

BONANZA CREEK ENERGY OPERATING

Well Name: **PRONGHORN 31-34-15HZ**

Surface Location: PRONGHORN 31-34-15HZ PAD 15-5N-61W
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

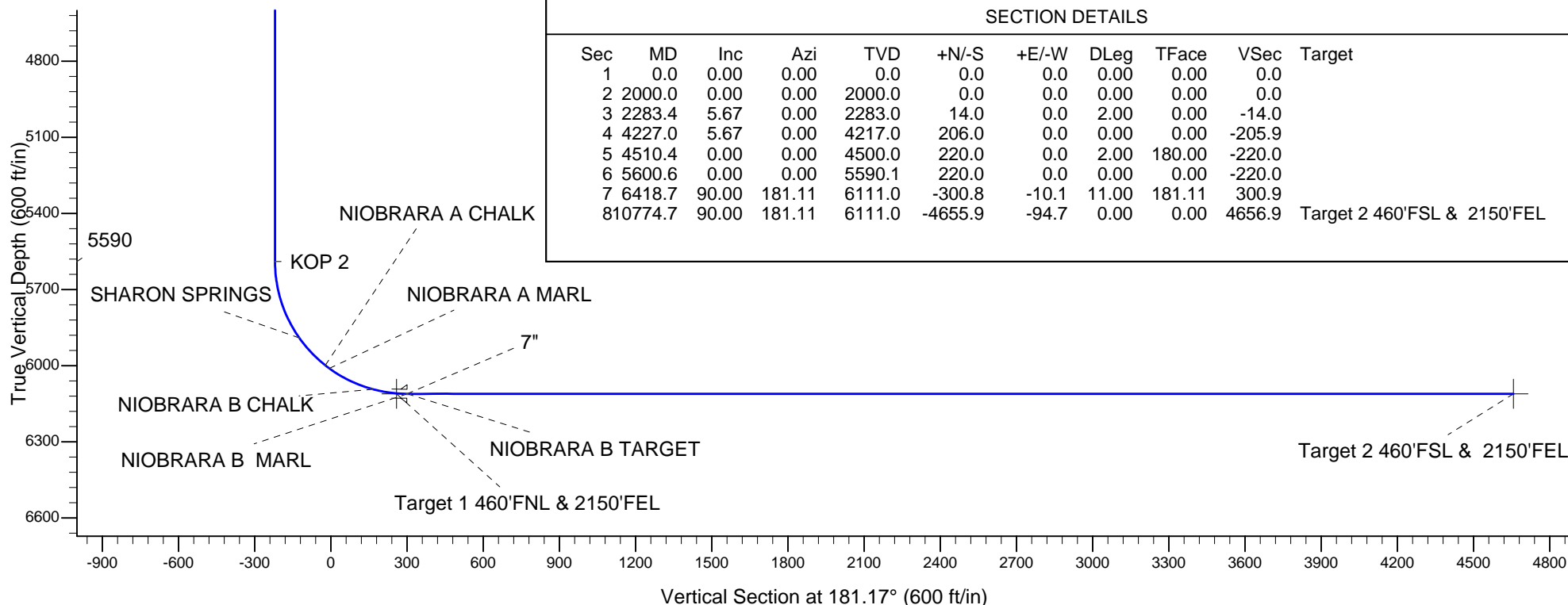
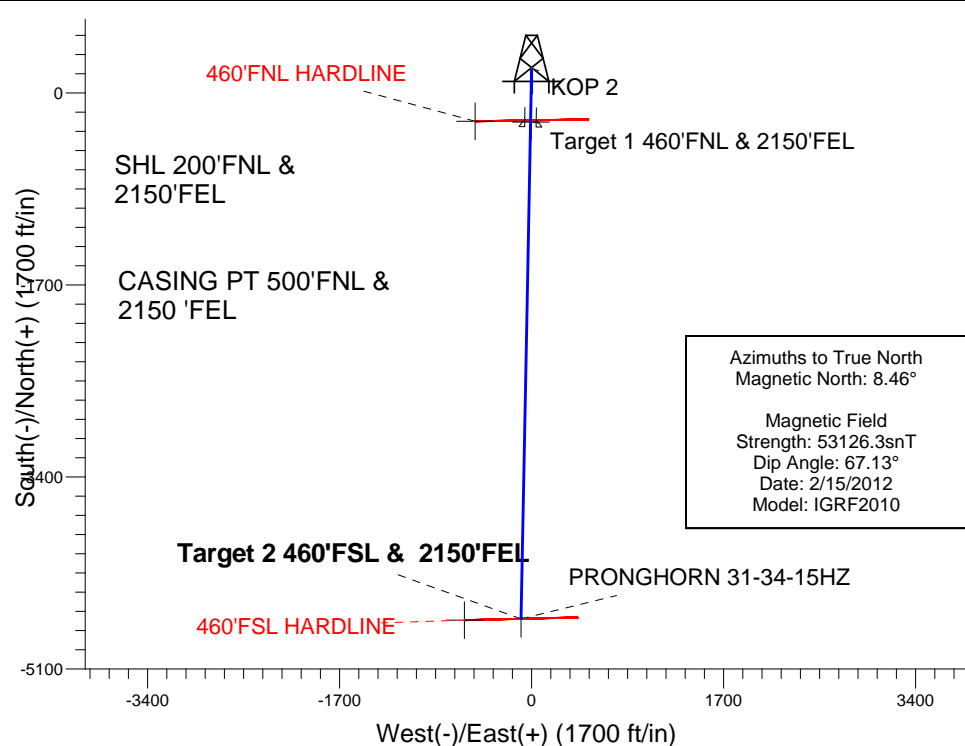
Ground Elevation: 4672.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1394099.13	3363982.82	40.407840	-104.192910	
KB 15' RKB @ 4687.0ft (KB 15')						

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
460'FNL HARDLINE	1.0	-251.3	-500.0	40.407150	-104.194705	Polygon
460'FSL HARDLINE	1.0	-4668.0	-595.0	40.395027	-104.195046	Polygon
Target 1 460'FNL & 2150'FEL	6111.0	-258.7	-5.6	40.407130	-104.192930	Point
Target 2 460'FSL & 2150'FEL	6111.0	-4655.9	-94.7	40.395060	-104.193250	Point

PRONGHORN 31-34-15HZ PAD 15-5N-61W
PRONGHORN 31-34-15HZ
PLAN 1 (FEB 15, 2012) PROG 12/12/11
11:47, February 15 2012



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	2000.0	0.00	0.00	2000.0	0.0	0.0	0.00	0.00	0.0	
3	2283.4	5.67	0.00	2283.0	14.0	0.0	2.00	0.00	-14.0	
4	4227.0	5.67	0.00	4217.0	206.0	0.0	0.00	0.00	-205.9	
5	4510.4	0.00	0.00	4500.0	220.0	0.0	2.00	180.00	-220.0	
6	5600.6	0.00	0.00	5590.1	220.0	0.0	0.00	0.00	-220.0	
7	6418.7	90.00	181.11	6111.0	-300.8	-10.1	11.00	181.11	300.9	
8	10774.7	90.00	181.11	6111.0	-4655.9	-94.7	0.00	0.00	4656.9	Target 2 460'FSL & 2150'FEL



Directional

BONANZA CREEK ENERGY OPERATING

SEC.15-T5N-R61W

PRONGHORN 31-34-15HZ PAD 15-5N-61W

PRONGHORN 31-34-15HZ

Wellbore #1

Plan: PLAN 1 (FEB 15, 2012) PROG 12/12/11

Standard Planning Report

15 February, 2012

Database:	Landmark	Local Co-ordinate Reference:	Well PRONGHORN 31-34-15HZ
Company:	BONANZA CREEK ENERGY OPERATING	TVD Reference:	RKB @ 4687.0ft (KB 15')
Project:	SEC.15-T5N-R61W	MD Reference:	RKB @ 4687.0ft (KB 15')
Site:	PRONGHORN 31-34-15HZ PAD 15-5N-61W	North Reference:	True
Well:	PRONGHORN 31-34-15HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PLAN 1 (FEB 15, 2012) PROG 12/12/11		

Project	SEC.15-T5N-R61W		
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						PRONGHORN 31-34-15HZ PAD 15-5N-61W											
Site Position:						Northing:			1,394,099.13 ft			Latitude:			40.407840		
From:			Lat/Long			Easting:			3,363,982.82 ft			Longitude:			-104.192910		
Position Uncertainty:			0.0 ft			Slot Radius:			"			Grid Convergence:			0.84 °		

Well	PRONGHORN 31-34-15HZ					
Well Position	+N-S	0.0 ft	Northing:	1,394,099.13 ft	Latitude:	40.407840
	+E-W	0.0 ft	Easting:	3,363,982.82 ft	Longitude:	-104.192910
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,672.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	2/15/2012	8.46	67.13	53,126

Design	PLAN 1 (FEB 15, 2012) PROG 12/12/11			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	181.17

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	
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,283.4	5.67	0.00	2,283.0	14.0	0.0	2.00	2.00	0.00	0.00	
4,227.0	5.67	0.00	4,217.0	206.0	0.0	0.00	0.00	0.00	0.00	
4,510.4	0.00	0.00	4,500.0	220.0	0.0	2.00	-2.00	0.00	180.00	
5,600.6	0.00	0.00	5,590.1	220.0	0.0	0.00	0.00	0.00	0.00	
6,418.7	90.00	181.11	6,111.0	-300.8	-10.1	11.00	11.00	0.00	181.11	
10,774.7	90.00	181.11	6,111.0	-4,655.9	-94.7	0.00	0.00	0.00	0.00	Target 2 460'FSL &

Database:	Landmark	Local Co-ordinate Reference:	Well PRONGHORN 31-34-15HZ
Company:	BONANZA CREEK ENERGY OPERATING	TVD Reference:	RKB @ 4687.0ft (KB 15')
Project:	SEC.15-T5N-R61W	MD Reference:	RKB @ 4687.0ft (KB 15')
Site:	PRONGHORN 31-34-15HZ PAD 15-5N-61W	North Reference:	True
Well:	PRONGHORN 31-34-15HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PLAN 1 (FEB 15, 2012) PROG 12/12/11		

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
460'FSL HARDLINE - 460'FNL HARDLINE									
50.0	0.00	0.00	50.0	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
150.0	0.00	0.00	150.0	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
250.0	0.00	0.00	250.0	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
350.0	0.00	0.00	350.0	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
450.0	0.00	0.00	450.0	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
550.0	0.00	0.00	550.0	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
650.0	0.00	0.00	650.0	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
750.0	0.00	0.00	750.0	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
850.0	0.00	0.00	850.0	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
950.0	0.00	0.00	950.0	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
1,050.0	0.00	0.00	1,050.0	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
1,150.0	0.00	0.00	1,150.0	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
1,250.0	0.00	0.00	1,250.0	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
1,350.0	0.00	0.00	1,350.0	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
1,450.0	0.00	0.00	1,450.0	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
1,550.0	0.00	0.00	1,550.0	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
1,650.0	0.00	0.00	1,650.0	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
1,750.0	0.00	0.00	1,750.0	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
1,850.0	0.00	0.00	1,850.0	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
1,950.0	0.00	0.00	1,950.0	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
KOP 1									
2,050.0	1.00	0.00	2,050.0	0.4	0.0	-0.4	2.00	2.00	0.00
2,100.0	2.00	0.00	2,100.0	1.7	0.0	-1.7	2.00	2.00	0.00
2,150.0	3.00	0.00	2,149.9	3.9	0.0	-3.9	2.00	2.00	0.00
2,200.0	4.00	0.00	2,199.8	7.0	0.0	-7.0	2.00	2.00	0.00
2,250.0	5.00	0.00	2,249.7	10.9	0.0	-10.9	2.00	2.00	0.00
2,283.4	5.67	0.00	2,283.0	14.0	0.0	-14.0	2.00	2.00	0.00
2,300.0	5.67	0.00	2,299.5	15.6	0.0	-15.6	0.00	0.00	0.00
2,350.0	5.67	0.00	2,349.2	20.6	0.0	-20.6	0.00	0.00	0.00
2,400.0	5.67	0.00	2,399.0	25.5	0.0	-25.5	0.00	0.00	0.00
2,450.0	5.67	0.00	2,448.7	30.5	0.0	-30.5	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well PRONGHORN 31-34-15HZ
Company:	BONANZA CREEK ENERGY OPERATING	TVD Reference:	RKB @ 4687.0ft (KB 15')
Project:	SEC.15-T5N-R61W	MD Reference:	RKB @ 4687.0ft (KB 15')
Site:	PRONGHORN 31-34-15HZ PAD 15-5N-61W	North Reference:	True
Well:	PRONGHORN 31-34-15HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PLAN 1 (FEB 15, 2012) PROG 12/12/11		

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)
2,500.0	5.67	0.00	2,498.5	35.4	0.0	-35.4	0.00	0.00	0.00
2,550.0	5.67	0.00	2,548.2	40.3	0.0	-40.3	0.00	0.00	0.00
2,600.0	5.67	0.00	2,598.0	45.3	0.0	-45.3	0.00	0.00	0.00
2,650.0	5.67	0.00	2,647.7	50.2	0.0	-50.2	0.00	0.00	0.00
2,700.0	5.67	0.00	2,697.5	55.2	0.0	-55.1	0.00	0.00	0.00
2,750.0	5.67	0.00	2,747.3	60.1	0.0	-60.1	0.00	0.00	0.00
2,800.0	5.67	0.00	2,797.0	65.0	0.0	-65.0	0.00	0.00	0.00
2,850.0	5.67	0.00	2,846.8	70.0	0.0	-70.0	0.00	0.00	0.00
2,900.0	5.67	0.00	2,896.5	74.9	0.0	-74.9	0.00	0.00	0.00
2,950.0	5.67	0.00	2,946.3	79.9	0.0	-79.8	0.00	0.00	0.00
3,000.0	5.67	0.00	2,996.0	84.8	0.0	-84.8	0.00	0.00	0.00
3,050.0	5.67	0.00	3,045.8	89.7	0.0	-89.7	0.00	0.00	0.00
3,100.0	5.67	0.00	3,095.5	94.7	0.0	-94.6	0.00	0.00	0.00
3,150.0	5.67	0.00	3,145.3	99.6	0.0	-99.6	0.00	0.00	0.00
3,200.0	5.67	0.00	3,195.1	104.5	0.0	-104.5	0.00	0.00	0.00
3,232.1	5.67	0.00	3,227.0	107.7	0.0	-107.7	0.00	0.00	0.00
PARKMAN									
3,250.0	5.67	0.00	3,244.8	109.5	0.0	-109.5	0.00	0.00	0.00
3,300.0	5.67	0.00	3,294.6	114.4	0.0	-114.4	0.00	0.00	0.00
3,350.0	5.67	0.00	3,344.3	119.4	0.0	-119.3	0.00	0.00	0.00
3,400.0	5.67	0.00	3,394.1	124.3	0.0	-124.3	0.00	0.00	0.00
3,450.0	5.67	0.00	3,443.8	129.2	0.0	-129.2	0.00	0.00	0.00
3,500.0	5.67	0.00	3,493.6	134.2	0.0	-134.2	0.00	0.00	0.00
3,550.0	5.67	0.00	3,543.3	139.1	0.0	-139.1	0.00	0.00	0.00
3,600.0	5.67	0.00	3,593.1	144.1	0.0	-144.0	0.00	0.00	0.00
3,650.0	5.67	0.00	3,642.9	149.0	0.0	-149.0	0.00	0.00	0.00
3,700.0	5.67	0.00	3,692.6	153.9	0.0	-153.9	0.00	0.00	0.00
3,750.0	5.67	0.00	3,742.4	158.9	0.0	-158.8	0.00	0.00	0.00
3,800.0	5.67	0.00	3,792.1	163.8	0.0	-163.8	0.00	0.00	0.00
3,850.0	5.67	0.00	3,841.9	168.8	0.0	-168.7	0.00	0.00	0.00
3,900.0	5.67	0.00	3,891.6	173.7	0.0	-173.7	0.00	0.00	0.00
3,950.0	5.67	0.00	3,941.4	178.6	0.0	-178.6	0.00	0.00	0.00
4,000.0	5.67	0.00	3,991.1	183.6	0.0	-183.5	0.00	0.00	0.00
4,050.0	5.67	0.00	4,040.9	188.5	0.0	-188.5	0.00	0.00	0.00
4,100.0	5.67	0.00	4,090.7	193.4	0.0	-193.4	0.00	0.00	0.00
4,150.0	5.67	0.00	4,140.4	198.4	0.0	-198.3	0.00	0.00	0.00
4,200.0	5.67	0.00	4,190.2	203.3	0.0	-203.3	0.00	0.00	0.00
4,227.0	5.67	0.00	4,217.0	206.0	0.0	-205.9	0.00	0.00	0.00
4,250.0	5.21	0.00	4,239.9	208.2	0.0	-208.1	2.00	-2.00	0.00
4,300.0	4.21	0.00	4,289.8	212.3	0.0	-212.2	2.00	-2.00	0.00
4,350.0	3.21	0.00	4,339.7	215.5	0.0	-215.5	2.00	-2.00	0.00
4,400.0	2.21	0.00	4,389.6	217.9	0.0	-217.8	2.00	-2.00	0.00
4,450.0	1.21	0.00	4,439.6	219.4	0.0	-219.3	2.00	-2.00	0.00
4,500.0	0.21	0.00	4,489.6	220.0	0.0	-219.9	2.00	-2.00	0.00
4,510.4	0.00	0.00	4,500.0	220.0	0.0	-220.0	2.00	-2.00	0.00
4,550.0	0.00	0.00	4,539.6	220.0	0.0	-220.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,589.6	220.0	0.0	-220.0	0.00	0.00	0.00
4,650.0	0.00	0.00	4,639.6	220.0	0.0	-220.0	0.00	0.00	0.00
4,700.0	0.00	0.00	4,689.6	220.0	0.0	-220.0	0.00	0.00	0.00
4,750.0	0.00	0.00	4,739.6	220.0	0.0	-220.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,789.6	220.0	0.0	-220.0	0.00	0.00	0.00
4,850.0	0.00	0.00	4,839.6	220.0	0.0	-220.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,889.6	220.0	0.0	-220.0	0.00	0.00	0.00
4,950.0	0.00	0.00	4,939.6	220.0	0.0	-220.0	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well PRONGHORN 31-34-15HZ
Company:	BONANZA CREEK ENERGY OPERATING	TVD Reference:	RKB @ 4687.0ft (KB 15')
Project:	SEC.15-T5N-R61W	MD Reference:	RKB @ 4687.0ft (KB 15')
Site:	PRONGHORN 31-34-15HZ PAD 15-5N-61W	North Reference:	True
Well:	PRONGHORN 31-34-15HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PLAN 1 (FEB 15, 2012) PROG 12/12/11		

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)
5,000.0	0.00	0.00	4,989.6	220.0	0.0	-220.0	0.00	0.00	0.00
5,050.0	0.00	0.00	5,039.6	220.0	0.0	-220.0	0.00	0.00	0.00
5,100.0	0.00	0.00	5,089.6	220.0	0.0	-220.0	0.00	0.00	0.00
5,150.0	0.00	0.00	5,139.6	220.0	0.0	-220.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,189.6	220.0	0.0	-220.0	0.00	0.00	0.00
5,250.0	0.00	0.00	5,239.6	220.0	0.0	-220.0	0.00	0.00	0.00
5,300.0	0.00	0.00	5,289.6	220.0	0.0	-220.0	0.00	0.00	0.00
5,350.0	0.00	0.00	5,339.6	220.0	0.0	-220.0	0.00	0.00	0.00
5,400.0	0.00	0.00	5,389.6	220.0	0.0	-220.0	0.00	0.00	0.00
5,450.0	0.00	0.00	5,439.6	220.0	0.0	-220.0	0.00	0.00	0.00
5,500.0	0.00	0.00	5,489.6	220.0	0.0	-220.0	0.00	0.00	0.00
5,550.0	0.00	0.00	5,539.6	220.0	0.0	-220.0	0.00	0.00	0.00
5,600.0	0.00	0.00	5,589.6	220.0	0.0	-220.0	0.00	0.00	0.00
KOP 2									
5,600.6	0.00	0.00	5,590.1	220.0	0.0	-220.0	0.00	0.00	0.00
5,650.0	5.44	181.11	5,639.5	217.7	0.0	-217.6	11.00	11.00	0.00
5,700.0	10.94	181.11	5,689.0	210.5	-0.2	-210.5	11.00	11.00	0.00
5,750.0	16.44	181.11	5,737.5	198.7	-0.4	-198.7	11.00	11.00	0.00
5,800.0	21.94	181.11	5,784.7	182.3	-0.7	-182.2	11.00	11.00	0.00
5,850.0	27.44	181.11	5,830.1	161.4	-1.1	-161.4	11.00	11.00	0.00
5,900.0	32.94	181.11	5,873.3	136.3	-1.6	-136.2	11.00	11.00	0.00
5,921.3	35.28	181.11	5,891.0	124.3	-1.9	-124.3	11.00	11.00	0.00
SHARON SPRINGS									
5,950.0	38.44	181.11	5,913.9	107.1	-2.2	-107.1	11.00	11.00	0.00
6,000.0	43.94	181.11	5,951.6	74.2	-2.8	-74.2	11.00	11.00	0.00
6,050.0	49.44	181.11	5,985.8	37.9	-3.5	-37.8	11.00	11.00	0.00
6,070.7	51.72	181.11	5,999.0	21.9	-3.8	-21.8	11.00	11.00	0.00
NIOBRARA A CHALK									
6,090.6	53.90	181.11	6,011.0	6.0	-4.2	-6.0	11.00	11.00	0.00
NIOBRARA A MARL									
6,100.0	54.94	181.11	6,016.5	-1.6	-4.3	1.7	11.00	11.00	0.00
6,150.0	60.44	181.11	6,043.2	-43.8	-5.1	43.9	11.00	11.00	0.00
6,200.0	65.94	181.11	6,065.7	-88.4	-6.0	88.5	11.00	11.00	0.00
6,250.0	71.44	181.11	6,083.9	-135.0	-6.9	135.1	11.00	11.00	0.00
6,281.4	74.89	181.11	6,093.0	-165.1	-7.5	165.2	11.00	11.00	0.00
NIOBRARA B CHALK									
6,300.0	76.94	181.11	6,097.5	-183.1	-7.8	183.2	11.00	11.00	0.00
6,350.0	82.44	181.11	6,106.5	-232.2	-8.8	232.4	11.00	11.00	0.00
6,376.6	85.37	181.11	6,109.3	-258.7	-9.3	258.9	11.00	11.00	0.00
Target 1 460'FNL & 2150'FEL									
6,400.0	87.94	181.11	6,110.7	-282.0	-9.8	282.2	11.00	11.00	0.00
6,418.0	89.92	181.11	6,111.0	-300.0	-10.1	300.2	11.00	11.00	0.00
7"									
6,418.7	90.00	181.11	6,111.0	-300.8	-10.1	300.9	11.00	11.00	0.00
NIOBRARA B TARGET - NIOBRARA B MARL									
6,450.0	90.00	181.11	6,111.0	-332.0	-10.7	332.2	0.00	0.00	0.00
6,500.0	90.00	181.11	6,111.0	-382.0	-11.7	382.2	0.00	0.00	0.00
6,550.0	90.00	181.11	6,111.0	-432.0	-12.7	432.2	0.00	0.00	0.00
6,600.0	90.00	181.11	6,111.0	-482.0	-13.6	482.2	0.00	0.00	0.00
6,650.0	90.00	181.11	6,111.0	-532.0	-14.6	532.2	0.00	0.00	0.00
6,700.0	90.00	181.11	6,111.0	-582.0	-15.6	582.2	0.00	0.00	0.00
6,750.0	90.00	181.11	6,111.0	-632.0	-16.5	632.2	0.00	0.00	0.00
6,800.0	90.00	181.11	6,111.0	-682.0	-17.5	682.2	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well PRONGHORN 31-34-15HZ
Company:	BONANZA CREEK ENERGY OPERATING	TVD Reference:	RKB @ 4687.0ft (KB 15')
Project:	SEC.15-T5N-R61W	MD Reference:	RKB @ 4687.0ft (KB 15')
Site:	PRONGHORN 31-34-15HZ PAD 15-5N-61W	North Reference:	True
Well:	PRONGHORN 31-34-15HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PLAN 1 (FEB 15, 2012) PROG 12/12/11		

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)
6,850.0	90.00	181.11	6,111.0	-732.0	-18.5	732.2	0.00	0.00	0.00
6,900.0	90.00	181.11	6,111.0	-781.9	-19.5	782.2	0.00	0.00	0.00
6,950.0	90.00	181.11	6,111.0	-831.9	-20.4	832.2	0.00	0.00	0.00
7,000.0	90.00	181.11	6,111.0	-881.9	-21.4	882.2	0.00	0.00	0.00
7,050.0	90.00	181.11	6,111.0	-931.9	-22.4	932.2	0.00	0.00	0.00
7,100.0	90.00	181.11	6,111.0	-981.9	-23.3	982.2	0.00	0.00	0.00
7,150.0	90.00	181.11	6,111.0	-1,031.9	-24.3	1,032.2	0.00	0.00	0.00
7,200.0	90.00	181.11	6,111.0	-1,081.9	-25.3	1,082.2	0.00	0.00	0.00
7,250.0	90.00	181.11	6,111.0	-1,131.9	-26.3	1,132.2	0.00	0.00	0.00
7,300.0	90.00	181.11	6,111.0	-1,181.9	-27.2	1,182.2	0.00	0.00	0.00
7,350.0	90.00	181.11	6,111.0	-1,231.9	-28.2	1,232.2	0.00	0.00	0.00
7,400.0	90.00	181.11	6,111.0	-1,281.8	-29.2	1,282.2	0.00	0.00	0.00
7,450.0	90.00	181.11	6,111.0	-1,331.8	-30.1	1,332.2	0.00	0.00	0.00
7,500.0	90.00	181.11	6,111.0	-1,381.8	-31.1	1,382.2	0.00	0.00	0.00
7,550.0	90.00	181.11	6,111.0	-1,431.8	-32.1	1,432.2	0.00	0.00	0.00
7,600.0	90.00	181.11	6,111.0	-1,481.8	-33.1	1,482.2	0.00	0.00	0.00
7,650.0	90.00	181.11	6,111.0	-1,531.8	-34.0	1,532.2	0.00	0.00	0.00
7,700.0	90.00	181.11	6,111.0	-1,581.8	-35.0	1,582.2	0.00	0.00	0.00
7,750.0	90.00	181.11	6,111.0	-1,631.8	-36.0	1,632.2	0.00	0.00	0.00
7,800.0	90.00	181.11	6,111.0	-1,681.8	-36.9	1,682.2	0.00	0.00	0.00
7,850.0	90.00	181.11	6,111.0	-1,731.8	-37.9	1,732.2	0.00	0.00	0.00
7,900.0	90.00	181.11	6,111.0	-1,781.8	-38.9	1,782.2	0.00	0.00	0.00
7,950.0	90.00	181.11	6,111.0	-1,831.7	-39.9	1,832.2	0.00	0.00	0.00
8,000.0	90.00	181.11	6,111.0	-1,881.7	-40.8	1,882.2	0.00	0.00	0.00
8,050.0	90.00	181.11	6,111.0	-1,931.7	-41.8	1,932.2	0.00	0.00	0.00
8,100.0	90.00	181.11	6,111.0	-1,981.7	-42.8	1,982.2	0.00	0.00	0.00
8,150.0	90.00	181.11	6,111.0	-2,031.7	-43.7	2,032.2	0.00	0.00	0.00
8,200.0	90.00	181.11	6,111.0	-2,081.7	-44.7	2,082.2	0.00	0.00	0.00
8,250.0	90.00	181.11	6,111.0	-2,131.7	-45.7	2,132.2	0.00	0.00	0.00
8,300.0	90.00	181.11	6,111.0	-2,181.7	-46.6	2,182.2	0.00	0.00	0.00
8,350.0	90.00	181.11	6,111.0	-2,231.7	-47.6	2,232.2	0.00	0.00	0.00
8,400.0	90.00	181.11	6,111.0	-2,281.7	-48.6	2,282.2	0.00	0.00	0.00
8,450.0	90.00	181.11	6,111.0	-2,331.6	-49.6	2,332.2	0.00	0.00	0.00
8,500.0	90.00	181.11	6,111.0	-2,381.6	-50.5	2,382.2	0.00	0.00	0.00
8,550.0	90.00	181.11	6,111.0	-2,431.6	-51.5	2,432.2	0.00	0.00	0.00
8,600.0	90.00	181.11	6,111.0	-2,481.6	-52.5	2,482.2	0.00	0.00	0.00
8,650.0	90.00	181.11	6,111.0	-2,531.6	-53.4	2,532.2	0.00	0.00	0.00
8,700.0	90.00	181.11	6,111.0	-2,581.6	-54.4	2,582.2	0.00	0.00	0.00
8,750.0	90.00	181.11	6,111.0	-2,631.6	-55.4	2,632.2	0.00	0.00	0.00
8,800.0	90.00	181.11	6,111.0	-2,681.6	-56.4	2,682.2	0.00	0.00	0.00
8,850.0	90.00	181.11	6,111.0	-2,731.6	-57.3	2,732.2	0.00	0.00	0.00
8,900.0	90.00	181.11	6,111.0	-2,781.6	-58.3	2,782.2	0.00	0.00	0.00
8,950.0	90.00	181.11	6,111.0	-2,831.6	-59.3	2,832.2	0.00	0.00	0.00
9,000.0	90.00	181.11	6,111.0	-2,881.5	-60.2	2,882.2	0.00	0.00	0.00
9,050.0	90.00	181.11	6,111.0	-2,931.5	-61.2	2,932.2	0.00	0.00	0.00
9,100.0	90.00	181.11	6,111.0	-2,981.5	-62.2	2,982.2	0.00	0.00	0.00
9,150.0	90.00	181.11	6,111.0	-3,031.5	-63.2	3,032.2	0.00	0.00	0.00
9,200.0	90.00	181.11	6,111.0	-3,081.5	-64.1	3,082.2	0.00	0.00	0.00
9,250.0	90.00	181.11	6,111.0	-3,131.5	-65.1	3,132.2	0.00	0.00	0.00
9,300.0	90.00	181.11	6,111.0	-3,181.5	-66.1	3,182.2	0.00	0.00	0.00
9,350.0	90.00	181.11	6,111.0	-3,231.5	-67.0	3,232.2	0.00	0.00	0.00
9,400.0	90.00	181.11	6,111.0	-3,281.5	-68.0	3,282.2	0.00	0.00	0.00
9,450.0	90.00	181.11	6,111.0	-3,331.5	-69.0	3,332.2	0.00	0.00	0.00
9,500.0	90.00	181.11	6,111.0	-3,381.5	-70.0	3,382.2	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well PRONGHORN 31-34-15HZ
Company:	BONANZA CREEK ENERGY OPERATING	TVD Reference:	RKB @ 4687.0ft (KB 15')
Project:	SEC.15-T5N-R61W	MD Reference:	RKB @ 4687.0ft (KB 15')
Site:	PRONGHORN 31-34-15HZ PAD 15-5N-61W	North Reference:	True
Well:	PRONGHORN 31-34-15HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PLAN 1 (FEB 15, 2012) PROG 12/12/11		

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)	
9,550.0	90.00	181.11	6,111.0	-3,431.4	-70.9	3,432.2	0.00	0.00	0.00	
9,600.0	90.00	181.11	6,111.0	-3,481.4	-71.9	3,482.2	0.00	0.00	0.00	
9,650.0	90.00	181.11	6,111.0	-3,531.4	-72.9	3,532.2	0.00	0.00	0.00	
9,700.0	90.00	181.11	6,111.0	-3,581.4	-73.8	3,582.2	0.00	0.00	0.00	
9,750.0	90.00	181.11	6,111.0	-3,631.4	-74.8	3,632.2	0.00	0.00	0.00	
9,800.0	90.00	181.11	6,111.0	-3,681.4	-75.8	3,682.2	0.00	0.00	0.00	
9,850.0	90.00	181.11	6,111.0	-3,731.4	-76.7	3,732.2	0.00	0.00	0.00	
9,900.0	90.00	181.11	6,111.0	-3,781.4	-77.7	3,782.2	0.00	0.00	0.00	
9,950.0	90.00	181.11	6,111.0	-3,831.4	-78.7	3,832.2	0.00	0.00	0.00	
10,000.0	90.00	181.11	6,111.0	-3,881.4	-79.7	3,882.2	0.00	0.00	0.00	
10,050.0	90.00	181.11	6,111.0	-3,931.3	-80.6	3,932.2	0.00	0.00	0.00	
10,100.0	90.00	181.11	6,111.0	-3,981.3	-81.6	3,982.2	0.00	0.00	0.00	
10,150.0	90.00	181.11	6,111.0	-4,031.3	-82.6	4,032.2	0.00	0.00	0.00	
10,200.0	90.00	181.11	6,111.0	-4,081.3	-83.5	4,082.2	0.00	0.00	0.00	
10,250.0	90.00	181.11	6,111.0	-4,131.3	-84.5	4,132.2	0.00	0.00	0.00	
10,300.0	90.00	181.11	6,111.0	-4,181.3	-85.5	4,182.2	0.00	0.00	0.00	
10,350.0	90.00	181.11	6,111.0	-4,231.3	-86.5	4,232.2	0.00	0.00	0.00	
10,400.0	90.00	181.11	6,111.0	-4,281.3	-87.4	4,282.2	0.00	0.00	0.00	
10,450.0	90.00	181.11	6,111.0	-4,331.3	-88.4	4,332.2	0.00	0.00	0.00	
10,500.0	90.00	181.11	6,111.0	-4,381.3	-89.4	4,382.2	0.00	0.00	0.00	
10,550.0	90.00	181.11	6,111.0	-4,431.3	-90.3	4,432.2	0.00	0.00	0.00	
10,600.0	90.00	181.11	6,111.0	-4,481.2	-91.3	4,482.2	0.00	0.00	0.00	
10,650.0	90.00	181.11	6,111.0	-4,531.2	-92.3	4,532.2	0.00	0.00	0.00	
10,700.0	90.00	181.11	6,111.0	-4,581.2	-93.3	4,582.2	0.00	0.00	0.00	
10,750.0	90.00	181.11	6,111.0	-4,631.2	-94.2	4,632.2	0.00	0.00	0.00	
10,774.7	90.00	181.11	6,111.0	-4,655.9	-94.7	4,656.9	0.00	0.00	0.00	
Target 2 460'FSL & 2150'FEL										

Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude	
460'FSL HARDLINE	0.00	0.00	1.0	-4,668.0	-595.0	1,389,423.06	3,363,456.71	40.395027	-104.195046	
- plan misses target center by 4705.8ft at 1.0ft MD (1.0 TVD, 0.0 N, 0.0 E)										
- Polygon										
Point 1			1.0	0.0	0.0	1,389,423.06	3,363,456.71			
Point 2			1.0	24.0	1,000.0	1,389,461.80	3,364,456.21			
Target 1 460'FNL & 2'	0.00	0.00	6,111.0	-258.7	-5.6	1,393,840.43	3,363,981.06	40.407130	-104.192930	
- plan misses target center by 4.1ft at 6376.6ft MD (6109.3 TVD, -258.7 N, -9.3 E)										
- Point										
460'FNL HARDLINE	0.00	0.00	1.0	251.3	-500.0	1,394,343.02	3,363,479.19	40.408530	-104.194705	
- plan misses target center by 559.6ft at 1.0ft MD (1.0 TVD, 0.0 N, 0.0 E)										
- Polygon										
Point 1			1.0	0.0	0.0	1,394,343.02	3,363,479.19			
Point 2			1.0	17.4	1,000.0	1,394,375.16	3,364,478.79			
Target 2 460'FSL & 2	0.00	0.00	6,111.0	-4,655.9	-94.7	1,389,442.52	3,363,956.75	40.395060	-104.193250	
- plan hits target center										
- Point										

Database:	Landmark	Local Co-ordinate Reference:	Well PRONGHORN 31-34-15HZ
Company:	BONANZA CREEK ENERGY OPERATING	TVD Reference:	RKB @ 4687.0ft (KB 15')
Project:	SEC.15-T5N-R61W	MD Reference:	RKB @ 4687.0ft (KB 15')
Site:	PRONGHORN 31-34-15HZ PAD 15-5N-61W	North Reference:	True
Well:	PRONGHORN 31-34-15HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PLAN 1 (FEB 15, 2012) PROG 12/12/11		

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
6,418.0	6,111.0	7"	7	8-3/4	

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,232.1	3,227.0	PARKMAN		0.00		
5,921.3	5,891.0	SHARON SPRINGS		0.00		
6,070.7	5,999.0	NIOBRARA A CHALK		0.00		
6,090.6	6,011.0	NIOBRARA A MARL		0.00		
6,281.4	6,093.0	NIOBRARA B CHALK		0.00		
6,418.7	6,111.0	NIOBRARA B MARL		0.00		
6,418.7	6,111.0	NIOBRARA B TARGET		0.00		
	6,159.0	NIOBARA C CHALK		0.00		

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
2,000.0	2,000.0	0.0	0.0	KOP 1	
5,600.0	5,589.6	220.0	0.0	KOP 2	