

Well Operator's Report of Well Work



Well Number: 513142

API: 47 - 017 - 06331

Submission: Initial Amended

Notes:

Add'l inj test [1.01, 1.02, 1.03]

RECEIVED
Office of Oil and Gas
APR 22 2015
WV Department of
Environmental Protection

06/12/2015



EQT Production - Marcellus

Doddridge County, WV Grid

Doddridge County 513142

Well #513142

Main Wellbore

Design: As Drilled Surveys

Standard Survey Report

29 July, 2014

RECEIVED
Office of Oil and Gas
APR 22 2015
Where energy meets innovation.

WV Department of
Environmental Protection
06/12/2015



Phoenix Technology Services
Survey Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Doddridge County 513142
Company:	EQT Production - Marcellus	TVD Reference:	KB @ 1218.0usft
Project:	Doddridge County, WV Grid	MD Reference:	KB @ 1218.0usft
Site:	Doddridge County 513142	North Reference:	Grid
Well:	Well #513142	Survey Calculation Method:	Minimum Curvature
Wellbore:	Main Wellbore		
Design:	As Drilled Surveys		

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 513142			
Site Position:		Northing:	267,891.60 usft
From:	Map	Easting:	1,635,248.80 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	39.23
		Longitude:	-80.79
		Grid Convergence:	-0.82 °

Well Well #513142			
Well Position	+N/-S	0.0 usft	Northing: 267,891.60 usft
	+E/-W	0.0 usft	Easting: 1,635,248.80 usft
Position Uncertainty		0.0 usft	Wellhead Elevation: usft
			Latitude: 39° 13' 42.038 N
			Longitude: 80° 47' 15.381 W
			Ground Level: 1,202.0 usft

Wellbore Main Wellbore					
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010_14	7/3/2014	-8.46	66.76	52,257

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	138.89	

Survey Program Date 7/29/2014					
From (')	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.00	5,500.0	513142 Gyrodata Gyros (Main Wellbore)	GYD_DP_MS	Gyrodata gyro-compassing and drop	
0.00	11,940.0	513142 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	-1,218.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.13	348.47	100.0	-1,118.0	0.1	0.0	-0.1	0.13	0.13	0.00
200.0	0.09	321.45	200.0	-1,018.0	0.3	-0.1	-0.3	0.09	0.04	-27.02
300.0	0.10	300.21	300.0	-918.0	0.4	-0.2	-0.4	0.04	0.01	37.34
400.0	0.04	1.43	400.0	-818.0	0.5	-0.3	-0.5	0.09	0.06	61.22
500.0	0.04	16.74	500.0	-718.0	0.5	-0.3	-0.6	0.01	0.00	15.81
600.0	0.07	50.43	600.0	-618.0	0.6	-0.2	-0.6	0.04	0.08	33.69
700.0	0.17	35.44	700.0	-518.0	0.8	-0.1	-0.6	0.10	0.10	47.99

RECEIVED
Office of Oil and Gas
APR 22 2015
WV Department of
Environmental Protection



Phoenix Technology Services
Survey Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Doddridge County 513142
Company:	EQT Production - Marcellus	TVD Reference:	KB @ 1218.0usft
Project:	Doddridge County, WV Grid	MD Reference:	KB @ 1218.0usft
Site:	Doddridge County 513142	North Reference:	Grid
Well:	Well #513142	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)	
800.0	0.14	35.25	800.0	-418.0	1.0	0.1	-0.7	0.03	-0.03	-0.19	
900.0	0.15	25.22	900.0	-318.0	1.2	0.2	-0.8	0.03	0.01	-10.03	
1,000.0	0.11	40.32	1,000.0	-218.0	1.4	0.3	-0.9	0.05	-0.04	15.10	
1,100.0	0.16	79.87	1,100.0	-118.0	1.5	0.5	-0.8	0.10	0.05	39.55	
1,200.0	0.17	88.90	1,200.0	-18.0	1.5	0.8	-0.6	0.03	0.01	9.03	
1,300.0	0.39	111.13	1,300.0	82.0	1.4	1.3	-0.2	0.24	0.22	22.23	
1,400.0	0.64	101.75	1,400.0	182.0	1.2	2.1	0.5	0.26	0.25	-9.38	
1,500.0	0.73	101.79	1,500.0	282.0	0.9	3.3	1.5	0.09	0.09	0.04	
1,600.0	0.71	107.76	1,600.0	382.0	0.6	4.5	2.5	0.08	-0.02	5.97	
1,700.0	0.63	114.08	1,700.0	482.0	0.2	5.6	3.5	0.11	-0.08	6.32	
1,800.0	0.68	118.32	1,800.0	582.0	-0.3	6.6	4.6	0.07	0.05	4.24	
1,900.0	0.50	126.64	1,900.0	682.0	-0.9	7.5	5.6	0.20	-0.18	8.32	
2,000.0	0.48	138.17	2,000.0	782.0	-1.4	8.1	6.4	0.10	-0.02	11.53	
2,100.0	0.45	147.50	2,100.0	882.0	-2.1	8.6	7.2	0.08	-0.03	9.33	
2,200.0	0.44	156.84	2,199.9	981.9	-2.8	9.0	8.0	0.07	-0.01	9.34	
2,300.0	0.43	157.48	2,299.9	1,081.9	-3.5	9.3	8.7	0.01	-0.01	0.64	
2,400.0	0.38	163.19	2,399.9	1,181.9	-4.1	9.5	9.4	0.06	-0.05	5.71	
2,500.0	0.36	182.01	2,499.9	1,281.9	-4.8	9.6	9.9	0.12	-0.02	18.82	
2,600.0	0.37	177.31	2,599.9	1,381.9	-5.4	9.6	10.4	0.03	0.01	-4.70	
2,700.0	0.42	203.82	2,699.9	1,481.9	-6.0	9.5	10.8	0.19	0.05	26.51	
2,800.0	0.34	203.75	2,799.9	1,581.9	-6.7	9.2	11.1	0.08	-0.08	-0.07	
2,900.0	0.34	198.86	2,899.9	1,681.9	-7.2	9.0	11.3	0.03	0.00	-4.89	
3,000.0	0.34	199.34	2,999.9	1,781.9	-7.8	8.8	11.6	0.00	0.00	0.48	
3,100.0	0.34	196.67	3,099.9	1,881.9	-8.3	8.6	11.9	0.02	0.00	-2.67	
3,200.0	0.34	208.41	3,199.9	1,981.9	-8.9	8.4	12.2	0.07	0.00	11.74	
3,300.0	0.34	211.71	3,299.9	2,081.9	-9.4	8.1	12.4	0.02	0.00	3.30	
3,400.0	0.28	223.20	3,399.9	2,181.9	-9.8	7.8	12.5	0.09	-0.06	11.49	
3,500.0	0.21	229.48	3,499.9	2,281.9	-10.1	7.5	12.5	0.07	-0.07	6.28	
3,600.0	0.20	242.70	3,599.9	2,381.9	-10.3	7.2	12.5	0.05	-0.01	13.22	
3,700.0	0.13	243.52	3,699.9	2,481.9	-10.4	6.9	12.4	0.07	-0.07	0.82	
3,800.0	0.46	289.09	3,799.9	2,581.9	-10.4	6.4	12.0	0.38	0.33	45.57	
3,900.0	0.72	292.82	3,899.9	2,681.9	-10.0	5.5	11.1	0.26	0.26	3.73	
4,000.0	0.87	294.94	3,999.9	2,781.9	-9.4	4.2	9.9	0.15	0.15	2.12	
4,100.0	1.13	299.96	4,099.9	2,881.9	-8.6	2.7	8.2	0.27	0.26	5.02	
4,200.0	1.28	303.80	4,199.9	2,981.9	-7.5	0.9	6.2	0.17	0.15	3.84	
4,300.0	1.51	307.53	4,299.8	3,081.8	-6.1	-1.1	3.9	0.25	0.23	3.73	
4,400.0	1.57	311.81	4,399.8	3,181.8	-4.4	-3.2	1.2	0.13	0.06	4.28	
4,500.0	1.55	313.51	4,499.8	3,281.8	-2.5	-5.2	-1.5	0.05	-0.02	1.70	
4,600.0	1.45	315.88	4,599.7	3,381.7	-0.7	-7.0	-4.1	0.12	-0.10	2.37	
4,700.0	1.53	313.19	4,699.7	3,481.7	1.1	-8.9	-6.7	0.11	0.08	-2.69	
4,800.0	1.25	317.43	4,799.7	3,581.7	2.9	-10.6	-9.1	0.30	-0.28	4.24	
4,900.0	1.17	318.19	4,899.6	3,681.6	4.4	-12.0	-11.2	0.08	-0.08	0.76	



Phoenix Technology Services
Survey Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Doddridge County 513142
Company:	EQT Production - Marcellus	TVD Reference:	KB @ 1218.0usft
Project:	Doddridge County, WV Grid	MD Reference:	KB @ 1218.0usft
Site:	Doddridge County 513142	North Reference:	Grid
Well:	Well #513142	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)	
5,000.0	1.01	319.71	4,999.6	3,781.6	5.9	-13.3	-13.1	0.16	-0.16	1.52	
5,100.0	0.89	318.62	5,099.6	3,881.6	7.1	-14.3	-14.8	0.12	-0.12	-1.09	
5,200.0	0.88	319.56	5,199.6	3,981.6	8.3	-15.4	-16.3	0.02	-0.01	0.94	
5,300.0	0.89	320.62	5,299.6	4,081.6	9.5	-16.4	-17.9	0.02	0.01	1.06	
5,400.0	1.82	330.21	5,399.6	4,181.6	11.4	-17.6	-20.2	0.95	0.93	9.59	
Gyro Tie In=5500' MD											
5,500.0	2.53	344.21	5,499.5	4,281.5	14.9	-19.0	-23.8	0.88	0.71	14.00	
5,632.0	2.60	349.80	5,631.4	4,413.4	20.7	-20.3	-29.0	0.20	0.05	4.23	
KOP=5664' MD											
5,664.0	3.00	342.40	5,663.3	4,445.3	22.2	-20.7	-30.4	1.68	1.25	-23.13	
5,695.0	6.00	9.00	5,694.2	4,476.2	24.6	-20.7	-32.1	11.54	9.68	85.81	
5,727.0	9.30	18.70	5,725.9	4,507.9	28.7	-19.6	-34.5	11.04	10.31	30.31	
5,758.0	10.90	24.40	5,756.5	4,538.5	33.7	-17.6	-37.0	6.08	5.16	18.39	
5,790.0	12.70	26.90	5,787.8	4,569.8	39.6	-14.8	-39.6	5.85	5.63	7.81	
5,822.0	15.40	30.40	5,818.8	4,600.8	46.4	-11.0	-42.2	8.84	8.44	10.94	
5,853.0	18.80	30.70	5,848.4	4,630.4	54.3	-6.4	-45.1	10.97	10.97	0.97	
5,884.0	21.70	30.50	5,877.5	4,659.5	63.5	-0.9	-48.5	9.36	9.35	-0.65	
5,916.0	24.10	28.60	5,907.0	4,689.0	74.3	5.2	-52.6	7.85	7.50	-5.94	
5,947.0	25.80	29.90	5,935.1	4,717.1	85.7	11.6	-57.0	5.76	5.48	4.19	
5,979.0	28.60	31.00	5,963.6	4,745.6	98.4	19.0	-61.6	8.89	8.75	3.44	
6,010.0	32.20	29.90	5,990.3	4,772.3	111.9	26.9	-66.6	11.75	11.61	-3.55	
6,042.0	36.00	29.50	6,016.8	4,798.8	127.5	35.8	-72.5	11.90	11.88	-1.25	
6,073.0	39.30	28.90	6,041.3	4,823.3	144.0	45.1	-78.9	10.71	10.65	-1.94	
6,105.0	42.90	28.00	6,065.4	4,847.4	162.5	55.1	-86.2	11.40	11.25	-2.81	
6,136.0	47.40	28.00	6,087.3	4,869.3	181.9	65.4	-94.0	14.52	14.52	0.00	
6,168.0	51.60	26.50	6,108.1	4,890.1	203.5	76.5	-103.0	13.60	13.13	-4.69	
6,199.0	55.10	25.90	6,126.6	4,908.6	225.8	87.5	-112.6	11.40	11.29	-1.94	
6,231.0	59.30	25.90	6,143.9	4,925.9	250.0	99.2	-123.1	13.13	13.13	0.00	
6,263.0	61.30	28.40	6,159.8	4,941.8	274.7	111.9	-133.4	9.23	6.25	7.81	
6,294.0	64.80	29.20	6,173.8	4,955.8	299.0	125.2	-142.9	11.52	11.29	2.58	
6,326.0	68.40	29.10	6,186.5	4,968.5	324.6	139.6	-152.8	11.25	11.25	-0.31	
6,357.0	71.30	28.10	6,197.2	4,979.2	350.2	153.5	-162.9	9.83	9.35	-3.23	
6,389.0	72.20	26.30	6,207.2	4,989.2	377.2	167.4	-174.1	6.04	2.81	-5.63	
6,421.0	72.30	26.00	6,217.0	4,999.0	404.5	180.8	-185.9	0.95	0.31	-0.94	
6,452.0	72.10	26.50	6,226.5	5,008.5	431.0	193.9	-197.3	1.67	-0.65	1.61	
6,484.0	72.20	26.70	6,236.3	5,018.3	458.2	207.5	-208.8	0.67	0.31	0.63	
6,514.0	72.10	27.20	6,245.5	5,027.5	483.7	220.4	-219.5	1.62	-0.33	1.67	
6,546.0	71.60	28.70	6,255.4	5,037.4	510.6	234.7	-230.4	4.72	-1.56	4.69	
6,577.0	70.60	34.00	6,265.5	5,047.5	535.6	249.9	-239.2	16.49	-3.23	13.44	
6,609.0	69.50	38.30	6,276.4	5,058.4	559.9	267.7	-245.9	13.09	8.74	13.44	
6,640.0	68.60	42.90	6,287.5	5,069.5	581.9	286.5	-250.0	14.16	-2.90	14.84	
6,672.0	67.30	46.00	6,299.5	5,081.5	603.0	307.3	-252.3	9.85	-4.06	9.69	
6,703.0	65.90	48.50	6,311.8	5,093.8	622.3	328.2	-253.2	8.67	-4.06	8.06	

RECEIVED
Office of Oil and Gas
APR 22 2015



Phoenix Technology Services
Survey Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Doddridge County 513142
Company:	EQT Production - Marcellus	TVD Reference:	KB @ 1218.0usft
Project:	Doddridge County, WV Grid	MD Reference:	KB @ 1218.0usft
Site:	Doddridge County 513142	North Reference:	Grid
Well:	Well #513142	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)	
6,735.0	65.10	51.40	6,325.1	5,107.1	641.1	350.4	-252.6	8.62	-2.50	9.06	
6,766.0	65.20	55.40	6,338.1	5,120.1	657.8	373.0	-250.4	11.71	0.32	12.90	
6,798.0	65.60	58.50	6,351.4	5,133.4	673.7	397.4	-246.3	8.90	1.25	9.69	
6,829.0	65.80	61.90	6,364.2	5,146.2	687.7	421.9	-240.8	10.02	0.65	10.97	
6,861.0	65.40	65.00	6,377.4	5,159.4	700.8	448.0	-233.5	8.91	-1.25	9.69	
6,892.0	65.20	68.20	6,390.4	5,172.4	712.0	473.8	-224.9	9.40	-0.65	10.32	
6,924.0	64.40	71.50	6,404.0	5,186.0	721.9	501.0	-214.5	9.66	-2.50	10.31	
6,955.0	63.30	73.70	6,417.7	5,199.7	730.3	527.5	-203.4	7.29	-3.55	7.10	
6,987.0	63.10	76.80	6,432.1	5,214.1	737.5	555.2	-190.7	8.67	-0.63	9.69	
7,018.0	63.30	80.50	6,446.1	5,228.1	743.0	582.3	-177.0	10.67	0.65	11.94	
7,050.0	64.30	85.30	6,460.2	5,242.2	746.5	610.8	-160.9	13.82	3.13	15.00	
7,081.0	64.30	88.00	6,473.7	5,255.7	748.1	638.6	-143.8	7.85	0.00	8.71	
7,113.0	64.50	91.20	6,487.5	5,269.5	748.3	667.5	-125.0	9.04	0.63	10.00	
7,144.0	65.50	94.90	6,500.6	5,282.6	746.8	695.5	-105.4	11.29	3.23	11.94	
7,176.0	66.80	97.80	6,513.5	5,295.5	743.6	724.6	-83.8	9.23	4.06	9.06	
7,207.0	68.10	101.00	6,525.4	5,307.4	738.9	752.9	-61.7	10.41	4.19	10.32	
7,239.0	69.00	103.70	6,537.1	5,319.1	732.6	782.0	-37.8	8.34	2.81	8.44	
7,270.0	70.20	107.10	6,547.9	5,329.9	724.8	810.0	-13.6	10.98	3.87	10.97	
7,302.0	71.60	110.60	6,558.4	5,340.4	715.1	838.6	12.6	11.22	4.38	10.94	
7,333.0	73.40	114.00	6,567.7	5,349.7	703.8	865.9	39.0	11.96	5.81	10.97	
7,365.0	74.00	116.10	6,576.7	5,358.7	690.8	893.7	67.1	6.57	1.88	6.56	
7,396.0	74.80	117.40	6,585.1	5,367.1	677.4	920.4	94.8	4.79	2.58	4.19	
7,428.0	75.30	120.80	6,593.3	5,375.3	662.4	947.4	123.9	10.38	1.56	10.63	
7,459.0	77.10	124.90	6,600.7	5,382.7	646.0	972.7	152.8	14.09	5.81	13.23	
7,491.0	77.60	128.50	6,607.7	5,389.7	627.4	997.7	183.3	11.09	1.56	11.25	
7,522.0	77.50	131.40	6,614.4	5,396.4	607.9	1,020.9	213.2	9.14	-0.32	9.35	
7,553.0	78.60	134.30	6,620.8	5,402.8	587.3	1,043.2	243.3	9.82	3.55	9.35	
7,585.0	80.70	136.90	6,626.6	5,408.6	564.8	1,065.2	274.8	10.34	6.56	8.13	
7,616.0	83.30	139.50	6,630.9	5,412.9	541.9	1,085.6	305.5	11.80	8.39	8.39	
7,648.0	86.20	142.70	6,633.8	5,415.8	517.2	1,105.6	337.3	13.46	9.06	10.00	
LP=7711' MD/ 6636' TVD											
7,711.0	89.70	147.00	6,636.1	5,418.1	465.7	1,141.9	399.9	8.80	5.56	6.83	
7,775.0	89.80	147.70	6,636.4	5,418.4	411.8	1,176.4	463.2	1.10	0.16	1.09	
7,838.0	90.60	149.20	6,636.1	5,418.1	358.1	1,209.4	525.3	2.70	1.27	2.38	
7,900.0	90.30	151.10	6,635.6	5,417.6	304.4	1,240.2	586.1	3.10	-0.48	3.06	
7,964.0	90.20	151.30	6,635.4	5,417.4	248.3	1,271.0	648.6	0.35	-0.16	0.31	
8,026.0	90.50	151.60	6,635.0	5,417.0	193.8	1,300.7	709.2	0.68	0.48	0.48	
8,090.0	91.30	154.70	6,634.0	5,416.0	136.7	1,329.6	771.2	5.00	1.25	4.84	
8,153.0	91.30	155.70	6,632.6	5,414.6	79.5	1,356.0	831.6	1.59	0.00	1.59	
8,216.0	91.10	156.50	6,631.2	5,413.2	22.0	1,381.5	891.8	1.31	-0.32	1.27	
8,278.0	90.20	156.10	6,630.5	5,412.5	-34.8	1,406.4	950.9	1.59	-1.46	-0.65	
8,341.0	90.30	157.10	6,630.3	5,412.3	-92.6	1,431.5	1,011.0	1.89	0.16	0.53	
8,403.0	90.70	156.70	6,629.7	5,411.7	-149.6	1,455.8	1,069.9	0.91	0.65	-0.65	

RECEIVED
Office of Oil and Gas

APR 22 2015
COMPASS 5000.1 Build 56



Phoenix Technology Services
Survey Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Doddridge County 513142
Company:	EQT Production - Marcellus	TVD Reference:	KB @ 1218.0usft
Project:	Doddridge County, WV Grid	MD Reference:	KB @ 1218.0usft
Site:	Doddridge County 513142	North Reference:	Grid
Well:	Well #513142	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)	
8,467.0	90.30	157.20	6,629.2	5,411.2	-208.5	1,480.8	1,130.8	1.00	-0.63	0.78	
8,529.0	89.50	157.70	6,629.3	5,411.3	-265.8	1,504.6	1,189.5	1.52	-1.29	0.81	
8,592.0	89.10	157.50	6,630.0	5,412.0	-324.0	1,528.6	1,249.2	0.71	-0.63	-0.32	
8,655.0	88.70	157.60	6,631.2	5,413.2	-382.3	1,552.7	1,308.9	0.65	-0.63	0.16	
8,719.0	89.00	157.50	6,632.5	5,414.5	-441.4	1,577.1	1,369.5	0.49	0.47	-0.16	
8,782.0	89.00	157.20	6,633.6	5,415.6	-499.5	1,601.4	1,429.3	0.48	0.00	-0.48	
8,843.0	89.10	156.70	6,634.6	5,416.6	-555.6	1,625.2	1,487.2	0.84	0.16	-0.82	
8,906.0	89.30	155.50	6,635.5	5,417.5	-613.2	1,650.8	1,547.4	1.93	0.32	-1.90	
8,969.0	89.50	154.90	6,636.2	5,418.2	-670.4	1,677.2	1,607.9	1.00	0.32	-0.95	
9,033.0	89.80	154.30	6,636.6	5,418.6	-728.2	1,704.6	1,669.5	1.05	0.47	-0.94	
9,095.0	89.90	153.80	6,636.7	5,418.7	-784.0	1,731.8	1,729.3	0.82	0.16	-0.81	
9,158.0	90.50	155.60	6,636.5	5,418.5	-840.9	1,758.7	1,789.9	3.01	0.95	2.86	
9,221.0	90.20	154.20	6,636.1	5,418.1	-898.0	1,785.4	1,850.5	2.27	-0.48	-2.22	
9,285.0	88.30	155.00	6,637.0	5,419.0	-955.8	1,812.9	1,912.1	3.22	-2.97	1.25	
9,347.0	88.10	154.70	6,638.9	5,420.9	-1,011.9	1,839.2	1,971.7	0.58	-0.32	-0.48	
9,410.0	87.90	154.40	6,641.1	5,423.1	-1,068.7	1,866.3	2,032.3	0.57	-0.32	-0.48	
9,473.0	88.70	155.00	6,643.0	5,425.0	-1,125.7	1,893.2	2,092.9	1.59	1.27	0.95	
9,536.0	88.70	154.50	6,644.4	5,426.4	-1,182.6	1,920.0	2,153.5	0.79	0.00	-0.79	
9,599.0	87.70	153.00	6,646.4	5,428.4	-1,239.1	1,947.9	2,214.3	2.86	-1.59	-2.38	
9,662.0	89.70	154.00	6,647.8	5,429.8	-1,295.5	1,976.0	2,275.3	3.55	3.17	1.59	
9,725.0	89.90	155.10	6,648.0	5,430.0	-1,352.4	2,003.1	2,335.9	1.77	0.32	1.75	
9,788.0	90.50	155.10	6,647.8	5,429.8	-1,409.5	2,029.6	2,396.4	0.95	0.95	0.00	
9,851.0	90.80	154.60	6,647.1	5,429.1	-1,466.5	2,056.4	2,457.0	0.93	0.48	-0.79	
9,914.0	92.00	153.30	6,645.6	5,427.6	-1,523.1	2,084.0	2,517.8	2.81	1.90	-2.06	
9,977.0	91.10	150.60	6,643.9	5,425.9	-1,578.7	2,113.6	2,579.2	4.52	-1.43	-4.29	
10,040.0	91.60	149.90	6,642.4	5,424.4	-1,633.4	2,144.9	2,640.9	1.37	0.79	-1.11	
10,104.0	91.60	150.60	6,640.6	5,422.6	-1,688.9	2,176.6	2,703.6	1.09	0.00	1.09	
10,167.0	92.80	151.30	6,638.2	5,420.2	-1,743.9	2,207.2	2,765.2	2.20	1.90	1.11	
10,230.0	94.80	151.50	6,634.0	5,416.0	-1,799.1	2,237.3	2,826.6	3.19	3.17	0.32	
10,293.0	94.60	151.00	6,628.8	5,410.8	-1,854.2	2,267.5	2,887.9	0.85	-0.32	-0.79	
10,357.0	95.00	151.30	6,623.5	5,405.5	-1,910.0	2,298.3	2,950.2	0.78	0.63	0.47	
10,420.0	92.80	153.30	6,619.2	5,401.2	-1,965.7	2,327.5	3,011.3	4.71	-3.49	3.17	
10,482.0	92.00	154.20	6,616.6	5,398.6	-2,021.2	2,354.9	3,071.2	1.94	-1.29	1.45	
10,545.0	91.00	154.30	6,614.9	5,396.9	-2,078.0	2,382.2	3,131.9	1.60	-1.59	0.16	
10,608.0	90.30	156.60	6,614.2	5,396.2	-2,135.2	2,408.4	3,192.3	3.82	-1.11	3.65	
10,671.0	90.10	157.00	6,614.0	5,396.0	-2,193.2	2,433.2	3,252.3	0.71	-0.32	0.63	
10,734.0	89.80	157.10	6,614.1	5,396.1	-2,251.2	2,457.8	3,312.1	0.50	-0.48	0.16	
10,798.0	89.40	156.80	6,614.5	5,396.5	-2,310.1	2,482.8	3,373.0	0.78	-0.63	-0.47	
10,861.0	90.10	156.80	6,614.8	5,396.8	-2,368.0	2,507.7	3,432.9	1.11	1.11	0.00	
10,924.0	90.20	157.10	6,614.6	5,396.6	-2,425.9	2,532.3	3,492.8	0.50	0.16	0.48	
10,987.0	90.10	157.20	6,614.5	5,396.5	-2,484.0	2,556.8	3,552.7	0.22	-0.16	0.16	
11,050.0	90.60	157.00	6,614.1	5,396.1	-2,542.0	2,581.3	3,612.5	0.85	0.79	-0.32	



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Doddridge County 513142
Company:	EQT Production - Marcellus	TVD Reference:	KB @ 1218.0usft
Project:	Doddridge County, WV Grid	MD Reference:	KB @ 1218.0usft
Site:	Doddridge County 513142	North Reference:	Grid
Well:	Well #513142	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)
11,113.0	90.90	156.10	6,613.3	5,395.3	-2,599.8	2,606.4	3,672.5	1.51	0.48	-1.43
11,176.0	91.60	155.00	6,611.9	5,393.9	-2,657.1	2,632.4	3,732.9	2.07	1.11	-1.75
11,239.0	92.50	154.30	6,609.6	5,391.6	-2,714.0	2,659.4	3,793.5	1.81	1.43	-1.11
11,302.0	92.70	153.60	6,606.8	5,388.8	-2,770.6	2,687.0	3,854.2	1.15	0.32	-1.11
11,365.0	92.40	154.20	6,604.0	5,386.0	-2,827.1	2,714.7	3,915.0	1.06	-0.48	0.95
11,429.0	91.70	156.40	6,601.7	5,383.7	-2,885.2	2,741.4	3,976.4	3.61	-1.09	3.44
11,492.0	90.90	155.80	6,600.2	5,382.2	-2,942.8	2,767.0	4,036.5	1.59	-1.27	-0.95
11,555.0	90.90	156.50	6,599.3	5,381.3	-3,000.4	2,792.4	4,096.7	1.11	0.00	1.11
11,618.0	90.90	157.10	6,598.3	5,380.3	-3,058.3	2,817.2	4,156.6	0.95	0.00	0.95
11,681.0	90.50	157.30	6,597.5	5,379.5	-3,116.4	2,841.7	4,216.4	0.71	-0.63	0.32
11,744.0	90.50	157.20	6,596.9	5,378.9	-3,174.5	2,866.0	4,276.2	0.16	0.00	-0.16
11,807.0	90.00	156.40	6,596.7	5,378.7	-3,232.4	2,890.8	4,336.2	1.50	-0.79	-1.27
11,870.0	89.80	156.50	6,596.8	5,378.8	-3,290.1	2,916.0	4,396.2	0.35	-0.32	0.16
Last Survey=11881' MD/ 6597' TVD										
11,881.0	89.80	156.40	6,596.8	5,378.8	-3,300.2	2,920.4	4,406.7	0.91	0.00	-0.91
Projection to TD=11940' MD/ 6597' TVD										
11,940.0	89.80	156.40	6,597.0	5,379.0	-3,354.3	2,944.0	4,463.0	0.00	0.00	0.00

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
5,500.0	5,499.5	14.9	-19.0	Gyro Tie In=5500' MD
5,664.0	5,663.3	22.2	-20.7	KOP=5664' MD
7,711.0	6,636.1	465.7	1,141.9	LP=7711' MD/ 6636' TVD
11,881.0	6,596.8	-3,300.2	2,920.4	Last Survey=11881' MD/ 6597' TVD
11,940.0	6,597.0	-3,354.3	2,944.0	Projection to TD=11940' MD/ 6597' TVD

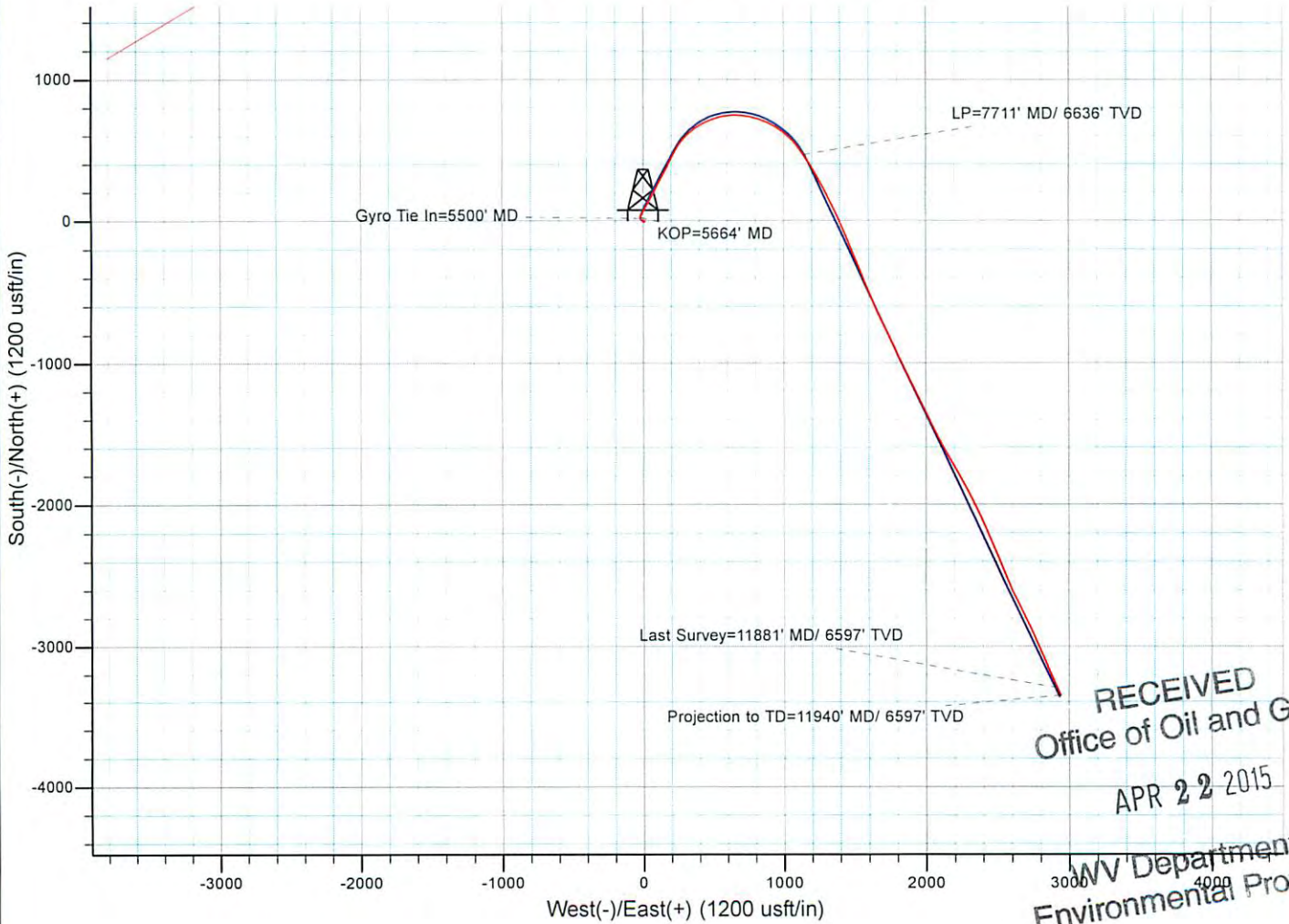
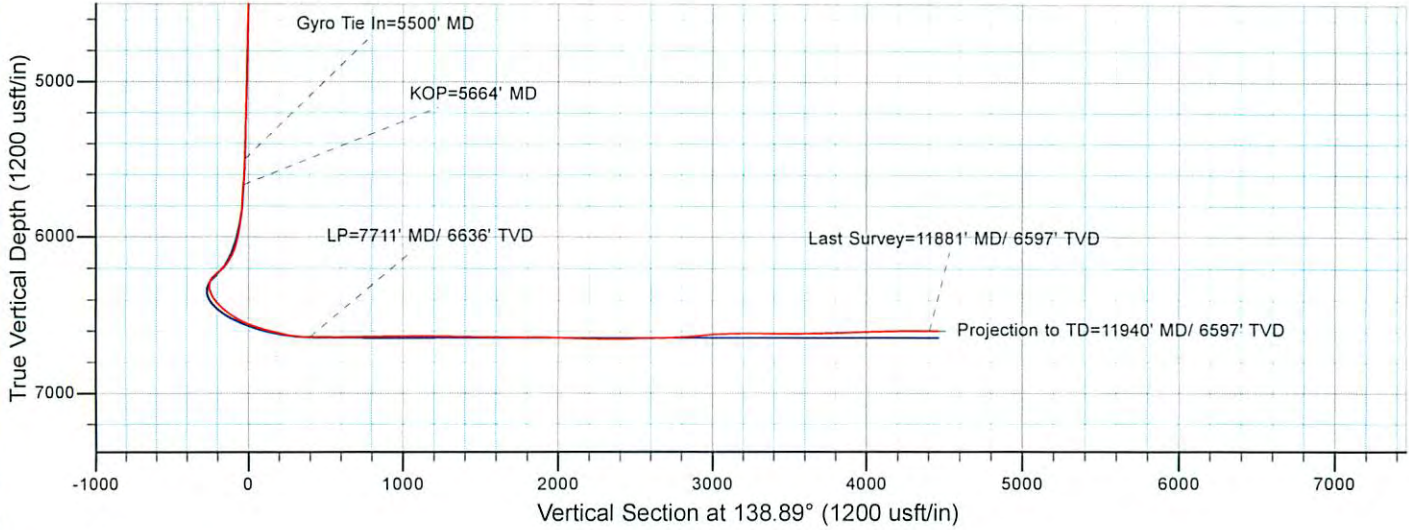
Checked By: _____ Approved By: _____ Date: _____

RECEIVED
Office of Oil and Gas
APR 22 2015

WV Department of
Environmental Protection
06/12/2015



Project: Doddridge County, WV Grid
 Site: Doddridge County 513142
 Well: Well #513142
 Wellbore: Main Wellbore
 Design: As Drilled Surveys



RECEIVED
Office of Oil and Gas

APR 22 2015

WV Department of
Environmental Protection

06/12/2015