

BONANZA CREEK ENERGY OPERATING

Well Name: **Antelope 034-K31-18HNC**

Surface Location: Antelope T-18 Pad Sec.18-T5N-R62W
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

Ground Elevation: 4634.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1388373.57	3317081.58	40.393900	-104.361580	

Original Well Elev WELL @ 4647.0ft (Original Well Elev)

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
SHL 650'FSL, 1397'FEL	1.0	0.0	0.0	Point
BHL 470'FNL & 2316'FEL	6424.0	4171.4	-888.4	Point
T1 531'FSL & 2254'FEL	6424.0	-142.1	-855.1	Point



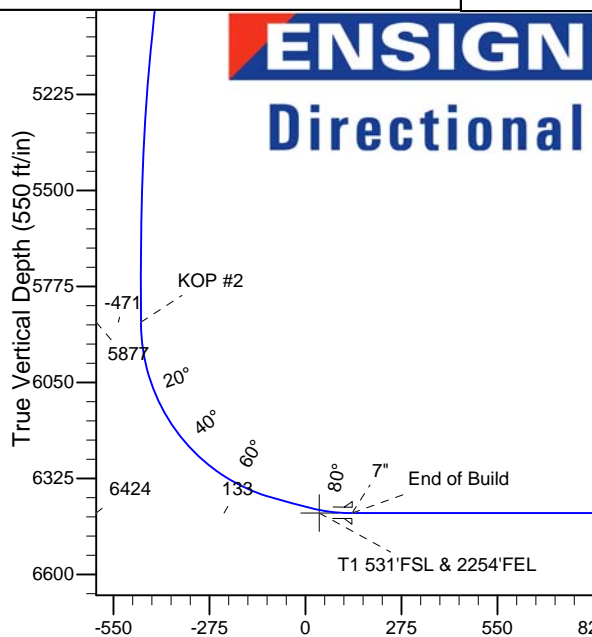
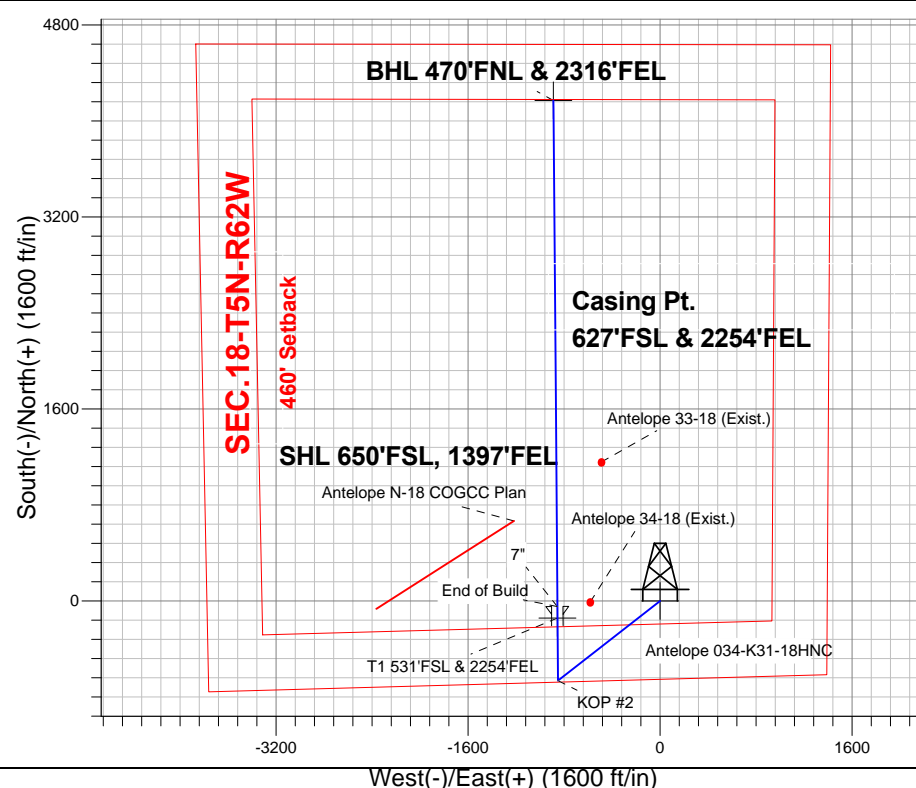
Azimuths to True North
Magnetic North: 8.33°

Magnetic Field
Strength: 52924.0snT
Dip Angle: 67.03°
Date: 10/21/2013
Model: IGRF2010

Antelope T-18 Pad Sec.18-T5N-R62W
Antelope 034-K31-18HNC
Plan #1 (10-7-13)
10:16, October 22 2013

ANNOTATIONS

TVD	MD	Annotation
1500.0	1500.0	KOP
5877.2	6034.3	KOP #2
6424.0	6952.5	End of Build



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	1500.0	0.00	0.00	1500.0	0.0	0.0	0.00	0.00	0.0	
3	2409.0	18.18	232.05	2393.8	-87.9	-112.8	2.00	232.05	-62.5	
4	4948.1	18.18	232.05	4806.2	-575.2	-737.4	0.00	0.00	-408.9	
5	5857.1	0.00	0.00	5700.0	-663.1	-850.2	2.00	180.00	-471.5	
6	6034.3	0.00	0.00	5877.2	-663.1	-850.2	0.00	0.00	-471.5	
7	6716.2	75.00	359.55	6380.4	-277.1	-853.3	11.00	359.55	-93.2	
8	6816.2	75.00	359.55	6406.3	-180.5	-854.0	0.00	0.00	1.4	
9	6952.5	90.00	359.55	6424.0	-45.7	-855.1	11.00	0.00	133.5	
10	11169.7	90.00	359.55	6424.0	4171.4	-888.4	0.00	0.00	4265.0	BHL 470'FNL & 2316'FEL

BHL 470'FNL & 2316'FEL

Vertical Section at 347.98° (550 ft/in)



BONANZA CREEK ENERGY OPERATING

SEC.18-T5N-R62W

Antelope T-18 Pad Sec.18-T5N-R62W

Antelope 034-K31-18HNC

Wellbore #1

Plan: Plan #1 (10-7-13)

Standard Planning Report

22 October, 2013

Database:	Landmark	Local Co-ordinate Reference:	Well Antelope 034-K31-18HNC
Company:	BONANZA CREEK ENERGY OPERATING	TVD Reference:	WELL @ 4647.0ft (Original Well Elev)
Project:	SEC.18-T5N-R62W	MD Reference:	WELL @ 4647.0ft (Original Well Elev)
Site:	Antelope T-18 Pad Sec.18-T5N-R62W	North Reference:	True
Well:	Antelope 034-K31-18HNC	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (10-7-13)		

Project	SEC.18-T5N-R62W		
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						Antelope T-18 Pad Sec.18-T5N-R62W											
Site Position:						Northing:			1,388,373.58 ft			Latitude:			40.393900		
From:			Lat/Long			Easting:			3,317,081.58 ft			Longitude:			-104.361580		
Position Uncertainty:			0.0 ft			Slot Radius:			"			Grid Convergence:			0.74 °		

Well	Antelope 034-K31-18HNC					
Well Position	+N/-S	0.0 ft	Northing:	1,388,373.57 ft	Latitude:	40.393900
	+E/-W	0.0 ft	Easting:	3,317,081.58 ft	Longitude:	-104.361580
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,634.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	10/21/2013	8.33	67.03	52,924

Design	Plan #1 (10-7-13)			
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	347.98

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	
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,409.0	18.18	232.05	2,393.8	-87.9	-112.8	2.00	2.00	0.00	232.05	
4,948.1	18.18	232.05	4,806.2	-575.2	-737.4	0.00	0.00	0.00	0.00	
5,857.1	0.00	0.00	5,700.0	-663.1	-850.2	2.00	-2.00	0.00	180.00	
6,034.3	0.00	0.00	5,877.2	-663.1	-850.2	0.00	0.00	0.00	0.00	
6,716.2	75.00	359.55	6,380.4	-277.1	-853.3	11.00	11.00	0.00	359.55	
6,816.2	75.00	359.55	6,406.3	-180.5	-854.0	0.00	0.00	0.00	0.00	
6,952.5	90.00	359.55	6,424.0	-45.7	-855.1	11.00	11.00	0.00	0.00	
11,169.7	90.00	359.55	6,424.0	4,171.4	-888.4	0.00	0.00	0.00	0.00	BHL 470'FNL & 231

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Project:	SEC.18-T5N-R62W	MD Reference:	WELL @ 4647.0ft (Original Well Elev)
Site:	Antelope T-18 Pad Sec.18-T5N-R62W	North Reference:	True
Well:	Antelope 034-K31-18HNC	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (10-7-13)		

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 650'FSL, 1397'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
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
KOP									
1,600.0	2.00	232.05	1,600.0	-1.1	-1.4	-0.8	2.00	2.00	0.00
1,700.0	4.00	232.05	1,699.8	-4.3	-5.5	-3.1	2.00	2.00	0.00
1,800.0	6.00	232.05	1,799.5	-9.7	-12.4	-6.9	2.00	2.00	0.00
1,900.0	8.00	232.05	1,898.7	-17.1	-22.0	-12.2	2.00	2.00	0.00
2,000.0	10.00	232.05	1,997.5	-26.8	-34.3	-19.0	2.00	2.00	0.00
2,100.0	12.00	232.05	2,095.6	-38.5	-49.4	-27.4	2.00	2.00	0.00
2,200.0	14.00	232.05	2,193.1	-52.3	-67.1	-37.2	2.00	2.00	0.00
2,300.0	16.00	232.05	2,289.6	-68.3	-87.5	-48.5	2.00	2.00	0.00
2,400.0	18.00	232.05	2,385.3	-86.2	-110.6	-61.3	2.00	2.00	0.00
2,409.0	18.18	232.05	2,393.8	-87.9	-112.8	-62.5	2.00	2.00	0.00
2,500.0	18.18	232.05	2,480.3	-105.4	-135.2	-74.9	0.00	0.00	0.00
2,600.0	18.18	232.05	2,575.3	-124.6	-159.8	-88.6	0.00	0.00	0.00
2,700.0	18.18	232.05	2,670.3	-143.8	-184.4	-102.2	0.00	0.00	0.00
2,800.0	18.18	232.05	2,765.3	-163.0	-209.0	-115.9	0.00	0.00	0.00
2,900.0	18.18	232.05	2,860.3	-182.2	-233.6	-129.5	0.00	0.00	0.00
3,000.0	18.18	232.05	2,955.3	-201.4	-258.2	-143.2	0.00	0.00	0.00
3,100.0	18.18	232.05	3,050.3	-220.5	-282.8	-156.8	0.00	0.00	0.00
3,200.0	18.18	232.05	3,145.3	-239.7	-307.4	-170.4	0.00	0.00	0.00
3,300.0	18.18	232.05	3,240.3	-258.9	-332.0	-184.1	0.00	0.00	0.00
3,400.0	18.18	232.05	3,335.4	-278.1	-356.6	-197.7	0.00	0.00	0.00
3,500.0	18.18	232.05	3,430.4	-297.3	-381.2	-211.4	0.00	0.00	0.00
3,600.0	18.18	232.05	3,525.4	-316.5	-405.8	-225.0	0.00	0.00	0.00
3,700.0	18.18	232.05	3,620.4	-335.7	-430.4	-238.7	0.00	0.00	0.00
3,800.0	18.18	232.05	3,715.4	-354.9	-455.0	-252.3	0.00	0.00	0.00
3,900.0	18.18	232.05	3,810.4	-374.0	-479.6	-265.9	0.00	0.00	0.00
4,000.0	18.18	232.05	3,905.4	-393.2	-504.2	-279.6	0.00	0.00	0.00
4,100.0	18.18	232.05	4,000.4	-412.4	-528.8	-293.2	0.00	0.00	0.00
4,200.0	18.18	232.05	4,095.4	-431.6	-553.4	-306.9	0.00	0.00	0.00
4,300.0	18.18	232.05	4,190.4	-450.8	-578.0	-320.5	0.00	0.00	0.00
4,400.0	18.18	232.05	4,285.4	-470.0	-602.6	-334.1	0.00	0.00	0.00
4,500.0	18.18	232.05	4,380.4	-489.2	-627.2	-347.8	0.00	0.00	0.00
4,600.0	18.18	232.05	4,475.5	-508.4	-651.8	-361.4	0.00	0.00	0.00
4,700.0	18.18	232.05	4,570.5	-527.5	-676.4	-375.1	0.00	0.00	0.00
4,800.0	18.18	232.05	4,665.5	-546.7	-701.0	-388.7	0.00	0.00	0.00
4,900.0	18.18	232.05	4,760.5	-565.9	-725.6	-402.4	0.00	0.00	0.00

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Project:	SEC.18-T5N-R62W	MD Reference:	WELL @ 4647.0ft (Original Well Elev)
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Well:	Antelope 034-K31-18HNC	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (10-7-13)		

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)
4,948.1	18.18	232.05	4,806.2	-575.2	-737.4	-408.9	0.00	0.00	0.00
5,000.0	17.14	232.05	4,855.6	-584.8	-749.9	-415.8	2.00	-2.00	0.00
5,100.0	15.14	232.05	4,951.7	-601.9	-771.8	-428.0	2.00	-2.00	0.00
5,200.0	13.14	232.05	5,048.6	-617.0	-791.0	-438.6	2.00	-2.00	0.00
5,300.0	11.14	232.05	5,146.4	-629.9	-807.6	-447.8	2.00	-2.00	0.00
5,400.0	9.14	232.05	5,244.8	-640.7	-821.5	-455.5	2.00	-2.00	0.00
5,500.0	7.14	232.05	5,343.8	-649.4	-832.7	-461.7	2.00	-2.00	0.00
5,600.0	5.14	232.05	5,443.2	-656.0	-841.1	-466.4	2.00	-2.00	0.00
5,700.0	3.14	232.05	5,543.0	-660.5	-846.8	-469.6	2.00	-2.00	0.00
5,800.0	1.14	232.05	5,642.9	-662.8	-849.8	-471.2	2.00	-2.00	0.00
5,857.1	0.00	0.00	5,700.0	-663.1	-850.2	-471.5	2.00	-2.00	0.00
5,900.0	0.00	0.00	5,742.9	-663.1	-850.2	-471.5	0.00	0.00	0.00
6,000.0	0.00	0.00	5,842.9	-663.1	-850.2	-471.5	0.00	0.00	0.00
6,034.3	0.00	0.00	5,877.2	-663.1	-850.2	-471.5	0.00	0.00	0.00
KOP #2									
6,100.0	7.22	359.55	5,942.7	-659.0	-850.2	-467.4	10.99	10.99	0.00
6,200.0	18.22	359.55	6,040.1	-637.0	-850.4	-445.9	11.00	11.00	0.00
6,300.0	29.22	359.55	6,131.5	-596.8	-850.7	-406.5	11.00	11.00	0.00
6,400.0	40.22	359.55	6,213.6	-539.9	-851.2	-350.8	11.00	11.00	0.00
6,500.0	51.22	359.55	6,283.3	-468.5	-851.7	-280.8	11.00	11.00	0.00
6,600.0	62.22	359.55	6,338.1	-385.0	-852.4	-199.0	11.00	11.00	0.00
6,700.0	73.22	359.55	6,375.9	-292.6	-853.1	-108.5	11.00	11.00	0.00
6,716.2	75.00	359.55	6,380.4	-277.1	-853.3	-93.2	11.00	11.00	0.00
6,800.0	75.00	359.55	6,402.1	-196.1	-853.9	-13.9	0.00	0.00	0.00
6,816.2	75.00	359.55	6,406.3	-180.5	-854.0	1.4	0.00	0.00	0.00
6,857.2	79.51	359.55	6,415.3	-140.5	-854.3	40.6	11.00	11.00	0.00
T1 531'FSL & 2254'FEL									
6,900.0	84.22	359.55	6,421.4	-98.1	-854.7	82.1	11.00	11.00	0.00
6,952.5	90.00	359.55	6,424.0	-45.7	-855.1	133.4	11.00	11.00	0.00
End of Build - 7"									
7,000.0	90.00	359.55	6,424.0	1.8	-855.5	180.0	0.01	0.01	0.00
7,100.0	90.00	359.55	6,424.0	101.8	-856.2	277.9	0.00	0.00	0.00
7,200.0	90.00	359.55	6,424.0	201.8	-857.0	375.9	0.00	0.00	0.00
7,300.0	90.00	359.55	6,424.0	301.8	-857.8	473.9	0.00	0.00	0.00
7,400.0	90.00	359.55	6,424.0	401.8	-858.6	571.8	0.00	0.00	0.00
7,500.0	90.00	359.55	6,424.0	501.8	-859.4	669.8	0.00	0.00	0.00
7,600.0	90.00	359.55	6,424.0	601.8	-860.2	767.8	0.00	0.00	0.00
7,700.0	90.00	359.55	6,424.0	701.8	-861.0	865.7	0.00	0.00	0.00
7,800.0	90.00	359.55	6,424.0	801.8	-861.8	963.7	0.00	0.00	0.00
7,900.0	90.00	359.55	6,424.0	901.8	-862.6	1,061.7	0.00	0.00	0.00
8,000.0	90.00	359.55	6,424.0	1,001.8	-863.4	1,159.7	0.00	0.00	0.00
8,100.0	90.00	359.55	6,424.0	1,101.8	-864.2	1,257.6	0.00	0.00	0.00
8,200.0	90.00	359.55	6,424.0	1,201.8	-864.9	1,355.6	0.00	0.00	0.00
8,300.0	90.00	359.55	6,424.0	1,301.8	-865.7	1,453.6	0.00	0.00	0.00
8,400.0	90.00	359.55	6,424.0	1,401.8	-866.5	1,551.5	0.00	0.00	0.00
8,500.0	90.00	359.55	6,424.0	1,501.8	-867.3	1,649.5	0.00	0.00	0.00
8,600.0	90.00	359.55	6,424.0	1,601.8	-868.1	1,747.5	0.00	0.00	0.00
8,700.0	90.00	359.55	6,424.0	1,701.8	-868.9	1,845.4	0.00	0.00	0.00
8,800.0	90.00	359.55	6,424.0	1,801.8	-869.7	1,943.4	0.00	0.00	0.00
8,900.0	90.00	359.55	6,424.0	1,901.8	-870.5	2,041.4	0.00	0.00	0.00
9,000.0	90.00	359.55	6,424.0	2,001.8	-871.3	2,139.3	0.00	0.00	0.00
9,100.0	90.00	359.55	6,424.0	2,101.7	-872.1	2,237.3	0.00	0.00	0.00
9,200.0	90.00	359.55	6,424.0	2,201.7	-872.8	2,335.3	0.00	0.00	0.00

Plan Annotations					
	Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
			+N/-S (ft)	+E/-W (ft)	
	1,500.0	1,500.0	0.0	0.0	
	6,034.3	5,877.2	-663.1	-850.2	
	6,952.5	6,424.0	-45.7	-855.1	



BONANZA CREEK ENERGY OPERATING

SEC.18-T5N-R62W

Antelope T-18 Pad Sec.18-T5N-R62W

Antelope 034-K31-18HNC

Wellbore #1

Plan #1 (10-7-13)

Anticollision Report

22 October, 2013

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well Antelope 034-K31-18HNC
Project:	SEC.18-T5N-R62W	TVD Reference:	WELL @ 4647.0ft (Original Well Elev)
Reference Site:	Antelope T-18 Pad Sec.18-T5N-R62W	MD Reference:	WELL @ 4647.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Antelope 034-K31-18HNC	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 (10-7-13)	Offset TVD Reference:	Offset Datum

Offset Design Antelope (Existing Wells) Pad Sec.18-T5N-R62W - Antelope 33-18 (Exist.) - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 ft
Survey Program: 6349-UNKNOWN												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
8,800.0	6,424.0	6,349.0	6,349.0	42.2	127.0	84.10	1,158.5	-487.4	749.3	582.9	166.39	4.503	
8,900.0	6,424.0	6,349.0	6,349.0	43.9	127.0	84.10	1,158.5	-487.4	837.0	668.9	168.15	4.978	
9,000.0	6,424.0	6,349.0	6,349.0	45.7	127.0	84.10	1,158.5	-487.4	927.3	757.4	169.93	5.457	

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well Antelope 034-K31-18HNC
Project:	SEC.18-T5N-R62W	TVD Reference:	WELL @ 4647.0ft (Original Well Elev)
Reference Site:	Antelope T-18 Pad Sec.18-T5N-R62W	MD Reference:	WELL @ 4647.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Antelope 034-K31-18HNC	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 (10-7-13)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 6349-UNKNOWN													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	-90.72	-7.3	-582.2	583.3					
100.0	100.0	64.0	64.0	0.1	1.3	-90.72	-7.3	-582.2	582.2	580.8	1.39	418.079		
200.0	200.0	164.0	164.0	0.3	3.3	-90.72	-7.3	-582.2	582.2	578.6	3.62	160.949		
300.0	300.0	264.0	264.0	0.6	5.3	-90.72	-7.3	-582.2	582.2	576.4	5.84	99.657		
400.0	400.0	364.0	364.0	0.8	7.3	-90.72	-7.3	-582.2	582.2	574.1	8.07	72.173		
500.0	500.0	464.0	464.0	1.0	9.3	-90.72	-7.3	-582.2	582.2	571.9	10.29	56.571		
600.0	600.0	564.0	564.0	1.2	11.3	-90.72	-7.3	-582.2	582.2	569.7	12.52	46.516		
700.0	700.0	664.0	664.0	1.5	13.3	-90.72	-7.3	-582.2	582.2	567.5	14.74	39.495		
800.0	800.0	764.0	764.0	1.7	15.3	-90.72	-7.3	-582.2	582.2	565.2	16.97	34.316		
900.0	900.0	864.0	864.0	1.9	17.3	-90.72	-7.3	-582.2	582.2	563.0	19.19	30.338		
1,000.0	1,000.0	964.0	964.0	2.1	19.3	-90.72	-7.3	-582.2	582.2	560.8	21.42	27.186		
1,100.0	1,100.0	1,064.0	1,064.0	2.4	21.3	-90.72	-7.3	-582.2	582.2	558.6	23.64	24.628		
1,200.0	1,200.0	1,164.0	1,164.0	2.6	23.3	-90.72	-7.3	-582.2	582.2	556.3	25.86	22.510		
1,300.0	1,300.0	1,264.0	1,264.0	2.8	25.3	-90.72	-7.3	-582.2	582.2	554.1	28.09	20.727		
1,400.0	1,400.0	1,364.0	1,364.0	3.0	27.3	-90.72	-7.3	-582.2	582.2	551.9	30.31	19.206		
1,500.0	1,500.0	1,464.0	1,464.0	3.3	29.3	-90.72	-7.3	-582.2	582.2	549.7	32.54	17.893		
1,600.0	1,600.0	1,564.0	1,564.0	3.5	31.3	37.36	-7.3	-582.2	580.8	546.1	34.73	16.725		
1,700.0	1,699.8	1,663.8	1,663.8	3.6	33.3	37.72	-7.3	-582.2	576.7	539.8	36.86	15.643		
1,800.0	1,799.5	1,763.5	1,763.5	3.8	35.3	38.34	-7.3	-582.2	569.8	530.8	38.97	14.621		
1,900.0	1,898.7	1,862.7	1,862.7	4.1	37.3	39.23	-7.3	-582.2	560.3	519.2	41.05	13.648		
2,000.0	1,997.5	1,961.5	1,961.5	4.3	39.2	40.42	-7.3	-582.2	548.2	505.1	43.10	12.718		
2,100.0	2,095.6	2,059.6	2,059.6	4.6	41.2	41.93	-7.3	-582.2	533.7	488.6	45.14	11.823		
2,200.0	2,193.1	2,157.1	2,157.1	4.9	43.1	43.81	-7.3	-582.2	517.0	469.8	47.18	10.958		
2,300.0	2,289.6	2,253.6	2,253.6	5.3	45.1	46.11	-7.3	-582.2	498.4	449.1	49.25	10.120		
2,400.0	2,385.3	2,349.3	2,349.3	5.7	47.0	48.88	-7.3	-582.2	478.2	426.8	51.38	9.307		
2,500.0	2,480.3	2,444.3	2,444.3	6.2	48.9	51.77	-7.3	-582.2	457.7	403.9	53.78	8.510		
2,600.0	2,575.3	2,539.3	2,539.3	6.7	50.8	54.87	-7.3	-582.2	438.4	382.1	56.27	7.791		
2,700.0	2,670.3	2,634.3	2,634.3	7.3	52.7	58.22	-7.3	-582.2	420.6	361.8	58.82	7.150		
2,800.0	2,765.3	2,729.3	2,729.3	7.8	54.6	61.83	-7.3	-582.2	404.4	343.0	61.43	6.583		
2,900.0	2,860.3	2,824.3	2,824.3	8.4	56.5	65.71	-7.3	-582.2	390.0	325.9	64.08	6.086		
3,000.0	2,955.3	2,919.3	2,919.3	9.0	58.4	69.84	-7.3	-582.2	377.7	310.9	66.77	5.656		
3,100.0	3,050.3	3,014.3	3,014.3	9.6	60.3	74.20	-7.3	-582.2	367.6	298.1	69.47	5.291		
3,200.0	3,145.3	3,109.3	3,109.3	10.2	62.2	78.75	-7.3	-582.2	359.9	287.8	72.15	4.988		
3,300.0	3,240.3	3,204.3	3,204.3	10.8	64.1	83.46	-7.3	-582.2	354.8	280.0	74.80	4.744		
3,400.0	3,335.4	3,299.4	3,299.4	11.4	66.0	88.25	-7.3	-582.2	352.5	275.1	77.39	4.554		
3,436.3	3,369.9	3,333.9	3,333.9	11.6	66.7	90.00	-7.3	-582.2	352.3	274.0	78.31	4.498		
3,500.0	3,430.4	3,394.4	3,394.4	12.0	67.9	93.07	-7.3	-582.2	352.8	272.9	79.90	4.416		
3,600.0	3,525.4	3,489.4	3,489.4	12.7	69.8	97.84	-7.3	-582.2	356.0	273.7	82.31	4.325		
3,700.0	3,620.4	3,584.4	3,584.4	13.3	71.7	102.51	-7.3	-582.2	361.8	277.1	84.62	4.275		
3,800.0	3,715.4	3,679.4	3,679.4	13.9	73.6	107.01	-7.3	-582.2	370.1	283.3	86.82	4.263		
3,900.0	3,810.4	3,774.4	3,774.4	14.5	75.5	111.31	-7.3	-582.2	380.8	291.9	88.93	4.282		
4,000.0	3,905.4	3,869.4	3,869.4	15.2	77.4	115.37	-7.3	-582.2	393.7	302.8	90.97	4.328		
4,100.0	4,000.4	3,964.4	3,964.4	15.8	79.3	119.18	-7.3	-582.2	408.6	315.7	92.93	4.397		
4,200.0	4,095.4	4,059.4	4,059.4	16.5	81.2	122.72	-7.3	-582.2	425.3	330.4	94.85	4.484		
4,300.0	4,190.4	4,154.4	4,154.4	17.1	83.1	126.01	-7.3	-582.2	443.5	346.8	96.73	4.585		
4,400.0	4,285.4	4,249.4	4,249.4	17.7	85.0	129.04	-7.3	-582.2	463.1	364.6	98.59	4.698		
4,500.0	4,380.4	4,344.4	4,344.4	18.4	86.9	131.83	-7.3	-582.2	484.0	383.6	100.43	4.819		
4,600.0	4,475.5	4,439.5	4,439.5	19.0	88.8	134.40	-7.3	-582.2	505.9	403.6	102.27	4.946		
4,700.0	4,570.5	4,534.5	4,534.5	19.7	90.7	136.76	-7.3	-582.2	528.7	424.6	104.11	5.078		
4,800.0	4,665.5	4,629.5	4,629.5	20.3	92.6	138.93	-7.3	-582.2	552.4	446.4	105.96	5.213		
4,900.0	4,760.5	4,724.5	4,724.5	21.0	94.5	140.92	-7.3	-582.2	576.8	469.0	107.81	5.350		
5,000.0	4,855.6	4,819.6	4,819.6	21.6	96.4	142.90	-7.3	-582.2	601.4	491.4	109.95	5.470		

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 Antelope 034-K31-18HNC
Project:	SEC.18-T5N-R62W	TVD Reference:	WELL @ 4647.0ft (Original Well Elev)
Reference Site:	Antelope T-18 Pad Sec.18-T5N-R62W	MD Reference:	WELL @ 4647.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Antelope 034-K31-18HNC	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 (10-7-13)	Offset TVD Reference:	Offset Datum

Offset Design		Antelope (Existing Wells) Pad Sec.18-T5N-R62W - Antelope 34-18 (Exist.) - Wellbore #1 - Wellbore #1										Offset Site Error:		0.0 ft			
Survey Program: 6349-UNKNOWN														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					
5,100.0	4,951.7	4,915.7	4,915.7	22.0	98.3	144.69	-7.3	-582.2	624.1	511.8	112.38	5.554					
5,200.0	5,048.6	5,012.6	5,012.6	22.4	100.3	146.16	-7.3	-582.2	644.5	529.6	114.85	5.611					
5,300.0	5,146.4	5,110.4	5,110.4	22.8	102.2	147.37	-7.3	-582.2	662.2	544.8	117.33	5.643					
5,400.0	5,244.8	5,208.8	5,208.8	23.1	104.2	148.32	-7.3	-582.2	677.1	557.3	119.80	5.652					
5,500.0	5,343.8	5,307.8	5,307.8	23.4	106.2	149.07	-7.3	-582.2	689.3	567.1	122.22	5.640					
5,600.0	5,443.2	5,407.2	5,407.2	23.6	108.1	149.61	-7.3	-582.2	698.5	573.9	124.58	5.607					
5,700.0	5,543.0	5,507.0	5,507.0	23.8	110.1	149.97	-7.3	-582.2	704.7	577.9	126.86	5.555					
5,800.0	5,642.9	5,606.9	5,606.9	23.9	112.1	150.15	-7.3	-582.2	708.0	578.9	129.05	5.486					
5,900.0	5,742.9	5,706.9	5,706.9	24.0	114.1	22.23	-7.3	-582.2	708.5	577.4	131.10	5.404					
6,000.0	5,842.9	5,806.9	5,806.9	24.1	116.1	22.23	-7.3	-582.2	708.5	575.2	133.25	5.317					
6,100.0	5,942.7	5,906.7	5,906.7	24.2	118.1	22.98	-7.3	-582.2	704.7	570.4	134.29	5.247					
6,200.0	6,040.1	6,004.1	6,004.1	24.2	120.1	24.62	-7.3	-582.2	684.5	553.5	130.99	5.225					
6,300.0	6,131.5	6,095.5	6,095.5	24.0	121.9	28.06	-7.3	-582.2	647.8	523.7	124.15	5.218					
6,400.0	6,213.6	6,177.6	6,177.6	23.7	123.6	34.00	-7.3	-582.2	596.7	480.2	116.56	5.120					
6,500.0	6,283.3	6,247.3	6,247.3	23.3	124.9	43.54	-7.3	-582.2	534.2	419.9	114.31	4.673					
6,600.0	6,338.1	6,302.1	6,302.1	22.8	126.0	57.36	-7.3	-582.2	464.4	341.2	123.27	3.767					
6,700.0	6,375.9	6,339.9	6,339.9	22.4	126.8	73.34	-7.3	-582.2	393.5	256.7	136.80	2.876					
6,800.0	6,402.1	6,349.0	6,349.0	22.0	127.0	76.66	-7.3	-582.2	331.3	192.4	138.92	2.385					
6,900.0	6,421.4	6,349.0	6,349.0	21.7	127.0	80.63	-7.3	-582.2	289.5	148.6	140.95	2.054					
6,988.9	6,426.3	6,349.0	6,349.0	21.5	127.0	81.40	-7.3	-582.2	276.3	134.9	141.46	1.953					
7,000.0	6,424.0	6,349.0	6,349.0	21.5	127.0	81.88	-7.3	-582.2	276.2	134.5	141.68	1.950 CC, ES, SF					
7,100.0	6,424.0	6,349.0	6,349.0	21.3	127.0	81.88	-7.3	-582.2	297.6	155.5	142.05	2.095					
7,200.0	6,424.0	6,349.0	6,349.0	21.4	127.0	81.88	-7.3	-582.2	347.6	204.9	142.63	2.437					
7,300.0	6,424.0	6,349.0	6,349.0	21.7	127.0	81.88	-7.3	-582.2	416.0	272.6	143.40	2.901					
7,400.0	6,424.0	6,349.0	6,349.0	22.3	127.0	81.88	-7.3	-582.2	495.3	350.9	144.33	3.432					
7,500.0	6,424.0	6,349.0	6,349.0	23.1	127.0	81.88	-7.3	-582.2	581.0	435.6	145.40	3.996					
7,600.0	6,424.0	6,349.0	6,349.0	24.1	127.0	81.88	-7.3	-582.2	670.7	524.1	146.59	4.575					
7,700.0	6,424.0	6,349.0	6,349.0	25.3	127.0	81.88	-7.3	-582.2	762.9	615.0	147.89	5.159					
7,800.0	6,424.0	6,349.0	6,349.0	26.6	127.0	81.88	-7.3	-582.2	856.9	707.7	149.26	5.741					
7,900.0	6,424.0	6,349.0	6,349.0	27.9	127.0	81.88	-7.3	-582.2	952.1	801.4	150.71	6.318					

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well Antelope 034-K31-18HNC
Project:	SEC.18-T5N-R62W	TVD Reference:	WELL @ 4647.0ft (Original Well Elev)
Reference Site:	Antelope T-18 Pad Sec.18-T5N-R62W	MD Reference:	WELL @ 4647.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Antelope 034-K31-18HNC	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 (10-7-13)	Offset TVD Reference:	Offset Datum

Offset Design		Antelope D-18 Pad - Plans by another company - Antelope N-18 COGCC Plan - Wellbore #1 - Wellbore										Offset Site Error:		0.0 ft			
Survey Program: 100-MWD														Offset Well Error:		0.0 ft	
Reference		Offset		Semi Major Axis			Distance							Warning			
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor					
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)						
6,800.0	6,402.1	6,546.5	6,360.1	22.0	29.5	-57.88	667.3	-1,217.8	937.0	901.2	35.82	26.155					
6,900.0	6,421.4	6,565.8	6,379.4	21.7	29.5	-77.78	667.3	-1,217.8	847.2	810.0	37.18	22.789					
7,000.0	6,424.0	6,568.4	6,382.0	21.5	29.5	-90.00	667.3	-1,217.8	757.8	720.3	37.50	20.210					
7,100.0	6,424.0	6,568.4	6,382.0	21.3	29.5	-90.00	667.3	-1,217.8	671.2	633.3	37.89	17.714					
7,200.0	6,424.0	6,568.4	6,382.0	21.4	29.5	-90.00	667.3	-1,217.8	589.0	550.5	38.49	15.301					
7,300.0	6,424.0	6,568.4	6,382.0	21.7	29.5	-90.00	667.3	-1,217.8	513.0	473.8	39.28	13.063					
7,400.0	6,424.0	6,568.4	6,382.0	22.3	29.5	-90.00	667.3	-1,217.8	446.7	406.5	40.22	11.107					
7,500.0	6,424.0	6,568.4	6,382.0	23.1	29.5	-90.00	667.3	-1,217.8	394.8	353.5	41.30	9.559					
7,600.0	6,424.0	6,568.4	6,382.0	24.1	29.5	-90.00	667.3	-1,217.8	363.6	321.1	42.50	8.555					
7,668.4	6,424.0	6,568.4	6,382.0	24.9	29.5	-90.00	667.3	-1,217.8	357.1	313.7	43.39	8.231 CC, ES					
7,700.0	6,424.0	6,568.4	6,382.0	25.3	29.5	-90.00	667.3	-1,217.8	358.5	314.7	43.80	8.185 SF					
7,800.0	6,424.0	6,568.4	6,382.0	26.6	29.5	-90.00	667.3	-1,217.8	380.6	335.4	45.18	8.424					
7,900.0	6,424.0	6,568.4	6,382.0	27.9	29.5	-90.00	667.3	-1,217.8	425.7	379.0	46.63	9.128					
8,000.0	6,424.0	6,568.4	6,382.0	29.3	29.5	-90.00	667.3	-1,217.8	487.4	439.2	48.14	10.123					
8,100.0	6,424.0	6,568.4	6,382.0	30.8	29.5	-90.00	667.3	-1,217.8	560.2	510.5	49.70	11.272					
8,200.0	6,424.0	6,568.4	6,382.0	32.4	29.5	-90.00	667.3	-1,217.8	640.4	589.1	51.30	12.484					
8,300.0	6,424.0	6,568.4	6,382.0	33.9	29.5	-90.00	667.3	-1,217.8	725.6	672.7	52.94	13.706					
8,400.0	6,424.0	6,568.4	6,382.0	35.5	29.5	-90.00	667.3	-1,217.8	814.1	759.5	54.61	14.909					
8,500.0	6,424.0	6,568.4	6,382.0	37.2	29.5	-90.00	667.3	-1,217.8	905.1	848.8	56.30	16.076					
8,600.0	6,424.0	6,568.4	6,382.0	38.8	29.5	-90.00	667.3	-1,217.8	997.7	939.7	58.02	17.197					

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well Antelope 034-K31-18HNC
Project:	SEC.18-T5N-R62W	TVD Reference:	WELL @ 4647.0ft (Original Well Elev)
Reference Site:	Antelope T-18 Pad Sec.18-T5N-R62W	MD Reference:	WELL @ 4647.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Antelope 034-K31-18HNC	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 (10-7-13)	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	171.31	-18.2	2.8	18.5	18.5	0.00	N/A		
100.0	100.0	99.0	99.0	0.1	0.1	171.31	-18.2	2.8	18.4	18.2	0.22	82.414		
200.0	200.0	199.0	199.0	0.3	0.3	171.31	-18.2	2.8	18.4	17.8	0.67	27.426		
300.0	300.0	299.0	299.0	0.6	0.6	171.31	-18.2	2.8	18.4	17.3	1.12	16.433		
400.0	400.0	399.0	399.0	0.8	0.8	171.31	-18.2	2.8	18.4	16.9	1.57	11.731		
500.0	500.0	499.0	499.0	1.0	1.0	171.31	-18.2	2.8	18.4	16.4	2.02	9.122		
600.0	600.0	599.0	599.0	1.2	1.2	171.31	-18.2	2.8	18.4	16.0	2.47	7.462		
700.0	700.0	699.0	699.0	1.5	1.5	171.31	-18.2	2.8	18.4	15.5	2.92	6.313		
800.0	800.0	799.0	799.0	1.7	1.7	171.31	-18.2	2.8	18.4	15.1	3.37	5.470		
900.0	900.0	899.0	899.0	1.9	1.9	171.31	-18.2	2.8	18.4	14.6	3.82	4.827		
1,000.0	1,000.0	999.0	999.0	2.1	2.1	171.31	-18.2	2.8	18.4	14.2	4.27	4.318		
1,100.0	1,100.0	1,099.0	1,099.0	2.4	2.4	171.31	-18.2	2.8	18.4	13.7	4.72	3.907		
1,200.0	1,200.0	1,199.0	1,199.0	2.6	2.6	171.31	-18.2	2.8	18.4	13.3	5.17	3.567 CC, ES, SF		
1,300.0	1,300.0	1,298.4	1,298.4	2.8	2.8	173.54	-19.8	2.2	20.0	14.4	5.59	3.572		
1,400.0	1,400.0	1,397.6	1,397.4	3.0	3.0	178.59	-24.7	0.6	24.7	18.7	5.99	4.131		
1,500.0	1,500.0	1,496.2	1,495.7	3.3	3.1	-176.31	-32.7	-2.1	33.0	26.6	6.40	5.150		
1,600.0	1,600.0	1,594.4	1,593.2	3.5	3.3	-45.85	-43.9	-5.9	43.5	36.7	6.79	6.402		
1,700.0	1,699.8	1,692.9	1,690.5	3.6	3.6	-46.12	-58.3	-10.8	54.9	47.7	7.17	7.661		
1,800.0	1,799.5	1,791.5	1,787.6	3.8	3.8	-48.11	-74.3	-16.2	65.6	58.1	7.56	8.684		
1,900.0	1,898.7	1,891.0	1,885.7	4.1	4.1	-51.58	-90.4	-21.6	74.3	66.3	7.98	9.306		
2,000.0	1,997.5	1,990.6	1,983.7	4.3	4.4	-56.32	-106.6	-27.1	81.1	72.7	8.45	9.604		
2,100.0	2,095.6	2,090.0	2,081.7	4.6	4.8	-62.27	-122.7	-32.5	86.8	77.9	8.99	9.663		
2,200.0	2,193.1	2,189.2	2,179.4	4.9	5.1	-69.41	-138.8	-38.0	92.1	82.5	9.62	9.572		
2,300.0	2,289.6	2,288.1	2,276.8	5.3	5.4	-77.60	-154.8	-43.4	97.9	87.5	10.37	9.438		
2,400.0	2,385.3	2,386.5	2,373.8	5.7	5.8	-86.53	-170.8	-48.8	105.3	94.0	11.23	9.376		
2,500.0	2,480.3	2,484.5	2,470.4	6.2	6.1	-95.23	-186.7	-54.1	115.1	103.0	12.12	9.501		
2,600.0	2,575.3	2,582.6	2,567.0	6.7	6.5	-102.48	-202.6	-59.5	127.2	114.2	12.98	9.798		
2,700.0	2,670.3	2,680.7	2,663.6	7.3	6.8	-108.41	-218.5	-64.9	141.0	127.2	13.82	10.201		
2,800.0	2,765.3	2,778.7	2,760.3	7.8	7.2	-113.27	-234.4	-70.3	156.1	141.4	14.64	10.661		
2,900.0	2,860.3	2,876.8	2,856.9	8.4	7.5	-117.25	-250.3	-75.6	172.0	156.6	15.44	11.145		
3,000.0	2,955.3	2,974.9	2,953.5	9.0	7.9	-120.56	-266.2	-81.0	188.7	172.4	16.22	11.633		
3,100.0	3,050.3	3,072.9	3,050.1	9.6	8.3	-123.33	-282.1	-86.4	205.8	188.8	16.99	12.113		
3,200.0	3,145.3	3,171.0	3,146.7	10.2	8.6	-125.67	-298.1	-91.8	223.4	205.6	17.76	12.578		
3,300.0	3,240.3	3,269.0	3,243.3	10.8	9.0	-127.67	-314.0	-97.1	241.2	222.7	18.52	13.023		
3,400.0	3,335.4	3,367.1	3,340.0	11.4	9.4	-129.39	-329.9	-102.5	259.3	240.1	19.29	13.447		
3,500.0	3,430.4	3,465.2	3,436.6	12.0	9.8	-130.89	-345.8	-107.9	277.7	257.6	20.05	13.850		
3,600.0	3,525.4	3,563.2	3,533.2	12.7	10.1	-132.21	-361.7	-113.3	296.1	275.3	20.81	14.231		
3,700.0	3,620.4	3,661.3	3,629.8	13.3	10.5	-133.37	-377.6	-118.6	314.7	293.2	21.57	14.591		
3,800.0	3,715.4	3,759.4	3,726.4	13.9	10.9	-134.40	-393.5	-124.0	333.4	311.1	22.33	14.932		
3,900.0	3,810.4	3,857.4	3,823.1	14.5	11.3	-135.32	-409.4	-129.4	352.2	329.2	23.09	15.253		
4,000.0	3,905.4	3,955.5	3,919.7	15.2	11.7	-136.14	-425.3	-134.8	371.1	347.3	23.86	15.557		
4,100.0	4,000.4	4,053.6	4,016.3	15.8	12.0	-136.89	-441.2	-140.1	390.1	365.5	24.62	15.845		
4,200.0	4,095.4	4,151.6	4,112.9	16.5	12.4	-137.57	-457.1	-145.5	409.1	383.7	25.38	16.116		
4,300.0	4,190.4	4,249.7	4,209.5	17.1	12.8	-138.19	-473.0	-150.9	428.2	402.0	26.15	16.374		
4,400.0	4,285.4	4,347.8	4,306.1	17.7	13.2	-138.75	-488.9	-156.2	447.3	420.4	26.92	16.618		
4,500.0	4,380.4	4,445.8	4,402.8	18.4	13.6	-139.27	-504.8	-161.6	466.4	438.7	27.68	16.849		
4,600.0	4,475.5	4,543.9	4,499.4	19.0	14.0	-139.75	-520.8	-167.0	485.6	457.1	28.45	17.068		
4,700.0	4,570.5	4,642.0	4,596.0	19.7	14.3	-140.19	-536.7	-172.4	504.8	475.6	29.22	17.277		
4,800.0	4,665.5	4,740.0	4,692.6	20.3	14.7	-140.60	-552.6	-177.7	524.0	494.1	29.99	17.475		
4,900.0	4,760.5	4,838.1	4,789.2	21.0	15.1	-140.98	-568.5	-183.1	543.3	512.5	30.76	17.664		
5,000.0	4,855.6	4,936.2	4,885.9	21.6	15.5	-141.43	-584.4	-188.5	562.2	530.7	31.52	17.836		
5,100.0	4,951.7	5,034.9	4,983.1	22.0	15.9	-141.75	-600.4	-193.9	578.8	546.5	32.24	17.950		

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 Antelope 034-K31-18HNC
Project:	SEC.18-T5N-R62W	TVD Reference:	WELL @ 4647.0ft (Original Well Elev)
Reference Site:	Antelope T-18 Pad Sec.18-T5N-R62W	MD Reference:	WELL @ 4647.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Antelope 034-K31-18HNC	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 (10-7-13)	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 ft
Survey Program: 0-MWWD												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	5,048.6	5,129.3	5,076.3	22.4	16.2	-141.90	-615.0	-198.8	592.9	560.0	32.89	18.029	
5,300.0	5,146.4	5,222.2	5,168.3	22.8	16.4	-142.10	-626.6	-202.7	605.3	571.9	33.41	18.120	
5,400.0	5,244.8	5,315.1	5,260.8	23.1	16.6	-142.35	-635.3	-205.7	616.1	582.2	33.85	18.201	
5,500.0	5,343.8	5,408.0	5,353.5	23.4	16.8	-142.66	-641.3	-207.7	625.1	590.9	34.21	18.275	
5,600.0	5,443.2	5,500.0	5,445.4	23.6	17.0	-143.01	-644.3	-208.7	632.5	598.0	34.48	18.343	
5,700.0	5,543.0	5,596.6	5,542.0	23.8	17.1	-143.41	-644.8	-208.9	638.1	603.4	34.69	18.392	
5,800.0	5,642.9	5,695.8	5,641.2	23.9	17.2	-143.70	-644.2	-208.9	641.1	606.2	34.87	18.386	
5,900.0	5,742.9	5,792.3	5,737.1	24.0	17.3	87.38	-633.8	-209.0	641.9	607.0	34.89	18.399	
6,000.0	5,842.9	5,884.5	5,826.5	24.1	17.2	85.44	-611.9	-209.0	643.4	608.9	34.51	18.641	
6,100.0	5,942.7	5,971.1	5,907.4	24.2	17.0	83.19	-581.0	-209.1	646.7	613.0	33.74	19.167	
6,200.0	6,040.1	6,056.2	5,982.6	24.2	16.8	80.83	-541.4	-209.3	650.7	617.7	32.94	19.754	
6,300.0	6,131.5	6,140.4	6,052.0	24.0	16.6	79.08	-493.7	-209.4	654.3	622.1	32.14	20.359	
6,400.0	6,213.6	6,224.0	6,114.8	23.7	16.3	77.99	-438.6	-209.6	656.8	625.4	31.42	20.905	
6,500.0	6,283.3	6,307.4	6,170.6	23.3	16.0	77.60	-376.7	-209.8	658.0	627.1	30.87	21.316	
6,600.0	6,338.1	6,390.8	6,218.9	22.8	15.8	77.91	-308.8	-210.1	657.5	627.0	30.56	21.518	
6,700.0	6,375.9	6,474.5	6,259.1	22.4	15.7	78.92	-235.4	-210.3	655.7	625.1	30.53	21.473	
6,800.0	6,402.1	6,559.3	6,290.8	22.0	15.6	79.84	-156.8	-210.6	653.9	623.3	30.57	21.390	
6,900.0	6,421.4	6,651.7	6,316.1	21.7	15.8	80.63	-67.9	-210.9	652.8	621.8	31.01	21.051	
7,000.0	6,424.0	6,744.1	6,338.9	21.5	16.1	82.56	21.6	-211.2	650.0	618.2	31.84	20.413	
7,100.0	6,424.0	6,833.3	6,351.6	21.3	16.6	83.68	109.9	-211.5	648.7	615.8	32.89	19.725	
7,131.6	6,424.0	6,862.0	6,353.4	21.3	16.8	83.84	138.5	-211.6	648.6	615.3	33.29	19.485	
7,200.0	6,424.0	6,927.6	6,354.0	21.4	17.3	83.90	204.0	-211.9	648.9	614.6	34.22	18.960	
7,300.0	6,424.0	7,027.6	6,354.0	21.7	18.2	83.90	304.0	-212.2	649.3	613.4	35.91	18.080	
7,400.0	6,424.0	7,127.6	6,354.0	22.3	19.3	83.90	404.0	-212.5	649.7	611.8	37.92	17.137	
7,500.0	6,424.0	7,227.6	6,354.0	23.1	20.5	83.91	504.0	-212.9	650.2	610.0	40.18	16.180	
7,600.0	6,424.0	7,327.6	6,354.0	24.1	21.8	83.91	604.0	-213.2	650.6	608.0	42.68	15.246	
7,700.0	6,424.0	7,427.6	6,354.0	25.3	23.2	83.92	704.0	-213.6	651.1	605.7	45.35	14.355	
7,800.0	6,424.0	7,527.6	6,354.0	26.6	24.7	83.92	804.0	-213.9	651.5	603.3	48.19	13.520	
7,900.0	6,424.0	7,627.6	6,354.0	27.9	26.2	83.92	904.0	-214.3	652.0	600.8	51.15	12.745	
8,000.0	6,424.0	7,727.6	6,354.0	29.3	27.8	83.93	1,004.0	-214.6	652.4	598.2	54.22	12.031	
8,100.0	6,424.0	7,827.6	6,354.0	30.8	29.4	83.93	1,104.0	-215.0	652.8	595.5	57.39	11.376	
8,200.0	6,424.0	7,927.6	6,354.0	32.4	31.0	83.94	1,204.0	-215.3	653.3	592.7	60.63	10.775	
8,300.0	6,424.0	8,027.6	6,354.0	33.9	32.7	83.94	1,304.0	-215.7	653.7	589.8	63.93	10.225	
8,400.0	6,424.0	8,127.6	6,354.0	35.5	34.4	83.95	1,404.0	-216.0	654.2	586.9	67.30	9.721	
8,500.0	6,424.0	8,227.6	6,354.0	37.2	36.1	83.95	1,504.0	-216.4	654.6	583.9	70.71	9.258	
8,600.0	6,424.0	8,327.6	6,354.0	38.8	37.9	83.95	1,604.0	-216.7	655.0	580.9	74.16	8.833	
8,700.0	6,424.0	8,427.6	6,354.0	40.5	39.6	83.96	1,704.0	-217.1	655.5	577.8	77.64	8.442	
8,800.0	6,424.0	8,527.6	6,354.0	42.2	41.4	83.96	1,804.0	-217.4	655.9	574.8	81.16	8.082	
8,900.0	6,424.0	8,627.6	6,354.0	43.9	43.2	83.97	1,904.0	-217.7	656.4	571.7	84.70	7.749	
9,000.0	6,424.0	8,727.6	6,354.0	45.7	45.0	83.97	2,004.0	-218.1	656.8	568.5	88.27	7.441	
9,100.0	6,424.0	8,827.6	6,354.0	47.4	46.8	83.97	2,104.0	-218.4	657.3	565.4	91.86	7.155	
9,200.0	6,424.0	8,927.6	6,354.0	49.2	48.6	83.98	2,204.0	-218.8	657.7	562.2	95.47	6.889	
9,300.0	6,424.0	9,027.6	6,354.0	50.9	50.4	83.98	2,304.0	-219.1	658.1	559.0	99.09	6.642	
9,400.0	6,424.0	9,127.6	6,354.0	52.7	52.3	83.99	2,404.0	-219.5	658.6	555.8	102.73	6.411	
9,500.0	6,424.0	9,227.6	6,354.0	54.5	54.1	83.99	2,504.0	-219.8	659.0	552.6	106.38	6.195	
9,600.0	6,424.0	9,327.6	6,354.0	56.3	56.0	83.99	2,604.0	-220.2	659.5	549.4	110.05	5.992	
9,700.0	6,424.0	9,427.6	6,354.0	58.1	57.8	84.00	2,704.0	-220.5	659.9	546.2	113.72	5.803	
9,800.0	6,424.0	9,527.6	6,354.0	59.9	59.7	84.00	2,804.0	-220.9	660.3	542.9	117.41	5.624	
9,900.0	6,424.0	9,627.6	6,354.0	61.7	61.5	84.01	2,904.0	-221.2	660.8	539.7	121.11	5.456	
10,000.0	6,424.0	9,727.6	6,354.0	63.6	63.4	84.01	3,004.0	-221.6	661.2	536.4	124.81	5.298	
10,100.0	6,424.0	9,827.6	6,354.0	65.4	65.2	84.01	3,104.0	-221.9	661.7	533.2	128.52	5.148	
10,200.0	6,424.0	9,927.6	6,354.0	67.2	67.1	84.02	3,204.0	-222.2	662.1	529.9	132.24	5.007	

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 Antelope 034-K31-18HNC
Project:	SEC.18-T5N-R62W	TVD Reference:	WELL @ 4647.0ft (Original Well Elev)
Reference Site:	Antelope T-18 Pad Sec.18-T5N-R62W	MD Reference:	WELL @ 4647.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Antelope 034-K31-18HNC	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 (10-7-13)	Offset TVD Reference:	Offset Datum

Offset Design Antelope T-18 Pad Sec.18-T5N-R62W - Antelope T34-P31-18HNB - Wellbore #1 - Plan #1 (10-7-13)												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	6,424.0	10,027.6	6,354.0	69.1	69.0	84.02	3,304.0	-222.6	662.6	526.6	135.96	4.873	
10,400.0	6,424.0	10,127.6	6,354.0	70.9	70.8	84.03	3,404.0	-222.9	663.0	523.3	139.69	4.746	
10,500.0	6,424.0	10,227.6	6,354.0	72.8	72.7	84.03	3,504.0	-223.3	663.4	520.0	143.42	4.626	
10,600.0	6,424.0	10,327.6	6,354.0	74.6	74.6	84.03	3,604.0	-223.6	663.9	516.7	147.16	4.511	
10,700.0	6,424.0	10,427.6	6,354.0	76.5	76.5	84.04	3,704.0	-224.0	664.3	513.4	150.91	4.402	
10,800.0	6,424.0	10,527.6	6,354.0	78.3	78.4	84.04	3,804.0	-224.3	664.8	510.1	154.65	4.298	
10,900.0	6,424.0	10,627.6	6,354.0	80.2	80.2	84.05	3,904.0	-224.7	665.2	506.8	158.41	4.199	
11,000.0	6,424.0	10,727.6	6,354.0	82.1	82.1	84.05	4,004.0	-225.0	665.6	503.5	162.16	4.105	
11,100.0	6,424.0	10,827.6	6,354.0	83.9	84.0	84.05	4,104.0	-225.4	666.1	500.2	165.92	4.014	
11,169.7	6,424.0	10,891.3	6,354.0	85.2	85.2	84.06	4,167.7	-225.6	666.4	498.0	168.43	3.957	

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well Antelope 034-K31-18HNC
Project:	SEC.18-T5N-R62W	TVD Reference:	WELL @ 4647.0ft (Original Well Elev)
Reference Site:	Antelope T-18 Pad Sec.18-T5N-R62W	MD Reference:	WELL @ 4647.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Antelope 034-K31-18HNC	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 (10-7-13)	Offset TVD Reference:	Offset Datum

Offset Design Antelope T-18 Pad Sec.18-T5N-R62W - Antelope T44-P41-18HC - Wellbore #1 - Plan #1 (10-7-13)													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	176.02	-40.1	2.8	40.2					
100.0	100.0	100.0	100.0	0.1	0.1	176.02	-40.1	2.8	40.2	40.0	0.22	178.742		
200.0	200.0	200.0	200.0	0.3	0.3	176.02	-40.1	2.8	40.2	39.5	0.67	59.581		
300.0	300.0	300.0	300.0	0.6	0.6	176.02	-40.1	2.8	40.2	39.1	1.12	35.748		
400.0	400.0	400.0	400.0	0.8	0.8	176.02	-40.1	2.8	40.2	38.6	1.57	25.535		
500.0	500.0	500.0	500.0	1.0	1.0	176.02	-40.1	2.8	40.2	38.2	2.02	19.860		
600.0	600.0	600.0	600.0	1.2	1.2	176.02	-40.1	2.8	40.2	37.7	2.47	16.249		
700.0	700.0	700.0	700.0	1.5	1.5	176.02	-40.1	2.8	40.2	37.3	2.92	13.749		
800.0	800.0	800.0	800.0	1.7	1.7	176.02	-40.1	2.8	40.2	36.8	3.37	11.916		
900.0	900.0	900.0	900.0	1.9	1.9	176.02	-40.1	2.8	40.2	36.4	3.82	10.514		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	176.02	-40.1	2.8	40.2	35.9	4.27	9.407 CC, ES		
1,100.0	1,100.0	1,098.8	1,098.8	2.4	2.3	174.78	-41.5	3.8	41.6	37.0	4.69	8.875 SF		
1,200.0	1,200.0	1,197.3	1,197.2	2.6	2.5	171.52	-45.6	6.8	46.2	41.1	5.10	9.056		
1,300.0	1,300.0	1,295.4	1,294.9	2.8	2.7	167.34	-52.4	11.8	53.9	48.4	5.51	9.785		
1,400.0	1,400.0	1,392.8	1,391.6	3.0	2.9	163.21	-61.8	18.6	65.1	59.2	5.93	10.968		
1,500.0	1,500.0	1,489.3	1,486.9	3.3	3.2	159.63	-73.7	27.4	79.7	73.4	6.38	12.504		
1,600.0	1,600.0	1,587.4	1,583.5	3.5	3.5	-75.91	-87.5	37.5	96.2	89.4	6.78	14.200		
1,700.0	1,699.8	1,685.8	1,680.4	3.6	3.8	-80.04	-101.4	47.6	112.4	105.2	7.17	15.683		
1,800.0	1,799.5	1,783.9	1,777.0	3.8	4.1	-84.58	-115.3	57.7	128.7	121.1	7.57	17.001		
1,900.0	1,898.7	1,881.7	1,873.3	4.1	4.4	-89.36	-129.0	67.8	145.7	137.7	8.00	18.212		
2,000.0	1,997.5	1,979.0	1,969.1	4.3	4.8	-94.24	-142.8	77.8	163.8	155.3	8.46	19.357		
2,100.0	2,095.6	2,075.8	2,064.4	4.6	5.1	-99.08	-156.4	87.8	183.5	174.6	8.97	20.466		
2,200.0	2,193.1	2,171.8	2,159.0	4.9	5.5	-103.79	-170.0	97.7	205.3	195.8	9.52	21.559		
2,300.0	2,289.6	2,267.1	2,252.8	5.3	5.8	-108.27	-183.4	107.5	229.4	219.3	10.13	22.656		
2,400.0	2,385.3	2,361.4	2,345.6	5.7	6.2	-112.47	-196.7	117.2	256.2	245.4	10.78	23.773		
2,500.0	2,480.3	2,455.1	2,437.9	6.2	6.5	-116.61	-209.9	126.8	285.2	273.8	11.47	24.859		
2,600.0	2,575.3	2,548.8	2,530.2	6.7	6.9	-120.04	-223.1	136.5	315.4	303.3	12.19	25.875		
2,700.0	2,670.3	2,642.6	2,622.5	7.3	7.2	-122.88	-236.3	146.2	346.5	333.6	12.92	26.823		
2,800.0	2,765.3	2,736.3	2,714.7	7.8	7.6	-125.26	-249.6	155.8	378.3	364.6	13.65	27.704		
2,900.0	2,860.3	2,830.0	2,807.0	8.4	8.0	-127.28	-262.8	165.5	410.6	396.2	14.40	28.519		
3,000.0	2,955.3	2,923.7	2,899.3	9.0	8.3	-129.01	-276.0	175.1	443.2	428.1	15.14	29.274		
3,100.0	3,050.3	3,017.4	2,991.6	9.6	8.7	-130.50	-289.2	184.8	476.2	460.3	15.89	29.972		
3,200.0	3,145.3	3,111.2	3,083.9	10.2	9.1	-131.80	-302.4	194.4	509.4	492.8	16.64	30.618		
3,300.0	3,240.3	3,204.9	3,176.1	10.8	9.5	-132.94	-315.6	204.1	542.9	525.5	17.39	31.216		
3,400.0	3,335.4	3,298.6	3,268.4	11.4	9.8	-133.95	-328.9	213.7	576.5	558.3	18.14	31.771		
3,500.0	3,430.4	3,392.3	3,360.7	12.0	10.2	-134.85	-342.1	223.4	610.2	591.3	18.90	32.287		
3,600.0	3,525.4	3,486.0	3,453.0	12.7	10.6	-135.66	-355.3	233.0	644.1	624.4	19.66	32.768		
3,700.0	3,620.4	3,579.8	3,545.3	13.3	10.9	-136.38	-368.5	242.7	678.0	657.6	20.41	33.216		
3,800.0	3,715.4	3,673.5	3,637.5	13.9	11.3	-137.04	-381.7	252.3	712.1	690.9	21.17	33.634		
3,900.0	3,810.4	3,767.2	3,729.8	14.5	11.7	-137.64	-394.9	262.0	746.2	724.3	21.93	34.025		
4,000.0	3,905.4	3,860.9	3,822.1	15.2	12.1	-138.18	-408.2	271.7	780.4	757.7	22.69	34.392		
4,100.0	4,000.4	3,954.6	3,914.4	15.8	12.4	-138.68	-421.4	281.3	814.7	791.2	23.45	34.736		
4,200.0	4,095.4	4,048.4	4,006.7	16.5	12.8	-139.14	-434.6	291.0	849.0	824.8	24.22	35.060		
4,300.0	4,190.4	4,142.1	4,098.9	17.1	13.2	-139.57	-447.8	300.6	883.4	858.4	24.98	35.364		
4,400.0	4,285.4	4,235.8	4,191.2	17.7	13.6	-139.96	-461.0	310.3	917.8	892.0	25.74	35.651		
4,500.0	4,380.4	4,329.5	4,283.5	18.4	14.0	-140.33	-474.2	319.9	952.2	925.7	26.51	35.923		
4,600.0	4,475.5	4,423.2	4,375.8	19.0	14.3	-140.66	-487.4	329.6	986.6	959.4	27.27	36.179		

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well Antelope 034-K31-18HNC
Project:	SEC.18-T5N-R62W	TVD Reference:	WELL @ 4647.0ft (Original Well Elev)
Reference Site:	Antelope T-18 Pad Sec.18-T5N-R62W	MD Reference:	WELL @ 4647.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Antelope 034-K31-18HNC	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 (10-7-13)	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 Toelface (")	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	177.26	-58.3	2.8	58.4					
100.0	100.0	100.0	100.0	0.1	0.1	177.26	-58.3	2.8	58.4	58.1	0.22	259.686		
200.0	200.0	200.0	200.0	0.3	0.3	177.26	-58.3	2.8	58.4	57.7	0.67	86.562 CC, ES		
300.0	300.0	299.0	298.9	0.6	0.5	175.83	-59.1	4.3	59.3	58.1	1.11	53.519		
400.0	400.0	397.7	397.5	0.8	0.8	171.80	-61.4	8.8	62.1	60.6	1.55	40.165		
500.0	500.0	495.9	495.4	1.0	1.0	165.93	-65.3	16.4	67.5	65.5	2.00	33.781		
600.0	600.0	593.5	592.2	1.2	1.3	159.25	-70.7	26.8	76.0	73.5	2.46	30.911		
700.0	700.0	690.1	687.7	1.5	1.6	152.70	-77.4	40.0	88.0	85.1	2.93	30.013 SF		
800.0	800.0	785.7	781.6	1.7	2.0	146.89	-85.6	55.8	103.8	100.4	3.43	30.250		
900.0	900.0	879.9	873.5	1.9	2.4	142.03	-95.1	74.2	123.4	119.5	3.97	31.113		
1,000.0	1,000.0	974.3	964.9	2.1	2.9	138.06	-105.8	95.1	146.5	141.9	4.55	32.229		
1,100.0	1,100.0	1,071.0	1,058.4	2.4	3.4	135.03	-117.1	117.0	170.7	165.5	5.15	33.129		
1,200.0	1,200.0	1,167.7	1,151.9	2.6	3.9	132.75	-128.4	138.9	195.2	189.4	5.78	33.786		
1,300.0	1,300.0	1,264.4	1,245.4	2.8	4.4	130.97	-139.7	160.8	219.9	213.5	6.42	34.273		
1,400.0	1,400.0	1,361.1	1,338.9	3.0	4.9	129.56	-151.0	182.7	244.8	237.7	7.06	34.646		
1,500.0	1,500.0	1,457.8	1,432.4	3.3	5.4	128.41	-162.2	204.7	269.8	262.0	7.72	34.939		
1,600.0	1,600.0	1,554.2	1,525.7	3.5	6.0	-104.43	-173.5	226.5	295.3	288.0	7.25	40.718		
1,700.0	1,699.8	1,650.2	1,618.6	3.6	6.5	-105.60	-184.7	248.3	321.8	314.1	7.68	41.901		
1,800.0	1,799.5	1,745.6	1,710.8	3.8	7.0	-107.04	-195.8	269.9	349.6	341.5	8.11	43.105		
1,900.0	1,898.7	1,840.3	1,802.3	4.1	7.5	-108.68	-206.9	291.4	378.8	370.2	8.55	44.312		
2,000.0	1,997.5	1,934.1	1,893.1	4.3	8.0	-110.43	-217.8	312.6	409.6	400.6	9.00	45.498		
2,100.0	2,095.6	2,027.0	1,982.9	4.6	8.6	-112.23	-228.7	333.7	442.3	432.8	9.48	46.640		
2,200.0	2,193.1	2,118.8	2,071.6	4.9	9.1	-114.05	-239.4	354.5	477.0	467.0	9.99	47.723		
2,300.0	2,289.6	2,209.4	2,159.3	5.3	9.6	-115.85	-250.0	375.1	513.8	503.3	10.54	48.736		
2,400.0	2,385.3	2,298.8	2,245.7	5.7	10.1	-117.59	-260.4	395.3	552.9	541.8	11.13	49.672		
2,500.0	2,480.3	2,387.3	2,331.3	6.2	10.5	-119.87	-270.7	415.4	593.8	582.0	11.78	50.401		
2,600.0	2,575.3	2,475.8	2,416.9	6.7	11.0	-121.93	-281.1	435.4	635.5	623.0	12.47	50.975		
2,700.0	2,670.3	2,564.4	2,502.5	7.3	11.5	-123.75	-291.4	455.5	677.8	664.6	13.17	51.451		
2,800.0	2,765.3	2,652.9	2,588.1	7.8	12.0	-125.37	-301.7	475.6	720.6	706.7	13.90	51.856		
2,900.0	2,860.3	2,741.4	2,673.7	8.4	12.5	-126.80	-312.1	495.6	763.8	749.2	14.63	52.208		
3,000.0	2,955.3	2,830.0	2,759.3	9.0	13.0	-128.09	-322.4	515.7	807.5	792.1	15.37	52.521		
3,100.0	3,050.3	2,918.5	2,844.9	9.6	13.5	-129.25	-332.7	535.8	851.4	835.2	16.12	52.804		
3,200.0	3,145.3	3,007.0	2,930.5	10.2	14.0	-130.30	-343.1	555.9	895.5	878.7	16.88	53.062		
3,300.0	3,240.3	3,095.5	3,016.1	10.8	14.5	-131.25	-353.4	575.9	939.9	922.3	17.63	53.300		
3,400.0	3,335.4	3,184.1	3,101.7	11.4	14.9	-132.12	-363.7	596.0	984.5	966.1	18.39	53.523		

Reference Depths are relative to WELL @ 4647.0ft (Original Well Elev) Coordinates are relative to: Antelope 034-K31-18HNC
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°



Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well Antelope 034-K31-18HNC
Project:	SEC.18-T5N-R62W	TVD Reference:	WELL @ 4647.0ft (Original Well Elev)
Reference Site:	Antelope T-18 Pad Sec.18-T5N-R62W	MD Reference:	WELL @ 4647.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Antelope 034-K31-18HNC	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 (10-7-13)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4647.0ft (Original Well Elev) Coordinates are relative to: Antelope 034-K31-18HNC
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°

