

# BONANZA CREEK ENERGY OPERATING

Well Name: **NORTH PLATTE 24-21-24HZ**

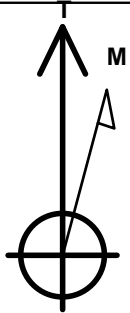
Surface Location: NORTH PLATTE 24-21-24HZ Pad SEC.24-T5N-R63W  
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

Ground Elevation: 4569.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1382732.31	3309494.72	40.378680	-104.389070	
Original Well Elev WELL @ 4581.0ft (Original Well Elev)						

## WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
HARDLINE BH 460'	1.0	4360.0	-210.6	Polygon
HARDLINE SH 460'	1.0	0.0	-400.0	Polygon
BHL 460'FNL & 1650'FWL	6349.0	4360.8	189.4	Point
TARGET 1 460'FSL & 1620'FWL	6349.0	0.0	331.5	Point



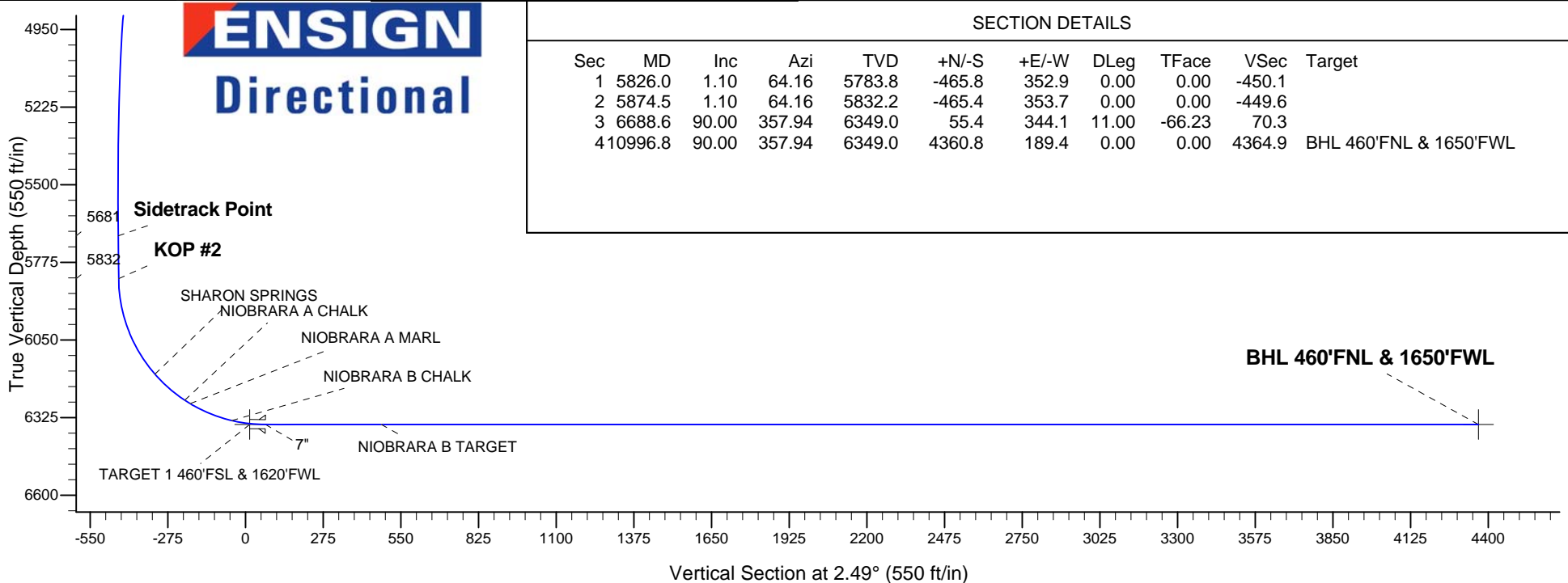
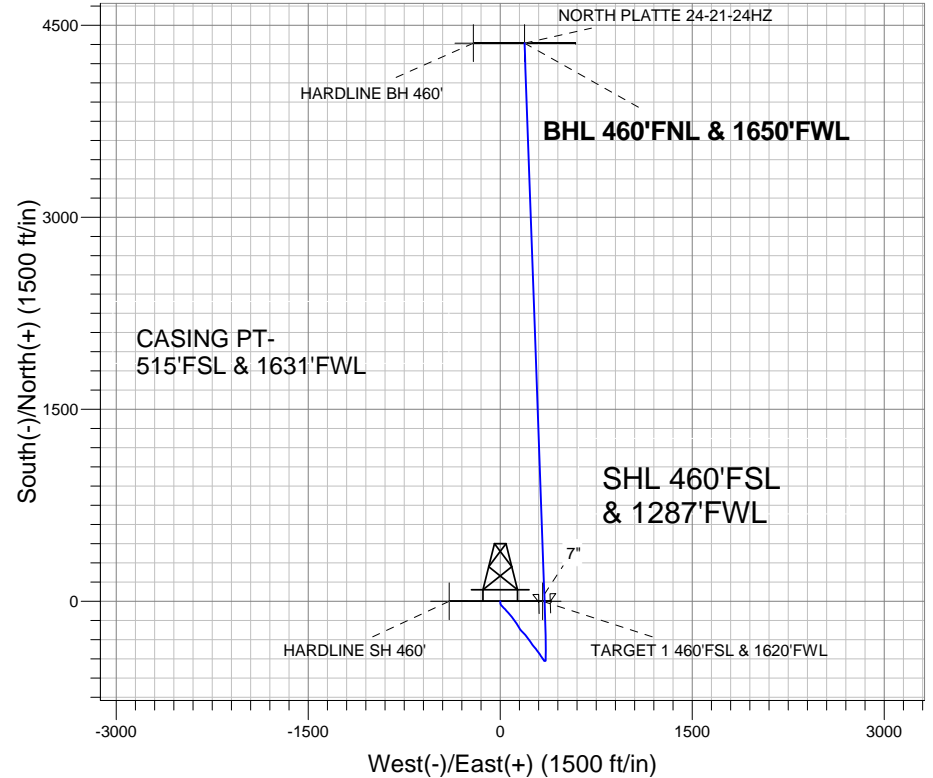
Azimuths to True North  
Magnetic North: 8.52°

Magnetic Field  
Strength: 53055.7nT  
Dip Angle: 67.06°  
Date: 6/18/2012  
Model: IGRF2010

NORTH PLATTE 24-21-24HZ Pad SEC.24-T5N-R63W  
NORTH PLATTE 24-21-24HZ  
Plan #2 - Sidetrack (JUNE 18, 2012)  
14:03, June 18 2012

## ANNOTATIONS

TVD	MD	Annotation
5832.3	5874.5	KOP #2



## SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSoc	Target
1	5826.0	1.10	64.16	5783.8	-465.8	352.9	0.00	0.00	-450.1	
2	5874.5	1.10	64.16	5832.2	-465.4	353.7	0.00	0.00	-449.6	
3	6688.6	90.00	357.94	6349.0	55.4	344.1	11.00	-66.23	70.3	
4	10996.8	90.00	357.94	6349.0	4360.8	189.4	0.00	0.00	4364.9	BHL 460'FNL & 1650'FWL



# **BONANZA CREEK ENERGY OPERATING**

**SEC.24-T5N-R63W**

**NORTH PLATTE 24-21-24HZ Pad SEC.24-T5N-R63W**

**NORTH PLATTE 24-21-24HZ**

**Wellbore #1**

**Plan: Plan #2 - Sidetrack (JUNE 18, 2012)**

## **Standard Planning Report**

**18 June, 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
5,826.0	1.10	64.16	5,783.8	-465.8	352.9	0.00	0.00	0.00	0.00	
5,874.5	1.10	64.16	5,832.2	-465.4	353.7	0.00	0.00	0.00	0.00	
6,688.6	90.00	357.94	6,349.0	55.4	344.1	11.00	10.92	-8.13	-66.23	
10,996.8	90.00	357.94	6,349.0	4,360.8	189.4	0.00	0.00	0.00	0.00	BHL 460'FNL & 165'

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well NORTH PLATTE 24-21-24HZ
<b>Company:</b>	BONANZA CREEK ENERGY OPERATING	<b>TVD Reference:</b>	WELL @ 4581.0ft (Original Well Elev)
<b>Project:</b>	SEC.24-T5N-R63W	<b>MD Reference:</b>	WELL @ 4581.0ft (Original Well Elev)
<b>Site:</b>	NORTH PLATTE 24-21-24HZ Pad	<b>North Reference:</b>	True
<b>Well:</b>	SEC.24-T5N-R63W	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	NORTH PLATTE 24-21-24HZ		
<b>Design:</b>	Wellbore #1		
	Plan #2 - Sidetrack (JUNE 18, 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)
5,826.0	1.10	64.16	5,783.8	-465.8	352.9	-450.1	0.00	0.00	0.00
<b>HARDLINE SH 460'</b>									
5,874.5	1.10	64.16	5,832.3	-465.4	353.7	-449.6	0.00	0.00	0.00
<b>KOP #2</b>									
5,900.0	3.40	15.09	5,857.8	-464.6	354.2	-448.8	11.02	9.04	-192.45
6,000.0	14.29	1.89	5,956.4	-449.3	355.3	-433.5	11.00	10.88	-13.20
6,100.0	25.27	0.07	6,050.4	-415.5	355.8	-399.7	11.00	10.98	-1.82
6,200.0	36.26	359.31	6,136.2	-364.5	355.4	-348.7	11.00	10.99	-0.76
6,244.7	41.17	359.09	6,171.0	-336.6	355.0	-320.8	11.00	11.00	-0.49
<b>SHARON SPRINGS</b>									
6,300.0	47.26	358.87	6,210.6	-298.0	354.4	-282.3	11.00	11.00	-0.40
6,385.0	56.61	358.60	6,263.0	-231.1	352.9	-215.6	11.00	11.00	-0.31
<b>NIOBRARA A CHALK</b>									
6,400.0	58.26	358.56	6,271.1	-218.5	352.6	-203.0	11.00	11.00	-0.27
6,407.6	59.09	358.54	6,275.0	-212.1	352.4	-196.6	11.00	11.00	-0.26
<b>NIOBRARA A MARL</b>									
6,500.0	69.26	358.32	6,315.2	-129.0	350.1	-113.7	11.00	11.00	-0.24
6,567.6	76.69	358.18	6,335.0	-64.5	348.2	-49.3	11.00	11.00	-0.21
<b>NIOBRARA B CHALK</b>									
6,600.0	80.25	358.12	6,341.5	-32.7	347.1	-17.6	11.00	11.00	-0.20
6,633.8	83.97	358.05	6,346.1	0.7	346.0	15.8	11.00	11.00	-0.20
<b>TARGET 1 460'FSL &amp; 1620'FWL</b>									
6,688.5	89.99	357.94	6,349.0	55.4	344.1	70.2	11.00	11.00	-0.19
<b>NIOBRARA B TARGET</b>									
6,688.6	90.00	357.94	6,349.0	55.4	344.1	70.3	11.00	11.00	-0.19
<b>7"</b>									
6,700.0	90.00	357.94	6,349.0	66.8	343.7	81.7	0.02	0.02	0.00
6,800.0	90.00	357.94	6,349.0	166.7	340.1	181.3	0.00	0.00	0.00
6,900.0	90.00	357.94	6,349.0	266.7	336.5	281.0	0.00	0.00	0.00
7,000.0	90.00	357.94	6,349.0	366.6	332.9	380.7	0.00	0.00	0.00
7,100.0	90.00	357.94	6,349.0	466.5	329.3	480.4	0.00	0.00	0.00
7,200.0	90.00	357.94	6,349.0	566.5	325.7	580.1	0.00	0.00	0.00
7,300.0	90.00	357.94	6,349.0	666.4	322.1	679.8	0.00	0.00	0.00
7,400.0	90.00	357.94	6,349.0	766.4	318.5	779.5	0.00	0.00	0.00
7,500.0	90.00	357.94	6,349.0	866.3	315.0	879.1	0.00	0.00	0.00
7,600.0	90.00	357.94	6,349.0	966.2	311.4	978.8	0.00	0.00	0.00
7,700.0	90.00	357.94	6,349.0	1,066.2	307.8	1,078.5	0.00	0.00	0.00
7,800.0	90.00	357.94	6,349.0	1,166.1	304.2	1,178.2	0.00	0.00	0.00
7,900.0	90.00	357.94	6,349.0	1,266.0	300.6	1,277.9	0.00	0.00	0.00
8,000.0	90.00	357.94	6,349.0	1,366.0	297.0	1,377.6	0.00	0.00	0.00
8,100.0	90.00	357.94	6,349.0	1,465.9	293.4	1,477.3	0.00	0.00	0.00
8,200.0	90.00	357.94	6,349.0	1,565.8	289.8	1,576.9	0.00	0.00	0.00
8,300.0	90.00	357.94	6,349.0	1,665.8	286.2	1,676.6	0.00	0.00	0.00
8,400.0	90.00	357.94	6,349.0	1,765.7	282.6	1,776.3	0.00	0.00	0.00
8,500.0	90.00	357.94	6,349.0	1,865.6	279.1	1,876.0	0.00	0.00	0.00
8,600.0	90.00	357.94	6,349.0	1,965.6	275.5	1,975.7	0.00	0.00	0.00
8,700.0	90.00	357.94	6,349.0	2,065.5	271.9	2,075.4	0.00	0.00	0.00
8,800.0	90.00	357.94	6,349.0	2,165.5	268.3	2,175.1	0.00	0.00	0.00
8,900.0	90.00	357.94	6,349.0	2,265.4	264.7	2,274.7	0.00	0.00	0.00
9,000.0	90.00	357.94	6,349.0	2,365.3	261.1	2,374.4	0.00	0.00	0.00
9,100.0	90.00	357.94	6,349.0	2,465.3	257.5	2,474.1	0.00	0.00	0.00
9,200.0	90.00	357.94	6,349.0	2,565.2	253.9	2,573.8	0.00	0.00	0.00

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well NORTH PLATTE 24-21-24HZ
<b>Company:</b>	BONANZA CREEK ENERGY OPERATING	<b>TVD Reference:</b>	WELL @ 4581.0ft (Original Well Elev)
<b>Project:</b>	SEC.24-T5N-R63W	<b>MD Reference:</b>	WELL @ 4581.0ft (Original Well Elev)
<b>Site:</b>	NORTH PLATTE 24-21-24HZ Pad	<b>North Reference:</b>	True
<b>Well:</b>	SEC.24-T5N-R63W	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	NORTH PLATTE 24-21-24HZ		
<b>Design:</b>	Wellbore #1		
	Plan #2 - Sidetrack (JUNE 18, 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)
9,300.0	90.00	357.94	6,349.0	2,665.1	250.3	2,673.5	0.00	0.00	0.00
9,400.0	90.00	357.94	6,349.0	2,765.1	246.7	2,773.2	0.00	0.00	0.00
9,500.0	90.00	357.94	6,349.0	2,865.0	243.2	2,872.9	0.00	0.00	0.00
9,600.0	90.00	357.94	6,349.0	2,964.9	239.6	2,972.5	0.00	0.00	0.00
9,700.0	90.00	357.94	6,349.0	3,064.9	236.0	3,072.2	0.00	0.00	0.00
9,800.0	90.00	357.94	6,349.0	3,164.8	232.4	3,171.9	0.00	0.00	0.00
9,900.0	90.00	357.94	6,349.0	3,264.7	228.8	3,271.6	0.00	0.00	0.00
10,000.0	90.00	357.94	6,349.0	3,364.7	225.2	3,371.3	0.00	0.00	0.00
10,100.0	90.00	357.94	6,349.0	3,464.6	221.6	3,471.0	0.00	0.00	0.00
10,200.0	90.00	357.94	6,349.0	3,564.6	218.0	3,570.7	0.00	0.00	0.00
10,300.0	90.00	357.94	6,349.0	3,664.5	214.4	3,670.3	0.00	0.00	0.00
10,400.0	90.00	357.94	6,349.0	3,764.4	210.8	3,770.0	0.00	0.00	0.00
10,500.0	90.00	357.94	6,349.0	3,864.4	207.3	3,869.7	0.00	0.00	0.00
10,600.0	90.00	357.94	6,349.0	3,964.3	203.7	3,969.4	0.00	0.00	0.00
10,700.0	90.00	357.94	6,349.0	4,064.2	200.1	4,069.1	0.00	0.00	0.00
10,800.0	90.00	357.94	6,349.0	4,164.2	196.5	4,168.8	0.00	0.00	0.00
10,900.0	90.00	357.94	6,349.0	4,264.1	192.9	4,268.5	0.00	0.00	0.00
10,996.8	90.00	357.94	6,349.0	4,360.8	189.4	4,364.9	0.00	0.00	0.00
HARDLINE BH 460' - BHL 460'FNL & 1650'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									
TARGET 1 460'FSL & - plan misses target center by 14.8ft at 6633.8ft MD (6346.1 TVD, 0.7 N, 346.0 E)	0.00	0.00	6,349.0	0.0	331.5	1,382,736.48	3,309,826.22	40.378680	-104.387880
- Point									
HARDLINE BH 460' - plan misses target center by 6360.6ft at 10996.8ft MD (6349.0 TVD, 4360.8 N, 189.4 E)	0.00	0.00	1.0	4,360.0	-210.6	1,387,089.15	3,309,229.52	40.390648	-104.389826
- Polygon									
Point 1			1.0	0.0	0.0	1,387,089.15	3,309,229.52		
Point 2			1.0	0.0	800.0	1,387,099.17	3,310,029.43		
BHL 460'FNL & 1650' - plan hits target center	0.00	0.00	6,349.0	4,360.8	189.4	1,387,094.97	3,309,629.49	40.390650	-104.388390
- Point									
HARDLINE SH 460' - plan misses target center by 5850.2ft at 5826.0ft MD (5783.8 TVD, -465.8 N, 352.9 E)	0.00	0.00	1.0	0.0	-400.0	1,382,727.31	3,309,094.77	40.378680	-104.390506
- Polygon									
Point 1			1.0	0.0	0.0	1,382,727.31	3,309,094.77		
Point 2			1.0	0.0	800.0	1,382,737.33	3,309,894.67		

#### Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
6,688.6	6,349.0	7"	7	7-1/2

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well NORTH PLATTE 24-21-24HZ
<b>Company:</b>	BONANZA CREEK ENERGY OPERATING	<b>TVD Reference:</b>	WELL @ 4581.0ft (Original Well Elev)
<b>Project:</b>	SEC.24-T5N-R63W	<b>MD Reference:</b>	WELL @ 4581.0ft (Original Well Elev)
<b>Site:</b>	NORTH PLATTE 24-21-24HZ Pad	<b>North Reference:</b>	True
<b>Well:</b>	SEC.24-T5N-R63W	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	NORTH PLATTE 24-21-24HZ		
<b>Design:</b>	Wellbore #1		
	Plan #2 - Sidetrack (JUNE 18, 2012)		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,342.7	3,321.0	PARKMAN		0.00		
4,089.4	4,056.0	SUSSEX		0.00		
6,244.7	6,171.0	SHARON SPRINGS		0.00		
6,385.0	6,263.0	NIOBRARA A CHALK		0.00		
6,407.6	6,275.0	NIOBRARA A MARL		0.00		
6,567.6	6,335.0	NIOBRARA B CHALK		0.00		
6,688.5	6,349.0	NIOBRARA B TARGET		0.00		

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
5,874.5	5,832.3	-465.4	353.7	KOP #2	