

BONANZA CREEK ENERGY OPERATING

Well Name: **Antelope U-Y-17HNB**

Surface Location: Antelope P-17 Pad Sec.17-T5N-R62W

North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

Ground Elevation: 4694.0

+N/-S +E/-W Northing Easting Latitude Longitude Slot

0.0 0.0 1392660.52 3322337.74 40.405480 -104.342510

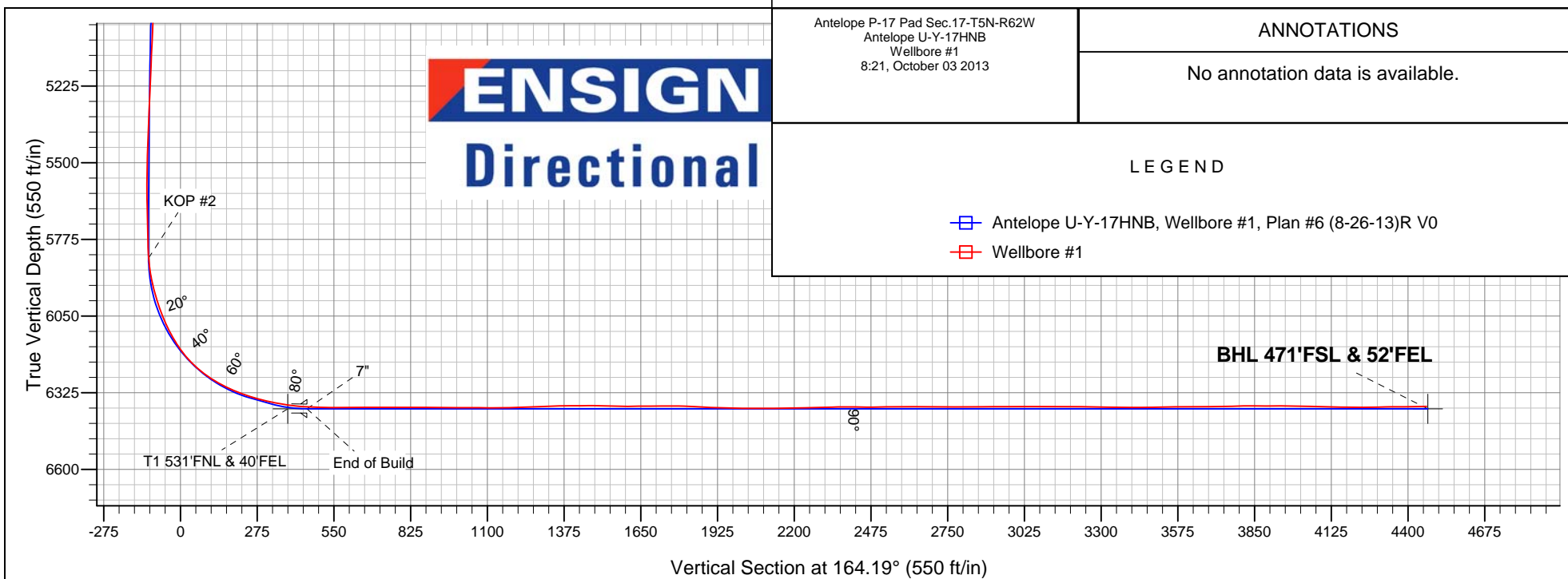
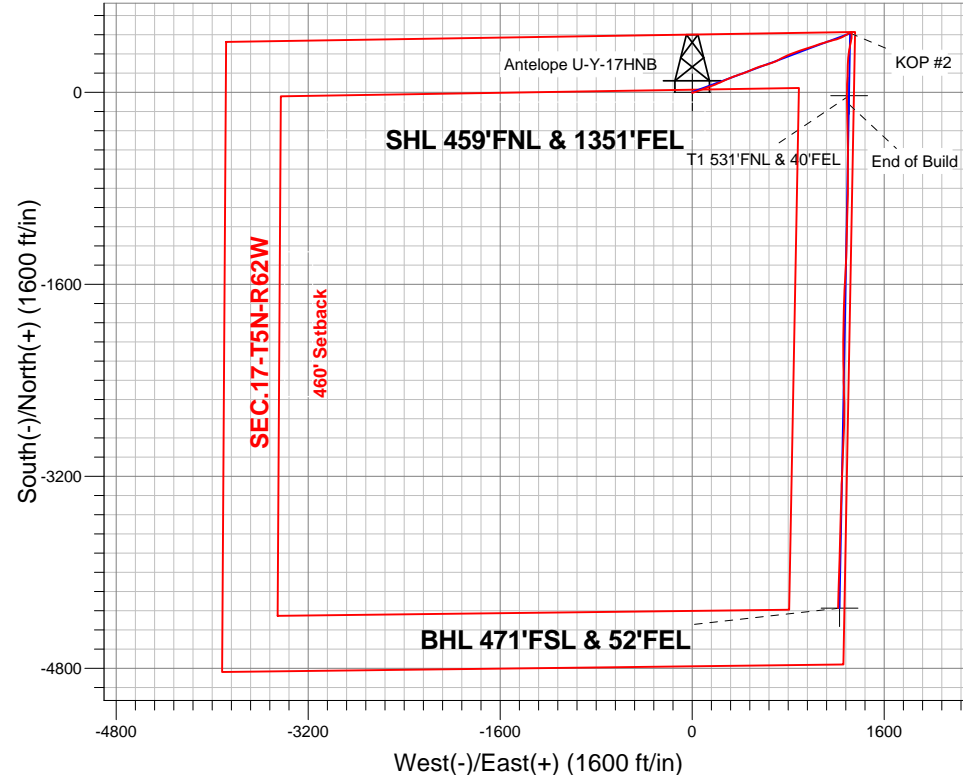
Ensign 136 RKB - 13' WELL @ 4707.0ft (Ensign 136 RKB - 13')

FINAL SURVEY

Projected Bottom Hole Location

11136' MD 6374' TVD 4298' S & 1217' E of SHL

91.2 degree Incl @ 182.0 degree AZM



Antelope P-17 Pad Sec.17-T5N-R62W
Antelope U-Y-17HNB
Wellbore #1
8:21, October 03 2013

ANNOTATIONS

No annotation data is available.

LEGEND

- Antelope U-Y-17HNB, Wellbore #1, Plan #6 (8-26-13)R V0
- Wellbore #1



BONANZA CREEK ENERGY OPERATING

SEC.17-T5N-R62W

Antelope P-17 Pad Sec.17-T5N-R62W

Antelope U-Y-17HNB

Wellbore #1

Design: Wellbore #1

Standard Survey Report

03 October, 2013

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well Antelope U-Y-17HNB
Project:	SEC.17-T5N-R62W	TVD Reference:	WELL @ 4707.0ft (Ensign 136 RKB - 13')
Site:	Antelope P-17 Pad Sec.17-T5N-R62W	MD Reference:	WELL @ 4707.0ft (Ensign 136 RKB - 13')
Well:	Antelope U-Y-17HNB	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Project	SEC.17-T5N-R62W, Weld County, CO		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		Using Well Reference Point
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site	Antelope P-17 Pad Sec.17-T5N-R62W				
Site Position:		Northing:	1,392,660.57 ft	Latitude:	40.405480
From:	Lat/Long	Easting:	3,322,340.52 ft	Longitude:	-104.342500
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.75 °

Well	Antelope U-Y-17HNB					
Well Position	+N/-S	0.0 ft	Northing:	1,392,660.52 ft	Latitude:	40.405480
	+E/-W	0.0 ft	Easting:	3,322,337.74 ft	Longitude:	-104.342510
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,694.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	8/22/2013	8.34	67.05	52,949

Design	Wellbore #1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.0	0.0	0.0	164.19	

Survey Program	Date	10/3/2013			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
78.0	11,136.0	Survey #1 (Wellbore #1)	MWD	MWD - Standard	

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	
SHL 459°FNL & 1348°FEL										
78.0	0.60	117.50	78.0	-0.2	0.4	0.3	0.77	0.77	0.00	
136.0	0.50	100.90	136.0	-0.4	0.9	0.6	0.32	-0.17	-28.62	
199.0	0.40	184.10	199.0	-0.6	1.1	0.9	0.96	-0.16	132.06	
268.0	0.90	192.60	268.0	-1.4	1.0	1.6	0.74	0.72	12.32	
353.0	1.00	159.90	353.0	-2.8	1.1	3.0	0.64	0.12	-38.47	
430.0	0.70	142.50	430.0	-3.8	1.6	4.1	0.51	-0.39	-22.60	
507.0	0.80	114.00	507.0	-4.4	2.4	4.9	0.50	0.13	-37.01	
568.0	2.50	85.30	567.9	-4.4	4.1	5.4	3.01	2.79	-47.05	
662.0	5.50	73.40	661.7	-3.0	10.5	5.7	3.29	3.19	-12.66	
754.0	9.30	69.30	752.9	0.9	21.7	5.0	4.17	4.13	-4.46	
847.0	11.60	71.60	844.4	6.5	37.6	4.0	2.51	2.47	2.47	

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well Antelope U-Y-17HNB
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Site:	Antelope P-17 Pad Sec.17-T5N-R62W	MD Reference:	WELL @ 4707.0ft (Ensign 136 RKB - 13')
Well:	Antelope U-Y-17HNB	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
941.0	13.60	69.70	936.1	13.3	56.9	2.7	2.17	2.13	-2.02	
1,033.0	14.10	69.70	1,025.4	21.0	77.6	0.9	0.54	0.54	0.00	
1,124.0	16.40	69.30	1,113.2	29.4	100.0	-1.0	2.53	2.53	-0.44	
1,215.0	16.10	68.80	1,200.6	38.5	123.8	-3.3	0.36	-0.33	-0.55	
1,307.0	15.70	70.70	1,289.1	47.2	147.4	-5.3	0.71	-0.43	2.07	
1,396.0	16.80	69.20	1,374.5	55.8	170.8	-7.1	1.32	1.24	-1.69	
1,487.0	16.40	67.40	1,461.7	65.4	194.9	-9.8	0.72	-0.44	-1.98	
1,578.0	16.30	68.30	1,549.0	75.0	218.7	-12.6	0.30	-0.11	0.99	
1,669.0	14.90	66.70	1,636.7	84.4	241.3	-15.5	1.61	-1.54	-1.76	
1,772.0	14.70	63.70	1,736.3	95.4	265.2	-19.6	0.77	-0.19	-2.91	
1,898.0	14.90	67.30	1,858.1	108.7	294.4	-24.4	0.75	0.16	2.86	
2,025.0	15.90	64.90	1,980.5	122.4	325.3	-29.2	0.93	0.79	-1.89	
2,152.0	18.10	72.90	2,102.0	135.6	359.9	-32.4	2.52	1.73	6.30	
2,279.0	18.30	71.40	2,222.6	147.8	397.6	-33.9	0.40	0.16	-1.18	
2,407.0	18.20	68.10	2,344.2	161.6	435.2	-37.0	0.81	-0.08	-2.58	
2,534.0	19.00	66.30	2,464.6	177.3	472.5	-41.9	0.78	0.63	-1.42	
2,662.0	19.40	67.10	2,585.4	194.0	511.2	-47.4	0.37	0.31	0.63	
2,788.0	18.70	70.20	2,704.5	209.0	549.5	-51.4	0.98	-0.56	2.46	
2,916.0	18.70	75.50	2,825.8	221.1	588.7	-52.3	1.33	0.00	4.14	
3,045.0	17.90	73.20	2,948.3	232.0	627.7	-52.2	0.84	-0.62	-1.78	
3,173.0	16.70	70.40	3,070.5	243.8	663.8	-53.8	1.14	-0.94	-2.19	
3,301.0	16.30	64.20	3,193.2	257.8	697.3	-58.1	1.41	-0.31	-4.84	
3,430.0	15.60	61.10	3,317.3	274.1	728.8	-65.2	0.85	-0.54	-2.40	
3,558.0	18.30	66.00	3,439.7	290.6	762.2	-72.0	2.38	2.11	3.83	
3,686.0	19.00	63.90	3,561.0	307.9	799.3	-78.5	0.76	0.55	-1.64	
3,943.0	18.30	71.40	3,804.5	339.2	875.1	-88.0	0.97	-0.27	2.92	
4,071.0	19.40	73.00	3,925.6	351.8	914.5	-89.4	0.95	0.86	1.25	
4,200.0	18.40	71.80	4,047.7	364.4	954.3	-90.7	0.83	-0.78	-0.93	
4,328.0	17.50	71.30	4,169.5	376.9	991.8	-92.5	0.71	-0.70	-0.39	
4,456.0	18.40	71.30	4,291.2	389.6	1,029.1	-94.5	0.70	0.70	0.00	
4,585.0	19.10	72.50	4,413.4	402.4	1,068.5	-96.2	0.62	0.54	0.93	
4,713.0	17.90	72.10	4,534.8	414.8	1,107.2	-97.5	0.94	-0.94	-0.31	
4,841.0	17.50	76.40	4,656.7	425.3	1,144.7	-97.5	1.07	-0.31	3.36	
4,970.0	16.50	76.00	4,780.1	434.3	1,181.3	-96.2	0.78	-0.78	-0.31	
5,098.0	15.70	70.60	4,903.1	444.5	1,215.3	-96.7	1.33	-0.63	-4.22	
5,226.0	13.50	64.80	5,026.9	456.6	1,245.1	-100.2	2.06	-1.72	-4.53	
5,355.0	11.50	60.40	5,152.9	469.4	1,269.9	-105.7	1.72	-1.55	-3.41	
5,483.0	10.40	62.80	5,278.5	481.0	1,291.3	-111.0	0.93	-0.86	1.88	
5,611.0	7.80	55.80	5,404.9	491.1	1,308.8	-116.1	2.20	-2.03	-5.47	
5,740.0	4.90	65.60	5,533.1	498.3	1,321.0	-119.6	2.39	-2.25	7.60	
5,868.0	2.00	107.50	5,660.9	499.9	1,328.1	-119.2	2.86	-2.27	32.73	
5,996.0	1.20	189.70	5,788.8	497.9	1,330.0	-116.8	1.71	-0.63	64.22	
6,039.0	4.50	190.40	5,831.8	495.8	1,329.7	-114.9	7.67	7.67	1.63	
6,082.0	7.50	184.10	5,874.5	491.3	1,329.2	-110.7	7.13	6.98	-14.65	
6,125.0	11.50	179.70	5,916.9	484.3	1,329.0	-104.0	9.45	9.30	-10.23	
6,167.0	15.00	178.30	5,957.8	474.6	1,329.2	-94.6	8.37	8.33	-3.33	
6,210.0	18.80	181.50	5,999.0	462.1	1,329.1	-82.6	9.09	8.84	7.44	
6,253.0	22.60	187.10	6,039.2	447.0	1,327.9	-68.4	9.96	8.84	13.02	
6,296.0	26.80	190.80	6,078.2	429.3	1,325.1	-52.1	10.40	9.77	8.60	
6,338.0	31.20	192.90	6,115.0	409.4	1,320.9	-34.1	10.75	10.48	5.00	
6,381.0	36.20	191.30	6,150.7	386.0	1,315.9	-13.0	11.81	11.63	-3.72	
6,424.0	41.30	189.40	6,184.2	359.6	1,311.1	11.1	12.18	11.86	-4.42	
6,467.0	46.10	189.20	6,215.3	330.3	1,306.3	38.0	11.17	11.16	-0.47	
6,510.0	51.70	186.40	6,243.6	298.2	1,302.0	67.7	13.91	13.02	-6.51	

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Well:	Antelope U-Y-17HNB	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
6,552.0	57.30	182.00	6,268.0	264.1	1,299.5	99.9	15.82	13.33	-10.48
6,595.0	62.90	181.10	6,289.4	226.9	1,298.5	135.4	13.15	13.02	-2.09
6,638.0	65.60	182.50	6,308.1	188.1	1,297.3	172.3	6.93	6.28	3.26
6,681.0	68.70	182.90	6,324.8	148.6	1,295.4	209.9	7.26	7.21	0.93
6,723.0	73.70	182.00	6,338.3	108.9	1,293.7	247.6	12.08	11.90	-2.14
6,766.0	76.80	181.70	6,349.3	67.3	1,292.4	287.3	7.24	7.21	-0.70
6,809.0	77.40	181.10	6,358.9	25.4	1,291.3	327.3	1.95	1.40	-1.40
6,852.0	80.30	180.30	6,367.2	-16.8	1,290.8	367.7	6.99	6.74	-1.86
6,866.4	81.91	179.84	6,369.4	-31.0	1,290.8	381.4	11.57	11.14	-3.16
T1 531'FNL & 40'FEL									
6,887.0	84.20	179.20	6,371.9	-51.5	1,291.0	401.2	11.57	11.14	-3.13
6,942.0	87.80	178.70	6,375.7	-106.3	1,292.0	454.2	6.61	6.55	-0.91
6,985.0	88.20	179.00	6,377.2	-149.3	1,292.9	495.8	1.16	0.93	0.70
7,027.0	88.60	179.00	6,378.4	-191.2	1,293.6	536.4	0.95	0.95	0.00
7,069.0	90.10	178.80	6,378.9	-233.2	1,294.4	577.0	3.60	3.57	-0.48
7,112.0	90.90	178.70	6,378.5	-276.2	1,295.3	618.6	1.87	1.86	-0.23
7,154.0	90.80	179.40	6,377.9	-318.2	1,296.0	659.2	1.68	-0.24	1.67
7,196.0	90.70	179.20	6,377.3	-360.2	1,296.5	699.7	0.53	-0.24	-0.48
7,239.0	89.90	179.00	6,377.1	-403.2	1,297.2	741.3	1.92	-1.86	-0.47
7,282.0	89.30	178.50	6,377.4	-446.2	1,298.2	782.9	1.82	-1.40	-1.16
7,325.0	89.40	179.70	6,377.9	-489.2	1,298.8	824.5	2.80	0.23	2.79
7,368.0	89.90	179.90	6,378.2	-532.2	1,299.0	865.9	1.25	1.16	0.47
7,410.0	89.30	180.10	6,378.4	-574.2	1,299.0	906.3	1.51	-1.43	0.48
7,453.0	89.90	180.60	6,378.7	-617.2	1,298.7	947.6	1.82	1.40	1.16
7,496.0	89.50	180.10	6,379.0	-660.2	1,298.5	988.9	1.49	-0.93	-1.16
7,539.0	89.80	180.10	6,379.2	-703.2	1,298.4	1,030.2	0.70	0.70	0.00
7,581.0	90.00	180.40	6,379.3	-745.2	1,298.2	1,070.6	0.86	0.48	0.71
7,624.0	90.00	180.40	6,379.3	-788.2	1,297.9	1,111.9	0.00	0.00	0.00
7,667.0	90.00	180.30	6,379.3	-831.2	1,297.6	1,153.2	0.23	0.00	-0.23
7,710.0	91.00	181.70	6,378.9	-874.2	1,296.9	1,194.4	4.00	2.33	3.26
7,753.0	92.20	181.70	6,377.7	-917.1	1,295.6	1,235.3	2.79	2.79	0.00
7,795.0	92.90	181.10	6,375.9	-959.1	1,294.6	1,275.4	2.19	1.67	-1.43
7,838.0	92.70	181.70	6,373.8	-1,002.0	1,293.5	1,316.5	1.47	-0.47	1.40
7,881.0	90.70	180.80	6,372.5	-1,045.0	1,292.6	1,357.5	5.10	-4.65	-2.09
7,924.0	90.00	181.00	6,372.2	-1,088.0	1,291.9	1,398.7	1.69	-1.63	0.47
7,966.0	91.30	181.10	6,371.7	-1,130.0	1,291.2	1,438.9	3.10	3.10	0.24
8,009.0	89.40	180.80	6,371.5	-1,172.9	1,290.4	1,480.1	4.47	-4.42	-0.70
8,052.0	88.20	182.20	6,372.4	-1,215.9	1,289.3	1,521.1	4.29	-2.79	3.26
8,095.0	88.90	181.80	6,373.5	-1,258.9	1,287.8	1,562.1	1.87	1.63	-0.93
8,138.0	89.80	181.70	6,374.0	-1,301.9	1,286.5	1,603.0	2.11	2.09	-0.23
8,180.0	90.70	182.20	6,373.8	-1,343.8	1,285.1	1,643.0	2.45	2.14	1.19
8,223.0	90.00	182.90	6,373.5	-1,386.8	1,283.2	1,683.9	2.30	-1.63	1.63
8,266.0	90.50	182.90	6,373.3	-1,429.7	1,281.0	1,724.6	1.16	1.16	0.00
8,309.0	90.20	182.40	6,373.1	-1,472.7	1,279.0	1,765.4	1.36	-0.70	-1.16
8,351.0	88.50	182.70	6,373.5	-1,514.6	1,277.1	1,805.2	4.11	-4.05	0.71
8,394.0	87.20	183.10	6,375.2	-1,557.5	1,275.0	1,845.9	3.16	-3.02	0.93
8,437.0	87.30	182.20	6,377.2	-1,600.5	1,273.0	1,886.7	2.10	0.23	-2.09
8,480.0	87.60	182.50	6,379.1	-1,643.4	1,271.2	1,927.5	0.99	0.70	0.70
8,523.0	88.50	181.70	6,380.6	-1,686.3	1,269.6	1,968.4	2.80	2.09	-1.86
8,565.0	89.60	181.80	6,381.3	-1,728.3	1,268.3	2,008.4	2.63	2.62	0.24
8,608.0	90.00	181.80	6,381.4	-1,771.3	1,267.0	2,049.4	0.93	0.93	0.00
8,651.0	90.20	182.20	6,381.4	-1,814.2	1,265.5	2,090.3	1.04	0.47	0.93
8,694.0	90.10	181.30	6,381.3	-1,857.2	1,264.2	2,131.3	2.11	-0.23	-2.09
8,736.0	90.90	182.40	6,380.9	-1,899.2	1,262.8	2,171.4	3.24	1.90	2.62

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Well:	Antelope U-Y-17HNB	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,779.0	91.50	181.10	6,380.0	-1,942.2	1,261.5	2,212.4	3.33	1.40	-3.02
8,822.0	91.50	181.00	6,378.9	-1,985.1	1,260.7	2,253.5	0.23	0.00	-0.23
8,865.0	91.10	179.70	6,377.9	-2,028.1	1,260.5	2,294.8	3.16	-0.93	-3.02
8,908.0	91.60	180.40	6,376.9	-2,071.1	1,260.4	2,336.1	2.00	1.16	1.63
8,951.0	90.10	179.60	6,376.2	-2,114.1	1,260.4	2,377.5	3.95	-3.49	-1.86
8,993.0	89.30	179.20	6,376.5	-2,156.1	1,260.9	2,418.0	2.13	-1.90	-0.95
9,036.0	89.60	179.40	6,376.9	-2,199.1	1,261.4	2,459.5	0.84	0.70	0.47
9,079.0	90.80	179.40	6,376.7	-2,242.1	1,261.8	2,501.0	2.79	2.79	0.00
9,122.0	91.30	179.00	6,375.9	-2,285.1	1,262.4	2,542.6	1.49	1.16	-0.93
9,164.0	90.20	179.90	6,375.4	-2,327.1	1,262.8	2,583.1	3.38	-2.62	2.14
9,207.0	89.40	179.40	6,375.5	-2,370.1	1,263.1	2,624.5	2.19	-1.86	-1.16
9,250.0	89.80	179.20	6,375.8	-2,413.1	1,263.6	2,666.0	1.04	0.93	-0.47
9,293.0	90.10	179.40	6,375.9	-2,456.1	1,264.2	2,707.5	0.84	0.70	0.47
9,336.0	89.30	179.00	6,376.1	-2,499.1	1,264.8	2,749.1	2.08	-1.86	-0.93
9,378.0	89.90	179.00	6,376.4	-2,541.1	1,265.5	2,789.7	1.43	1.43	0.00
9,421.0	90.40	179.00	6,376.3	-2,584.1	1,266.2	2,831.3	1.16	1.16	0.00
9,464.0	91.00	179.00	6,375.7	-2,627.0	1,267.0	2,872.8	1.40	1.40	0.00
9,507.0	90.10	179.20	6,375.3	-2,670.0	1,267.7	2,914.4	2.14	-2.09	0.47
9,549.0	90.70	179.60	6,375.0	-2,712.0	1,268.1	2,954.9	1.72	1.43	0.95
9,592.0	90.00	180.80	6,374.8	-2,755.0	1,268.0	2,996.2	3.23	-1.63	2.79
9,635.0	89.60	181.80	6,374.9	-2,798.0	1,267.0	3,037.3	2.50	-0.93	2.33
9,678.0	90.00	182.40	6,375.1	-2,841.0	1,265.4	3,078.2	1.68	0.93	1.40
9,721.0	90.50	182.40	6,374.9	-2,884.0	1,263.6	3,119.1	1.16	1.16	0.00
9,763.0	89.10	182.70	6,375.0	-2,925.9	1,261.7	3,159.0	3.41	-3.33	0.71
9,806.0	89.80	182.90	6,375.4	-2,968.9	1,259.6	3,199.7	1.69	1.63	0.47
9,849.0	89.10	183.20	6,375.9	-3,011.8	1,257.3	3,240.4	1.77	-1.63	0.70
9,892.0	89.70	183.10	6,376.3	-3,054.7	1,255.0	3,281.1	1.41	1.40	-0.23
9,934.0	88.60	183.20	6,376.9	-3,096.7	1,252.7	3,320.8	2.63	-2.62	0.24
9,977.0	89.30	182.20	6,377.7	-3,139.6	1,250.7	3,361.5	2.84	1.63	-2.33
10,020.0	89.60	181.50	6,378.1	-3,182.6	1,249.3	3,402.5	1.77	0.70	-1.63
10,063.0	90.30	181.10	6,378.2	-3,225.6	1,248.3	3,443.6	1.87	1.63	-0.93
10,105.0	91.10	181.50	6,377.7	-3,267.6	1,247.3	3,483.8	2.13	1.90	0.95
10,148.0	91.70	181.50	6,376.6	-3,310.5	1,246.2	3,524.8	1.40	1.40	0.00
10,191.0	89.70	181.10	6,376.1	-3,353.5	1,245.2	3,565.9	4.74	-4.65	-0.93
10,234.0	89.70	181.80	6,376.3	-3,396.5	1,244.1	3,607.0	1.63	0.00	1.63
10,276.0	91.30	182.50	6,375.9	-3,438.5	1,242.6	3,646.9	4.16	3.81	1.67
10,319.0	90.80	182.40	6,375.2	-3,481.4	1,240.7	3,687.7	1.19	-1.16	-0.23
10,362.0	91.40	182.50	6,374.3	-3,524.4	1,238.9	3,728.6	1.41	1.40	0.23
10,405.0	91.20	181.10	6,373.4	-3,567.3	1,237.5	3,769.5	3.29	-0.47	-3.26
10,448.0	90.40	181.00	6,372.8	-3,610.3	1,236.8	3,810.7	1.87	-1.86	-0.23
10,490.0	89.60	181.80	6,372.8	-3,652.3	1,235.7	3,850.8	2.69	-1.90	1.90
10,533.0	90.20	181.50	6,372.8	-3,695.3	1,234.5	3,891.8	1.56	1.40	-0.70
10,576.0	90.10	181.80	6,372.7	-3,738.3	1,233.3	3,932.8	0.74	-0.23	0.70
10,621.0	89.00	181.50	6,373.1	-3,783.3	1,232.0	3,975.8	2.53	-2.44	-0.67
10,665.0	89.40	181.00	6,373.7	-3,827.2	1,231.0	4,017.8	1.46	0.91	-1.14
10,710.0	88.30	181.80	6,374.6	-3,872.2	1,229.9	4,060.8	3.02	-2.44	1.78
10,755.0	88.70	182.20	6,375.8	-3,917.2	1,228.3	4,103.6	1.26	0.89	0.89
10,800.0	89.10	181.80	6,376.6	-3,962.1	1,226.8	4,146.5	1.26	0.89	-0.89
10,844.0	89.30	181.30	6,377.2	-4,006.1	1,225.6	4,188.5	1.22	0.45	-1.14
10,889.0	90.00	181.80	6,377.5	-4,051.1	1,224.4	4,231.4	1.91	1.56	1.11
10,934.0	90.70	181.80	6,377.2	-4,096.1	1,222.9	4,274.3	1.56	1.56	0.00
10,979.0	91.50	181.30	6,376.4	-4,141.0	1,221.7	4,317.2	2.10	1.78	-1.11
11,024.0	89.80	181.80	6,375.9	-4,186.0	1,220.5	4,360.2	3.94	-3.78	1.11
11,081.0	91.20	182.00	6,375.4	-4,243.0	1,218.6	4,414.5	2.48	2.46	0.35

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well Antelope U-Y-17HNB
Project:	SEC.17-T5N-R62W	TVD Reference:	WELL @ 4707.0ft (Ensign 136 RKB - 13')
Site:	Antelope P-17 Pad Sec.17-T5N-R62W	MD Reference:	WELL @ 4707.0ft (Ensign 136 RKB - 13')
Well:	Antelope U-Y-17HNB	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
11,136.0	91.20	182.00	6,374.2	-4,297.9	1,216.7	4,466.8	0.00	0.00	0.00
BHL 470'FSL & 40'FEL									

Checked By: _____ Approved By: _____ Date: _____