

103.02901

**PHOENIX**  
TECHNOLOGY SERVICES



## **EQT Production - Geneseo Shale**

Wetzel County, WV

Wetzel County 513725

Well #513725

Main Wellbore

Survey: 513725 MWD

## **Standard Survey Report**

06 November, 2013



Where energy meets innovation.

10/31/2014

Database:	EQT DB	Local Co-ordinate Reference:	Site Wetzel County 513725
Company:	EQT Production - Genesee Shale	TVD Reference:	KB @ 935.0usft
Project:	Wetzel County, WV	MD Reference:	KB @ 935.0usft
Site:	Wetzel County 513725	North Reference:	Grid
Well:	Well #513725	Survey Calculation Method:	Minimum Curvature
Wellbore:	Main Wellbore		
Design:	As Drilled		

**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		

**Site** Wetzel County 513725

Site Position:		Northing:	385,087.10 usft	Latitude:	39.55
From:	Map	Easting:	1,710,267.30 usft	Longitude:	-80.53
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-0.66 °

**Well** Well #513725

Well Position	+N/-S	0.0 usft	Northing:	385,087.10 usft	Latitude:	39° 33' 9.864 N
	+E/-W	0.0 usft	Easting:	1,710,267.30 usft	Longitude:	80° 31' 39.148 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	919.0 usft

**Wellbore** Main Wellbore

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010_14	10/15/2013	-8.69	67.05	52,482

**Design** As Drilled

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	162.94

**Survey Program** Date 11/6/2013

From (')	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	4,853.0	513725 Gyrodata gyros (4850 ft) (Main Well)	GYD_DP_MS	Gyrodata gyro-compassing and drop
0.00	13,280.0	513725 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)
Gyro Tie In MD=4853'										
4,853.0	0.90	57.01	4,852.8	3,917.8	-12.9	4.4	13.6	0.00	0.00	0.00
4,899.0	0.80	54.60	4,898.8	3,963.8	-12.5	4.9	13.4	0.23	-0.22	-5.24
4,931.0	0.80	54.50	4,930.8	3,995.8	-12.2	5.3	13.3	0.00	0.00	-0.31
4,962.0	1.20	289.70	4,961.8	4,026.8	-12.0	5.2	13.0	5.75	1.29	-402.58
4,994.0	4.60	282.30	4,993.8	4,058.8	-11.6	3.6	12.2	10.67	10.63	-23.13
5,026.0	7.70	286.50	5,025.6	4,090.6	-10.7	0.3	10.3	9.78	9.69	13.13
5,058.0	10.30	291.50	5,057.2	4,122.2	-9.1	-4.4	7.4	8.48	8.13	15.63



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Survey Report



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<b>Company:</b>	EQT Production - Genesee State	<b>TVD Reference:</b>	KB @ 935.0usft
<b>Project:</b>	Wetzel County, WV	<b>MD Reference:</b>	KB @ 935.0usft
<b>Site:</b>	Wetzel County 513725	<b>North Reference:</b>	Grid
<b>Well:</b>	Well #513725	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Main Wellbore		
<b>Design:</b>	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)	
5,089.0	12.40	291.70	5,087.6	4,152.6	-6.8	-10.1	3.6	6.78	6.77	0.65	
5,121.0	14.80	289.70	5,118.7	4,183.7	-4.2	-17.1	-1.0	7.64	7.50	-6.25	
5,153.0	16.50	287.10	5,149.5	4,214.5	-1.5	-25.3	-6.0	5.75	5.31	-8.13	
5,184.0	18.20	283.80	5,179.1	4,244.1	1.0	-34.2	-11.0	6.33	5.48	-10.65	
5,216.0	20.50	282.60	5,209.3	4,274.3	3.4	-44.6	-16.3	7.29	7.19	-3.75	
5,248.0	22.60	283.20	5,239.0	4,304.0	6.0	-56.0	-22.2	6.60	6.56	1.88	
5,279.0	24.30	284.60	5,267.5	4,332.5	9.0	-68.0	-28.5	5.77	5.48	4.52	
5,311.0	27.50	285.30	5,296.2	4,361.2	12.6	-81.5	-36.0	10.05	10.00	2.19	
5,343.0	30.70	286.30	5,324.2	4,389.2	16.8	-96.5	-44.4	10.11	10.00	3.13	
5,375.0	34.10	287.50	5,351.2	4,416.2	21.8	-112.9	-54.0	10.81	10.63	3.75	
5,406.0	37.30	286.20	5,376.4	4,441.4	27.1	-130.2	-64.1	10.61	10.32	-4.19	
5,470.0	42.90	286.00	5,425.3	4,490.3	38.5	-169.8	-86.6	8.75	8.75	-0.31	
5,533.0	41.10	284.30	5,472.1	4,537.1	49.5	-210.5	-109.1	3.38	-2.86	-2.70	
5,596.0	40.50	284.30	5,519.8	4,584.8	59.7	-250.3	-130.5	0.95	-0.95	0.00	
5,660.0	43.20	287.50	5,567.5	4,632.5	71.4	-291.4	-153.7	5.38	4.22	5.00	
5,723.0	41.00	286.10	5,614.2	4,679.2	83.6	-331.8	-177.3	3.80	-3.49	-2.22	
5,787.0	40.10	283.90	5,662.9	4,727.9	94.4	-372.0	-199.4	2.64	-1.41	-3.44	
5,850.0	41.10	283.20	5,710.7	4,775.7	104.0	-411.8	-220.2	1.74	1.59	-1.11	
5,914.0	40.30	282.60	5,759.2	4,824.2	113.3	-452.5	-241.1	1.39	-1.25	-0.94	
5,977.0	42.40	285.40	5,806.5	4,871.5	123.4	-492.9	-262.6	4.44	3.33	4.44	
6,041.0	40.40	283.20	5,854.5	4,919.5	133.9	-533.9	-284.6	3.86	-3.13	-3.44	
6,104.0	38.60	284.60	5,903.1	4,968.1	143.5	-572.8	-305.2	3.19	-2.86	2.22	
6,167.0	38.70	289.20	5,952.4	5,017.4	154.9	-610.4	-327.2	4.56	0.16	7.30	
6,231.0	37.40	286.80	6,002.8	5,067.8	167.1	-647.9	-349.8	3.08	-2.03	-3.75	
6,294.0	40.10	290.40	6,051.9	5,116.9	179.7	-685.3	-372.8	5.58	4.29	5.71	
6,357.0	37.80	287.50	6,100.9	5,165.9	192.6	-722.7	-396.1	4.66	-3.65	-4.60	
6,421.0	37.40	287.00	6,151.6	5,216.6	204.2	-760.0	-418.1	0.79	-0.63	-0.78	
6,484.0	41.10	290.00	6,200.4	5,265.4	216.9	-797.8	-441.3	6.60	5.87	4.76	
6,516.0	40.30	289.50	6,224.6	5,289.6	223.9	-817.4	-453.8	2.70	-2.50	-1.56	
6,547.0	39.20	286.10	6,248.5	5,313.5	230.0	-836.3	-465.2	7.86	-3.55	-10.97	
6,579.0	38.60	280.70	6,273.4	5,338.4	234.7	-855.8	-475.4	10.76	-1.88	-16.88	
6,611.0	38.70	276.60	6,298.4	5,363.4	237.7	-875.6	-484.0	8.01	0.31	-12.81	
6,642.0	38.00	272.10	6,322.7	5,387.7	239.1	-894.7	-491.0	9.28	-2.26	-14.52	
6,674.0	36.30	265.90	6,348.2	5,413.2	238.8	-914.0	-496.4	12.84	-5.31	-19.38	
6,706.0	34.20	260.10	6,374.4	5,439.4	236.6	-932.3	-499.7	12.34	-6.56	-18.13	
6,737.0	33.30	253.80	6,400.1	5,465.1	232.7	-949.1	-500.9	11.65	-2.90	-20.32	
6,769.0	33.50	249.30	6,426.9	5,491.9	227.1	-965.8	-500.4	7.76	0.63	-14.06	
6,801.0	34.40	243.30	6,453.4	5,518.4	220.0	-982.1	-498.4	10.84	2.81	-18.75	
6,833.0	34.30	236.90	6,479.8	5,544.8	211.0	-997.8	-494.4	11.29	-0.31	-20.00	
6,864.0	33.60	231.60	6,505.6	5,570.6	200.9	-1,011.8	-488.8	9.81	-2.26	-17.10	
6,896.0	33.20	223.60	6,532.3	5,597.3	189.0	-1,024.8	-481.3	13.81	-1.25	-25.00	
6,928.0	33.20	217.30	6,559.1	5,624.1	175.7	-1,036.2	-471.9	10.78	0.00	-19.69	
6,959.0	33.50	211.60	6,585.0	5,650.0	161.7	-1,045.8	-461.3	10.15	0.97	-18.39	



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<b>Project:</b>	Wetzel County, WV	<b>MD Reference:</b>	KB @ 935.0usft
<b>Site:</b>	Wetzel County 513725	<b>North Reference:</b>	Grid
<b>Well:</b>	Well #513725	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Main Wellbore		
<b>Design:</b>	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)	
6,991.0	34.30	204.50	6,611.5	5,676.5	145.9	-1,054.2	-448.7	12.62	2.50	-22.19	
7,023.0	35.00	199.00	6,637.9	5,702.9	129.0	-1,060.9	-434.5	10.01	2.19	-17.19	
7,054.0	35.80	195.80	6,663.1	5,728.1	111.9	-1,066.3	-419.7	6.51	2.58	-10.32	
7,086.0	36.70	191.20	6,689.0	5,754.0	93.5	-1,070.7	-403.4	8.95	2.81	-14.38	
7,118.0	38.60	187.90	6,714.3	5,779.3	74.2	-1,073.9	-386.0	8.65	5.94	-10.31	
7,149.0	41.50	184.90	6,738.0	5,803.0	54.4	-1,076.1	-367.7	11.24	9.35	-9.68	
7,181.0	45.00	183.00	6,761.3	5,826.3	32.6	-1,077.6	-347.2	11.67	10.94	-5.94	
7,213.0	48.40	183.20	6,783.3	5,848.3	9.3	-1,078.9	-325.3	10.63	10.63	0.63	
7,245.0	51.90	180.80	6,803.8	5,868.8	-15.2	-1,079.7	-302.1	12.36	10.94	-7.50	
7,276.0	55.80	179.60	6,822.1	5,887.1	-40.3	-1,079.8	-278.2	12.96	12.58	-3.87	
7,308.0	59.40	176.00	6,839.2	5,904.2	-67.3	-1,078.7	-252.1	14.72	11.25	-11.25	
7,340.0	62.40	172.20	6,854.8	5,919.8	-95.1	-1,075.8	-224.7	13.98	9.38	-11.88	
7,371.0	64.20	172.80	6,868.7	5,933.7	-122.5	-1,072.2	-197.4	6.06	5.81	1.94	
7,403.0	65.10	171.80	6,882.4	5,947.4	-151.2	-1,068.3	-168.9	3.99	2.81	-3.13	
7,435.0	66.90	169.80	6,895.4	5,960.4	-180.0	-1,063.7	-139.9	8.01	5.63	-6.25	
7,466.0	70.20	167.80	6,906.7	5,971.7	-208.3	-1,058.1	-111.2	12.22	10.65	-6.45	
7,498.0	73.80	166.50	6,916.6	5,981.6	-238.0	-1,051.3	-80.9	11.89	11.25	-4.06	
7,530.0	75.40	164.20	6,925.1	5,990.1	-267.8	-1,043.5	-50.0	8.54	5.00	-7.19	
7,561.0	77.10	161.00	6,932.5	5,997.5	-296.6	-1,034.5	-19.9	11.43	5.48	-10.32	
7,593.0	79.40	158.00	6,939.0	6,004.0	-325.9	-1,023.5	11.3	11.66	7.19	-9.38	
7,625.0	81.10	155.00	6,944.4	6,009.4	-354.8	-1,010.9	42.7	10.66	5.31	-9.38	
7,656.0	82.60	153.20	6,948.8	6,013.8	-382.4	-997.5	73.0	7.51	4.84	-5.81	
<b>513725 LP 100' VS</b>											
7,683.3	85.16	153.29	6,951.8	6,016.8	-406.7	-985.3	99.8	9.38	9.37	0.31	
7,688.0	85.60	153.30	6,952.1	6,017.1	-410.8	-983.2	104.4	9.38	9.38	0.31	
7,752.0	90.50	152.50	6,954.3	6,019.3	-467.8	-954.1	167.3	7.76	7.66	-1.25	
7,815.0	90.70	153.80	6,953.6	6,018.6	-524.0	-925.6	229.4	2.09	0.32	2.06	
7,879.0	90.20	154.70	6,953.1	6,018.1	-581.6	-897.8	292.7	1.61	-0.78	1.41	
7,942.0	90.70	152.00	6,952.6	6,017.6	-637.9	-869.6	354.8	4.36	0.79	-4.29	
8,005.0	89.80	148.30	6,952.4	6,017.4	-692.5	-838.2	416.2	6.04	-1.43	-5.87	
8,069.0	89.80	147.00	6,952.6	6,017.6	-746.6	-804.0	477.9	2.03	0.00	-2.03	
8,132.0	90.20	146.70	6,952.6	6,017.6	-799.3	-769.5	538.5	0.79	0.63	-0.48	
<b>513725 LP</b>											
8,173.5	89.81	148.58	6,952.6	6,017.6	-834.4	-747.3	578.5	4.63	-0.94	4.53	
8,196.0	89.60	149.60	6,952.7	6,017.7	-853.7	-735.8	600.3	4.63	-0.94	4.53	
8,259.0	89.60	150.60	6,953.1	6,018.1	-908.3	-704.3	661.8	1.59	0.00	1.59	
8,322.0	90.20	153.10	6,953.3	6,018.3	-963.9	-674.6	723.6	4.08	0.95	3.97	
8,385.0	90.60	153.50	6,952.8	6,017.8	-1,020.1	-646.3	785.7	0.90	0.63	0.63	
8,449.0	91.00	153.60	6,951.9	6,016.9	-1,077.4	-617.8	848.8	0.64	0.63	0.16	
8,512.0	90.10	153.00	6,951.3	6,016.3	-1,133.7	-589.5	910.9	1.72	-1.43	-0.95	
8,575.0	89.20	153.40	6,951.7	6,016.7	-1,189.9	-561.1	973.0	1.56	-1.43	0.63	
8,639.0	89.10	152.20	6,952.7	6,017.7	-1,246.9	-531.9	1,036.0	1.88	-0.16	-1.88	



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<b>Site:</b>	Wetzel County 513725	<b>North Reference:</b>	Grid
<b>Well:</b>	Well #513725	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Main Wellbore		
<b>Design:</b>	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)	
8,702.0	89.10	151.40	6,953.6	6,018.6	-1,302.4	-502.1	1,097.8	1.27	0.00	-1.27	
8,765.0	88.90	151.80	6,954.7	6,019.7	-1,357.8	-472.1	1,159.6	0.71	-0.32	0.63	
8,829.0	89.10	152.60	6,955.9	6,020.9	-1,414.4	-442.3	1,222.4	1.29	0.31	1.25	
8,892.0	90.50	153.60	6,956.1	6,021.1	-1,470.6	-413.8	1,284.5	2.73	2.22	1.59	
8,956.0	92.00	154.50	6,954.7	6,019.7	-1,528.1	-385.8	1,347.7	2.73	2.34	1.41	
9,019.0	91.80	154.00	6,952.6	6,017.6	-1,584.8	-358.4	1,410.0	0.85	-0.32	-0.79	
9,082.0	91.70	152.70	6,950.7	6,015.7	-1,641.1	-330.2	1,472.1	2.07	-0.16	-2.06	
9,146.0	90.90	152.70	6,949.2	6,014.2	-1,697.9	-300.8	1,535.0	1.25	-1.25	0.00	
9,209.0	90.00	152.30	6,948.7	6,013.7	-1,753.8	-271.8	1,597.0	1.56	-1.43	-0.63	
9,272.0	90.00	151.10	6,948.7	6,013.7	-1,809.3	-241.9	1,658.8	1.90	0.00	-1.90	
9,336.0	89.80	150.80	6,948.8	6,013.8	-1,865.2	-210.8	1,721.4	0.56	-0.31	-0.47	
9,399.0	89.50	151.10	6,949.2	6,014.2	-1,920.3	-180.2	1,783.0	0.67	-0.48	0.48	
9,462.0	89.70	151.60	6,949.7	6,014.7	-1,975.6	-150.0	1,844.7	0.85	0.32	0.79	
9,526.0	89.70	152.00	6,950.0	6,015.0	-2,032.0	-119.8	1,907.5	0.62	0.00	0.63	
9,589.0	90.20	151.10	6,950.0	6,015.0	-2,087.4	-89.8	1,969.3	1.63	0.79	-1.43	
9,652.0	90.00	149.70	6,949.9	6,014.9	-2,142.2	-58.6	2,030.7	2.24	-0.32	-2.22	
9,716.0	90.10	150.00	6,949.9	6,014.9	-2,197.5	-26.5	2,093.1	0.49	0.16	0.47	
9,779.0	90.00	150.30	6,949.8	6,014.8	-2,252.2	4.9	2,154.5	0.50	-0.16	0.48	
9,843.0	89.80	151.20	6,949.9	6,014.9	-2,308.0	36.1	2,217.1	1.44	-0.31	1.41	
9,906.0	89.50	151.10	6,950.3	6,015.3	-2,363.2	66.5	2,278.7	0.50	-0.48	-0.16	
9,970.0	89.40	152.10	6,950.9	6,015.9	-2,419.5	97.0	2,341.5	1.57	-0.16	1.56	
10,033.0	89.50	153.20	6,951.5	6,016.5	-2,475.4	125.9	2,403.5	1.75	0.16	1.75	
10,097.0	89.40	153.00	6,952.2	6,017.2	-2,532.5	154.9	2,466.5	0.35	-0.16	-0.31	
10,160.0	89.30	153.80	6,952.9	6,017.9	-2,588.8	183.1	2,528.7	1.28	-0.16	1.27	
10,223.0	89.40	154.20	6,953.6	6,018.6	-2,645.4	210.7	2,590.9	0.65	0.16	0.63	
10,287.0	89.70	154.50	6,954.1	6,019.1	-2,703.1	238.4	2,654.2	0.66	0.47	0.47	
10,350.0	89.60	153.60	6,954.5	6,019.5	-2,759.8	266.0	2,716.4	1.44	-0.16	-1.43	
10,413.0	89.80	153.40	6,954.8	6,019.8	-2,816.2	294.1	2,778.5	0.45	0.32	-0.32	
10,477.0	89.70	153.10	6,955.1	6,020.1	-2,873.3	322.9	2,841.6	0.49	-0.16	-0.47	
10,540.0	90.00	153.20	6,955.2	6,020.3	-2,929.5	351.3	2,903.7	0.50	0.48	0.16	
10,604.0	90.00	153.00	6,955.2	6,020.3	-2,986.6	380.3	2,966.8	0.31	0.00	-0.31	
10,667.0	89.70	151.20	6,955.4	6,020.4	-3,042.3	409.8	3,028.6	2.90	-0.48	-2.86	
10,731.0	89.80	149.90	6,955.7	6,020.7	-3,098.0	441.2	3,091.2	2.04	0.16	-2.03	
10,794.0	89.80	149.60	6,955.9	6,020.9	-3,152.4	473.0	3,152.5	0.48	0.00	-0.48	
10,857.0	89.50	148.00	6,956.3	6,021.3	-3,206.3	505.6	3,213.6	2.58	-0.48	-2.54	
10,920.0	88.90	149.50	6,957.2	6,022.2	-3,260.2	538.3	3,274.6	2.56	-0.95	2.38	
10,984.0	89.20	151.10	6,958.2	6,023.2	-3,315.7	570.0	3,337.1	2.54	0.47	2.50	
11,047.0	88.30	152.10	6,959.6	6,024.6	-3,371.1	599.9	3,398.8	2.14	-1.43	1.59	
11,111.0	87.40	152.40	6,962.0	6,027.0	-3,427.7	629.7	3,461.7	1.48	-1.41	0.47	
11,174.0	87.80	152.20	6,964.7	6,029.7	-3,483.5	659.0	3,523.5	0.71	0.63	-0.32	
11,237.0	87.70	150.60	6,967.1	6,032.1	-3,538.7	689.1	3,585.2	2.54	-0.16	-2.54	
11,301.0	87.50	149.70	6,969.8	6,034.8	-3,594.2	720.9	3,647.6	1.44	-0.31	-1.41	
11,364.0	87.70	149.90	6,972.4	6,037.4	-3,648.6	752.6	3,708.9	0.45	0.32	0.32	



103-02901

Phoenix Technologies, Inc.  
Survey Report



<b>Database:</b>	EQT DB	<b>Local Co-ordinate Reference:</b>	Site Wetzel County 513725
<b>Company:</b>	EQT Production - Genesee Shale	<b>TVD Reference:</b>	KB @ 935.0usft
<b>Project:</b>	Wetzel County, WV	<b>MD Reference:</b>	KB @ 935.0usft
<b>Site:</b>	Wetzel County 513725	<b>North Reference:</b>	Grid
<b>Well:</b>	Well #513725	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Main Wellbore		
<b>Design:</b>	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)	
11,427.0	87.80	149.60	6,974.9	6,039.9	-3,703.0	784.3	3,770.2	0.50	0.16	-0.48	
11,491.0	87.90	149.40	6,977.3	6,042.3	-3,758.1	816.8	3,832.4	0.35	0.16	-0.31	
11,554.0	88.00	150.30	6,979.6	6,044.6	-3,812.5	848.4	3,893.7	1.44	0.16	1.43	
11,617.0	88.90	152.40	6,981.3	6,046.3	-3,867.8	878.6	3,955.4	3.63	1.43	3.33	
11,681.0	89.60	152.60	6,982.1	6,047.1	-3,924.6	908.1	4,018.3	1.14	1.09	0.31	
11,744.0	89.40	149.90	6,982.7	6,047.7	-3,979.8	938.4	4,080.0	4.30	-0.32	-4.29	
11,807.0	88.60	151.20	6,983.8	6,048.8	-4,034.6	969.4	4,141.5	2.42	-1.27	2.06	
11,871.0	88.90	153.00	6,985.2	6,050.2	-4,091.2	999.3	4,204.3	2.85	0.47	2.81	
11,934.0	88.00	154.00	6,986.9	6,051.9	-4,147.5	1,027.4	4,266.5	2.14	-1.43	1.59	
11,997.0	86.30	153.70	6,990.0	6,055.0	-4,204.0	1,055.2	4,328.6	2.74	-2.70	-0.48	
12,061.0	86.20	152.50	6,994.2	6,059.2	-4,261.0	1,084.1	4,391.5	1.88	-0.16	-1.88	
12,124.0	85.90	151.40	6,998.5	6,063.5	-4,316.4	1,113.6	4,453.2	1.81	-0.48	-1.75	
12,187.0	85.60	150.90	7,003.2	6,068.2	-4,371.5	1,143.9	4,514.7	0.92	-0.48	-0.79	
12,251.0	85.60	150.60	7,008.1	6,073.1	-4,427.1	1,175.1	4,577.1	0.47	0.00	-0.47	
12,314.0	86.10	150.40	7,012.7	6,077.7	-4,481.8	1,206.1	4,638.4	0.85	0.79	-0.32	
12,377.0	85.30	150.50	7,017.4	6,082.4	-4,536.5	1,237.0	4,699.8	1.28	-1.27	0.16	
12,441.0	84.10	151.90	7,023.3	6,088.3	-4,592.3	1,267.7	4,762.2	2.87	-1.88	2.19	
12,504.0	83.90	150.80	7,029.9	6,094.9	-4,647.3	1,297.8	4,823.5	1.77	-0.32	-1.75	
12,567.0	83.70	150.10	7,036.7	6,101.7	-4,701.8	1,328.7	4,884.7	1.15	-0.32	-1.11	
12,630.0	83.10	151.50	7,043.9	6,108.9	-4,756.4	1,359.2	4,945.9	2.40	-0.95	2.22	
12,694.0	82.60	152.40	7,051.9	6,116.9	-4,812.5	1,389.1	5,008.2	1.60	-0.78	1.41	
12,757.0	82.60	151.80	7,060.0	6,125.0	-4,867.7	1,418.3	5,069.6	0.94	0.00	-0.95	
12,820.0	83.10	150.90	7,067.8	6,132.8	-4,922.5	1,448.3	5,130.8	1.62	0.79	-1.43	
12,884.0	83.00	149.40	7,075.6	6,140.6	-4,977.6	1,479.9	5,192.8	2.33	-0.16	-2.34	
12,947.0	83.60	149.60	7,082.9	6,147.9	-5,031.5	1,511.6	5,253.6	1.00	0.95	0.32	
13,011.0	84.00	153.10	7,089.9	6,154.9	-5,087.4	1,542.1	5,315.9	5.47	0.63	5.47	
13,074.0	84.40	153.00	7,096.2	6,161.2	-5,143.2	1,570.5	5,377.7	0.65	0.63	-0.16	
13,137.0	83.90	152.00	7,102.6	6,167.6	-5,198.8	1,599.5	5,439.3	1.77	-0.79	-1.59	
13,201.0	83.00	150.10	7,109.9	6,174.9	-5,254.5	1,630.3	5,501.5	3.27	-1.41	-2.97	
Final Surveys MD=13224'											
13,224.0	82.80	149.60	7,112.8	6,177.8	-5,274.2	1,641.7	5,523.8	2.33	-0.87	-2.17	
513725 TD											
13,273.9	82.80	149.60	7,119.0	6,184.0	-5,316.9	1,666.7	5,571.9	0.00	0.00	0.00	
Projection to TD MD=13280'											
13,280.0	82.80	149.60	7,119.8	6,184.8	-5,322.1	1,669.8	5,577.8	0.00	0.00	0.00	

Survey Annotations					
Measured Depth (')	Vertical Depth (')	Local Coordinates		Comment	
		+N/-S (')	+E/-W (')		
4,853.0	4,852.8	-12.9	4.4	Gyro Tie In MD=4853'	
13,224.0	7,112.8	-5,274.2	1,641.7	Final Surveys MD=13224'	
13,280.0	7,119.8	-5,322.1	1,669.8	Projection to TD MD=13280'	



103-02901

Phoenix Technologies, Inc.  
Survey Report



<b>Database:</b> EQT DB	<b>Local Co-ordinate Reference:</b>	<b>Site:</b> Wetzel County 513725
<b>Company:</b> EQT Production - Genesee Shale	<b>TVD Reference:</b>	KB @ 935.0usft
<b>Project:</b> Wetzel County, WV	<b>MD Reference:</b>	KB @ 935.0usft
<b>Site:</b> Wetzel County 513725	<b>North Reference:</b>	Grid
<b>Well:</b> Well #513725	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b> Main Wellbore		
<b>Design:</b> As Drilled		

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



# EQT Production - Geneseo Shale

Project: Wetzel County, WV  
Site: Wetzel County 513725  
Well: Well #513725  
Wellbore: Main Wellbore  
Design: As Drilled

