



# **EQT (Chevron Data) 02-13-21**

**Marshall County, WV Chevron**

**Longworth**

**M04H**

**OH**

**Design: Longworth 4H As-Drilled**

## **Standard Survey Report**

**26 July, 2021**



**EQT**  
Survey Report

Database:	EDM_Definitive	Local Co-ordinate Reference:	Well M04H
Company:	EQT (Chevron Data) 02-13-21	TVD Reference:	H14 @ 1287.000usft (H14)
Project:	Marshall County, WV Chevron	MD Reference:	H14 @ 1287.000usft (H14)
Site:	Longworth	North Reference:	True
Well:	M04H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Longworth 4H As-Drilled		

**Project** Marshall County, WV Chevron

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

**Site** Longworth

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

**Well** M04H

<b>Well Position</b>	<b>+N/-S</b>	0.000 usft	<b>Northing:</b>	493,058.150 usft	<b>Latitude:</b>	39.8472365
	<b>+E/-W</b>	0.000 usft	<b>Easting:</b>	1,624,104.570 usft	<b>Longitude:</b>	80.7266408°W
<b>Position Uncertainty</b>		0.000 usft	<b>Wellhead Elevation:</b>	0.000 usft	<b>Ground Level:</b>	1,270.000 usft

**Wellbore** OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	User Defined	11/9/2015	-8.7042	67.1277	52,336.61962579

**Design** Longworth 4H As-Drilled

**Audit Notes:**

<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>	0.000
<b>Vertical Section:</b>		<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
		0.000	0.000	0.000	305.818

**Survey Program** Date 7/26/2021

From (')	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	560.000	Surface Gyro (OH)	SDI Standard Keeper 103 c	SDI Standard Wireline Keeper ver 1.0.3 c
0.00	4,500.000	Gyro to KOP (OH)	Standard Keeper 103 c	Standard Wireline Keeper ver 1.0.3 c
0.00	18,465.000	BHI ATC (OH)	09_MWD+IFR1 c	A005Mb: IFR declination correction only 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	-1,287.000	0.000	0.000	0.000	0.00000	0.00000	0.00000
100.000	0.110	143.030	100.000	-1,187.000	-0.077	0.058	-0.092	0.11000	0.11000	0.00000
125.000	0.160	173.490	125.000	-1,162.000	-0.131	0.076	-0.138	0.34312	0.20000	121.84000
150.000	0.230	110.970	150.000	-1,137.000	-0.183	0.127	-0.210	0.84416	0.28000	-250.0800
175.000	0.220	125.770	175.000	-1,112.000	-0.229	0.213	-0.307	0.23520	-0.04000	59.20000



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Site:	Longworth	North Reference:	True
Well:	M04H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Longworth 4H 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)
200.000	0.340	83.230	199.999	-1,087.001	-0.249	0.325	-0.409	0.92757	0.48000	-170.16000
225.000	0.250	74.240	224.999	-1,062.001	-0.225	0.451	-0.498	0.40375	-0.36000	0
250.000	0.240	75.720	249.999	-1,037.001	-0.197	0.555	-0.565	0.04733	-0.04000	-35.96000
275.000	0.250	111.580	274.998	-1,012.001	-0.204	0.656	-0.652	0.60459	0.04000	5.92000
300.000	0.380	98.320	299.998	-987.002	-0.236	0.789	-0.778	0.59283	0.52000	143.44000
325.000	0.440	165.420	324.998	-962.002	-0.341	0.895	-0.926	1.82373	0.24000	-53.04000
350.000	0.360	160.580	349.997	-937.003	-0.508	0.945	-1.064	0.34709	-0.32000	268.40000
375.000	0.370	129.870	374.997	-912.003	-0.634	1.033	-1.209	0.77417	0.04000	-19.36000
400.000	0.350	126.940	399.996	-887.004	-0.732	1.156	-1.366	0.10871	-0.08000	-122.84000
425.000	0.260	116.310	424.996	-862.004	-0.803	1.268	-1.498	0.42376	-0.36000	0
450.000	0.340	130.260	449.995	-837.005	-0.876	1.376	-1.628	0.10871	-0.08000	-11.72000
475.000	0.490	129.130	474.995	-812.005	-0.991	1.515	-1.809	0.42376	-0.36000	-42.52000
500.000	0.510	133.540	499.994	-787.006	-1.135	1.679	-2.026	0.43108	0.32000	55.80000
525.000	0.270	155.560	524.993	-762.007	-1.266	1.784	-2.187	0.60086	0.60000	-4.52000
550.000	0.260	144.360	549.993	-737.007	-1.365	1.841	-2.292	0.17342	0.08000	17.64000
560.000	0.360	150.560	559.993	-727.007	-1.411	1.870	-2.342	1.11491	-0.96000	88.08000
575.000	0.540	144.500	574.992	-712.008	-1.510	1.934	-2.452	0.21067	-0.04000	-44.80000
600.000	0.490	136.760	599.991	-687.009	-1.684	2.076	-2.668	1.05332	1.00000	62.00000
625.000	0.570	144.280	624.990	-662.010	-1.862	2.222	-2.891	1.23958	1.20000	-40.40000
650.000	0.590	147.540	649.989	-637.011	-2.072	2.363	-3.129	0.34226	-0.20000	-30.96000
675.000	0.560	137.750	674.988	-612.012	-2.271	2.515	-3.368	0.42340	0.32000	30.08000
700.000	0.530	130.100	699.986	-587.013	-2.436	2.685	-3.603	0.15432	0.08000	13.04000
725.000	0.470	127.880	724.986	-562.014	-2.573	2.855	-3.821	0.41032	-0.12000	-39.16000
750.000	0.520	133.520	749.985	-537.015	-2.714	3.018	-4.036	0.31453	-0.12000	-30.60000
775.000	0.520	136.730	774.984	-512.016	-2.875	3.178	-4.259	0.25216	-0.24000	-8.88000
800.000	0.560	141.600	799.982	-487.017	-3.053	3.331	-4.488	0.27903	0.20000	22.56000
825.000	0.630	122.310	824.981	-462.019	-3.223	3.523	-4.743	0.11652	0.00000	12.84000
850.000	0.700	130.840	849.979	-437.020	-3.396	3.755	-5.032	0.24339	0.16000	19.48000
875.000	0.800	134.580	874.977	-412.023	-3.618	3.995	-5.357	0.84391	0.28000	-77.16000
900.000	0.530	105.360	899.976	-387.024	-3.771	4.231	-5.638	0.48425	0.28000	34.12000
925.000	0.770	138.420	924.974	-362.026	-3.928	4.454	-5.910	0.44515	0.40000	14.96000
950.000	0.710	139.660	949.972	-337.028	-4.172	4.666	-6.224	1.70083	-1.08000	-116.88000
975.000	0.850	142.770	974.970	-312.030	-4.437	4.878	-6.552	0.24236	0.96000	132.24000
1,000.000	0.880	152.640	999.967	-287.033	-4.755	5.078	-6.901	0.24839	-0.24000	4.96000
1,025.000	1.170	175.180	1,024.963	-262.037	-5.180	5.188	-7.238	0.58484	0.56000	12.44000
1,050.000	1.670	197.340	1,049.955	-237.045	-5.782	5.101	-7.520	0.60716	0.12000	39.48000
1,075.000	2.120	205.960	1,074.942	-212.058	-6.546	4.790	-7.715	1.96523	1.16000	90.16000
1,100.000	2.470	206.090	1,099.922	-187.078	-7.445	4.351	-7.885	2.93557	2.00000	88.64000
1,125.000	2.720	206.220	1,124.896	-162.104	-8.461	3.852	-8.075	2.12586	1.80000	34.48000
1,150.000	2.960	209.900	1,149.865	-137.135	-9.553	3.268	-8.240	1.40015	1.40000	0.52000
1,175.000	3.730	218.000	1,174.823	-112.177	-10.753	2.445	-8.276	1.00028	1.00000	0.52000
								1.20515	0.96000	14.72000
								3.60655	3.08000	32.40000



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Wellbore:	OH		
Design:	Longworth 4H 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)	
1,200.000	4.200	222.790	1,199.763	-87.237	-12.066	1.323	-8.134	2.29836	1.88000	19.16000	
1,225.000	4.370	223.270	1,224.693	-62.307	-13.431	0.048	-7.899	0.69496	0.68000	1.92000	
1,250.000	4.520	223.380	1,249.618	-37.382	-14.841	-1.281	-7.646	0.60097	0.60000	0.44000	
1,275.000	4.680	223.390	1,274.537	-12.463	-16.298	-2.659	-7.382	0.64001	0.64000	0.04000	
1,300.000	4.910	226.020	1,299.450	12.450	-17.782	-4.129	-7.058	1.27245	0.92000	10.52000	
1,325.000	5.430	231.900	1,324.348	37.348	-19.255	-5.830	-6.541	2.96700	2.08000	23.52000	
1,350.000	6.270	235.850	1,349.218	62.218	-20.751	-7.890	-5.746	3.72407	3.36000	15.80000	
1,375.000	6.570	238.210	1,374.061	87.061	-22.271	-10.236	-4.733	1.59794	1.20000	9.44000	
1,400.000	6.740	238.960	1,398.892	111.893	-23.781	-12.709	-3.612	0.76371	0.68000	3.00000	
1,425.000	6.890	239.770	1,423.716	136.716	-25.292	-15.261	-2.427	0.71260	0.60000	3.24000	
1,450.000	7.010	239.600	1,448.532	161.532	-26.819	-17.873	-1.203	0.48700	0.48000	-0.68000	
1,475.000	7.190	240.970	1,473.340	186.340	-28.350	-20.556	0.077	0.98848	0.72000	5.48000	
1,500.000	7.040	245.720	1,498.148	211.148	-29.740	-23.321	1.506	2.42788	-0.60000	19.00000	
1,525.000	6.890	250.150	1,522.964	235.964	-30.879	-26.128	3.116	2.23035	-0.60000	17.72000	
1,550.000	6.700	251.000	1,547.788	260.788	-31.863	-28.917	4.802	0.85988	-0.76000	3.40000	
1,575.000	6.740	251.620	1,572.616	285.617	-32.800	-31.688	6.500	0.33139	0.16000	2.48000	
1,600.000	6.830	253.340	1,597.441	310.441	-33.689	-34.505	8.264	0.88894	0.36000	6.88000	
1,625.000	6.980	253.320	1,622.260	335.260	-34.551	-37.384	10.094	0.60008	0.60000	-0.08000	
1,650.000	7.260	253.950	1,647.067	360.067	-35.424	-40.357	11.994	1.16272	1.12000	2.52000	
1,675.000	7.500	253.740	1,671.860	384.860	-36.317	-43.442	13.972	0.96604	0.96000	-0.84000	
1,700.000	7.660	254.150	1,696.642	409.642	-37.229	-46.611	16.008	0.67557	0.64000	1.64000	
1,725.000	7.700	253.240	1,721.417	434.417	-38.167	-49.817	18.059	0.51208	0.16000	-3.64000	
1,750.000	7.780	252.780	1,746.190	459.190	-39.151	-53.037	20.094	0.40473	0.32000	-1.84000	
1,775.000	8.000	252.920	1,770.953	483.953	-40.163	-56.316	22.161	0.88335	0.88000	0.56000	
1,800.000	8.150	252.610	1,795.705	508.705	-41.204	-59.670	24.272	0.62477	0.60000	-1.24000	
1,825.000	8.460	251.640	1,820.443	533.443	-42.313	-63.107	26.410	1.36073	1.24000	-3.88000	
1,850.000	8.380	251.800	1,845.173	558.173	-43.461	-66.583	28.556	0.33344	-0.32000	0.64000	
1,875.000	8.590	252.420	1,869.900	582.900	-44.594	-70.093	30.740	0.91623	0.84000	2.48000	
1,900.000	8.610	253.310	1,894.619	607.619	-45.695	-73.666	32.992	0.53832	0.08000	3.56000	
1,925.000	8.810	253.290	1,919.330	632.330	-46.783	-77.292	35.296	0.80009	0.80000	-0.08000	
1,950.000	9.020	253.610	1,944.028	657.028	-47.886	-81.005	37.661	0.86310	0.84000	1.28000	
1,975.000	9.150	253.770	1,968.715	681.715	-48.995	-84.794	40.085	0.52973	0.52000	0.64000	
2,000.000	9.120	253.250	1,993.398	706.398	-50.122	-88.600	42.511	0.35135	-0.12000	-2.08000	
2,025.000	8.620	253.100	2,018.099	731.099	-51.237	-92.290	44.850	2.00214	-2.00000	-0.60000	
2,050.000	8.050	250.750	2,042.834	755.835	-52.359	-95.735	46.988	2.65570	-2.28000	-9.40000	
2,075.000	7.730	249.210	2,067.598	780.598	-53.533	-98.959	48.915	1.53398	-1.28000	-6.16000	
2,100.000	7.840	247.780	2,092.367	805.367	-54.774	-102.110	50.743	0.89099	0.44000	-5.72000	
2,125.000	8.040	246.310	2,117.128	830.128	-56.122	-105.289	52.533	1.14000	0.80000	-5.88000	
2,150.000	8.130	246.020	2,141.879	854.879	-57.543	-108.505	54.309	0.39524	0.36000	-1.16000	
2,175.000	7.950	245.360	2,166.634	879.634	-58.982	-111.692	56.051	0.80915	-0.72000	-2.64000	
2,200.000	6.740	242.500	2,191.428	904.428	-60.380	-114.565	57.562	5.05467	-4.84000	-11.44000	
2,225.000	6.780	239.250	2,216.254	929.254	-61.812	-117.134	58.808	1.53837	0.16000	-13.00000	
2,250.000	6.490	238.190	2,241.087	954.087	-63.311	-119.603	59.932	1.25916	-1.16000	-4.24000	



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2,275.000	6.430	236.440	2,265.928	978.928	-64.830	-121.970	60.963	0.82329	-0.24000	-7.00000	
2,300.000	6.310	237.060	2,290.774	1,003.774	-66.351	-124.290	61.954	0.55326	-0.48000	2.48000	
2,325.000	6.620	237.800	2,315.615	1,028.615	-67.866	-126.662	62.991	1.28398	1.24000	2.96000	
2,350.000	7.920	234.990	2,340.413	1,053.413	-69.622	-129.293	64.096	5.38949	5.20000	-11.24000	
KOP=2375' MD/ 2365' TVD											
2,375.000	9.620	234.970	2,365.120	1,078.120	-71.809	-132.414	65.347	6.80001	6.80000	-0.08000	
2,400.000	11.330	234.720	2,389.703	1,102.703	-74.427	-136.129	66.828	6.84240	6.84000	-1.00000	
2,425.000	13.160	235.800	2,414.133	1,127.133	-77.445	-140.488	68.596	7.37681	7.32000	4.32000	
2,450.000	15.040	236.470	2,438.379	1,151.379	-80.837	-145.547	70.713	7.54817	7.52000	2.68000	
2,475.000	16.180	236.220	2,462.456	1,175.456	-84.565	-151.146	73.071	4.56792	4.56000	-1.00000	
2,500.000	15.800	235.100	2,486.489	1,199.489	-88.449	-156.832	75.409	1.95785	-1.52000	-4.48000	
2,525.000	15.130	233.490	2,510.584	1,223.584	-92.338	-162.246	77.523	3.18272	-2.68000	-6.44000	
2,550.000	14.700	232.170	2,534.741	1,247.741	-96.224	-167.374	79.407	2.19199	-1.72000	-5.28000	
2,575.000	14.350	231.630	2,558.942	1,271.942	-100.093	-172.308	81.144	1.50114	-1.40000	-2.16000	
2,600.000	15.380	232.510	2,583.105	1,296.105	-104.034	-177.368	82.940	4.21769	4.12000	3.52000	
2,625.000	16.470	232.790	2,607.145	1,320.146	-108.195	-182.821	84.927	4.37080	4.36000	1.12000	
2,650.000	18.030	232.540	2,631.020	1,344.020	-112.691	-188.715	87.075	6.24703	6.24000	-1.00000	
2,675.000	18.710	230.480	2,654.746	1,367.746	-117.596	-194.879	89.203	3.76021	2.72000	-8.24000	
2,700.000	19.410	228.550	2,678.376	1,391.376	-122.898	-201.086	91.133	3.76736	2.80000	-7.72000	
2,725.000	19.590	227.820	2,701.942	1,414.942	-128.462	-207.305	92.920	1.21179	0.72000	-2.92000	
2,750.000	18.940	227.360	2,725.542	1,438.542	-134.024	-213.396	94.604	2.66992	-2.60000	-1.84000	
2,775.000	19.210	227.110	2,749.169	1,462.169	-139.572	-219.394	96.221	1.12836	1.08000	-1.00000	
2,800.000	19.760	224.490	2,772.738	1,485.738	-145.386	-225.369	97.663	4.12986	2.20000	-10.48000	
2,825.000	20.780	222.840	2,796.189	1,509.190	-151.653	-231.346	98.843	4.67666	4.08000	-6.60000	
2,850.000	20.630	221.660	2,819.575	1,532.575	-158.195	-237.289	99.833	1.77334	-0.60000	-4.72000	
2,875.000	21.190	221.680	2,842.928	1,555.928	-164.860	-243.221	100.743	2.24018	2.24000	0.08000	
2,900.000	22.250	220.330	2,866.153	1,579.153	-171.843	-249.289	101.576	4.68708	4.24000	-5.40000	
2,925.000	22.850	219.840	2,889.242	1,602.242	-179.178	-255.462	102.289	2.51493	2.40000	-1.96000	
2,950.000	23.370	219.890	2,912.236	1,625.236	-186.710	-261.751	102.982	2.08148	2.08000	0.20000	
2,975.000	23.780	219.970	2,935.149	1,648.149	-194.377	-268.169	103.699	1.64499	1.64000	0.32000	
3,000.000	24.400	220.550	2,957.971	1,670.972	-202.164	-274.764	104.489	2.65462	2.48000	2.32000	
3,025.000	24.300	220.510	2,980.748	1,693.748	-209.998	-281.463	105.336	0.40540	-0.40000	-0.16000	
3,050.000	25.230	220.460	3,003.448	1,716.448	-217.963	-288.262	106.188	3.72094	3.72000	-0.20000	
3,075.000	26.430	220.000	3,025.950	1,738.950	-226.280	-295.296	107.025	4.86646	4.80000	-1.84000	
3,100.000	27.430	219.460	3,048.239	1,761.239	-234.988	-302.532	107.796	4.11785	4.00000	-2.16000	
3,125.000	28.620	220.630	3,070.307	1,783.307	-243.978	-310.091	108.664	5.24316	4.76000	4.68000	
3,150.000	29.790	222.150	3,092.129	1,805.129	-253.127	-318.158	109.851	5.54074	4.68000	6.08000	
3,175.000	31.150	223.620	3,113.676	1,826.676	-262.413	-326.786	111.414	6.20319	5.44000	5.88000	
3,200.000	31.710	225.080	3,135.008	1,848.008	-271.733	-335.900	113.349	3.78027	2.24000	5.84000	
3,225.000	32.030	225.560	3,156.240	1,869.240	-281.014	-345.286	115.528	1.63281	1.28000	1.92000	
3,250.000	32.510	226.720	3,177.378	1,890.378	-290.262	-354.910	117.921	3.13419	1.92000	4.64000	
3,275.000	33.260	227.190	3,198.372	1,911.372	-299.526	-364.830	120.543	3.16888	3.00000	1.88000	



EQT  
Survey Report

Database:	EDM_Definitive	Local Co-ordinate Reference:	Well M04H
Company:	EQT (Chevron Data) 02-13-21	TVD Reference:	H14 @ 1287.000usft (H14)
Project:	Marshall County, WV, Chevron	MD Reference:	H14 @ 1287.000usft (H14)
Site:	Longworth	North Reference:	True
Well:	M04H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Longworth 4H 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)
3,300.000	33.810	227.340	3,219.211	1,932.211	-308.899	-374.974	123.284	2.22483	2.20000	0.60000
3,325.000	34.480	228.470	3,239.901	1,952.901	-318.304	-385.387	126.223	3.69029	2.68000	4.52000
3,350.000	35.110	228.500	3,260.431	1,973.431	-327.760	-396.069	129.351	2.52093	2.52000	0.12000
3,375.000	36.150	228.290	3,280.751	1,993.751	-337.430	-406.959	132.522	4.18868	4.16000	-0.84000
3,400.000	37.330	229.330	3,300.785	2,013.785	-347.277	-418.213	135.886	5.33566	4.72000	4.16000
3,425.000	37.480	229.150	3,320.644	2,033.644	-357.191	-429.716	139.411	0.74248	0.60000	-0.72000
3,450.000	37.120	228.480	3,340.531	2,053.531	-367.167	-441.118	142.818	2.17050	-1.44000	-2.68000
3,475.000	36.280	227.920	3,360.575	2,073.575	-377.125	-452.256	146.022	3.61683	-3.36000	-2.24000
3,500.000	37.180	227.290	3,380.611	2,093.611	-387.206	-463.297	149.075	3.90269	3.60000	-2.52000
3,525.000	38.870	228.060	3,400.304	2,113.304	-397.573	-474.683	152.241	7.02109	6.76000	3.08000
3,550.000	39.790	227.870	3,419.642	2,132.642	-408.183	-486.451	155.575	3.71139	3.68000	-0.76000
3,575.000	39.670	227.080	3,438.869	2,151.869	-418.983	-498.228	158.803	2.07602	-0.48000	-3.16000
3,600.000	38.970	226.800	3,458.209	2,171.209	-429.798	-509.802	161.859	2.88853	-2.80000	-1.12000
3,625.000	39.190	227.960	3,477.616	2,190.616	-440.469	-521.399	165.018	3.05455	0.88000	4.64000
3,650.000	39.580	228.600	3,496.938	2,209.938	-451.026	-533.239	168.441	2.25215	1.56000	2.56000
3,675.000	39.790	229.110	3,516.178	2,229.178	-461.530	-545.261	172.043	1.55001	0.84000	2.04000
3,700.000	39.730	230.530	3,535.396	2,248.396	-471.845	-557.477	175.911	3.64064	-0.24000	5.68000
3,725.000	39.490	230.780	3,554.656	2,267.656	-481.950	-569.803	179.992	1.15242	-0.96000	1.00000
3,750.000	40.100	232.030	3,573.865	2,286.865	-491.931	-582.309	184.292	4.02420	2.44000	5.00000
3,775.000	40.550	233.620	3,592.925	2,305.925	-501.705	-595.199	189.025	4.49198	1.80000	6.36000
3,800.000	40.990	234.990	3,611.859	2,324.859	-511.229	-608.458	194.202	3.98787	1.76000	5.48000
3,825.000	40.610	234.850	3,630.784	2,343.784	-520.617	-621.826	199.548	1.56342	-1.52000	-0.56000
3,850.000	40.000	234.290	3,649.849	2,362.849	-529.991	-635.003	204.747	2.83778	-2.44000	-2.24000
3,875.000	39.350	233.860	3,669.091	2,382.091	-539.356	-647.928	209.747	2.82237	-2.60000	-1.72000
3,900.000	38.770	233.240	3,688.503	2,401.503	-548.714	-660.599	214.545	2.79721	-2.32000	-2.48000
3,925.000	38.330	232.680	3,708.055	2,421.055	-558.099	-673.036	219.137	2.24639	-1.76000	-2.24000
3,950.000	38.150	232.380	3,727.690	2,440.690	-567.512	-685.317	223.587	1.03444	-0.72000	-1.20000
3,975.000	38.310	233.900	3,747.329	2,460.329	-576.792	-697.694	228.193	3.81640	0.64000	6.08000
4,000.000	38.550	234.180	3,766.913	2,479.913	-585.916	-710.272	233.052	1.18584	0.96000	1.12000
4,025.000	38.760	234.170	3,786.436	2,499.436	-595.056	-722.933	237.970	0.84037	0.84000	-0.04000
4,050.000	38.970	235.170	3,805.902	2,518.902	-604.128	-735.731	243.039	2.64676	0.84000	4.00000
4,075.000	38.400	234.510	3,825.417	2,538.417	-613.125	-748.506	248.132	2.81444	-2.28000	-2.64000
4,100.000	38.070	233.770	3,845.054	2,558.054	-622.189	-761.046	252.996	2.25792	-1.32000	-2.96000
4,125.000	37.960	233.140	3,864.750	2,577.750	-631.356	-773.415	257.661	1.61315	-0.44000	-2.52000
4,150.000	36.750	232.800	3,884.622	2,597.622	-640.491	-785.525	262.135	4.90982	-4.84000	-1.36000
4,175.000	36.670	232.570	3,904.664	2,617.664	-649.550	-797.410	266.471	0.63627	-0.32000	-0.92000
4,200.000	37.830	232.980	3,924.564	2,637.564	-658.703	-809.460	270.885	4.74498	4.64000	1.64000
4,225.000	37.930	232.910	3,944.296	2,657.296	-667.953	-821.710	275.405	0.43538	0.40000	-0.28000
4,250.000	38.970	233.000	3,963.875	2,676.875	-677.318	-834.118	279.986	4.16602	4.16000	0.36000
4,275.000	39.240	233.140	3,983.275	2,696.275	-686.793	-846.723	284.662	1.13629	1.08000	0.56000
4,300.000	38.780	232.680	4,002.700	2,715.700	-696.283	-859.276	289.287	2.17416	-1.84000	-1.84000
4,325.000	38.720	232.410	4,022.198	2,735.198	-705.799	-871.698	293.791	0.71734	-0.24000	-1.08000
4,350.000	38.290	231.800	4,041.761	2,754.761	-715.358	-883.980	298.156	2.29478	-1.72000	-2.44000



**EQT**  
Survey Report

Database:	EDM_Definitive	Local Co-ordinate Reference:	Well M04H
Company:	EQT (Chevron Data) 02-13-21	TVD Reference:	H14 @ 1287.000usft (H14)
Project:	Marshall County, WV Chevron	MD Reference:	H14 @ 1287.000usft (H14)
Site:	Longworth	North Reference:	True
Well:	M04H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Longworth 4H 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)	
4,375.000	37.290	231.380	4,061.518	2,774.518	-724.875	-895.985	302.320	4.13033	-4.00000	-1.68000	
4,400.000	36.970	231.800	4,081.449	2,794.450	-734.251	-907.809	306.422	1.63302	-1.28000	1.68000	
4,425.000	38.270	230.900	4,101.251	2,814.251	-743.783	-919.726	310.506	5.64515	5.20000	-3.60000	
4,450.000	38.380	231.750	4,120.864	2,833.864	-753.471	-931.829	314.651	2.15382	0.44000	3.40000	
4,475.000	37.730	231.290	4,140.549	2,853.549	-763.059	-943.893	318.822	2.83661	-2.60000	-1.84000	
4,500.000	36.950	230.790	4,160.425	2,873.425	-772.593	-955.684	322.804	3.34751	-3.12000	-2.00000	
4,508.000	36.950	230.790	4,166.819	2,879.819	-775.633	-959.410	324.046	0.00000	0.00000	0.00000	
4,588.000	36.860	229.040	4,230.791	2,943.791	-806.563	-996.161	335.746	1.31835	-0.11250	-2.18750	
4,678.000	36.940	228.610	4,302.763	3,015.763	-842.140	-1,036.835	347.907	0.30032	0.08889	-0.47778	
4,767.000	36.930	227.980	4,373.902	3,086.902	-877.720	-1,076.763	359.461	0.42551	-0.01124	-0.70787	
4,856.000	36.940	227.270	4,445.042	3,158.042	-913.764	-1,116.271	370.404	0.47951	0.01124	-0.79775	
4,945.000	37.070	226.460	4,516.116	3,229.116	-950.389	-1,155.361	380.667	0.56692	0.14607	-0.91011	
5,035.000	37.110	229.670	4,587.915	3,300.915	-986.650	-1,195.726	392.177	2.15123	0.04444	3.56667	
5,124.000	37.050	233.020	4,658.926	3,371.926	-1,020.158	-1,237.616	406.536	2.27025	-0.06742	3.76405	
5,213.000	37.020	232.880	4,729.972	3,442.972	-1,052.456	-1,280.399	422.326	0.10056	-0.03371	-0.15730	
5,303.000	37.020	231.650	4,801.831	3,514.831	-1,085.618	-1,323.252	437.667	0.82285	0.00000	-1.36667	
5,392.000	37.010	231.310	4,872.896	3,585.896	-1,118.987	-1,365.172	452.131	0.23026	-0.01124	-0.38202	
5,481.000	37.050	230.560	4,943.947	3,656.947	-1,152.765	-1,406.787	466.108	0.50948	0.04494	-0.84270	
5,571.000	36.960	230.530	5,015.819	3,728.819	-1,187.188	-1,448.613	479.878	0.10199	-0.10000	-0.03333	
5,660.000	37.080	231.150	5,086.879	3,799.879	-1,221.026	-1,490.163	493.767	0.44057	0.13483	0.69663	
5,750.000	36.990	231.870	5,158.724	3,871.724	-1,254.764	-1,532.591	508.427	0.49211	-0.10000	0.80000	
5,839.000	37.070	233.600	5,229.776	3,942.776	-1,287.214	-1,575.244	524.023	1.17405	0.08989	1.94382	
5,928.000	37.040	234.680	5,300.804	4,013.804	-1,318.630	-1,618.706	540.881	0.73199	-0.03371	1.21348	
6,018.000	36.970	234.510	5,372.677	4,085.677	-1,350.013	-1,662.859	558.317	0.13775	-0.07778	-0.18889	
6,107.000	37.030	232.970	5,443.757	4,156.757	-1,381.691	-1,706.045	574.797	1.04350	0.06742	-1.73034	
6,197.000	37.010	231.060	5,515.617	4,228.617	-1,415.037	-1,748.750	589.910	1.27793	-0.02222	-2.12222	
6,286.000	37.040	230.940	5,586.673	4,299.673	-1,448.764	-1,790.399	603.945	0.08791	0.03371	-0.13483	
6,375.000	37.080	232.000	5,657.696	4,370.696	-1,482.174	-1,832.356	618.415	0.71916	0.04494	1.19101	
6,465.000	37.010	231.880	5,729.530	4,442.530	-1,515.600	-1,875.047	633.470	0.11181	-0.07778	-0.13333	
6,554.000	37.090	231.970	5,800.562	4,513.562	-1,548.669	-1,917.260	648.347	0.10859	0.08989	0.10112	
6,644.000	37.830	242.060	5,872.070	4,585.070	-1,578.349	-1,963.063	668.118	6.86227	0.82222	11.21111	
6,733.000	39.880	255.700	5,941.502	4,654.502	-1,598.223	-2,014.925	698.541	9.87053	2.30337	15.32584	
6,823.000	43.130	263.420	6,008.939	4,721.939	-1,608.885	-2,073.500	739.799	6.72926	3.61111	8.57778	
6,912.000	46.080	265.500	6,072.300	4,785.300	-1,614.888	-2,135.695	786.718	3.69829	3.31461	2.33708	
7,002.000	48.580	270.750	6,133.318	4,846.318	-1,616.990	-2,201.786	839.079	5.10842	2.77778	5.83333	
7,091.000	48.400	272.030	6,192.304	4,905.304	-1,615.375	-2,268.410	894.049	1.09580	-0.20225	1.43820	
7,181.000	48.650	272.130	6,251.911	4,964.911	-1,612.927	-2,335.798	950.124	0.28998	0.27778	0.11111	
7,270.000	48.890	271.420	6,310.569	5,023.570	-1,610.855	-2,402.699	1,005.585	0.65778	0.26966	-0.79775	
7,360.000	52.170	282.660	6,367.882	5,080.882	-1,602.206	-2,471.422	1,066.372	10.29714	3.64444	12.48889	
7,449.000	57.600	290.290	6,419.108	5,132.108	-1,581.438	-2,541.077	1,135.008	9.28906	6.10112	8.57303	
7,538.000	63.070	295.960	6,463.167	5,176.167	-1,550.999	-2,612.087	1,210.401	8.26844	6.14607	6.37079	
7,628.000	69.400	306.330	6,499.500	5,212.500	-1,508.341	-2,682.326	1,292.321	12.66652	7.03333	11.52222	



EQT  
Survey Report

Database:	EDM_Definitive	Local Co-ordinate Reference:	Well M04H
Company:	EQT (Chevron Data) 02-13-21	TVD Reference:	H14 @ 1287.000usft (H14)
Project:	Marshall County, WV Chevron	MD Reference:	H14 @ 1287.000usft (H14)
Site:	Longworth	North Reference:	True
Well:	M04H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Longworth 4H 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)
<b>M04H LP</b>										
7,664.671	71.905	309.003	6,511.650	5,224.650	-1,487.197	-2,709.706	1,326.896	9.69359	6.83097	7.29028
7,717.000	75.540	312.690	6,526.319	5,239.320	-1,454.345	-2,747.680	1,376.914	9.69359	6.94646	7.04500
<b>M04H LP-OLD</b>										
7,744.651	77.856	313.653	6,532.681	5,245.681	-1,435.935	-2,767.303	1,403.600	9.03683	8.37670	3.48421
7,807.000	83.090	315.770	6,542.998	5,255.998	-1,392.686	-2,810.977	1,464.324	9.03683	8.39430	3.39473
<b>M04H LP2</b>										
7,882.122	89.183	319.141	6,548.059	5,261.059	-1,337.494	-2,861.619	1,537.688	9.26367	8.11131	4.48695
<b>LP/ Deepest Point of Well=7896' MD/ 6548' TVD</b>										
7,896.000	90.310	319.760	6,548.120	5,261.120	-1,326.950	-2,870.641	1,551.174	9.26367	8.11803	4.46254
<b>Top of Marcellus@6514' TVD</b>										
7,942.036	90.417	319.627	6,547.828	5,260.828	-1,291.843	-2,900.420	1,595.867	0.37134	0.23334	-0.28889
7,986.000	90.520	319.500	6,547.468	5,260.468	-1,258.382	-2,928.934	1,638.570	0.37134	0.23333	-0.28889
8,075.000	90.430	319.010	6,546.730	5,259.730	-1,190.957	-2,987.022	1,725.130	0.55975	-0.10112	-0.55056
8,164.000	90.400	318.180	6,546.086	5,259.086	-1,124.204	-3,045.882	1,811.924	0.93317	-0.03371	-0.93258
8,254.000	90.460	317.470	6,545.410	5,258.410	-1,057.508	-3,106.306	1,899.952	0.79168	0.06667	-0.78889
<b>M04H LP3</b>										
8,284.827	90.377	317.404	6,545.185	5,258.185	-1,034.803	-3,127.157	1,930.147	0.34394	-0.26966	-0.21349
8,343.000	90.220	317.280	6,544.882	5,257.882	-992.023	-3,166.575	1,987.146	0.34394	-0.26966	-0.21348
8,432.000	90.280	319.470	6,544.494	5,257.494	-925.499	-3,225.690	2,074.011	2.46157	0.06742	2.46067
8,521.000	90.150	322.810	6,544.160	5,257.160	-856.207	-3,281.522	2,159.835	3.75562	-0.14607	3.75281
8,611.000	90.250	326.570	6,543.845	5,256.845	-782.777	-3,333.532	2,244.981	4.17923	0.11111	4.17778
8,700.000	89.910	326.060	6,543.721	5,256.721	-708.721	-3,382.893	2,328.347	0.68870	-0.38202	-0.57303
8,789.000	90.000	323.950	6,543.791	5,256.791	-635.816	-3,433.932	2,412.398	2.37294	0.10112	-2.37079
8,879.000	90.030	322.930	6,543.767	5,256.768	-563.526	-3,487.542	2,498.174	1.13382	0.03333	-1.13333
8,968.000	89.850	325.340	6,543.861	5,256.861	-491.406	-3,539.681	2,582.658	2.71540	-0.20225	2.70787
9,058.000	90.770	327.260	6,543.374	5,256.374	-416.535	-3,589.613	2,666.963	2.36555	1.02222	2.13333
9,147.000	91.020	327.590	6,541.983	5,254.984	-341.545	-3,637.525	2,749.699	0.46514	0.28090	0.37079
9,237.000	91.140	331.470	6,540.286	5,253.287	-264.003	-3,683.146	2,832.071	4.31241	0.13333	4.31111
9,326.000	92.400	325.360	6,537.535	5,250.535	-188.260	-3,729.714	2,914.158	7.00628	1.41573	-6.86517
9,416.000	90.950	320.090	6,534.902	5,247.903	-116.703	-3,784.179	3,000.200	6.07059	-1.61111	-5.85556
9,505.000	90.680	319.710	6,533.637	5,246.637	-48.632	-3,841.500	3,086.516	0.52373	-0.30337	-0.42697
9,595.000	90.680	318.410	6,532.568	5,245.568	19.348	-3,900.469	3,174.115	1.44434	0.00000	-1.44444
9,684.000	90.800	317.950	6,531.419	5,244.419	85.669	-3,959.809	3,261.045	0.53411	0.13483	-0.51685
9,774.000	90.830	316.420	6,530.139	5,243.139	151.680	-4,020.968	3,349.268	1.70015	0.03333	-1.70000
9,863.000	90.680	313.830	6,528.966	5,241.966	214.738	-4,083.752	3,437.081	2.91474	-0.16854	-2.91011
9,953.000	90.650	312.500	6,527.921	5,240.921	276.302	-4,149.391	3,526.334	1.47805	-0.03333	-1.47778
10,042.000	90.740	313.050	6,526.842	5,239.842	336.739	-4,214.714	3,614.672	0.62615	0.10112	0.61798
10,131.000	90.860	318.340	6,525.598	5,238.598	400.401	-4,276.850	3,702.314	5.94477	0.13483	5.94382
10,221.000	90.950	321.490	6,524.176	5,237.176	469.242	-4,334.789	3,789.582	3.50099	0.10000	3.50000
10,310.000	91.050	320.110	6,522.623	5,235.623	538.200	-4,391.030	3,875.541	1.55439	0.11236	-1.55056





**EQT**  
Survey Report

Database:	EDM Definitive	Local Co-ordinate Reference:	Well M04H
Company:	EQT (Chevron Data) 02-13-21	TVD Reference:	H14 @ 1287.000usft (H14)
Project:	Marshall County, WV Chevron	MD Reference:	H14 @ 1287.000usft (H14)
Site:	Longworth	North Reference:	True
Well:	M04H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Longworth 4H 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)	
10,400.00	90.980	320.650	6,521.029	5,234.029	607.515	-4,448.413	3,962.636	0.60493	-0.07778	0.60000	
0											
10,489.00	90.770	320.990	6,519.669	5,232.670	676.497	-4,504.633	4,048.593	0.44898	-0.23596	0.38202	
0											
10,579.00	90.830	321.540	6,518.413	5,231.413	746.694	-4,560.942	4,135.333	0.61468	0.06667	0.61111	
0											
10,668.00	90.650	322.060	6,517.263	5,230.263	816.629	-4,615.975	4,220.886	0.61824	-0.20225	0.58427	
0											
10,757.00	90.370	322.230	6,516.471	5,229.471	886.898	-4,670.589	4,306.294	0.36805	-0.31461	0.19101	
0											
10,846.00	90.400	321.950	6,515.873	5,228.873	957.115	-4,725.271	4,391.727	0.31640	0.03371	-0.31461	
0											
10,936.00	90.370	321.750	6,515.268	5,228.268	1,027.889	-4,780.865	4,478.224	0.22470	-0.03333	-0.22222	
0											
11,025.000	90.220	323.580	6,514.810	5,227.810	1,098.649	-4,834.838	4,563.400	2.06305	-0.16854	2.05618	
11,115.000	90.310	324.650	6,514.394	5,227.394	1,171.565	-4,887.591	4,648.848	1.19307	0.10000	1.18889	
11,204.000	90.220	323.680	6,513.982	5,226.982	1,243.716	-4,939.696	4,733.322	1.09456	-0.10112	-1.08989	
11,294.000	90.180	323.030	6,513.668	5,226.668	1,315.927	-4,993.412	4,819.139	0.72358	-0.04444	-0.72222	
11,384.000	90.220	323.570	6,513.354	5,226.354	1,388.086	-5,047.198	4,904.981	0.60164	0.04444	0.60000	
11,473.000	90.220	321.810	6,513.012	5,226.012	1,458.870	-5,101.140	4,990.146	1.97751	0.00000	-1.97753	
11,562.000	90.250	319.330	6,512.647	5,225.647	1,527.608	-5,157.663	5,076.205	2.78670	0.03371	-2.78652	
11,652.000	90.490	317.380	6,512.066	5,225.066	1,594.858	-5,217.465	5,164.053	2.18297	0.26667	-2.16667	
11,742.000	90.460	317.160	6,511.320	5,224.320	1,660.966	-5,278.531	5,252.259	0.24670	-0.03333	-0.24444	
11,831.000	90.430	319.720	6,510.628	5,223.628	1,727.554	-5,337.568	5,339.098	2.87652	-0.03371	2.87640	
11,920.000	90.740	320.730	6,509.720	5,222.720	1,795.951	-5,394.504	5,425.294	1.18702	0.34831	1.13483	
12,010.00	90.680	318.320	6,508.604	5,221.604	1,864.403	-5,452.916	5,512.718	2.67840	-0.06667	-2.67778	
0											
12,099.00	90.770	316.660	6,507.478	5,220.478	1,930.003	-5,513.048	5,599.867	1.86776	0.10112	-1.86517	
0											
12,189.00	90.800	316.760	6,506.245	5,219.245	1,995.507	-5,574.754	5,688.238	0.11599	0.03333	0.11111	
0											
12,278.00	90.800	316.300	6,505.002	5,218.002	2,060.091	-5,635.978	5,775.678	0.51680	0.00000	-0.51685	
0											
12,368.00	90.860	319.090	6,503.698	5,216.698	2,126.639	-5,696.542	5,863.734	3.10039	0.06667	3.10000	
0											
12,457.00	90.800	321.820	6,502.409	5,215.409	2,195.255	-5,753.196	5,949.828	3.06783	-0.06742	3.06742	
0											
12,547.00	90.890	322.540	6,501.082	5,214.082	2,266.342	-5,808.376	6,036.174	0.80614	0.10000	0.80000	
0											
12,636.00	90.920	321.410	6,499.676	5,212.676	2,336.441	-5,863.193	6,121.647	1.26995	0.03371	-1.26966	
0											
12,726.00	90.860	320.160	6,498.278	5,211.278	2,406.161	-5,920.085	6,208.581	1.39032	-0.06667	-1.38889	
0											
12,815.00	90.860	319.290	6,496.942	5,209.942	2,474.055	-5,977.613	6,294.962	0.97742	0.00000	-0.97753	
0											
12,905.00	91.020	319.470	6,495.465	5,208.466	2,542.360	-6,036.199	6,382.441	0.26757	0.17778	0.20000	
0											
12,994.00	90.830	318.120	6,494.029	5,207.029	2,609.309	-6,094.819	6,469.155	1.53161	-0.21348	-1.51685	
0											



EQT  
Survey Report

Database:	EDM_Definitive	Local Co-ordinate Reference:	Well M04H
Company:	EQT (Chevron Data) 02-13-21	TVD Reference:	H14 @ 1287.000usft (H14)
Project:	Marshall County, WV Chevron	MD Reference:	H14 @ 1287.000usft (H14)
Site:	Longworth	North Reference:	True
Well:	M04H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Longworth 4H 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)
13,084.00 0	90.950	318.200	6,492.631	5,205.631	2,676.352	-6,154.846	6,557.064	0.16024	0.13333	0.08889
13,173.00 0	90.740	317.950	6,491.318	5,204.318	2,742.563	-6,214.306	6,644.026	0.36683	-0.23596	-0.28090
13,263.00 0	90.710	320.640	6,490.179	5,203.179	2,810.778	-6,272.991	6,731.533	2.98884	-0.03333	2.98889
13,352.00 0	90.800	321.160	6,489.006	5,202.006	2,879.840	-6,329.116	6,817.460	0.59291	0.10112	0.58427
13,442.00 0	90.980	323.820	6,487.608	5,200.608	2,951.217	-6,383.905	6,903.658	2.96196	0.20000	2.95556
13,531.00 0	90.860	324.230	6,486.179	5,199.179	3,023.233	-6,436.180	6,988.192	0.47994	-0.13483	0.46067
13,620.00 0	90.860	324.010	6,484.843	5,197.843	3,095.337	-6,488.336	7,072.680	0.24716	0.00000	-0.24719
13,709.00 0	90.890	322.970	6,483.484	5,196.484	3,166.861	-6,541.281	7,157.470	1.16889	0.03371	-1.16854
13,799.00 0	90.800	323.760	6,482.157	5,195.157	3,239.074	-6,594.979	7,243.272	0.88336	-0.10000	0.87778
13,888.00 0	90.800	324.130	6,480.914	5,193.914	3,311.019	-6,647.355	7,327.847	0.41569	0.00000	0.41573
13,978.00 0	90.770	324.440	6,479.681	5,192.681	3,384.086	-6,699.888	7,413.204	0.34602	-0.03333	0.34444
14,067.00 0	90.800	322.750	6,478.462	5,191.462	3,455.707	-6,752.702	7,497.944	1.89900	0.03371	-1.89888
14,156.00 0	90.740	321.230	6,477.266	5,190.266	3,525.822	-6,807.501	7,583.412	1.70904	-0.06742	-1.70787
14,246.00 0	90.800	320.060	6,476.056	5,189.056	3,595.406	-6,864.566	7,670.406	1.30159	0.06667	-1.30000
14,335.00 0	90.770	320.090	6,474.837	5,187.837	3,663.652	-6,921.680	7,756.657	0.04767	-0.03371	0.03371
14,424.00 0	91.020	319.720	6,473.447	5,186.447	3,731.727	-6,978.994	7,842.970	0.50169	0.28090	-0.41573
14,514.00 0	91.050	317.680	6,471.821	5,184.821	3,799.326	-7,038.381	7,930.686	2.26654	0.03333	-2.26667
14,603.00 0	91.020	320.430	6,470.213	5,183.213	3,866.533	-7,096.691	8,017.299	3.08957	-0.03371	3.08989
14,692.00 0	91.290	324.310	6,468.418	5,181.418	3,936.991	-7,151.009	8,102.578	4.36921	0.30337	4.35955
14,781.00 0	91.260	323.580	6,466.438	5,179.438	4,008.925	-7,203.378	8,187.140	0.82071	-0.03371	-0.82022
14,870.00 0	91.230	320.330	6,464.504	5,177.504	4,078.989	-7,258.206	8,272.601	3.65098	-0.03371	-3.65169
14,960.00 0	91.260	321.980	6,462.548	5,175.548	4,149.066	-7,314.641	8,359.373	1.83320	0.03333	1.83333
15,049.00 0	91.230	321.950	6,460.614	5,173.614	4,219.149	-7,369.464	8,444.842	0.04766	-0.03371	-0.03371
15,139.00 0	91.350	322.020	6,458.588	5,171.588	4,290.037	-7,424.878	8,531.261	0.15435	0.13333	0.07778
15,228.00 0	90.890	321.190	6,456.848	5,169.848	4,359.777	-7,480.143	8,616.887	1.06607	-0.51685	-0.93258



EQT  
Survey Report

Database:	EDM_Definitive	Local Co-ordinate Reference:	Well: MD4H
Company:	EQT (Chevron Data) 02-13-21	TVD Reference:	H14 @ 1287.000usft (H14)
Project:	Marshall County, WV Chevron	MD Reference:	H14 @ 1287.000usft (H14)
Site:	Longworth	North Reference:	True
Well:	MD4H	Survey Calculation Method:	Minimum Curvature
Wellbore:	QH		
Design:	Longworth 4H 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)
15,317.00 0	90.860	321.500	6,455.489	5,168.489	4,429.270	-7,535.729	8,702.629	0.34990	-0.03371	0.34831
15,407.00 0	90.920	321.440	6,454.091	5,167.091	4,499.667	-7,591.785	8,789.281	0.09428	0.06667	-0.06667
15,496.00 0	91.050	320.250	6,452.561	5,165.561	4,568.670	-7,647.972	8,875.224	1.34484	0.14607	-1.33708
15,586.00 0	90.620	319.740	6,451.250	5,164.250	4,637.601	-7,705.823	8,962.473	0.74116	-0.47778	-0.56667
15,675.00 0	89.910	321.120	6,450.838	5,163.838	4,706.204	-7,762.515	9,048.591	1.74372	-0.79775	1.55056
15,765.00 0	90.000	321.990	6,450.909	5,163.909	4,776.692	-7,818.473	9,135.217	0.97182	0.10000	0.96667
15,854.00 0	90.520	322.950	6,450.505	5,163.505	4,847.270	-7,872.689	9,220.483	1.22671	0.58427	1.07865
15,944.00 0	90.310	324.580	6,449.853	5,162.853	4,919.859	-7,925.884	9,306.099	1.82603	-0.23333	1.81111
16,033.00 0	90.310	325.400	6,449.371	5,162.371	4,992.753	-7,976.944	9,390.161	0.92133	0.00000	0.92135
16,123.00 0	90.310	325.310	6,448.884	5,161.884	5,066.794	-8,028.107	9,474.978	0.10000	0.00000	-0.10000
16,212.00 0	90.430	322.350	6,448.310	5,161.310	5,138.632	-8,080.627	9,559.605	3.32850	0.13483	-3.32584
16,302.00 0	90.680	322.190	6,447.438	5,160.438	5,209.810	-8,135.699	9,645.917	0.32979	0.27778	-0.17778
16,391.00 0	90.550	322.270	6,446.482	5,159.483	5,280.158	-8,190.208	9,731.285	0.17151	-0.14607	0.08989
16,480.00 0	90.680	320.780	6,445.527	5,158.527	5,349.828	-8,245.576	9,816.955	1.68042	0.14607	-1.67416
16,570.00 0	90.770	320.440	6,444.388	5,157.388	5,419.379	-8,302.685	9,903.965	0.39076	0.10000	-0.37778
16,659.00 0	90.920	319.110	6,443.076	5,156.076	5,487.323	-8,360.153	9,990.327	1.50369	0.16854	-1.49438
16,749.00 0	90.860	317.110	6,441.678	5,154.678	5,554.310	-8,420.236	10,078.248	2.22295	-0.06667	-2.22222
16,838.00 0	90.680	316.700	6,440.482	5,153.482	5,619.293	-8,481.036	10,165.579	0.50308	-0.20225	-0.46067
16,927.00 0	90.740	319.250	6,439.379	5,152.379	5,685.397	-8,540.608	10,252.570	2.86574	0.06742	2.86517
17,017.00 0	90.830	320.800	6,438.145	5,151.146	5,754.357	-8,598.422	10,339.807	1.72496	0.10000	1.72222
17,106.00 0	90.800	324.160	6,436.879	5,149.879	5,824.930	-8,652.613	10,425.049	3.77505	-0.03371	3.77528
17,196.00 0	90.890	321.760	6,435.552	5,148.552	5,896.756	-8,706.816	10,511.036	2.66825	0.10000	-2.66667
17,286.00 0	90.830	320.020	6,434.201	5,147.201	5,966.580	-8,763.581	10,597.928	1.93426	-0.06667	-1.93333
17,375.00 0	90.860	320.770	6,432.888	5,145.888	6,035.142	-8,820.311	10,684.053	0.84328	0.03371	0.84270
17,465.00 0	90.830	320.800	6,431.561	5,144.561	6,104.865	-8,877.206	10,770.990	0.04714	-0.03333	0.03333



EQT  
Survey Report

Database:	EDM_Definitive	Local Co-ordinate Reference:	Well M04H
Company:	EQT (Chevron Data) 02-13-21	TVD Reference:	H14 @ 1287.000usft (H14)
Project:	Marshall County, WV Chevron	MD Reference:	H14 @ 1287.000usft (H14)
Site:	Longworth	North Reference:	True
Well:	M04H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Longworth 4H 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)
17,554.00 0	90.710	319.460	6,430.365	5,143.365	6,173.165	-8,934.252	10,857.21 9	1.51151	-0.13483	-1.50562
17,644.00 0	90.740	319.820	6,429.226	5,142.226	6,241.738	-8,992.531	10,944.60 5	0.40135	0.03333	0.40000
17,733.00 0	90.830	320.330	6,428.007	5,141.007	6,309.984	-9,049.644	11,030.856	0.58183	0.10112	0.57303
17,823.00 0	90.770	319.190	6,426.750	5,139.750	6,378.678	-9,107.776	11,118.195	1.26830	-0.06667	-1.26667
17,912.00 0	90.710	317.520	6,425.601	5,138.601	6,445.177	-9,166.911	11,205.063	1.87746	-0.06742	-1.87640
18,002.00 0	90.580	315.380	6,424.587	5,137.587	6,510.399	-9,228.912	11,293.507	2.38201	-0.14444	-2.37778
18,091.00 0	90.430	318.310	6,423.803	5,136.803	6,575.315	-9,289.777	11,380.851	3.29632	-0.16854	3.29213
18,180.00 0	90.520	320.520	6,423.065	5,136.065	6,642.899	-9,347.673	11,467.348	2.48512	0.10112	2.48315
18,270.00 0	90.620	323.560	6,422.169	5,135.169	6,713.847	-9,403.023	11,553.751	3.37944	0.11111	3.37778
18,360.00 0	90.460	323.870	6,421.321	5,134.321	6,786.391	-9,456.283	11,639.392	0.38760	-0.17778	0.34444
<b>M04H_BHL-OLD</b>										
18,377.84 5	90.467	323.571	6,421.177	5,134.177	6,800.776	-9,466.842	11,656.372	1.67536	0.03763	-1.67499
<b>Final Survey=18440' MD/ 6421' TVD</b>										
18,440.00 0	90.490	322.530	6,420.658	5,133.658	6,850.446	-9,504.202	11,715.735	1.67536	0.03746	-1.67500
<b>M04H BHL</b>										
18,464.01 2	90.490	322.530	6,420.452	5,133.452	6,869.503	-9,518.810	11,738.732	0.00000	0.00000	0.00000
<b>Projection to TD=18465' MD/ 6420' TVD</b>										
18,465.00 0	90.490	322.530	6,420.444	5,133.444	6,870.287	-9,519.410	11,739.678	0.00000	0.00000	0.00000



**EQT**  
Survey Report

Database:	EDM_Definitive	Local Co-ordinate Reference:	Well M04H
Company:	EQT (Chevron Data) 02-13-21	TVD Reference:	H14 @ 1257.000usft (H14)
Project:	Marshall County, WV Chevron	MD Reference:	H14 @ 1267.000usft (H14)
Site:	Longworth	North Reference:	True
Well:	M04H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Longworth 4H As-Drilled		

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (-71.809)	+E/-W (-132.414)	Northing (usft)	Easting (usft)	Latitude	Longitude
Longworth 4H KOP	0.000	0.000	2,365.12 0	-71.809	-132.414	492,988.155	1,623,971.188	39.8470394	80.7271124°W
- actual wellpath hits target center									
- Point									
Longworth 4H BHL	0.000	0.000	6,420.44 4	6,870.287	-9,519.410	500,057.771	1,614,679.851	39.8660926	80.7605545°W
- actual wellpath hits target center									
- Point									
Longworth 4H LP	0.000	0.000	6,548.12 0	-1,326.950	-2,870.641	491,770.518	1,621,216.079	39.8435932	80.7368644°W
- actual wellpath hits target center									
- Point									

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
7,942.036	6,514.000	Top of Marcellus@6514' TVD		-1.5000	

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
2,375.000	2,365.120	-71.809	-132.414	KOP=2375' MD/ 2365' TVD	
7,896.000	6,548.120	-1,326.950	-2,870.641	LP/ Deepest Point of Well=7896' MD/ 6548' TVD	
18,440.000	6,420.658	6,850.446	-9,504.202	Final Survey=18440' MD/ 6421' TVD	
18,465.000	6,420.444	6,870.287	-9,519.410	Projection to TD=18465' MD/ 6420' TVD	

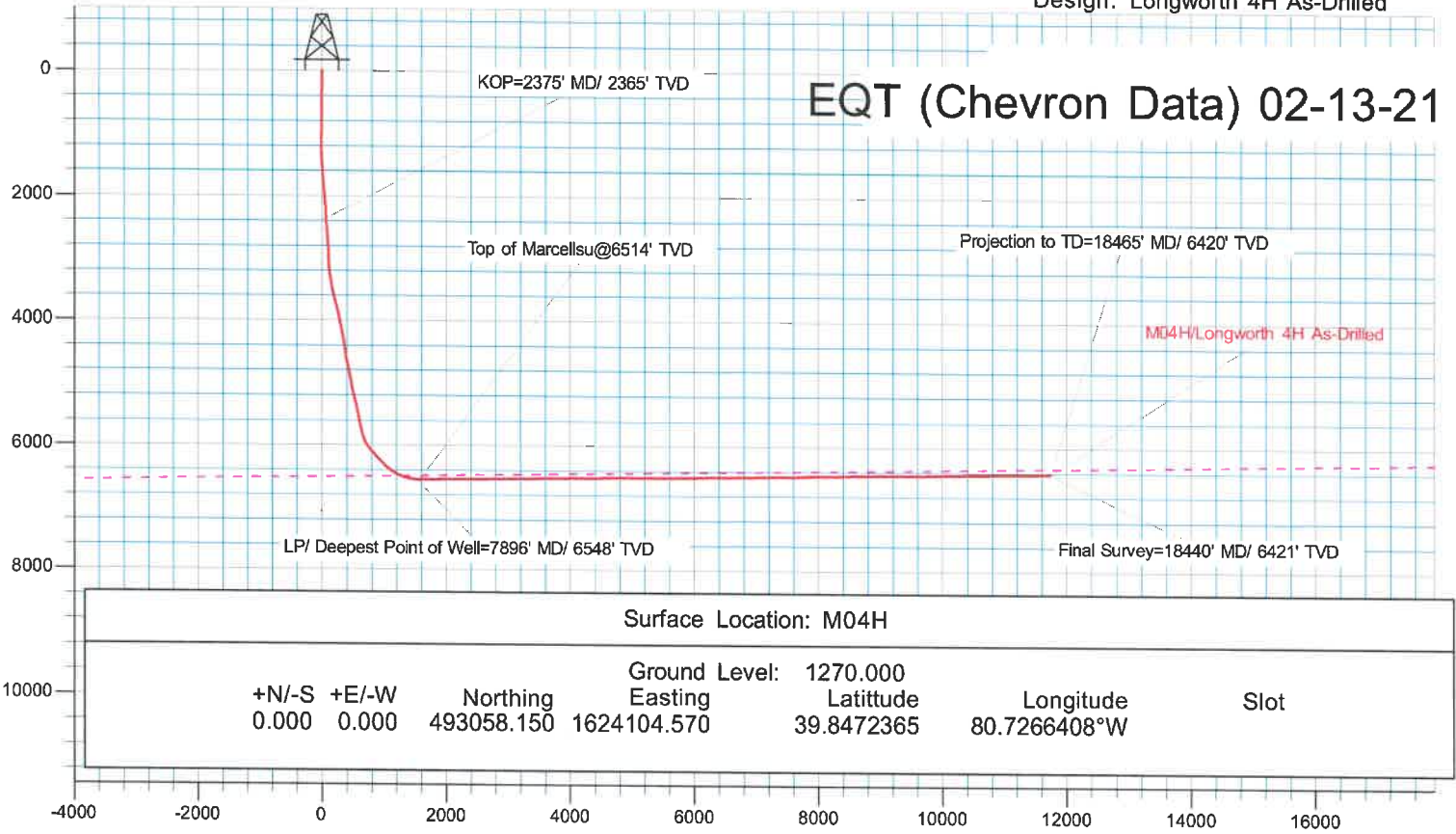
Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_



KB Elevation= H14 @ 1287.000ustf (H14)  
 Ground Elevation= 1270.000  
 All measurements were taken from KB Elevation

Site: Longworth  
 Well: M04H  
 Wellbore: OH  
 Design: Longworth 4H As-Drilled

# EQT (Chevron Data) 02-13-21



Vertical Section at 305.818° (3000 usft/in)

