

BONANZA CREEK ENERGY OPERATING

Well Name: **State North Platte F-J-36HC**

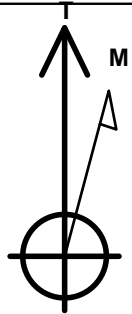
Surface Location: State North Platte K-O-36HC Pad Sec.36-T5N-R63W
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone
Ground Elevation: 4543.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1376707.82	3308734.13	40.362170	-104.392070	

RKB - 15' WELL @ 4558.0ft (RKB - 15')

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
BHL 470'FSL & 1290'FWL	6471.0	-4331.6	713.5	Point
T1 531'FNL & 1304'FWL	6471.0	-156.6	780.3	Point



Azimuths to True North
Magnetic North: 8.40°

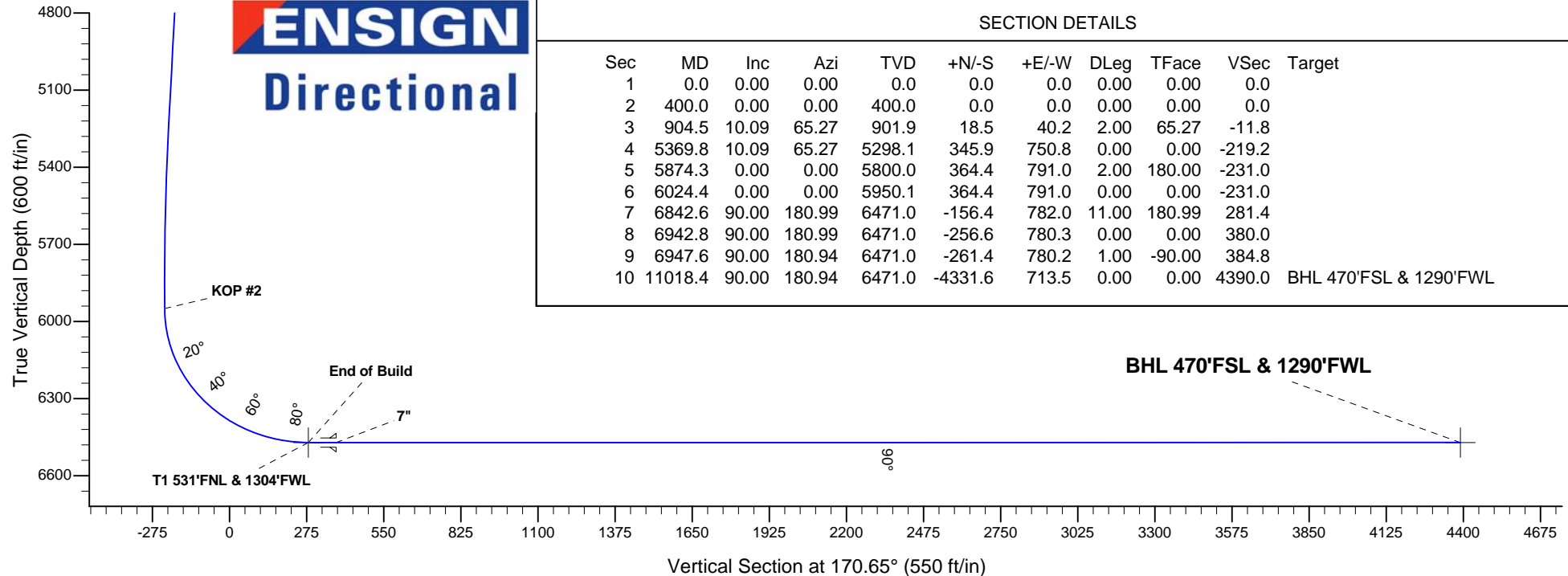
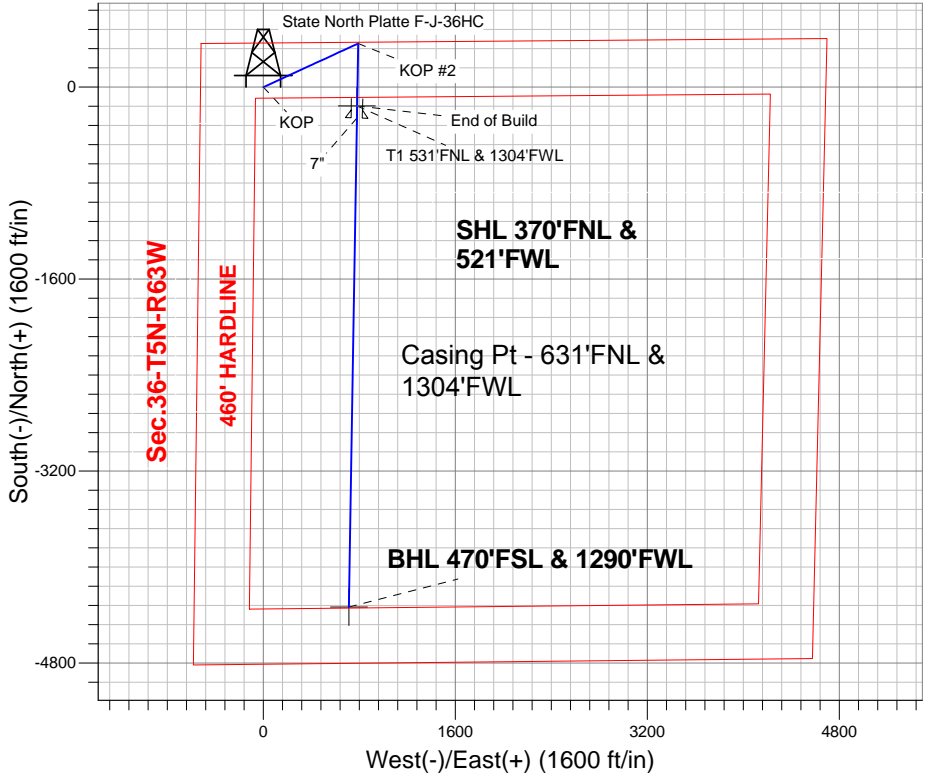
Magnetic Field
Strength: 52946.7nT
Dip Angle: 67.01°
Date: 5/30/2013
Model: IGRF2010

State North Platte K-O-36HC Pad Sec.36-T5N-R63W
State North Platte F-J-36HC
Plan #1 (5-30-13)
15:51, May 30 2013

ANNOTATIONS

TVD	MD	Annotation
400.0	400.0	KOP
5950.1	6024.4	KOP #2
6471.0	6842.6	End of Build

South(-)/North(+) (1600 ft/in)



ENSIGN
Directional

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	400.0	0.00	0.00	400.0	0.0	0.0	0.00	0.00	0.0	
3	904.5	10.09	65.27	901.9	18.5	40.2	2.00	65.27	-11.8	
4	5369.8	10.09	65.27	5298.1	345.9	750.8	0.00	0.00	-219.2	
5	5874.3	0.00	0.00	5800.0	364.4	791.0	2.00	180.00	-231.0	
6	6024.4	0.00	0.00	5950.1	364.4	791.0	0.00	0.00	-231.0	
7	6842.6	90.00	180.99	6471.0	-156.4	782.0	11.00	180.99	281.4	
8	6942.8	90.00	180.99	6471.0	-256.6	780.3	0.00	0.00	380.0	
9	6947.6	90.00	180.94	6471.0	-261.4	780.2	1.00	-90.00	384.8	
10	11018.4	90.00	180.94	6471.0	-4331.6	713.5	0.00	0.00	4390.0	BHL 470'FSL & 1290'FWL



Directional

BONANZA CREEK ENERGY OPERATING

SEC.36-T5N-R63W

State North Platte K-O-36HC Pad Sec.36-T5N-R63W

State North Platte F-J-36HC

Wellbore #1

Plan: Plan #1 (5-30-13)

Standard Planning Report

30 May, 2013

Database:	Landmark	Local Co-ordinate Reference:	Well State North Platte F-J-36HC
Company:	BONANZA CREEK ENERGY OPERATING	TVD Reference:	WELL @ 4558.0ft (RKB - 15')
Project:	SEC.36-T5N-R63W	MD Reference:	WELL @ 4558.0ft (RKB - 15')
Site:	State North Platte K-O-36HC Pad Sec.36-T5N-R63W	North Reference:	True
Well:	State North Platte F-J-36HC	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (5-30-13)		

Project	SEC.36-T5N-R63W		
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						State North Platte K-O-36HC Pad Sec.36-T5N-R63W											
Site Position:						Northing:			1,376,726.04 ft			Latitude:			40.362220		
From:			Lat/Long			Easting:			3,308,733.91 ft			Longitude:			-104.392070		
Position Uncertainty:			0.0 ft			Slot Radius:			"			Grid Convergence:			0.72 °		

Well	State North Platte F-J-36HC					
Well Position	+N/-S	-18.2 ft	Northing:	1,376,707.82 ft	Latitude:	40.362170
	+E/-W	0.0 ft	Easting:	3,308,734.13 ft	Longitude:	-104.392070
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,543.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	5/30/2013	8.40	67.01	52,947

Design	Plan #1 (5-30-13)			
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	170.65

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	
400.0	0.00	0.00	400.0	0.0	0.0	0.00	0.00	0.00	0.00	
904.5	10.09	65.27	901.9	18.5	40.2	2.00	2.00	0.00	65.27	
5,369.8	10.09	65.27	5,298.1	345.9	750.8	0.00	0.00	0.00	0.00	
5,874.3	0.00	0.00	5,800.0	364.4	791.0	2.00	-2.00	0.00	180.00	
6,024.4	0.00	0.00	5,950.1	364.4	791.0	0.00	0.00	0.00	0.00	
6,842.6	90.00	180.99	6,471.0	-156.4	782.0	11.00	11.00	0.00	180.99	
6,942.8	90.00	180.99	6,471.0	-256.6	780.3	0.00	0.00	0.00	0.00	
6,947.6	90.00	180.94	6,471.0	-261.4	780.2	1.00	0.00	-1.00	-90.00	
11,018.4	90.00	180.94	6,471.0	-4,331.6	713.5	0.00	0.00	0.00	0.00	BHL 470'FSL & 12°

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Project:	SEC.36-T5N-R63W	MD Reference:	WELL @ 4558.0ft (RKB - 15')
Site:	State North Platte K-O-36HC Pad Sec.36-T5N-R63W	North Reference:	True
Well:	State North Platte F-J-36HC	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (5-30-13)		

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
KOP									
500.0	2.00	65.27	500.0	0.7	1.6	-0.5	2.00	2.00	0.00
600.0	4.00	65.27	599.8	2.9	6.3	-1.9	2.00	2.00	0.00
700.0	6.00	65.27	699.5	6.6	14.3	-4.2	2.00	2.00	0.00
800.0	8.00	65.27	798.7	11.7	25.3	-7.4	2.00	2.00	0.00
900.0	10.00	65.27	897.5	18.2	39.5	-11.5	2.00	2.00	0.00
904.5	10.09	65.27	901.9	18.5	40.2	-11.8	2.00	2.00	0.00
1,000.0	10.09	65.27	995.9	25.5	55.4	-16.2	0.00	0.00	0.00
1,100.0	10.09	65.27	1,094.4	32.9	71.4	-20.8	0.00	0.00	0.00
1,200.0	10.09	65.27	1,192.8	40.2	87.3	-25.5	0.00	0.00	0.00
1,300.0	10.09	65.27	1,291.3	47.5	103.2	-30.1	0.00	0.00	0.00
1,400.0	10.09	65.27	1,389.7	54.9	119.1	-34.8	0.00	0.00	0.00
1,500.0	10.09	65.27	1,488.2	62.2	135.0	-39.4	0.00	0.00	0.00
1,600.0	10.09	65.27	1,586.6	69.5	150.9	-44.1	0.00	0.00	0.00
1,700.0	10.09	65.27	1,685.1	76.9	166.8	-48.7	0.00	0.00	0.00
1,800.0	10.09	65.27	1,783.5	84.2	182.7	-53.4	0.00	0.00	0.00
1,900.0	10.09	65.27	1,882.0	91.5	198.6	-58.0	0.00	0.00	0.00
2,000.0	10.09	65.27	1,980.5	98.8	214.6	-62.7	0.00	0.00	0.00
2,100.0	10.09	65.27	2,078.9	106.2	230.5	-67.3	0.00	0.00	0.00
2,200.0	10.09	65.27	2,177.4	113.5	246.4	-71.9	0.00	0.00	0.00
2,300.0	10.09	65.27	2,275.8	120.8	262.3	-76.6	0.00	0.00	0.00
2,400.0	10.09	65.27	2,374.3	128.2	278.2	-81.2	0.00	0.00	0.00
2,500.0	10.09	65.27	2,472.7	135.5	294.1	-85.9	0.00	0.00	0.00
2,600.0	10.09	65.27	2,571.2	142.8	310.0	-90.5	0.00	0.00	0.00
2,700.0	10.09	65.27	2,669.6	150.2	325.9	-95.2	0.00	0.00	0.00
2,800.0	10.09	65.27	2,768.1	157.5	341.9	-99.8	0.00	0.00	0.00
2,900.0	10.09	65.27	2,866.5	164.8	357.8	-104.5	0.00	0.00	0.00
3,000.0	10.09	65.27	2,965.0	172.1	373.7	-109.1	0.00	0.00	0.00
3,100.0	10.09	65.27	3,063.4	179.5	389.6	-113.8	0.00	0.00	0.00
3,200.0	10.09	65.27	3,161.9	186.8	405.5	-118.4	0.00	0.00	0.00
3,300.0	10.09	65.27	3,260.3	194.1	421.4	-123.1	0.00	0.00	0.00
3,400.0	10.09	65.27	3,358.8	201.5	437.3	-127.7	0.00	0.00	0.00
3,500.0	10.09	65.27	3,457.3	208.8	453.2	-132.4	0.00	0.00	0.00
3,600.0	10.09	65.27	3,555.7	216.1	469.2	-137.0	0.00	0.00	0.00
3,700.0	10.09	65.27	3,654.2	223.5	485.1	-141.6	0.00	0.00	0.00
3,800.0	10.09	65.27	3,752.6	230.8	501.0	-146.3	0.00	0.00	0.00
3,900.0	10.09	65.27	3,851.1	238.1	516.9	-150.9	0.00	0.00	0.00
4,000.0	10.09	65.27	3,949.5	245.5	532.8	-155.6	0.00	0.00	0.00
4,100.0	10.09	65.27	4,048.0	252.8	548.7	-160.2	0.00	0.00	0.00
4,200.0	10.09	65.27	4,146.4	260.1	564.6	-164.9	0.00	0.00	0.00
4,300.0	10.09	65.27	4,244.9	267.4	580.5	-169.5	0.00	0.00	0.00
4,400.0	10.09	65.27	4,343.3	274.8	596.4	-174.2	0.00	0.00	0.00
4,500.0	10.09	65.27	4,441.8	282.1	612.4	-178.8	0.00	0.00	0.00
4,600.0	10.09	65.27	4,540.2	289.4	628.3	-183.5	0.00	0.00	0.00
4,700.0	10.09	65.27	4,638.7	296.8	644.2	-188.1	0.00	0.00	0.00
4,800.0	10.09	65.27	4,737.1	304.1	660.1	-192.8	0.00	0.00	0.00
4,900.0	10.09	65.27	4,835.6	311.4	676.0	-197.4	0.00	0.00	0.00
5,000.0	10.09	65.27	4,934.1	318.8	691.9	-202.1	0.00	0.00	0.00

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Site:	State North Platte K-O-36HC Pad	North Reference:	True
	Sec.36-T5N-R63W		
Well:	State North Platte F-J-36HC	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (5-30-13)		

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)
5,100.0	10.09	65.27	5,032.5	326.1	707.8	-206.7	0.00	0.00	0.00
5,200.0	10.09	65.27	5,131.0	333.4	723.7	-211.3	0.00	0.00	0.00
5,300.0	10.09	65.27	5,229.4	340.7	739.7	-216.0	0.00	0.00	0.00
5,369.8	10.09	65.27	5,298.1	345.9	750.8	-219.2	0.00	0.00	0.00
5,400.0	9.49	65.27	5,327.9	348.0	755.4	-220.6	2.00	-2.00	0.00
5,500.0	7.49	65.27	5,426.8	354.2	768.8	-224.5	2.00	-2.00	0.00
5,600.0	5.49	65.27	5,526.2	358.9	779.1	-227.5	2.00	-2.00	0.00
5,700.0	3.49	65.27	5,625.8	362.2	786.2	-229.6	2.00	-2.00	0.00
5,800.0	1.49	65.27	5,725.7	364.0	790.1	-230.7	2.00	-2.00	0.00
5,874.3	0.00	0.00	5,800.0	364.4	791.0	-231.0	2.00	-2.00	0.00
5,900.0	0.00	0.00	5,825.7	364.4	791.0	-231.0	0.00	0.00	0.00
6,000.0	0.00	0.00	5,925.7	364.4	791.0	-231.0	0.00	0.00	0.00
6,024.4	0.00	0.00	5,950.1	364.4	791.0	-231.0	0.00	0.00	0.00
KOP #2									
6,100.0	8.32	180.99	6,025.5	358.9	790.9	-225.6	11.00	11.00	0.00
6,200.0	19.32	180.99	6,122.4	335.1	790.5	-202.1	11.00	11.00	0.00
6,300.0	30.32	180.99	6,213.1	293.2	789.8	-160.9	11.00	11.00	0.00
6,400.0	41.32	180.99	6,294.0	234.8	788.8	-103.4	11.00	11.00	0.00
6,500.0	52.32	180.99	6,362.3	162.0	787.5	-31.8	11.00	11.00	0.00
6,600.0	63.32	180.99	6,415.5	77.5	786.1	51.3	11.00	11.00	0.00
6,700.0	74.32	180.99	6,451.6	-15.6	784.5	142.9	11.00	11.00	0.00
6,800.0	85.32	180.99	6,469.3	-113.9	782.8	239.6	11.00	11.00	0.00
6,842.6	90.00	180.99	6,471.0	-156.4	782.0	281.4	11.00	11.00	0.00
End of Build - CODELL TARGET									
6,842.8	90.00	180.99	6,471.0	-156.7	782.0	281.7	0.00	0.00	0.00
T1 531'FNL & 1304'FWL									
6,900.0	90.00	180.99	6,471.0	-213.8	781.0	337.9	0.00	0.00	0.00
6,942.8	90.00	180.99	6,471.0	-256.6	780.3	380.0	0.00	0.00	0.00
7"									
6,947.6	90.00	180.94	6,471.0	-261.4	780.2	384.8	1.00	0.00	-1.00
7,000.0	90.00	180.94	6,471.0	-313.8	779.4	436.3	0.00	0.00	0.00
7,100.0	90.00	180.94	6,471.0	-413.8	777.7	534.7	0.00	0.00	0.00
7,200.0	90.00	180.94	6,471.0	-513.8	776.1	633.1	0.00	0.00	0.00
7,300.0	90.00	180.94	6,471.0	-613.8	774.4	731.5	0.00	0.00	0.00
7,400.0	90.00	180.94	6,471.0	-713.7	772.8	829.9	0.00	0.00	0.00
7,500.0	90.00	180.94	6,471.0	-813.7	771.2	928.3	0.00	0.00	0.00
7,600.0	90.00	180.94	6,471.0	-913.7	769.5	1,026.6	0.00	0.00	0.00
7,700.0	90.00	180.94	6,471.0	-1,013.7	767.9	1,125.0	0.00	0.00	0.00
7,800.0	90.00	180.94	6,471.0	-1,113.7	766.3	1,223.4	0.00	0.00	0.00
7,900.0	90.00	180.94	6,471.0	-1,213.7	764.6	1,321.8	0.00	0.00	0.00
8,000.0	90.00	180.94	6,471.0	-1,313.7	763.0	1,420.2	0.00	0.00	0.00
8,100.0	90.00	180.94	6,471.0	-1,413.6	761.3	1,518.6	0.00	0.00	0.00
8,200.0	90.00	180.94	6,471.0	-1,513.6	759.7	1,617.0	0.00	0.00	0.00
8,300.0	90.00	180.94	6,471.0	-1,613.6	758.1	1,715.4	0.00	0.00	0.00
8,400.0	90.00	180.94	6,471.0	-1,713.6	756.4	1,813.8	0.00	0.00	0.00
8,500.0	90.00	180.94	6,471.0	-1,813.6	754.8	1,912.2	0.00	0.00	0.00
8,600.0	90.00	180.94	6,471.0	-1,913.6	753.2	2,010.5	0.00	0.00	0.00
8,700.0	90.00	180.94	6,471.0	-2,013.6	751.5	2,108.9	0.00	0.00	0.00
8,800.0	90.00	180.94	6,471.0	-2,113.6	749.9	2,207.3	0.00	0.00	0.00
8,900.0	90.00	180.94	6,471.0	-2,213.5	748.2	2,305.7	0.00	0.00	0.00
9,000.0	90.00	180.94	6,471.0	-2,313.5	746.6	2,404.1	0.00	0.00	0.00
9,100.0	90.00	180.94	6,471.0	-2,413.5	745.0	2,502.5	0.00	0.00	0.00

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Site:	State North Platte K-O-36HC Pad Sec.36-T5N-R63W	North Reference:	True
Well:	State North Platte F-J-36HC	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (5-30-13)		

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)
9,200.0	90.00	180.94	6,471.0	-2,513.5	743.3	2,600.9	0.00	0.00	0.00
9,300.0	90.00	180.94	6,471.0	-2,613.5	741.7	2,699.3	0.00	0.00	0.00
9,400.0	90.00	180.94	6,471.0	-2,713.5	740.1	2,797.7	0.00	0.00	0.00
9,500.0	90.00	180.94	6,471.0	-2,813.5	738.4	2,896.1	0.00	0.00	0.00
9,600.0	90.00	180.94	6,471.0	-2,913.4	736.8	2,994.5	0.00	0.00	0.00
9,700.0	90.00	180.94	6,471.0	-3,013.4	735.1	3,092.8	0.00	0.00	0.00
9,800.0	90.00	180.94	6,471.0	-3,113.4	733.5	3,191.2	0.00	0.00	0.00
9,900.0	90.00	180.94	6,471.0	-3,213.4	731.9	3,289.6	0.00	0.00	0.00
10,000.0	90.00	180.94	6,471.0	-3,313.4	730.2	3,388.0	0.00	0.00	0.00
10,100.0	90.00	180.94	6,471.0	-3,413.4	728.6	3,486.4	0.00	0.00	0.00
10,200.0	90.00	180.94	6,471.0	-3,513.4	726.9	3,584.8	0.00	0.00	0.00
10,300.0	90.00	180.94	6,471.0	-3,613.4	725.3	3,683.2	0.00	0.00	0.00
10,400.0	90.00	180.94	6,471.0	-3,713.3	723.7	3,781.6	0.00	0.00	0.00
10,500.0	90.00	180.94	6,471.0	-3,813.3	722.0	3,880.0	0.00	0.00	0.00
10,600.0	90.00	180.94	6,471.0	-3,913.3	720.4	3,978.4	0.00	0.00	0.00
10,700.0	90.00	180.94	6,471.0	-4,013.3	718.8	4,076.8	0.00	0.00	0.00
10,800.0	90.00	180.94	6,471.0	-4,113.3	717.1	4,175.1	0.00	0.00	0.00
10,900.0	90.00	180.94	6,471.0	-4,213.3	715.5	4,273.5	0.00	0.00	0.00
11,000.0	90.00	180.94	6,471.0	-4,313.3	713.8	4,371.9	0.00	0.00	0.00
11,018.4	90.00	180.94	6,471.0	-4,331.6	713.5	4,390.0	0.00	0.00	0.00
BHL 470'FSL & 1290'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									
T1 531'FNL & 1304'FNL	0.00	0.00	6,471.0	-156.6	780.3	1,376,560.96	3,309,516.30	40.361740	-104.389270
- plan misses target center by 1.7ft at 6842.8ft MD (6471.0 TVD, -156.7 N, 782.0 E)									
- Point									
BHL 470'FSL & 1290'FWL	0.00	0.00	6,471.0	-4,331.6	713.5	1,372,385.64	3,309,501.70	40.350280	-104.389510
- plan hits target center									
- Point									

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
6,942.8	6,471.0	7"	7	7-1/2	

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
6,842.6	6,471.0	CODELL TARGET		0.00	

Database:	Landmark	Local Co-ordinate Reference:	Well State North Platte F-J-36HC
Company:	BONANZA CREEK ENERGY OPERATING	TVD Reference:	WELL @ 4558.0ft (RKB - 15')
Project:	SEC.36-T5N-R63W	MD Reference:	WELL @ 4558.0ft (RKB - 15')
Site:	State North Platte K-O-36HC Pad	North Reference:	True
	Sec.36-T5N-R63W		
Well:	State North Platte F-J-36HC	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (5-30-13)		

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
400.0	400.0	0.0	0.0	KOP
6,024.4	5,950.1	364.4	791.0	KOP #2
6,842.6	6,471.0	-156.4	782.0	End of Build



BONANZA CREEK ENERGY OPERATING

SEC.36-T5N-R63W

State North Platte K-O-36HC Pad Sec.36-T5N-R63W

State North Platte F-J-36HC

Wellbore #1

Plan #1 (5-30-13)

Anticollision Report

31 May, 2013

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well State North Platte F-J-36HC
Project:	SEC.36-T5N-R63W	TVD Reference:	WELL @ 4558.0ft (RKB - 15')
Reference Site:	State North Platte K-O-36HC Pad Sec.36-T5N-R63W	MD Reference:	WELL @ 4558.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	State North Platte F-J-36HC	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (5-30-13)	Offset TVD Reference:	Offset Datum

Offset Design										NORTH PLATTE X-D-35HZ PAD SEC.36-5N-63W - LATHAM F-J-1HZ - Wellbore #1 - Wellbore #1			Offset Site Error:		0.0 ft
Survey Program: 133-MWD										Offset Well Error:					0.0 ft
Reference		Offset		Semi Major Axis			Distance								
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre	Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning			
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)				
10,700.0	6,471.0	6,201.0	6,050.8	80.2	23.2	20.28	-4,846.0	550.6	946.9	896.9	49.99	18.942			
10,800.0	6,471.0	6,201.0	6,050.8	82.1	23.2	20.28	-4,846.0	550.6	860.0	809.0	50.93	16.885			
10,900.0	6,471.0	6,205.0	6,054.3	83.9	23.2	20.43	-4,848.1	550.6	776.0	724.0	52.01	14.921			
11,000.0	6,471.0	6,205.0	6,054.3	85.8	23.2	20.43	-4,848.1	550.6	696.2	643.3	52.95	13.148			
11,018.4	6,471.0	6,205.0	6,054.3	86.1	23.2	20.43	-4,848.1	550.6	682.1	629.0	53.13	12.840 CC, ES, SF			

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well State North Platte F-J-36HC
Project:	SEC.36-T5N-R63W	TVD Reference:	WELL @ 4558.0ft (RKB - 15')
Reference Site:	State North Platte K-O-36HC Pad Sec.36-T5N-R63W	MD Reference:	WELL @ 4558.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	State North Platte F-J-36HC	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (5-30-13)	Offset TVD Reference:	Offset Datum

Offset Design NORTH PLATTE X-D-35HZ PAD SEC.36-5N-63W - LATHAM F-J-1HZ - Wellbore #2 Sidetrack 1 - Well													Offset Site Error:	0.0 ft
Survey Program: 133-MWD, 227-MWD													Offset Well Error:	0.0 ft
Reference	Offset	Semi Major Axis		Distance										
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
10,900.0	6,471.0	6,142.0	5,962.2	83.9	24.8	20.03	-4,964.5	518.4	927.4	875.3	52.11	17.795		
11,000.0	6,471.0	6,174.0	5,988.2	85.8	25.1	21.03	-4,983.0	518.0	847.3	793.1	54.21	15.631		
11,018.4	6,471.0	6,174.0	5,988.2	86.1	25.1	21.03	-4,983.0	518.0	832.8	778.5	54.39	15.313	CC, ES, SF	

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well State North Platte F-J-36HC
Project:	SEC.36-T5N-R63W	TVD Reference:	WELL @ 4558.0ft (RKB - 15')
Reference Site:	State North Platte K-O-36HC Pad Sec.36-T5N-R63W	MD Reference:	WELL @ 4558.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	State North Platte F-J-36HC	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (5-30-13)	Offset TVD Reference:	Offset Datum

Offset Design NORTH PLATTE X-D-35HZ PAD SEC.36-5N-63W - LATHAM F-J-1HZ - Wellbore #3 Sidetrack 2 - Well												Offset Site Error:	0.0 ft
Survey Program: 133-MWD, 227-MWD												Offset Well Error:	0.0 ft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
10,900.0	6,471.0	6,109.0	5,932.5	83.9	24.4	20.60	-4,945.0	501.8	932.2	879.7	52.53	17.744	
11,000.0	6,471.0	6,127.4	5,947.2	85.8	24.6	21.59	-4,954.9	496.8	855.1	800.5	54.59	15.665	
11,018.4	6,471.0	6,131.9	5,950.7	86.1	24.6	21.83	-4,957.4	495.6	841.3	786.2	55.04	15.285	CC, ES, SF

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well State North Platte F-J-36HC
Project:	SEC.36-T5N-R63W	TVD Reference:	WELL @ 4558.0ft (RKB - 15')
Reference Site:	State North Platte K-O-36HC Pad Sec.36-T5N-R63W	MD Reference:	WELL @ 4558.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	State North Platte F-J-36HC	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (5-30-13)	Offset TVD Reference:	Offset Datum

Offset Design State North Platte K-O-36HC Pad Sec.36-T5N-R63W - State North Platte K-O-36HC - Wellbore #1 - Pla													Offset Site Error: 0.0 ft	
Survey Program: 0-MWD													Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance							
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre	Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning		
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
0.0	0.0	0.0	0.0	0.0	0.0	0.00	18.2	0.0	18.2	18.2	0.00	N/A		
100.0	100.0	100.0	100.0	0.1	0.1	0.00	18.2	0.0	18.2	18.0	0.22	81.042		
200.0	200.0	200.0	200.0	0.3	0.3	0.00	18.2	0.0	18.2	17.5	0.67	27.014 CC		
300.0	300.0	299.9	299.8	0.6	0.6	5.30	18.5	1.7	18.6	17.5	1.12	16.661 ES		
400.0	400.0	399.5	399.3	0.8	0.8	19.45	19.4	6.8	20.6	19.0	1.56	13.158		
500.0	500.0	498.7	498.2	1.0	1.0	-30.82	20.8	15.3	24.4	22.4	2.02	12.077		
600.0	599.8	597.8	596.5	1.2	1.3	-18.87	22.8	27.2	29.0	26.5	2.48	11.702		
700.0	699.5	696.5	694.1	1.5	1.6	-9.07	25.4	42.3	34.2	31.3	2.94	11.651 SF		
800.0	798.7	795.0	790.8	1.7	2.0	-0.77	28.6	60.7	40.0	36.6	3.39	11.786		
900.0	897.5	893.2	886.5	2.0	2.4	6.40	32.2	82.3	46.3	42.5	3.85	12.016		
1,000.0	995.9	991.0	981.0	2.4	2.9	12.37	36.4	107.0	54.7	50.4	4.35	12.583		
1,100.0	1,094.4	1,088.1	1,073.9	2.7	3.5	16.61	41.1	134.6	67.0	62.1	4.88	13.725		
1,200.0	1,192.8	1,184.3	1,165.0	3.1	4.1	19.32	46.3	165.1	82.8	77.4	5.44	15.228		
1,300.0	1,291.3	1,279.3	1,254.0	3.5	4.8	20.95	52.0	198.1	102.1	96.0	6.02	16.961		
1,400.0	1,389.7	1,373.1	1,340.6	3.9	5.5	21.87	58.0	233.5	124.5	117.9	6.60	18.871		
1,500.0	1,488.2	1,465.3	1,424.6	4.3	6.3	22.34	64.4	271.0	150.2	143.0	7.20	20.856		
1,600.0	1,586.6	1,558.7	1,508.5	4.6	7.1	22.55	71.3	311.4	178.5	170.7	7.81	22.856		
1,700.0	1,685.1	1,654.5	1,594.4	5.0	8.0	22.69	78.4	353.1	207.2	198.8	8.42	24.599		
1,800.0	1,783.5	1,750.3	1,680.3	5.4	8.9	22.80	85.5	394.9	235.9	226.9	9.04	26.090		
1,900.0	1,882.0	1,846.0	1,766.2	5.8	9.8	22.89	92.6	436.7	264.7	255.0	9.67	27.376		
2,000.0	1,980.5	1,941.8	1,852.1	6.2	10.7	22.96	99.7	478.4	293.4	283.1	10.30	28.495		
2,100.0	2,078.9	2,037.6	1,938.0	6.6	11.6	23.01	106.8	520.2	322.1	311.2	10.93	29.476		
2,200.0	2,177.4	2,133.4	2,024.0	7.0	12.5	23.06	113.9	561.9	350.9	339.3	11.56	30.343		
2,300.0	2,275.8	2,229.2	2,109.9	7.4	13.4	23.10	121.0	603.7	379.6	367.4	12.20	31.114		
2,400.0	2,374.3	2,325.0	2,195.8	7.8	14.3	23.13	128.2	645.4	408.3	395.5	12.84	31.804		
2,500.0	2,472.7	2,420.8	2,281.7	8.2	15.2	23.16	135.3	687.2	437.0	423.6	13.48	32.424		
2,600.0	2,571.2	2,516.5	2,367.6	8.6	16.1	23.19	142.4	729.0	465.8	451.7	14.12	32.985		
2,700.0	2,669.6	2,612.3	2,453.5	9.0	17.1	23.21	149.5	770.7	494.5	479.7	14.76	33.494		
2,800.0	2,768.1	2,708.1	2,539.4	9.4	18.0	23.23	156.6	812.5	523.2	507.8	15.41	33.959		
2,900.0	2,866.5	2,803.9	2,625.3	9.8	18.9	23.25	163.7	854.2	552.0	535.9	16.05	34.384		
3,000.0	2,965.0	2,899.7	2,711.2	10.2	19.8	23.27	170.8	896.0	580.7	564.0	16.70	34.774		
3,100.0	3,063.4	2,995.5	2,797.1	10.6	20.7	23.28	177.9	937.7	609.4	592.1	17.35	35.134		
3,200.0	3,161.9	3,091.2	2,883.0	11.0	21.6	23.30	185.1	979.5	638.1	620.2	17.99	35.467		
3,300.0	3,260.3	3,187.0	2,968.9	11.4	22.5	23.31	192.2	1,021.3	666.9	648.2	18.64	35.775		
3,400.0	3,358.8	3,282.8	3,054.9	11.8	23.5	23.32	199.3	1,063.0	695.6	676.3	19.29	36.062		
3,500.0	3,457.3	3,378.6	3,140.8	12.2	24.4	23.33	206.4	1,104.8	724.3	704.4	19.94	36.329		
3,600.0	3,555.7	3,474.4	3,226.7	12.6	25.3	23.34	213.5	1,146.5	753.1	732.5	20.59	36.578		
3,700.0	3,654.2	3,570.2	3,312.6	13.0	26.2	23.35	220.6	1,188.3	781.8	760.6	21.24	36.812		
3,800.0	3,752.6	3,665.9	3,398.5	13.4	27.1	23.36	227.7	1,230.0	810.5	788.6	21.89	37.031		
3,900.0	3,851.1	3,761.7	3,484.4	13.8	28.0	23.37	234.9	1,271.8	839.3	816.7	22.54	37.236		
4,000.0	3,949.5	3,857.5	3,570.3	14.2	29.0	23.37	242.0	1,313.6	868.0	844.8	23.19	37.430		
4,100.0	4,048.0	3,953.3	3,656.2	14.6	29.9	23.38	249.1	1,355.3	896.7	872.9	23.84	37.613		
4,200.0	4,146.4	4,049.1	3,742.1	15.0	30.8	23.39	256.2	1,397.1	925.4	900.9	24.49	37.785		
4,300.0	4,244.9	4,144.9	3,828.0	15.4	31.7	23.39	263.3	1,438.8	954.2	929.0	25.14	37.948		
4,400.0	4,343.3	4,240.7	3,913.9	15.8	32.6	23.40	270.4	1,480.6	982.9	957.1	25.80	38.103		

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well State North Platte F-J-36HC
Project:	SEC.36-T5N-R63W	TVD Reference:	WELL @ 4558.0ft (RKB - 15')
Reference Site:	State North Platte K-O-36HC Pad Sec.36-T5N-R63W	MD Reference:	WELL @ 4558.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	State North Platte F-J-36HC	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (5-30-13)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4558.0ft (RKB - 15')
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: State North Platte F-J-36HC
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.72°



Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well State North Platte F-J-36HC
Project:	SEC.36-T5N-R63W	TVD Reference:	WELL @ 4558.0ft (RKB - 15')
Reference Site:	State North Platte K-O-36HC Pad Sec.36-T5N-R63W	MD Reference:	WELL @ 4558.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	State North Platte F-J-36HC	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (5-30-13)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4558.0ft (RKB - 15')
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: State North Platte F-J-36HC
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.72°

