



EOG Resources - Midland

Lea County, NM (NAD 27 NME)

Orrtanna 20 Fed

#702H

OH

Survey: Crescent MWD #1

EOG PVA

09 June, 2016

30-025-42898



EOG Resources, Inc.
EOG PVA

Company: EOG Resources - Midland
Project: Lea County, NM (NAD 27 NME)
Site: Orrtanna 20 Fed
Well: #702H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well #702H
TVD Reference: KB = 25 @ 3245.0usft (Precision #612)
MD Reference: KB = 25 @ 3245.0usft (Precision #612)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Project Lea County, NM (NAD 27 NME)

Map System: US State Plane 1927 (Exact solution)
Geo Datum: NAD 1927 (NADCON CONUS)
Map Zone: New Mexico East 3001

System Datum: Mean Sea Level

Site Orrtanna 20 Fed

Site Position:		Northing:	372,591.00 usft	Latitude:	32° 1' 20.073 N
From: Map		Easting:	727,501.00 usft	Longitude:	103° 35' 57.401 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.39 °

Well #702H

Well Position	+N/-S	0.0 usft	Northing:	372,592.00 usft	Latitude:	32° 1' 20.080 N
	+E/-W	0.0 usft	Easting:	727,546.00 usft	Longitude:	103° 35' 56.879 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	0.0 usft	Ground Level:	3,220.0 usft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	5/17/2016	7.07	59.89	47,928

Design OH

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	359.51



EOG Resources, Inc.
EOG PVA

Company: EOG Resources - Midland
Project: Lea County, NM (NAD 27 NME)
Site: Orrtanna 20 Fed
Well: #702H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well #702H
TVD Reference: KB = 25 @ 3245.0usft (Precision #612)
MD Reference: KB = 25 @ 3245.0usft (Precision #612)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Survey Program Date 6/9/2016

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
86.3	910.7	Gyro #1 (OH)	NSG-CT_D/P	Continuous north-seeking gyro in drillpipe
973.0	17,142.0	Crescent MWD #1 (OH)	MWD	MWD - Standard

MD (usft)	Inc (°)	Azi (grid_north_azim)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)
910.7	1.00	304.50	910.6	4.0	-4.2	0.00	0.00	0.00	-5.8	-0.9
973.0	1.14	296.36	972.9	4.6	-5.2	0.33	0.22	-13.06	-6.7	-1.8
1,159.0	3.08	210.84	1,158.8	1.1	-9.4	1.72	1.04	-45.98	-2.7	-9.4
1,346.0	4.57	198.71	1,345.4	-10.2	-14.4	0.90	0.80	-6.49	-8.3	-12.3
1,532.0	4.75	181.57	1,530.8	-24.9	-17.0	0.75	0.10	-9.22	-10.6	-16.5
1,719.0	4.04	183.59	1,717.3	-39.3	-17.6	0.39	-0.38	1.08	-13.4	-16.4
1,906.0	4.66	164.96	1,903.7	-53.2	-16.1	0.82	0.33	-9.96	-8.8	-18.3
2,092.0	4.40	166.72	2,089.2	-67.4	-12.5	0.16	-0.14	0.95	-11.5	-14.6
2,279.0	3.96	169.71	2,275.7	-80.7	-9.7	0.26	-0.24	1.60	-13.0	-11.1
2,465.0	3.61	173.04	2,461.3	-92.9	-7.8	0.22	-0.19	1.79	-13.0	-8.2
2,652.0	2.90	172.61	2,648.0	-103.4	-6.5	0.38	-0.38	-0.23	-10.7	-6.4
2,839.0	2.46	178.32	2,834.7	-112.1	-5.8	0.27	-0.24	3.05	-6.9	-4.3
3,026.0	2.11	184.82	3,021.6	-119.6	-5.9	0.23	-0.19	3.48	-1.7	-3.9
3,212.0	1.76	184.73	3,207.5	-125.8	-6.5	0.19	-0.19	-0.05	4.9	-4.8
3,398.0	2.29	163.55	3,393.4	-132.2	-5.6	0.49	0.28	-11.39	12.4	0.2
3,584.0	3.17	137.62	3,579.2	-139.6	-1.1	0.80	0.47	-13.94	11.9	12.7
3,771.0	1.32	118.46	3,766.0	-144.4	4.3	1.05	-0.99	-10.25	3.9	21.7
3,959.0	0.18	327.73	3,954.0	-145.2	6.0	0.79	-0.61	-80.18	-14.4	-19.4
4,145.0	0.09	40.59	4,140.0	-144.9	5.9	0.09	-0.05	39.17	-23.0	8.3
4,332.0	0.53	137.54	4,327.0	-145.4	6.6	0.29	0.24	51.84	10.2	21.9
4,519.0	1.93	131.82	4,514.0	-148.1	9.6	0.75	0.75	-3.06	3.9	22.8



EOG Resources, Inc.
EOG PVA

Company: EOG Resources - Midland
Project: Lea County, NM (NAD 27 NME)
Site: Orrtanna 20 Fed
Well: #702H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well #702H
TVD Reference: KB = 25 @ 3245.0usft (Precision #612)
MD Reference: KB = 25 @ 3245.0usft (Precision #612)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Survey											
MD (usft)	Inc (°)	Azi (grid_north_azim)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
4,705.0	1.67	162.76	4,699.9	-152.8	12.7	0.53	-0.14	16.63	9.7	19.1	
4,891.0	1.32	170.50	4,885.8	-157.5	13.9	0.22	-0.19	4.16	7.3	18.0	
5,077.0	0.97	174.54	5,071.8	-161.2	14.4	0.19	-0.19	2.17	4.9	17.6	
5,264.0	0.88	189.22	5,258.7	-164.2	14.3	0.14	-0.05	7.85	6.2	16.2	
5,450.0	0.88	206.79	5,444.7	-166.9	13.4	0.14	0.00	9.45	8.0	14.0	
5,636.0	0.62	220.59	5,630.7	-168.9	12.1	0.17	-0.14	7.42	8.7	12.0	
5,822.0	0.53	201.35	5,816.7	-170.5	11.1	0.11	-0.05	-10.34	2.5	13.9	
6,009.0	0.62	239.75	6,003.7	-171.8	9.9	0.21	0.05	20.53	8.9	9.9	
6,196.0	0.62	256.89	6,190.7	-172.5	8.1	0.10	0.00	9.17	9.4	7.1	
6,384.0	1.06	308.48	6,378.7	-171.7	5.7	0.44	0.23	27.44	9.1	-2.1	
6,569.0	1.06	309.63	6,563.6	-169.5	3.1	0.01	0.00	0.62	5.6	-2.3	
6,755.0	1.23	294.86	6,749.6	-167.6	-0.1	0.18	0.09	-7.94	2.3	-1.2	
6,941.0	1.23	286.34	6,935.5	-166.2	-3.8	0.10	0.00	-4.58	-1.5	-1.2	
7,127.0	1.06	284.23	7,121.5	-165.2	-7.4	0.09	-0.09	-1.13	-5.1	-1.3	
7,314.0	0.44	274.03	7,308.5	-164.7	-9.8	0.34	-0.33	-5.45	-7.3	-2.5	
7,501.0	0.88	230.96	7,495.5	-165.6	-11.6	0.34	0.24	-23.03	-5.6	-7.3	
7,687.0	1.06	228.59	7,681.5	-167.6	-14.0	0.10	0.10	-1.27	-8.4	-7.5	
7,874.0	1.58	208.11	7,868.4	-171.0	-16.5	0.37	0.28	-10.95	-9.4	-10.6	
8,061.0	0.70	173.92	8,055.4	-174.4	-17.6	0.58	-0.47	-18.28	-5.1	-15.5	
8,247.0	1.23	192.56	8,241.3	-177.5	-17.9	0.33	0.28	10.02	-12.9	-12.7	
8,430.0	1.23	210.93	8,424.3	-181.1	-19.3	0.21	0.00	10.04	-20.1	-7.4	
8,617.0	0.97	18.62	8,611.3	-181.3	-19.9	1.17	-0.14	89.67	18.4	11.9	
8,803.0	0.62	15.81	8,797.3	-178.9	-19.1	0.19	-0.19	-1.51	15.2	12.7	
8,990.0	0.79	20.12	8,984.3	-176.7	-18.4	0.10	0.09	2.30	13.8	11.6	
9,177.0	0.53	316.57	9,171.2	-174.8	-18.5	0.39	-0.14	-33.98	-5.7	16.4	
9,362.0	1.14	264.10	9,356.2	-174.4	-20.9	0.50	0.33	-28.36	-18.8	4.8	
9,548.0	0.35	354.98	9,542.2	-174.0	-22.8	0.64	-0.42	48.86	4.6	20.6	



EOG Resources, Inc.
EOG PVA

Company: EOG Resources - Midland
Project: Lea County, NM (NAD 27 NME)
Site: Orrtanna 20 Fed
Well: #702H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well #702H
TVD Reference: KB = 25 @ 3245.0usft (Precision #612)
MD Reference: KB = 25 @ 3245.0usft (Precision #612)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Survey											
MD (usft)	Inc (°)	Azi (grid_north_azim)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
9,734.0	0.44	128.04	9,728.2	-173.9	-22.3	0.39	0.05	71.54	11.6	-17.0	
9,921.0	0.53	129.01	9,915.2	-174.9	-21.1	0.05	0.05	0.52	9.8	-17.2	
10,107.0	0.97	149.31	10,101.2	-176.8	-19.6	0.27	0.24	10.91	0.8	-19.2	
10,293.0	0.62	41.38	10,287.2	-177.4	-18.1	0.70	-0.19	-58.03	17.5	5.2	
10,479.0	0.79	29.96	10,473.2	-175.5	-16.8	0.12	0.09	-6.14	13.8	8.3	
10,665.0	0.88	53.78	10,659.1	-173.6	-15.1	0.19	0.05	12.81	13.4	2.6	
10,853.0	0.62	41.82	10,847.1	-172.0	-13.2	0.16	-0.14	-6.36	10.2	5.0	
11,021.0	0.79	25.48	11,015.1	-170.2	-12.1	0.16	0.10	-9.73	6.3	7.4	
11,144.0	0.53	353.13	11,138.1	-168.9	-11.8	0.36	-0.21	-26.30	0.1	9.2	
11,330.0	1.93	215.32	11,324.1	-170.6	-13.7	1.26	0.75	-74.09	-8.7	-7.3	
11,516.0	0.79	241.07	11,510.0	-173.8	-16.7	0.68	-0.61	13.84	-15.2	-1.4	
11,701.0	0.53	276.67	11,695.0	-174.3	-18.6	0.26	-0.14	19.24	-15.0	8.4	
11,795.0	0.62	246.26	11,789.0	-174.5	-19.5	0.33	0.10	-32.35	-18.1	-0.6	
11,841.0	1.14	316.92	11,835.0	-174.2	-20.1	2.40	1.13	153.61	-6.0	18.1	
11,888.0	2.46	339.77	11,882.0	-172.9	-20.7	3.14	2.81	48.62	5.5	21.2	
11,934.0	4.75	349.27	11,927.9	-170.1	-21.4	5.13	4.98	20.65	15.8	22.0	
11,981.0	7.65	358.93	11,974.6	-165.1	-21.8	6.54	6.17	20.55	28.7	19.8	
12,027.0	13.37	3.86	12,019.8	-156.7	-21.5	12.58	12.43	10.72	40.2	16.3	
12,074.0	19.61	2.80	12,064.9	-143.4	-20.8	13.29	13.28	-2.26	49.2	15.7	
12,120.0	26.56	1.66	12,107.2	-125.4	-20.1	15.14	15.11	-2.48	56.8	15.5	
12,167.0	32.62	2.89	12,148.0	-102.2	-19.2	12.96	12.89	2.62	63.9	13.2	
12,213.0	39.04	3.59	12,185.3	-75.4	-17.6	13.98	13.96	1.52	69.5	10.8	
12,260.0	51.27	0.43	12,218.4	-42.1	-16.6	26.45	26.02	-6.72	71.0	12.2	
12,306.0	63.31	359.11	12,243.2	-3.5	-16.8	26.28	26.17	-2.87	67.0	13.2	
12,351.0	74.24	1.13	12,259.4	38.4	-16.6	24.65	24.29	4.49	58.2	11.9	
12,382.0	79.38	359.37	12,266.5	68.6	-16.5	17.48	16.58	-5.68	49.6	12.5	
12,413.0	81.98	359.81	12,271.5	99.2	-16.7	8.50	8.39	1.42	40.9	12.3	



EOG Resources, Inc.
EOG PVA

Company: EOG Resources - Midland
Project: Lea County, NM (NAD 27 NME)
Site: Orrtanna 20 Fed
Well: #702H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well #702H
TVD Reference: KB = 25 @ 3245.0usft (Precision #612)
MD Reference: KB = 25 @ 3245.0usft (Precision #612)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Survey											
MD (usft)	Inc (°)	Azi (grid_north_azim)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
12,423.7	82.51	359.81	12,273.0	109.8	-16.8	4.97	4.97	0.00	38.0	12.3	
HL Crossing.12423.7' MD; 12273.0' TVD; 109.8'; -16.8'; 82.51											
12,424.4	82.55	359.81	12,273.1	110.4	-16.8	4.97	4.97	0.00	37.9	12.2	
FTP(Orrt 20 Fed #702H)											
12,444.0	83.52	359.81	12,275.5	129.9	-16.8	4.97	4.97	0.00	32.9	12.1	
12,506.0	83.38	359.20	12,282.5	191.5	-17.4	1.00	-0.23	-0.98	21.5	12.0	
12,538.0	83.56	359.37	12,286.2	223.3	-17.8	0.77	0.56	0.53	18.6	12.1	
12,569.0	85.45	359.99	12,289.1	254.1	-17.9	6.41	6.10	2.00	17.1	12.0	
12,600.0	90.55	1.13	12,290.2	285.1	-17.6	16.86	16.45	3.68	15.7	11.4	
12,631.0	91.47	0.87	12,289.7	316.1	-17.1	3.08	2.97	-0.84	14.5	10.6	
12,725.0	88.31	1.22	12,289.8	410.1	-15.4	3.38	-3.36	0.37	15.7	8.2	
12,819.0	91.34	1.13	12,290.1	504.0	-13.4	3.22	3.22	-0.10	16.9	5.5	
12,911.0	89.41	1.57	12,289.5	596.0	-11.3	2.15	-2.10	0.48	17.3	2.7	
13,005.0	88.62	1.57	12,291.1	690.0	-8.7	0.84	-0.84	0.00	19.9	-0.6	
13,098.0	91.43	2.19	12,291.1	782.9	-5.7	3.09	3.02	0.67	20.8	-4.4	
13,191.0	85.63	1.48	12,293.5	875.8	-2.7	6.28	-6.24	-0.76	24.1	-8.1	
13,284.0	86.64	1.13	12,299.8	968.5	-0.6	1.15	1.09	-0.38	31.3	-11.0	
13,377.0	87.34	1.31	12,304.6	1,061.4	1.4	0.78	0.75	0.19	37.1	-13.6	
13,471.0	87.78	0.95	12,308.6	1,155.3	3.3	0.60	0.47	-0.38	42.1	-16.2	
13,564.0	90.64	359.72	12,309.9	1,248.3	3.8	3.35	3.08	-1.32	44.3	-17.5	
13,658.0	90.59	358.93	12,308.9	1,342.3	2.7	0.84	-0.05	-0.84	44.3	-17.1	
13,751.0	92.88	357.62	12,306.1	1,435.2	-0.1	2.84	2.46	-1.41	42.4	-15.0	
13,818.1	92.12	357.62	12,303.2	1,502.2	-2.9	1.13	-1.13	0.00	40.2	-12.8	
TGT#1(Orrt 20 Fed #702H)											
13,845.0	91.82	357.62	12,302.2	1,529.0	-4.0	1.13	-1.13	0.00	39.5	-11.8	
13,938.0	90.02	357.70	12,300.8	1,621.9	-7.8	1.94	-1.94	0.09	39.0	-8.8	
14,031.0	90.20	358.23	12,300.6	1,714.8	-11.1	0.60	0.19	0.57	39.7	-6.2	
14,124.0	91.47	358.93	12,299.2	1,807.8	-13.4	1.56	1.37	0.75	39.3	-4.6	



EOG Resources, Inc.
EOG PVA

Company: EOG Resources - Midland
Project: Lea County, NM (NAD 27 NME)
Site: Orrtanna 20 Fed
Well: #702H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well #702H
TVD Reference: KB = 25 @ 3245.0usft (Precision #612)
MD Reference: KB = 25 @ 3245.0usft (Precision #612)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Survey											
MD (usft)	Inc (°)	Azi (grid_north_azim)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
14,217.0	89.63	358.14	12,298.3	1,900.8	-15.8	2.15	-1.98	-0.85	39.3	-2.9	
14,311.0	87.91	358.58	12,300.3	1,994.7	-18.5	1.89	-1.83	0.47	42.3	-0.9	
14,406.0	90.42	357.44	12,301.7	2,089.6	-21.8	2.90	2.64	-1.20	44.6	1.6	
14,499.0	90.81	356.65	12,300.7	2,182.5	-26.6	0.95	0.42	-0.85	44.6	5.7	
14,593.0	91.78	357.09	12,298.6	2,276.3	-31.7	1.13	1.03	0.47	43.4	10.1	
14,687.0	93.01	359.81	12,294.7	2,370.2	-34.2	3.17	1.31	2.89	40.4	12.0	
14,780.0	87.38	359.11	12,294.4	2,463.2	-35.1	6.10	-6.05	-0.75	41.0	12.2	
14,873.0	93.05	0.16	12,294.0	2,556.1	-35.7	6.20	6.10	1.13	41.6	12.0	
14,966.0	89.05	358.58	12,292.3	2,649.1	-36.7	4.62	-4.30	-1.70	40.8	12.3	
15,059.0	91.38	0.16	12,292.0	2,742.1	-37.7	3.03	2.51	1.70	41.4	12.7	
15,152.0	90.73	359.90	12,290.2	2,835.0	-37.7	0.75	-0.70	-0.28	40.6	11.9	
15,245.0	90.07	0.25	12,289.6	2,928.0	-37.6	0.80	-0.71	0.38	40.9	11.1	
15,316.3	88.57	0.25	12,290.4	2,999.4	-37.3	2.11	-2.11	0.00	42.4	10.2	
TGT#2(Orrt 20 Fed #702H)											
15,339.0	88.09	0.25	12,291.1	3,022.0	-37.2	2.11	-2.11	0.00	43.3	9.9	
15,432.0	87.78	359.11	12,294.5	3,115.0	-37.7	1.27	-0.33	-1.23	47.4	9.7	
15,526.0	90.51	359.20	12,295.9	3,208.9	-39.1	2.91	2.90	0.10	49.6	10.4	
15,620.0	89.89	358.05	12,295.5	3,302.9	-41.3	1.39	-0.66	-1.22	50.0	11.9	
15,714.0	89.89	358.32	12,295.7	3,396.9	-44.3	0.29	0.00	0.29	51.0	14.2	
15,808.0	89.98	358.41	12,295.8	3,490.8	-47.0	0.14	0.10	0.10	51.9	16.2	
15,902.0	92.18	359.02	12,294.1	3,584.8	-49.1	2.43	2.34	0.65	50.9	17.6	
15,995.0	89.71	358.41	12,292.5	3,677.7	-51.2	2.74	-2.66	-0.66	50.1	18.9	
16,088.0	92.88	358.32	12,290.4	3,770.7	-53.8	3.41	3.41	-0.10	48.8	20.9	
16,182.0	90.68	358.67	12,287.5	3,864.6	-56.3	2.37	-2.34	0.37	46.6	22.6	
16,276.0	89.14	359.37	12,287.6	3,958.6	-57.9	1.80	-1.64	0.74	47.5	23.5	
16,370.0	91.12	0.52	12,287.4	4,052.5	-58.0	2.44	2.11	1.22	48.1	22.9	
16,463.0	88.18	359.37	12,288.0	4,145.5	-58.1	3.39	-3.16	-1.24	49.4	22.3	



EOG Resources, Inc.
EOG PVA

Company: EOG Resources - Midland
Project: Lea County, NM (NAD 27 NME)
Site: Orrtanna 20 Fed
Well: #702H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well #702H
TVD Reference: KB = 25 @ 3245.0usft (Precision #612)
MD Reference: KB = 25 @ 3245.0usft (Precision #612)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Survey

MD (usft)	Inc (°)	Azi (grid_north_azim)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)
16,557.0	90.24	0.08	12,289.3	4,239.5	-58.5	2.32	2.19	0.76	51.5	22.0
16,651.0	87.74	1.22	12,291.0	4,333.5	-57.5	2.92	-2.66	1.21	53.9	20.2
16,745.0	88.35	0.43	12,294.2	4,427.4	-56.1	1.06	0.65	-0.84	57.9	18.2
16,839.0	89.85	359.90	12,295.6	4,521.4	-55.8	1.69	1.60	-0.56	60.1	17.2
16,933.0	93.23	0.16	12,293.1	4,615.4	-55.8	3.61	3.60	0.28	58.4	16.4
17,027.0	93.36	358.23	12,287.7	4,709.2	-57.1	2.05	0.14	-2.05	53.8	17.0
17,042.7	93.32	357.87	12,286.8	4,724.9	-57.6	2.32	-0.23	-2.32	53.0	17.4
HL Crossing.17042.7' MD; 12286.8' TVD; 4724.9'; -57.6'; 93.32										
17,084.0	93.23	356.91	12,284.4	4,766.0	-59.5	2.32	-0.23	-2.32	51.0	18.9
Last MWD Survey										
17,142.0	93.23	356.91	12,281.2	4,823.9	-62.7	0.00	0.00	0.00	48.2	21.6
Projection To Bit - PBHL(Orrt 20 Fed #702H)										

Survey Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
12,423.7	12,273.0	109.8	-16.8	HL Crossing.12423.7' MD; 12273.0' TVD; 109.8'; -16.8'; 82.51
17,042.7	12,286.8	4,724.9	-57.6	HL Crossing.17042.7' MD; 12286.8' TVD; 4724.9'; -57.6'; 93.32
17,084.0	12,284.4	4,766.0	-59.5	Last MWD Survey
17,142.0	12,281.2	4,823.9	-62.7	Projection To Bit

Checked By: _____ Approved By: _____ Date: _____

