

BONANZA CREEK ENERGY OPERATING

Well Name: **North Platte Federal F11-J14-22HNB**

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

Ground Elevation: 4660.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1386810.11	3298928.36	40.390230	-104.426817	

RKB - 13' WELL @ 4673.0ft (RKB - 13')

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
SHL 697'FNL & 1205'FWL	1.0	0.0	0.0	Point
BHL 470'FSL & 977'FWL	6488.0	-4108.3	-224.0	Point
T1 531'FNL & 960'FWL	6488.0	168.3	-245.4	Point



Azimuths to True North
Magnetic North: 8.36°

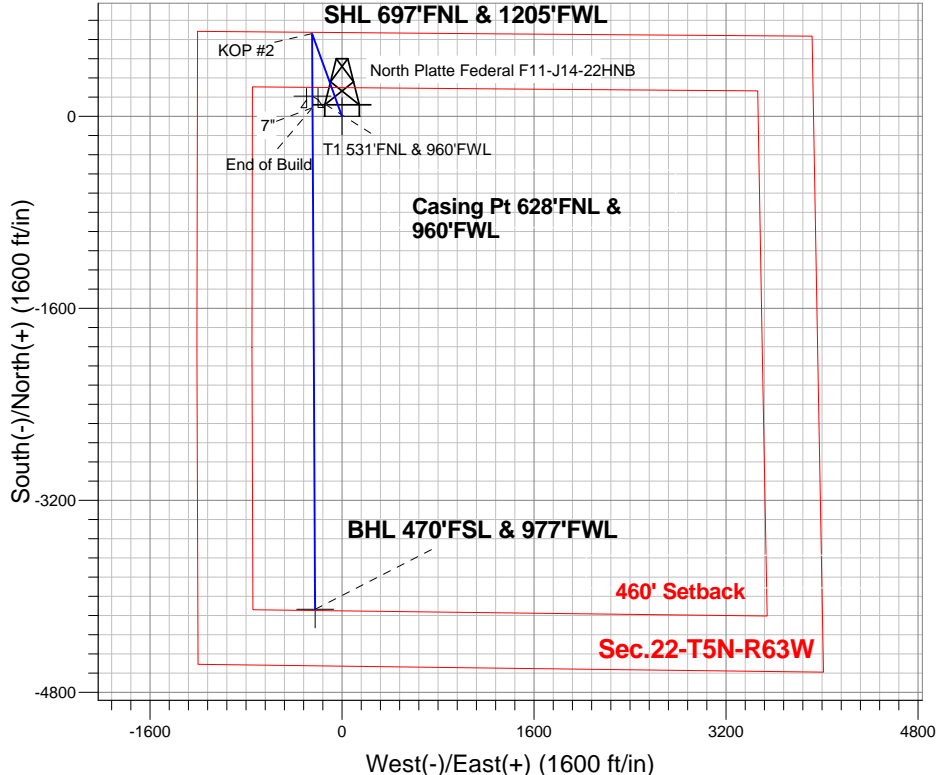
Magnetic Field
Strength: 52908.7nT
Dip Angle: 67.01°
Date: 11/12/2013
Model: IGRF2010

North Platte F-22 Pad Sec.22-T5N-R63W
North Platte Federal F11-J14-22HNB
Plan #1 (11-12-13)
14:44, November 20 2013

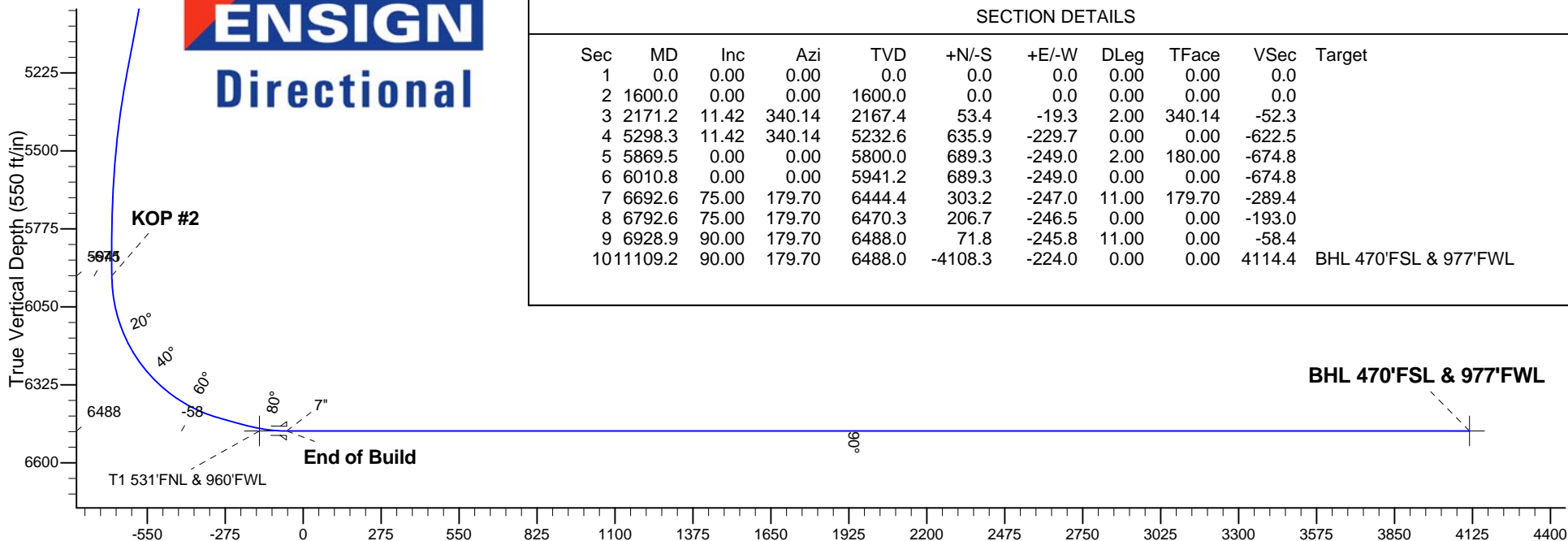
ANNOTATIONS

TVD	MD	Annotation
1600.0	1600.0	KOP #1
5941.3	6010.8	KOP #2
6488.0	6928.9	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	1600.0	0.00	0.00	1600.0	0.0	0.0	0.00	0.00	0.0	
3	2171.2	11.42	340.14	2167.4	53.4	-19.3	2.00	340.14	-52.3	
4	5298.3	11.42	340.14	5232.6	635.9	-229.7	0.00	0.00	-622.5	
5	5869.5	0.00	0.00	5800.0	689.3	-249.0	2.00	180.00	-674.8	
6	6010.8	0.00	0.00	5941.2	689.3	-249.0	0.00	0.00	-674.8	
7	6692.6	75.00	179.70	6444.4	303.2	-247.0	11.00	179.70	-289.4	
8	6792.6	75.00	179.70	6470.3	206.7	-246.5	0.00	0.00	-193.0	
9	6928.9	90.00	179.70	6488.0	71.8	-245.8	11.00	0.00	-58.4	
10	11109.2	90.00	179.70	6488.0	-4108.3	-224.0	0.00	0.00	4114.4	BHL 470'FSL & 977'FWL

Vertical Section at 183.10° (550 ft/in)



BONANZA CREEK ENERGY OPERATING

SEC.22-T5N-R63W

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

North Platte Federal F11-J14-22HNB

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	
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,171.2	11.42	340.14	2,167.4	53.4	-19.3	2.00	2.00	0.00	340.14	
5,298.3	11.42	340.14	5,232.6	635.9	-229.7	0.00	0.00	0.00	0.00	
5,869.5	0.00	0.00	5,800.0	689.3	-249.0	2.00	-2.00	0.00	180.00	
6,010.8	0.00	0.00	5,941.2	689.3	-249.0	0.00	0.00	0.00	0.00	
6,692.6	75.00	179.70	6,444.4	303.2	-247.0	11.00	11.00	0.00	179.70	
6,792.6	75.00	179.70	6,470.3	206.7	-246.5	0.00	0.00	0.00	0.00	
6,928.9	90.00	179.70	6,488.0	71.8	-245.8	11.00	11.00	0.00	0.00	
11,109.2	90.00	179.70	6,488.0	-4,108.3	-224.0	0.00	0.00	0.00	0.00	BHL 470'FSL & 977

Database:	Landmark	Local Co-ordinate Reference:	Well North Platte Federal F11-J14-22HNB
Company:	BONANZA CREEK ENERGY OPERATING	TVD Reference:	WELL @ 4673.0ft (RKB - 13')
Project:	SEC.22-T5N-R63W	MD Reference:	WELL @ 4673.0ft (RKB - 13')
Site:	North Platte F-22 Pad Sec.22-T5N-R63W	North Reference:	True
Well:	North Platte Federal F11-J14-22HNB	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 697'FNL & 1205'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
KOP #1									
1,700.0	2.00	340.14	1,700.0	1.6	-0.6	-1.6	2.00	2.00	0.00
1,800.0	4.00	340.14	1,799.8	6.6	-2.4	-6.4	2.00	2.00	0.00
1,900.0	6.00	340.14	1,899.5	14.8	-5.3	-14.4	2.00	2.00	0.00
2,000.0	8.00	340.14	1,998.7	26.2	-9.5	-25.7	2.00	2.00	0.00
2,100.0	10.00	340.14	2,097.5	40.9	-14.8	-40.1	2.00	2.00	0.00
2,171.2	11.42	340.14	2,167.4	53.4	-19.3	-52.3	2.00	2.00	0.00
2,200.0	11.42	340.14	2,195.7	58.7	-21.2	-57.5	0.00	0.00	0.00
2,300.0	11.42	340.14	2,293.7	77.4	-28.0	-75.7	0.00	0.00	0.00
2,400.0	11.42	340.14	2,391.7	96.0	-34.7	-94.0	0.00	0.00	0.00
2,500.0	11.42	340.14	2,489.7	114.6	-41.4	-112.2	0.00	0.00	0.00
2,600.0	11.42	340.14	2,587.7	133.3	-48.1	-130.5	0.00	0.00	0.00
2,700.0	11.42	340.14	2,685.7	151.9	-54.9	-148.7	0.00	0.00	0.00
2,800.0	11.42	340.14	2,783.8	170.5	-61.6	-166.9	0.00	0.00	0.00
2,900.0	11.42	340.14	2,881.8	189.1	-68.3	-185.2	0.00	0.00	0.00
3,000.0	11.42	340.14	2,979.8	207.8	-75.1	-203.4	0.00	0.00	0.00
3,100.0	11.42	340.14	3,077.8	226.4	-81.8	-221.6	0.00	0.00	0.00
3,200.0	11.42	340.14	3,175.8	245.0	-88.5	-239.9	0.00	0.00	0.00
3,300.0	11.42	340.14	3,273.9	263.7	-95.2	-258.1	0.00	0.00	0.00
3,400.0	11.42	340.14	3,371.9	282.3	-102.0	-276.4	0.00	0.00	0.00
3,500.0	11.42	340.14	3,469.9	300.9	-108.7	-294.6	0.00	0.00	0.00
3,600.0	11.42	340.14	3,567.9	319.5	-115.4	-312.8	0.00	0.00	0.00
3,700.0	11.42	340.14	3,665.9	338.2	-122.2	-331.1	0.00	0.00	0.00
3,800.0	11.42	340.14	3,764.0	356.8	-128.9	-349.3	0.00	0.00	0.00
3,900.0	11.42	340.14	3,862.0	375.4	-135.6	-367.5	0.00	0.00	0.00
4,000.0	11.42	340.14	3,960.0	394.1	-142.3	-385.8	0.00	0.00	0.00
4,100.0	11.42	340.14	4,058.0	412.7	-149.1	-404.0	0.00	0.00	0.00
4,200.0	11.42	340.14	4,156.0	431.3	-155.8	-422.2	0.00	0.00	0.00
4,300.0	11.42	340.14	4,254.0	449.9	-162.5	-440.5	0.00	0.00	0.00
4,400.0	11.42	340.14	4,352.1	468.6	-169.3	-458.7	0.00	0.00	0.00
4,500.0	11.42	340.14	4,450.1	487.2	-176.0	-477.0	0.00	0.00	0.00
4,600.0	11.42	340.14	4,548.1	505.8	-182.7	-495.2	0.00	0.00	0.00
4,700.0	11.42	340.14	4,646.1	524.5	-189.5	-513.4	0.00	0.00	0.00
4,800.0	11.42	340.14	4,744.1	543.1	-196.2	-531.7	0.00	0.00	0.00
4,900.0	11.42	340.14	4,842.2	561.7	-202.9	-549.9	0.00	0.00	0.00

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Project:	SEC.22-T5N-R63W	MD Reference:	WELL @ 4673.0ft (RKB - 13')
Site:	North Platte F-22 Pad Sec.22-T5N-R63W	North Reference:	True
Well:	North Platte Federal F11-J14-22HNB	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	11.42	340.14	4,940.2	580.3	-209.6	-568.1	0.00	0.00	0.00
5,100.0	11.42	340.14	5,038.2	599.0	-216.4	-586.4	0.00	0.00	0.00
5,200.0	11.42	340.14	5,136.2	617.6	-223.1	-604.6	0.00	0.00	0.00
5,298.3	11.42	340.14	5,232.6	635.9	-229.7	-622.5	0.00	0.00	0.00
5,300.0	11.39	340.14	5,234.2	636.2	-229.8	-622.9	2.00	-2.00	0.00
5,400.0	9.39	340.14	5,332.6	653.2	-236.0	-639.5	2.00	-2.00	0.00
5,500.0	7.39	340.14	5,431.5	666.9	-240.9	-652.9	2.00	-2.00	0.00
5,600.0	5.39	340.14	5,530.9	677.4	-244.7	-663.1	2.00	-2.00	0.00
5,700.0	3.39	340.14	5,630.6	684.6	-247.3	-670.2	2.00	-2.00	0.00
5,800.0	1.39	340.14	5,730.5	688.5	-248.7	-674.0	2.00	-2.00	0.00
5,869.5	0.00	0.00	5,800.0	689.3	-249.0	-674.8	2.00	-2.00	0.00
5,900.0	0.00	0.00	5,830.5	689.3	-249.0	-674.8	0.00	0.00	0.00
6,000.0	0.00	0.00	5,930.5	689.3	-249.0	-674.8	0.00	0.00	0.00
6,010.8	0.00	0.00	5,941.3	689.3	-249.0	-674.8	0.00	0.00	0.00
KOP #2									
6,100.0	9.82	179.70	6,030.1	681.7	-249.0	-667.2	11.01	11.01	0.00
6,200.0	20.82	179.70	6,126.4	655.3	-248.8	-640.9	11.00	11.00	0.00
6,300.0	31.82	179.70	6,215.9	611.0	-248.6	-596.7	11.00	11.00	0.00
6,400.0	42.82	179.70	6,295.3	550.5	-248.3	-536.3	11.00	11.00	0.00
6,500.0	53.82	179.70	6,361.7	475.9	-247.9	-461.8	11.00	11.00	0.00
6,600.0	64.82	179.70	6,412.6	390.1	-247.4	-376.1	11.00	11.00	0.00
6,692.6	75.00	179.70	6,444.4	303.2	-247.0	-289.4	11.00	11.00	0.00
6,700.0	75.00	179.70	6,446.3	296.1	-247.0	-282.3	0.00	0.00	0.00
6,792.6	75.00	179.70	6,470.3	206.7	-246.5	-193.0	0.00	0.00	0.00
6,800.0	75.82	179.70	6,472.1	199.5	-246.4	-185.8	11.00	11.00	0.00
6,833.2	79.47	179.70	6,479.2	167.0	-246.3	-153.4	11.00	11.00	0.00
T1 531'FNL & 960'FWL									
6,900.0	86.82	179.70	6,487.2	100.8	-245.9	-87.3	11.00	11.00	0.00
6,928.9	90.00	179.70	6,488.0	71.9	-245.8	-58.5	11.00	11.00	0.00
End of Build - 7"									
7,000.0	90.00	179.70	6,488.0	0.8	-245.4	12.5	0.01	0.01	0.00
7,100.0	90.00	179.70	6,488.0	-99.2	-244.9	112.3	0.00	0.00	0.00
7,200.0	90.00	179.70	6,488.0	-199.2	-244.4	212.2	0.00	0.00	0.00
7,300.0	90.00	179.70	6,488.0	-299.2	-243.8	312.0	0.00	0.00	0.00
7,400.0	90.00	179.70	6,488.0	-399.2	-243.3	411.8	0.00	0.00	0.00
7,500.0	90.00	179.70	6,488.0	-499.2	-242.8	511.6	0.00	0.00	0.00
7,600.0	90.00	179.70	6,488.0	-599.2	-242.3	611.5	0.00	0.00	0.00
7,700.0	90.00	179.70	6,488.0	-699.2	-241.8	711.3	0.00	0.00	0.00
7,800.0	90.00	179.70	6,488.0	-799.2	-241.2	811.1	0.00	0.00	0.00
7,900.0	90.00	179.70	6,488.0	-899.2	-240.7	910.9	0.00	0.00	0.00
8,000.0	90.00	179.70	6,488.0	-999.2	-240.2	1,010.7	0.00	0.00	0.00
8,100.0	90.00	179.70	6,488.0	-1,099.2	-239.7	1,110.6	0.00	0.00	0.00
8,200.0	90.00	179.70	6,488.0	-1,199.2	-239.2	1,210.4	0.00	0.00	0.00
8,300.0	90.00	179.70	6,488.0	-1,299.2	-238.6	1,310.2	0.00	0.00	0.00
8,400.0	90.00	179.70	6,488.0	-1,399.2	-238.1	1,410.0	0.00	0.00	0.00
8,500.0	90.00	179.70	6,488.0	-1,499.2	-237.6	1,509.9	0.00	0.00	0.00
8,600.0	90.00	179.70	6,488.0	-1,599.2	-237.1	1,609.7	0.00	0.00	0.00
8,700.0	90.00	179.70	6,488.0	-1,699.2	-236.6	1,709.5	0.00	0.00	0.00
8,800.0	90.00	179.70	6,488.0	-1,799.2	-236.0	1,809.3	0.00	0.00	0.00
8,900.0	90.00	179.70	6,488.0	-1,899.2	-235.5	1,909.2	0.00	0.00	0.00
9,000.0	90.00	179.70	6,488.0	-1,999.2	-235.0	2,009.0	0.00	0.00	0.00
9,100.0	90.00	179.70	6,488.0	-2,099.2	-234.5	2,108.8	0.00	0.00	0.00
9,200.0	90.00	179.70	6,488.0	-2,199.2	-233.9	2,208.6	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well North Platte Federal F11-J14-22HNB
Company:	BONANZA CREEK ENERGY OPERATING	TVD Reference:	WELL @ 4673.0ft (RKB - 13')
Project:	SEC.22-T5N-R63W	MD Reference:	WELL @ 4673.0ft (RKB - 13')
Site:	North Platte F-22 Pad Sec.22-T5N-R63W	North Reference:	True
Well:	North Platte Federal F11-J14-22HNB	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	179.70	6,488.0	-2,299.2	-233.4	2,308.5	0.00	0.00	0.00	
9,400.0	90.00	179.70	6,488.0	-2,399.2	-232.9	2,408.3	0.00	0.00	0.00	
9,500.0	90.00	179.70	6,488.0	-2,499.2	-232.4	2,508.1	0.00	0.00	0.00	
9,600.0	90.00	179.70	6,488.0	-2,599.2	-231.9	2,607.9	0.00	0.00	0.00	
9,700.0	90.00	179.70	6,488.0	-2,699.2	-231.3	2,707.7	0.00	0.00	0.00	
9,800.0	90.00	179.70	6,488.0	-2,799.2	-230.8	2,807.6	0.00	0.00	0.00	
9,900.0	90.00	179.70	6,488.0	-2,899.2	-230.3	2,907.4	0.00	0.00	0.00	
10,000.0	90.00	179.70	6,488.0	-2,999.2	-229.8	3,007.2	0.00	0.00	0.00	
10,100.0	90.00	179.70	6,488.0	-3,099.2	-229.3	3,107.0	0.00	0.00	0.00	
10,200.0	90.00	179.70	6,488.0	-3,199.2	-228.7	3,206.9	0.00	0.00	0.00	
10,300.0	90.00	179.70	6,488.0	-3,299.2	-228.2	3,306.7	0.00	0.00	0.00	
10,400.0	90.00	179.70	6,488.0	-3,399.2	-227.7	3,406.5	0.00	0.00	0.00	
10,500.0	90.00	179.70	6,488.0	-3,499.2	-227.2	3,506.3	0.00	0.00	0.00	
10,600.0	90.00	179.70	6,488.0	-3,599.2	-226.7	3,606.2	0.00	0.00	0.00	
10,700.0	90.00	179.70	6,488.0	-3,699.2	-226.1	3,706.0	0.00	0.00	0.00	
10,800.0	90.00	179.70	6,488.0	-3,799.2	-225.6	3,805.8	0.00	0.00	0.00	
10,900.0	90.00	179.70	6,488.0	-3,899.2	-225.1	3,905.6	0.00	0.00	0.00	
11,000.0	90.00	179.70	6,488.0	-3,999.2	-224.6	4,005.5	0.00	0.00	0.00	
11,100.0	90.00	179.70	6,488.0	-4,099.2	-224.0	4,105.3	0.00	0.00	0.00	
11,109.2	90.00	179.70	6,488.0	-4,108.3	-224.0	4,114.4	0.00	0.00	0.00	
BHL 470'FSL & 977'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 & 960'FW	0.00	0.00	6,488.0	168.3	-245.4	1,386,975.44	3,298,680.94	40.390692	-104.427698	
- plan misses target center by 8.9ft at 6833.2ft MD (6479.2 TVD, 167.0 N, -246.3 E)										
- Point										
SHL 697'FNL & 1205'	0.00	0.00	1.0	0.0	0.0	1,386,810.12	3,298,928.36	40.390230	-104.426817	
- plan hits target center										
- Point										
BHL 470'FSL & 977'F	0.00	0.00	6,488.0	-4,108.3	-224.0	1,382,699.55	3,298,754.10	40.378953	-104.427621	
- plan hits target center										
- Point										

Casing Points						
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")		
6,928.9	6,488.0	7"	7	7-1/2		

Database:	Landmark	Local Co-ordinate Reference:	Well North Platte Federal F11-J14-22HNB
Company:	BONANZA CREEK ENERGY OPERATING	TVD Reference:	WELL @ 4673.0ft (RKB - 13')
Project:	SEC.22-T5N-R63W	MD Reference:	WELL @ 4673.0ft (RKB - 13')
Site:	North Platte F-22 Pad Sec.22-T5N-R63W	North Reference:	True
Well:	North Platte Federal F11-J14-22HNB	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)	
1,600.0	1,600.0	0.0	0.0	KOP #1
6,010.8	5,941.3	689.3	-249.0	KOP #2
6,928.9	6,488.0	71.9	-245.8	End of Build



BONANZA CREEK ENERGY OPERATING

SEC.22-T5N-R63W

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

North Platte Federal F11-J14-22HNB

Wellbore #1

Plan #1 (11-12-13)

Anticollision Report

20 November, 2013

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well North Platte Federal F11-J14-22HNB
Project:	SEC.22-T5N-R63W	TVD Reference:	WELL @ 4673.0ft (RKB - 13')
Reference Site:	North Platte F-22 Pad Sec.22-T5N-R63W	MD Reference:	WELL @ 4673.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	North Platte Federal F11-J14-22HNB	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 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 (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
1,700.0	1,700.0	1,678.5	1,669.1	3.7	4.2	-12.20	125.1	-78.2	148.4	141.0	7.45	19.920	
1,800.0	1,799.8	1,777.5	1,766.2	3.9	4.6	-13.75	139.0	-90.9	162.2	154.3	7.90	20.523	
1,900.0	1,899.5	1,876.8	1,863.7	4.2	5.0	-15.35	153.0	-103.7	172.8	164.4	8.36	20.679	
2,000.0	1,998.7	1,976.4	1,961.5	4.4	5.4	-17.09	167.0	-116.5	180.1	171.3	8.80	20.466	
2,100.0	2,097.5	2,076.1	2,059.4	4.7	5.8	-19.06	181.0	-129.4	184.4	175.1	9.25	19.937	
2,200.0	2,195.7	2,175.8	2,157.2	4.9	6.2	-21.32	195.0	-142.2	185.7	176.0	9.71	19.131	
2,300.0	2,293.7	2,275.5	2,255.1	5.2	6.6	-23.66	209.1	-155.1	186.5	176.3	10.20	18.280	
2,400.0	2,391.7	2,375.2	2,353.0	5.6	7.0	-25.97	223.1	-167.9	187.6	176.9	10.71	17.509	
2,500.0	2,489.7	2,474.9	2,450.9	5.9	7.4	-28.26	237.1	-180.8	189.0	177.7	11.24	16.808	
2,600.0	2,587.7	2,574.6	2,548.7	6.2	7.8	-30.50	251.1	-193.6	190.7	178.9	11.79	16.167	
2,700.0	2,685.7	2,674.3	2,646.6	6.6	8.2	-32.71	265.2	-206.5	192.7	180.3	12.37	15.579	
2,800.0	2,783.8	2,774.0	2,744.5	7.0	8.6	-34.87	279.2	-219.3	194.9	182.0	12.96	15.037	
2,900.0	2,881.8	2,873.7	2,842.4	7.3	9.0	-36.97	293.2	-232.1	197.5	183.9	13.58	14.537	
3,000.0	2,979.8	2,973.4	2,940.2	7.7	9.4	-39.02	307.3	-245.0	200.3	186.1	14.23	14.076	
3,100.0	3,077.8	3,073.1	3,038.1	8.1	9.9	-41.01	321.3	-257.8	203.3	188.4	14.90	13.649	
3,200.0	3,175.8	3,172.8	3,136.0	8.5	10.3	-42.94	335.3	-270.7	206.6	191.0	15.59	13.255	
3,300.0	3,273.9	3,272.5	3,233.9	8.9	10.7	-44.80	349.3	-283.5	210.1	193.8	16.30	12.892	
3,400.0	3,371.9	3,372.3	3,331.7	9.3	11.1	-46.61	363.4	-296.4	213.9	196.8	17.03	12.556	
3,500.0	3,469.9	3,472.0	3,429.6	9.7	11.5	-48.35	377.4	-309.2	217.8	200.0	17.79	12.247	
3,600.0	3,567.9	3,571.7	3,527.5	10.1	11.9	-50.02	391.4	-322.1	222.0	203.4	18.56	11.962	
3,700.0	3,665.9	3,671.4	3,625.4	10.5	12.4	-51.64	405.4	-334.9	226.3	206.9	19.34	11.699	
3,800.0	3,764.0	3,771.1	3,723.2	10.9	12.8	-53.19	419.5	-347.8	230.8	210.6	20.14	11.458	
3,900.0	3,862.0	3,870.8	3,821.1	11.3	13.2	-54.69	433.5	-360.6	235.4	214.5	20.95	11.235	
4,000.0	3,960.0	3,970.5	3,919.0	11.7	13.6	-56.12	447.5	-373.5	240.2	218.5	21.78	11.031	
4,100.0	4,058.0	4,070.2	4,016.9	12.1	14.0	-57.50	461.5	-386.3	245.2	222.6	22.61	10.843	
4,200.0	4,156.0	4,169.9	4,114.7	12.5	14.5	-58.82	475.6	-399.2	250.3	226.8	23.45	10.671	
4,300.0	4,254.0	4,269.6	4,212.6	12.9	14.9	-60.09	489.6	-412.0	255.5	231.2	24.30	10.512	
4,400.0	4,352.1	4,369.3	4,310.5	13.4	15.3	-61.31	503.6	-424.8	260.8	235.7	25.16	10.367	
4,500.0	4,450.1	4,469.0	4,408.4	13.8	15.7	-62.48	517.6	-437.7	266.3	240.3	26.02	10.232	
4,600.0	4,548.1	4,568.7	4,506.3	14.2	16.1	-63.60	531.7	-450.5	271.8	245.0	26.89	10.109	
4,700.0	4,646.1	4,668.4	4,604.1	14.6	16.6	-64.67	545.7	-463.4	277.5	249.7	27.76	9.996	
4,800.0	4,744.1	4,768.1	4,702.0	15.0	17.0	-65.71	559.7	-476.2	283.3	254.6	28.64	9.891	
4,900.0	4,842.2	4,867.8	4,799.9	15.5	17.4	-66.70	573.7	-489.1	289.1	259.6	29.51	9.795	
5,000.0	4,940.2	4,967.6	4,897.8	15.9	17.8	-67.65	587.8	-501.9	295.0	264.6	30.39	9.706	
5,100.0	5,038.2	5,067.3	4,995.6	16.3	18.2	-68.57	601.8	-514.8	301.0	269.7	31.28	9.625	
5,200.0	5,136.2	5,167.0	5,093.5	16.7	18.7	-69.44	615.8	-527.6	307.1	274.9	32.16	9.549	
5,300.0	5,234.2	5,266.7	5,191.4	17.1	19.1	-70.29	629.8	-540.5	313.2	280.2	33.04	9.480	
5,400.0	5,332.6	5,366.4	5,289.3	17.5	19.5	-70.93	643.9	-553.3	320.0	286.3	33.79	9.471	
5,500.0	5,431.5	5,468.9	5,389.9	17.9	19.9	-71.00	658.1	-566.4	327.8	293.4	34.42	9.525	
5,600.0	5,530.9	5,576.9	5,496.6	18.0	20.2	-70.87	670.8	-578.0	334.8	299.9	34.92	9.588	
5,700.0	5,630.6	5,685.2	5,604.1	18.2	20.5	-70.63	680.6	-586.9	340.5	305.1	35.33	9.638	
5,800.0	5,730.5	5,793.8	5,712.3	18.4	20.7	-70.28	687.3	-593.1	344.7	309.1	35.64	9.672	
5,900.0	5,830.5	5,902.7	5,821.0	18.5	20.9	-89.71	691.1	-596.5	347.6	311.8	35.83	9.701	
6,000.0	5,930.5	6,009.2	5,927.5	18.6	21.1	-89.58	691.9	-597.3	348.3	312.2	36.12	9.643	
6,100.0	6,030.1	6,109.2	6,027.5	18.7	21.2	-91.88	691.3	-597.3	348.5	312.3	36.17	9.634	
6,200.0	6,126.4	6,211.9	6,128.9	18.6	21.2	-93.89	676.7	-597.2	349.1	313.4	35.68	9.783	
6,300.0	6,215.9	6,317.1	6,227.9	18.3	21.0	-95.78	641.4	-597.1	350.2	315.3	34.91	10.032	
6,400.0	6,295.3	6,424.9	6,319.8	17.9	20.7	-97.46	585.4	-596.9	351.5	317.5	33.95	10.353	
6,500.0	6,361.7	6,535.1	6,399.7	17.4	20.3	-98.86	510.0	-596.7	352.8	319.9	32.96	10.705	
6,600.0	6,412.6	6,647.2	6,463.0	17.0	19.8	-99.90	417.6	-596.3	354.0	321.9	32.10	11.030	
6,700.0	6,446.3	6,760.9	6,505.5	16.6	19.3	-100.53	312.4	-596.0	354.9	323.4	31.52	11.260	
6,800.0	6,472.1	6,861.7	6,531.7	16.3	18.9	-100.53	215.0	-595.6	355.1	323.8	31.31	11.342	

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 F11-J14-22HNB
Project:	SEC.22-T5N-R63W	TVD Reference:	WELL @ 4673.0ft (RKB - 13')
Reference Site:	North Platte F-22 Pad Sec.22-T5N-R63W	MD Reference:	WELL @ 4673.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	North Platte Federal F11-J14-22HNB	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	
6,900.0	6,487.2	6,975.3	6,550.2	16.2	18.6	100.72	103.2	-595.3	355.5	323.9	31.58	11.259	
7,000.0	6,488.0	7,078.9	6,551.0	16.4	18.3	100.69	-0.4	-594.9	355.7	323.5	32.18	11.054	
7,100.0	6,488.0	7,178.9	6,551.0	16.8	18.2	100.69	-100.4	-594.6	355.9	322.7	33.15	10.736	
7,200.0	6,488.0	7,278.9	6,551.0	17.5	18.6	100.68	-200.4	-594.2	356.0	321.5	34.51	10.318	
7,300.0	6,488.0	7,378.9	6,551.0	18.4	19.6	100.68	-300.4	-593.9	356.2	320.0	36.21	9.837	
7,400.0	6,488.0	7,478.9	6,551.0	19.4	20.7	100.67	-400.4	-593.5	356.4	318.2	38.22	9.325	
7,500.0	6,488.0	7,578.9	6,551.0	20.6	21.9	100.67	-500.4	-593.2	356.6	316.1	40.48	8.808	
7,600.0	6,488.0	7,678.9	6,551.0	21.9	23.2	100.66	-600.4	-592.9	356.7	313.8	42.96	8.304	
7,700.0	6,488.0	7,778.9	6,551.0	23.2	24.5	100.66	-700.4	-592.5	356.9	311.3	45.62	7.823	
7,800.0	6,488.0	7,878.9	6,551.0	24.6	26.0	100.65	-800.4	-592.2	357.1	308.7	48.43	7.373	
7,900.0	6,488.0	7,978.9	6,551.0	26.1	27.4	100.65	-900.4	-591.8	357.3	305.9	51.37	6.955	
8,000.0	6,488.0	8,078.9	6,551.0	27.7	29.0	100.64	-1,000.4	-591.5	357.4	303.0	54.41	6.569	
8,100.0	6,488.0	8,178.9	6,551.0	29.3	30.5	100.64	-1,100.4	-591.2	357.6	300.1	57.54	6.215	
8,200.0	6,488.0	8,278.9	6,551.0	30.9	32.1	100.63	-1,200.4	-590.8	357.8	297.0	60.75	5.890	
8,300.0	6,488.0	8,378.9	6,551.0	32.6	33.8	100.62	-1,300.4	-590.5	358.0	294.0	64.02	5.592	
8,400.0	6,488.0	8,478.9	6,551.0	34.2	35.4	100.62	-1,400.4	-590.1	358.2	290.8	67.35	5.318	
8,500.0	6,488.0	8,578.9	6,551.0	35.9	37.1	100.61	-1,500.4	-589.8	358.3	287.6	70.72	5.067	
8,600.0	6,488.0	8,678.9	6,551.0	37.7	38.8	100.61	-1,600.4	-589.4	358.5	284.4	74.13	4.836	
8,700.0	6,488.0	8,778.9	6,551.0	39.4	40.6	100.60	-1,700.4	-589.1	358.7	281.1	77.58	4.623	
8,800.0	6,488.0	8,878.9	6,551.0	41.2	42.3	100.60	-1,800.4	-588.8	358.9	277.8	81.06	4.427	
8,900.0	6,488.0	8,978.9	6,551.0	43.0	44.1	100.59	-1,900.4	-588.4	359.0	274.5	84.56	4.246	
9,000.0	6,488.0	9,078.9	6,551.0	44.7	45.8	100.59	-2,000.4	-588.1	359.2	271.1	88.09	4.078	
9,100.0	6,488.0	9,178.9	6,551.0	46.5	47.6	100.58	-2,100.4	-587.7	359.4	267.7	91.64	3.922	
9,200.0	6,488.0	9,278.9	6,551.0	48.4	49.4	100.58	-2,200.4	-587.4	359.6	264.3	95.21	3.776	
9,300.0	6,488.0	9,378.9	6,551.0	50.2	51.2	100.57	-2,300.4	-587.1	359.7	260.9	98.80	3.641	
9,400.0	6,488.0	9,478.9	6,551.0	52.0	53.0	100.57	-2,400.4	-586.7	359.9	257.5	102.40	3.515	
9,500.0	6,488.0	9,578.9	6,551.0	53.8	54.8	100.56	-2,500.4	-586.4	360.1	254.1	106.01	3.397	
9,600.0	6,488.0	9,678.9	6,551.0	55.7	56.6	100.56	-2,600.4	-586.0	360.3	250.6	109.64	3.286	
9,700.0	6,488.0	9,778.9	6,551.0	57.5	58.5	100.55	-2,700.4	-585.7	360.4	247.2	113.28	3.182	
9,800.0	6,488.0	9,878.9	6,551.0	59.3	60.3	100.55	-2,800.4	-585.4	360.6	243.7	116.93	3.084	
9,900.0	6,488.0	9,978.9	6,551.0	61.2	62.1	100.54	-2,900.4	-585.0	360.8	240.2	120.58	2.992	
10,000.0	6,488.0	10,078.9	6,551.0	63.1	64.0	100.54	-3,000.4	-584.7	361.0	236.7	124.25	2.905	
10,100.0	6,488.0	10,178.9	6,551.0	64.9	65.8	100.53	-3,100.4	-584.3	361.2	233.2	127.92	2.823	
10,200.0	6,488.0	10,278.9	6,551.0	66.8	67.7	100.52	-3,200.4	-584.0	361.3	229.7	131.60	2.746	
10,300.0	6,488.0	10,378.9	6,551.0	68.6	69.5	100.52	-3,300.4	-583.6	361.5	226.2	135.28	2.672	
10,400.0	6,488.0	10,478.9	6,551.0	70.5	71.4	100.51	-3,400.4	-583.3	361.7	222.7	138.97	2.603	
10,500.0	6,488.0	10,578.9	6,551.0	72.4	73.3	100.51	-3,500.4	-583.0	361.9	219.2	142.67	2.536	
10,600.0	6,488.0	10,678.9	6,551.0	74.3	75.1	100.50	-3,600.4	-582.6	362.0	215.7	146.37	2.473	
10,700.0	6,488.0	10,778.9	6,551.0	76.1	77.0	100.50	-3,700.4	-582.3	362.2	212.1	150.08	2.413	
10,800.0	6,488.0	10,878.9	6,551.0	78.0	78.9	100.49	-3,800.4	-581.9	362.4	208.6	153.79	2.356	
10,900.0	6,488.0	10,978.9	6,551.0	79.9	80.7	100.49	-3,900.4	-581.6	362.6	205.1	157.50	2.302	
11,000.0	6,488.0	11,078.9	6,551.0	81.8	82.6	100.48	-4,000.4	-581.3	362.7	201.5	161.22	2.250	
11,100.0	6,488.0	11,178.9	6,551.0	83.7	84.5	100.48	-4,100.4	-580.9	362.9	198.0	164.94	2.200	
11,109.2	6,488.0	11,182.5	6,551.0	83.8	84.6	100.48	-4,103.9	-580.9	363.0	197.8	165.18	2.197 SF	

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well North Platte Federal F11-J14-22HNB
Project:	SEC.22-T5N-R63W	TVD Reference:	WELL @ 4673.0ft (RKB - 13')
Reference Site:	North Platte F-22 Pad Sec.22-T5N-R63W	MD Reference:	WELL @ 4673.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	North Platte Federal F11-J14-22HNB	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	-0.53	60.1	-0.6	60.2					
100.0	100.0	97.0	97.0	0.1	0.1	-0.53	60.1	-0.6	60.1	59.9	0.22	271.517		
200.0	200.0	197.0	197.0	0.3	0.3	-0.53	60.1	-0.6	60.1	59.4	0.67	90.051		
300.0	300.0	297.0	297.0	0.6	0.6	-0.53	60.1	-0.6	60.1	59.0	1.12	53.813		
400.0	400.0	397.0	397.0	0.8	0.8	-0.53	60.1	-0.6	60.1	58.5	1.57	38.372 CC, ES		
500.0	500.0	495.8	495.8	1.0	1.0	-1.74	61.0	-1.9	61.1	59.1	2.01	30.400		
600.0	600.0	594.3	594.1	1.2	1.2	-5.28	63.9	-5.9	64.3	61.8	2.46	26.178		
700.0	700.0	692.4	691.8	1.5	1.5	-10.44	68.8	-12.7	70.1	67.2	2.92	24.046		
800.0	800.0	789.7	788.5	1.7	1.7	-16.30	75.5	-22.1	79.1	75.7	3.40	23.295		
900.0	900.0	886.2	883.9	1.9	2.0	-22.03	84.1	-34.0	91.6	87.7	3.90	23.525		
1,000.0	1,000.0	981.6	977.6	2.1	2.3	-27.15	94.4	-48.4	107.8	103.4	4.41	24.456		
1,100.0	1,100.0	1,076.9	1,070.7	2.4	2.7	-31.49	106.4	-65.1	127.5	122.5	4.93	25.841		
1,200.0	1,200.0	1,174.4	1,165.7	2.6	3.1	-34.84	119.0	-82.9	148.4	142.9	5.46	27.173		
1,300.0	1,300.0	1,271.8	1,260.7	2.8	3.6	-37.36	131.7	-100.6	169.7	163.7	5.98	28.350		
1,400.0	1,400.0	1,369.3	1,355.7	3.0	4.0	-39.32	144.4	-118.3	191.2	184.7	6.51	29.380		
1,500.0	1,500.0	1,466.8	1,450.7	3.3	4.5	-40.89	157.1	-136.0	212.9	205.9	7.03	30.284		
1,600.0	1,600.0	1,564.2	1,545.7	3.5	4.9	-42.16	169.8	-153.7	234.7	227.2	7.55	31.082		
1,700.0	1,700.0	1,662.0	1,641.0	3.7	5.4	-23.35	182.5	-171.5	255.0	247.4	7.66	33.296		
1,800.0	1,799.8	1,760.3	1,736.8	3.9	5.8	-24.55	195.3	-189.4	272.4	264.2	8.13	33.491		
1,900.0	1,899.5	1,859.0	1,833.0	4.2	6.3	-25.91	208.1	-207.3	286.7	278.1	8.60	33.341		
2,000.0	1,998.7	1,958.0	1,929.5	4.4	6.8	-27.46	221.0	-225.3	298.2	289.1	9.06	32.900		
2,100.0	2,097.5	2,057.1	2,026.1	4.7	7.3	-29.22	233.9	-243.3	306.8	297.3	9.53	32.207		
2,200.0	2,195.7	2,156.3	2,122.8	4.9	7.7	-31.22	246.8	-261.3	312.9	302.9	10.00	31.278		
2,300.0	2,293.7	2,255.5	2,219.4	5.2	8.2	-33.27	259.7	-279.4	318.6	308.1	10.51	30.303		
2,400.0	2,391.7	2,354.7	2,316.1	5.6	8.7	-35.25	272.6	-297.4	324.8	313.7	11.05	29.401		
2,500.0	2,489.7	2,453.9	2,412.8	5.9	9.2	-37.16	285.5	-315.4	331.3	319.7	11.60	28.562		
2,600.0	2,587.7	2,553.1	2,509.5	6.2	9.6	-38.99	298.4	-333.4	338.1	326.0	12.17	27.778		
2,700.0	2,685.7	2,652.3	2,606.2	6.6	10.1	-40.74	311.3	-351.5	345.3	332.6	12.77	27.045		
2,800.0	2,783.8	2,751.4	2,702.8	7.0	10.6	-42.43	324.2	-369.5	352.9	339.5	13.39	26.358		
2,900.0	2,881.8	2,850.6	2,799.5	7.3	11.1	-44.04	337.1	-387.5	360.7	346.6	14.03	25.714		
3,000.0	2,979.8	2,949.8	2,896.2	7.7	11.5	-45.58	350.1	-405.6	368.7	354.1	14.68	25.110		
3,100.0	3,077.8	3,049.0	2,992.9	8.1	12.0	-47.06	363.0	-423.6	377.1	361.7	15.36	24.545		
3,200.0	3,175.8	3,148.2	3,089.5	8.5	12.5	-48.48	375.9	-441.6	385.7	369.6	16.06	24.015		
3,300.0	3,273.9	3,247.4	3,186.2	8.9	13.0	-49.83	388.8	-459.6	394.5	377.7	16.77	23.519		
3,400.0	3,371.9	3,346.6	3,282.9	9.3	13.4	-51.12	401.7	-477.7	403.5	386.0	17.50	23.054		
3,500.0	3,469.9	3,445.7	3,379.6	9.7	13.9	-52.36	414.6	-495.7	412.7	394.4	18.24	22.620		
3,600.0	3,567.9	3,544.9	3,476.2	10.1	14.4	-53.54	427.5	-513.7	422.1	403.1	19.00	22.215		
3,700.0	3,665.9	3,644.1	3,572.9	10.5	14.9	-54.67	440.4	-531.7	431.6	411.9	19.77	21.835		
3,800.0	3,764.0	3,743.3	3,669.6	10.9	15.4	-55.75	453.3	-549.8	441.4	420.8	20.55	21.481		
3,900.0	3,862.0	3,842.5	3,766.3	11.3	15.8	-56.78	466.2	-567.8	451.2	429.9	21.34	21.149		
4,000.0	3,960.0	3,941.7	3,862.9	11.7	16.3	-57.77	479.1	-585.8	461.2	439.1	22.13	20.839		
4,100.0	4,058.0	4,040.9	3,959.6	12.1	16.8	-58.72	492.0	-603.9	471.4	448.5	22.94	20.549		
4,200.0	4,156.0	4,140.0	4,056.3	12.5	17.3	-59.63	504.9	-621.9	481.7	457.9	23.75	20.278		
4,300.0	4,254.0	4,239.2	4,153.0	12.9	17.8	-60.50	517.8	-639.9	492.0	467.5	24.57	20.024		
4,400.0	4,352.1	4,338.4	4,249.6	13.4	18.2	-61.33	530.7	-657.9	502.5	477.1	25.40	19.786		
4,500.0	4,450.1	4,437.6	4,346.3	13.8	18.7	-62.13	543.6	-676.0	513.1	486.9	26.23	19.562		
4,600.0	4,548.1	4,536.8	4,443.0	14.2	19.2	-62.90	556.5	-694.0	523.8	496.8	27.07	19.353		
4,700.0	4,646.1	4,636.0	4,539.7	14.6	19.7	-63.64	569.5	-712.0	534.6	506.7	27.91	19.156		
4,800.0	4,744.1	4,735.2	4,636.4	15.0	20.2	-64.35	582.4	-730.0	545.5	516.7	28.75	18.971		
4,900.0	4,842.2	4,834.3	4,733.0	15.5	20.6	-65.03	595.3	-748.1	556.4	526.8	29.60	18.797		
5,000.0	4,940.2	4,933.5	4,829.7	15.9	21.1	-65.68	608.2	-766.1	567.4	537.0	30.45	18.634		
5,100.0	5,038.2	5,032.7	4,926.4	16.3	21.6	-66.31	621.1	-784.1	578.5	547.2	31.31	18.480		

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 F11-J14-22HNB
Project:	SEC.22-T5N-R63W	TVD Reference:	WELL @ 4673.0ft (RKB - 13')
Reference Site:	North Platte F-22 Pad Sec.22-T5N-R63W	MD Reference:	WELL @ 4673.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	North Platte Federal F11-J14-22HNB	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	5,136.2	5,131.9	5,023.1	16.7	22.1	-66.92	634.0	-802.1	589.7	557.5	32.16	18.334	
5,300.0	5,234.2	5,231.1	5,119.7	17.1	22.6	-67.50	646.9	-820.2	600.9	567.9	33.02	18.197	
5,400.0	5,332.6	5,342.8	5,228.8	17.5	23.0	-68.21	660.9	-839.8	612.2	578.4	33.79	18.118	
5,500.0	5,431.5	5,463.7	5,347.8	17.7	23.4	-68.78	673.5	-857.4	621.7	587.3	34.47	18.036	
5,600.0	5,530.9	5,585.2	5,468.1	18.0	23.7	-69.21	683.2	-870.9	629.0	594.0	35.06	17.945	
5,700.0	5,630.6	5,707.1	5,589.4	18.2	24.0	-69.50	689.9	-880.3	634.1	598.6	35.54	17.844	
5,800.0	5,730.5	5,829.2	5,711.4	18.4	24.2	-69.65	693.6	-885.4	637.0	601.0	35.91	17.735	
5,900.0	5,830.5	5,945.3	5,827.5	18.5	24.3	-89.54	694.4	-886.6	637.6	601.4	36.14	17.641	
6,000.0	5,930.5	6,045.3	5,927.5	18.6	24.4	-89.54	694.4	-886.6	637.6	601.1	36.44	17.498	
6,100.0	6,030.1	6,146.5	6,028.2	18.7	24.5	90.75	686.6	-886.5	637.6	601.0	36.62	17.413	
6,200.0	6,126.4	6,247.7	6,125.6	18.6	24.4	90.71	659.6	-886.5	637.7	601.3	36.36	17.536	
6,300.0	6,215.9	6,348.9	6,215.9	18.3	24.2	90.64	614.3	-886.4	637.8	602.0	35.81	17.811	
6,400.0	6,295.3	6,449.9	6,295.6	17.9	23.9	90.55	552.5	-886.2	637.9	602.9	35.06	18.198	
6,500.0	6,361.7	6,550.8	6,361.8	17.4	23.5	90.44	476.7	-886.0	638.1	603.9	34.23	18.642	
6,600.0	6,412.6	6,651.4	6,412.2	17.0	23.1	90.32	389.7	-885.8	638.4	604.9	33.48	19.065	
6,700.0	6,446.3	6,751.8	6,445.0	16.6	22.8	90.20	295.0	-885.6	638.6	605.7	32.96	19.379	
6,800.0	6,472.1	6,851.8	6,470.7	16.3	22.5	90.18	198.3	-885.3	638.9	606.1	32.77	19.499	
6,900.0	6,487.2	6,952.0	6,484.5	16.2	22.2	90.04	99.2	-885.1	639.2	606.2	32.98	19.379	
7,000.0	6,488.0	7,052.0	6,485.0	16.4	22.1	90.00	-0.8	-884.9	639.4	605.8	33.60	19.029	
7,100.0	6,488.0	7,152.0	6,485.0	16.8	22.0	90.00	-100.8	-884.6	639.7	605.1	34.62	18.480	
7,200.0	6,488.0	7,252.0	6,485.0	17.5	22.2	90.00	-200.8	-884.4	640.0	604.0	36.01	17.772	
7,300.0	6,488.0	7,352.0	6,485.0	18.4	22.6	90.00	-300.8	-884.1	640.3	602.5	37.75	16.962	
7,400.0	6,488.0	7,452.0	6,485.0	19.4	23.3	90.00	-400.8	-883.9	640.6	600.8	39.78	16.102	
7,500.0	6,488.0	7,552.0	6,485.0	20.6	24.2	90.00	-500.8	-883.6	640.8	598.8	42.07	15.232	
7,600.0	6,488.0	7,652.0	6,485.0	21.9	25.3	90.00	-600.8	-883.4	641.1	596.5	44.57	14.383	
7,700.0	6,488.0	7,752.0	6,485.0	23.2	26.5	90.00	-700.8	-883.1	641.4	594.1	47.26	13.572	
7,800.0	6,488.0	7,852.0	6,485.0	24.6	27.8	90.00	-800.8	-882.9	641.7	591.6	50.09	12.809	
7,900.0	6,488.0	7,952.0	6,485.0	26.1	29.2	90.00	-900.8	-882.7	641.9	588.9	53.06	12.099	
8,000.0	6,488.0	8,052.0	6,485.0	27.7	30.6	90.00	-1,000.8	-882.4	642.2	586.1	56.13	11.442	
8,100.0	6,488.0	8,152.0	6,485.0	29.3	32.1	90.00	-1,100.8	-882.2	642.5	583.2	59.29	10.837	
8,200.0	6,488.0	8,252.0	6,485.0	30.9	33.7	90.00	-1,200.8	-881.9	642.8	580.2	62.52	10.280	
8,300.0	6,488.0	8,352.0	6,485.0	32.6	35.3	90.00	-1,300.8	-881.7	643.0	577.2	65.83	9.769	
8,400.0	6,488.0	8,452.0	6,485.0	34.2	36.9	90.00	-1,400.8	-881.4	643.3	574.1	69.19	9.298	
8,500.0	6,488.0	8,552.0	6,485.0	35.9	38.5	90.00	-1,500.8	-881.2	643.6	571.0	72.59	8.866	
8,600.0	6,488.0	8,652.0	6,485.0	37.7	40.2	90.00	-1,600.8	-880.9	643.9	567.8	76.04	8.467	
8,700.0	6,488.0	8,752.0	6,485.0	39.4	41.9	90.00	-1,700.8	-880.7	644.1	564.6	79.53	8.100	
8,800.0	6,488.0	8,852.0	6,485.0	41.2	43.6	90.00	-1,800.8	-880.5	644.4	561.4	83.05	7.760	
8,900.0	6,488.0	8,952.0	6,485.0	43.0	45.3	90.00	-1,900.8	-880.2	644.7	558.1	86.59	7.445	
9,000.0	6,488.0	9,052.0	6,485.0	44.7	47.0	90.00	-2,000.8	-880.0	645.0	554.8	90.16	7.154	
9,100.0	6,488.0	9,152.0	6,485.0	46.5	48.8	90.00	-2,100.8	-879.7	645.3	551.5	93.75	6.883	
9,200.0	6,488.0	9,252.0	6,485.0	48.4	50.5	90.00	-2,200.8	-879.5	645.5	548.2	97.36	6.630	
9,300.0	6,488.0	9,352.0	6,485.0	50.2	52.3	90.00	-2,300.8	-879.2	645.8	544.8	100.99	6.395	
9,400.0	6,488.0	9,452.0	6,485.0	52.0	54.1	90.00	-2,400.8	-879.0	646.1	541.4	104.63	6.175	
9,500.0	6,488.0	9,552.0	6,485.0	53.8	55.9	90.00	-2,500.8	-878.7	646.4	538.1	108.29	5.969	
9,600.0	6,488.0	9,652.0	6,485.0	55.7	57.7	90.00	-2,600.8	-878.5	646.6	534.7	111.96	5.775	
9,700.0	6,488.0	9,752.0	6,485.0	57.5	59.5	90.00	-2,700.8	-878.3	646.9	531.3	115.64	5.594	
9,800.0	6,488.0	9,852.0	6,485.0	59.3	61.3	90.00	-2,800.8	-878.0	647.2	527.9	119.34	5.423	
9,900.0	6,488.0	9,952.0	6,485.0	61.2	63.1	90.00	-2,900.8	-877.8	647.5	524.4	123.04	5.262	
10,000.0	6,488.0	10,052.0	6,485.0	63.1	64.9	90.00	-3,000.8	-877.5	647.7	521.0	126.75	5.111	
10,100.0	6,488.0	10,152.0	6,485.0	64.9	66.8	90.00	-3,100.8	-877.3	648.0	517.6	130.46	4.967	
10,200.0	6,488.0	10,252.0	6,485.0	66.8	68.6	90.00	-3,200.8	-877.0	648.3	514.1	134.19	4.831	
10,300.0	6,488.0	10,352.0	6,485.0	68.6	70.4	90.00	-3,300.8	-876.8	648.6	510.6	137.92	4.702	

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 F11-J14-22HNB
Project:	SEC.22-T5N-R63W	TVD Reference:	WELL @ 4673.0ft (RKB - 13')
Reference Site:	North Platte F-22 Pad Sec.22-T5N-R63W	MD Reference:	WELL @ 4673.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	North Platte Federal F11-J14-22HNB	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
10,400.0	6,488.0	10,452.0	6,485.0	70.5	72.3	90.00	-3,400.8	-876.5	648.8	507.2	141.66	4.580	
10,500.0	6,488.0	10,552.0	6,485.0	72.4	74.1	90.00	-3,500.8	-876.3	649.1	503.7	145.40	4.464	
10,600.0	6,488.0	10,652.0	6,485.0	74.3	76.0	90.00	-3,600.8	-876.1	649.4	500.2	149.15	4.354	
10,700.0	6,488.0	10,752.0	6,485.0	76.1	77.8	90.00	-3,700.8	-875.8	649.7	496.8	152.90	4.249	
10,800.0	6,488.0	10,852.0	6,485.0	78.0	79.7	90.00	-3,800.8	-875.6	650.0	493.3	156.66	4.149	
10,900.0	6,488.0	10,952.0	6,485.0	79.9	81.5	90.00	-3,900.8	-875.3	650.2	489.8	160.42	4.053	
11,000.0	6,488.0	11,052.0	6,485.0	81.8	83.4	90.00	-4,000.8	-875.1	650.5	486.3	164.19	3.962	
11,100.0	6,488.0	11,151.2	6,485.0	83.7	85.3	90.00	-4,099.9	-874.8	650.8	482.8	167.94	3.875	
11,109.2	6,488.0	11,151.2	6,485.0	83.8	85.3	90.00	-4,099.9	-874.8	650.9	482.8	168.11	3.872 SF	

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well North Platte Federal F11-J14-22HNB
Project:	SEC.22-T5N-R63W	TVD Reference:	WELL @ 4673.0ft (RKB - 13')
Reference Site:	North Platte F-22 Pad Sec.22-T5N-R63W	MD Reference:	WELL @ 4673.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	North Platte Federal F11-J14-22HNB	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 A-E-22HC - Wellbore #1 - Plan #1 (11-12-13)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Semi Major Axis 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	-0.60	80.1	-0.8	80.2					
100.0	100.0	98.0	98.0	0.1	0.1	-0.60	80.1	-0.8	80.2	79.9	0.22	360.201		
200.0	200.0	198.0	198.0	0.3	0.3	-0.60	80.1	-0.8	80.2	79.5	0.67	119.666 CC, ES		
300.0	300.0	296.7	296.7	0.6	0.6	-1.62	80.9	-2.3	80.9	79.8	1.11	72.799		
400.0	400.0	395.1	395.0	0.8	0.8	-4.63	83.2	-6.7	83.5	82.0	1.56	53.488		
500.0	500.0	493.1	492.6	1.0	1.0	-9.24	87.0	-14.2	88.3	86.3	2.03	43.445		
600.0	600.0	590.4	589.2	1.2	1.3	-14.83	92.3	-24.4	95.9	93.4	2.53	37.887		
700.0	700.0	686.8	684.5	1.5	1.6	-20.74	99.1	-37.5	106.8	103.7	3.06	34.945		
800.0	800.0	782.1	778.1	1.7	2.0	-26.41	107.2	-53.2	121.3	117.7	3.60	33.689		
900.0	900.0	876.1	869.9	1.9	2.4	-31.50	116.6	-71.4	139.6	135.4	4.16	33.559		
1,000.0	1,000.0	969.9	960.7	2.1	2.8	-35.91	127.2	-92.1	161.5	156.7	4.73	34.166		
1,100.0	1,100.0	1,066.5	1,054.0	2.4	3.3	-39.48	138.6	-114.2	184.9	179.6	5.30	34.909		
1,200.0	1,200.0	1,163.1	1,147.4	2.6	3.8	-42.26	150.0	-136.3	208.9	203.1	5.86	35.658		
1,300.0	1,300.0	1,259.8	1,240.8	2.8	4.3	-44.46	161.4	-158.4	233.3	226.9	6.42	36.363		
1,400.0	1,400.0	1,356.4	1,334.2	3.0	4.9	-46.24	172.8	-180.5	257.9	251.0	6.97	37.014		
1,500.0	1,500.0	1,453.0	1,427.6	3.3	5.4	-47.72	184.2	-202.6	282.8	275.2	7.52	37.608		
1,600.0	1,600.0	1,549.7	1,520.9	3.5	5.9	-48.95	195.6	-224.7	307.7	299.7	8.07	38.149		
1,700.0	1,700.0	1,646.6	1,614.6	3.7	6.4	-30.06	207.1	-246.9	331.4	323.4	7.92	41.843		
1,800.0	1,799.8	1,744.1	1,708.8	3.9	7.0	-31.19	218.6	-269.2	352.2	343.8	8.40	41.910		
1,900.0	1,899.5	1,842.0	1,803.4	4.2	7.5	-32.48	230.1	-291.5	370.3	361.4	8.88	41.700		
2,000.0	1,998.7	1,940.2	1,898.3	4.4	8.0	-33.94	241.7	-314.0	385.8	376.5	9.35	41.254		
2,100.0	2,097.5	2,038.6	1,993.4	4.7	8.6	-35.58	253.3	-336.5	398.8	388.9	9.82	40.593		
2,200.0	2,195.7	2,137.1	2,088.6	4.9	9.1	-37.44	264.9	-359.0	409.5	399.2	10.31	39.720		
2,300.0	2,293.7	2,235.5	2,183.7	5.2	9.6	-39.38	276.5	-381.5	419.9	409.1	10.82	38.797		
2,400.0	2,391.7	2,334.0	2,278.8	5.6	10.2	-41.21	288.2	-404.0	430.9	419.5	11.36	37.922		
2,500.0	2,489.7	2,432.4	2,374.0	5.9	10.7	-42.96	299.8	-426.5	442.2	430.3	11.92	37.090		
2,600.0	2,587.7	2,530.9	2,469.1	6.2	11.3	-44.62	311.4	-449.1	453.9	441.4	12.51	36.297		
2,700.0	2,685.7	2,629.3	2,564.3	6.6	11.8	-46.19	323.0	-471.6	466.0	452.9	13.11	35.542		
2,800.0	2,783.8	2,727.8	2,659.4	7.0	12.3	-47.69	334.6	-494.1	478.5	464.7	13.74	34.822		
2,900.0	2,881.8	2,826.2	2,754.5	7.3	12.9	-49.11	346.2	-516.6	491.2	476.8	14.39	34.138		
3,000.0	2,979.8	2,924.7	2,849.7	7.7	13.4	-50.46	357.8	-539.1	504.3	489.2	15.06	33.489		
3,100.0	3,077.8	3,023.2	2,944.8	8.1	14.0	-51.74	369.5	-561.6	517.6	501.8	15.74	32.874		
3,200.0	3,175.8	3,121.6	3,040.0	8.5	14.5	-52.95	381.1	-584.1	531.1	514.7	16.45	32.292		
3,300.0	3,273.9	3,220.1	3,135.1	8.9	15.0	-54.11	392.7	-606.6	544.9	527.7	17.17	31.742		
3,400.0	3,371.9	3,318.5	3,230.2	9.3	15.6	-55.21	404.3	-629.2	558.8	540.9	17.90	31.223		
3,500.0	3,469.9	3,417.0	3,325.4	9.7	16.1	-56.25	415.9	-651.7	573.0	554.4	18.64	30.734		
3,600.0	3,567.9	3,515.4	3,420.5	10.1	16.7	-57.25	427.5	-674.2	587.4	568.0	19.40	30.273		
3,700.0	3,665.9	3,613.9	3,515.7	10.5	17.2	-58.20	439.1	-696.7	601.9	581.7	20.17	29.839		
3,800.0	3,764.0	3,712.3	3,610.8	10.9	17.8	-59.10	450.8	-719.2	616.6	595.6	20.95	29.431		
3,900.0	3,862.0	3,810.8	3,705.9	11.3	18.3	-59.97	462.4	-741.7	631.4	609.6	21.74	29.046		
4,000.0	3,960.0	3,909.2	3,801.1	11.7	18.8	-60.79	474.0	-764.2	646.3	623.8	22.53	28.684		
4,100.0	4,058.0	4,007.7	3,896.2	12.1	19.4	-61.57	485.6	-786.7	661.4	638.1	23.34	28.343		
4,200.0	4,156.0	4,106.2	3,991.4	12.5	19.9	-62.33	497.2	-809.3	676.6	652.5	24.15	28.021		
4,300.0	4,254.0	4,204.6	4,086.5	12.9	20.5	-63.04	508.8	-831.8	691.9	666.9	24.96	27.719		
4,400.0	4,352.1	4,303.1	4,181.6	13.4	21.0	-63.73	520.4	-854.3	707.3	681.5	25.78	27.433		
4,500.0	4,450.1	4,401.5	4,276.8	13.8	21.5	-64.39	532.1	-876.8	722.8	696.2	26.61	27.164		
4,600.0	4,548.1	4,500.0	4,371.9	14.2	22.1	-65.02	543.7	-899.3	738.4	711.0	27.44	26.909		
4,700.0	4,646.1	4,598.4	4,467.1	14.6	22.6	-65.62	555.3	-921.8	754.1	725.8	28.28	26.669		
4,800.0	4,744.1	4,696.9	4,562.2	15.0	23.2	-66.20	566.9	-944.3	769.8	740.7	29.11	26.442		
4,900.0	4,842.2	4,795.3	4,657.4	15.5	23.7	-66.76	578.5	-966.8	785.7	755.7	29.96	26.227		
5,000.0	4,940.2	4,893.8	4,752.5	15.9	24.3	-67.29	590.1	-989.3	801.6	770.8	30.80	26.023		
5,100.0	5,038.2	4,992.3	4,847.6	16.3	24.8	-67.81	601.7	-1,011.9	817.5	785.9	31.65	25.830		

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 F11-J14-22HNB
Project:	SEC.22-T5N-R63W	TVD Reference:	WELL @ 4673.0ft (RKB - 13')
Reference Site:	North Platte F-22 Pad Sec.22-T5N-R63W	MD Reference:	WELL @ 4673.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	North Platte Federal F11-J14-22HNB	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	5,136.2	5,090.7	4,942.8	16.7	25.3	-68.30	613.3	-1,034.4	833.6	801.1	32.50	25.647	
5,300.0	5,234.2	5,189.2	5,037.9	17.1	25.9	-68.78	625.0	-1,056.9	849.6	816.3	33.35	25.474	
5,400.0	5,332.6	5,287.6	5,133.0	17.5	26.4	-69.45	636.6	-1,079.4	866.4	832.3	34.13	25.389	
5,500.0	5,431.5	5,386.0	5,228.1	17.7	27.0	-69.91	648.2	-1,101.9	884.4	849.6	34.82	25.398	
5,600.0	5,530.9	5,508.1	5,346.5	18.0	27.6	-70.17	662.0	-1,128.7	902.8	867.3	35.49	25.439	
5,700.0	5,630.6	5,645.6	5,481.0	18.2	28.0	-70.26	674.9	-1,153.7	918.4	882.4	36.04	25.482	
5,800.0	5,730.5	5,784.6	5,618.3	18.4	28.4	-70.21	684.9	-1,173.1	931.0	894.5	36.48	25.517	
5,900.0	5,830.5	5,924.8	5,757.6	18.5	28.7	-89.84	691.9	-1,186.7	940.4	903.7	36.74	25.599	
6,000.0	5,930.5	6,066.1	5,898.6	18.6	29.0	-89.60	695.8	-1,194.2	945.7	908.7	37.06	25.522	
6,100.0	6,030.1	6,195.5	6,028.1	18.7	29.1	91.19	696.6	-1,195.8	947.0	909.8	37.23	25.433	
6,200.0	6,126.4	6,293.1	6,125.6	18.6	29.2	92.63	696.4	-1,195.8	947.9	911.1	36.86	25.720	
6,300.0	6,215.9	6,399.7	6,231.1	18.3	29.2	94.47	682.4	-1,195.8	950.1	913.9	36.14	26.286	
6,400.0	6,295.3	6,514.9	6,339.3	17.9	29.1	96.22	643.6	-1,195.8	953.2	918.0	35.23	27.057	
6,500.0	6,361.7	6,639.7	6,443.8	17.4	28.8	97.80	575.9	-1,195.7	956.8	922.6	34.23	27.949	
6,600.0	6,412.6	6,774.2	6,534.9	17.0	28.4	99.10	477.4	-1,195.6	960.3	926.9	33.32	28.822	
6,700.0	6,446.3	6,917.2	6,600.8	16.6	28.0	99.97	351.0	-1,195.5	962.9	930.3	32.67	29.471	
6,800.0	6,472.1	7,030.7	6,631.8	16.3	27.7	100.06	241.8	-1,195.4	963.5	931.1	32.44	29.703	
6,900.0	6,487.2	7,165.1	6,656.1	16.2	27.4	100.24	109.9	-1,195.2	964.6	931.9	32.75	29.454	
7,000.0	6,488.0	7,275.3	6,657.0	16.4	27.3	100.21	-0.2	-1,195.1	965.0	931.6	33.37	28.916	
7,100.0	6,488.0	7,375.3	6,657.0	16.8	27.3	100.20	-100.2	-1,195.0	965.4	931.1	34.33	28.123	
7,200.0	6,488.0	7,475.3	6,657.0	17.5	27.4	100.20	-200.2	-1,194.9	965.8	930.2	35.66	27.084	
7,300.0	6,488.0	7,575.3	6,657.0	18.4	27.7	100.19	-300.2	-1,194.8	966.2	928.9	37.33	25.882	
7,400.0	6,488.0	7,675.2	6,657.0	19.4	28.1	100.19	-400.2	-1,194.7	966.7	927.4	39.30	24.595	
7,500.0	6,488.0	7,775.2	6,657.0	20.6	28.7	100.18	-500.2	-1,194.6	967.1	925.5	41.53	23.288	
7,600.0	6,488.0	7,875.2	6,657.0	21.9	29.4	100.18	-600.2	-1,194.5	967.5	923.5	43.97	22.006	
7,700.0	6,488.0	7,975.2	6,657.0	23.2	30.3	100.18	-700.2	-1,194.4	967.9	921.3	46.59	20.776	
7,800.0	6,488.0	8,075.2	6,657.0	24.6	31.3	100.17	-800.2	-1,194.3	968.3	919.0	49.36	19.617	
7,900.0	6,488.0	8,175.2	6,657.0	26.1	32.5	100.17	-900.2	-1,194.2	968.7	916.5	52.26	18.536	
8,000.0	6,488.0	8,275.2	6,657.0	27.7	33.7	100.16	-1,000.2	-1,194.1	969.1	913.9	55.27	17.534	
8,100.0	6,488.0	8,375.2	6,657.0	29.3	35.0	100.16	-1,100.2	-1,194.0	969.6	911.2	58.37	16.609	
8,200.0	6,488.0	8,475.2	6,657.0	30.9	36.4	100.15	-1,200.2	-1,193.9	970.0	908.4	61.55	15.758	
8,300.0	6,488.0	8,575.2	6,657.0	32.6	37.9	100.15	-1,300.2	-1,193.8	970.4	905.6	64.80	14.975	
8,400.0	6,488.0	8,675.2	6,657.0	34.2	39.3	100.15	-1,400.2	-1,193.7	970.8	902.7	68.10	14.255	
8,500.0	6,488.0	8,775.2	6,657.0	35.9	40.9	100.14	-1,500.2	-1,193.6	971.2	899.8	71.45	13.592	
8,600.0	6,488.0	8,875.2	6,657.0	37.7	42.4	100.14	-1,600.2	-1,193.5	971.6	896.8	74.85	12.981	
8,700.0	6,488.0	8,975.2	6,657.0	39.4	44.0	100.13	-1,700.1	-1,193.4	972.0	893.8	78.28	12.418	
8,800.0	6,488.0	9,075.2	6,657.0	41.2	45.7	100.13	-1,800.1	-1,193.3	972.5	890.7	81.74	11.897	
8,900.0	6,488.0	9,175.2	6,657.0	43.0	47.3	100.12	-1,900.1	-1,193.2	972.9	887.6	85.23	11.414	
9,000.0	6,488.0	9,275.2	6,657.0	44.7	49.0	100.12	-2,000.1	-1,193.1	973.3	884.5	88.75	10.967	
9,100.0	6,488.0	9,375.2	6,657.0	46.5	50.7	100.11	-2,100.1	-1,193.0	973.7	881.4	92.29	10.551	
9,200.0	6,488.0	9,475.2	6,657.0	48.4	52.4	100.11	-2,200.1	-1,192.9	974.1	878.3	95.85	10.163	
9,300.0	6,488.0	9,575.2	6,657.0	50.2	54.1	100.11	-2,300.1	-1,192.8	974.5	875.1	99.42	9.802	
9,400.0	6,488.0	9,675.2	6,657.0	52.0	55.8	100.10	-2,400.1	-1,192.7	975.0	871.9	103.02	9.464	
9,500.0	6,488.0	9,775.2	6,657.0	53.8	57.6	100.10	-2,500.1	-1,192.6	975.4	868.7	106.62	9.148	
9,600.0	6,488.0	9,875.2	6,657.0	55.7	59.3	100.09	-2,600.1	-1,192.5	975.8	865.5	110.24	8.851	
9,700.0	6,488.0	9,975.2	6,657.0	57.5	61.1	100.09	-2,700.1	-1,192.4	976.2	862.3	113.87	8.573	
9,800.0	6,488.0	10,075.2	6,657.0	59.3	62.9	100.08	-2,800.1	-1,192.3	976.6	859.1	117.51	8.311	
9,900.0	6,488.0	10,175.2	6,657.0	61.2	64.6	100.08	-2,900.1	-1,192.2	977.0	855.9	121.16	8.064	
10,000.0	6,488.0	10,275.2	6,657.0	63.1	66.4	100.08	-3,000.1	-1,192.1	977.4	852.6	124.82	7.831	
10,100.0	6,488.0	10,375.2	6,657.0	64.9	68.2	100.07	-3,100.1	-1,192.0	977.9	849.4	128.49	7.610	
10,200.0	6,488.0	10,475.2	6,657.0	66.8	70.0	100.07	-3,200.1	-1,191.9	978.3	846.1	132.16	7.402	
10,300.0	6,488.0	10,575.2	6,657.0	68.6	71.8	100.06	-3,300.1	-1,191.8	978.7	842.8	135.84	7.204	

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 F11-J14-22HNB
Project:	SEC.22-T5N-R63W	TVD Reference:	WELL @ 4673.0ft (RKB - 13')
Reference Site:	North Platte F-22 Pad Sec.22-T5N-R63W	MD Reference:	WELL @ 4673.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	North Platte Federal F11-J14-22HNB	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 A-E-22HC - Wellbore #1 - Plan #1 (11-												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
10,400.0	6,488.0	10,675.2	6,657.0	70.5	73.7	100.06	-3,400.1	-1,191.7	979.1	839.6	139.53	7.017	
10,500.0	6,488.0	10,775.2	6,657.0	72.4	75.5	100.05	-3,500.1	-1,191.6	979.5	836.3	143.22	6.839	
10,600.0	6,488.0	10,875.2	6,657.0	74.3	77.3	100.05	-3,600.1	-1,191.5	979.9	833.0	146.92	6.670	
10,700.0	6,488.0	10,975.2	6,657.0	76.1	79.1	100.05	-3,700.1	-1,191.4	980.3	829.7	150.63	6.508	
10,800.0	6,488.0	11,075.2	6,657.0	78.0	81.0	100.04	-3,800.1	-1,191.3	980.8	826.4	154.34	6.355	
10,900.0	6,488.0	11,175.2	6,657.0	79.9	82.8	100.04	-3,900.1	-1,191.2	981.2	823.1	158.05	6.208	
11,000.0	6,488.0	11,275.2	6,657.0	81.8	84.6	100.03	-4,000.1	-1,191.1	981.6	819.8	161.76	6.068	
11,100.0	6,488.0	11,371.4	6,657.0	83.7	86.4	100.03	-4,096.3	-1,191.1	982.0	816.6	165.41	5.937	
11,109.2	6,488.0	11,371.4	6,657.0	83.8	86.4	100.03	-4,096.3	-1,191.1	982.1	816.5	165.58	5.931 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				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)			
0.0	0.0	0.0	0.0	0.0	0.0	-0.80	20.0	-0.3	20.1					
100.0	100.0	98.0	98.0	0.1	0.1	-0.80	20.0	-0.3	20.0	19.8	0.22	90.054		
200.0	200.0	198.0	198.0	0.3	0.3	-0.80	20.0	-0.3	20.0	19.4	0.67	29.918		
300.0	300.0	298.0	298.0	0.6	0.6	-0.80	20.0	-0.3	20.0	18.9	1.12	17.903		
400.0	400.0	398.0	398.0	0.8	0.8	-0.80	20.0	-0.3	20.0	18.5	1.57	12.773		
500.0	500.0	498.0	498.0	1.0	1.0	-0.80	20.0	-0.3	20.0	18.0	2.02	9.928		
600.0	600.0	598.0	598.0	1.2	1.2	-0.80	20.0	-0.3	20.0	17.6	2.47	8.120		
700.0	700.0	698.0	698.0	1.5	1.5	-0.80	20.0	-0.3	20.0	17.1	2.92	6.869		
800.0	800.0	798.0	798.0	1.7	1.7	-0.80	20.0	-0.3	20.0	16.7	3.37	5.952		
900.0	900.0	898.0	898.0	1.9	1.9	-0.80	20.0	-0.3	20.0	16.2	3.82	5.251		
1,000.0	1,000.0	998.0	998.0	2.1	2.1	-0.80	20.0	-0.3	20.0	15.8	4.27	4.697		
1,100.0	1,100.0	1,098.0	1,098.0	2.4	2.4	-0.80	20.0	-0.3	20.0	15.3	4.72	4.250		
1,200.0	1,200.0	1,198.0	1,198.0	2.6	2.6	-0.80	20.0	-0.3	20.0	14.9	5.17	3.880		
1,300.0	1,300.0	1,298.0	1,298.0	2.8	2.8	-0.80	20.0	-0.3	20.0	14.4	5.61	3.569		
1,400.0	1,400.0	1,398.0	1,398.0	3.0	3.0	-0.80	20.0	-0.3	20.0	14.0	6.06	3.304 CC, ES		
1,500.0	1,500.0	1,497.4	1,497.4	3.3	3.3	1.49	21.5	0.6	21.5	15.0	6.51	3.299 SF		
1,600.0	1,600.0	1,596.5	1,596.4	3.5	3.5	6.91	25.8	3.1	26.1	19.1	6.96	3.750		
1,700.0	1,700.0	1,695.3	1,694.7	3.7	3.7	34.04	33.1	7.4	32.7	25.3	7.40	4.414		
1,800.0	1,799.8	1,793.6	1,792.4	3.9	3.9	42.77	43.3	13.4	40.4	32.5	7.84	5.148		
1,900.0	1,899.5	1,891.3	1,888.9	4.2	4.2	51.58	56.3	21.0	49.9	41.6	8.28	6.024		
2,000.0	1,998.7	1,988.8	1,984.7	4.4	4.5	59.68	72.0	30.2	61.7	53.0	8.74	7.062		
2,100.0	2,097.5	2,087.6	2,081.6	4.7	4.8	67.31	88.8	40.1	74.1	64.9	9.24	8.025		
2,200.0	2,195.7	2,186.3	2,178.3	4.9	5.1	74.80	105.6	49.9	86.5	76.8	9.78	8.851		
2,300.0	2,293.7	2,284.9	2,274.9	5.2	5.4	80.98	122.3	59.8	100.0	89.6	10.37	9.645		
2,400.0	2,391.7	2,383.5	2,371.6	5.6	5.8	85.66	139.1	69.6	114.3	103.3	10.98	10.405		
2,500.0	2,489.7	2,482.1	2,468.3	5.9	6.1	89.28	155.8	79.5	129.2	117.6	11.63	11.110		
2,600.0	2,587.7	2,580.6	2,564.9	6.2	6.5	92.16	172.6	89.3	144.5	132.2	12.29	11.754		
2,700.0	2,685.7	2,679.2	2,661.6	6.6	6.9	94.48	189.4	99.2	160.1	147.1	12.97	12.339		
2,800.0	2,783.8	2,777.8	2,758.2	7.0	7.2	96.39	206.1	109.0	175.9	162.2	13.67	12.867		
2,900.0	2,881.8	2,876.4	2,854.9	7.3	7.6	97.98	222.9	118.8	191.8	177.4	14.37	13.344		
3,000.0	2,979.8	2,975.0	2,951.5	7.7	8.0	99.33	239.7	128.7	207.9	192.8	15.09	13.776		
3,100.0	3,077.8	3,073.6	3,048.2	8.1	8.4	100.48	256.4	138.5	224.1	208.2	15.82	14.167		
3,200.0	3,175.8	3,172.2	3,144.8	8.5	8.8	101.48	273.2	148.4	240.3	223.8	16.55	14.522		
3,300.0	3,273.9	3,270.8	3,241.5	8.9	9.2	102.35	290.0	158.2	256.6	239.3	17.29	14.845		
3,400.0	3,371.9	3,369.4	3,338.1	9.3	9.6	103.12	306.7	168.1	273.0	255.0	18.03	15.140		
3,500.0	3,469.9	3,468.0	3,434.8	9.7	10.0	103.80	323.5	177.9	289.4	270.6	18.78	15.410		
3,600.0	3,567.9	3,566.5	3,531.5	10.1	10.4	104.41	340.2	187.7	305.8	286.3	19.53	15.657		
3,700.0	3,665.9	3,665.1	3,628.1	10.5	10.8	104.95	357.0	197.6	322.3	302.0	20.29	15.885		
3,800.0	3,764.0	3,763.7	3,724.8	10.9	11.2	105.44	373.8	207.4	338.8	317.7	21.05	16.096		
3,900.0	3,862.0	3,862.3	3,821.4	11.3	11.6	105.89	390.5	217.3	355.3	333.5	21.81	16.290		
4,000.0	3,960.0	3,960.9	3,918.1	11.7	12.0	106.30	407.3	227.1	371.8	349.3	22.58	16.470		
4,100.0	4,058.0	4,059.5	4,014.7	12.1	12.4	106.67	424.1	237.0	388.4	365.1	23.35	16.637		
4,200.0	4,156.0	4,158.1	4,111.4	12.5	12.8	107.01	440.8	246.8	405.0	380.9	24.12	16.793		
4,300.0	4,254.0	4,256.7	4,208.0	12.9	13.2	107.33	457.6	256.6	421.6	396.7	24.89	16.939		
4,400.0	4,352.1	4,355.3	4,304.7	13.4	13.6	107.62	474.4	266.5	438.1	412.5	25.66	17.075		
4,500.0	4,450.1	4,453.9	4,401.3	13.8	14.0	107.89	491.1	276.3	454.8	428.3	26.44	17.202		
4,600.0	4,548.1	4,552.4	4,498.0	14.2	14.5	108.14	507.9	286.2	471.4	444.2	27.21	17.321		
4,700.0	4,646.1	4,651.0	4,594.6	14.6	14.9	108.38	524.7	296.0	488.0	460.0	27.99	17.434		
4,800.0	4,744.1	4,749.6	4,691.3	15.0	15.3	108.59	541.4	305.9	504.6	475.8	28.77	17.539		
4,900.0	4,842.2	4,848.2	4,788.0	15.5	15.7	108.80	558.2	315.7	521.3	491.7	29.55	17.639		
5,000.0	4,940.2	4,946.8	4,884.6	15.9	16.1	108.99	574.9	325.5	537.9	507.6	30.33	17.733		
5,100.0	5,038.2	5,045.4	4,981.3	16.3	16.5	109.17	591.7	335.4	554.5	523.4	31.12	17.822		

COMPASS 2003.21 Build 46

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well North Platte Federal F11-J14-22HNB
Project:	SEC.22-T5N-R63W	TVD Reference:	WELL @ 4673.0ft (RKB - 13')
Reference Site:	North Platte F-22 Pad Sec.22-T5N-R63W	MD Reference:	WELL @ 4673.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	North Platte Federal F11-J14-22HNB	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	5,136.2	5,144.0	5,077.9	16.7	16.9	109.34	608.5	345.2	571.2	539.3	31.90	17.907	
5,300.0	5,234.2	5,242.6	5,174.6	17.1	17.4	109.51	625.2	355.1	587.8	555.2	32.68	17.987	
5,400.0	5,332.6	5,345.6	5,275.6	17.5	17.8	109.82	642.5	365.2	603.8	570.4	33.40	18.080	
5,500.0	5,431.5	5,456.5	5,385.0	17.7	18.1	110.02	658.2	374.4	617.0	583.0	34.03	18.133	
5,600.0	5,530.9	5,568.0	5,495.7	18.0	18.4	110.16	670.3	381.5	627.1	592.6	34.56	18.145	
5,700.0	5,630.6	5,680.1	5,607.3	18.2	18.7	110.26	678.6	386.4	634.1	599.1	35.02	18.107	
5,800.0	5,730.5	5,792.5	5,719.6	18.4	18.9	110.31	683.3	389.1	637.9	602.5	35.40	18.022	
5,900.0	5,830.5	5,901.4	5,828.5	18.5	19.0	90.45	684.2	389.7	638.7	603.0	35.71	17.889	
6,000.0	5,930.5	6,001.4	5,928.5	18.6	19.1	90.45	684.2	389.7	638.7	602.7	36.01	17.736	
6,100.0	6,030.1	6,100.0	6,026.6	18.7	19.2	-89.26	676.9	389.8	638.8	602.6	36.12	17.682	
6,200.0	6,126.4	6,197.9	6,121.1	18.6	19.1	-89.30	651.5	390.0	638.8	603.0	35.85	17.817	
6,300.0	6,215.9	6,296.2	6,209.4	18.3	18.8	-89.36	608.7	390.3	638.9	603.7	35.27	18.116	
6,400.0	6,295.3	6,394.7	6,288.3	17.9	18.5	-89.44	550.0	390.8	639.1	604.6	34.46	18.543	
6,500.0	6,361.7	6,493.4	6,354.9	17.4	18.0	-89.55	477.3	391.3	639.2	605.7	33.57	19.042	
6,600.0	6,412.6	6,592.4	6,406.7	17.0	17.6	-89.67	393.1	392.0	639.4	606.7	32.73	19.534	
6,700.0	6,446.3	6,691.8	6,441.8	16.6	17.1	-89.81	300.4	392.7	639.7	607.6	32.11	19.924	
6,800.0	6,472.1	6,791.7	6,467.7	16.3	16.8	-89.81	203.8	393.5	639.9	608.1	31.84	20.097	
6,900.0	6,487.2	6,891.4	6,484.5	16.2	16.5	-89.95	105.7	394.2	640.2	608.2	31.98	20.018	
7,000.0	6,488.0	6,991.4	6,486.0	16.4	16.3	-90.00	5.8	395.0	640.4	607.9	32.53	19.690	
7,100.0	6,488.0	7,091.4	6,486.0	16.8	16.7	-90.00	-94.2	395.8	640.7	607.2	33.50	19.124	
7,200.0	6,488.0	7,191.4	6,486.0	17.5	17.5	-90.00	-194.2	396.6	641.0	606.1	34.88	18.378	
7,300.0	6,488.0	7,291.4	6,486.0	18.4	18.4	-90.00	-294.2	397.3	641.2	604.6	36.60	17.518	
7,400.0	6,488.0	7,391.4	6,486.0	19.4	19.5	-90.00	-394.2	398.1	641.5	602.8	38.64	16.602	
7,500.0	6,488.0	7,491.4	6,486.0	20.6	20.7	-90.00	-494.2	398.9	641.7	600.8	40.93	15.677	
7,600.0	6,488.0	7,591.4	6,486.0	21.9	22.0	-90.00	-594.2	399.7	642.0	598.5	43.45	14.775	
7,700.0	6,488.0	7,691.4	6,486.0	23.2	23.4	-90.00	-694.2	400.5	642.2	596.1	46.15	13.916	
7,800.0	6,488.0	7,791.4	6,486.0	24.6	24.8	-90.00	-794.2	401.2	642.5	593.5	49.00	13.111	
7,900.0	6,488.0	7,891.4	6,486.0	26.1	26.3	-90.00	-894.2	402.0	642.8	590.8	51.99	12.364	
8,000.0	6,488.0	7,991.4	6,486.0	27.7	27.9	-90.00	-994.2	402.8	643.0	587.9	55.07	11.675	
8,100.0	6,488.0	8,091.4	6,486.0	29.3	29.5	-90.00	-1,094.2	403.6	643.3	585.0	58.25	11.043	
8,200.0	6,488.0	8,191.4	6,486.0	30.9	31.1	-90.00	-1,194.2	404.3	643.5	582.0	61.51	10.462	
8,300.0	6,488.0	8,291.4	6,486.0	32.6	32.7	-90.00	-1,294.2	405.1	643.8	579.0	64.83	9.930	
8,400.0	6,488.0	8,391.4	6,486.0	34.2	34.4	-90.00	-1,394.2	405.9	644.0	575.8	68.21	9.443	
8,500.0	6,488.0	8,491.4	6,486.0	35.9	36.1	-90.00	-1,494.2	406.7	644.3	572.7	71.63	8.995	
8,600.0	6,488.0	8,591.4	6,486.0	37.7	37.9	-90.00	-1,594.2	407.5	644.6	569.5	75.09	8.583	
8,700.0	6,488.0	8,691.4	6,486.0	39.4	39.6	-90.00	-1,694.2	408.2	644.8	566.2	78.59	8.204	
8,800.0	6,488.0	8,791.4	6,486.0	41.2	41.4	-90.00	-1,794.2	409.0	645.1	562.9	82.13	7.855	
8,900.0	6,488.0	8,891.4	6,486.0	43.0	43.1	-90.00	-1,894.2	409.8	645.3	559.6	85.68	7.532	
9,000.0	6,488.0	8,991.4	6,486.0	44.7	44.9	-90.00	-1,994.2	410.6	645.6	556.3	89.27	7.232	
9,100.0	6,488.0	9,091.4	6,486.0	46.5	46.7	-90.00	-2,094.2	411.4	645.8	553.0	92.87	6.954	
9,200.0	6,488.0	9,191.4	6,486.0	48.4	48.5	-90.00	-2,194.2	412.1	646.1	549.6	96.49	6.696	
9,300.0	6,488.0	9,291.4	6,486.0	50.2	50.3	-90.00	-2,294.2	412.9	646.4	546.2	100.13	6.455	
9,400.0	6,488.0	9,391.4	6,486.0	52.0	52.2	-90.00	-2,394.1	413.7	646.6	542.8	103.78	6.230	
9,500.0	6,488.0	9,491.4	6,486.0	53.8	54.0	-90.00	-2,494.1	414.5	646.9	539.4	107.45	6.020	
9,600.0	6,488.0	9,591.4	6,486.0	55.7	55.8	-90.00	-2,594.1	415.3	647.1	536.0	111.13	5.823	
9,700.0	6,488.0	9,691.4	6,486.0	57.5	57.7	-90.00	-2,694.1	416.0	647.4	532.6	114.82	5.638	
9,800.0	6,488.0	9,791.4	6,486.0	59.3	59.5	-90.00	-2,794.1	416.8	647.7	529.1	118.52	5.464	
9,900.0	6,488.0	9,891.4	6,486.0	61.2	61.4	-90.00	-2,894.1	417.6	647.9	525.7	122.23	5.301	
10,000.0	6,488.0	9,991.4	6,486.0	63.1	63.2	-90.00	-2,994.1	418.4	648.2	522.2	125.95	5.146	
10,100.0	6,488.0	10,091.4	6,486.0	64.9	65.1	-90.00	-3,094.1	419.1	648.4	518.7	129.68	5.000	
10,200.0	6,488.0	10,191.4	6,486.0	66.8	66.9	-90.00	-3,194.1	419.9	648.7	515.3	133.41	4.862	
10,300.0	6,488.0	10,291.4	6,486.0	68.6	68.8	-90.00	-3,294.1	420.7	648.9	511.8	137.15	4.732	

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 F11-J14-22HNB
Project:	SEC.22-T5N-R63W	TVD Reference:	WELL @ 4673.0ft (RKB - 13')
Reference Site:	North Platte F-22 Pad Sec.22-T5N-R63W	MD Reference:	WELL @ 4673.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	North Platte Federal F11-J14-22HNB	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									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		
10,400.0	6,488.0	10,391.4	6,486.0	70.5	70.7	-90.00	-3,394.1	421.5	649.2	508.3	140.89	4.608		
10,500.0	6,488.0	10,491.4	6,486.0	72.4	72.5	-90.00	-3,494.1	422.3	649.5	504.8	144.64	4.490		
10,600.0	6,488.0	10,591.4	6,486.0	74.3	74.4	-90.00	-3,594.1	423.0	649.7	501.3	148.40	4.378		
10,700.0	6,488.0	10,691.4	6,486.0	76.1	76.3	-90.00	-3,694.1	423.8	650.0	497.8	152.16	4.272		
10,800.0	6,488.0	10,791.4	6,486.0	78.0	78.2	-90.00	-3,794.1	424.6	650.2	494.3	155.92	4.170		
10,900.0	6,488.0	10,891.4	6,486.0	79.9	80.0	-90.00	-3,894.1	425.4	650.5	490.8	159.69	4.073		
11,000.0	6,488.0	10,991.4	6,486.0	81.8	81.9	-90.00	-3,994.1	426.2	650.7	487.3	163.46	3.981		
11,100.0	6,488.0	11,091.4	6,486.0	83.7	83.8	-90.00	-4,094.1	426.9	651.0	483.8	167.23	3.893		
11,109.2	6,488.0	11,100.5	6,486.0	83.8	84.0	-90.00	-4,103.3	427.0	651.0	483.4	167.58	3.885		

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well North Platte Federal F11-J14-22HNB
Project:	SEC.22-T5N-R63W	TVD Reference:	WELL @ 4673.0ft (RKB - 13')
Reference Site:	North Platte F-22 Pad Sec.22-T5N-R63W	MD Reference:	WELL @ 4673.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	North Platte Federal F11-J14-22HNB	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	2.0	2.0	0.0	0.0	180.00	-20.0	0.0	20.0	20.0	0.00	8,201.312	
100.0	100.0	102.0	102.0	0.1	0.1	180.00	-20.0	0.0	20.0	19.8	0.23	87.416	
200.0	200.0	202.0	202.0	0.3	0.3	180.00	-20.0	0.0	20.0	19.4	0.68	29.525	
300.0	300.0	302.0	302.0	0.6	0.6	180.00	-20.0	0.0	20.0	18.9	1.13	17.762	
400.0	400.0	402.0	402.0	0.8	0.8	180.00	-20.0	0.0	20.0	18.5	1.58	12.702	
500.0	500.0	502.0	502.0	1.0	1.0	180.00	-20.0	0.0	20.0	18.0	2.03	9.885	
600.0	600.0	602.0	602.0	1.2	1.2	180.00	-20.0	0.0	20.0	17.6	2.48	8.091	
700.0	700.0	702.0	702.0	1.5	1.5	180.00	-20.0	0.0	20.0	17.1	2.93	6.848	
800.0	800.0	802.0	802.0	1.7	1.7	180.00	-20.0	0.0	20.0	16.7	3.38	5.936	
900.0	900.0	902.0	902.0	1.9	1.9	180.00	-20.0	0.0	20.0	16.2	3.83	5.239	
1,000.0	1,000.0	1,002.0	1,002.0	2.1	2.1	180.00	-20.0	0.0	20.0	15.8	4.28	4.688	
1,100.0	1,100.0	1,102.0	1,102.0	2.4	2.4	180.00	-20.0	0.0	20.0	15.3	4.72	4.242	
1,200.0	1,200.0	1,202.0	1,202.0	2.6	2.6	180.00	-20.0	0.0	20.0	14.9	5.17	3.873	
1,300.0	1,300.0	1,302.0	1,302.0	2.8	2.8	180.00	-20.0	0.0	20.0	14.4	5.62	3.564	
1,400.0	1,400.0	1,402.0	1,402.0	3.0	3.0	180.00	-20.0	0.0	20.0	14.0	6.07	3.300	
1,500.0	1,500.0	1,502.0	1,502.0	3.3	3.3	180.00	-20.0	0.0	20.0	13.5	6.52	3.073	
1,600.0	1,600.0	1,602.0	1,602.0	3.5	3.5	180.00	-20.0	0.0	20.0	13.1	6.97	2.874 CC, ES	
1,700.0	1,700.0	1,702.0	1,702.0	3.7	3.7	-161.69	-20.0	0.0	21.7	14.3	7.42	2.924	
1,800.0	1,799.8	1,801.8	1,801.8	3.9	3.9	-165.20	-20.0	0.0	26.7	18.9	7.86	3.399	
1,900.0	1,899.5	1,901.5	1,901.5	4.2	4.2	-168.79	-20.0	0.0	35.2	26.9	8.29	4.248	
2,000.0	1,998.7	2,000.7	2,000.7	4.4	4.4	-171.63	-20.0	0.0	47.2	38.5	8.71	5.423	
2,100.0	2,097.5	2,101.5	2,101.5	4.7	4.6	-174.28	-18.3	0.2	61.1	52.0	9.12	6.698	
2,200.0	2,195.7	2,202.7	2,202.6	4.9	4.8	-177.14	-12.9	0.7	75.1	65.6	9.53	7.876	
2,300.0	2,293.7	2,304.6	2,304.0	5.2	5.1	179.88	-3.9	1.6	86.9	76.9	9.99	8.702	
2,400.0	2,391.7	2,406.9	2,405.6	5.6	5.3	176.61	8.7	2.9	95.8	85.4	10.45	9.165	
2,500.0	2,489.7	2,509.6	2,506.9	5.9	5.6	172.82	24.9	4.5	101.9	91.0	10.93	9.321	
2,600.0	2,587.7	2,612.2	2,607.6	6.2	5.8	168.32	44.8	6.5	105.5	94.1	11.44	9.223	
2,700.0	2,685.7	2,711.8	2,704.9	6.6	6.1	163.69	65.7	8.6	108.4	96.4	11.97	9.053	
2,800.0	2,783.8	2,811.4	2,802.2	7.0	6.4	159.32	86.6	10.7	112.0	99.4	12.55	8.923	
2,900.0	2,881.8	2,911.0	2,899.6	7.3	6.8	155.24	107.6	12.8	116.1	103.0	13.16	8.825	
3,000.0	2,979.8	3,010.5	2,996.9	7.7	7.1	151.46	128.5	14.9	120.9	107.1	13.81	8.751	
3,100.0	3,077.8	3,110.1	3,094.2	8.1	7.5	147.97	149.4	17.0	126.1	111.6	14.50	8.696	
3,200.0	3,175.8	3,209.7	3,191.6	8.5	7.8	144.77	170.3	19.1	131.7	116.5	15.22	8.657	
3,300.0	3,273.9	3,309.3	3,288.9	8.9	8.2	141.85	191.3	21.2	137.8	121.8	15.96	8.630	
3,400.0	3,371.9	3,408.9	3,386.2	9.3	8.6	139.17	212.2	23.3	144.1	127.4	16.73	8.614	
3,500.0	3,469.9	3,508.4	3,483.6	9.7	8.9	136.72	233.1	25.4	150.8	133.2	17.52	8.607	
3,600.0	3,567.9	3,608.0	3,580.9	10.1	9.3	134.48	254.0	27.5	157.6	139.3	18.32	8.607	
3,700.0	3,665.9	3,707.6	3,678.2	10.5	9.7	132.44	274.9	29.6	164.8	145.6	19.13	8.612	
3,800.0	3,764.0	3,807.2	3,775.6	10.9	10.1	130.56	295.9	31.7	172.1	152.1	19.95	8.623	
3,900.0	3,862.0	3,906.8	3,872.9	11.3	10.5	128.84	316.8	33.8	179.5	158.8	20.78	8.638	
4,000.0	3,960.0	4,006.3	3,970.3	11.7	10.9	127.25	337.7	35.9	187.2	165.5	21.62	8.656	
4,100.0	4,058.0	4,105.9	4,067.6	12.1	11.3	125.79	358.6	38.0	194.9	172.5	22.46	8.677	
4,200.0	4,156.0	4,205.5	4,164.9	12.5	11.8	124.44	379.6	40.1	202.8	179.5	23.31	8.700	
4,300.0	4,254.0	4,305.1	4,262.3	12.9	12.2	123.20	400.5	42.2	210.8	186.6	24.16	8.724	
4,400.0	4,352.1	4,404.7	4,359.6	13.4	12.6	122.04	421.4	44.3	218.8	193.8	25.01	8.749	
4,500.0	4,450.1	4,504.2	4,456.9	13.8	13.0	120.97	442.3	46.4	227.0	201.1	25.87	8.775	
4,600.0	4,548.1	4,603.8	4,554.3	14.2	13.4	119.97	463.2	48.5	235.2	208.5	26.72	8.802	
4,700.0	4,646.1	4,703.4	4,651.6	14.6	13.9	119.04	484.2	50.6	243.5	215.9	27.58	8.829	
4,800.0	4,744.1	4,803.0	4,748.9	15.0	14.3	118.17	505.1	52.8	251.8	223.4	28.44	8.856	
4,900.0	4,842.2	4,902.6	4,846.3	15.5	14.7	117.36	526.0	54.9	260.2	230.9	29.29	8.884	
5,000.0	4,940.2	5,002.1	4,943.6	15.9	15.1	116.60	546.9	57.0	268.7	238.5	30.15	8.911	
5,100.0	5,038.2	5,101.7	5,040.9	16.3	15.6	115.88	567.9	59.1	277.2	246.2	31.01	8.938	

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 F11-J14-22HNB
Project:	SEC.22-T5N-R63W	TVD Reference:	WELL @ 4673.0ft (RKB - 13')
Reference Site:	North Platte F-22 Pad Sec.22-T5N-R63W	MD Reference:	WELL @ 4673.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	North Platte Federal F11-J14-22HNB	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 F-J-22HNC - Wellbore #1 - Plan #1 (11													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	5,136.2	5,201.3	5,138.3	16.7	16.0	115.21	588.8	61.2	285.7	253.8	31.87	8.964		
5,300.0	5,234.2	5,300.9	5,235.6	17.1	16.4	114.58	609.7	63.3	294.3	261.6	32.73	8.991		
5,400.0	5,332.6	5,400.6	5,333.1	17.5	16.8	113.86	630.4	65.3	302.2	268.7	33.50	9.019		
5,500.0	5,431.5	5,500.6	5,431.5	17.7	17.1	113.09	648.4	67.1	308.6	274.5	34.14	9.039		
5,600.0	5,530.9	5,600.9	5,530.7	18.0	17.4	112.37	663.0	68.6	313.6	278.9	34.71	9.036		
5,700.0	5,630.6	5,701.4	5,630.6	18.2	17.7	111.70	674.1	69.7	317.2	282.0	35.20	9.012		
5,800.0	5,730.5	5,802.1	5,731.0	18.4	17.9	111.05	681.8	70.5	319.3	283.7	35.61	8.967		
5,900.0	5,830.5	5,903.0	5,831.8	18.5	18.1	90.60	686.0	70.9	319.9	284.0	35.93	8.903		
6,000.0	5,930.5	6,003.7	5,932.5	18.6	18.2	90.45	686.8	71.0	320.0	283.8	36.24	8.831		
6,070.1	6,000.5	6,073.7	6,002.5	18.7	18.3	-90.00	686.8	71.0	320.0	283.6	36.43	8.785		
6,100.0	6,030.1	6,103.4	6,032.2	18.7	18.3	-90.52	686.3	71.0	320.0	283.5	36.50	8.768		
6,200.0	6,126.4	6,204.3	6,131.9	18.6	18.3	-92.76	672.1	71.1	320.4	284.0	36.39	8.804		
6,300.0	6,215.9	6,307.8	6,229.4	18.3	18.1	-94.92	637.9	71.3	321.2	285.4	35.88	8.954		
6,400.0	6,295.3	6,413.9	6,320.4	17.9	17.7	-96.91	583.6	71.7	322.5	287.5	35.02	9.207		
6,500.0	6,361.7	6,522.6	6,400.1	17.4	17.2	-98.64	510.1	72.2	323.9	290.0	33.97	9.536		
6,600.0	6,412.6	6,633.5	6,464.1	17.0	16.7	-100.03	419.8	72.7	325.3	292.4	32.90	9.890		
6,700.0	6,446.3	6,746.3	6,508.0	16.6	16.3	-101.02	316.1	73.4	326.5	294.5	32.04	10.191		
6,800.0	6,472.1	6,848.2	6,534.6	16.3	16.1	-101.07	217.8	74.1	326.7	295.0	31.70	10.304		
6,900.0	6,487.2	6,960.3	6,554.6	16.2	16.1	-101.56	107.7	74.8	327.4	295.7	31.73	10.319		
7,000.0	6,488.0	7,065.1	6,556.0	16.4	16.3	-101.62	2.9	75.5	327.6	295.3	32.26	10.156		
7,100.0	6,488.0	7,165.1	6,556.0	16.8	16.7	-101.62	-97.1	76.1	327.7	294.5	33.19	9.874		
7,200.0	6,488.0	7,265.1	6,556.0	17.5	17.4	-101.61	-197.1	76.8	327.8	293.3	34.51	9.500		
7,300.0	6,488.0	7,365.1	6,556.0	18.4	18.2	-101.61	-297.1	77.4	328.0	291.8	36.18	9.065		
7,400.0	6,488.0	7,465.1	6,556.0	19.4	19.2	-101.60	-397.1	78.1	328.1	289.9	38.15	8.599		
7,500.0	6,488.0	7,565.1	6,556.0	20.6	20.3	-101.60	-497.1	78.7	328.2	287.8	40.39	8.127		
7,600.0	6,488.0	7,665.1	6,556.0	21.9	21.6	-101.60	-597.1	79.4	328.4	285.5	42.84	7.666		
7,700.0	6,488.0	7,765.1	6,556.0	23.2	22.9	-101.59	-697.1	80.0	328.5	283.0	45.47	7.225		
7,800.0	6,488.0	7,865.1	6,556.0	24.6	24.3	-101.59	-797.1	80.7	328.6	280.4	48.25	6.810		
7,900.0	6,488.0	7,965.1	6,556.0	26.1	25.8	-101.58	-897.1	81.3	328.7	277.6	51.16	6.425		
8,000.0	6,488.0	8,065.1	6,556.0	27.7	27.3	-101.58	-997.1	82.0	328.9	274.7	54.18	6.069		
8,100.0	6,488.0	8,165.1	6,556.0	29.3	28.9	-101.57	-1,097.1	82.6	329.0	271.7	57.30	5.742		
8,200.0	6,488.0	8,265.1	6,556.0	30.9	30.5	-101.57	-1,197.1	83.3	329.1	268.6	60.48	5.442		
8,300.0	6,488.0	8,365.1	6,556.0	32.6	32.2	-101.56	-1,297.1	83.9	329.2	265.5	63.73	5.166		
8,400.0	6,488.0	8,465.1	6,556.0	34.2	33.8	-101.56	-1,397.1	84.6	329.4	262.3	67.04	4.913		
8,500.0	6,488.0	8,565.1	6,556.0	35.9	35.6	-101.55	-1,497.1	85.2	329.5	259.1	70.40	4.681		
8,600.0	6,488.0	8,665.1	6,556.0	37.7	37.3	-101.55	-1,597.1	85.9	329.6	255.8	73.79	4.467		
8,700.0	6,488.0	8,765.1	6,556.0	39.4	39.0	-101.55	-1,697.1	86.5	329.8	252.5	77.23	4.270		
8,800.0	6,488.0	8,865.1	6,556.0	41.2	40.8	-101.54	-1,797.1	87.2	329.9	249.2	80.69	4.088		
8,900.0	6,488.0	8,965.1	6,556.0	43.0	42.6	-101.54	-1,897.1	87.8	330.0	245.8	84.18	3.920		
9,000.0	6,488.0	9,065.1	6,556.0	44.7	44.3	-101.53	-1,997.1	88.5	330.1	242.4	87.70	3.765		
9,100.0	6,488.0	9,165.1	6,556.0	46.5	46.1	-101.53	-2,097.1	89.1	330.3	239.0	91.23	3.620		
9,200.0	6,488.0	9,265.1	6,556.0	48.4	48.0	-101.52	-2,197.1	89.8	330.4	235.6	94.79	3.486		
9,300.0	6,488.0	9,365.1	6,556.0	50.2	49.8	-101.52	-2,297.1	90.4	330.5	232.2	98.36	3.360		
9,400.0	6,488.0	9,465.1	6,556.0	52.0	51.6	-101.51	-2,397.1	91.1	330.6	228.7	101.95	3.243		
9,500.0	6,488.0	9,565.1	6,556.0	53.8	53.4	-101.51	-2,497.1	91.7	330.8	225.2	105.55	3.134		
9,600.0	6,488.0	9,665.1	6,556.0	55.7	55.3	-101.51	-2,597.1	92.4	330.9	221.7	109.16	3.031		
9,700.0	6,488.0	9,765.1	6,556.0	57.5	57.1	-101.50	-2,697.1	93.0	331.0	218.2	112.79	2.935		
9,800.0	6,488.0	9,865.1	6,556.0	59.3	59.0	-101.50	-2,797.1	93.7	331.2	214.7	116.42	2.844		
9,900.0	6,488.0	9,965.1	6,556.0	61.2	60.8	-101.49	-2,897.1	94.3	331.3	211.2	120.06	2.759		
10,000.0	6,488.0	10,065.1	6,556.0	63.1	62.7	-101.49	-2,997.1	95.0	331.4	207.7	123.72	2.679		
10,100.0	6,488.0	10,165.1	6,556.0	64.9	64.5	-101.48	-3,097.1	95.6	331.5	204.2	127.38	2.603		
10,200.0	6,488.0	10,265.1	6,556.0	66.8	66.4	-101.48	-3,197.1	96.3	331.7	200.6	131.04	2.531		

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 F11-J14-22HNB
Project:	SEC.22-T5N-R63W	TVD Reference:	WELL @ 4673.0ft (RKB - 13')
Reference Site:	North Platte F-22 Pad Sec.22-T5N-R63W	MD Reference:	WELL @ 4673.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	North Platte Federal F11-J14-22HNB	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

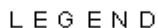
Offset Design North Platte F-22 Pad Sec.22-T5N-R63W - North Platte Federal F-J-22HNC - Wellbore #1 - Plan #1 (11												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference	Offset	Semi Major Axis			Distance								Warning
Measured Depth (ft)	Vertical Depth (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	
10,300.0	6,488.0	10,365.1	6,556.0	68.6	68.3	-101.47	-3,297.1	96.9	331.8	197.1	134.72	2.463	
10,400.0	6,488.0	10,465.1	6,556.0	70.5	70.1	-101.47	-3,397.1	97.6	331.9	193.5	138.40	2.398	
10,500.0	6,488.0	10,565.1	6,556.0	72.4	72.0	-101.46	-3,497.1	98.2	332.1	190.0	142.08	2.337	
10,600.0	6,488.0	10,665.1	6,556.0	74.3	73.9	-101.46	-3,597.0	98.9	332.2	186.4	145.77	2.279	
10,700.0	6,488.0	10,765.1	6,556.0	76.1	75.8	-101.46	-3,697.0	99.5	332.3	182.8	149.47	2.223	
10,800.0	6,488.0	10,865.1	6,556.0	78.0	77.6	-101.45	-3,797.0	100.2	332.4	179.3	153.16	2.170	
10,900.0	6,488.0	10,965.1	6,556.0	79.9	79.5	-101.45	-3,897.0	100.8	332.6	175.7	156.87	2.120	
11,000.0	6,488.0	11,065.1	6,556.0	81.8	81.4	-101.44	-3,997.0	101.5	332.7	172.1	160.57	2.072	
11,100.0	6,488.0	11,165.1	6,556.0	83.7	83.3	-101.44	-4,097.0	102.1	332.8	168.5	164.28	2.026	
11,109.2	6,488.0	11,174.3	6,556.0	83.8	83.5	-101.44	-4,106.2	102.2	332.8	168.2	164.62	2.022 SF	



Reference Depths are relative to WELL @ 4673.0ft (RKB - 13')	Coordinates are relative to: North Platte Federal F11-J14-22HNB
Offset Depths are relative to Offset Datum	Coordinate System is US State Plane 1983, Colorado Northern Zone
Central Meridian is -105.500000 °	Grid Convergence at Surface is: 0.69°



Reference Depths are relative to WELL @ 4673.0ft (RKB - 13')
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: North Platte Federal F11-J14-22HNB
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.69°



2. Wellbore #1, Plan #1 (11-12-13) V0  North Platte Federal A-E-22HC, Wellbore #1, Plan #1 (11-12-13) V0  North Platte Federal F-J-22HN
INB, Wellbore #1, Plan #1 (11-12-13) V0 North Platte Federal F21-J24-22HNB, Wellbore #1, Plan #1 (11-12-13) V0