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AUG 24 2015

WV GEOLOGICAL SURVEY
MORGANTOWN, WV



Antero Resources
Deano Unit 2H
Doddridge County WV
Northing: 14293306.97
Easting: 1711366.96
As Drilled

WELL DETAILS: Deano Unit 2H
Ground Level: 1001.0
Well Depth: 6750.0
NAD 1983 Northing: 14293306.97
NAD 1983 Easting: 1711366.96

WGS 84 Northing: 14293306.97
WGS 84 Easting: 1711366.96

Slot

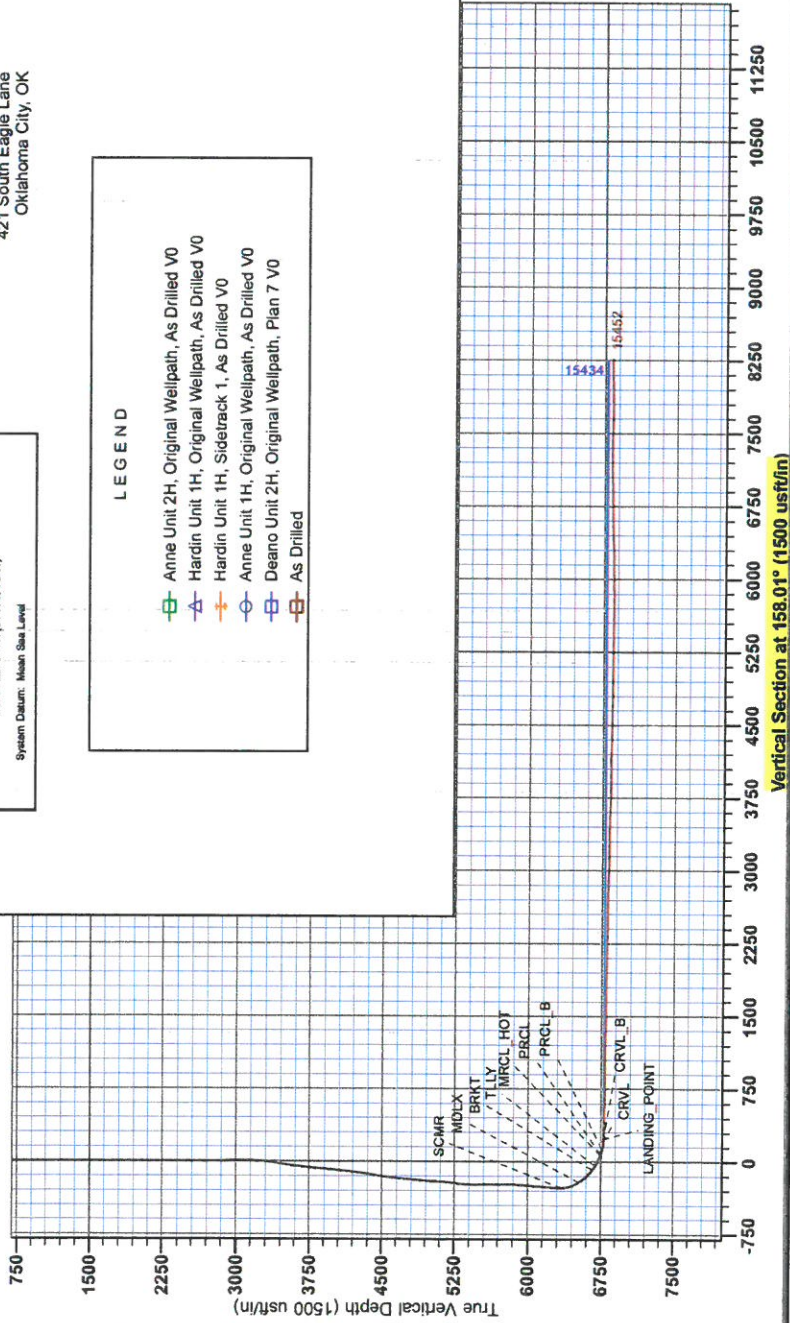
REFERENCE INFORMATION
Coordinate (NAD) Reference: Well Deano Unit 2H, Grid North:
Survey: 10/28/2014
Datum: NAD 1983 (NAD83)
Spheroid: GRS 1980
Measured Depth Reference Problem 822 Deano Unit 2H GL 1001' - 18 @ 1018 Depth
Correction Method: Simpson Correction

PROJECT DETAILS: Doddridge County WV
Geographic System: Universal Transverse Mercator (US Survey Feet)
Datum: NAD 1983 (NAD83 CONUS)
Elevation: Zone 17N (64 W to 78 W)
System Datum: Mean Sea Level

Genie Lightfoot
10/28, October 17 2014
Scientific Drilling
421 South Eagle Lane
Oklahoma City, OK



LEGEND
-□- Anne Unit 2H, Original Wellpath, As Drilled V0
-△- Hardin Unit 1H, Original Wellpath, As Drilled V0
-◇- Hardin Unit 1H, Siderack 1, As Drilled V0
-○- Anne Unit 1H, Original Wellpath, As Drilled V0
-□- Deano Unit 2H, Original Wellpath, Plan 7 V0
-□- As Drilled



To convert Magnetic North to Grid, Subtract 8.67°
To convert True North to Grid, Subtract 0.16°

Magnetic Field
Strength: 52304.5anT
Dip Angle: 66.93°
Date: 5/7/2014
Model: BOGMO14

Admutha to Grid North
True North: -0.16°
Magnetic North: -0.07°



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MORGANTOWN, WV

Antero Resources

**Doddridge County WV
Anne / Hardin Pad
Deano Unit 2H
Original Wellpath**

Design: As Drilled

EOW Completion Report

17 October, 2014



AUG 24 2015



WV GEOLOGICAL SURVEY
MORGANTOWN, WV

EOW Completion Report



Company: Antero Resources	Local Co-ordinate Reference: Well Deano Unit 2H
Project: Doddridge County WV	TVD Reference: Precision 522 Deano Unit 2H GL 1001' + 18 @ 10
Site: Anne / Hardin Pad	MD Reference: Precision 522 Deano Unit 2H GL 1001' + 18 @ 10
Well: Deano Unit 2H	North Reference: Grid
Wellbore: Original Wellpath	Survey Calculation Method: Minimum Curvature
Design: As Drilled	Database: Oklahoma District

Project	Doddridge County WV, McClellan District		
Map System:	Universal Transverse Mercator (US Survey Feet)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Zone 17N (84 W to 78 W)		

Site	Anne / Hardin Pad				
Site Position:		Northing:	14,293,344.77 usft	Latitude:	39° 21' 38.319 N
From:	Map	Eastings:	1,711,355.33 usft	Longitude:	80° 44' 56.491 W
Position Uncertainty:	2.0 usft	Slot Radius:	13-3/16"	Grid Convergence:	0.16 °

Well	Deano Unit 2H					
Well Position	+N/-S	0.0 usft	Northing:	14,293,306.97 usft	Latitude:	39° 21' 37.945 N
	+E/-W	0.0 usft	Eastings:	1,711,366.96 usft	Longitude:	80° 44' 56.345 W
Position Uncertainty	2.0 usft		Wellhead Elevation:	1,019.0 usft	Ground Level:	1,001.0 usft

Wellbore	Original Wellpath				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2014	5/7/2014	-8.51	66.93	52,304

Design	As Drilled				
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	158.01

Survey Program	Date	10/17/2014			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
105.0	6,047.0	Survey #7 Final Gyro (Original Wellpath)	SDI Standard Keeper	Scientific Drilling Intl. Standard Wireline Keeper	
6,047.0	15,452.0	Survey #6 MWD (Original Wellpath)	SDI MWD	Scientific Drilling Intl. MWD - Standard ver 1.0.1	

Survey								
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	
105.0	0.59	54.00	105.0	0.3	0.4	-0.1	0.56	
130.0	0.55	58.63	130.0	0.5	0.6	-0.2	0.24	
155.0	0.44	57.89	155.0	0.6	0.8	-0.2	0.44	
180.0	0.32	72.08	180.0	0.6	1.0	-0.2	0.61	
205.0	0.23	45.16	205.0	0.7	1.1	-0.2	0.62	
230.0	0.31	63.79	230.0	0.8	1.2	-0.3	0.47	
255.0	0.23	39.26	255.0	0.8	1.3	-0.3	0.56	
280.0	0.14	44.17	280.0	0.9	1.3	-0.3	0.37	
305.0	0.38	101.77	305.0	0.9	1.4	-0.3	1.31	
330.0	0.42	110.36	330.0	0.8	1.6	-0.2	0.29	

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Project: Doddridge County WV
Site: Anne / Hardin Pad
Well: Deano Unit 2H
Wellbore: Original Wellpath
Design: As Drilled

Local Co-ordinate Reference: Well Deano Unit 2H
TVD Reference: Precision 522 Deano Unit 2H GL 1001' + 18 @ 10
MD Reference: Precision 522 Deano Unit 2H GL 1001' + 18 @ 10
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Oklahoma District

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	EW (usft)	V. Sec (usft)	DLeg (°/100usft)
355.0	0.24	94.77	355.0	0.8	1.7	-0.1	0.80
380.0	0.13	72.96	380.0	0.8	1.8	-0.1	0.51
405.0	0.25	94.69	405.0	0.8	1.9	-0.1	0.55
430.0	0.27	88.49	430.0	0.8	2.0	0.0	0.14
455.0	0.15	72.19	455.0	0.8	2.1	0.0	0.53
480.0	0.23	103.46	480.0	0.8	2.2	0.0	0.51
505.0	0.08	102.52	505.0	0.8	2.2	0.1	0.60
530.0	0.07	349.37	530.0	0.8	2.3	0.1	0.50
555.0	0.05	295.21	555.0	0.8	2.2	0.1	0.23
580.0	0.09	140.16	580.0	0.8	2.2	0.1	0.55
605.0	0.06	124.12	605.0	0.8	2.3	0.1	0.15
630.0	0.08	155.14	630.0	0.8	2.3	0.1	0.17
655.0	0.16	202.29	655.0	0.7	2.3	0.2	0.48
680.0	0.12	228.60	680.0	0.7	2.2	0.2	0.30
705.0	0.16	219.99	705.0	0.6	2.2	0.2	0.18
730.0	0.18	173.88	730.0	0.6	2.2	0.3	0.54
755.0	0.15	151.67	755.0	0.5	2.2	0.4	0.28
780.0	0.18	156.44	780.0	0.4	2.2	0.4	0.13
805.0	0.12	201.77	805.0	0.4	2.2	0.5	0.51
830.0	0.12	140.16	830.0	0.3	2.2	0.5	0.49
855.0	0.13	162.87	855.0	0.3	2.3	0.6	0.20
880.0	0.10	162.12	880.0	0.2	2.3	0.6	0.12
905.0	0.09	250.28	905.0	0.2	2.3	0.6	0.53
930.0	0.11	167.02	930.0	0.2	2.3	0.7	0.53
955.0	0.07	219.43	955.0	0.2	2.3	0.7	0.35
980.0	0.12	272.02	980.0	0.1	2.2	0.7	0.38
1,005.0	0.21	282.18	1,005.0	0.2	2.2	0.7	0.38
1,030.0	0.14	259.39	1,030.0	0.2	2.1	0.6	0.39
1,055.0	0.12	256.40	1,055.0	0.1	2.0	0.6	0.08
1,080.0	0.14	231.44	1,080.0	0.1	2.0	0.6	0.24
1,105.0	0.25	271.72	1,105.0	0.1	1.9	0.6	0.68
1,130.0	0.18	233.70	1,130.0	0.1	1.8	0.6	0.62
1,155.0	0.26	254.62	1,155.0	0.0	1.7	0.6	0.45
1,180.0	0.18	255.24	1,180.0	0.0	1.6	0.6	0.32
1,205.0	0.25	259.54	1,205.0	0.0	1.5	0.6	0.29
1,230.0	0.25	251.00	1,230.0	0.0	1.4	0.6	0.15
1,255.0	0.24	212.13	1,255.0	-0.1	1.4	0.6	0.65
1,280.0	0.26	220.22	1,280.0	-0.2	1.3	0.6	0.16
1,305.0	0.21	256.40	1,305.0	-0.2	1.2	0.7	0.61
1,330.0	0.23	230.67	1,330.0	-0.3	1.1	0.7	0.40
1,355.0	0.22	249.94	1,355.0	-0.3	1.0	0.7	0.30
1,380.0	0.21	217.80	1,380.0	-0.4	1.0	0.7	0.48
1,405.0	0.18	244.88	1,405.0	-0.4	0.9	0.7	0.38
1,430.0	0.21	262.94	1,430.0	-0.5	0.8	0.7	0.27

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MORGANTOWN, WV EOW Completion Report



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Project: Doddridge County WV
Site: Anne / Hardin Pad
Well: Deano Unit 2H
Wellbore: Original Wellpath
Design: As Drilled

Local Co-ordinate Reference: Well Deano Unit 2H
TVD Reference: Precision 522 Deano Unit 2H GL 1001' + 18 @ 10
MD Reference: Precision 522 Deano Unit 2H GL 1001' + 18 @ 10
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Oklahoma District

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
1,455.0	0.17	244.28	1,455.0	-0.5	0.7	0.7	0.29
1,480.0	0.22	271.39	1,480.0	-0.5	0.7	0.7	0.41
1,505.0	0.23	274.45	1,505.0	-0.5	0.6	0.7	0.06
1,530.0	0.19	267.71	1,530.0	-0.5	0.5	0.6	0.19
1,555.0	0.22	271.97	1,555.0	-0.5	0.4	0.6	0.13
1,580.0	0.17	273.66	1,580.0	-0.5	0.3	0.6	0.20
1,605.0	0.22	282.25	1,605.0	-0.5	0.2	0.5	0.23
1,630.0	0.19	265.23	1,630.0	-0.5	0.1	0.5	0.27
1,655.0	0.20	277.43	1,655.0	-0.5	0.0	0.4	0.17
1,680.0	0.11	283.72	1,680.0	-0.4	0.0	0.4	0.37
1,705.0	0.19	282.86	1,705.0	-0.4	-0.1	0.4	0.32
1,730.0	0.13	276.17	1,730.0	-0.4	-0.2	0.3	0.25
1,755.0	0.19	289.14	1,755.0	-0.4	-0.2	0.3	0.28
1,780.0	0.28	263.40	1,780.0	-0.4	-0.3	0.2	0.55
1,805.0	0.30	271.32	1,805.0	-0.4	-0.5	0.2	0.18
1,830.0	0.23	282.15	1,830.0	-0.4	-0.6	0.1	0.34
1,855.0	0.27	250.93	1,855.0	-0.4	-0.7	0.1	0.56
1,880.0	0.31	238.95	1,880.0	-0.4	-0.8	0.1	0.29
1,905.0	0.35	255.31	1,905.0	-0.5	-0.9	0.1	0.41
1,930.0	0.29	255.49	1,930.0	-0.5	-1.1	0.1	0.24
1,955.0	0.38	246.43	1,955.0	-0.6	-1.2	0.1	0.42
1,980.0	0.37	235.17	1,980.0	-0.7	-1.3	0.1	0.30
2,005.0	0.23	247.49	2,005.0	-0.7	-1.4	0.1	0.61
2,030.0	0.29	237.42	2,030.0	-0.8	-1.5	0.2	0.30
2,055.0	0.30	238.15	2,055.0	-0.9	-1.7	0.2	0.04
2,080.0	0.45	257.46	2,080.0	-0.9	-1.8	0.2	0.78
2,105.0	0.52	259.84	2,105.0	-1.0	-2.0	0.1	0.29
2,130.0	0.43	232.79	2,130.0	-1.0	-2.2	0.1	0.96
2,155.0	0.31	239.63	2,155.0	-1.1	-2.3	0.2	0.51
2,180.0	0.33	235.39	2,180.0	-1.2	-2.4	0.2	0.12
2,205.0	0.34	233.98	2,205.0	-1.3	-2.6	0.2	0.05
2,230.0	0.39	258.20	2,230.0	-1.3	-2.7	0.2	0.64
2,255.0	0.36	266.42	2,255.0	-1.4	-2.9	0.2	0.25
2,280.0	0.45	256.64	2,280.0	-1.4	-3.0	0.1	0.45
2,305.0	0.49	248.41	2,305.0	-1.5	-3.2	0.1	0.31
2,330.0	0.43	253.89	2,330.0	-1.5	-3.4	0.1	0.30
2,355.0	0.57	261.72	2,355.0	-1.6	-3.6	0.1	0.62
2,380.0	0.67	252.23	2,380.0	-1.6	-3.9	0.0	0.57
2,405.0	0.73	256.15	2,405.0	-1.7	-4.2	0.0	0.31
2,430.0	0.70	246.23	2,430.0	-1.8	-4.5	0.0	0.51
2,455.0	0.72	246.94	2,455.0	-1.9	-4.8	0.0	0.09
2,480.0	0.79	249.19	2,480.0	-2.1	-5.1	0.0	0.30
2,505.0	1.00	254.09	2,505.0	-2.2	-5.5	0.0	0.89
2,530.0	0.64	246.37	2,530.0	-2.3	-5.8	0.0	1.50
2,555.0	0.82	251.79	2,555.0	-2.4	-6.1	-0.1	0.77

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WV GEOLOGICAL SURVEY
MORGANTOWN, WV EOW Completion Report



Company: Antero Resources	Local Co-ordinate Reference: Well Deano Unit 2H
Project: Doddridge County WV	TVD Reference: Precision 522 Deano Unit 2H GL 1001' + 18 @ 10
Site: Anne / Hardin Pad	MD Reference: Precision 522 Deano Unit 2H GL 1001' + 18 @ 10
Well: Deano Unit 2H	North Reference: Grid
Wellbore: Original Wellpath	Survey Calculation Method: Minimum Curvature
Design: As Drilled	Database: Oklahoma District

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
2,580.0	1.14	263.56	2,580.0	-2.5	-6.5	-0.1	1.51
2,605.0	2.14	267.47	2,604.9	-2.5	-7.2	-0.4	4.02
2,630.0	2.91	269.91	2,629.9	-2.6	-8.3	-0.7	3.11
2,655.0	3.77	269.00	2,654.9	-2.6	-9.8	-1.3	3.45
2,680.0	4.26	265.23	2,679.8	-2.7	-11.5	-1.8	2.23
2,705.0	5.42	257.03	2,704.7	-3.0	-13.6	-2.3	5.39
2,730.0	6.34	250.10	2,729.6	-3.7	-16.1	-2.5	4.64
2,755.0	7.44	244.05	2,754.4	-4.9	-18.8	-2.5	5.27
2,780.0	8.64	240.16	2,779.2	-6.6	-21.9	-2.1	5.27
2,805.0	9.45	238.05	2,803.9	-8.6	-25.3	-1.5	3.50
2,830.0	10.48	235.28	2,828.5	-11.0	-28.9	-0.6	4.54
2,855.0	11.50	233.40	2,853.0	-13.7	-32.7	0.5	4.32
2,880.0	12.00	232.92	2,877.5	-16.8	-36.8	1.8	2.04
2,905.0	12.76	235.20	2,901.9	-19.9	-41.2	3.1	3.61
2,930.0	13.29	238.08	2,926.3	-23.0	-45.9	4.2	3.35
2,955.0	14.06	241.08	2,950.6	-26.0	-51.0	5.0	4.19
2,980.0	14.86	243.36	2,974.8	-28.9	-56.5	5.7	3.93
3,005.0	15.73	245.75	2,998.9	-31.8	-62.4	6.1	4.30
3,030.0	16.15	247.59	3,022.9	-34.5	-68.7	6.2	2.63
3,055.0	16.66	248.48	3,046.9	-37.1	-75.3	6.2	2.27
3,080.0	17.29	249.95	3,070.8	-39.7	-82.1	6.1	3.05
3,105.0	17.89	250.49	3,094.6	-42.3	-89.2	5.8	2.49
3,130.0	17.90	250.55	3,118.4	-44.8	-96.5	5.4	0.08
3,155.0	18.41	252.59	3,142.2	-47.3	-103.9	5.0	3.26
3,180.0	18.79	254.88	3,165.9	-49.5	-111.5	4.2	3.29
3,205.0	19.19	257.78	3,189.5	-51.4	-119.4	3.0	4.10
3,230.0	19.64	259.05	3,213.1	-53.1	-127.5	1.5	2.47
3,255.0	19.99	259.78	3,236.6	-54.7	-135.9	-0.2	1.71
3,280.0	20.64	260.58	3,260.1	-56.1	-144.4	-2.0	2.83
3,305.0	21.05	262.38	3,283.4	-57.5	-153.2	-4.1	3.04
3,330.0	21.47	264.26	3,306.7	-58.5	-162.2	-6.5	3.20
3,355.0	21.80	264.80	3,330.0	-59.4	-171.4	-9.1	1.54
3,380.0	22.18	267.97	3,353.2	-60.0	-180.7	-12.1	4.98
3,405.0	22.41	269.17	3,376.3	-60.2	-190.2	-15.4	2.04
3,430.0	22.84	269.65	3,399.4	-60.3	-199.8	-18.9	1.87
3,455.0	23.42	269.49	3,422.4	-60.4	-209.7	-22.5	2.33
3,480.0	23.61	269.35	3,445.3	-60.5	-219.6	-26.2	0.79
3,505.0	23.74	268.84	3,468.2	-60.6	-229.7	-29.8	0.97
3,530.0	23.61	268.40	3,491.1	-60.9	-239.7	-33.3	0.88
3,555.0	23.39	267.85	3,514.0	-61.2	-249.7	-36.7	1.24
3,580.0	23.20	267.35	3,537.0	-61.6	-259.6	-40.1	1.10
3,605.0	23.23	266.70	3,559.9	-62.1	-269.4	-43.3	1.03
3,630.0	23.62	265.64	3,582.9	-62.8	-279.3	-46.4	2.30
3,655.0	23.64	264.76	3,605.8	-63.6	-289.3	-49.3	1.41

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EOW Completion Report



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Project: Doddridge County WV
Site: Anne / Hardin Pad
Well: Deano Unit 2H
Wellbore: Original Wellpath
Design: As Drilled

Local Co-ordinate Reference: Well Deano Unit 2H
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3,680.0	23.89	264.05	3,628.7	-64.6	-299.3	-52.2	1.52
3,705.0	23.65	263.35	3,651.5	-65.7	-309.3	-54.9	1.48
3,730.0	23.37	262.76	3,674.5	-66.9	-319.2	-57.5	1.46
3,755.0	22.88	262.30	3,697.5	-68.2	-329.0	-59.9	2.09
3,780.0	22.80	261.92	3,720.5	-69.5	-338.6	-62.3	0.67
3,805.0	22.79	261.91	3,743.5	-70.9	-348.2	-64.6	0.04
3,830.0	22.95	262.00	3,766.6	-72.3	-357.8	-67.0	0.66
3,855.0	23.13	262.09	3,789.6	-73.6	-367.5	-69.3	0.73
3,880.0	23.04	261.84	3,812.6	-75.0	-377.2	-71.7	0.53
3,905.0	22.95	261.59	3,835.6	-76.4	-386.9	-74.0	0.53
3,930.0	22.62	261.27	3,858.6	-77.8	-396.4	-76.3	1.41
3,955.0	22.16	260.61	3,881.8	-79.3	-405.8	-78.4	2.10
3,980.0	21.70	260.14	3,904.9	-80.9	-415.0	-80.4	1.97
4,005.0	21.64	260.11	3,928.2	-82.5	-424.1	-82.3	0.24
4,030.0	21.65	260.13	3,951.4	-84.1	-433.2	-84.3	0.05
4,055.0	22.11	260.34	3,974.6	-85.6	-442.4	-86.2	1.87
4,080.0	22.34	261.23	3,997.8	-87.2	-451.7	-88.3	1.63
4,105.0	22.48	261.89	4,020.9	-88.5	-461.2	-90.6	1.15
4,130.0	22.71	262.24	4,044.0	-89.9	-470.7	-92.9	1.07
4,155.0	22.48	262.32	4,067.0	-91.2	-480.2	-95.3	0.93
4,180.0	22.55	262.65	4,090.1	-92.4	-489.7	-97.7	0.58
4,205.0	22.51	264.64	4,113.2	-93.5	-499.2	-100.2	3.05
4,230.0	22.62	265.13	4,136.3	-94.3	-508.8	-103.0	0.87
4,255.0	22.90	265.26	4,159.4	-95.1	-518.4	-105.9	1.14
4,280.0	22.92	264.95	4,182.4	-96.0	-528.1	-108.7	0.49
4,305.0	23.30	264.54	4,205.4	-96.9	-537.9	-111.6	1.65
4,330.0	23.56	264.34	4,228.3	-97.8	-547.8	-114.4	1.09
4,355.0	23.88	264.34	4,251.2	-98.8	-557.8	-117.2	1.28
4,380.0	23.76	264.90	4,274.1	-99.8	-567.8	-120.1	1.02
4,405.0	23.62	265.76	4,297.0	-100.6	-577.8	-123.1	1.49
4,430.0	23.72	267.48	4,319.9	-101.2	-587.8	-126.3	2.79
4,455.0	23.45	269.64	4,342.8	-101.4	-597.8	-129.8	3.62
4,480.0	23.53	271.44	4,365.7	-101.3	-607.8	-133.6	2.89
4,505.0	23.16	271.81	4,388.7	-101.1	-617.7	-137.6	1.59
4,530.0	22.99	271.51	4,411.7	-100.8	-627.5	-141.5	0.83
4,555.0	22.86	271.29	4,434.7	-100.5	-637.2	-145.4	0.62
4,580.0	23.07	271.09	4,457.7	-100.3	-647.0	-149.2	0.90
4,605.0	23.15	271.20	4,480.7	-100.1	-656.8	-153.1	0.36
4,630.0	23.07	270.48	4,503.7	-100.0	-666.6	-156.9	1.17
4,655.0	22.30	269.46	4,526.8	-100.0	-676.3	-160.5	3.46
4,680.0	21.68	268.32	4,549.9	-100.2	-685.6	-163.8	3.01
4,705.0	21.09	266.47	4,573.2	-100.6	-694.7	-166.9	3.58
4,730.0	20.67	264.25	4,596.6	-101.3	-703.6	-169.5	3.58
4,755.0	20.32	262.43	4,620.0	-102.3	-712.3	-171.8	2.91

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WV GEOLOGICAL SURVEY
ORGANTOWN, WV

EOW Completion Report



Company: Antero Resources
Project: Doddridge County WV
Site: Anne / Hardin Pad
Well: Deano Unit 2H
Wellbore: Original Wellpath
Design: As Drilled

Local Co-ordinate Reference: Well Deano Unit 2H
TVD Reference: Precision 522 Deano Unit 2H GL 1001' + 18 @ 10
MD Reference: Precision 522 Deano Unit 2H GL 1001' + 18 @ 10
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Oklahoma District

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
4,780.0	20.51	260.26	4,643.4	-103.6	-720.9	-173.8	3.12
4,805.0	19.99	259.57	4,666.9	-105.2	-729.4	-175.6	2.29
4,830.0	20.22	260.24	4,690.4	-106.7	-737.9	-177.4	1.30
4,855.0	20.57	260.50	4,713.8	-108.1	-746.5	-179.3	1.45
4,880.0	20.78	261.37	4,737.2	-109.5	-755.2	-181.2	1.49
4,905.0	21.28	260.94	4,760.5	-110.9	-764.1	-183.3	2.09
4,930.0	21.99	259.79	4,783.8	-112.4	-773.1	-185.2	3.31
4,955.0	22.42	260.73	4,806.9	-114.0	-782.5	-187.3	2.23
4,980.0	23.13	262.76	4,830.0	-115.4	-792.0	-189.6	4.24
5,005.0	23.96	262.98	4,852.9	-116.7	-801.9	-192.1	3.34
5,030.0	24.48	261.98	4,875.7	-118.0	-812.1	-194.7	2.65
5,055.0	25.64	260.38	4,898.3	-119.6	-822.6	-197.1	5.37
5,080.0	26.19	259.23	4,920.8	-121.6	-833.3	-199.3	2.98
5,105.0	26.86	256.10	4,943.2	-123.9	-844.2	-201.2	6.20
5,130.0	27.22	253.66	4,965.4	-126.9	-855.2	-202.5	4.66
5,155.0	27.99	252.20	4,987.6	-130.3	-866.3	-203.5	4.10
5,180.0	27.26	252.36	5,009.7	-133.8	-877.3	-204.4	2.94
5,205.0	25.38	253.61	5,032.2	-137.1	-887.9	-205.4	7.84
5,230.0	25.07	254.00	5,054.8	-140.1	-898.1	-206.4	1.41
5,255.0	24.91	254.54	5,077.4	-142.9	-908.3	-207.6	1.11
5,280.0	24.46	256.66	5,100.1	-145.5	-918.4	-209.0	3.97
5,305.0	23.51	259.63	5,123.0	-147.6	-928.4	-210.7	6.14
5,330.0	22.92	262.28	5,146.0	-149.2	-938.1	-212.9	4.80
5,355.0	23.00	263.19	5,169.0	-150.4	-947.8	-215.4	1.46
5,380.0	22.78	264.10	5,192.0	-151.5	-957.4	-218.0	1.67
5,405.0	22.86	265.69	5,215.1	-152.3	-967.1	-220.9	2.49
5,430.0	23.31	266.02	5,238.1	-153.0	-976.9	-223.9	1.87
5,455.0	23.85	265.79	5,261.0	-153.8	-986.8	-226.9	2.19
5,480.0	24.70	263.94	5,283.8	-154.7	-997.1	-229.9	4.56
5,505.0	25.47	262.15	5,306.4	-156.0	-1,007.6	-232.7	4.32
5,530.0	26.15	259.93	5,328.9	-157.7	-1,018.3	-235.1	4.73
5,555.0	25.15	256.34	5,351.4	-159.9	-1,028.9	-237.0	7.39
5,580.0	24.13	252.91	5,374.2	-162.6	-1,039.0	-238.2	7.02
5,605.0	22.20	250.04	5,397.2	-165.8	-1,048.3	-238.8	8.94
5,630.0	20.52	248.99	5,420.4	-168.9	-1,056.8	-239.1	6.89
5,655.0	20.30	249.44	5,443.9	-172.0	-1,065.0	-239.3	1.08
5,680.0	20.87	247.93	5,467.3	-175.2	-1,073.2	-239.4	3.12
5,705.0	21.62	245.19	5,490.6	-178.8	-1,081.5	-239.1	4.98
5,730.0	22.48	243.49	5,513.7	-182.9	-1,089.9	-238.5	4.28
5,755.0	22.70	244.22	5,536.8	-187.1	-1,098.6	-237.8	1.43
5,780.0	22.69	246.93	5,559.9	-191.1	-1,107.3	-237.4	4.18
5,805.0	22.92	250.02	5,582.9	-194.7	-1,116.3	-237.5	4.88
5,830.0	24.05	251.17	5,605.9	-198.0	-1,125.7	-238.0	4.88
5,855.0	25.76	251.09	5,628.5	-201.4	-1,135.7	-238.5	6.84

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EOW Completion Report



Company:	Antero Resources	Local Co-ordinate Reference:	Well Deano Unit 2H
Project:	Doddridge County WV	TVD Reference:	Precision 522 Deano Unit 2H GL 1001' + 18 @ 10
Site:	Anne / Hardin Pad	MD Reference:	Precision 522 Deano Unit 2H GL 1001' + 18 @ 10
Well:	Deano Unit 2H	North Reference:	Grid
Wellbore:	Original Wellpath	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	Oklahoma District

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
5,880.0	27.56	250.29	5,650.9	-205.1	-1,146.3	-239.0	7.34
5,905.0	28.52	248.71	5,672.9	-209.2	-1,157.3	-239.3	4.85
5,930.0	28.19	247.11	5,694.9	-213.7	-1,168.3	-239.3	3.31
5,955.0	26.67	244.50	5,717.1	-218.4	-1,178.8	-238.9	7.75
5,980.0	26.40	244.14	5,739.5	-223.2	-1,188.9	-238.2	1.26
6,005.0	24.76	245.66	5,762.0	-227.8	-1,198.6	-237.6	7.07
6,030.0	23.25	248.86	5,784.9	-231.8	-1,208.0	-237.4	7.97
6,047.0	23.05	250.56	5,800.5	-234.1	-1,214.3	-237.6	4.10
6,089.0	22.97	252.56	5,839.2	-239.3	-1,229.9	-238.7	1.87
6,120.0	22.86	251.75	5,867.7	-243.0	-1,241.3	-239.5	1.08
6,182.0	24.89	259.02	5,924.4	-249.2	-1,265.6	-242.8	5.76
6,198.0	25.15	260.80	5,938.9	-250.4	-1,272.3	-244.2	4.98
6,305.0	22.45	258.38	6,036.8	-258.2	-1,314.7	-252.9	2.68
6,367.0	22.72	258.35	6,094.1	-263.0	-1,338.0	-257.2	0.44
6,398.0	21.69	257.11	6,122.8	-265.4	-1,349.5	-259.2	3.65
6,429.0	22.03	254.79	6,151.5	-268.2	-1,360.7	-260.8	2.99
6,460.0	23.86	257.00	6,180.1	-271.2	-1,372.4	-262.4	6.52
6,490.0	25.55	259.02	6,207.3	-273.8	-1,384.7	-264.6	6.30
6,521.0	28.44	261.72	6,235.0	-276.1	-1,398.5	-267.6	10.12
6,552.0	30.27	258.77	6,262.0	-278.7	-1,413.5	-270.9	7.52
6,583.0	31.08	252.82	6,288.7	-282.6	-1,428.8	-273.0	10.13
6,614.0	30.64	244.87	6,315.3	-288.3	-1,443.6	-273.2	13.22
6,645.0	30.66	240.39	6,341.9	-295.6	-1,457.7	-271.7	7.37
6,652.0	30.63	239.29	6,348.0	-297.4	-1,460.7	-271.2	8.00
SCMR							
6,676.0	30.59	235.52	6,368.6	-303.9	-1,471.0	-269.0	8.00
6,706.0	30.22	228.39	6,394.5	-313.3	-1,483.0	-264.8	12.09
6,737.0	30.73	222.82	6,421.2	-324.3	-1,494.2	-258.8	9.26
6,768.0	32.45	215.01	6,447.7	-336.9	-1,504.3	-250.9	14.31
6,799.0	35.17	208.16	6,473.4	-351.6	-1,513.3	-240.6	15.09
6,830.0	37.74	202.77	6,498.4	-368.2	-1,521.2	-228.2	13.24
6,861.0	39.97	198.98	6,522.5	-386.4	-1,528.1	-213.9	10.51
6,865.0	40.25	198.61	6,525.6	-388.8	-1,529.0	-212.0	9.29
MDLX							
6,892.0	42.19	196.19	6,545.9	-405.8	-1,534.3	-198.2	9.29
6,922.0	45.64	193.90	6,567.5	-425.9	-1,539.7	-181.6	12.66
6,953.0	48.45	189.47	6,588.6	-448.1	-1,544.2	-162.7	13.84
6,984.0	50.86	187.60	6,608.7	-471.5	-1,547.7	-142.4	9.03
7,015.0	52.99	183.09	6,627.8	-495.8	-1,550.0	-120.7	13.35
7,046.0	55.10	183.26	6,646.0	-520.8	-1,551.4	-98.0	6.82
7,069.0	56.60	182.09	6,658.9	-539.8	-1,552.3	-80.7	7.78
BRKT							
7,077.0	57.13	181.69	6,663.3	-546.5	-1,552.5	-74.6	7.78
7,108.0	59.15	180.36	6,679.6	-572.8	-1,553.0	-50.3	7.47

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WV GEOLOGICAL SURVEY
ORGANTOWN, WV

EOW Completion Report



Company: Antero Resources	Local Co-ordinate Reference: Well Deano Unit 2H
Project: Doddridge County WV	TVD Reference: Precision 522 Deano Unit 2H GL 1001' + 18 @ 10
Site: Anne / Hardin Pad	MD Reference: Precision 522 Deano Unit 2H GL 1001' + 18 @ 10
Well: Deano Unit 2H	North Reference: Grid
Wellbore: Original Wellpath	Survey Calculation Method: Minimum Curvature
Design: As Drilled	Database: Oklahoma District

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
7,122.0	60.07	178.97	6,686.7	-584.9	-1,552.9	-39.1	10.80
TLLY							
7,139.0	61.20	177.31	6,695.1	-599.7	-1,552.4	-25.2	10.80
7,169.0	63.58	174.93	6,709.0	-626.2	-1,550.6	0.1	10.60
7,200.0	65.63	171.23	6,722.3	-654.0	-1,547.2	27.1	12.65
7,231.0	69.47	170.10	6,734.1	-682.3	-1,542.6	55.0	12.84
7,250.0	70.98	169.07	6,740.5	-699.9	-1,539.3	72.6	9.42
MRCL_HOT							
7,261.0	71.85	168.48	6,744.0	-710.1	-1,537.3	82.8	9.42
PRCL							
7,262.0	71.93	168.43	6,744.3	-711.0	-1,537.1	83.7	9.42
7,293.0	74.40	167.43	6,753.3	-740.0	-1,530.9	113.0	8.54
7,320.0	77.30	164.16	6,759.9	-765.4	-1,524.5	138.9	15.91
PRCL_B							
7,324.0	77.73	163.68	6,760.8	-769.2	-1,523.4	142.8	15.91
7,355.0	80.28	160.78	6,766.7	-798.1	-1,514.1	173.1	12.33
7,382.0	82.15	159.52	6,770.8	-823.2	-1,505.1	199.8	8.34
CRVL							
7,386.0	82.43	159.33	6,771.4	-827.0	-1,503.7	203.8	8.34
7,415.0	85.17	159.05	6,774.5	-853.9	-1,493.4	232.6	9.48
LANDING_POINT							
7,416.0	85.26	159.04	6,774.6	-854.8	-1,493.1	233.6	9.48
7,417.0	85.34	159.02	6,774.7	-855.8	-1,492.7	234.6	8.04
CRVL_B							
7,480.0	90.31	158.06	6,777.1	-914.3	-1,469.7	297.5	8.04
7,573.0	90.13	156.83	6,776.7	-1,000.2	-1,434.0	390.5	1.34
7,666.0	87.49	155.33	6,778.6	-1,085.2	-1,396.3	483.4	3.26
7,758.0	88.11	157.62	6,782.2	-1,169.5	-1,359.6	575.3	2.58
7,851.0	88.81	158.06	6,784.7	-1,255.6	-1,324.6	668.3	0.89
7,943.0	90.92	160.08	6,784.9	-1,341.5	-1,291.7	760.2	3.17
8,036.0	90.13	158.76	6,784.0	-1,428.6	-1,259.0	853.2	1.65
8,129.0	90.31	157.97	6,783.7	-1,515.0	-1,224.7	946.2	0.87
8,221.0	89.52	158.41	6,783.8	-1,600.4	-1,190.5	1,038.2	0.98
8,314.0	88.81	157.18	6,785.2	-1,686.5	-1,155.4	1,131.2	1.53
8,406.0	88.72	159.11	6,787.1	-1,771.9	-1,121.2	1,223.2	2.10
8,499.0	89.87	159.90	6,788.3	-1,859.0	-1,088.6	1,316.1	1.50
8,591.0	90.22	158.50	6,788.2	-1,945.0	-1,055.9	1,408.1	1.57
8,684.0	89.43	160.43	6,788.5	-2,032.1	-1,023.3	1,501.1	2.24
8,777.0	88.99	159.20	6,789.8	-2,119.4	-991.2	1,594.0	1.40
8,869.0	88.90	157.97	6,791.5	-2,205.0	-957.6	1,686.0	1.34
8,962.0	89.52	158.23	6,792.8	-2,291.3	-923.0	1,779.0	0.72
9,054.0	89.43	155.51	6,793.6	-2,375.9	-886.8	1,870.9	2.96
9,147.0	88.72	156.92	6,795.1	-2,460.9	-849.3	1,963.9	1.70
9,240.0	89.13	158.64	6,796.8	-2,547.0	-814.2	2,056.9	1.90
9,332.0	89.60	158.67	6,797.9	-2,632.7	-780.7	2,148.9	0.51



Company: Antero Resources
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Site: Anne / Hardin Pad
Well: Deano Unit 2H
Wellbore: Original Wellpath
Design: As Drilled

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North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Oklahoma District

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
9,425.0	89.87	157.79	6,798.3	-2,719.1	-746.2	2,241.8	0.99
9,518.0	89.08	158.85	6,799.1	-2,805.5	-711.8	2,334.8	1.42
9,610.0	89.16	158.67	6,800.6	-2,891.2	-678.5	2,426.8	0.21
9,703.0	89.08	158.32	6,802.0	-2,977.7	-644.4	2,519.8	0.39
9,795.0	88.64	156.74	6,803.8	-3,062.7	-609.3	2,611.8	1.78
9,888.0	88.66	157.80	6,806.0	-3,148.5	-573.3	2,704.7	1.14
9,980.0	89.52	157.97	6,807.5	-3,233.7	-538.7	2,796.7	0.95
10,073.0	88.72	155.07	6,808.9	-3,319.0	-501.7	2,889.7	3.23
10,165.0	87.93	156.12	6,811.6	-3,402.7	-463.7	2,981.6	1.43
10,258.0	88.37	158.67	6,814.6	-3,488.5	-427.9	3,074.5	2.78
10,351.0	90.04	162.45	6,815.9	-3,576.2	-397.0	3,167.4	4.44
10,443.0	89.60	160.87	6,816.2	-3,663.5	-368.1	3,259.2	1.78
10,536.0	89.16	160.17	6,817.2	-3,751.2	-337.0	3,352.1	0.89
10,628.0	88.64	157.97	6,818.9	-3,837.1	-304.2	3,444.1	2.46
10,721.0	89.34	159.20	6,820.6	-3,923.7	-270.2	3,537.0	1.52
10,813.0	88.20	156.12	6,822.6	-4,008.7	-235.3	3,629.0	3.57
10,906.0	88.20	158.06	6,825.5	-4,094.4	-199.1	3,721.9	2.08
11,000.0	88.29	157.44	6,828.4	-4,181.3	-163.5	3,815.9	0.67
11,094.0	89.08	158.06	6,830.5	-4,268.3	-127.9	3,909.9	1.07
11,189.0	90.57	158.85	6,830.8	-4,356.6	-93.1	4,004.9	1.78
11,283.0	90.04	157.00	6,830.3	-4,443.7	-57.7	4,098.8	2.05
11,378.0	88.02	155.60	6,831.9	-4,530.7	-19.6	4,193.8	2.59
11,472.0	88.55	157.35	6,834.7	-4,616.9	17.9	4,287.7	1.94
11,566.0	90.04	158.15	6,835.9	-4,703.9	53.5	4,381.7	1.80
11,660.0	88.64	156.56	6,837.0	-4,790.6	89.7	4,475.7	2.25
11,754.0	89.25	156.83	6,838.7	-4,876.9	126.9	4,569.6	0.71
11,848.0	89.78	159.03	6,839.5	-4,964.0	162.2	4,663.6	2.41
11,943.0	88.99	158.94	6,840.5	-5,052.7	196.3	4,758.6	0.84
12,037.0	89.96	160.17	6,841.4	-5,140.8	229.1	4,852.6	1.67
12,130.0	90.31	160.26	6,841.2	-5,228.3	260.6	4,945.5	0.39
12,222.0	88.46	158.23	6,842.1	-5,314.3	293.2	5,037.5	2.99
12,315.0	89.08	158.41	6,844.1	-5,400.7	327.5	5,130.4	0.69
12,408.0	88.46	155.69	6,846.1	-5,486.3	363.8	5,223.4	3.00
12,500.0	89.43	156.30	6,847.8	-5,570.3	401.2	5,315.3	1.25
12,593.0	89.52	154.72	6,848.7	-5,655.0	439.8	5,408.2	1.70
12,685.0	89.69	156.12	6,849.3	-5,738.6	478.0	5,500.1	1.53
12,778.0	90.13	158.23	6,849.5	-5,824.3	514.1	5,593.1	2.32
12,871.0	91.14	159.30	6,848.4	-5,911.0	547.8	5,686.1	1.58
12,963.0	90.31	158.85	6,847.3	-5,996.9	580.6	5,778.1	1.03
13,056.0	90.22	160.08	6,846.8	-6,084.0	613.3	5,871.0	1.33
13,148.0	88.99	159.82	6,847.5	-6,170.4	644.8	5,963.0	1.37
13,241.0	91.68	162.00	6,846.9	-6,258.3	675.2	6,055.8	3.72
13,333.0	90.22	161.49	6,845.4	-6,345.7	704.0	6,147.6	1.68
13,426.0	90.40	160.70	6,844.9	-6,433.6	734.2	6,240.5	0.87

AUG 24 2015



WV GEOLOGICAL SURVEY Completion Report
MORGANTOWN, WV



Company: Antero Resources
Project: Doddridge County WV
Site: Anne / Hardin Pad
Well: Deano Unit 2H
Wellbore: Original Wellpath
Design: As Drilled

Local Co-ordinate Reference: Well Deano Unit 2H
TVD Reference: Precision 522 Deano Unit 2H GL 1001' + 18 @ 10
MD Reference: Precision 522 Deano Unit 2H GL 1001' + 18 @ 10
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Oklahoma District

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
13,519.0	93.83	161.66	6,841.5	-6,521.6	764.1	6,333.3	3.83
13,611.0	90.75	158.32	6,837.8	-6,608.0	795.6	6,425.1	4.94
13,704.0	92.07	158.94	6,835.5	-6,694.5	829.5	6,518.1	1.57
13,797.0	90.13	154.98	6,833.7	-6,780.1	865.8	6,611.0	4.74
13,889.0	90.31	154.19	6,833.4	-6,863.2	905.3	6,702.9	0.88
13,982.0	91.36	155.16	6,832.0	-6,947.2	945.1	6,795.7	1.54
14,074.0	92.33	154.89	6,829.0	-7,030.6	983.9	6,887.5	1.09
14,167.0	91.36	156.12	6,826.0	-7,115.2	1,022.5	6,980.4	1.68
14,259.0	91.36	155.77	6,823.9	-7,199.1	1,060.0	7,072.3	0.38
14,352.0	90.57	156.48	6,822.3	-7,284.2	1,097.6	7,165.2	1.14
14,445.0	89.69	158.32	6,822.1	-7,370.0	1,133.3	7,258.2	2.19
14,537.0	90.47	159.11	6,822.0	-7,455.7	1,166.7	7,350.2	1.21
14,630.0	87.85	158.23	6,823.3	-7,542.4	1,200.5	7,443.2	2.97
14,723.0	88.29	157.62	6,826.5	-7,628.5	1,235.5	7,536.1	0.81
14,815.0	88.37	157.53	6,829.1	-7,713.5	1,270.6	7,628.1	0.13
14,908.0	90.13	159.03	6,830.4	-7,799.9	1,305.0	7,721.1	2.49
15,001.0	90.84	158.85	6,829.6	-7,886.7	1,338.4	7,814.1	0.79
15,093.0	89.96	157.62	6,828.9	-7,972.1	1,372.5	7,906.1	1.64
15,186.0	91.28	157.71	6,827.9	-8,058.1	1,407.8	7,999.0	1.42
15,278.0	91.98	157.36	6,825.3	-8,143.1	1,443.0	8,091.0	0.85
15,371.0	90.40	155.42	6,823.4	-8,228.3	1,480.2	8,183.9	2.69
15,391.0	90.31	155.16	6,823.2	-8,246.5	1,488.6	8,203.9	1.38
15,452.0	90.31	155.16	6,822.9	-8,301.8	1,514.2	8,264.8	0.00

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
6,652.0	6,348.0	-297.4	-1,460.7	SCMR
6,865.0	6,525.6	-388.8	-1,529.0	MDLX
7,069.0	6,658.9	-539.8	-1,552.3	BRKT
7,122.0	6,686.7	-584.9	-1,552.9	TLLY
7,250.0	6,740.5	-699.9	-1,539.3	MRCL_HOT
7,261.0	6,744.0	-710.1	-1,537.3	PRCL
7,320.0	6,759.9	-765.4	-1,524.5	PRCL_B
7,382.0	6,770.8	-823.2	-1,505.1	CRVL
7,415.0	6,774.5	-853.9	-1,493.4	LANDING_POINT
7,417.0	6,774.7	-855.8	-1,492.7	CRVL_B

Checked By: _____ Approved By: _____ Date: _____