

BONANZA CREEK ENERGY OPERATING

Well Name: **PRONGHORN 31-34-17HZ**

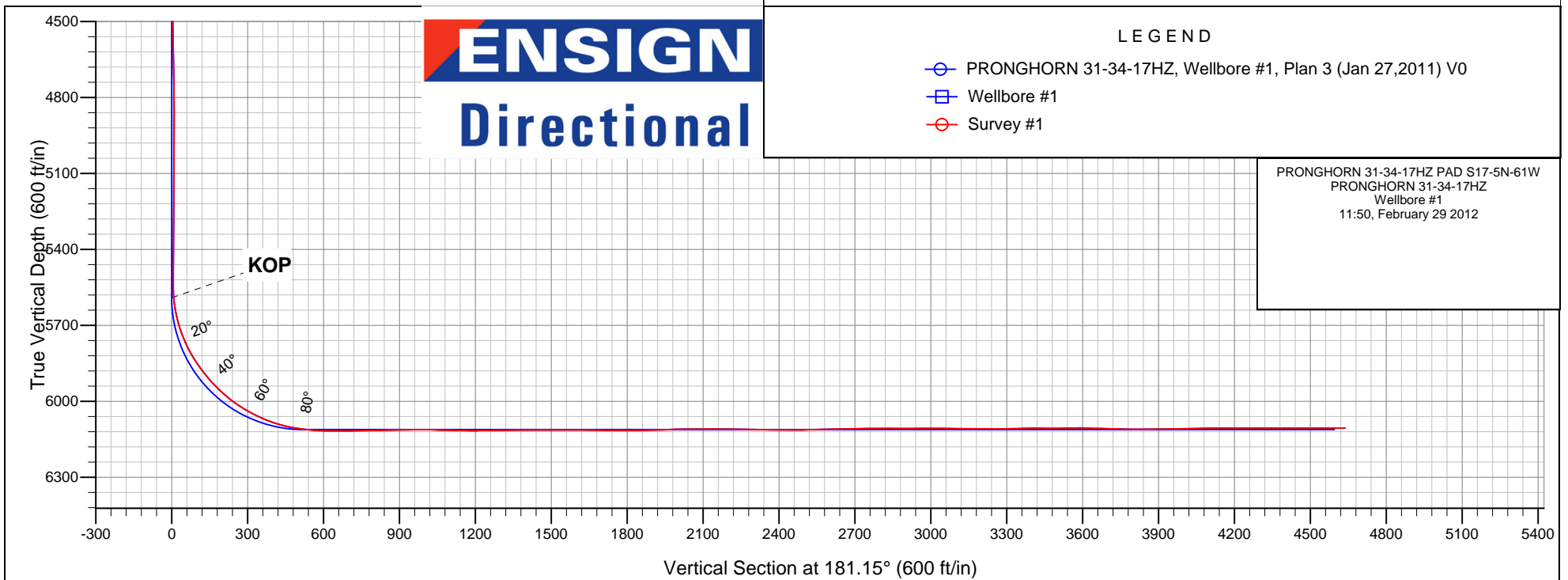
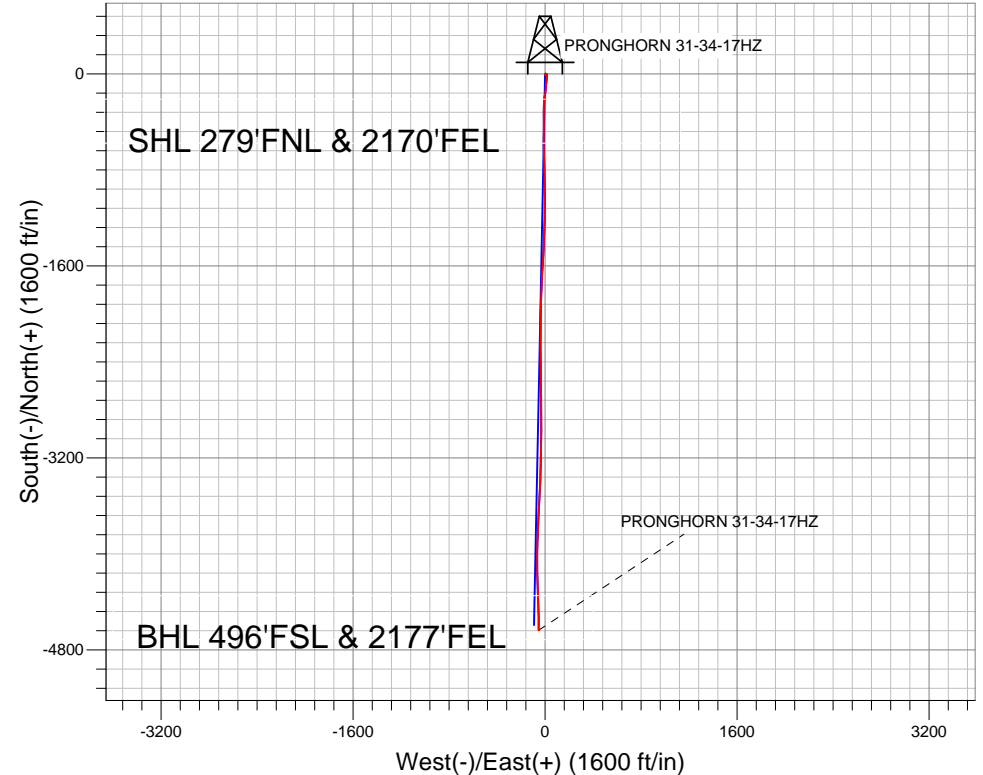
Surface Location: PRONGHORN 31-34-17HZ PAD S17-5N-61W
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

Ground Elevation: 4618.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1393899.53	3353252.03	40.407720	-104.231450	
REVISED RKB 12' KB RKB @ 4630.0ft (REVISED RKB 12' KB)						

FINAL SURVEY

Projected Bottom Hole Location
10500' MD 6106' TVD 4637'S & 55'W of
SHL
90.2 degree Incl @ 180.8 degree AZM





Directional

BONANZA CREEK ENERGY OPERATING

SEC.17-T5N-R61W

PRONGHORN 31-34-17HZ PAD S17-5N-61W

PRONGHORN 31-34-17HZ

Wellbore #1

Survey: Survey #1

Standard Survey Report

29 February, 2012

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well PRONGHORN 31-34-17HZ
Project:	SEC.17-T5N-R61W	TVD Reference:	RKB @ 4630.0ft (REVISED RKB 12' KB)
Site:	PRONGHORN 31-34-17HZ PAD S17-5N-61W	MD Reference:	RKB @ 4630.0ft (REVISED RKB 12' KB)
Well:	PRONGHORN 31-34-17HZ	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Project	SEC.17-T5N-R61W		
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	PRONGHORN 31-34-17HZ PAD S17-5N-61W				
Site Position:		Northing:	1,393,977.92 ft	Latitude:	40.407936
From:	Lat/Long	Easting:	3,353,228.63 ft	Longitude:	-104.231530
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.82 °

Well	PRONGHORN 31-34-17HZ					
Well Position	+N-S	0.0 ft	Northing:	1,393,899.53 ft	Latitude:	40.407720
	+E-W	0.0 ft	Easting:	3,353,252.03 ft	Longitude:	-104.231450
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,618.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	11/17/2011	8.52	67.13	53,149
	IGRF2010	1/17/2012	8.50	67.12	53,131

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	181.15	

Survey Program	Date 2/29/2012				
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
495.0	10,500.0	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	
1.0	0.00	140.30	1.0	0.0	0.0	0.0	0.00	0.00	0.00	
HARDLINE SHL 460'FNL										
9.4	0.01	140.30	9.4	0.0	0.0	0.0	0.07	0.07	0.00	
HARDLINE BH 460'FSL										
495.0	0.30	140.30	495.0	-1.0	0.8	1.0	0.06	0.06	0.00	
621.0	0.40	155.80	621.0	-1.7	1.2	1.6	0.11	0.08	12.30	
746.0	0.40	147.00	746.0	-2.4	1.6	2.4	0.05	0.00	-7.04	
871.0	0.40	151.90	871.0	-3.2	2.1	3.1	0.03	0.00	3.92	
996.0	0.40	144.90	996.0	-3.9	2.5	3.9	0.04	0.00	-5.60	
1,123.0	0.40	149.80	1,123.0	-4.7	3.0	4.6	0.03	0.00	3.86	
1,250.0	0.50	163.50	1,250.0	-5.6	3.4	5.5	0.12	0.08	10.79	

Company: BONANZA CREEK ENERGY OPERATING
Project: SEC.17-T5N-R61W
Site: PRONGHORN 31-34-17HZ PAD S17-5N-61W
Well: PRONGHORN 31-34-17HZ
Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Well PRONGHORN 31-34-17HZ
TVD Reference: RKB @ 4630.0ft (REVISED RKB 12' KB)
MD Reference: RKB @ 4630.0ft (REVISED RKB 12' KB)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: 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)
1,375.0	0.50	159.10	1,375.0	-6.6	3.7	6.5	0.03	0.00	-3.52
1,500.0	0.30	115.20	1,500.0	-7.3	4.2	7.2	0.28	-0.16	-35.12
1,625.0	0.30	141.40	1,625.0	-7.7	4.7	7.5	0.11	0.00	20.96
1,750.0	0.40	85.10	1,750.0	-7.9	5.4	7.8	0.27	0.08	-45.04
1,875.0	0.50	102.70	1,875.0	-8.0	6.3	7.8	0.14	0.08	14.08
2,000.0	0.40	117.30	2,000.0	-8.3	7.3	8.1	0.12	-0.08	11.68
2,124.0	0.80	150.50	2,124.0	-9.2	8.1	9.1	0.41	0.32	26.77
2,249.0	0.90	162.70	2,248.9	-10.9	8.8	10.7	0.16	0.08	9.76
2,373.0	0.10	95.00	2,372.9	-11.9	9.2	11.7	0.70	-0.65	-54.60
2,496.0	0.10	22.40	2,495.9	-11.8	9.3	11.6	0.10	0.00	-59.02
2,619.0	0.30	350.90	2,618.9	-11.4	9.3	11.2	0.18	0.16	-25.61
2,744.0	0.30	350.70	2,743.9	-10.7	9.2	10.5	0.00	0.00	-0.16
2,869.0	1.00	73.20	2,868.9	-10.1	10.2	9.9	0.80	0.56	66.00
2,994.0	1.40	85.50	2,993.9	-9.6	12.8	9.4	0.38	0.32	9.84
3,118.0	1.30	33.10	3,117.9	-8.3	15.1	8.0	0.96	-0.08	-42.26
3,243.0	1.90	0.40	3,242.8	-5.1	15.8	4.8	0.86	0.48	-26.16
3,366.0	2.10	295.60	3,365.8	-2.1	13.8	1.8	1.75	0.16	-52.68
3,490.0	1.40	272.70	3,489.7	-1.0	10.3	0.8	0.79	-0.56	-18.47
3,616.0	0.70	269.50	3,615.7	-1.0	8.0	0.8	0.56	-0.56	-2.54
3,740.0	1.00	277.30	3,739.7	-0.8	6.1	0.7	0.26	0.24	6.29
3,865.0	1.10	286.80	3,864.6	-0.3	3.9	0.2	0.16	0.08	7.60
3,990.0	1.00	358.10	3,989.6	1.1	2.7	-1.2	0.98	-0.08	57.04
4,114.0	0.20	80.40	4,113.6	2.2	2.9	-2.3	0.80	-0.65	66.37
4,240.0	0.90	147.70	4,239.6	1.4	3.6	-1.5	0.67	0.56	53.41
4,365.0	2.00	157.90	4,364.6	-1.4	5.0	1.3	0.90	0.88	8.16
4,490.0	1.10	151.40	4,489.5	-4.5	6.4	4.4	0.73	-0.72	-5.20
4,615.0	1.20	151.10	4,614.5	-6.7	7.6	6.5	0.08	0.08	-0.24
4,741.0	1.30	141.90	4,740.5	-9.0	9.1	8.8	0.18	0.08	-7.30
4,866.0	0.80	84.30	4,865.5	-10.0	10.8	9.8	0.88	-0.40	-46.08
4,991.0	0.50	60.00	4,990.4	-9.7	12.2	9.4	0.32	-0.24	-19.44
5,116.0	0.40	53.10	5,115.4	-9.1	13.0	8.8	0.09	-0.08	-5.52
5,240.0	0.40	332.30	5,239.4	-8.5	13.2	8.2	0.42	0.00	-65.16
5,365.0	0.50	39.40	5,364.4	-7.7	13.3	7.4	0.40	0.08	53.68
5,490.0	1.00	68.30	5,489.4	-6.8	14.7	6.5	0.49	0.40	23.12
5,524.0	1.10	62.80	5,523.4	-6.6	15.2	6.3	0.42	0.29	-16.18
5,555.0	1.30	144.70	5,554.4	-6.7	15.7	6.4	5.10	0.65	264.19
5,586.0	3.90	172.90	5,585.4	-8.1	16.0	7.7	9.10	8.39	90.97
5,618.0	7.70	181.10	5,617.2	-11.3	16.1	11.0	12.12	11.88	25.63
5,649.0	11.10	183.90	5,647.8	-16.4	15.9	16.0	11.06	10.97	9.03
5,680.0	14.40	185.30	5,678.0	-23.2	15.3	22.8	10.69	10.65	4.52
5,712.0	17.30	186.00	5,708.8	-31.9	14.5	31.6	9.08	9.06	2.19
5,742.0	20.90	186.40	5,737.1	-41.6	13.4	41.3	12.01	12.00	1.33
5,773.0	24.00	187.10	5,765.8	-53.4	12.0	53.1	10.04	10.00	2.26
5,803.0	27.50	186.20	5,792.8	-66.3	10.5	66.1	11.74	11.67	-3.00
5,835.0	30.70	185.00	5,820.8	-81.8	9.0	81.6	10.16	10.00	-3.75
5,866.0	33.80	183.90	5,847.0	-98.3	7.7	98.1	10.18	10.00	-3.55
5,897.0	36.30	184.10	5,872.4	-116.1	6.5	115.9	8.07	8.06	0.65
5,929.0	39.10	188.30	5,897.7	-135.5	4.3	135.4	11.87	8.75	13.13
5,960.0	42.50	188.70	5,921.1	-155.5	1.3	155.5	11.00	10.97	1.29
5,991.0	45.40	187.80	5,943.5	-176.8	-1.8	176.8	9.57	9.35	-2.90
6,022.0	47.70	186.60	5,964.8	-199.1	-4.6	199.2	7.93	7.42	-3.87
6,053.0	50.70	186.40	5,985.0	-222.5	-7.2	222.5	9.69	9.68	-0.65
6,084.0	53.60	184.30	6,004.1	-246.8	-9.5	246.9	10.78	9.35	-6.77
6,116.0	57.60	181.30	6,022.1	-273.2	-10.8	273.3	14.70	12.50	-9.38

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Site:	PRONGHORN 31-34-17HZ PAD S17-5N-61W	MD Reference:	RKB @ 4630.0ft (REVISED RKB 12' KB)
Well:	PRONGHORN 31-34-17HZ	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	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)
6,147.0	60.80	178.70	6,038.0	-299.8	-10.8	299.9	12.59	10.32	-8.39
6,178.0	63.60	179.70	6,052.5	-327.2	-10.4	327.3	9.47	9.03	3.23
6,208.0	65.20	180.90	6,065.4	-354.3	-10.5	354.4	6.44	5.33	4.00
6,239.0	68.60	180.40	6,077.6	-382.8	-10.8	382.9	11.07	10.97	-1.61
6,270.0	72.50	179.50	6,087.9	-412.0	-10.8	412.1	12.87	12.58	-2.90
6,302.0	76.20	180.20	6,096.5	-442.8	-10.7	442.9	11.75	11.56	2.19
6,333.0	78.90	181.30	6,103.2	-473.1	-11.1	473.2	9.37	8.71	3.55
6,364.0	82.00	179.90	6,108.4	-503.6	-11.5	503.8	10.95	10.00	-4.52
6,395.0	84.20	180.20	6,112.1	-534.4	-11.5	534.5	7.16	7.10	0.97
6,414.0	85.30	180.10	6,113.8	-553.3	-11.5	553.4	5.81	5.79	-0.53
6,482.0	89.80	178.80	6,116.7	-621.3	-10.9	621.3	6.89	6.62	-1.91
6,513.0	89.70	178.30	6,116.9	-652.2	-10.1	652.3	1.64	-0.32	-1.61
6,544.0	90.10	178.30	6,116.9	-683.2	-9.2	683.3	1.29	1.29	0.00
6,575.0	90.40	178.80	6,116.8	-714.2	-8.4	714.2	1.88	0.97	1.61
6,607.0	90.90	177.80	6,116.4	-746.2	-7.4	746.2	3.49	1.56	-3.13
6,638.0	91.50	177.80	6,115.8	-777.2	-6.3	777.1	1.94	1.94	0.00
6,669.0	91.90	179.00	6,114.9	-808.1	-5.4	808.1	4.08	1.29	3.87
6,700.0	91.20	179.00	6,114.0	-839.1	-4.8	839.0	2.26	-2.26	0.00
6,732.0	90.80	178.80	6,113.5	-871.1	-4.2	871.0	1.40	-1.25	-0.63
6,763.0	90.90	178.70	6,113.0	-902.1	-3.6	902.0	0.46	0.32	-0.32
6,795.0	90.50	178.30	6,112.6	-934.1	-2.7	933.9	1.77	-1.25	-1.25
6,826.0	90.10	178.80	6,112.4	-965.1	-1.9	964.9	2.07	-1.29	1.61
6,857.0	90.00	179.00	6,112.4	-996.1	-1.3	995.9	0.72	-0.32	0.65
6,889.0	88.90	178.80	6,112.7	-1,028.1	-0.7	1,027.9	3.49	-3.44	-0.63
6,920.0	88.60	180.20	6,113.4	-1,059.1	-0.5	1,058.8	4.62	-0.97	4.52
6,951.0	88.60	180.10	6,114.2	-1,090.1	-0.5	1,089.8	0.32	0.00	-0.32
6,983.0	88.40	180.50	6,115.0	-1,122.0	-0.7	1,121.8	1.40	-0.63	1.25
7,014.0	88.90	181.60	6,115.7	-1,153.0	-1.3	1,152.8	3.90	1.61	3.55
7,046.0	89.80	182.20	6,116.1	-1,185.0	-2.3	1,184.8	3.38	2.81	1.88
7,077.0	91.60	183.20	6,115.7	-1,216.0	-3.8	1,215.8	6.64	5.81	3.23
7,108.0	91.20	182.30	6,115.0	-1,246.9	-5.3	1,246.8	3.18	-1.29	-2.90
7,138.0	90.20	181.60	6,114.6	-1,276.9	-6.3	1,276.8	4.07	-3.33	-2.33
7,170.0	90.20	181.60	6,114.5	-1,308.9	-7.2	1,308.8	0.00	0.00	0.00
7,201.0	89.90	181.50	6,114.4	-1,339.9	-8.0	1,339.8	1.02	-0.97	-0.32
7,232.0	90.10	180.90	6,114.4	-1,370.9	-8.7	1,370.8	2.04	0.65	-1.94
7,264.0	90.40	181.60	6,114.3	-1,402.9	-9.4	1,402.8	2.38	0.94	2.19
7,295.0	90.80	182.30	6,114.0	-1,433.8	-10.4	1,433.8	2.60	1.29	2.26
7,326.0	91.70	182.70	6,113.3	-1,464.8	-11.8	1,464.7	3.18	2.90	1.29
7,357.0	90.70	182.90	6,112.7	-1,495.8	-13.3	1,495.7	3.29	-3.23	0.65
7,389.0	89.30	183.60	6,112.7	-1,527.7	-15.1	1,527.7	4.89	-4.38	2.19
7,420.0	89.40	184.30	6,113.0	-1,558.6	-17.2	1,558.7	2.28	0.32	2.26
7,451.0	90.00	184.30	6,113.2	-1,589.5	-19.6	1,589.6	1.94	1.94	0.00
7,482.0	89.80	183.80	6,113.2	-1,620.5	-21.8	1,620.6	1.74	-0.65	-1.61
7,514.0	89.10	182.90	6,113.5	-1,652.4	-23.6	1,652.5	3.56	-2.19	-2.81
7,545.0	89.10	182.90	6,114.0	-1,683.4	-25.2	1,683.5	0.00	0.00	0.00
7,576.0	89.10	182.90	6,114.5	-1,714.3	-26.8	1,714.5	0.00	0.00	0.00
7,605.0	89.60	183.10	6,114.8	-1,743.3	-28.3	1,743.5	1.86	1.72	0.69
7,637.0	89.80	180.90	6,115.0	-1,775.3	-29.4	1,775.5	6.90	0.63	-6.88
7,668.0	90.00	182.20	6,115.1	-1,806.3	-30.2	1,806.5	4.24	0.65	4.19
7,699.0	90.70	182.70	6,114.9	-1,837.2	-31.6	1,837.5	2.77	2.26	1.61
7,730.0	90.60	181.60	6,114.5	-1,868.2	-32.7	1,868.5	3.56	-0.32	-3.55
7,762.0	91.70	181.10	6,113.9	-1,900.2	-33.5	1,900.5	3.78	3.44	-1.56
7,792.0	92.10	181.80	6,112.9	-1,930.2	-34.2	1,930.4	2.69	1.33	2.33
7,824.0	91.90	181.80	6,111.8	-1,962.1	-35.2	1,962.4	0.63	-0.63	0.00

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Well:	PRONGHORN 31-34-17HZ	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	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)
7,855.0	91.30	181.60	6,110.9	-1,993.1	-36.2	1,993.4	2.04	-1.94	-0.65
7,886.0	90.70	181.60	6,110.4	-2,024.1	-37.0	2,024.4	1.94	-1.94	0.00
7,918.0	90.40	180.80	6,110.0	-2,056.1	-37.7	2,056.4	2.67	-0.94	-2.50
7,949.0	89.40	181.50	6,110.1	-2,087.1	-38.3	2,087.4	3.94	-3.23	2.26
7,980.0	90.40	180.80	6,110.2	-2,118.1	-38.9	2,118.4	3.94	3.23	-2.26
8,011.0	90.10	180.10	6,110.0	-2,149.1	-39.2	2,149.4	2.46	-0.97	-2.26
8,042.0	90.20	179.40	6,109.9	-2,180.1	-39.1	2,180.4	2.28	0.32	-2.26
8,073.0	90.00	179.70	6,109.9	-2,211.1	-38.8	2,211.4	1.16	-0.65	0.97
8,105.0	89.10	179.40	6,110.1	-2,243.0	-38.6	2,243.4	2.96	-2.81	-0.94
8,135.0	88.50	178.50	6,110.8	-2,273.0	-38.0	2,273.3	3.60	-2.00	-3.00
8,166.0	88.50	179.00	6,111.6	-2,304.0	-37.3	2,304.3	1.61	0.00	1.61
8,198.0	88.90	179.50	6,112.3	-2,336.0	-36.9	2,336.3	2.00	1.25	1.56
8,229.0	89.20	179.70	6,112.8	-2,367.0	-36.7	2,367.2	1.16	0.97	0.65
8,260.0	89.40	179.50	6,113.2	-2,398.0	-36.5	2,398.2	0.91	0.65	-0.65
8,290.0	90.00	179.00	6,113.4	-2,428.0	-36.1	2,428.2	2.60	2.00	-1.67
8,322.0	90.40	178.80	6,113.2	-2,460.0	-35.5	2,460.2	1.40	1.25	-0.63
8,353.0	90.70	179.70	6,112.9	-2,491.0	-35.1	2,491.2	3.06	0.97	2.90
8,384.0	90.80	179.40	6,112.5	-2,522.0	-34.8	2,522.2	1.02	0.32	-0.97
8,416.0	91.20	179.50	6,112.0	-2,554.0	-34.5	2,554.1	1.29	1.25	0.31
8,447.0	91.60	179.00	6,111.2	-2,585.0	-34.1	2,585.1	2.07	1.29	-1.61
8,478.0	91.30	179.90	6,110.4	-2,616.0	-33.8	2,616.1	3.06	-0.97	2.90
8,510.0	91.50	179.50	6,109.7	-2,647.9	-33.6	2,648.1	1.40	0.63	-1.25
8,541.0	91.60	178.70	6,108.8	-2,678.9	-33.2	2,679.0	2.60	0.32	-2.58
8,572.0	91.10	179.70	6,108.1	-2,709.9	-32.7	2,710.0	3.61	-1.61	3.23
8,604.0	90.00	179.50	6,107.8	-2,741.9	-32.5	2,742.0	3.49	-3.44	-0.63
8,635.0	90.40	179.50	6,107.7	-2,772.9	-32.2	2,773.0	1.29	1.29	0.00
8,666.0	90.40	179.70	6,107.5	-2,803.9	-32.0	2,804.0	0.65	0.00	0.65
8,697.0	89.80	178.80	6,107.4	-2,834.9	-31.6	2,835.0	3.49	-1.94	-2.90
8,728.0	89.40	179.70	6,107.6	-2,865.9	-31.2	2,865.9	3.18	-1.29	2.90
8,759.0	90.40	181.10	6,107.7	-2,896.9	-31.4	2,896.9	5.55	3.23	4.52
8,791.0	90.40	180.20	6,107.4	-2,928.9	-31.8	2,928.9	2.81	0.00	-2.81
8,822.0	90.60	180.40	6,107.2	-2,959.9	-31.9	2,959.9	0.91	0.65	0.65
8,853.0	90.10	181.10	6,107.0	-2,990.9	-32.4	2,990.9	2.77	-1.61	2.26
8,885.0	90.20	180.40	6,106.9	-3,022.9	-32.8	3,022.9	2.21	0.31	-2.19
8,916.0	89.10	180.90	6,107.1	-3,053.9	-33.1	3,053.9	3.90	-3.55	1.61
8,946.0	88.80	180.90	6,107.6	-3,083.9	-33.6	3,083.9	1.00	-1.00	0.00
8,977.0	88.70	180.60	6,108.3	-3,114.9	-34.0	3,114.9	1.02	-0.32	-0.97
9,009.0	89.20	181.50	6,108.9	-3,146.9	-34.6	3,146.9	3.22	1.56	2.81
9,040.0	89.60	181.50	6,109.2	-3,177.8	-35.4	3,177.9	1.29	1.29	0.00
9,072.0	89.50	181.10	6,109.5	-3,209.8	-36.1	3,209.9	1.29	-0.31	-1.25
9,102.0	90.30	181.60	6,109.5	-3,239.8	-36.8	3,239.9	3.14	2.67	1.67
9,133.0	90.50	181.10	6,109.3	-3,270.8	-37.6	3,270.9	1.74	0.65	-1.61
9,164.0	90.80	181.30	6,109.0	-3,301.8	-38.2	3,301.9	1.16	0.97	0.65
9,195.0	91.50	181.30	6,108.3	-3,332.8	-38.9	3,332.9	2.26	2.26	0.00
9,226.0	92.10	181.50	6,107.4	-3,363.8	-39.7	3,363.9	2.04	1.94	0.65
9,258.0	90.70	181.30	6,106.6	-3,395.7	-40.5	3,395.9	4.42	-4.38	-0.63
9,289.0	89.20	181.50	6,106.6	-3,426.7	-41.2	3,426.9	4.88	-4.84	0.65
9,321.0	89.00	182.00	6,107.1	-3,458.7	-42.2	3,458.9	1.68	-0.63	1.56
9,352.0	90.50	183.10	6,107.3	-3,489.7	-43.6	3,489.8	6.00	4.84	3.55
9,382.0	92.00	183.60	6,106.6	-3,519.6	-45.3	3,519.8	5.27	5.00	1.67
9,413.0	91.00	183.10	6,105.8	-3,550.6	-47.1	3,550.8	3.61	-3.23	-1.61
9,444.0	89.70	183.40	6,105.6	-3,581.5	-48.9	3,581.8	4.30	-4.19	0.97
9,476.0	88.60	183.60	6,106.1	-3,613.4	-50.8	3,613.7	3.49	-3.44	0.63
9,507.0	88.00	183.10	6,107.0	-3,644.4	-52.7	3,644.7	2.52	-1.94	-1.61

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well PRONGHORN 31-34-17HZ
Project:	SEC.17-T5N-R61W	TVD Reference:	RKB @ 4630.0ft (REVISED RKB 12' KB)
Site:	PRONGHORN 31-34-17HZ PAD S17-5N-61W	MD Reference:	RKB @ 4630.0ft (REVISED RKB 12' KB)
Well:	PRONGHORN 31-34-17HZ	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	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)
9,538.0	88.30	183.40	6,108.0	-3,675.3	-54.4	3,675.7	1.37	0.97	0.97
9,570.0	88.40	182.00	6,108.9	-3,707.3	-55.9	3,707.6	4.38	0.31	-4.38
9,601.0	88.70	182.70	6,109.7	-3,738.2	-57.2	3,738.6	2.46	0.97	2.26
9,632.0	89.60	182.50	6,110.2	-3,769.2	-58.6	3,769.6	2.97	2.90	-0.65
9,664.0	89.10	181.80	6,110.5	-3,801.2	-59.8	3,801.6	2.69	-1.56	-2.19
9,695.0	90.60	182.20	6,110.6	-3,832.1	-60.9	3,832.6	5.01	4.84	1.29
9,725.0	91.00	182.30	6,110.2	-3,862.1	-62.1	3,862.6	1.37	1.33	0.33
9,756.0	89.50	181.60	6,110.0	-3,893.1	-63.1	3,893.6	5.34	-4.84	-2.26
9,788.0	90.60	182.20	6,110.0	-3,925.1	-64.2	3,925.6	3.92	3.44	1.88
9,819.0	90.70	181.50	6,109.7	-3,956.1	-65.2	3,956.6	2.28	0.32	-2.26
9,850.0	91.00	180.40	6,109.2	-3,987.1	-65.7	3,987.6	3.68	0.97	-3.55
9,880.0	91.70	180.60	6,108.5	-4,017.0	-65.9	4,017.5	2.43	2.33	0.67
9,911.0	91.20	179.90	6,107.7	-4,048.0	-66.1	4,048.5	2.77	-1.61	-2.26
9,941.0	91.70	179.40	6,107.0	-4,078.0	-65.9	4,078.5	2.36	1.67	-1.67
9,973.0	91.20	178.70	6,106.2	-4,110.0	-65.4	4,110.5	2.69	-1.56	-2.19
10,004.0	90.10	179.40	6,105.8	-4,141.0	-64.9	4,141.5	4.21	-3.55	2.26
10,035.0	89.80	179.40	6,105.8	-4,172.0	-64.5	4,172.4	0.97	-0.97	0.00
10,066.0	89.90	178.80	6,105.9	-4,203.0	-64.0	4,203.4	1.96	0.32	-1.94
10,096.0	89.70	177.60	6,106.0	-4,233.0	-63.1	4,233.4	4.06	-0.67	-4.00
10,127.0	90.00	178.50	6,106.1	-4,264.0	-62.0	4,264.3	3.06	0.97	2.90
10,159.0	90.50	178.70	6,106.0	-4,296.0	-61.3	4,296.3	1.68	1.56	0.63
10,190.0	90.30	178.10	6,105.7	-4,326.9	-60.4	4,327.3	2.04	-0.65	-1.94
10,220.0	89.10	177.10	6,105.9	-4,356.9	-59.1	4,357.2	5.21	-4.00	-3.33
10,251.0	89.60	177.60	6,106.2	-4,387.9	-57.7	4,388.1	2.28	1.61	1.61
10,283.0	90.80	178.30	6,106.1	-4,419.9	-56.6	4,420.1	4.34	3.75	2.19
10,314.0	90.70	178.30	6,105.7	-4,450.8	-55.6	4,451.0	0.32	-0.32	0.00
10,345.0	89.50	178.10	6,105.7	-4,481.8	-54.7	4,482.0	3.92	-3.87	-0.65
10,377.0	90.20	178.80	6,105.8	-4,513.8	-53.8	4,514.0	3.09	2.19	2.19
10,407.0	89.90	180.10	6,105.7	-4,543.8	-53.5	4,544.0	4.45	-1.00	4.33
10,438.0	89.80	180.60	6,105.8	-4,574.8	-53.7	4,575.0	1.64	-0.32	1.61
10,455.0	90.20	180.80	6,105.8	-4,591.8	-53.9	4,592.0	2.63	2.35	1.18
BHL 460'FSL & 2192'FEL									
10,500.0	90.20	180.80	6,105.7	-4,636.8	-54.5	4,637.0	0.00	0.00	0.00

Checked By: _____ Approved By: _____ Date: _____