

# BONANZA CREEK ENERGY OPERATING

Well Name: **LATHAM 14-11-12HZ**

Surface Location: LATHAM 14-12 PAD S12-4N-63W

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

Ground Elevation: 4566.0

+N/-S +E/-W Northing Easting Latitude Longitude Slot

0.0 0.0 1361488.17 3308868.53 40.320390 -104.392270

KB Est 12' RKB @ 4578.0ft (KB Est 12')

## WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
SHL 155'FSL & 1005'FWL	-2.0	0.0	0.0	Point
HARDLINE 460'FSL	1.0	302.4	356.5	Polygon
HARDLINE460'FNL	1.0	4677.7	469.5	Polygon
BHL 460'FNL & 1000'FWL	6298.0	4677.7	30.7	Point
TARGET 1 460'FSL & 1000'FWL	6298.0	302.4	-2.8	Point

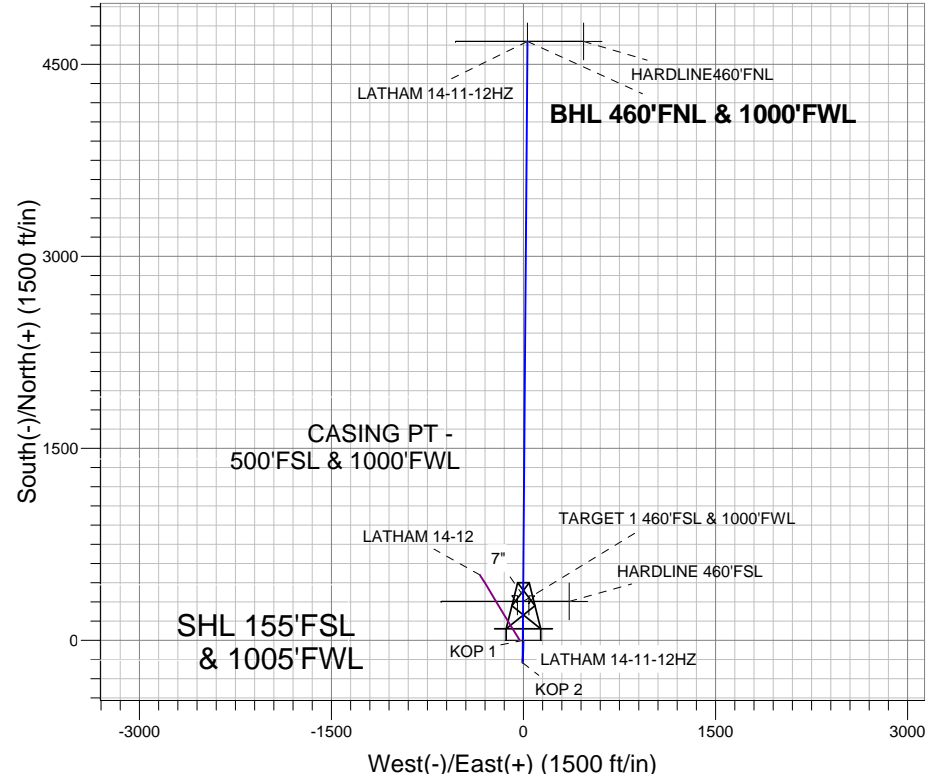


Azimuths to True North  
Magnetic North: 8.55°

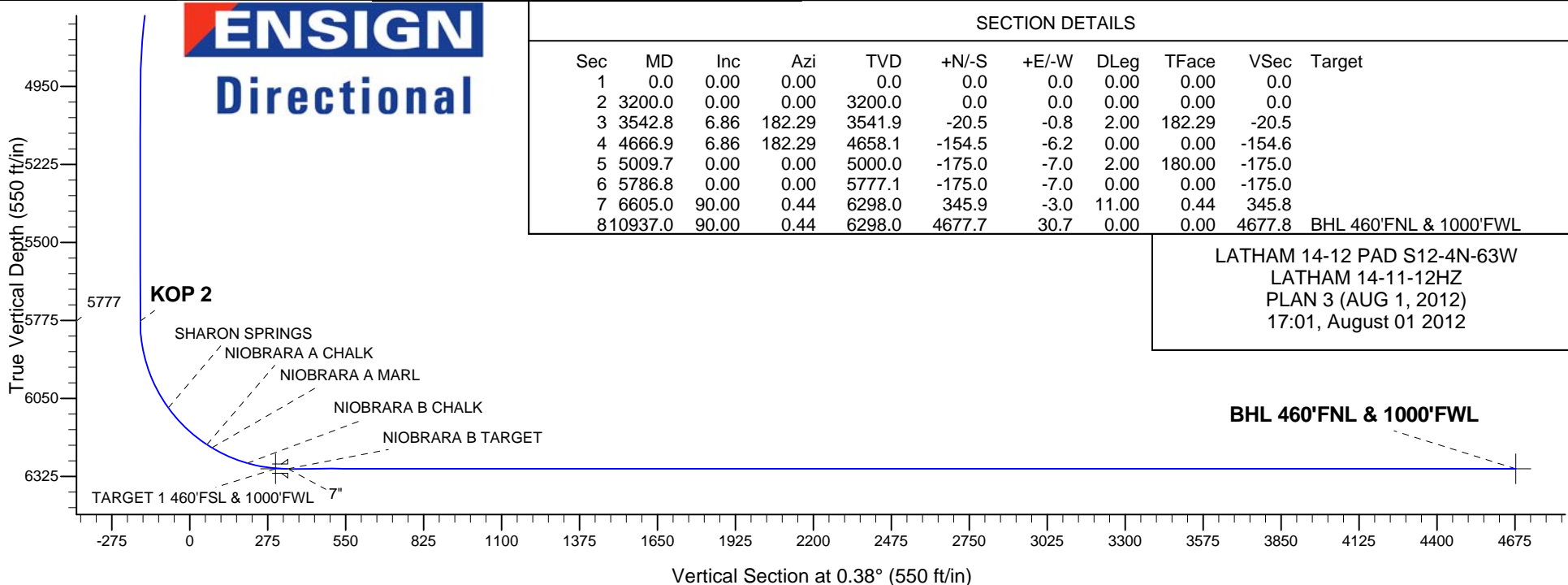
Magnetic Field  
Strength: 53044.5snT  
Dip Angle: 67.02°  
Date: 4/11/2012  
Model: IGRF2010

## ANNOTATIONS

TVD	MD	Annotation
3200.0	3200.0	KOP 1
5777.1	5786.8	KOP 2



**ENSIGN**  
Directional



## SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	3200.0	0.00	0.00	3200.0	0.0	0.0	0.00	0.00	0.0	
3	3542.8	6.86	182.29	3541.9	-20.5	-0.8	2.00	182.29	-20.5	
4	4666.9	6.86	182.29	4658.1	-154.5	-6.2	0.00	0.00	-154.6	
5	5009.7	0.00	0.00	5000.0	-175.0	-7.0	2.00	180.00	-175.0	
6	5786.8	0.00	0.00	5777.1	-175.0	-7.0	0.00	0.00	-175.0	
7	6605.0	90.00	0.44	6298.0	345.9	-3.0	11.00	0.44	345.8	
8	10937.0	90.00	0.44	6298.0	4677.7	30.7	0.00	0.00	4677.8	BHL 460'FNL & 1000'FWL

LATHAM 14-12 PAD S12-4N-63W  
LATHAM 14-11-12HZ  
PLAN 3 (AUG 1, 2012)  
17:01, August 01 2012

**BHL 460'FNL & 1000'FWL**



# **BONANZA CREEK ENERGY OPERATING**

**SEC.12-T4N-R63W**

**LATHAM 14-12 PAD S12-4N-63W**

**LATHAM 14-11-12HZ**

**Wellbore #1**

**Plan: PLAN 3 (AUG 1, 2012)**

## **Standard Planning Report**

**01 August, 2012**

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well LATHAM 14-11-12HZ
<b>Company:</b>	BONANZA CREEK ENERGY OPERATING	<b>TVD Reference:</b>	RKB @ 4578.0ft (KB Est 12')
<b>Project:</b>	SEC.12-T4N-R63W	<b>MD Reference:</b>	RKB @ 4578.0ft (KB Est 12')
<b>Site:</b>	LATHAM 14-12 PAD S12-4N-63W	<b>North Reference:</b>	True
<b>Well:</b>	LATHAM 14-11-12HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	PLAN 3 (AUG 1, 2012)		

<b>Project</b>	SEC.12-T4N-R63W		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		Using Well Reference Point
<b>Map Zone:</b>	Colorado Northern Zone		Using geodetic scale factor

Site						LATHAM 14-12 PAD S12-4N-63W											
<b>Site Position:</b>						<b>Northing:</b>			1,361,729.04 ft			<b>Latitude:</b>			40.321060		
<b>From:</b>			Lat/Long			<b>Easting:</b>			3,308,608.97 ft			<b>Longitude:</b>			-104.393190		
<b>Position Uncertainty:</b>			0.0 ft			<b>Slot Radius:</b>			"			<b>Grid Convergence:</b>			0.72 °		

Well	LATHAM 14-11-12HZ					
Well Position	+N-S	-244.1 ft	Northing:	1,361,488.17 ft	Latitude:	40.320390
	+E-W	256.5 ft	Easting:	3,308,868.53 ft	Longitude:	-104.392270
Position Uncertainty		0.0 ft	Wellhead Elevation:	0.0 ft	Ground Level:	4,566.0 ft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	4/11/2012	8.55	67.02	53,045

<b>Design</b>	PLAN 3 (AUG 1, 2012)			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	0.38

<b>Plan Sections</b>										
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	
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.00	0.00	0.00	0.00	
3,542.8	6.86	182.29	3,541.9	-20.5	-0.8	2.00	2.00	0.00	182.29	
4,666.9	6.86	182.29	4,658.1	-154.5	-6.2	0.00	0.00	0.00	0.00	
5,009.7	0.00	0.00	5,000.0	-175.0	-7.0	2.00	-2.00	0.00	180.00	
5,786.8	0.00	0.00	5,777.1	-175.0	-7.0	0.00	0.00	0.00	0.00	
6,605.0	90.00	0.44	6,298.0	345.9	-3.0	11.00	11.00	0.00	0.44	
10,937.0	90.00	0.44	6,298.0	4,677.7	30.7	0.00	0.00	0.00	0.00	BHL 460'FNL & 100'

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well LATHAM 14-11-12HZ
<b>Company:</b>	BONANZA CREEK ENERGY OPERATING	<b>TVD Reference:</b>	RKB @ 4578.0ft (KB Est 12')
<b>Project:</b>	SEC.12-T4N-R63W	<b>MD Reference:</b>	RKB @ 4578.0ft (KB Est 12')
<b>Site:</b>	LATHAM 14-12 PAD S12-4N-63W	<b>North Reference:</b>	True
<b>Well:</b>	LATHAM 14-11-12HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	PLAN 3 (AUG 1, 2012)		

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
<b>SHL 155'FSL &amp; 1005'FWL</b>									
1.0	0.00	0.00	1.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>HARDLINE 460'FSL - HARDLINE460'FNL</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
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>KOP 1</b>									
3,300.0	2.00	182.29	3,300.0	-1.7	-0.1	-1.7	2.00	2.00	0.00
3,308.0	2.16	182.29	3,308.0	-2.0	-0.1	-2.0	2.00	2.00	0.00
<b>PARKMAN</b>									
3,400.0	4.00	182.29	3,399.8	-7.0	-0.3	-7.0	2.00	2.00	0.00
3,500.0	6.00	182.29	3,499.5	-15.7	-0.6	-15.7	2.00	2.00	0.00
3,542.8	6.86	182.29	3,541.9	-20.5	-0.8	-20.5	2.00	2.00	0.00
3,600.0	6.86	182.29	3,598.8	-27.3	-1.1	-27.3	0.00	0.00	0.00
3,700.0	6.86	182.29	3,698.1	-39.2	-1.6	-39.2	0.00	0.00	0.00
3,800.0	6.86	182.29	3,797.3	-51.1	-2.0	-51.2	0.00	0.00	0.00
3,881.2	6.86	182.29	3,878.0	-60.8	-2.4	-60.8	0.00	0.00	0.00
<b>SUSSEX</b>									
3,900.0	6.86	182.29	3,896.6	-63.1	-2.5	-63.1	0.00	0.00	0.00
4,000.0	6.86	182.29	3,995.9	-75.0	-3.0	-75.0	0.00	0.00	0.00
4,100.0	6.86	182.29	4,095.2	-86.9	-3.5	-86.9	0.00	0.00	0.00
4,200.0	6.86	182.29	4,194.5	-98.8	-4.0	-98.9	0.00	0.00	0.00
4,300.0	6.86	182.29	4,293.8	-110.8	-4.4	-110.8	0.00	0.00	0.00
4,400.0	6.86	182.29	4,393.1	-122.7	-4.9	-122.7	0.00	0.00	0.00

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<b>Project:</b>	SEC.12-T4N-R63W	<b>MD Reference:</b>	RKB @ 4578.0ft (KB Est 12')
<b>Site:</b>	LATHAM 14-12 PAD S12-4N-63W	<b>North Reference:</b>	True
<b>Well:</b>	LATHAM 14-11-12HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	PLAN 3 (AUG 1, 2012)		

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	6.86	182.29	4,492.3	-134.6	-5.4	-134.7	0.00	0.00	0.00
4,600.0	6.86	182.29	4,591.6	-146.6	-5.9	-146.6	0.00	0.00	0.00
4,666.9	6.86	182.29	4,658.1	-154.5	-6.2	-154.6	0.00	0.00	0.00
4,700.0	6.19	182.29	4,690.9	-158.3	-6.3	-158.3	2.00	-2.00	0.00
4,800.0	4.19	182.29	4,790.5	-167.3	-6.7	-167.4	2.00	-2.00	0.00
4,900.0	2.19	182.29	4,890.4	-172.9	-6.9	-172.9	2.00	-2.00	0.00
5,000.0	0.19	182.29	4,990.3	-175.0	-7.0	-175.0	2.00	-2.00	0.00
5,009.7	0.00	0.00	5,000.0	-175.0	-7.0	-175.0	2.00	-2.00	0.00
5,100.0	0.00	0.00	5,090.3	-175.0	-7.0	-175.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,190.3	-175.0	-7.0	-175.0	0.00	0.00	0.00
5,300.0	0.00	0.00	5,290.3	-175.0	-7.0	-175.0	0.00	0.00	0.00
5,400.0	0.00	0.00	5,390.3	-175.0	-7.0	-175.0	0.00	0.00	0.00
5,500.0	0.00	0.00	5,490.3	-175.0	-7.0	-175.0	0.00	0.00	0.00
5,600.0	0.00	0.00	5,590.3	-175.0	-7.0	-175.0	0.00	0.00	0.00
5,700.0	0.00	0.00	5,690.3	-175.0	-7.0	-175.0	0.00	0.00	0.00
5,786.8	0.00	0.00	5,777.1	-175.0	-7.0	-175.0	0.00	0.00	0.00
<b>KOP 2</b>									
5,800.0	1.45	0.44	5,790.3	-174.8	-7.0	-174.9	11.00	11.00	0.00
5,900.0	12.45	0.44	5,889.4	-162.7	-6.9	-162.8	11.00	11.00	0.00
6,000.0	23.45	0.44	5,984.4	-132.0	-6.7	-132.0	11.00	11.00	0.00
6,100.0	34.45	0.44	6,071.8	-83.6	-6.3	-83.7	11.00	11.00	0.00
6,113.7	35.96	0.44	6,083.0	-75.7	-6.2	-75.8	11.00	11.00	0.00
<b>SHARON SPRINGS</b>									
6,200.0	45.45	0.44	6,148.3	-19.5	-5.8	-19.6	11.00	11.00	0.00
6,300.0	56.45	0.44	6,211.2	58.0	-5.2	58.0	11.00	11.00	0.00
6,303.2	56.80	0.44	6,213.0	60.7	-5.2	60.7	11.00	11.00	0.00
<b>NIOBRARA A CHALK</b>									
6,323.9	59.09	0.44	6,224.0	78.3	-5.0	78.2	11.00	11.00	0.00
<b>NIOBRARA A MARL</b>									
6,400.0	67.45	0.44	6,258.2	146.1	-4.5	146.1	11.00	11.00	0.00
6,460.2	74.07	0.44	6,278.0	202.9	-4.1	202.9	11.00	11.00	0.00
<b>NIOBRARA B CHALK</b>									
6,500.0	78.45	0.44	6,287.5	241.6	-3.8	241.6	11.00	11.00	0.00
6,561.7	85.24	0.44	6,296.2	302.6	-3.3	302.6	11.00	11.00	0.00
<b>TARGET 1 460'FSL &amp; 1000'FWL</b>									
6,600.0	89.45	0.44	6,298.0	340.9	-3.0	340.8	11.00	11.00	0.00
6,605.0	90.00	0.44	6,298.0	345.9	-3.0	345.8	10.96	10.96	0.00
<b>NIOBRARA B TARGET - 7"</b>									
6,700.0	90.00	0.44	6,298.0	440.9	-2.2	440.8	0.00	0.00	0.00
6,800.0	90.00	0.44	6,298.0	540.9	-1.4	540.8	0.00	0.00	0.00
6,900.0	90.00	0.44	6,298.0	640.9	-0.7	640.8	0.00	0.00	0.00
7,000.0	90.00	0.44	6,298.0	740.9	0.1	740.8	0.00	0.00	0.00
7,100.0	90.00	0.44	6,298.0	840.9	0.9	840.8	0.00	0.00	0.00
7,200.0	90.00	0.44	6,298.0	940.9	1.7	940.8	0.00	0.00	0.00
7,300.0	90.00	0.44	6,298.0	1,040.9	2.4	1,040.8	0.00	0.00	0.00
7,400.0	90.00	0.44	6,298.0	1,140.8	3.2	1,140.8	0.00	0.00	0.00
7,500.0	90.00	0.44	6,298.0	1,240.8	4.0	1,240.8	0.00	0.00	0.00
7,600.0	90.00	0.44	6,298.0	1,340.8	4.8	1,340.8	0.00	0.00	0.00
7,700.0	90.00	0.44	6,298.0	1,440.8	5.5	1,440.8	0.00	0.00	0.00
7,800.0	90.00	0.44	6,298.0	1,540.8	6.3	1,540.8	0.00	0.00	0.00
7,900.0	90.00	0.44	6,298.0	1,640.8	7.1	1,640.8	0.00	0.00	0.00
8,000.0	90.00	0.44	6,298.0	1,740.8	7.9	1,740.8	0.00	0.00	0.00
8,100.0	90.00	0.44	6,298.0	1,840.8	8.6	1,840.8	0.00	0.00	0.00

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well LATHAM 14-11-12HZ
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<b>Project:</b>	SEC.12-T4N-R63W	<b>MD Reference:</b>	RKB @ 4578.0ft (KB Est 12')
<b>Site:</b>	LATHAM 14-12 PAD S12-4N-63W	<b>North Reference:</b>	True
<b>Well:</b>	LATHAM 14-11-12HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	PLAN 3 (AUG 1, 2012)		

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)	
8,200.0	90.00	0.44	6,298.0	1,940.8	9.4	1,940.8	0.00	0.00	0.00	
8,300.0	90.00	0.44	6,298.0	2,040.8	10.2	2,040.8	0.00	0.00	0.00	
8,400.0	90.00	0.44	6,298.0	2,140.8	11.0	2,140.8	0.00	0.00	0.00	
8,500.0	90.00	0.44	6,298.0	2,240.8	11.8	2,240.8	0.00	0.00	0.00	
8,600.0	90.00	0.44	6,298.0	2,340.8	12.5	2,340.8	0.00	0.00	0.00	
8,700.0	90.00	0.44	6,298.0	2,440.8	13.3	2,440.8	0.00	0.00	0.00	
8,800.0	90.00	0.44	6,298.0	2,540.8	14.1	2,540.8	0.00	0.00	0.00	
8,900.0	90.00	0.44	6,298.0	2,640.8	14.9	2,640.8	0.00	0.00	0.00	
9,000.0	90.00	0.44	6,298.0	2,740.8	15.6	2,740.8	0.00	0.00	0.00	
9,100.0	90.00	0.44	6,298.0	2,840.8	16.4	2,840.8	0.00	0.00	0.00	
9,200.0	90.00	0.44	6,298.0	2,940.8	17.2	2,940.8	0.00	0.00	0.00	
9,300.0	90.00	0.44	6,298.0	3,040.8	18.0	3,040.8	0.00	0.00	0.00	
9,400.0	90.00	0.44	6,298.0	3,140.8	18.7	3,140.8	0.00	0.00	0.00	
9,500.0	90.00	0.44	6,298.0	3,240.8	19.5	3,240.8	0.00	0.00	0.00	
9,600.0	90.00	0.44	6,298.0	3,340.8	20.3	3,340.8	0.00	0.00	0.00	
9,700.0	90.00	0.44	6,298.0	3,440.8	21.1	3,440.8	0.00	0.00	0.00	
9,800.0	90.00	0.44	6,298.0	3,540.8	21.8	3,540.8	0.00	0.00	0.00	
9,900.0	90.00	0.44	6,298.0	3,640.8	22.6	3,640.8	0.00	0.00	0.00	
10,000.0	90.00	0.44	6,298.0	3,740.8	23.4	3,740.8	0.00	0.00	0.00	
10,100.0	90.00	0.44	6,298.0	3,840.8	24.2	3,840.8	0.00	0.00	0.00	
10,200.0	90.00	0.44	6,298.0	3,940.8	24.9	3,940.8	0.00	0.00	0.00	
10,300.0	90.00	0.44	6,298.0	4,040.8	25.7	4,040.8	0.00	0.00	0.00	
10,400.0	90.00	0.44	6,298.0	4,140.8	26.5	4,140.8	0.00	0.00	0.00	
10,500.0	90.00	0.44	6,298.0	4,240.8	27.3	4,240.8	0.00	0.00	0.00	
10,600.0	90.00	0.44	6,298.0	4,340.8	28.1	4,340.8	0.00	0.00	0.00	
10,700.0	90.00	0.44	6,298.0	4,440.8	28.8	4,440.8	0.00	0.00	0.00	
10,800.0	90.00	0.44	6,298.0	4,540.7	29.6	4,540.8	0.00	0.00	0.00	
10,900.0	90.00	0.44	6,298.0	4,640.7	30.4	4,640.8	0.00	0.00	0.00	
10,937.0	90.00	0.44	6,298.0	4,677.7	30.7	4,677.8	0.00	0.00	0.00	
BHL 460'FNL & 1000'FWL										

Plan Annotations					
	Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
			+N/-S (ft)	+E/-W (ft)	
	3,200.0	3,200.0	0.0	0.0	KOP 1
	5,786.8	5,777.1	-175.0	-7.0	KOP 2



# **BONANZA CREEK ENERGY OPERATING**

**SEC.12-T4N-R63W**

**LATHAM 14-12 PAD S12-4N-63W**

**LATHAM 14-11-12HZ**

**Wellbore #1**

**PLAN 3 (AUG 1, 2012)**

## **Anticollision Report**

**01 August, 2012**



<b>Company:</b>	BONANZA CREEK ENERGY OPERATING	<b>Local Co-ordinate Reference:</b>	Well LATHAM 14-11-12HZ
<b>Project:</b>	SEC.12-T4N-R63W	<b>TVD Reference:</b>	RKB @ 4578.0ft (KB Est 12')
<b>Reference Site:</b>	LATHAM 14-12 PAD S12-4N-63W	<b>MD Reference:</b>	RKB @ 4578.0ft (KB Est 12')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	LATHAM 14-11-12HZ	<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 3 (AUG 1, 2012)	<b>Offset TVD Reference:</b>	Offset Datum

<b>Reference</b>	PLAN 3 (AUG 1, 2012)		
<b>Filter type:</b>	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
<b>Interpolation Method:</b>	Stations	<b>Error Model:</b>	ISCWSA
<b>Depth Range:</b>	Unlimited	<b>Scan Method:</b>	Closest Approach 3D
<b>Results Limited by:</b>	Maximum center-center distance of 10,000.0ft	<b>Error Surface:</b>	Elliptical Conic
<b>Warning Levels Evaluated at:</b>	2.00 Sigma		

<b>Survey Tool Program</b>	<b>Date</b> 8/1/2012			
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.0	10,937.0	PLAN 3 (AUG 1, 2012) (Wellbore #1)	MWD	MWD - Standard

<b>Summary</b>						
<b>Site Name</b>	<b>Reference Measured Depth (ft)</b>	<b>Offset Measured Depth (ft)</b>	<b>Distance Between Centres (ft)</b>	<b>Distance Between Ellipses (ft)</b>	<b>Separation Factor</b>	<b>Warning</b>
<b>Offset Well - Wellbore - Design</b>						
LATHAM 14-12 PAD S12-4N-63W						
LATHAM 14-12 - Wellbore #1 - PLAN 1 (AUG 1 2012)	1,000.0	1,000.0	30.7	26.4	7.183 CC, ES	
LATHAM 14-12 - Wellbore #1 - PLAN 1 (AUG 1 2012)	1,100.0	1,099.4	31.6	26.9	6.702 SF	

<b>Offset Design</b> LATHAM 14-12 PAD S12-4N-63W - LATHAM 14-12 - Wellbore #1 - PLAN 1 (AUG 1 2012)													<b>Offset Site Error:</b>	0.0 ft
Survey Program: 0-MWD													<b>Offset Well Error:</b>	0.0 ft
<b>Reference</b>	<b>Offset</b>	<b>Semi Major Axis</b>			<b>Distance</b>									<b>Warning</b>
<b>Measured Depth (ft)</b>	<b>Vertical Depth (ft)</b>	<b>Measured Depth (ft)</b>	<b>Vertical Depth (ft)</b>	<b>Reference (ft)</b>	<b>Offset (ft)</b>	<b>Highside Toolface (°)</b>	<b>Offset Wellbore Centre +N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Between Centres (ft)</b>	<b>Between Ellipses (ft)</b>	<b>Minimum Separation (ft)</b>	<b>Separation Factor</b>		
0.0	0.0	0.0	0.0	0.0	0.0	-89.99	0.0	-30.7	30.7					
100.0	100.0	100.0	100.0	0.1	0.1	-89.99	0.0	-30.7	30.7	30.4	0.22	136.468		
200.0	200.0	200.0	200.0	0.3	0.3	-89.99	0.0	-30.7	30.7	30.0	0.67	45.489		
300.0	300.0	300.0	300.0	0.6	0.6	-89.99	0.0	-30.7	30.7	29.5	1.12	27.294		
400.0	400.0	400.0	400.0	0.8	0.8	-89.99	0.0	-30.7	30.7	29.1	1.57	19.495		
500.0	500.0	500.0	500.0	1.0	1.0	-89.99	0.0	-30.7	30.7	28.7	2.02	15.163		
600.0	600.0	600.0	600.0	1.2	1.2	-89.99	0.0	-30.7	30.7	28.2	2.47	12.406		
700.0	700.0	700.0	700.0	1.5	1.5	-89.99	0.0	-30.7	30.7	27.8	2.92	10.498		
800.0	800.0	800.0	800.0	1.7	1.7	-89.99	0.0	-30.7	30.7	27.3	3.37	9.098		
900.0	900.0	900.0	900.0	1.9	1.9	-89.99	0.0	-30.7	30.7	26.9	3.82	8.028		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-89.99	0.0	-30.7	30.7	26.4	4.27	7.183 CC, ES		
1,100.0	1,100.0	1,099.4	1,099.4	2.4	2.4	-87.32	1.5	-31.6	31.6	26.9	4.72	6.702 SF		
1,200.0	1,200.0	1,198.6	1,198.4	2.6	2.6	-80.25	5.9	-34.2	34.8	29.6	5.16	6.739		
1,300.0	1,300.0	1,297.3	1,296.7	2.8	2.8	-71.18	13.2	-38.7	41.0	35.4	5.61	7.306		
1,400.0	1,400.0	1,395.3	1,394.0	3.0	3.0	-62.54	23.3	-44.8	50.8	44.8	6.06	8.387		
1,500.0	1,500.0	1,492.3	1,489.9	3.3	3.3	-55.53	36.1	-52.6	64.6	58.0	6.52	9.906		
1,600.0	1,600.0	1,590.7	1,586.8	3.5	3.6	-50.49	50.6	-61.4	80.6	73.7	6.97	11.563		
1,700.0	1,700.0	1,689.2	1,683.8	3.7	3.9	-47.14	65.2	-70.2	97.1	89.7	7.43	13.077		
1,800.0	1,800.0	1,787.7	1,780.9	3.9	4.2	-44.76	79.7	-79.0	113.9	106.0	7.88	14.443		
1,900.0	1,900.0	1,886.2	1,877.9	4.2	4.6	-42.99	94.3	-87.9	130.7	122.4	8.34	15.673		
2,000.0	2,000.0	1,984.7	1,974.9	4.4	4.9	-41.63	108.8	-96.7	147.7	138.9	8.80	16.784		
2,100.0	2,100.0	2,083.2	2,071.9	4.6	5.3	-40.55	123.3	-105.5	164.7	155.5	9.26	17.788		
2,200.0	2,200.0	2,181.7	2,168.9	4.8	5.6	-39.67	137.9	-114.4	181.8	172.1	9.72	18.700		
2,300.0	2,300.0	2,280.2	2,265.9	5.1	6.0	-38.94	152.4	-123.2	198.9	188.7	10.19	19.531		
2,400.0	2,400.0	2,378.7	2,362.9	5.3	6.3	-38.33	167.0	-132.0	216.1	205.4	10.65	20.290		

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

<b>Company:</b>	BONANZA CREEK ENERGY OPERATING	<b>Local Co-ordinate Reference:</b>	Well LATHAM 14-11-12HZ
<b>Project:</b>	SEC.12-T4N-R63W	<b>TVD Reference:</b>	RKB @ 4578.0ft (KB Est 12')
<b>Reference Site:</b>	LATHAM 14-12 PAD S12-4N-63W	<b>MD Reference:</b>	RKB @ 4578.0ft (KB Est 12')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	LATHAM 14-11-12HZ	<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 3 (AUG 1, 2012)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design LATHAM 14-12 PAD S12-4N-63W - LATHAM 14-12 - Wellbore #1 - PLAN 1 (AUG 1 2012)												Offset Site Error:	0.0ft
Survey Program: 0-MWD												Offset Well Error:	0.0ft
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
2,500.0	2,500.0	2,477.2	2,460.0	5.5	6.7	-37.80	181.5	-140.8	233.2	222.1	11.11	20.986	
2,600.0	2,600.0	2,575.7	2,557.0	5.7	7.1	-37.35	196.1	-149.7	250.4	238.8	11.58	21.626	
2,700.0	2,700.0	2,674.2	2,654.0	6.0	7.4	-36.96	210.6	-158.5	267.6	255.5	12.04	22.216	
2,800.0	2,800.0	2,772.7	2,751.0	6.2	7.8	-36.61	225.2	-167.3	284.8	272.3	12.51	22.763	
2,900.0	2,900.0	2,871.2	2,848.0	6.4	8.2	-36.31	239.7	-176.2	302.0	289.0	12.98	23.269	
3,000.0	3,000.0	2,969.7	2,945.0	6.6	8.5	-36.03	254.3	-185.0	319.2	305.8	13.45	23.741	
3,100.0	3,100.0	3,068.2	3,042.1	6.9	8.9	-35.79	268.8	-193.8	336.4	322.5	13.91	24.180	
3,200.0	3,200.0	3,166.7	3,139.1	7.1	9.3	-35.57	283.4	-202.6	353.7	339.3	14.38	24.590	
3,300.0	3,300.0	3,264.9	3,235.8	7.3	9.7	-35.28	297.9	-211.4	372.3	357.5	14.79	25.175	
3,400.0	3,399.8	3,362.5	3,331.9	7.4	10.0	-34.96	312.3	-220.2	393.6	378.4	15.16	25.962	
3,500.0	3,499.5	3,459.4	3,427.4	7.6	10.4	-34.63	326.6	-228.9	417.7	402.2	15.52	26.912	
3,542.8	3,541.9	3,500.5	3,467.9	7.7	10.6	-34.33	332.7	-232.6	428.8	413.2	15.67	27.366	
3,600.0	3,598.8	3,555.5	3,522.1	7.8	10.8	-34.04	340.8	-237.5	444.1	428.2	15.90	27.928	
3,700.0	3,698.1	3,651.6	3,616.7	8.0	11.1	-33.75	355.0	-246.1	471.0	454.7	16.32	28.866	
3,800.0	3,797.3	3,747.7	3,711.3	8.2	11.5	-33.43	369.2	-254.7	497.9	481.2	16.74	29.753	
3,900.0	3,896.6	3,843.7	3,805.9	8.4	11.9	-33.11	383.4	-263.3	524.9	507.8	17.16	30.591	
4,000.0	3,995.9	3,939.8	3,900.6	8.6	12.3	-32.79	397.6	-271.9	552.0	534.4	17.59	31.383	
4,100.0	4,095.2	4,035.9	3,995.2	8.8	12.6	-32.48	411.8	-280.5	579.2	561.2	18.02	32.133	
4,200.0	4,194.5	4,131.9	4,089.8	9.0	13.0	-32.16	425.9	-289.2	606.4	587.9	18.46	32.843	
4,300.0	4,293.8	4,228.0	4,184.5	9.3	13.4	-31.83	440.1	-297.8	633.6	614.7	18.91	33.517	
4,400.0	4,393.1	4,324.1	4,279.1	9.5	13.7	-31.51	454.3	-306.4	660.9	641.6	19.35	34.155	
4,500.0	4,492.3	4,420.2	4,373.7	9.7	14.1	-31.18	468.5	-315.0	688.3	668.5	19.80	34.761	
4,600.0	4,591.6	4,537.5	4,489.5	10.0	14.5	-30.85	484.8	-324.9	714.7	694.4	20.27	35.261	
4,666.9	4,658.1	4,624.4	4,575.7	10.1	14.7	-30.53	494.3	-330.6	730.1	709.5	20.57	35.486	
4,700.0	4,690.9	4,667.8	4,618.9	10.2	14.8	-30.21	498.2	-333.0	736.8	716.1	20.76	35.499	
4,800.0	4,790.5	4,801.1	4,751.7	10.5	15.1	-29.88	506.8	-338.2	752.2	730.9	21.30	35.311	
4,900.0	4,890.4	4,936.3	4,886.9	10.7	15.3	-29.56	510.0	-340.2	759.9	738.1	21.82	34.831	
5,009.7	5,000.0	5,049.4	5,000.0	10.9	15.5	-29.24	510.0	-340.2	761.8	739.5	22.30	34.159	
5,100.0	5,090.3	5,139.7	5,090.3	11.1	15.6	-28.92	510.0	-340.2	761.8	739.1	22.67	33.602	
5,200.0	5,190.3	5,239.7	5,190.3	11.3	15.8	-28.60	510.0	-340.2	761.8	738.7	23.09	32.988	
5,300.0	5,290.3	5,339.7	5,290.3	11.5	15.9	-28.28	510.0	-340.2	761.8	738.3	23.51	32.395	
5,400.0	5,390.3	5,439.7	5,390.3	11.7	16.1	-27.96	510.0	-340.2	761.8	737.8	23.94	31.822	
5,500.0	5,490.3	5,539.7	5,490.3	12.0	16.3	-27.64	510.0	-340.2	761.8	737.4	24.36	31.267	
5,600.0	5,590.3	5,639.7	5,590.3	12.2	16.4	-27.32	510.0	-340.2	761.8	737.0	24.79	30.731	
5,700.0	5,690.3	5,739.7	5,690.3	12.4	16.6	-27.00	510.0	-340.2	761.8	736.6	25.22	30.211	
5,786.8	5,777.1	5,826.5	5,777.1	12.6	16.7	-26.68	510.0	-340.2	761.8	736.2	25.59	29.774	
5,800.0	5,790.3	5,839.7	5,790.3	12.6	16.7	-26.39	510.0	-340.2	761.6	736.0	25.66	29.676	
5,850.0	5,840.2	5,889.6	5,840.2	12.7	16.8	-26.10	510.0	-340.2	758.3	732.5	25.84	29.351	
5,900.0	5,889.4	5,938.9	5,889.4	12.8	16.9	-25.81	510.0	-340.2	750.8	725.0	25.85	29.050	
5,950.0	5,937.7	5,987.1	5,937.7	12.8	17.0	-25.52	510.0	-340.2	739.1	713.4	25.71	28.752	
6,000.0	5,984.4	6,033.8	5,984.4	12.9	17.1	-25.23	510.0	-340.2	723.5	698.0	25.46	28.422	
6,050.0	6,029.3	6,078.7	6,029.3	12.9	17.1	-32.07	510.0	-340.2	704.1	678.9	25.14	28.004	
6,100.0	6,071.8	6,121.2	6,071.8	12.9	17.2	-34.78	510.0	-340.2	681.1	656.3	24.84	27.418	
6,150.0	6,111.6	6,161.0	6,111.6	13.0	17.3	-38.21	510.0	-340.2	655.1	630.4	24.67	26.557	
6,200.0	6,148.3	6,197.8	6,148.3	13.1	17.4	-42.48	510.0	-340.2	626.3	601.6	24.74	25.316	
6,250.0	6,181.6	6,231.1	6,181.6	13.2	17.4	-47.65	510.0	-340.2	595.3	570.1	25.18	23.645	
6,300.0	6,211.2	6,260.7	6,211.2	13.3	17.5	-53.73	510.0	-340.2	562.6	536.6	26.03	21.615	
6,350.0	6,236.8	6,286.2	6,236.8	13.5	17.5	-60.55	510.0	-340.2	529.0	501.7	27.22	19.432	
6,400.0	6,258.2	6,307.6	6,258.2	13.7	17.5	-67.74	510.0	-340.2	495.1	466.5	28.55	17.342	
6,450.0	6,275.1	6,324.5	6,275.1	14.0	17.6	-74.77	510.0	-340.2	461.9	432.1	29.76	15.520	
6,500.0	6,287.5	6,336.9	6,287.5	14.4	17.6	-81.07	510.0	-340.2	430.4	399.7	30.70	14.018	
6,550.0	6,295.1	6,344.5	6,295.1	14.7	17.6	-86.15	510.0	-340.2	401.8	370.4	31.36	12.811	

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

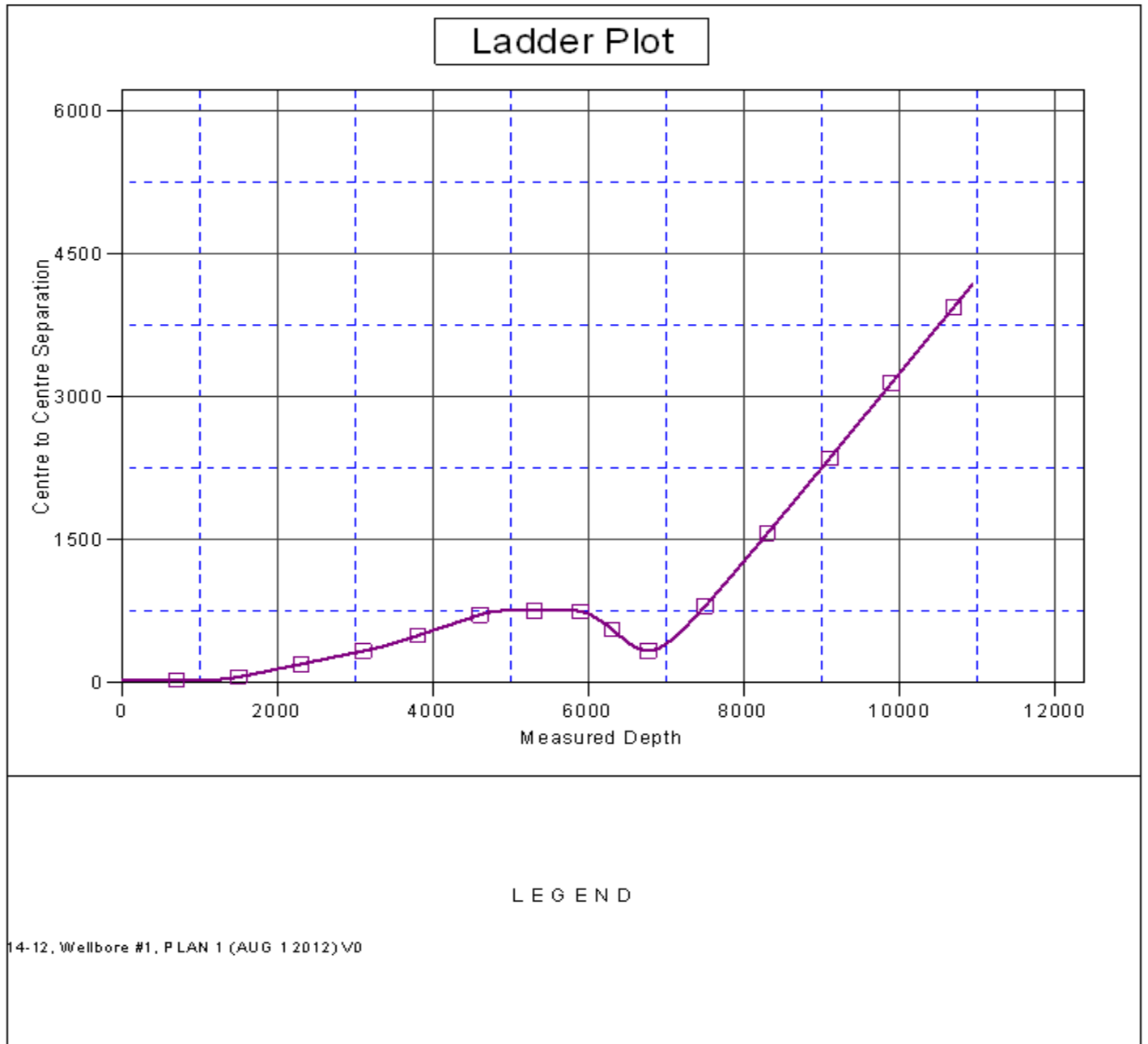
<b>Company:</b>	BONANZA CREEK ENERGY OPERATING	<b>Local Co-ordinate Reference:</b>	Well LATHAM 14-11-12HZ
<b>Project:</b>	SEC.12-T4N-R63W	<b>TVD Reference:</b>	RKB @ 4578.0ft (KB Est 12')
<b>Reference Site:</b>	LATHAM 14-12 PAD S12-4N-63W	<b>MD Reference:</b>	RKB @ 4578.0ft (KB Est 12')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	LATHAM 14-11-12HZ	<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 3 (AUG 1, 2012)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design LATHAM 14-12 PAD S12-4N-63W - LATHAM 14-12 - Wellbore #1 - PLAN 1 (AUG 1 2012)												Offset Site Error:	0.0ft
Survey Program: 0-MWD												Offset Well Error:	0.0ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
6,605.0	6,298.0	6,347.4	6,298.0	15.2	17.6	-90.00	510.0	-340.2	375.1	343.2	31.89	11.763	
6,700.0	6,298.0	6,347.4	6,298.0	16.2	17.6	-90.00	510.0	-340.2	345.0	312.1	32.83	10.509	
6,766.5	6,298.0	6,347.4	6,298.0	16.9	17.6	-90.00	510.0	-340.2	338.5	304.9	33.59	10.077	
6,800.0	6,298.0	6,347.4	6,298.0	17.3	17.6	-90.00	510.0	-340.2	340.1	306.2	33.97	10.012	
6,900.0	6,298.0	6,347.4	6,298.0	18.6	17.6	-90.00	510.0	-340.2	363.9	328.6	35.25	10.323	
7,000.0	6,298.0	6,347.4	6,298.0	20.0	17.6	-90.00	510.0	-340.2	411.2	374.6	36.62	11.228	
7,100.0	6,298.0	6,347.4	6,298.0	21.4	17.6	-90.00	510.0	-340.2	475.2	437.1	38.08	12.477	
7,200.0	6,298.0	6,347.4	6,298.0	22.9	17.6	-90.00	510.0	-340.2	550.0	510.4	39.61	13.885	
7,300.0	6,298.0	6,347.4	6,298.0	24.5	17.6	-90.00	510.0	-340.2	631.8	590.6	41.19	15.337	
7,400.0	6,298.0	6,347.4	6,298.0	26.1	17.6	-90.00	510.0	-340.2	718.2	675.4	42.82	16.773	
7,500.0	6,298.0	6,347.4	6,298.0	27.8	17.6	-90.00	510.0	-340.2	807.8	763.3	44.48	18.159	
7,600.0	6,298.0	6,347.4	6,298.0	29.5	17.6	-90.00	510.0	-340.2	899.6	853.4	46.18	19.480	
7,700.0	6,298.0	6,347.4	6,298.0	31.2	17.6	-90.00	510.0	-340.2	992.9	945.0	47.90	20.729	
7,800.0	6,298.0	6,347.4	6,298.0	33.0	17.6	-90.00	510.0	-340.2	1,087.5	1,037.8	49.64	21.905	
7,900.0	6,298.0	6,347.4	6,298.0	34.7	17.6	-90.00	510.0	-340.2	1,182.9	1,131.5	51.41	23.011	
8,000.0	6,298.0	6,347.4	6,298.0	36.5	17.6	-90.00	510.0	-340.2	1,279.1	1,225.9	53.18	24.050	
8,100.0	6,298.0	6,347.4	6,298.0	38.3	17.6	-90.00	510.0	-340.2	1,375.7	1,320.8	54.97	25.025	
8,200.0	6,298.0	6,347.4	6,298.0	40.1	17.6	-90.00	510.0	-340.2	1,472.9	1,416.1	56.78	25.942	
8,300.0	6,298.0	6,347.4	6,298.0	41.9	17.6	-90.00	510.0	-340.2	1,570.4	1,511.8	58.59	26.803	
8,400.0	6,298.0	6,347.4	6,298.0	43.7	17.6	-90.00	510.0	-340.2	1,668.2	1,607.7	60.41	27.613	
8,500.0	6,298.0	6,347.4	6,298.0	45.6	17.6	-90.00	510.0	-340.2	1,766.2	1,704.0	62.24	28.377	
8,600.0	6,298.0	6,347.4	6,298.0	47.4	17.6	-90.00	510.0	-340.2	1,864.4	1,800.4	64.08	29.096	
8,700.0	6,298.0	6,347.4	6,298.0	49.3	17.6	-90.00	510.0	-340.2	1,962.9	1,896.9	65.92	29.776	
8,800.0	6,298.0	6,347.4	6,298.0	51.1	17.6	-90.00	510.0	-340.2	2,061.4	1,993.7	67.77	30.418	
8,900.0	6,298.0	6,347.4	6,298.0	53.0	17.6	-90.00	510.0	-340.2	2,160.1	2,090.5	69.62	31.026	
9,000.0	6,298.0	6,347.4	6,298.0	54.8	17.6	-90.00	510.0	-340.2	2,259.0	2,187.5	71.48	31.602	
9,100.0	6,298.0	6,347.4	6,298.0	56.7	17.6	-90.00	510.0	-340.2	2,357.9	2,284.5	73.34	32.149	
9,200.0	6,298.0	6,347.4	6,298.0	58.5	17.6	-90.00	510.0	-340.2	2,456.9	2,381.7	75.21	32.668	
9,300.0	6,298.0	6,347.4	6,298.0	60.4	17.6	-90.00	510.0	-340.2	2,556.0	2,478.9	77.08	33.161	
9,400.0	6,298.0	6,347.4	6,298.0	62.3	17.6	-90.00	510.0	-340.2	2,655.1	2,576.2	78.95	33.631	
9,500.0	6,298.0	6,347.4	6,298.0	64.2	17.6	-90.00	510.0	-340.2	2,754.3	2,673.5	80.82	34.078	
9,600.0	6,298.0	6,347.4	6,298.0	66.0	17.6	-90.00	510.0	-340.2	2,853.6	2,770.9	82.70	34.505	
9,700.0	6,298.0	6,347.4	6,298.0	67.9	17.6	-90.00	510.0	-340.2	2,952.9	2,868.3	84.58	34.912	
9,800.0	6,298.0	6,347.4	6,298.0	69.8	17.6	-90.00	510.0	-340.2	3,052.3	2,965.8	86.46	35.302	
9,900.0	6,298.0	6,347.4	6,298.0	71.7	17.6	-90.00	510.0	-340.2	3,151.7	3,063.3	88.35	35.674	
10,000.0	6,298.0	6,347.4	6,298.0	73.6	17.6	-90.00	510.0	-340.2	3,251.1	3,160.9	90.23	36.031	
10,100.0	6,298.0	6,347.4	6,298.0	75.4	17.6	-90.00	510.0	-340.2	3,350.6	3,258.5	92.12	36.373	
10,200.0	6,298.0	6,347.4	6,298.0	77.3	17.6	-90.00	510.0	-340.2	3,450.1	3,356.1	94.01	36.700	
10,300.0	6,298.0	6,347.4	6,298.0	79.2	17.6	-90.00	510.0	-340.2	3,549.6	3,453.7	95.90	37.015	
10,400.0	6,298.0	6,347.4	6,298.0	81.1	17.6	-90.00	510.0	-340.2	3,649.2	3,551.4	97.79	37.317	
10,500.0	6,298.0	6,347.4	6,298.0	83.0	17.6	-90.00	510.0	-340.2	3,748.8	3,649.1	99.68	37.608	
10,600.0	6,298.0	6,347.4	6,298.0	84.9	17.6	-90.00	510.0	-340.2	3,848.4	3,746.8	101.57	37.887	
10,700.0	6,298.0	6,347.4	6,298.0	86.8	17.6	-90.00	510.0	-340.2	3,948.0	3,844.5	103.47	38.156	
10,800.0	6,298.0	6,347.4	6,298.0	88.7	17.6	-90.00	510.0	-340.2	4,047.6	3,942.3	105.37	38.415	
10,900.0	6,298.0	6,347.4	6,298.0	90.6	17.6	-90.00	510.0	-340.2	4,147.3	4,040.0	107.26	38.665	
10,937.0	6,298.0	6,347.4	6,298.0	91.3	17.6	-90.00	510.0	-340.2	4,184.1	4,076.2	107.96	38.755	

<b>Company:</b>	BONANZA CREEK ENERGY OPERATING	<b>Local Co-ordinate Reference:</b>	Well LATHAM 14-11-12HZ
<b>Project:</b>	SEC.12-T4N-R63W	<b>TVD Reference:</b>	RKB @ 4578.0ft (KB Est 12')
<b>Reference Site:</b>	LATHAM 14-12 PAD S12-4N-63W	<b>MD Reference:</b>	RKB @ 4578.0ft (KB Est 12')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	LATHAM 14-11-12HZ	<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 3 (AUG 1, 2012)	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to RKB @ 4578.0ft (KB Est 12')  
Offset Depths are relative to Offset Datum  
Central Meridian is -105.500000 °

Coordinates are relative to: LATHAM 14-11-12HZ  
Coordinate System is US State Plane 1983, Colorado Northern Zone  
Grid Convergence at Surface is: 0.72°



<b>Company:</b>	BONANZA CREEK ENERGY OPERATING	<b>Local Co-ordinate Reference:</b>	Well LATHAM 14-11-12HZ
<b>Project:</b>	SEC.12-T4N-R63W	<b>TVD Reference:</b>	RKB @ 4578.0ft (KB Est 12')
<b>Reference Site:</b>	LATHAM 14-12 PAD S12-4N-63W	<b>MD Reference:</b>	RKB @ 4578.0ft (KB Est 12')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	LATHAM 14-11-12HZ	<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 3 (AUG 1, 2012)	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to RKB @ 4578.0ft (KB Est 12')  
Offset Depths are relative to Offset Datum  
Central Meridian is -105.500000 °

Coordinates are relative to: LATHAM 14-11-12HZ  
Coordinate System is US State Plane 1983, Colorado Northern Zone  
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