

103-02971

PHOENIX
TECHNOLOGY SERVICES



EQT Production - Marcellus

Wetzel County, WV
Wetzel County 514385
Well #514385

Main Wellbore

Design: 514385 As Drilled Surveys

Standard Survey Report

13 January, 2014

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Office of Oil and Gas

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WV Department of
Environmental Protection



Where energy meets innovation.

01/23/2015

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Wetzel County 514385
Company:	EQT Production - Marcellus	TVD Reference:	KB @ 1346.0usft
Project:	Wetzel County, WV	MD Reference:	KB @ 1346.0usft
Site:	Wetzel County 514385	North Reference:	Grid
Well:	Well #514385	Survey Calculation Method:	Minimum Curvature
Wellbore:	Main Wellbore		
Design:	514385 As Drilled Surveys		

Project Wetzel County, WV

Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	West Virginia North 4701		Using geodetic scale factor

Site Wetzel County 514385

Site Position:		Northing:	385,183.00 usft	Latitude:	39.55
From:	Map	Easting:	1,678,301.00 usft	Longitude:	-80.64
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-0.73 °

Well Well #514385

Well Position	+N/-S	0.0 usft	Northing:	385,183.00 usft	Latitude:	39° 33' 6.999 N
	+E/-W	0.0 usft	Easting:	1,678,301.00 usft	Longitude:	80° 38' 27.250 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	1,330.0 usft

Wellbore Main Wellbore

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010_14	12/18/2013	-8.61	67.05	52,470

Design 514385 As Drilled Surveys

Audit Notes:

Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
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Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	188.73

Survey Program Date 1/13/2014

From (')	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	4,100.0	514385 Gyrodata Gyros (Main Wellbore)	GYD_DP_MS	Gyrodata gyro-compassing and drop
0.00	11,616.0	514385 MWD (Main Wellbore)	MWD	MWD - Standard

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)
0.0	0.00	0.00	0.0	-1,346.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.21	163.96	100.0	-1,246.0	-0.2	0.1	0.2	0.21	0.21	0.00
200.0	0.22	175.94	200.0	-1,146.0	-0.5	0.1	0.5	0.05	0.01	11.98
300.0	0.21	176.45	300.0	-1,046.0	-0.9	0.1	0.9	0.01	-0.01	0.51
400.0	0.20	161.93	400.0	-946.0	-1.3	0.2	1.2	0.05	-0.01	-14.52
500.0	0.17	160.68	500.0	-846.0	-1.6	0.3	1.5	0.03	0.00	-1.25
600.0	0.17	166.63	600.0	-746.0	-1.9	0.4	1.8	0.02	0.00	0.00
700.0	0.21	152.74	700.0	-646.0	-2.2	0.5	2.1	0.05	0.04	12.89

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Wellbore:	Main Wellbore		
Design:	514385 As Drilled Surveys		

Survey											
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800.0	0.16	138.18	800.0	-546.0	-2.4	0.7	2.3	0.07	-0.05	-14.56	
900.0	0.14	153.30	900.0	-446.0	-2.6	0.8	2.5	0.04	-0.02	15.12	
1,000.0	0.18	139.63	1,000.0	-346.0	-2.9	1.0	2.7	0.06	0.04	-13.67	
1,100.0	0.13	123.02	1,100.0	-246.0	-3.1	1.2	2.8	0.07	-0.05	-16.61	
1,200.0	0.12	111.40	1,200.0	-146.0	-3.2	1.4	2.9	0.03	-0.01	-11.62	
1,300.0	0.13	104.59	1,300.0	-46.0	-3.2	1.6	2.9	0.02	0.01	-6.81	
1,400.0	0.18	90.15	1,400.0	54.0	-3.3	1.9	2.9	0.06	0.05	-14.44	
1,500.0	0.31	134.67	1,500.0	154.0	-3.4	2.2	3.1	0.22	0.13	44.52	
1,600.0	0.34	123.33	1,600.0	254.0	-3.8	2.6	3.3	0.07	0.03	-11.34	
1,700.0	0.32	123.97	1,700.0	354.0	-4.1	3.1	3.6	0.02	-0.02	0.64	
1,800.0	0.44	113.46	1,800.0	454.0	-4.4	3.7	3.8	0.14	0.12	-10.51	
1,900.0	0.61	108.77	1,900.0	554.0	-4.7	4.6	4.0	0.18	0.17	-4.69	
2,000.0	0.64	108.50	2,000.0	654.0	-5.1	5.6	4.2	0.03	0.03	-0.27	
2,100.0	0.83	115.37	2,100.0	754.0	-5.6	6.8	4.5	0.21	0.19	6.87	
2,200.0	0.87	111.93	2,200.0	854.0	-6.2	8.1	4.9	0.06	0.04	-3.44	
2,300.0	0.72	111.86	2,299.9	953.9	-6.7	9.4	5.2	0.15	-0.15	-0.07	
2,400.0	0.72	116.97	2,399.9	1,053.9	-7.2	10.6	5.5	0.06	0.00	5.11	
2,500.0	0.69	113.76	2,499.9	1,153.9	-7.7	11.7	5.9	0.05	-0.03	-3.21	
2,600.0	0.49	117.02	2,599.9	1,253.9	-8.2	12.6	6.2	0.20	-0.20	3.26	
2,700.0	0.40	123.16	2,699.9	1,353.9	-8.6	13.3	6.4	0.10	-0.09	6.14	
2,800.0	0.26	133.57	2,799.9	1,453.9	-8.9	13.7	6.7	0.15	-0.14	10.41	
2,900.0	0.20	96.67	2,899.9	1,553.9	-9.1	14.1	6.8	0.16	-0.06	-36.90	
3,000.0	0.15	122.68	2,999.9	1,653.9	-9.2	14.4	6.9	0.09	-0.05	26.01	
3,100.0	0.18	123.34	3,099.9	1,753.9	-9.3	14.6	7.0	0.03	0.03	0.66	
3,200.0	0.18	128.09	3,199.9	1,853.9	-9.5	14.9	7.2	0.01	0.00	4.75	
3,300.0	0.09	137.41	3,299.9	1,953.9	-9.7	15.0	7.3	0.09	-0.09	9.32	
3,400.0	0.07	224.27	3,399.9	2,053.9	-9.8	15.0	7.4	0.11	-0.02	86.86	
3,500.0	0.11	271.56	3,499.9	2,153.9	-9.8	14.9	7.4	0.08	0.04	47.29	
3,600.0	0.24	253.60	3,599.9	2,253.9	-9.9	14.6	7.5	0.14	0.13	-17.96	
3,700.0	0.09	264.99	3,699.9	2,353.9	-9.9	14.3	7.6	0.15	-0.15	11.39	
3,800.0	0.11	250.15	3,799.9	2,453.9	-10.0	14.2	7.7	0.03	0.02	-14.84	
3,900.0	0.20	265.79	3,899.9	2,553.9	-10.0	13.9	7.8	0.10	0.09	15.64	
4,000.0	0.24	286.71	3,999.9	2,653.9	-10.0	13.5	7.8	0.09	0.04	20.92	
Gyro Tie In MD=4100'											
4,100.0	0.35	305.80	4,099.9	2,753.9	-9.7	13.1	7.6	0.15	0.11	19.09	
4,114.0	0.40	255.20	4,113.9	2,767.9	-9.7	13.0	7.6	2.31	0.36	-361.43	
4,145.0	3.50	262.90	4,144.9	2,798.9	-9.9	12.0	7.9	10.01	10.00	24.84	
4,177.0	7.90	261.50	4,176.7	2,830.7	-10.3	8.8	8.9	13.76	13.75	-4.38	
4,209.0	11.60	261.30	4,208.3	2,862.3	-11.1	3.5	10.5	11.56	11.56	-0.63	
4,240.0	14.30	256.80	4,238.5	2,892.5	-12.5	-3.4	12.8	9.29	8.71	-14.52	
4,272.0	16.20	250.80	4,269.3	2,923.3	-14.8	-11.4	16.4	7.71	5.94	-18.75	
4,304.0	19.30	247.60	4,299.8	2,953.8	-18.3	-20.5	21.2	10.15	9.69	-10.00	
4,335.0	21.50	247.10	4,328.9	2,982.9	-22.5	-30.5	26.9	7.12	7.10	-1.61	



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Survey Report



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Project:	Wetzel County, WV	MD Reference:	KB @ 1346.0usft
Site:	Wetzel County 514385	North Reference:	Grid
Well:	Well #514385	Survey Calculation Method:	Minimum Curvature
Wellbore:	Main Wellbore		
Design:	514385 As Drilled Surveys		

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)
4,367.0	23.70	246.10	4,358.4	3,012.4	-27.4	-41.8	33.4	6.98	6.88	-3.13
4,399.0	26.50	245.50	4,387.4	3,041.4	-32.9	-54.2	40.8	8.79	8.75	-1.88
4,430.0	30.00	243.80	4,414.7	3,068.7	-39.2	-67.4	49.0	11.58	11.29	-5.48
4,462.0	33.60	244.50	4,441.9	3,095.9	-46.6	-82.6	58.6	11.31	11.25	2.19
4,494.0	36.60	245.80	4,468.1	3,122.1	-54.3	-99.3	68.8	9.66	9.38	4.06
4,525.0	40.00	247.20	4,492.4	3,146.4	-62.0	-116.9	79.0	11.32	10.97	4.52
4,589.0	40.50	247.80	4,541.2	3,195.2	-77.8	-155.1	100.4	0.99	0.78	0.94
4,652.0	40.60	247.50	4,589.1	3,243.1	-93.4	-193.0	121.6	0.35	0.16	-0.48
4,716.0	41.90	247.40	4,637.2	3,291.2	-109.5	-232.0	143.5	2.03	2.03	-0.16
4,779.0	39.60	246.30	4,684.9	3,338.9	-125.7	-269.8	165.2	3.82	-3.65	-1.75
4,842.0	39.30	245.20	4,733.6	3,387.6	-142.1	-306.3	187.0	1.21	-0.48	-1.75
4,906.0	40.10	245.40	4,782.8	3,436.8	-159.2	-343.4	209.5	1.27	1.25	0.31
4,969.0	40.20	245.00	4,831.0	3,485.0	-176.3	-380.3	231.9	0.44	0.16	-0.63
5,032.0	42.10	246.10	4,878.4	3,532.4	-193.4	-418.0	254.6	3.23	3.02	1.75
5,096.0	41.30	244.40	4,926.2	3,580.2	-211.2	-456.7	278.1	2.16	-1.25	-2.66
5,159.0	43.80	245.50	4,972.6	3,626.6	-229.3	-495.3	301.8	4.14	3.97	1.75
5,222.0	42.10	243.60	5,018.7	3,672.7	-247.7	-534.0	325.9	3.39	-2.70	-3.02
5,286.0	41.30	243.80	5,066.5	3,720.5	-266.6	-572.2	350.3	1.27	-1.25	0.31
5,349.0	42.90	247.40	5,113.3	3,767.3	-284.0	-610.7	373.4	4.60	2.54	5.71
5,412.0	41.90	248.20	5,159.8	3,813.8	-300.0	-650.0	395.2	1.80	-1.59	1.27
5,475.0	42.20	250.30	5,206.6	3,860.6	-315.0	-689.5	416.0	2.28	0.48	3.33
5,539.0	40.10	247.70	5,254.8	3,908.8	-330.0	-728.8	436.9	4.23	-3.28	-4.06
5,602.0	39.40	246.30	5,303.2	3,957.2	-345.8	-765.9	458.0	1.80	-1.11	-2.22
5,665.0	40.80	248.80	5,351.4	4,005.4	-361.3	-803.4	479.0	3.39	2.22	3.97
5,728.0	40.60	247.90	5,399.2	4,053.2	-376.4	-841.5	499.8	0.98	-0.32	-1.43
5,792.0	41.40	248.40	5,447.5	4,101.5	-392.0	-880.5	521.2	1.35	1.25	0.78
5,855.0	41.40	246.70	5,494.7	4,148.7	-408.0	-919.0	542.7	1.78	0.00	-2.70
5,919.0	41.40	247.00	5,542.7	4,196.7	-424.6	-957.9	565.1	0.31	0.00	0.47
5,982.0	40.90	246.30	5,590.2	4,244.2	-441.0	-996.0	587.1	1.08	-0.79	-1.11
6,045.0	39.80	247.30	5,638.2	4,292.2	-457.1	-1,033.5	608.7	2.03	-1.75	1.59
6,109.0	39.30	246.60	5,687.5	4,341.5	-473.0	-1,071.0	630.2	1.05	-0.78	-1.09
6,172.0	42.50	249.70	5,735.1	4,389.1	-488.4	-1,109.3	651.1	6.01	5.08	4.92
6,235.0	42.20	249.30	5,781.7	4,435.7	-503.2	-1,149.0	671.8	0.64	-0.48	-0.63
6,299.0	42.00	248.60	5,829.2	4,483.2	-518.6	-1,189.1	693.1	0.80	-0.31	-1.09
6,362.0	42.40	249.40	5,875.9	4,529.9	-533.8	-1,228.6	714.1	1.06	0.63	1.27
6,426.0	42.00	247.70	5,923.3	4,577.3	-549.5	-1,268.6	735.7	1.89	-0.63	-2.66
6,489.0	41.50	246.70	5,970.3	4,624.3	-565.8	-1,307.2	757.7	1.32	-0.79	-1.59
6,552.0	41.50	246.20	6,017.5	4,671.5	-582.4	-1,345.5	780.0	0.53	0.00	-0.79
6,615.0	42.40	249.60	6,064.3	4,718.3	-598.3	-1,384.5	801.5	3.88	1.43	5.40
6,679.0	39.70	248.50	6,112.6	4,766.6	-613.3	-1,423.8	822.3	4.37	-4.22	-1.72
6,742.0	39.00	249.00	6,161.3	4,815.3	-627.8	-1,461.0	842.3	1.22	-1.11	0.79
6,806.0	39.80	253.40	6,210.8	4,864.8	-640.8	-1,499.4	861.0	4.54	1.25	6.88



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6,869.0	39.50	251.70	6,259.3	4,913.3	-652.9	-1,537.8	878.8	1.79	-0.48	-2.70
6,932.0	40.50	251.40	6,307.5	4,961.5	-665.7	-1,576.2	897.3	1.62	1.59	-0.48
6,996.0	40.70	248.30	6,356.1	5,010.1	-680.1	-1,615.3	917.4	3.17	0.31	-4.84
7,059.0	41.80	246.40	6,403.5	5,057.5	-696.1	-1,653.6	939.0	2.65	1.75	-3.02
7,123.0	41.50	245.80	6,451.3	5,105.3	-713.3	-1,692.5	962.0	0.78	-0.47	-0.94
7,186.0	42.70	247.00	6,498.1	5,152.1	-730.2	-1,731.2	984.5	2.29	1.90	1.90
7,249.0	42.80	245.20	6,544.3	5,198.3	-747.5	-1,770.3	1,007.6	1.95	0.16	-2.86
7,312.0	43.00	243.80	6,590.5	5,244.5	-766.0	-1,809.0	1,031.7	1.55	0.32	-2.22
7,376.0	41.50	242.70	6,637.9	5,291.9	-785.3	-1,847.4	1,056.7	2.61	-2.34	-1.72
7,439.0	41.70	243.00	6,685.0	5,339.0	-804.4	-1,884.7	1,081.2	0.45	0.32	0.48
7,502.0	42.40	245.20	6,731.7	5,385.7	-822.9	-1,922.6	1,105.2	2.59	1.11	3.49
7,534.0	41.20	243.90	6,755.6	5,409.6	-832.0	-1,941.9	1,117.2	4.63	-3.75	-4.06
7,565.0	40.50	242.60	6,779.1	5,433.1	-841.1	-1,960.0	1,128.9	3.55	-2.26	-4.19
7,597.0	41.10	245.20	6,803.3	5,457.3	-850.3	-1,978.7	1,140.9	5.63	1.88	8.13
7,629.0	42.40	243.40	6,827.1	5,481.1	-859.6	-1,997.9	1,152.9	5.53	4.06	-5.63
7,660.0	43.20	239.20	6,849.9	5,503.9	-869.7	-2,016.4	1,165.7	9.56	2.58	-13.55
7,692.0	44.00	235.30	6,873.1	5,527.1	-881.6	-2,035.0	1,180.3	8.77	2.50	-12.19
7,724.0	44.50	231.40	6,896.0	5,550.0	-895.0	-2,052.9	1,196.2	8.65	1.56	-12.19
7,755.0	44.40	227.10	6,918.1	5,572.1	-909.1	-2,069.3	1,212.7	9.72	-0.32	-13.87
7,787.0	44.40	222.30	6,941.0	5,595.0	-925.0	-2,085.0	1,230.8	10.49	0.00	-15.00
7,819.0	44.90	218.10	6,963.8	5,617.8	-942.2	-2,099.5	1,250.0	9.35	1.56	-13.13
7,850.0	45.10	214.10	6,985.7	5,639.7	-959.9	-2,112.5	1,269.5	9.15	0.65	-12.90
7,882.0	45.10	210.20	7,008.3	5,662.3	-979.1	-2,124.5	1,290.3	8.63	0.00	-12.19
7,914.0	46.70	206.90	7,030.6	5,684.6	-999.3	-2,135.5	1,311.9	8.93	5.00	-10.31
7,945.0	48.10	203.80	7,051.6	5,705.6	-1,019.9	-2,145.2	1,333.7	8.64	4.52	-10.00
7,977.0	49.40	200.00	7,072.7	5,726.7	-1,042.2	-2,154.2	1,357.2	9.81	4.06	-11.88
8,009.0	50.50	196.20	7,093.2	5,747.2	-1,065.5	-2,161.8	1,381.3	9.72	3.44	-11.88
8,040.0	51.90	192.80	7,112.7	5,766.7	-1,088.9	-2,167.8	1,405.4	9.67	4.52	-10.97
8,072.0	53.20	190.00	7,132.1	5,786.1	-1,113.8	-2,172.9	1,430.7	8.05	4.06	-8.75
8,104.0	55.30	185.90	7,150.8	5,804.8	-1,139.5	-2,176.4	1,456.7	12.29	6.56	-12.81
8,135.0	57.10	182.40	7,168.1	5,822.1	-1,165.2	-2,178.3	1,482.4	11.03	5.81	-11.29
8,167.0	59.60	178.50	7,184.9	5,838.9	-1,192.4	-2,178.5	1,509.3	12.99	7.81	-12.19
8,199.0	61.80	176.00	7,200.5	5,854.5	-1,220.3	-2,177.2	1,536.6	9.68	6.88	-7.81
8,230.0	64.40	173.90	7,214.6	5,868.6	-1,247.8	-2,174.7	1,563.5	10.34	8.39	-6.77
8,262.0	66.70	171.60	7,227.8	5,881.8	-1,276.7	-2,171.0	1,591.5	9.72	7.19	-7.19
8,293.0	68.90	169.60	7,239.5	5,893.5	-1,305.0	-2,166.3	1,618.8	9.28	7.10	-6.45
8,325.0	70.70	167.20	7,250.6	5,904.6	-1,334.4	-2,160.3	1,646.9	9.01	5.63	-7.50
8,357.0	72.80	165.70	7,260.6	5,914.6	-1,364.0	-2,153.2	1,675.0	7.93	6.56	-4.69
8,388.0	75.60	163.90	7,269.0	5,923.0	-1,392.7	-2,145.4	1,702.3	10.62	9.03	-5.81
8,420.0	78.00	162.20	7,276.3	5,930.3	-1,422.5	-2,136.3	1,730.4	9.11	7.50	-5.31
8,452.0	81.00	160.60	7,282.2	5,936.2	-1,452.4	-2,126.2	1,758.3	10.59	9.38	-5.00
8,483.0	82.70	159.40	7,286.6	5,940.6	-1,481.2	-2,115.7	1,785.2	6.69	5.48	-3.87
8,515.0	83.30	158.60	7,290.5	5,944.5	-1,510.8	-2,104.4	1,812.8	3.11	1.88	-2.50

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Wetzel County 514385
Company:	EQT Production - Marcellus	TVD Reference:	KB @ 1346.0usft
Project:	Wetzel County, WV	MD Reference:	KB @ 1346.0usft
Site:	Wetzel County 514385	North Reference:	Grid
Well:	Well #514385	Survey Calculation Method:	Minimum Curvature
Wellbore:	Main Wellbore		
Design:	514385 As Drilled Surveys		

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)
8,547.0	83.90	156.80	7,294.0	5,948.0	-1,540.3	-2,092.3	1,840.0	5.90	1.88	-5.63
8,578.0	85.80	154.90	7,296.8	5,950.8	-1,568.4	-2,079.7	1,866.0	8.65	6.13	-6.13
8,610.0	88.70	153.00	7,298.4	5,952.4	-1,597.1	-2,065.6	1,892.2	10.83	9.06	-5.94
8,641.0	89.30	152.20	7,298.9	5,952.9	-1,624.7	-2,051.4	1,917.2	3.23	1.94	-2.58
8,704.0	89.90	152.80	7,299.3	5,953.3	-1,680.5	-2,022.3	1,968.1	1.35	0.95	0.95
8,768.0	90.40	153.00	7,299.2	5,953.2	-1,737.5	-1,993.1	2,020.0	0.84	0.78	0.31
8,831.0	89.90	152.10	7,299.0	5,953.0	-1,793.4	-1,964.1	2,070.8	1.63	-0.79	-1.43
8,894.0	90.10	152.30	7,299.0	5,953.0	-1,849.1	-1,934.7	2,121.4	0.45	0.32	0.32
8,958.0	90.10	151.90	7,298.9	5,952.9	-1,905.7	-1,904.7	2,172.8	0.62	0.00	-0.63
9,021.0	88.00	151.40	7,299.9	5,953.9	-1,961.1	-1,874.8	2,223.0	3.43	-3.33	-0.79
9,084.0	88.20	151.30	7,302.0	5,956.0	-2,016.4	-1,844.6	2,273.1	0.35	0.32	-0.16
9,148.0	89.00	152.20	7,303.6	5,957.6	-2,072.8	-1,814.4	2,324.2	1.88	1.25	1.41
9,211.0	88.40	152.10	7,305.0	5,959.0	-2,128.4	-1,784.9	2,374.7	0.97	-0.95	-0.16
9,275.0	86.70	151.30	7,307.8	5,961.8	-2,184.7	-1,754.6	2,425.8	2.94	-2.66	-1.25
9,338.0	87.20	151.30	7,311.1	5,965.1	-2,239.9	-1,724.4	2,475.7	0.79	0.79	0.00
9,401.0	88.30	151.60	7,313.6	5,967.6	-2,295.2	-1,694.3	2,525.8	1.81	1.75	0.48
9,465.0	89.20	150.70	7,315.0	5,969.0	-2,351.3	-1,663.5	2,576.5	1.99	1.41	-1.41
9,528.0	89.30	149.40	7,315.8	5,969.8	-2,405.8	-1,632.0	2,625.7	2.07	0.16	-2.06
9,591.0	89.60	148.70	7,316.4	5,970.4	-2,459.9	-1,599.6	2,674.2	1.21	0.48	-1.11
9,655.0	91.00	150.10	7,316.1	5,970.1	-2,514.9	-1,567.0	2,723.7	3.09	2.19	2.19
9,718.0	92.20	152.30	7,314.3	5,968.3	-2,570.1	-1,536.7	2,773.6	3.98	1.90	3.49
9,781.0	92.00	152.30	7,312.0	5,966.0	-2,625.9	-1,507.4	2,824.3	0.32	-0.32	0.00
9,845.0	90.40	152.20	7,310.7	5,964.7	-2,682.5	-1,477.6	2,875.7	2.50	-2.50	-0.16
9,908.0	90.10	152.70	7,310.4	5,964.4	-2,738.4	-1,448.5	2,926.5	0.93	-0.48	0.79
9,971.0	89.50	153.00	7,310.6	5,964.6	-2,794.4	-1,419.8	2,977.6	1.06	-0.95	0.48
10,035.0	88.20	153.00	7,311.9	5,965.9	-2,851.4	-1,390.7	3,029.5	2.03	-2.03	0.00
10,098.0	89.00	153.90	7,313.4	5,967.4	-2,907.8	-1,362.6	3,080.9	1.91	1.27	1.43
10,162.0	89.50	154.10	7,314.3	5,968.3	-2,965.3	-1,334.5	3,133.5	0.84	0.78	0.31
10,225.0	89.50	153.30	7,314.8	5,968.8	-3,021.8	-1,306.6	3,185.1	1.27	0.00	-1.27
10,289.0	89.80	153.30	7,315.2	5,969.2	-3,078.9	-1,277.8	3,237.2	0.47	0.47	0.00
10,352.0	90.40	153.40	7,315.1	5,969.1	-3,135.2	-1,249.6	3,288.6	0.97	0.95	0.16
10,415.0	88.80	151.90	7,315.5	5,969.5	-3,191.2	-1,220.6	3,339.5	3.48	-2.54	-2.38
10,479.0	88.20	151.10	7,317.2	5,971.2	-3,247.4	-1,190.1	3,390.4	1.56	-0.94	-1.25
10,542.0	88.70	151.20	7,318.9	5,972.9	-3,302.6	-1,159.7	3,440.4	0.81	0.79	0.16
10,605.0	89.60	151.60	7,319.9	5,973.9	-3,357.9	-1,129.6	3,490.4	1.56	1.43	0.63
10,669.0	90.20	152.10	7,320.0	5,974.0	-3,414.3	-1,099.4	3,541.6	1.22	0.94	0.78
10,732.0	90.80	152.30	7,319.4	5,973.4	-3,470.0	-1,070.0	3,592.3	1.00	0.95	0.32
10,795.0	91.50	152.30	7,318.2	5,972.2	-3,525.8	-1,040.7	3,642.9	1.11	1.11	0.00
10,859.0	91.30	151.50	7,316.6	5,970.6	-3,582.2	-1,010.6	3,694.1	1.29	-0.31	-1.25
10,922.0	90.70	150.90	7,315.5	5,969.5	-3,637.4	-980.2	3,744.1	1.35	-0.95	-0.95
10,986.0	90.20	150.50	7,315.0	5,969.0	-3,693.3	-948.9	3,794.5	1.00	-0.78	-0.63
11,049.0	88.40	150.50	7,315.8	5,969.8	-3,748.1	-917.9	3,844.0	2.86	-2.86	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Wetzel County 514385
Company:	EQT Production - Marcellus	TVD Reference:	KB @ 1346.0usft
Project:	Wetzel County, WV	MD Reference:	KB @ 1346.0usft
Site:	Wetzel County 514385	North Reference:	Grid
Well:	Well #514385	Survey Calculation Method:	Minimum Curvature
Wellbore:	Main Wellbore		
Design:	514385 As Drilled Surveys		

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)
11,112.0	89.50	150.90	7,316.9	5,970.9	-3,803.0	-887.1	3,893.6	1.86	1.75	0.63
11,176.0	89.50	150.10	7,317.5	5,971.5	-3,858.7	-855.6	3,943.9	1.25	0.00	-1.25
11,239.0	88.90	151.00	7,318.3	5,972.3	-3,913.6	-824.6	3,993.4	1.72	-0.95	1.43
11,302.0	89.60	150.50	7,319.2	5,973.2	-3,968.5	-793.8	4,043.0	1.37	1.11	-0.79
11,366.0	89.80	151.10	7,319.5	5,973.5	-4,024.4	-762.6	4,093.5	0.99	0.31	0.94
11,429.0	89.00	152.90	7,320.2	5,974.2	-4,080.0	-733.0	4,144.0	3.13	-1.27	2.86
11,493.0	89.50	152.90	7,321.0	5,975.0	-4,137.0	-703.9	4,195.9	0.78	0.78	0.00
Last Survey MD=11556'										
11,556.0	89.80	152.90	7,321.4	5,975.4	-4,193.1	-675.2	4,247.0	0.48	0.48	0.00
Projection to TD MD=11616'										
11,616.0	89.80	152.90	7,321.6	5,975.6	-4,246.5	-647.8	4,295.6	0.00	0.00	0.00

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
4,100.0	4,099.9	-9.7	13.1	Gyro Tie In MD=4100'
11,556.0	7,321.4	-4,193.1	-675.2	Last Survey MD=11556'
11,616.0	7,321.6	-4,246.5	-647.8	Projection to TD MD=11616'

Checked By: _____ Approved By: _____ Date: _____



EQT Production - Marcellus

Project: Wetzel County, WV
Site: Wetzel County 514385
Well: Well #514385
Wellbore: Main Wellbore
Design: 514385 As Drilled Surveys

