



EQT Production - Marcellus

Taylor County, WV

Taylor County 515750

Well #515750

API #479101322

Main Wellbore

Design: 515750 As Drilled Surveys

Standard Survey Report

17 August, 2015



11/04/2016



Phoenix Technology Services
Survey Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Taylor County 515750
Company:	EQT Production - Marcellus	TVD Reference:	KB @ 1488 usft
Project:	Taylor County, WV	MD Reference:	KB @ 1488 usft
Site:	Taylor County 515750	North Reference:	Grid
Well:	Well #515750	Survey Calculation Method:	Minimum Curvature
Wellbore:	Main Wellbore		
Design:	515750 As Drilled Surveys		

Project Taylor 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 Taylor County 515750

Site Position:		Northing:	289,938.90 usft	Latitude:	39.29
From:	Map	Easting:	1,803,864.30 usft	Longitude:	-80.19
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-0.44 °

Well Well #515750

Well Position	+N/-S	0.0 usft	Northing:	289,938.90 usft	Latitude:	39° 17' 38.317 N
	+E/-W	0.0 usft	Easting:	1,803,864.30 usft	Longitude:	80° 11' 34.841 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	0.0 usft	Ground Level:	1,465.0 usft

Wellbore Main Wellbore

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	7/6/2015	-9.52	66.48	52,286

Design 515750 As Drilled Surveys

Audit Notes:

Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
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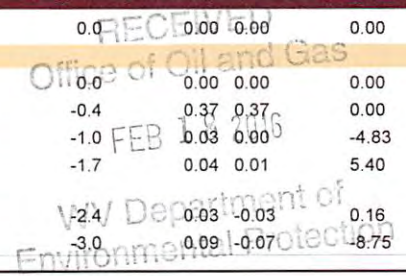
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	138.54

Survey Program Date 8/17/2015

From (')	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	3,254.0	Gyrodata Gyro (Main Wellbore)	GYD_DP_MS	Gyrodata gyro-compassing and drop
0.00	17,903.0	PHX MWD (Main Wellbore)	PHX+MWD+HDGM	PHX+OWSG MWD + HDGM

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	-1,488.0	0.0	0.0	0.0	0.00	0.00	0.00
Radio Tower										
0.2	0.00	340.52	0.2	-1,487.8	0.0	0.0	0.0	0.00	0.00	0.00
110.0	0.41	340.52	110.0	-1,378.0	0.4	-0.1	-0.4	0.37	0.37	0.00
210.0	0.41	335.69	210.0	-1,278.0	1.0	-0.4	-1.0	0.03	0.00	-4.83
310.0	0.42	341.09	310.0	-1,178.0	1.7	-0.7	-1.7	0.04	0.01	5.40
410.0	0.39	341.25	410.0	-1,078.0	2.4	-0.9	-2.4	0.03	-0.03	0.16
510.0	0.32	332.50	510.0	-978.0	2.9	-1.1	-3.0	0.09	-0.07	-8.75





Phoenix Technology Services
Survey Report



Database:	EDM 5000.1 Single User Dr.	Local Co-ordinate Reference:	Site: Taylor County G15750
Company:	EQT Production - Marcellus	TVD Reference:	KB @ 1488 (usft)
Project:	Taylor County, WV	MD Reference:	KB @ 1486 (usft)
Site:	Taylor County 515750	North Reference:	Grid
Well:	Well 4845750	Survey Calculation Method:	Minimum Curvature
Wellbore:	Main Wellbore		
Design:	515750 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)	
610.0	0.28	320.18	610.0	-878.0	3.4	-1.4	-3.5	0.08	-0.04	-12.32	
710.0	0.27	325.71	710.0	-778.0	3.8	-1.7	-3.9	0.03	-0.01	5.53	
810.0	0.30	27.60	810.0	-678.0	4.2	-1.7	-4.3	0.29	0.03	61.89	
910.0	0.34	21.52	910.0	-578.0	4.7	-1.5	-4.5	0.05	0.04	-6.08	
1,010.0	0.47	37.23	1,010.0	-478.0	5.3	-1.1	-4.7	0.17	0.13	15.71	
1,110.0	0.51	19.23	1,110.0	-378.0	6.0	-0.7	-5.0	0.16	0.04	-18.00	
1,210.0	0.78	16.89	1,210.0	-278.0	7.1	-0.4	-5.6	0.27	0.27	-2.34	
1,310.0	0.82	13.18	1,310.0	-178.0	8.5	0.0	-6.4	0.07	0.04	-3.71	
1,410.0	0.78	20.06	1,410.0	-78.0	9.8	0.4	-7.1	0.10	-0.04	6.88	
1,510.0	0.76	19.59	1,509.9	21.9	11.1	0.8	-7.7	0.02	-0.02	-0.47	
1,610.0	0.63	28.02	1,609.9	121.9	12.2	1.3	-8.3	0.17	-0.13	8.43	
1,710.0	0.59	27.55	1,709.9	221.9	13.1	1.8	-8.6	0.04	-0.04	-0.47	
1,810.0	0.58	23.78	1,809.9	321.9	14.0	2.2	-9.0	0.04	-0.01	-3.77	
1,910.0	0.60	15.52	1,909.9	421.9	15.0	2.6	-9.5	0.09	0.02	-8.26	
2,010.0	0.45	5.73	2,009.9	521.9	15.9	2.8	-10.1	0.17	-0.15	-9.79	
2,110.0	0.46	7.91	2,109.9	621.9	16.7	2.9	-10.6	0.02	0.01	2.18	
2,210.0	0.43	10.95	2,209.9	721.9	17.5	3.0	-11.1	0.04	-0.03	3.04	
2,310.0	0.34	8.27	2,309.9	821.9	18.1	3.1	-11.5	0.09	-0.09	-2.68	
2,410.0	0.38	8.14	2,409.9	921.9	18.7	3.2	-11.9	0.04	0.04	-0.13	
2,510.0	0.29	18.08	2,509.9	1,021.9	19.3	3.3	-12.3	0.11	-0.09	9.94	
2,610.0	0.30	17.35	2,609.9	1,121.9	19.8	3.5	-12.5	0.01	0.01	-0.73	
2,710.0	0.32	15.49	2,709.9	1,221.9	20.3	3.6	-12.8	0.02	0.02	-1.86	
2,810.0	0.29	11.96	2,809.9	1,321.9	20.8	3.8	-13.1	0.04	-0.03	-3.53	
2,910.0	0.31	351.44	2,909.9	1,421.9	21.4	3.8	-13.5	0.11	0.02	-20.52	
3,010.0	0.30	357.98	3,009.9	1,521.9	21.9	3.7	-13.9	0.04	-0.01	6.54	
3,110.0	0.26	352.17	3,109.9	1,621.9	22.4	3.7	-14.3	0.05	-0.04	-5.81	
3,210.0	0.43	347.52	3,209.9	1,721.9	23.0	3.6	-14.8	0.17	0.17	-4.65	
Gyro Tie On=3254' MD											
3,254.0	0.46	347.95	3,253.9	1,765.9	23.3	3.5	-15.1	0.07	0.07	0.98	
3,267.0	0.22	17.14	3,266.9	1,778.9	23.4	3.5	-15.2	2.22	-1.85	224.54	
3,310.0	1.02	75.00	3,309.9	1,821.9	23.5	3.9	-15.1	2.14	1.86	134.56	
3,353.0	3.89	91.31	3,352.8	1,864.8	23.6	5.7	-13.9	6.80	6.67	37.93	
3,397.0	7.38	85.00	3,396.6	1,908.6	23.8	10.0	-11.2	8.04	7.93	-14.34	
3,440.0	11.18	83.73	3,439.1	1,951.1	24.5	16.9	-7.2	8.85	8.84	-2.95	
3,483.0	14.98	83.42	3,480.9	1,992.9	25.6	26.6	-1.6	8.84	8.84	-0.72	
3,527.0	18.12	76.63	3,523.1	2,035.1	27.8	38.9	4.9	8.37	7.14	-15.43	
3,569.0	20.11	67.20	3,562.8	2,074.8	32.2	51.9	10.3	8.73	4.74	-22.45	
3,612.0	21.70	59.31	3,603.0	2,115.0	39.1	65.6	14.1	7.51	3.70	-18.35	
3,655.0	24.39	57.02	3,642.5	2,154.5	48.0	79.8	16.9	6.59	6.26	-5.33	
3,699.0	26.69	55.83	3,682.2	2,194.2	58.5	95.6	19.5	5.36	5.23	-2.70	
3,742.0	28.19	56.62	3,720.4	2,232.4	69.5	112.1	22.2	3.59	3.49	1.84	
3,785.0	29.70	56.23	3,758.0	2,270.0	81.0	129.5	25.0	3.54	3.51	-0.91	
3,828.0	30.58	52.92	3,795.2	2,307.2	93.5	147.0	27.3	4.37	2.05	-7.70	

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Phoenix Technology Services
Survey Report



Database:	EDM 5000.1 Single User Data	Local Co-ordinate Reference:	Site (Taylor County 615750)
Company:	EQT Production - Mineral Wells	TVD Reference:	FB @ 1486 Depth
Project:	Taylor County, WV	MD Reference:	FB @ 1489 Depth
Site:	Taylor County 615750	North Reference:	Grid
Well:	Well #615750	Survey Calculation Method:	Minimum Curvature
Wellbore:	Main Wellbore		
Design:	615750 Ac 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)	
3,872.0	31.68	50.32	3,832.9	2,344.9	107.6	164.9	28.5	3.95	2.50	-5.91	
3,916.0	33.41	48.03	3,870.0	2,382.0	123.1	182.8	28.8	4.83	3.93	-5.20	
3,959.0	35.79	47.41	3,905.4	2,417.4	139.5	200.8	28.4	5.60	5.53	-1.44	
4,002.0	37.69	46.00	3,939.8	2,451.8	157.2	219.5	27.6	4.83	4.42	-3.28	
4,045.0	39.02	45.21	3,973.5	2,485.5	175.9	238.6	26.2	3.30	3.09	-1.84	
4,089.0	39.20	45.03	4,007.7	2,519.7	195.4	258.3	24.6	0.48	0.41	-0.41	
4,132.0	39.59	43.93	4,040.9	2,552.9	214.9	277.4	22.6	1.86	0.91	-2.56	
4,175.0	40.52	42.52	4,073.8	2,585.8	235.1	296.3	20.1	3.02	2.16	-3.28	
4,218.0	40.08	42.04	4,106.6	2,618.6	255.7	315.0	17.0	1.25	-1.02	-1.12	
4,261.0	39.81	41.42	4,139.6	2,651.6	276.3	333.4	13.8	1.12	-0.63	-1.44	
4,304.0	39.90	41.91	4,172.6	2,684.6	296.8	351.7	10.5	0.76	0.21	1.14	
4,347.0	39.28	42.70	4,205.7	2,717.7	317.1	370.2	7.5	1.86	-1.44	1.84	
4,390.0	39.20	42.20	4,239.0	2,751.0	337.2	388.5	4.6	0.76	-0.19	-1.16	
4,433.0	39.11	42.83	4,272.4	2,784.4	357.2	406.9	1.8	0.95	-0.21	1.47	
4,477.0	39.02	43.80	4,306.5	2,818.5	377.4	425.9	-0.8	1.40	-0.20	2.20	
4,520.0	38.80	43.23	4,340.0	2,852.0	397.0	444.5	-3.1	0.98	-0.51	-1.33	
4,563.0	38.89	43.14	4,373.5	2,885.5	416.6	463.0	-5.6	0.25	0.21	-0.21	
4,606.0	40.08	43.62	4,406.7	2,918.7	436.5	481.7	-8.1	2.86	2.77	1.12	
4,649.0	40.61	43.40	4,439.5	2,951.5	456.7	500.9	-10.5	1.28	1.23	-0.51	
4,692.0	40.30	43.01	4,472.2	2,984.2	477.0	520.0	-13.1	0.93	-0.72	-0.91	
4,735.0	40.70	43.23	4,504.9	3,016.9	497.4	539.1	-15.8	0.99	0.93	0.51	
4,778.0	41.32	43.71	4,537.3	3,049.3	517.9	558.5	-18.3	1.62	1.44	1.12	
4,821.0	41.01	43.40	4,569.7	3,081.7	538.4	578.0	-20.7	0.86	-0.72	-0.72	
4,864.0	41.32	43.93	4,602.1	3,114.1	558.9	597.6	-23.1	1.09	0.72	1.23	
4,907.0	41.98	44.51	4,634.2	3,146.2	579.3	617.5	-25.3	1.78	1.53	1.35	
4,991.0	41.80	44.80	4,696.7	3,208.7	619.2	656.9	-29.1	0.31	-0.21	0.35	
5,085.0	43.60	37.90	4,765.8	3,277.8	667.1	698.9	-37.1	5.33	1.91	-7.34	
5,180.0	44.00	36.40	4,834.4	3,346.4	719.5	738.6	-50.1	1.17	0.42	-1.58	
5,274.0	42.80	38.60	4,902.7	3,414.7	770.7	777.9	-62.4	2.05	-1.28	2.34	
5,368.0	42.20	36.80	4,972.0	3,484.0	821.0	816.8	-74.4	1.44	-0.64	-1.91	
5,462.0	42.20	40.10	5,041.7	3,553.7	870.4	856.0	-85.4	2.36	0.00	3.51	
5,557.0	44.10	40.80	5,111.0	3,623.0	919.8	898.2	-94.6	2.06	2.00	0.74	
5,651.0	43.30	39.30	5,178.9	3,690.9	969.5	940.0	-104.1	1.39	-0.85	-1.60	
5,745.0	41.80	37.50	5,248.2	3,760.2	1,019.3	979.5	-115.3	2.05	-1.60	-1.91	
5,839.0	43.20	39.30	5,317.5	3,829.5	1,069.1	1,018.9	-126.5	1.97	1.49	1.91	
5,934.0	41.70	37.50	5,387.6	3,899.6	1,119.3	1,058.7	-137.7	2.03	-1.58	-1.89	
6,028.0	42.40	38.90	5,457.4	3,969.4	1,168.8	1,097.7	-149.0	1.24	0.74	1.49	
6,122.0	43.30	39.70	5,526.3	4,038.3	1,218.3	1,138.2	-159.3	1.12	0.96	0.85	
6,217.0	41.90	37.60	5,596.2	4,108.2	1,268.5	1,178.3	-170.3	2.10	-1.47	1.47	
6,311.0	42.60	39.70	5,665.8	4,177.8	1,317.8	1,217.8	-181.1	1.68	0.74	2.23	
6,405.0	43.20	39.30	5,734.7	4,246.7	1,367.2	1,258.5	-191.2	0.70	0.64	-0.43	
6,500.0	41.90	37.80	5,804.7	4,316.7	1,417.4	1,298.6	-202.3	1.74	-1.37	-1.58	

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Phoenix Technology Services
Survey Report



Database:	EDM 5000.1 Single User Ob	Local Co-ordinate Reference:	Site Taylor County 517750
Company:	EQT Production - Marcellus	TVD Reference:	K&G 1458 (feet)
Project:	Taylor County WV	MD Reference:	K&G 1458 (feet)
Site:	Taylor County 517750	North Reference:	Feet
Well:	Well 841600q	Survey Calculation Method:	Minimum Curvature
Wellbore:	Main Wellbore		
Design:	515250 as United 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)
6,594.0	42.90	35.60	5,874.1	4,386.1	1,468.2	1,336.4	-215.3	1.90	1.06	-2.34
6,688.0	41.30	37.60	5,943.8	4,455.8	1,518.8	1,374.0	-228.4	2.22	-1.70	2.13
6,783.0	40.90	40.10	6,015.4	4,527.4	1,567.5	1,413.1	-238.9	1.78	-0.42	2.63
6,877.0	42.70	38.40	6,085.5	4,597.5	1,616.0	1,452.8	-249.0	2.26	1.91	-1.81
6,971.0	41.30	36.10	6,155.3	4,667.3	1,666.0	1,490.8	-261.3	2.21	-1.49	-2.45
7,066.0	42.60	38.60	6,226.0	4,738.0	1,716.5	1,529.4	-273.6	2.23	1.37	2.63
7,160.0	42.30	37.30	6,295.4	4,807.4	1,766.5	1,568.4	-285.3	0.99	-0.32	-1.38
7,254.0	43.50	37.50	6,364.2	4,876.2	1,817.4	1,607.3	-297.6	1.28	1.28	0.21
7,349.0	41.80	35.80	6,434.1	4,946.1	1,869.0	1,645.7	-310.9	2.16	-1.79	-1.79
7,443.0	41.40	39.00	6,504.4	5,016.4	1,918.6	1,683.6	-322.9	2.30	-0.43	3.40
7,537.0	42.80	39.90	6,574.1	5,086.1	1,967.2	1,723.6	-332.9	1.62	1.49	0.96
7,631.0	43.00	39.30	6,643.0	5,155.0	2,016.5	1,764.4	-342.8	0.48	0.21	-0.64
7,726.0	44.70	40.10	6,711.5	5,223.5	2,067.1	1,806.4	-352.9	1.88	1.79	0.84
7,820.0	45.80	40.10	6,777.7	5,289.7	2,118.2	1,849.4	-362.7	1.17	1.17	0.00
7,883.0	45.40	40.10	6,821.8	5,333.8	2,152.6	1,878.4	-369.3	0.63	-0.63	0.00
7,915.0	44.90	44.40	6,844.3	5,356.3	2,169.4	1,893.7	-371.8	9.65	-1.56	13.44
7,946.0	44.20	48.80	6,866.4	5,378.4	2,184.4	1,909.5	-372.5	10.21	-2.26	14.19
7,977.0	43.70	52.40	6,888.8	5,400.8	2,198.0	1,926.1	-371.7	8.22	-1.61	11.61
8,009.0	42.80	55.10	6,912.1	5,424.1	2,211.0	1,943.8	-369.8	6.43	-2.81	8.44
8,040.0	41.40	58.10	6,935.1	5,447.1	2,222.4	1,961.1	-366.8	7.90	-4.52	9.68
8,072.0	39.50	62.20	6,959.4	5,471.4	2,232.8	1,979.1	-362.7	10.21	-5.94	12.81
8,103.0	37.80	66.90	6,983.6	5,495.6	2,241.1	1,996.6	-357.4	10.94	-5.48	15.16
8,134.0	36.80	70.30	7,008.3	5,520.3	2,248.0	2,014.0	-350.9	7.39	-3.23	10.97
8,166.0	37.20	72.70	7,033.9	5,545.9	2,254.1	2,032.3	-343.4	4.68	1.25	7.50
8,197.0	37.50	75.90	7,058.5	5,570.5	2,259.1	2,050.4	-335.2	6.34	0.97	10.32
8,229.0	38.10	79.50	7,083.8	5,595.8	2,263.3	2,069.6	-325.7	7.14	1.88	11.25
8,260.0	38.90	82.70	7,108.1	5,620.1	2,266.3	2,088.6	-315.3	6.92	2.58	10.32
8,292.0	39.70	85.80	7,132.8	5,644.8	2,268.3	2,108.8	-303.5	6.62	2.50	9.69
8,323.0	40.50	89.10	7,156.5	5,668.5	2,269.2	2,128.7	-290.9	7.33	2.58	10.65
8,354.0	41.50	92.50	7,179.9	5,691.9	2,268.9	2,149.1	-277.2	7.88	3.23	10.97
8,386.0	42.10	95.80	7,203.8	5,715.8	2,267.4	2,170.3	-262.0	7.12	1.88	10.31
8,417.0	43.10	98.90	7,226.6	5,738.6	2,264.7	2,191.1	-246.2	7.50	3.23	10.00
8,449.0	44.40	101.30	7,249.7	5,761.7	2,260.8	2,212.9	-228.9	6.59	4.06	7.50
8,480.0	45.60	103.80	7,271.7	5,783.7	2,256.0	2,234.3	-211.1	6.89	3.87	8.06
8,511.0	46.80	106.50	7,293.1	5,805.1	2,250.2	2,255.9	-192.5	7.38	3.87	8.71
8,543.0	47.60	107.60	7,314.9	5,826.9	2,243.3	2,278.3	-172.4	3.55	2.50	3.44
8,574.0	48.90	109.60	7,335.5	5,847.5	2,235.9	2,300.3	-152.4	6.38	4.19	6.45
8,606.0	49.30	111.40	7,356.4	5,868.4	2,227.4	2,322.9	-131.0	4.43	1.25	5.63
8,622.0	50.20	112.80	7,366.8	5,878.8	2,222.8	2,334.2	-120.1	8.73	5.63	8.75
8,637.0	50.60	113.10	7,376.3	5,888.3	2,218.3	2,344.9	-109.7	3.08	2.67	2.00
8,667.0	52.20	115.40	7,395.1	5,907.1	2,208.7	2,366.2	-88.3	8.02	5.33	7.67
8,700.0	54.10	116.60	7,414.9	5,926.9	2,197.1	2,390.0	-63.9	6.45	5.76	3.64
8,731.0	56.00	117.10	7,432.6	5,944.6	2,185.7	2,412.6	-40.3	6.27	6.13	1.61

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Phoenix Technology Services
Survey Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Taylor County 515750
Company:	EQT Production - Marcellus	TVD Reference:	KB @ 1488 Draft
Project:	Taylor County, WV	MD Reference:	KB @ 1488 Draft
Site:	Taylor County 515750	North Reference:	Grid
Well:	Well #515750	Survey Calculation Method:	Minimum Curvature
Wellbore:	Main Wellbore		
Design:	515750 As Directed 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)
8,763.0	58.50	117.70	7,449.9	5,961.9	2,173.3	2,436.5	-15.2	7.97	7.81	1.88
8,794.0	61.70	119.90	7,465.4	5,977.4	2,160.3	2,460.1	10.1	12.02	10.32	7.10
8,825.0	64.30	124.30	7,479.5	5,991.5	2,145.6	2,483.4	36.6	15.17	8.39	14.19
8,857.0	65.90	129.90	7,492.9	6,004.9	2,128.1	2,506.6	65.0	16.64	5.00	17.50
8,888.0	67.80	134.90	7,505.1	6,017.1	2,108.9	2,527.6	93.3	16.05	6.13	16.13
8,919.0	70.20	139.30	7,516.2	6,028.2	2,087.7	2,547.3	122.3	15.35	7.74	14.19
8,951.0	71.60	144.10	7,526.7	6,038.7	2,064.0	2,566.0	152.4	14.83	4.38	15.00
8,983.0	72.70	149.00	7,536.5	6,048.5	2,038.6	2,582.8	182.6	14.97	3.44	15.31
9,014.0	73.60	153.80	7,545.5	6,057.5	2,012.5	2,597.0	211.5	15.10	2.90	15.48
9,046.0	73.40	158.30	7,554.6	6,066.6	1,984.5	2,609.5	240.7	13.50	-0.63	14.06
9,077.0	72.80	159.40	7,563.6	6,075.6	1,956.8	2,620.2	268.6	3.91	-1.94	3.55
9,108.0	74.30	160.30	7,572.4	6,084.4	1,928.9	2,630.4	296.3	5.58	4.84	2.90
9,140.0	77.40	162.70	7,580.2	6,092.2	1,899.5	2,640.2	324.8	12.11	9.69	7.50
9,171.0	79.20	165.00	7,586.5	6,098.5	1,870.4	2,648.7	352.3	9.30	5.81	7.42
9,203.0	81.20	166.90	7,592.0	6,104.0	1,839.8	2,656.3	380.2	8.56	6.25	5.94
9,234.0	83.80	168.00	7,596.0	6,108.0	1,809.8	2,663.0	407.1	9.09	8.39	3.55
515750 LP 465' VS2										
9,306.6	87.28	166.07	7,601.7	6,113.7	1,739.2	2,679.3	470.8	5.47	4.79	-2.66
515750 LP 485' VS										
9,308.0	87.34	166.03	7,601.7	6,113.7	1,737.9	2,679.6	472.0	5.47	4.79	-2.65
LP=9328' MD/7603' TVD										
9,328.0	88.30	165.50	7,602.5	6,114.5	1,718.5	2,684.5	489.8	5.47	4.79	-2.65
515750 LP 563' VS										
9,338.8	88.32	165.65	7,602.8	6,114.8	1,708.0	2,687.2	499.4	1.40	0.21	1.38
9,422.0	88.50	166.80	7,605.1	6,117.1	1,627.3	2,707.0	573.0	1.40	0.21	1.38
9,517.0	88.40	163.30	7,607.7	6,119.7	1,535.6	2,731.5	658.0	3.68	-0.11	-3.68
9,611.0	89.00	159.80	7,609.8	6,121.8	1,446.4	2,761.2	744.5	3.78	0.64	-3.72
9,705.0	89.40	160.60	7,611.1	6,123.1	1,358.0	2,793.1	831.8	0.95	0.43	0.85
9,800.0	89.10	157.60	7,612.4	6,124.4	1,269.3	2,826.9	920.7	3.17	-0.32	-3.16
9,894.0	88.50	156.10	7,614.3	6,126.3	1,182.9	2,863.9	1,010.0	1.72	-0.64	-1.60
9,988.0	89.00	156.90	7,616.4	6,128.4	1,096.7	2,901.4	1,099.4	1.00	0.53	0.85
10,082.0	89.10	157.30	7,617.9	6,129.9	1,010.1	2,937.9	1,188.4	0.44	0.11	0.43
10,176.0	89.00	157.40	7,619.5	6,131.5	923.4	2,974.1	1,277.4	0.15	-0.11	0.11
10,271.0	89.00	157.20	7,621.2	6,133.2	835.7	3,010.8	1,367.3	0.21	0.00	-0.21
515750 Pilot LP										
10,305.3	89.15	158.07	7,621.7	6,133.7	804.0	3,023.8	1,399.7	2.59	0.43	2.55
10,365.0	89.40	159.60	7,622.5	6,134.5	748.3	3,045.4	1,455.7	2.59	0.43	2.55
10,460.0	89.00	158.20	7,623.8	6,135.8	659.7	3,079.6	1,544.8	1.53	-0.42	1.47
10,554.0	89.50	161.00	7,625.0	6,137.0	571.6	3,112.3	1,632.5	3.03	0.53	2.98
10,648.0	88.50	159.60	7,626.7	6,138.7	483.2	3,144.0	1,719.8	1.83	-1.06	-1.49
10,742.0	88.80	160.30	7,628.9	6,140.9	394.9	3,176.2	1,807.3	0.81	0.32	0.74
10,836.0	90.30	161.30	7,629.6	6,141.6	306.1	3,207.1	1,894.2	1.92	1.60	1.06
10,931.0	89.90	160.20	7,629.5	6,141.5	216.4	3,238.5	1,982.2	1.23	-0.42	-1.16

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Phoenix Technology Services
Survey Report



Database:	EDM 5000 1 Single User Obj	Local Co-ordinate Reference:	Site Taylor County 515750
Company:	EQT Production - Mercedius	TVD Reference:	KB @ 1488 (usft)
Project:	Taylor County - WW	MD Reference:	KB @ 1488 (usft)
Site:	Taylor County 515750	North Reference:	GN1
Well:	Well #515750	Survey Calculation Method:	Minimum Curvature
Wellbore:	Main Wellbore		
Design:	515750 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)	
11,025.0	89.80	160.90	7,629.7	6,141.7	127.8	3,269.8	2,069.3	0.75	-0.11	0.74	
11,119.0	89.10	160.60	7,630.6	6,142.6	39.0	3,300.8	2,156.4	0.81	-0.74	-0.32	
11,214.0	88.10	159.30	7,632.9	6,144.9	-50.2	3,333.3	2,244.8	1.73	-1.05	-1.37	
11,308.0	88.00	159.70	7,636.1	6,148.1	-138.2	3,366.2	2,332.5	0.44	-0.11	0.43	
11,402.0	87.90	159.60	7,639.5	6,151.5	-226.2	3,398.9	2,420.1	0.15	-0.11	-0.11	
11,496.0	87.80	160.10	7,643.0	6,155.0	-314.4	3,431.2	2,507.6	0.54	-0.11	0.53	
11,591.0	86.40	157.40	7,647.8	6,159.8	-402.8	3,465.6	2,596.7	3.20	-1.47	-2.84	
11,685.0	89.40	159.80	7,651.3	6,163.3	-490.3	3,499.9	2,684.9	4.09	3.19	2.55	
11,779.0	90.80	159.30	7,651.1	6,163.1	-578.4	3,532.7	2,772.6	1.58	1.49	-0.53	
11,874.0	91.70	159.00	7,649.0	6,161.0	-667.1	3,566.5	2,861.5	1.00	0.95	-0.32	
11,968.0	90.30	161.30	7,647.4	6,159.4	-755.5	3,598.4	2,948.9	2.86	-1.49	2.45	
12,063.0	89.80	161.30	7,647.3	6,159.3	-845.5	3,628.9	3,036.5	0.53	-0.53	0.00	
12,157.0	88.90	161.00	7,648.4	6,160.4	-934.4	3,659.3	3,123.3	1.01	-0.96	-0.32	
12,252.0	88.20	161.70	7,650.8	6,162.8	-1,024.4	3,689.6	3,210.8	1.04	-0.74	0.74	
12,346.0	87.70	161.80	7,654.1	6,166.1	-1,113.6	3,719.1	3,297.1	0.54	-0.53	0.11	
12,440.0	89.70	162.00	7,656.3	6,168.3	-1,203.0	3,748.3	3,383.4	2.14	2.13	0.21	
12,534.0	89.30	161.50	7,657.1	6,169.1	-1,292.2	3,777.7	3,469.8	0.68	-0.43	-0.53	
12,628.0	88.50	160.40	7,658.9	6,170.9	-1,381.1	3,808.4	3,556.7	1.45	-0.85	-1.17	
12,723.0	88.30	160.40	7,661.6	6,173.6	-1,470.5	3,840.2	3,644.8	0.21	-0.21	0.00	
12,817.0	88.50	160.80	7,664.2	6,176.2	-1,559.1	3,871.4	3,731.9	0.48	0.21	0.43	
12,911.0	88.60	161.80	7,666.6	6,178.6	-1,648.2	3,901.6	3,818.5	1.07	0.11	1.06	
13,005.0	88.70	161.60	7,668.8	6,180.8	-1,737.4	3,931.1	3,904.9	0.24	0.11	-0.21	
13,100.0	88.00	160.90	7,671.5	6,183.5	-1,827.3	3,961.6	3,992.5	1.04	-0.74	-0.74	
13,194.0	88.30	161.60	7,674.5	6,186.5	-1,916.3	3,991.8	4,079.2	0.81	0.32	0.74	
13,289.0	89.10	162.40	7,676.7	6,188.7	-2,006.6	4,021.1	4,166.3	1.19	0.84	0.84	
13,383.0	88.70	162.10	7,678.5	6,190.5	-2,096.1	4,049.8	4,252.3	0.53	-0.43	-0.32	
13,478.0	88.00	160.70	7,681.2	6,193.2	-2,186.1	4,080.1	4,339.8	1.65	-0.74	-1.47	
13,572.0	88.50	161.60	7,684.1	6,196.1	-2,275.0	4,110.4	4,426.6	1.09	0.53	0.96	
13,666.0	89.40	161.30	7,685.8	6,197.8	-2,364.1	4,140.3	4,513.1	1.01	0.96	-0.32	
13,761.0	88.80	158.50	7,687.3	6,199.3	-2,453.3	4,173.0	4,601.6	3.01	-0.63	-2.95	
13,855.0	87.50	157.70	7,690.4	6,202.4	-2,540.5	4,208.0	4,690.1	1.62	-1.38	-0.85	
13,949.0	87.20	156.90	7,694.7	6,206.7	-2,627.1	4,244.3	4,779.0	0.91	-0.32	-0.85	
14,043.0	88.40	159.10	7,698.3	6,210.3	-2,714.2	4,279.4	4,867.6	2.66	1.28	2.34	
14,138.0	88.30	158.70	7,701.0	6,213.0	-2,802.8	4,313.6	4,956.6	0.43	-0.11	-0.42	
14,232.0	88.20	158.90	7,703.9	6,215.9	-2,890.4	4,347.6	5,044.7	0.24	-0.11	0.21	
14,326.0	88.20	158.70	7,706.9	6,218.9	-2,978.0	4,381.6	5,132.9	0.21	0.00	-0.21	
14,421.0	88.10	158.40	7,709.9	6,221.9	-3,066.3	4,416.3	5,222.1	0.33	-0.11	-0.32	
14,515.0	87.90	158.10	7,713.2	6,225.2	-3,153.6	4,451.1	5,310.5	0.38	-0.21	-0.32	
14,609.0	88.20	157.90	7,716.4	6,228.4	-3,240.7	4,486.3	5,399.1	0.38	0.32	-0.21	
14,704.0	89.40	159.20	7,718.4	6,230.4	-3,329.1	4,521.0	5,488.3	1.86	1.26	1.37	
14,798.0	89.10	159.30	7,719.6	6,231.6	-3,417.0	4,554.3	5,576.3	0.34	-0.32	0.11	
14,892.0	89.00	158.90	7,721.2	6,233.2	-3,504.8	4,587.9	5,664.3	0.44	-0.11	-0.43	
14,986.0	88.30	156.60	7,723.4	6,235.4	-3,591.8	4,623.4	5,753.0	2.56	-0.74	-2.45	



Phoenix Technology Services
Survey Report



Database:	EDM 5000 1 Single User DB	Local Co-ordinate Reference:	Site Taylor County 515750
Company:	EQT Production - Marcellus	TVD Reference:	KB @ 1488 Gush
Project:	Taylor County, WV	MD Reference:	KB @ 1488 Gush
Site:	Taylor County 515750	North Reference:	Grid
Well:	Well #515750	Survey Calculation Method:	Minimum Curvature
Wellbore:	Main Wellbore		
Design:	515750 A# 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)
15,080.0	87.80	157.60	7,726.6	6,238.6	-3,678.3	4,660.0	5,842.0	1.19	-0.53	1.06
15,174.0	88.20	158.90	7,729.9	6,241.9	-3,765.6	4,694.8	5,930.5	1.45	0.43	1.38
15,268.0	87.60	158.70	7,733.3	6,245.3	-3,853.1	4,728.8	6,018.6	0.67	-0.64	-0.21
15,362.0	87.80	158.40	7,737.1	6,249.1	-3,940.6	4,763.1	6,106.9	0.38	0.21	-0.32
15,457.0	89.10	160.80	7,739.7	6,251.7	-4,029.6	4,796.2	6,195.5	2.87	1.37	2.53
15,551.0	89.70	160.40	7,740.7	6,252.7	-4,118.2	4,827.4	6,282.6	0.77	0.64	-0.43
15,644.0	89.50	161.20	7,741.3	6,253.3	-4,206.0	4,858.0	6,368.6	0.89	-0.22	0.86
15,738.0	88.60	158.90	7,742.9	6,254.9	-4,294.4	4,890.1	6,456.1	2.63	-0.96	-2.45
15,833.0	89.10	161.30	7,744.8	6,256.8	-4,383.7	4,922.4	6,544.4	2.58	0.53	2.53
15,927.0	89.40	161.30	7,746.0	6,258.0	-4,472.7	4,952.6	6,631.1	0.32	0.32	0.00
16,021.0	88.60	159.20	7,747.6	6,259.6	-4,561.2	4,984.3	6,718.4	2.39	-0.85	-2.23
16,115.0	87.60	159.80	7,750.8	6,262.8	-4,649.2	5,017.2	6,806.1	1.24	-1.06	0.64
16,209.0	87.90	162.10	7,754.5	6,266.5	-4,737.9	5,047.9	6,892.9	2.47	0.32	2.45
16,303.0	88.10	161.60	7,757.7	6,269.7	-4,827.2	5,077.1	6,979.2	0.57	0.21	-0.53
16,397.0	88.10	160.40	7,760.8	6,272.8	-4,916.0	5,107.7	7,066.0	1.28	0.00	-1.28
16,491.0	88.00	159.10	7,764.0	6,276.0	-5,004.2	5,140.2	7,153.6	1.39	-0.11	-1.38
16,585.0	87.60	159.40	7,767.7	6,279.7	-5,092.0	5,173.5	7,241.5	0.53	-0.43	0.32
16,679.0	87.40	158.30	7,771.8	6,283.8	-5,179.6	5,207.4	7,329.5	1.19	-0.21	-1.17
16,773.0	87.30	158.20	7,776.1	6,288.1	-5,266.8	5,242.2	7,417.9	0.15	-0.11	-0.11
16,833.0	87.30	158.20	7,778.9	6,290.9	-5,322.5	5,264.4	7,474.4	0.00	0.00	0.00
16,867.0	88.00	159.80	7,780.3	6,292.3	-5,354.2	5,276.6	7,506.2	5.13	2.06	4.71
16,961.0	88.80	160.80	7,782.9	6,294.9	-5,442.6	5,308.3	7,593.4	1.36	0.85	1.06
17,055.0	88.00	160.50	7,785.6	6,297.6	-5,531.3	5,339.4	7,680.5	0.91	-0.85	-0.32
17,149.0	87.90	161.00	7,788.9	6,300.9	-5,620.0	5,370.4	7,767.5	0.54	-0.11	0.53
17,243.0	88.80	161.20	7,791.6	6,303.6	-5,708.9	5,400.8	7,854.2	0.98	0.96	0.21
17,337.0	88.80	160.60	7,793.6	6,305.6	-5,797.7	5,431.6	7,941.1	0.64	0.00	-0.64
Deepest Point=17431' MD/795' TVD										
17,431.0	89.40	160.50	7,795.1	6,307.1	-5,886.3	5,462.9	8,028.3	0.65	0.64	-0.11
17,525.0	90.40	160.00	7,795.3	6,307.3	-5,974.8	5,494.6	8,115.6	1.19	1.06	-0.53
17,619.0	90.80	159.00	7,794.3	6,306.3	-6,062.8	5,527.6	8,203.4	1.15	0.43	-1.06
17,713.0	91.60	159.10	7,792.3	6,304.3	-6,150.6	5,561.2	8,291.4	0.86	0.85	0.11
17,808.0	91.60	158.40	7,789.6	6,301.6	-6,239.1	5,595.6	8,380.5	0.74	0.00	-0.74
Final Survey=17841' MD/778' TVD										
17,841.0	91.90	158.60	7,788.6	6,300.6	-6,269.8	5,607.7	8,411.5	1.09	0.91	0.61
PROJ to BII=17503' MD/776' TVD - 515750 Plat TD - 515750 Plat TD?										
17,903.0	91.90	158.60	7,786.6	6,298.6	-6,327.5	5,630.3	8,469.7	0.00	0.00	0.00

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Phoenix Technology Services
Survey Report



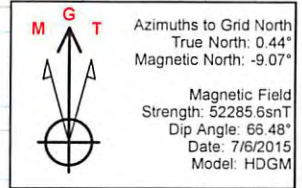
Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Taylor County 515750
Company:	EQT Production - Marcellus	TVD Reference:	KB @ 1488 Just
Project:	Taylor County, WV	MD Reference:	KB @ 1488 Just
Site:	Taylor County 515750	North Reference:	Grid
Well:	Well #515750	Survey Calculation Method:	Minimum Curvature
Wellbore:	Main Wellbore		
Design:	515750 As Dated Surveys		

Design Targets										
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
- hit/miss target	(°)	(°)	(usft)	(610.2)	(1,599.0)	(usft)	(usft)			
- Shape										
Radio Tower	0.00	0.00	0.0	610.2	1,599.0	290,549.09	1,805,463.26	39° 17' 44.469 N	80° 11' 14.563 W	
- actual wellpath misses target center by 1711.5usft at 0.0usft MD (0.0 TVD, 0.0 N, 0.0 E)										
- Circle (radius 50.0)										
515750 Plat LP	0.00	0.00	7,499.0	795.9	3,008.0	290,734.80	1,806,872.17	39° 17' 46.411 N	80° 10' 56.659 W	
- actual wellpath misses target center by 124.0usft at 10304.8usft MD (7621.7 TVD, 804.5 N, 3023.6 E)										
- Point										
515750 LP 465' VS2	0.00	0.00	7,595.0	1,735.6	2,666.0	291,674.45	1,806,530.19	39° 17' 55.673 N	80° 11' 1.100 W	
- actual wellpath misses target center by 15.3usft at 9306.6usft MD (7601.7 TVD, 1739.2 N, 2679.3 E)										
- Rectangle (sides W1,000.0 H1,000.0 D0.0)										
515750 LP 553' VS	0.00	360.00	7,595.0	1,735.6	2,800.0	291,674.45	1,806,664.18	39° 17' 55.683 N	80° 10' 59.396 W	
- actual wellpath misses target center by 116.4usft at 9338.8usft MD (7602.8 TVD, 1708.0 N, 2687.2 E)										
- Point										
515750 Plat TD2	0.00	0.00	7,600.0	-6,346.1	5,607.5	283,593.10	1,809,471.60	39° 16' 36.017 N	80° 10' 22.914 W	
- actual wellpath misses target center by 188.9usft at 17903.0usft MD (7786.6 TVD, -6327.5 N, 5630.3 E)										
- Point										

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
3,254.0	3,253.9	23.3	3.5	Gyro Tie On=3254' MD	
9,328.0	7,602.5	1,718.5	2,684.5	LP=9328' MD/7603' TVD	
17,431.0	7,795.1	-5,886.3	5,462.9	Deepest Point=17431' MD/7795' TVD	
17,841.0	7,788.6	-6,269.8	5,607.7	Final Survey=17841' MD/7787' TVD	
17,903.0	7,786.6	-6,327.5	5,630.3	PROJ to Bit=17903' MD/7787' TVD	

Checked By: _____ Approved By: _____ Date: _____

Project: Taylor County, WV
 Site: Taylor County 515750
 Well: Well #515750
 Wellbore: Main Wellbore
 Design: 515750 As Drilled Surveys



SITE DETAILS: Taylor County 515750
Grid Convergence: -0.44 North Reference: Grid Magnetic Declination: -9.52°

