

# BONANZA CREEK ENERGY OPERATING

Well Name: **Wetco Farms A-4-9MRLC**

Surface Location: Wetco Farms A-4 Pad Sec.4-T4N-R63W  
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

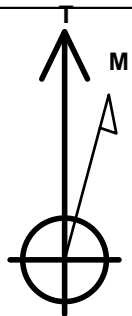
Ground Elevation: 4569.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1371323.44	3292187.32	40.347943	-104.451673	

RKB - 13' WELL @ 4582.0ft (RKB - 13')

## WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
SHL 274'FNL & 170'FWL, Sec.4	1.0	0.0	0.0	Point
BHL 2156'FNL & 10'FWL, Sec.9	6511.0	-7318.2	-231.7	Point
T1 531'FNL & 10'FWL, Sec.4	6511.0	-256.5	-164.5	Point



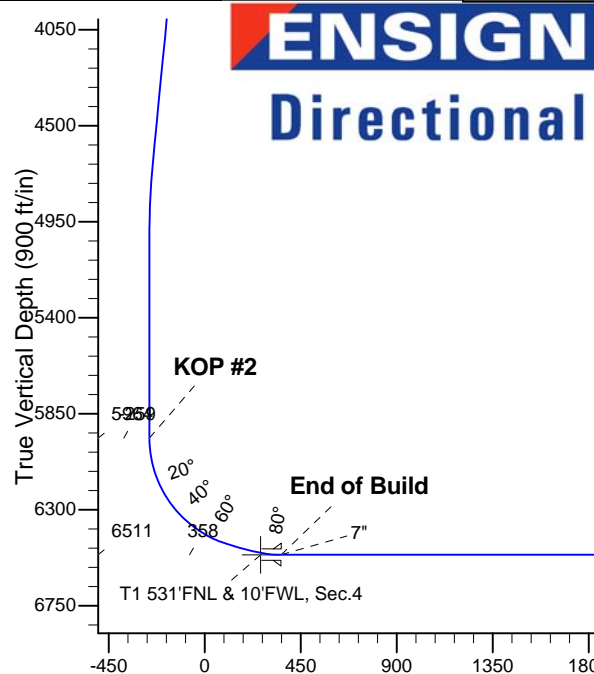
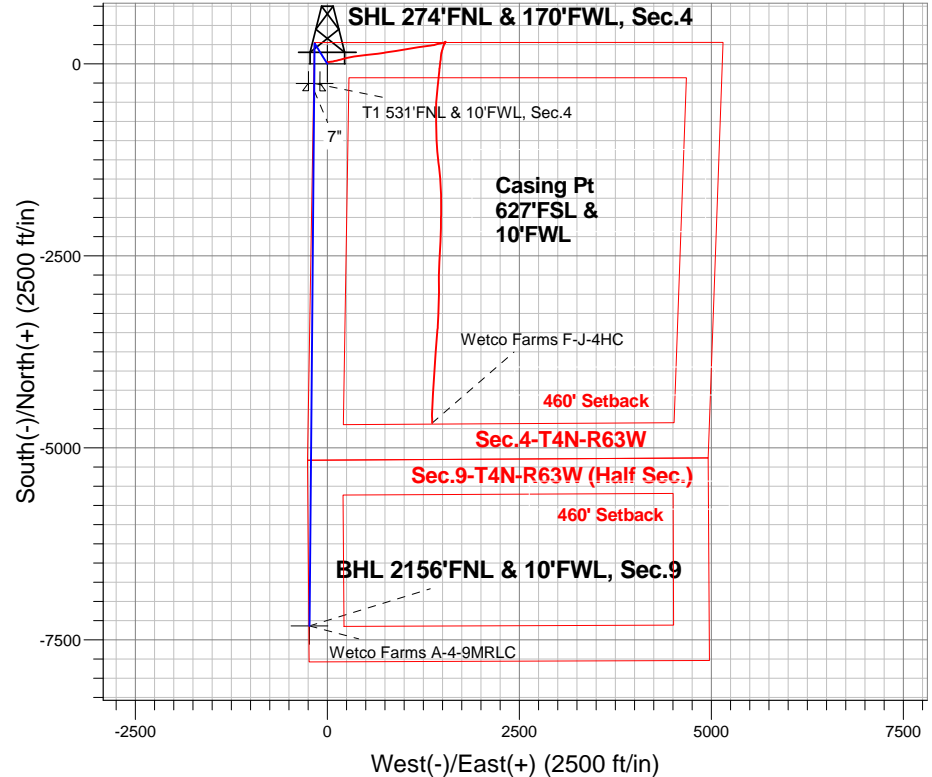
Azimuths to True North  
Magnetic North: 8.36°

Magnetic Field  
Strength: 52883.9nT  
Dip Angle: 66.98°  
Date: 11/15/2013  
Model: IGRF2010

Wetco Farms A-4 Pad Sec.4-T4N-R63W  
Wetco Farms A-4-9MRLC  
Plan #1 (11-15-13)  
10:19, November 15 2013

## ANNOTATIONS

TVD	MD	Annotation
2000.0	2000.0	KOP #1
5964.2	5981.6	KOP #2
6511.0	6899.8	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	2000.0	0.00	0.00	2000.0	0.0	0.0	0.00	0.00	0.0	
3	2333.1	6.66	328.12	2332.4	16.4	-10.2	2.00	328.12	-16.1	
4	4684.2	6.66	328.12	4667.6	248.1	-154.3	0.00	0.00	-243.1	
5	5017.4	0.00	0.00	5000.0	264.5	-164.5	2.00	180.00	-259.2	
6	5981.6	0.00	0.00	5964.2	264.5	-164.5	0.00	0.00	-259.2	
7	6663.4	75.00	180.51	6467.4	-121.5	-167.9	11.00	180.51	126.8	
8	6763.4	75.00	180.51	6493.3	-218.1	-168.8	0.00	0.00	223.4	
9	6899.8	90.00	180.51	6511.0	-352.9	-170.0	11.00	0.00	358.1	
10	13865.3	90.00	180.51	6511.0	-7318.2	-231.7	0.00	0.00	7321.9	BHL 2156'FNL & 10'FWL, Sec.9

BHL 2156'FNL & 10'FWL, Sec.9

Vertical Section at 181.81° (900 ft/in)



# **BONANZA CREEK ENERGY OPERATING**

**SEC.4-T4N-R63W**

**Wetco Farms A-4 Pad Sec.4-T4N-R63W**

**Wetco Farms A-4-9MRLC**

**Wellbore #1**

**Plan: Plan #1 (11-15-13)**

## **Standard Planning Report**

**15 November, 2013**

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,333.1	6.66	328.12	2,332.4	16.4	-10.2	2.00	2.00	0.00	328.12	
4,684.2	6.66	328.12	4,667.6	248.1	-154.3	0.00	0.00	0.00	0.00	
5,017.4	0.00	0.00	5,000.0	264.5	-164.5	2.00	-2.00	0.00	180.00	
5,981.6	0.00	0.00	5,964.2	264.5	-164.5	0.00	0.00	0.00	0.00	
6,663.4	75.00	180.51	6,467.4	-121.5	-167.9	11.00	11.00	0.00	180.51	
6,763.4	75.00	180.51	6,493.3	-218.1	-168.8	0.00	0.00	0.00	0.00	
6,899.8	90.00	180.51	6,511.0	-352.9	-170.0	11.00	11.00	0.00	0.00	
13,865.3	90.00	180.51	6,511.0	-7,318.2	-231.7	0.00	0.00	0.00	0.00	BHL 2156'FNL & 10

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Wetco Farms A-4-9MRLC
<b>Company:</b>	BONANZA CREEK ENERGY OPERATING	<b>TVD Reference:</b>	WELL @ 4582.0ft (RKB - 13')
<b>Project:</b>	SEC.4-T4N-R63W	<b>MD Reference:</b>	WELL @ 4582.0ft (RKB - 13')
<b>Site:</b>	Wetco Farms A-4 Pad Sec.4-T4N-R63W	<b>North Reference:</b>	True
<b>Well:</b>	Wetco Farms A-4-9MRLC	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (11-15-13)		

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
<b>SHL 274'FNL &amp; 170'FWL, Sec.4</b>									
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>KOP #1</b>									
2,100.0	2.00	328.12	2,100.0	1.5	-0.9	-1.5	2.00	2.00	0.00
2,200.0	4.00	328.12	2,199.8	5.9	-3.7	-5.8	2.00	2.00	0.00
2,300.0	6.00	328.12	2,299.5	13.3	-8.3	-13.1	2.00	2.00	0.00
2,333.1	6.66	328.12	2,332.4	16.4	-10.2	-16.1	2.00	2.00	0.00
2,400.0	6.66	328.12	2,398.8	23.0	-14.3	-22.6	0.00	0.00	0.00
2,500.0	6.66	328.12	2,498.1	32.9	-20.4	-32.2	0.00	0.00	0.00
2,600.0	6.66	328.12	2,597.4	42.7	-26.6	-41.9	0.00	0.00	0.00
2,700.0	6.66	328.12	2,696.8	52.6	-32.7	-51.5	0.00	0.00	0.00
2,800.0	6.66	328.12	2,796.1	62.4	-38.8	-61.2	0.00	0.00	0.00
2,900.0	6.66	328.12	2,895.4	72.3	-45.0	-70.8	0.00	0.00	0.00
3,000.0	6.66	328.12	2,994.7	82.1	-51.1	-80.5	0.00	0.00	0.00
3,100.0	6.66	328.12	3,094.1	92.0	-57.2	-90.1	0.00	0.00	0.00
3,200.0	6.66	328.12	3,193.4	101.8	-63.3	-99.8	0.00	0.00	0.00
3,300.0	6.66	328.12	3,292.7	111.7	-69.5	-109.4	0.00	0.00	0.00
3,400.0	6.66	328.12	3,392.0	121.5	-75.6	-119.1	0.00	0.00	0.00
3,500.0	6.66	328.12	3,491.4	131.4	-81.7	-128.7	0.00	0.00	0.00
3,600.0	6.66	328.12	3,590.7	141.2	-87.8	-138.4	0.00	0.00	0.00
3,700.0	6.66	328.12	3,690.0	151.1	-94.0	-148.0	0.00	0.00	0.00
3,800.0	6.66	328.12	3,789.3	161.0	-100.1	-157.7	0.00	0.00	0.00
3,900.0	6.66	328.12	3,888.7	170.8	-106.2	-167.4	0.00	0.00	0.00
4,000.0	6.66	328.12	3,988.0	180.7	-112.4	-177.0	0.00	0.00	0.00
4,100.0	6.66	328.12	4,087.3	190.5	-118.5	-186.7	0.00	0.00	0.00
4,200.0	6.66	328.12	4,186.6	200.4	-124.6	-196.3	0.00	0.00	0.00
4,300.0	6.66	328.12	4,286.0	210.2	-130.7	-206.0	0.00	0.00	0.00
4,400.0	6.66	328.12	4,385.3	220.1	-136.9	-215.6	0.00	0.00	0.00
4,500.0	6.66	328.12	4,484.6	229.9	-143.0	-225.3	0.00	0.00	0.00
4,600.0	6.66	328.12	4,583.9	239.8	-149.1	-234.9	0.00	0.00	0.00
4,684.2	6.66	328.12	4,667.6	248.1	-154.3	-243.1	0.00	0.00	0.00
4,700.0	6.35	328.12	4,683.3	249.6	-155.2	-244.5	2.00	-2.00	0.00
4,800.0	4.35	328.12	4,782.8	257.5	-160.1	-252.3	2.00	-2.00	0.00

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Wetco Farms A-4-9MRLC
<b>Company:</b>	BONANZA CREEK ENERGY OPERATING	<b>TVD Reference:</b>	WELL @ 4582.0ft (RKB - 13')
<b>Project:</b>	SEC.4-T4N-R63W	<b>MD Reference:</b>	WELL @ 4582.0ft (RKB - 13')
<b>Site:</b>	Wetco Farms A-4 Pad Sec.4-T4N-R63W	<b>North Reference:</b>	True
<b>Well:</b>	Wetco Farms A-4-9MRLC	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (11-15-13)		

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)
4,900.0	2.35	328.12	4,882.7	262.5	-163.2	-257.2	2.00	-2.00	0.00
5,000.0	0.35	328.12	4,982.6	264.5	-164.5	-259.1	2.00	-2.00	0.00
5,017.4	0.00	0.00	5,000.0	264.5	-164.5	-259.2	2.00	-2.00	0.00
5,100.0	0.00	0.00	5,082.6	264.5	-164.5	-259.2	0.00	0.00	0.00
5,200.0	0.00	0.00	5,182.6	264.5	-164.5	-259.2	0.00	0.00	0.00
5,300.0	0.00	0.00	5,282.6	264.5	-164.5	-259.2	0.00	0.00	0.00
5,400.0	0.00	0.00	5,382.6	264.5	-164.5	-259.2	0.00	0.00	0.00
5,500.0	0.00	0.00	5,482.6	264.5	-164.5	-259.2	0.00	0.00	0.00
5,600.0	0.00	0.00	5,582.6	264.5	-164.5	-259.2	0.00	0.00	0.00
5,700.0	0.00	0.00	5,682.6	264.5	-164.5	-259.2	0.00	0.00	0.00
5,800.0	0.00	0.00	5,782.6	264.5	-164.5	-259.2	0.00	0.00	0.00
5,900.0	0.00	0.00	5,882.6	264.5	-164.5	-259.2	0.00	0.00	0.00
5,981.6	0.00	0.00	5,964.2	264.5	-164.5	-259.2	0.00	0.00	0.00
<b>KOP #2</b>									
6,000.0	2.02	180.51	5,982.6	264.2	-164.5	-258.8	10.98	10.98	0.00
6,100.0	13.02	180.51	6,081.6	251.1	-164.6	-245.8	11.00	11.00	0.00
6,200.0	24.02	180.51	6,176.3	219.4	-164.9	-214.1	11.00	11.00	0.00
6,300.0	35.02	180.51	6,263.2	170.2	-165.3	-164.9	11.00	11.00	0.00
6,400.0	46.02	180.51	6,339.1	105.3	-165.9	-100.0	11.00	11.00	0.00
6,500.0	57.02	180.51	6,401.2	27.2	-166.6	-21.9	11.00	11.00	0.00
6,600.0	68.02	180.51	6,447.3	-61.4	-167.4	66.7	11.00	11.00	0.00
6,663.4	75.00	180.51	6,467.4	-121.5	-167.9	126.8	11.00	11.00	0.00
6,700.0	75.00	180.51	6,476.8	-156.9	-168.2	162.1	0.00	0.00	0.00
6,763.4	75.00	180.51	6,493.3	-218.1	-168.8	223.4	0.00	0.00	0.00
6,800.0	79.02	180.51	6,501.5	-253.7	-169.1	259.0	11.00	11.00	0.00
6,803.6	79.41	180.51	6,502.1	-257.3	-169.1	262.5	11.00	11.00	0.00
<b>T1 531'FNL &amp; 10'FWL, Sec.4</b>									
6,899.8	90.00	180.51	6,511.0	-352.9	-170.0	358.1	11.00	11.00	0.00
<b>End of Build - 7"</b>									
6,900.0	90.00	180.51	6,511.0	-353.1	-170.0	358.3	0.49	0.49	0.00
7,000.0	90.00	180.51	6,511.0	-453.1	-170.9	458.3	0.00	0.00	0.00
7,100.0	90.00	180.51	6,511.0	-553.1	-171.7	558.3	0.00	0.00	0.00
7,200.0	90.00	180.51	6,511.0	-653.1	-172.6	658.3	0.00	0.00	0.00
7,300.0	90.00	180.51	6,511.0	-753.1	-173.5	758.2	0.00	0.00	0.00
7,400.0	90.00	180.51	6,511.0	-853.1	-174.4	858.2	0.00	0.00	0.00
7,500.0	90.00	180.51	6,511.0	-953.1	-175.3	958.2	0.00	0.00	0.00
7,600.0	90.00	180.51	6,511.0	-1,053.1	-176.2	1,058.2	0.00	0.00	0.00
7,700.0	90.00	180.51	6,511.0	-1,153.1	-177.1	1,158.1	0.00	0.00	0.00
7,800.0	90.00	180.51	6,511.0	-1,253.1	-177.9	1,258.1	0.00	0.00	0.00
7,900.0	90.00	180.51	6,511.0	-1,353.1	-178.8	1,358.1	0.00	0.00	0.00
8,000.0	90.00	180.51	6,511.0	-1,453.1	-179.7	1,458.0	0.00	0.00	0.00
8,100.0	90.00	180.51	6,511.0	-1,553.1	-180.6	1,558.0	0.00	0.00	0.00
8,200.0	90.00	180.51	6,511.0	-1,653.1	-181.5	1,658.0	0.00	0.00	0.00
8,300.0	90.00	180.51	6,511.0	-1,753.1	-182.4	1,758.0	0.00	0.00	0.00
8,400.0	90.00	180.51	6,511.0	-1,853.1	-183.3	1,857.9	0.00	0.00	0.00
8,500.0	90.00	180.51	6,511.0	-1,953.1	-184.2	1,957.9	0.00	0.00	0.00
8,600.0	90.00	180.51	6,511.0	-2,053.1	-185.0	2,057.9	0.00	0.00	0.00
8,700.0	90.00	180.51	6,511.0	-2,153.1	-185.9	2,157.9	0.00	0.00	0.00
8,800.0	90.00	180.51	6,511.0	-2,253.1	-186.8	2,257.8	0.00	0.00	0.00
8,900.0	90.00	180.51	6,511.0	-2,353.1	-187.7	2,357.8	0.00	0.00	0.00
9,000.0	90.00	180.51	6,511.0	-2,453.0	-188.6	2,457.8	0.00	0.00	0.00
9,100.0	90.00	180.51	6,511.0	-2,553.0	-189.5	2,557.8	0.00	0.00	0.00
9,200.0	90.00	180.51	6,511.0	-2,653.0	-190.4	2,657.7	0.00	0.00	0.00

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Wetco Farms A-4-9MRLC
<b>Company:</b>	BONANZA CREEK ENERGY OPERATING	<b>TVD Reference:</b>	WELL @ 4582.0ft (RKB - 13')
<b>Project:</b>	SEC.4-T4N-R63W	<b>MD Reference:</b>	WELL @ 4582.0ft (RKB - 13')
<b>Site:</b>	Wetco Farms A-4 Pad Sec.4-T4N-R63W	<b>North Reference:</b>	True
<b>Well:</b>	Wetco Farms A-4-9MRLC	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (11-15-13)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
9,300.0	90.00	180.51	6,511.0	-2,753.0	-191.2	2,757.7	0.00	0.00	0.00
9,400.0	90.00	180.51	6,511.0	-2,853.0	-192.1	2,857.7	0.00	0.00	0.00
9,500.0	90.00	180.51	6,511.0	-2,953.0	-193.0	2,957.7	0.00	0.00	0.00
9,600.0	90.00	180.51	6,511.0	-3,053.0	-193.9	3,057.6	0.00	0.00	0.00
9,700.0	90.00	180.51	6,511.0	-3,153.0	-194.8	3,157.6	0.00	0.00	0.00
9,800.0	90.00	180.51	6,511.0	-3,253.0	-195.7	3,257.6	0.00	0.00	0.00
9,900.0	90.00	180.51	6,511.0	-3,353.0	-196.6	3,357.6	0.00	0.00	0.00
10,000.0	90.00	180.51	6,511.0	-3,453.0	-197.4	3,457.5	0.00	0.00	0.00
10,100.0	90.00	180.51	6,511.0	-3,553.0	-198.3	3,557.5	0.00	0.00	0.00
10,200.0	90.00	180.51	6,511.0	-3,653.0	-199.2	3,657.5	0.00	0.00	0.00
10,300.0	90.00	180.51	6,511.0	-3,753.0	-200.1	3,757.5	0.00	0.00	0.00
10,400.0	90.00	180.51	6,511.0	-3,853.0	-201.0	3,857.4	0.00	0.00	0.00
10,500.0	90.00	180.51	6,511.0	-3,953.0	-201.9	3,957.4	0.00	0.00	0.00
10,600.0	90.00	180.51	6,511.0	-4,053.0	-202.8	4,057.4	0.00	0.00	0.00
10,700.0	90.00	180.51	6,511.0	-4,153.0	-203.6	4,157.3	0.00	0.00	0.00
10,800.0	90.00	180.51	6,511.0	-4,253.0	-204.5	4,257.3	0.00	0.00	0.00
10,900.0	90.00	180.51	6,511.0	-4,353.0	-205.4	4,357.3	0.00	0.00	0.00
11,000.0	90.00	180.51	6,511.0	-4,453.0	-206.3	4,457.3	0.00	0.00	0.00
11,100.0	90.00	180.51	6,511.0	-4,553.0	-207.2	4,557.2	0.00	0.00	0.00
11,200.0	90.00	180.51	6,511.0	-4,653.0	-208.1	4,657.2	0.00	0.00	0.00
11,300.0	90.00	180.51	6,511.0	-4,753.0	-209.0	4,757.2	0.00	0.00	0.00
11,400.0	90.00	180.51	6,511.0	-4,853.0	-209.9	4,857.2	0.00	0.00	0.00
11,500.0	90.00	180.51	6,511.0	-4,953.0	-210.7	4,957.1	0.00	0.00	0.00
11,600.0	90.00	180.51	6,511.0	-5,052.9	-211.6	5,057.1	0.00	0.00	0.00
11,700.0	90.00	180.51	6,511.0	-5,152.9	-212.5	5,157.1	0.00	0.00	0.00
11,800.0	90.00	180.51	6,511.0	-5,252.9	-213.4	5,257.1	0.00	0.00	0.00
11,900.0	90.00	180.51	6,511.0	-5,352.9	-214.3	5,357.0	0.00	0.00	0.00
12,000.0	90.00	180.51	6,511.0	-5,452.9	-215.2	5,457.0	0.00	0.00	0.00
12,100.0	90.00	180.51	6,511.0	-5,552.9	-216.1	5,557.0	0.00	0.00	0.00
12,200.0	90.00	180.51	6,511.0	-5,652.9	-216.9	5,657.0	0.00	0.00	0.00
12,300.0	90.00	180.51	6,511.0	-5,752.9	-217.8	5,756.9	0.00	0.00	0.00
12,400.0	90.00	180.51	6,511.0	-5,852.9	-218.7	5,856.9	0.00	0.00	0.00
12,500.0	90.00	180.51	6,511.0	-5,952.9	-219.6	5,956.9	0.00	0.00	0.00
12,600.0	90.00	180.51	6,511.0	-6,052.9	-220.5	6,056.9	0.00	0.00	0.00
12,700.0	90.00	180.51	6,511.0	-6,152.9	-221.4	6,156.8	0.00	0.00	0.00
12,800.0	90.00	180.51	6,511.0	-6,252.9	-222.3	6,256.8	0.00	0.00	0.00
12,900.0	90.00	180.51	6,511.0	-6,352.9	-223.1	6,356.8	0.00	0.00	0.00
13,000.0	90.00	180.51	6,511.0	-6,452.9	-224.0	6,456.7	0.00	0.00	0.00
13,100.0	90.00	180.51	6,511.0	-6,552.9	-224.9	6,556.7	0.00	0.00	0.00
13,200.0	90.00	180.51	6,511.0	-6,652.9	-225.8	6,656.7	0.00	0.00	0.00
13,300.0	90.00	180.51	6,511.0	-6,752.9	-226.7	6,756.7	0.00	0.00	0.00
13,400.0	90.00	180.51	6,511.0	-6,852.9	-227.6	6,856.6	0.00	0.00	0.00
13,500.0	90.00	180.51	6,511.0	-6,952.9	-228.5	6,956.6	0.00	0.00	0.00
13,600.0	90.00	180.51	6,511.0	-7,052.9	-229.3	7,056.6	0.00	0.00	0.00
13,700.0	90.00	180.51	6,511.0	-7,152.9	-230.2	7,156.6	0.00	0.00	0.00
13,800.0	90.00	180.51	6,511.0	-7,252.9	-231.1	7,256.5	0.00	0.00	0.00
13,865.3	90.00	180.51	6,511.0	-7,318.2	-231.7	7,321.9	0.00	0.00	0.00
BHL 2156'FNL & 10'FWL, Sec.9									

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Wetco Farms A-4-9MRLC
<b>Company:</b>	BONANZA CREEK ENERGY OPERATING	<b>TVD Reference:</b>	WELL @ 4582.0ft (RKB - 13')
<b>Project:</b>	SEC.4-T4N-R63W	<b>MD Reference:</b>	WELL @ 4582.0ft (RKB - 13')
<b>Site:</b>	Wetco Farms A-4 Pad Sec.4-T4N-R63W	<b>North Reference:</b>	True
<b>Well:</b>	Wetco Farms A-4-9MRLC	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (11-15-13)		

Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
T1 531'FNL & 10'FWL - plan misses target center by 10.0ft at 6803.6ft MD (6502.1 TVD, -257.3 N, -169.1 E) - Point	0.00	0.00	6,511.0	-256.5	-164.5	1,371,065.07	3,292,025.91	40.347239	-104.452263
BHL 2156'FNL & 10'F - plan hits target center - Point	0.00	0.00	6,511.0	-7,318.2	-231.7	1,364,003.33	3,292,042.16	40.327855	-104.452504
SHL 274'FNL & 170'F - plan hits target center - Point	0.00	0.00	1.0	0.0	0.0	1,371,323.45	3,292,187.32	40.347943	-104.451673

Casing Points					
Measured Depth	Vertical Depth	Name		Casing Diameter	Hole Diameter
(ft)	(ft)			(")	(")
6,899.8	6,511.0	7"		7	7-1/2

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates			
(ft)	(ft)	+N/-S	+E/-W	Comment	
(ft)	(ft)	(ft)	(ft)		
2,000.0	2,000.0	0.0	0.0	KOP #1	
5,981.6	5,964.2	264.5	-164.5	KOP #2	
6,899.8	6,511.0	-352.9	-170.0	End of Build	



# **BONANZA CREEK ENERGY OPERATING**

**SEC.4-T4N-R63W**

**Wetco Farms A-4 Pad Sec.4-T4N-R63W**

**Wetco Farms A-4-9MRLC**

**Wellbore #1**

**Plan #1 (11-15-13)**

## **Anticollision Report**

**15 November, 2013**





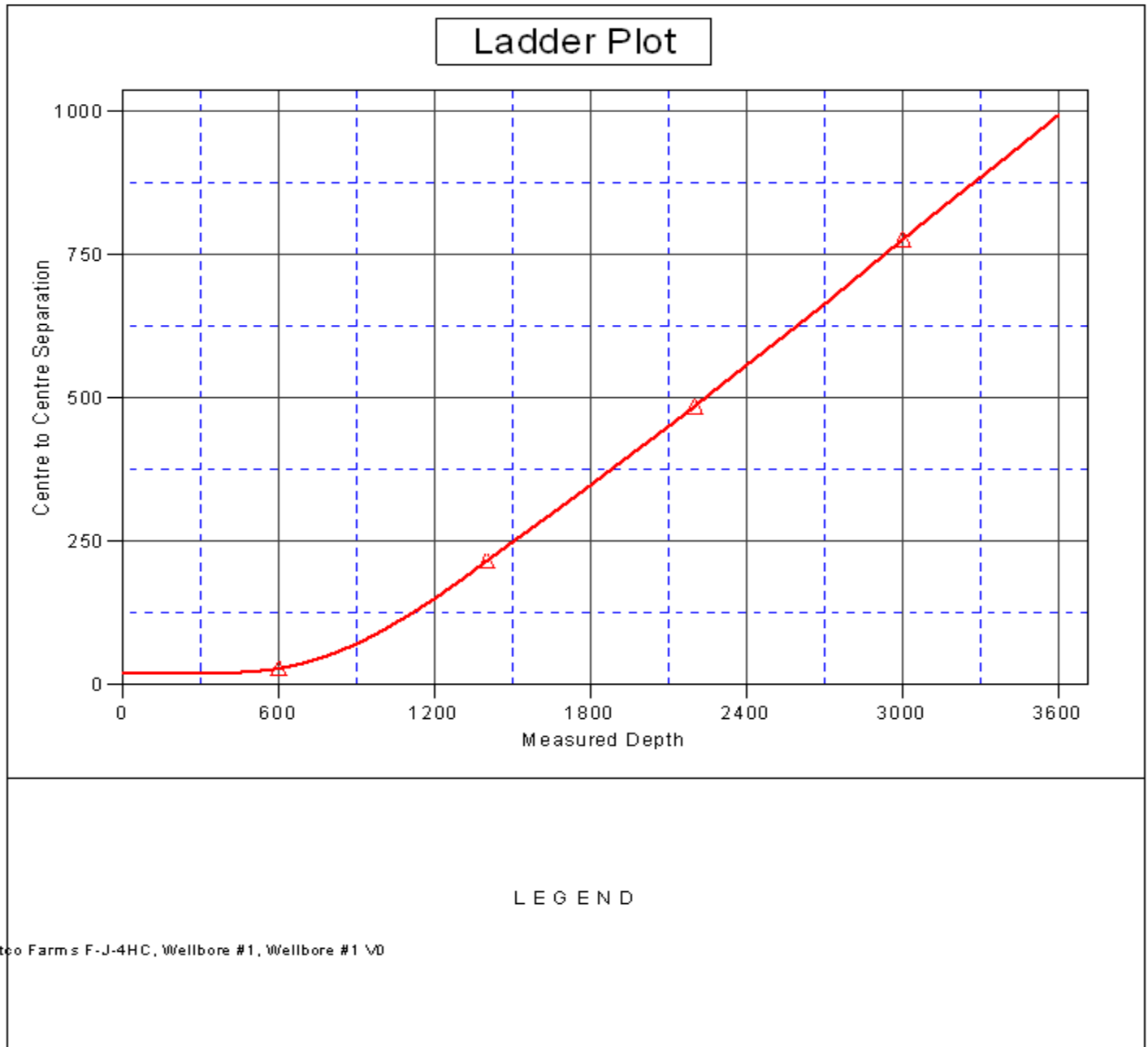
<b>Company:</b>	BONANZA CREEK ENERGY OPERATING	<b>Local Co-ordinate Reference:</b>	Well Wetco Farms A-4-9MRLC
<b>Project:</b>	SEC.4-T4N-R63W	<b>TVD Reference:</b>	WELL @ 4582.0ft (RKB - 13')
<b>Reference Site:</b>	Wetco Farms A-4 Pad Sec.4-T4N-R63W	<b>MD Reference:</b>	WELL @ 4582.0ft (RKB - 13')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Wetco Farms A-4-9MRLC	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #1 (11-15-13)	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> Wetco Farms F-J-4HC Pad Sec.4-T4N-R63W - Wetco Farms F-J-4HC - Wellbore #1 - Wellbore #1												<b>Offset Site Error:</b>	0.0 ft
Survey Program: 105-MWD												<b>Offset Well Error:</b>	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	
2,300.0	2,299.5	2,198.0	2,123.6	5.1	10.2	108.32	111.0	474.3	522.5	511.9	10.55	49.508	
2,400.0	2,398.8	2,303.1	2,223.2	5.3	10.8	109.66	115.3	507.8	558.2	547.2	11.05	50.513	
2,500.0	2,498.1	2,396.7	2,312.0	5.5	11.4	110.99	118.2	536.9	593.5	582.0	11.53	51.489	
2,600.0	2,597.4	2,490.3	2,400.9	5.8	12.0	112.18	121.1	566.0	628.9	616.9	12.02	52.331	
2,700.0	2,696.8	2,576.5	2,482.8	6.0	12.5	113.16	123.8	592.9	664.7	652.2	12.50	53.160	
2,800.0	2,796.1	2,660.5	2,562.2	6.3	13.1	114.03	126.5	620.3	702.0	689.0	13.00	54.019	
2,900.0	2,895.4	2,754.6	2,651.0	6.6	13.7	114.87	130.1	651.2	739.7	726.2	13.53	54.692	
3,000.0	2,994.7	2,852.6	2,743.6	6.8	14.3	115.60	134.5	682.9	777.2	763.1	14.07	55.248	
3,100.0	3,094.1	2,950.6	2,836.5	7.1	15.0	116.19	139.7	713.7	813.9	799.3	14.61	55.705	
3,200.0	3,193.4	3,048.3	2,929.2	7.4	15.6	116.70	145.3	744.0	850.3	835.1	15.16	56.094	
3,300.0	3,292.7	3,151.9	3,027.9	7.6	16.2	117.28	149.8	775.3	885.8	870.1	15.72	56.341	
3,400.0	3,392.0	3,236.4	3,108.4	7.9	16.7	117.77	152.8	800.6	921.2	905.0	16.24	56.730	
3,500.0	3,491.4	3,320.9	3,188.6	8.2	17.2	118.16	156.8	826.8	957.7	940.9	16.76	57.140	
3,600.0	3,590.7	3,408.4	3,271.6	8.5	17.8	118.49	161.6	854.5	994.8	977.5	17.30	57.502	

<b>Company:</b>	BONANZA CREEK ENERGY OPERATING	<b>Local Co-ordinate Reference:</b>	Well Wetco Farms A-4-9MRLC
<b>Project:</b>	SEC.4-T4N-R63W	<b>TVD Reference:</b>	WELL @ 4582.0ft (RKB - 13')
<b>Reference Site:</b>	Wetco Farms A-4 Pad Sec.4-T4N-R63W	<b>MD Reference:</b>	WELL @ 4582.0ft (RKB - 13')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Wetco Farms A-4-9MRLC	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #1 (11-15-13)	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 4582.0ft (RKB - 13')  
Offset Depths are relative to Offset Datum  
Central Meridian is -105.500000 °

Coordinates are relative to: Wetco Farms A-4-9MRLC  
Coordinate System is US State Plane 1983, Colorado Northern Zone  
Grid Convergence at Surface is: 0.68°



<b>Company:</b>	BONANZA CREEK ENERGY OPERATING	<b>Local Co-ordinate Reference:</b>	Well Wetco Farms A-4-9MRLC
<b>Project:</b>	SEC.4-T4N-R63W	<b>TVD Reference:</b>	WELL @ 4582.0ft (RKB - 13')
<b>Reference Site:</b>	Wetco Farms A-4 Pad Sec.4-T4N-R63W	<b>MD Reference:</b>	WELL @ 4582.0ft (RKB - 13')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Wetco Farms A-4-9MRLC	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #1 (11-15-13)	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 4582.0ft (RKB - 13')  
Offset Depths are relative to Offset Datum  
Central Meridian is -105.500000 °

Coordinates are relative to: Wetco Farms A-4-9MRLC  
Coordinate System is US State Plane 1983, Colorado Northern Zone  
Grid Convergence at Surface is: 0.68°

