

Well Name: Latham R-1

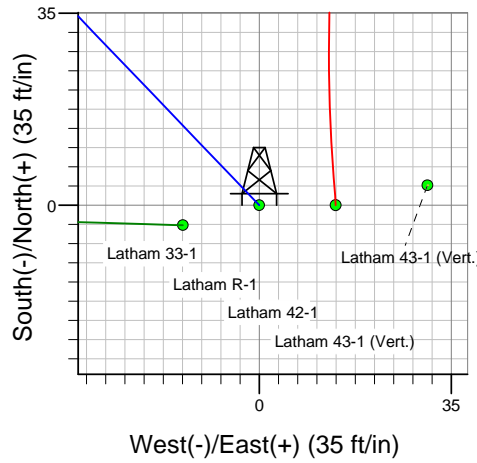
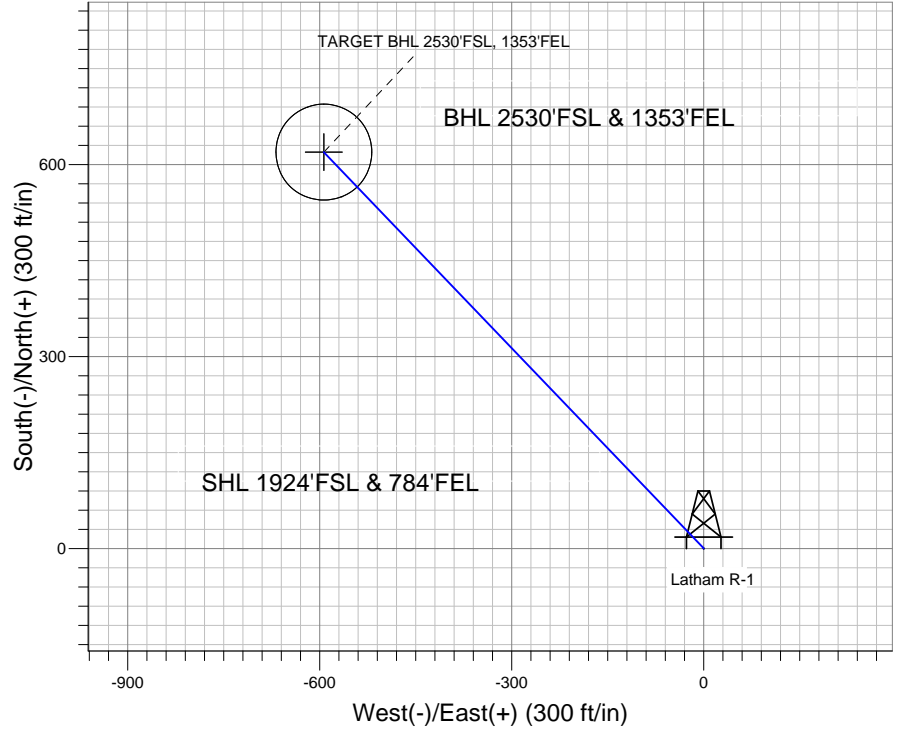
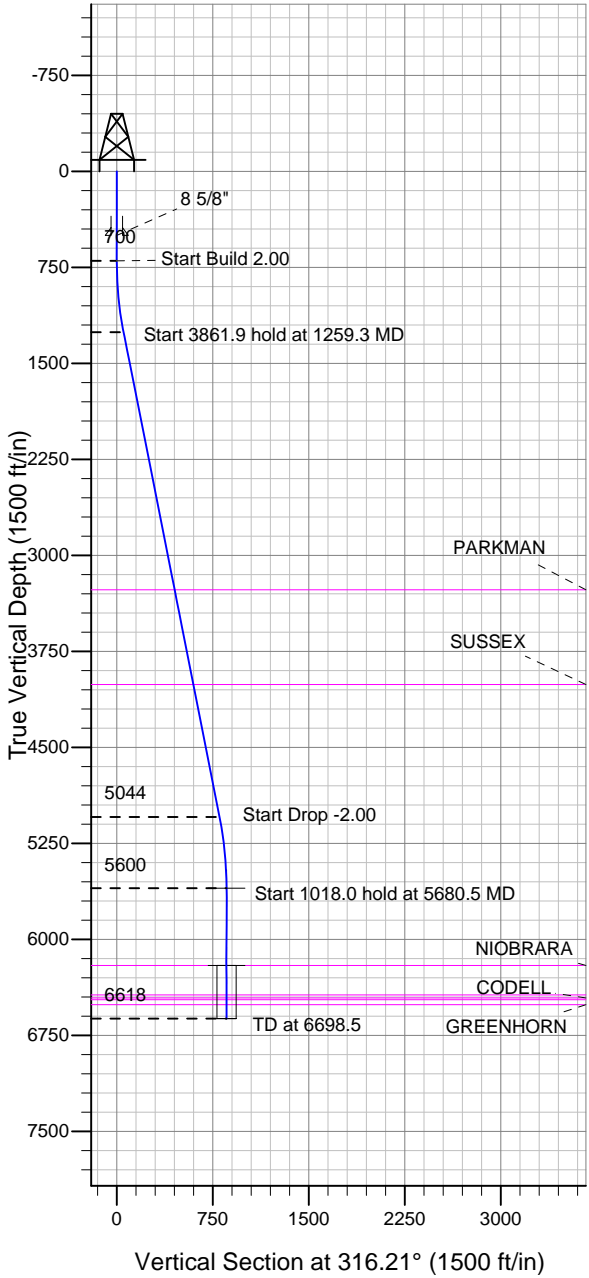
Surface Location: Latham 43-1 Pad Sec.1-T4N-R63W
 North American Datum 1983 US State Plane 1983 Colorado Northern Zone

Ground Elevation: 4544.0

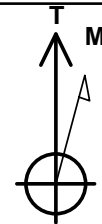
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1368525.44	3312237.49	40.339590	-104.379870	

Original Well Elev WELL @ 4559.0ft (Original Well Elev)

BONANZA CREEK ENERGY OPERATING



Latham 43-1 Pad Sec.1-T4N-R63W
 Latham R-1
 Plan #1 (5-30-12)
 7:41, June 06 2012



Azimuths to True North
 Magnetic North: 8.52°

Magnetic Field
 Strength: 53040.1snT
 Dip Angle: 67.03°
 Date: 6/5/2012
 Model: IGRF2010

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
TARGET BHL 2530'FSL, 1353'FEL	5600.0	619.4	-593.8	40.341290	-104.382000	Point
TARGET CIRCLE 2530'FSL & 1353'FEL	6204.0	619.4	-593.8	40.341290	-104.382000	Circle (Radius: 75.0)

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	700.0	0.00	0.00	700.0	0.0	0.0	0.00	0.00	0.0	
3	1259.3	11.19	316.21	1255.7	39.3	-37.7	2.00	316.21	54.4	
4	5121.2	11.19	316.21	5044.3	580.1	-556.1	0.00	0.00	803.6	
5	5680.5	0.00	0.00	5600.0	619.4	-593.8	2.00	180.00	858.0	TARGET BHL 2530'FSL, 1353'FEL
6	6698.5	0.00	0.00	6618.0	619.4	-593.8	0.00	0.00	858.0	



Directional

BONANZA CREEK ENERGY OPERATING

SEC.1-T4N-R63W

Latham 43-1 Pad Sec.1-T4N-R63W

Latham R-1

Wellbore #1

Plan: Plan #1 (5-30-12)

Standard Planning Report

06 June, 2012

Database:	Landmark	Local Co-ordinate Reference:	Well Latham R-1
Company:	BONANZA CREEK ENERGY OPERATING	TVD Reference:	WELL @ 4559.0ft (Original Well Elev)
Project:	SEC.1-T4N-R63W	MD Reference:	WELL @ 4559.0ft (Original Well Elev)
Site:	Latham 43-1 Pad Sec.1-T4N-R63W	North Reference:	True
Well:	Latham R-1	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (5-30-12)		

Project	SEC.1-T4N-R63W, Weld County, Colorado		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		Using Well Reference Point
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site	Latham 43-1 Pad Sec.1-T4N-R63W				
Site Position:		Northing:	1,368,529.49 ft	Latitude:	40.339600
From:	Lat/Long	Easting:	3,312,268.11 ft	Longitude:	-104.379760
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.72 °

Well	Latham R-1					
Well Position	+N/-S	-3.7 ft	Northing:	1,368,525.44 ft	Latitude:	40.339590
	+E/-W	-30.7 ft	Easting:	3,312,237.49 ft	Longitude:	-104.379870
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,544.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	6/5/2012	8.52	67.03	53,040

Design	Plan #1 (5-30-12)			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	316.21

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	
700.0	0.00	0.00	700.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,259.3	11.19	316.21	1,255.7	39.3	-37.7	2.00	2.00	0.00	316.21	
5,121.2	11.19	316.21	5,044.3	580.1	-556.1	0.00	0.00	0.00	0.00	
5,680.5	0.00	0.00	5,600.0	619.4	-593.8	2.00	-2.00	0.00	180.00	TARGET BHL 253C
6,698.5	0.00	0.00	6,618.0	619.4	-593.8	0.00	0.00	0.00	0.00	

Database:	Landmark	Local Co-ordinate Reference:	Well Latham R-1
Company:	BONANZA CREEK ENERGY OPERATING	TVD Reference:	WELL @ 4559.0ft (Original Well Elev)
Project:	SEC.1-T4N-R63W	MD Reference:	WELL @ 4559.0ft (Original Well Elev)
Site:	Latham 43-1 Pad Sec.1-T4N-R63W	North Reference:	True
Well:	Latham R-1	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (5-30-12)		

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
40.0	0.00	0.00	40.0	0.0	0.0	0.0	0.00	0.00	0.00
80.0	0.00	0.00	80.0	0.0	0.0	0.0	0.00	0.00	0.00
120.0	0.00	0.00	120.0	0.0	0.0	0.0	0.00	0.00	0.00
160.0	0.00	0.00	160.0	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
240.0	0.00	0.00	240.0	0.0	0.0	0.0	0.00	0.00	0.00
280.0	0.00	0.00	280.0	0.0	0.0	0.0	0.00	0.00	0.00
320.0	0.00	0.00	320.0	0.0	0.0	0.0	0.00	0.00	0.00
360.0	0.00	0.00	360.0	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
440.0	0.00	0.00	440.0	0.0	0.0	0.0	0.00	0.00	0.00
480.0	0.00	0.00	480.0	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
8 5/8"									
520.0	0.00	0.00	520.0	0.0	0.0	0.0	0.00	0.00	0.00
560.0	0.00	0.00	560.0	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
640.0	0.00	0.00	640.0	0.0	0.0	0.0	0.00	0.00	0.00
680.0	0.00	0.00	680.0	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
720.0	0.40	316.21	720.0	0.1	0.0	0.1	2.00	2.00	0.00
760.0	1.20	316.21	760.0	0.5	-0.4	0.6	2.00	2.00	0.00
800.0	2.00	316.21	800.0	1.3	-1.2	1.7	2.00	2.00	0.00
840.0	2.80	316.21	839.9	2.5	-2.4	3.4	2.00	2.00	0.00
880.0	3.60	316.21	879.9	4.1	-3.9	5.7	2.00	2.00	0.00
920.0	4.40	316.21	919.8	6.1	-5.8	8.4	2.00	2.00	0.00
960.0	5.20	316.21	959.6	8.5	-8.2	11.8	2.00	2.00	0.00
1,000.0	6.00	316.21	999.5	11.3	-10.9	15.7	2.00	2.00	0.00
1,040.0	6.80	316.21	1,039.2	14.5	-13.9	20.2	2.00	2.00	0.00
1,080.0	7.60	316.21	1,078.9	18.2	-17.4	25.2	2.00	2.00	0.00
1,120.0	8.40	316.21	1,118.5	22.2	-21.3	30.7	2.00	2.00	0.00
1,160.0	9.20	316.21	1,158.0	26.6	-25.5	36.9	2.00	2.00	0.00
1,200.0	10.00	316.21	1,197.5	31.4	-30.1	43.5	2.00	2.00	0.00
1,240.0	10.80	316.21	1,236.8	36.6	-35.1	50.7	2.00	2.00	0.00
1,259.3	11.19	316.21	1,255.7	39.3	-37.7	54.4	2.00	2.00	0.00
1,280.0	11.19	316.21	1,276.1	42.2	-40.4	58.4	0.00	0.00	0.00
1,320.0	11.19	316.21	1,315.3	47.8	-45.8	66.2	0.00	0.00	0.00
1,360.0	11.19	316.21	1,354.5	53.4	-51.2	74.0	0.00	0.00	0.00
1,400.0	11.19	316.21	1,393.8	59.0	-56.6	81.7	0.00	0.00	0.00
1,440.0	11.19	316.21	1,433.0	64.6	-61.9	89.5	0.00	0.00	0.00
1,480.0	11.19	316.21	1,472.3	70.2	-67.3	97.2	0.00	0.00	0.00
1,520.0	11.19	316.21	1,511.5	75.8	-72.7	105.0	0.00	0.00	0.00
1,560.0	11.19	316.21	1,550.7	81.4	-78.0	112.8	0.00	0.00	0.00
1,600.0	11.19	316.21	1,590.0	87.0	-83.4	120.5	0.00	0.00	0.00
1,640.0	11.19	316.21	1,629.2	92.6	-88.8	128.3	0.00	0.00	0.00
1,680.0	11.19	316.21	1,668.5	98.2	-94.1	136.0	0.00	0.00	0.00
1,720.0	11.19	316.21	1,707.7	103.8	-99.5	143.8	0.00	0.00	0.00
1,760.0	11.19	316.21	1,746.9	109.4	-104.9	151.6	0.00	0.00	0.00
1,800.0	11.19	316.21	1,786.2	115.0	-110.3	159.3	0.00	0.00	0.00
1,840.0	11.19	316.21	1,825.4	120.6	-115.6	167.1	0.00	0.00	0.00
1,880.0	11.19	316.21	1,864.7	126.2	-121.0	174.8	0.00	0.00	0.00
1,920.0	11.19	316.21	1,903.9	131.8	-126.4	182.6	0.00	0.00	0.00
1,960.0	11.19	316.21	1,943.1	137.4	-131.7	190.4	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Latham R-1
Company:	BONANZA CREEK ENERGY OPERATING	TVD Reference:	WELL @ 4559.0ft (Original Well Elev)
Project:	SEC.1-T4N-R63W	MD Reference:	WELL @ 4559.0ft (Original Well Elev)
Site:	Latham 43-1 Pad Sec.1-T4N-R63W	North Reference:	True
Well:	Latham R-1	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (5-30-12)		

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)
2,000.0	11.19	316.21	1,982.4	143.0	-137.1	198.1	0.00	0.00	0.00
2,040.0	11.19	316.21	2,021.6	148.6	-142.5	205.9	0.00	0.00	0.00
2,080.0	11.19	316.21	2,060.9	154.2	-147.8	213.6	0.00	0.00	0.00
2,120.0	11.19	316.21	2,100.1	159.8	-153.2	221.4	0.00	0.00	0.00
2,160.0	11.19	316.21	2,139.3	165.4	-158.6	229.1	0.00	0.00	0.00
2,200.0	11.19	316.21	2,178.6	171.0	-163.9	236.9	0.00	0.00	0.00
2,240.0	11.19	316.21	2,217.8	176.6	-169.3	244.7	0.00	0.00	0.00
2,280.0	11.19	316.21	2,257.1	182.2	-174.7	252.4	0.00	0.00	0.00
2,320.0	11.19	316.21	2,296.3	187.8	-180.1	260.2	0.00	0.00	0.00
2,360.0	11.19	316.21	2,335.5	193.4	-185.4	267.9	0.00	0.00	0.00
2,400.0	11.19	316.21	2,374.8	199.0	-190.8	275.7	0.00	0.00	0.00
2,440.0	11.19	316.21	2,414.0	204.6	-196.2	283.5	0.00	0.00	0.00
2,480.0	11.19	316.21	2,453.3	210.2	-201.5	291.2	0.00	0.00	0.00
2,520.0	11.19	316.21	2,492.5	215.8	-206.9	299.0	0.00	0.00	0.00
2,560.0	11.19	316.21	2,531.7	221.4	-212.3	306.7	0.00	0.00	0.00
2,600.0	11.19	316.21	2,571.0	227.0	-217.6	314.5	0.00	0.00	0.00
2,640.0	11.19	316.21	2,610.2	232.6	-223.0	322.3	0.00	0.00	0.00
2,680.0	11.19	316.21	2,649.5	238.2	-228.4	330.0	0.00	0.00	0.00
2,720.0	11.19	316.21	2,688.7	243.8	-233.8	337.8	0.00	0.00	0.00
2,760.0	11.19	316.21	2,727.9	249.4	-239.1	345.5	0.00	0.00	0.00
2,800.0	11.19	316.21	2,767.2	255.0	-244.5	353.3	0.00	0.00	0.00
2,840.0	11.19	316.21	2,806.4	260.6	-249.9	361.1	0.00	0.00	0.00
2,880.0	11.19	316.21	2,845.7	266.2	-255.2	368.8	0.00	0.00	0.00
2,920.0	11.19	316.21	2,884.9	271.8	-260.6	376.6	0.00	0.00	0.00
2,960.0	11.19	316.21	2,924.1	277.4	-266.0	384.3	0.00	0.00	0.00
3,000.0	11.19	316.21	2,963.4	283.0	-271.3	392.1	0.00	0.00	0.00
3,040.0	11.19	316.21	3,002.6	288.6	-276.7	399.9	0.00	0.00	0.00
3,080.0	11.19	316.21	3,041.9	294.2	-282.1	407.6	0.00	0.00	0.00
3,120.0	11.19	316.21	3,081.1	299.8	-287.5	415.4	0.00	0.00	0.00
3,160.0	11.19	316.21	3,120.3	305.4	-292.8	423.1	0.00	0.00	0.00
3,200.0	11.19	316.21	3,159.6	311.0	-298.2	430.9	0.00	0.00	0.00
3,240.0	11.19	316.21	3,198.8	316.6	-303.6	438.7	0.00	0.00	0.00
3,280.0	11.19	316.21	3,238.1	322.2	-308.9	446.4	0.00	0.00	0.00
3,311.5	11.19	316.21	3,269.0	326.7	-313.2	452.5	0.00	0.00	0.00
PARKMAN									
3,320.0	11.19	316.21	3,277.3	327.8	-314.3	454.2	0.00	0.00	0.00
3,360.0	11.19	316.21	3,316.5	333.4	-319.7	461.9	0.00	0.00	0.00
3,400.0	11.19	316.21	3,355.8	339.1	-325.0	469.7	0.00	0.00	0.00
3,440.0	11.19	316.21	3,395.0	344.7	-330.4	477.5	0.00	0.00	0.00
3,480.0	11.19	316.21	3,434.3	350.3	-335.8	485.2	0.00	0.00	0.00
3,520.0	11.19	316.21	3,473.5	355.9	-341.2	493.0	0.00	0.00	0.00
3,560.0	11.19	316.21	3,512.7	361.5	-346.5	500.7	0.00	0.00	0.00
3,600.0	11.19	316.21	3,552.0	367.1	-351.9	508.5	0.00	0.00	0.00
3,640.0	11.19	316.21	3,591.2	372.7	-357.3	516.2	0.00	0.00	0.00
3,680.0	11.19	316.21	3,630.5	378.3	-362.6	524.0	0.00	0.00	0.00
3,720.0	11.19	316.21	3,669.7	383.9	-368.0	531.8	0.00	0.00	0.00
3,760.0	11.19	316.21	3,709.0	389.5	-373.4	539.5	0.00	0.00	0.00
3,800.0	11.19	316.21	3,748.2	395.1	-378.7	547.3	0.00	0.00	0.00
3,840.0	11.19	316.21	3,787.4	400.7	-384.1	555.0	0.00	0.00	0.00
3,880.0	11.19	316.21	3,826.7	406.3	-389.5	562.8	0.00	0.00	0.00
3,920.0	11.19	316.21	3,865.9	411.9	-394.9	570.6	0.00	0.00	0.00
3,960.0	11.19	316.21	3,905.2	417.5	-400.2	578.3	0.00	0.00	0.00
4,000.0	11.19	316.21	3,944.4	423.1	-405.6	586.1	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Latham R-1
Company:	BONANZA CREEK ENERGY OPERATING	TVD Reference:	WELL @ 4559.0ft (Original Well Elev)
Project:	SEC.1-T4N-R63W	MD Reference:	WELL @ 4559.0ft (Original Well Elev)
Site:	Latham 43-1 Pad Sec.1-T4N-R63W	North Reference:	True
Well:	Latham R-1	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (5-30-12)		

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)	
4,040.0	11.19	316.21	3,983.6	428.7	-411.0	593.8	0.00	0.00	0.00	
4,065.9	11.19	316.21	4,009.0	432.3	-414.4	598.9	0.00	0.00	0.00	
SUSSEX										
4,080.0	11.19	316.21	4,022.9	434.3	-416.3	601.6	0.00	0.00	0.00	
4,120.0	11.19	316.21	4,062.1	439.9	-421.7	609.4	0.00	0.00	0.00	
4,160.0	11.19	316.21	4,101.4	445.5	-427.1	617.1	0.00	0.00	0.00	
4,200.0	11.19	316.21	4,140.6	451.1	-432.4	624.9	0.00	0.00	0.00	
4,240.0	11.19	316.21	4,179.8	456.7	-437.8	632.6	0.00	0.00	0.00	
4,280.0	11.19	316.21	4,219.1	462.3	-443.2	640.4	0.00	0.00	0.00	
4,320.0	11.19	316.21	4,258.3	467.9	-448.6	648.2	0.00	0.00	0.00	
4,360.0	11.19	316.21	4,297.6	473.5	-453.9	655.9	0.00	0.00	0.00	
4,400.0	11.19	316.21	4,336.8	479.1	-459.3	663.7	0.00	0.00	0.00	
4,440.0	11.19	316.21	4,376.0	484.7	-464.7	671.4	0.00	0.00	0.00	
4,480.0	11.19	316.21	4,415.3	490.3	-470.0	679.2	0.00	0.00	0.00	
4,520.0	11.19	316.21	4,454.5	495.9	-475.4	687.0	0.00	0.00	0.00	
4,560.0	11.19	316.21	4,493.8	501.5	-480.8	694.7	0.00	0.00	0.00	
4,600.0	11.19	316.21	4,533.0	507.1	-486.1	702.5	0.00	0.00	0.00	
4,640.0	11.19	316.21	4,572.2	512.7	-491.5	710.2	0.00	0.00	0.00	
4,680.0	11.19	316.21	4,611.5	518.3	-496.9	718.0	0.00	0.00	0.00	
4,720.0	11.19	316.21	4,650.7	523.9	-502.3	725.8	0.00	0.00	0.00	
4,760.0	11.19	316.21	4,690.0	529.5	-507.6	733.5	0.00	0.00	0.00	
4,800.0	11.19	316.21	4,729.2	535.1	-513.0	741.3	0.00	0.00	0.00	
4,840.0	11.19	316.21	4,768.4	540.7	-518.4	749.0	0.00	0.00	0.00	
4,880.0	11.19	316.21	4,807.7	546.3	-523.7	756.8	0.00	0.00	0.00	
4,920.0	11.19	316.21	4,846.9	551.9	-529.1	764.6	0.00	0.00	0.00	
4,960.0	11.19	316.21	4,886.2	557.5	-534.5	772.3	0.00	0.00	0.00	
5,000.0	11.19	316.21	4,925.4	563.1	-539.8	780.1	0.00	0.00	0.00	
5,040.0	11.19	316.21	4,964.6	568.7	-545.2	787.8	0.00	0.00	0.00	
5,080.0	11.19	316.21	5,003.9	574.3	-550.6	795.6	0.00	0.00	0.00	
5,120.0	11.19	316.21	5,043.1	579.9	-555.9	803.3	0.00	0.00	0.00	
5,121.2	11.19	316.21	5,044.3	580.1	-556.1	803.6	0.00	0.00	0.00	
5,160.0	10.41	316.21	5,082.4	585.3	-561.1	810.8	2.00	-2.00	0.00	
5,200.0	9.61	316.21	5,121.8	590.3	-566.0	817.8	2.00	-2.00	0.00	
5,240.0	8.81	316.21	5,161.3	595.0	-570.4	824.2	2.00	-2.00	0.00	
5,280.0	8.01	316.21	5,200.9	599.2	-574.4	830.1	2.00	-2.00	0.00	
5,320.0	7.21	316.21	5,240.5	603.0	-578.1	835.3	2.00	-2.00	0.00	
5,360.0	6.41	316.21	5,280.2	606.4	-581.4	840.1	2.00	-2.00	0.00	
5,400.0	5.61	316.21	5,320.0	609.5	-584.3	844.3	2.00	-2.00	0.00	
5,440.0	4.81	316.21	5,359.8	612.1	-586.8	847.9	2.00	-2.00	0.00	
5,480.0	4.01	316.21	5,399.7	614.3	-588.9	851.0	2.00	-2.00	0.00	
5,520.0	3.21	316.21	5,439.6	616.1	-590.7	853.5	2.00	-2.00	0.00	
5,560.0	2.41	316.21	5,479.6	617.5	-592.0	855.5	2.00	-2.00	0.00	
5,600.0	1.61	316.21	5,519.6	618.5	-593.0	856.9	2.00	-2.00	0.00	
5,640.0	0.81	316.21	5,559.5	619.1	-593.6	857.7	2.00	-2.00	0.00	
5,680.0	0.01	316.21	5,599.5	619.4	-593.8	858.0	2.00	-2.00	0.00	
5,680.5	0.00	0.00	5,600.0	619.4	-593.8	858.0	2.00	-2.00	0.00	
TARGET BHL 2530'FSL, 1353'FEL										
5,720.0	0.00	0.00	5,639.5	619.4	-593.8	858.0	0.00	0.00	0.00	
5,760.0	0.00	0.00	5,679.5	619.4	-593.8	858.0	0.00	0.00	0.00	
5,800.0	0.00	0.00	5,719.5	619.4	-593.8	858.0	0.00	0.00	0.00	
5,840.0	0.00	0.00	5,759.5	619.4	-593.8	858.0	0.00	0.00	0.00	
5,880.0	0.00	0.00	5,799.5	619.4	-593.8	858.0	0.00	0.00	0.00	
5,920.0	0.00	0.00	5,839.5	619.4	-593.8	858.0	0.00	0.00	0.00	
5,960.0	0.00	0.00	5,879.5	619.4	-593.8	858.0	0.00	0.00	0.00	

Database:	Landmark	Local Co-ordinate Reference:	Well Latham R-1
Company:	BONANZA CREEK ENERGY OPERATING	TVD Reference:	WELL @ 4559.0ft (Original Well Elev)
Project:	SEC.1-T4N-R63W	MD Reference:	WELL @ 4559.0ft (Original Well Elev)
Site:	Latham 43-1 Pad Sec.1-T4N-R63W	North Reference:	True
Well:	Latham R-1	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (5-30-12)		

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)	
6,000.0	0.00	0.00	5,919.5	619.4	-593.8	858.0	0.00	0.00	0.00	
6,040.0	0.00	0.00	5,959.5	619.4	-593.8	858.0	0.00	0.00	0.00	
6,080.0	0.00	0.00	5,999.5	619.4	-593.8	858.0	0.00	0.00	0.00	
6,120.0	0.00	0.00	6,039.5	619.4	-593.8	858.0	0.00	0.00	0.00	
6,160.0	0.00	0.00	6,079.5	619.4	-593.8	858.0	0.00	0.00	0.00	
6,200.0	0.00	0.00	6,119.5	619.4	-593.8	858.0	0.00	0.00	0.00	
6,240.0	0.00	0.00	6,159.5	619.4	-593.8	858.0	0.00	0.00	0.00	
6,280.0	0.00	0.00	6,199.5	619.4	-593.8	858.0	0.00	0.00	0.00	
6,284.5	0.00	0.00	6,204.0	619.4	-593.8	858.0	0.00	0.00	0.00	
NIOBRARA - TARGET CIRCLE 2530'FSL & 1353'FEL										
6,320.0	0.00	0.00	6,239.5	619.4	-593.8	858.0	0.00	0.00	0.00	
6,360.0	0.00	0.00	6,279.5	619.4	-593.8	858.0	0.00	0.00	0.00	
6,400.0	0.00	0.00	6,319.5	619.4	-593.8	858.0	0.00	0.00	0.00	
6,440.0	0.00	0.00	6,359.5	619.4	-593.8	858.0	0.00	0.00	0.00	
6,480.0	0.00	0.00	6,399.5	619.4	-593.8	858.0	0.00	0.00	0.00	
6,514.5	0.00	0.00	6,434.0	619.4	-593.8	858.0	0.00	0.00	0.00	
FT. HAYES										
6,520.0	0.00	0.00	6,439.5	619.4	-593.8	858.0	0.00	0.00	0.00	
6,538.5	0.00	0.00	6,458.0	619.4	-593.8	858.0	0.00	0.00	0.00	
CODELL										
6,551.5	0.00	0.00	6,471.0	619.4	-593.8	858.0	0.00	0.00	0.00	
CARLILE										
6,560.0	0.00	0.00	6,479.5	619.4	-593.8	858.0	0.00	0.00	0.00	
6,591.5	0.00	0.00	6,511.0	619.4	-593.8	858.0	0.00	0.00	0.00	
GREENHORN										
6,600.0	0.00	0.00	6,519.5	619.4	-593.8	858.0	0.00	0.00	0.00	
6,640.0	0.00	0.00	6,559.5	619.4	-593.8	858.0	0.00	0.00	0.00	
6,680.0	0.00	0.00	6,599.5	619.4	-593.8	858.0	0.00	0.00	0.00	
6,698.5	0.00	0.00	6,618.0	619.4	-593.8	858.0	0.00	0.00	0.00	

Casing Points						
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")		
500.0	500.0	8 5/8"	8-5/8	12-1/4		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,311.5	3,269.0	PARKMAN		0.00		
4,065.9	4,009.0	SUSSEX		0.00		
6,284.5	6,204.0	NIOBRARA		0.00		
6,514.5	6,434.0	FT. HAYES		0.00		
6,538.5	6,458.0	CODELL		0.00		
6,551.5	6,471.0	CARLILE		0.00		
6,591.5	6,511.0	GREENHORN		0.00		

Database:	Landmark	Local Co-ordinate Reference:	Well Latham R-1
Company:	BONANZA CREEK ENERGY OPERATING	TVD Reference:	WELL @ 4559.0ft (Original Well Elev)
Project:	SEC.1-T4N-R63W	MD Reference:	WELL @ 4559.0ft (Original Well Elev)
Site:	Latham 43-1 Pad Sec.1-T4N-R63W	North Reference:	True
Well:	Latham R-1	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (5-30-12)		



Directional

BONANZA CREEK ENERGY OPERATING

SEC.1-T4N-R63W

Latham 43-1 Pad Sec.1-T4N-R63W

Latham R-1

Wellbore #1

Plan #1 (5-30-12)

Anticollision Report

06 June, 2012

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well Latham R-1
Project:	SEC.1-T4N-R63W	TVD Reference:	WELL @ 4559.0ft (Original Well Elev)
Reference Site:	Latham 43-1 Pad Sec.1-T4N-R63W	MD Reference:	WELL @ 4559.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Latham R-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (5-30-12)	Offset TVD Reference:	Offset Datum

Reference	Plan #1 (5-30-12)		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 10,000.0ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program	Date	6/6/2012		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	6,698.5	Plan #1 (5-30-12) (Wellbore #1)	MWD	MWD - Standard

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Latham 43-1 Pad Sec.1-T4N-R63W						
Latham 33-1 - Wellbore #1 - Plan #1 (5-30-12)	900.4	900.3	12.6	8.8	3.295	CC, ES, SF
Latham 42-1 - Wellbore #1 - Plan #1 (5-30-12)	273.3	274.3	13.9	12.9	13.810	CC
Latham 42-1 - Wellbore #1 - Plan #1 (5-30-12)	300.0	301.0	13.9	12.8	12.359	ES
Latham 42-1 - Wellbore #1 - Plan #1 (5-30-12)	400.0	400.7	15.2	13.6	9.595	SF

Offset Design													Offset Site Error:	0.0 ft
Latham 43-1 Pad Sec.1-T4N-R63W - Latham 33-1 - Wellbore #1 - Plan #1 (5-30-12)													Offset Well Error:	0.0 ft
Survey Program: 0-MWD														
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)	Offset Wellbore Centre +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	-104.62	-3.6	-13.9	14.4	14.4	0.00	N/A		
100.0	100.0	100.0	100.0	0.1	0.1	-104.62	-3.6	-13.9	14.4	14.2	0.22	64.088		
200.0	200.0	200.0	200.0	0.3	0.3	-104.62	-3.6	-13.9	14.4	13.7	0.67	21.363		
300.0	300.0	300.0	300.0	0.6	0.6	-104.62	-3.6	-13.9	14.4	13.3	1.12	12.818		
400.0	400.0	400.0	400.0	0.8	0.8	-104.62	-3.6	-13.9	14.4	12.8	1.57	9.155		
500.0	500.0	500.0	500.0	1.0	1.0	-104.62	-3.6	-13.9	14.4	12.4	2.02	7.121		
600.0	600.0	600.0	600.0	1.2	1.2	-104.62	-3.6	-13.9	14.4	11.9	2.47	5.826		
700.0	700.0	700.0	700.0	1.5	1.5	-104.62	-3.6	-13.9	14.4	11.5	2.92	4.930		
800.0	800.0	800.0	800.0	1.7	1.7	-67.25	-3.6	-13.9	13.6	10.3	3.37	4.050		
900.0	899.8	899.8	899.8	1.9	1.9	-89.80	-3.6	-13.9	12.6	8.8	3.81	3.297		
900.4	900.3	900.3	900.3	1.9	1.9	-89.94	-3.6	-13.9	12.6	8.8	3.82	3.295	CC, ES, SF	
1,000.0	999.5	999.3	999.3	2.1	2.1	-118.19	-3.6	-15.7	15.7	11.4	4.26	3.677		
1,100.0	1,098.7	1,098.8	1,098.6	2.4	2.3	-132.18	-3.4	-20.8	23.6	18.9	4.71	5.018		
1,200.0	1,197.5	1,198.2	1,197.6	2.7	2.5	-136.94	-3.2	-29.4	34.6	29.4	5.18	6.688		
1,259.3	1,255.7	1,257.0	1,256.1	2.9	2.7	-137.78	-3.0	-36.1	42.3	36.8	5.48	7.726		
1,300.0	1,295.7	1,297.4	1,296.1	3.0	2.8	-137.74	-2.9	-41.4	47.9	42.2	5.69	8.408		
1,400.0	1,393.8	1,396.5	1,394.0	3.4	3.1	-135.42	-2.4	-56.8	61.4	55.1	6.28	9.777		
1,500.0	1,491.9	1,495.4	1,491.1	3.7	3.4	-131.31	-1.9	-75.6	75.1	68.2	6.94	10.815		
1,600.0	1,590.0	1,593.9	1,587.1	4.1	3.8	-126.30	-1.3	-97.5	89.4	81.8	7.68	11.641		
1,700.0	1,688.1	1,691.6	1,681.6	4.5	4.2	-120.90	-0.6	-122.6	105.0	96.5	8.49	12.368		
1,800.0	1,786.2	1,789.8	1,776.0	4.9	4.6	-116.13	0.2	-149.3	121.7	112.4	9.33	13.044		
1,900.0	1,884.3	1,887.9	1,870.5	5.3	5.1	-112.52	0.9	-176.1	139.1	128.9	10.18	13.663		
2,000.0	1,982.4	1,986.1	1,964.9	5.7	5.6	-109.72	1.7	-202.8	156.8	145.8	11.03	14.222		

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 Latham R-1
Project:	SEC.1-T4N-R63W	TVD Reference:	WELL @ 4559.0ft (Original Well Elev)
Reference Site:	Latham 43-1 Pad Sec.1-T4N-R63W	MD Reference:	WELL @ 4559.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Latham R-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (5-30-12)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0ft		
Survey Program: 0-MWD													Latham 43-1 Pad Sec.1-T4N-R63W - Latham 33-1 - Wellbore #1 - Plan #1 (5-30-12)		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				
2,100.0	2,080.5	2,084.2	2,059.3	6.1	6.2	-107.49	2.5	-229.6	174.9	163.0	11.88	14.722				
2,200.0	2,178.6	2,182.4	2,153.8	6.5	6.7	-105.68	3.2	-256.3	193.2	180.4	12.73	15.169				
2,300.0	2,276.7	2,280.5	2,248.2	7.0	7.2	-104.18	4.0	-283.1	211.6	198.0	13.59	15.569				
2,400.0	2,374.8	2,378.7	2,342.6	7.4	7.8	-102.92	4.7	-309.8	230.1	215.7	14.45	15.928				
2,500.0	2,472.9	2,476.8	2,437.1	7.8	8.3	-101.85	5.5	-336.6	248.7	233.4	15.31	16.251				
2,600.0	2,571.0	2,575.0	2,531.5	8.2	8.9	-100.93	6.2	-363.3	267.5	251.3	16.17	16.543				
2,700.0	2,669.1	2,673.1	2,625.9	8.6	9.4	-100.13	7.0	-390.1	286.2	269.2	17.03	16.808				
2,800.0	2,767.2	2,771.3	2,720.4	9.1	10.0	-99.42	7.7	-416.8	305.0	287.1	17.89	17.048				
2,900.0	2,865.3	2,869.4	2,814.8	9.5	10.5	-98.80	8.5	-443.6	323.9	305.1	18.76	17.268				
3,000.0	2,963.4	2,967.6	2,909.2	9.9	11.1	-98.25	9.3	-470.3	342.8	323.1	19.62	17.469				
3,100.0	3,061.5	3,065.7	3,003.6	10.3	11.7	-97.75	10.0	-497.1	361.7	341.2	20.49	17.654				
3,200.0	3,159.6	3,163.9	3,098.1	10.8	12.2	-97.31	10.8	-523.8	380.6	359.2	21.35	17.824				
3,300.0	3,257.7	3,262.0	3,192.5	11.2	12.8	-96.90	11.5	-550.6	399.6	377.3	22.22	17.982				
3,400.0	3,355.8	3,360.2	3,286.9	11.6	13.3	-96.54	12.3	-577.3	418.5	395.4	23.09	18.128				
3,500.0	3,453.9	3,458.3	3,381.4	12.0	13.9	-96.20	13.0	-604.1	437.5	413.6	23.96	18.263				
3,600.0	3,552.0	3,556.5	3,475.8	12.5	14.5	-95.90	13.8	-630.8	456.5	431.7	24.82	18.390				
3,700.0	3,650.1	3,654.6	3,570.2	12.9	15.0	-95.61	14.5	-657.6	475.5	449.8	25.69	18.507				
3,800.0	3,748.2	3,752.8	3,664.7	13.3	15.6	-95.35	15.3	-684.3	494.5	468.0	26.56	18.618				
3,900.0	3,846.3	3,850.9	3,759.1	13.7	16.2	-95.11	16.1	-711.1	513.6	486.1	27.43	18.721				
4,000.0	3,944.4	3,949.1	3,853.5	14.2	16.8	-94.89	16.8	-737.8	532.6	504.3	28.30	18.818				
4,100.0	4,042.5	4,047.2	3,948.0	14.6	17.3	-94.68	17.6	-764.6	551.7	522.5	29.17	18.909				
4,200.0	4,140.6	4,145.4	4,042.4	15.0	17.9	-94.48	18.3	-791.3	570.7	540.7	30.04	18.995				
4,300.0	4,238.7	4,243.5	4,136.8	15.4	18.5	-94.30	19.1	-818.1	589.8	558.8	30.92	19.076				
4,400.0	4,336.8	4,341.7	4,231.3	15.9	19.0	-94.13	19.8	-844.8	608.8	577.0	31.79	19.153				
4,500.0	4,434.9	4,439.8	4,325.7	16.3	19.6	-93.97	20.6	-871.6	627.9	595.2	32.66	19.226				
4,600.0	4,533.0	4,538.0	4,420.1	16.7	20.2	-93.82	21.3	-898.3	647.0	613.4	33.53	19.294				
4,700.0	4,631.1	4,636.1	4,514.6	17.2	20.8	-93.67	22.1	-925.1	666.0	631.6	34.40	19.360				
4,800.0	4,729.2	4,734.3	4,609.0	17.6	21.3	-93.54	22.8	-951.8	685.1	649.9	35.28	19.422				
4,900.0	4,827.3	4,832.4	4,703.4	18.0	21.9	-93.41	23.6	-978.6	704.2	668.1	36.15	19.481				
5,000.0	4,925.4	4,930.6	4,797.9	18.4	22.5	-93.29	24.4	-1,005.3	723.3	686.3	37.02	19.537				
5,100.0	5,023.5	5,028.7	4,892.3	18.9	23.1	-93.18	25.1	-1,032.0	742.4	704.5	37.89	19.591				
5,121.2	5,044.3	5,049.5	4,912.3	19.0	23.2	-93.15	25.3	-1,037.7	746.4	708.4	38.08	19.602				
5,200.0	5,121.8	5,126.9	4,986.7	19.2	23.6	-93.29	25.9	-1,058.8	761.4	722.7	38.76	19.646				
5,300.0	5,220.7	5,238.9	5,094.8	19.5	24.2	-93.22	26.7	-1,088.3	779.7	740.2	39.49	19.745				
5,400.0	5,320.0	5,359.4	5,212.1	19.8	24.6	-93.04	27.5	-1,115.5	795.3	755.2	40.10	19.832				
5,500.0	5,419.7	5,481.0	5,331.6	20.0	25.0	-92.78	28.1	-1,137.9	808.0	767.4	40.61	19.895				
5,600.0	5,519.6	5,603.6	5,453.0	20.1	25.4	-92.45	28.6	-1,155.3	817.7	776.7	41.02	19.936				
5,680.5	5,600.0	5,702.9	5,551.7	20.2	25.6	-135.92	28.9	-1,165.6	823.4	782.1	41.27	19.953				
5,700.0	5,619.5	5,727.1	5,575.8	20.3	25.6	-135.81	28.9	-1,167.6	824.5	783.2	41.31	19.957				
5,800.0	5,719.5	5,851.3	5,699.8	20.4	25.8	-135.46	29.1	-1,174.7	828.4	786.8	41.58	19.922				
5,900.0	5,819.5	5,971.0	5,819.5	20.5	25.9	-135.37	29.2	-1,176.4	829.3	787.5	41.85	19.816				
6,000.0	5,919.5	6,071.0	5,919.5	20.7	26.1	-135.37	29.2	-1,176.4	829.3	787.2	42.11	19.693				
6,100.0	6,019.5	6,171.0	6,019.5	20.8	26.2	-135.37	29.2	-1,176.4	829.3	786.9	42.38	19.570				
6,200.0	6,119.5	6,271.0	6,119.5	20.9	26.3	-135.37	29.2	-1,176.4	829.3	786.7	42.64	19.447				
6,300.0	6,219.5	6,371.0	6,219.5	21.1	26.4	-135.37	29.2	-1,176.4	829.3	786.4	42.92	19.325				
6,400.0	6,319.5	6,471.0	6,319.5	21.2	26.5	-135.37	29.2	-1,176.4	829.3	786.1	43.19	19.202				
6,500.0	6,419.5	6,571.0	6,419.5	21.4	26.6	-135.37	29.2	-1,176.4	829.3	785.8	43.47	19.080				
6,600.0	6,519.5	6,671.0	6,519.5	21.5	26.7	-135.37	29.2	-1,176.4	829.3	785.6	43.75	18.958				
6,698.5	6,618.0	6,769.5	6,618.0	21.7	26.8	-135.37	29.2	-1,176.4	829.3	785.3	44.02	18.838				

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well Latham R-1
Project:	SEC.1-T4N-R63W	TVD Reference:	WELL @ 4559.0ft (Original Well Elev)
Reference Site:	Latham 43-1 Pad Sec.1-T4N-R63W	MD Reference:	WELL @ 4559.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Latham R-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (5-30-12)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 ft		
Survey Program: 0-MWD													Latham 43-1 Pad Sec.1-T4N-R63W - Latham 42-1 - Wellbore #1 - Plan #1 (5-30-12)		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	1.0	1.0	0.0	0.0	89.97	0.0	13.9	13.9	13.9	0.00	N/A				
100.0	100.0	101.0	101.0	0.1	0.1	89.97	0.0	13.9	13.9	13.7	0.23	61.400				
200.0	200.0	201.0	201.0	0.3	0.3	89.97	0.0	13.9	13.9	13.3	0.68	20.602				
273.3	273.3	274.3	274.3	0.5	0.5	86.00	1.0	13.9	13.9	12.9	1.01	13.810 CC				
300.0	300.0	301.0	301.0	0.6	0.6	82.64	1.8	13.8	13.9	12.8	1.13	12.359 ES				
400.0	400.0	400.7	400.6	0.8	0.8	62.43	7.0	13.4	15.2	13.6	1.58	9.595 SF				
500.0	500.0	500.0	499.5	1.0	1.0	39.53	15.7	12.9	20.4	18.3	2.05	9.914				
600.0	600.0	598.4	597.2	1.2	1.3	24.76	27.6	12.7	30.6	28.1	2.55	11.997				
700.0	700.0	696.0	693.5	1.5	1.6	16.83	42.7	12.9	45.2	42.1	3.07	14.718				
800.0	800.0	792.6	788.4	1.7	2.0	57.31	60.8	13.5	62.6	59.2	3.46	18.093				
900.0	899.8	888.4	881.9	1.9	2.4	57.10	82.0	14.4	81.6	77.6	3.94	20.711				
1,000.0	999.5	984.0	974.3	2.1	2.8	58.25	106.1	15.7	101.8	97.4	4.44	22.919				
1,100.0	1,098.7	1,082.0	1,068.9	2.4	3.3	60.29	131.7	17.2	121.4	116.4	4.98	24.382				
1,200.0	1,197.5	1,180.1	1,163.5	2.7	3.8	62.97	157.4	18.6	139.5	134.0	5.57	25.052				
1,259.3	1,255.7	1,238.2	1,219.7	2.9	4.1	64.80	172.6	19.5	149.7	143.8	5.95	25.144				
1,300.0	1,295.7	1,278.2	1,258.2	3.0	4.3	66.17	183.1	20.1	156.7	150.4	6.23	25.131				
1,400.0	1,393.8	1,376.3	1,352.9	3.4	4.8	69.07	208.8	21.5	174.0	167.1	6.95	25.036				
1,500.0	1,491.9	1,474.5	1,447.7	3.7	5.3	71.44	234.5	23.0	191.7	184.0	7.70	24.907				
1,600.0	1,590.0	1,572.6	1,542.4	4.1	5.9	73.41	260.2	24.4	209.7	201.2	8.47	24.767				
1,700.0	1,688.1	1,670.7	1,637.1	4.5	6.4	75.07	285.9	25.8	227.9	218.6	9.25	24.628				
1,800.0	1,786.2	1,768.9	1,731.8	4.9	6.9	76.48	311.6	27.3	246.2	236.2	10.05	24.495				
1,900.0	1,884.3	1,867.0	1,826.5	5.3	7.4	77.70	337.2	28.7	264.7	253.8	10.86	24.371				
2,000.0	1,982.4	1,965.1	1,921.2	5.7	7.9	78.76	362.9	30.2	283.2	271.6	11.68	24.257				
2,100.0	2,080.5	2,063.3	2,015.9	6.1	8.5	79.69	388.6	31.6	301.9	289.4	12.50	24.153				
2,200.0	2,178.6	2,161.4	2,110.6	6.5	9.0	80.51	414.3	33.1	320.6	307.3	13.33	24.058				
2,300.0	2,276.7	2,259.6	2,205.3	7.0	9.5	81.24	440.0	34.5	339.4	325.2	14.16	23.972				
2,400.0	2,374.8	2,357.7	2,300.0	7.4	10.0	81.89	465.7	36.0	358.2	343.2	14.99	23.893				
2,500.0	2,472.9	2,455.8	2,394.7	7.8	10.5	82.48	491.4	37.4	377.0	361.2	15.83	23.821				
2,600.0	2,571.0	2,554.0	2,489.4	8.2	11.1	83.01	517.1	38.9	395.9	379.3	16.67	23.755				
2,700.0	2,669.1	2,652.1	2,584.1	8.6	11.6	83.50	542.8	40.3	414.9	397.3	17.51	23.695				
2,800.0	2,767.2	2,750.2	2,678.8	9.1	12.1	83.94	568.5	41.8	433.8	415.5	18.35	23.640				
2,900.0	2,865.3	2,848.4	2,773.5	9.5	12.6	84.34	594.2	43.2	452.8	433.6	19.19	23.589				
3,000.0	2,963.4	2,946.5	2,868.2	9.9	13.2	84.72	619.9	44.7	471.8	451.7	20.04	23.542				
3,100.0	3,061.5	3,044.6	2,962.9	10.3	13.7	85.06	645.6	46.1	490.8	469.9	20.89	23.499				
3,200.0	3,159.6	3,142.8	3,057.6	10.8	14.2	85.38	671.2	47.6	509.8	488.1	21.73	23.458				
3,300.0	3,257.7	3,240.9	3,152.3	11.2	14.7	85.67	696.9	49.0	528.8	506.3	22.58	23.421				
3,400.0	3,355.8	3,339.0	3,247.0	11.6	15.2	85.95	722.6	50.5	547.9	524.5	23.43	23.386				
3,500.0	3,453.9	3,437.2	3,341.7	12.0	15.8	86.20	748.3	51.9	567.0	542.7	24.28	23.353				
3,600.0	3,552.0	3,535.3	3,436.4	12.5	16.3	86.44	774.0	53.3	586.0	560.9	25.13	23.323				
3,700.0	3,650.1	3,633.5	3,531.1	12.9	16.8	86.67	799.7	54.8	605.1	579.1	25.98	23.294				
3,800.0	3,748.2	3,731.6	3,625.8	13.3	17.3	86.88	825.4	56.2	624.2	597.4	26.83	23.267				
3,900.0	3,846.3	3,829.7	3,720.5	13.7	17.9	87.08	851.1	57.7	643.3	615.6	27.68	23.242				
4,000.0	3,944.4	3,927.9	3,815.2	14.2	18.4	87.26	876.8	59.1	662.4	633.9	28.53	23.218				
4,100.0	4,042.5	4,026.0	3,909.9	14.6	18.9	87.44	902.5	60.6	681.5	652.1	29.38	23.196				
4,200.0	4,140.6	4,124.1	4,004.6	15.0	19.4	87.61	928.2	62.0	700.6	670.4	30.23	23.175				
4,300.0	4,238.7	4,222.3	4,099.3	15.4	20.0	87.76	953.9	63.5	719.8	688.7	31.08	23.154				
4,400.0	4,336.8	4,320.4	4,194.0	15.9	20.5	87.91	979.5	64.9	738.9	706.9	31.94	23.135				
4,500.0	4,434.9	4,418.5	4,288.7	16.3	21.0	88.06	1,005.2	66.4	758.0	725.2	32.79	23.117				
4,600.0	4,533.0	4,516.7	4,383.4	16.7	21.5	88.19	1,030.9	67.8	777.1	743.5	33.64	23.100				
4,700.0	4,631.1	4,614.8	4,478.1	17.2	22.1	88.32	1,056.6	69.3	796.3	761.8	34.50	23.084				
4,800.0	4,729.2	4,712.9	4,572.8	17.6	22.6	88.44	1,082.3	70.7	815.4	780.1	35.35	23.068				
4,900.0	4,827.3	4,811.1	4,667.5	18.0	23.1	88.56	1,108.0	72.2	834.6	798.4	36.20	23.053				

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 Latham R-1
Project:	SEC.1-T4N-R63W	TVD Reference:	WELL @ 4559.0ft (Original Well Elev)
Reference Site:	Latham 43-1 Pad Sec.1-T4N-R63W	MD Reference:	WELL @ 4559.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Latham R-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (5-30-12)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 ft	
Survey Program: 0-MWD													Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
5,000.0	4,925.4	4,909.2	4,762.2	18.4	23.6	88.67	1,133.7	73.6	853.7	816.7	37.06	23.039			
5,100.0	5,023.5	5,007.4	4,856.9	18.9	24.2	88.78	1,159.4	75.1	872.9	835.0	37.91	23.026			
5,121.2	5,044.3	5,028.1	4,877.0	19.0	24.3	88.80	1,164.8	75.4	876.9	838.9	38.09	23.023			
5,200.0	5,121.8	5,105.5	4,951.6	19.2	24.7	89.12	1,185.1	76.5	892.1	853.3	38.75	23.019			
5,300.0	5,220.7	5,203.6	5,046.3	19.5	25.2	89.32	1,210.8	78.0	911.3	871.8	39.48	23.084			
5,400.0	5,320.0	5,331.5	5,170.4	19.8	25.8	89.28	1,241.6	79.7	929.1	888.9	40.15	23.141			
5,500.0	5,419.7	5,461.8	5,298.1	20.0	26.2	89.14	1,267.3	81.1	943.6	902.9	40.68	23.196			
5,600.0	5,519.6	5,593.4	5,428.2	20.1	26.6	88.91	1,287.3	82.3	954.9	913.8	41.11	23.228			
5,680.5	5,600.0	5,700.1	5,534.2	20.2	26.8	44.87	1,299.2	82.9	961.5	920.2	41.37	23.240			
5,700.0	5,619.5	5,726.1	5,560.1	20.3	26.9	44.78	1,301.5	83.1	962.8	921.4	41.42	23.243			
5,800.0	5,719.5	5,859.7	5,693.5	20.4	27.1	44.46	1,309.6	83.5	967.4	925.7	41.70	23.197			
5,900.0	5,819.5	5,986.8	5,820.5	20.5	27.2	44.38	1,311.5	83.6	968.5	926.5	41.98	23.070			
6,000.0	5,919.5	6,086.8	5,920.5	20.7	27.3	44.38	1,311.5	83.6	968.5	926.2	42.24	22.927			
6,100.0	6,019.5	6,186.8	6,020.5	20.8	27.4	44.38	1,311.5	83.6	968.5	926.0	42.51	22.783			
6,200.0	6,119.5	6,286.8	6,120.5	20.9	27.5	44.38	1,311.5	83.6	968.5	925.7	42.78	22.640			
6,300.0	6,219.5	6,386.8	6,220.5	21.1	27.6	44.38	1,311.5	83.6	968.5	925.4	43.05	22.497			
6,400.0	6,319.5	6,486.8	6,320.5	21.2	27.7	44.38	1,311.5	83.6	968.5	925.2	43.33	22.354			
6,500.0	6,419.5	6,586.8	6,420.5	21.4	27.8	44.38	1,311.5	83.6	968.5	924.9	43.60	22.211			
6,600.0	6,519.5	6,686.8	6,520.5	21.5	27.9	44.38	1,311.5	83.6	968.5	924.6	43.88	22.069			
6,698.5	6,618.0	6,785.3	6,619.0	21.7	28.1	44.38	1,311.5	83.6	968.5	924.3	44.16	21.929			

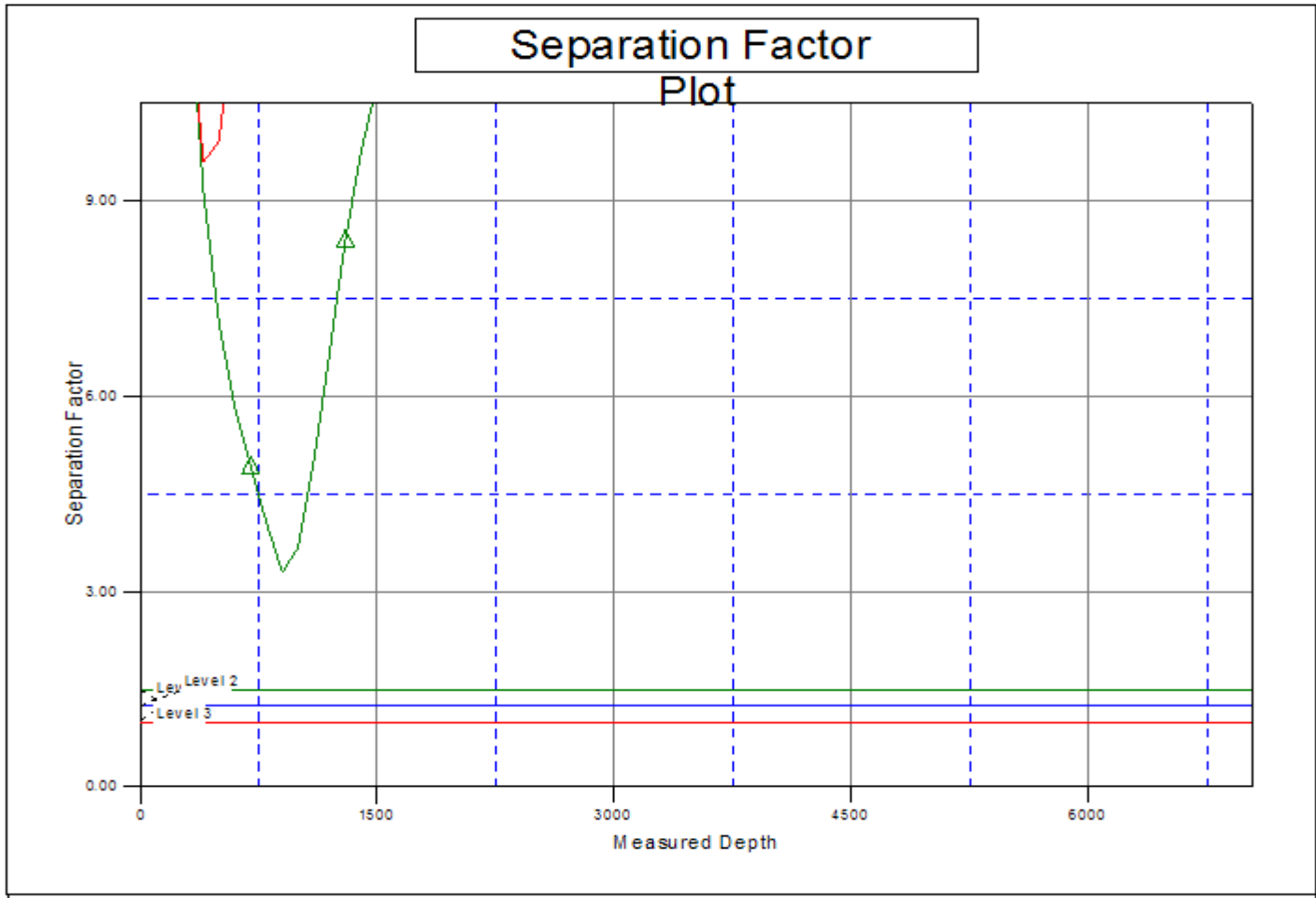
Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well Latham R-1
Project:	SEC.1-T4N-R63W	TVD Reference:	WELL @ 4559.0ft (Original Well Elev)
Reference Site:	Latham 43-1 Pad Sec.1-T4N-R63W	MD Reference:	WELL @ 4559.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Latham R-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (5-30-12)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4559.0ft (Original Well Elev) Coordinates are relative to: Latham R-1
 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: 0.72°



Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well Latham R-1
Project:	SEC.1-T4N-R63W	TVD Reference:	WELL @ 4559.0ft (Original Well Elev)
Reference Site:	Latham 43-1 Pad Sec.1-T4N-R63W	MD Reference:	WELL @ 4559.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Latham R-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (5-30-12)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4559.0ft (Original Well Elev) Coordinates are relative to: Latham R-1
 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: 0.72°



LEGEND

- Latham 33-1, Wellbore #1, Plan #1 (5-30-12) V0 ▲ Latham 42-1, Wellbore #1, Plan #1 (5-30-12) V0