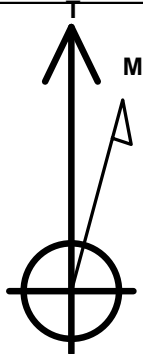


Well Name: Antelope F-J-17HZ						
Surface Location: Antelope 21-17 Pad Sec.17-T5N-R62W						
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone						
Ground Elevation: 4690.0						
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1392319.44	3320484.50	40.404610	-104.349180	
Est. KB 12' WELL @ 4702.0ft (Est. KB 12')						

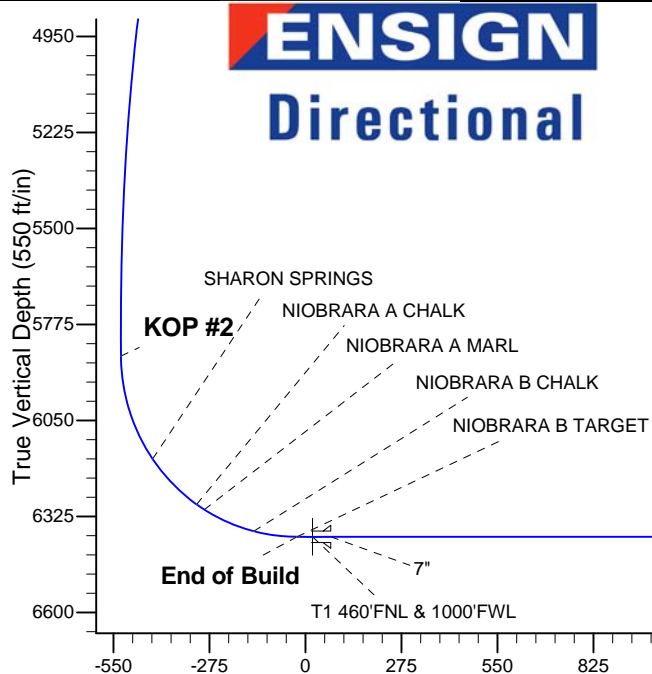
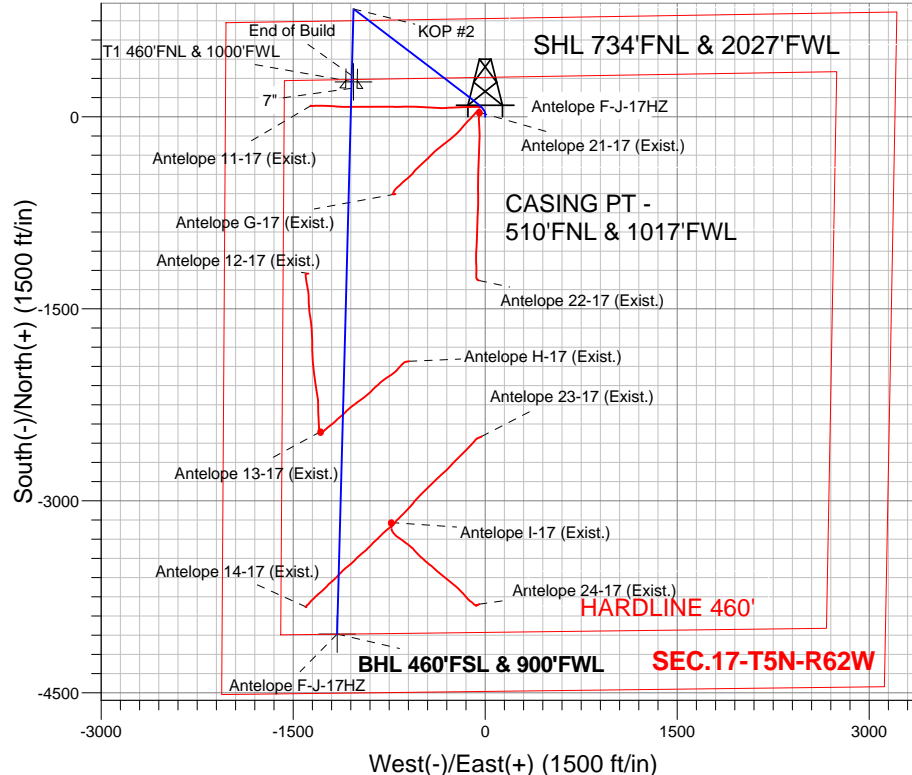
Name	TVD	+N/-S	+E/-W	Shape
BHL 460'FSL & 900'FWL	6383.0	-4040.2	-1156.0	Point
T1 460'FNL & 1000'FWL	6383.0	273.3	-1027.7	Point



Antelope 21-17 Pad Sec.17-T5N-R62W
Antelope F-J-17HZ
Plan #3 (9-12-12)
11:54, September 12 2012

Magnetic Field
Strength: 53053.9snT
Dip Angle: 67.08°
Date: 8/21/2012
Model: IGRF2010

TVD	MD	Annotation
200.0	200.0	KOP #1
5864.9	6046.3	KOP #2
6383.0	6861.8	End of Build



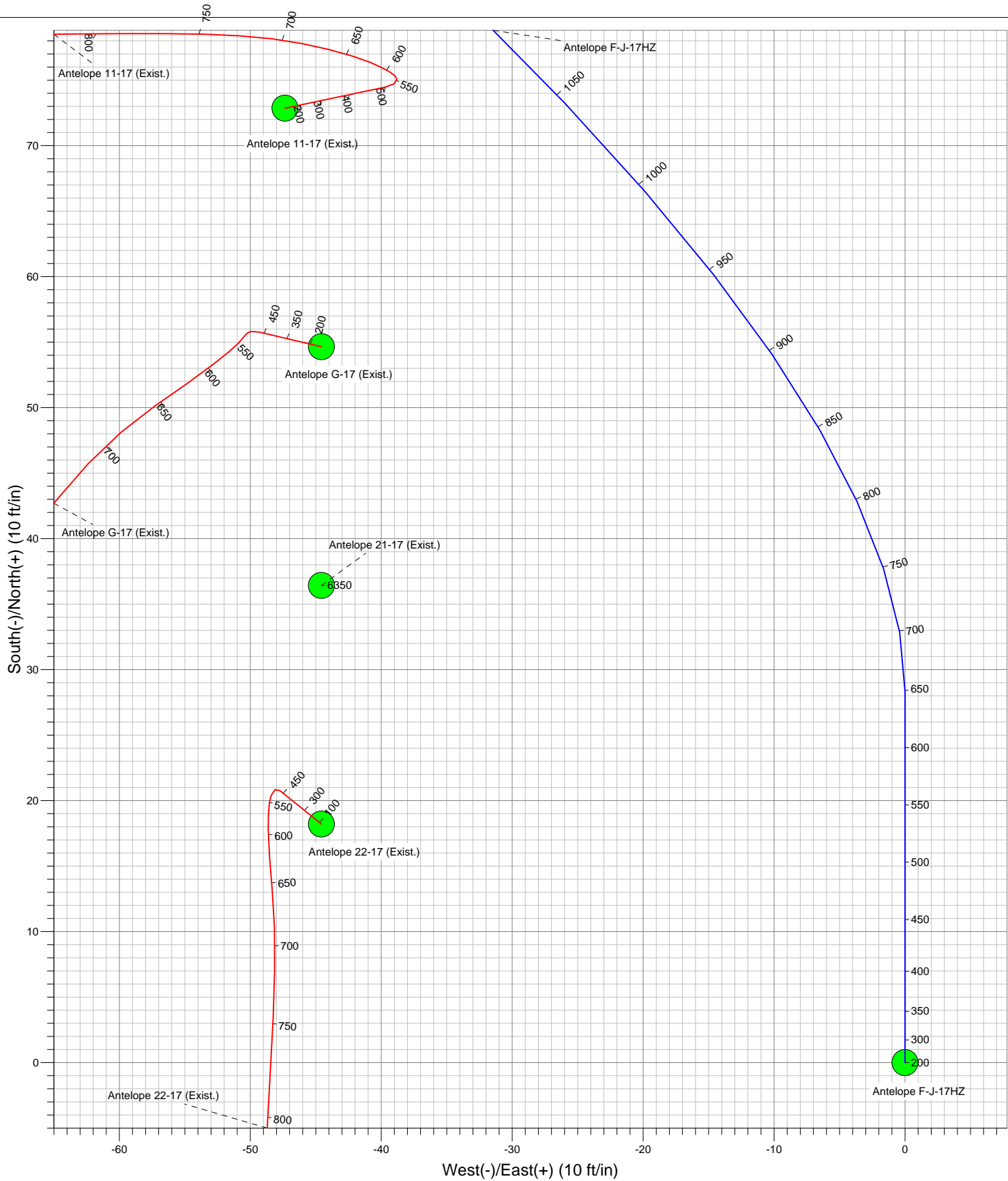
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.0	
3	450.0	5.00	0.00	449.7	10.9	0.0	2.00	0.00	-10.5	
4	650.0	5.00	0.00	648.9	28.3	0.0	0.00	0.00	-27.2	
5	1355.1	16.58	307.37	1341.5	120.6	-80.4	2.00	-68.57	-93.8	
6	5114.6	16.58	307.37	4944.7	771.7	-933.0	0.00	0.00	-485.3	
7	5943.6	0.00	0.00	5762.2	844.0	-1027.7	2.00	180.00	-528.7	
8	6043.6	0.00	0.00	5862.1	844.0	-1027.7	0.00	0.00	-528.7	
9	6861.7	90.00	181.52	6383.0	323.3	-1041.5	11.00	181.52	-24.3	
10	6861.8	90.00	181.52	6383.0	323.3	-1041.5	0.00	0.00	-24.3	
11	6961.8	90.00	181.52	6383.0	223.3	-1044.1	0.00	0.00	72.5	
12	6962.5	90.00	181.50	6383.0	222.6	-1044.2	2.00	-90.00	73.3	
13	1226.7	90.00	181.50	6383.0	-4040.2	-1156.0	0.00	0.00	4202.3	BHL 460'FSL & 900'FWL

BHL 460'FSL & 900'FWL

Vertical Section at 195.97° (550 ft/in)



Well Name: Antelope F-J-17HZ						
Surface Location: Antelope 21-17 Pad Sec.17-T5N-R62W						
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone						
Ground Elevation: 4690.0						
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1392319.44	3320484.50	40.404610	-104.349180	





BONANZA CREEK ENERGY OPERATING

SEC.17-T5N-R62W

Antelope 21-17 Pad Sec.17-T5N-R62W

Antelope F-J-17HZ

Wellbore #1

Plan: Plan #3 (9-12-12)

Standard Planning Report

12 September, 2012

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	
450.0	5.00	0.00	449.7	10.9	0.0	2.00	2.00	0.00	0.00	
650.0	5.00	0.00	648.9	28.3	0.0	0.00	0.00	0.00	0.00	
1,355.1	16.58	307.37	1,341.5	120.6	-80.4	2.00	1.64	-7.46	-68.57	
5,114.6	16.58	307.37	4,944.7	771.7	-933.0	0.00	0.00	0.00	0.00	
5,943.6	0.00	0.00	5,762.2	844.0	-1,027.7	2.00	-2.00	0.00	180.00	
6,043.6	0.00	0.00	5,862.1	844.0	-1,027.7	0.00	0.00	0.00	0.00	
6,861.7	90.00	181.52	6,383.0	323.3	-1,041.5	11.00	11.00	0.00	181.52	
6,861.8	90.00	181.52	6,383.0	323.3	-1,041.5	0.00	0.00	0.00	0.00	
6,961.8	90.00	181.52	6,383.0	223.3	-1,044.1	0.00	0.00	0.00	0.00	
6,962.5	90.00	181.50	6,383.0	222.6	-1,044.2	2.00	0.00	-2.00	-90.00	
11,226.7	90.00	181.50	6,383.0	-4,040.2	-1,156.0	0.00	0.00	0.00	0.00	BHL 460'FSL & 90C

Database:	Landmark	Local Co-ordinate Reference:	Well Antelope F-J-17HZ
Company:	BONANZA CREEK ENERGY OPERATING	TVD Reference:	WELL @ 4702.0ft (Est. KB 12')
Project:	SEC.17-T5N-R62W	MD Reference:	WELL @ 4702.0ft (Est. KB 12')
Site:	Antelope 21-17 Pad Sec.17-T5N-R62W	North Reference:	True
Well:	Antelope F-J-17HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #3 (9-12-12)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N-S (ft)	+E-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP #1									
300.0	2.00	0.00	300.0	1.7	0.0	-1.7	2.00	2.00	0.00
400.0	4.00	0.00	399.8	7.0	0.0	-6.7	2.00	2.00	0.00
450.0	5.00	0.00	449.7	10.9	0.0	-10.5	2.00	2.00	0.00
500.0	5.00	0.00	499.5	15.3	0.0	-14.7	0.00	0.00	0.00
600.0	5.00	0.00	599.1	24.0	0.0	-23.0	0.00	0.00	0.00
650.0	5.00	0.00	648.9	28.3	0.0	-27.2	0.00	0.00	0.00
700.0	5.45	350.14	698.7	32.8	-0.4	-31.5	2.00	0.89	-19.72
800.0	6.70	335.33	798.2	42.8	-3.7	-40.2	2.00	1.26	-14.81
900.0	8.26	325.61	897.3	54.1	-10.1	-49.2	2.00	1.56	-9.72
1,000.0	9.97	319.08	996.0	66.5	-19.9	-58.5	2.00	1.71	-6.54
1,100.0	11.78	314.48	1,094.2	80.2	-32.8	-68.1	2.00	1.80	-4.59
1,200.0	13.64	311.11	1,191.8	95.1	-49.0	-78.0	2.00	1.86	-3.37
1,300.0	15.53	308.54	1,288.6	111.2	-68.3	-88.1	2.00	1.89	-2.57
1,355.1	16.58	307.37	1,341.5	120.6	-80.4	-93.8	2.00	1.91	-2.12
1,400.0	16.58	307.37	1,384.6	128.4	-90.6	-98.5	0.00	0.00	0.00
1,500.0	16.58	307.37	1,480.4	145.7	-113.2	-108.9	0.00	0.00	0.00
1,600.0	16.58	307.37	1,576.2	163.0	-135.9	-119.3	0.00	0.00	0.00
1,700.0	16.58	307.37	1,672.1	180.3	-158.6	-129.7	0.00	0.00	0.00
1,800.0	16.58	307.37	1,767.9	197.6	-181.3	-140.1	0.00	0.00	0.00
1,900.0	16.58	307.37	1,863.8	215.0	-204.0	-150.6	0.00	0.00	0.00
2,000.0	16.58	307.37	1,959.6	232.3	-226.6	-161.0	0.00	0.00	0.00
2,100.0	16.58	307.37	2,055.4	249.6	-249.3	-171.4	0.00	0.00	0.00
2,200.0	16.58	307.37	2,151.3	266.9	-272.0	-181.8	0.00	0.00	0.00
2,300.0	16.58	307.37	2,247.1	284.2	-294.7	-192.2	0.00	0.00	0.00
2,400.0	16.58	307.37	2,343.0	301.6	-317.4	-202.6	0.00	0.00	0.00
2,500.0	16.58	307.37	2,438.8	318.9	-340.0	-213.0	0.00	0.00	0.00
2,600.0	16.58	307.37	2,534.7	336.2	-362.7	-223.4	0.00	0.00	0.00
2,700.0	16.58	307.37	2,630.5	353.5	-385.4	-233.9	0.00	0.00	0.00
2,800.0	16.58	307.37	2,726.3	370.8	-408.1	-244.3	0.00	0.00	0.00
2,900.0	16.58	307.37	2,822.2	388.2	-430.8	-254.7	0.00	0.00	0.00
3,000.0	16.58	307.37	2,918.0	405.5	-453.4	-265.1	0.00	0.00	0.00
3,100.0	16.58	307.37	3,013.9	422.8	-476.1	-275.5	0.00	0.00	0.00
3,200.0	16.58	307.37	3,109.7	440.1	-498.8	-285.9	0.00	0.00	0.00
3,300.0	16.58	307.37	3,205.5	457.4	-521.5	-296.3	0.00	0.00	0.00
3,400.0	16.58	307.37	3,301.4	474.7	-544.2	-306.7	0.00	0.00	0.00
3,484.1	16.58	307.37	3,382.0	489.3	-563.2	-315.5	0.00	0.00	0.00
PARKMAN									
3,500.0	16.58	307.37	3,397.2	492.1	-566.8	-317.2	0.00	0.00	0.00
3,600.0	16.58	307.37	3,493.1	509.4	-589.5	-327.6	0.00	0.00	0.00
3,700.0	16.58	307.37	3,588.9	526.7	-612.2	-338.0	0.00	0.00	0.00
3,800.0	16.58	307.37	3,684.8	544.0	-634.9	-348.4	0.00	0.00	0.00
3,900.0	16.58	307.37	3,780.6	561.3	-657.6	-358.8	0.00	0.00	0.00
4,000.0	16.58	307.37	3,876.4	578.7	-680.2	-369.2	0.00	0.00	0.00
4,100.0	16.58	307.37	3,972.3	596.0	-702.9	-379.6	0.00	0.00	0.00
4,200.0	16.58	307.37	4,068.1	613.3	-725.6	-390.0	0.00	0.00	0.00
4,251.0	16.58	307.37	4,117.0	622.1	-737.2	-395.4	0.00	0.00	0.00
SUSSEX									
4,300.0	16.58	307.37	4,164.0	630.6	-748.3	-400.5	0.00	0.00	0.00
4,400.0	16.58	307.37	4,259.8	647.9	-771.0	-410.9	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Antelope F-J-17HZ
Company:	BONANZA CREEK ENERGY OPERATING	TVD Reference:	WELL @ 4702.0ft (Est. KB 12')
Project:	SEC.17-T5N-R62W	MD Reference:	WELL @ 4702.0ft (Est. KB 12')
Site:	Antelope 21-17 Pad Sec.17-T5N-R62W	North Reference:	True
Well:	Antelope F-J-17HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #3 (9-12-12)		

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)
4,500.0	16.58	307.37	4,355.6	665.3	-793.6	-421.3	0.00	0.00	0.00
4,600.0	16.58	307.37	4,451.5	682.6	-816.3	-431.7	0.00	0.00	0.00
4,700.0	16.58	307.37	4,547.3	699.9	-839.0	-442.1	0.00	0.00	0.00
4,800.0	16.58	307.37	4,643.2	717.2	-861.7	-452.5	0.00	0.00	0.00
4,900.0	16.58	307.37	4,739.0	734.5	-884.4	-462.9	0.00	0.00	0.00
5,000.0	16.58	307.37	4,834.9	751.9	-907.0	-473.3	0.00	0.00	0.00
5,100.0	16.58	307.37	4,930.7	769.2	-929.7	-483.8	0.00	0.00	0.00
5,114.6	16.58	307.37	4,944.7	771.7	-933.0	-485.3	0.00	0.00	0.00
5,200.0	14.87	307.37	5,026.9	785.8	-951.4	-493.7	2.00	-2.00	0.00
5,300.0	12.87	307.37	5,124.0	800.3	-970.5	-502.5	2.00	-2.00	0.00
5,400.0	10.87	307.37	5,221.8	812.8	-986.8	-510.0	2.00	-2.00	0.00
5,500.0	8.87	307.37	5,320.3	823.2	-1,000.5	-516.2	2.00	-2.00	0.00
5,600.0	6.87	307.37	5,419.4	831.5	-1,011.3	-521.2	2.00	-2.00	0.00
5,700.0	4.87	307.37	5,518.9	837.7	-1,019.5	-525.0	2.00	-2.00	0.00
5,800.0	2.87	307.37	5,618.6	841.8	-1,024.8	-527.4	2.00	-2.00	0.00
5,900.0	0.87	307.37	5,718.6	843.8	-1,027.4	-528.6	2.00	-2.00	0.00
5,943.6	0.00	0.00	5,762.2	844.0	-1,027.7	-528.7	2.00	-2.00	0.00
6,000.0	0.00	0.00	5,818.6	844.0	-1,027.7	-528.7	0.00	0.00	0.00
6,043.6	0.00	0.00	5,862.1	844.0	-1,027.7	-528.7	0.00	0.00	0.00
6,046.3	0.30	181.52	5,864.9	844.0	-1,027.7	-528.7	11.00	11.00	0.00
KOP #2									
6,100.0	6.21	181.52	5,918.5	840.9	-1,027.8	-525.8	11.00	11.00	0.00
6,200.0	17.21	181.52	6,016.2	820.7	-1,028.3	-506.2	11.00	11.00	0.00
6,300.0	28.21	181.52	6,108.3	782.2	-1,029.3	-468.8	11.00	11.00	0.00
6,360.7	34.88	181.52	6,160.0	750.5	-1,030.2	-438.1	11.00	11.00	0.00
SHARON SPRINGS									
6,400.0	39.21	181.52	6,191.4	726.8	-1,030.8	-415.2	11.00	11.00	0.00
6,500.0	50.21	181.52	6,262.4	656.5	-1,032.7	-347.2	11.00	11.00	0.00
6,545.7	55.23	181.52	6,290.0	620.2	-1,033.6	-312.0	11.00	11.00	0.00
NIORARA A CHALK									
6,573.0	58.24	181.52	6,305.0	597.4	-1,034.2	-289.8	11.00	11.00	0.00
NIORARA A MARL									
6,600.0	61.21	181.52	6,318.6	574.1	-1,034.9	-267.3	11.00	11.00	0.00
6,700.0	72.21	181.52	6,358.1	482.4	-1,037.3	-178.5	11.00	11.00	0.00
6,732.3	75.76	181.52	6,367.0	451.4	-1,038.1	-148.4	11.00	11.00	0.00
NIORARA B CHALK									
6,800.0	83.21	181.52	6,379.3	384.9	-1,039.9	-84.0	11.00	11.00	0.00
6,861.7	90.00	181.52	6,383.0	323.3	-1,041.5	-24.3	11.00	11.00	0.00
NIORARA B TARGET									
6,861.8	90.00	181.52	6,383.0	323.3	-1,041.5	-24.3	0.00	0.00	0.00
End of Build									
6,900.0	90.00	181.52	6,383.0	285.1	-1,042.5	12.7	0.00	0.00	0.00
6,911.4	90.00	181.52	6,383.0	273.7	-1,042.8	23.7	0.00	0.00	0.00
T1 460'FNL & 1000'FWL									
6,961.8	90.00	181.52	6,383.0	223.3	-1,044.2	72.6	0.00	0.00	0.00
7"									
6,962.5	90.00	181.50	6,383.0	222.6	-1,044.2	73.3	2.13	0.00	-2.13
7,000.0	90.00	181.50	6,383.0	185.1	-1,045.2	109.5	0.00	0.00	0.00
7,100.0	90.00	181.50	6,383.0	85.1	-1,047.8	206.4	0.00	0.00	0.00
7,200.0	90.00	181.50	6,383.0	-14.8	-1,050.4	303.2	0.00	0.00	0.00
7,300.0	90.00	181.50	6,383.0	-114.8	-1,053.0	400.0	0.00	0.00	0.00
7,400.0	90.00	181.50	6,383.0	-214.8	-1,055.6	496.9	0.00	0.00	0.00
7,500.0	90.00	181.50	6,383.0	-314.7	-1,058.3	593.7	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Antelope F-J-17HZ
Company:	BONANZA CREEK ENERGY OPERATING	TVD Reference:	WELL @ 4702.0ft (Est. KB 12')
Project:	SEC.17-T5N-R62W	MD Reference:	WELL @ 4702.0ft (Est. KB 12')
Site:	Antelope 21-17 Pad Sec.17-T5N-R62W	North Reference:	True
Well:	Antelope F-J-17HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #3 (9-12-12)		

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)
7,600.0	90.00	181.50	6,383.0	-414.7	-1,060.9	690.5	0.00	0.00	0.00
7,700.0	90.00	181.50	6,383.0	-514.7	-1,063.5	787.4	0.00	0.00	0.00
7,800.0	90.00	181.50	6,383.0	-614.6	-1,066.1	884.2	0.00	0.00	0.00
7,900.0	90.00	181.50	6,383.0	-714.6	-1,068.8	981.0	0.00	0.00	0.00
8,000.0	90.00	181.50	6,383.0	-814.6	-1,071.4	1,077.8	0.00	0.00	0.00
8,100.0	90.00	181.50	6,383.0	-914.5	-1,074.0	1,174.7	0.00	0.00	0.00
8,200.0	90.00	181.50	6,383.0	-1,014.5	-1,076.6	1,271.5	0.00	0.00	0.00
8,300.0	90.00	181.50	6,383.0	-1,114.5	-1,079.2	1,368.3	0.00	0.00	0.00
8,400.0	90.00	181.50	6,383.0	-1,214.4	-1,081.9	1,465.2	0.00	0.00	0.00
8,500.0	90.00	181.50	6,383.0	-1,314.4	-1,084.5	1,562.0	0.00	0.00	0.00
8,600.0	90.00	181.50	6,383.0	-1,414.3	-1,087.1	1,658.8	0.00	0.00	0.00
8,700.0	90.00	181.50	6,383.0	-1,514.3	-1,089.7	1,755.7	0.00	0.00	0.00
8,800.0	90.00	181.50	6,383.0	-1,614.3	-1,092.3	1,852.5	0.00	0.00	0.00
8,900.0	90.00	181.50	6,383.0	-1,714.2	-1,095.0	1,949.3	0.00	0.00	0.00
9,000.0	90.00	181.50	6,383.0	-1,814.2	-1,097.6	2,046.1	0.00	0.00	0.00
9,100.0	90.00	181.50	6,383.0	-1,914.2	-1,100.2	2,143.0	0.00	0.00	0.00
9,200.0	90.00	181.50	6,383.0	-2,014.1	-1,102.8	2,239.8	0.00	0.00	0.00
9,300.0	90.00	181.50	6,383.0	-2,114.1	-1,105.5	2,336.6	0.00	0.00	0.00
9,400.0	90.00	181.50	6,383.0	-2,214.1	-1,108.1	2,433.5	0.00	0.00	0.00
9,500.0	90.00	181.50	6,383.0	-2,314.0	-1,110.7	2,530.3	0.00	0.00	0.00
9,600.0	90.00	181.50	6,383.0	-2,414.0	-1,113.3	2,627.1	0.00	0.00	0.00
9,700.0	90.00	181.50	6,383.0	-2,514.0	-1,115.9	2,724.0	0.00	0.00	0.00
9,800.0	90.00	181.50	6,383.0	-2,613.9	-1,118.6	2,820.8	0.00	0.00	0.00
9,900.0	90.00	181.50	6,383.0	-2,713.9	-1,121.2	2,917.6	0.00	0.00	0.00
10,000.0	90.00	181.50	6,383.0	-2,813.9	-1,123.8	3,014.5	0.00	0.00	0.00
10,100.0	90.00	181.50	6,383.0	-2,913.8	-1,126.4	3,111.3	0.00	0.00	0.00
10,200.0	90.00	181.50	6,383.0	-3,013.8	-1,129.1	3,208.1	0.00	0.00	0.00
10,300.0	90.00	181.50	6,383.0	-3,113.8	-1,131.7	3,304.9	0.00	0.00	0.00
10,400.0	90.00	181.50	6,383.0	-3,213.7	-1,134.3	3,401.8	0.00	0.00	0.00
10,500.0	90.00	181.50	6,383.0	-3,313.7	-1,136.9	3,498.6	0.00	0.00	0.00
10,600.0	90.00	181.50	6,383.0	-3,413.7	-1,139.5	3,595.4	0.00	0.00	0.00
10,700.0	90.00	181.50	6,383.0	-3,513.6	-1,142.2	3,692.3	0.00	0.00	0.00
10,800.0	90.00	181.50	6,383.0	-3,613.6	-1,144.8	3,789.1	0.00	0.00	0.00
10,900.0	90.00	181.50	6,383.0	-3,713.6	-1,147.4	3,885.9	0.00	0.00	0.00
11,000.0	90.00	181.50	6,383.0	-3,813.5	-1,150.0	3,982.8	0.00	0.00	0.00
11,100.0	90.00	181.50	6,383.0	-3,913.5	-1,152.7	4,079.6	0.00	0.00	0.00
11,200.0	90.00	181.50	6,383.0	-4,013.5	-1,155.3	4,176.4	0.00	0.00	0.00
11,226.7	90.00	181.50	6,383.0	-4,040.2	-1,156.0	4,202.3	0.00	0.00	0.00
BHL 460'FSL & 900'FWL									

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
T1 460'FNL & 1000'F	0.00	0.00	6,383.0	273.3	-1,027.7	1,392,579.34	3,319,453.41	40.405360	-104.352870
- hit/miss target									
- plan misses target center by 15.2ft at 6911.4ft MD (6383.0 TVD, 273.7 N, -1042.8 E)									
- Point									
BHL 460'FSL & 900'F	0.00	0.00	6,383.0	-4,040.2	-1,156.0	1,388,264.76	3,319,381.10	40.393520	-104.353330
- plan hits target center									
- Point									

Database:	Landmark	Local Co-ordinate Reference:	Well Antelope F-J-17HZ
Company:	BONANZA CREEK ENERGY OPERATING	TVD Reference:	WELL @ 4702.0ft (Est. KB 12')
Project:	SEC.17-T5N-R62W	MD Reference:	WELL @ 4702.0ft (Est. KB 12')
Site:	Antelope 21-17 Pad Sec.17-T5N-R62W	North Reference:	True
Well:	Antelope F-J-17HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #3 (9-12-12)		

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
6,961.8	6,383.0	7"	7	7-1/2	

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,484.1	3,382.0	PARKMAN		0.00	
4,251.0	4,117.0	SUSSEX		0.00	
6,360.7	6,160.0	SHARON SPRINGS		0.00	
6,545.7	6,290.0	NIOBRARA A CHALK		0.00	
6,573.0	6,305.0	NIOBRARA A MARL		0.00	
6,732.3	6,367.0	NIOBRARA B CHALK		0.00	
6,861.7	6,383.0	NIOBRARA B TARGET		0.00	

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
200.0	200.0	0.0	0.0	KOP #1	
6,046.3	5,864.9	844.0	-1,027.7	KOP #2	
6,861.8	6,383.0	323.3	-1,041.5	End of Build	



BONANZA CREEK ENERGY OPERATING

SEC.17-T5N-R62W

Antelope 21-17 Pad Sec.17-T5N-R62W

Antelope F-J-17HZ

Wellbore #1

Plan #2 (9-11-12)

Anticollision Report

12 September, 2012

Antelope 21-17 Pad Sec.17-T5N-R62W - Antelope 11-17 (Exist.) - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 ft
Survey Program: 498-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		
650.0	648.9	642.7	642.5	1.4	0.9	-40.91	76.9	-42.2	64.5	62.2	2.24	28.720 ES		
700.0	698.7	691.2	690.8	1.6	1.0	-35.77	77.9	-46.8	64.9	62.5	2.46	26.398		
800.0	798.2	788.2	786.8	1.8	1.2	-32.56	78.6	-59.9	67.3	64.3	2.92	23.033		
900.0	897.3	883.0	879.9	2.1	1.5	-35.35	78.2	-78.3	73.9	70.5	3.43	21.575		
1,000.0	996.0	977.5	971.3	2.4	1.9	-39.88	77.8	-101.7	85.6	81.7	3.97	21.563		
1,100.0	1,094.2	1,073.7	1,063.7	2.8	2.4	-44.23	77.6	-128.7	100.1	95.5	4.56	21.953		
1,200.0	1,191.8	1,171.3	1,157.2	3.2	2.9	-48.46	76.9	-156.5	113.8	108.6	5.22	21.812		
1,300.0	1,288.6	1,269.4	1,251.1	3.7	3.4	-52.94	75.5	-184.9	127.0	121.0	5.99	21.201		
1,355.1	1,341.5	1,323.3	1,302.8	3.9	3.7	-55.54	74.6	-200.3	133.5	127.1	6.47	20.633		
1,400.0	1,384.6	1,365.9	1,343.5	4.2	3.9	-58.27	74.0	-212.7	139.3	132.4	6.89	20.205		
1,500.0	1,480.4	1,462.8	1,435.7	4.7	4.5	-63.23	73.3	-242.6	154.3	146.4	7.88	19.576		
1,600.0	1,576.2	1,561.4	1,529.5	5.3	5.1	-67.52	72.2	-272.8	170.2	161.3	8.92	19.083		
1,700.0	1,672.1	1,659.1	1,622.8	5.8	5.6	-71.36	70.4	-302.0	186.8	176.8	10.00	18.682		
1,800.0	1,767.9	1,759.8	1,718.9	6.4	6.2	-74.64	68.9	-331.8	203.6	192.5	11.10	18.340		
1,900.0	1,863.8	1,865.4	1,820.4	7.0	6.8	-77.65	68.6	-361.0	218.6	206.4	12.24	17.861		
2,000.0	1,959.6	1,962.5	1,914.0	7.5	7.3	-79.99	69.7	-387.0	232.5	219.1	13.34	17.424		
2,100.0	2,055.4	2,066.6	2,014.5	8.1	7.8	-82.17	71.6	-414.2	245.8	231.3	14.49	16.961		
2,200.0	2,151.3	2,163.1	2,107.3	8.7	8.4	-83.71	74.4	-440.2	259.1	243.5	15.60	16.604		
2,300.0	2,247.1	2,264.2	2,204.9	9.3	8.9	-85.41	76.8	-466.3	272.2	255.5	16.74	16.263		
2,400.0	2,343.0	2,359.8	2,297.4	9.9	9.4	-87.00	78.5	-490.7	285.8	268.0	17.85	16.014		
2,500.0	2,438.8	2,452.8	2,386.8	10.5	9.9	-88.21	79.7	-516.1	301.2	282.2	18.95	15.891		
2,600.0	2,534.7	2,546.6	2,476.5	11.1	10.5	-89.16	79.9	-543.5	318.6	298.6	20.07	15.878		
2,700.0	2,630.5	2,645.2	2,571.1	11.7	11.0	-90.23	79.3	-571.6	336.4	315.2	21.20	15.864		
2,800.0	2,726.3	2,742.8	2,664.3	12.3	11.6	-90.97	79.1	-600.6	354.7	332.3	22.33	15.885		
2,900.0	2,822.2	2,845.2	2,762.2	12.9	12.2	-91.74	79.3	-630.3	372.3	348.8	23.47	15.859		
3,000.0	2,918.0	2,941.9	2,855.2	13.4	12.7	-92.62	79.1	-656.9	389.3	364.7	24.59	15.834		
3,100.0	3,013.9	3,042.1	2,951.2	14.0	13.3	-93.32	78.8	-685.6	407.3	381.6	25.72	15.840		
3,200.0	3,109.7	3,143.5	3,048.9	14.6	13.9	-94.17	78.9	-712.7	423.8	397.0	26.86	15.782		
3,300.0	3,205.5	3,241.8	3,143.3	15.2	14.4	-94.77	79.6	-740.0	440.6	412.6	27.96	15.756		
3,400.0	3,301.4	3,341.3	3,239.6	15.8	14.9	-95.69	79.0	-765.2	457.2	428.2	29.07	15.728		
3,500.0	3,397.2	3,437.6	3,332.6	16.4	15.4	-96.44	78.7	-790.2	474.0	443.8	30.16	15.715		
3,600.0	3,493.1	3,532.4	3,423.7	17.0	15.9	-96.96	78.6	-816.3	491.4	460.2	31.26	15.720		
3,700.0	3,588.9	3,627.5	3,514.7	17.6	16.5	-97.26	78.7	-844.2	509.6	477.2	32.38	15.737		
3,800.0	3,684.8	3,725.1	3,607.7	18.2	17.1	-97.42	79.0	-873.9	528.2	494.7	33.53	15.753		
3,900.0	3,780.6	3,821.9	3,699.5	18.8	17.7	-97.47	79.6	-904.1	546.9	512.3	34.68	15.770		
4,000.0	3,876.4	3,925.9	3,798.5	19.4	18.4	-97.58	80.2	-936.1	565.4	529.5	35.86	15.767		
4,100.0	3,972.3	4,027.6	3,896.0	20.0	18.9	-97.87	80.8	-965.3	582.9	545.9	36.99	15.758		
4,200.0	4,068.1	4,118.4	3,983.1	20.6	19.5	-98.20	80.5	-990.8	600.9	562.8	38.07	15.785		
4,300.0	4,164.0	4,220.8	4,081.6	21.2	20.0	-98.65	79.5	-1,018.7	619.2	580.0	39.19	15.798		
4,400.0	4,259.8	4,325.2	4,182.7	21.8	20.5	-99.29	78.1	-1,045.0	636.7	596.4	40.30	15.801		
4,500.0	4,355.6	4,430.2	4,284.5	22.4	21.1	-99.94	77.6	-1,070.4	653.2	611.8	41.40	15.778		
4,600.0	4,451.5	4,530.1	4,381.0	23.0	21.6	-100.31	78.7	-1,096.5	669.2	626.7	42.49	15.750		
4,700.0	4,547.3	4,632.2	4,479.7	23.6	22.1	-100.75	79.7	-1,122.3	685.0	641.4	43.60	15.713		
4,800.0	4,643.2	4,731.8	4,576.0	24.2	22.6	-101.13	81.3	-1,147.6	700.3	655.6	44.69	15.671		
4,900.0	4,739.0	4,826.8	4,667.9	24.8	23.1	-101.46	82.5	-1,171.9	715.9	670.2	45.76	15.646		
5,000.0	4,834.9	4,922.9	4,760.7	25.4	23.6	-101.79	83.4	-1,196.7	732.1	685.2	46.84	15.629		
5,100.0	4,930.7	5,024.4	4,858.5	26.0	24.2	-102.02	84.8	-1,224.0	748.3	700.3	47.97	15.600		
5,114.6	4,944.7	5,039.7	4,873.1	26.1	24.3	-102.04	85.1	-1,228.2	750.6	702.5	48.13	15.594		
5,200.0	5,026.9	5,123.2	4,953.5	26.6	24.7	-102.37	86.7	-1,250.8	763.8	714.8	49.02	15.581		
5,300.0	5,124.0	5,233.7	5,061.1	27.0	25.2	-102.84	87.3	-1,276.2	778.2	728.3	49.95	15.581		
5,400.0	5,221.8	5,338.8	5,164.3	27.3	25.6	-103.33	87.2	-1,295.6	790.5	739.8	50.72	15.586		
5,500.0	5,320.3	5,447.3	5,271.4	27.6	26.0	-103.67	87.3	-1,313.2	801.0	749.6	51.41	15.581		

Offset Design Antelope 21-17 Pad Sec.17-T5N-R62W - Antelope 11-17 (Exist.) - Wellbore #1 - Wellbore #1													Offset Site Error: 0.0 ft	
Survey Program: 498-MWD													Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,600.0	5,419.4	5,547.9	5,371.0	27.9	26.3	-103.87	87.1	-1,327.5	810.1	758.1	51.98	15.584		
5,700.0	5,518.9	5,653.7	5,476.0	28.1	26.6	-103.99	86.1	-1,339.9	818.1	765.6	52.48	15.590		
5,800.0	5,618.6	5,771.4	5,593.3	28.3	26.8	-104.04	85.1	-1,349.6	823.8	770.9	52.90	15.573		
5,900.0	5,718.6	5,879.1	5,700.7	28.4	27.0	-103.87	85.6	-1,356.8	826.8	773.5	53.22	15.534		
5,943.6	5,762.2	5,923.8	5,745.4	28.4	27.1	-156.40	85.7	-1,359.0	827.6	774.3	53.38	15.505		
6,000.0	5,818.6	5,981.5	5,803.1	28.5	27.2	-156.25	85.7	-1,361.4	828.6	775.1	53.52	15.483		
6,043.6	5,862.1	6,028.8	5,850.4	28.5	27.3	-156.17	85.5	-1,362.8	829.2	775.6	53.62	15.465		
6,050.0	5,868.6	6,035.9	5,857.5	28.5	27.3	22.32	85.5	-1,362.9	829.3	775.7	53.58	15.478		
6,100.0	5,918.5	6,090.4	5,911.9	28.5	27.3	22.55	85.3	-1,363.6	826.9	773.5	53.42	15.480		
6,150.0	5,967.8	6,141.9	5,963.4	28.5	27.4	23.08	85.2	-1,363.8	819.9	767.1	52.81	15.524		
6,200.0	6,016.2	6,193.9	6,015.4	28.5	27.4	23.97	85.1	-1,363.9	808.5	756.7	51.81	15.606		
6,250.0	6,063.2	6,247.4	6,068.9	28.4	27.5	25.31	85.3	-1,363.6	792.5	742.1	50.42	15.717		
6,300.0	6,108.3	6,295.2	6,116.8	28.2	27.5	27.08	85.7	-1,363.0	772.3	723.6	48.71	15.853		
6,350.0	6,151.2	6,338.0	6,159.5	28.1	27.6	29.38	86.2	-1,362.6	748.3	701.6	46.74	16.009		
6,400.0	6,191.4	6,377.5	6,199.1	27.9	27.6	32.35	86.7	-1,362.3	720.9	676.3	44.61	16.162		
6,450.0	6,228.6	6,413.4	6,235.0	27.7	27.6	36.09	87.0	-1,362.1	690.5	648.1	42.43	16.275		
6,500.0	6,262.4	6,446.1	6,267.7	27.5	27.6	40.76	87.3	-1,361.8	657.6	617.2	40.38	16.286		
6,550.0	6,292.5	6,474.7	6,296.2	27.3	27.7	46.45	87.5	-1,361.5	622.5	583.9	38.62	16.117		
6,600.0	6,318.6	6,499.3	6,320.8	27.0	27.7	53.17	87.6	-1,361.3	585.9	548.6	37.32	15.699		
6,650.0	6,340.6	6,520.0	6,341.5	26.8	27.7	60.78	87.7	-1,361.1	548.3	511.8	36.47	15.034		
6,700.0	6,358.1	6,536.6	6,358.1	26.6	27.7	68.83	87.7	-1,361.1	510.5	474.6	35.91	14.217		
6,750.0	6,371.1	6,548.9	6,370.4	26.3	27.7	76.67	87.7	-1,361.0	473.3	437.9	35.38	13.378		
6,800.0	6,379.3	6,557.1	6,378.6	26.1	27.7	83.65	87.7	-1,361.0	437.5	402.8	34.74	12.595		
6,850.0	6,382.9	6,560.6	6,382.2	25.9	27.7	89.18	87.7	-1,361.0	404.3	370.2	34.06	11.871		
6,861.7	6,383.0	6,560.8	6,382.3	25.8	27.7	90.24	87.7	-1,361.0	397.0	363.0	33.91	11.707		
6,861.8	6,383.0	6,560.8	6,382.3	25.8	27.7	90.24	87.7	-1,361.0	396.9	363.0	33.91	11.707		
6,900.0	6,383.0	6,560.7	6,382.3	25.7	27.7	90.23	87.7	-1,361.0	374.7	340.8	33.84	11.073		
6,961.8	6,383.0	6,560.7	6,382.2	25.4	27.7	90.22	87.7	-1,361.0	344.6	310.8	33.78	10.201		
6,962.5	6,383.0	6,560.7	6,382.2	25.4	27.7	90.22	87.7	-1,361.0	344.3	310.5	33.78	10.191		
7,000.0	6,383.0	6,560.7	6,382.2	25.3	27.7	90.22	87.7	-1,361.0	330.5	296.7	33.77	9.787		
7,100.0	6,383.0	6,560.6	6,382.1	25.0	27.7	90.21	87.7	-1,361.0	313.2	279.3	33.92	9.234		
7,105.6	6,383.0	6,560.6	6,382.1	25.0	27.7	90.21	87.7	-1,361.0	313.2	279.2	33.94	9.227 SF		
7,200.0	6,383.0	6,560.5	6,382.1	24.8	27.7	90.19	87.7	-1,361.0	327.1	292.8	34.27	9.544		
7,300.0	6,383.0	6,560.5	6,382.0	24.8	27.7	90.18	87.7	-1,361.0	368.6	333.8	34.80	10.591		
7,400.0	6,383.0	6,560.4	6,381.9	24.8	27.7	90.17	87.7	-1,361.0	429.8	394.3	35.51	12.104		
7,500.0	6,383.0	6,560.3	6,381.9	25.0	27.7	90.16	87.7	-1,361.0	503.6	467.2	36.37	13.848		
7,600.0	6,383.0	6,560.3	6,381.8	25.5	27.7	90.14	87.7	-1,361.0	585.2	547.8	37.36	15.664		
7,700.0	6,383.0	6,560.2	6,381.7	26.2	27.7	90.13	87.7	-1,361.0	671.8	633.3	38.47	17.462		
7,800.0	6,383.0	6,560.1	6,381.7	27.2	27.7	90.12	87.7	-1,361.0	761.7	722.0	39.69	19.193		
7,900.0	6,383.0	6,560.1	6,381.6	28.3	27.7	90.11	87.7	-1,361.0	853.9	812.9	40.99	20.833		
8,000.0	6,383.0	6,560.0	6,381.5	29.5	27.7	90.10	87.7	-1,361.0	947.6	905.2	42.36	22.370		

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well Antelope F-J-17HZ
Project:	SEC.17-T5N-R62W	TVD Reference:	WELL @ 4702.0ft (Est. KB 12')
Reference Site:	Antelope 21-17 Pad Sec.17-T5N-R62W	MD Reference:	WELL @ 4702.0ft (Est. KB 12')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Antelope F-J-17HZ	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 #2 (9-11-12)	Offset TVD Reference:	Offset Datum

Offset Design Antelope 21-17 Pad Sec.17-T5N-R62W - Antelope 12-17 (Exist.) - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 ft
Survey Program: 499-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	
7,500.0	6,383.0	6,531.6	6,375.4	25.0	25.2	92.13	-1,224.5	-1,388.5	968.0	922.4	45.59	21.233	
7,600.0	6,383.0	6,531.1	6,374.9	25.5	25.2	92.05	-1,224.5	-1,388.6	873.7	827.1	46.59	18.753	
7,700.0	6,383.0	6,530.7	6,374.5	26.2	25.2	91.96	-1,224.5	-1,388.6	780.8	733.1	47.71	16.367	
7,800.0	6,383.0	6,530.3	6,374.1	27.2	25.2	91.88	-1,224.5	-1,388.6	690.0	641.0	48.93	14.102	
7,900.0	6,383.0	6,529.8	6,373.6	28.3	25.2	91.80	-1,224.5	-1,388.6	602.0	551.8	50.24	11.984	
8,000.0	6,383.0	6,529.4	6,373.2	29.5	25.2	91.72	-1,224.5	-1,388.6	518.5	466.8	51.62	10.044	
8,100.0	6,383.0	6,529.0	6,372.8	30.8	25.2	91.64	-1,224.5	-1,388.6	441.8	388.7	53.06	8.326	
8,200.0	6,383.0	6,528.5	6,372.3	32.2	25.2	91.56	-1,224.5	-1,388.6	376.2	321.7	54.56	6.895	
8,300.0	6,383.0	6,528.1	6,371.9	33.6	25.2	91.47	-1,224.5	-1,388.6	328.5	272.4	56.11	5.855	
8,400.0	6,383.0	6,527.6	6,371.4	35.1	25.2	91.39	-1,224.5	-1,388.6	307.0	249.3	57.69	5.322	
8,418.2	6,383.0	6,527.6	6,371.4	35.4	25.2	91.38	-1,224.5	-1,388.6	306.5	248.5	57.99	5.286 CC, ES, SF	
8,500.0	6,383.0	6,527.2	6,371.0	36.7	25.2	91.31	-1,224.5	-1,388.7	317.2	257.9	59.31	5.349	
8,600.0	6,383.0	6,526.8	6,370.6	38.2	25.2	91.23	-1,224.5	-1,388.7	356.4	295.4	60.96	5.846	
8,700.0	6,383.0	6,526.3	6,370.1	39.8	25.2	91.15	-1,224.5	-1,388.7	416.4	353.7	62.64	6.648	
8,800.0	6,383.0	6,525.9	6,369.7	41.5	25.2	91.06	-1,224.5	-1,388.7	489.6	425.3	64.33	7.611	
8,900.0	6,383.0	6,525.4	6,369.3	43.1	25.2	90.98	-1,224.5	-1,388.7	571.1	505.0	66.05	8.646	
9,000.0	6,383.0	6,525.0	6,368.8	44.8	25.2	90.90	-1,224.5	-1,388.7	657.6	589.8	67.78	9.702	
9,100.0	6,383.0	6,524.6	6,368.4	46.5	25.2	90.82	-1,224.6	-1,388.7	747.6	678.0	69.53	10.751	
9,200.0	6,383.0	6,524.1	6,367.9	48.2	25.2	90.73	-1,224.6	-1,388.7	839.8	768.5	71.29	11.779	
9,300.0	6,383.0	6,523.7	6,367.5	49.9	25.2	90.65	-1,224.6	-1,388.7	933.6	860.5	73.07	12.777	

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well Antelope F-J-17HZ
Project:	SEC.17-T5N-R62W	TVD Reference:	WELL @ 4702.0ft (Est. KB 12')
Reference Site:	Antelope 21-17 Pad Sec.17-T5N-R62W	MD Reference:	WELL @ 4702.0ft (Est. KB 12')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Antelope F-J-17HZ	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 #2 (9-11-12)	Offset TVD Reference:	Offset Datum

Offset Design Antelope 21-17 Pad Sec.17-T5N-R62W - Antelope 13-17 (Exist.) - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 ft
Survey Program: 6383-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
8,700.0	6,383.0	6,364.0	6,364.0	39.8	127.3	90.00	-2,459.1	-1,286.8	965.1	800.2	164.91	5.852	
8,800.0	6,383.0	6,364.0	6,364.0	41.5	127.3	90.00	-2,459.1	-1,286.8	866.9	700.3	166.60	5.203	
8,900.0	6,383.0	6,364.0	6,364.0	43.1	127.3	90.00	-2,459.1	-1,286.8	769.1	600.8	168.31	4.570	
9,000.0	6,383.0	6,364.0	6,364.0	44.8	127.3	90.00	-2,459.1	-1,286.8	672.0	502.0	170.04	3.952	
9,100.0	6,383.0	6,364.0	6,364.0	46.5	127.3	90.00	-2,459.1	-1,286.8	576.0	404.2	171.78	3.353	
9,200.0	6,383.0	6,364.0	6,364.0	48.2	127.3	90.00	-2,459.1	-1,286.8	481.5	307.9	173.53	2.774	
9,300.0	6,383.0	6,364.0	6,364.0	49.9	127.3	90.00	-2,459.1	-1,286.8	389.7	214.4	175.30	2.223	
9,400.0	6,383.0	6,364.0	6,364.0	51.6	127.3	90.00	-2,459.1	-1,286.8	303.3	126.2	177.08	1.713	
9,500.0	6,383.0	6,364.0	6,364.0	53.4	127.3	90.00	-2,459.1	-1,286.8	228.1	49.3	178.86	1.275	Level 3
9,600.0	6,383.0	6,364.0	6,364.0	55.1	127.3	90.00	-2,459.1	-1,286.8	179.2	-1.4	180.66	0.992	Level 1
9,649.6	6,383.0	6,364.0	6,364.0	56.0	127.3	90.00	-2,459.1	-1,286.8	172.2	-9.3	181.56	0.949	Level 1, CC, ES, SF
9,700.0	6,383.0	6,364.0	6,364.0	56.9	127.3	90.00	-2,459.1	-1,286.8	179.5	-3.0	182.47	0.984	Level 1
9,800.0	6,383.0	6,364.0	6,364.0	58.6	127.3	90.00	-2,459.1	-1,286.8	228.7	44.4	184.28	1.241	Level 2
9,900.0	6,383.0	6,364.0	6,364.0	60.4	127.3	90.00	-2,459.1	-1,286.8	303.9	117.8	186.09	1.633	
10,000.0	6,383.0	6,364.0	6,364.0	62.2	127.3	90.00	-2,459.1	-1,286.8	390.4	202.5	187.92	2.078	
10,100.0	6,383.0	6,364.0	6,364.0	64.0	127.3	90.00	-2,459.1	-1,286.8	482.2	292.5	189.75	2.541	
10,200.0	6,383.0	6,364.0	6,364.0	65.8	127.3	90.00	-2,459.1	-1,286.8	576.7	385.1	191.58	3.010	
10,300.0	6,383.0	6,364.0	6,364.0	67.6	127.3	90.00	-2,459.1	-1,286.8	672.8	479.4	193.42	3.479	
10,400.0	6,383.0	6,364.0	6,364.0	69.4	127.3	90.00	-2,459.1	-1,286.8	769.9	574.7	195.26	3.943	
10,500.0	6,383.0	6,364.0	6,364.0	71.2	127.3	90.00	-2,459.1	-1,286.8	867.7	670.6	197.11	4.402	
10,600.0	6,383.0	6,364.0	6,364.0	73.1	127.3	90.00	-2,459.1	-1,286.8	965.9	766.9	198.96	4.855	

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well Antelope F-J-17HZ
Project:	SEC.17-T5N-R62W	TVD Reference:	WELL @ 4702.0ft (Est. KB 12')
Reference Site:	Antelope 21-17 Pad Sec.17-T5N-R62W	MD Reference:	WELL @ 4702.0ft (Est. KB 12')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Antelope F-J-17HZ	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 #2 (9-11-12)	Offset TVD Reference:	Offset Datum

Offset Design Antelope 21-17 Pad Sec.17-T5N-R62W - Antelope 14-17 (Exist.) - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 ft
Survey Program: 530-MWD												Offset Well Error:	0.0 ft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
10,100.0	6,383.0	6,424.9	6,336.7	64.0	20.8	90.84	-3,830.8	-1,399.3	956.7	876.5	80.17	11.933	
10,200.0	6,383.0	6,424.7	6,336.5	65.8	20.8	90.81	-3,830.8	-1,399.3	860.5	778.5	82.01	10.493	
10,300.0	6,383.0	6,424.6	6,336.3	67.6	20.8	90.77	-3,830.8	-1,399.3	765.3	681.5	83.85	9.127	
10,400.0	6,383.0	6,424.4	6,336.2	69.4	20.8	90.73	-3,830.8	-1,399.3	671.5	585.8	85.70	7.836	
10,500.0	6,383.0	6,424.2	6,336.0	71.2	20.8	90.70	-3,830.8	-1,399.3	579.8	492.3	87.55	6.623	
10,600.0	6,383.0	6,424.1	6,335.9	73.1	20.8	90.66	-3,830.8	-1,399.3	491.4	402.0	89.40	5.496	
10,700.0	6,383.0	6,423.9	6,335.7	74.9	20.8	90.62	-3,830.8	-1,399.3	408.3	317.0	91.26	4.474	
10,800.0	6,383.0	6,423.7	6,335.5	76.7	20.8	90.58	-3,830.8	-1,399.3	334.6	241.5	93.12	3.593	
10,900.0	6,383.0	6,423.6	6,335.4	78.5	20.8	90.55	-3,830.8	-1,399.3	277.8	182.8	94.98	2.925	
11,000.0	6,383.0	6,423.4	6,335.2	80.4	20.8	90.51	-3,830.8	-1,399.3	249.8	153.0	96.85	2.580	
11,023.8	6,383.0	6,423.4	6,335.2	80.8	20.8	90.50	-3,830.8	-1,399.3	248.7	151.4	97.29	2.556 CC, ES, SF	
11,100.0	6,383.0	6,423.3	6,335.0	82.2	20.8	90.47	-3,830.8	-1,399.3	260.1	161.4	98.72	2.635	
11,200.0	6,383.0	6,423.1	6,334.9	84.1	20.8	90.43	-3,830.8	-1,399.3	304.8	204.2	100.59	3.030	
11,226.7	6,383.0	6,423.0	6,334.8	84.6	20.8	90.42	-3,830.8	-1,399.3	321.0	219.9	101.09	3.176	

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well Antelope F-J-17HZ
Project:	SEC.17-T5N-R62W	TVD Reference:	WELL @ 4702.0ft (Est. KB 12')
Reference Site:	Antelope 21-17 Pad Sec.17-T5N-R62W	MD Reference:	WELL @ 4702.0ft (Est. KB 12')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Antelope F-J-17HZ	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 #2 (9-11-12)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 6383-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	-50.73	36.4	-44.6	57.6					
100.0	100.0	98.0	98.0	0.1	2.0	-50.73	36.4	-44.6	57.6	55.5	2.07	27.772		
200.0	200.0	198.0	198.0	0.3	4.0	-50.73	36.4	-44.6	57.6	53.3	4.30	13.394		
300.0	300.0	298.0	298.0	0.6	6.0	-52.12	36.4	-44.6	56.5	50.0	6.52	8.660		
400.0	399.8	397.8	397.8	0.8	8.0	-56.60	36.4	-44.6	53.4	44.7	8.74	6.109		
450.0	449.7	447.7	447.7	0.9	9.0	-60.28	36.4	-44.6	51.4	41.5	9.86	5.210		
500.0	499.5	497.5	497.5	1.0	10.0	-64.67	36.4	-44.6	49.3	38.4	10.98	4.493		
600.0	599.1	597.1	597.1	1.3	11.9	-74.43	36.4	-44.6	46.3	33.0	13.23	3.496		
650.0	648.9	646.9	646.9	1.4	12.9	-79.73	36.4	-44.6	45.3	30.9	14.37	3.153		
700.0	698.7	696.7	696.7	1.6	13.9	-75.56	36.4	-44.6	44.3	28.8	15.49	2.860		
800.0	798.2	796.2	796.2	1.8	15.9	-74.32	36.4	-44.6	41.4	23.7	17.74	2.334		
900.0	897.3	895.3	895.3	2.1	17.9	-82.81	36.4	-44.6	38.7	18.7	20.01	1.933		
947.7	944.4	942.4	942.4	2.3	18.8	-90.00	36.4	-44.6	38.2	17.1	21.08	1.812 CC		
1,000.0	996.0	994.0	994.0	2.4	19.9	-99.58	36.4	-44.6	38.9	16.7	22.24	1.750 ES, SF		
1,100.0	1,094.2	1,092.2	1,092.2	2.8	21.8	-118.97	36.4	-44.6	45.3	21.0	24.31	1.865		
1,200.0	1,191.8	1,189.8	1,189.8	3.2	23.8	-134.61	36.4	-44.6	58.9	32.6	26.23	2.244		
1,300.0	1,288.6	1,286.6	1,286.6	3.7	25.7	-145.19	36.4	-44.6	78.5	50.4	28.07	2.796		
1,355.1	1,341.5	1,339.5	1,339.5	3.9	26.8	-149.36	36.4	-44.6	91.4	62.4	29.06	3.147		
1,400.0	1,384.6	1,382.6	1,382.6	4.2	27.7	-152.97	36.4	-44.6	102.8	72.8	29.94	3.433		
1,500.0	1,480.4	1,478.4	1,478.4	4.7	29.6	-158.71	36.4	-44.6	129.0	97.1	31.96	4.038		
1,600.0	1,576.2	1,574.2	1,574.2	5.3	31.5	-162.50	36.4	-44.6	156.1	122.1	34.02	4.588		
1,700.0	1,672.1	1,670.1	1,670.1	5.8	33.4	-165.17	36.4	-44.6	183.6	147.5	36.11	5.085		
1,800.0	1,767.9	1,765.9	1,765.9	6.4	35.3	-167.15	36.4	-44.6	211.4	173.2	38.20	5.533		
1,900.0	1,863.8	1,861.8	1,861.8	7.0	37.2	-168.67	36.4	-44.6	239.3	199.0	40.31	5.937		
2,000.0	1,959.6	1,957.6	1,957.6	7.5	39.2	-169.87	36.4	-44.6	267.4	225.0	42.43	6.302		
2,100.0	2,055.4	2,053.4	2,053.4	8.1	41.1	-170.84	36.4	-44.6	295.6	251.0	44.55	6.635		
2,200.0	2,151.3	2,149.3	2,149.3	8.7	43.0	-171.64	36.4	-44.6	323.8	277.1	46.67	6.938		
2,300.0	2,247.1	2,245.1	2,245.1	9.3	44.9	-172.32	36.4	-44.6	352.1	303.3	48.80	7.215		
2,400.0	2,343.0	2,341.0	2,341.0	9.9	46.8	-172.89	36.4	-44.6	380.4	329.5	50.92	7.470		
2,500.0	2,438.8	2,436.8	2,436.8	10.5	48.7	-173.39	36.4	-44.6	408.7	355.7	53.05	7.705		
2,600.0	2,534.7	2,532.7	2,532.7	11.1	50.7	-173.82	36.4	-44.6	437.1	381.9	55.18	7.922		
2,700.0	2,630.5	2,628.5	2,628.5	11.7	52.6	-174.19	36.4	-44.6	465.5	408.2	57.31	8.122		
2,800.0	2,726.3	2,724.3	2,724.3	12.3	54.5	-174.53	36.4	-44.6	493.9	434.5	59.44	8.309		
2,900.0	2,822.2	2,820.2	2,820.2	12.9	56.4	-174.83	36.4	-44.6	522.3	460.8	61.58	8.483		
3,000.0	2,918.0	2,916.0	2,916.0	13.4	58.3	-175.10	36.4	-44.6	550.8	487.1	63.71	8.645		
3,100.0	3,013.9	3,011.9	3,011.9	14.0	60.2	-175.34	36.4	-44.6	579.2	513.4	65.85	8.797		
3,200.0	3,109.7	3,107.7	3,107.7	14.6	62.2	-175.56	36.4	-44.6	607.7	539.7	67.98	8.939		
3,300.0	3,205.5	3,203.5	3,203.5	15.2	64.1	-175.75	36.4	-44.6	636.1	566.0	70.11	9.073		
3,400.0	3,301.4	3,299.4	3,299.4	15.8	66.0	-175.94	36.4	-44.6	664.6	592.4	72.25	9.199		
3,500.0	3,397.2	3,395.2	3,395.2	16.4	67.9	-176.10	36.4	-44.6	693.1	618.7	74.39	9.317		
3,600.0	3,493.1	3,491.1	3,491.1	17.0	69.8	-176.26	36.4	-44.6	721.6	645.0	76.52	9.430		
3,700.0	3,588.9	3,586.9	3,586.9	17.6	71.7	-176.40	36.4	-44.6	750.0	671.4	78.66	9.536		
3,800.0	3,684.8	3,682.8	3,682.8	18.2	73.7	-176.53	36.4	-44.6	778.5	697.7	80.79	9.636		
3,900.0	3,780.6	3,778.6	3,778.6	18.8	75.6	-176.65	36.4	-44.6	807.0	724.1	82.93	9.731		
4,000.0	3,876.4	3,874.4	3,874.4	19.4	77.5	-176.77	36.4	-44.6	835.5	750.5	85.07	9.822		
4,100.0	3,972.3	3,970.3	3,970.3	20.0	79.4	-176.88	36.4	-44.6	864.0	776.8	87.21	9.908		
4,200.0	4,068.1	4,066.1	4,066.1	20.6	81.3	-176.97	36.4	-44.6	892.5	803.2	89.34	9.990		
4,300.0	4,164.0	4,162.0	4,162.0	21.2	83.2	-177.07	36.4	-44.6	921.0	829.5	91.48	10.068		
4,400.0	4,259.8	4,257.8	4,257.8	21.8	85.2	-177.16	36.4	-44.6	949.5	855.9	93.62	10.143		
4,500.0	4,355.6	4,353.6	4,353.6	22.4	87.1	-177.24	36.4	-44.6	978.0	882.3	95.75	10.214		

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well Antelope F-J-17HZ
Project:	SEC.17-T5N-R62W	TVD Reference:	WELL @ 4702.0ft (Est. KB 12')
Reference Site:	Antelope 21-17 Pad Sec.17-T5N-R62W	MD Reference:	WELL @ 4702.0ft (Est. KB 12')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Antelope F-J-17HZ	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 #2 (9-11-12)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 467-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	-67.76	18.2	-44.6	48.2					
100.0	100.0	97.8	97.8	0.1	0.1	-67.70	18.3	-44.7	48.3	48.1	0.22	217.010		
200.0	200.0	197.7	197.7	0.3	0.2	-67.52	18.7	-45.1	48.8	48.3	0.56	87.268		
300.0	300.0	297.5	297.5	0.6	0.3	-69.09	19.3	-45.8	49.1	48.2	0.90	54.741		
400.0	399.8	397.2	397.2	0.8	0.4	-74.38	20.1	-46.9	48.7	47.4	1.24	39.249		
450.0	449.7	447.0	447.0	0.9	0.5	-78.47	20.6	-47.5	48.4	47.0	1.42	34.186		
467.0	466.7	463.9	463.9	1.0	0.5	-80.03	20.7	-47.7	48.4	46.9	1.48	32.740		
500.0	499.5	497.0	497.0	1.0	0.6	-83.34	20.9	-48.1	48.4	46.8	1.63	29.788 ES		
600.0	599.1	596.9	596.8	1.3	0.8	-97.54	17.5	-48.6	49.0	47.0	2.08	23.594		
650.0	648.9	646.3	646.1	1.4	0.9	-106.47	13.9	-48.4	50.5	48.2	2.31	21.852		
700.0	698.7	694.7	694.3	1.6	1.0	-106.07	9.3	-48.1	53.3	50.7	2.55	20.906 SF		
800.0	798.2	790.2	788.9	1.8	1.3	-109.93	-2.8	-48.6	64.4	61.4	3.03	21.278		
900.0	897.3	883.8	881.2	2.1	1.6	-115.83	-18.7	-49.3	83.8	80.3	3.52	23.808		
1,000.0	996.0	974.8	970.3	2.4	1.9	-121.21	-37.5	-48.9	110.6	106.6	4.01	27.571		
1,100.0	1,094.2	1,062.2	1,055.0	2.8	2.3	-125.15	-58.7	-47.9	144.6	140.1	4.51	32.055		
1,200.0	1,191.8	1,148.1	1,137.5	3.2	2.7	-128.06	-82.3	-46.1	185.0	180.0	5.03	36.805		
1,300.0	1,288.6	1,235.4	1,221.3	3.7	3.1	-130.28	-106.9	-44.0	229.0	223.4	5.56	41.217		
1,355.1	1,341.5	1,280.7	1,264.6	3.9	3.4	-131.09	-120.0	-43.1	254.7	248.8	5.85	43.511		
1,400.0	1,384.6	1,318.2	1,300.5	4.2	3.6	-132.85	-131.2	-42.4	276.4	270.3	6.10	45.331		
1,500.0	1,480.4	1,409.9	1,388.1	4.7	4.0	-135.83	-158.1	-42.8	324.7	318.0	6.67	48.657		
1,600.0	1,576.2	1,500.5	1,474.9	5.3	4.5	-137.83	-183.9	-44.5	372.2	365.0	7.26	51.294		
1,700.0	1,672.1	1,593.0	1,563.9	5.8	4.9	-139.50	-209.1	-45.7	419.1	411.3	7.85	53.391		
1,800.0	1,767.9	1,688.0	1,655.8	6.4	5.4	-141.09	-233.3	-45.8	465.0	456.5	8.45	55.030		
1,900.0	1,863.8	1,775.0	1,740.1	7.0	5.8	-142.32	-254.9	-45.7	510.5	501.4	9.05	56.432		
2,000.0	1,959.6	1,859.8	1,822.0	7.5	6.2	-143.18	-276.7	-46.7	556.6	546.9	9.67	57.581		
2,100.0	2,055.4	1,948.0	1,907.1	8.1	6.6	-143.86	-299.9	-48.3	603.2	592.9	10.30	58.560		
2,200.0	2,151.3	2,042.3	1,998.2	8.7	7.1	-144.54	-324.3	-49.6	649.4	638.5	10.94	59.351		
2,300.0	2,247.1	2,125.6	2,078.7	9.3	7.5	-145.04	-345.6	-51.0	695.5	684.0	11.57	60.130		
2,400.0	2,343.0	2,206.5	2,156.7	9.9	7.9	-145.46	-367.1	-52.3	742.6	730.4	12.20	60.885		
2,500.0	2,438.8	2,290.3	2,237.2	10.5	8.4	-145.85	-390.0	-53.2	790.4	777.5	12.84	61.571		
2,600.0	2,534.7	2,373.3	2,317.0	11.1	8.8	-146.17	-413.1	-54.3	838.5	825.0	13.48	62.207		
2,700.0	2,630.5	2,453.0	2,393.4	11.7	9.2	-146.45	-435.8	-55.0	887.4	873.3	14.11	62.870		
2,800.0	2,726.3	2,535.1	2,472.0	12.3	9.7	-146.76	-459.5	-55.0	936.9	922.1	14.75	63.506		
2,900.0	2,822.2	2,622.4	2,555.6	12.9	10.2	-147.07	-484.7	-54.6	986.6	971.2	15.40	64.057		

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well Antelope F-J-17HZ
Project:	SEC.17-T5N-R62W	TVD Reference:	WELL @ 4702.0ft (Est. KB 12')
Reference Site:	Antelope 21-17 Pad Sec.17-T5N-R62W	MD Reference:	WELL @ 4702.0ft (Est. KB 12')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Antelope F-J-17HZ	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 #2 (9-11-12)	Offset TVD Reference:	Offset Datum

Offset Design		Antelope 21-17 Pad Sec.17-T5N-R62W - Antelope G-17 (Exist.) - Wellbore #1 - Wellbore #1											Offset Site Error:		0.0 ft
Survey Program: 467-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	-39.19	54.7	-44.6	70.5						
100.0	100.0	97.8	97.8	0.1	0.1	-39.30	54.7	-44.8	70.7	70.5	0.22	316.193			
200.0	200.0	197.5	197.5	0.3	0.2	-39.62	54.9	-45.4	71.2	70.7	0.56	126.819			
300.0	300.0	297.2	297.2	0.6	0.3	-41.07	55.1	-46.5	70.8	69.9	0.90	78.509			
400.0	399.8	396.8	396.8	0.8	0.5	-44.74	55.5	-48.0	68.2	67.0	1.25	54.628			
450.0	449.7	446.6	446.5	0.9	0.5	-47.57	55.7	-48.9	66.3	64.9	1.43	46.461			
500.0	499.5	496.6	496.6	1.0	0.6	-50.95	55.8	-49.9	64.3	62.7	1.63	39.501			
600.0	599.1	595.3	595.2	1.3	0.8	-61.11	53.2	-53.0	60.6	58.5	2.09	29.023			
617.1	616.2	612.0	611.8	1.3	0.9	-63.46	52.4	-54.1	60.5	58.3	2.17	27.834	CC, ES		
650.0	648.9	643.9	643.6	1.4	0.9	-68.22	50.7	-56.5	60.8	58.5	2.34	26.012			
700.0	698.7	693.4	692.8	1.6	1.1	-66.27	47.5	-60.6	62.1	59.5	2.59	23.970			
800.0	798.2	790.8	789.4	1.8	1.3	-68.95	38.1	-68.8	65.6	62.5	3.10	21.194			
900.0	897.3	886.8	884.1	2.1	1.6	-76.55	26.3	-78.9	75.0	71.4	3.60	20.817			
1,000.0	996.0	982.2	978.1	2.4	2.0	-84.28	14.0	-89.7	88.8	84.7	4.12	21.541			
1,100.0	1,094.2	1,077.4	1,071.5	2.8	2.3	-91.09	0.5	-102.2	107.6	103.0	4.68	23.010			
1,200.0	1,191.8	1,171.1	1,163.4	3.2	2.7	-96.90	-13.1	-114.4	129.2	123.9	5.29	24.436			
1,300.0	1,288.6	1,264.9	1,254.9	3.7	3.0	-101.36	-27.8	-128.8	154.9	149.0	5.96	25.986			
1,355.1	1,341.5	1,317.6	1,306.4	3.9	3.3	-103.81	-36.1	-136.4	169.7	163.3	6.36	26.666			
1,400.0	1,384.6	1,359.6	1,347.4	4.2	3.4	-106.57	-42.6	-142.5	182.1	175.4	6.69	27.209			
1,500.0	1,480.4	1,452.5	1,438.1	4.7	3.8	-111.37	-57.2	-156.7	211.4	203.9	7.44	28.394			
1,600.0	1,576.2	1,545.9	1,529.2	5.3	4.2	-115.32	-72.8	-169.9	242.4	234.2	8.20	29.559			
1,700.0	1,672.1	1,643.6	1,624.7	5.8	4.6	-118.66	-88.6	-183.0	273.8	264.8	8.96	30.566			
1,800.0	1,767.9	1,738.3	1,717.5	6.4	5.0	-121.11	-102.6	-196.2	304.5	294.8	9.72	31.331			
1,900.0	1,863.8	1,832.4	1,809.5	7.0	5.4	-123.11	-117.0	-209.2	336.1	325.6	10.49	32.049			
2,000.0	1,959.6	1,929.8	1,904.9	7.5	5.8	-124.75	-131.4	-223.2	367.5	356.3	11.27	32.603			
2,100.0	2,055.4	2,025.6	1,998.5	8.1	6.2	-126.00	-144.9	-237.7	398.5	386.4	12.07	33.015			
2,200.0	2,151.3	2,126.0	2,096.7	8.7	6.6	-126.92	-158.6	-254.2	429.1	416.2	12.90	33.257			
2,300.0	2,247.1	2,221.5	2,189.9	9.3	7.0	-127.62	-170.6	-270.5	458.8	445.1	13.72	33.435			
2,400.0	2,343.0	2,318.8	2,285.2	9.9	7.4	-128.31	-182.9	-286.5	488.6	474.1	14.54	33.599			
2,500.0	2,438.8	2,411.2	2,375.6	10.5	7.8	-128.92	-194.4	-301.4	518.4	503.0	15.34	33.783			
2,600.0	2,534.7	2,504.0	2,466.4	11.1	8.2	-129.52	-206.6	-315.9	548.8	532.7	16.15	33.991			
2,700.0	2,630.5	2,600.2	2,560.6	11.7	8.6	-130.04	-219.4	-331.3	579.4	562.5	16.96	34.160			
2,800.0	2,726.3	2,693.9	2,652.2	12.3	9.0	-130.51	-231.7	-346.2	610.0	592.2	17.77	34.327			
2,900.0	2,822.2	2,784.4	2,740.7	12.9	9.4	-130.87	-244.1	-361.1	641.0	622.5	18.58	34.495			
3,000.0	2,918.0	2,890.3	2,844.0	13.4	9.9	-131.19	-258.5	-379.0	672.0	652.5	19.45	34.540			
3,100.0	3,013.9	2,972.9	2,924.8	14.0	10.2	-131.50	-269.3	-392.2	702.6	682.4	20.22	34.745			
3,200.0	3,109.7	3,066.6	3,016.5	14.6	10.6	-131.93	-282.8	-405.8	734.5	713.5	21.01	34.960			
3,300.0	3,205.5	3,161.5	3,109.4	15.2	11.0	-132.30	-296.3	-419.9	766.3	744.5	21.81	35.134			
3,400.0	3,301.4	3,265.5	3,211.4	15.8	11.4	-132.73	-310.5	-434.6	797.7	775.1	22.62	35.259			
3,500.0	3,397.2	3,357.8	3,302.2	16.4	11.8	-133.23	-322.3	-445.8	828.6	805.2	23.37	35.453			
3,600.0	3,493.1	3,450.7	3,393.3	17.0	12.1	-133.55	-334.8	-459.0	859.8	835.6	24.16	35.588			
3,700.0	3,588.9	3,545.2	3,485.7	17.6	12.6	-133.74	-347.9	-474.2	891.2	866.2	24.99	35.668			
3,800.0	3,684.8	3,632.9	3,571.5	18.2	12.9	-133.91	-360.3	-488.0	922.9	897.1	25.78	35.805			
3,900.0	3,780.6	3,719.7	3,656.2	18.8	13.3	-134.10	-373.2	-501.2	955.4	928.9	26.56	35.975			
4,000.0	3,876.4	3,818.6	3,752.7	19.4	13.8	-134.26	-388.4	-516.7	988.3	960.9	27.40	36.076			
6,850.0	6,382.9	6,467.6	6,375.2	25.9	21.1	-85.72	-603.1	-709.6	995.0	959.0	36.03	27.615			
6,861.7	6,383.0	6,467.7	6,375.3	25.8	21.1	-89.08	-603.1	-709.6	984.1	947.7	36.35	27.070			
6,861.8	6,383.0	6,467.7	6,375.3	25.8	21.1	-89.08	-603.1	-709.6	984.1	947.7	36.35	27.069			
6,900.0	6,383.0	6,467.6	6,375.2	25.7	21.1	-89.07	-603.1	-709.6	948.5	912.2	36.28	26.144			
6,961.8	6,383.0	6,467.5	6,375.1	25.4	21.1	-89.05	-603.1	-709.6	891.6	855.4	36.22	24.614			
6,962.5	6,383.0	6,467.5	6,375.1	25.4	21.1	-89.05	-603.1	-709.6	890.9	854.6	36.22	24.595			
7,000.0	6,383.0	6,467.5	6,375.1	25.3	21.1	-89.05	-603.1	-709.6	856.7	820.4	36.21	23.661			

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 F-J-17HZ
Project:	SEC.17-T5N-R62W	TVD Reference:	WELL @ 4702.0ft (Est. KB 12')
Reference Site:	Antelope 21-17 Pad Sec.17-T5N-R62W	MD Reference:	WELL @ 4702.0ft (Est. KB 12')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Antelope F-J-17HZ	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 #2 (9-11-12)	Offset TVD Reference:	Offset Datum

Offset Design Antelope 21-17 Pad Sec.17-T5N-R62W - Antelope G-17 (Exist.) - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 ft
Survey Program: 467-MWD												Offset Well Error:	0.0 ft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
7,100.0	6,383.0	6,467.3	6,374.9	25.0	21.1	-89.02	-603.1	-709.6	766.8	730.5	36.35	21.097	
7,200.0	6,383.0	6,467.2	6,374.8	24.8	21.1	-89.00	-603.1	-709.6	679.9	643.2	36.69	18.530	
7,300.0	6,383.0	6,467.1	6,374.6	24.8	21.1	-88.98	-603.1	-709.6	597.0	559.8	37.22	16.041	
7,400.0	6,383.0	6,466.9	6,374.5	24.8	21.1	-88.95	-603.1	-709.6	520.1	482.2	37.92	13.719	
7,500.0	6,383.0	6,466.8	6,374.4	25.0	21.1	-88.93	-603.1	-709.6	452.5	413.7	38.77	11.671	
7,600.0	6,383.0	6,466.6	6,374.2	25.5	21.1	-88.91	-603.1	-709.7	398.6	358.9	39.76	10.026	
7,700.0	6,383.0	6,466.5	6,374.1	26.2	21.1	-88.88	-603.1	-709.7	364.8	323.9	40.87	8.927	
7,779.1	6,383.0	6,466.4	6,373.9	26.9	21.1	-88.87	-603.1	-709.7	356.1	314.3	41.82	8.515	
7,800.0	6,383.0	6,466.3	6,373.9	27.2	21.1	-88.86	-603.1	-709.7	356.7	314.7	42.08	8.478 SF	
7,900.0	6,383.0	6,466.2	6,373.8	28.3	21.1	-88.84	-603.1	-709.7	376.1	332.7	43.37	8.671	
8,000.0	6,383.0	6,466.0	6,373.6	29.5	21.1	-88.81	-603.1	-709.7	419.1	374.3	44.74	9.366	
8,100.0	6,383.0	6,465.9	6,373.5	30.8	21.1	-88.79	-603.1	-709.7	479.4	433.2	46.18	10.381	
8,200.0	6,383.0	6,465.7	6,373.3	32.2	21.1	-88.76	-603.1	-709.7	551.3	503.7	47.66	11.567	
8,300.0	6,383.0	6,465.6	6,373.2	33.6	21.1	-88.74	-603.1	-709.7	631.0	581.8	49.20	12.825	
8,400.0	6,383.0	6,465.4	6,373.0	35.1	21.1	-88.71	-603.1	-709.7	715.8	665.0	50.77	14.097	
8,500.0	6,383.0	6,465.3	6,372.8	36.7	21.1	-88.69	-603.1	-709.7	804.0	751.7	52.38	15.349	
8,600.0	6,383.0	6,465.1	6,372.7	38.2	21.1	-88.66	-603.1	-709.7	894.8	840.8	54.02	16.564	
8,700.0	6,383.0	6,464.9	6,372.5	39.8	21.1	-88.64	-603.1	-709.7	987.3	931.7	55.68	17.731	

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well Antelope F-J-17HZ
Project:	SEC.17-T5N-R62W	TVD Reference:	WELL @ 4702.0ft (Est. KB 12')
Reference Site:	Antelope 21-17 Pad Sec.17-T5N-R62W	MD Reference:	WELL @ 4702.0ft (Est. KB 12')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Antelope F-J-17HZ	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 #2 (9-11-12)	Offset TVD Reference:	Offset Datum

Offset Design Antelope 21-17 Pad Sec.17-T5N-R62W - Antelope H-17 (Exist.) - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 ft
Survey Program: 526-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
8,300.0	6,383.0	6,422.7	6,343.7	33.6	20.2	-87.77	-1,910.4	-602.8	927.9	879.9	48.02	19.321	
8,400.0	6,383.0	6,421.9	6,342.8	35.1	20.2	-87.68	-1,910.5	-602.9	845.2	795.6	49.59	17.042	
8,500.0	6,383.0	6,421.0	6,342.0	36.7	20.2	-87.58	-1,910.5	-602.9	766.6	715.4	51.19	14.974	
8,600.0	6,383.0	6,420.2	6,341.2	38.2	20.2	-87.48	-1,910.5	-603.0	693.5	640.7	52.83	13.129	
8,700.0	6,383.0	6,419.3	6,340.3	39.8	20.2	-87.39	-1,910.5	-603.0	628.0	573.5	54.48	11.526	
8,800.0	6,383.0	6,418.5	6,339.4	41.5	20.2	-87.29	-1,910.5	-603.0	572.5	516.3	56.16	10.193	
8,900.0	6,383.0	6,417.6	6,338.6	43.1	20.2	-87.19	-1,910.5	-603.1	530.1	472.3	57.86	9.162	
9,000.0	6,383.0	6,416.7	6,337.7	44.8	20.2	-87.08	-1,910.5	-603.1	504.4	444.8	59.58	8.466	
9,083.3	6,383.0	6,416.0	6,336.9	46.2	20.2	-87.00	-1,910.5	-603.2	497.5	436.4	61.02	8.153 CC	
9,100.0	6,383.0	6,415.8	6,336.8	46.5	20.2	-86.98	-1,910.5	-603.2	497.7	436.4	61.31	8.119 ES	
9,200.0	6,383.0	6,414.9	6,335.9	48.2	20.2	-86.88	-1,910.5	-603.2	511.0	447.9	63.05	8.104 SF	
9,300.0	6,383.0	6,414.0	6,335.0	49.9	20.2	-86.77	-1,910.5	-603.3	542.6	477.8	64.80	8.373	
9,400.0	6,383.0	6,413.1	6,334.1	51.6	20.2	-86.66	-1,910.5	-603.3	589.7	523.1	66.57	8.859	
9,500.0	6,383.0	6,412.1	6,333.1	53.4	20.2	-86.56	-1,910.5	-603.4	648.9	580.6	68.34	9.495	
9,600.0	6,383.0	6,411.2	6,332.2	55.1	20.2	-86.45	-1,910.5	-603.4	717.2	647.1	70.13	10.228	
9,700.0	6,383.0	6,410.2	6,331.2	56.9	20.2	-86.34	-1,910.5	-603.5	792.3	720.4	71.92	11.017	
9,800.0	6,383.0	6,409.2	6,330.2	58.6	20.2	-86.22	-1,910.6	-603.5	872.4	798.7	73.71	11.835	
9,900.0	6,383.0	6,408.3	6,329.3	60.4	20.2	-86.11	-1,910.6	-603.6	956.3	880.7	75.51	12.663	

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well Antelope F-J-17HZ
Project:	SEC.17-T5N-R62W	TVD Reference:	WELL @ 4702.0ft (Est. KB 12')
Reference Site:	Antelope 21-17 Pad Sec.17-T5N-R62W	MD Reference:	WELL @ 4702.0ft (Est. KB 12')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Antelope F-J-17HZ	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 #2 (9-11-12)	Offset TVD Reference:	Offset Datum

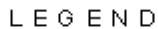
Offset Design Antelope 21-17 Pad Sec.17-T5N-R62W - Antelope I-17 (Exist.) - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 ft
Survey Program: 6352-UNKNOWN												Offset Well Error:	0.0 ft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured 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
9,500.0	6,383.0	6,333.0	6,333.0	53.4	126.7	-90.00	-3,169.5	-732.6	935.3	757.1	178.24	5.247	
9,600.0	6,383.0	6,333.0	6,333.0	55.1	126.7	-90.00	-3,169.5	-732.6	846.0	666.0	180.04	4.699	
9,700.0	6,383.0	6,333.0	6,333.0	56.9	126.7	-90.00	-3,169.5	-732.6	759.4	577.6	181.85	4.176	
9,800.0	6,383.0	6,333.0	6,333.0	58.6	126.7	-90.00	-3,169.5	-732.6	676.5	492.8	183.66	3.684	
9,900.0	6,383.0	6,333.0	6,333.0	60.4	126.7	-90.00	-3,169.5	-732.6	598.8	413.4	185.47	3.229	
10,000.0	6,383.0	6,333.0	6,333.0	62.2	126.7	-90.00	-3,169.5	-732.6	528.7	341.4	187.30	2.823	
10,100.0	6,383.0	6,333.0	6,333.0	64.0	126.7	-90.00	-3,169.5	-732.6	469.6	280.5	189.13	2.483	
10,200.0	6,383.0	6,333.0	6,333.0	65.8	126.7	-90.00	-3,169.5	-732.6	426.0	235.0	190.96	2.231	
10,300.0	6,383.0	6,333.0	6,333.0	67.6	126.7	-90.00	-3,169.5	-732.6	403.0	210.2	192.80	2.090	
10,345.3	6,383.0	6,333.0	6,333.0	68.4	126.7	-90.00	-3,169.5	-732.6	400.4	206.8	193.63	2.068	CC, ES, SF
10,400.0	6,383.0	6,333.0	6,333.0	69.4	126.7	-90.00	-3,169.5	-732.6	404.2	209.5	194.64	2.076	
10,500.0	6,383.0	6,333.0	6,333.0	71.2	126.7	-90.00	-3,169.5	-732.6	429.3	232.8	196.49	2.185	
10,600.0	6,383.0	6,333.0	6,333.0	73.1	126.7	-90.00	-3,169.5	-732.6	474.6	276.3	198.34	2.393	
10,700.0	6,383.0	6,333.0	6,333.0	74.9	126.7	-90.00	-3,169.5	-732.6	535.0	334.8	200.19	2.672	
10,800.0	6,383.0	6,333.0	6,333.0	76.7	126.7	-90.00	-3,169.5	-732.6	605.9	403.9	202.05	2.999	
10,900.0	6,383.0	6,333.0	6,333.0	78.5	126.7	-90.00	-3,169.5	-732.6	684.2	480.3	203.91	3.355	
11,000.0	6,383.0	6,333.0	6,333.0	80.4	126.7	-90.00	-3,169.5	-732.6	767.5	561.7	205.77	3.730	
11,100.0	6,383.0	6,333.0	6,333.0	82.2	126.7	-90.00	-3,169.5	-732.6	854.4	646.8	207.63	4.115	
11,200.0	6,383.0	6,333.0	6,333.0	84.1	126.7	-90.00	-3,169.5	-732.6	943.9	734.4	209.50	4.505	
11,226.7	6,383.0	6,333.0	6,333.0	84.6	126.7	-90.00	-3,169.5	-732.6	968.2	758.2	210.00	4.610	







Reference Depths are relative to WELL @ 4702.0ft (Est. KB 12')
 Offset Depths are relative to Offset Datum
 Central Meridian is -105.500000 °

Coordinates are relative to: Antelope F-J-17HZ
 Coordinate System is US State Plane 1983, Colorado Northern Zone
 Grid Convergence at Surface is: 0.74°



Reference Depths are relative to WELL @ 4702.0ft (Est. KB 12')	Coordinates are relative to: Antelope F-J-17HZ
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°



Slope I-17 (Exist.), Wellbore #1, Wellbore #1 V0  Antelope 21-17 (Exist.), Wellbore #1, Wellbore #1 V0  Antelope 11-17 (Exist.), Wellbore #1, Wellbore #1 V0 
 Slope 22-17 (Exist.), Wellbore #1, Wellbore #1 V0  Antelope 13-17 (Exist.), Wellbore #1, Wellbore #1 V0  Antelope 14-17 (Exist.), Wellbore #1, Wellbore #1 V0 
 Slope 12-17 (Exist.), Wellbore #1, Wellbore #1 V0 Antelope G-17 (Exist.), Wellbore #1, Wellbore #1 V0 Antelope H-17 (Exist.), Wellbore #1, Wellbore #1 V0