



EQT (Chevron Data) 02-13-21

Marshall County, WV Chevron

Longworth

M15H

OH

Design: Longworth 15H As Drilled

Standard Survey Report

20 July, 2021



EQT
Survey Report

Database:	EDM Definitiva	Local Co-ordinate Reference:	Well M15H
Company:	EQT (Chevron Data) 02-13-21	TVD Reference:	Air RKB @ 1294.000usft (Highlands 9)
Project:	Marshall County, WV Chevron	MD Reference:	Air RKB @ 1294.000usft (Highlands 9)
Site:	Longworth	North Reference:	True
Well:	M15H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Longworth 15H As Drilled		

Project Marshall County, WV Chevron

Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	West Virginia Northern Zone		

Site Longworth

Site Position:		Northing:	493,086.404 usft	Latitude:	39.85
From:	Map	Easting:	1,624,022.636 usft	Longitude:	-80.73
Position Uncertainty:	0.000 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-0.7825 °

Well M15H

Well Position	+N/-S	0.000 usft	Northing:	493,099.841 usft	Latitude:	39.8473507
	+E/-W	0.000 usft	Easting:	1,624,096.717 usft	Longitude:	80.7266708°W
Position Uncertainty		0.000 usft	Wellhead Elevation:	0.000 usft	Ground Level:	1,270.000 usft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	User Defined	5/16/2016	-8.7189	67.0778	52,269.35945346

Design Longworth 15H As Drilled

Audit Notes:

Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.000
Vertical Section:		Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
		0.000	0.000	0.000	315.073

Survey Program Date 7/20/2021

From (')	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	600.120	Surface Gyro (OH)	NS-GYRO-MS c	North sensing gyrocompassing m/s c
0.00	5,729.000	EM Tool (OH)	11_MWD+IFR1+AX+Sag c	A007Mb: IFR dec & axial + sag corrections c
0.00	12,095.000	Survey #3 (OH)	11_MWD+IFR1+AX+Sag c	A007Mb: IFR dec & axial + sag corrections c

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.000	0.000	0.000	0.000	-1,294.000	0.000	0.000	0.000	0.00000	0.00000	0.00000
100.000	0.610	334.640	99.998	-1,194.002	0.481	-0.228	0.502	0.61000	0.61000	0.00000
125.000	0.450	325.380	124.997	-1,169.003	0.682	-0.341	0.724	0.72392	-0.64000	-37.04000
150.000	0.500	319.770	149.996	-1,144.004	0.846	-0.467	0.929	0.27292	0.20000	-22.44000
175.000	0.540	330.570	174.995	-1,119.005	1.032	-0.595	1.151	0.42265	0.16000	43.20000
200.000	0.580	343.390	199.994	-1,094.006	1.256	-0.689	1.376	0.52482	0.16000	51.28000
225.000	0.730	336.610	224.992	-1,069.008	1.523	-0.789	1.636	0.67435	0.60000	-27.12000



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Well:	M15H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Longworth 15H As Drilled		

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250.000	0.910	341.490	249.990	-1,044.010	1.858	-0.915	1.961	0.77166	0.72000	19.52000
275.000	0.940	340.670	274.986	-1,019.013	2.239	-1.046	2.324	0.13116	0.12000	-3.28000
300.000	1.090	338.810	299.983	-994.017	2.655	-1.200	2.727	0.61423	0.60000	-7.44000
325.000	0.920	322.940	324.979	-969.021	3.037	-1.407	3.143	1.29822	-0.68000	-63.48000
350.000	0.910	322.640	349.976	-944.024	3.355	-1.648	3.539	0.04435	-0.04000	-1.20000
375.000	0.870	314.270	374.973	-919.027	3.645	-1.904	3.926	0.54353	-0.16000	-33.48000
400.000	0.930	317.530	399.969	-894.030	3.927	-2.177	4.318	0.31543	0.24000	13.04000
425.000	0.860	320.840	424.966	-869.034	4.222	-2.433	4.707	0.34798	-0.28000	13.24000
450.000	0.950	333.630	449.963	-844.037	4.553	-2.643	5.090	0.88217	0.36000	51.16000
475.000	0.880	329.180	474.960	-819.040	4.904	-2.834	5.473	0.39880	-0.28000	-17.80000
500.000	1.050	326.040	499.957	-794.043	5.259	-3.060	5.884	0.71189	0.68000	-12.56000
525.000	1.020	325.900	524.953	-769.047	5.633	-3.313	6.328	0.12043	-0.12000	-0.56000
550.000	1.110	329.360	549.948	-744.052	6.026	-3.561	6.781	0.44231	0.36000	13.84000
575.000	1.060	333.680	574.944	-719.056	6.441	-3.787	7.235	0.38335	-0.20000	17.28000
600.000	0.880	322.770	599.940	-694.060	6.801	-4.006	7.644	1.02852	-0.72000	-43.64000
600.120	0.880	322.710	600.060	-693.940	6.803	-4.007	7.646	0.76791	0.00000	-50.00000
667.000	0.970	354.490	666.932	-627.068	7.775	-4.372	8.592	0.76830	0.13457	47.51794
668.000	0.970	353.770	667.932	-626.068	7.792	-4.374	8.605	1.21887	0.00000	-72.00000
729.000	0.890	114.050	728.928	-565.072	8.112	-3.997	8.566	2.64516	-0.13115	197.18033
777.000	1.670	155.050	776.916	-517.084	7.326	-3.362	7.561	2.40934	1.62500	85.41667
885.000	1.560	224.030	884.882	-409.118	4.842	-3.720	6.055	1.69547	-0.10185	63.87037
979.000	3.590	270.890	978.791	-315.209	3.967	-7.552	8.142	2.94454	2.15957	49.85107
1,073.000	4.690	266.040	1,072.545	-221.455	3.748	-14.329	12.773	1.22704	1.17021	-5.15957
1,166.000	4.460	258.540	1,165.249	-128.751	2.767	-21.666	17.259	0.68855	-0.24731	-8.06452
1,260.000	4.290	256.040	1,258.975	-35.025	1.192	-28.660	21.084	0.27175	-0.18085	-2.65957
1,353.000	4.510	251.130	1,351.701	57.701	-0.829	-35.496	24.480	0.46885	0.23656	-5.27957
1,540.000	5.220	244.740	1,538.028	244.028	-6.837	-50.146	30.572	0.47708	0.37968	-3.41711
1,634.000	5.250	240.370	1,631.636	337.636	-10.788	-57.752	33.146	0.42527	0.03191	-4.64894
1,728.000	5.380	236.100	1,725.232	431.232	-15.372	-65.148	35.123	0.44281	0.13830	-4.54255
1,821.000	4.540	239.910	1,817.883	523.884	-19.650	-71.951	36.900	0.96971	-0.90323	4.09677
1,915.000	3.900	257.370	1,911.632	617.632	-22.214	-78.290	39.560	1.51881	-0.68085	18.57447
2,008.000	4.550	262.960	2,004.379	710.379	-23.358	-85.037	43.516	0.82661	0.69892	6.01075
2,102.000	5.750	259.220	2,097.998	803.998	-24.695	-93.363	48.449	1.32494	1.27660	-3.97872
2,196.000	6.630	256.620	2,191.449	897.450	-26.832	-103.269	53.931	0.98229	0.93617	-2.76596
2,390.000	7.840	244.370	2,383.913	1,089.913	-35.148	-126.096	64.164	1.00731	0.62371	-6.31443
2,484.000	6.670	255.950	2,477.164	1,183.164	-39.246	-137.173	69.084	1.98641	-1.24468	12.31915
2,578.000	4.960	257.840	2,570.677	1,276.677	-41.428	-146.442	74.086	1.83027	-1.81915	2.01064
2,671.000	4.180	247.920	2,663.382	1,369.382	-43.549	-153.513	77.578	1.19110	-0.83871	-10.66667
2,765.000	3.890	249.550	2,757.148	1,463.149	-45.951	-159.675	80.229	0.33173	-0.30851	1.73404
2,858.000	5.500	249.200	2,849.833	1,555.833	-48.636	-166.798	83.358	1.73145	1.73118	-0.37634
2,952.000	6.240	248.340	2,943.340	1,649.340	-52.121	-175.757	87.217	0.79275	0.78723	-0.91489
3,046.000	6.190	247.830	3,036.787	1,742.787	-55.919	-185.198	91.195	0.07924	-0.05319	-0.54255
3,139.000	6.080	247.880	3,129.255	1,835.255	-59.666	-194.404	95.044	0.11842	-0.11828	0.05376



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Wellbore:	OH		
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Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
3,233.000	6.120	246.500	3,222.723	1,928.723	-63.538	-203.611	98.804	0.16170	0.04255	-1.46809
3,326.000	6.110	247.030	3,315.193	2,021.193	-67.446	-212.714	102.465	0.06165	-0.01075	0.56989
3,420.000	5.980	246.260	3,408.671	2,114.671	-71.370	-221.802	106.106	0.16299	-0.13830	-0.81915
3,515.000	5.830	247.920	3,503.167	2,209.167	-75.176	-230.803	109.767	0.23925	-0.15789	1.74737
3,608.000	6.140	248.120	3,595.660	2,301.660	-78.805	-239.795	113.548	0.33409	0.33333	0.21505
3,702.000	6.430	248.350	3,689.095	2,395.095	-82.620	-249.352	117.596	0.30967	0.30851	0.24468
3,795.000	5.650	244.230	3,781.578	2,487.578	-86.532	-258.315	121.156	0.95903	-0.83871	-4.43011
3,889.000	5.100	240.460	3,875.165	2,581.165	-90.603	-266.117	123.783	0.69504	-0.58511	-4.01064
3,982.000	5.130	238.260	3,967.794	2,673.794	-94.829	-273.250	125.829	0.21334	0.03226	-2.36559
4,076.000	5.370	236.290	4,061.400	2,767.400	-99.481	-280.483	127.643	0.31928	0.25532	-2.09574
4,169.000	4.470	237.510	4,154.056	2,860.056	-103.843	-287.160	129.270	0.97421	-0.96774	1.31183
4,263.000	4.290	235.820	4,247.782	2,953.782	-107.785	-293.158	130.714	0.23561	-0.19149	-1.79787
4,357.000	4.410	235.330	4,341.511	3,047.511	-111.816	-299.039	132.013	0.13364	0.12766	-0.52128
4,450.000	4.710	236.010	4,434.217	3,140.217	-115.985	-305.145	133.374	0.32777	0.32258	0.73118
4,544.000	5.570	247.200	4,527.840	3,233.840	-119.910	-312.551	135.825	1.40105	0.91489	11.90426
4,638.000	5.630	253.630	4,621.392	3,327.392	-122.978	-321.181	139.747	0.67020	0.06383	6.84043
4,731.000	5.560	254.920	4,713.949	3,419.949	-125.436	-329.908	144.170	0.15477	-0.07527	1.38710
4,825.000	5.470	250.670	4,807.515	3,513.515	-128.103	-338.532	148.372	0.44484	-0.09574	-4.52128
4,919.000	5.670	244.410	4,901.072	3,607.072	-131.592	-346.948	151.845	0.68011	0.21277	-6.65957
5,012.000	6.480	252.200	4,993.550	3,699.550	-135.181	-356.088	155.760	1.24086	0.87097	8.37634
5,106.000	7.200	255.590	5,086.881	3,792.881	-138.268	-366.844	161.169	0.87784	0.76596	3.60638
5,199.000	5.960	254.990	5,179.266	3,885.267	-140.969	-377.153	166.537	1.33536	-1.33333	-0.64516
5,293.000	5.840	253.870	5,272.769	3,978.769	-143.562	-386.461	171.275	0.17690	-0.12766	-1.19149
5,387.000	6.570	254.560	5,366.217	4,072.217	-146.322	-396.238	176.225	0.78062	0.77660	0.73404
5,481.000	7.090	251.580	5,459.550	4,165.550	-149.587	-406.926	181.461	0.66927	0.55319	-3.17021
5,574.000	7.360	249.640	5,551.812	4,257.812	-153.473	-417.956	186.499	0.39126	0.29032	-2.08602
5,668.000	7.970	250.660	5,644.971	4,350.971	-157.726	-429.750	191.817	0.66485	0.64894	1.08511
5,729.000	8.816	247.260	5,705.318	4,411.318	-160.933	-438.051	195.409	1.60714	1.38673	-5.57326
KOP=5730' MD/ 5706' TVD										
5,730.000	8.830	248.090	5,706.306	4,412.306	-160.991	-438.193	195.467	12.80359	1.40973	82.96857
5,788.000	9.660	244.170	5,763.553	4,469.553	-164.773	-446.704	198.800	1.79557	1.43103	-6.75862
5,833.000	10.560	259.680	5,807.862	4,513.862	-167.157	-454.160	202.378	6.34962	2.00000	34.46667
5,925.000	14.300	293.060	5,897.802	4,603.802	-164.212	-472.938	217.724	8.63498	4.06522	36.28261
6,017.000	18.810	294.380	5,985.965	4,691.966	-153.634	-496.914	242.145	4.91888	4.90217	1.43478
6,110.000	26.690	287.790	6,071.676	4,777.676	-141.042	-530.516	274.790	8.89279	8.47312	-7.08602
6,202.000	31.520	295.520	6,152.064	4,858.064	-124.353	-571.931	315.854	6.64383	5.25000	8.40217
6,294.000	39.700	300.320	6,226.811	4,932.811	-99.110	-619.087	367.027	9.39005	8.89130	5.21739
6,387.000	42.200	306.170	6,297.073	5,003.073	-65.663	-669.969	426.641	4.91944	2.68817	6.29032
6,479.000	46.760	305.740	6,362.698	5,068.698	-27.833	-722.140	490.268	4.96731	4.95652	-0.46739
6,571.000	57.440	308.580	6,419.137	5,125.137	16.050	-779.822	562.074	11.85944	11.60870	3.08696
6,664.000	64.610	311.810	6,464.169	5,170.169	68.575	-841.865	643.076	8.28536	7.70968	3.47312
Top of Marcellus@6501' TVD										



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6,754.056	69.758	316.365	6,499.094	5,205.095	126.336	-901.405	726.019	7.37471	5.71593	5.05827
6,756.000	69.870	316.460	6,499.765	5,205.765	127.657	-902.663	727.842	7.37471	5.78531	4.87277
6,849.000	79.040	319.600	6,524.668	5,230.668	194.229	-962.468	817.210	10.38156	9.86022	3.37634
M15H LP										
6,907.527	86.635	320.797	6,531.960	5,237.960	238.812	-999.608	875.004	13.13489	12.97755	2.04452
LP/Deepest Point of Well=8942' MD/ 8533' TVD										
6,942.000	91.110	321.490	6,532.638	5,238.638	265.644	-1,021.226	909.268	13.13489	12.98011	2.01145
M15H LP2										
6,972.201	90.769	321.595	6,532.143	5,238.143	289.291	-1,040.007	939.274	1.18273	-1.13043	0.34787
7,034.000	90.070	321.810	6,531.691	5,237.691	337.789	-1,078.305	1,000.657	1.18273	-1.13044	0.34780
7,127.000	90.400	321.910	6,531.309	5,237.309	410.933	-1,135.740	1,093.004	0.37077	0.35484	0.10753
7,220.000	90.300	322.910	6,530.741	5,236.741	484.624	-1,192.468	1,185.240	1.08061	-0.10753	1.07527
7,312.000	90.300	321.780	6,530.259	5,236.259	557.458	-1,248.670	1,276.497	1.22824	0.00000	-1.22826
7,405.000	90.230	322.160	6,529.829	5,235.829	630.712	-1,305.964	1,368.823	0.41547	-0.07527	0.40860
7,497.000	90.570	321.490	6,529.187	5,235.187	703.034	-1,362.824	1,460.182	0.81665	0.36957	-0.72826
7,590.000	90.270	321.000	6,528.505	5,234.505	775.556	-1,421.040	1,552.641	0.61778	-0.32258	-0.52688
7,683.000	90.340	321.700	6,528.010	5,234.010	848.185	-1,479.123	1,645.081	0.75643	0.07527	0.75269
7,775.000	90.440	321.220	6,527.384	5,233.384	920.143	-1,536.443	1,736.508	0.53293	0.10870	-0.52174
7,868.000	90.500	321.430	6,526.621	5,232.621	992.746	-1,594.557	1,828.952	0.23483	0.06452	0.22581
7,961.000	90.970	321.710	6,525.428	5,231.428	1,065.593	-1,652.357	1,921.347	0.58825	0.50538	0.30108
8,054.000	90.440	319.850	6,524.284	5,230.284	1,137.633	-1,711.153	2,013.874	2.07946	-0.56989	-2.00000
8,146.000	90.470	319.620	6,523.553	5,229.553	1,207.833	-1,770.613	2,105.567	0.25211	0.03261	-0.25000
8,239.000	90.570	320.490	6,522.709	5,228.709	1,279.129	-1,830.321	2,198.211	0.94160	0.10753	0.93548
8,331.000	90.600	320.010	6,521.770	5,227.770	1,349.858	-1,889.146	2,289.831	0.52273	0.03261	-0.52174
8,424.000	90.600	320.190	6,520.796	5,226.796	1,421.201	-1,948.798	2,382.468	0.19354	0.00000	0.19355
8,517.000	90.270	319.660	6,520.090	5,226.090	1,492.362	-2,008.668	2,475.132	0.67132	-0.35484	-0.56989
8,609.000	90.600	319.650	6,519.391	5,225.391	1,562.479	-2,068.226	2,566.835	0.35886	0.35870	-0.01087
8,702.000	90.570	320.570	6,518.442	5,224.442	1,633.831	-2,127.865	2,659.470	0.98972	-0.03226	0.98925
8,794.000	90.570	320.140	6,517.527	5,223.527	1,704.668	-2,186.560	2,751.075	0.46737	0.00000	-0.46739
8,887.000	90.640	322.010	6,516.544	5,222.545	1,777.012	-2,244.987	2,843.556	2.01205	0.07527	2.01075
8,980.000	90.540	321.520	6,515.587	5,221.587	1,850.058	-2,302.540	2,935.917	0.53771	-0.10753	-0.52688
9,072.000	90.600	322.440	6,514.672	5,220.672	1,922.530	-2,359.203	3,027.244	1.00207	0.06522	1.00000
9,165.000	90.570	322.050	6,513.722	5,219.722	1,996.056	-2,416.142	3,119.511	0.42057	-0.03226	-0.41935
9,258.000	90.600	322.410	6,512.772	5,218.773	2,069.566	-2,473.101	3,211.782	0.38842	0.03226	0.38710
9,350.000	90.540	322.220	6,511.857	5,217.857	2,142.370	-2,529.340	3,303.044	0.21656	-0.06522	-0.20652
9,443.000	90.570	322.710	6,510.956	5,216.956	2,216.113	-2,585.997	3,395.266	0.52784	0.03226	0.52688
9,536.000	90.540	321.100	6,510.056	5,216.056	2,289.297	-2,643.370	3,487.598	1.73140	-0.03226	-1.73118
9,628.000	90.500	322.060	6,509.221	5,215.221	2,361.373	-2,700.538	3,579.001	1.04434	-0.04348	1.04348
9,721.000	90.600	322.340	6,508.328	5,214.328	2,434.854	-2,757.536	3,671.278	0.31969	0.10753	0.30108
9,814.000	90.540	322.080	6,507.403	5,213.403	2,508.345	-2,814.520	3,763.553	0.28690	-0.06452	-0.27957
9,906.000	90.440	322.090	6,506.616	5,212.616	2,580.923	-2,871.051	3,854.862	0.10924	-0.10870	0.01087
9,999.000	90.600	321.940	6,505.772	5,211.772	2,654.220	-2,928.286	3,947.176	0.23582	0.17204	-0.16129
10,091.000	90.400	321.410	6,504.969	5,210.969	2,726.392	-2,985.335	4,038.562	0.61572	-0.21739	-0.57609
0										



EQT
Survey Report

Database:	EDM_Definitive	Local Co-ordinate Reference:	Well M15H
Company:	EQT (Chevron Data) 02-13-21	TVD Reference:	Air RKB @ 1294.000usft (Highlands 9)
Project:	Marshall County, WV Chevron	MD Reference:	Air RKB @ 1294.000usft (Highlands 9)
Site:	Longworth	North Reference:	True
Well:	M15H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Longworth 15H As Drilled		

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,184.00 0	90.740	320.830	6,504.044	5,210.044	2,798.785	-3,043.707	4,131.040	0.72289	0.36559	-0.62366
10,276.00 0	90.500	320.930	6,503.048	5,209.048	2,870.156	-3,101.751	4,222.562	0.28261	-0.26087	0.10870
10,369.00 0	90.540	320.750	6,502.204	5,208.204	2,942.264	-3,160.477	4,315.088	0.19826	0.04301	-0.19355
10,461.00 0	90.600	321.380	6,501.289	5,207.289	3,013.823	-3,218.290	4,406.580	0.68785	0.06522	0.68478
10,554.00 0	90.570	321.750	6,500.339	5,206.340	3,086.668	-3,276.098	4,498.979	0.39913	-0.03226	0.39785
10,647.00 0	90.970	322.000	6,499.090	5,205.090	3,159.821	-3,333.509	4,591.316	0.50719	0.43011	0.26882
10,739.00 0	90.870	321.730	6,497.612	5,203.613	3,232.175	-3,390.313	4,682.659	0.31292	-0.10870	-0.29348
10,832.00 0	90.800	321.110	6,496.257	5,202.257	3,304.868	-3,448.302	4,775.078	0.67083	-0.07527	-0.66667
10,924.00 0	90.900	320.810	6,494.892	5,200.892	3,376.317	-3,506.243	4,866.583	0.34369	0.10870	-0.32609
11,016.000	90.740	320.950	6,493.576	5,199.576	3,447.686	-3,564.284	4,958.102	0.23108	-0.17391	0.15217
11,109.000	90.770	320.770	6,492.350	5,198.350	3,519.811	-3,622.982	5,050.620	0.19620	0.03226	-0.19355
11,201.000	90.770	319.650	6,491.114	5,197.114	3,590.496	-3,681.854	5,142.241	1.21728	0.00000	-1.21739
11,293.000	90.770	319.790	6,489.878	5,195.878	3,660.676	-3,741.328	5,233.930	0.15216	0.00000	0.15217
11,386.000	90.540	319.750	6,488.814	5,194.814	3,731.673	-3,801.389	5,326.611	0.25102	-0.24731	-0.04301
11,478.000	90.640	319.780	6,487.867	5,193.867	3,801.902	-3,860.811	5,418.298	0.11348	0.10870	0.03261
11,571.000	90.440	319.470	6,486.991	5,192.991	3,872.748	-3,921.053	5,511.001	0.39667	-0.21505	-0.33333
11,663.000	90.810	319.780	6,485.987	5,191.987	3,942.831	-3,980.645	5,602.705	0.52466	0.40217	0.33696
11,755.000	90.840	319.480	6,484.662	5,190.662	4,012.916	-4,040.229	5,694.405	0.32768	0.03261	-0.32609
11,847.000	90.640	319.940	6,483.474	5,189.474	4,083.086	-4,099.717	5,786.096	0.54518	-0.21739	0.50000
11,940.000	90.740	319.580	6,482.354	5,188.354	4,154.072	-4,159.789	5,878.778	0.40173	0.10753	-0.38710
12,033.00 0	90.870	319.220	6,481.048	5,187.048	4,224.677	-4,220.305	5,971.503	0.41153	0.13978	-0.38710
Final Survey=12073' MD/ 6481' TVD										
12,073.00 0	90.840	319.340	6,480.451	5,186.451	4,254.990	-4,246.397	6,011.391	0.30920	-0.07500	0.30000
Projection to TD=12095' MD/ 6480' TVD - M15H BHL										
12,095.00 0	90.840	319.340	6,480.128	5,186.128	4,271.677	-4,260.730	6,033.328	0.00000	0.00000	0.00000



EQT
Survey Report

Database:	EDM Definitive	Local Co-ordinate Reference:	Well M15H
Company:	EQT (Chevron Data) 02-13-21	TVD Reference:	Air RKB @ 1294.000usft (Highlands 9)
Project:	Marshall County, WV Chevron	MD Reference:	Air RKB @ 1294.000usft (Highlands 9)
Site:	Longworth	North Reference:	True
Well:	M15H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Longworth 15H As Drilled		

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (-160.991)	+E/-W (-438.193)	Northing (usft)	Easting (usft)	Latitude	Longitude
Longworth 15H KOP - actual wellpath hits target center - Point	0.000	0.000	5,706.30 6	-160.991	-438.193	492,944.848	1,623,656.367	39.8469087	80.7282315°W
Longworth 15H BHL - actual wellpath hits target center - Point	0.000	0.000	6,480.12 8	4,271.677	-4,260.730	497,429.297	1,619,894.710	39.8590768	80.7418484°W
Longworth 15H LP - actual wellpath hits target center - Point	0.000	0.000	6,532.63 8	265.644	-1,021.226	493,379.404	1,623,079.213	39.8480799	80.7303080°W

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
6,754.056	6,501.300	Top of Marcellus@6501' TVD		-1.0000	

Design Annotations

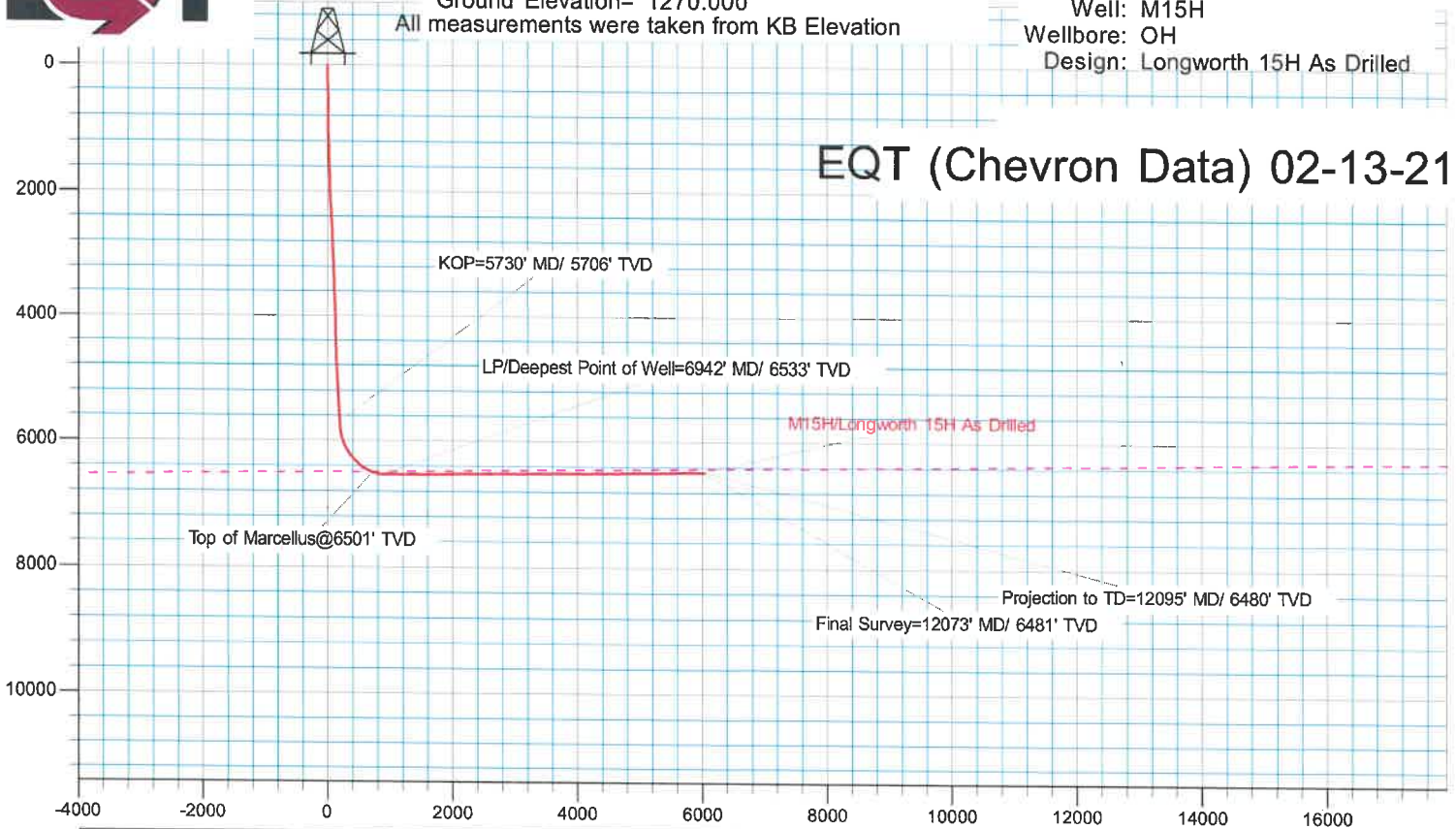
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
5,730.000	5,706.306	-160.991	-438.193	KOP=5730' MD/ 5706' TVD
6,942.000	6,532.638	265.644	-1,021.226	LP/Deepest Point of Well=6942' MD/ 6533' TVD
12,073.000	6,480.451	4,254.990	-4,246.397	Final Survey=12073' MD/ 6481' TVD
12,095.000	6,480.128	4,271.677	-4,260.730	Projection to TD=12095' MD/ 6480' TVD

Checked By: _____ Approved By: _____ Date: _____



KB Elevation= Air RKB @ 1294.000ustt (Highlands 9) Site: Longworth
 Ground Elevation= 1270.000 Well: M15H
 All measurements were taken from KB Elevation Wellbore: OH
 Design: Longworth 15H As Drilled

EQT (Chevron Data) 02-13-21



Surface Location: M15H

		Ground Level: 1270.000					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot	
0.000	0.000	493099.841	1624096.717	39.8473506	80.7266708°W		

DESIGN TARGET DETAILS

Name	TVD	Northing	Easting	Latitude	Longitude
Longworth 15H KOP	5706.306	492944.848	1623656.367	39.8469087	80.7282315°W
Longworth 15H BHL	6480.129	497429.296	1619894.710	39.8590767	80.7418485°W
Longworth 15H LP	6532.638	493379.405	1623079.214	39.8480799	80.7303081°W

