

BONANZA CREEK ENERGY OPERATING

Well Name: **North Platte Federal F-J-22HNC**

Surface Location: North Platte F-22 Pad Sec.22-T5N-R63W
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

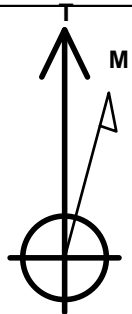
Ground Elevation: 4662.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1386790.07	3298928.60	40.390175	-104.426817	

RKB - 13' WELL @ 4675.0ft (RKB - 13')

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
SHL 717'FNL & 1206'FWL	1.0	0.0	0.0	Point
BHL 470'FSL & 1303'FWL	6556.0	-4092.3	102.2	Point
T1 531'FNL & 1280'FWL	6556.0	185.8	74.7	Point



Azimuths to True North
Magnetic North: 8.36°

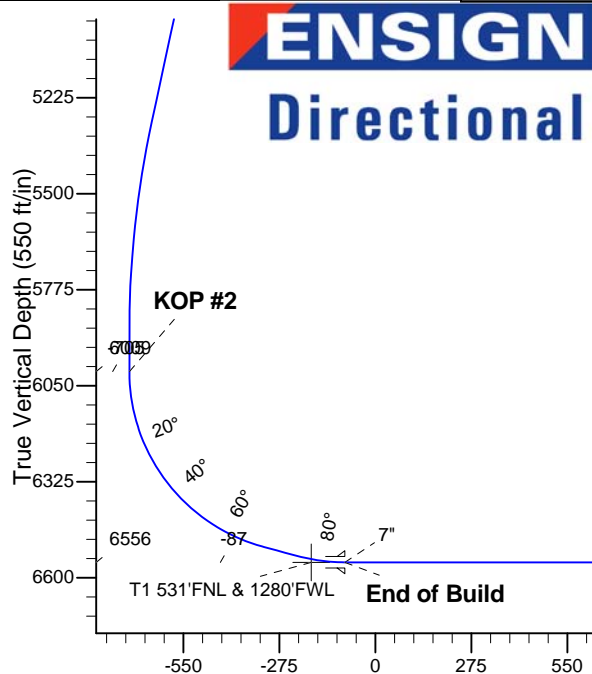
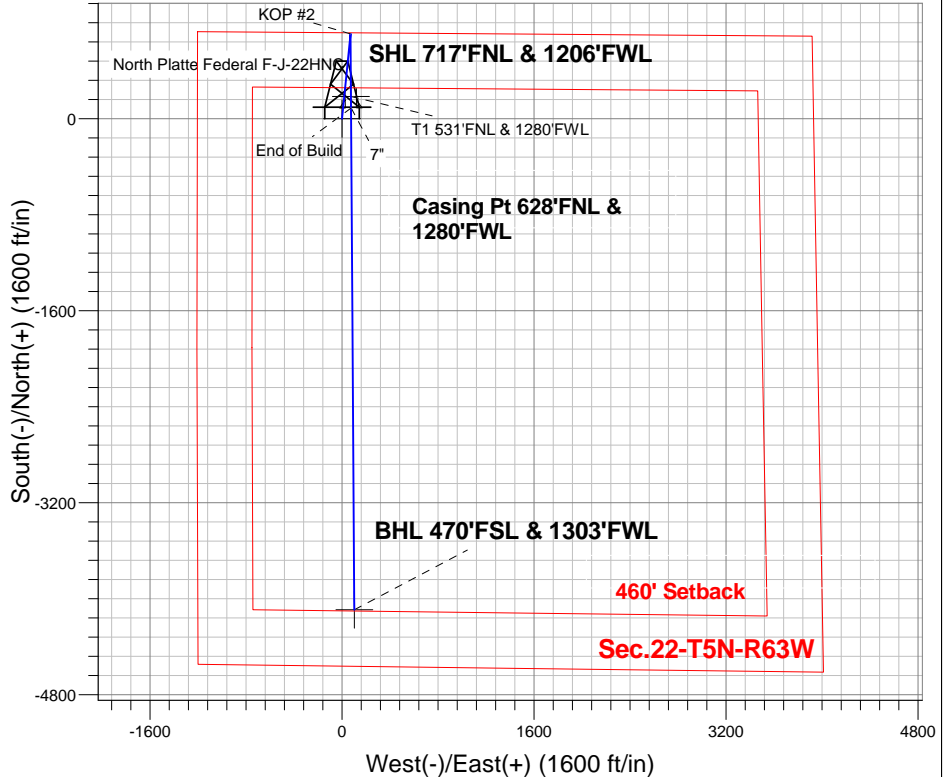
Magnetic Field
Strength: 52908.7nT
Dip Angle: 67.01°
Date: 11/12/2013
Model: IGRF2010

North Platte F-22 Pad Sec.22-T5N-R63W
North Platte Federal F-J-22HNC
Plan #1 (11-12-13)
14:21, November 20 2013

ANNOTATIONS

TVD	MD	Annotation
2000.0	2000.0	KOP #1
6009.3	6080.5	KOP #2
6556.0	6998.7	End of Build

South(-)/North(+) (1600 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	2000.0	0.00	0.00	2000.0	0.0	0.0	0.00	0.00	0.0	
3	2609.5	12.19	5.74	2604.9	64.3	6.5	2.00	5.74	-64.1	
4	5361.7	12.19	5.74	5295.1	642.5	64.5	0.00	0.00	-640.7	
5	5971.2	0.00	0.00	5900.0	706.8	71.0	2.00	180.00	-704.8	
6	6080.5	0.00	0.00	6009.2	706.8	71.0	0.00	0.00	-704.8	
7	6762.3	75.00	179.63	6512.4	320.7	73.5	11.00	179.63	-318.8	
8	6862.3	75.00	179.63	6538.3	224.2	74.1	0.00	0.00	-222.2	
9	6998.7	90.00	179.63	6556.0	89.3	75.0	11.00	0.00	-87.4	
10	1180.4	90.00	179.63	6556.0	-4092.3	102.2	0.00	0.00	4093.6	BHL 470'FSL & 1303'FWL

BHL 470'FSL & 1303'FWL

Vertical Section at 178.57° (550 ft/in)



BONANZA CREEK ENERGY OPERATING

SEC.22-T5N-R63W

North Platte F-22 Pad Sec.22-T5N-R63W

North Platte Federal F-J-22HNC

Wellbore #1

Plan: Plan #1 (11-12-13)

Standard Planning Report

20 November, 2013

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	
2,609.5	12.19	5.74	2,604.9	64.3	6.5	2.00	2.00	0.00	5.74	
5,361.7	12.19	5.74	5,295.1	642.5	64.5	0.00	0.00	0.00	0.00	
5,971.2	0.00	0.00	5,900.0	706.8	71.0	2.00	-2.00	0.00	180.00	
6,080.5	0.00	0.00	6,009.2	706.8	71.0	0.00	0.00	0.00	0.00	
6,762.3	75.00	179.63	6,512.4	320.7	73.5	11.00	11.00	0.00	179.63	
6,862.3	75.00	179.63	6,538.3	224.2	74.1	0.00	0.00	0.00	0.00	
6,998.7	90.00	179.63	6,556.0	89.3	75.0	11.00	11.00	0.00	0.00	
11,180.4	90.00	179.63	6,556.0	-4,092.3	102.2	0.00	0.00	0.00	0.00	BHL 470'FSL & 130'

Database:	Landmark	Local Co-ordinate Reference:	Well North Platte Federal F-J-22HNC
Company:	BONANZA CREEK ENERGY OPERATING	TVD Reference:	WELL @ 4675.0ft (RKB - 13')
Project:	SEC.22-T5N-R63W	MD Reference:	WELL @ 4675.0ft (RKB - 13')
Site:	North Platte F-22 Pad Sec.22-T5N-R63W	North Reference:	True
Well:	North Platte Federal F-J-22HNC	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (11-12-13)		

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
1.0	0.00	0.00	1.0	0.0	0.0	0.0	0.00	0.00	0.00
SHL 717'FNL & 1206'FWL									
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
KOP #1									
2,100.0	2.00	5.74	2,100.0	1.7	0.2	-1.7	2.00	2.00	0.00
2,200.0	4.00	5.74	2,199.8	6.9	0.7	-6.9	2.00	2.00	0.00
2,300.0	6.00	5.74	2,299.5	15.6	1.6	-15.6	2.00	2.00	0.00
2,400.0	8.00	5.74	2,398.7	27.7	2.8	-27.7	2.00	2.00	0.00
2,500.0	10.00	5.74	2,497.5	43.3	4.4	-43.2	2.00	2.00	0.00
2,600.0	12.00	5.74	2,595.6	62.3	6.3	-62.1	2.00	2.00	0.00
2,609.5	12.19	5.74	2,604.9	64.3	6.5	-64.1	2.00	2.00	0.00
2,700.0	12.19	5.74	2,693.4	83.3	8.4	-83.0	0.00	0.00	0.00
2,800.0	12.19	5.74	2,791.1	104.3	10.5	-104.0	0.00	0.00	0.00
2,900.0	12.19	5.74	2,888.9	125.3	12.6	-125.0	0.00	0.00	0.00
3,000.0	12.19	5.74	2,986.6	146.3	14.7	-145.9	0.00	0.00	0.00
3,100.0	12.19	5.74	3,084.4	167.3	16.8	-166.9	0.00	0.00	0.00
3,200.0	12.19	5.74	3,182.1	188.3	18.9	-187.8	0.00	0.00	0.00
3,300.0	12.19	5.74	3,279.8	209.3	21.0	-208.8	0.00	0.00	0.00
3,400.0	12.19	5.74	3,377.6	230.4	23.1	-229.7	0.00	0.00	0.00
3,500.0	12.19	5.74	3,475.3	251.4	25.3	-250.7	0.00	0.00	0.00
3,600.0	12.19	5.74	3,573.1	272.4	27.4	-271.6	0.00	0.00	0.00
3,700.0	12.19	5.74	3,670.8	293.4	29.5	-292.6	0.00	0.00	0.00
3,800.0	12.19	5.74	3,768.6	314.4	31.6	-313.5	0.00	0.00	0.00
3,900.0	12.19	5.74	3,866.3	335.4	33.7	-334.5	0.00	0.00	0.00
4,000.0	12.19	5.74	3,964.1	356.4	35.8	-355.4	0.00	0.00	0.00
4,100.0	12.19	5.74	4,061.8	377.4	37.9	-376.4	0.00	0.00	0.00
4,200.0	12.19	5.74	4,159.5	398.4	40.0	-397.3	0.00	0.00	0.00
4,300.0	12.19	5.74	4,257.3	419.5	42.1	-418.3	0.00	0.00	0.00
4,400.0	12.19	5.74	4,355.0	440.5	44.2	-439.2	0.00	0.00	0.00
4,500.0	12.19	5.74	4,452.8	461.5	46.4	-460.2	0.00	0.00	0.00
4,600.0	12.19	5.74	4,550.5	482.5	48.5	-481.1	0.00	0.00	0.00
4,700.0	12.19	5.74	4,648.3	503.5	50.6	-502.1	0.00	0.00	0.00
4,800.0	12.19	5.74	4,746.0	524.5	52.7	-523.0	0.00	0.00	0.00
4,900.0	12.19	5.74	4,843.8	545.5	54.8	-544.0	0.00	0.00	0.00

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Project:	SEC.22-T5N-R63W	MD Reference:	WELL @ 4675.0ft (RKB - 13')
Site:	North Platte F-22 Pad Sec.22-T5N-R63W	North Reference:	True
Well:	North Platte Federal F-J-22HNC	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (11-12-13)		

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)
5,000.0	12.19	5.74	4,941.5	566.5	56.9	-564.9	0.00	0.00	0.00
5,100.0	12.19	5.74	5,039.3	587.5	59.0	-585.9	0.00	0.00	0.00
5,200.0	12.19	5.74	5,137.0	608.5	61.1	-606.8	0.00	0.00	0.00
5,300.0	12.19	5.74	5,234.7	629.6	63.2	-627.8	0.00	0.00	0.00
5,361.7	12.19	5.74	5,295.1	642.5	64.5	-640.7	0.00	0.00	0.00
5,400.0	11.42	5.74	5,332.5	650.3	65.3	-648.5	2.00	-2.00	0.00
5,500.0	9.42	5.74	5,430.9	668.3	67.1	-666.4	2.00	-2.00	0.00
5,600.0	7.42	5.74	5,529.8	682.9	68.6	-681.0	2.00	-2.00	0.00
5,700.0	5.42	5.74	5,629.2	694.0	69.7	-692.1	2.00	-2.00	0.00
5,800.0	3.42	5.74	5,728.9	701.7	70.5	-699.7	2.00	-2.00	0.00
5,900.0	1.42	5.74	5,828.8	705.9	70.9	-703.9	2.00	-2.00	0.00
5,971.2	0.00	0.00	5,900.0	706.8	71.0	-704.8	2.00	-2.00	0.00
6,000.0	0.00	0.00	5,928.8	706.8	71.0	-704.8	0.00	0.00	0.00
6,080.5	0.00	0.00	6,009.3	706.8	71.0	-704.8	0.00	0.00	0.00
KOP #2									
6,100.0	2.15	179.63	6,028.8	706.4	71.0	-704.4	11.01	11.01	0.00
6,200.0	13.15	179.63	6,127.7	693.1	71.1	-691.2	11.00	11.00	0.00
6,300.0	24.15	179.63	6,222.3	661.2	71.3	-659.2	11.00	11.00	0.00
6,400.0	35.15	179.63	6,309.1	611.8	71.6	-609.9	11.00	11.00	0.00
6,500.0	46.15	179.63	6,384.9	546.8	72.0	-544.8	11.00	11.00	0.00
6,600.0	57.15	179.63	6,446.8	468.5	72.6	-466.5	11.00	11.00	0.00
6,700.0	68.15	179.63	6,492.7	379.8	73.1	-377.9	11.00	11.00	0.00
6,762.3	75.00	179.63	6,512.4	320.7	73.5	-318.8	11.00	11.00	0.00
6,800.0	75.00	179.63	6,522.1	284.3	73.8	-282.4	0.00	0.00	0.00
6,862.3	75.00	179.63	6,538.3	224.2	74.1	-222.2	0.00	0.00	0.00
6,900.0	79.15	179.63	6,546.7	187.4	74.4	-185.5	11.00	11.00	0.00
6,902.5	79.42	179.63	6,547.1	185.0	74.4	-183.1	11.00	11.00	0.00
T1 531'FNL & 1280'FWL									
6,998.7	90.00	179.63	6,556.0	89.3	75.0	-87.4	11.00	11.00	0.00
End of Build - 7"									
7,000.0	90.00	179.63	6,556.0	88.0	75.0	-86.1	0.00	0.00	0.00
7,100.0	90.00	179.63	6,556.0	-12.0	75.7	13.9	0.00	0.00	0.00
7,200.0	90.00	179.63	6,556.0	-112.0	76.3	113.9	0.00	0.00	0.00
7,300.0	90.00	179.63	6,556.0	-212.0	77.0	213.8	0.00	0.00	0.00
7,400.0	90.00	179.63	6,556.0	-312.0	77.6	313.8	0.00	0.00	0.00
7,500.0	90.00	179.63	6,556.0	-412.0	78.3	413.8	0.00	0.00	0.00
7,600.0	90.00	179.63	6,556.0	-512.0	78.9	513.8	0.00	0.00	0.00
7,700.0	90.00	179.63	6,556.0	-612.0	79.6	613.8	0.00	0.00	0.00
7,800.0	90.00	179.63	6,556.0	-712.0	80.2	713.8	0.00	0.00	0.00
7,900.0	90.00	179.63	6,556.0	-812.0	80.9	813.7	0.00	0.00	0.00
8,000.0	90.00	179.63	6,556.0	-912.0	81.5	913.7	0.00	0.00	0.00
8,100.0	90.00	179.63	6,556.0	-1,012.0	82.2	1,013.7	0.00	0.00	0.00
8,200.0	90.00	179.63	6,556.0	-1,112.0	82.8	1,113.7	0.00	0.00	0.00
8,300.0	90.00	179.63	6,556.0	-1,212.0	83.5	1,213.7	0.00	0.00	0.00
8,400.0	90.00	179.63	6,556.0	-1,312.0	84.1	1,313.6	0.00	0.00	0.00
8,500.0	90.00	179.63	6,556.0	-1,412.0	84.8	1,413.6	0.00	0.00	0.00
8,600.0	90.00	179.63	6,556.0	-1,512.0	85.4	1,513.6	0.00	0.00	0.00
8,700.0	90.00	179.63	6,556.0	-1,611.9	86.1	1,613.6	0.00	0.00	0.00
8,800.0	90.00	179.63	6,556.0	-1,711.9	86.7	1,713.6	0.00	0.00	0.00
8,900.0	90.00	179.63	6,556.0	-1,811.9	87.4	1,813.6	0.00	0.00	0.00
9,000.0	90.00	179.63	6,556.0	-1,911.9	88.1	1,913.5	0.00	0.00	0.00
9,100.0	90.00	179.63	6,556.0	-2,011.9	88.7	2,013.5	0.00	0.00	0.00
9,200.0	90.00	179.63	6,556.0	-2,111.9	89.4	2,113.5	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well North Platte Federal F-J-22HNC
Company:	BONANZA CREEK ENERGY OPERATING	TVD Reference:	WELL @ 4675.0ft (RKB - 13')
Project:	SEC.22-T5N-R63W	MD Reference:	WELL @ 4675.0ft (RKB - 13')
Site:	North Platte F-22 Pad Sec.22-T5N-R63W	North Reference:	True
Well:	North Platte Federal F-J-22HNC	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (11-12-13)		

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)	
9,300.0	90.00	179.63	6,556.0	-2,211.9	90.0	2,213.5	0.00	0.00	0.00	
9,400.0	90.00	179.63	6,556.0	-2,311.9	90.7	2,313.5	0.00	0.00	0.00	
9,500.0	90.00	179.63	6,556.0	-2,411.9	91.3	2,413.5	0.00	0.00	0.00	
9,600.0	90.00	179.63	6,556.0	-2,511.9	92.0	2,513.4	0.00	0.00	0.00	
9,700.0	90.00	179.63	6,556.0	-2,611.9	92.6	2,613.4	0.00	0.00	0.00	
9,800.0	90.00	179.63	6,556.0	-2,711.9	93.3	2,713.4	0.00	0.00	0.00	
9,900.0	90.00	179.63	6,556.0	-2,811.9	93.9	2,813.4	0.00	0.00	0.00	
10,000.0	90.00	179.63	6,556.0	-2,911.9	94.6	2,913.4	0.00	0.00	0.00	
10,100.0	90.00	179.63	6,556.0	-3,011.9	95.2	3,013.4	0.00	0.00	0.00	
10,200.0	90.00	179.63	6,556.0	-3,111.9	95.9	3,113.3	0.00	0.00	0.00	
10,300.0	90.00	179.63	6,556.0	-3,211.9	96.5	3,213.3	0.00	0.00	0.00	
10,400.0	90.00	179.63	6,556.0	-3,311.9	97.2	3,313.3	0.00	0.00	0.00	
10,500.0	90.00	179.63	6,556.0	-3,411.9	97.8	3,413.3	0.00	0.00	0.00	
10,600.0	90.00	179.63	6,556.0	-3,511.9	98.5	3,513.3	0.00	0.00	0.00	
10,700.0	90.00	179.63	6,556.0	-3,611.9	99.1	3,613.3	0.00	0.00	0.00	
10,800.0	90.00	179.63	6,556.0	-3,711.9	99.8	3,713.2	0.00	0.00	0.00	
10,900.0	90.00	179.63	6,556.0	-3,811.9	100.4	3,813.2	0.00	0.00	0.00	
11,000.0	90.00	179.63	6,556.0	-3,911.9	101.1	3,913.2	0.00	0.00	0.00	
11,100.0	90.00	179.63	6,556.0	-4,011.9	101.7	4,013.2	0.00	0.00	0.00	
11,180.4	90.00	179.63	6,556.0	-4,092.3	102.2	4,093.6	0.00	0.00	0.00	
BHL 470'FSL & 1303'FWL										

Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude	
BHL 470'FSL & 1303'I - hit/miss target - Shape - Point	0.00	0.00	6,556.0	-4,092.3	102.2	1,382,699.49	3,299,080.36	40.378942	-104.426450	
T1 531'FNL & 1280'F - plan misses target center by 8.9ft at 6902.5ft MD (6547.1 TVD, 185.0 N, 74.4 E) - Point	0.00	0.00	6,556.0	185.8	74.7	1,386,976.77	3,299,001.00	40.390685	-104.426549	
SHL 717'FNL & 1206' - plan hits target center - Point	0.00	0.00	1.0	0.0	0.0	1,386,790.09	3,298,928.60	40.390175	-104.426817	

Casing Points						
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")		
6,998.7	6,556.0	7"	7	7-1/2		

Database:	Landmark	Local Co-ordinate Reference:	Well North Platte Federal F-J-22HNC
Company:	BONANZA CREEK ENERGY OPERATING	TVD Reference:	WELL @ 4675.0ft (RKB - 13')
Project:	SEC.22-T5N-R63W	MD Reference:	WELL @ 4675.0ft (RKB - 13')
Site:	North Platte F-22 Pad Sec.22-T5N-R63W	North Reference:	True
Well:	North Platte Federal F-J-22HNC	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (11-12-13)		

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
2,000.0	2,000.0	0.0	0.0	KOP #1
6,080.5	6,009.3	706.8	71.0	KOP #2
6,998.7	6,556.0	89.3	75.0	End of Build



BONANZA CREEK ENERGY OPERATING

SEC.22-T5N-R63W

North Platte F-22 Pad Sec.22-T5N-R63W

North Platte Federal F-J-22HNC

Wellbore #1

Plan #1 (11-12-13)

Anticollision Report

20 November, 2013

Offset Design		North Platte F-22 Pad Sec.22-T5N-R63W - North Platte Federal 11-14-22HNC - Wellbore #1 - Plan #1 (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)			
1,700.0	1,700.0	1,673.4	1,664.1	3.7	4.2	-28.22	144.4	-77.5	166.8	159.4	7.44	22.431		
1,800.0	1,800.0	1,771.6	1,760.5	3.9	4.6	-29.67	158.2	-90.2	185.4	177.5	7.89	23.478		
1,900.0	1,900.0	1,869.8	1,856.9	4.2	4.9	-30.86	172.0	-102.8	204.0	195.7	8.36	24.417		
2,000.0	2,000.0	1,967.9	1,953.2	4.4	5.3	-31.85	185.9	-115.4	222.7	213.9	8.82	25.261		
2,100.0	2,100.0	2,066.3	2,049.8	4.6	5.7	-38.46	199.7	-128.1	240.2	230.9	9.32	25.761		
2,200.0	2,199.8	2,165.0	2,146.7	4.8	6.1	-39.72	213.6	-140.8	255.0	245.3	9.79	26.062		
2,300.0	2,299.5	2,263.9	2,243.7	5.1	6.5	-41.34	227.5	-153.6	267.5	257.2	10.24	26.109		
2,400.0	2,398.7	2,362.9	2,340.9	5.3	6.9	-43.31	241.4	-166.3	277.6	266.9	10.70	25.940		
2,500.0	2,497.5	2,461.8	2,438.0	5.5	7.3	-45.65	255.3	-179.1	285.6	274.4	11.16	25.583		
2,600.0	2,595.6	2,560.6	2,535.0	5.8	7.7	-48.36	269.2	-191.8	291.8	280.1	11.65	25.054		
2,700.0	2,693.4	2,659.2	2,631.8	6.1	8.1	-51.33	283.1	-204.5	297.4	285.2	12.18	24.426		
2,800.0	2,791.1	2,757.8	2,728.6	6.4	8.5	-54.20	297.0	-217.2	303.8	291.0	12.74	23.848		
2,900.0	2,888.9	2,856.5	2,825.4	6.7	9.0	-56.95	310.8	-229.9	310.9	297.6	13.33	23.319		
3,000.0	2,986.6	2,955.1	2,922.3	7.1	9.4	-59.57	324.7	-242.6	318.7	304.7	13.96	22.835		
3,100.0	3,084.4	3,053.7	3,019.1	7.4	9.8	-62.06	338.6	-255.3	327.2	312.5	14.61	22.392		
3,200.0	3,182.1	3,152.4	3,115.9	7.8	10.2	-64.42	352.5	-268.1	336.2	320.9	15.29	21.987		
3,300.0	3,279.8	3,251.0	3,212.7	8.2	10.6	-66.66	366.3	-280.8	345.8	329.8	16.00	21.617		
3,400.0	3,377.6	3,349.6	3,309.6	8.5	11.0	-68.78	380.2	-293.5	355.9	339.2	16.72	21.280		
3,500.0	3,475.3	3,448.3	3,406.4	8.9	11.4	-70.78	394.1	-306.2	366.5	349.0	17.47	20.976		
3,600.0	3,573.1	3,546.9	3,503.2	9.3	11.8	-72.67	408.0	-318.9	377.5	359.2	18.24	20.700		
3,700.0	3,670.8	3,645.5	3,600.0	9.7	12.2	-74.45	421.8	-331.6	388.8	369.8	19.01	20.452		
3,800.0	3,768.6	3,744.2	3,696.8	10.1	12.7	-76.13	435.7	-344.3	400.6	380.8	19.80	20.228		
3,900.0	3,866.3	3,842.8	3,793.7	10.5	13.1	-77.71	449.6	-357.0	412.6	392.0	20.60	20.028		
4,000.0	3,964.1	3,941.5	3,890.5	10.9	13.5	-79.21	463.5	-369.7	425.0	403.6	21.41	19.848		
4,100.0	4,061.8	4,040.1	3,987.3	11.3	13.9	-80.62	477.3	-382.4	437.6	415.4	22.23	19.688		
4,200.0	4,159.5	4,138.7	4,084.1	11.7	14.3	-81.95	491.2	-395.1	450.5	427.4	23.05	19.545		
4,300.0	4,257.3	4,237.4	4,181.0	12.2	14.7	-83.20	505.1	-407.8	463.6	439.7	23.87	19.417		
4,400.0	4,355.0	4,336.0	4,277.8	12.6	15.2	-84.39	519.0	-420.6	476.9	452.2	24.70	19.304		
4,500.0	4,452.8	4,434.6	4,374.6	13.0	15.6	-85.51	532.8	-433.3	490.4	464.9	25.54	19.203		
4,600.0	4,550.5	4,533.3	4,471.4	13.4	16.0	-86.58	546.7	-446.0	504.1	477.7	26.37	19.114		
4,700.0	4,648.3	4,631.9	4,568.3	13.8	16.4	-87.58	560.6	-458.7	517.9	490.7	27.21	19.034		
4,800.0	4,746.0	4,730.5	4,665.1	14.3	16.8	-88.54	574.5	-471.4	531.9	503.9	28.05	18.964		
4,900.0	4,843.8	4,829.2	4,761.9	14.7	17.2	-89.45	588.3	-484.1	546.0	517.1	28.89	18.902		
5,000.0	4,941.5	4,927.8	4,858.7	15.1	17.6	-90.31	602.2	-496.8	560.3	530.6	29.73	18.848		
5,100.0	5,039.3	5,026.4	4,955.5	15.6	18.1	-91.12	616.1	-509.5	574.7	544.1	30.57	18.800		
5,200.0	5,137.0	5,125.1	5,052.4	16.0	18.5	-91.90	630.0	-522.2	589.1	557.7	31.41	18.758		
5,300.0	5,234.7	5,223.7	5,149.2	16.4	18.9	-92.64	643.8	-534.9	603.7	571.5	32.25	18.721		
5,400.0	5,332.5	5,322.3	5,246.0	16.8	19.3	-93.44	657.7	-547.6	618.4	585.3	33.08	18.694		
5,500.0	5,430.9	5,421.2	5,343.1	17.1	19.7	-94.13	671.6	-560.4	633.0	599.1	33.81	18.720		
5,600.0	5,529.8	5,536.3	5,456.4	17.4	20.1	-94.59	686.4	-573.9	646.2	611.7	34.48	18.740		
5,700.0	5,629.2	5,654.0	5,573.1	17.7	20.4	-94.93	698.1	-584.6	656.4	621.3	35.05	18.726		
5,800.0	5,728.9	5,772.4	5,690.9	17.9	20.7	-95.16	706.3	-592.1	663.4	627.9	35.53	18.671		
5,900.0	5,828.8	5,891.1	5,809.4	18.1	20.9	-95.28	710.9	-596.3	667.4	631.5	35.93	18.576		
6,000.0	5,928.8	6,005.5	5,923.8	18.2	21.0	-89.56	711.9	-597.3	668.3	632.1	36.20	18.461		
6,058.6	5,987.3	6,064.0	5,982.3	18.3	21.1	90.87	711.9	-597.3	668.3	631.9	36.41	18.355		
6,100.0	6,028.8	6,105.7	6,024.0	18.3	21.2	90.81	711.5	-597.3	668.3	631.8	36.53	18.294		
6,200.0	6,127.7	6,207.2	6,124.4	18.3	21.2	90.79	697.9	-597.2	668.3	631.8	36.52	18.301		
6,300.0	6,222.3	6,308.5	6,220.1	18.1	21.0	90.74	665.1	-597.1	668.4	632.3	36.15	18.492		
6,400.0	6,309.1	6,409.8	6,307.6	17.8	20.7	90.66	614.5	-596.9	668.6	633.1	35.49	18.840		
6,500.0	6,384.9	6,510.8	6,383.6	17.3	20.4	90.56	548.0	-596.7	668.8	634.1	34.65	19.300		
6,600.0	6,446.8	6,611.7	6,445.2	16.9	20.0	90.44	468.3	-596.4	669.0	635.2	33.78	19.804		
6,700.0	6,492.7	6,712.4	6,490.2	16.4	19.5	90.30	378.5	-596.1	669.3	636.2	33.03	20.265		

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well North Platte Federal F-J-22HNC
Project:	SEC.22-T5N-R63W	TVD Reference:	WELL @ 4675.0ft (RKB - 13')
Reference Site:	North Platte F-22 Pad Sec.22-T5N-R63W	MD Reference:	WELL @ 4675.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	North Platte Federal F-J-22HNC	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 (11-12-13)	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 ft
Survey Program: 0-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
6,800.0	6,522.1	6,812.6	6,519.0	16.1	19.1	90.21	282.5	-595.8	669.6	637.0	32.53	20.583	
6,900.0	6,546.7	6,912.7	6,543.0	16.0	18.8	90.15	185.4	-595.5	669.9	637.4	32.42	20.663	
7,000.0	6,556.0	7,012.9	6,551.0	16.1	18.5	90.00	85.7	-595.1	670.2	637.5	32.70	20.493	
7,100.0	6,556.0	7,112.9	6,551.0	16.4	18.2	90.00	-14.3	-594.8	670.5	637.1	33.39	20.079	
7,200.0	6,556.0	7,212.9	6,551.0	16.9	18.3	90.00	-114.3	-594.5	670.8	636.3	34.50	19.445	
7,300.0	6,556.0	7,312.8	6,551.0	17.6	18.9	90.00	-214.3	-594.1	671.1	635.1	35.98	18.652	
7,400.0	6,556.0	7,412.8	6,551.0	18.5	19.9	90.00	-314.3	-593.8	671.4	633.6	37.80	17.764	
7,500.0	6,556.0	7,512.8	6,551.0	19.6	21.1	90.00	-414.3	-593.4	671.7	631.8	39.90	16.833	
7,600.0	6,556.0	7,612.8	6,551.0	20.7	22.3	90.00	-514.3	-593.1	672.0	629.8	42.26	15.904	
7,700.0	6,556.0	7,712.8	6,551.0	22.0	23.6	90.00	-614.3	-592.7	672.3	627.5	44.82	15.002	
7,800.0	6,556.0	7,812.8	6,551.0	23.4	25.0	90.00	-714.3	-592.4	672.6	625.1	47.55	14.146	
7,900.0	6,556.0	7,912.8	6,551.0	24.8	26.5	90.00	-814.3	-592.1	673.0	622.5	50.43	13.345	
8,000.0	6,556.0	8,012.8	6,551.0	26.3	28.0	90.00	-914.3	-591.7	673.3	619.8	53.43	12.601	
8,100.0	6,556.0	8,112.8	6,551.0	27.9	29.5	90.00	-1,014.3	-591.4	673.6	617.0	56.53	11.915	
8,200.0	6,556.0	8,212.8	6,551.0	29.5	31.1	90.00	-1,114.3	-591.0	673.9	614.2	59.72	11.283	
8,300.0	6,556.0	8,312.8	6,551.0	31.1	32.7	90.00	-1,214.3	-590.7	674.2	611.2	62.99	10.704	
8,400.0	6,556.0	8,412.8	6,551.0	32.7	34.3	90.00	-1,314.3	-590.4	674.5	608.2	66.31	10.172	
8,500.0	6,556.0	8,512.8	6,551.0	34.4	36.0	90.00	-1,414.3	-590.0	674.8	605.1	69.69	9.683	
8,600.0	6,556.0	8,612.8	6,551.0	36.2	37.7	90.00	-1,514.3	-589.7	675.1	602.0	73.12	9.233	
8,700.0	6,556.0	8,712.8	6,551.0	37.9	39.4	90.00	-1,614.3	-589.3	675.4	598.9	76.58	8.820	
8,800.0	6,556.0	8,812.8	6,551.0	39.6	41.2	90.00	-1,714.3	-589.0	675.7	595.7	80.08	8.438	
8,900.0	6,556.0	8,912.8	6,551.0	41.4	42.9	90.00	-1,814.3	-588.7	676.1	592.4	83.61	8.085	
9,000.0	6,556.0	9,012.8	6,551.0	43.2	44.7	90.00	-1,914.3	-588.3	676.4	589.2	87.17	7.759	
9,100.0	6,556.0	9,112.8	6,551.0	45.0	46.4	90.00	-2,014.3	-588.0	676.7	585.9	90.75	7.456	
9,200.0	6,556.0	9,212.8	6,551.0	46.8	48.2	90.00	-2,114.3	-587.6	677.0	582.6	94.35	7.175	
9,300.0	6,556.0	9,312.8	6,551.0	48.6	50.0	90.00	-2,214.2	-587.3	677.3	579.3	97.97	6.913	
9,400.0	6,556.0	9,412.8	6,551.0	50.4	51.8	90.00	-2,314.2	-586.9	677.6	576.0	101.61	6.669	
9,500.0	6,556.0	9,512.8	6,551.0	52.2	53.6	90.00	-2,414.2	-586.6	677.9	572.7	105.26	6.440	
9,600.0	6,556.0	9,612.8	6,551.0	54.1	55.4	90.00	-2,514.2	-586.3	678.2	569.3	108.93	6.226	
9,700.0	6,556.0	9,712.8	6,551.0	55.9	57.3	90.00	-2,614.2	-585.9	678.5	565.9	112.60	6.026	
9,800.0	6,556.0	9,812.8	6,551.0	57.8	59.1	90.00	-2,714.2	-585.6	678.8	562.5	116.29	5.837	
9,900.0	6,556.0	9,912.8	6,551.0	59.6	60.9	90.00	-2,814.2	-585.2	679.2	559.2	119.99	5.660	
10,000.0	6,556.0	10,012.8	6,551.0	61.5	62.8	90.00	-2,914.2	-584.9	679.5	555.8	123.70	5.493	
10,100.0	6,556.0	10,112.8	6,551.0	63.3	64.6	90.00	-3,014.2	-584.6	679.8	552.4	127.41	5.335	
10,200.0	6,556.0	10,212.8	6,551.0	65.2	66.5	90.00	-3,114.2	-584.2	680.1	548.9	131.14	5.186	
10,300.0	6,556.0	10,312.8	6,551.0	67.0	68.3	90.00	-3,214.2	-583.9	680.4	545.5	134.87	5.045	
10,400.0	6,556.0	10,412.8	6,551.0	68.9	70.2	90.00	-3,314.2	-583.5	680.7	542.1	138.60	4.911	
10,500.0	6,556.0	10,512.8	6,551.0	70.8	72.0	90.00	-3,414.2	-583.2	681.0	538.7	142.34	4.784	
10,600.0	6,556.0	10,612.8	6,551.0	72.7	73.9	90.00	-3,514.2	-582.8	681.3	535.2	146.09	4.664	
10,700.0	6,556.0	10,712.8	6,551.0	74.5	75.8	90.00	-3,614.2	-582.5	681.6	531.8	149.84	4.549	
10,800.0	6,556.0	10,812.8	6,551.0	76.4	77.6	90.00	-3,714.2	-582.2	681.9	528.3	153.60	4.440	
10,900.0	6,556.0	10,912.8	6,551.0	78.3	79.5	90.00	-3,814.2	-581.8	682.2	524.9	157.36	4.336	
11,000.0	6,556.0	11,012.8	6,551.0	80.2	81.4	90.00	-3,914.2	-581.5	682.6	521.4	161.13	4.236	
11,100.0	6,556.0	11,112.8	6,551.0	82.1	83.3	90.00	-4,014.2	-581.1	682.9	518.0	164.90	4.141	
11,180.4	6,556.0	11,182.5	6,551.0	83.6	84.6	90.00	-4,083.9	-580.9	683.2	515.5	167.73	4.073 SF	

North Platte F-22 Pad Sec.22-T5N-R63W - North Platte Federal A11-E14-22HNB - Wellbore #1 - Plan #													Offset Site Error:	0.0 ft
Survey Program: 0-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	
0.0	0.0	0.0	0.0	0.0	0.0	-0.40	80.2	-0.6	80.3					
100.0	100.0	95.0	95.0	0.1	0.1	-0.40	80.2	-0.6	80.2	79.9	0.22	365.741		
200.0	200.0	195.0	195.0	0.3	0.3	-0.40	80.2	-0.6	80.2	79.5	0.66	120.886		
300.0	300.0	295.0	295.0	0.6	0.6	-0.40	80.2	-0.6	80.2	79.0	1.11	72.043		
400.0	400.0	395.0	395.0	0.8	0.8	-0.40	80.2	-0.6	80.2	78.6	1.56	51.311 CC, ES		
500.0	500.0	493.4	493.4	1.0	1.0	-1.27	81.0	-1.8	81.1	79.1	2.00	40.444		
600.0	600.0	591.6	591.4	1.2	1.2	-3.93	83.9	-5.8	84.2	81.7	2.45	34.340		
700.0	700.0	689.2	688.7	1.5	1.4	-7.98	88.6	-12.4	89.7	86.8	2.91	30.864		
800.0	800.0	786.3	785.1	1.7	1.7	-12.83	95.3	-21.7	98.2	94.9	3.37	29.114		
900.0	900.0	882.4	880.1	1.9	2.0	-17.90	103.7	-33.5	110.0	106.2	3.85	28.599		
1,000.0	1,000.0	977.4	973.5	2.1	2.3	-22.73	113.9	-47.7	125.4	121.0	4.32	28.998		
1,100.0	1,100.0	1,072.3	1,066.2	2.4	2.7	-27.08	125.8	-64.3	144.2	139.4	4.80	30.039		
1,200.0	1,200.0	1,169.8	1,161.2	2.6	3.1	-30.64	138.5	-82.0	164.5	159.2	5.27	31.201		
1,300.0	1,300.0	1,267.3	1,256.2	2.8	3.6	-33.42	151.2	-99.7	185.2	179.5	5.74	32.282		
1,400.0	1,400.0	1,364.7	1,351.2	3.0	4.0	-35.64	163.8	-117.5	206.3	200.1	6.20	33.253		
1,500.0	1,500.0	1,462.2	1,446.2	3.3	4.4	-37.44	176.5	-135.2	227.6	221.0	6.67	34.119		
1,600.0	1,600.0	1,559.7	1,541.2	3.5	4.9	-38.94	189.2	-152.9	249.1	242.0	7.14	34.892		
1,700.0	1,700.0	1,657.2	1,636.2	3.7	5.4	-40.20	201.9	-170.6	270.8	263.2	7.61	35.581		
1,800.0	1,800.0	1,754.6	1,731.2	3.9	5.8	-41.27	214.6	-188.3	292.5	284.5	8.08	36.198		
1,900.0	1,900.0	1,852.1	1,826.2	4.2	6.3	-42.20	227.3	-206.0	314.4	305.8	8.55	36.750		
2,000.0	2,000.0	1,949.6	1,921.2	4.4	6.7	-43.00	239.9	-223.8	336.3	327.2	9.03	37.247		
2,100.0	2,100.0	2,047.2	2,016.4	4.6	7.2	-49.34	252.6	-241.5	357.1	347.5	9.61	37.169		
2,200.0	2,199.8	2,145.1	2,111.9	4.8	7.7	-50.28	265.4	-259.3	375.9	365.8	10.09	37.266		
2,300.0	2,299.5	2,243.2	2,207.4	5.1	8.1	-51.53	278.1	-277.1	392.6	382.1	10.56	37.196		
2,400.0	2,398.7	2,341.3	2,303.1	5.3	8.6	-53.07	290.9	-294.9	407.6	396.6	11.02	36.976		
2,500.0	2,497.5	2,439.3	2,398.6	5.5	9.1	-54.88	303.7	-312.8	420.9	409.4	11.50	36.614		
2,600.0	2,595.6	2,537.1	2,493.9	5.8	9.5	-56.96	316.4	-330.5	432.8	420.9	11.99	36.107		
2,700.0	2,693.4	2,634.7	2,589.1	6.1	10.0	-59.31	329.1	-348.3	444.4	431.9	12.51	35.515		
2,800.0	2,791.1	2,732.3	2,684.2	6.4	10.5	-61.56	341.8	-366.0	456.7	443.6	13.07	34.938		
2,900.0	2,888.9	2,830.0	2,779.4	6.7	11.0	-63.70	354.5	-383.8	469.6	456.0	13.66	34.381		
3,000.0	2,986.6	2,927.6	2,874.5	7.1	11.4	-65.72	367.2	-401.5	483.2	468.9	14.28	33.845		
3,100.0	3,084.4	3,025.2	2,969.7	7.4	11.9	-67.63	379.9	-419.3	497.4	482.4	14.92	33.331		
3,200.0	3,182.1	3,122.8	3,064.8	7.8	12.4	-69.44	392.6	-437.0	512.0	496.5	15.59	32.841		
3,300.0	3,279.8	3,220.4	3,160.0	8.2	12.8	-71.14	405.3	-454.7	527.2	510.9	16.28	32.376		
3,400.0	3,377.6	3,318.1	3,255.1	8.5	13.3	-72.76	418.0	-472.5	542.8	525.8	17.00	31.937		
3,500.0	3,475.3	3,415.7	3,350.3	8.9	13.8	-74.28	430.7	-490.2	558.8	541.1	17.73	31.524		
3,600.0	3,573.1	3,513.3	3,445.4	9.3	14.3	-75.72	443.4	-508.0	575.2	556.7	18.47	31.137		
3,700.0	3,670.8	3,610.9	3,540.6	9.7	14.7	-77.08	456.1	-525.7	591.9	572.7	19.23	30.776		
3,800.0	3,768.6	3,708.6	3,635.7	10.1	15.2	-78.36	468.8	-543.5	609.0	589.0	20.01	30.438		
3,900.0	3,866.3	3,806.2	3,730.9	10.5	15.7	-79.58	481.5	-561.2	626.3	605.5	20.79	30.124		
4,000.0	3,964.1	3,903.8	3,826.0	10.9	16.1	-80.73	494.2	-578.9	643.9	622.3	21.58	29.833		
4,100.0	4,061.8	4,001.4	3,921.2	11.3	16.6	-81.82	506.9	-596.7	661.7	639.3	22.38	29.562		
4,200.0	4,159.5	4,099.0	4,016.3	11.7	17.1	-82.86	519.6	-614.4	679.8	656.6	23.19	29.311		
4,300.0	4,257.3	4,196.7	4,111.5	12.2	17.6	-83.84	532.3	-632.2	698.0	674.0	24.01	29.078		
4,400.0	4,355.0	4,294.3	4,206.6	12.6	18.0	-84.77	545.0	-649.9	716.5	691.7	24.82	28.862		
4,500.0	4,452.8	4,391.9	4,301.8	13.0	18.5	-85.66	557.7	-667.7	735.1	709.5	25.65	28.661		
4,600.0	4,550.5	4,489.5	4,396.9	13.4	19.0	-86.50	570.4	-685.4	753.9	727.4	26.48	28.476		
4,700.0	4,648.3	4,587.2	4,492.1	13.8	19.4	-87.30	583.1	-703.1	772.8	745.5	27.31	28.303		
4,800.0	4,746.0	4,684.8	4,587.2	14.3	19.9	-88.06	595.8	-720.9	791.9	763.8	28.14	28.143		
4,900.0	4,843.8	4,782.4	4,682.4	14.7	20.4	-88.79	608.5	-738.6	811.1	782.2	28.98	27.994		
5,000.0	4,941.5	4,880.0	4,777.6	15.1	20.9	-89.48	621.2	-756.4	830.5	800.7	29.81	27.856		
5,100.0	5,039.3	4,977.6	4,872.7	15.6	21.3	-90.15	634.0	-774.1	849.9	819.3	30.65	27.728		

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well North Platte Federal F-J-22HNC
Project:	SEC.22-T5N-R63W	TVD Reference:	WELL @ 4675.0ft (RKB - 13')
Reference Site:	North Platte F-22 Pad Sec.22-T5N-R63W	MD Reference:	WELL @ 4675.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	North Platte Federal F-J-22HNC	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 (11-12-13)	Offset TVD Reference:	Offset Datum

Offset Design		North Platte F-22 Pad Sec.22-T5N-R63W - North Platte Federal A11-E14-22HNB - Wellbore #1 - Plan #										Offset Site Error:		0.0 ft
Survey Program: 0-MWD												Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis		Distance							Warning	
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor		
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
5,200.0	5,137.0	5,075.3	4,967.9	16.0	21.8	-90.78	646.7	-791.9	869.5	838.0	31.49	27.608		
5,300.0	5,234.7	5,172.9	5,063.0	16.4	22.3	-91.39	659.4	-809.6	889.1	856.8	32.34	27.497		
5,400.0	5,332.5	5,270.5	5,158.2	16.8	22.8	-92.10	672.1	-827.3	908.9	875.7	33.18	27.391		
5,500.0	5,430.9	5,403.8	5,288.7	17.1	23.2	-93.06	687.7	-849.2	926.7	892.7	34.01	27.251		
5,600.0	5,529.8	5,539.2	5,422.4	17.4	23.6	-93.85	699.9	-866.2	940.6	905.8	34.73	27.083		
5,700.0	5,629.2	5,675.7	5,558.2	17.7	23.9	-94.46	708.5	-878.2	950.4	915.0	35.36	26.880		
5,800.0	5,728.9	5,813.0	5,695.2	17.9	24.2	-94.93	713.3	-885.0	956.0	920.1	35.88	26.646		
5,900.0	5,828.8	5,941.6	5,823.8	18.1	24.3	-95.22	714.5	-886.6	957.5	921.2	36.28	26.390		
6,000.0	5,928.8	6,041.6	5,923.8	18.2	24.4	-89.54	714.5	-886.6	957.6	921.1	36.52	26.221		
6,100.0	6,028.8	6,142.5	6,024.3	18.3	24.5	90.43	707.3	-886.5	957.5	920.7	36.85	25.985		
6,111.3	6,040.1	6,153.8	6,035.4	18.3	24.5	90.34	705.3	-886.5	957.5	920.7	36.86	25.979		
6,200.0	6,127.7	6,241.1	6,119.4	18.3	24.4	89.66	681.9	-886.5	957.6	920.8	36.84	25.997		
6,300.0	6,222.3	6,337.5	6,206.2	18.1	24.2	88.92	640.3	-886.4	958.0	921.5	36.48	26.257		
6,400.0	6,309.1	6,431.9	6,282.3	17.8	23.9	88.23	584.7	-886.2	958.5	922.6	35.86	26.725		
6,500.0	6,384.9	6,524.6	6,346.1	17.3	23.6	87.59	517.6	-886.1	959.2	924.1	35.08	27.341		
6,600.0	6,446.8	6,615.9	6,396.3	16.9	23.3	87.05	441.5	-885.9	959.9	925.6	34.26	28.018		
6,700.0	6,492.7	6,706.0	6,432.2	16.4	22.9	86.60	358.9	-885.7	960.6	927.1	33.54	28.644		
6,800.0	6,522.1	6,802.3	6,458.0	16.1	22.6	86.41	266.2	-885.5	961.2	928.1	33.07	29.068		
6,900.0	6,546.7	6,895.4	6,479.0	16.0	22.3	86.27	175.5	-885.2	961.7	928.7	32.99	29.152		
7,000.0	6,556.0	6,985.6	6,485.0	16.1	22.2	86.07	85.7	-885.0	962.3	929.1	33.25	28.939		
7,100.0	6,556.0	7,085.6	6,485.0	16.4	22.0	86.07	-14.3	-884.8	962.7	928.7	33.97	28.337		
7,200.0	6,556.0	7,185.6	6,485.0	16.9	22.1	86.07	-114.3	-884.5	963.1	928.0	35.09	27.445		
7,300.0	6,556.0	7,285.6	6,485.0	17.6	22.3	86.07	-214.3	-884.3	963.5	927.0	36.58	26.341		
7,400.0	6,556.0	7,385.6	6,485.0	18.5	22.8	86.07	-314.3	-884.0	963.9	925.5	38.40	25.106		
7,500.0	6,556.0	7,485.6	6,485.0	19.6	23.6	86.08	-414.3	-883.8	964.3	923.9	40.49	23.814		
7,600.0	6,556.0	7,585.6	6,485.0	20.7	24.5	86.08	-514.3	-883.6	964.8	921.9	42.84	22.522		
7,700.0	6,556.0	7,685.6	6,485.0	22.0	25.7	86.08	-614.3	-883.3	965.2	919.8	45.38	21.267		
7,800.0	6,556.0	7,785.6	6,485.0	23.4	26.9	86.08	-714.3	-883.1	965.6	917.5	48.10	20.074		
7,900.0	6,556.0	7,885.6	6,485.0	24.8	28.2	86.08	-814.3	-882.8	966.0	915.0	50.96	18.954		
8,000.0	6,556.0	7,985.6	6,485.0	26.3	29.7	86.08	-914.3	-882.6	966.4	912.4	53.95	17.913		
8,100.0	6,556.0	8,085.6	6,485.0	27.9	31.1	86.09	-1,014.3	-882.3	966.8	909.7	57.03	16.951		
8,200.0	6,556.0	8,185.6	6,485.0	29.5	32.6	86.09	-1,114.3	-882.1	967.2	907.0	60.21	16.065		
8,300.0	6,556.0	8,285.6	6,485.0	31.1	34.2	86.09	-1,214.3	-881.8	967.6	904.1	63.45	15.249		
8,400.0	6,556.0	8,385.6	6,485.0	32.7	35.8	86.09	-1,314.3	-881.6	968.0	901.2	66.76	14.499		
8,500.0	6,556.0	8,485.6	6,485.0	34.4	37.4	86.09	-1,414.3	-881.4	968.4	898.3	70.12	13.810		
8,600.0	6,556.0	8,585.6	6,485.0	36.2	39.1	86.09	-1,514.3	-881.1	968.8	895.3	73.53	13.175		
8,700.0	6,556.0	8,685.6	6,485.0	37.9	40.7	86.10	-1,614.3	-880.9	969.2	892.2	76.98	12.590		
8,800.0	6,556.0	8,785.6	6,485.0	39.6	42.4	86.10	-1,714.3	-880.6	969.6	889.1	80.47	12.050		
8,900.0	6,556.0	8,885.6	6,485.0	41.4	44.1	86.10	-1,814.3	-880.4	970.0	886.0	83.99	11.550		
9,000.0	6,556.0	8,985.6	6,485.0	43.2	45.9	86.10	-1,914.3	-880.1	970.4	882.9	87.53	11.087		
9,100.0	6,556.0	9,085.6	6,485.0	45.0	47.6	86.10	-2,014.3	-879.9	970.8	879.7	91.09	10.657		
9,200.0	6,556.0	9,185.6	6,485.0	46.8	49.4	86.10	-2,114.3	-879.6	971.2	876.6	94.68	10.258		
9,300.0	6,556.0	9,285.6	6,485.0	48.6	51.1	86.11	-2,214.3	-879.4	971.6	873.4	98.29	9.886		
9,400.0	6,556.0	9,385.6	6,485.0	50.4	52.9	86.11	-2,314.3	-879.1	972.1	870.1	101.91	9.538		
9,500.0	6,556.0	9,485.6	6,485.0	52.2	54.7	86.11	-2,414.3	-878.9	972.5	866.9	105.55	9.213		
9,600.0	6,556.0	9,585.6	6,485.0	54.1	56.5	86.11	-2,514.3	-878.7	972.9	863.7	109.21	8.909		
9,700.0	6,556.0	9,685.6	6,485.0	55.9	58.3	86.11	-2,614.3	-878.4	973.3	860.4	112.87	8.623		
9,800.0	6,556.0	9,785.6	6,485.0	57.8	60.1	86.11	-2,714.3	-878.2	973.7	857.1	116.55	8.354		
9,900.0	6,556.0	9,885.6	6,485.0	59.6	61.9	86.11	-2,814.3	-877.9	974.1	853.8	120.23	8.102		
10,000.0	6,556.0	9,985.6	6,485.0	61.5	63.7	86.12	-2,914.3	-877.7	974.5	850.6	123.93	7.863		
10,100.0	6,556.0	10,085.6	6,485.0	63.3	65.5	86.12	-3,014.3	-877.4	974.9	847.3	127.63	7.638		
10,200.0	6,556.0	10,185.6	6,485.0	65.2	67.4	86.12	-3,114.3	-877.2	975.3	844.0	131.34	7.426		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well North Platte Federal F-J-22HNC
Project:	SEC.22-T5N-R63W	TVD Reference:	WELL @ 4675.0ft (RKB - 13')
Reference Site:	North Platte F-22 Pad Sec.22-T5N-R63W	MD Reference:	WELL @ 4675.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	North Platte Federal F-J-22HNC	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 (11-12-13)	Offset TVD Reference:	Offset Datum

Offset Design North Platte F-22 Pad Sec.22-T5N-R63W - North Platte Federal A11-E14-22HNB - Wellbore #1 - Plan #												Offset Site Error:	0.0 ft
Survey Program: 0-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
10,300.0	6,556.0	10,285.6	6,485.0	67.0	69.2	86.12	-3,214.3	-876.9	975.7	840.6	135.06	7.224	
10,400.0	6,556.0	10,385.6	6,485.0	68.9	71.0	86.12	-3,314.3	-876.7	976.1	837.3	138.79	7.033	
10,500.0	6,556.0	10,485.6	6,485.0	70.8	72.9	86.12	-3,414.3	-876.5	976.5	834.0	142.52	6.852	
10,600.0	6,556.0	10,585.6	6,485.0	72.7	74.7	86.13	-3,514.3	-876.2	976.9	830.7	146.25	6.680	
10,700.0	6,556.0	10,685.6	6,485.0	74.5	76.6	86.13	-3,614.3	-876.0	977.3	827.3	150.00	6.516	
10,800.0	6,556.0	10,785.6	6,485.0	76.4	78.4	86.13	-3,714.3	-875.7	977.7	824.0	153.74	6.360	
10,900.0	6,556.0	10,885.6	6,485.0	78.3	80.3	86.13	-3,814.3	-875.5	978.1	820.6	157.49	6.211	
11,000.0	6,556.0	10,985.6	6,485.0	80.2	82.2	86.13	-3,914.3	-875.2	978.5	817.3	161.25	6.069	
11,100.0	6,556.0	11,085.6	6,485.0	82.1	84.0	86.13	-4,014.3	-875.0	978.9	813.9	165.01	5.933	
11,180.4	6,556.0	11,151.2	6,485.0	83.6	85.3	86.14	-4,079.9	-874.8	979.4	811.6	167.75	5.838 SF	

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well North Platte Federal F-J-22HNC
Project:	SEC.22-T5N-R63W	TVD Reference:	WELL @ 4675.0ft (RKB - 13')
Reference Site:	North Platte F-22 Pad Sec.22-T5N-R63W	MD Reference:	WELL @ 4675.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	North Platte Federal F-J-22HNC	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 (11-12-13)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
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		
0.0	0.0	0.0	0.0	0.0	0.0	-0.48	100.2	-0.8	100.3					
100.0	100.0	96.0	96.0	0.1	0.1	-0.48	100.2	-0.8	100.2	100.0	0.22	454.848		
200.0	200.0	196.0	196.0	0.3	0.3	-0.48	100.2	-0.8	100.2	99.5	0.67	150.597 CC, ES		
300.0	300.0	294.4	294.4	0.6	0.5	-1.26	100.9	-2.2	100.9	99.8	1.11	91.145		
400.0	400.0	392.6	392.4	0.8	0.8	-3.65	103.2	-6.6	103.4	101.9	1.56	66.402		
500.0	500.0	490.3	489.8	1.0	1.0	-7.40	106.9	-13.9	108.0	106.0	2.02	53.360		
600.0	600.0	587.3	586.1	1.2	1.3	-12.11	112.2	-24.1	115.2	112.6	2.51	45.938		
700.0	700.0	683.4	681.1	1.5	1.6	-17.29	118.8	-37.0	125.4	122.4	3.00	41.776		
800.0	800.0	778.5	774.5	1.7	2.0	-22.50	126.9	-52.6	139.0	135.5	3.50	39.721		
900.0	900.0	872.2	866.1	1.9	2.4	-27.40	136.2	-70.6	156.3	152.3	4.00	39.106		
1,000.0	1,000.0	965.6	956.5	2.1	2.8	-31.84	146.8	-91.1	177.2	172.7	4.49	39.462		
1,100.0	1,100.0	1,062.2	1,049.9	2.4	3.3	-35.60	158.2	-113.2	199.9	194.9	4.98	40.171		
1,200.0	1,200.0	1,158.8	1,143.3	2.6	3.8	-38.59	169.6	-135.3	223.3	217.8	5.45	40.943		
1,300.0	1,300.0	1,255.5	1,236.7	2.8	4.3	-41.02	181.0	-157.4	247.1	241.2	5.93	41.686		
1,400.0	1,400.0	1,352.1	1,330.0	3.0	4.8	-43.02	192.4	-179.5	271.3	264.9	6.40	42.377		
1,500.0	1,500.0	1,448.7	1,423.4	3.3	5.4	-44.70	203.8	-201.6	295.7	288.8	6.88	43.008		
1,600.0	1,600.0	1,545.4	1,516.8	3.5	5.9	-46.12	215.2	-223.7	320.3	313.0	7.35	43.579		
1,700.0	1,700.0	1,642.0	1,610.2	3.7	6.4	-47.33	226.6	-245.8	345.1	337.3	7.83	44.095		
1,800.0	1,800.0	1,738.6	1,703.6	3.9	6.9	-48.39	238.0	-267.9	370.1	361.8	8.31	44.559		
1,900.0	1,900.0	1,835.3	1,796.9	4.2	7.5	-49.31	249.4	-290.0	395.1	386.3	8.78	44.977		
2,000.0	2,000.0	1,931.9	1,890.3	4.4	8.0	-50.12	260.8	-312.1	420.2	410.9	9.26	45.355		
2,100.0	2,100.0	2,028.7	1,983.8	4.6	8.5	-56.35	272.2	-334.2	444.5	434.5	9.93	44.780		
2,200.0	2,199.8	2,125.7	2,077.6	4.8	9.0	-57.15	283.6	-356.4	467.0	456.6	10.42	44.836		
2,300.0	2,299.5	2,222.8	2,171.4	5.1	9.6	-58.21	295.1	-378.6	487.9	477.0	10.89	44.787		
2,400.0	2,398.7	2,319.8	2,265.2	5.3	10.1	-59.52	306.5	-400.8	507.3	496.0	11.37	44.637		
2,500.0	2,497.5	2,416.7	2,358.8	5.5	10.6	-61.04	318.0	-423.0	525.5	513.7	11.84	44.379		
2,600.0	2,595.6	2,513.4	2,452.2	5.8	11.2	-62.77	329.4	-445.1	542.6	530.3	12.33	43.997		
2,700.0	2,693.4	2,609.9	2,545.4	6.1	11.7	-64.84	340.7	-467.1	559.5	546.7	12.85	43.555		
2,800.0	2,791.1	2,706.3	2,638.6	6.4	12.2	-66.81	352.1	-489.2	577.2	563.8	13.39	43.095		
2,900.0	2,888.9	2,802.8	2,731.8	6.7	12.8	-68.67	363.5	-511.2	595.4	581.5	13.97	42.624		
3,000.0	2,986.6	2,899.2	2,825.0	7.1	13.3	-70.42	374.9	-533.3	614.3	599.7	14.57	42.146		
3,100.0	3,084.4	2,995.7	2,918.2	7.4	13.8	-72.07	386.3	-555.3	633.7	618.5	15.21	41.670		
3,200.0	3,182.1	3,092.1	3,011.5	7.8	14.3	-73.63	397.6	-577.4	653.6	637.7	15.86	41.198		
3,300.0	3,279.8	3,188.6	3,104.7	8.2	14.9	-75.09	409.0	-599.4	673.9	657.4	16.54	40.737		
3,400.0	3,377.6	3,285.0	3,197.9	8.5	15.4	-76.47	420.4	-621.5	694.7	677.4	17.24	40.289		
3,500.0	3,475.3	3,381.5	3,291.1	8.9	15.9	-77.77	431.8	-643.5	715.8	697.8	17.96	39.858		
3,600.0	3,573.1	3,477.9	3,384.3	9.3	16.5	-79.00	443.1	-665.6	737.2	718.5	18.69	39.444		
3,700.0	3,670.8	3,574.4	3,477.5	9.7	17.0	-80.15	454.5	-687.7	759.0	739.6	19.44	39.049		
3,800.0	3,768.6	3,670.8	3,570.7	10.1	17.5	-81.25	465.9	-709.7	781.1	760.9	20.20	38.674		
3,900.0	3,866.3	3,767.3	3,663.9	10.5	18.1	-82.29	477.3	-731.8	803.4	782.4	20.97	38.318		
4,000.0	3,964.1	3,863.7	3,757.1	10.9	18.6	-83.27	488.7	-753.8	825.9	804.2	21.75	37.982		
4,100.0	4,061.8	3,960.2	3,850.3	11.3	19.1	-84.20	500.0	-775.9	848.7	826.2	22.53	37.665		
4,200.0	4,159.5	4,056.6	3,943.5	11.7	19.6	-85.08	511.4	-797.9	871.7	848.4	23.33	37.366		
4,300.0	4,257.3	4,153.1	4,036.7	12.2	20.2	-85.91	522.8	-820.0	894.9	870.8	24.13	37.084		
4,400.0	4,355.0	4,249.5	4,129.9	12.6	20.7	-86.71	534.2	-842.0	918.2	893.3	24.94	36.819		
4,500.0	4,452.8	4,346.0	4,223.1	13.0	21.2	-87.47	545.5	-864.1	941.8	916.0	25.75	36.570		
4,600.0	4,550.5	4,442.4	4,316.3	13.4	21.8	-88.19	556.9	-886.1	965.4	938.8	26.57	36.335		
4,700.0	4,648.3	4,538.9	4,409.5	13.8	22.3	-88.87	568.3	-908.2	989.2	961.8	27.39	36.114 SF		

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well North Platte Federal F-J-22HNC
Project:	SEC.22-T5N-R63W	TVD Reference:	WELL @ 4675.0ft (RKB - 13')
Reference Site:	North Platte F-22 Pad Sec.22-T5N-R63W	MD Reference:	WELL @ 4675.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	North Platte Federal F-J-22HNC	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 (11-12-13)	Offset TVD Reference:	Offset Datum

Offset Design North Platte F-22 Pad Sec.22-T5N-R63W - North Platte Federal F11-J14-22HNB - Wellbore #1 - Plan #													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference	Offset	Semi Major Axis		Distance										Warning
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		
0.0	0.0	0.0	0.0	0.0	0.0	0.00	20.0	0.0	20.1					
100.0	100.0	98.0	98.0	0.1	0.1	0.00	20.0	0.0	20.0	19.8	0.22	90.064		
200.0	200.0	198.0	198.0	0.3	0.3	0.00	20.0	0.0	20.0	19.4	0.67	29.921		
300.0	300.0	298.0	298.0	0.6	0.6	0.00	20.0	0.0	20.0	18.9	1.12	17.905		
400.0	400.0	398.0	398.0	0.8	0.8	0.00	20.0	0.0	20.0	18.5	1.57	12.774		
500.0	500.0	498.0	498.0	1.0	1.0	0.00	20.0	0.0	20.0	18.0	2.02	9.929		
600.0	600.0	598.0	598.0	1.2	1.2	0.00	20.0	0.0	20.0	17.6	2.47	8.121		
700.0	700.0	698.0	698.0	1.5	1.5	0.00	20.0	0.0	20.0	17.1	2.92	6.869		
800.0	800.0	798.0	798.0	1.7	1.7	0.00	20.0	0.0	20.0	16.7	3.37	5.952		
900.0	900.0	898.0	898.0	1.9	1.9	0.00	20.0	0.0	20.0	16.2	3.82	5.251		
1,000.0	1,000.0	998.0	998.0	2.1	2.1	0.00	20.0	0.0	20.0	15.8	4.27	4.698		
1,100.0	1,100.0	1,098.0	1,098.0	2.4	2.4	0.00	20.0	0.0	20.0	15.3	4.72	4.250		
1,200.0	1,200.0	1,198.0	1,198.0	2.6	2.6	0.00	20.0	0.0	20.0	14.9	5.17	3.880		
1,300.0	1,300.0	1,298.0	1,298.0	2.8	2.8	0.00	20.0	0.0	20.0	14.4	5.61	3.569		
1,400.0	1,400.0	1,398.0	1,398.0	3.0	3.0	0.00	20.0	0.0	20.0	14.0	6.06	3.305		
1,500.0	1,500.0	1,498.0	1,498.0	3.3	3.3	0.00	20.0	0.0	20.0	13.5	6.51	3.077		
1,600.0	1,600.0	1,598.0	1,598.0	3.5	3.5	0.00	20.0	0.0	20.0	13.1	6.96	2.878 CC, ES		
1,700.0	1,700.0	1,697.3	1,697.3	3.7	3.7	-1.49	21.6	-0.6	21.6	14.2	7.41	2.917		
1,800.0	1,800.0	1,796.4	1,796.2	3.9	3.9	-4.96	26.4	-2.3	26.5	18.7	7.86	3.375		
1,900.0	1,900.0	1,895.0	1,894.5	4.2	4.2	-8.55	34.3	-5.2	34.9	26.6	8.31	4.198		
2,000.0	2,000.0	1,992.9	1,991.7	4.4	4.4	-11.40	45.3	-9.1	46.7	37.9	8.76	5.332		
2,100.0	2,100.0	2,090.2	2,087.8	4.6	4.6	-19.64	59.4	-14.2	60.3	51.1	9.20	6.553		
2,200.0	2,199.8	2,187.3	2,183.2	4.8	4.9	-22.34	76.4	-20.4	74.1	64.4	9.64	7.686		
2,300.0	2,299.5	2,286.5	2,280.4	5.1	5.2	-25.18	94.9	-27.0	86.0	75.9	10.07	8.539		
2,400.0	2,398.7	2,385.9	2,377.9	5.3	5.5	-28.29	113.4	-33.7	95.0	84.5	10.50	9.047		
2,500.0	2,497.5	2,485.5	2,475.5	5.5	5.8	-31.87	132.0	-40.4	101.3	90.4	10.95	9.257		
2,600.0	2,595.6	2,585.2	2,573.2	5.8	6.2	-36.11	150.5	-47.1	105.2	93.7	11.41	9.215		
2,700.0	2,693.4	2,684.7	2,670.8	6.1	6.5	-40.77	169.1	-53.8	108.0	96.0	11.94	9.038		
2,800.0	2,791.1	2,784.3	2,768.4	6.4	6.9	-45.18	187.6	-60.5	111.4	98.9	12.52	8.901		
2,900.0	2,888.9	2,883.9	2,866.0	6.7	7.3	-49.30	206.2	-67.2	115.5	102.4	13.13	8.798		
3,000.0	2,986.6	2,983.5	2,963.6	7.1	7.7	-53.12	224.7	-73.9	120.2	106.4	13.78	8.722		
3,100.0	3,084.4	3,083.1	3,061.2	7.4	8.0	-56.65	243.3	-80.6	125.4	110.9	14.46	8.666		
3,200.0	3,182.1	3,182.6	3,158.8	7.8	8.4	-59.88	261.8	-87.3	130.9	115.8	15.18	8.627		
3,300.0	3,279.8	3,282.2	3,256.4	8.2	8.8	-62.85	280.4	-94.0	136.9	121.0	15.92	8.601		
3,400.0	3,377.6	3,381.8	3,354.0	8.5	9.2	-65.56	298.9	-100.7	143.2	126.6	16.68	8.586		
3,500.0	3,475.3	3,481.4	3,451.7	8.9	9.6	-68.03	317.5	-107.5	149.8	132.4	17.46	8.580		
3,600.0	3,573.1	3,581.0	3,549.3	9.3	10.0	-70.30	336.0	-114.2	156.7	138.4	18.26	8.582		
3,700.0	3,670.8	3,680.6	3,646.9	9.7	10.4	-72.37	354.6	-120.9	163.8	144.7	19.07	8.589		
3,800.0	3,768.6	3,780.1	3,744.5	10.1	10.8	-74.27	373.1	-127.6	171.1	151.2	19.89	8.601		
3,900.0	3,866.3	3,879.7	3,842.1	10.5	11.2	-76.01	391.7	-134.3	178.5	157.8	20.72	8.617		
4,000.0	3,964.1	3,979.3	3,939.7	10.9	11.6	-77.62	410.2	-141.0	186.1	164.6	21.55	8.637		
4,100.0	4,061.8	4,078.9	4,037.3	11.3	12.0	-79.09	428.8	-147.7	193.9	171.5	22.39	8.659		
4,200.0	4,159.5	4,178.5	4,134.9	11.7	12.4	-80.45	447.3	-154.4	201.7	178.5	23.23	8.683		
4,300.0	4,257.3	4,278.0	4,232.5	12.2	12.9	-81.71	465.9	-161.1	209.7	185.6	24.08	8.708		
4,400.0	4,355.0	4,377.6	4,330.1	12.6	13.3	-82.88	484.4	-167.8	217.7	192.8	24.93	8.734		
4,500.0	4,452.8	4,477.2	4,427.7	13.0	13.7	-83.96	503.0	-174.5	225.9	200.1	25.78	8.761		
4,600.0	4,550.5	4,576.8	4,525.3	13.4	14.1	-84.97	521.5	-181.2	234.1	207.4	26.63	8.789		
4,700.0	4,648.3	4,676.4	4,622.9	13.8	14.5	-85.91	540.1	-187.9	242.4	214.9	27.49	8.817		
4,800.0	4,746.0	4,775.9	4,720.6	14.3	14.9	-86.79	558.6	-194.6	250.7	222.4	28.34	8.845		
4,900.0	4,843.8	4,875.5	4,818.2	14.7	15.4	-87.61	577.2	-201.3	259.1	229.9	29.20	8.873		
5,000.0	4,941.5	4,975.1	4,915.8	15.1	15.8	-88.38	595.8	-208.0	267.5	237.5	30.06	8.900		
5,100.0	5,039.3	5,074.7	5,013.4	15.6	16.2	-89.10	614.3	-214.7	276.0	245.1	30.92	8.928		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well North Platte Federal F-J-22HNC
Project:	SEC.22-T5N-R63W	TVD Reference:	WELL @ 4675.0ft (RKB - 13')
Reference Site:	North Platte F-22 Pad Sec.22-T5N-R63W	MD Reference:	WELL @ 4675.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	North Platte Federal F-J-22HNC	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 (11-12-13)	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0ft
Survey Program: 0-MWD												Offset Well Error:	0.0ft
Reference		Offset		Semi Major Axis			Distance						Warning
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	
5,200.0	5,137.0	5,174.3	5,111.0	16.0	16.6	-89.78	632.9	-221.4	284.6	252.8	31.78	8.955	
5,300.0	5,234.7	5,273.8	5,208.6	16.4	17.0	-90.42	651.4	-228.1	293.1	260.5	32.64	8.982	
5,400.0	5,332.5	5,376.8	5,309.7	16.8	17.4	-91.23	669.6	-234.6	301.3	267.9	33.43	9.014	
5,500.0	5,430.9	5,480.9	5,412.6	17.1	17.7	-92.17	684.6	-240.1	308.1	274.0	34.08	9.039	
5,600.0	5,529.8	5,585.0	5,516.0	17.4	17.9	-93.02	696.1	-244.2	313.3	278.6	34.66	9.039	
5,700.0	5,629.2	5,689.2	5,619.8	17.7	18.2	-93.79	704.0	-247.1	317.0	281.9	35.16	9.016	
5,800.0	5,728.9	5,793.3	5,723.8	17.9	18.3	-94.50	708.4	-248.7	319.2	283.6	35.59	8.970	
5,900.0	5,828.8	5,896.3	5,826.8	18.1	18.5	-95.12	709.3	-249.0	319.9	284.0	35.94	8.903	
6,000.0	5,928.8	5,996.3	5,926.8	18.2	18.6	-89.55	709.3	-249.0	320.0	283.8	36.22	8.834	
6,080.3	6,009.0	6,076.9	6,007.2	18.3	18.7	90.29	705.2	-249.0	320.0	283.5	36.44	8.781	
6,100.0	6,028.8	6,096.2	6,026.4	18.3	18.7	89.64	702.3	-249.0	320.0	283.5	36.49	8.769	
6,200.0	6,127.7	6,193.8	6,120.6	18.3	18.6	87.43	677.5	-248.8	320.3	283.9	36.41	8.798	
6,300.0	6,222.3	6,289.3	6,206.7	18.1	18.3	85.33	636.6	-248.6	321.2	285.2	35.95	8.932	
6,400.0	6,309.1	6,383.0	6,282.6	17.8	17.9	83.43	581.9	-248.3	322.3	287.1	35.20	9.157	
6,500.0	6,384.9	6,475.1	6,346.5	17.3	17.5	81.77	515.7	-248.0	323.6	289.3	34.25	9.448	
6,600.0	6,446.8	6,565.9	6,397.1	16.9	17.1	80.40	440.5	-247.6	324.9	291.6	33.26	9.769	
6,700.0	6,492.7	6,655.8	6,433.6	16.4	16.7	79.37	358.4	-247.2	326.0	293.7	32.38	10.070	
6,800.0	6,522.1	6,751.4	6,459.6	16.1	16.4	78.96	266.4	-246.7	326.6	294.8	31.83	10.261	
6,900.0	6,546.7	6,845.0	6,481.3	16.0	16.3	78.69	175.4	-246.2	327.0	295.4	31.65	10.331	
7,000.0	6,556.0	6,934.5	6,488.0	16.1	16.3	78.37	86.3	-245.8	327.5	295.7	31.85	10.282	
7,100.0	6,556.0	7,034.5	6,488.0	16.4	16.5	78.38	-13.7	-245.2	327.6	295.1	32.53	10.071	
7,200.0	6,556.0	7,134.5	6,488.0	16.9	17.1	78.38	-113.7	-244.7	327.8	294.2	33.60	9.754	
7,300.0	6,556.0	7,234.5	6,488.0	17.6	17.8	78.39	-213.7	-244.2	327.9	292.8	35.05	9.355	
7,400.0	6,556.0	7,334.5	6,488.0	18.5	18.7	78.39	-313.7	-243.7	328.0	291.2	36.83	8.906	
7,500.0	6,556.0	7,434.5	6,488.0	19.6	19.8	78.40	-413.6	-243.1	328.1	289.2	38.90	8.436	
7,600.0	6,556.0	7,534.5	6,488.0	20.7	21.0	78.40	-513.6	-242.6	328.3	287.1	41.21	7.966	
7,700.0	6,556.0	7,634.5	6,488.0	22.0	22.3	78.41	-613.6	-242.1	328.4	284.7	43.73	7.510	
7,800.0	6,556.0	7,734.5	6,488.0	23.4	23.7	78.41	-713.6	-241.6	328.5	282.1	46.41	7.078	
7,900.0	6,556.0	7,834.5	6,488.0	24.8	25.2	78.42	-813.6	-241.1	328.7	279.4	49.25	6.674	
8,000.0	6,556.0	7,934.5	6,488.0	26.3	26.7	78.42	-913.6	-240.5	328.8	276.6	52.20	6.299	
8,100.0	6,556.0	8,034.5	6,488.0	27.9	28.2	78.42	-1,013.6	-240.0	328.9	273.7	55.25	5.953	
8,200.0	6,556.0	8,134.5	6,488.0	29.5	29.8	78.43	-1,113.6	-239.5	329.0	270.6	58.39	5.635	
8,300.0	6,556.0	8,234.5	6,488.0	31.1	31.5	78.43	-1,213.6	-239.0	329.2	267.6	61.60	5.344	
8,400.0	6,556.0	8,334.5	6,488.0	32.7	33.1	78.44	-1,313.6	-238.5	329.3	264.4	64.87	5.076	
8,500.0	6,556.0	8,434.5	6,488.0	34.4	34.8	78.44	-1,413.6	-237.9	329.4	261.2	68.20	4.830	
8,600.0	6,556.0	8,534.5	6,488.0	36.2	36.5	78.45	-1,513.6	-237.4	329.5	258.0	71.57	4.605	
8,700.0	6,556.0	8,634.5	6,488.0	37.9	38.3	78.45	-1,613.6	-236.9	329.7	254.7	74.98	4.397	
8,800.0	6,556.0	8,734.5	6,488.0	39.6	40.0	78.46	-1,713.6	-236.4	329.8	251.4	78.42	4.206	
8,900.0	6,556.0	8,834.5	6,488.0	41.4	41.8	78.46	-1,813.6	-235.9	329.9	248.0	81.89	4.029	
9,000.0	6,556.0	8,934.5	6,488.0	43.2	43.6	78.46	-1,913.6	-235.3	330.1	244.7	85.39	3.865	
9,100.0	6,556.0	9,034.5	6,488.0	45.0	45.4	78.47	-2,013.6	-234.8	330.2	241.3	88.92	3.713	
9,200.0	6,556.0	9,134.5	6,488.0	46.8	47.2	78.47	-2,113.6	-234.3	330.3	237.9	92.46	3.572	
9,300.0	6,556.0	9,234.5	6,488.0	48.6	49.0	78.48	-2,213.6	-233.8	330.4	234.4	96.02	3.441	
9,400.0	6,556.0	9,334.5	6,488.0	50.4	50.8	78.48	-2,313.6	-233.2	330.6	231.0	99.60	3.319	
9,500.0	6,556.0	9,434.5	6,488.0	52.2	52.6	78.49	-2,413.6	-232.7	330.7	227.5	103.19	3.205	
9,600.0	6,556.0	9,534.5	6,488.0	54.1	54.5	78.49	-2,513.6	-232.2	330.8	224.0	106.80	3.098	
9,700.0	6,556.0	9,634.5	6,488.0	55.9	56.3	78.50	-2,613.6	-231.7	330.9	220.5	110.41	2.997	
9,800.0	6,556.0	9,734.5	6,488.0	57.8	58.1	78.50	-2,713.6	-231.2	331.1	217.0	114.04	2.903	
9,900.0	6,556.0	9,834.5	6,488.0	59.6	60.0	78.51	-2,813.6	-230.6	331.2	213.5	117.68	2.814	
10,000.0	6,556.0	9,934.5	6,488.0	61.5	61.8	78.51	-2,913.6	-230.1	331.3	210.0	121.33	2.731	
10,100.0	6,556.0	10,034.5	6,488.0	63.3	63.7	78.51	-3,013.6	-229.6	331.5	206.5	124.98	2.652	
10,200.0	6,556.0	10,134.5	6,488.0	65.2	65.6	78.52	-3,113.6	-229.1	331.6	202.9	128.64	2.578	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well North Platte Federal F-J-22HNC
Project:	SEC.22-T5N-R63W	TVD Reference:	WELL @ 4675.0ft (RKB - 13')
Reference Site:	North Platte F-22 Pad Sec.22-T5N-R63W	MD Reference:	WELL @ 4675.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	North Platte Federal F-J-22HNC	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 (11-12-13)	Offset TVD Reference:	Offset Datum

Offset Design North Platte F-22 Pad Sec.22-T5N-R63W - North Platte Federal F11-J14-22HNB - Wellbore #1 - Plan #												Offset Site Error:	0.0 ft
Survey Program: 0-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
10,300.0	6,556.0	10,234.5	6,488.0	67.0	67.4	78.52	-3,213.6	-228.6	331.7	199.4	132.31	2.507	
10,400.0	6,556.0	10,334.5	6,488.0	68.9	69.3	78.53	-3,313.6	-228.0	331.8	195.9	135.99	2.440	
10,500.0	6,556.0	10,434.5	6,488.0	70.8	71.2	78.53	-3,413.6	-227.5	332.0	192.3	139.67	2.377	
10,600.0	6,556.0	10,534.5	6,488.0	72.7	73.0	78.54	-3,513.6	-227.0	332.1	188.7	143.36	2.317	
10,700.0	6,556.0	10,634.5	6,488.0	74.5	74.9	78.54	-3,613.6	-226.5	332.2	185.2	147.05	2.259	
10,800.0	6,556.0	10,734.5	6,488.0	76.4	76.8	78.55	-3,713.6	-226.0	332.3	181.6	150.74	2.205	
10,900.0	6,556.0	10,834.5	6,488.0	78.3	78.7	78.55	-3,813.6	-225.4	332.5	178.0	154.44	2.153	
11,000.0	6,556.0	10,934.5	6,488.0	80.2	80.6	78.55	-3,913.6	-224.9	332.6	174.5	158.15	2.103	
11,100.0	6,556.0	11,034.5	6,488.0	82.1	82.4	78.56	-4,013.6	-224.4	332.7	170.9	161.86	2.056	
11,142.4	6,556.0	11,076.9	6,488.0	82.9	83.2	78.56	-4,056.0	-224.2	332.8	169.4	163.43	2.036	
11,180.4	6,556.0	11,109.2	6,488.0	83.6	83.8	78.56	-4,088.3	-224.0	332.9	168.1	164.74	2.021 SF	

North Platte F-22 Pad Sec.22-T5N-R63W - North Platte Federal F21-J24-22HNB - Wellbore #1 - Plan #													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	Measured	Vertical	Reference	Offset	Highside	Offset	Wellbore	Centre	Between	Between	Minimum	Separation	Warning
Depth (ft)	Depth (ft)	Depth (ft)	Depth (ft)	(ft)	(ft)	Tooface (")	+N/-S (ft)	+E/-W (ft)	Centres (ft)	Ellipses (ft)	Separation (ft)	Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-0.40	40.1	-0.3	40.3					
100.0	100.0	96.0	96.0	0.1	0.1	-0.40	40.1	-0.3	40.1	39.9	0.22	181.948		
200.0	200.0	196.0	196.0	0.3	0.3	-0.40	40.1	-0.3	40.1	39.4	0.67	60.242		
300.0	300.0	296.0	296.0	0.6	0.6	-0.40	40.1	-0.3	40.1	39.0	1.11	35.951		
400.0	400.0	396.0	396.0	0.8	0.8	-0.40	40.1	-0.3	40.1	38.5	1.56	25.620		
500.0	500.0	496.0	496.0	1.0	1.0	-0.40	40.1	-0.3	40.1	38.1	2.01	19.901		
600.0	600.0	596.0	596.0	1.2	1.2	-0.40	40.1	-0.3	40.1	37.6	2.46	16.270		
700.0	700.0	696.0	696.0	1.5	1.5	-0.40	40.1	-0.3	40.1	37.2	2.91	13.759		
800.0	800.0	796.0	796.0	1.7	1.7	-0.40	40.1	-0.3	40.1	36.7	3.36	11.920		
900.0	900.0	896.0	896.0	1.9	1.9	-0.40	40.1	-0.3	40.1	36.3	3.81	10.514		
1,000.0	1,000.0	996.0	996.0	2.1	2.1	-0.40	40.1	-0.3	40.1	35.8	4.26	9.405		
1,100.0	1,100.0	1,096.0	1,096.0	2.4	2.4	-0.40	40.1	-0.3	40.1	35.4	4.71	8.507		
1,200.0	1,200.0	1,196.0	1,196.0	2.6	2.6	-0.40	40.1	-0.3	40.1	34.9	5.16	7.766		
1,300.0	1,300.0	1,296.0	1,296.0	2.8	2.8	-0.40	40.1	-0.3	40.1	34.5	5.61	7.144		
1,400.0	1,400.0	1,396.0	1,396.0	3.0	3.0	-0.40	40.1	-0.3	40.1	34.0	6.06	6.614 CC, ES		
1,500.0	1,500.0	1,494.8	1,494.8	3.3	3.2	0.71	41.4	0.5	41.5	34.9	6.51	6.372		
1,600.0	1,600.0	1,593.4	1,593.2	3.5	3.5	3.79	45.7	3.0	45.9	38.9	6.95	6.602		
1,700.0	1,700.0	1,691.5	1,691.0	3.7	3.7	7.78	52.9	7.2	53.6	46.2	7.40	7.242		
1,800.0	1,800.0	1,788.9	1,787.7	3.9	3.9	11.75	62.8	13.1	64.7	56.8	7.85	8.242		
1,900.0	1,900.0	1,885.4	1,883.1	4.2	4.2	15.20	75.5	20.5	79.2	70.9	8.30	9.548		
2,000.0	2,000.0	1,981.2	1,977.3	4.4	4.4	17.99	90.7	29.5	97.2	88.5	8.75	11.106		
2,100.0	2,100.0	2,079.6	2,073.7	4.6	4.7	14.47	107.4	39.3	114.9	105.7	9.19	12.497		
2,200.0	2,199.8	2,178.4	2,170.6	4.8	5.1	16.52	124.3	49.1	129.4	119.8	9.64	13.430		
2,300.0	2,299.5	2,277.6	2,267.8	5.1	5.4	18.58	141.1	59.1	140.8	130.7	10.07	13.975		
2,400.0	2,398.7	2,377.1	2,365.4	5.3	5.7	20.81	158.0	69.0	149.1	138.6	10.51	14.183		
2,500.0	2,497.5	2,476.7	2,463.0	5.5	6.1	23.31	175.0	78.9	154.4	143.4	10.95	14.102		
2,600.0	2,595.6	2,576.4	2,560.7	5.8	6.5	26.21	191.9	88.9	156.8	145.4	11.39	13.768		
2,700.0	2,693.4	2,676.0	2,658.4	6.1	6.8	29.39	208.9	98.8	157.8	145.9	11.89	13.274		
2,800.0	2,791.1	2,775.6	2,756.0	6.4	7.2	32.52	225.8	108.8	159.3	146.9	12.42	12.830		
2,900.0	2,888.9	2,875.2	2,853.7	6.7	7.6	35.59	242.7	118.7	161.3	148.3	12.98	12.433		
3,000.0	2,986.6	2,974.8	2,951.3	7.1	8.0	38.57	259.7	128.7	163.8	150.2	13.56	12.077		
3,100.0	3,084.4	3,074.4	3,049.0	7.4	8.4	41.46	276.6	138.6	166.6	152.4	14.17	11.755		
3,200.0	3,182.1	3,174.0	3,146.6	7.8	8.8	44.25	293.5	148.6	169.9	155.1	14.82	11.465		
3,300.0	3,279.8	3,273.6	3,244.3	8.2	9.2	46.92	310.5	158.5	173.6	158.1	15.49	11.202		
3,400.0	3,377.6	3,373.3	3,342.0	8.5	9.6	49.48	327.4	168.4	177.6	161.4	16.20	10.964		
3,500.0	3,475.3	3,472.9	3,439.6	8.9	10.0	51.92	344.4	178.4	181.9	165.0	16.93	10.749		
3,600.0	3,573.1	3,572.5	3,537.3	9.3	10.4	54.25	361.3	188.3	186.6	168.9	17.68	10.556		
3,700.0	3,670.8	3,672.1	3,634.9	9.7	10.8	56.45	378.2	198.3	191.6	173.1	18.46	10.382		
3,800.0	3,768.6	3,771.7	3,732.6	10.1	11.2	58.55	395.2	208.2	196.8	177.6	19.25	10.226		
3,900.0	3,866.3	3,871.3	3,830.2	10.5	11.6	60.53	412.1	218.2	202.3	182.3	20.06	10.086		
4,000.0	3,964.1	3,970.9	3,927.9	10.9	12.0	62.41	429.0	228.1	208.1	187.2	20.89	9.961		
4,100.0	4,061.8	4,070.5	4,025.5	11.3	12.4	64.18	446.0	238.1	214.0	192.3	21.73	9.850		
4,200.0	4,159.5	4,170.1	4,123.2	11.7	12.9	65.86	462.9	248.0	220.1	197.6	22.57	9.752		
4,300.0	4,257.3	4,269.7	4,220.8	12.2	13.3	67.44	479.9	257.9	226.4	203.0	23.43	9.665		
4,400.0	4,355.0	4,369.4	4,318.5	12.6	13.7	68.94	496.8	267.9	232.9	208.6	24.29	9.588		
4,500.0	4,452.8	4,469.0	4,416.1	13.0	14.1	70.36	513.7	277.8	239.5	214.4	25.16	9.520		
4,600.0	4,550.5	4,568.6	4,513.8	13.4	14.5	71.70	530.7	287.8	246.3	220.3	26.04	9.460		
4,700.0	4,648.3	4,668.2	4,611.5	13.8	14.9	72.97	547.6	297.7	253.2	226.3	26.91	9.408		
4,800.0	4,746.0	4,767.8	4,709.1	14.3	15.4	74.17	564.5	307.7	260.2	232.4	27.79	9.362		
4,900.0	4,843.8	4,867.4	4,806.8	14.7	15.8	75.31	581.5	317.6	267.3	238.6	28.67	9.322		
5,000.0	4,941.5	4,967.0	4,904.4	15.1	16.2	76.39	598.4	327.6	274.5	245.0	29.56	9.288		
5,100.0	5,039.3	5,066.6	5,002.1	15.6	16.6	77.41	615.4	337.5	281.8	251.4	30.44	9.258		

COMPASS 2003.21 Build 46

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well North Platte Federal F-J-22HNC
Project:	SEC.22-T5N-R63W	TVD Reference:	WELL @ 4675.0ft (RKB - 13')
Reference Site:	North Platte F-22 Pad Sec.22-T5N-R63W	MD Reference:	WELL @ 4675.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	North Platte Federal F-J-22HNC	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 (11-12-13)	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning
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	
5,200.0	5,137.0	5,166.2	5,099.7	16.0	17.0	78.38	632.3	347.5	289.2	257.9	31.33	9.232	
5,300.0	5,234.7	5,265.8	5,197.4	16.4	17.5	79.30	649.2	357.4	296.7	264.5	32.22	9.210	
5,400.0	5,332.5	5,369.3	5,298.9	16.8	17.9	80.33	666.2	367.4	303.9	270.8	33.08	9.188	
5,500.0	5,430.9	5,475.2	5,403.6	17.1	18.2	81.41	680.5	375.8	309.8	276.0	33.78	9.169	
5,600.0	5,529.8	5,581.3	5,508.8	17.4	18.4	82.36	691.5	382.2	314.2	279.8	34.40	9.133	
5,700.0	5,629.2	5,687.3	5,614.5	17.7	18.7	83.20	699.1	386.7	317.2	282.2	34.94	9.078	
5,800.0	5,728.9	5,793.3	5,720.3	17.9	18.9	83.94	703.3	389.2	318.7	283.3	35.40	9.004	
5,900.0	5,828.8	5,897.7	5,824.8	18.1	19.0	84.56	704.3	389.7	318.8	283.0	35.77	8.912	
6,000.0	5,928.8	5,997.7	5,924.8	18.2	19.1	90.45	704.3	389.7	318.7	282.6	36.11	8.826	
6,100.0	6,028.8	6,096.2	6,022.9	18.3	19.2	-88.01	697.5	389.8	318.9	282.5	36.39	8.763	
6,200.0	6,127.7	6,192.2	6,115.7	18.3	19.1	-85.87	673.5	390.0	319.6	283.2	36.42	8.774	
6,300.0	6,222.3	6,286.4	6,200.9	18.1	18.9	-83.90	633.8	390.3	320.6	284.6	36.05	8.894	
6,400.0	6,309.1	6,378.8	6,276.4	17.8	18.5	-82.16	580.5	390.7	321.9	286.6	35.34	9.109	
6,500.0	6,384.9	6,470.0	6,340.3	17.3	18.1	-80.71	515.7	391.2	323.2	288.8	34.39	9.397	
6,600.0	6,446.8	6,560.1	6,391.6	16.9	17.7	-79.57	441.7	391.8	324.4	291.0	33.38	9.719	
6,700.0	6,492.7	6,650.0	6,429.2	16.4	17.3	-78.78	360.2	392.4	325.4	292.9	32.46	10.023	
6,800.0	6,522.1	6,744.0	6,455.3	16.1	16.9	-78.50	270.0	393.1	325.8	293.9	31.90	10.214	
6,900.0	6,546.7	6,838.4	6,477.9	16.0	16.6	-78.37	178.3	393.8	326.1	294.3	31.72	10.278	
7,000.0	6,556.0	6,927.1	6,486.0	16.1	16.4	-78.33	90.1	394.5	326.2	294.3	31.93	10.217	
7,000.0	6,556.0	6,927.2	6,486.0	16.1	16.4	-78.33	90.0	394.5	326.2	294.3	31.93	10.217	
7,100.0	6,556.0	7,026.7	6,486.0	16.4	16.4	-78.33	-9.5	395.3	326.4	293.7	32.63	10.001	
7,200.0	6,556.0	7,126.7	6,486.0	16.9	17.0	-78.34	-109.5	396.1	326.5	292.8	33.72	9.681	
7,300.0	6,556.0	7,226.7	6,486.0	17.6	17.8	-78.34	-209.5	396.8	326.6	291.4	35.19	9.281	
7,400.0	6,556.0	7,326.7	6,486.0	18.5	18.8	-78.35	-309.5	397.6	326.7	289.7	36.99	8.834	
7,500.0	6,556.0	7,426.7	6,486.0	19.6	19.9	-78.35	-409.5	398.4	326.9	287.8	39.07	8.366	
7,600.0	6,556.0	7,526.7	6,486.0	20.7	21.2	-78.35	-509.5	399.2	327.0	285.6	41.39	7.900	
7,700.0	6,556.0	7,626.7	6,486.0	22.0	22.5	-78.36	-609.5	400.0	327.1	283.2	43.92	7.448	
7,800.0	6,556.0	7,726.7	6,486.0	23.4	23.9	-78.36	-709.5	400.7	327.2	280.6	46.61	7.020	
7,900.0	6,556.0	7,826.7	6,486.0	24.8	25.4	-78.37	-809.5	401.5	327.4	277.9	49.45	6.620	
8,000.0	6,556.0	7,926.7	6,486.0	26.3	26.9	-78.37	-909.5	402.3	327.5	275.1	52.41	6.249	
8,100.0	6,556.0	8,026.7	6,486.0	27.9	28.4	-78.38	-1,009.5	403.1	327.6	272.1	55.47	5.906	
8,200.0	6,556.0	8,126.7	6,486.0	29.5	30.0	-78.38	-1,109.5	403.8	327.7	269.1	58.61	5.592	
8,300.0	6,556.0	8,226.7	6,486.0	31.1	31.7	-78.39	-1,209.5	404.6	327.9	266.0	61.82	5.303	
8,400.0	6,556.0	8,326.7	6,486.0	32.7	33.3	-78.39	-1,309.5	405.4	328.0	262.9	65.10	5.038	
8,500.0	6,556.0	8,426.7	6,486.0	34.4	35.0	-78.40	-1,409.5	406.2	328.1	259.7	68.43	4.795	
8,600.0	6,556.0	8,526.7	6,486.0	36.2	36.7	-78.40	-1,509.4	407.0	328.2	256.4	71.80	4.572	
8,700.0	6,556.0	8,626.7	6,486.0	37.9	38.5	-78.40	-1,609.4	407.7	328.4	253.1	75.21	4.366	
8,800.0	6,556.0	8,726.7	6,486.0	39.6	40.2	-78.41	-1,709.4	408.5	328.5	249.8	78.66	4.176	
8,900.0	6,556.0	8,826.7	6,486.0	41.4	42.0	-78.41	-1,809.4	409.3	328.6	246.5	82.13	4.001	
9,000.0	6,556.0	8,926.7	6,486.0	43.2	43.8	-78.42	-1,909.4	410.1	328.7	243.1	85.63	3.839	
9,100.0	6,556.0	9,026.7	6,486.0	45.0	45.6	-78.42	-2,009.4	410.9	328.9	239.7	89.16	3.688	
9,200.0	6,556.0	9,126.7	6,486.0	46.8	47.4	-78.43	-2,109.4	411.6	329.0	236.3	92.70	3.549	
9,300.0	6,556.0	9,226.7	6,486.0	48.6	49.2	-78.43	-2,209.4	412.4	329.1	232.8	96.26	3.419	
9,400.0	6,556.0	9,326.7	6,486.0	50.4	51.0	-78.44	-2,309.4	413.2	329.2	229.4	99.84	3.297	
9,500.0	6,556.0	9,426.7	6,486.0	52.2	52.8	-78.44	-2,409.4	414.0	329.4	225.9	103.44	3.184	
9,600.0	6,556.0	9,526.7	6,486.0	54.1	54.6	-78.44	-2,509.4	414.7	329.5	222.4	107.04	3.078	
9,700.0	6,556.0	9,626.7	6,486.0	55.9	56.5	-78.45	-2,609.4	415.5	329.6	218.9	110.66	2.978	
9,800.0	6,556.0	9,726.7	6,486.0	57.8	58.3	-78.45	-2,709.4	416.3	329.7	215.4	114.29	2.885	
9,900.0	6,556.0	9,826.7	6,486.0	59.6	60.2	-78.46	-2,809.4	417.1	329.9	211.9	117.93	2.797	
10,000.0	6,556.0	9,926.7	6,486.0	61.5	62.0	-78.46	-2,909.4	417.9	330.0	208.4	121.58	2.714	
10,100.0	6,556.0	10,026.7	6,486.0	63.3	63.9	-78.47	-3,009.4	418.6	330.1	204.9	125.24	2.636	
10,200.0	6,556.0	10,126.7	6,486.0	65.2	65.7	-78.47	-3,109.4	419.4	330.2	201.3	128.90	2.562	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well North Platte Federal F-J-22HNC
Project:	SEC.22-T5N-R63W	TVD Reference:	WELL @ 4675.0ft (RKB - 13')
Reference Site:	North Platte F-22 Pad Sec.22-T5N-R63W	MD Reference:	WELL @ 4675.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	North Platte Federal F-J-22HNC	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 (11-12-13)	Offset TVD Reference:	Offset Datum

Offset Design North Platte F-22 Pad Sec.22-T5N-R63W - North Platte Federal F21-J24-22HNB - Wellbore #1 - Plan #												Offset Site Error:	0.0 ft
Survey Program: 0-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
10,300.0	6,556.0	10,226.7	6,486.0	67.0	67.6	-78.48	-3,209.4	420.2	330.4	197.8	132.57	2.492	
10,400.0	6,556.0	10,326.7	6,486.0	68.9	69.5	-78.48	-3,309.4	421.0	330.5	194.2	136.25	2.426	
10,500.0	6,556.0	10,426.7	6,486.0	70.8	71.3	-78.48	-3,409.4	421.8	330.6	190.7	139.93	2.363	
10,600.0	6,556.0	10,526.7	6,486.0	72.7	73.2	-78.49	-3,509.4	422.5	330.7	187.1	143.62	2.303	
10,700.0	6,556.0	10,626.7	6,486.0	74.5	75.1	-78.49	-3,609.4	423.3	330.9	183.5	147.31	2.246	
10,800.0	6,556.0	10,726.7	6,486.0	76.4	76.9	-78.50	-3,709.4	424.1	331.0	180.0	151.01	2.192	
10,900.0	6,556.0	10,826.7	6,486.0	78.3	78.8	-78.50	-3,809.4	424.9	331.1	176.4	154.71	2.140	
11,000.0	6,556.0	10,926.7	6,486.0	80.2	80.7	-78.51	-3,909.4	425.6	331.2	172.8	158.41	2.091	
11,100.0	6,556.0	11,026.7	6,486.0	82.1	82.6	-78.51	-4,009.4	426.4	331.4	169.2	162.12	2.044	
11,180.4	6,556.0	11,107.1	6,486.0	83.6	84.1	-78.51	-4,089.8	427.1	331.5	166.3	165.11	2.007 SF	

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well North Platte Federal F-J-22HNC
Project:	SEC.22-T5N-R63W	TVD Reference:	WELL @ 4675.0ft (RKB - 13')
Reference Site:	North Platte F-22 Pad Sec.22-T5N-R63W	MD Reference:	WELL @ 4675.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	North Platte Federal F-J-22HNC	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 (11-12-13)	Offset TVD Reference:	Offset Datum

Grid Convergence at Surface is: 0.69°



Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well North Platte Federal F-J-22HNC
Project:	SEC.22-T5N-R63W	TVD Reference:	WELL @ 4675.0ft (RKB - 13')
Reference Site:	North Platte F-22 Pad Sec.22-T5N-R63W	MD Reference:	WELL @ 4675.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	North Platte Federal F-J-22HNC	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 (11-12-13)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4675.0ft (RKB - 13')
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: North Platte Federal F-J-22HNC
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.69°

