



EQT Production - Marcellus

Doddridge County, WV Grid

Doddridge County 514319

Well #514319

Main Wellbore

Design: 514319 As Drilled

Standard Survey Report

17 January, 2014



Where energy meets innovation.



Phoenix Technology Services
Survey Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Doddridge County 514319
Company:	EQT Production - Marcellus	TVD Reference:	KB @ 1134 0usft
Project:	Doddridge County, WV Grid	MD Reference:	KB @ 1134 0usft
Site:	Doddridge County 514319	North Reference:	Grid
Well:	Well #514319	Survey Calculation Method:	Minimum Curvature
Wellbore:	Main Wellbore		
Design:	514319 As Drilled		

Project	Doddridge County, WV Grid		
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	Doddridge County 514319				
Site Position:		Northing:	324,458.60 usft	Latitude:	39.38
From:	Map	Easting:	1,654,137.10 usft	Longitude:	-80.72
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-0.78 "

Well	Well #514319					
Well Position	+N/-S	0.0 usft	Northing:	324,458.60 usft	Latitude:	39° 23' 3.709 N
	+E/-W	0.0 usft	Easting:	1,654,137.10 usft	Longitude:	80° 43' 25.163 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	1,111.0 usft

Wellbore	Main Wellbore				
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010_14	12/26/2013	-8.52	66.92	52,394

Design	514319 As Drilled				
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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	148.91

Survey Program	Date	1/17/2014			
From (')	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.00	5,200.0	Gyro (Main Wellbore)	GYD_DP_MS	Gyrodata gyro-compassing and drop	
0.00	12,269.0	514319 MWD (Main Wellbore)	MWD	MWD - Standard	

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	-1,134.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.22	172.97	100.0	-1,034.0	-0.2	0.0	0.2	0.22	0.22	0.00
200.0	0.23	164.72	200.0	-934.0	-0.6	0.1	0.5	0.03	0.01	-8.25
300.0	0.36	167.37	300.0	-834.0	-1.1	0.2	1.0	0.13	0.13	2.65
400.0	0.35	172.46	400.0	-734.0	-1.7	0.3	1.6	0.03	-0.01	5.09
500.0	0.31	176.83	500.0	-634.0	-2.3	0.4	2.1	0.05	-0.04	4.37
600.0	0.34	179.06	600.0	-534.0	-2.8	0.4	2.6	0.03	0.03	2.23
700.0	0.15	190.12	700.0	-434.0	-3.2	0.4	3.0	0.19	-0.19	11.06



Phoenix Technology Services
Survey Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Doddridge County 514319
Company:	EQT Production - Mircallus	TVD Reference:	KB @ 1134.0usft
Project:	Doddridge County, WV Grid	MD Reference:	KB @ 1134.0usft
Site:	Doddridge County 514319	North Reference:	Grid
Well:	Well #514319	Survey Calculation Method:	Minimum Curvature
Wellbore:	Main Wellbore		
Design:	514319 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)	
800.0	0.13	179.25	800.0	-334.0	-3.5	0.4	3.2	0.03	-0.02	-10.87	
900.0	0.14	172.99	900.0	-234.0	-3.7	0.4	3.4	0.02	0.01	-8.26	
1,000.0	0.20	178.33	1,000.0	-134.0	-4.0	0.4	3.7	0.06	0.06	5.34	
1,100.0	0.25	178.91	1,100.0	-34.0	-4.4	0.4	4.0	0.05	0.05	0.58	
1,200.0	0.24	178.57	1,200.0	66.0	-4.8	0.4	4.4	0.01	-0.01	-2.34	
1,300.0	0.24	175.52	1,300.0	166.0	-5.3	0.5	4.7	0.00	0.00	-1.05	
1,400.0	0.31	207.88	1,400.0	266.0	-5.7	0.3	5.1	0.17	0.07	32.36	
1,500.0	0.37	213.77	1,500.0	366.0	-6.2	0.0	5.3	0.07	0.06	5.89	
1,600.0	0.46	246.38	1,600.0	466.0	-6.6	-0.5	5.4	0.25	0.09	32.61	
1,700.0	0.48	250.54	1,700.0	566.0	-6.9	-1.3	5.3	0.04	0.02	4.16	
1,800.0	0.54	250.21	1,800.0	666.0	-7.2	-2.1	5.1	0.06	0.06	-0.33	
1,900.0	0.85	245.97	1,900.0	766.0	-7.7	-3.2	4.9	0.31	0.31	-4.24	
2,000.0	0.94	255.36	2,000.0	866.0	-8.2	-4.7	4.6	0.17	0.09	9.39	
2,100.0	0.99	261.05	2,099.9	965.9	-8.6	-6.3	4.1	0.11	0.05	5.69	
2,200.0	0.96	268.33	2,199.9	1,065.9	-8.7	-8.0	3.3	0.13	-0.03	7.28	
2,300.0	0.90	268.83	2,299.9	1,165.9	-8.8	-9.7	2.5	0.06	-0.06	0.50	
2,400.0	0.81	280.37	2,399.9	1,265.9	-8.6	-11.1	1.7	0.19	-0.09	11.54	
2,500.0	0.75	284.66	2,499.9	1,365.9	-8.4	-12.5	0.7	0.08	-0.06	4.29	
2,600.0	0.75	287.01	2,599.9	1,465.9	-8.0	-13.7	-0.2	0.03	0.00	2.35	
2,700.0	0.65	293.02	2,699.9	1,565.9	-7.6	-14.9	-1.2	0.12	-0.10	6.01	
2,800.0	0.67	297.71	2,799.9	1,665.9	-7.1	-15.9	-2.1	0.06	0.02	4.69	
2,900.0	0.63	302.53	2,899.9	1,765.9	-6.5	-16.9	-3.1	0.07	-0.04	4.82	
3,000.0	0.60	308.05	2,999.9	1,865.9	-5.9	-17.8	-4.1	0.07	-0.03	5.52	
3,100.0	0.61	305.13	3,099.9	1,965.9	-5.3	-18.6	-5.1	0.03	0.01	-2.92	
3,200.0	0.56	303.33	3,199.8	2,065.8	-4.7	-19.5	-6.0	0.05	-0.05	-1.80	
3,300.0	0.61	309.89	3,299.8	2,165.8	-4.1	-20.3	-7.0	0.08	0.05	6.56	
3,400.0	0.48	314.77	3,399.8	2,265.8	-3.5	-21.0	-7.9	0.14	-0.13	4.88	
3,500.0	0.51	314.08	3,499.8	2,365.8	-2.8	-21.6	-8.7	0.03	0.03	-0.69	
3,600.0	0.48	317.44	3,599.8	2,465.8	-2.2	-22.2	-9.6	0.04	-0.03	3.36	
3,700.0	0.47	307.26	3,699.8	2,565.8	-1.7	-22.8	-10.3	0.08	-0.01	-10.18	
3,800.0	0.46	313.18	3,799.8	2,665.8	-1.1	-23.4	-11.1	0.05	-0.01	5.92	
3,900.0	0.44	317.74	3,899.8	2,765.8	-0.6	-24.0	-11.9	0.04	-0.02	4.56	
4,000.0	0.43	326.76	3,999.8	2,865.8	0.0	-24.5	-12.6	0.07	-0.01	9.02	
4,100.0	0.33	317.29	4,099.8	2,965.8	0.5	-24.9	-13.3	0.12	-0.10	-9.47	
4,200.0	0.19	316.06	4,199.8	3,065.8	0.9	-25.2	-13.7	0.14	-0.14	-1.23	
4,300.0	0.09	211.23	4,299.8	3,165.8	0.9	-25.3	-13.9	0.23	-0.10	-104.83	
4,400.0	0.24	170.04	4,399.8	3,265.8	0.8	-25.3	-13.6	0.18	0.15	-41.19	
4,500.0	0.46	160.22	4,499.8	3,365.8	0.1	-25.1	-13.0	0.23	0.22	-9.82	
4,600.0	0.63	161.44	4,599.8	3,465.8	-0.8	-24.8	-12.1	0.17	0.17	1.22	
4,700.0	0.81	162.69	4,699.8	3,565.8	-2.0	-24.5	-10.9	0.18	0.18	1.25	
4,800.0	0.85	162.04	4,799.8	3,665.8	-3.4	-24.0	-9.5	0.04	0.04	-0.65	
4,900.0	0.92	171.95	4,899.8	3,765.8	-4.9	-23.7	-8.0	0.17	0.07	9.91	



Phoenix Technology Services
Survey Report



Database:	EDM 5000 1 Single User Db	Local Co-ordinate Reference:	Site Doddridge County 514319
Company:	EQT Production - Marcellus	TVD Reference:	KB @ 1134.0usft
Project:	Doddridge County, WV Gas	MD Reference:	KB @ 1134.0usft
Site:	Doddridge County 514319	North Reference:	Grid
Well:	Well #514319	Survey Calculation Method:	Minimum Curvature
Wellbore:	Main Wellbore		
Design:	514319 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)	
5,000.0	1.07	170.83	4,999.8	3,865.8	-6.6	-23.4	-6.4	0.15	0.15	-1.12	
5,100.0	1.29	173.35	5,099.7	3,955.7	-8.7	-23.1	-4.5	0.23	0.22	2.53	
Gyro Tie In=5200' MD											
5,200.0	1.26	169.14	5,199.7	4,065.7	-10.9	-22.8	-2.5	0.10	-0.03	-4.22	
5,329.0	1.40	174.00	5,328.7	4,194.7	-13.8	-22.4	0.3	0.14	0.11	3.77	
5,360.0	1.40	171.40	5,359.7	4,225.7	-14.6	-22.3	1.0	0.20	0.00	-8.39	
5,392.0	0.30	9.50	5,391.7	4,257.7	-14.9	-22.2	1.3	5.27	-3.44	-505.94	
5,423.0	5.00	351.60	5,422.6	4,288.6	-13.5	-22.4	0.0	15.21	15.16	-57.74	
5,454.0	8.80	350.70	5,453.4	4,319.4	-9.8	-23.0	-3.5	12.26	12.26	-2.90	
5,486.0	11.30	353.00	5,484.9	4,350.9	-4.3	-23.7	-8.6	7.91	7.81	7.19	
5,517.0	13.00	353.60	5,515.2	4,381.2	2.2	-24.5	-14.5	5.50	5.48	1.94	
5,548.0	15.60	356.80	5,545.2	4,411.2	9.8	-25.1	-21.4	8.76	8.39	10.32	
5,580.0	17.70	358.10	5,575.9	4,441.9	19.0	-25.5	-29.5	6.66	6.56	4.06	
5,611.0	18.90	355.90	5,605.3	4,471.3	28.7	-26.0	-38.0	4.47	3.87	-7.10	
5,643.0	19.80	353.80	5,635.5	4,501.5	39.3	-27.0	-47.6	3.55	2.81	-6.56	
5,674.0	21.30	351.50	5,664.6	4,530.6	50.1	-28.4	-57.5	5.49	4.84	-7.42	
5,706.0	21.70	350.00	5,694.3	4,560.3	61.6	-30.3	-68.4	2.12	1.25	-4.69	
5,737.0	22.20	350.20	5,723.1	4,589.1	73.1	-32.3	-79.2	1.63	1.61	0.65	
5,768.0	23.80	351.40	5,751.6	4,617.6	85.0	-34.2	-90.5	5.38	5.16	3.87	
5,800.0	26.70	353.40	5,780.6	4,646.6	98.5	-36.0	-103.0	9.45	9.06	6.25	
5,831.0	29.40	355.20	5,807.9	4,673.9	113.0	-37.4	-116.1	9.13	8.71	5.81	
5,863.0	32.50	355.80	5,835.4	4,701.4	129.5	-38.7	-130.9	9.74	9.69	1.88	
5,894.0	35.70	355.70	5,861.0	4,727.0	146.8	-40.0	-146.4	10.32	10.32	-0.32	
5,925.0	39.00	355.50	5,885.7	4,751.7	165.5	-41.5	-163.2	10.65	10.65	-0.65	
5,957.0	42.90	355.40	5,909.8	4,775.8	186.4	-43.1	-181.9	12.19	12.19	-0.31	
6,020.0	44.40	355.00	5,955.4	4,821.4	229.8	-46.8	-220.9	2.42	2.38	-0.63	
6,051.0	43.90	354.40	5,977.7	4,843.7	251.3	-48.7	-240.4	2.10	-1.61	-1.94	
6,082.0	44.90	354.10	5,999.8	4,865.8	272.8	-50.9	-260.0	3.30	3.23	-0.97	
6,114.0	45.60	354.10	6,022.3	4,888.3	295.5	-53.3	-280.5	2.19	2.19	0.00	
6,145.0	45.10	353.80	6,044.1	4,910.1	317.4	-55.6	-300.5	1.75	-1.61	-0.97	
6,176.0	44.40	353.50	6,066.1	4,932.1	339.1	-58.0	-320.3	2.36	-2.26	-0.97	
6,208.0	42.70	353.90	6,089.3	4,955.3	361.0	-60.4	-340.3	5.38	-5.31	1.25	
6,239.0	39.90	355.10	6,112.6	4,978.6	381.3	-62.4	-358.8	9.39	-9.03	3.87	
6,270.0	36.70	355.80	6,136.9	5,002.9	400.5	-63.9	-376.0	10.42	-10.32	2.26	
6,302.0	34.00	355.90	6,163.0	5,029.0	419.0	-65.3	-392.5	8.44	-8.44	0.31	
6,333.0	31.30	357.40	6,189.1	5,055.1	435.7	-66.2	-407.3	9.09	-8.71	4.84	
6,364.0	28.10	358.50	6,216.1	5,082.1	451.0	-66.8	-420.7	10.47	-10.32	3.55	
6,396.0	24.70	0.30	6,244.7	5,110.7	465.2	-67.0	-433.0	10.91	-10.63	5.63	
6,427.0	20.70	3.60	6,273.3	5,139.3	477.2	-66.6	-443.0	13.54	-12.90	10.65	
6,458.0	16.90	6.10	6,302.6	5,168.6	487.1	-65.8	-451.1	12.53	-12.26	8.06	
6,490.0	13.70	11.80	6,333.5	5,199.5	495.5	-64.5	-457.6	11.04	-10.00	17.81	
6,521.0	11.60	22.10	6,363.8	5,229.8	501.9	-62.6	-462.2	9.92	-6.77	33.23	
6,552.0	10.30	33.00	6,394.2	5,260.2	507.2	-59.9	-465.2	7.87	-4.19	35.16	



Phoenix Technology Services
Survey Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Doddridge County 514318
Company:	EQT Production - Marcellus	TVD Reference:	KB @ 1134.0usft
Project:	Doddridge County, WV Grid	MD Reference:	KB @ 1134.0usft
Site:	Doddridge County 514318	North Reference:	Grid
Well:	Well #514318	Survey Calculation Method:	Minimum Curvature
Wellbore:	Main Wellbore		
Design:	514318 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)	
6,584.0	9.40	43.60	6,425.7	5,291.7	511.5	-56.5	-467.2	6.31	-2.81	33.13	
6,615.0	8.50	56.90	6,456.4	5,322.4	514.5	-52.9	-467.9	7.26	-2.90	42.90	
6,646.0	8.10	69.70	6,487.0	5,353.0	516.5	-48.9	-467.6	6.09	-1.29	41.29	
6,678.0	8.00	80.60	6,518.7	5,384.7	517.7	-44.6	-466.4	4.77	-0.31	34.06	
6,709.0	7.60	94.30	6,549.4	5,415.4	517.9	-40.4	-464.4	6.12	-1.29	44.19	
6,741.0	7.80	105.60	6,581.1	5,447.1	517.1	-36.2	-461.6	4.76	0.63	35.31	
6,772.0	8.60	113.60	6,611.8	5,477.8	515.7	-32.0	-458.1	4.49	2.58	25.81	
6,803.0	9.60	121.70	6,642.4	5,508.4	513.4	-27.7	-454.0	5.23	3.23	26.13	
6,867.0	11.50	130.50	6,705.4	5,571.4	506.4	-18.3	-443.2	3.88	2.97	13.75	
6,898.0	15.40	127.80	6,735.5	5,601.5	501.9	-12.7	-436.4	12.74	12.58	-8.71	
6,929.0	19.70	126.40	6,765.1	5,631.1	496.3	-5.3	-427.7	13.94	13.87	-4.52	
6,961.0	22.80	127.00	6,794.9	5,660.9	489.3	4.0	-417.0	9.71	9.69	1.88	
6,992.0	26.30	126.90	6,823.1	5,689.1	481.6	14.3	-405.0	11.29	11.29	-0.32	
7,024.0	30.00	125.20	6,851.3	5,717.3	472.7	26.5	-391.1	11.83	11.56	-5.31	
7,055.0	34.20	124.80	6,877.5	5,743.5	463.3	40.0	-376.1	13.57	13.55	-1.29	
7,087.0	39.30	125.30	6,903.2	5,769.2	452.3	55.7	-358.6	15.96	15.94	1.56	
7,118.0	43.60	125.20	6,926.4	5,792.4	440.4	72.4	-339.8	13.87	13.87	-0.32	
7,149.0	48.70	125.80	6,947.9	5,813.9	427.5	90.6	-319.3	16.51	16.45	1.94	
7,181.0	53.70	127.70	6,967.9	5,833.9	412.5	110.6	-296.2	16.29	15.63	5.94	
7,212.0	59.30	129.50	6,985.0	5,851.0	396.4	130.8	-271.9	18.70	18.06	5.81	
7,243.0	64.80	130.30	6,999.5	5,865.5	378.8	151.8	-246.1	17.89	17.74	2.58	
7,275.0	70.40	133.10	7,011.7	5,877.7	359.2	173.9	-217.8	19.28	17.50	8.75	
7,306.0	75.70	133.50	7,020.8	5,886.8	338.8	195.4	-189.3	17.14	17.10	1.29	
7,338.0	79.80	136.50	7,027.6	5,893.6	316.7	217.5	-158.9	15.75	12.81	9.38	
7,369.0	85.50	138.60	7,031.5	5,897.5	294.0	238.3	-128.8	19.58	18.39	6.77	
7,400.0	90.10	141.90	7,032.7	5,898.7	270.2	258.1	-98.2	18.26	14.84	10.65	
7,432.0	91.50	147.40	7,032.3	5,898.3	244.1	276.6	-66.3	17.73	4.38	17.19	
7,526.0	93.10	152.90	7,028.5	5,894.5	162.7	323.3	27.6	6.09	1.70	5.85	
7,620.0	93.90	153.10	7,022.8	5,888.8	79.1	365.9	121.2	0.88	0.85	0.21	
7,715.0	93.50	152.80	7,016.6	5,882.6	-5.3	409.0	215.7	0.53	-0.42	-0.32	
7,809.0	91.70	153.40	7,012.4	5,878.4	-89.1	451.5	309.4	2.02	-1.91	0.64	
7,903.0	90.00	153.80	7,011.0	5,877.0	-173.2	493.3	403.1	1.86	-1.81	0.43	
7,997.0	90.30	154.10	7,010.7	5,876.7	-257.7	534.6	496.7	0.45	0.32	0.32	
8,091.0	88.80	154.30	7,011.5	5,877.5	-342.3	575.5	590.3	1.61	-1.60	0.21	
8,186.0	88.80	155.50	7,013.4	5,879.4	-428.3	615.8	684.8	1.26	0.00	1.26	
8,280.0	89.30	156.60	7,015.0	5,881.0	-514.2	653.9	778.0	1.29	0.53	1.17	
8,374.0	89.50	157.50	7,016.0	5,882.0	-600.8	690.6	871.1	0.98	0.21	0.96	
8,468.0	89.40	153.60	7,016.9	5,882.9	-686.3	729.5	964.4	4.15	-0.11	-4.15	
8,563.0	89.90	155.10	7,017.5	5,883.5	-772.0	770.6	1,059.0	1.66	0.53	1.58	
8,657.0	91.40	154.20	7,016.4	5,882.4	-856.9	810.8	1,152.5	1.86	1.60	-0.96	
8,751.0	90.00	151.30	7,015.3	5,881.3	-940.4	853.9	1,246.3	3.43	-1.49	-3.09	
8,846.0	88.50	150.70	7,016.5	5,882.5	-1,023.5	899.9	1,341.2	1.70	-1.58	-0.63	
8,940.0	89.10	151.30	7,018.5	5,884.5	-1,105.7	945.5	1,435.1	0.90	0.64	0.64	



Phoenix Technology Services
Survey Report



Database:	EDM-5000 1 Single User Db	Local Co-ordinate Reference:	Site Doddridge County 514319
Company:	EQT Production - Marcellus	TVD Reference:	KB @ 1134.0usft
Project:	Doddridge County, WV Gnd	MD Reference:	KB @ 1134.0usft
Site:	Doddridge County 514319	North Reference:	Grid
Well:	Well #514319	Survey Calculation Method:	Minimum Curvature
Wellbore:	Main Wellbore		
Design:	514319 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)	
9,034.0	89.80	151.70	7,019.4	5,885.4	-1,188.3	990.3	1,529.0	0.86	0.74	0.43	
9,128.0	87.70	149.40	7,021.4	5,887.4	-1,270.1	1,036.5	1,622.9	3.31	-2.23	-2.45	
9,222.0	88.40	149.40	7,024.6	5,890.6	-1,351.0	1,084.3	1,716.9	0.74	0.74	0.00	
9,316.0	88.50	149.70	7,027.2	5,893.2	-1,432.0	1,132.0	1,810.8	0.34	0.11	0.32	
9,410.0	89.90	149.50	7,028.5	5,894.5	-1,513.1	1,179.5	1,904.8	1.50	1.49	-0.21	
9,505.0	89.20	150.60	7,029.2	5,895.2	-1,595.4	1,226.9	1,999.8	1.37	-0.74	1.16	
9,599.0	90.30	153.30	7,029.6	5,895.6	-1,678.3	1,271.1	2,093.6	3.10	1.17	2.87	
9,693.0	89.50	152.80	7,029.8	5,895.8	-1,762.1	1,313.7	2,187.4	1.00	-0.85	-0.53	
9,787.0	89.90	155.00	7,030.3	5,896.3	-1,846.5	1,355.1	2,281.0	2.38	0.43	2.34	
9,882.0	88.80	154.90	7,031.4	5,897.4	-1,932.6	1,395.3	2,375.5	1.16	-1.16	-0.11	
9,976.0	89.30	155.20	7,032.9	5,898.9	-2,017.8	1,435.0	2,469.0	0.62	0.53	0.32	
10,070.0	90.20	155.20	7,033.3	5,899.3	-2,103.1	1,474.4	2,562.4	0.96	0.96	0.00	
10,164.0	89.50	154.90	7,033.6	5,899.6	-2,188.4	1,514.0	2,655.8	0.81	-0.74	-0.32	
10,258.0	89.80	155.00	7,034.2	5,900.2	-2,273.5	1,553.8	2,749.3	0.34	0.32	0.11	
10,352.0	88.70	154.40	7,035.4	5,901.4	-2,358.5	1,594.0	2,842.8	1.33	-1.17	-0.64	
10,447.0	90.10	155.00	7,036.4	5,902.4	-2,444.4	1,634.6	2,937.3	1.60	1.47	0.63	
10,541.0	89.80	151.60	7,036.5	5,902.5	-2,528.3	1,676.8	3,031.1	3.63	-0.32	-3.62	
10,635.0	89.80	152.90	7,036.8	5,902.8	-2,611.5	1,720.6	3,124.9	1.38	0.00	1.38	
10,729.0	88.10	153.40	7,038.5	5,904.5	-2,695.4	1,763.0	3,218.6	1.89	-1.81	0.53	
10,823.0	87.70	152.00	7,042.0	5,908.0	-2,778.9	1,806.1	3,312.3	1.55	-0.43	-1.49	
10,917.0	88.10	151.60	7,045.4	5,911.4	-2,861.6	1,850.5	3,406.2	0.60	0.43	-0.43	
11,012.0	89.20	154.00	7,047.6	5,913.6	-2,946.1	1,893.9	3,500.9	2.78	1.16	2.53	
11,106.0	89.10	152.40	7,049.0	5,915.0	-3,030.0	1,936.3	3,594.6	1.71	-0.11	-1.70	
11,200.0	90.40	153.80	7,049.4	5,915.4	-3,113.8	1,978.8	3,688.4	2.03	1.38	1.49	
11,294.0	91.30	153.40	7,048.0	5,914.0	-3,198.0	2,020.6	3,782.0	1.05	0.96	-0.43	
11,389.0	92.60	153.10	7,044.8	5,910.8	-3,282.8	2,063.4	3,876.7	1.40	1.37	-0.32	
11,483.0	91.70	153.30	7,041.3	5,907.3	-3,366.6	2,105.7	3,970.4	0.98	-0.96	0.21	
11,577.0	89.80	152.10	7,040.1	5,906.1	-3,450.1	2,148.8	4,064.2	2.39	-2.02	-1.28	
11,672.0	90.60	152.00	7,039.7	5,905.7	-3,534.1	2,193.3	4,159.0	0.85	0.84	-0.11	
11,766.0	89.90	152.30	7,039.3	5,905.3	-3,617.2	2,237.3	4,252.9	0.81	-0.74	0.32	
11,860.0	90.10	155.70	7,039.3	5,905.3	-3,701.6	2,278.5	4,346.5	3.62	0.21	3.62	
11,954.0	90.60	155.20	7,038.7	5,904.7	-3,787.1	2,317.5	4,439.9	0.75	0.53	-0.53	
12,048.0	90.30	155.30	7,038.0	5,904.0	-3,872.5	2,356.9	4,533.3	0.34	-0.32	0.11	
12,142.0	91.80	155.10	7,036.3	5,902.3	-3,957.8	2,396.3	4,626.7	1.61	1.60	-0.21	
Last Survey MD=12212'											
12,212.0	92.30	154.80	7,033.8	5,899.8	-4,021.2	2,425.9	4,696.3	0.83	0.71	-0.43	
Projection to TD MD=12269'											
12,269.0	92.30	154.80	7,031.5	5,897.5	-4,072.7	2,450.1	4,752.9	0.00	0.00	0.00	



Phoenix Technology Services
Survey Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Doddridge County 514319
Company:	EQT Production - Marcellus	TVD Reference:	KB @ 1134.0ush
Project:	Doddridge County, WV Grid	MD Reference:	KB @ 1134.0ush
Site:	Doddridge County-514319	North Reference:	Grid
Well:	Well #514319	Survey Calculation Method:	Minimum Curvature
Wellbore:	Main Wellbore		
Design:	514319 As Drilled		

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
5,200.0	5,199.7	-10.9	-22.8	Gyro Tie In=5200' MD
12,212.0	7,033.8	-4,021.2	2,425.9	Last Survey MD=12212'
12,269.0	7,031.5	-4,072.7	2,450.1	Projection to TD MD=12269'

Checked By: _____ Approved By: _____ Date: _____



Project: Doddridge County, WV Grid
 Site: Doddridge County 514319
 Well: Well #514319
 Wellbore: Main Wellbore
 Design: 514319 As Drilled

