



Where energy meets innovation.

## EQT PRODUCTION

Doddridge County, WV

OXF43

#516233 -MRC - Slot 516233

Main

Design: 516233 As Drilled

## Standard Survey Report

25 October, 2017



Scientific Drilling

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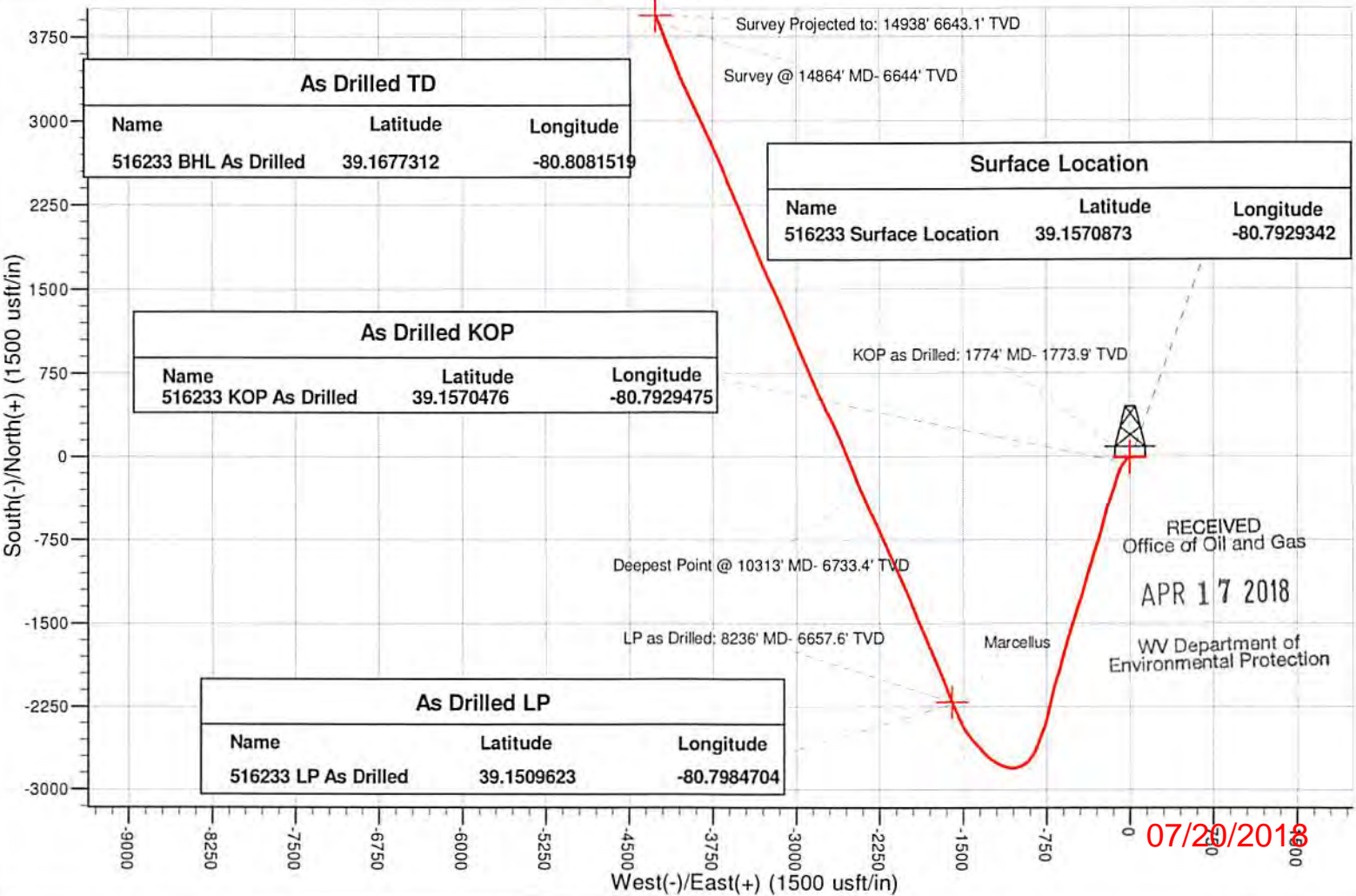
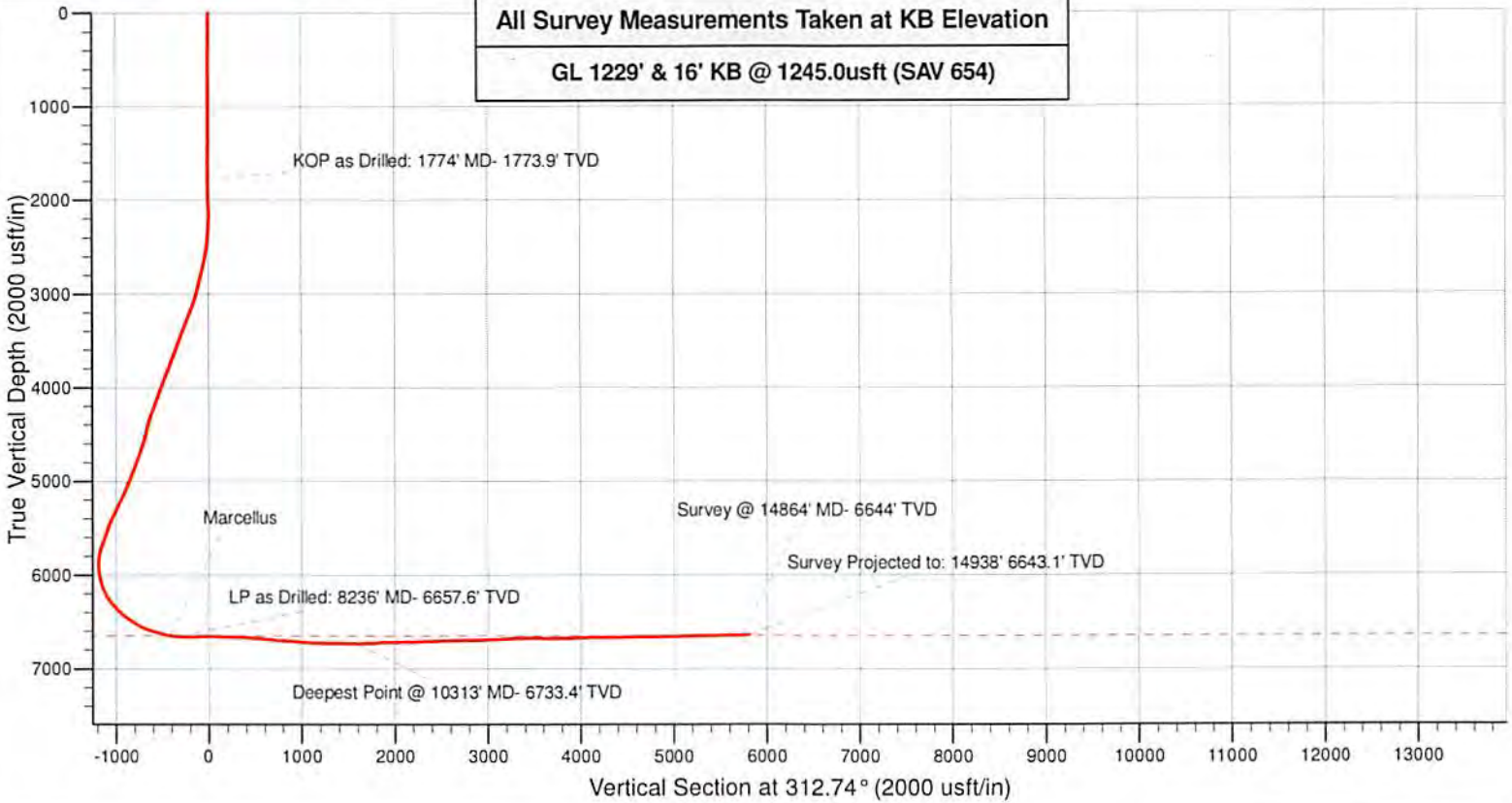
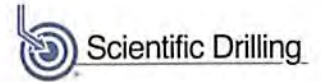
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Project: Doddridge County, WV  
Site: OXF43  
Well: #516233 -MRC  
Wellbore Main  
Design: 516233 As Drilled



All Survey Measurements Taken at KB Elevation  
GL 1229' & 16' KB @ 1245.0usft (SAV 654)

As Drilled TD		
Name	Latitude	Longitude
516233 BHL As Drilled	39.1677312	-80.8081519

Surface Location		
Name	Latitude	Longitude
516233 Surface Location	39.1570873	-80.7929342

As Drilled KOP		
Name	Latitude	Longitude
516233 KOP As Drilled	39.1570476	-80.7929475

As Drilled LP		
Name	Latitude	Longitude
516233 LP As Drilled	39.1509623	-80.7984704

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<b>Company:</b>	EQT PRODUCTION	<b>Local Co-ordinate Reference:</b>	Well #516233 -MRC - Slot 516233
<b>Project:</b>	Doddridge County, WV	<b>TVD Reference:</b>	GL 1229' & 16' KB @ 1245.00ft (SAV 654)
<b>Site:</b>	OXF43	<b>MD Reference:</b>	GL 1229' & 16' KB @ 1245.00ft (SAV 654)
<b>Well:</b>	#516233 -MRC	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Main	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	516233 As Drilled	<b>Database:</b>	Northeast District

<b>Project</b>	Doddridge County, WV		
<b>Map System:</b>	US State Plane 1927 (Exact solution)	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD 1927 (NADCON CONUS)		
<b>Map Zone:</b>	West Virginia North 4701		

<b>Site</b>	OXF43				
<b>Site Position:</b>		<b>Northing:</b>	241,913.00 usft	<b>Latitude:</b>	39° 9' 25.027 N
<b>From:</b>	Map	<b>Easting:</b>	1,633,421.76 usft	<b>Longitude:</b>	80° 47' 33.846 W
<b>Position Uncertainty:</b>	0.00 ft	<b>Slot Radius:</b>	13-3/16 "	<b>Grid Convergence:</b>	-0.82 °

<b>Well</b>	#516233 -MRC - Slot 516233					
<b>Well Position</b>	<b>+N/-S</b>	0.00 ft	<b>Northing:</b>	241,963.12 usft	<b>Latitude:</b>	39° 9' 25.514 N
	<b>+E/-W</b>	0.00 ft	<b>Easting:</b>	1,633,365.97 usft	<b>Longitude:</b>	80° 47' 34.563 W
<b>Position Uncertainty</b>		0.00 ft	<b>Wellhead Elevation:</b>	0.00 ft	<b>Ground Level:</b>	1,229.00 ft

<b>Wellbore</b>	Main				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	HDGM	10/2/2017	-7.77	66.42	51,927

<b>Design</b>	516233 As Drilled				
<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>	
	0.00	0.00	0.00		312.740

<b>Survey Program</b>	<b>Date</b>	10/25/2017			
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
100.00	1,712.00	516233 Inter.Gyro (Main)	GYD_DP_MS	Gyrodata gyro-compassing and dip	
1,774.00	14,938.00	Survey #3 SDI MWD (Main)	SDI MWD	SDI MWD - Standard ver 1.0.1	

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<b>Survey</b>										
<b>Measured Depth (ft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Vertical Section (ft)</b>	<b>Dogleg Rate (°/100usft)</b>	<b>Build Rate (°/100usft)</b>	<b>Turn Rate (°/100usft)</b>	
0.00	0.000	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.540	157.890	100.00	-0.44	0.18	-0.43	0.54	0.54	0.00	
200.00	0.590	178.340	199.99	-1.39	0.37	-1.21	0.21	0.05	20.45	
300.00	0.690	187.770	299.99	-2.50	0.30	-1.92	0.14	0.10	9.43	
400.00	0.670	194.870	399.98	-3.66	0.07	-2.54	0.09	-0.02	7.10	
500.00	0.700	203.650	499.97	-4.79	-0.32	-3.01	0.11	0.03	8.78	
600.00	0.690	208.070	599.97	-5.88	-0.85	-3.36	0.05	-0.01	4.42	
700.00	0.660	210.060	699.96	-6.91	-1.42	-3.64	0.04	-0.03	1.99	
800.00	0.560	214.450	799.96	-7.81	-1.99	-3.84	0.11	-0.10	4.39	
900.00	0.560	202.100	899.95	-8.66	-2.45	-4.08	0.12	0.00	-12.35	



<b>Company:</b>	EQT PRODUCTION	<b>Local Co-ordinate Reference:</b>	Well #516233 -MRC - Slot 516233
<b>Project:</b>	Doddridge County, WV	<b>TVD Reference:</b>	GL 1229' & 16' KB @ 1245.00ft (SAV 654)
<b>Site:</b>	OXF43	<b>MD Reference:</b>	GL 1229' & 16' KB @ 1245.00ft (SAV 654)
<b>Well:</b>	#516233 -MRC	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Main	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	516233 As Drilled	<b>Database:</b>	Northeast District

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
1,000.00	0.520	201.550	999.95	-9.54	-2.80	-4.42	0.04	-0.04	-0.55
1,100.00	0.560	198.480	1,099.94	-10.42	-3.12	-4.78	0.05	0.04	-3.07
1,200.00	0.550	201.240	1,199.94	-11.33	-3.45	-5.16	0.03	-0.01	2.76
1,300.00	0.680	201.290	1,299.93	-12.33	-3.84	-5.55	0.13	0.13	0.05
1,400.00	0.450	194.570	1,399.93	-13.27	-4.15	-5.95	0.24	-0.23	-6.72
1,500.00	0.170	165.140	1,499.93	-13.79	-4.21	-6.26	0.31	-0.28	-29.43
1,600.00	0.170	107.630	1,599.93	-13.98	-4.03	-6.52	0.16	0.00	-57.51
1,700.00	0.190	110.100	1,699.93	-14.08	-3.74	-6.81	0.02	0.02	2.47
1,712.00	0.200	89.710	1,711.93	-14.09	-3.70	-6.85	0.58	0.08	-169.92
1,774.00	0.910	229.520	1,773.92	-14.41	-3.96	-6.87	1.73	1.15	225.51
<b>KOP as Drilled: 1774' MD- 1773.9' TVD</b>									
1,805.00	1.870	235.670	1,804.91	-14.85	-4.57	-6.72	3.13	3.10	19.84
1,837.00	2.640	239.510	1,836.89	-15.52	-5.64	-6.39	2.45	2.41	12.00
1,900.00	4.220	240.690	1,899.77	-17.39	-8.91	-5.26	2.51	2.51	1.87
1,964.00	6.380	235.150	1,963.50	-20.58	-13.88	-3.77	3.46	3.38	-8.66
2,027.00	8.850	231.140	2,025.94	-25.62	-20.53	-2.31	4.01	3.92	-6.37
2,090.00	11.110	230.360	2,087.98	-32.53	-28.98	-0.80	3.59	3.59	-1.24
2,153.00	12.820	225.140	2,149.61	-41.34	-38.61	0.30	3.21	2.71	-8.29
2,217.00	14.290	219.790	2,211.83	-52.41	-48.69	0.19	3.02	2.30	-8.36
2,281.00	16.590	215.880	2,273.52	-65.89	-59.11	-1.31	3.94	3.59	-6.11
2,344.00	19.160	213.010	2,333.47	-81.85	-70.01	-4.13	4.31	4.08	-4.56
2,407.00	20.980	208.480	2,392.65	-100.43	-81.02	-8.66	3.80	2.89	-7.19
2,471.00	22.570	204.870	2,452.08	-121.65	-91.65	-15.25	3.25	2.48	-5.66
2,534.00	23.940	201.260	2,509.96	-144.53	-101.37	-23.64	3.14	2.17	-5.99
2,597.00	24.860	199.120	2,567.33	-168.96	-110.34	-33.62	2.03	1.46	-3.40
2,660.00	24.840	196.720	2,624.50	-194.14	-118.49	-44.74	1.60	-0.03	-3.61
2,724.00	25.870	196.590	2,682.33	-220.40	-126.34	-56.79	1.61	1.61	-0.20
2,787.00	26.400	195.940	2,738.89	-247.04	-134.11	-69.16	0.96	0.84	-0.20
2,850.00	28.010	195.790	2,794.92	-274.74	-141.99	-82.18	2.56	2.56	-0.24
2,914.00	30.260	197.630	2,850.82	-304.58	-150.96	-95.84	3.78	3.52	2.88
2,977.00	32.550	199.560	2,904.59	-335.68	-161.44	-109.24	3.97	3.63	3.06
3,038.00	34.810	201.420	2,955.35	-367.36	-173.30	-122.04	4.07	3.70	3.05
3,101.00	36.920	200.800	3,006.40	-401.79	-186.59	-135.65	3.40	3.35	-0.98
3,164.00	38.310	197.890	3,056.31	-438.07	-199.31	-150.92	3.58	2.21	-4.62
3,227.00	38.110	194.230	3,105.82	-475.50	-210.09	-168.41	3.61	-0.32	-5.81
3,291.00	38.420	193.280	3,156.07	-514.00	-219.51	-187.62	1.04	0.48	-1.48
3,354.00	39.440	196.140	3,205.08	-552.27	-229.57	-206.21	3.28	1.62	4.54
3,417.00	38.860	194.560	3,253.94	-590.63	-240.10	-224.50	1.83	-0.92	-2.51
3,480.00	41.320	194.540	3,302.13	-629.89	-250.29	-243.67	3.90	3.90	-0.03
3,543.00	41.710	194.930	3,349.30	-670.28	-260.91	-263.27	0.74	0.62	0.62
3,606.00	40.880	196.130	3,396.64	-710.34	-272.04	-282.29	1.82	-1.32	1.90
3,669.00	41.080	197.190	3,444.20	-749.91	-283.89	-300.45	1.15	0.32	1.68
3,733.00	41.330	198.590	3,492.35	-790.03	-296.84	-318.16	1.49	0.39	2.19

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<b>Project:</b>	Doddridge County, WV	<b>TVD Reference:</b>	GL 1229' & 16' KB @ 1245.00ft (SAV 654)
<b>Site:</b>	OXF43	<b>MD Reference:</b>	GL 1229' & 16' KB @ 1245.00ft (SAV 654)
<b>Well:</b>	#516233 -MRC	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Main	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	516233 As Drilled	<b>Database:</b>	Northeast District

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
3,796.00	42.140	198.950	3,539.36	-829.74	-310.33	-335.20	1.34	1.29	0.57
3,860.00	41.420	197.670	3,587.09	-870.22	-323.73	-352.83	1.74	-1.13	-2.00
3,923.00	40.990	196.640	3,634.49	-909.87	-335.97	-370.75	1.28	-0.68	-1.63
3,985.00	40.660	196.140	3,681.41	-948.76	-347.41	-388.74	0.75	-0.53	-0.81
4,049.00	41.660	197.390	3,729.59	-989.09	-359.57	-407.19	2.02	1.56	1.95
4,112.00	42.040	197.110	3,776.52	-1,029.23	-372.03	-425.28	0.67	0.60	-0.44
4,176.00	41.730	197.120	3,824.16	-1,070.07	-384.61	-443.76	0.48	-0.48	0.02
4,239.00	41.210	196.900	3,871.37	-1,109.96	-396.81	-461.87	0.86	-0.83	-0.35
4,302.00	40.390	196.270	3,919.06	-1,149.41	-408.56	-480.01	1.46	-1.30	-1.00
4,364.00	40.790	195.500	3,966.14	-1,188.21	-419.60	-498.23	1.03	0.65	-1.24
4,428.00	40.370	196.040	4,014.75	-1,228.28	-430.92	-517.12	0.86	-0.66	0.84
4,492.00	40.680	199.130	4,063.40	-1,267.91	-443.48	-534.79	3.17	0.48	4.83
4,555.00	41.230	198.810	4,110.98	-1,306.96	-456.90	-551.43	0.93	0.87	-0.51
4,618.00	41.260	197.670	4,158.35	-1,346.41	-469.90	-568.65	1.19	0.05	-1.81
4,681.00	40.660	196.730	4,205.93	-1,385.86	-482.12	-586.46	1.37	-0.95	-1.49
4,744.00	40.600	197.190	4,253.74	-1,425.10	-494.08	-604.30	0.48	-0.10	0.73
4,807.00	39.070	197.580	4,302.12	-1,463.61	-506.14	-621.58	2.46	-2.43	0.62
4,870.00	35.450	197.770	4,352.25	-1,499.95	-517.72	-637.74	5.75	-5.75	0.30
4,933.00	31.640	197.020	4,404.75	-1,533.16	-528.13	-652.63	6.08	-6.05	-1.19
4,997.00	28.660	197.450	4,460.09	-1,563.86	-537.65	-666.47	4.67	-4.66	0.67
5,060.00	30.120	197.620	4,514.98	-1,593.34	-546.97	-679.64	2.32	2.32	0.27
5,122.00	33.280	197.030	4,567.72	-1,624.43	-556.66	-693.63	5.12	5.10	-0.95
5,186.00	36.800	194.530	4,620.11	-1,659.79	-566.61	-710.31	5.94	5.50	-3.88
5,249.00	39.790	194.890	4,669.55	-1,697.55	-576.53	-728.65	4.76	4.75	0.57
5,312.00	41.530	197.020	4,717.35	-1,737.01	-587.83	-747.14	3.53	2.76	3.38
5,375.00	40.240	195.670	4,764.97	-1,776.57	-599.44	-765.46	2.48	-2.05	-2.14
5,439.00	39.020	193.730	4,814.27	-1,816.05	-609.80	-784.64	2.71	-1.91	-3.03
5,502.00	39.510	193.920	4,863.04	-1,854.77	-619.33	-803.92	0.80	0.78	0.30
5,565.00	40.410	194.940	4,911.33	-1,893.95	-629.42	-823.10	1.77	1.43	1.62
5,629.00	41.840	197.220	4,959.54	-1,934.39	-641.08	-841.98	3.24	2.23	3.56
5,691.00	42.510	197.910	5,005.49	-1,974.07	-653.65	-859.68	1.31	1.08	1.11
5,754.00	43.720	197.140	5,051.48	-2,015.13	-666.61	-878.03	2.09	1.92	-1.22
5,818.00	44.560	195.430	5,097.41	-2,057.91	-679.10	-897.89	2.28	1.31	-2.67
5,881.00	44.130	193.650	5,142.47	-2,100.53	-690.16	-918.69	2.09	-0.68	-2.83
5,944.00	44.100	191.980	5,187.70	-2,143.29	-699.89	-940.57	1.85	-0.05	-2.65
6,007.00	44.320	193.160	5,232.86	-2,186.17	-709.45	-962.64	1.35	0.35	1.87
6,070.00	44.370	193.680	5,277.91	-2,229.00	-719.67	-984.21	0.58	0.08	0.83
6,102.00	43.880	194.410	5,300.88	-2,250.61	-725.07	-994.91	2.21	-1.53	2.28
6,148.00	42.720	192.090	5,334.36	-2,281.31	-732.31	-1,010.43	4.28	-2.52	-5.04
6,211.00	43.940	192.300	5,380.19	-2,323.57	-741.44	-1,032.40	1.95	1.94	0.33
6,275.00	45.420	193.480	5,425.69	-2,367.43	-751.49	-1,054.79	2.65	2.31	1.84
6,337.00	44.380	198.460	5,469.62	-2,409.48	-763.50	-1,074.50	5.91	-1.68	8.03
6,401.00	41.830	201.150	5,516.35	-2,450.63	-778.29	-1,091.56	4.91	-3.98	4.20

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<b>Company:</b>	EQT PRODUCTION	<b>Local Co-ordinate Reference:</b>	Well #516233 -MRC - Slot 516233
<b>Project:</b>	Doddridge County, WV	<b>TVD Reference:</b>	GL 1229' & 16' KB @ 1245.00ft (SAV 654)
<b>Site:</b>	OXF43	<b>MD Reference:</b>	GL 1229' & 16' KB @ 1245.00ft (SAV 654)
<b>Well:</b>	#516233 -MRC	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Main	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	516233 As Drilled	<b>Database:</b>	Northeast District

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
6,464.00	42.530	201.090	5,563.04	-2,490.09	-793.54	-1,107.15	1.11	1.11	-0.10	
6,527.00	44.390	200.280	5,608.76	-2,530.63	-808.84	-1,123.42	3.08	2.95	-1.29	
6,591.00	44.580	199.590	5,654.42	-2,572.79	-824.13	-1,140.81	0.81	0.30	-1.08	
6,623.00	44.680	199.330	5,677.20	-2,593.98	-831.62	-1,149.69	0.65	0.31	-0.81	
6,654.00	42.780	201.120	5,699.60	-2,614.09	-839.02	-1,157.90	7.31	-6.13	5.77	
6,686.00	40.570	202.910	5,723.50	-2,633.82	-846.99	-1,165.44	7.84	-6.91	5.59	
6,718.00	39.500	206.390	5,748.00	-2,652.52	-855.56	-1,171.83	7.75	-3.34	10.88	
6,750.00	38.330	209.290	5,772.90	-2,670.29	-864.94	-1,177.01	6.76	-3.66	9.06	
6,781.00	36.640	212.050	5,797.50	-2,686.52	-874.55	-1,180.96	7.69	-5.45	8.90	
6,813.00	34.140	215.440	5,823.59	-2,701.93	-884.83	-1,183.87	9.93	-7.81	10.59	
6,845.00	32.410	217.800	5,850.34	-2,716.03	-895.30	-1,185.75	6.75	-5.41	7.38	
6,876.00	31.960	220.470	5,876.58	-2,728.83	-905.71	-1,186.79	4.81	-1.45	8.61	
6,908.00	31.640	223.610	5,903.78	-2,741.36	-917.00	-1,187.00	5.27	-1.00	9.81	
6,940.00	30.760	226.860	5,931.15	-2,753.03	-928.76	-1,186.29	5.94	-2.75	10.16	
6,971.00	28.780	230.970	5,958.06	-2,763.15	-940.35	-1,184.65	9.17	-6.39	13.26	
7,003.00	27.930	236.990	5,986.23	-2,772.09	-952.62	-1,181.70	9.32	-2.66	18.81	
7,035.00	27.680	242.820	6,014.54	-2,779.57	-965.52	-1,177.30	8.53	-0.78	18.22	
7,067.00	27.740	247.050	6,042.87	-2,785.87	-978.99	-1,171.68	6.15	0.19	13.22	
7,098.00	29.510	250.450	6,070.09	-2,791.23	-992.83	-1,165.16	7.76	5.71	10.97	
7,130.00	31.580	253.200	6,097.65	-2,796.29	-1,008.28	-1,157.25	7.80	6.47	8.59	
7,161.00	32.950	257.620	6,123.86	-2,800.45	-1,024.29	-1,148.31	8.80	4.42	14.26	
7,193.00	33.130	262.850	6,150.69	-2,803.40	-1,041.47	-1,137.70	8.93	0.56	16.34	
7,225.00	34.070	269.280	6,177.35	-2,804.61	-1,059.11	-1,125.55	11.50	2.94	20.09	
7,257.00	35.010	276.210	6,203.72	-2,803.72	-1,077.21	-1,111.67	12.62	2.94	21.66	
7,288.00	35.110	282.250	6,229.11	-2,800.87	-1,094.76	-1,096.83	11.19	0.32	19.48	
7,320.00	36.130	285.820	6,255.12	-2,796.35	-1,112.84	-1,080.49	7.24	3.19	11.16	
7,351.00	37.730	289.660	6,279.90	-2,790.66	-1,130.57	-1,063.61	9.06	5.16	12.39	
7,383.00	39.800	292.720	6,304.86	-2,783.41	-1,149.24	-1,044.98	8.81	6.47	9.56	
7,415.00	41.990	295.710	6,329.05	-2,774.81	-1,168.33	-1,025.12	9.18	6.84	9.34	
7,446.01	43.950	298.350	6,351.73	-2,765.20	-1,187.15	-1,004.78	8.58	6.32	8.52	
7,478.01	45.910	301.560	6,374.39	-2,753.91	-1,206.71	-982.74	9.36	6.13	10.03	
7,509.00	47.520	303.650	6,395.64	-2,741.75	-1,225.71	-960.54	7.15	5.20	6.74	
7,541.00	50.350	307.070	6,416.66	-2,727.78	-1,245.37	-936.62	11.96	8.84	10.69	
7,572.00	52.790	310.200	6,435.93	-2,712.62	-1,264.33	-912.40	11.16	7.87	10.10	
7,604.00	54.280	312.510	6,454.95	-2,695.61	-1,283.64	-886.68	7.44	4.66	7.22	
7,635.00	54.660	314.930	6,472.97	-2,678.18	-1,301.87	-861.46	6.47	1.23	7.81	
7,667.00	55.200	315.090	6,491.35	-2,659.65	-1,320.39	-835.29	1.74	1.69	0.50	
7,699.00	57.260	316.720	6,509.14	-2,640.55	-1,338.89	-808.73	7.70	6.44	5.09	
7,731.00	60.040	318.360	6,525.79	-2,620.38	-1,357.33	-781.50	9.73	8.69	5.13	
7,762.00	62.320	318.490	6,540.73	-2,600.07	-1,375.36	-754.48	7.36	7.35	0.42	
7,794.00	65.190	319.620	6,554.88	-2,578.39	-1,394.16	-725.95		8.97	3.53	
7,826.00	67.100	321.010	6,567.82	-2,555.87	-1,412.85	-696.95		8.97	4.34	
7,858.00	69.570	322.060	6,579.63	-2,532.58	-1,431.34	-667.56		8.30	3.28	
7,889.00	71.900	323.160	6,589.86	-2,509.33	-1,449.11	-638.73		7.72	3.55	

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<b>Company:</b>	EQT PRODUCTION	<b>Local Co-ordinate Reference:</b>	Well #516233 -MRC - Slot 516233
<b>Project:</b>	Doddridge County, WV	<b>TVD Reference:</b>	GL 1229' & 16' KB @ 1245.00ft (SAV 654)
<b>Site:</b>	OXF43	<b>MD Reference:</b>	GL 1229' & 16' KB @ 1245.00ft (SAV 654)
<b>Well:</b>	#516233 -MRC	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Main	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	516233 As Drilled	<b>Database:</b>	Northeast District

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
7,921.00	73.570	324.540	6,599.36	-2,484.66	-1,467.13	-608.75	6.65	5.22	4.31
7,952.00	74.110	327.050	6,607.99	-2,460.03	-1,483.87	-579.74	7.97	1.74	8.10
7,984.00	74.550	329.460	6,616.63	-2,433.83	-1,500.08	-550.06	7.38	1.38	7.53
8,015.00	75.740	331.360	6,624.58	-2,407.78	-1,514.87	-521.51	7.06	3.84	6.13
8,046.00	77.360	334.110	6,631.79	-2,380.98	-1,528.68	-493.18	10.09	5.23	8.87
8,078.00	78.230	336.520	6,638.56	-2,352.57	-1,541.74	-464.31	7.85	2.72	7.53
8,110.00	81.020	337.360	6,644.32	-2,323.61	-1,554.06	-435.60	9.09	8.72	2.63
8,141.00	81.720	337.730	6,648.97	-2,295.28	-1,565.77	-407.78	2.55	2.26	1.19
8,173.00	83.030	337.530	6,653.22	-2,265.95	-1,577.84	-379.01	4.14	4.09	-0.63
8,205.00	86.270	337.080	6,656.20	-2,236.56	-1,590.13	-350.03	10.22	10.13	-1.41
8,236.00	88.260	337.830	6,657.68	-2,207.96	-1,602.01	-321.90	6.86	6.42	2.42
<b>LP as Drilled: 8236' MD- 6657.6' TVD</b>									
8,300.00	88.220	338.840	6,659.65	-2,148.52	-1,625.62	-264.22	1.58	-0.06	1.58
8,363.00	91.210	338.740	6,659.96	-2,089.79	-1,648.41	-207.62	4.75	4.75	-0.16
8,416.00	92.250	338.330	6,658.36	-2,040.49	-1,667.80	-159.93	2.11	1.96	-0.77
8,479.00	91.980	337.670	6,656.03	-1,982.12	-1,691.38	-102.99	1.13	-0.43	-1.05
8,542.00	90.840	336.910	6,654.48	-1,924.02	-1,715.69	-45.70	2.17	-1.81	-1.21
8,605.00	88.790	336.180	6,654.69	-1,866.23	-1,740.77	11.93	3.45	-3.25	-1.16
8,668.00	87.760	337.150	6,656.58	-1,808.41	-1,765.71	69.49	2.25	-1.63	1.54
8,731.00	87.620	337.820	6,659.12	-1,750.26	-1,789.82	126.66	1.09	-0.22	1.06
8,795.00	87.990	336.650	6,661.57	-1,691.29	-1,814.56	184.86	1.92	0.58	-1.83
8,858.00	89.130	337.420	6,663.16	-1,633.30	-1,839.13	242.26	2.18	1.81	1.22
8,921.00	88.660	337.040	6,664.37	-1,575.22	-1,863.51	299.58	0.96	-0.75	-0.60
8,984.00	87.040	336.980	6,666.74	-1,517.27	-1,888.10	356.97	2.57	-2.57	-0.10
9,048.00	86.670	337.370	6,670.25	-1,458.37	-1,912.89	415.15	0.84	-0.58	0.61
9,111.00	85.060	338.260	6,674.79	-1,400.19	-1,936.62	472.06	2.92	-2.56	1.41
9,175.00	85.430	337.840	6,680.10	-1,341.03	-1,960.46	529.72	0.87	0.58	-0.66
9,238.00	85.970	337.370	6,684.82	-1,282.95	-1,984.39	586.72	1.13	0.86	-0.75
9,302.00	85.570	336.580	6,689.54	-1,224.21	-2,009.36	644.92	1.38	-0.63	-1.23
9,365.00	84.970	336.990	6,694.74	-1,166.51	-2,034.11	702.25	1.15	-0.95	0.65
9,429.00	86.170	336.320	6,699.68	-1,107.92	-2,059.39	760.58	2.15	1.88	-1.05
9,492.00	87.420	335.740	6,703.20	-1,050.45	-2,084.94	818.36	2.19	1.98	-0.92
9,555.00	86.880	335.500	6,706.33	-993.14	-2,110.92	876.33	0.94	-0.86	-0.38
9,618.00	84.680	335.580	6,710.97	-935.95	-2,136.93	934.25	3.49	-3.49	0.13
9,682.00	84.940	335.420	6,716.76	-877.95	-2,163.36	993.02	0.48	0.41	-0.25
9,745.00	86.050	335.990	6,721.71	-820.71	-2,189.20	1,050.85	1.98	1.76	0.90
9,808.00	87.990	335.770	6,724.98	-763.29	-2,214.91	1,108.70	3.10	3.08	-0.35
9,871.00	88.720	336.290	6,726.79	-705.75	-2,240.49	1,166.54	1.42	1.16	0.83
9,934.00	89.090	335.880	6,727.99	-648.17	-2,266.03	1,224.37	0.88	0.59	0.59
9,998.00	89.560	335.490	6,728.75	-589.85	-2,292.38	1,283.30	0.95	0.73	0.73
10,061.00	89.900	334.570	6,729.04	-532.74	-2,318.97	1,341.60	1.56	0.54	0.54
10,123.00	89.230	334.290	6,729.52	-476.81	-2,345.73	1,399.20	1.17	-1.08	-1.08
10,186.00	88.660	336.360	6,730.68	-419.58	-2,372.03	1,457.36	3.41	0.99	0.99

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<b>Company:</b>	EQT PRODUCTION	<b>Local Co-ordinate Reference:</b>	Well #516233 -MRC - Slot 516233
<b>Project:</b>	Doddridge County, WV	<b>TVD Reference:</b>	GL 1229' & 16' KB @ 1245.00ft (SAV 654)
<b>Site:</b>	OXF43	<b>MD Reference:</b>	GL 1229' & 16' KB @ 1245.00ft (SAV 654)
<b>Well:</b>	#516233 -MRC	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Main	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	516233 As Drilled	<b>Database:</b>	Northeast District

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
10,249.00	88.690	335.110	6,732.13	-362.16	-2,397.91	1,515.34	1.98	0.05	-1.98	
10,313.00	88.960	336.530	6,733.45	-303.79	-2,424.12	1,574.20	2.26	0.42	2.22	
<b>Deepest Point @ 10313' MD - 6733.4' TVD</b>										
10,377.00	91.140	338.820	6,733.39	-244.59	-2,448.43	1,632.23	4.94	3.41	3.58	
10,440.00	92.180	339.700	6,731.56	-185.70	-2,470.73	1,688.57	2.16	1.65	1.40	
10,503.00	92.210	338.190	6,729.15	-126.95	-2,493.34	1,745.06	2.40	0.05	-2.40	
10,566.00	93.600	337.530	6,725.96	-68.67	-2,517.05	1,802.02	2.44	2.21	-1.05	
10,630.00	93.800	337.210	6,721.83	-9.72	-2,541.63	1,860.08	0.59	0.31	-0.50	
10,693.00	90.240	336.830	6,719.61	48.23	-2,566.21	1,917.46	5.68	-5.65	-0.60	
10,756.00	90.030	337.190	6,719.46	106.23	-2,590.81	1,974.89	0.66	-0.33	0.57	
10,820.00	90.940	337.430	6,718.92	165.27	-2,615.50	2,033.09	1.47	1.42	0.38	
10,883.00	91.140	335.520	6,717.77	223.02	-2,640.64	2,090.75	3.05	0.32	-3.03	
10,946.00	91.340	335.100	6,716.41	280.25	-2,666.95	2,148.92	0.74	0.32	-0.67	
11,009.00	91.610	334.480	6,714.79	337.23	-2,693.77	2,207.29	1.07	0.43	-0.98	
11,073.00	91.980	332.760	6,712.78	394.54	-2,722.20	2,267.05	2.75	0.58	-2.69	
11,136.00	91.910	333.190	6,710.65	450.62	-2,750.81	2,326.13	0.69	-0.11	0.68	
11,200.00	91.710	334.960	6,708.62	508.15	-2,778.77	2,385.71	2.78	-0.31	2.77	
11,264.00	92.450	334.940	6,706.30	566.09	-2,805.85	2,444.92	1.16	1.16	-0.03	
11,327.00	91.820	336.410	6,703.95	623.46	-2,831.78	2,502.90	2.54	-1.00	2.33	
11,390.00	91.600	336.010	6,702.07	681.08	-2,857.18	2,560.66	0.72	-0.35	-0.63	
11,453.00	91.270	336.580	6,700.50	738.75	-2,882.50	2,618.40	1.05	-0.52	0.90	
11,517.00	91.270	337.900	6,699.08	797.75	-2,907.26	2,676.62	2.06	0.00	2.06	
11,580.00	91.140	337.070	6,697.75	855.93	-2,931.38	2,733.82	1.33	-0.21	-1.32	
11,643.00	90.910	336.430	6,696.63	913.81	-2,956.24	2,791.36	1.08	-0.37	-1.02	
11,706.00	91.010	336.860	6,695.57	971.64	-2,981.21	2,848.95	0.70	0.16	0.68	
11,770.00	91.570	337.920	6,694.13	1,030.70	-3,005.81	2,907.10	1.87	0.88	1.66	
11,833.00	91.740	337.660	6,692.31	1,089.00	-3,029.61	2,964.15	0.49	0.27	-0.41	
11,897.00	91.510	336.930	6,690.50	1,148.02	-3,054.31	3,022.34	1.20	-0.36	-1.14	
11,960.00	92.360	336.760	6,688.37	1,205.91	-3,079.07	3,079.81	1.38	1.35	-0.27	
12,024.00	92.860	336.920	6,685.45	1,264.69	-3,104.21	3,138.17	0.82	0.78	0.25	
12,087.00	92.650	336.650	6,682.43	1,322.53	-3,129.02	3,195.64	0.54	-0.33	-0.43	
12,150.00	92.410	336.300	6,679.64	1,380.23	-3,154.14	3,253.25	0.67	-0.38	-0.56	
12,213.00	92.350	334.770	6,677.03	1,437.53	-3,180.21	3,311.28	2.43	-0.10	-2.43	
12,276.00	92.420	334.390	6,674.41	1,494.38	-3,207.23	3,369.71	0.61	0.11	-0.60	
12,340.00	90.200	335.210	6,672.94	1,552.27	-3,234.47	3,429.00	3.70	-3.47	1.28	
12,403.01	89.360	335.550	6,673.19	1,609.54	-3,260.71	3,487.15	1.44	-1.33	0.54	
12,466.01	89.430	336.070	6,673.85	1,667.00	-3,286.52	3,545.11	0.83	0.11	0.83	
12,529.00	89.460	336.720	6,674.46	1,724.72	-3,311.75	3,602.80	1.03	0.05	1.03	
12,592.00	89.730	338.010	6,674.91	1,782.86	-3,335.99	3,660.07	2.09	0.43	2.05	
12,655.00	90.000	337.860	6,675.05	1,841.25	-3,359.66	3,717.08	0.49	0.43	-0.24	
12,718.00	89.560	337.380	6,675.30	1,899.50	-3,383.64	3,774.23	1.03	-0.70	-0.76	
12,781.00	89.660	337.160	6,675.73	1,957.61	-3,407.99	3,831.54	0.38	0.16	-0.35	
12,845.00	92.110	338.480	6,674.74	2,016.86	-3,432.14	3,889.50	4.35	3.83	2.06	
12,908.00	91.950	337.460	6,672.51	2,075.22	-3,455.76	3,946.45		-0.25	-1.62	

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<b>Company:</b> EQT PRODUCTION	<b>Local Co-ordinate Reference:</b> Well #516233 -MRC - Slot 516233
<b>Project:</b> Doddridge County, WV	<b>TVD Reference:</b> GL 1229' & 16' KB @ 1245.00ft (SAV 654)
<b>Site:</b> OXF43	<b>MD Reference:</b> GL 1229' & 16' KB @ 1245.00ft (SAV 654)
<b>Well:</b> #516233 -MRC	<b>North Reference:</b> Grid
<b>Wellbore:</b> Main	<b>Survey Calculation Method:</b> Minimum Curvature
<b>Design:</b> 516233 As Drilled	<b>Database:</b> Northeast District

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
12,971.00	91.980	337.260	6,670.34	2,133.34	-3,480.00	4,003.69	0.32	0.05	-0.32
13,034.00	91.820	336.870	6,668.26	2,191.32	-3,504.53	4,061.06	0.67	-0.25	-0.62
13,097.00	91.820	336.560	6,666.26	2,249.16	-3,529.42	4,118.60	0.49	0.00	-0.49
13,160.00	90.710	337.380	6,664.86	2,307.13	-3,554.06	4,176.03	2.19	-1.76	1.30
13,223.00	90.370	337.520	6,664.27	2,365.31	-3,578.22	4,233.26	0.58	-0.54	0.22
13,287.00	89.970	337.110	6,664.08	2,424.36	-3,602.91	4,291.46	0.89	-0.63	-0.64
13,349.00	89.700	337.370	6,664.26	2,481.53	-3,626.89	4,347.88	0.60	-0.44	0.42
13,413.00	90.400	337.420	6,664.20	2,540.61	-3,651.49	4,406.05	1.10	1.09	0.08
13,477.00	91.240	337.480	6,663.29	2,599.71	-3,676.03	4,464.18	1.32	1.31	0.09
13,540.00	90.900	336.400	6,662.11	2,657.67	-3,700.70	4,521.63	1.80	-0.54	-1.71
13,603.00	90.470	335.480	6,661.36	2,715.19	-3,726.39	4,579.53	1.61	-0.68	-1.46
13,666.00	90.200	335.100	6,660.99	2,772.42	-3,752.72	4,637.72	0.74	-0.43	-0.60
13,729.00	90.770	335.420	6,660.46	2,829.63	-3,779.09	4,695.91	1.04	0.90	0.51
13,792.00	91.180	335.320	6,659.38	2,886.89	-3,805.34	4,754.05	0.67	0.65	-0.16
13,855.00	90.870	334.760	6,658.26	2,944.00	-3,831.92	4,812.33	1.02	-0.49	-0.89
13,919.00	90.400	334.130	6,657.55	3,001.74	-3,859.52	4,871.79	1.23	-0.73	-0.98
13,982.00	90.600	334.090	6,657.00	3,058.41	-3,887.03	4,930.46	0.32	0.32	-0.06
14,045.00	91.800	335.360	6,655.68	3,115.36	-3,913.92	4,988.86	2.77	1.90	2.02
14,106.00	91.040	335.010	6,654.17	3,170.71	-3,939.52	5,045.22	1.37	-1.25	-0.57
14,170.00	90.100	335.130	6,653.53	3,228.75	-3,966.49	5,104.42	1.48	-1.47	0.19
14,233.00	90.970	335.040	6,652.94	3,285.88	-3,993.03	5,162.68	1.39	1.38	-0.14
14,295.00	90.910	335.020	6,651.93	3,342.08	-4,019.20	5,220.04	0.10	-0.10	-0.03
14,358.00	91.070	337.360	6,650.84	3,399.70	-4,044.63	5,277.83	3.72	0.25	3.71
14,421.00	90.170	338.500	6,650.15	3,458.08	-4,068.30	5,334.83	2.31	-1.43	1.81
14,484.00	90.870	338.820	6,649.58	3,516.76	-4,091.22	5,391.49	1.22	1.11	0.51
14,548.00	90.770	338.320	6,648.67	3,576.33	-4,114.60	5,449.09	0.80	-0.16	-0.78
14,611.00	90.770	338.700	6,647.82	3,634.95	-4,137.68	5,505.82	0.60	0.00	0.60
14,674.00	90.870	338.740	6,646.92	3,693.64	-4,160.54	5,562.45	0.17	0.16	0.06
14,738.00	90.800	339.080	6,645.99	3,753.35	-4,183.57	5,619.88	0.54	-0.11	0.53
14,801.00	90.970	338.040	6,645.01	3,811.98	-4,206.60	5,676.58	1.67	0.27	-1.65
14,864.00	90.740	337.650	6,644.07	3,870.33	-4,230.35	5,733.63	0.72	-0.37	-0.62
<b>Survey @ 14864' MD- 6644' TVD</b>									
14,938.00	90.740	337.650	6,643.12	3,938.76	-4,258.49	5,800.74	0.00	0.00	0.00
<b>Survey Projected to: 14938' 6643.1' TVD</b>									

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<b>Company:</b>	EQT PRODUCTION	<b>Local Co-ordinate Reference:</b>	Well #516233 -MRC - Slot 516233
<b>Project:</b>	Doddridge County, WV	<b>TVD Reference:</b>	GL 1229' & 16' KB @ 1245.00ft (SAV 654)
<b>Site:</b>	OXF43	<b>MD Reference:</b>	GL 1229' & 16' KB @ 1245.00ft (SAV 654)
<b>Well:</b>	#516233 -MRC	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Main	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	516233 As Drilled	<b>Database:</b>	Northeast District

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
516233 Surface Location - actual wellpath hits target center - Point	0.000	360.000	0.00	0.00	0.00	241,963.12	1,633,365.97	39° 9' 25.514 N	80° 47' 34.563 W
516233 KOP As Drilled - actual wellpath hits target center - Point	0.000	0.000	1,773.92	-14.41	-3.96	241,948.71	1,633,362.00	39° 9' 25.371 N	80° 47' 34.611 W
516233 BHL As Drilled - actual wellpath hits target center - Point	0.000	360.000	6,643.12	3,938.76	-4,258.49	245,901.87	1,629,107.49	39° 10' 3.832 N	80° 48' 29.347 W
516233 LP As Drilled - actual wellpath hits target center - Point	0.000	0.000	6,657.68	-2,207.96	-1,602.01	239,755.16	1,631,763.96	39° 9' 3.464 N	80° 47' 54.493 W

Design Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
1,774.00	1,773.92	-14.41	-3.96	KOP as Drilled: 1774' MD- 1773.9' TVD
8,236.00	6,657.68	-2,207.96	-1,602.01	LP as Drilled: 8236' MD- 6657.6' TVD
10,313.00	6,733.45	-303.79	-2,424.12	Deepest Point @ 10313' MD- 6733.4' TVD
14,864.00	6,644.07	3,870.33	-4,230.35	Survey @ 14864' MD- 6644' TVD
14,938.00	6,643.12	3,938.76	-4,258.49	Survey Projected to: 14938' 6643.1' TVD

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

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