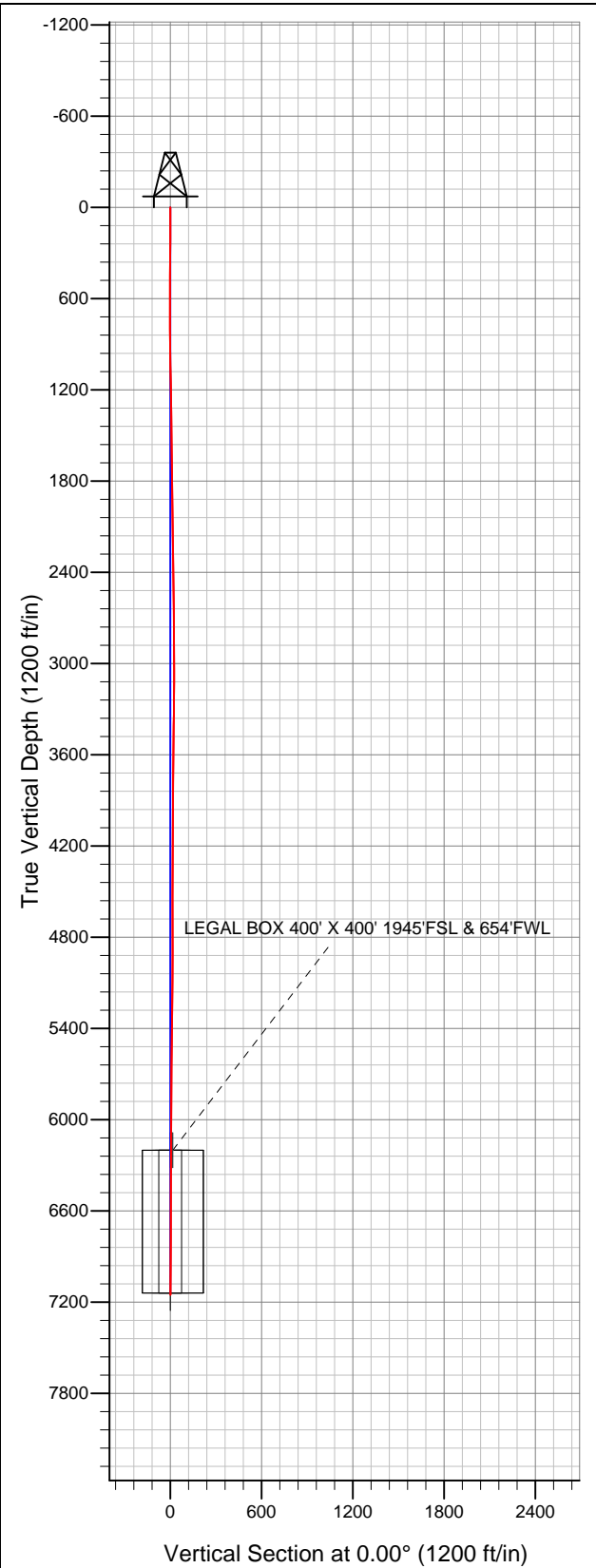


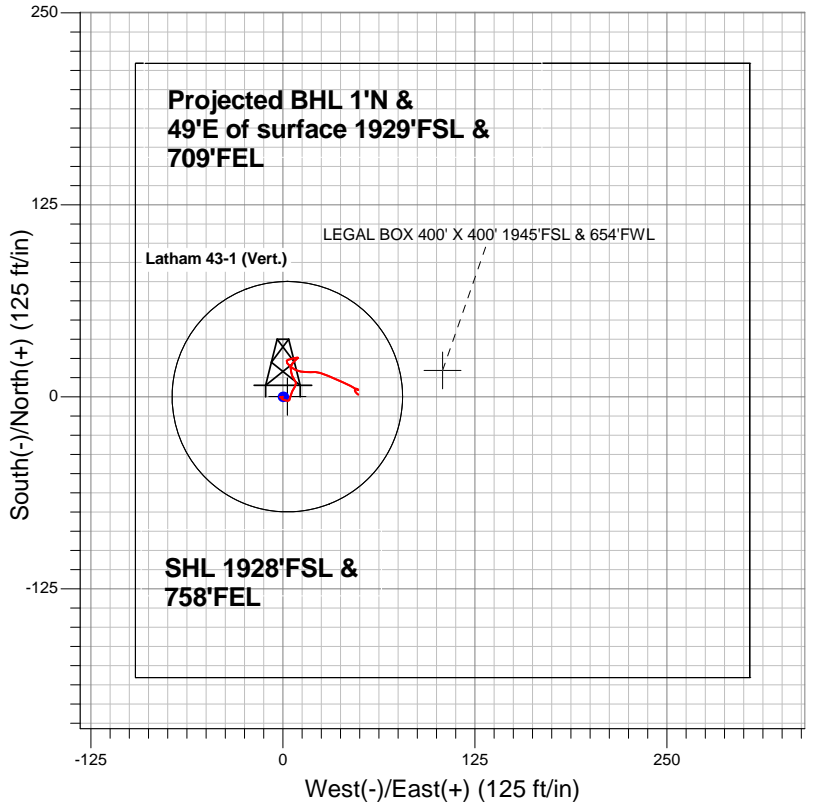
# Well Name: Latham 43-1 (Vert.)

Surface Location: Latham 43-1 Pad Sec.1-T4N-R63W  
 North American Datum 1983 US State Plane 1983Colorado Northern Zone  
 Ground Elevation: 4546.0




+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1368529.43	3312265.32	40.339600	-104.379770	
Original Well Elev			WELL @ 4561.0ft (Original Well Elev)			



## BONANZA CREEK ENERGY OPERATING



### LEGEND

-  Wellbore #1
-  Latham 43-1 (Vert.), Wellbore #1, Plan #1 (5-30-12) V0
-  Survey #1

## Final Survey Plot

Projected Final Survey -  
 7154'MD & 7153'TVD @ 1'VS  
 0.30 deg Inc 134.60 deg AZ

Project: SEC.1-T4N-R63W  
 Site: Latham 43-1 Pad Sec.1-T4N-R63W  
 Well: Latham 43-1 (Vert.)  
 Plan: Wellbore #1



# **BONANZA CREEK ENERGY OPERATING**

**SEC.1-T4N-R63W**

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

**Latham 43-1 (Vert.)**

**Wellbore #1**

**Survey: Survey #1**

## **Standard Survey Report**

**22 August, 2012**

<b>Company:</b>	BONANZA CREEK ENERGY OPERATING	<b>Local Co-ordinate Reference:</b>	Well Latham 43-1 (Vert.)
<b>Project:</b>	SEC.1-T4N-R63W	<b>TVD Reference:</b>	WELL @ 4561.0ft (Original Well Elev)
<b>Site:</b>	Latham 43-1 Pad Sec.1-T4N-R63W	<b>MD Reference:</b>	WELL @ 4561.0ft (Original Well Elev)
<b>Well:</b>	Latham 43-1 (Vert.)	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	Landmark

<b>Project</b>	SEC.1-T4N-R63W, Weld County, Colorado		
<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 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 43-1 (Vert.)					
Well Position	+N/-S	0.0 ft	Northing:	1,368,529.43 ft	Latitude:	40.339600
	+E/-W	0.0 ft	Easting:	3,312,265.32 ft	Longitude:	-104.379770
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,546.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	7/6/2012	8.51	67.03	53,031

Design	Wellbore #1			
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth: 0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	0.00

Survey Program		Date	8/22/2012		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
123.0	7,154.0	Survey #1 (Wellbore #1)	MWD	MWD - Standard	

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	
123.0	1.10	264.60	123.0	-0.1	-1.2	-0.1	0.89	0.89	0.00	
209.0	0.20	86.00	209.0	-0.2	-1.8	-0.2	1.51	-1.05	-207.67	
303.0	0.40	119.80	303.0	-0.3	-1.4	-0.3	0.28	0.21	35.96	
402.0	0.40	185.40	402.0	-0.8	-1.1	-0.8	0.44	0.00	66.26	
598.0	1.50	108.30	598.0	-2.3	1.2	-2.3	0.75	0.56	-39.34	
786.0	0.60	28.40	785.9	-2.2	4.0	-2.2	0.81	-0.48	-42.50	
973.0	1.00	11.70	972.9	0.2	4.8	0.2	0.25	0.21	-8.93	
1,160.0	1.10	26.10	1,159.9	3.4	6.0	3.4	0.15	0.05	7.70	
1,348.0	1.10	32.30	1,347.8	6.6	7.7	6.6	0.06	0.00	3.30	
1,535.0	0.60	350.60	1,534.8	9.1	8.5	9.1	0.41	-0.27	-22.30	
1,722.0	0.90	318.80	1,721.8	11.1	7.4	11.1	0.27	0.16	-17.01	
1,910.0	0.70	346.90	1,909.8	13.4	6.2	13.4	0.23	-0.11	14.95	

<b>Company:</b>	BONANZA CREEK ENERGY OPERATING	<b>Local Co-ordinate Reference:</b>	Well Latham 43-1 (Vert.)
<b>Project:</b>	SEC.1-T4N-R63W	<b>TVD Reference:</b>	WELL @ 4561.0ft (Original Well Elev)
<b>Site:</b>	Latham 43-1 Pad Sec.1-T4N-R63W	<b>MD Reference:</b>	WELL @ 4561.0ft (Original Well Elev)
<b>Well:</b>	Latham 43-1 (Vert.)	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	Landmark

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)	
2,097.0	0.90	336.20	2,096.8	15.8	5.3	15.8	0.13	0.11	-5.72	
2,284.0	1.10	6.90	2,283.8	18.9	4.9	18.9	0.30	0.11	16.42	
2,472.0	0.70	48.80	2,471.7	21.5	6.0	21.5	0.40	-0.21	22.29	
2,659.0	0.60	27.70	2,658.7	23.1	7.3	23.1	0.14	-0.05	-11.28	
2,846.0	0.90	61.30	2,845.7	24.7	9.1	24.7	0.28	0.16	17.97	
3,034.0	0.40	275.40	3,033.7	25.5	9.7	25.5	0.67	-0.27	-77.61	
3,221.0	2.00	256.60	3,220.6	24.8	5.9	24.8	0.87	0.86	-10.05	
3,408.0	0.40	201.90	3,407.6	23.4	2.5	23.4	0.96	-0.86	-29.25	
3,595.0	0.70	152.50	3,594.6	21.8	2.8	21.8	0.29	0.16	-26.42	
3,783.0	1.40	129.30	3,782.6	19.3	5.1	19.3	0.43	0.37	-12.34	
3,970.0	1.00	110.30	3,969.5	17.3	8.4	17.3	0.30	-0.21	-10.16	
4,157.0	1.00	102.20	4,156.5	16.4	11.5	16.4	0.08	0.00	-4.33	
4,345.0	1.10	90.30	4,344.5	16.0	14.9	16.0	0.13	0.05	-6.33	
4,532.0	0.80	90.40	4,531.4	16.0	18.0	16.0	0.16	-0.16	0.05	
4,719.0	1.10	85.90	4,718.4	16.1	21.1	16.1	0.17	0.16	-2.41	
4,907.0	1.00	121.40	4,906.4	15.4	24.3	15.4	0.34	-0.05	18.88	
5,094.0	1.10	101.10	5,093.4	14.2	27.4	14.2	0.20	0.05	-10.86	
5,281.0	1.80	115.40	5,280.3	12.6	31.9	12.6	0.42	0.37	7.65	
5,469.0	1.20	113.60	5,468.2	10.5	36.3	10.5	0.32	-0.32	-0.96	
5,656.0	1.30	115.60	5,655.2	8.8	40.0	8.8	0.06	0.05	1.07	
5,843.0	1.40	116.60	5,842.1	6.9	44.0	6.9	0.05	0.05	0.53	
6,031.0	1.20	120.00	6,030.1	4.9	47.7	4.9	0.11	-0.11	1.81	
6,201.7	0.45	325.41	6,200.8	4.5	48.9	4.5	0.95	-0.44	-90.55	
TARGET CIRCLE 1928'FSL & 755'FEL - LEGAL BOX 400' X 400' 1945'FSL & 654'FWL										
6,218.0	0.60	320.70	6,217.1	4.7	48.8	4.7	0.95	0.91	-28.93	
6,405.0	0.40	245.30	6,404.1	5.2	47.6	5.2	0.34	-0.11	-40.32	
6,593.0	0.30	213.70	6,592.1	4.5	46.7	4.5	0.11	-0.05	-16.81	
6,780.0	0.50	145.60	6,779.1	3.4	46.9	3.4	0.26	0.11	-36.42	
6,967.0	0.50	130.00	6,966.1	2.2	48.0	2.2	0.07	0.00	-8.34	
7,108.0	0.30	134.60	7,107.0	1.5	48.8	1.5	0.14	-0.14	3.26	
7,141.8	0.30	134.60	7,140.8	1.4	48.9	1.4	0.00	0.00	0.00	
TARGET BHL 1928'FSL, 755'FEL										
7,154.0	0.30	134.60	7,153.0	1.4	48.9	1.4	0.00	0.00	0.00	

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_