



Where energy meets innovation.

## **EQT PRODUCTION**

**Doddridge County, WV**

**OXF159**

**Well #514096 - Slot 514096**

API #4701706765

**514096 ST01**

**Design: 514096 ST01**

## **Standard Survey Report**

25 October, 2016

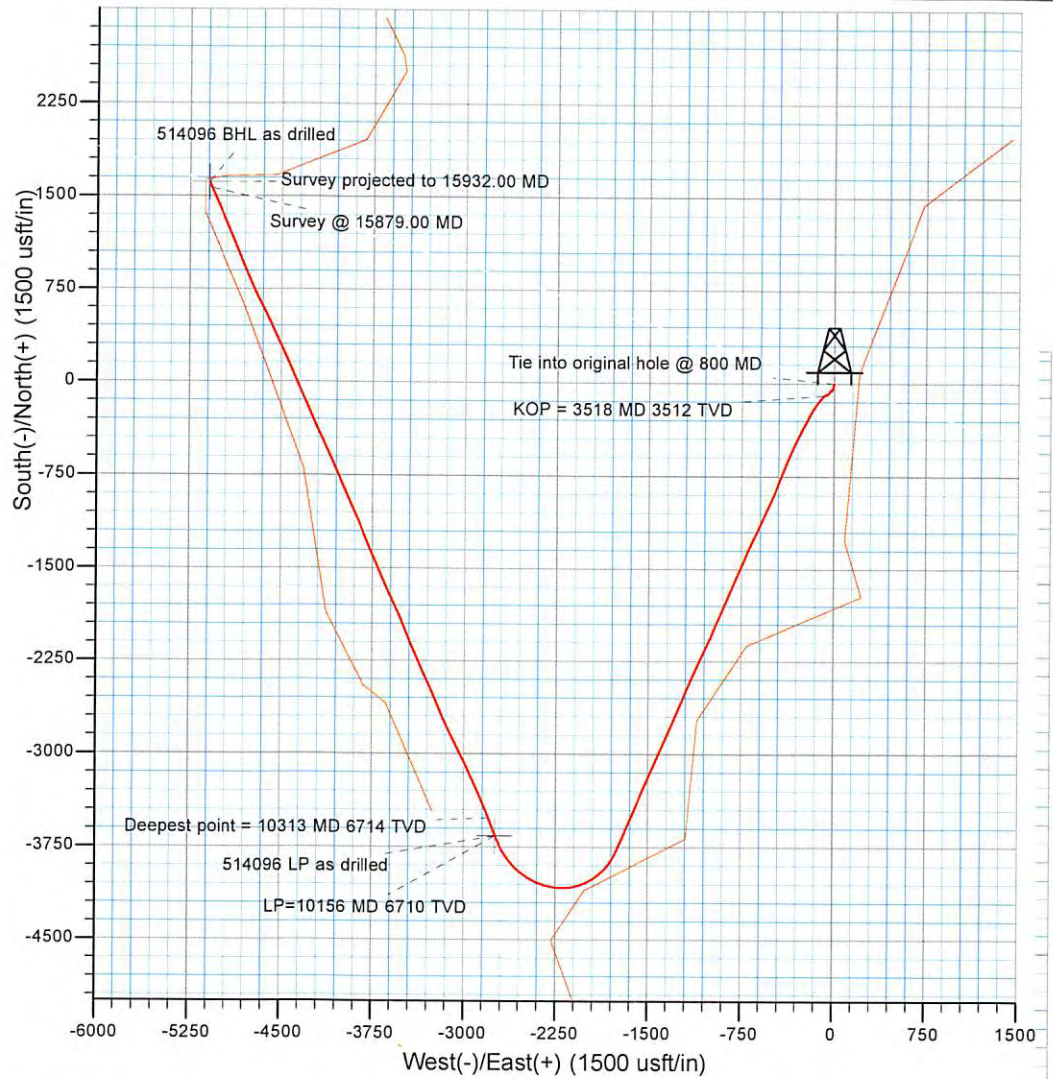
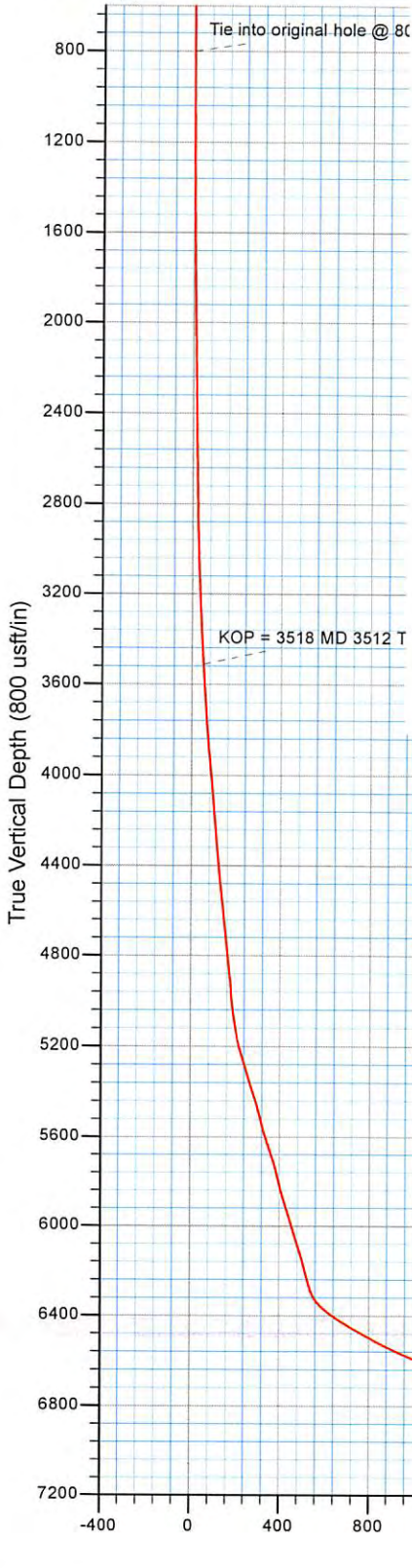
Received  
Office of Oil & Gas  
MAR 03 2017





Where energy meets innovation.

Project: Doddridge County, WV  
 Site: OXF159  
 Well: Well #514096  
 Wellbore: 514096 ST01  
 Design: 514096 ST01

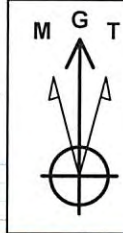


ANNOTATIONS

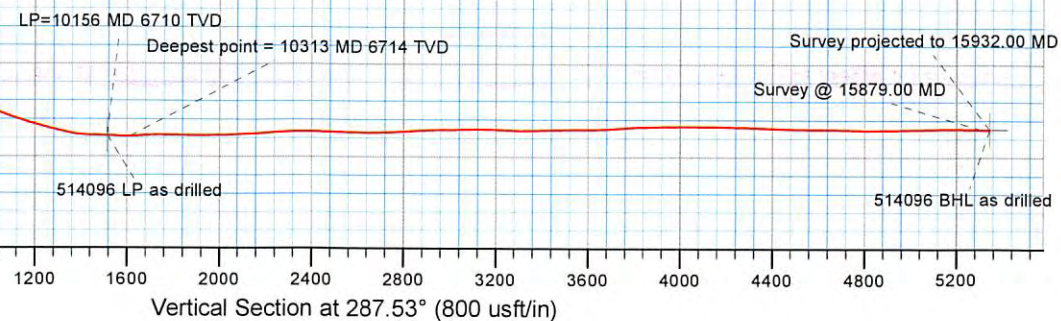
TVD	MD	Inc	Azi	+N/-S	+E/-W	VSec	Departure	Annotation
800.00	800.00	0.37	266.62	0.28	-1.41	1.43	1.53	Tie into original hole @ 800 MD
3512.49	3518.00	5.07	239.80	-97.75	-84.13	50.78	144.38	KOP = 3518 MD 3512 TVD
5289.55	5850.00	69.25	204.75	-1257.88	-654.56	245.29	1441.66	Survey @ 5850.00 MD
6710.35	10156.00	88.30	336.90	-3659.69	-2744.46	1514.69	5491.47	LP=10156 MD 6710 TVD
6713.62	10313.00	91.50	340.40	-3513.65	-2801.84	1613.39	5648.40	Deepest point = 10313 MD 6714 TVD
6679.33	15879.00	90.10	336.10	1564.78	-5072.50	5308.25	11212.93	Survey @ 15879.00 MD
6679.24	15932.00	90.10	336.10	1613.24	-5093.97	5343.32	11265.93	Survey projected to 15932.00 MD



PRO DIRECTIONAL



Azimuths to Grid North  
 True North: 0.81°  
 Magnetic North: -6.98°  
 Magnetic Field  
 Strength: 52190.1snT  
 Dip Angle: 66.62°  
 Date: 12/31/2015  
 Model: HDGM



<b>Company:</b>	EQT PRODUCTION	<b>Local Co-ordinate Reference:</b>	Well Well #514096 - Slot 514096
<b>Project:</b>	Doddridge County, WV	<b>TVD Reference:</b>	KB@23 @ 1275.00usft (Savanna 803)
<b>Site:</b>	OXF159	<b>MD Reference:</b>	KB@23 @ 1275.00usft (Savanna 803)
<b>Well:</b>	Well #514096	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	514096 ST01	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	514096 ST01	<b>Database:</b>	DB Jul2216dt

<b>Project</b>	Doddridge County, WV		
<b>Map System:</b>	US State Plane 1927 (Exact solution)	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD 1927 (NADCON CONUS)		
<b>Map Zone:</b>	West Virginia North 4701		

<b>Site</b>	OXF159				
<b>Site Position:</b>		<b>Northing:</b>	260,319.50 usft	<b>Latitude:</b>	39° 12' 28.2022 N
<b>From:</b>	Map	<b>Easting:</b>	1,642,386.60 usft	<b>Longitude:</b>	80° 45' 43.3315 W
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13-3/16 "	<b>Grid Convergence:</b>	-0.80 °

<b>Well</b>	Well #514096 - Slot 514096					
<b>Well Position</b>	<b>+N/-S</b>	0.00 usft	<b>Northing:</b>	260,319.53 usft	<b>Latitude:</b>	39° 12' 28.2025 N
	<b>+E/-W</b>	0.00 usft	<b>Easting:</b>	1,642,386.59 usft	<b>Longitude:</b>	80° 45' 43.3317 W
<b>Position Uncertainty</b>	0.00 usft		<b>Wellhead Elevation:</b>	0.00 usft	<b>Ground Level:</b>	1,252.00 usft

<b>Wellbore</b>	514096 ST01				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	HDGM	12/31/2015	-7.78	66.62	52,190

<b>Design</b>	514096 ST01				
<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>	800.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>	
	0.00	0.00	0.00	287.53	

<b>Survey Program</b>	<b>Date</b>	10/25/2016			
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
100.00	800.00	514096 Gyrodata Gyro (Main Wellbore)	GYD_DP_MS	Gyrodata gyro-compassing and drop	
853.00	5,850.00	MWD ST1 (514096 ST01)	MWD - OWSG	MWD - OWSG	
5,975.00	15,932.00	MWD ST01 TIP 5850 MD (514096 ST01)	MWD - OWSG	MWD - OWSG	

<b>Survey</b>										
<b>Measured Depth (usft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Vertical Section (usft)</b>	<b>Dogleg Rate (°/100usft)</b>	<b>Build Rate (°/100usft)</b>	<b>Turn Rate (°/100usft)</b>	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.21	309.18	100.00	0.12	-0.14	0.17	0.21	0.21	0.00	0.00
200.00	0.03	301.15	200.00	0.25	-0.31	0.37	0.18	-0.18	-8.03	-8.03
300.00	0.03	292.92	300.00	0.27	-0.35	0.42	0.00	0.00	-8.23	-8.23
400.00	0.01	328.94	400.00	0.29	-0.38	0.45	0.02	-0.02	36.02	36.02
500.00	0.06	290.95	500.00	0.31	-0.44	0.51	0.05	0.05	-37.99	-37.99
600.00	0.18	274.34	600.00	0.34	-0.64	0.71	0.12	0.12	-16.61	-16.61
700.00	0.17	258.65	700.00	0.33	-0.94	1.00	0.05	-0.01	-15.69	-15.69
800.00	0.37	266.62	800.00	0.28	-1.41	1.43	0.20	0.20	7.97	7.97

<b>Company:</b>	EQT PRODUCTION	<b>Local Co-ordinate Reference:</b>	Well Well #514096 - Slot 514096
<b>Project:</b>	Doddridge County, WV	<b>TVD Reference:</b>	KB@23 @ 1275.00usft (Savanna 803)
<b>Site:</b>	OXF159	<b>MD Reference:</b>	KB@23 @ 1275.00usft (Savanna 803)
<b>Well:</b>	Well #514096	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	514096 ST01	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	514096 ST01	<b>Database:</b>	DB Jul2216dt

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
<b>Tie into original hole @ 800 MD</b>									
853.00	2.33	213.46	852.98	-0.63	-2.18	1.88	4.02	3.70	-100.30
884.00	3.46	207.53	883.94	-1.99	-2.96	2.22	3.77	3.65	-19.13
915.00	4.60	203.72	914.86	-3.95	-3.89	2.52	3.78	3.68	-12.29
947.00	5.46	200.91	946.74	-6.55	-4.95	2.74	2.79	2.69	-8.78
978.00	6.70	199.53	977.57	-9.63	-6.08	2.89	4.03	4.00	-4.45
1,010.00	7.88	198.22	1,009.31	-13.48	-7.39	2.99	3.72	3.69	-4.09
1,041.00	8.68	196.28	1,039.98	-17.74	-8.71	2.96	2.73	2.58	-6.26
1,072.00	9.16	195.15	1,070.61	-22.37	-10.01	2.81	1.65	1.55	-3.65
1,104.00	9.03	196.01	1,102.21	-27.24	-11.37	2.63	0.59	-0.41	2.69
1,135.00	8.71	193.62	1,132.84	-31.86	-12.59	2.41	1.57	-1.03	-7.71
1,167.00	7.46	197.28	1,164.52	-36.20	-13.78	2.24	4.22	-3.91	11.44
1,198.00	7.40	197.42	1,195.26	-40.02	-14.97	2.22	0.20	-0.19	0.45
1,229.00	7.30	199.21	1,226.00	-43.79	-16.22	2.28	0.81	-0.32	5.77
1,261.00	6.12	200.57	1,257.78	-47.31	-17.49	2.43	3.72	-3.69	4.25
1,292.00	4.90	203.06	1,288.64	-50.07	-18.59	2.64	4.01	-3.94	8.03
1,324.00	3.82	210.09	1,320.55	-52.25	-19.66	3.01	3.76	-3.38	21.97
1,355.00	2.83	214.90	1,351.49	-53.77	-20.61	3.46	3.32	-3.19	15.52
1,387.00	2.54	217.47	1,383.46	-54.98	-21.50	3.94	0.98	-0.91	8.03
1,433.00	1.29	230.20	1,429.43	-56.12	-22.51	4.56	2.85	-2.72	27.67
1,481.00	0.69	303.19	1,477.43	-56.31	-23.17	5.13	2.65	-1.25	152.06
1,576.00	0.83	346.83	1,572.42	-55.33	-23.81	6.04	0.61	0.15	45.94
1,670.00	0.76	339.91	1,666.41	-54.08	-24.18	6.76	0.13	-0.07	-7.36
1,765.00	0.74	307.17	1,761.40	-53.12	-24.88	7.73	0.45	-0.02	-34.46
1,859.00	0.78	270.60	1,855.39	-52.74	-26.00	8.91	0.51	0.04	-38.90
1,953.00	0.97	270.91	1,949.38	-52.72	-27.44	10.28	0.20	0.20	0.33
2,048.00	1.35	241.09	2,044.36	-53.25	-29.22	11.83	0.74	0.40	-31.39
2,142.00	2.61	212.02	2,138.31	-55.60	-31.33	13.12	1.67	1.34	-30.93
2,236.00	2.58	216.59	2,232.21	-59.12	-33.72	14.35	0.22	-0.03	4.86
2,331.00	2.87	208.67	2,327.10	-62.92	-36.14	15.51	0.50	0.31	-8.34
2,425.00	2.50	215.92	2,421.00	-66.64	-38.47	16.61	0.53	-0.39	7.71
2,519.00	2.61	215.99	2,514.91	-70.04	-40.93	17.93	0.12	0.12	0.07
2,614.00	2.29	216.08	2,609.82	-73.32	-43.32	19.22	0.34	-0.34	0.09
2,708.00	2.25	220.84	2,703.75	-76.23	-45.63	20.55	0.20	-0.04	5.06
2,803.00	2.67	225.97	2,798.66	-79.18	-48.44	22.34	0.50	0.44	5.40
2,897.00	2.59	236.21	2,892.56	-81.89	-51.78	24.71	0.51	-0.09	10.89
2,991.00	2.80	239.56	2,986.46	-84.23	-55.53	27.58	0.28	0.22	3.56
3,086.00	2.96	240.71	3,081.34	-86.61	-59.67	30.81	0.18	0.17	1.21
3,180.00	3.18	247.66	3,175.20	-88.78	-64.20	34.47	0.46	0.23	7.39
3,274.00	3.44	244.05	3,269.05	-91.01	-69.14	38.52	0.35	0.28	-3.84
3,369.00	3.67	249.91	3,363.86	-93.30	-74.56	43.00	0.45	0.24	6.17
3,415.00	3.80	244.50	3,409.77	-94.46	-77.32	45.28	0.82	0.28	-11.76
3,455.00	3.99	245.52	3,449.67	-95.61	-79.78	47.28	0.51	0.48	2.55

<b>Company:</b>	EQT PRODUCTION	<b>Local Co-ordinate Reference:</b>	Well Well #514096 - Slot 514096
<b>Project:</b>	Doddridge County, WV	<b>TVD Reference:</b>	KB@23 @ 1275.00usft (Savanna 803)
<b>Site:</b>	OXF159	<b>MD Reference:</b>	KB@23 @ 1275.00usft (Savanna 803)
<b>Well:</b>	Well #514096	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	514096 ST01	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	514096 ST01	<b>Database:</b>	DB Jul2216dt

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
3,486.00	4.29	245.27	3,480.59	-96.54	-81.82	48.94	0.97	0.97	-0.81
3,518.00	5.07	239.80	3,512.49	-97.75	-84.13	50.78	2.81	2.44	-17.09
<b>KOP = 3518 MD 3512 TVD</b>									
3,549.00	5.92	232.78	3,543.34	-99.41	-86.58	52.62	3.49	2.74	-22.65
3,581.00	6.97	229.73	3,575.14	-101.66	-89.38	54.61	3.45	3.28	-9.53
3,612.00	7.99	225.72	3,605.88	-104.38	-92.36	56.63	3.69	3.29	-12.94
3,644.00	8.95	223.19	3,637.53	-107.75	-95.65	58.75	3.22	3.00	-7.91
3,675.00	9.88	220.65	3,668.11	-111.53	-99.04	60.84	3.29	3.00	-8.19
3,707.00	10.67	218.90	3,699.60	-115.92	-102.68	63.00	2.65	2.47	-5.47
3,738.00	11.25	218.57	3,730.03	-120.51	-106.37	65.13	1.88	1.87	-1.06
3,770.00	11.88	216.92	3,761.38	-125.59	-110.30	67.35	2.22	1.97	-5.16
3,801.00	12.27	217.89	3,791.69	-130.74	-114.24	69.55	1.42	1.26	3.13
3,832.00	12.91	216.04	3,821.95	-136.14	-118.30	71.80	2.44	2.06	-5.97
3,864.00	13.96	216.04	3,853.07	-142.15	-122.67	74.16	3.28	3.28	0.00
3,896.00	14.64	217.09	3,884.08	-148.50	-127.38	76.74	2.27	2.13	3.28
3,927.00	15.27	217.42	3,914.03	-154.86	-132.22	79.44	2.05	2.03	1.06
3,958.00	15.84	216.47	3,943.90	-161.51	-137.22	82.20	2.01	1.84	-3.06
3,990.00	16.56	216.09	3,974.63	-168.71	-142.50	85.07	2.27	2.25	-1.19
4,021.00	17.29	216.49	4,004.28	-175.98	-147.84	87.97	2.38	2.35	1.29
4,053.00	17.82	216.68	4,034.79	-183.73	-153.60	91.12	1.67	1.66	0.59
4,084.00	18.45	215.08	4,064.25	-191.55	-159.25	94.16	2.59	2.03	-5.16
4,115.00	19.25	212.61	4,093.59	-199.87	-164.82	96.97	3.64	2.58	-7.97
4,147.00	19.71	210.40	4,123.76	-208.97	-170.40	99.54	2.71	1.44	-6.91
4,178.00	20.27	210.16	4,152.89	-218.12	-175.74	101.88	1.83	1.81	-0.77
4,210.00	20.69	208.27	4,182.87	-227.89	-181.20	104.15	2.45	1.31	-5.91
4,241.00	21.49	208.43	4,211.79	-237.71	-186.50	106.24	2.59	2.58	0.52
4,273.00	22.38	208.26	4,241.47	-248.23	-192.17	108.48	2.79	2.78	-0.53
4,304.00	23.39	207.85	4,270.03	-258.87	-197.84	110.68	3.30	3.26	-1.32
4,336.00	24.22	208.82	4,299.31	-270.23	-203.97	113.11	2.87	2.59	3.03
4,367.00	24.88	207.64	4,327.51	-281.58	-210.07	115.50	2.65	2.13	-3.81
4,399.00	25.83	208.41	4,356.43	-293.68	-216.51	117.99	3.14	2.97	2.41
4,430.00	26.63	208.71	4,384.23	-305.71	-223.06	120.62	2.62	2.58	0.97
4,462.00	27.55	207.90	4,412.72	-318.54	-229.96	123.34	3.10	2.88	-2.53
4,493.00	28.95	207.80	4,440.03	-331.51	-236.82	125.97	4.52	4.52	-0.32
4,524.00	29.98	207.32	4,467.02	-345.03	-243.87	128.62	3.41	3.32	-1.55
4,556.00	30.84	208.91	4,494.62	-359.32	-251.51	131.60	3.68	2.69	4.97
4,587.00	31.83	207.21	4,521.10	-373.54	-259.09	134.54	4.28	3.19	-5.48
4,619.00	32.72	207.69	4,548.15	-388.71	-266.96	137.49	2.89	2.78	1.50
4,650.00	33.56	207.37	4,574.11	-403.73	-274.80	140.43	2.77	2.71	-1.03
4,682.00	34.63	206.13	4,600.61	-419.75	-282.87	143.30	3.99	3.34	-3.88
4,713.00	35.41	205.93	4,626.00	-435.74	-290.67	145.93	2.54	2.52	-0.65
4,744.00	36.20	204.63	4,651.14	-452.14	-298.42	148.37	3.54	2.55	-4.19
4,776.00	37.15	204.97	4,676.80	-469.49	-306.43	150.79	3.04	2.97	1.06
4,807.00	37.96	205.29	4,701.38	-486.59	-314.46	153.29	2.69	2.61	1.03

<b>Company:</b>	EQT PRODUCTION	<b>Local Co-ordinate Reference:</b>	Well Well #514096 - Slot 514096
<b>Project:</b>	Doddridge County, WV	<b>TVD Reference:</b>	KB@23 @ 1275.00usft (Savanna 803)
<b>Site:</b>	OXF159	<b>MD Reference:</b>	KB@23 @ 1275.00usft (Savanna 803)
<b>Well:</b>	Well #514096	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	514096 ST01	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	514096 ST01	<b>Database:</b>	DB Jul2216dt

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,839.00	38.88	204.31	4,726.45	-504.64	-322.80	155.81	3.45	2.88	-3.06
4,870.00	39.88	204.14	4,750.41	-522.58	-330.87	158.10	3.24	3.23	-0.55
4,902.00	40.88	205.39	4,774.79	-541.40	-339.55	160.71	4.02	3.13	3.91
4,933.00	41.87	205.09	4,798.05	-559.94	-348.29	163.46	3.26	3.19	-0.97
4,965.00	42.98	203.71	4,821.67	-579.60	-357.21	166.04	4.53	3.47	-4.31
4,996.00	44.21	204.26	4,844.12	-599.13	-365.90	168.44	4.15	3.97	1.77
5,027.00	45.02	204.29	4,866.19	-618.97	-374.85	171.00	2.61	2.61	0.10
5,059.00	46.13	202.65	4,888.59	-639.94	-383.95	173.36	5.04	3.47	-5.13
5,090.00	47.30	203.02	4,909.84	-660.73	-392.70	175.45	3.87	3.77	1.19
5,122.00	48.48	201.13	4,931.30	-682.73	-401.62	177.33	5.73	3.69	-5.91
5,153.00	49.88	200.86	4,951.56	-704.63	-410.03	178.74	4.56	4.52	-0.87
5,185.00	50.83	200.36	4,971.98	-727.70	-418.70	180.07	3.20	2.97	-1.56
5,216.00	51.80	200.75	4,991.36	-750.35	-427.19	181.35	3.28	3.13	1.26
5,248.00	52.68	202.26	5,010.95	-773.89	-436.47	183.10	4.63	2.75	4.72
5,279.00	53.67	203.11	5,029.53	-796.78	-446.04	185.33	3.88	3.19	2.74
5,311.00	54.85	202.69	5,048.22	-820.71	-456.15	187.76	3.84	3.69	-1.31
5,342.00	56.06	203.27	5,065.80	-844.22	-466.12	190.19	4.20	3.90	1.87
5,374.00	57.44	203.14	5,083.35	-868.81	-476.66	192.83	4.33	4.31	-0.41
5,405.00	58.53	204.04	5,099.78	-892.90	-487.18	195.61	4.29	3.52	2.90
5,437.00	59.67	203.74	5,116.22	-918.00	-498.30	198.65	3.65	3.56	-0.94
5,468.00	60.47	204.69	5,131.68	-942.51	-509.32	201.78	3.70	2.58	3.06
5,499.00	60.84	203.74	5,146.88	-967.15	-520.40	204.92	2.93	1.19	-3.06
5,531.00	61.29	203.38	5,162.36	-992.82	-531.60	207.87	1.72	1.41	-1.13
5,562.00	63.06	204.79	5,176.83	-1,017.85	-542.79	211.00	6.98	5.71	4.55
5,594.00	63.95	204.99	5,191.10	-1,043.83	-554.84	214.67	2.84	2.78	0.63
5,625.00	64.62	205.34	5,204.55	-1,069.10	-566.72	218.38	2.39	2.16	1.13
5,657.00	65.54	205.01	5,218.04	-1,095.37	-579.06	222.24	3.02	2.88	-1.03
5,688.00	66.40	205.09	5,230.66	-1,121.02	-591.05	225.94	2.78	2.77	0.26
5,720.00	67.30	205.30	5,243.24	-1,147.64	-603.57	229.87	2.88	2.81	0.66
5,751.00	68.46	205.23	5,254.91	-1,173.61	-615.83	233.73	3.75	3.74	-0.23
5,783.00	69.61	204.71	5,266.36	-1,200.70	-628.44	237.60	3.90	3.59	-1.63
5,814.00	70.09	204.37	5,277.04	-1,227.17	-640.53	241.15	1.86	1.55	-1.10
5,850.00	69.25	204.75	5,289.55	-1,257.88	-654.56	245.29	2.53	-2.33	1.06
<b>Survey @ 5850.00 MD</b>									
5,975.00	67.30	203.60	5,335.82	-1,363.80	-702.12	258.73	1.78	-1.56	-0.92
6,070.00	73.00	203.50	5,368.06	-1,445.68	-737.81	268.10	6.00	6.00	-0.11
6,164.00	74.90	202.90	5,394.05	-1,528.71	-773.39	277.02	2.11	2.02	-0.64
6,259.00	72.90	203.70	5,420.39	-1,612.54	-809.49	286.19	2.26	-2.11	0.84
6,350.00	70.20	203.30	5,449.19	-1,691.69	-843.91	295.17	3.00	-2.97	-0.44
6,444.00	71.90	202.80	5,479.72	-1,773.50	-878.71	303.72	1.88	1.81	-0.53
6,538.00	69.40	203.30	5,510.86	-1,855.10	-913.43	312.25	2.71	-2.66	0.53
6,633.00	68.00	203.30	5,545.37	-1,936.39	-948.44	321.15	1.47	-1.47	0.00
6,727.00	69.90	202.70	5,579.13	-2,017.14	-982.72	329.50	2.11	2.02	-0.64

<b>Company:</b>	EQT PRODUCTION	<b>Local Co-ordinate Reference:</b>	Well Well #514096 - Slot 514096
<b>Project:</b>	Doddridge County, WV	<b>TVD Reference:</b>	KB@23 @ 1275.00usft (Savanna 803)
<b>Site:</b>	OXF159	<b>MD Reference:</b>	KB@23 @ 1275.00usft (Savanna 803)
<b>Well:</b>	Well #514096	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	514096 ST01	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	514096 ST01	<b>Database:</b>	DB Jul2216dt

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
6,821.00	69.50	204.90	5,611.74	-2,097.80	-1,018.29	339.13	2.24	-0.43	2.34
6,916.00	68.90	204.90	5,645.48	-2,178.35	-1,055.68	350.52	0.63	-0.63	0.00
7,010.00	70.60	204.60	5,678.01	-2,258.44	-1,092.60	361.60	1.83	1.81	-0.32
7,104.00	69.50	204.30	5,710.09	-2,338.87	-1,129.17	372.25	1.21	-1.17	-0.32
7,199.00	68.10	203.40	5,744.44	-2,419.88	-1,164.99	382.00	1.72	-1.47	-0.95
7,293.00	69.60	202.60	5,778.36	-2,500.57	-1,199.24	390.36	1.78	1.60	-0.85
7,387.00	69.20	202.30	5,811.43	-2,581.89	-1,232.84	397.90	0.52	-0.43	-0.32
7,481.00	69.20	204.00	5,844.81	-2,662.69	-1,267.38	406.51	1.69	0.00	1.81
7,576.00	71.20	203.20	5,876.99	-2,744.59	-1,303.16	415.96	2.25	2.11	-0.84
7,670.00	69.50	204.20	5,908.60	-2,825.65	-1,338.74	425.47	2.07	-1.81	1.06
7,764.00	71.10	203.30	5,940.29	-2,906.65	-1,374.38	435.05	1.93	1.70	-0.96
7,859.00	69.40	204.30	5,972.39	-2,988.46	-1,410.45	444.81	2.05	-1.79	1.05
7,953.00	71.40	203.70	6,003.92	-3,069.35	-1,446.47	454.79	2.21	2.13	-0.64
8,047.00	69.50	204.10	6,035.37	-3,150.33	-1,482.35	464.61	2.06	-2.02	0.43
8,142.00	71.30	203.50	6,067.24	-3,232.22	-1,518.46	474.38	1.99	1.89	-0.63
8,236.00	68.60	204.80	6,099.46	-3,312.78	-1,554.58	484.55	3.15	-2.87	1.38
8,331.00	69.70	203.50	6,133.28	-3,393.79	-1,590.89	494.78	1.73	1.16	-1.37
8,425.00	71.00	202.90	6,164.89	-3,475.16	-1,625.76	503.53	1.51	1.38	-0.64
8,520.00	69.10	203.80	6,197.30	-3,557.14	-1,661.15	512.58	2.19	-2.00	0.95
8,614.00	70.60	202.80	6,229.68	-3,638.19	-1,696.05	521.45	1.88	1.60	-1.06
8,709.00	68.20	204.50	6,263.11	-3,719.64	-1,731.71	530.92	3.03	-2.53	1.79
8,771.00	69.20	203.80	6,285.63	-3,772.35	-1,755.34	537.57	1.93	1.61	-1.13
8,803.00	69.00	205.70	6,297.04	-3,799.49	-1,767.86	541.33	5.58	-0.63	5.94
8,834.00	68.50	209.10	6,308.28	-3,825.14	-1,781.15	546.28	10.35	-1.61	10.97
8,866.00	67.90	211.70	6,320.17	-3,850.77	-1,796.18	552.90	7.77	-1.88	8.13
8,897.00	67.70	214.80	6,331.88	-3,874.76	-1,811.92	560.67	9.28	-0.65	10.00
8,928.00	67.80	218.00	6,343.62	-3,897.85	-1,828.94	569.95	9.56	0.32	10.32
8,960.00	67.30	221.90	6,355.85	-3,920.52	-1,847.92	581.22	11.37	-1.56	12.19
8,991.00	67.50	224.70	6,367.76	-3,941.35	-1,867.55	593.67	8.36	0.65	9.03
9,023.00	67.20	228.10	6,380.09	-3,961.71	-1,888.93	607.92	9.85	-0.94	10.63
9,054.00	67.10	232.40	6,392.13	-3,979.97	-1,910.89	623.36	12.79	-0.32	13.87
9,085.00	67.10	235.30	6,404.20	-3,996.82	-1,933.94	640.27	8.62	0.00	9.35
9,117.00	66.70	238.80	6,416.75	-4,012.82	-1,958.64	658.99	10.14	-1.25	10.94
9,149.00	66.30	242.60	6,429.52	-4,027.18	-1,984.22	679.07	10.96	-1.25	11.88
9,180.00	66.10	245.60	6,442.03	-4,039.57	-2,009.73	699.66	8.88	-0.65	9.68
9,211.00	65.20	249.60	6,454.82	-4,050.33	-2,035.84	721.31	12.11	-2.90	12.90
9,243.00	64.10	252.70	6,468.52	-4,059.68	-2,063.20	744.59	9.40	-3.44	9.69
9,274.00	64.00	256.30	6,482.09	-4,067.13	-2,090.05	767.95	10.45	-0.32	11.61
9,305.00	64.00	259.70	6,495.68	-4,072.92	-2,117.30	792.19	9.86	0.00	10.97
9,337.00	64.70	263.50	6,509.54	-4,077.13	-2,145.83	818.12	10.93	2.19	11.88
9,369.00	65.10	267.20	6,523.12	-4,079.47	-2,174.71	844.95	10.54	1.25	11.56
9,400.00	65.40	271.10	6,536.10	-4,079.89	-2,202.85	871.66	11.47	0.97	12.58
9,432.00	65.80	274.50	6,549.32	-4,078.47	-2,231.95	899.84	9.76	1.25	10.63
9,463.00	66.80	277.60	6,561.78	-4,075.47	-2,260.17	927.65	9.71	3.23	10.00

<b>Company:</b>	EQT PRODUCTION	<b>Local Co-ordinate Reference:</b>	Well Well #514096 - Slot 514096
<b>Project:</b>	Doddridge County, WV	<b>TVD Reference:</b>	KB@23 @ 1275.00usft (Savanna 803)
<b>Site:</b>	OXF159	<b>MD Reference:</b>	KB@23 @ 1275.00usft (Savanna 803)
<b>Well:</b>	Well #514096	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	514096 ST01	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	514096 ST01	<b>Database:</b>	DB Jul2216dt

**Survey**

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,495.00	67.50	280.80	6,574.21	-4,070.76	-2,289.28	956.83	9.47	2.19	10.00
9,526.00	67.90	283.90	6,585.98	-4,064.62	-2,317.29	985.39	9.34	1.29	10.00
9,558.00	68.30	286.40	6,597.92	-4,056.86	-2,345.94	1,015.05	7.36	1.25	7.81
9,589.00	69.40	289.70	6,609.10	-4,047.90	-2,373.43	1,043.95	10.54	3.55	10.65
9,621.00	70.00	293.00	6,620.21	-4,036.98	-2,401.37	1,073.90	9.85	1.88	10.31
9,652.00	70.70	295.80	6,630.63	-4,024.92	-2,427.96	1,102.88	8.80	2.26	9.03
9,684.00	71.50	298.90	6,641.00	-4,011.01	-2,454.84	1,132.70	9.50	2.50	9.69
9,715.00	72.90	302.20	6,650.48	-3,996.00	-2,480.26	1,161.45	11.10	4.52	10.65
9,747.00	74.30	305.20	6,659.52	-3,978.97	-2,505.79	1,190.93	10.00	4.38	9.38
9,778.00	76.50	308.40	6,667.33	-3,961.00	-2,529.80	1,219.24	12.25	7.10	10.32
9,810.00	77.00	311.90	6,674.67	-3,940.92	-2,553.61	1,247.99	10.76	1.56	10.94
9,841.00	77.20	314.40	6,681.59	-3,920.26	-2,575.65	1,275.23	7.89	0.65	8.06
9,873.00	77.90	317.60	6,688.49	-3,897.78	-2,597.35	1,302.70	10.01	2.19	10.00
9,904.00	79.20	320.20	6,694.65	-3,874.89	-2,617.32	1,328.64	9.23	4.19	8.39
9,936.00	81.30	322.40	6,700.07	-3,850.28	-2,637.04	1,354.85	9.43	6.56	6.88
9,967.00	83.50	325.20	6,704.17	-3,825.48	-2,655.18	1,379.62	11.42	7.10	9.03
9,998.00	85.70	326.90	6,707.08	-3,799.88	-2,672.41	1,403.76	8.95	7.10	5.48
10,030.00	87.50	328.40	6,708.98	-3,772.90	-2,689.50	1,428.19	7.32	5.63	4.69
10,061.00	89.10	331.80	6,709.90	-3,746.04	-2,704.95	1,451.00	12.12	5.16	10.97
10,093.00	90.20	335.30	6,710.10	-3,717.40	-2,719.20	1,473.22	11.46	3.44	10.94
10,124.00	90.30	336.60	6,709.96	-3,689.09	-2,731.83	1,493.79	4.21	0.32	4.19
10,156.00	88.30	336.90	6,710.35	-3,659.69	-2,744.46	1,514.69	6.32	-6.25	0.94
<b>LP=10156 MD 6710 TVD</b>									
10,219.00	87.40	338.10	6,712.72	-3,601.53	-2,768.55	1,555.18	2.38	-1.43	1.90
10,313.00	91.50	340.40	6,713.62	-3,513.66	-2,801.84	1,613.39	5.00	4.36	2.45
<b>Deepest point = 10313 MD 6714 TVD</b>									
10,407.00	92.80	337.00	6,710.09	-3,426.15	-2,835.96	1,672.28	3.87	1.38	-3.62
10,502.00	91.30	335.40	6,706.69	-3,339.29	-2,874.27	1,734.98	2.31	-1.58	-1.68
10,596.00	88.30	335.40	6,707.02	-3,253.84	-2,913.40	1,798.02	3.19	-3.19	0.00
10,690.00	89.00	335.50	6,709.23	-3,168.36	-2,952.44	1,861.00	0.75	0.74	0.11
10,785.00	90.20	335.00	6,709.90	-3,082.09	-2,992.21	1,924.91	1.37	1.26	-0.53
10,879.00	91.20	333.20	6,708.75	-2,997.54	-3,033.27	1,989.52	2.19	1.06	-1.91
10,973.00	92.20	331.00	6,705.96	-2,914.51	-3,077.23	2,056.45	2.57	1.06	-2.34
11,068.00	91.60	334.10	6,702.81	-2,830.26	-3,120.99	2,123.56	3.32	-0.63	3.26
11,162.00	92.10	336.90	6,699.77	-2,744.78	-3,159.95	2,186.46	3.02	0.53	2.98
11,257.00	93.80	336.30	6,694.89	-2,657.71	-3,197.62	2,248.61	1.90	1.79	-0.63
11,352.00	91.30	337.80	6,690.66	-2,570.33	-3,234.63	2,310.21	3.07	-2.63	1.58
11,446.00	88.80	335.50	6,690.58	-2,484.04	-3,271.88	2,371.72	3.61	-2.66	-2.45
11,541.00	89.70	335.00	6,691.82	-2,397.77	-3,311.65	2,435.63	1.08	0.95	-0.53
11,636.00	88.50	336.90	6,693.31	-2,311.04	-3,350.35	2,498.67	2.37	-1.26	2.00
11,730.00	89.60	335.70	6,694.87	-2,224.98	-3,388.13	2,560.61	1.73	1.17	-1.28
11,825.00	88.90	337.00	6,696.12	-2,137.97	-3,426.24	2,623.15	1.55	-0.74	1.37
11,920.00	90.40	337.50	6,696.70	-2,050.36	-3,462.97	2,684.57	1.66	1.58	0.53



<b>Company:</b>	EQT PRODUCTION	<b>Local Co-ordinate Reference:</b>	Well Well #514096 - Slot 514096
<b>Project:</b>	Doddridge County, WV	<b>TVD Reference:</b>	KB@23 @ 1275.00usft (Savanna 803)
<b>Site:</b>	OXF159	<b>MD Reference:</b>	KB@23 @ 1275.00usft (Savanna 803)
<b>Well:</b>	Well #514096	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	514096 ST01	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	514096 ST01	<b>Database:</b>	DB Jul2216dt

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
12,014.00	92.30	339.90	6,694.48	-1,962.82	-3,497.10	2,743.49	3.26	2.02	2.55
12,109.00	91.50	335.30	6,691.33	-1,875.06	-3,533.28	2,804.41	4.91	-0.84	-4.84
12,204.00	93.00	334.30	6,687.60	-1,789.17	-3,573.69	2,868.82	1.90	1.58	-1.05
12,298.00	90.00	336.20	6,685.14	-1,703.85	-3,613.03	2,932.03	3.78	-3.19	2.02
12,393.00	90.60	335.90	6,684.64	-1,617.03	-3,651.59	2,994.95	0.71	0.63	-0.32
12,488.00	91.70	335.30	6,682.73	-1,530.53	-3,690.83	3,058.42	1.32	1.16	-0.63
12,582.00	89.50	338.10	6,681.75	-1,444.22	-3,728.00	3,119.86	3.79	-2.34	2.98
12,677.00	88.90	338.50	6,683.08	-1,355.96	-3,763.12	3,179.94	0.76	-0.63	0.42
12,772.00	88.30	336.10	6,685.40	-1,268.35	-3,799.77	3,241.27	2.60	-0.63	-2.53
12,866.00	89.20	335.70	6,687.45	-1,182.57	-3,838.14	3,303.70	1.05	0.96	-0.43
12,961.00	91.40	337.50	6,686.95	-1,095.39	-3,875.87	3,365.93	2.99	2.32	1.89
13,055.00	90.40	335.20	6,685.47	-1,009.30	-3,913.57	3,427.81	2.67	-1.06	-2.45
13,150.00	91.50	336.20	6,683.90	-922.73	-3,952.65	3,491.16	1.56	1.16	1.05
13,245.00	89.40	335.50	6,683.15	-836.05	-3,991.52	3,554.33	2.33	-2.21	-0.74
13,339.00	90.70	337.00	6,683.07	-750.02	-4,029.37	3,616.34	2.11	1.38	1.60
13,433.00	92.00	334.80	6,680.86	-664.24	-4,067.74	3,678.76	2.72	1.38	-2.34
13,528.00	93.20	333.80	6,676.55	-578.73	-4,108.90	3,743.76	1.64	1.26	-1.05
13,622.00	91.60	336.00	6,672.61	-493.69	-4,148.73	3,807.36	2.89	-1.70	2.34
13,717.00	90.30	336.70	6,671.04	-406.68	-4,186.83	3,869.90	1.55	-1.37	0.74
13,812.00	91.80	335.00	6,669.29	-320.02	-4,225.69	3,933.06	2.39	1.58	-1.79
13,906.00	89.40	335.50	6,668.31	-234.66	-4,265.04	3,996.29	2.61	-2.55	0.53
14,001.00	90.10	333.70	6,668.72	-148.85	-4,305.79	4,060.99	2.03	0.74	-1.89
14,096.00	89.60	337.60	6,668.97	-62.32	-4,344.95	4,124.40	4.14	-0.53	4.11
14,190.00	88.80	336.30	6,670.29	24.16	-4,381.75	4,185.54	1.62	-0.85	-1.38
14,285.00	89.80	336.60	6,671.45	111.24	-4,419.70	4,247.96	1.10	1.05	0.32
14,379.00	88.30	335.90	6,673.01	197.27	-4,457.55	4,309.96	1.76	-1.60	-0.74
14,474.00	89.30	335.90	6,674.99	283.97	-4,496.34	4,373.06	1.05	1.05	0.00
14,569.00	87.80	334.50	6,677.40	370.17	-4,536.17	4,437.00	2.16	-1.58	-1.47
14,663.00	89.30	334.20	6,679.78	454.88	-4,576.84	4,501.31	1.63	1.60	-0.32
14,758.00	90.80	334.50	6,679.69	540.52	-4,617.97	4,566.31	1.61	1.58	0.32
14,852.00	89.40	332.70	6,679.53	624.71	-4,659.76	4,631.52	2.43	-1.49	-1.91
14,947.00	88.90	334.70	6,680.94	709.86	-4,701.84	4,697.30	2.17	-0.53	2.11
15,041.00	88.40	336.90	6,683.15	795.57	-4,740.36	4,759.85	2.40	-0.53	2.34
15,135.00	90.10	337.20	6,684.38	882.12	-4,777.01	4,820.86	1.84	1.81	0.32
15,230.00	91.70	337.50	6,682.89	969.78	-4,813.59	4,882.15	1.71	1.68	0.32
15,324.00	89.80	336.70	6,681.66	1,056.36	-4,850.16	4,943.10	2.19	-2.02	-0.85
15,419.00	91.10	337.80	6,680.92	1,143.96	-4,886.90	5,004.52	1.79	1.37	1.16
15,513.00	90.40	336.50	6,679.69	1,230.57	-4,923.40	5,065.41	1.57	-0.74	-1.38
15,607.00	91.40	336.10	6,678.21	1,316.63	-4,961.18	5,127.35	1.15	1.06	-0.43
15,701.00	89.80	336.10	6,677.22	1,402.57	-4,999.26	5,189.55	1.70	-1.70	0.00
15,795.00	88.70	335.30	6,678.46	1,488.23	-5,037.93	5,252.23	1.45	-1.17	-0.85
15,879.00	90.10	336.10	6,679.33	1,564.78	-5,072.50	5,308.25	1.92	1.67	0.95
<b>Survey @ 15879.00 MD</b>									
15,932.00	90.10	336.10	6,679.24	1,613.24	-5,093.97	5,343.32	0.00	0.00	0.00

<b>Company:</b>	EQT PRODUCTION	<b>Local Co-ordinate Reference:</b>	Well Well #514096 - Slot 514096
<b>Project:</b>	Doddridge County, WV	<b>TVD Reference:</b>	KB@23 @ 1275.00usft (Savanna 803)
<b>Site:</b>	OXF159	<b>MD Reference:</b>	KB@23 @ 1275.00usft (Savanna 803)
<b>Well:</b>	Well #514096	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	514096 ST01	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	514096 ST01	<b>Database:</b>	DB Jul2216dt

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
Survey projected to 15932.00 MD									

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
514096 BHL as drilled - hit/miss target - Shape - Point	0.00	360.00	6,679.24	1,613.24	-5,093.97	261,932.77	1,637,292.62	39° 12' 43.4342 N	80° 46' 48.3318 W
514096 LP as drilled - actual wellpath hits target center - Point	0.00	360.00	6,710.35	-3,659.69	-2,744.46	256,659.84	1,639,642.13	39° 11' 51.6505 N	80° 46' 17.5362 W

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
800.00	800.00	0.28	-1.41	Tie into original hole @ 800 MD
3,518.00	3,512.49	-97.75	-84.13	KOP = 3518 MD 3512 TVD
5,850.00	5,289.55	-1,257.88	-654.56	Survey @ 5850.00 MD
10,156.00	6,710.35	-3,659.69	-2,744.46	LP=10156 MD 6710 TVD
10,313.00	6,713.62	-3,513.66	-2,801.84	Deepest point = 10313 MD 6714 TVD
15,879.00	6,679.33	1,564.78	-5,072.50	Survey @ 15879.00 MD
15,932.00	6,679.24	1,613.24	-5,093.97	Survey projected to 15932.00 MD