



EQT Production - Marcellus

Doddridge County, WV Grid

Doddridge County 513700

Well #513700

Main Wellbore

Design: 513700 As Drilled

Standard Survey Report

14 April, 2015

Received
Office of Oil & Gas
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Where energy meets innovation.



PHX
Survey Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Doddridge County 513700
Company:	EQT Production - Marcellus	TVD Reference:	KB@23 @ 1275.0usft
Project:	Doddridge County, WV Grid	MD Reference:	KB@23 @ 1275.0usft
Site:	Doddridge County 513700	North Reference:	Grid
Well:	Well #513700	Survey Calculation Method:	Minimum Curvature
Wellbore:	Main Wellbore		
Design:	513700 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 513700			
Site Position:		Northing:	260,321.40 usft
From:	Map	Easting:	1,642,341.60 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	39.21
		Longitude:	-80.76
		Grid Convergence:	-0.80 °

Well: Well #513700			
Well Position	+N/-S	0.0 usft	Northing: 260,321.40 usft
	+E/-W	0.0 usft	Easting: 1,642,341.60 usft
Position Uncertainty		0.0 usft	Wellhead Elevation: usft
			Latitude: 39° 12' 28.215 N
			Longitude: 80° 45' 43.903 W
			Ground Level: 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: 513700 As Drilled					
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	327.54	

Survey Program		Date	4/14/2015		
From (')	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.00	5,270.0	513700 Gyrodata Gyros (Main Wellbore)	GYD_DP_MS	Gyrodata gyro-compassing and drop	
0.00	14,420.0	513700 PHX MWD (Main Wellbore)	MWD+IGRF	MWD+IGRF v3:standard declination	

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
23.0	0.00	0.00	23.0	-1,252.0	0.0	0.0	0.0	0.00	0.00	0.00
123.0	0.23	271.44	123.0	-1,152.0	0.0	-0.2	0.1	0.23	0.23	0.00
223.0	0.25	197.95	223.0	-1,052.0	-0.2	-0.5	0.1	0.29	0.02	-73.49
323.0	0.10	255.71	323.0	-952.0	-0.4	-0.6	0.0	0.21	-0.15	57.76
423.0	0.14	282.63	423.0	-852.0	-0.4	-0.8	0.1	0.07	0.04	26.92
523.0	0.18	270.50	523.0	-752.0	-0.4	-1.1	0.3	0.05	0.04	-12.13
623.0	0.26	274.94	623.0	-652.0	-0.4	-1.5	0.5	0.08	0.08	4.44

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Project:	Doddridge County, WV Grid	MD Reference:	KB@23 @ 1275 Dush
Site:	Doddridge County 513700	North Reference:	Grid
Well:	Well #513700	Survey Calculation Method:	Minimum Curvature
Wellbore:	Main Wellbore		
Design:	513700 As Unltd		

Survey											
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Buird Rate (°/100usft)	Turn Rate (°/100usft)	
723.0	0.32	278.00	723.0	-552.0	-0.3	-2.0	0.8	0.06	0.06	3.06	
823.0	0.33	262.49	823.0	-452.0	-0.3	-2.5	1.1	0.09	0.01	-15.51	
923.0	0.35	274.81	923.0	-352.0	-0.3	-3.1	1.4	0.08	0.02	12.32	
1,023.0	0.80	284.15	1,023.0	-252.0	-0.1	-4.1	2.1	0.46	0.45	9.34	
1,123.0	0.66	287.67	1,123.0	-152.0	0.2	-5.3	3.1	0.15	-0.14	3.52	
1,223.0	1.26	273.22	1,223.0	-52.0	0.5	-7.0	4.1	0.64	0.60	-14.45	
1,323.0	1.59	275.14	1,322.9	47.9	0.6	-9.5	5.6	0.33	0.33	1.92	
1,423.0	1.71	278.60	1,422.9	147.9	1.0	-12.3	7.4	0.16	0.12	3.46	
1,523.0	1.61	277.61	1,522.9	247.9	1.4	-15.2	9.3	0.10	-0.10	-0.99	
1,623.0	1.40	274.10	1,622.8	347.8	1.7	-17.8	11.0	0.23	-0.21	-3.51	
1,723.0	1.66	275.22	1,722.8	447.8	1.9	-20.5	12.6	0.26	0.26	1.12	
1,823.0	1.95	278.06	1,822.7	547.7	2.3	-23.6	14.6	0.30	0.29	2.84	
1,923.0	1.57	283.64	1,922.7	647.7	2.8	-26.6	16.7	0.42	-0.38	5.58	
2,023.0	1.57	274.52	2,022.6	747.6	3.3	-29.3	18.5	0.25	0.00	-9.12	
2,123.0	1.86	274.31	2,122.6	847.6	3.5	-32.3	20.3	0.29	0.29	-0.21	
2,223.0	1.95	273.38	2,222.5	947.5	3.7	-35.6	22.2	0.10	0.09	-0.93	
2,323.0	2.30	270.09	2,322.5	1,047.5	3.8	-39.3	24.3	0.37	0.35	-3.29	
2,423.0	2.35	276.94	2,422.4	1,147.4	4.1	-43.4	26.7	0.28	0.05	6.85	
2,523.0	2.18	284.21	2,522.3	1,247.3	4.8	-47.2	29.4	0.33	-0.17	7.27	
2,623.0	2.21	284.96	2,622.2	1,347.2	5.7	-50.9	32.2	0.04	0.03	0.75	
2,723.0	2.36	286.10	2,722.2	1,447.2	6.8	-54.8	35.1	0.16	0.15	1.14	
2,823.0	2.38	286.46	2,822.1	1,547.1	8.0	-58.8	38.3	0.02	0.02	0.36	
2,923.0	2.23	288.47	2,922.0	1,647.0	9.2	-62.6	41.3	0.17	-0.15	2.01	
3,023.0	2.17	291.06	3,021.9	1,746.9	10.5	-66.2	44.4	0.12	-0.06	2.59	
3,123.0	2.11	291.00	3,121.9	1,846.9	11.8	-69.7	47.4	0.06	-0.06	-0.06	
3,223.0	2.08	295.01	3,221.8	1,946.8	13.2	-73.0	50.4	0.15	-0.03	4.01	
3,323.0	2.07	294.69	3,321.7	2,046.7	14.8	-76.3	53.4	0.02	-0.01	-0.32	
3,423.0	2.09	297.49	3,421.7	2,146.7	16.4	-79.6	56.5	0.10	0.02	2.80	
3,523.0	2.12	300.68	3,521.6	2,246.6	18.1	-82.8	59.7	0.12	0.03	3.19	
3,623.0	2.01	301.11	3,621.5	2,346.5	20.0	-85.9	63.0	0.11	-0.11	0.43	
3,723.0	2.10	302.31	3,721.5	2,446.5	21.9	-88.9	66.2	0.10	0.09	1.20	
3,823.0	2.22	302.73	3,821.4	2,546.4	23.9	-92.1	69.6	0.12	0.12	0.42	
3,923.0	2.79	303.15	3,921.3	2,646.3	26.3	-95.8	73.6	0.57	0.57	0.42	
4,023.0	3.26	303.05	4,021.2	2,746.2	29.2	-100.2	78.4	0.47	0.47	-0.10	
4,123.0	3.72	302.11	4,121.0	2,846.0	32.4	-105.3	83.9	0.46	0.46	-0.94	
4,223.0	4.36	299.03	4,220.7	2,945.7	36.0	-111.4	90.2	0.68	0.64	-3.08	
4,323.0	5.10	297.62	4,320.4	3,045.4	39.9	-118.7	97.4	0.75	0.74	-1.41	
4,423.0	6.40	297.00	4,419.9	3,144.9	44.5	-127.6	106.0	1.30	1.30	-0.62	
4,523.0	7.25	300.09	4,519.2	3,244.2	50.2	-138.0	116.4	0.93	0.85	3.09	
4,623.0	7.42	303.40	4,618.3	3,343.3	56.9	-148.9	127.9	0.46	0.17	3.31	
4,723.0	7.51	306.51	4,717.5	3,442.5	64.4	-159.5	139.9	0.41	0.09	3.11	
4,823.0	7.54	307.23	4,816.6	3,541.6	72.2	-170.0	152.2	0.10	0.03	0.72	

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Site:	Doddridge County 513700	North Reference:	Grid
Well:	Well #513700	Survey Calculation Method:	Minimum Curvature
Wellbore:	Main Wellbore		
Design:	513700 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)	
4,923.0	7.51	311.76	4,915.8	3,640.8	80.5	-180.1	164.6	0.59	-0.03	4.53	
5,023.0	7.49	313.39	5,014.9	3,739.9	89.4	-189.7	177.2	0.21	-0.02	1.63	
5,123.0	7.58	315.50	5,114.1	3,839.1	98.5	-199.0	190.0	0.29	0.09	2.11	
5,223.0	7.72	316.37	5,213.2	3,938.2	108.1	-208.3	203.0	0.18	0.14	0.87	
Gyro-Tilt table 5237' MD											
5,297.0	7.68	318.17	5,286.5	4,011.5	115.4	-215.0	212.8	0.33	-0.05	2.43	
KOP=5382' MD											
5,382.0	6.60	301.40	5,370.8	4,095.8	122.2	-223.0	222.8	2.75	-1.27	-19.73	
5,414.0	8.40	276.70	5,402.6	4,127.6	123.4	-226.9	225.9	11.41	5.63	-77.19	
5,445.0	10.90	263.80	5,433.1	4,158.1	123.3	-232.0	228.6	10.62	8.06	-41.61	
5,476.0	13.00	256.00	5,463.5	4,188.5	122.2	-238.3	231.0	8.53	6.77	-25.16	
5,507.0	14.80	247.00	5,493.6	4,218.6	119.8	-245.4	232.8	9.06	5.81	-29.03	
5,539.0	16.20	236.30	5,524.4	4,249.4	115.7	-252.8	233.4	9.93	4.38	-33.44	
5,570.0	17.80	225.70	5,554.1	4,279.1	110.0	-259.8	232.3	11.23	5.16	-34.19	
5,602.0	20.30	220.60	5,584.3	4,309.3	102.4	-267.0	229.7	9.38	7.81	-15.94	
5,633.0	22.30	217.40	5,613.2	4,338.2	93.6	-274.0	226.1	7.46	6.45	-10.32	
5,664.0	25.10	215.40	5,641.6	4,366.6	83.6	-281.4	221.6	9.40	9.03	-6.45	
5,696.0	28.40	214.50	5,670.1	4,395.1	71.8	-289.7	216.0	10.39	10.31	-2.81	
5,727.0	32.20	215.20	5,696.9	4,421.9	59.0	-298.6	210.0	12.31	12.26	2.26	
5,759.0	35.70	214.20	5,723.4	4,448.4	44.3	-308.8	203.1	11.08	10.94	-3.13	
5,853.0	41.30	208.50	5,797.0	4,522.0	-5.7	-339.0	177.1	7.05	5.96	-6.06	
5,947.0	41.20	213.00	5,867.7	4,592.7	-59.0	-370.7	149.2	3.16	-0.11	4.79	
6,042.0	39.70	211.20	5,940.0	4,665.0	-111.2	-403.4	122.7	2.00	-1.58	-1.89	
6,136.0	40.80	211.40	6,011.7	4,736.7	-163.1	-435.0	95.9	1.18	1.17	0.21	
6,199.0	40.00	211.00	6,059.7	4,784.7	-198.0	-456.1	77.8	1.33	-1.27	-0.63	
6,230.0	39.70	209.90	6,083.5	4,808.5	-215.1	-466.2	68.7	2.47	-0.97	-3.55	
6,261.0	39.10	212.60	6,107.5	4,832.5	-231.9	-476.4	60.0	5.86	-1.94	8.71	
6,293.0	38.40	217.40	6,132.4	4,857.4	-248.3	-487.9	52.3	9.64	-2.19	15.00	
6,324.0	38.30	223.30	6,156.7	4,881.7	-263.0	-500.3	46.7	11.81	-0.32	19.03	
6,355.0	38.20	228.30	6,181.1	4,906.1	-276.4	-514.1	42.8	9.99	-0.32	16.13	
6,387.0	37.70	232.00	6,206.3	4,931.3	-289.0	-529.2	40.2	7.28	-1.56	11.56	
6,418.0	36.90	237.20	6,231.0	4,956.0	-299.8	-544.5	39.3	10.48	-2.58	16.77	
6,450.0	36.00	243.00	6,256.7	4,981.7	-309.3	-560.9	40.1	11.13	-2.81	18.11	
6,481.0	35.90	248.60	6,281.8	5,006.8	-316.8	-577.5	42.7	10.61	-0.32	18.06	
6,513.0	35.90	252.50	6,307.8	5,032.8	-323.0	-595.2	46.9	7.15	0.00	17.55	
6,544.0	35.70	255.90	6,332.9	5,057.9	-328.0	-612.6	52.1	6.45	-0.65	10.97	
6,576.0	35.90	260.10	6,358.9	5,083.9	-331.8	-630.9	58.7	7.70	0.63	10.97	
6,607.0	37.30	265.40	6,383.8	5,108.8	-334.2	-649.3	66.6	11.15	4.52	17.10	
6,639.0	39.30	270.50	6,408.9	5,133.9	-334.9	-669.1	76.6	11.68	6.25	15.94	
6,670.0	41.00	275.40	6,432.6	5,157.6	-333.8	-689.0	88.2	11.57	5.48	15.81	
6,702.0	42.00	280.00	6,456.6	5,181.6	-331.0	-710.0	101.9	10.02	3.13	14.38	
6,734.0	43.10	284.90	6,480.1	5,205.1	-326.3	-731.1	117.1	10.91	3.44	15.31	
6,765.0	44.20	288.90	6,502.6	5,227.6	-320.1	-751.6	133.4	9.59	3.55	12.90	

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6,797.0	45.50	293.00	6,525.3	5,250.3	-312.0	-772.7	151.5	9.91	4.06	12.81
6,828.0	48.10	296.50	6,546.5	5,271.5	-302.5	-793.2	170.5	11.75	8.39	11.29
6,859.0	50.60	299.00	6,566.7	5,291.7	-291.6	-814.0	190.9	10.12	8.06	8.06
6,891.0	53.70	301.90	6,586.3	5,311.3	-278.7	-835.7	213.4	12.04	9.69	9.06
6,922.0	56.30	303.80	6,604.1	5,329.1	-265.0	-857.1	236.5	9.77	8.39	6.13
6,954.0	58.50	307.00	6,621.3	5,346.3	-249.4	-879.0	261.4	10.87	6.88	10.00
6,985.0	60.30	308.50	6,637.1	5,362.1	-233.0	-900.1	286.5	7.15	5.81	4.84
7,016.0	63.30	309.50	6,651.8	5,376.8	-215.8	-921.4	312.4	10.09	9.68	3.23
7,048.0	66.60	312.70	6,665.3	5,390.3	-196.8	-943.2	340.2	13.73	10.31	10.00
7,080.0	69.30	315.70	6,677.3	5,402.3	-176.1	-964.4	369.1	12.11	8.44	9.38
7,111.0	72.60	319.00	6,687.5	5,412.5	-154.5	-984.3	397.9	14.65	10.65	10.65
7,143.0	75.10	320.50	6,696.4	5,421.4	-131.1	-1,004.1	428.4	9.02	7.81	4.69
7,175.0	77.40	323.30	6,704.0	5,429.0	-106.6	-1,023.3	459.3	11.13	7.19	8.75
7,206.0	79.40	327.30	6,710.2	5,435.2	-81.7	-1,040.6	489.6	14.19	6.45	12.90
7,238.0	82.20	329.90	6,715.3	5,440.3	-54.7	-1,057.0	521.2	11.87	8.75	8.13
7,269.0	84.80	330.80	6,718.8	5,443.8	-27.9	-1,072.3	552.0	8.87	8.39	2.90
7,300.0	86.40	331.50	6,721.2	5,446.2	-0.9	-1,087.2	582.8	5.63	5.16	2.26
LP=7331' MD/ 6723' TVD										
7,331.0	88.40	332.60	6,722.6	5,447.6	26.5	-1,101.7	613.7	7.36	6.45	3.55
Deepest Point of Well=7363' MD/ 6723' TVD										
7,363.0	91.20	335.40	6,722.7	5,447.7	55.3	-1,115.7	645.5	12.37	8.75	8.75
7,458.0	93.80	336.70	6,718.6	5,443.6	142.0	-1,154.3	739.3	3.06	2.74	1.37
7,553.0	91.70	335.40	6,714.0	5,439.0	228.7	-1,192.8	833.2	2.60	-2.21	-1.37
7,647.0	91.30	335.50	6,711.6	5,436.6	314.2	-1,231.8	926.3	0.44	-0.43	0.11
7,742.0	90.90	336.00	6,709.7	5,434.7	400.8	-1,270.8	1,020.3	0.67	-0.42	0.53
7,836.0	90.20	335.60	6,708.8	5,433.8	486.5	-1,309.4	1,113.3	0.86	-0.74	-0.43
7,930.0	89.40	334.60	6,709.2	5,434.2	571.8	-1,348.9	1,206.5	1.36	-0.85	-1.06
8,024.0	91.80	334.00	6,708.2	5,433.2	656.5	-1,389.7	1,299.8	2.63	2.55	-0.64
8,119.0	91.30	332.80	6,705.6	5,430.6	741.4	-1,432.2	1,394.3	1.37	-0.53	-1.26
8,213.0	91.10	332.00	6,703.6	5,428.6	824.6	-1,475.8	1,487.9	0.88	-0.21	-0.85
8,308.0	93.80	332.80	6,699.6	5,424.6	908.8	-1,519.7	1,582.5	2.96	2.84	0.84
8,403.0	93.70	331.70	6,693.4	5,418.4	992.6	-1,563.9	1,676.9	1.16	-0.11	-1.16
8,498.0	93.40	333.40	6,687.5	5,412.5	1,076.8	-1,607.6	1,771.4	1.81	-0.32	1.79
8,592.0	93.10	336.30	6,682.1	5,407.1	1,161.7	-1,647.4	1,864.5	3.10	-0.32	3.09
8,687.0	91.70	334.70	6,678.2	5,403.2	1,248.1	-1,686.8	1,958.5	2.24	-1.47	3.09
8,780.0	91.30	333.10	6,675.7	5,400.7	1,331.6	-1,727.7	2,050.9	1.77	-0.43	-1.72
8,875.0	91.10	334.40	6,673.7	5,398.7	1,416.8	-1,769.7	2,145.3	1.38	-0.21	1.37
8,970.0	91.60	337.80	6,671.5	5,396.5	1,503.6	-1,808.2	2,239.2	3.62	0.53	3.58
9,064.0	91.30	335.60	6,669.1	5,394.1	1,589.9	-1,845.4	2,331.9	2.36	-0.32	-2.34
9,158.0	91.20	336.00	6,667.1	5,392.1	1,675.6	-1,883.9	2,424.9	0.44	-0.11	0.43
9,252.0	90.80	334.20	6,665.4	5,390.4	1,760.8	-1,923.4	2,518.1	1.96	-0.43	-1.91
9,347.0	90.20	335.00	6,664.6	5,389.6	1,846.7	-1,964.2	2,612.4	1.05	-0.63	0.84
9,442.0	91.00	336.80	6,663.6	5,388.6	1,933.4	-2,003.0	2,706.4	2.07	0.84	1.89

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PHX
Survey Report



Database:	EDM 5000.1 Single User Dir	Local Co-ordinate Reference:	Site Doddridge County 513700
Company:	EQT Production - Marcellus	TVD Reference:	KB@23 @ 1275.0usf
Project:	Doddridge County, WV Grid	MD Reference:	KB@23 @ 1275.0usf
Site:	Doddridge County 513700	North Reference:	Grid
Well:	Well #513700	Survey Calculation Method:	Minimum Curvature
Wellbore:	Main Wellbore		
Design:	513700 As Drilled		

Measured Depth (usf)	Inclination (°)	Azimuth (°)	Vertical Depth (usf)	Subsea Depth (usf)	+N/-S (usf)	+E/-W (usf)	Vertical Section (usf)	Dogleg Rate (°/100usf)	Build Rate (°/100usf)	Turn Rate (°/100usf)
9,536.0	90.70	335.70	6,662.2	5,387.2	2,019.4	-2,040.8	2,799.3	1.21	-0.32	-1.17
9,630.0	90.60	335.90	6,661.1	5,386.1	2,105.1	-2,079.4	2,892.3	0.24	-0.11	0.21
9,725.0	90.70	335.40	6,660.1	5,385.1	2,191.7	-2,118.5	2,986.3	0.54	0.11	-0.53
9,819.0	90.60	335.50	6,659.0	5,384.0	2,277.2	-2,157.6	3,079.4	0.15	-0.11	0.11
9,914.0	90.40	335.70	6,658.2	5,383.2	2,363.7	-2,196.8	3,173.5	0.30	-0.21	0.21
10,009.0	90.00	335.80	6,657.8	5,382.8	2,450.3	-2,235.8	3,267.5	0.43	-0.42	0.11
10,103.0	91.60	337.10	6,656.5	5,381.5	2,536.5	-2,273.4	3,360.4	2.19	1.70	1.38
10,198.0	91.70	336.70	6,653.8	5,378.8	2,623.8	-2,310.7	3,454.1	0.43	0.11	-0.42
10,292.0	91.40	337.10	6,651.3	5,376.3	2,710.2	-2,347.5	3,546.8	0.53	-0.32	0.43
10,387.0	91.50	336.00	6,648.9	5,373.9	2,797.4	-2,385.3	3,640.6	1.16	0.11	-1.16
10,483.0	91.30	336.40	6,646.5	5,371.5	2,885.2	-2,424.0	3,735.4	0.47	-0.21	0.42
10,577.0	90.60	334.20	6,644.9	5,369.9	2,970.5	-2,463.3	3,828.6	2.46	-0.74	-2.34
10,671.0	90.60	334.60	6,644.0	5,369.0	3,055.3	-2,503.9	3,921.9	0.43	0.00	0.43
10,766.0	90.60	334.00	6,643.0	5,368.0	3,140.9	-2,545.1	4,016.2	0.63	0.00	-0.63
10,860.0	90.40	333.30	6,642.1	5,367.1	3,225.1	-2,586.8	4,109.7	0.77	-0.21	-0.74
10,954.0	90.70	331.70	6,641.2	5,366.2	3,308.5	-2,630.2	4,203.3	1.73	0.32	-1.70
11,048.0	92.40	333.60	6,638.7	5,363.7	3,392.0	-2,673.4	4,296.9	2.71	1.81	2.02
11,143.0	92.10	335.50	6,635.0	5,360.0	3,477.7	-2,714.2	4,391.1	2.02	-0.32	2.00
11,238.0	90.70	335.70	6,632.7	5,357.7	3,564.2	-2,753.4	4,485.1	1.49	-1.47	0.21
11,332.0	90.40	333.30	6,631.7	5,356.7	3,649.0	-2,793.9	4,578.4	2.57	-0.32	-2.55
11,427.0	90.50	332.30	6,631.0	5,356.0	3,733.5	-2,837.3	4,673.0	1.06	0.11	-1.05
11,521.0	90.40	334.90	6,630.3	5,355.3	3,817.7	-2,879.1	4,766.5	2.77	-0.11	2.77
11,616.0	90.20	334.30	6,629.8	5,354.8	3,903.5	-2,919.9	4,860.8	0.67	-0.21	-0.63
11,710.0	89.90	333.50	6,629.7	5,354.7	3,987.9	-2,961.2	4,954.2	0.91	-0.32	-0.85
11,805.0	89.90	336.20	6,629.8	5,354.8	4,073.9	-3,001.6	5,048.4	2.84	0.00	2.84
11,899.0	90.20	335.50	6,629.8	5,354.8	4,159.7	-3,040.0	5,141.4	0.81	0.32	-0.74
11,993.0	89.30	336.20	6,630.2	5,355.2	4,245.4	-3,078.5	5,234.4	1.21	-0.96	0.74
12,088.0	89.50	336.00	6,631.2	5,356.2	4,332.3	-3,117.0	5,328.4	0.30	0.21	-0.21
12,182.0	90.30	335.30	6,631.3	5,356.3	4,417.9	-3,155.7	5,421.4	1.13	0.85	-0.74
12,276.0	90.50	334.40	6,630.7	5,355.7	4,503.0	-3,195.7	5,514.7	0.98	0.21	-0.96
12,370.0	90.50	334.20	6,629.9	5,354.9	4,587.7	-3,236.4	5,608.0	0.21	0.00	-0.21
12,465.0	90.00	334.40	6,629.4	5,354.4	4,673.3	-3,277.6	5,702.3	0.57	-0.53	0.21
12,559.0	89.80	333.00	6,629.6	5,354.6	4,757.6	-3,319.3	5,795.8	1.50	-0.21	1.49
12,654.0	89.90	333.30	6,629.9	5,354.9	4,842.3	-3,362.2	5,890.3	0.33	0.11	0.32
12,748.0	89.20	335.80	6,630.6	5,355.6	4,927.2	-3,402.6	5,983.6	2.76	-0.74	2.66
12,842.0	88.80	334.90	6,632.2	5,357.2	5,012.6	-3,441.8	6,076.7	1.05	-0.43	-0.96
12,937.0	88.00	335.30	6,634.9	5,359.9	5,098.8	-3,481.8	6,170.9	0.94	-0.84	0.42
13,031.0	87.60	334.30	6,638.5	5,363.5	5,183.7	-3,521.8	6,264.0	1.15	-0.43	-1.06
13,126.0	87.40	332.90	6,642.6	5,367.6	5,268.8	-3,564.0	6,358.4	1.49	-0.21	-1.47
13,221.0	88.90	335.70	6,645.7	5,370.7	5,354.3	-3,605.1	6,452.7	3.34	1.58	2.95
13,315.0	89.10	334.10	6,647.4	5,372.4	5,439.4	-3,645.0	6,545.9	1.72	0.21	-1.70
13,409.0	89.90	336.40	6,648.2	5,373.2	5,524.8	-3,684.3	6,639.0	2.59	0.85	2.45
13,504.0	90.10	336.30	6,648.2	5,373.2	5,611.8	-3,722.5	6,732.9	0.24	0.21	-0.11

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Database: EDM 5000.1 Single User Db	Local Co-ordinate Reference: Site Doddridge County 513700
Company: EQT Production - Marcellus	TVD Reference: KB@23 @ 1275.0usft
Project: Doddridge County, WV Grd	MD Reference: KB@23 @ 1275.0usft
Site: Doddridge County 513700	North Reference: Grid
Well: Well #513700	Survey Calculation Method: Minimum Curvature
Wellbore: Main Wellbore	
Design: 513700 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)
13,598.0	90.20	335.80	6,647.9	5,372.9	5,697.7	-3,760.6	6,825.9	0.54	0.11	-0.53
13,694.0	89.30	332.40	6,648.3	5,373.3	5,784.0	-3,802.5	6,921.2	3.66	-0.94	-3.54
13,788.0	89.90	333.60	6,649.0	5,374.0	5,867.8	-3,845.2	7,014.8	1.43	0.64	1.28
13,882.0	89.00	336.30	6,649.9	5,374.9	5,952.9	-3,885.0	7,108.0	3.03	-0.96	2.87
13,976.0	88.80	336.40	6,651.7	5,376.7	6,039.0	-3,922.7	7,200.9	0.24	-0.21	0.11
14,071.0	88.50	336.60	6,653.9	5,378.9	6,126.1	-3,960.6	7,294.7	0.38	-0.32	0.21
14,166.0	88.80	337.80	6,656.2	5,381.2	6,213.7	-3,997.4	7,388.3	1.30	0.32	1.26
14,260.0	89.20	337.60	6,657.8	5,382.8	6,300.6	-4,033.0	7,480.8	0.48	0.43	-0.21
Final TD=14354' MD/ 6659' TVD										
14,354.0	89.10	338.10	6,659.2	5,384.2	6,387.7	-4,068.5	7,573.3	0.54	-0.11	0.53
Projection to TD=14420' MD/ 6660' TVD										
14,420.0	89.10	338.10	6,660.3	5,385.3	6,448.9	-4,093.1	7,638.2	0.00	0.00	0.00

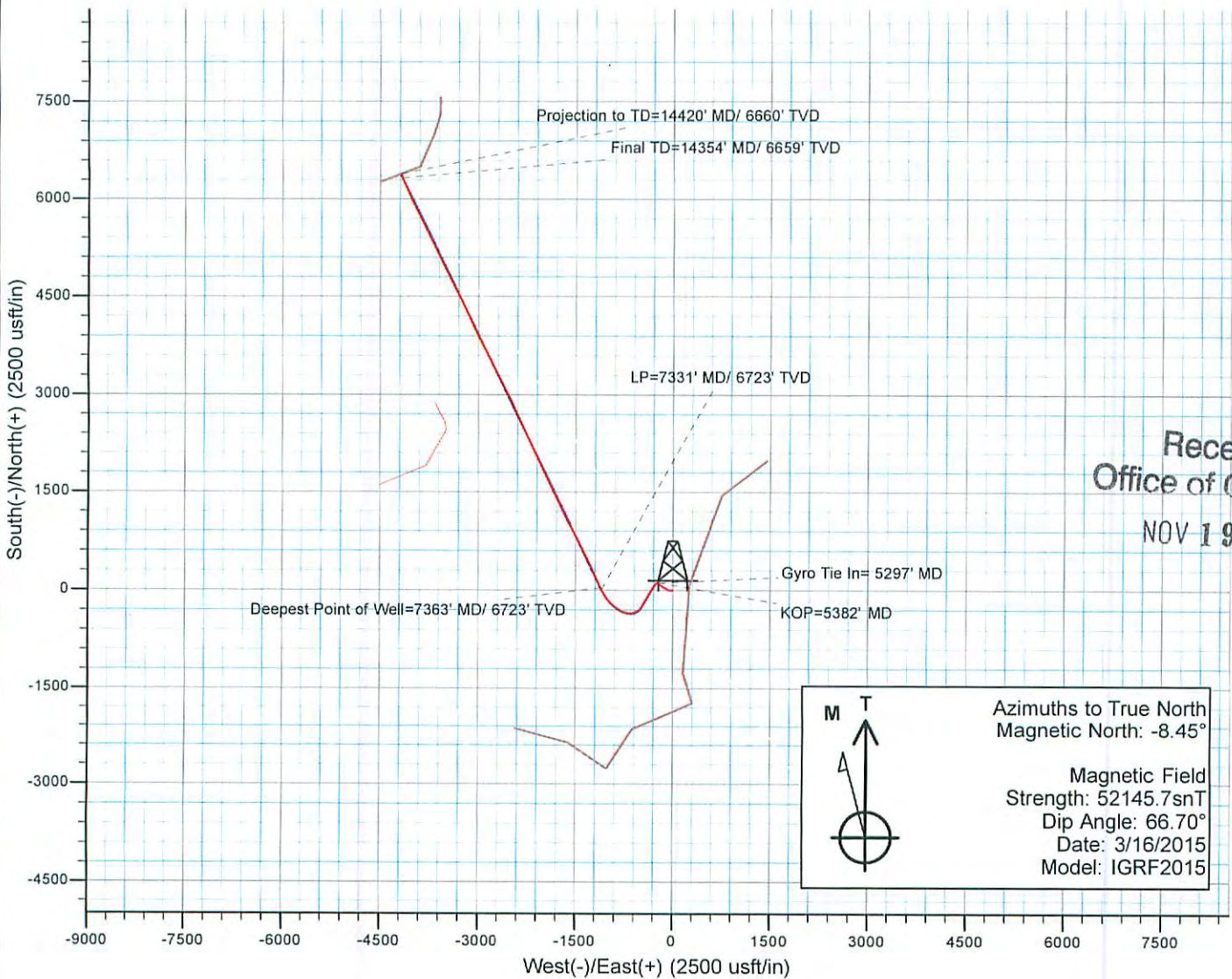
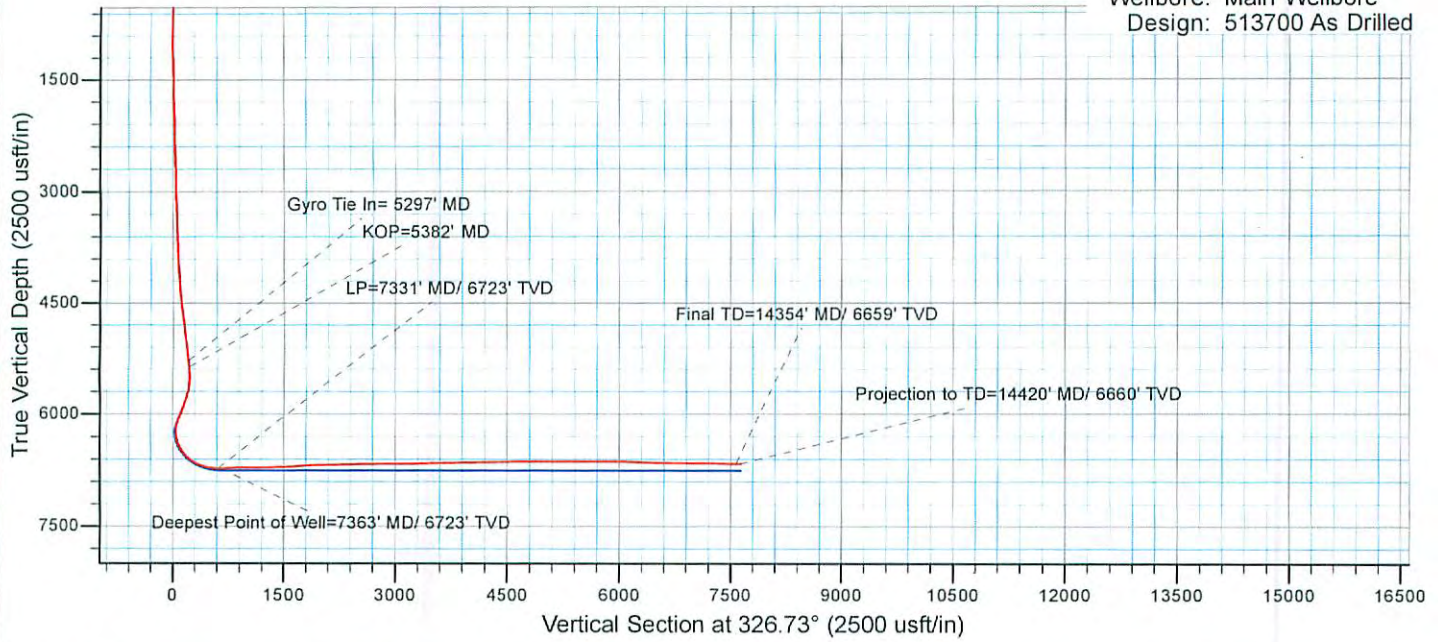
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
5,297.0	5,286.5	115.4	-215.0	Gyro Tie In= 5297' MD
5,382.0	5,370.8	122.2	-223.0	KOP=5382' MD
7,331.0	6,722.6	26.5	-1,101.7	LP=7331' MD/ 6723' TVD
7,363.0	6,722.7	55.3	-1,115.7	Deepest Point of Well=7363' MD/ 6723' TVD
14,354.0	6,659.2	6,387.7	-4,068.5	Final TD=14354' MD/ 6659' TVD
14,420.0	6,660.3	6,448.9	-4,093.1	Projection to TD=14420' MD/ 6660' TVD

Checked By: _____ Approved By: _____ Date: _____


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Project: Doddridge County, WV Grid
 Site: Doddridge County 513700
 Well: Well #513700
 Wellbore: Main Wellbore
 Design: 513700 As Drilled



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Azimuths to True North
Magnetic North: -8.45°

Magnetic Field
Strength: 52145.7snT
Dip Angle: 66.70°
Date: 3/16/2015
Model: IGRF2015