	157.006	0.43	-0.09	-0.42
12286.00	88.860	149.870	6321.90	5008.07	-4611.44	1969.92	1725142.62	14438540.15	39°45'26.6669"N	80°41'54.6963"W	5014.58	156.869	0.34	0.09	0.33
12380.00	88.960	149.590	6323.69	5101.80	-4692.61	2017.30	1725189.97	14438459.01	39°45'25.8632"N	80°41'54.0932"W	5107.85	156.738	0.32	0.11	-0.30
12476.00	87.910	149.820	6326.31	5197.50	-4775.47	2065.71	1725238.36	14438376.18	39°45'25.0427"N	80°41'53.4769"W	5203.10	156.608	1.12	-1.09	0.24
12571.00	88.960	150.240	6328.91	5292.24	-4857.73	2113.15	1725285.78	14438293.95	39°45'24.2282"N	80°41'52.8731"W	5297.45	156.491	1.19	1.11	0.44
12666.00	89.020	149.990	6330.58	5387.02	-4940.09	2160.47	1725333.09	14438211.63	39°45'23.4127"N	80°41'52.2706"W	5391.86	156.379	0.27	0.06	-0.26
12761.00	88.860	150.140	6332.34	5481.78	-5022.40	2207.87	1725380.47	14438129.35	39°45'22.5976"N	80°41'51.6673"W	5486.28	156.269	0.23	-0.17	0.16
12857.00	88.280	149.450	6334.73	5577.50	-5105.34	2256.15	1725428.73	14438046.44	39°45'21.7764"N	80°41'51.0527"W	5581.64	156.158	0.94	-0.60	-0.72

HOLE & CASING SECTIONS - Ref Wellbore: Knob Creek S-7HM AWB Ref Wellpath: Knob Creek S-7HM AWB Proj: 15592'									
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	0.12	0.04
17.5in Open Hole	148.00	521.00	373.00	148.00	521.00	0.12	0.04	0.47	-0.43
13.375in Casing Surface	28.00	521.00	493.00	28.00	521.00	0.00	0.00	0.47	-0.43
12.25in Open Hole	521.00	2333.00	1812.00	521.00	2330.29	0.47	-0.43	39.74	-60.70
9.625in Casing Intermediate	28.00	2333.00	2305.00	28.00	2330.29	0.00	0.00	39.74	-60.70
8.5in Open Hole	2333.00	15592.00	13259.00	2330.29	6400.09	39.74	-60.70	-7454.78	3653.72
5.5in Casing Production	28.00	15592.00	15564.00	28.00	6400.09	0.00	0.00	-7454.78	3653.72

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Knob Creek S-7HM LP Rev-0	6230.00	89.00	-800.14	1722373.65	14443238.73	39°46'13.2105"N	80°42'29.9692"W	point
Knob Creek S-7HM BHL Rev-0	6344.60	-7459.24	3645.96	1726817.99	14435693.47	39°44'58.4668"N	80°41'33.3609"W	point

WELLPATH COMPOSITION - Ref Wellbore: Knob Creek S-7HM AWB Ref Wellpath: Knob Creek S-7HM AWB Proj: 15592'					
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date
28.00	507.00	OWSG MWD rev2 - Standard	01_MWD<17-1/2">(173'-507')	Knob Creek S-7HM AWB	10/3/2023
507.00	2267.00	OWSG MWD rev2 - Standard	02_MWD<12-1/4">(507')(539'-2267')	Knob Creek S-7HM AWB	10/3/2023
2267.00	3656.00	OWSG MWD rev2 - Standard	03_MWD<8-3/4">(2267')(2374'-3656')	Knob Creek S-7HM AWB	10/3/2023
3656.00	15592.00	OWSG MWD rev2 + IFR1 + Sag + Multi-Station Correction	04_BH Lucida+SQC IFR1+SAG+FDIR<8-1/2">(3656')(3740'-15567')	Knob Creek S-7HM AWB	11/1/2023

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Knob Creek S-7HM AWB Proj: 15592'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	EQT (TUG HILL OPERATING, LLC)	Well	Knob Creek S-7HM
Field	Marshall	API	47-051-02282-0000
Facility	Knob Creek	Wellbore	Knob Creek S-7HM AWB
Slot	Slot 07		

COMMENTS

Wellpath general comments
 API: 47-051-02282-0000
 BH Job #: 111995197
 Rig: Patterson 294
 Duration: 11/4/2023-11/7/2023

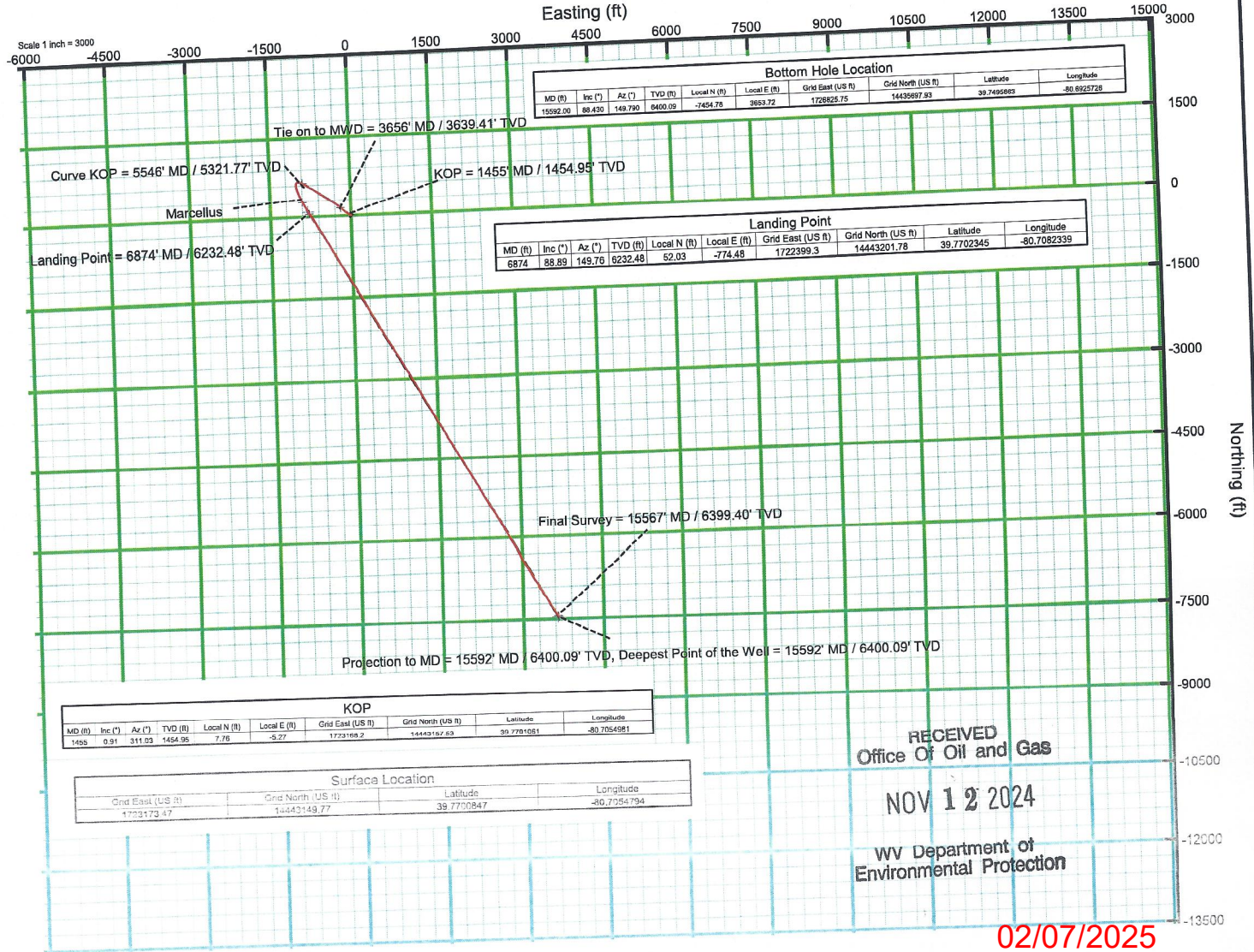
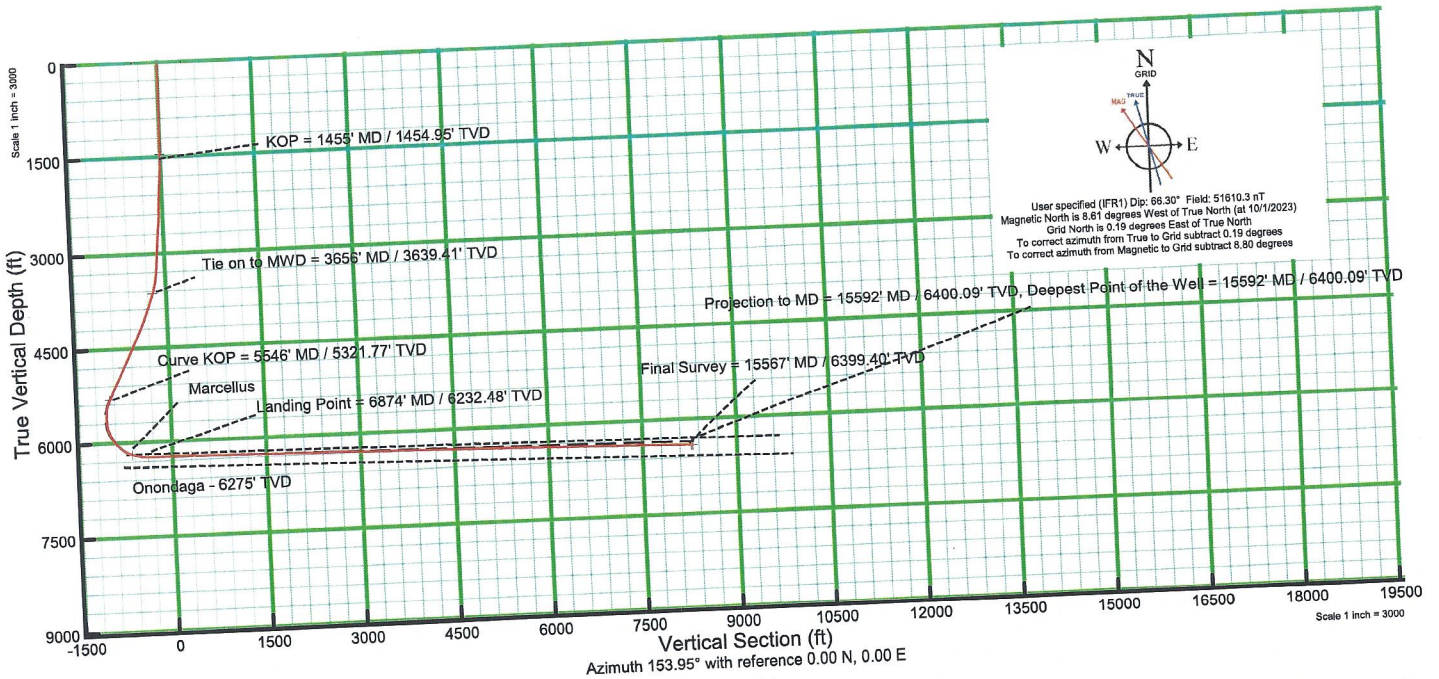
01_MWD<17-1/2">(173'-507')
 02_MWD<12-1/4">(507')(539'-2267')
 03_MWD<8-3/4">(2267')(2374'-3656')
 04_BH Lucida+SQC IFR1+SAG+FDIR<8-1/2">(3656')(3740'-15567')

Landing Pt. @ 6874' MD
 Final Survey @ 15567' MD
 Projected MD at TD: 15592'

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KB Elevation=765 FT
 Ground Elevation=737 FT
 All Survey Measurements were taken from KB Elevation



02/07/2025