



**PHOENIX**  
TECHNOLOGY SERVICES USA INC.

## **EQT Production - Marcellus**

**Doddridge County, WV Grid**

**Doddridge County 513701**

**Well #513701**

**Main Wellbore**

**Design: 513701 As Drilled**

## **Standard Survey Report**

**01 April, 2015**

**Received**  
**Office of Oil & Gas**  
**NOV 19 2015**

**EQT**

Where energy meets innovation.

02/05/2016

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Site Doddridge County 513701
<b>Company:</b>	EQT Production - Marcellus	<b>TVD Reference:</b>	KB@23' @ 1275.0usft
<b>Project:</b>	Doddridge County, WV Grd	<b>MD Reference:</b>	KB@23' @ 1275.0usft
<b>Site:</b>	Doddridge County 513701	<b>North Reference:</b>	Grd
<b>Well:</b>	Well #513701	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Main Wellbore		
<b>Design:</b>	513701 As Drilled		

**Project** Doddridge County, WV Grd

<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		Using geodetic scale factor

**Site** Doddridge County 513701

<b>Site Position:</b>		<b>Northing:</b>	260,320.80 usft	<b>Latitude:</b>	39.21
<b>From:</b>	Map	<b>Easting:</b>	1,642,356.60 usft	<b>Longitude:</b>	-80.76
<b>Position Uncertainty:</b>	0.0 usft	<b>Slot Radius:</b>	13-3/16 "	<b>Grid Convergence:</b>	-0.80 °

**Well** Well #513701

<b>Well Position</b>	<b>+N/-S</b>	0.0 usft	<b>Northing:</b>	260,320.80 usft	<b>Latitude:</b>	39° 12' 28.211 N
	<b>+E/-W</b>	0.0 usft	<b>Easting:</b>	1,642,356.60 usft	<b>Longitude:</b>	80° 45' 43.713 W
<b>Position Uncertainty</b>		0.0 usft	<b>Wellhead Elevation:</b>	usft	<b>Ground Level:</b>	1,252.0 usft

**Wellbore** Main Wellbore

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	3/16/2015	-8.45	66.70	52,146

**Design** 513701 As Drilled

<b>Audit Notes:</b>	<p><b>Received</b> <b>Office of Oil &amp; Gas</b> <b>NOV 19 2015</b></p>				
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>	0.0

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	340.71

**Survey Program** Date 4/1/2015

From (')	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	5,655.2	513701 VES Gyro (Main Wellbore)	InFlex Gyro-VES 01-12-15	Triaxial Continuous Gyro Model
0.00	16,618.0	513701 PHX MWD (Main Wellbore)	MWD+IGRF	MWD+IGRF v3:standard declination

**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	-1,275.0	0.0	0.0	0.0	0.00	0.00	0.00
110.0	0.34	250.37	110.0	-1,165.0	-0.1	-0.3	0.0	0.31	0.31	0.00
210.0	0.36	235.94	210.0	-1,065.0	-0.4	-0.8	-0.1	0.09	0.02	-14.43
310.0	0.23	255.48	310.0	-965.0	-0.6	-1.3	-0.1	0.16	-0.13	19.54
410.0	0.21	272.56	410.0	-865.0	-0.7	-1.7	-0.1	0.07	-0.02	17.08
510.0	0.11	287.70	510.0	-765.0	-0.6	-2.0	0.1	0.11	-0.10	15.14
610.0	0.18	253.22	610.0	-665.0	-0.6	-2.2	0.1	0.11	0.07	-34.48
710.0	0.15	245.62	710.0	-565.0	-0.7	-2.5	0.1	0.04	-0.03	-7.60



<b>Database:</b>	EDM 5000.1 Single User Dt	<b>Local Co-ordinate Reference:</b>	Site Doddridge County 513701
<b>Company:</b>	EQT Production - Marcellus	<b>TVD Reference:</b>	KB@23' @ 1275.0usft
<b>Project:</b>	Doddridge County, WV 18nd	<b>MD Reference:</b>	KB@23' @ 1275.0usft
<b>Site:</b>	Doddridge County 513701	<b>North Reference:</b>	Grid
<b>Well:</b>	Well #513701	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Main Wellbore		
<b>Design:</b>	513701 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)	
810.0	0.14	258.02	810.0	-465.0	-0.8	-2.7	0.1	0.03	-0.01	12.40	
910.0	0.23	265.01	910.0	-365.0	-0.9	-3.0	0.2	0.09	0.09	6.99	
1,010.0	0.32	280.66	1,010.0	-265.0	-0.8	-3.5	0.4	0.12	0.09	15.65	
1,110.0	0.65	271.79	1,110.0	-165.0	-0.8	-4.3	0.7	0.34	0.33	-8.87	
1,210.0	0.69	285.29	1,210.0	-65.0	-0.6	-5.5	1.3	0.16	0.04	13.50	
1,310.0	0.90	280.90	1,310.0	35.0	-0.3	-6.8	2.0	0.22	0.21	-4.39	
1,410.0	1.02	276.86	1,410.0	135.0	0.0	-8.5	2.8	0.14	0.12	-4.04	
1,510.0	1.12	274.20	1,509.9	234.9	0.2	-10.4	3.6	0.11	0.10	-2.66	
1,610.0	1.07	275.86	1,609.9	334.9	0.3	-12.3	4.4	0.06	-0.05	1.66	
1,710.0	1.07	273.18	1,709.9	434.9	0.5	-14.1	5.1	0.05	0.00	-2.68	
1,810.0	1.11	281.85	1,809.9	534.9	0.7	-16.0	6.0	0.17	0.04	8.67	
1,910.0	1.20	281.69	1,909.9	634.9	1.1	-18.0	7.0	0.09	0.09	-0.16	
2,010.0	1.11	291.98	2,009.8	734.8	1.7	-19.9	8.2	0.23	-0.09	10.29	
2,110.0	1.17	292.24	2,109.8	834.8	2.5	-21.7	9.5	0.06	0.06	0.26	
2,210.0	1.19	296.70	2,209.8	934.8	3.3	-23.6	10.9	0.09	0.02	4.46	
2,310.0	1.20	298.05	2,309.8	1,034.8	4.3	-25.5	12.4	0.03	0.01	1.35	
2,410.0	1.26	299.45	2,409.8	1,134.8	5.3	-27.3	14.0	0.07	0.06	1.40	
2,510.0	1.26	301.79	2,509.7	1,234.7	6.4	-29.2	15.7	0.05	0.00	2.34	
2,610.0	1.29	302.74	2,609.7	1,334.7	7.6	-31.1	17.5	0.04	0.03	0.95	
2,710.0	1.50	299.65	2,709.7	1,434.7	8.9	-33.2	19.3	0.22	0.21	-3.09	
2,810.0	1.65	296.34	2,809.6	1,534.6	10.2	-35.6	21.4	0.18	0.15	-3.31	
2,910.0	1.71	300.63	2,909.6	1,634.6	11.6	-38.2	23.5	0.14	0.06	4.29	
3,010.0	1.78	301.04	3,009.6	1,734.6	13.1	-40.8	25.9	0.07	0.07	0.41	
3,110.0	1.87	298.61	3,109.5	1,834.5	14.7	-43.6	28.3	0.12	0.09	-2.43	
3,210.0	1.98	295.85	3,209.4	1,934.4	16.2	-46.6	30.7	0.14	0.11	-2.76	
3,310.0	1.93	300.44	3,309.4	2,034.4	17.8	-49.6	33.2	0.16	-0.05	4.59	
3,410.0	2.04	300.05	3,409.3	2,134.3	19.6	-52.6	35.9	0.11	0.11	-0.39	
3,510.0	2.05	302.26	3,509.3	2,234.3	21.4	-55.6	38.6	0.08	0.01	2.21	
3,610.0	2.08	298.90	3,609.2	2,334.2	23.3	-58.7	41.4	0.12	0.03	-3.36	
3,710.0	2.10	302.04	3,709.1	2,434.1	25.1	-61.9	44.1	0.12	0.02	3.14	
3,810.0	2.29	301.33	3,809.1	2,534.1	27.1	-65.1	47.1	0.19	0.19	-0.71	
3,910.0	3.07	300.63	3,909.0	2,634.0	29.5	-69.1	50.7	0.78	0.78	-0.70	
4,010.0	4.42	300.04	4,008.7	2,733.7	32.8	-74.8	55.7	1.35	1.35	-0.59	
4,110.0	4.95	299.66	4,108.4	2,833.4	36.9	-81.9	61.9	0.53	0.53	-0.38	
4,210.0	5.16	302.99	4,208.0	2,933.0	41.5	-89.4	68.7	0.36	0.21	3.33	
4,310.0	5.06	303.32	4,307.6	3,032.6	46.3	-96.8	75.7	0.10	-0.10	0.33	
4,410.0	4.83	306.10	4,407.2	3,132.2	51.2	-103.9	82.7	0.33	-0.23	2.78	
4,510.0	4.94	310.13	4,506.9	3,231.9	56.5	-110.6	89.9	0.36	0.11	4.03	
4,610.0	5.10	315.20	4,606.5	3,331.5	62.4	-117.0	97.6	0.47	0.16	5.07	
4,710.0	5.07	318.68	4,706.1	3,431.1	68.9	-123.1	105.7	0.31	-0.03	3.48	
4,810.0	4.82	319.66	4,805.7	3,530.7	75.4	-128.7	113.7	0.26	-0.25	0.98	
4,910.0	4.52	323.89	4,905.4	3,630.4	81.8	-133.8	121.4	0.46	-0.30	4.23	

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<b>Company:</b>	EQT Production - Marcellus	<b>TVD Reference:</b>	KB@23 @ 1275.0usft
<b>Project:</b>	Doddridge County, WV Grid	<b>MD Reference:</b>	KB@23 @ 1275.0usft
<b>Site:</b>	Doddridge County 513701	<b>North Reference:</b>	Grid
<b>Well:</b>	Well #513701	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Main Wellbore		
<b>Design:</b>	513701 As Drilled		

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)
5,010.0	4.17	327.62	5,005.1	3,730.1	88.1	-138.0	128.7	0.45	-0.35	3.73
5,110.0	3.77	330.12	5,104.9	3,829.9	94.0	-141.6	135.5	0.44	-0.40	2.50
5,210.0	3.86	332.60	5,204.6	3,929.6	99.8	-144.8	142.1	0.19	0.09	2.48
5,310.0	3.97	336.27	5,304.4	4,029.4	106.0	-147.8	148.8	0.27	0.11	3.67
5,410.0	3.35	357.31	5,404.2	4,129.2	112.1	-149.3	155.1	1.47	-0.62	21.04
5,510.0	2.77	33.41	5,504.1	4,229.1	117.0	-148.1	159.4	1.97	-0.58	36.10
5,610.0	3.12	58.63	5,604.0	4,329.0	120.4	-144.4	161.4	1.33	0.35	25.22
<b>Gyro Tie In=5555 MD</b>										
5,655.2	3.56	67.02	5,649.1	4,374.1	121.6	-142.1	161.7	1.45	0.97	18.55
5,742.0	4.10	80.40	5,735.7	4,460.7	123.2	-136.6	161.4	1.20	0.62	15.42
5,830.0	3.80	87.10	5,823.5	4,548.5	123.9	-130.5	160.0	0.62	-0.34	7.61
5,893.0	3.10	83.50	5,886.4	4,611.4	124.2	-126.8	159.1	1.16	-1.11	-5.71
5,924.0	2.90	85.10	5,917.3	4,642.3	124.3	-125.1	158.7	0.70	-0.65	5.16
5,956.0	3.40	55.40	5,949.3	4,674.3	124.9	-123.6	158.7	5.26	1.56	-92.81
5,987.0	6.60	37.40	5,980.2	4,705.2	126.9	-121.7	160.0	11.37	10.32	-58.06
6,019.0	9.50	29.90	6,011.8	4,736.8	130.6	-119.3	162.7	9.62	9.06	-23.44
6,050.0	12.20	24.30	6,042.3	4,767.3	135.8	-116.7	166.7	9.34	8.71	-18.06
6,082.0	14.50	23.40	6,073.4	4,798.4	142.6	-113.7	172.1	7.22	7.19	-2.81
6,114.0	16.70	24.60	6,104.2	4,829.2	150.4	-110.2	178.4	6.95	6.88	3.75
6,145.0	19.60	27.60	6,133.7	4,858.7	159.1	-105.9	185.2	9.83	9.35	9.68
6,177.0	22.90	32.10	6,163.5	4,888.5	169.1	-100.1	192.7	11.50	10.31	14.06
6,208.0	26.20	34.70	6,191.7	4,916.7	179.9	-93.0	200.5	11.20	10.65	8.39
6,239.0	30.60	34.80	6,219.0	4,944.0	192.0	-84.6	209.2	14.19	14.19	0.32
6,271.0	34.40	34.70	6,245.9	4,970.9	206.1	-74.8	219.3	11.88	11.88	-0.31
6,302.0	38.10	34.70	6,270.9	4,995.9	221.2	-64.4	230.0	11.94	11.94	0.00
6,334.0	41.50	34.50	6,295.5	5,020.5	238.0	-52.7	242.1	10.63	10.63	-0.63
6,365.0	45.10	33.40	6,318.1	5,043.1	255.7	-40.9	254.8	11.86	11.61	-3.55
6,397.0	48.40	31.70	6,340.0	5,065.0	275.3	-28.3	269.2	11.01	10.31	-5.31
6,428.0	52.00	31.60	6,359.8	5,084.8	295.6	-15.9	284.2	11.62	11.61	-0.01
6,459.0	55.60	32.00	6,378.2	5,103.2	316.9	-2.7	299.9	11.66	11.61	1.29
6,491.0	58.60	31.70	6,395.5	5,120.5	339.7	11.5	316.8	9.41	9.38	-0.94
6,523.0	61.80	32.70	6,411.4	5,136.4	363.2	26.3	334.1	10.36	10.00	3.13
6,554.0	64.50	33.30	6,425.4	5,150.4	386.4	41.4	351.0	8.88	8.71	1.94
6,585.0	66.80	33.40	6,438.2	5,163.2	409.9	56.9	368.1	7.43	7.42	0.32
6,617.0	69.50	33.70	6,450.1	5,175.1	434.7	73.3	386.1	8.48	8.44	0.94
6,680.0	70.70	34.50	6,471.6	5,196.6	483.7	106.5	421.4	2.25	1.90	1.27
6,774.0	68.30	33.80	6,504.5	5,229.5	556.6	155.9	473.8	2.65	-2.55	-0.74
6,869.0	69.40	33.90	6,538.8	5,263.8	630.2	205.3	527.0	1.16	1.16	0.11
6,963.0	69.20	31.20	6,572.0	5,297.0	704.3	252.6	581.3	2.70	-0.21	-2.87
7,058.0	69.50	31.50	6,605.5	5,330.5	780.2	298.8	637.7	0.43	0.32	0.32
7,152.0	69.70	30.80	6,638.3	5,363.3	855.6	344.4	693.8	0.73	0.21	-0.74
7,184.0	69.90	30.80	6,649.3	5,374.3	881.4	359.8	713.0	0.63	0.63	0.00
7,215.0	70.30	30.10	6,659.9	5,384.9	906.5	374.6	731.9	2.48	1.29	-2.26

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<b>Company:</b>	EQT Production - Malcolm	<b>TVD Reference:</b>	KB@23 @ 1275.0usft
<b>Project:</b>	Doddridge County, WV Strc	<b>MD Reference:</b>	KB@28 @ 1275.0usft
<b>Site:</b>	Doddridge County 513701	<b>North Reference:</b>	Grid
<b>Well:</b>	Well #513701	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Main Wellbore		
<b>Design:</b>	513701 As Drilled		

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)
7,246.0	70.00	27.40	6,670.4	5,395.4	932.1	388.6	751.4	8.25	-0.97	-8.71
7,278.0	69.70	23.60	6,681.4	5,406.4	959.2	401.5	772.7	11.19	-0.94	-11.88
7,309.0	71.00	20.50	6,691.8	5,416.8	986.3	412.5	794.6	10.31	4.19	-10.00
7,341.0	71.80	17.70	6,702.1	5,427.1	1,014.9	422.4	818.4	8.66	2.50	-8.75
7,372.0	72.80	14.30	6,711.5	5,436.5	1,043.3	430.5	842.5	10.93	3.23	-10.97
7,403.0	74.10	11.20	6,720.3	5,445.3	1,072.3	437.1	867.7	10.46	4.19	-10.00
7,434.0	75.80	9.30	6,728.4	5,453.4	1,101.7	442.4	893.7	8.07	5.48	-6.13
7,466.0	77.30	7.10	6,735.8	5,460.8	1,132.5	446.9	921.3	8.17	4.69	-6.88
7,498.0	78.00	3.90	6,742.7	5,467.7	1,163.7	449.8	949.7	10.01	2.19	-10.00
7,529.0	79.60	1.10	6,748.7	5,473.7	1,194.0	451.2	977.9	10.25	5.16	-9.03
7,561.0	82.10	358.60	6,753.8	5,478.8	1,225.6	451.1	1,007.8	10.98	7.81	-7.81
7,592.0	83.40	355.20	6,757.7	5,482.7	1,256.3	449.4	1,037.3	11.66	4.19	-10.97
7,624.0	82.60	351.70	6,761.6	5,486.6	1,287.9	445.8	1,068.3	11.14	-2.50	-10.94
7,655.0	82.50	347.90	6,765.6	5,490.6	1,318.1	440.4	1,098.6	12.16	-0.32	-12.26
7,687.0	83.70	344.30	6,769.4	5,494.4	1,348.9	432.7	1,130.2	11.78	3.75	-11.25
7,718.0	84.40	341.50	6,772.7	5,497.7	1,378.4	423.7	1,161.0	9.26	2.26	-9.03
7,750.0	86.20	338.70	6,775.3	5,500.3	1,408.4	412.8	1,192.9	10.38	5.63	-8.75
LP= 7781' MD/6777' TVD										
7,781.0	88.60	337.20	6,776.7	5,501.7	1,437.1	401.2	1,223.8	9.13	7.74	-4.84
Deepest Point of Well= 7813' MD/6777' TVD										
7,813.0	91.00	336.50	6,776.8	5,501.8	1,466.5	388.6	1,255.8	7.81	7.50	-2.19
7,907.0	92.40	335.80	6,774.0	5,499.0	1,552.4	350.6	1,349.4	1.67	1.49	-0.74
7,930.0	92.70	335.70	6,773.0	5,498.0	1,573.4	341.2	1,372.3	1.37	1.30	-0.43
8,024.0	88.90	337.20	6,771.7	5,496.7	1,659.5	303.6	1,466.0	4.35	-4.04	1.60
8,119.0	90.20	338.30	6,772.4	5,497.4	1,747.5	267.7	1,560.9	1.79	1.37	1.16
8,214.0	89.30	338.30	6,772.8	5,497.8	1,835.7	232.5	1,655.8	0.95	-0.95	0.00
8,308.0	92.10	337.60	6,771.7	5,496.7	1,922.8	197.3	1,749.7	3.07	2.98	-0.42
8,403.0	95.00	337.20	6,765.8	5,490.8	2,010.4	160.8	1,844.3	3.08	3.05	-0.42
8,498.0	93.00	335.30	6,759.2	5,484.2	2,097.1	122.7	1,938.8	2.90	-2.11	-2.00
8,592.0	92.40	333.60	6,754.8	5,479.8	2,181.8	82.2	2,032.1	1.92	-0.64	-1.81
8,686.0	91.10	331.70	6,751.9	5,476.9	2,265.3	39.0	2,125.2	2.45	-1.38	-2.02
8,781.0	91.70	334.90	6,749.6	5,474.6	2,350.1	-3.7	2,219.3	3.43	0.63	3.37
8,876.0	90.70	335.00	6,747.6	5,472.6	2,436.1	-43.9	2,313.8	1.06	-1.05	0.11
8,970.0	90.20	333.80	6,746.8	5,471.8	2,520.9	-84.5	2,407.3	1.38	-0.53	-1.28
9,065.0	90.70	336.00	6,746.1	5,471.1	2,606.9	-124.8	2,501.8	2.37	0.53	2.32
9,159.0	89.40	336.10	6,746.0	5,471.0	2,692.8	-163.0	2,595.4	1.39	-1.38	0.11
9,253.0	90.60	336.40	6,746.0	5,471.0	2,778.9	-200.8	2,689.2	1.32	1.28	0.32
9,347.0	91.80	336.80	6,744.0	5,469.0	2,865.1	-238.1	2,782.9	1.35	1.28	0.43
9,442.0	92.10	336.40	6,740.8	5,465.8	2,952.2	-275.8	2,877.6	0.53	0.32	-0.42
9,537.0	91.30	335.70	6,738.0	5,463.0	3,039.0	-314.4	2,972.2	1.12	-0.84	-0.74
9,631.0	94.40	337.80	6,733.3	5,458.3	3,125.3	-351.4	3,065.9	3.98	3.30	2.23
9,726.0	93.90	337.30	6,726.4	5,451.4	3,212.8	-387.6	3,160.5	0.74	-0.53	-0.53
9,820.0	93.50	336.70	6,720.4	5,445.4	3,299.2	-424.3	3,254.1	0.77	-0.43	-0.64

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<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Site: Doodridge County 513701
<b>Company:</b>	EQT Production - Marcellus	<b>TVD Reference:</b>	KB@23 @ 1275.0usft
<b>Project:</b>	Doodridge County WY Grid	<b>MD Reference:</b>	KB@23 @ 1275.0usft
<b>Site:</b>	Doodridge County 513701	<b>North Reference:</b>	Grid
<b>Well:</b>	Well #513701	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Main Wellbore		
<b>Design:</b>	513701 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)
9,914.0	93.20	335.80	6,714.9	5,439.9	3,385.1	-462.1	3,347.6	1.01	-0.32	-0.96
10,008.0	92.70	335.00	6,710.0	5,435.0	3,470.4	-501.1	3,441.1	1.00	-0.53	-0.85
10,103.0	91.40	335.70	6,706.6	5,431.6	3,556.7	-540.7	3,535.6	1.55	-1.37	0.74
10,198.0	90.70	335.90	6,704.9	5,429.9	3,643.4	-579.7	3,630.3	0.77	-0.74	0.21
10,292.0	90.50	335.70	6,703.9	5,428.9	3,729.1	-618.2	3,723.9	0.30	-0.21	-0.21
10,387.0	89.60	335.10	6,703.8	5,428.8	3,815.5	-657.8	3,818.5	1.14	-0.95	-0.63
10,481.0	93.40	334.10	6,701.4	5,426.4	3,900.3	-698.1	3,911.9	4.18	4.04	-1.06
10,576.0	93.00	332.80	6,696.1	5,421.1	3,985.2	-740.4	4,006.0	1.43	-0.42	-1.37
10,670.0	92.40	332.00	6,691.6	5,416.6	4,068.4	-784.0	4,098.9	1.06	-0.64	-0.85
10,765.0	91.30	333.80	6,688.6	5,413.6	4,152.9	-827.2	4,193.0	2.22	-1.16	1.89
10,859.0	92.70	335.30	6,685.3	5,410.3	4,237.7	-867.6	4,286.4	2.18	1.49	1.60
10,953.0	92.00	334.50	6,681.4	5,406.4	4,322.8	-907.4	4,379.8	1.13	-0.74	-0.85
11,048.0	91.30	334.60	6,678.7	5,403.7	4,408.5	-948.2	4,474.2	0.74	-0.74	0.11
11,142.0	90.50	334.80	6,677.2	5,402.2	4,493.5	-988.4	4,567.7	0.88	-0.85	0.21
11,236.0	89.70	334.00	6,677.1	5,402.1	4,578.3	-1,029.0	4,661.1	1.20	-0.85	-0.85
11,331.0	89.00	333.50	6,678.1	5,403.1	4,663.5	-1,071.0	4,755.4	0.91	-0.74	-0.53
11,426.0	91.40	333.90	6,677.8	5,402.8	4,748.6	-1,113.1	4,849.7	2.56	2.53	0.42
11,520.0	91.30	334.60	6,675.6	5,400.6	4,833.3	-1,153.9	4,943.1	0.75	-0.11	0.74
11,615.0	91.70	334.60	6,673.1	5,398.1	4,919.1	-1,194.7	5,037.5	0.42	0.42	0.00
11,709.0	91.40	332.80	6,670.6	5,395.6	5,003.3	-1,236.3	5,130.8	1.94	-0.32	-1.91
11,804.0	94.00	335.30	6,666.1	5,391.1	5,088.6	-1,277.8	5,225.0	3.79	2.74	2.63
11,898.0	93.50	334.70	6,659.9	5,384.9	5,173.6	-1,317.5	5,318.4	0.83	-0.53	-0.64
11,992.0	92.90	334.20	6,654.7	5,379.7	5,258.3	-1,357.9	5,411.7	0.83	-0.64	-0.53
12,087.0	92.70	334.10	6,650.1	5,375.1	5,343.7	-1,399.3	5,505.9	0.24	-0.21	-0.11
12,181.0	91.60	333.00	6,646.5	5,371.5	5,427.8	-1,441.1	5,599.1	1.65	-1.17	-1.17
12,275.0	90.50	333.00	6,644.8	5,369.8	5,511.5	-1,483.8	5,692.3	1.17	-1.17	0.00
12,370.0	89.80	335.90	6,644.6	5,369.6	5,597.2	-1,524.8	5,786.7	3.14	-0.74	3.05
12,464.0	92.40	336.80	6,642.7	5,367.7	5,683.3	-1,562.5	5,880.4	2.93	2.77	0.96
12,558.0	91.40	337.60	6,639.6	5,364.6	5,769.9	-1,598.9	5,974.1	1.36	-1.06	-0.85
12,652.0	93.10	337.90	6,635.9	5,360.9	5,856.8	-1,634.4	6,067.9	1.84	1.81	0.32
12,747.0	91.40	334.90	6,632.2	5,357.2	5,943.8	-1,672.4	6,162.6	3.63	-1.79	-3.16
12,841.0	90.90	334.90	6,630.3	5,355.3	6,028.9	-1,712.3	6,256.1	0.53	-0.53	0.00
12,935.0	90.10	333.70	6,629.5	5,354.5	6,113.6	-1,753.1	6,349.5	1.53	-0.85	-1.28
13,029.0	89.50	332.60	6,629.8	5,354.8	6,197.5	-1,795.5	6,442.7	1.33	-0.64	-1.17
13,124.0	89.00	331.60	6,631.1	5,356.1	6,281.4	-1,840.0	6,536.6	1.18	-0.53	-1.05
13,218.0	89.90	333.70	6,632.0	5,357.0	6,364.9	-1,883.2	6,629.7	2.43	0.96	2.23
13,313.0	90.40	336.10	6,631.7	5,356.7	6,450.9	-1,923.5	6,724.2	2.58	0.53	2.53
13,407.0	89.50	335.40	6,631.8	5,356.8	6,536.6	-1,962.1	6,817.8	1.21	-0.96	-0.74
13,502.0	90.30	337.40	6,632.0	5,357.0	6,623.7	-2,000.1	6,912.5	2.27	0.84	2.11
13,597.0	91.20	337.60	6,630.7	5,355.7	6,711.4	-2,036.4	7,007.4	0.97	0.95	0.21
13,691.0	91.30	337.40	6,628.7	5,353.7	6,798.3	-2,072.4	7,101.2	0.24	0.11	-0.21
13,786.0	90.60	336.40	6,627.1	5,352.1	6,885.6	-2,109.7	7,196.0	1.28	-0.74	-1.05

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<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Site Doddridge County 513701
<b>Company:</b>	EQT Production - Marcellus	<b>TVD Reference:</b>	KB@23 @ 1275.0usft
<b>Project:</b>	Doddridge County, WV Grid	<b>MD Reference:</b>	KB@23 @ 1275.0usft
<b>Site:</b>	Doddridge County 513701	<b>North Reference:</b>	Grid
<b>Well:</b>	Well #513701	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Main Wellbore		
<b>Design:</b>	513701 As Drilled		

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)
13,880.0	90.60	335.00	6,626.1	5,351.1	6,971.3	-2,148.4	7,289.6	1.49	0.00	-1.49
13,974.0	89.40	332.50	6,626.1	5,351.1	7,055.6	-2,189.9	7,382.9	2.95	-1.28	-2.66
14,068.0	90.50	332.40	6,626.2	5,351.2	7,138.9	-2,233.4	7,475.9	1.18	1.17	-0.11
14,162.0	89.00	330.60	6,626.6	5,351.6	7,221.5	-2,278.3	7,568.7	2.49	-1.60	-1.91
14,256.0	89.10	334.20	6,628.2	5,353.2	7,304.8	-2,321.8	7,661.7	3.83	0.11	3.83
14,351.0	91.50	336.60	6,627.7	5,352.7	7,391.2	-2,361.3	7,756.3	3.57	2.53	2.53
14,445.0	91.20	334.90	6,625.5	5,350.5	7,476.9	-2,399.9	7,849.9	1.84	-0.32	-1.81
14,540.0	90.60	334.60	6,624.0	5,349.0	7,562.8	-2,440.4	7,944.4	0.71	-0.63	-0.32
14,634.0	89.60	334.00	6,623.8	5,348.8	7,647.5	-2,481.2	8,037.8	1.24	-1.06	-0.64
14,728.0	89.00	333.40	6,625.0	5,350.0	7,731.7	-2,522.8	8,131.1	0.90	-0.64	-0.64
14,822.0	88.50	333.50	6,627.0	5,352.0	7,815.8	-2,564.9	8,224.3	0.54	-0.53	0.11
14,916.0	90.70	334.60	6,627.7	5,352.7	7,900.3	-2,606.0	8,317.7	2.62	2.34	1.17
15,011.0	89.90	334.70	6,627.2	5,352.2	7,986.2	-2,646.7	8,412.1	0.85	-0.84	0.11
15,106.0	88.90	334.60	6,628.2	5,353.2	8,072.0	-2,687.3	8,506.6	1.06	-1.05	-0.11
15,201.0	88.10	334.50	6,630.6	5,355.6	8,157.8	-2,728.1	8,601.0	0.85	-0.84	-0.11
15,296.0	91.00	336.70	6,631.4	5,356.4	8,244.3	-2,767.4	8,695.6	3.83	3.05	2.32
15,391.0	90.50	336.40	6,630.1	5,355.1	8,331.4	-2,805.2	8,790.4	0.61	-0.53	-0.32
15,486.0	89.20	335.50	6,630.4	5,355.4	8,418.2	-2,843.9	8,885.0	1.66	-1.37	-0.95
15,581.0	87.80	334.20	6,632.9	5,357.9	8,504.1	-2,884.2	8,979.5	2.01	-1.47	-1.37
15,676.0	87.10	334.20	6,637.1	5,362.1	8,589.6	-2,925.6	9,073.8	0.74	-0.74	0.00
15,771.0	87.00	335.90	6,642.0	5,367.0	8,675.6	-2,965.6	9,168.2	1.79	-0.11	1.79
15,866.0	91.00	337.30	6,643.7	5,368.7	8,762.7	-3,003.3	9,262.9	4.46	4.21	1.47
15,959.0	90.20	336.70	6,642.7	5,367.7	8,848.3	-3,039.6	9,355.7	1.08	-0.86	-0.65
16,054.0	89.00	337.10	6,643.3	5,368.3	8,935.7	-3,076.9	9,450.5	1.33	-1.26	0.42
16,148.0	88.40	336.20	6,645.5	5,370.5	9,022.0	-3,114.1	9,544.2	1.15	-0.64	-0.96
16,244.0	87.80	337.00	6,648.7	5,373.7	9,110.0	-3,152.2	9,639.9	1.04	-0.63	0.83
16,338.0	87.40	335.70	6,652.6	5,377.6	9,196.1	-3,189.9	9,733.6	1.45	-0.43	-1.38
16,433.0	88.50	335.50	6,656.0	5,381.0	9,282.5	-3,229.1	9,828.1	1.18	1.16	-0.21
16,528.0	87.80	335.50	6,659.1	5,384.1	9,368.9	-3,268.5	9,922.7	0.74	-0.74	0.00
Final Survey= 16550' MD/6660' TVD										
16,560.0	87.60	335.30	6,660.3	5,385.3	9,398.0	-3,281.8	9,954.5	0.88	-0.63	-0.63
Projection to TD= 16618' MD/6663' TVD										
16,618.0	87.60	335.30	6,662.8	5,387.8	9,450.7	-3,306.0	10,012.2	0.00	0.00	0.00

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<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Site Doddridge County 513701
<b>Company:</b>	EQT Production - Marcellus	<b>TVD Reference:</b>	KB@23' @ 1275.0usft
<b>Project:</b>	Doddridge County, WV Grid	<b>MD Reference:</b>	KB@23' @ 1275.0usft
<b>Site:</b>	Doddridge County 513701	<b>North Reference:</b>	Gnd
<b>Well:</b>	Well #513701	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Main Wellbore		
<b>Design:</b>	513701 As Drilled		

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
5,655.2	5,649.1	121.6	-142.1	Gyro Tie In=5655' MD
7,781.0	6,776.7	1,437.1	401.2	LP= 7781' MD/6777' TVD
7,813.0	6,776.8	1,466.5	388.6	Deepest Point of Well= 7813' MD/6777' TVD
16,560.0	6,660.3	9,398.0	-3,281.8	Final Survey= 16560' MD/6660' TVD
16,618.0	6,662.8	9,450.7	-3,306.0	Projection to TD= 16618' MD/6663' TVD

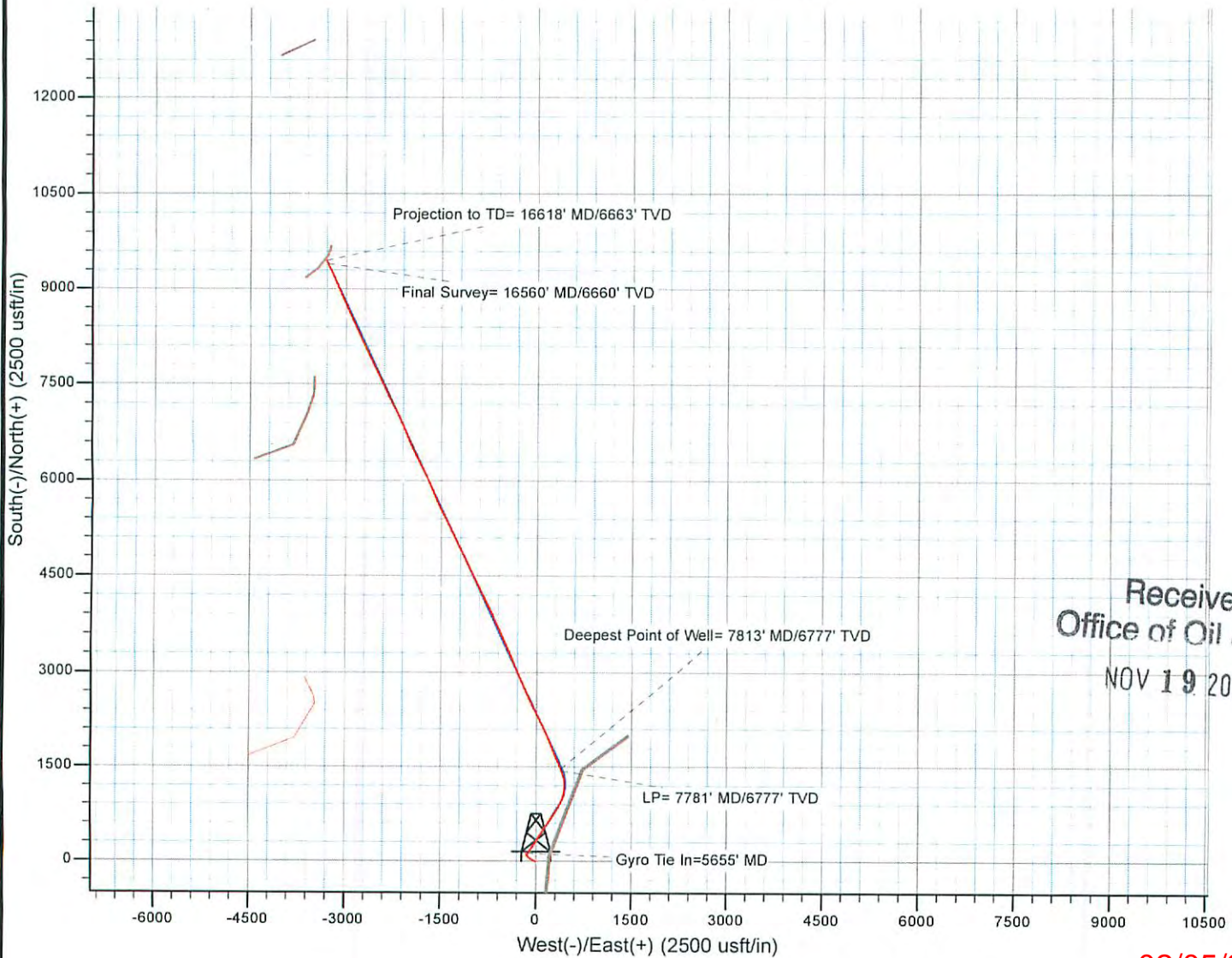
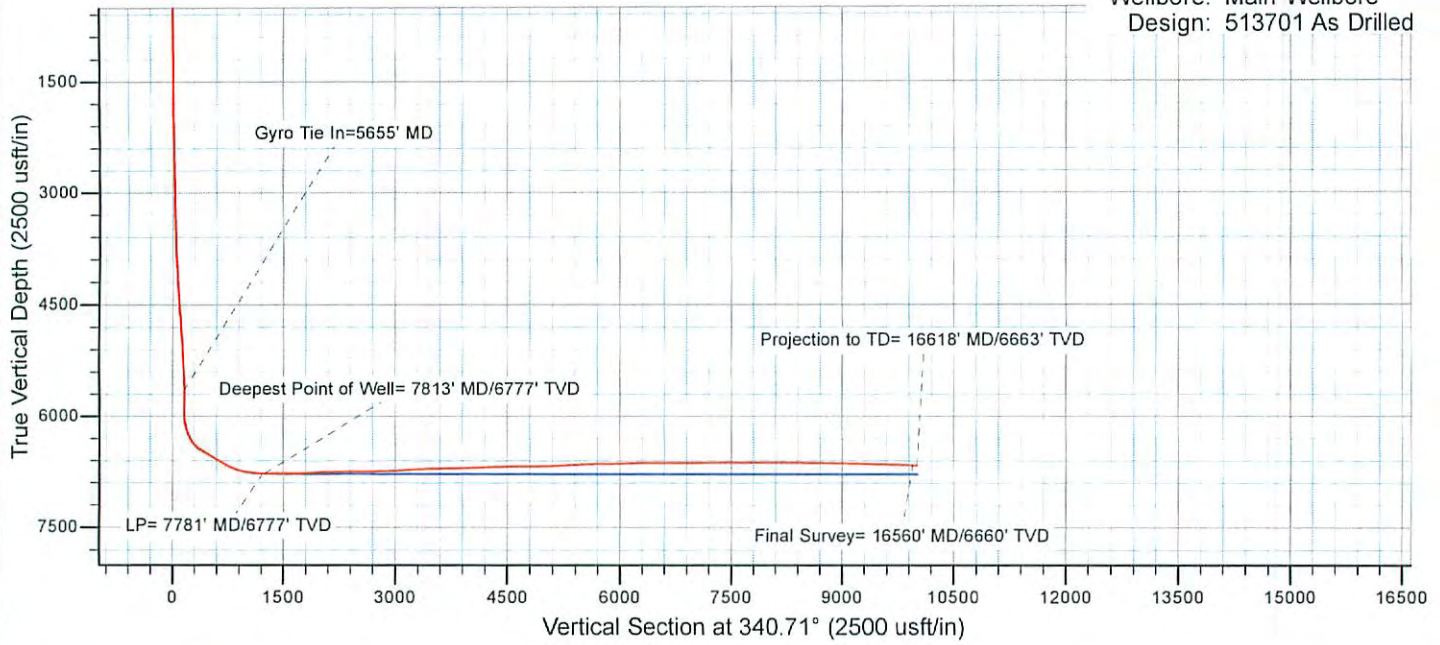
Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_

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Project: Doddridge County, WV Grid  
Site: Doddridge County 513701  
Well: Well #513701  
Wellbore: Main Wellbore  
Design: 513701 As Drilled



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