

EQT Production- Middlesex

Wetzel County, WV

Wetzel County 513832

Well #513832

Main Wellbore

Design: As Drilled Surveys

Standard Survey Report

16 December, 2014

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Environmental Protection

Phoenix Technologies

Survey Report

Database: EDM 5000.1 Single User Db	Local Co-ordinate Reference: Site Wetzel County 513832	
Company: EQT Production- Middlesex	TVD Reference: KB @ 876.0usft	
Project: Wetzel County, WV	MD Reference: KB @ 876.0usft	
Site: Wetzel County 513832	North Reference: Grid	
Well: Well #513832	Survey Calculation Method: Minimum Curvature	
Wellbore: Main Wellbore		
Design: 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 513832			
Site Position:	Northing: 388,076.04 usft	Latitude: 39.56	
From: Map	Easting: 1,700,937.00 usft	Longitude: -80.56	
Position Uncertainty: 0.0 usft	Slot Radius: 13-3/16 "	Grid Convergence: -0.68 °	

Well Well #513832			
Well Position	+N/-S 0.0 usft	Northing: 388,076.04 usft	Latitude: 39° 33' 38.332 N
	+E/-W 0.0 usft	Easting: 1,700,937.00 usft	Longitude: 80° 33' 38.712 W
Position Uncertainty	0.0 usft	Wellhead Elevation: usft	Ground Level: 860.0 usft

Wellbore Main Wellbore					
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010_14	12/1/2014	-8.71	66.95	52,353

Design As Drilled Surveys					
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	343.40	

Survey Program Date 12/16/2014					
From (°)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.00	3,873.0	513832 Gyrodata Gyro (Main Wellbore)	GYD_DP_MS	Gyrodata gyro-compassing and drop	
0.00	12,220.0	513832 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	-876.0	0.0	0.0	0.0	0.00	0.00	0.00
103.0	1.03	25.48	103.0	-773.0	0.8	0.4	0.7	1.00	0.00	0.00
203.0	1.06	42.24	203.0	-673.0	2.3	1.4	1.8	0.31	0.03	16.76
303.0	0.97	62.98	303.0	-573.0	3.4	2.8	2.5	0.38	-0.09	20.79
403.0	0.60	54.51	403.0	-473.0	4.1	4.0	2.8	0.39	-0.37	-8.47
503.0	0.25	31.02	503.0	-373.0	4.6	4.5	3.1	0.38	-0.35	23.49
603.0	0.08	342.25	602.9	-273.1	4.8	4.6	3.3	0.21	-0.17	-48.77
703.0	0.10	40.20	702.9	-173.1	5.0	4.6	3.4	0.09	0.02	37.93

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Well:	Well #513832	Survey Calculation Method:	Minimum Curvature
Wellbore:	Main Wellbore		
Design:	As Drilled Surveys		

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803.0	0.09	37.51	802.9	-73.1	5.1	4.7	3.5	0.01	-0.01	-2.69	
903.0	0.66	239.45	902.9	26.9	4.9	4.3	3.4	0.74	0.57	-158.06	
1,003.0	0.85	221.34	1,002.9	126.9	4.0	3.3	2.9	0.30	0.19	-18.11	
1,103.0	0.87	215.93	1,102.9	226.9	2.8	2.4	2.1	0.08	0.02	-5.41	
1,203.0	0.83	216.11	1,202.9	326.9	1.6	1.5	1.2	0.04	-0.04	0.18	
1,303.0	0.88	217.05	1,302.9	426.9	0.4	0.6	0.3	0.05	0.05	0.94	
1,403.0	0.91	206.48	1,402.9	526.9	-0.9	-0.2	-0.8	0.17	0.03	-10.57	
1,503.0	0.83	194.17	1,502.9	626.9	-2.3	-0.7	-2.0	0.20	-0.08	-12.31	
1,603.0	1.03	182.63	1,602.9	726.9	-3.9	-1.0	-3.5	0.27	0.20	-11.54	
1,703.0	1.23	184.52	1,702.8	826.8	-5.9	-1.1	-5.3	0.20	0.20	1.89	
1,803.0	1.21	181.68	1,802.8	926.8	-8.0	-1.2	-7.3	0.06	-0.02	-2.84	
1,903.0	1.04	183.60	1,902.8	1,026.8	-9.9	-1.3	-9.2	0.17	-0.17	1.92	
2,003.0	1.07	185.64	2,002.8	1,126.8	-11.8	-1.4	-10.9	0.05	0.03	2.04	
2,103.0	0.92	185.10	2,102.8	1,226.8	-13.5	-1.6	-12.5	0.15	-0.15	-0.54	
2,203.0	0.71	194.04	2,202.8	1,326.8	-14.9	-1.8	-13.8	0.24	-0.21	8.94	
2,303.0	0.47	237.96	2,302.8	1,426.8	-15.7	-2.3	-14.4	0.49	-0.24	43.92	
2,403.0	0.66	285.05	2,402.8	1,526.8	-15.8	-3.2	-14.2	0.48	0.19	47.09	
2,503.0	0.67	283.73	2,502.7	1,626.7	-15.5	-4.4	-13.6	0.02	0.01	-1.32	
2,603.0	0.59	303.97	2,602.7	1,726.7	-15.1	-5.3	-12.9	0.23	-0.08	20.24	
2,703.0	0.59	300.47	2,702.7	1,826.7	-14.5	-6.2	-12.1	0.04	0.00	-3.50	
2,803.0	0.55	297.27	2,802.7	1,926.7	-14.1	-7.1	-11.4	0.05	-0.04	-3.20	
2,903.0	0.47	305.44	2,902.7	2,026.7	-13.6	-7.9	-10.8	0.11	-0.08	8.17	
3,003.0	0.46	305.03	3,002.7	2,126.7	-13.1	-8.5	-10.1	0.01	-0.01	-0.41	
3,103.0	0.42	300.74	3,102.7	2,226.7	-12.7	-9.2	-9.6	0.05	-0.04	-4.29	
3,203.0	0.32	313.60	3,202.7	2,326.7	-12.3	-9.7	-9.0	0.13	-0.10	12.86	
3,303.0	0.29	312.91	3,302.7	2,426.7	-12.0	-10.1	-8.6	0.03	-0.03	-0.69	
3,403.0	0.27	318.33	3,402.7	2,526.7	-11.6	-10.4	-8.2	0.03	-0.02	5.42	
3,503.0	0.28	315.94	3,502.7	2,626.7	-11.3	-10.7	-7.7	0.02	0.01	-2.39	
3,603.0	0.24	321.34	3,602.7	2,726.7	-10.9	-11.0	-7.3	0.05	-0.04	5.40	
3,703.0	0.26	316.03	3,702.7	2,826.7	-10.6	-11.3	-6.9	0.03	0.02	-5.31	
3,803.0	0.22	325.42	3,802.7	2,926.7	-10.3	-11.6	-6.5	0.06	-0.04	9.39	
Gyro Tie In=3873' MD											
3,873.0	0.32	311.75	3,872.7	2,996.7	-10.0	-11.8	-6.2	0.17	0.14	-19.53	
3,887.0	0.50	321.00	3,886.7	3,010.7	-10.0	-11.9	-6.2	1.37	1.29	66.07	
3,919.0	0.20	301.30	3,918.7	3,042.7	-9.8	-12.0	-6.0	1.00	-0.94	-61.56	
3,951.0	2.30	247.70	3,950.7	3,074.7	-10.0	-12.7	-6.0	6.84	6.56	-167.50	
3,982.0	4.20	248.40	3,981.7	3,105.7	-10.7	-14.3	-6.2	6.13	6.13	2.26	
4,014.0	5.50	245.40	4,013.5	3,137.5	-11.8	-16.8	-6.5	4.06	4.06	9.93	
4,046.0	5.80	235.90	4,045.4	3,169.4	-13.3	-19.5	-7.2	3.07	0.94	-29.69	
4,077.0	5.60	229.20	4,076.2	3,200.2	-15.2	-21.9	-8.3	2.24	-0.65	21.61	
4,109.0	5.40	225.50	4,108.1	3,232.1	-17.2	-24.2	-9.6	1.27	0.63	-11.56	
4,141.0	6.20	233.50	4,139.9	3,263.9	-19.3	-26.7	-10.9	3.55	2.50	25.00	
4,172.0	7.20	241.50	4,170.7	3,294.7	-21.3	-29.7	-11.9	4.41	3.23	25.81	

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Design:	As Drilled Surveys		

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4,204.0	8.00	239.60	4,202.4	3,326.4	-23.3	-33.4	-12.8	2.62	2.50	-5.94
4,235.0	8.90	235.20	4,233.1	3,357.1	-25.8	-37.2	-14.1	3.57	2.90	-14.19
4,267.0	10.30	229.20	4,264.6	3,388.6	-29.1	-41.4	-16.0	5.37	4.38	-18.75
4,298.0	10.20	225.80	4,295.1	3,419.1	-32.8	-45.5	-18.4	1.98	-0.32	-10.97
4,330.0	9.40	223.60	4,326.7	3,450.7	-36.7	-49.3	-21.1	2.76	-2.50	-6.88
4,361.0	8.40	221.30	4,357.3	3,481.3	-40.2	-52.6	-23.5	3.42	-3.23	-7.42
4,393.0	7.70	222.90	4,389.0	3,513.0	-43.5	-55.6	-25.8	2.30	-2.19	5.00
4,425.0	8.10	228.00	4,420.7	3,544.7	-46.6	-58.7	-27.9	2.52	1.25	15.94
4,456.0	9.00	235.90	4,451.3	3,575.3	-49.4	-62.3	-29.6	4.77	2.90	25.48
4,487.0	8.70	235.20	4,482.0	3,606.0	-52.1	-66.3	-31.0	1.03	-0.97	-2.26
4,519.0	8.40	231.40	4,513.6	3,637.6	-55.0	-70.1	-32.7	2.00	-0.94	-11.88
4,550.0	7.60	228.70	4,544.3	3,668.3	-57.7	-73.4	-34.4	2.85	-2.58	-8.71
4,582.0	6.40	221.50	4,576.1	3,700.1	-60.5	-76.2	-36.2	4.64	-3.75	-22.50
4,614.0	5.70	213.80	4,607.9	3,731.9	-63.1	-78.2	-38.1	3.34	-2.19	-24.06
4,645.0	4.70	212.50	4,638.8	3,762.8	-65.5	-79.8	-40.0	3.25	-3.23	-4.19
4,677.0	3.80	213.30	4,670.7	3,794.7	-67.5	-81.1	-41.5	2.82	-2.81	2.50
4,708.0	3.00	212.00	4,701.6	3,825.6	-69.0	-82.0	-42.7	2.59	-2.58	-4.19
4,740.0	1.40	190.00	4,733.6	3,857.6	-70.1	-82.6	-43.6	5.57	-5.00	-68.75
4,771.0	1.20	164.00	4,764.6	3,888.6	-70.8	-82.5	-44.3	1.99	-0.65	-83.87
4,803.0	1.10	173.60	4,796.6	3,920.6	-71.4	-82.4	-44.9	0.68	-0.31	30.00
4,834.0	1.00	150.10	4,827.6	3,951.6	-72.0	-82.2	-45.5	1.42	-0.32	-75.81
4,866.0	1.10	146.70	4,859.6	3,983.6	-72.5	-81.9	-46.0	0.37	0.31	-10.63
4,897.0	1.10	141.50	4,890.6	4,014.6	-72.9	-81.6	-46.6	0.32	0.00	-16.77
4,929.0	0.80	160.40	4,922.6	4,046.6	-73.4	-81.3	-47.1	1.34	-0.94	59.06
4,961.0	2.50	135.20	4,954.6	4,078.6	-74.1	-80.8	-47.9	5.65	5.31	-78.75
4,992.0	6.00	125.90	4,985.5	4,109.5	-75.5	-79.0	-49.8	11.47	11.29	-30.00
5,023.0	9.80	124.90	5,016.2	4,140.2	-78.0	-75.5	-53.2	12.27	12.26	-3.23
5,055.0	12.40	126.50	5,047.6	4,171.6	-81.6	-70.5	-58.0	8.18	8.13	5.00
5,086.0	14.50	127.60	5,077.7	4,201.7	-85.9	-64.7	-63.9	6.82	6.77	3.55
5,118.0	16.80	128.60	5,108.5	4,232.5	-91.3	-58.0	-70.9	7.24	7.19	3.13
5,150.0	18.90	128.30	5,139.0	4,263.0	-97.4	-50.3	-78.9	6.57	6.56	-0.94
5,181.0	20.90	129.50	5,168.1	4,292.1	-104.0	-42.1	-87.6	6.58	6.45	3.87
5,213.0	23.00	131.00	5,197.8	4,321.8	-111.7	-32.9	-97.7	6.79	6.56	4.69
5,244.0	25.50	133.00	5,226.1	4,350.1	-120.2	-23.5	-108.5	8.49	8.06	6.45
5,276.0	28.70	133.10	5,254.6	4,378.6	-130.2	-12.8	-121.1	10.00	10.00	0.31
5,307.0	32.30	131.00	5,281.3	4,405.3	-140.7	-1.1	-134.5	12.11	11.81	-6.77
5,339.0	36.40	130.30	5,307.7	4,431.7	-152.5	12.6	-149.7	10.32	12.87	2.49
5,370.0	39.60	130.30	5,332.1	4,456.1	-164.8	27.1	-165.7	10.32	10.32	0.00
5,434.0	39.30	128.60	5,381.5	4,505.5	-190.7	58.5	-199.4	1.75	-0.47	-2.66
5,497.0	39.80	128.70	5,430.1	4,554.1	-215.7	89.8	-232.4	0.80	0.79	0.16
5,559.0	40.70	130.50	5,477.4	4,601.4	-241.2	120.7	-265.7	2.37	1.45	2.90
5,622.0	41.30	130.00	5,525.0	4,649.0	-268.0	152.2	-300.3	1.09	0.95	0.78

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5,686.0	41.90	129.00	5,572.8	4,696.8	-295.0	185.0	-335.5	1.40	0.94	-1.56
5,749.0	41.50	128.30	5,619.9	4,743.9	-321.2	217.8	-370.0	0.97	-0.63	-1.11
5,812.0	41.50	128.40	5,667.0	4,791.0	-347.1	250.5	-404.2	0.11	0.00	0.16
5,875.0	39.60	127.90	5,714.9	4,838.9	-372.4	282.7	-437.6	3.06	-3.02	-0.79
5,939.0	39.50	132.00	5,764.3	4,888.3	-398.5	313.9	-471.6	4.08	-0.16	6.41
6,002.0	39.50	131.50	5,812.9	4,936.9	-425.2	343.8	-505.7	0.50	0.00	-0.79
6,065.0	40.20	132.20	5,861.3	4,985.3	-452.1	373.9	-540.1	1.32	1.11	1.11
6,097.0	39.30	130.90	5,885.9	5,009.9	-465.7	389.2	-557.5	3.83	-2.81	-4.06
6,128.0	36.60	127.90	5,910.3	5,034.3	-477.8	403.9	-573.3	10.55	-8.71	-9.68
6,160.0	33.40	123.20	5,936.5	5,060.5	-488.5	418.8	-587.8	13.07	-10.00	-14.69
6,191.0	30.90	118.30	5,962.8	5,086.8	-496.9	433.0	-599.9	11.65	-8.06	-15.81
6,222.0	28.50	113.60	5,989.7	5,113.7	-503.7	446.8	-610.3	10.78	-7.74	-15.16
6,254.0	25.60	108.20	6,018.2	5,142.2	-508.9	460.3	-619.2	11.87	-9.06	-16.88
6,286.0	23.80	101.70	6,047.3	5,171.3	-512.4	473.2	-626.2	10.18	-5.63	-20.31
6,317.0	23.10	98.50	6,075.7	5,199.7	-514.5	485.4	-631.8	4.69	-2.26	-10.32
6,349.0	22.10	96.50	6,105.3	5,229.3	-516.1	497.6	-636.8	3.94	-3.13	-6.25
6,380.0	20.70	95.70	6,134.1	5,258.1	-517.4	508.8	-641.1	4.61	-4.52	-2.58
6,411.0	19.90	87.20	6,163.2	5,287.2	-517.6	519.5	-644.5	9.85	-2.58	-27.42
6,443.0	20.50	78.50	6,193.2	5,317.2	-516.3	530.5	-646.3	9.56	1.88	-27.19
6,474.0	21.60	72.60	6,222.2	5,346.2	-513.5	541.2	-646.7	7.70	3.55	-19.03
6,506.0	22.30	64.80	6,251.9	5,375.9	-509.1	552.3	-645.7	9.36	2.19	-24.38
6,537.0	23.30	56.30	6,280.4	5,404.4	-503.2	562.8	-643.0	11.09	3.23	-27.42
6,569.0	24.40	45.70	6,309.7	5,433.7	-495.1	572.8	-638.1	13.81	3.44	-33.13
6,600.0	24.80	38.10	6,337.9	5,461.9	-485.5	581.4	-631.3	10.28	1.29	-24.52
6,632.0	25.90	31.10	6,366.8	5,490.8	-474.2	589.1	-622.8	9.97	3.44	-21.88
6,663.0	27.30	24.80	6,394.6	5,518.6	-462.0	595.6	-612.9	10.15	4.52	-20.32
6,695.0	29.00	19.00	6,422.8	5,546.8	-448.0	601.2	-601.0	10.06	5.31	-18.13
6,727.0	30.60	13.90	6,450.6	5,574.6	-432.7	605.7	-587.7	9.36	5.00	-15.94
6,758.0	32.50	13.00	6,477.0	5,601.0	-416.9	609.5	-573.7	6.31	6.13	-2.90
6,790.0	35.10	13.20	6,503.6	5,627.6	-399.6	613.5	-558.2	8.13	8.13	0.63
6,821.0	37.70	10.10	6,528.5	5,652.5	-381.6	617.2	-542.0	10.27	8.39	-10.00
6,853.0	39.80	5.70	6,553.5	5,677.5	-361.8	619.9	-523.8	10.82	6.56	-13.75
6,885.0	43.00	2.50	6,577.5	5,701.5	-340.7	621.4	-504.0	11.99	10.00	-10.00
6,916.0	45.90	1.10	6,599.6	5,723.6	-319.0	622.1	-483.4	9.77	11.94	-4.52
6,948.0	49.80	358.80	6,621.1	5,745.1	-295.3	622.1	-460.7	13.30	12.19	-7.19
6,979.0	52.60	356.40	6,640.5	5,764.5	-271.1	621.0	-437.2	10.86	9.03	-4.37
7,011.0	56.40	354.00	6,659.1	5,783.1	-245.2	618.8	-411.7	13.35	11.88	-7.50
7,043.0	61.10	353.00	6,675.7	5,799.7	-218.0	615.7	-384.8	14.93	14.69	-3.13
7,074.0	64.80	352.10	6,689.8	5,813.8	-190.6	612.2	-357.6	12.21	11.94	-6.88
7,106.0	68.30	349.90	6,702.5	5,826.5	-161.6	607.6	-328.5	12.62	11.44	-6.88
7,137.0	71.40	348.30	6,713.2	5,837.2	-133.1	602.1	-299.5	11.17	10.00	-5.16
7,169.0	72.20	348.30	6,723.2	5,847.2	-103.3	595.9	-269.2	2.50	2.50	0.00
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Phoenix Technologies
Survey Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Wetzel County 513832
Company:	EQT Production- Middlesex	TVD Reference:	KB @ 876.0usft
Project:	Wetzel County, WV	MD Reference:	KB @ 876.0usft
Site:	Wetzel County 513832	North Reference:	Grid
Well:	Well #513832	Survey Calculation Method:	Minimum Curvature
Wellbore:	Main Wellbore		
Design:	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)
9,284.0	89.40	338.60	6,753.1	5,877.1	1,841.1	-217.3	1,826.5	0.95	0.95	0.00
9,348.0	89.80	338.90	6,753.5	5,877.5	1,900.8	-240.5	1,890.3	0.78	0.63	0.47
9,411.0	90.80	338.70	6,753.2	5,877.2	1,959.5	-263.3	1,953.1	1.62	1.59	-0.32
9,474.0	92.00	339.00	6,751.7	5,875.7	2,018.3	-286.1	2,015.9	1.96	1.90	0.48
9,538.0	91.50	338.30	6,749.7	5,873.7	2,077.8	-309.3	2,079.6	1.34	-0.78	-1.09
9,601.0	91.40	338.90	6,748.1	5,872.1	2,136.5	-332.3	2,142.4	0.97	-0.16	0.95
9,664.0	91.20	337.50	6,746.7	5,870.7	2,194.9	-355.7	2,205.1	2.24	-0.32	-2.22
9,727.0	91.00	338.00	6,745.5	5,869.5	2,253.2	-379.6	2,267.8	0.85	-0.32	0.79
9,790.0	90.20	336.50	6,744.8	5,868.8	2,311.3	-403.9	2,330.4	2.70	-1.27	-2.38
9,853.0	89.50	335.60	6,745.0	5,869.0	2,368.9	-429.5	2,392.9	1.81	-1.11	-1.43
9,916.0	89.40	336.20	6,745.6	5,869.6	2,426.4	-455.2	2,455.3	0.97	-0.16	0.95
9,979.0	88.60	335.50	6,746.7	5,870.7	2,483.9	-481.0	2,517.8	1.69	-1.27	-1.11
10,043.0	89.10	335.80	6,748.0	5,872.0	2,542.2	-507.4	2,581.2	0.91	0.78	0.47
10,106.0	90.30	336.10	6,748.3	5,872.3	2,599.7	-533.0	2,643.7	1.96	1.90	0.48
10,169.0	90.70	336.10	6,747.8	5,871.8	2,657.3	-558.6	2,706.1	0.63	0.63	0.00
10,233.0	91.80	336.90	6,746.4	5,870.4	2,716.0	-584.1	2,769.7	2.13	1.72	1.25
10,296.0	91.00	336.70	6,744.8	5,868.8	2,773.9	-608.9	2,832.2	1.31	-1.27	-0.32
10,359.0	91.50	335.40	6,743.4	5,867.4	2,831.4	-634.5	2,894.7	2.21	0.79	-2.06
10,422.0	92.40	336.10	6,741.3	5,865.3	2,888.8	-660.3	2,957.1	1.81	1.43	1.11
10,485.0	91.70	334.90	6,739.1	5,863.1	2,946.1	-686.4	3,019.5	2.20	-1.11	-1.90
10,549.0	90.90	333.70	6,737.6	5,861.6	3,003.8	-714.2	3,082.6	2.25	-1.25	-1.88
10,612.0	91.00	335.00	6,736.6	5,860.6	3,060.6	-741.4	3,144.8	2.07	0.16	2.06
10,675.0	90.50	336.20	6,735.7	5,859.7	3,117.9	-767.5	3,207.2	2.06	-0.79	1.90
10,738.0	89.80	334.90	6,735.6	5,859.6	3,175.3	-793.5	3,269.7	2.34	-1.11	-2.06
10,801.0	89.90	336.10	6,735.7	5,859.7	3,232.6	-819.7	3,332.1	1.91	0.16	1.90
10,864.0	89.30	338.00	6,736.2	5,860.2	3,290.6	-844.2	3,394.7	3.16	-0.95	3.02
10,927.0	89.10	337.70	6,737.0	5,861.0	3,349.0	-868.0	3,457.4	0.57	-0.32	-0.48
10,990.0	88.50	337.70	6,738.4	5,862.4	3,407.2	-891.9	3,520.0	0.95	-0.95	0.00
11,054.0	88.70	337.20	6,739.9	5,863.9	3,466.3	-916.4	3,583.7	0.84	0.31	-0.78
11,117.0	90.80	337.30	6,740.2	5,864.2	3,524.4	-940.8	3,646.3	3.34	3.33	0.16
11,180.0	90.60	337.10	6,739.4	5,863.4	3,582.5	-965.2	3,708.9	0.45	-0.32	-0.32
11,243.0	91.30	337.90	6,738.4	5,862.4	3,640.7	-989.3	3,771.6	1.69	1.71	1.71
11,306.0	91.50	339.00	6,736.9	5,860.9	3,699.3	-1,012.4	3,834.3	1.71	0.32	1.75
11,370.0	90.60	338.20	6,735.7	5,859.7	3,758.8	-1,035.8	3,898.1	1.88	-1.41	-1.25
11,433.0	89.50	335.90	6,735.6	5,859.6	3,816.9	-1,060.3	3,960.7	4.05	-1.75	-3.65
11,496.0	89.40	336.70	6,736.2	5,860.2	3,874.5	-1,085.7	4,023.2	1.28	-0.16	1.27
11,559.0	90.00	338.30	6,736.6	5,860.6	3,932.7	-1,109.8	4,085.9	2.71	0.95	1.61
11,622.0	89.80	339.20	6,736.7	5,860.7	3,991.5	-1,132.6	4,148.7	1.46	0.32	1.43
11,685.0	89.40	339.10	6,737.1	5,861.1	4,050.3	-1,155.0	4,211.5	1.43	-0.63	-0.16
11,749.0	88.70	338.90	6,738.2	5,862.2	4,110.1	-1,178.0	4,275.3	1.14	-1.09	-0.31
11,812.0	89.60	338.30	6,739.1	5,863.1	4,168.7	-1,200.9	4,338.1	1.72	1.43	-0.95
11,874.0	93.00	338.90	6,737.7	5,861.7	4,226.4	-1,223.6	4,399.8	5.57	5.48	0.97

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Phoenix Technologies
Survey Report

Database: EDM 5000.1 Single User Db	Local Co-ordinate Reference: Site Wetzel County 513832
Company: EQT Production- Middlesex	TVD Reference: KB @ 876.0usft
Project: Wetzel County, WV	MD Reference: KB @ 876.0usft
Site: Wetzel County 513832	North Reference: Grid
Well: Well #513832	Survey Calculation Method: Minimum Curvature
Wellbore: Main Wellbore	
Design: 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)
11,938.0	92.00	338.10	6,734.9	5,858.9	4,285.9	-1,247.0	4,463.5	2.00	-1.56	-1.25
12,001.0	91.60	338.20	6,732.9	5,856.9	4,344.4	-1,270.4	4,526.2	0.65	-0.63	0.16
12,064.0	90.90	338.30	6,731.6	5,855.6	4,402.9	-1,293.8	4,589.0	1.12	-1.11	0.16
12,127.0	90.50	338.10	6,730.8	5,854.8	4,461.3	-1,317.2	4,651.7	0.71	-0.63	-0.32
Final Survey= 12159' MD/6731' TVD										
12,159.0	90.20	337.90	6,730.6	5,854.6	4,491.0	-1,329.1	4,683.6	1.13	-0.94	-0.63
Projection to TD= 12220' MD/6730' TVD - 513832 Plat TD										
12,220.0	90.20	337.90	6,730.4	5,854.4	4,547.5	-1,352.1	4,744.3	0.00	0.00	0.00

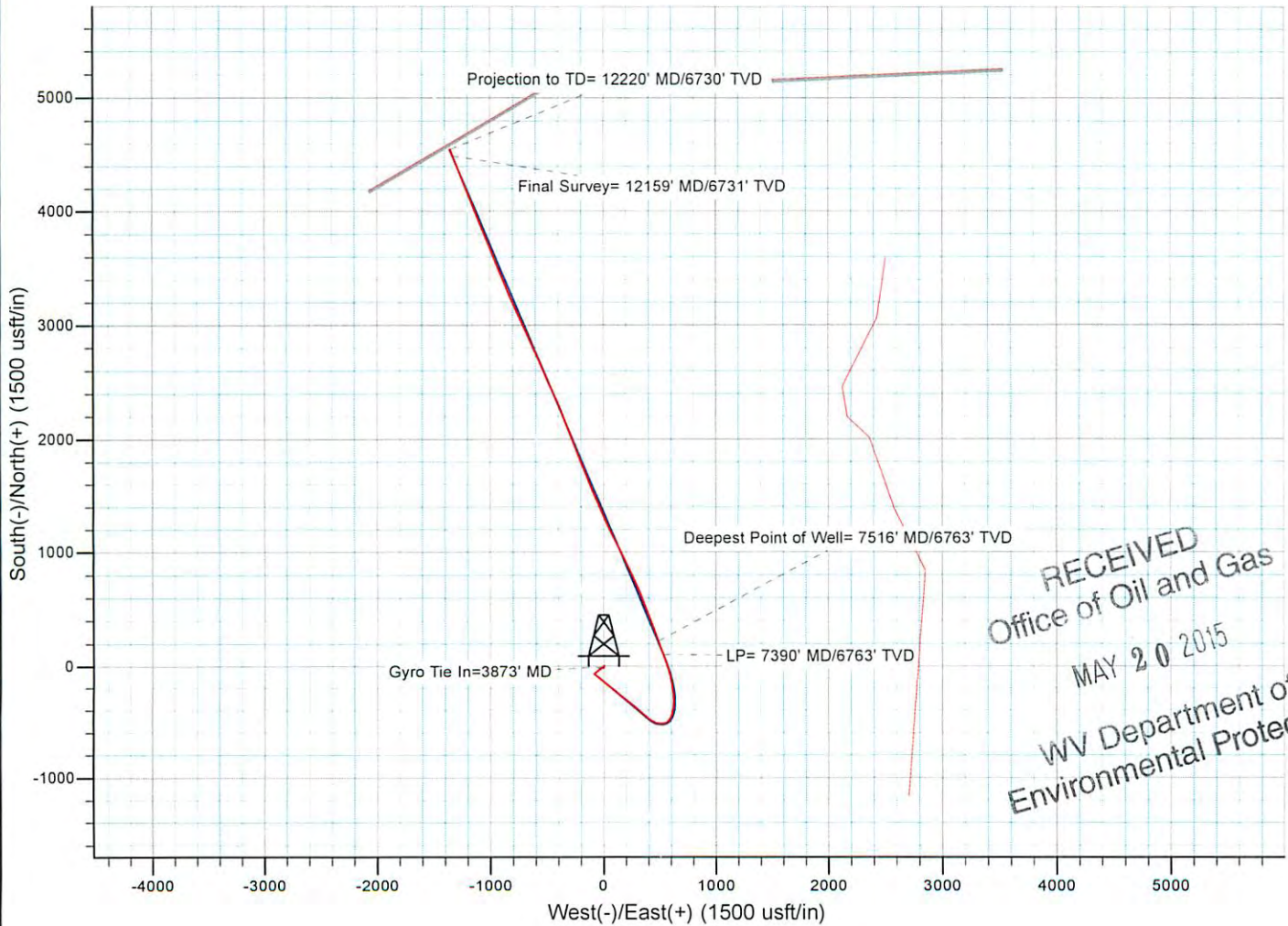
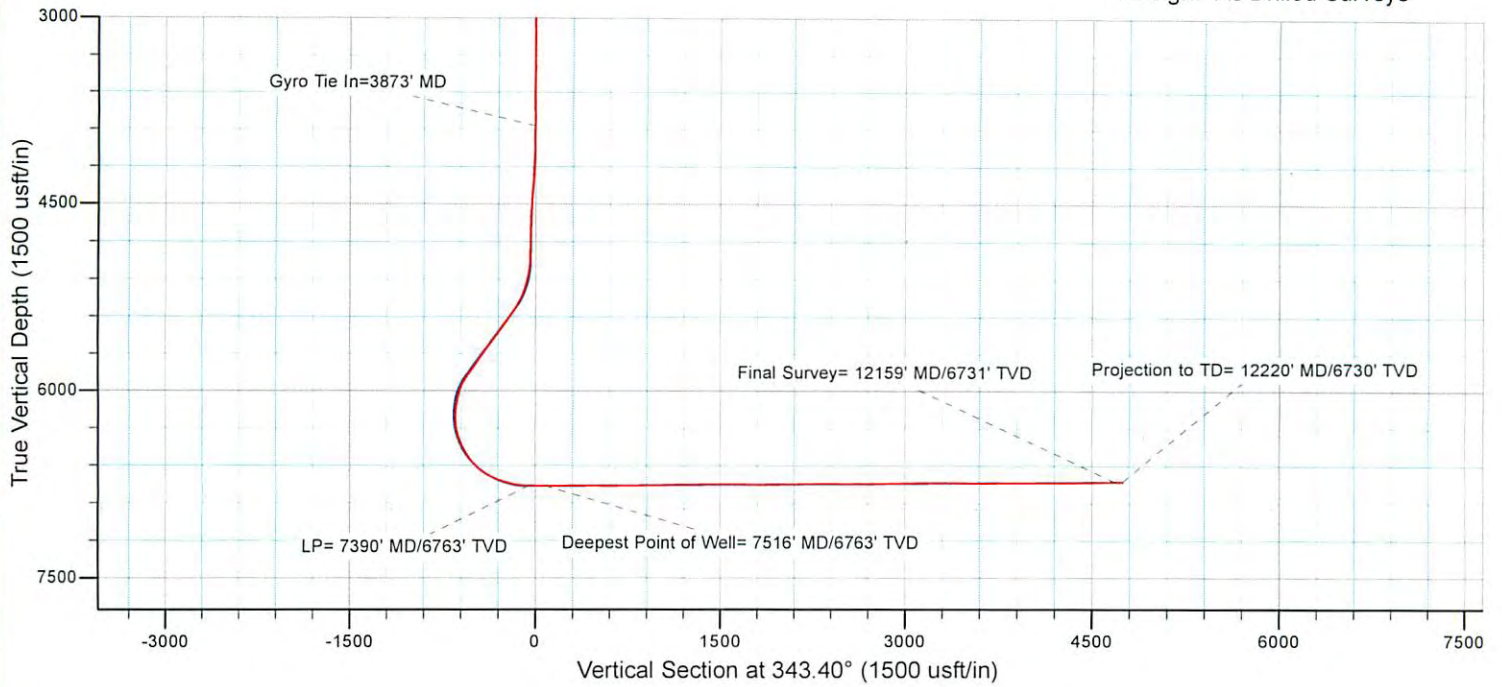
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
3,873.0	3,872.7	-10.0	-11.8	Gyro Tie In=3873' MD
7,390.0	6,762.9	103.0	530.8	LP= 7390' MD/6763' TVD
7,516.0	6,762.6	221.5	487.9	Deepest Point of Well= 7516' MD/6763' TVD
12,159.0	6,730.6	4,491.0	-1,329.1	Final Survey= 12159' MD/6731' TVD
12,220.0	6,730.4	4,547.5	-1,352.1	Projection to TD= 12220' MD/6730' TVD

Checked By: _____ Approved By: _____ Date: _____

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EQT Production- Middlesex

Project: Wetzel County, WV
Site: Wetzel County 513832
Well: Well #513832
Wellbore: Main Wellbore
Design: As Drilled Surveys



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