BONANZA CREEK ENERGY OPERATING

Well Name: **State Antelope U-Y-30HNB**

Surface Location: State Antelope P-30 Pad Sec.30-T5N-R62W

North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

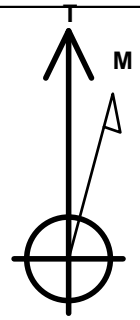
Ground Elevation: 4661.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1382092.93	3317674.89	40.376640	-104.359740	

RKB - 13' WELL @ 4674.0ft (RKB - 13')

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
SHL 400'FNL & 842'FEL	1.0	0.0	0.0	Point
BHL 470'FSL & 10'FEL	6409.0	-4346.2	783.1	Point
T1 531'FNL & 10'FEL	6409.0	-102.0	830.3	Point



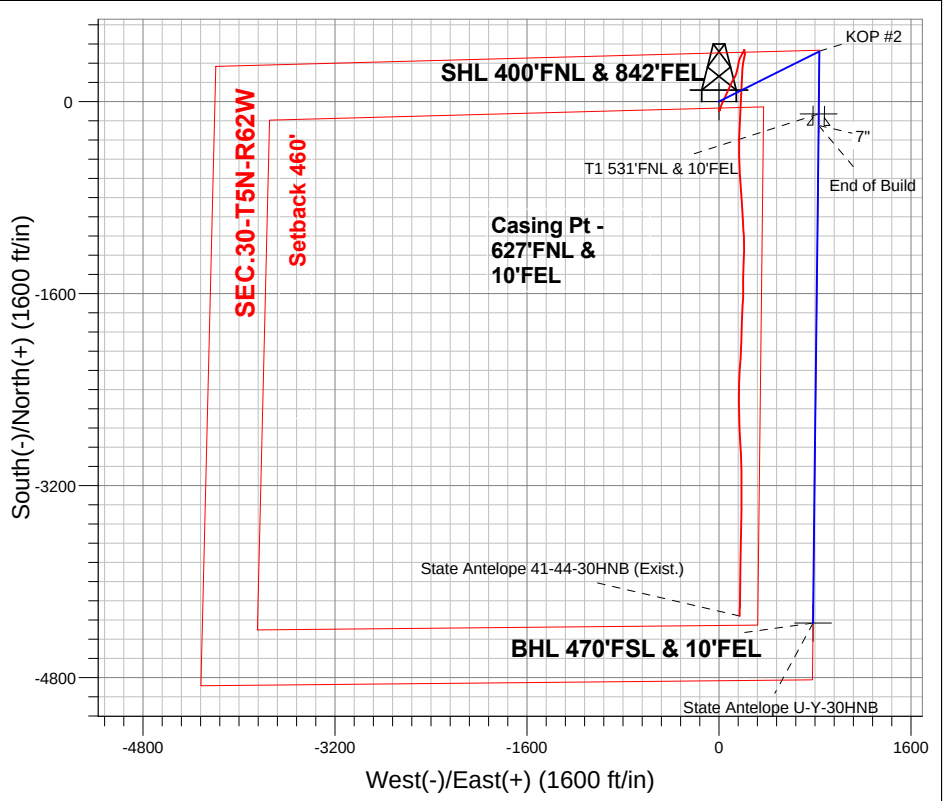
Azimuths to True North
Magnetic North: 8.32°

Magnetic Field
Strength: 52912.6snT
Dip Angle: 67.01°
Date: 10/29/2013
Model: IGRF2010

State Antelope P-30 Pad Sec.30-T5N-R62W
State Antelope U-Y-30HNB
Plan #1 (10-29-13)
13:12, October 29 2013

ANNOTATIONS

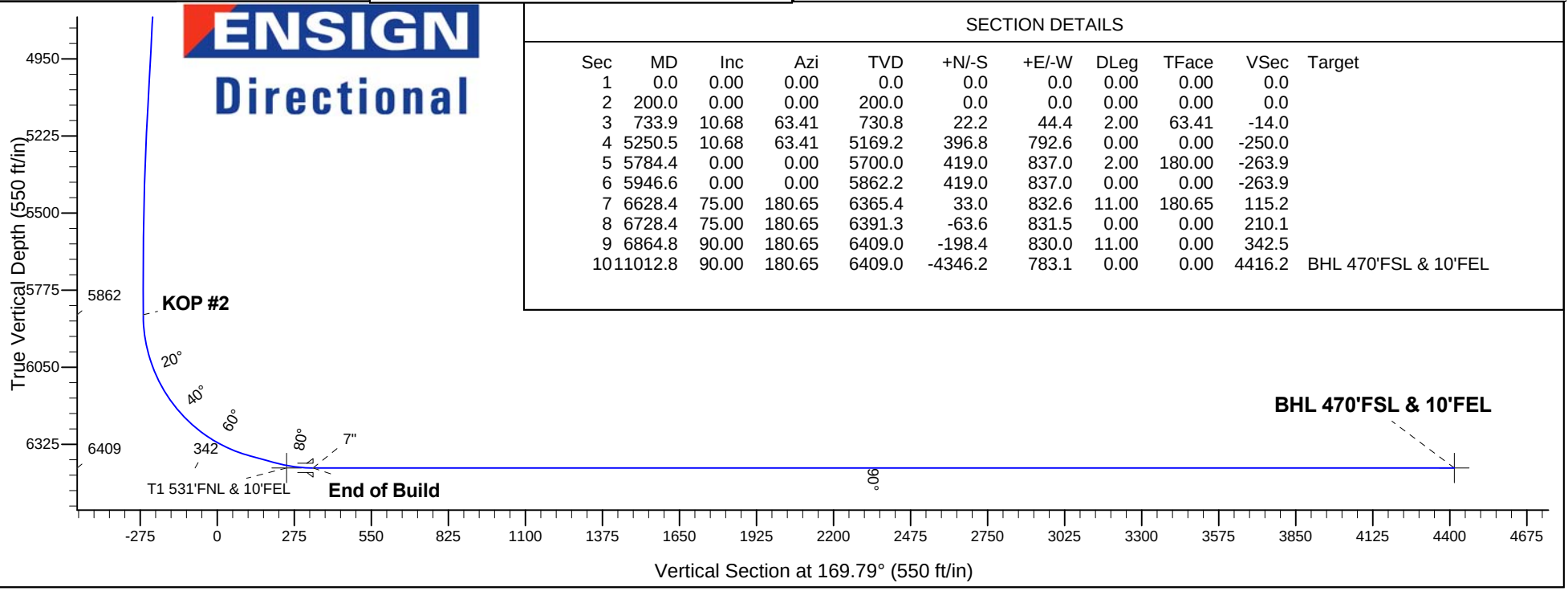
TVD	MD	Annotation
200.0	200.0	KOP #1
5862.2	5946.6	KOP #2
6409.0	6864.8	End of Build



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	200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.0	
3	733.9	10.68	63.41	730.8	22.2	44.4	2.00	63.41	-14.0	
4	5250.5	10.68	63.41	5169.2	396.8	792.6	0.00	0.00	-250.0	
5	5784.4	0.00	0.00	5700.0	419.0	837.0	2.00	180.00	-263.9	
6	5946.6	0.00	0.00	5862.2	419.0	837.0	0.00	0.00	-263.9	
7	6628.4	75.00	180.65	6365.4	33.0	832.6	11.00	180.65	115.2	
8	6728.4	75.00	180.65	6391.3	-63.6	831.5	0.00	0.00	210.1	
9	6864.8	90.00	180.65	6409.0	-198.4	830.0	11.00	0.00	342.5	
10	11012.8	90.00	180.65	6409.0	-4346.2	783.1	0.00	0.00	4416.2	BHL 470'FSL & 10'FEL



BONANZA CREEK ENERGY OPERATING

SEC.30-T5N-R62W
State Antelope P-30 Pad Sec.30-T5N-R62W
State Antelope U-Y-30HNB

Wellbore #1

Plan: Plan #1 (10-29-13)

Standard Planning Report

29 October, 2013

Database:	Landmark	**Local Co-ordinate Reference:**	Well State Antelope U-Y-30HNB
Company:	BONANZA CREEK ENERGY OPERATING	**TVD Reference:**	WELL @ 4674.0ft (RKB - 13')
Project:	SEC.30-T5N-R62W	**MD Reference:**	WELL @ 4674.0ft (RKB - 13')
Site:	State Antelope P-30 Pad Sec.30-T5N-R62W	**North Reference:**	True
Well:	State Antelope U-Y-30HNB	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (10-29-13)		

Project SEC.30-T5N-R62W, Weld County, Colorado

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		Using Well Reference Point
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site State Antelope P-30 Pad Sec.30-T5N-R62W

Site Position:		**Northing:**	1,382,092.94 ft	**Latitude:**	40.376640
From:	Lat/Long	**Easting:**	3,317,674.89 ft	**Longitude:**	-104.359740
Position Uncertainty:	0.0 ft	**Slot Radius:**	"	**Grid Convergence:**	0.74 °

Well State Antelope U-Y-30HNB

Well Position	**+N/-S**	0.0 ft	**Northing:**	1,382,092.93 ft	**Latitude:**	40.376640
	+E/-W	0.0 ft	**Easting:**	3,317,674.89 ft	**Longitude:**	-104.359740
Position Uncertainty		0.0 ft	**Wellhead Elevation:**	ft	**Ground Level:**	4,661.0 ft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	10/29/2013	8.32	67.01	52,913

Design Plan #1 (10-29-13)

Audit Notes:

Version:		**Phase:**	PROTOTYPE	**Tie On Depth:**	0.0

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	169.79

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	
200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.00	0.00	
733.9	10.68	63.41	730.8	22.2	44.4	2.00	2.00	0.00	63.41	
5,250.5	10.68	63.41	5,169.2	396.8	792.6	0.00	0.00	0.00	0.00	
5,784.4	0.00	0.00	5,700.0	419.0	837.0	2.00	-2.00	0.00	180.00	
5,946.6	0.00	0.00	5,862.2	419.0	837.0	0.00	0.00	0.00	0.00	
6,628.4	75.00	180.65	6,365.4	33.0	832.6	11.00	11.00	0.00	180.65	
6,728.4	75.00	180.65	6,391.3	-63.6	831.5	0.00	0.00	0.00	0.00	
6,864.8	90.00	180.65	6,409.0	-198.4	830.0	11.00	11.00	0.00	0.00	
11,012.8	90.00	180.65	6,409.0	-4,346.2	783.1	0.00	0.00	0.00	0.00	BHL 470'FSL & 10'I

Database:	Landmark	**Local Co-ordinate Reference:**	Well State Antelope U-Y-30HNB
Company:	BONANZA CREEK ENERGY OPERATING	**TVD Reference:**	WELL @ 4674.0ft (RKB - 13')
Project:	SEC.30-T5N-R62W	**MD Reference:**	WELL @ 4674.0ft (RKB - 13')
Site:	State Antelope P-30 Pad Sec.30-T5N-R62W	**North Reference:**	True
Well:	State Antelope U-Y-30HNB	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (10-29-13)		

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 400'FNL & 842'FEL									
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
KOP #1									
300.0	2.00	63.41	300.0	0.8	1.6	-0.5	2.00	2.00	0.00
400.0	4.00	63.41	399.8	3.1	6.2	-2.0	2.00	2.00	0.00
500.0	6.00	63.41	499.5	7.0	14.0	-4.4	2.00	2.00	0.00
600.0	8.00	63.41	598.7	12.5	24.9	-7.9	2.00	2.00	0.00
700.0	10.00	63.41	697.5	19.5	38.9	-12.3	2.00	2.00	0.00
733.9	10.68	63.41	730.8	22.2	44.4	-14.0	2.00	2.00	0.00
800.0	10.68	63.41	795.8	27.7	55.3	-17.4	0.00	0.00	0.00
900.0	10.68	63.41	894.0	36.0	71.9	-22.7	0.00	0.00	0.00
1,000.0	10.68	63.41	992.3	44.3	88.4	-27.9	0.00	0.00	0.00
1,100.0	10.68	63.41	1,090.6	52.6	105.0	-33.1	0.00	0.00	0.00
1,200.0	10.68	63.41	1,188.8	60.9	121.6	-38.3	0.00	0.00	0.00
1,300.0	10.68	63.41	1,287.1	69.2	138.1	-43.6	0.00	0.00	0.00
1,400.0	10.68	63.41	1,385.4	77.4	154.7	-48.8	0.00	0.00	0.00
1,500.0	10.68	63.41	1,483.7	85.7	171.3	-54.0	0.00	0.00	0.00
1,600.0	10.68	63.41	1,581.9	94.0	187.8	-59.2	0.00	0.00	0.00
1,700.0	10.68	63.41	1,680.2	102.3	204.4	-64.5	0.00	0.00	0.00
1,800.0	10.68	63.41	1,778.5	110.6	221.0	-69.7	0.00	0.00	0.00
1,900.0	10.68	63.41	1,876.7	118.9	237.6	-74.9	0.00	0.00	0.00
2,000.0	10.68	63.41	1,975.0	127.2	254.1	-80.1	0.00	0.00	0.00
2,100.0	10.68	63.41	2,073.3	135.5	270.7	-85.4	0.00	0.00	0.00
2,200.0	10.68	63.41	2,171.5	143.8	287.3	-90.6	0.00	0.00	0.00
2,300.0	10.68	63.41	2,269.8	152.1	303.8	-95.8	0.00	0.00	0.00
2,400.0	10.68	63.41	2,368.1	160.4	320.4	-101.0	0.00	0.00	0.00
2,500.0	10.68	63.41	2,466.3	168.7	337.0	-106.3	0.00	0.00	0.00
2,600.0	10.68	63.41	2,564.6	177.0	353.5	-111.5	0.00	0.00	0.00
2,700.0	10.68	63.41	2,662.9	185.3	370.1	-116.7	0.00	0.00	0.00
2,800.0	10.68	63.41	2,761.1	193.6	386.7	-121.9	0.00	0.00	0.00
2,900.0	10.68	63.41	2,859.4	201.9	403.2	-127.2	0.00	0.00	0.00
3,000.0	10.68	63.41	2,957.7	210.1	419.8	-132.4	0.00	0.00	0.00
3,100.0	10.68	63.41	3,055.9	218.4	436.4	-137.6	0.00	0.00	0.00
3,200.0	10.68	63.41	3,154.2	226.7	452.9	-142.8	0.00	0.00	0.00
3,300.0	10.68	63.41	3,252.5	235.0	469.5	-148.1	0.00	0.00	0.00
3,400.0	10.68	63.41	3,350.8	243.3	486.1	-153.3	0.00	0.00	0.00
3,500.0	10.68	63.41	3,449.0	251.6	502.6	-158.5	0.00	0.00	0.00
3,600.0	10.68	63.41	3,547.3	259.9	519.2	-163.7	0.00	0.00	0.00
3,700.0	10.68	63.41	3,645.6	268.2	535.8	-169.0	0.00	0.00	0.00
3,800.0	10.68	63.41	3,743.8	276.5	552.3	-174.2	0.00	0.00	0.00
3,900.0	10.68	63.41	3,842.1	284.8	568.9	-179.4	0.00	0.00	0.00
4,000.0	10.68	63.41	3,940.4	293.1	585.5	-184.6	0.00	0.00	0.00
4,100.0	10.68	63.41	4,038.6	301.4	602.0	-189.9	0.00	0.00	0.00
4,200.0	10.68	63.41	4,136.9	309.7	618.6	-195.1	0.00	0.00	0.00
4,300.0	10.68	63.41	4,235.2	318.0	635.2	-200.3	0.00	0.00	0.00
4,400.0	10.68	63.41	4,333.4	326.3	651.7	-205.5	0.00	0.00	0.00
4,500.0	10.68	63.41	4,431.7	334.6	668.3	-210.8	0.00	0.00	0.00
4,600.0	10.68	63.41	4,530.0	342.8	684.9	-216.0	0.00	0.00	0.00
4,700.0	10.68	63.41	4,628.2	351.1	701.4	-221.2	0.00	0.00	0.00
4,800.0	10.68	63.41	4,726.5	359.4	718.0	-226.4	0.00	0.00	0.00
4,900.0	10.68	63.41	4,824.8	367.7	734.6	-231.6	0.00	0.00	0.00

Database:	Landmark	**Local Co-ordinate Reference:**	Well State Antelope U-Y-30HNB
Company:	BONANZA CREEK ENERGY OPERATING	**TVD Reference:**	WELL @ 4674.0ft (RKB - 13')
Project:	SEC.30-T5N-R62W	**MD Reference:**	WELL @ 4674.0ft (RKB - 13')
Site:	State Antelope P-30 Pad Sec.30-T5N-R62W	**North Reference:**	True
Well:	State Antelope U-Y-30HNB	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (10-29-13)		

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	10.68	63.41	4,923.1	376.0	751.1	-236.9	0.00	0.00	0.00
5,100.0	10.68	63.41	5,021.3	384.3	767.7	-242.1	0.00	0.00	0.00
5,200.0	10.68	63.41	5,119.6	392.6	784.3	-247.3	0.00	0.00	0.00
5,250.5	10.68	63.41	5,169.2	396.8	792.6	-250.0	0.00	0.00	0.00
5,300.0	9.69	63.41	5,217.9	400.7	800.5	-252.4	2.00	-2.00	0.00
5,400.0	7.69	63.41	5,316.8	407.5	814.0	-256.7	2.00	-2.00	0.00
5,500.0	5.69	63.41	5,416.1	412.7	824.4	-260.0	2.00	-2.00	0.00
5,600.0	3.69	63.41	5,515.8	416.3	831.7	-262.3	2.00	-2.00	0.00
5,700.0	1.69	63.41	5,615.6	418.4	835.9	-263.6	2.00	-2.00	0.00
5,784.4	0.00	0.00	5,700.0	419.0	837.0	-263.9	2.00	-2.00	0.00
5,800.0	0.00	0.00	5,715.6	419.0	837.0	-263.9	0.00	0.00	0.00
5,900.0	0.00	0.00	5,815.6	419.0	837.0	-263.9	0.00	0.00	0.00
5,946.6	0.00	0.00	5,862.2	419.0	837.0	-263.9	0.00	0.00	0.00
KOP #2									
6,000.0	5.87	180.65	5,915.5	416.3	837.0	-261.3	11.00	11.00	0.00
6,100.0	16.87	180.65	6,013.4	396.6	836.7	-241.9	11.00	11.00	0.00
6,200.0	27.87	180.65	6,105.8	358.6	836.3	-204.6	11.00	11.00	0.00
6,300.0	38.87	180.65	6,189.1	303.7	835.7	-150.7	11.00	11.00	0.00
6,400.0	49.87	180.65	6,260.5	233.8	834.9	-82.1	11.00	11.00	0.00
6,500.0	60.87	180.65	6,317.2	151.7	834.0	-1.4	11.00	11.00	0.00
6,600.0	71.87	180.65	6,357.3	60.2	832.9	88.4	11.00	11.00	0.00
6,628.4	75.00	180.65	6,365.4	33.0	832.6	115.2	11.00	11.00	0.00
6,700.0	75.00	180.65	6,383.9	-36.2	831.8	183.1	0.00	0.00	0.00
6,728.4	75.00	180.65	6,391.3	-63.6	831.5	210.1	0.00	0.00	0.00
6,769.5	79.52	180.65	6,400.3	-103.7	831.1	249.4	11.00	11.00	0.00
T1 531'FNL & 10'FEL									
6,800.0	82.87	180.65	6,405.0	-133.8	830.7	279.0	11.00	11.00	0.00
6,864.8	90.00	180.65	6,409.0	-198.4	830.0	342.5	11.00	11.00	0.00
End of Build - 7"									
6,900.0	90.00	180.65	6,409.0	-233.6	829.6	377.0	0.00	0.00	0.00
7,000.0	90.00	180.65	6,409.0	-333.6	828.5	475.2	0.00	0.00	0.00
7,100.0	90.00	180.65	6,409.0	-433.6	827.3	573.4	0.00	0.00	0.00
7,200.0	90.00	180.65	6,409.0	-533.6	826.2	671.7	0.00	0.00	0.00
7,300.0	90.00	180.65	6,409.0	-633.6	825.1	769.9	0.00	0.00	0.00
7,400.0	90.00	180.65	6,409.0	-733.6	824.0	868.1	0.00	0.00	0.00
7,500.0	90.00	180.65	6,409.0	-833.6	822.8	966.3	0.00	0.00	0.00
7,600.0	90.00	180.65	6,409.0	-933.6	821.7	1,064.5	0.00	0.00	0.00
7,700.0	90.00	180.65	6,409.0	-1,033.6	820.6	1,162.7	0.00	0.00	0.00
7,800.0	90.00	180.65	6,409.0	-1,133.6	819.4	1,260.9	0.00	0.00	0.00
7,900.0	90.00	180.65	6,409.0	-1,233.6	818.3	1,359.1	0.00	0.00	0.00
8,000.0	90.00	180.65	6,409.0	-1,333.6	817.2	1,457.3	0.00	0.00	0.00
8,100.0	90.00	180.65	6,409.0	-1,433.5	816.0	1,555.5	0.00	0.00	0.00
8,200.0	90.00	180.65	6,409.0	-1,533.5	814.9	1,653.7	0.00	0.00	0.00
8,300.0	90.00	180.65	6,409.0	-1,633.5	813.8	1,751.9	0.00	0.00	0.00
8,400.0	90.00	180.65	6,409.0	-1,733.5	812.6	1,850.2	0.00	0.00	0.00
8,500.0	90.00	180.65	6,409.0	-1,833.5	811.5	1,948.4	0.00	0.00	0.00
8,600.0	90.00	180.65	6,409.0	-1,933.5	810.4	2,046.6	0.00	0.00	0.00
8,700.0	90.00	180.65	6,409.0	-2,033.5	809.2	2,144.8	0.00	0.00	0.00
8,800.0	90.00	180.65	6,409.0	-2,133.5	808.1	2,243.0	0.00	0.00	0.00
8,900.0	90.00	180.65	6,409.0	-2,233.5	807.0	2,341.2	0.00	0.00	0.00
9,000.0	90.00	180.65	6,409.0	-2,333.5	805.8	2,439.4	0.00	0.00	0.00
9,100.0	90.00	180.65	6,409.0	-2,433.5	804.7	2,537.6	0.00	0.00	0.00
9,200.0	90.00	180.65	6,409.0	-2,533.5	803.6	2,635.8	0.00	0.00	0.00

Database:	Landmark	**Local Co-ordinate Reference:**	Well State Antelope U-Y-30HNB
Company:	BONANZA CREEK ENERGY OPERATING	**TVD Reference:**	WELL @ 4674.0ft (RKB - 13')
Project:	SEC.30-T5N-R62W	**MD Reference:**	WELL @ 4674.0ft (RKB - 13')
Site:	State Antelope P-30 Pad Sec.30-T5N-R62W	**North Reference:**	True
Well:	State Antelope U-Y-30HNB	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (10-29-13)		

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	180.65	6,409.0	-2,633.5	802.4	2,734.0	0.00	0.00	0.00
9,400.0	90.00	180.65	6,409.0	-2,733.5	801.3	2,832.2	0.00	0.00	0.00
9,500.0	90.00	180.65	6,409.0	-2,833.5	800.2	2,930.4	0.00	0.00	0.00
9,600.0	90.00	180.65	6,409.0	-2,933.5	799.0	3,028.7	0.00	0.00	0.00
9,700.0	90.00	180.65	6,409.0	-3,033.4	797.9	3,126.9	0.00	0.00	0.00
9,800.0	90.00	180.65	6,409.0	-3,133.4	796.8	3,225.1	0.00	0.00	0.00
9,900.0	90.00	180.65	6,409.0	-3,233.4	795.7	3,323.3	0.00	0.00	0.00
10,000.0	90.00	180.65	6,409.0	-3,333.4	794.5	3,421.5	0.00	0.00	0.00
10,100.0	90.00	180.65	6,409.0	-3,433.4	793.4	3,519.7	0.00	0.00	0.00
10,200.0	90.00	180.65	6,409.0	-3,533.4	792.3	3,617.9	0.00	0.00	0.00
10,300.0	90.00	180.65	6,409.0	-3,633.4	791.1	3,716.1	0.00	0.00	0.00
10,400.0	90.00	180.65	6,409.0	-3,733.4	790.0	3,814.3	0.00	0.00	0.00
10,500.0	90.00	180.65	6,409.0	-3,833.4	788.9	3,912.5	0.00	0.00	0.00
10,600.0	90.00	180.65	6,409.0	-3,933.4	787.7	4,010.7	0.00	0.00	0.00
10,700.0	90.00	180.65	6,409.0	-4,033.4	786.6	4,108.9	0.00	0.00	0.00
10,800.0	90.00	180.65	6,409.0	-4,133.4	785.5	4,207.2	0.00	0.00	0.00
10,900.0	90.00	180.65	6,409.0	-4,233.4	784.3	4,305.4	0.00	0.00	0.00
11,000.0	90.00	180.65	6,409.0	-4,333.4	783.2	4,403.6	0.00	0.00	0.00
11,012.8	90.00	180.65	6,409.0	-4,346.2	783.1	4,416.2	0.00	0.00	0.00
BHL 470'FSL & 10'FEL									

Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
SHL 400'FNL & 842'F - plan hits target center - Point	0.00	0.00	1.0	0.0	0.0	1,382,092.94	3,317,674.89	40.376640	-104.359740
BHL 470'FSL & 10'FE - plan hits target center - Point	0.00	0.00	6,409.0	-4,346.2	783.1	1,377,757.34	3,318,513.73	40.364710	-104.356930
T1 531'FNL & 10'FEL - plan misses target center by 8.9ft at 6769.5ft MD (6400.3 TVD, -103.7 N, 831.1 E) - Point	0.00	0.00	6,409.0	-102.0	830.3	1,382,001.63	3,318,506.39	40.376360	-104.356760

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
6,864.8	6,409.0	7"	7	7-1/2

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
200.0	200.0	0.0	0.0	KOP #1
5,946.6	5,862.2	419.0	837.0	KOP #2
6,864.8	6,409.0	-198.4	830.0	End of Build

ENSIGN
Directional

BONANZA CREEK ENERGY OPERATING

SEC.30-T5N-R62W
State Antelope P-30 Pad Sec.30-T5N-R62W
State Antelope U-Y-30HNB

Wellbore #1
Plan #1 (10-29-13)

Anticollision Report

29 October, 2013

Company:	BONANZA CREEK ENERGY OPERATING	**Local Co-ordinate Reference:**	Well State Antelope U-Y-30HNB
Project:	SEC.30-T5N-R62W	**TVD Reference:**	WELL @ 4674.0ft (RKB - 13')
Reference Site:	State Antelope P-30 Pad Sec.30-T5N-R62W	**MD Reference:**	WELL @ 4674.0ft (RKB - 13')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	State Antelope U-Y-30HNB	**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 (10-29-13)	**Offset TVD Reference:**	Offset Datum

Reference Plan #1 (10-29-13)

Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.0ft	**Error Model:**	ISCWSA
Depth Range:	Unlimited	**Scan Method:**	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 1,000.0ft	**Error Surface:**	Elliptical Conic

Warning Levels Evaluated at: 2.00 **Sigma**

Survey Tool Program **Date** 10/29/2013

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	11,012.8	Plan #1 (10-29-13) (Wellbore #1)	MWD	MWD - Standard

Summary

Site Name / Offset Well - Wellbore - Design	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
State Antelope 41-44-30HNB Pad Sec.30-T5N-R62W						
State Antelope 41-44-30HNB (Exist.) - Wellbore #1 - We	319.7	324.2	78.2	77.2	80.610	CC, ES
State Antelope 41-44-30HNB (Exist.) - Wellbore #1 - We	11,000.0	10,863.0	613.5	450.9	3.772	SF
State Antelope P-30 Pad Sec.30-T5N-R62W						
State Antelope P41-T44-30HNB - Wellbore #1 - Plan #1	200.0	200.0	40.1	39.4	59.425	CC, ES
State Antelope P41-T44-30HNB - Wellbore #1 - Plan #1	11,012.8	10,905.7	947.3	775.9	5.528	SF
State Antelope P-T-30HNB - Wellbore #1 - Plan #1 (10-2	200.0	200.0	61.9	61.3	91.842	CC, ES
State Antelope P-T-30HNB - Wellbore #1 - Plan #1 (10-2	700.0	698.1	103.0	100.0	33.967	SF
State Antelope U41-Y44-30HNB - Wellbore #1 - Plan #1	200.0	200.0	21.9	21.2	32.411	CC, ES
State Antelope U41-Y44-30HNB - Wellbore #1 - Plan #1	11,012.8	10,961.9	309.3	137.5	1.801	SF

Offset Design State Antelope 41-44-30HNB Pad Sec.30-T5N-R62W - State Antelope 41-44-30HNB (Exist.) - Wellbore

Offset Site Error: 0.0 ft

Survey Program: 518-MWD **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	3.0	3.0	0.0	0.0	180.00	-80.2	0.0	80.2	80.2	0.00	N/A	
100.0	100.0	103.5	103.5	0.1	0.1	179.90	-79.8	0.1	79.8	79.6	0.23	343.952	
200.0	200.0	203.9	203.9	0.3	0.2	179.62	-78.9	0.5	78.9	78.4	0.57	137.780	
300.0	300.0	304.4	304.4	0.6	0.4	116.89	-77.4	1.2	78.2	77.3	0.90	86.648	
319.7	319.7	324.2	324.2	0.6	0.4	117.27	-77.1	1.3	78.2	77.2	0.97	80.610	CC, ES
400.0	399.8	404.8	404.7	0.8	0.5	119.65	-75.3	2.1	78.6	77.4	1.24	63.150	
500.0	499.5	505.0	505.0	1.0	0.6	124.31	-72.7	3.2	80.5	78.9	1.61	49.991	
600.0	598.7	604.7	604.5	1.3	0.8	130.18	-69.7	5.0	84.6	82.6	2.08	40.681	
700.0	697.5	702.6	702.4	1.7	1.0	136.40	-67.3	7.1	92.5	89.9	2.57	36.004	
800.0	795.8	799.3	799.0	2.0	1.2	142.80	-66.6	8.0	105.5	102.4	3.05	34.628	
900.0	894.0	896.3	896.1	2.4	1.4	147.99	-66.8	7.9	121.1	117.6	3.51	34.549	
1,000.0	992.3	993.8	993.6	2.8	1.6	151.96	-67.8	7.5	138.2	134.3	3.96	34.877	
1,100.0	1,090.6	1,094.7	1,094.5	3.2	1.8	155.21	-68.2	7.3	155.4	151.0	4.42	35.160	
1,200.0	1,188.8	1,197.9	1,197.6	3.6	2.0	158.28	-66.0	7.7	170.6	165.7	4.88	34.982	
1,300.0	1,287.1	1,302.9	1,302.4	4.0	2.2	161.54	-60.0	8.9	183.1	177.8	5.33	34.365	
1,400.0	1,385.4	1,409.3	1,408.4	4.4	2.5	164.78	-50.2	12.2	192.3	186.5	5.79	33.213	
1,500.0	1,483.7	1,514.6	1,512.7	4.8	2.8	168.08	-37.0	17.5	198.5	192.2	6.26	31.706	
1,600.0	1,581.9	1,614.0	1,611.0	5.3	3.1	171.20	-23.2	23.2	203.8	197.1	6.74	30.253	

Company:	BONANZA CREEK ENERGY OPERATING	**Local Co-ordinate Reference:**	Well State Antelope U-Y-30HNB
Project:	SEC.30-T5N-R62W	**TVD Reference:**	WELL @ 4674.0ft (RKB - 13')
Reference Site:	State Antelope P-30 Pad Sec.30-T5N-R62W	**MD Reference:**	WELL @ 4674.0ft (RKB - 13')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	State Antelope U-Y-30HNB	**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 (10-29-13)	**Offset TVD Reference:**	Offset Datum

Offset Design State Antelope 41-44-30HNB Pad Sec.30-T5N-R62W - State Antelope 41-44-30HNB (Exist.) - Wellbore

Offset Site Error: 0.0 ft

Survey Program: 518-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
1,700.0	1,680.2	1,713.9	1,709.7	5.7	3.4	174.20	-9.2	28.9	209.6	202.3	7.23	28.977	
1,800.0	1,778.5	1,812.9	1,807.6	6.1	3.7	176.99	4.8	34.9	215.7	207.9	7.74	27.882	
1,900.0	1,876.7	1,911.6	1,905.2	6.5	4.0	179.44	18.0	40.9	222.5	214.3	8.24	27.003	
2,000.0	1,975.0	2,010.9	2,003.5	6.9	4.3	-178.56	30.1	47.3	229.9	221.1	8.75	26.266	
2,100.0	2,073.3	2,112.1	2,103.7	7.3	4.6	-176.50	43.2	54.0	237.1	227.8	9.30	25.511	
2,200.0	2,171.5	2,209.1	2,199.5	7.7	4.9	-174.41	56.6	60.0	244.7	234.9	9.85	24.851	
2,300.0	2,269.8	2,307.2	2,296.6	8.2	5.2	-172.53	69.4	65.3	253.5	243.1	10.41	24.360	
2,400.0	2,368.1	2,407.2	2,395.7	8.6	5.5	-170.79	82.3	70.8	262.7	251.7	10.98	23.911	
2,500.0	2,466.3	2,508.4	2,495.8	9.0	5.8	-169.15	95.5	77.0	271.4	259.8	11.58	23.426	
2,600.0	2,564.6	2,607.7	2,594.0	9.4	6.1	-167.51	109.1	83.2	280.0	267.8	12.20	22.950	
2,700.0	2,662.9	2,708.1	2,693.1	9.8	6.5	-165.77	123.8	89.4	288.7	275.8	12.85	22.466	
2,800.0	2,761.1	2,809.0	2,792.6	10.2	6.8	-163.98	139.4	95.9	297.2	283.6	13.53	21.966	
2,900.0	2,859.4	2,909.7	2,891.8	10.6	7.2	-162.27	155.2	102.9	305.4	291.1	14.22	21.475	
3,000.0	2,957.7	3,010.1	2,990.8	11.1	7.5	-160.90	169.6	110.5	313.4	298.5	14.89	21.048	
3,100.0	3,055.9	3,111.1	3,090.6	11.5	7.9	-159.79	183.1	118.7	321.2	305.7	15.54	20.666	
3,200.0	3,154.2	3,207.4	3,185.8	11.9	8.2	-158.93	195.2	126.4	329.3	313.1	16.16	20.374	
3,300.0	3,252.5	3,302.1	3,279.7	12.3	8.5	-158.24	206.2	132.9	338.7	321.9	16.77	20.198	
3,400.0	3,350.8	3,397.0	3,373.7	12.7	8.8	-157.44	218.0	137.9	349.6	332.2	17.39	20.103	
3,500.0	3,449.0	3,496.1	3,471.7	13.1	9.1	-156.47	231.5	142.6	361.2	343.1	18.07	19.992	
3,600.0	3,547.3	3,596.5	3,570.8	13.6	9.4	-155.25	247.1	147.3	372.7	353.9	18.80	19.820	
3,700.0	3,645.6	3,695.6	3,668.1	14.0	9.8	-153.74	264.9	152.1	384.1	364.5	19.60	19.596	
3,800.0	3,743.8	3,792.6	3,763.1	14.4	10.2	-152.05	284.5	156.7	396.0	375.6	20.44	19.374	
3,900.0	3,842.1	3,887.9	3,856.3	14.8	10.6	-150.43	304.0	160.6	409.0	387.7	21.28	19.215	
4,000.0	3,940.4	3,984.4	3,950.8	15.2	10.9	-148.99	323.1	163.8	422.8	400.7	22.10	19.131	
4,100.0	4,038.6	4,089.1	4,053.7	15.6	11.3	-147.78	342.0	167.4	436.7	413.8	22.91	19.057	
4,200.0	4,136.9	4,197.1	4,160.2	16.1	11.7	-146.93	358.8	173.1	448.7	425.0	23.69	18.943	
4,300.0	4,235.2	4,301.0	4,262.9	16.5	12.0	-146.35	373.2	180.1	459.1	434.6	24.41	18.810	
4,400.0	4,333.4	4,398.0	4,358.8	16.9	12.3	-145.89	386.1	186.6	469.5	444.4	25.08	18.718	
4,500.0	4,431.7	4,501.7	4,461.4	17.3	12.7	-145.50	399.3	193.7	479.7	454.0	25.77	18.617	
4,600.0	4,530.0	4,600.4	4,559.2	17.7	13.0	-145.27	410.9	200.8	489.5	463.1	26.41	18.536	
4,700.0	4,628.2	4,693.4	4,651.5	18.1	13.3	-145.21	420.4	206.8	499.9	472.9	26.99	18.524	
4,800.0	4,726.5	4,781.9	4,739.7	18.6	13.5	-145.54	426.4	210.3	512.2	484.8	27.48	18.643	
4,900.0	4,824.8	4,870.9	4,828.7	19.0	13.6	-146.18	429.8	211.7	526.6	498.7	27.87	18.892	
5,000.0	4,923.1	4,965.8	4,923.6	19.4	13.8	-147.13	430.8	211.5	542.5	514.3	28.20	19.235	
5,100.0	5,021.3	5,065.6	5,023.3	19.8	13.9	-148.43	428.3	210.8	558.6	530.2	28.45	19.636	
5,200.0	5,119.6	5,167.9	5,125.4	20.2	14.0	-149.96	423.1	210.7	574.4	545.8	28.63	20.060	
5,300.0	5,217.9	5,265.3	5,222.7	20.6	14.1	-151.48	417.1	210.8	589.9	561.1	28.81	20.478	
5,400.0	5,316.8	5,365.1	5,322.3	20.9	14.2	-152.84	411.4	211.1	602.9	574.0	28.96	20.819	
5,500.0	5,416.1	5,465.9	5,423.0	21.1	14.3	-153.86	406.8	211.6	612.8	583.7	29.14	21.033	
5,600.0	5,515.8	5,567.6	5,524.6	21.3	14.4	-154.57	403.4	212.4	619.4	590.1	29.34	21.115	
5,700.0	5,615.6	5,670.4	5,627.4	21.5	14.6	-155.01	401.1	213.7	622.5	592.9	29.55	21.067	
5,800.0	5,715.6	5,772.1	5,729.1	21.6	14.7	-91.79	399.6	215.3	622.1	592.4	29.69	20.951	
5,890.4	5,806.0	5,853.0	5,810.0	21.7	14.9	-91.90	398.4	216.5	620.8	590.9	29.95	20.730	
5,900.0	5,815.6	5,857.0	5,813.9	21.7	14.9	-91.92	398.2	216.5	620.8	590.9	29.97	20.718	
6,000.0	5,915.5	5,932.6	5,888.9	21.8	14.9	86.61	389.3	215.1	623.2	593.1	30.11	20.696	
6,100.0	6,013.4	6,012.4	5,965.7	21.8	14.8	85.55	368.2	210.7	628.7	598.8	29.90	21.029	
6,200.0	6,105.8	6,088.1	6,035.7	21.7	14.7	84.85	340.0	204.6	636.2	606.6	29.58	21.504	
6,300.0	6,189.1	6,204.2	6,135.4	21.6	14.3	84.78	281.6	196.4	642.2	613.1	29.15	22.031	
6,400.0	6,260.5	6,307.7	6,213.6	21.4	14.0	85.06	214.1	191.7	645.5	616.7	28.75	22.455	
6,500.0	6,317.2	6,404.7	6,278.4	21.2	13.7	86.03	142.2	189.3	646.1	617.6	28.52	22.653	
6,600.0	6,357.3	6,482.7	6,320.7	21.0	13.5	86.92	76.7	185.8	648.5	620.1	28.49	22.765	
6,700.0	6,383.9	6,584.0	6,360.8	21.0	13.4	88.08	-16.0	180.9	651.8	623.0	28.74	22.680	

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

Company:	BONANZA CREEK ENERGY OPERATING	**Local Co-ordinate Reference:**	Well State Antelope U-Y-30HNB
Project:	SEC.30-T5N-R62W	**TVD Reference:**	WELL @ 4674.0ft (RKB - 13')
Reference Site:	State Antelope P-30 Pad Sec.30-T5N-R62W	**MD Reference:**	WELL @ 4674.0ft (RKB - 13')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	State Antelope U-Y-30HNB	**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 (10-29-13)	**Offset TVD Reference:**	Offset Datum

Offset Design State Antelope 41-44-30HNB Pad Sec.30-T5N-R62W - State Antelope 41-44-30HNB (Exist.) - Wellbore

Offset Site Error: 0.0 ft

Survey Program: 518-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
6,800.0	6,405.0	6,683.9	6,386.4	21.0	13.5	88.28	-112.3	176.4	655.0	625.7	29.32	22.338	
6,900.0	6,409.0	6,776.6	6,395.8	21.2	13.9	88.58	-204.4	172.6	657.9	627.6	30.30	21.715	
7,000.0	6,409.0	6,893.7	6,394.4	21.6	14.6	88.48	-321.4	167.9	660.9	629.2	31.69	20.853	
7,100.0	6,409.0	7,014.4	6,394.3	22.2	15.3	88.46	-442.1	168.0	659.7	626.4	33.25	19.840	
7,200.0	6,409.0	7,138.3	6,397.6	23.0	16.5	88.74	-565.8	171.8	655.3	619.9	35.47	18.477	
7,300.0	6,409.0	7,246.2	6,398.1	24.0	17.8	88.77	-673.6	177.9	648.6	610.7	37.94	17.094	
7,400.0	6,409.0	7,354.7	6,398.9	25.1	19.1	88.82	-781.8	185.0	640.9	600.3	40.53	15.810	
7,500.0	6,409.0	7,453.6	6,397.8	26.3	20.4	88.71	-880.5	192.8	631.9	588.7	43.26	14.607	
7,600.0	6,409.0	7,539.3	6,396.9	27.5	21.6	88.62	-966.0	197.9	624.8	579.0	45.85	13.628	
7,700.0	6,409.0	7,639.0	6,397.0	28.9	23.0	88.61	-1,065.5	203.3	618.3	569.5	48.77	12.679	
7,800.0	6,409.0	7,734.0	6,396.3	30.3	24.3	88.53	-1,160.4	207.7	612.5	560.8	51.69	11.851	
7,897.7	6,409.0	7,798.0	6,396.7	31.8	25.2	88.56	-1,224.4	209.4	609.1	555.0	54.17	11.245	
7,900.0	6,409.0	7,798.0	6,396.7	31.8	25.2	88.56	-1,224.4	209.4	609.1	554.9	54.21	11.237	
8,000.0	6,409.0	7,877.7	6,396.5	33.4	26.4	88.55	-1,304.0	206.6	611.5	554.5	56.99	10.730	
8,100.0	6,409.0	7,991.9	6,400.5	34.9	28.1	88.93	-1,418.0	202.0	614.3	553.9	60.41	10.170	
8,200.0	6,409.0	8,120.2	6,400.1	36.5	30.2	88.88	-1,546.4	201.2	613.9	549.7	64.24	9.557	
8,269.7	6,409.0	8,170.2	6,399.4	37.7	30.9	88.82	-1,596.3	201.7	612.6	546.4	66.20	9.253	
8,300.0	6,409.0	8,188.6	6,399.5	38.2	31.2	88.83	-1,614.7	201.3	612.8	545.9	67.00	9.147	
8,400.0	6,409.0	8,267.3	6,400.8	39.8	32.4	88.96	-1,693.3	197.0	617.1	547.1	69.95	8.822	
8,500.0	6,409.0	8,382.1	6,401.9	41.5	34.3	89.06	-1,807.9	191.3	620.8	547.2	73.65	8.429	
8,600.0	6,409.0	8,494.5	6,401.1	43.2	36.2	89.00	-1,920.3	188.1	622.5	545.2	77.34	8.049	
8,700.0	6,409.0	8,591.0	6,398.4	44.9	37.9	88.75	-2,016.7	186.3	623.3	542.5	80.76	7.718	
8,800.0	6,409.0	8,661.8	6,397.3	46.6	39.0	88.66	-2,087.4	182.2	627.8	544.1	83.65	7.505	
8,900.0	6,409.0	8,767.5	6,397.3	48.4	40.7	88.67	-2,192.8	174.8	633.7	546.5	87.20	7.267	
9,000.0	6,409.0	8,880.8	6,397.2	50.1	42.6	88.67	-2,306.0	168.8	637.9	546.9	90.94	7.014	
9,100.0	6,409.0	8,997.2	6,397.5	51.9	44.6	88.70	-2,422.3	165.8	639.1	544.4	94.77	6.744	
9,200.0	6,409.0	9,117.1	6,396.6	53.7	46.7	88.62	-2,542.2	165.3	638.6	539.9	98.67	6.472	
9,300.0	6,409.0	9,230.9	6,397.3	55.5	48.7	88.67	-2,655.9	168.4	634.6	532.0	102.54	6.189	
9,400.0	6,409.0	9,335.5	6,397.4	57.3	50.5	88.67	-2,760.5	172.6	629.4	523.3	106.17	5.929	
9,500.0	6,409.0	9,448.0	6,399.1	59.1	52.5	88.81	-2,872.8	179.0	622.6	512.6	109.98	5.661	
9,600.0	6,409.0	9,524.1	6,400.0	60.9	53.8	88.88	-2,948.8	182.3	617.1	503.9	113.15	5.454	
9,700.0	6,409.0	9,628.8	6,400.2	62.7	55.6	88.89	-3,053.4	185.5	612.9	496.0	116.81	5.247	
9,800.0	6,409.0	9,710.5	6,399.8	64.5	57.0	88.85	-3,135.1	187.0	609.9	489.8	120.07	5.079	
9,900.0	6,409.0	9,817.2	6,398.2	66.4	58.8	88.70	-3,241.8	187.2	608.6	484.9	123.75	4.918	
10,000.0	6,409.0	9,919.9	6,399.8	68.2	60.6	88.85	-3,344.5	188.2	606.5	479.1	127.39	4.761	
10,100.0	6,409.0	10,005.8	6,401.2	70.0	62.1	88.98	-3,430.3	188.5	605.0	474.2	130.76	4.627	
10,125.9	6,409.0	10,028.7	6,401.3	70.5	62.5	88.99	-3,453.3	188.4	604.8	473.2	131.65	4.594	
10,200.0	6,409.0	10,095.0	6,400.8	71.9	63.7	88.94	-3,519.5	187.0	605.5	471.3	134.21	4.512	
10,300.0	6,409.0	10,188.5	6,399.3	73.7	65.3	88.80	-3,613.0	184.4	607.2	469.5	137.67	4.410	
10,400.0	6,409.0	10,292.8	6,401.2	75.6	67.0	88.99	-3,717.2	180.7	609.6	468.3	141.32	4.314	
10,500.0	6,409.0	10,398.7	6,402.9	77.4	68.9	89.15	-3,823.1	179.0	610.0	464.9	145.13	4.203	
10,600.0	6,409.0	10,496.3	6,402.8	79.3	70.6	89.14	-3,920.6	176.6	611.4	462.7	148.70	4.111	
10,700.0	6,409.0	10,620.1	6,401.3	81.1	72.8	89.00	-4,044.4	175.6	611.2	458.4	152.77	4.001	
10,800.0	6,409.0	10,703.8	6,403.3	83.0	74.3	89.19	-4,128.1	176.0	609.5	453.4	156.12	3.904	
10,805.8	6,409.0	10,708.0	6,403.4	83.1	74.3	89.19	-4,132.3	176.0	609.5	453.2	156.30	3.900	
10,900.0	6,409.0	10,786.9	6,402.4	84.9	75.7	89.10	-4,211.1	173.3	611.5	452.1	159.47	3.835	
11,000.0	6,409.0	10,863.0	6,400.4	86.7	77.1	88.92	-4,287.2	171.5	613.5	450.9	162.66	3.772	SF
11,012.8	6,409.0	10,863.0	6,400.4	87.0	77.1	88.92	-4,287.2	171.5	614.5	451.6	162.90	3.772	

Company:	BONANZA CREEK ENERGY OPERATING	**Local Co-ordinate Reference:**	Well State Antelope U-Y-30HNB
Project:	SEC.30-T5N-R62W	**TVD Reference:**	WELL @ 4674.0ft (RKB - 13')
Reference Site:	State Antelope P-30 Pad Sec.30-T5N-R62W	**MD Reference:**	WELL @ 4674.0ft (RKB - 13')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	State Antelope U-Y-30HNB	**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 (10-29-13)	**Offset TVD Reference:**	Offset Datum

Offset Design State Antelope P-30 Pad Sec.30-T5N-R62W - State Antelope P41-T44-30HNB - Wellbore #1 - Plan #1 — **Offset Site Error:** 0.0 ft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-180.00	-40.1	0.0	40.1				
100.0	100.0	100.0	100.0	0.1	0.1	-180.00	-40.1	0.0	40.1	39.8	0.22	178.275	
200.0	200.0	200.0	200.0	0.3	0.3	-180.00	-40.1	0.0	40.1	39.4	0.67	59.425	CC, ES
300.0	300.0	300.0	300.0	0.6	0.6	118.77	-40.1	0.0	40.9	39.8	1.12	36.485	
400.0	399.8	399.8	399.8	0.8	0.8	124.75	-40.1	0.0	43.6	42.1	1.58	27.707	
500.0	499.5	499.5	499.5	1.0	1.0	135.05	-39.5	-1.6	49.1	47.0	2.04	24.068	
600.0	598.7	598.0	597.9	1.3	1.2	148.27	-37.7	-6.4	59.2	56.7	2.51	23.572	
700.0	697.5	695.2	694.7	1.7	1.5	160.34	-35.0	-13.9	76.0	73.0	2.99	25.375	
800.0	795.8	795.1	794.2	2.0	1.7	169.07	-30.7	-21.3	96.3	92.9	3.45	27.925	
900.0	894.0	896.0	894.8	2.4	1.9	175.52	-23.3	-26.8	115.2	111.3	3.90	29.518	
1,000.0	992.3	997.8	995.9	2.8	2.2	-179.07	-12.9	-30.5	132.0	127.6	4.38	30.128	
1,100.0	1,090.6	1,097.1	1,094.4	3.2	2.5	-174.43	-0.5	-32.6	147.6	142.7	4.89	30.174	
1,200.0	1,188.8	1,195.2	1,191.7	3.6	2.7	-170.70	11.8	-34.7	163.8	158.4	5.43	30.166	
1,300.0	1,287.1	1,293.4	1,289.1	4.0	3.0	-167.65	24.2	-36.8	180.6	174.7	5.99	30.168	
1,400.0	1,385.4	1,391.5	1,386.5	4.4	3.3	-165.12	36.5	-38.9	197.9	191.3	6.56	30.172	
1,500.0	1,483.7	1,489.7	1,483.8	4.8	3.6	-163.00	48.8	-40.9	215.4	208.3	7.14	30.174	
1,600.0	1,581.9	1,587.9	1,581.2	5.3	3.9	-161.20	61.2	-43.0	233.2	225.5	7.73	30.177	
1,700.0	1,680.2	1,686.0	1,678.5	5.7	4.2	-159.65	73.5	-45.1	251.2	242.8	8.32	30.177	
1,800.0	1,778.5	1,784.2	1,775.9	6.1	4.5	-158.31	85.9	-47.2	269.3	260.4	8.92	30.176	
1,900.0	1,876.7	1,882.3	1,873.2	6.5	4.8	-157.14	98.2	-49.2	287.5	278.0	9.53	30.175	
2,000.0	1,975.0	1,980.5	1,970.6	6.9	5.1	-156.10	110.5	-51.3	305.9	295.8	10.14	30.174	
2,100.0	2,073.3	2,078.7	2,068.0	7.3	5.4	-155.19	122.9	-53.4	324.4	313.6	10.75	30.173	
2,200.0	2,171.5	2,176.8	2,165.3	7.7	5.7	-154.37	135.2	-55.4	342.9	331.5	11.36	30.172	
2,300.0	2,269.8	2,275.0	2,262.7	8.2	6.1	-153.64	147.5	-57.5	361.4	349.5	11.98	30.171	
2,400.0	2,368.1	2,373.1	2,360.0	8.6	6.4	-152.98	159.9	-59.6	380.1	367.5	12.60	30.171	
2,500.0	2,466.3	2,471.3	2,457.4	9.0	6.7	-152.38	172.2	-61.7	398.7	385.5	13.22	30.170	
2,600.0	2,564.6	2,569.5	2,554.8	9.4	7.0	-151.83	184.6	-63.7	417.4	403.6	13.84	30.170	
2,700.0	2,662.9	2,667.6	2,652.1	9.8	7.3	-151.33	196.9	-65.8	436.2	421.7	14.46	30.170	
2,800.0	2,761.1	2,765.8	2,749.5	10.2	7.6	-150.87	209.2	-67.9	455.0	439.9	15.08	30.170	
2,900.0	2,859.4	2,863.9	2,846.8	10.6	7.9	-150.45	221.6	-70.0	473.8	458.1	15.70	30.170	
3,000.0	2,957.7	2,962.1	2,944.2	11.1	8.2	-150.06	233.9	-72.0	492.6	476.3	16.33	30.170	
3,100.0	3,055.9	3,060.3	3,041.6	11.5	8.6	-149.70	246.3	-74.1	511.4	494.5	16.95	30.170	
3,200.0	3,154.2	3,158.4	3,138.9	11.9	8.9	-149.37	258.6	-76.2	530.3	512.7	17.58	30.170	
3,300.0	3,252.5	3,256.6	3,236.3	12.3	9.2	-149.05	270.9	-78.3	549.2	531.0	18.20	30.171	
3,400.0	3,350.8	3,354.7	3,333.6	12.7	9.5	-148.76	283.3	-80.3	568.1	549.2	18.83	30.171	
3,500.0	3,449.0	3,452.9	3,431.0	13.1	9.8	-148.49	295.6	-82.4	587.0	567.5	19.45	30.171	
3,600.0	3,547.3	3,551.1	3,528.3	13.6	10.1	-148.23	308.0	-84.5	605.9	585.8	20.08	30.172	
3,700.0	3,645.6	3,649.2	3,625.7	14.0	10.4	-147.99	320.3	-86.5	624.8	604.1	20.71	30.172	
3,800.0	3,743.8	3,747.4	3,723.1	14.4	10.8	-147.77	332.6	-88.6	643.7	622.4	21.34	30.173	
3,900.0	3,842.1	3,845.5	3,820.4	14.8	11.1	-147.55	345.0	-90.7	662.7	640.7	21.96	30.174	
4,000.0	3,940.4	3,943.7	3,917.8	15.2	11.4	-147.35	357.3	-92.8	681.6	659.1	22.59	30.174	
4,100.0	4,038.6	4,047.4	4,020.8	15.6	11.7	-147.26	369.1	-94.7	700.3	677.1	23.17	30.219	
4,200.0	4,136.9	4,152.6	4,125.6	16.1	11.9	-147.46	377.3	-96.1	718.0	694.3	23.69	30.309	
4,300.0	4,235.2	4,257.8	4,230.7	16.5	12.1	-147.95	381.7	-96.9	734.8	710.7	24.15	30.427	
4,400.0	4,333.4	4,360.5	4,333.4	16.9	12.2	-148.67	382.5	-97.0	750.9	726.3	24.56	30.566	
4,500.0	4,431.7	4,458.8	4,431.7	17.3	12.4	-149.38	382.5	-97.0	766.8	741.8	24.98	30.702	
4,600.0	4,530.0	4,557.0	4,530.0	17.7	12.6	-150.07	382.5	-97.0	782.9	757.5	25.39	30.831	
4,700.0	4,628.2	4,655.3	4,628.2	18.1	12.7	-150.73	382.5	-97.0	799.1	773.2	25.81	30.960	
4,800.0	4,726.5	4,753.6	4,726.5	18.6	12.9	-151.37	382.5	-97.0	815.3	789.1	26.23	31.088	
4,900.0	4,824.8	4,851.8	4,824.8	19.0	13.1	-151.97	382.5	-97.0	831.7	805.1	26.64	31.215	
5,000.0	4,923.1	4,950.1	4,923.1	19.4	13.2	-152.56	382.5	-97.0	848.2	821.1	27.06	31.341	
5,100.0	5,021.3	5,048.4	5,021.3	19.8	13.4	-153.12	382.5	-97.0	864.7	837.2	27.48	31.465	

Company:	BONANZA CREEK ENERGY OPERATING	**Local Co-ordinate Reference:**	Well State Antelope U-Y-30HNB
Project:	SEC.30-T5N-R62W	**TVD Reference:**	WELL @ 4674.0ft (RKB - 13')
Reference Site:	State Antelope P-30 Pad Sec.30-T5N-R62W	**MD Reference:**	WELL @ 4674.0ft (RKB - 13')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	State Antelope U-Y-30HNB	**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 (10-29-13)	**Offset TVD Reference:**	Offset Datum

Offset Design State Antelope P-30 Pad Sec.30-T5N-R62W - State Antelope P41-T44-30HNB - Wellbore #1 - Plan #1 — **Offset Site Error:** 0.0 ft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,200.0	5,119.6	5,146.6	5,119.6	20.2	13.6	-153.67	382.5	-97.0	881.3	853.4	27.90	31.587	
5,300.0	5,217.9	5,245.0	5,217.9	20.6	13.8	-154.25	382.5	-97.0	897.7	869.3	28.34	31.679	
5,400.0	5,316.8	5,343.8	5,316.8	20.9	14.0	-154.78	382.5	-97.0	911.3	882.6	28.74	31.709	
5,500.0	5,416.1	5,443.1	5,416.1	21.1	14.1	-155.17	382.5	-97.0	921.9	892.8	29.12	31.660	
5,600.0	5,515.8	5,542.8	5,515.8	21.3	14.3	-155.45	382.5	-97.0	929.3	899.8	29.47	31.537	
5,700.0	5,615.6	5,642.7	5,615.6	21.5	14.5	-155.60	382.5	-97.0	933.6	903.8	29.79	31.341	
5,800.0	5,715.6	5,742.7	5,715.6	21.6	14.7	-92.24	382.5	-97.0	934.7	904.7	30.03	31.126	
5,900.0	5,815.6	5,842.7	5,815.6	21.7	14.9	-92.24	382.5	-97.0	934.7	904.3	30.38	30.763	
6,000.0	5,915.5	5,938.0	5,910.9	21.8	15.0	87.13	380.3	-97.0	934.7	904.0	30.72	30.423	
6,100.0	6,013.4	6,029.5	6,000.7	21.8	15.0	87.23	363.8	-97.3	934.7	903.9	30.75	30.397	
6,200.0	6,105.8	6,121.2	6,086.6	21.7	14.9	87.42	331.7	-97.7	934.6	904.0	30.57	30.572	
6,300.0	6,189.1	6,213.6	6,166.0	21.6	14.8	87.70	284.8	-98.4	934.6	904.3	30.26	30.883	
6,400.0	6,260.5	6,306.9	6,236.5	21.4	14.6	88.07	223.9	-99.3	934.5	904.6	29.92	31.231	
6,447.3	6,289.3	6,351.4	6,266.1	21.3	14.5	88.26	190.7	-99.7	934.5	904.7	29.80	31.358	
6,500.0	6,317.2	6,401.2	6,295.7	21.2	14.4	88.49	150.6	-100.3	934.5	904.8	29.68	31.484	
6,600.0	6,357.3	6,496.9	6,341.1	21.0	14.4	88.98	66.6	-101.5	934.6	904.9	29.67	31.496	
6,700.0	6,383.9	6,594.6	6,371.5	21.0	14.5	89.25	-26.2	-102.8	934.8	904.8	30.00	31.158	
6,800.0	6,405.0	6,694.0	6,396.7	21.0	14.8	89.50	-122.3	-104.2	935.0	904.3	30.75	30.403	
6,900.0	6,409.0	6,792.9	6,408.8	21.2	15.4	89.99	-220.3	-105.6	935.3	903.4	31.91	29.306	
7,000.0	6,409.0	6,892.9	6,409.0	21.6	16.2	90.00	-320.3	-107.0	935.6	902.1	33.44	27.977	
7,100.0	6,409.0	6,992.9	6,409.0	22.2	17.1	90.00	-420.3	-108.4	935.9	900.6	35.32	26.500	
7,200.0	6,409.0	7,092.9	6,409.0	23.0	18.2	90.00	-520.3	-109.9	936.2	898.7	37.49	24.971	
7,300.0	6,409.0	7,192.9	6,409.0	24.0	19.4	90.00	-620.3	-111.3	936.5	896.5	39.91	23.462	
7,400.0	6,409.0	7,292.9	6,409.0	25.1	20.8	90.00	-720.3	-112.7	936.7	894.2	42.55	22.017	
7,500.0	6,409.0	7,392.9	6,409.0	26.3	22.2	90.00	-820.3	-114.1	937.0	891.7	45.35	20.662	
7,600.0	6,409.0	7,492.9	6,409.0	27.5	23.7	90.00	-920.2	-115.5	937.3	889.0	48.30	19.408	
7,700.0	6,409.0	7,592.9	6,409.0	28.9	25.2	90.00	-1,020.2	-117.0	937.6	886.3	51.36	18.256	
7,800.0	6,409.0	7,692.9	6,409.0	30.3	26.8	90.00	-1,120.2	-118.4	937.9	883.4	54.52	17.203	
7,900.0	6,409.0	7,792.9	6,409.0	31.8	28.4	90.00	-1,220.2	-119.8	938.2	880.4	57.76	16.242	
8,000.0	6,409.0	7,892.9	6,409.0	33.4	30.1	90.00	-1,320.2	-121.2	938.5	877.4	61.07	15.366	
8,100.0	6,409.0	7,992.9	6,409.0	34.9	31.8	90.00	-1,420.2	-122.7	938.8	874.3	64.44	14.568	
8,200.0	6,409.0	8,092.9	6,409.0	36.5	33.5	90.00	-1,520.2	-124.1	939.1	871.2	67.86	13.838	
8,300.0	6,409.0	8,192.9	6,409.0	38.2	35.2	90.00	-1,620.2	-125.5	939.4	868.0	71.32	13.171	
8,400.0	6,409.0	8,292.9	6,409.0	39.8	37.0	90.00	-1,720.2	-126.9	939.7	864.8	74.82	12.559	
8,500.0	6,409.0	8,392.9	6,409.0	41.5	38.8	90.00	-1,820.1	-128.4	939.9	861.6	78.35	11.997	
8,600.0	6,409.0	8,492.9	6,409.0	43.2	40.6	90.00	-1,920.1	-129.8	940.2	858.3	81.90	11.480	
8,700.0	6,409.0	8,592.9	6,409.0	44.9	42.4	90.00	-2,020.1	-131.2	940.5	855.0	85.48	11.003	
8,800.0	6,409.0	8,692.9	6,409.0	46.6	44.2	90.00	-2,120.1	-132.6	940.8	851.7	89.08	10.561	
8,900.0	6,409.0	8,792.9	6,409.0	48.4	46.0	90.00	-2,220.1	-134.0	941.1	848.4	92.70	10.152	
9,000.0	6,409.0	8,892.9	6,409.0	50.1	47.8	90.00	-2,320.1	-135.5	941.4	845.1	96.34	9.772	
9,100.0	6,409.0	8,992.9	6,409.0	51.9	49.6	90.00	-2,420.1	-136.9	941.7	841.7	99.99	9.418	
9,200.0	6,409.0	9,092.9	6,409.0	53.7	51.5	90.00	-2,520.1	-138.3	942.0	838.3	103.65	9.088	
9,300.0	6,409.0	9,192.9	6,409.0	55.5	53.3	90.00	-2,620.1	-139.7	942.3	834.9	107.33	8.779	
9,400.0	6,409.0	9,292.9	6,409.0	57.3	55.1	90.00	-2,720.1	-141.2	942.6	831.6	111.02	8.490	
9,500.0	6,409.0	9,392.9	6,409.0	59.1	57.0	90.00	-2,820.0	-142.6	942.9	828.1	114.71	8.219	
9,600.0	6,409.0	9,492.9	6,409.0	60.9	58.9	90.00	-2,920.0	-144.0	943.2	824.7	118.42	7.965	
9,700.0	6,409.0	9,592.9	6,409.0	62.7	60.7	90.00	-3,020.0	-145.4	943.4	821.3	122.13	7.725	
9,800.0	6,409.0	9,692.9	6,409.0	64.5	62.6	90.00	-3,120.0	-146.9	943.7	817.9	125.85	7.499	
9,900.0	6,409.0	9,792.9	6,409.0	66.4	64.4	90.00	-3,220.0	-148.3	944.0	814.4	129.58	7.285	
10,000.0	6,409.0	9,892.9	6,409.0	68.2	66.3	90.00	-3,320.0	-149.7	944.3	811.0	133.31	7.084	
10,100.0	6,409.0	9,992.9	6,409.0	70.0	68.2	90.00	-3,420.0	-151.1	944.6	807.6	137.05	6.893	
10,200.0	6,409.0	10,092.9	6,409.0	71.9	70.1	90.00	-3,520.0	-152.5	944.9	804.1	140.79	6.711	

Company:	BONANZA CREEK ENERGY OPERATING	**Local Co-ordinate Reference:**	Well State Antelope U-Y-30HNB
Project:	SEC.30-T5N-R62W	**TVD Reference:**	WELL @ 4674.0ft (RKB - 13')
Reference Site:	State Antelope P-30 Pad Sec.30-T5N-R62W	**MD Reference:**	WELL @ 4674.0ft (RKB - 13')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	State Antelope U-Y-30HNB	**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 (10-29-13)	**Offset TVD Reference:**	Offset Datum

Offset Design State Antelope P-30 Pad Sec.30-T5N-R62W - State Antelope P41-T44-30HNB - Wellbore #1 - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
10,300.0	6,409.0	10,192.9	6,409.0	73.7	71.9	90.00	-3,620.0	-154.0	945.2	800.7	144.54	6.539	
10,400.0	6,409.0	10,292.9	6,409.0	75.6	73.8	90.00	-3,719.9	-155.4	945.5	797.2	148.29	6.376	
10,500.0	6,409.0	10,392.9	6,409.0	77.4	75.7	90.00	-3,819.9	-156.8	945.8	793.7	152.05	6.220	
10,600.0	6,409.0	10,492.9	6,409.0	79.3	77.6	90.00	-3,919.9	-158.2	946.1	790.3	155.81	6.072	
10,700.0	6,409.0	10,592.9	6,409.0	81.1	79.5	90.00	-4,019.9	-159.7	946.4	786.8	159.57	5.931	
10,800.0	6,409.0	10,692.9	6,409.0	83.0	81.3	90.00	-4,119.9	-161.1	946.6	783.3	163.34	5.796	
10,900.0	6,409.0	10,792.9	6,409.0	84.9	83.2	90.00	-4,219.9	-162.5	946.9	779.8	167.11	5.667	
11,000.0	6,409.0	10,892.9	6,409.0	86.7	85.1	90.00	-4,319.9	-163.9	947.2	776.3	170.88	5.543	
11,012.8	6,409.0	10,905.7	6,409.0	87.0	85.3	90.00	-4,332.7	-164.1	947.3	775.9	171.35	5.528	SF

Company:	BONANZA CREEK ENERGY OPERATING	**Local Co-ordinate Reference:**	Well State Antelope U-Y-30HNB
Project:	SEC.30-T5N-R62W	**TVD Reference:**	WELL @ 4674.0ft (RKB - 13')
Reference Site:	State Antelope P-30 Pad Sec.30-T5N-R62W	**MD Reference:**	WELL @ 4674.0ft (RKB - 13')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	State Antelope U-Y-30HNB	**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 (10-29-13)	**Offset TVD Reference:**	Offset Datum

Offset Design State Antelope P-30 Pad Sec.30-T5N-R62W - State Antelope P-T-30HNB - Wellbore #1 - Plan #1 (10-2

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	180.00	-61.9	0.0	61.9				
100.0	100.0	100.0	100.0	0.1	0.1	180.00	-61.9	0.0	61.9	61.7	0.22	275.525	
200.0	200.0	200.0	200.0	0.3	0.3	180.00	-61.9	0.0	61.9	61.3	0.67	91.842	CC, ES
300.0	300.0	299.9	299.9	0.6	0.6	119.59	-61.9	-1.7	62.8	61.7	1.11	56.546	
400.0	399.8	399.1	398.9	0.8	0.8	127.91	-61.9	-6.9	66.4	64.8	1.57	42.409	
500.0	499.5	497.4	496.9	1.0	1.0	139.16	-61.9	-15.0	74.9	72.8	2.06	36.320	
600.0	598.7	597.9	597.0	1.3	1.3	150.04	-60.3	-23.7	87.5	85.0	2.55	34.265	
700.0	697.5	698.1	696.7	1.7	1.5	159.89	-55.1	-32.1	103.0	100.0	3.03	33.967	SF
800.0	795.8	796.9	794.8	2.0	1.8	168.43	-46.8	-40.2	121.1	117.6	3.51	34.535	
900.0	894.0	893.8	891.0	2.4	2.1	174.85	-37.9	-48.1	140.9	136.9	4.00	35.214	
1,000.0	992.3	990.8	987.3	2.8	2.4	179.68	-29.0	-55.9	162.0	157.5	4.50	35.968	
1,100.0	1,090.6	1,087.7	1,083.5	3.2	2.7	-176.62	-20.1	-63.8	183.9	178.9	5.02	36.677	
1,200.0	1,188.8	1,184.7	1,179.7	3.6	3.0	-173.70	-11.2	-71.7	206.5	200.9	5.53	37.304	
1,300.0	1,287.1	1,281.6	1,275.9	4.0	3.3	-171.36	-2.3	-79.6	229.4	223.4	6.06	37.836	
1,400.0	1,385.4	1,378.6	1,372.1	4.4	3.6	-169.44	6.6	-87.4	252.7	246.1	6.60	38.306	
1,500.0	1,483.7	1,475.5	1,468.3	4.8	3.9	-167.85	15.4	-95.3	276.1	269.0	7.13	38.708	
1,600.0	1,581.9	1,572.4	1,564.5	5.3	4.2	-166.51	24.3	-103.2	299.8	292.1	7.68	39.053	
1,700.0	1,680.2	1,669.4	1,660.7	5.7	4.5	-165.36	33.2	-111.1	323.6	315.3	8.22	39.353	
1,800.0	1,778.5	1,766.3	1,757.0	6.1	4.8	-164.37	42.1	-119.0	347.4	338.7	8.77	39.616	
1,900.0	1,876.7	1,863.3	1,853.2	6.5	5.1	-163.50	51.0	-126.8	371.4	362.1	9.32	39.847	
2,000.0	1,975.0	1,960.2	1,949.4	6.9	5.4	-162.74	59.9	-134.7	395.4	385.6	9.87	40.052	
2,100.0	2,073.3	2,057.2	2,045.6	7.3	5.7	-162.07	68.8	-142.6	419.5	409.1	10.43	40.234	
2,200.0	2,171.5	2,154.1	2,141.8	7.7	6.0	-161.47	77.7	-150.5	443.7	432.7	10.98	40.398	
2,300.0	2,269.8	2,251.0	2,238.0	8.2	6.3	-160.93	86.6	-158.3	467.9	456.3	11.54	40.544	
2,400.0	2,368.1	2,348.0	2,334.2	8.6	6.6	-160.45	95.5	-166.2	492.1	480.0	12.10	40.677	
2,500.0	2,466.3	2,444.9	2,430.4	9.0	6.9	-160.01	104.3	-174.1	516.3	503.7	12.66	40.798	
2,600.0	2,564.6	2,541.9	2,526.7	9.4	7.2	-159.61	113.2	-182.0	540.6	527.4	13.22	40.908	
2,700.0	2,662.9	2,638.8	2,622.9	9.8	7.5	-159.24	122.1	-189.9	564.9	551.1	13.78	41.009	
2,800.0	2,761.1	2,735.8	2,719.1	10.2	7.9	-158.91	131.0	-197.7	589.2	574.9	14.34	41.101	
2,900.0	2,859.4	2,832.7	2,815.3	10.6	8.2	-158.60	139.9	-205.6	613.6	598.7	14.90	41.186	
3,000.0	2,957.7	2,929.6	2,911.5	11.1	8.5	-158.32	148.8	-213.5	637.9	622.5	15.46	41.265	
3,100.0	3,055.9	3,026.6	3,007.7	11.5	8.8	-158.05	157.7	-221.4	662.3	646.3	16.02	41.338	
3,200.0	3,154.2	3,123.5	3,103.9	11.9	9.1	-157.81	166.6	-229.2	686.7	670.1	16.58	41.406	
3,300.0	3,252.5	3,220.5	3,200.1	12.3	9.4	-157.58	175.5	-237.1	711.1	693.9	17.15	41.469	
3,400.0	3,350.8	3,317.4	3,296.3	12.7	9.7	-157.36	184.3	-245.0	735.5	717.7	17.71	41.528	
3,500.0	3,449.0	3,414.3	3,392.6	13.1	10.0	-157.16	193.2	-252.9	759.9	741.6	18.27	41.582	
3,600.0	3,547.3	3,511.3	3,488.8	13.6	10.3	-156.98	202.1	-260.8	784.3	765.4	18.84	41.634	
3,700.0	3,645.6	3,608.2	3,585.0	14.0	10.6	-156.80	211.0	-268.6	808.7	789.3	19.40	41.682	
3,800.0	3,743.8	3,705.2	3,681.2	14.4	10.9	-156.63	219.9	-276.5	833.1	813.2	19.97	41.728	
3,900.0	3,842.1	3,802.1	3,777.4	14.8	11.3	-156.48	228.8	-284.4	857.6	837.0	20.53	41.770	
4,000.0	3,940.4	3,899.1	3,873.6	15.2	11.6	-156.33	237.7	-292.3	882.0	860.9	21.10	41.811	
4,100.0	4,038.6	3,996.0	3,969.8	15.6	11.9	-156.19	246.6	-300.1	906.5	884.8	21.66	41.849	
4,200.0	4,136.9	4,092.9	4,066.0	16.1	12.2	-156.06	255.5	-308.0	930.9	908.7	22.23	41.885	
4,300.0	4,235.2	4,189.9	4,162.3	16.5	12.5	-155.93	264.3	-315.9	955.4	932.6	22.79	41.919	
4,400.0	4,333.4	4,286.8	4,258.5	16.9	12.8	-155.81	273.2	-323.8	979.8	956.5	23.36	41.951	

Company:	BONANZA CREEK ENERGY OPERATING	**Local Co-ordinate Reference:**	Well State Antelope U-Y-30HNB
Project:	SEC.30-T5N-R62W	**TVD Reference:**	WELL @ 4674.0ft (RKB - 13')
Reference Site:	State Antelope P-30 Pad Sec.30-T5N-R62W	**MD Reference:**	WELL @ 4674.0ft (RKB - 13')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	State Antelope U-Y-30HNB	**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 (10-29-13)	**Offset TVD Reference:**	Offset Datum

Offset Design State Antelope P-30 Pad Sec.30-T5N-R62W - State Antelope U41-Y44-30HNB - Wellbore #1 - Plan #1 — **Offset Site Error:** 0.0 ft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	180.00	-21.9	0.0	21.9				
100.0	100.0	100.0	100.0	0.1	0.1	180.00	-21.9	0.0	21.9	21.6	0.22	97.232	
200.0	200.0	200.0	200.0	0.3	0.3	180.00	-21.9	0.0	21.9	21.2	0.67	32.411	CC, ES
300.0	300.0	300.0	300.0	0.6	0.6	120.52	-21.9	0.0	22.7	21.6	1.12	20.246	
400.0	399.8	399.8	399.8	0.8	0.8	130.55	-21.9	0.0	25.7	24.2	1.58	16.334	
500.0	499.5	499.5	499.5	1.0	1.0	142.36	-21.9	0.0	32.1	30.1	2.04	15.703	
600.0	598.7	598.7	598.7	1.3	1.2	152.35	-21.9	0.0	42.4	39.9	2.52	16.864	
700.0	697.5	699.4	699.4	1.7	1.5	159.46	-20.8	1.3	55.1	52.1	2.98	18.512	
800.0	795.8	800.6	800.5	2.0	1.7	164.39	-17.4	5.5	67.4	64.0	3.43	19.678	
900.0	894.0	902.7	902.1	2.4	1.9	167.84	-11.8	12.4	76.7	72.8	3.88	19.748	
1,000.0	992.3	1,005.3	1,003.9	2.8	2.2	170.67	-3.8	22.2	82.7	78.3	4.35	18.990	
1,100.0	1,090.6	1,105.4	1,103.0	3.2	2.5	173.17	5.2	33.5	86.7	81.9	4.83	17.959	
1,200.0	1,188.8	1,205.3	1,201.8	3.6	2.8	175.45	14.3	44.7	90.8	85.5	5.31	17.120	
1,300.0	1,287.1	1,305.1	1,300.6	4.0	3.1	177.52	23.4	55.9	95.1	89.3	5.79	16.425	
1,400.0	1,385.4	1,405.0	1,399.4	4.4	3.4	179.42	32.4	67.1	99.5	93.2	6.28	15.839	
1,500.0	1,483.7	1,504.8	1,498.3	4.8	3.7	-178.85	41.5	78.3	104.0	97.2	6.78	15.339	
1,600.0	1,581.9	1,604.7	1,597.1	5.3	4.1	-177.26	50.6	89.5	108.6	101.3	7.29	14.904	
1,700.0	1,680.2	1,704.5	1,695.9	5.7	4.4	-175.81	59.6	100.7	113.3	105.5	7.80	14.522	
1,800.0	1,778.5	1,804.4	1,794.7	6.1	4.7	-174.47	68.7	111.9	118.0	109.7	8.32	14.183	
1,900.0	1,876.7	1,904.2	1,893.5	6.5	5.1	-173.23	77.8	123.1	122.8	114.0	8.85	13.881	
2,000.0	1,975.0	2,004.1	1,992.3	6.9	5.4	-172.08	86.8	134.3	127.6	118.3	9.38	13.610	
2,100.0	2,073.3	2,103.9	2,091.1	7.3	5.7	-171.02	95.9	145.5	132.5	122.6	9.92	13.364	
2,200.0	2,171.5	2,203.8	2,189.9	7.7	6.1	-170.04	105.0	156.7	137.5	127.0	10.46	13.141	
2,300.0	2,269.8	2,303.6	2,288.7	8.2	6.4	-169.12	114.1	167.9	142.4	131.4	11.01	12.938	
2,400.0	2,368.1	2,403.5	2,387.5	8.6	6.8	-168.27	123.1	179.1	147.4	135.9	11.56	12.752	
2,500.0	2,466.3	2,503.3	2,486.3	9.0	7.1	-167.47	132.2	190.3	152.5	140.4	12.12	12.580	
2,600.0	2,564.6	2,603.2	2,585.1	9.4	7.4	-166.73	141.3	201.5	157.5	144.9	12.68	12.422	
2,700.0	2,662.9	2,703.0	2,683.9	9.8	7.8	-166.03	150.3	212.7	162.6	149.4	13.25	12.276	
2,800.0	2,761.1	2,802.9	2,782.7	10.2	8.1	-165.37	159.4	223.9	167.7	153.9	13.82	12.141	
2,900.0	2,859.4	2,902.8	2,881.5	10.6	8.5	-164.75	168.5	235.1	172.9	158.5	14.39	12.015	
3,000.0	2,957.7	3,002.6	2,980.3	11.1	8.8	-164.17	177.5	246.3	178.0	163.1	14.96	11.898	
3,100.0	3,055.9	3,102.5	3,079.2	11.5	9.2	-163.62	186.6	257.5	183.2	167.6	15.54	11.789	
3,200.0	3,154.2	3,202.3	3,178.0	11.9	9.5	-163.10	195.7	268.7	188.4	172.2	16.12	11.686	
3,300.0	3,252.5	3,302.2	3,276.8	12.3	9.9	-162.60	204.7	279.9	193.6	176.9	16.70	11.590	
3,400.0	3,350.8	3,402.0	3,375.6	12.7	10.2	-162.14	213.8	291.1	198.8	181.5	17.28	11.500	
3,500.0	3,449.0	3,501.9	3,474.4	13.1	10.6	-161.70	222.9	302.3	204.0	186.1	17.87	11.415	
3,600.0	3,547.3	3,601.7	3,573.2	13.6	10.9	-161.28	231.9	313.5	209.2	190.8	18.46	11.336	
3,700.0	3,645.6	3,701.6	3,672.0	14.0	11.3	-160.88	241.0	324.7	214.5	195.4	19.05	11.260	
3,800.0	3,743.8	3,801.4	3,770.8	14.4	11.6	-160.50	250.1	335.9	219.7	200.1	19.64	11.189	
3,900.0	3,842.1	3,901.3	3,869.6	14.8	12.0	-160.13	259.1	347.1	225.0	204.8	20.23	11.122	
4,000.0	3,940.4	4,001.1	3,968.4	15.2	12.3	-159.79	268.2	358.3	230.3	209.4	20.82	11.058	
4,100.0	4,038.6	4,101.0	4,067.2	15.6	12.6	-159.46	277.3	369.5	235.6	214.1	21.42	10.997	
4,200.0	4,136.9	4,200.8	4,166.0	16.1	13.0	-159.14	286.3	380.7	240.8	218.8	22.01	10.940	
4,300.0	4,235.2	4,300.7	4,264.8	16.5	13.3	-158.84	295.4	391.9	246.1	223.5	22.61	10.885	
4,400.0	4,333.4	4,400.5	4,363.6	16.9	13.7	-158.55	304.5	403.1	251.4	228.2	23.21	10.833	
4,500.0	4,431.7	4,500.4	4,462.4	17.3	14.0	-158.27	313.5	414.3	256.7	232.9	23.81	10.784	
4,600.0	4,530.0	4,600.2	4,561.2	17.7	14.4	-158.00	322.6	425.5	262.1	237.7	24.41	10.736	
4,700.0	4,628.2	4,700.1	4,660.0	18.1	14.7	-157.75	331.7	436.7	267.4	242.4	25.01	10.691	
4,800.0	4,726.5	4,799.9	4,758.9	18.6	15.1	-157.50	340.7	447.9	272.7	247.1	25.61	10.648	
4,900.0	4,824.8	4,899.8	4,857.7	19.0	15.4	-157.26	349.8	459.1	278.0	251.8	26.21	10.607	
5,000.0	4,923.1	4,999.6	4,956.5	19.4	15.8	-157.04	358.9	470.3	283.4	256.6	26.82	10.567	
5,100.0	5,021.3	5,099.5	5,055.3	19.8	16.1	-156.82	367.9	481.5	288.7	261.3	27.42	10.529	

Company:	BONANZA CREEK ENERGY OPERATING	**Local Co-ordinate Reference:**	Well State Antelope U-Y-30HNB
Project:	SEC.30-T5N-R62W	**TVD Reference:**	WELL @ 4674.0ft (RKB - 13')
Reference Site:	State Antelope P-30 Pad Sec.30-T5N-R62W	**MD Reference:**	WELL @ 4674.0ft (RKB - 13')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	State Antelope U-Y-30HNB	**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 (10-29-13)	**Offset TVD Reference:**	Offset Datum

Offset Design State Antelope P-30 Pad Sec.30-T5N-R62W - State Antelope U41-Y44-30HNB - Wellbore #1 - Plan #1 — **Offset Site Error:** 0.0 ft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,200.0	5,119.6	5,199.3	5,154.1	20.2	16.5	-156.60	377.0	492.7	294.1	266.0	28.02	10.493	
5,300.0	5,217.9	5,299.2	5,252.9	20.6	16.8	-156.39	386.1	503.9	299.0	270.4	28.63	10.444	
5,400.0	5,316.8	5,394.0	5,346.8	20.9	17.1	-156.04	394.3	514.0	301.8	272.6	29.17	10.344	
5,500.0	5,416.1	5,486.1	5,438.4	21.1	17.3	-155.78	400.5	521.7	303.8	274.1	29.61	10.260	
5,600.0	5,515.8	5,578.2	5,530.2	21.3	17.5	-155.59	404.9	527.1	305.2	275.2	29.97	10.182	
5,700.0	5,615.6	5,670.4	5,622.3	21.5	17.7	-155.49	407.4	530.2	306.0	275.7	30.26	10.111	
5,800.0	5,715.6	5,763.7	5,715.6	21.6	17.8	-92.05	408.0	531.0	306.2	275.8	30.39	10.076	
5,900.0	5,815.6	5,863.7	5,815.6	21.7	18.0	-92.05	408.0	531.0	306.2	275.5	30.73	9.964	
6,000.0	5,915.5	5,962.3	5,914.1	21.8	18.1	87.31	405.5	531.0	306.2	275.1	31.12	9.838	
6,100.0	6,013.4	6,059.6	6,009.5	21.8	18.1	87.41	386.8	530.7	306.2	275.0	31.15	9.828	
6,200.0	6,105.8	6,157.1	6,099.8	21.7	18.0	87.61	350.7	530.3	306.2	275.2	30.98	9.883	
6,300.0	6,189.1	6,254.8	6,182.1	21.6	17.8	87.88	298.3	529.7	306.1	275.5	30.68	9.979	
6,400.0	6,260.5	6,352.7	6,253.3	21.4	17.6	88.24	231.2	528.9	306.1	275.8	30.35	10.086	
6,473.6	6,303.8	6,425.1	6,297.2	21.2	17.4	88.54	173.7	528.2	306.1	275.9	30.18	10.142	
6,500.0	6,317.2	6,451.1	6,311.0	21.2	17.4	88.66	151.7	527.9	306.1	276.0	30.13	10.160	
6,600.0	6,357.3	6,550.0	6,352.8	21.0	17.2	89.13	62.3	526.8	306.1	276.0	30.15	10.155	
6,700.0	6,383.9	6,649.6	6,380.2	21.0	17.0	89.30	-33.5	525.7	306.2	275.7	30.51	10.035	
6,800.0	6,405.0	6,749.3	6,403.0	21.0	17.0	89.63	-130.4	524.5	306.2	275.0	31.27	9.793	
6,900.0	6,409.0	6,849.1	6,409.0	21.2	17.3	90.00	-229.9	523.3	306.3	273.9	32.45	9.438	
7,000.0	6,409.0	6,949.1	6,409.0	21.6	17.9	90.00	-329.9	522.1	306.4	272.4	33.99	9.014	
7,100.0	6,409.0	7,049.1	6,409.0	22.2	18.8	90.00	-429.9	520.9	306.5	270.6	35.86	8.546	
7,200.0	6,409.0	7,149.1	6,409.0	23.0	19.9	90.00	-529.9	519.7	306.5	268.5	38.03	8.061	
7,300.0	6,409.0	7,249.1	6,409.0	24.0	21.0	90.00	-629.9	518.5	306.6	266.2	40.44	7.581	
7,400.0	6,409.0	7,349.1	6,409.0	25.1	22.3	90.00	-729.9	517.3	306.7	263.6	43.06	7.121	
7,500.0	6,409.0	7,449.1	6,409.0	26.3	23.7	90.00	-829.9	516.1	306.7	260.9	45.86	6.689	
7,600.0	6,409.0	7,549.1	6,409.0	27.5	25.1	90.00	-929.9	514.9	306.8	258.0	48.79	6.289	
7,700.0	6,409.0	7,649.1	6,409.0	28.9	26.6	90.00	-1,029.9	513.7	306.9	255.0	51.84	5.920	
7,800.0	6,409.0	7,749.1	6,409.0	30.3	28.1	90.00	-1,129.9	512.5	307.0	252.0	54.99	5.582	
7,900.0	6,409.0	7,849.1	6,409.0	31.8	29.7	90.00	-1,229.9	511.3	307.0	248.8	58.22	5.273	
8,000.0	6,409.0	7,949.1	6,409.0	33.4	31.4	90.00	-1,329.9	510.1	307.1	245.6	61.53	4.991	
8,100.0	6,409.0	8,049.1	6,409.0	34.9	33.0	90.00	-1,429.9	508.9	307.2	242.3	64.89	4.734	
8,200.0	6,409.0	8,149.1	6,409.0	36.5	34.7	90.00	-1,529.8	507.7	307.2	238.9	68.30	4.499	
8,300.0	6,409.0	8,249.1	6,409.0	38.2	36.4	90.00	-1,629.8	506.5	307.3	235.6	71.75	4.283	
8,400.0	6,409.0	8,349.1	6,409.0	39.8	38.1	90.00	-1,729.8	505.3	307.4	232.1	75.24	4.085	
8,500.0	6,409.0	8,449.1	6,409.0	41.5	39.8	90.00	-1,829.8	504.1	307.5	228.7	78.76	3.904	
8,600.0	6,409.0	8,549.1	6,409.0	43.2	41.6	90.00	-1,929.8	502.9	307.5	225.2	82.31	3.736	
8,700.0	6,409.0	8,649.1	6,409.0	44.9	43.4	90.00	-2,029.8	501.7	307.6	221.7	85.89	3.581	
8,800.0	6,409.0	8,749.1	6,409.0	46.6	45.1	90.00	-2,129.8	500.5	307.7	218.2	89.48	3.438	
8,900.0	6,409.0	8,849.1	6,409.0	48.4	46.9	90.00	-2,229.8	499.3	307.7	214.6	93.10	3.306	
9,000.0	6,409.0	8,949.1	6,409.0	50.1	48.7	90.00	-2,329.8	498.0	307.8	211.1	96.73	3.182	
9,100.0	6,409.0	9,049.1	6,409.0	51.9	50.5	90.00	-2,429.8	496.8	307.9	207.5	100.38	3.067	
9,200.0	6,409.0	9,149.1	6,409.0	53.7	52.4	90.00	-2,529.8	495.6	308.0	203.9	104.04	2.960	
9,300.0	6,409.0	9,249.1	6,409.0	55.5	54.2	90.00	-2,629.8	494.4	308.0	200.3	107.71	2.860	
9,400.0	6,409.0	9,349.1	6,409.0	57.3	56.0	90.00	-2,729.8	493.2	308.1	196.7	111.39	2.766	
9,500.0	6,409.0	9,449.1	6,409.0	59.1	57.8	90.00	-2,829.8	492.0	308.2	193.1	115.09	2.678	
9,600.0	6,409.0	9,549.1	6,409.0	60.9	59.7	90.00	-2,929.7	490.8	308.2	189.5	118.79	2.595	
9,700.0	6,409.0	9,649.1	6,409.0	62.7	61.5	90.00	-3,029.7	489.6	308.3	185.8	122.50	2.517	
9,800.0	6,409.0	9,749.1	6,409.0	64.5	63.4	90.00	-3,129.7	488.4	308.4	182.2	126.22	2.443	
9,900.0	6,409.0	9,849.1	6,409.0	66.4	65.2	90.00	-3,229.7	487.2	308.5	178.5	129.94	2.374	
10,000.0	6,409.0	9,949.1	6,409.0	68.2	67.1	90.00	-3,329.7	486.0	308.5	174.9	133.67	2.308	
10,100.0	6,409.0	10,049.1	6,409.0	70.0	68.9	90.00	-3,429.7	484.8	308.6	171.2	137.41	2.246	
10,200.0	6,409.0	10,149.1	6,409.0	71.9	70.8	90.00	-3,529.7	483.6	308.7	167.5	141.15	2.187	

Company:	BONANZA CREEK ENERGY OPERATING	**Local Co-ordinate Reference:**	Well State Antelope U-Y-30HNB
Project:	SEC.30-T5N-R62W	**TVD Reference:**	WELL @ 4674.0ft (RKB - 13')
Reference Site:	State Antelope P-30 Pad Sec.30-T5N-R62W	**MD Reference:**	WELL @ 4674.0ft (RKB - 13')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	State Antelope U-Y-30HNB	**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 (10-29-13)	**Offset TVD Reference:**	Offset Datum

Offset Design State Antelope P-30 Pad Sec.30-T5N-R62W - State Antelope U41-Y44-30HNB - Wellbore #1 - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

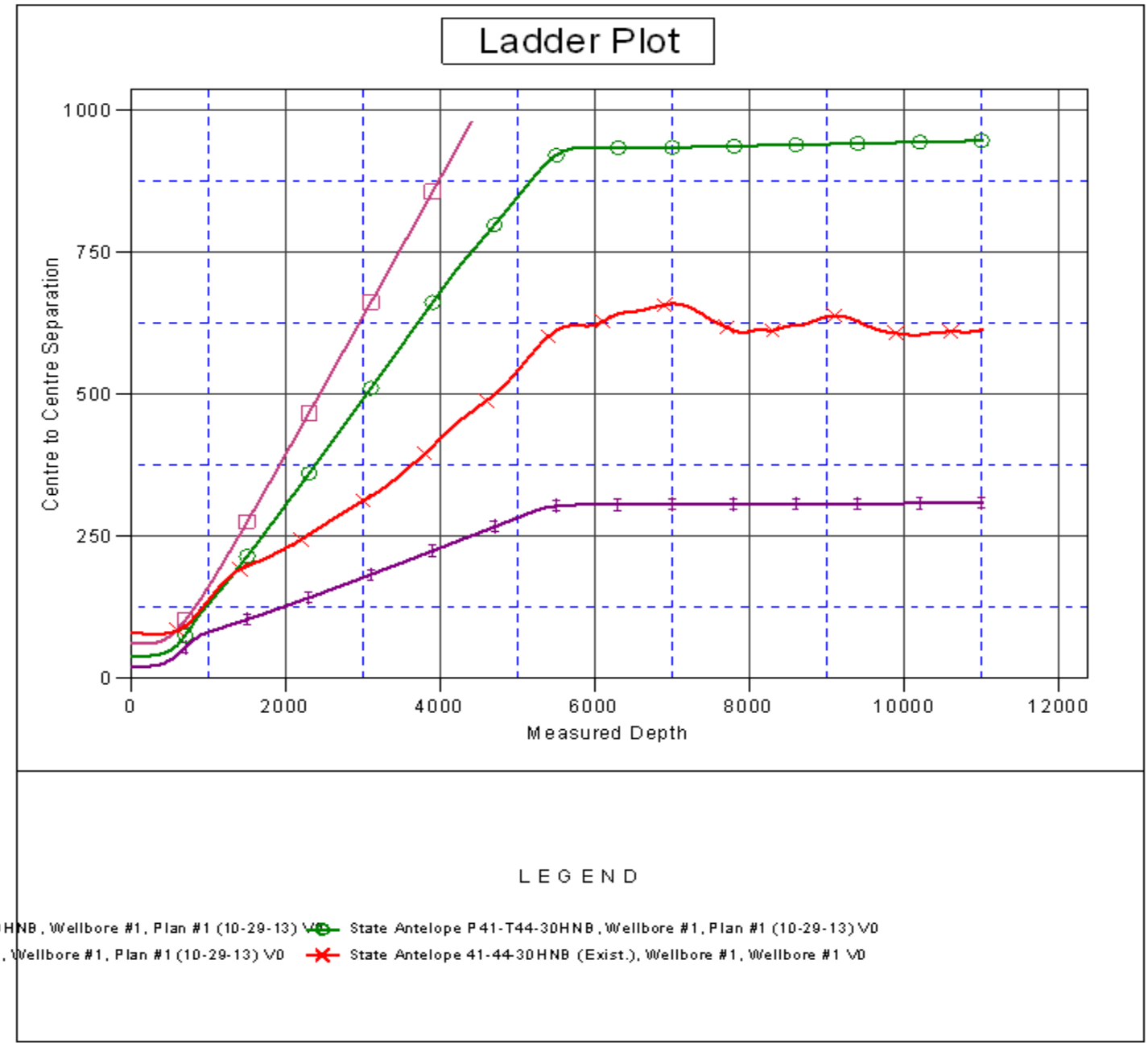
Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
10,300.0	6,409.0	10,249.1	6,409.0	73.7	72.7	90.00	-3,629.7	482.4	308.7	163.8	144.90	2.131	
10,400.0	6,409.0	10,349.1	6,409.0	75.6	74.5	90.00	-3,729.7	481.2	308.8	160.2	148.65	2.077	
10,500.0	6,409.0	10,449.1	6,409.0	77.4	76.4	90.00	-3,829.7	480.0	308.9	156.5	152.40	2.027	
10,600.0	6,409.0	10,549.1	6,409.0	79.3	78.3	90.00	-3,929.7	478.8	309.0	152.8	156.16	1.978	
10,700.0	6,409.0	10,649.1	6,409.0	81.1	80.2	90.00	-4,029.7	477.6	309.0	149.1	159.93	1.932	
10,800.0	6,409.0	10,749.1	6,409.0	83.0	82.0	90.00	-4,129.7	476.4	309.1	145.4	163.69	1.888	
10,900.0	6,409.0	10,849.1	6,409.0	84.9	83.9	90.00	-4,229.6	475.2	309.2	141.7	167.46	1.846	
11,000.0	6,409.0	10,949.1	6,409.0	86.7	85.8	90.00	-4,329.6	474.0	309.2	138.0	171.23	1.806	
11,012.8	6,409.0	10,961.9	6,409.0	87.0	86.0	90.00	-4,342.5	473.8	309.3	137.5	171.72	1.801	SF

Company:	BONANZA CREEK ENERGY OPERATING	**Local Co-ordinate Reference:**	Well State Antelope U-Y-30HNB
Project:	SEC.30-T5N-R62W	**TVD Reference:**	WELL @ 4674.0ft (RKB - 13')
Reference Site:	State Antelope P-30 Pad Sec.30-T5N-R62W	**MD Reference:**	WELL @ 4674.0ft (RKB - 13')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	State Antelope U-Y-30HNB	**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 (10-29-13)	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to WELL @ 4674.0ft (RKB - 13')
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: State Antelope U-Y-30HNB
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.74°



Company:	BONANZA CREEK ENERGY OPERATING	**Local Co-ordinate Reference:**	Well State Antelope U-Y-30HNB
Project:	SEC.30-T5N-R62W	**TVD Reference:**	WELL @ 4674.0ft (RKB - 13')
Reference Site:	State Antelope P-30 Pad Sec.30-T5N-R62W	**MD Reference:**	WELL @ 4674.0ft (RKB - 13')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	State Antelope U-Y-30HNB	**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 (10-29-13)	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to WELL @ 4674.0ft (RKB - 13')	Coordinates are relative to: State Antelope U-Y-30HNB
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: 0.74°