

BONANZA CREEK ENERGY OPERATING

Well Name: **ANTELOPE P-T-29HZ**

Surface Location: ANTELOPE P-T-29HZ PAD

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

Ground Elevation: 4640.0

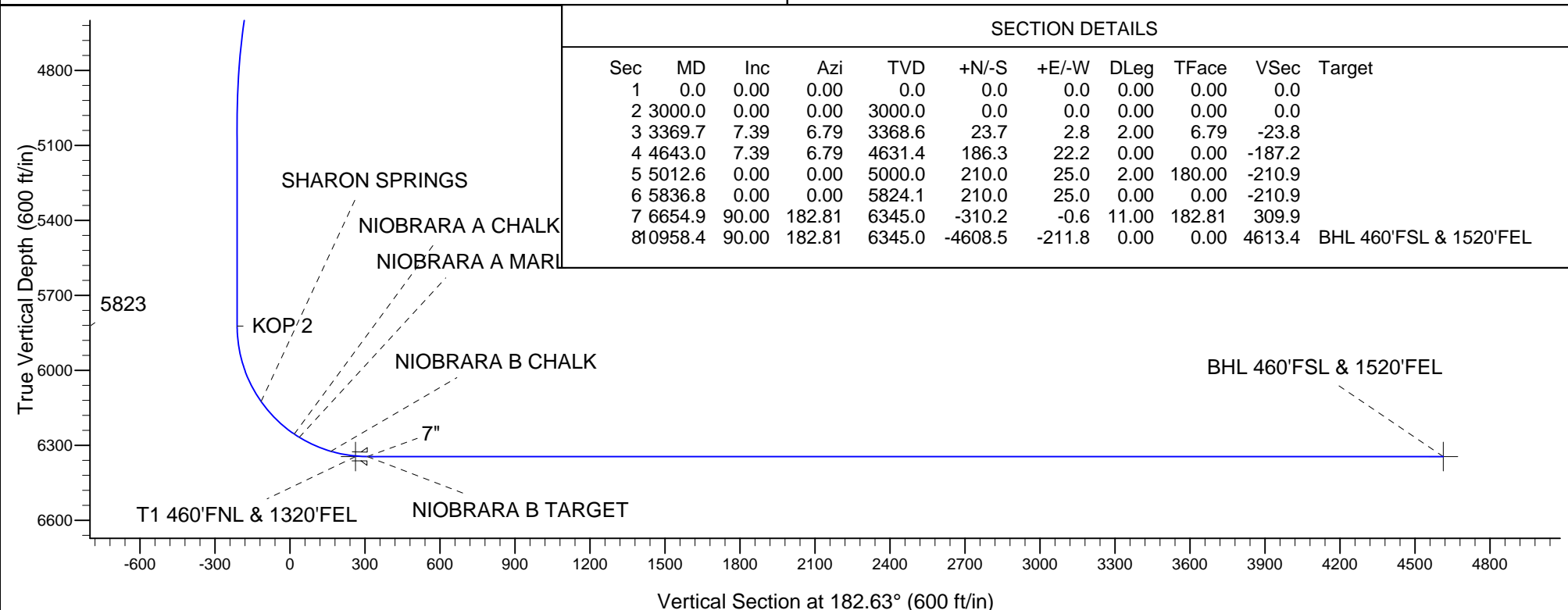
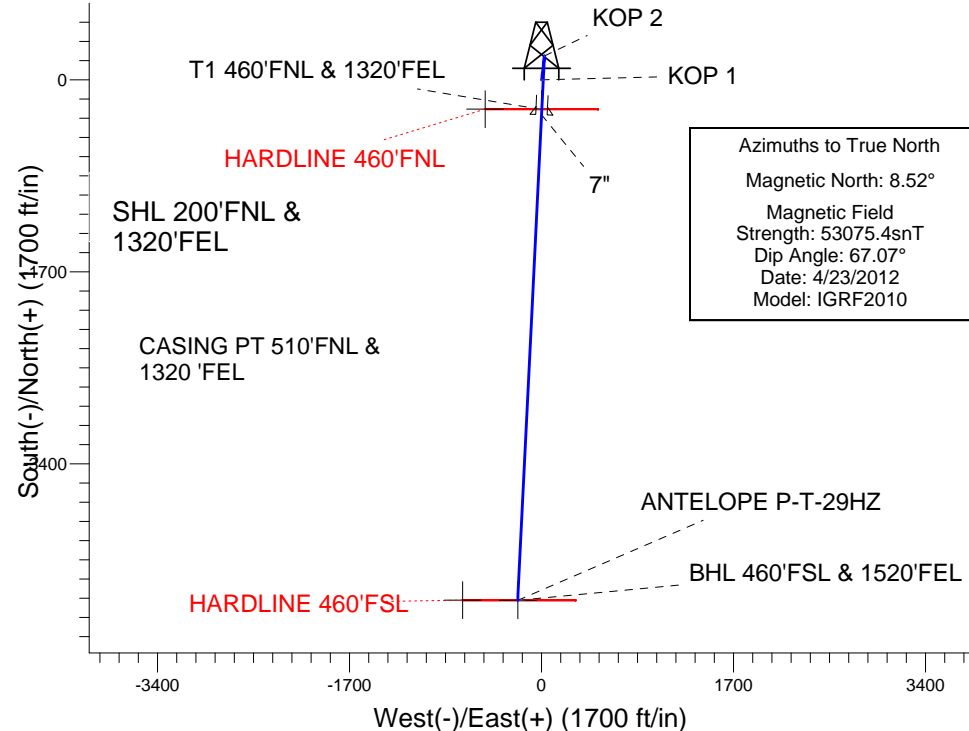
+N/-S+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1382408.59	3322354.54	40.377340	-104.342930

RIG 12 KB 15' RKB @ 4655.0ft (RIG 12 KB 15')

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
HARDLINE 460'FNL	2.0	-260.0	-500.0	40.376626	-104.344725	Polygon
HARDLINE 460'FSL	2.0	-4608.0	-700.0	40.364691	-104.345442	Polygon
BHL 460'FSL & 1520'FEL	6345.0	-4608.5	-211.8	40.364690	-104.343690	Point
T1 460'FNL & 1320'FEL	6345.0	-262.3	0.0	40.376620	-104.342930	Point

ANTELOPE P-T-29HZ PAD
ANTELOPE P-T-29HZ
PLAN 1 (APR 21, 2012)
9:33, April 23 2012





Directional

BONANZA CREEK ENERGY OPERATING

SEC.29-T5N-R62W

ANTELOPE P-T-29HZ PAD

ANTELOPE P-T-29HZ

Wellbore #1

Plan: PLAN 1 (APR 21, 2012)

Standard Planning Report

23 April, 2012

Database:	Landmark	Local Co-ordinate Reference:	Well ANTELOPE P-T-29HZ
Company:	BONANZA CREEK ENERGY OPERATING	TVD Reference:	RKB @ 4655.0ft (RIG 12 KB 15')
Project:	SEC.29-T5N-R62W	MD Reference:	RKB @ 4655.0ft (RIG 12 KB 15')
Site:	ANTELOPE P-T-29HZ PAD	North Reference:	True
Well:	ANTELOPE P-T-29HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PLAN 1 (APR 21, 2012)		

Project	SEC.29-T5N-R62W		
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

Well	ANTELOPE P-T-29HZ			
Well Position	+N/-S	0.0 ft	Northing:	1,382,408.59 ft
	+E/-W	0.0 ft	Easting:	3,322,354.54 ft
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft
			Latitude:	40.377340
			Longitude:	-104.342930
			Ground Level:	4,640.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	4/23/2012	8.52	67.07	53,075

Design	PLAN 1 (APR 21, 2012)			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	182.63

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	
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
3,369.7	7.39	6.79	3,368.6	23.7	2.8	2.00	2.00	0.00	6.79	
4,643.0	7.39	6.79	4,631.4	186.3	22.2	0.00	0.00	0.00	0.00	
5,012.6	0.00	0.00	5,000.0	210.0	25.0	2.00	-2.00	0.00	180.00	
5,836.8	0.00	0.00	5,824.1	210.0	25.0	0.00	0.00	0.00	0.00	
6,654.9	90.00	182.81	6,345.0	-310.2	-0.6	11.00	11.00	0.00	182.81	
10,958.4	90.00	182.81	6,345.0	-4,608.5	-211.8	0.00	0.00	0.00	0.00	BHL 460'FSL & 152

Database:	Landmark	Local Co-ordinate Reference:	Well ANTELOPE P-T-29HZ
Company:	BONANZA CREEK ENERGY OPERATING	TVD Reference:	RKB @ 4655.0ft (RIG 12 KB 15')
Project:	SEC.29-T5N-R62W	MD Reference:	RKB @ 4655.0ft (RIG 12 KB 15')
Site:	ANTELOPE P-T-29HZ PAD	North Reference:	True
Well:	ANTELOPE P-T-29HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PLAN 1 (APR 21, 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
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
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP 1									
3,100.0	2.00	6.79	3,100.0	1.7	0.2	-1.7	2.00	2.00	0.00
3,200.0	4.00	6.79	3,199.8	6.9	0.8	-7.0	2.00	2.00	0.00
3,300.0	6.00	6.79	3,299.5	15.6	1.9	-15.7	2.00	2.00	0.00
3,335.8	6.72	6.79	3,335.0	19.5	2.3	-19.6	2.00	2.00	0.00
PARKMAN									
3,369.7	7.39	6.79	3,368.6	23.7	2.8	-23.8	2.00	2.00	0.00
3,400.0	7.39	6.79	3,398.7	27.5	3.3	-27.6	0.00	0.00	0.00
3,500.0	7.39	6.79	3,497.9	40.3	4.8	-40.5	0.00	0.00	0.00
3,600.0	7.39	6.79	3,597.1	53.1	6.3	-53.3	0.00	0.00	0.00
3,700.0	7.39	6.79	3,696.2	65.9	7.8	-66.2	0.00	0.00	0.00
3,800.0	7.39	6.79	3,795.4	78.6	9.4	-79.0	0.00	0.00	0.00
3,900.0	7.39	6.79	3,894.6	91.4	10.9	-91.8	0.00	0.00	0.00
4,000.0	7.39	6.79	3,993.7	104.2	12.4	-104.7	0.00	0.00	0.00
4,066.8	7.39	6.79	4,060.0	112.7	13.4	-113.2	0.00	0.00	0.00
SUSSEX									
4,100.0	7.39	6.79	4,092.9	117.0	13.9	-117.5	0.00	0.00	0.00
4,200.0	7.39	6.79	4,192.1	129.7	15.4	-130.3	0.00	0.00	0.00
4,300.0	7.39	6.79	4,291.2	142.5	17.0	-143.2	0.00	0.00	0.00
4,400.0	7.39	6.79	4,390.4	155.3	18.5	-156.0	0.00	0.00	0.00
4,500.0	7.39	6.79	4,489.6	168.1	20.0	-168.8	0.00	0.00	0.00
4,600.0	7.39	6.79	4,588.7	180.9	21.5	-181.7	0.00	0.00	0.00

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Project:	SEC.29-T5N-R62W	MD Reference:	RKB @ 4655.0ft (RIG 12 KB 15')
Site:	ANTELOPE P-T-29HZ PAD	North Reference:	True
Well:	ANTELOPE P-T-29HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PLAN 1 (APR 21, 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)
4,643.0	7.39	6.79	4,631.4	186.3	22.2	-187.2	0.00	0.00	0.00
4,700.0	6.25	6.79	4,688.0	193.1	23.0	-193.9	2.00	-2.00	0.00
4,800.0	4.25	6.79	4,787.6	202.2	24.1	-203.1	2.00	-2.00	0.00
4,900.0	2.25	6.79	4,887.4	207.8	24.7	-208.7	2.00	-2.00	0.00
5,000.0	0.25	6.79	4,987.4	210.0	25.0	-210.9	2.00	-2.00	0.00
5,012.6	0.00	0.00	5,000.0	210.0	25.0	-210.9	2.00	-2.00	0.00
5,100.0	0.00	0.00	5,087.4	210.0	25.0	-210.9	0.00	0.00	0.00
5,200.0	0.00	0.00	5,187.4	210.0	25.0	-210.9	0.00	0.00	0.00
5,300.0	0.00	0.00	5,287.4	210.0	25.0	-210.9	0.00	0.00	0.00
5,400.0	0.00	0.00	5,387.4	210.0	25.0	-210.9	0.00	0.00	0.00
5,500.0	0.00	0.00	5,487.4	210.0	25.0	-210.9	0.00	0.00	0.00
5,600.0	0.00	0.00	5,587.4	210.0	25.0	-210.9	0.00	0.00	0.00
5,700.0	0.00	0.00	5,687.4	210.0	25.0	-210.9	0.00	0.00	0.00
5,800.0	0.00	0.00	5,787.4	210.0	25.0	-210.9	0.00	0.00	0.00
5,836.0	0.00	0.00	5,823.4	210.0	25.0	-210.9	0.00	0.00	0.00
KOP 2									
5,836.8	0.00	0.00	5,824.1	210.0	25.0	-210.9	0.00	0.00	0.00
5,900.0	6.96	182.81	5,887.2	206.2	24.8	-207.1	11.00	11.00	0.00
6,000.0	17.96	182.81	5,984.7	184.7	23.8	-185.6	11.00	11.00	0.00
6,100.0	28.96	182.81	6,076.3	145.0	21.8	-145.8	11.00	11.00	0.00
6,157.5	35.28	182.81	6,125.0	114.4	20.3	-115.2	11.00	11.00	0.00
SHARON SPRINGS									
6,200.0	39.96	182.81	6,158.6	88.5	19.0	-89.3	11.00	11.00	0.00
6,300.0	50.96	182.81	6,228.7	17.5	15.5	-18.2	11.00	11.00	0.00
6,344.2	55.81	182.81	6,255.0	-17.9	13.8	17.3	11.00	11.00	0.00
NIOBRARA A CHALK									
6,368.1	58.45	182.81	6,268.0	-38.0	12.8	37.4	11.00	11.00	0.00
NIOBRARA A MARL									
6,400.0	61.96	182.81	6,283.8	-65.7	11.5	65.1	11.00	11.00	0.00
6,500.0	72.96	182.81	6,322.1	-157.8	6.9	157.3	11.00	11.00	0.00
6,506.5	73.68	182.81	6,324.0	-164.0	6.6	163.5	11.00	11.00	0.00
NIOBRARA B CHALK									
6,600.0	83.96	182.81	6,342.1	-255.5	2.1	255.1	11.00	11.00	0.00
6,654.0	89.90	182.81	6,345.0	-309.3	-0.5	309.0	11.00	11.00	0.00
7"									
6,654.9	90.00	182.81	6,345.0	-310.2	-0.6	309.9	11.00	11.00	0.00
NIOBRARA B TARGET									
6,700.0	90.00	182.81	6,345.0	-355.2	-2.8	355.0	0.00	0.00	0.00
6,800.0	90.00	182.81	6,345.0	-455.1	-7.7	455.0	0.00	0.00	0.00
6,900.0	90.00	182.81	6,345.0	-555.0	-12.6	555.0	0.00	0.00	0.00
7,000.0	90.00	182.81	6,345.0	-654.9	-17.5	655.0	0.00	0.00	0.00
7,100.0	90.00	182.81	6,345.0	-754.8	-22.4	755.0	0.00	0.00	0.00
7,200.0	90.00	182.81	6,345.0	-854.6	-27.3	855.0	0.00	0.00	0.00
7,300.0	90.00	182.81	6,345.0	-954.5	-32.2	955.0	0.00	0.00	0.00
7,400.0	90.00	182.81	6,345.0	-1,054.4	-37.1	1,055.0	0.00	0.00	0.00
7,500.0	90.00	182.81	6,345.0	-1,154.3	-42.0	1,155.0	0.00	0.00	0.00
7,600.0	90.00	182.81	6,345.0	-1,254.2	-47.0	1,255.0	0.00	0.00	0.00
7,700.0	90.00	182.81	6,345.0	-1,354.0	-51.9	1,355.0	0.00	0.00	0.00
7,800.0	90.00	182.81	6,345.0	-1,453.9	-56.8	1,455.0	0.00	0.00	0.00
7,900.0	90.00	182.81	6,345.0	-1,553.8	-61.7	1,555.0	0.00	0.00	0.00
8,000.0	90.00	182.81	6,345.0	-1,653.7	-66.6	1,655.0	0.00	0.00	0.00
8,100.0	90.00	182.81	6,345.0	-1,753.6	-71.5	1,755.0	0.00	0.00	0.00
8,200.0	90.00	182.81	6,345.0	-1,853.4	-76.4	1,855.0	0.00	0.00	0.00

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Project:	SEC.29-T5N-R62W	MD Reference:	RKB @ 4655.0ft (RIG 12 KB 15')
Site:	ANTELOPE P-T-29HZ PAD	North Reference:	True
Well:	ANTELOPE P-T-29HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PLAN 1 (APR 21, 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	182.81	6,345.0	-1,953.3	-81.3	1,955.0	0.00	0.00	0.00
8,400.0	90.00	182.81	6,345.0	-2,053.2	-86.2	2,055.0	0.00	0.00	0.00
8,500.0	90.00	182.81	6,345.0	-2,153.1	-91.1	2,155.0	0.00	0.00	0.00
8,600.0	90.00	182.81	6,345.0	-2,253.0	-96.0	2,255.0	0.00	0.00	0.00
8,700.0	90.00	182.81	6,345.0	-2,352.8	-100.9	2,355.0	0.00	0.00	0.00
8,800.0	90.00	182.81	6,345.0	-2,452.7	-105.8	2,455.0	0.00	0.00	0.00
8,900.0	90.00	182.81	6,345.0	-2,552.6	-110.8	2,555.0	0.00	0.00	0.00
9,000.0	90.00	182.81	6,345.0	-2,652.5	-115.7	2,655.0	0.00	0.00	0.00
9,100.0	90.00	182.81	6,345.0	-2,752.3	-120.6	2,755.0	0.00	0.00	0.00
9,200.0	90.00	182.81	6,345.0	-2,852.2	-125.5	2,855.0	0.00	0.00	0.00
9,300.0	90.00	182.81	6,345.0	-2,952.1	-130.4	2,955.0	0.00	0.00	0.00
9,400.0	90.00	182.81	6,345.0	-3,052.0	-135.3	3,055.0	0.00	0.00	0.00
9,500.0	90.00	182.81	6,345.0	-3,151.9	-140.2	3,155.0	0.00	0.00	0.00
9,600.0	90.00	182.81	6,345.0	-3,251.7	-145.1	3,255.0	0.00	0.00	0.00
9,700.0	90.00	182.81	6,345.0	-3,351.6	-150.0	3,355.0	0.00	0.00	0.00
9,800.0	90.00	182.81	6,345.0	-3,451.5	-154.9	3,455.0	0.00	0.00	0.00
9,900.0	90.00	182.81	6,345.0	-3,551.4	-159.8	3,555.0	0.00	0.00	0.00
10,000.0	90.00	182.81	6,345.0	-3,651.3	-164.7	3,655.0	0.00	0.00	0.00
10,100.0	90.00	182.81	6,345.0	-3,751.1	-169.7	3,755.0	0.00	0.00	0.00
10,200.0	90.00	182.81	6,345.0	-3,851.0	-174.6	3,855.0	0.00	0.00	0.00
10,300.0	90.00	182.81	6,345.0	-3,950.9	-179.5	3,955.0	0.00	0.00	0.00
10,400.0	90.00	182.81	6,345.0	-4,050.8	-184.4	4,055.0	0.00	0.00	0.00
10,500.0	90.00	182.81	6,345.0	-4,150.7	-189.3	4,155.0	0.00	0.00	0.00
10,600.0	90.00	182.81	6,345.0	-4,250.5	-194.2	4,255.0	0.00	0.00	0.00
10,700.0	90.00	182.81	6,345.0	-4,350.4	-199.1	4,355.0	0.00	0.00	0.00
10,800.0	90.00	182.81	6,345.0	-4,450.3	-204.0	4,455.0	0.00	0.00	0.00
10,900.0	90.00	182.81	6,345.0	-4,550.2	-208.9	4,555.0	0.00	0.00	0.00
10,958.4	90.00	182.81	6,345.0	-4,608.5	-211.8	4,613.4	0.00	0.00	0.00

Casing Points				
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
6,654.0	6,345.0	7"	7	8-3/4

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,335.8	3,335.0	PARKMAN		0.00	
4,066.8	4,060.0	SUSSEX		0.00	
6,157.5	6,125.0	SHARON SPRINGS		0.00	
6,344.2	6,255.0	NIOBRARA A CHALK		0.00	
6,368.1	6,268.0	NIOBRARA A MARL		0.00	
6,506.5	6,324.0	NIOBRARA B CHALK		0.00	
6,654.9	6,345.0	NIOBRARA B TARGET		0.00	
	6,353.0	NIOBRARA B MARL		0.00	
	6,402.0	NIOBRARA C CHALK		0.00	

Database:	Landmark	Local Co-ordinate Reference:	Well ANTELOPE P-T-29HZ
Company:	BONANZA CREEK ENERGY OPERATING	TVD Reference:	RKB @ 4655.0ft (RIG 12 KB 15')
Project:	SEC.29-T5N-R62W	MD Reference:	RKB @ 4655.0ft (RIG 12 KB 15')
Site:	ANTELOPE P-T-29HZ PAD	North Reference:	True
Well:	ANTELOPE P-T-29HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PLAN 1 (APR 21, 2012)		

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
3,000.0	3,000.0	0.0	0.0	KOP 1	
5,836.0	5,823.4	210.0	25.0	KOP 2	