

BONANZA CREEK ENERGY OPERATING

Well Name: **Antelope F-J-15HZ**

Surface Location: Antelope F-J-15HZ Pad Sec.15-T5N-R62W
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

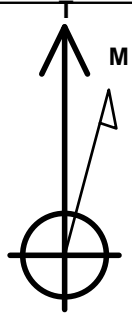
Ground Elevation: 4698.0

+N/-S +E/-W Northing Easting Latitude Longitude Slot
0.0 0.0 1392974.26 3330090.13 40.406060 -104.314660

Original Well Elev WELL @ 4710.0ft (Original Well Elev)

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
HARDLINE BH 460'FSL	1.0	-4448.2	344.8	Polygon
HARDLINE SH 460'FNL	1.0	-32.8	344.8	Polygon
BHL 460'FSL & 1320'FWL	6337.0	-4448.2	33.4	Point
T1 460'FNL & 1320'FWL	6337.0	-32.8	144.8	Point



Azimuths to True North
Magnetic North: 8.48°

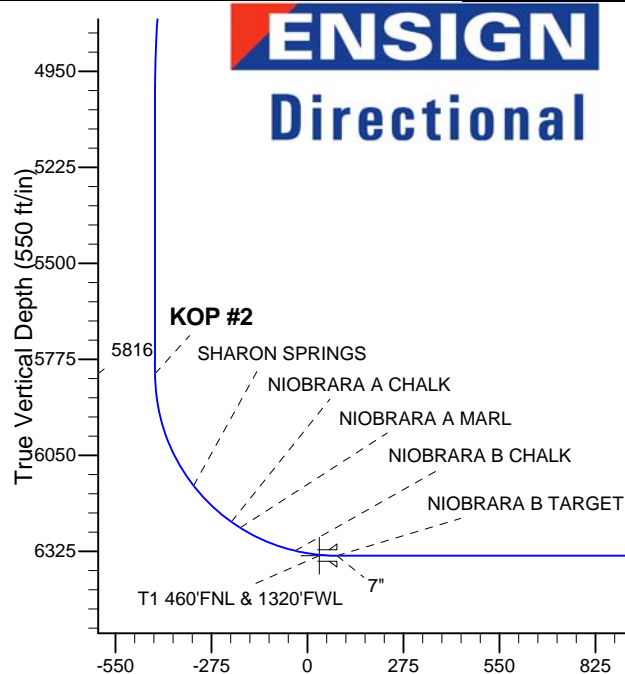
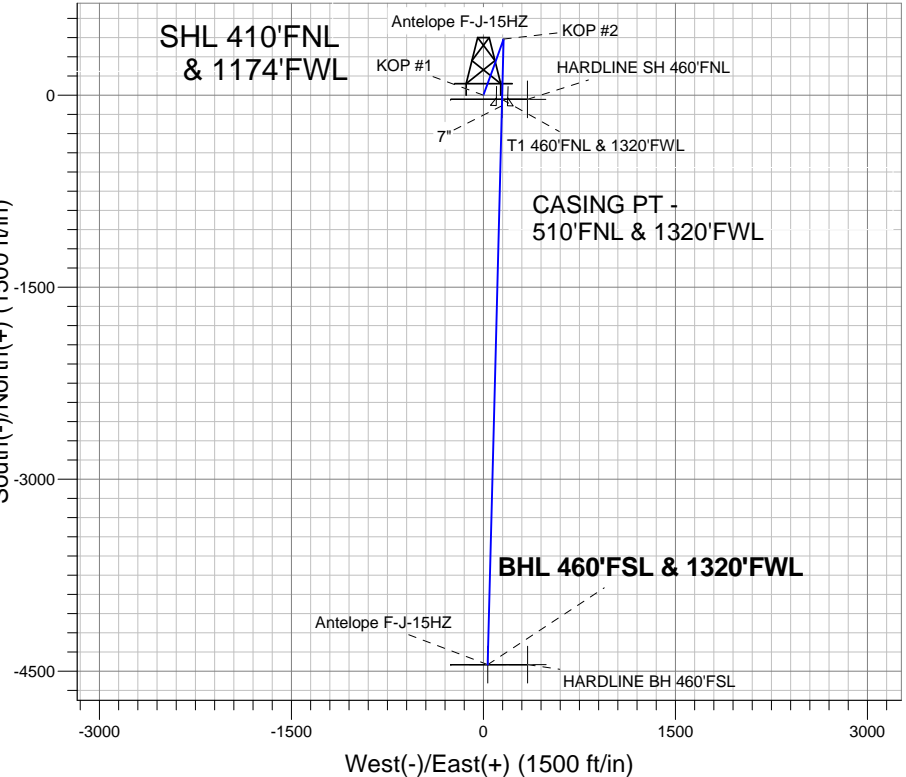
Magnetic Field
Strength: 53072.3srT
Dip Angle: 67.09°
Date: 7/3/2012
Model: IGRF2010

Antelope F-J-15HZ Pad Sec.15-T5N-R62W
Antelope F-J-15HZ
Plan #2 (JULY 10, 2012)
9:02, July 11 2012

ANNOTATIONS

TVD	MD	Annotation
1300.0	1300.0	KOP #1
5816.1	5847.5	KOP #2

South(-)/North(+) (1500 ft/in)



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1300.0	0.00	0.00	1300.0	0.0	0.0	0.00	0.00	0.0	
3	1701.8	8.04	19.85	1700.5	26.5	9.6	2.00	19.85	-26.4	
4	4629.6	8.04	19.85	4599.5	411.4	148.5	0.00	0.00	-410.3	
5	5031.4	0.00	0.00	5000.0	437.9	158.1	2.00	180.00	-436.7	
6	5847.5	0.00	0.00	5816.1	437.9	158.1	0.00	0.00	-436.7	
7	6665.7	90.00	181.46	6337.0	-82.8	144.8	11.00	181.46	83.9	
8	11032.6	90.00	181.46	6337.0	-4448.2	33.4	0.00	0.00	4448.4	BHL 460'FSL & 1320'FWL

BHL 460'FSL & 1320'FWL

Vertical Section at 179.57° (550 ft/in)



BONANZA CREEK ENERGY OPERATING

SEC.15-T5N-R62W

Antelope F-J-15HZ Pad Sec.15-T5N-R62W

Antelope F-J-15HZ

Wellbore #1

Plan: Plan #2 (JULY 10, 2012)

Standard Planning Report

11 July, 2012

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,701.8	8.04	19.85	1,700.5	26.5	9.6	2.00	2.00	0.00	19.85	
4,629.6	8.04	19.85	4,599.5	411.4	148.5	0.00	0.00	0.00	0.00	
5,031.4	0.00	0.00	5,000.0	437.9	158.1	2.00	-2.00	0.00	180.00	
5,847.5	0.00	0.00	5,816.1	437.9	158.1	0.00	0.00	0.00	0.00	
6,665.7	90.00	181.46	6,337.0	-82.8	144.8	11.00	11.00	0.00	181.46	
11,032.6	90.00	181.46	6,337.0	-4,448.2	33.4	0.00	0.00	0.00	0.00	BHL 460'FSL & 132

Database:	Landmark	Local Co-ordinate Reference:	Well Antelope F-J-15HZ
Company:	BONANZA CREEK ENERGY OPERATING	TVD Reference:	WELL @ 4710.0ft (Original Well Elev)
Project:	SEC.15-T5N-R62W	MD Reference:	WELL @ 4710.0ft (Original Well Elev)
Site:	Antelope F-J-15HZ Pad Sec.15-T5N-R62W	North Reference:	True
Well:	Antelope F-J-15HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 (JULY 10, 2012)		

Planned 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
1.0	0.00	0.00	1.0	0.0	0.0	0.0	0.00	0.00	0.00
HARDLINE SH 460'FNL - HARDLINE BH 460'FSL									
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP #1									
1,400.0	2.00	19.85	1,400.0	1.6	0.6	-1.6	2.00	2.00	0.00
1,500.0	4.00	19.85	1,499.8	6.6	2.4	-6.5	2.00	2.00	0.00
1,600.0	6.00	19.85	1,599.5	14.8	5.3	-14.7	2.00	2.00	0.00
1,700.0	8.00	19.85	1,698.7	26.2	9.5	-26.2	2.00	2.00	0.00
1,701.8	8.04	19.85	1,700.5	26.5	9.6	-26.4	2.00	2.00	0.00
1,800.0	8.04	19.85	1,797.7	39.4	14.2	-39.3	0.00	0.00	0.00
1,900.0	8.04	19.85	1,896.7	52.5	19.0	-52.4	0.00	0.00	0.00
2,000.0	8.04	19.85	1,995.8	65.7	23.7	-65.5	0.00	0.00	0.00
2,100.0	8.04	19.85	2,094.8	78.8	28.5	-78.6	0.00	0.00	0.00
2,200.0	8.04	19.85	2,193.8	92.0	33.2	-91.7	0.00	0.00	0.00
2,300.0	8.04	19.85	2,292.8	105.1	38.0	-104.8	0.00	0.00	0.00
2,400.0	8.04	19.85	2,391.8	118.3	42.7	-117.9	0.00	0.00	0.00
2,500.0	8.04	19.85	2,490.8	131.4	47.4	-131.1	0.00	0.00	0.00
2,600.0	8.04	19.85	2,589.9	144.6	52.2	-144.2	0.00	0.00	0.00
2,700.0	8.04	19.85	2,688.9	157.7	56.9	-157.3	0.00	0.00	0.00
2,800.0	8.04	19.85	2,787.9	170.9	61.7	-170.4	0.00	0.00	0.00
2,900.0	8.04	19.85	2,886.9	184.0	66.4	-183.5	0.00	0.00	0.00
3,000.0	8.04	19.85	2,985.9	197.2	71.2	-196.6	0.00	0.00	0.00
3,100.0	8.04	19.85	3,085.0	210.3	75.9	-209.7	0.00	0.00	0.00
3,200.0	8.04	19.85	3,184.0	223.5	80.7	-222.8	0.00	0.00	0.00
3,300.0	8.04	19.85	3,283.0	236.6	85.4	-236.0	0.00	0.00	0.00
3,400.0	8.04	19.85	3,382.0	249.8	90.2	-249.1	0.00	0.00	0.00
3,403.0	8.04	19.85	3,385.0	250.2	90.3	-249.5	0.00	0.00	0.00
PARKMAN									
3,500.0	8.04	19.85	3,481.0	262.9	94.9	-262.2	0.00	0.00	0.00
3,600.0	8.04	19.85	3,580.0	276.1	99.7	-275.3	0.00	0.00	0.00
3,700.0	8.04	19.85	3,679.1	289.2	104.4	-288.4	0.00	0.00	0.00
3,800.0	8.04	19.85	3,778.1	302.4	109.2	-301.5	0.00	0.00	0.00
3,900.0	8.04	19.85	3,877.1	315.5	113.9	-314.6	0.00	0.00	0.00
3,983.7	8.04	19.85	3,960.0	326.5	117.9	-325.6	0.00	0.00	0.00
SUSSEX									
4,000.0	8.04	19.85	3,976.1	328.7	118.7	-327.8	0.00	0.00	0.00
4,100.0	8.04	19.85	4,075.1	341.8	123.4	-340.9	0.00	0.00	0.00
4,200.0	8.04	19.85	4,174.2	355.0	128.2	-354.0	0.00	0.00	0.00
4,300.0	8.04	19.85	4,273.2	368.1	132.9	-367.1	0.00	0.00	0.00
4,400.0	8.04	19.85	4,372.2	381.3	137.6	-380.2	0.00	0.00	0.00
4,500.0	8.04	19.85	4,471.2	394.4	142.4	-393.3	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Antelope F-J-15HZ
Company:	BONANZA CREEK ENERGY OPERATING	TVD Reference:	WELL @ 4710.0ft (Original Well Elev)
Project:	SEC.15-T5N-R62W	MD Reference:	WELL @ 4710.0ft (Original Well Elev)
Site:	Antelope F-J-15HZ Pad Sec.15-T5N-R62W	North Reference:	True
Well:	Antelope F-J-15HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 (JULY 10, 2012)		

Planned 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)
4,600.0	8.04	19.85	4,570.2	407.6	147.1	-406.4	0.00	0.00	0.00
4,629.6	8.04	19.85	4,599.5	411.4	148.5	-410.3	0.00	0.00	0.00
4,700.0	6.63	19.85	4,669.4	419.9	151.6	-418.7	2.00	-2.00	0.00
4,800.0	4.63	19.85	4,768.9	429.1	154.9	-427.9	2.00	-2.00	0.00
4,900.0	2.63	19.85	4,868.7	435.1	157.1	-433.9	2.00	-2.00	0.00
5,000.0	0.63	19.85	4,968.6	437.7	158.0	-436.5	2.00	-2.00	0.00
5,031.4	0.00	0.00	5,000.0	437.9	158.1	-436.7	2.00	-2.00	0.00
5,100.0	0.00	0.00	5,068.6	437.9	158.1	-436.7	0.00	0.00	0.00
5,200.0	0.00	0.00	5,168.6	437.9	158.1	-436.7	0.00	0.00	0.00
5,300.0	0.00	0.00	5,268.6	437.9	158.1	-436.7	0.00	0.00	0.00
5,400.0	0.00	0.00	5,368.6	437.9	158.1	-436.7	0.00	0.00	0.00
5,500.0	0.00	0.00	5,468.6	437.9	158.1	-436.7	0.00	0.00	0.00
5,600.0	0.00	0.00	5,568.6	437.9	158.1	-436.7	0.00	0.00	0.00
5,700.0	0.00	0.00	5,668.6	437.9	158.1	-436.7	0.00	0.00	0.00
5,800.0	0.00	0.00	5,768.6	437.9	158.1	-436.7	0.00	0.00	0.00
5,847.5	0.00	0.00	5,816.1	437.9	158.1	-436.7	0.00	0.00	0.00
KOP #2									
5,900.0	5.77	181.46	5,868.5	435.3	158.0	-434.1	11.00	11.00	0.00
6,000.0	16.77	181.46	5,966.4	415.7	157.5	-414.5	11.00	11.00	0.00
6,100.0	27.77	181.46	6,058.8	377.9	156.6	-376.7	11.00	11.00	0.00
6,193.2	38.03	181.46	6,137.0	327.4	155.3	-326.2	11.00	11.00	0.00
SHARON SPRINGS									
6,200.0	38.77	181.46	6,142.3	323.2	155.2	-322.0	11.00	11.00	0.00
6,300.0	49.77	181.46	6,213.8	253.5	153.4	-252.3	11.00	11.00	0.00
6,342.7	54.47	181.46	6,240.0	219.8	152.5	-218.7	11.00	11.00	0.00
NIORARA A CHALK									
6,373.2	57.82	181.46	6,257.0	194.5	151.9	-193.3	11.00	11.00	0.00
NIORARA A MARL									
6,400.0	60.77	181.46	6,270.7	171.4	151.3	-170.3	11.00	11.00	0.00
6,500.0	71.77	181.46	6,310.9	80.1	149.0	-78.9	11.00	11.00	0.00
6,544.7	76.69	181.46	6,323.0	37.1	147.9	-36.0	11.00	11.00	0.00
NIORARA B CHALK									
6,600.0	82.77	181.46	6,332.9	-17.3	146.5	18.4	11.00	11.00	0.00
6,615.8	84.51	181.46	6,334.6	-33.0	146.1	34.1	11.00	11.00	0.00
T1 460°FNL & 1320°FNL									
6,665.7	90.00	181.46	6,337.0	-82.8	144.8	83.9	11.00	11.00	0.00
NIORARA B TARGET - 7"									
6,700.0	90.00	181.46	6,337.0	-117.1	143.9	118.2	0.00	0.00	0.00
6,800.0	90.00	181.46	6,337.0	-217.1	141.4	218.1	0.00	0.00	0.00
6,900.0	90.00	181.46	6,337.0	-317.0	138.8	318.1	0.00	0.00	0.00
7,000.0	90.00	181.46	6,337.0	-417.0	136.3	418.0	0.00	0.00	0.00
7,100.0	90.00	181.46	6,337.0	-517.0	133.7	518.0	0.00	0.00	0.00
7,200.0	90.00	181.46	6,337.0	-616.9	131.2	617.9	0.00	0.00	0.00
7,300.0	90.00	181.46	6,337.0	-716.9	128.6	717.8	0.00	0.00	0.00
7,400.0	90.00	181.46	6,337.0	-816.9	126.1	817.8	0.00	0.00	0.00
7,500.0	90.00	181.46	6,337.0	-916.8	123.5	917.7	0.00	0.00	0.00
7,600.0	90.00	181.46	6,337.0	-1,016.8	121.0	1,017.7	0.00	0.00	0.00
7,700.0	90.00	181.46	6,337.0	-1,116.8	118.4	1,117.6	0.00	0.00	0.00
7,800.0	90.00	181.46	6,337.0	-1,216.7	115.9	1,217.6	0.00	0.00	0.00
7,900.0	90.00	181.46	6,337.0	-1,316.7	113.3	1,317.5	0.00	0.00	0.00
8,000.0	90.00	181.46	6,337.0	-1,416.7	110.8	1,417.5	0.00	0.00	0.00
8,100.0	90.00	181.46	6,337.0	-1,516.6	108.2	1,517.4	0.00	0.00	0.00
8,200.0	90.00	181.46	6,337.0	-1,616.6	105.7	1,617.4	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Antelope F-J-15HZ
Company:	BONANZA CREEK ENERGY OPERATING	TVD Reference:	WELL @ 4710.0ft (Original Well Elev)
Project:	SEC.15-T5N-R62W	MD Reference:	WELL @ 4710.0ft (Original Well Elev)
Site:	Antelope F-J-15HZ Pad Sec.15-T5N-R62W	North Reference:	True
Well:	Antelope F-J-15HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 (JULY 10, 2012)		

Planned 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)
8,300.0	90.00	181.46	6,337.0	-1,716.6	103.1	1,717.3	0.00	0.00	0.00
8,400.0	90.00	181.46	6,337.0	-1,816.5	100.6	1,817.2	0.00	0.00	0.00
8,500.0	90.00	181.46	6,337.0	-1,916.5	98.0	1,917.2	0.00	0.00	0.00
8,600.0	90.00	181.46	6,337.0	-2,016.5	95.5	2,017.1	0.00	0.00	0.00
8,700.0	90.00	181.46	6,337.0	-2,116.4	92.9	2,117.1	0.00	0.00	0.00
8,800.0	90.00	181.46	6,337.0	-2,216.4	90.4	2,217.0	0.00	0.00	0.00
8,900.0	90.00	181.46	6,337.0	-2,316.4	87.8	2,317.0	0.00	0.00	0.00
9,000.0	90.00	181.46	6,337.0	-2,416.3	85.3	2,416.9	0.00	0.00	0.00
9,100.0	90.00	181.46	6,337.0	-2,516.3	82.7	2,516.9	0.00	0.00	0.00
9,200.0	90.00	181.46	6,337.0	-2,616.3	80.2	2,616.8	0.00	0.00	0.00
9,300.0	90.00	181.46	6,337.0	-2,716.2	77.6	2,716.8	0.00	0.00	0.00
9,400.0	90.00	181.46	6,337.0	-2,816.2	75.1	2,816.7	0.00	0.00	0.00
9,500.0	90.00	181.46	6,337.0	-2,916.2	72.5	2,916.6	0.00	0.00	0.00
9,600.0	90.00	181.46	6,337.0	-3,016.2	70.0	3,016.6	0.00	0.00	0.00
9,700.0	90.00	181.46	6,337.0	-3,116.1	67.4	3,116.5	0.00	0.00	0.00
9,800.0	90.00	181.46	6,337.0	-3,216.1	64.9	3,216.5	0.00	0.00	0.00
9,900.0	90.00	181.46	6,337.0	-3,316.1	62.3	3,316.4	0.00	0.00	0.00
10,000.0	90.00	181.46	6,337.0	-3,416.0	59.8	3,416.4	0.00	0.00	0.00
10,100.0	90.00	181.46	6,337.0	-3,516.0	57.2	3,516.3	0.00	0.00	0.00
10,200.0	90.00	181.46	6,337.0	-3,616.0	54.7	3,616.3	0.00	0.00	0.00
10,300.0	90.00	181.46	6,337.0	-3,715.9	52.1	3,716.2	0.00	0.00	0.00
10,400.0	90.00	181.46	6,337.0	-3,815.9	49.6	3,816.2	0.00	0.00	0.00
10,500.0	90.00	181.46	6,337.0	-3,915.9	47.0	3,916.1	0.00	0.00	0.00
10,600.0	90.00	181.46	6,337.0	-4,015.8	44.5	4,016.0	0.00	0.00	0.00
10,700.0	90.00	181.46	6,337.0	-4,115.8	41.9	4,116.0	0.00	0.00	0.00
10,800.0	90.00	181.46	6,337.0	-4,215.8	39.4	4,215.9	0.00	0.00	0.00
10,900.0	90.00	181.46	6,337.0	-4,315.7	36.8	4,315.9	0.00	0.00	0.00
11,000.0	90.00	181.46	6,337.0	-4,415.7	34.3	4,415.8	0.00	0.00	0.00
11,032.6	90.00	181.46	6,337.0	-4,448.2	33.4	4,448.4	0.00	0.00	0.00
BHL 460'FSL & 1320'FWL									

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
HARDLINE SH 460'F\	0.00	0.00	1.0	-32.8	344.8	1,392,946.07	3,330,435.32	40.405970	-104.313422
- plan misses target center by 346.4ft at 1.0ft MD (1.0 TVD, 0.0 N, 0.0 E)									
- Polygon									
Point 1			1.0	0.0	0.0	1,392,946.07	3,330,435.32		
Point 2			1.0	0.0	-600.0	1,392,938.05	3,329,835.40		
T1 460'FNL & 1320'F\	0.00	0.00	6,337.0	-32.8	144.8	1,392,943.42	3,330,235.36	40.405970	-104.314140
- plan misses target center by 2.7ft at 6615.8ft MD (6334.6 TVD, -33.0 N, 146.1 E)									
- Point									
HARDLINE BH 460'F\	0.00	0.00	1.0	-4,448.2	344.8	1,388,531.25	3,330,494.34	40.393850	-104.313422
- plan misses target center by 4461.5ft at 1.0ft MD (1.0 TVD, 0.0 N, 0.0 E)									
- Polygon									
Point 1			1.0	0.0	0.0	1,388,531.25	3,330,494.34		
Point 2			1.0	0.0	-600.0	1,388,523.23	3,329,894.41		
BHL 460'FSL & 1320'I	0.00	0.00	6,337.0	-4,448.2	33.4	1,388,527.05	3,330,183.00	40.393850	-104.314540
- plan hits target center									
- Point									

Database:	Landmark	Local Co-ordinate Reference:	Well Antelope F-J-15HZ
Company:	BONANZA CREEK ENERGY OPERATING	TVD Reference:	WELL @ 4710.0ft (Original Well Elev)
Project:	SEC.15-T5N-R62W	MD Reference:	WELL @ 4710.0ft (Original Well Elev)
Site:	Antelope F-J-15HZ Pad Sec.15-T5N-R62W	North Reference:	True
Well:	Antelope F-J-15HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 (JULY 10, 2012)		

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
6,665.7	6,337.0	7"	7	7-1/2	

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,403.0	3,385.0	PARKMAN		0.00		
3,983.7	3,960.0	SUSSEX		0.00		
6,193.2	6,137.0	SHARON SPRINGS		0.00		
6,342.7	6,240.0	NIOBRARA A CHALK		0.00		
6,373.2	6,257.0	NIOBRARA A MARL		0.00		
6,544.7	6,323.0	NIOBRARA B CHALK		0.00		
6,665.7	6,337.0	NIOBRARA B TARGET		0.00		

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
1,300.0	1,300.0	0.0	0.0	KOP #1	
5,847.5	5,816.1	437.9	158.1	KOP #2	