

Bonanza Creek Energy Inc.

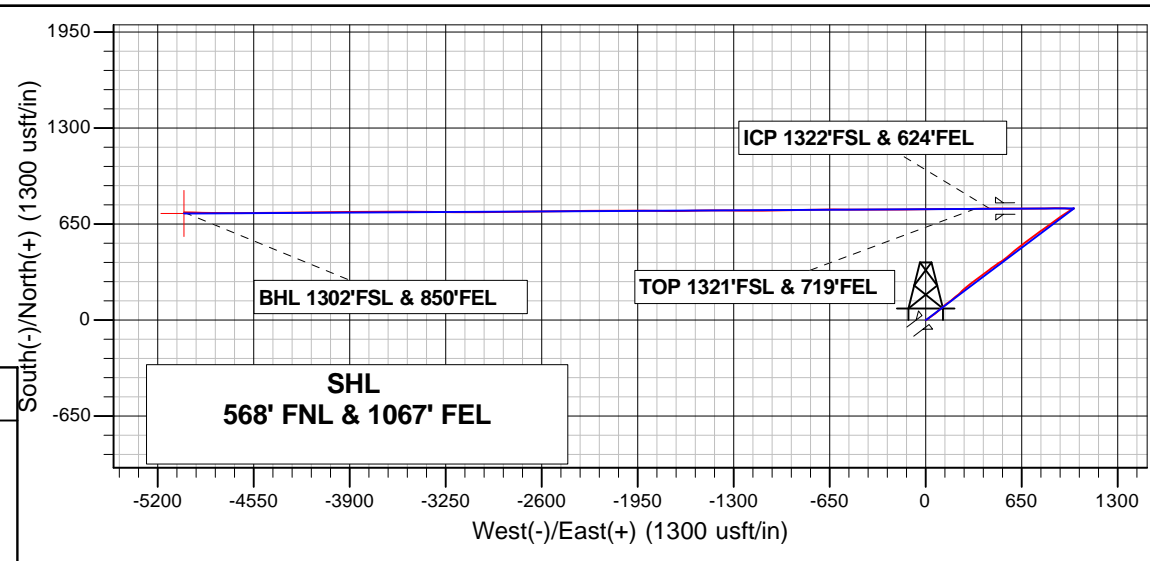
Archer

Bonanza Creek Energy Inc.
Project: Weld Co., CO
Site: Sec.32-T5N-R61W
Well: State Pronghorn X-32-31MRLNB
Wellbore: Wellbore #1
Design: Design #1
Lat: 40° 21' 5.508 N
Long: 104° 13' 37.812 W
Pad GL: 4529.0
KB: Well @ 4546.0usft

PROJECT DETAILS: Weld Co., CO

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Northern Zone

System Datum: Mean Sea Level



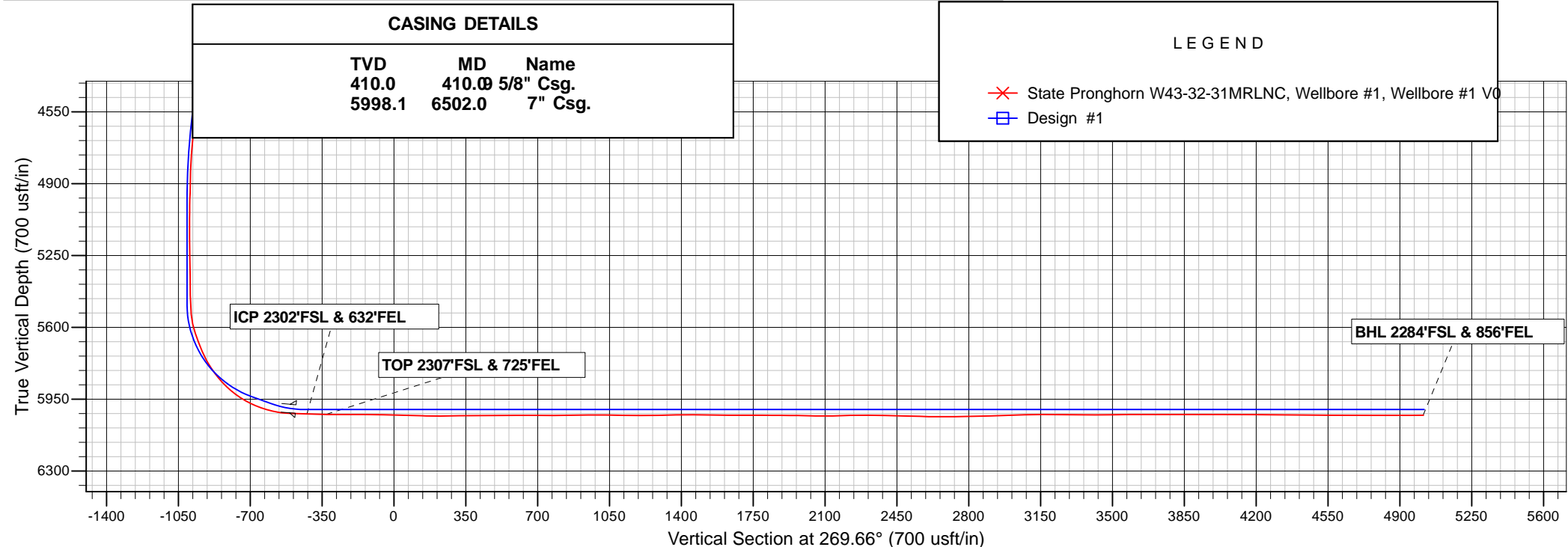
Projected Bottom Hole Location
11956'MD 5981.8'TVD 729.1'N & 5020.8'W OF SHL
91.30 degree Incl @ 271.30 degree AZM

CASING DETAILS

TVD	MD	Name
410.0	410.0	5/8" Csg.
5998.1	6502.0	7" Csg.

LEGEND

- State Pronghorn W43-32-31MRLNC, Wellbore #1, Wellbore #1 VO
- Design #1



Bonanza Creek Energy Inc.

Weld Co., CO

Sec.32-T5N-R61W

State Pronghorn X-32-31MRLNB

Wellbore #1

Survey: Survey #1

Standard Survey Report

29 July, 2015

Archer

Survey Report

Company:	Bonanza Creek Energy Inc.	Local Co-ordinate Reference:	Well State Pronghorn X-32-31MRLNB
Project:	Weld Co., CO	TVD Reference:	Well @ 4546.0usft
Site:	Sec.32-T5N-R61W	MD Reference:	Well @ 4546.0usft
Well:	State Pronghorn X-32-31MRLNB	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDMDBBW

Project	Weld Co., CO		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site		Sec.32-T5N-R61W			
Site Position:		Northing:	1,373,452.07 usft	Latitude:	40° 21' 5.544 N
From:	Lat/Long	Easting:	3,354,698.54 usft	Longitude:	104° 13' 38.316 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.82 °

Well	State Pronghorn X-32-31MRLNB					
Well Position	+N/-S	0.0 usft	Northing:	1,373,448.98 usft	Latitude:	40° 21' 5.508 N
	+E/-W	0.0 usft	Easting:	3,354,737.61 usft	Longitude:	104° 13' 37.812 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	0.0 usft	Ground Level:	4,529.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	2009/12/31	8.73	67.16	53,338

Design	Wellbore #1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	269.66	

Survey Program	Date	2015/07/29			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
517.0	11,956.0	Survey #1 (Wellbore #1)	MWD	MWD - Standard	

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	
First Archer Survey										
517.0	0.40	82.90	517.0	0.2	1.8	-1.8	0.08	0.08	0.00	
612.0	2.50	55.30	612.0	1.4	3.8	-3.8	2.27	2.21	-29.05	
705.0	4.50	48.10	704.8	5.0	8.2	-8.2	2.20	2.15	-7.74	
800.0	5.60	56.90	799.4	10.1	14.9	-14.9	1.41	1.16	9.26	
894.0	7.60	59.50	892.8	15.7	24.1	-24.2	2.15	2.13	2.77	
988.0	9.10	52.00	985.8	23.4	35.3	-35.4	1.97	1.60	-7.98	
1,082.0	9.90	55.10	1,078.5	32.6	47.8	-48.0	1.01	0.85	3.30	
1,176.0	9.60	51.40	1,171.1	42.2	60.5	-60.8	0.74	-0.32	-3.94	
1,270.0	11.40	52.90	1,263.6	52.7	74.1	-74.4	1.94	1.91	1.60	
1,364.0	12.70	49.20	1,355.5	65.0	89.3	-89.7	1.61	1.38	-3.94	
1,459.0	14.30	46.10	1,447.9	80.0	105.6	-106.1	1.85	1.68	-3.26	

Archer

Survey Report

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Site:	Sec.32-T5N-R61W	MD Reference:	Well @ 4546.0usft
Well:	State Pronghorn X-32-31MRLNB	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDMDBBW

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
1,554.0	16.00	48.50	1,539.6	96.8	123.9	-124.5	1.91	1.79	2.53
1,648.0	20.00	57.00	1,629.0	114.1	147.1	-147.8	5.08	4.26	9.04
1,743.0	17.90	48.70	1,718.8	132.6	171.7	-172.5	3.59	-2.21	-8.74
1,838.0	19.60	50.20	1,808.8	152.5	194.9	-195.8	1.86	1.79	1.58
1,932.0	21.70	49.30	1,896.7	173.9	220.2	-221.2	2.26	2.23	-0.96
2,026.0	21.00	47.10	1,984.3	196.7	245.7	-246.9	1.13	-0.74	-2.34
2,121.0	21.40	48.90	2,072.9	219.7	271.3	-272.6	0.80	0.42	1.89
2,216.0	21.80	51.20	2,161.2	242.1	298.1	-299.5	0.99	0.42	2.42
2,311.0	21.30	54.40	2,249.5	263.2	325.8	-327.4	1.34	-0.53	3.37
2,405.0	20.10	53.20	2,337.5	282.8	352.7	-354.3	1.35	-1.28	-1.28
2,500.0	21.00	54.10	2,426.4	302.6	379.5	-381.3	1.00	0.95	0.95
2,594.0	20.00	52.90	2,514.5	322.2	406.0	-407.9	1.15	-1.06	-1.28
2,689.0	19.30	52.90	2,603.9	341.4	431.5	-433.5	0.74	-0.74	0.00
2,783.0	20.10	54.90	2,692.4	360.1	457.1	-459.2	1.11	0.85	2.13
2,877.0	19.30	53.30	2,780.9	378.7	482.7	-485.0	1.03	-0.85	-1.70
2,972.0	17.00	59.80	2,871.2	395.0	507.3	-509.7	3.22	-2.42	6.84
3,067.0	17.20	53.90	2,962.0	410.3	530.7	-533.1	1.84	0.21	-6.21
3,160.0	17.00	47.70	3,050.9	427.5	551.9	-554.4	1.97	-0.22	-6.67
3,255.0	19.20	50.90	3,141.2	446.7	574.3	-576.9	2.54	2.32	3.37
3,349.0	22.50	51.30	3,229.1	467.7	600.3	-603.1	3.51	3.51	0.43
3,443.0	24.50	49.70	3,315.3	491.6	629.2	-632.1	2.23	2.13	-1.70
3,537.0	24.20	54.30	3,400.9	515.5	659.7	-662.8	2.04	-0.32	4.89
3,631.0	23.50	53.10	3,486.9	538.0	690.3	-693.5	0.91	-0.74	-1.28
3,725.0	22.30	53.30	3,573.5	559.9	719.6	-722.9	1.28	-1.28	0.21
3,819.0	20.40	52.30	3,661.0	580.5	746.9	-750.3	2.06	-2.02	-1.06
3,914.0	19.50	56.30	3,750.3	599.5	773.2	-776.7	1.72	-0.95	4.21
4,008.0	18.50	54.90	3,839.2	616.7	798.4	-802.1	1.17	-1.06	-1.49
4,102.0	18.90	54.60	3,928.2	634.1	823.1	-826.8	0.44	0.43	-0.32
4,197.0	16.20	54.30	4,018.8	650.8	846.4	-850.2	2.84	-2.84	-0.32
4,291.0	16.40	51.80	4,109.0	666.6	867.4	-871.4	0.78	0.21	-2.66
4,386.0	15.50	54.30	4,200.4	682.3	888.3	-892.3	1.19	-0.95	2.63
4,480.0	15.00	55.70	4,291.0	696.5	908.5	-912.7	0.66	-0.53	1.49
4,575.0	14.80	55.20	4,382.9	710.4	928.7	-932.9	0.25	-0.21	-0.53
4,669.0	11.30	56.80	4,474.4	722.3	946.2	-950.5	3.74	-3.72	1.70
4,763.0	10.70	57.30	4,566.7	732.0	961.3	-965.6	0.65	-0.64	0.53
4,857.0	8.40	58.70	4,659.4	740.3	974.5	-978.9	2.46	-2.45	1.49
4,950.0	7.20	63.10	4,751.5	746.5	985.5	-989.9	1.44	-1.29	4.73
5,044.0	5.40	60.70	4,844.9	751.3	994.6	-999.0	1.93	-1.91	-2.55
5,138.0	3.00	51.50	4,938.7	755.0	1,000.4	-1,004.8	2.64	-2.55	-9.79
5,232.0	0.60	68.80	5,032.6	756.7	1,002.8	-1,007.2	2.59	-2.55	18.40
5,325.0	0.20	143.90	5,125.6	756.8	1,003.3	-1,007.8	0.63	-0.43	80.75
5,420.0	0.40	241.70	5,220.6	756.5	1,003.1	-1,007.6	0.50	0.21	102.95
5,513.0	0.60	234.30	5,313.6	756.0	1,002.4	-1,006.9	0.23	0.22	-7.96
5,608.0	0.70	229.20	5,408.6	755.4	1,001.6	-1,006.1	0.12	0.11	-5.37
5,668.0	5.80	252.70	5,468.5	754.2	998.4	-1,002.9	8.61	8.50	39.17
5,715.0	13.50	264.90	5,514.8	753.0	990.7	-995.1	16.86	16.38	25.96
5,762.0	22.60	274.20	5,559.5	753.2	976.2	-980.6	20.25	19.36	19.79
5,809.0	25.00	276.10	5,602.5	754.9	957.3	-961.8	5.36	5.11	4.04
5,856.0	25.70	275.70	5,644.9	757.0	937.3	-941.8	1.53	1.49	-0.85
5,902.0	23.80	272.80	5,686.7	758.4	918.1	-922.6	4.90	-4.13	-6.30
5,949.0	29.00	268.30	5,728.8	758.6	897.2	-901.7	11.85	11.06	-9.57
5,996.0	38.10	267.90	5,767.9	757.7	871.3	-875.7	19.37	19.36	-0.85
6,043.0	46.70	268.60	5,802.6	756.7	839.6	-844.1	18.33	18.30	1.49
6,090.0	46.50	269.40	5,834.9	756.1	805.5	-809.9	1.31	-0.43	1.70

Archer

Survey Report

Company:	Bonanza Creek Energy Inc.	Local Co-ordinate Reference:	Well State Pronghorn X-32-31MRLNB
Project:	Weld Co., CO	TVD Reference:	Well @ 4546.0usft
Site:	Sec.32-T5N-R61W	MD Reference:	Well @ 4546.0usft
Well:	State Pronghorn X-32-31MRLNB	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDMDBBW

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
6,137.0	49.10	269.30	5,866.5	755.7	770.7	-775.1	5.53	5.53	-0.21
6,184.0	55.30	269.50	5,895.3	755.4	733.5	-738.0	13.20	13.19	0.43
6,230.0	64.00	269.10	5,918.5	754.9	693.9	-698.4	18.93	18.91	-0.87
6,277.0	68.60	270.30	5,937.4	754.7	650.9	-655.3	10.06	9.79	2.55
6,324.0	70.50	270.70	5,953.8	755.0	606.8	-611.3	4.12	4.04	0.85
6,372.0	74.00	270.90	5,968.4	755.7	561.1	-565.6	7.30	7.29	0.42
6,419.0	82.90	269.90	5,977.8	756.0	515.1	-519.6	19.05	18.94	-2.13
6,452.0	89.70	269.30	5,979.9	755.8	482.2	-486.7	20.69	20.61	-1.82
ICP 1322'FSL & 624'FEL									
6,502.0	90.89	269.30	5,979.7	755.2	432.2	-436.7	2.37	2.37	0.00
6,549.0	92.00	269.30	5,978.5	754.6	385.2	-389.7	2.37	2.37	0.00
TOP 1321'FSL & 719'FEL									
6,596.0	91.90	269.30	5,976.9	754.0	338.3	-342.7	0.22	-0.22	0.00
6,642.0	91.80	269.30	5,975.4	753.4	292.3	-296.8	0.22	-0.22	0.00
6,733.0	89.40	269.50	5,974.5	752.5	201.3	-205.8	2.65	-2.64	0.22
6,826.0	90.50	270.40	5,974.5	752.4	108.3	-112.8	1.53	1.18	0.97
6,918.0	90.90	268.80	5,973.4	751.8	16.3	-20.8	1.79	0.43	-1.74
7,010.0	91.00	269.10	5,971.9	750.1	-75.6	71.2	0.34	0.11	0.33
7,101.0	88.90	269.10	5,972.0	748.7	-166.6	162.2	2.31	-2.31	0.00
7,192.0	90.20	269.80	5,972.7	747.8	-257.6	253.2	1.62	1.43	0.77
7,284.0	89.70	270.20	5,972.8	747.8	-349.6	345.2	0.70	-0.54	0.43
7,376.0	88.90	269.90	5,973.9	747.9	-441.6	437.2	0.93	-0.87	-0.33
7,467.0	89.20	270.40	5,975.4	748.1	-532.6	528.1	0.64	0.33	0.55
7,559.0	89.80	270.40	5,976.2	748.7	-624.6	620.1	0.65	0.65	0.00
7,651.0	90.50	269.30	5,976.0	748.5	-716.6	712.1	1.42	0.76	-1.20
7,743.0	90.10	268.90	5,975.5	747.1	-808.6	804.1	0.61	-0.43	-0.43
7,836.0	89.40	268.30	5,975.9	744.8	-901.5	897.1	0.99	-0.75	-0.65
7,927.0	92.10	269.00	5,974.7	742.6	-992.5	988.1	3.07	2.97	0.77
8,019.0	91.80	270.00	5,971.6	741.8	-1,084.4	1,080.0	1.13	-0.33	1.09
8,111.0	91.20	269.90	5,969.2	741.8	-1,176.4	1,172.0	0.66	-0.65	-0.11
8,201.0	90.20	270.10	5,968.1	741.8	-1,266.4	1,262.0	1.13	-1.11	0.22
8,292.0	90.20	270.50	5,967.7	742.2	-1,357.4	1,353.0	0.44	0.00	0.44
8,383.0	89.80	269.80	5,967.7	742.5	-1,448.4	1,444.0	0.89	-0.44	-0.77
8,475.0	89.40	268.90	5,968.4	741.4	-1,540.4	1,536.0	1.07	-0.43	-0.98
8,567.0	89.50	269.20	5,969.3	739.9	-1,632.4	1,627.9	0.34	0.11	0.33
8,659.0	89.50	269.80	5,970.1	739.1	-1,724.4	1,719.9	0.65	0.00	0.65
8,752.0	89.50	270.60	5,970.9	739.4	-1,817.4	1,812.9	0.86	0.00	0.86
8,844.0	90.30	270.70	5,971.0	740.5	-1,909.4	1,904.9	0.88	0.87	0.11
8,936.0	89.80	271.00	5,971.0	741.8	-2,001.3	1,996.9	0.63	-0.54	0.33
9,027.0	89.80	269.60	5,971.3	742.3	-2,092.3	2,087.9	1.54	0.00	-1.54
9,111.0	89.70	269.20	5,971.6	741.4	-2,176.3	2,171.9	0.49	-0.12	-0.48
9,196.0	89.30	268.70	5,972.4	739.9	-2,261.3	2,256.9	0.75	-0.47	-0.59
9,281.0	89.60	268.40	5,973.2	737.7	-2,346.3	2,341.9	0.50	0.35	-0.35
9,366.0	90.10	269.80	5,973.4	736.4	-2,431.3	2,426.9	1.75	0.59	1.65
9,451.0	89.60	270.60	5,973.7	736.7	-2,516.3	2,511.8	1.11	-0.59	0.94
9,538.0	89.20	269.80	5,974.6	737.0	-2,603.3	2,598.8	1.03	-0.46	-0.92
9,622.0	90.50	269.00	5,974.8	736.1	-2,687.3	2,682.8	1.82	1.55	-0.95
9,707.0	89.40	269.00	5,974.9	734.6	-2,772.2	2,767.8	1.29	-1.29	0.00
9,792.0	89.20	268.50	5,975.9	732.8	-2,857.2	2,852.8	0.63	-0.24	-0.59
9,877.0	91.40	268.70	5,975.5	730.7	-2,942.2	2,937.8	2.60	2.59	0.24
9,962.0	90.30	270.30	5,974.2	730.0	-3,027.2	3,022.8	2.28	-1.29	1.88
10,046.0	89.20	270.20	5,974.6	730.3	-3,111.2	3,106.8	1.31	-1.31	-0.12
10,131.0	88.50	270.70	5,976.3	731.0	-3,196.1	3,191.7	1.01	-0.82	0.59
10,216.0	88.90	270.40	5,978.2	731.8	-3,281.1	3,276.7	0.59	0.47	-0.35

Archer

Survey Report

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Project:	Weld Co., CO	TVD Reference:	Well @ 4546.0usft
Site:	Sec.32-T5N-R61W	MD Reference:	Well @ 4546.0usft
Well:	State Pronghorn X-32-31MRLNB	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDMDBBW

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
10,301.0	89.30	271.10	5,979.5	732.9	-3,366.1	3,361.7	0.95	0.47	0.82	
10,388.0	88.70	269.80	5,981.0	733.6	-3,453.1	3,448.7	1.65	-0.69	-1.49	
10,473.0	88.80	269.80	5,982.9	733.3	-3,538.1	3,533.6	0.12	0.12	0.00	
10,558.0	89.30	269.90	5,984.3	733.1	-3,623.0	3,618.6	0.60	0.59	0.12	
10,643.0	90.00	270.00	5,984.8	733.0	-3,708.0	3,703.6	0.83	0.82	0.12	
10,727.0	91.30	269.90	5,983.9	732.9	-3,792.0	3,787.6	1.55	1.55	-0.12	
10,812.0	90.30	270.20	5,982.7	733.0	-3,877.0	3,872.6	1.23	-1.18	0.35	
10,897.0	89.40	269.90	5,982.9	733.1	-3,962.0	3,957.6	1.12	-1.06	-0.35	
10,982.0	89.70	269.50	5,983.6	732.6	-4,047.0	4,042.6	0.59	0.35	-0.47	
11,067.0	90.60	269.10	5,983.4	731.6	-4,132.0	4,127.6	1.16	1.06	-0.47	
11,154.0	89.50	268.90	5,983.3	730.1	-4,219.0	4,214.6	1.29	-1.26	-0.23	
11,239.0	89.10	268.50	5,984.3	728.1	-4,304.0	4,299.6	0.67	-0.47	-0.47	
11,324.0	90.20	268.50	5,984.8	725.9	-4,388.9	4,384.6	1.29	1.29	0.00	
11,409.0	89.50	269.40	5,985.1	724.4	-4,473.9	4,469.5	1.34	-0.82	1.06	
11,495.0	89.50	270.30	5,985.8	724.1	-4,559.9	4,555.5	1.05	0.00	1.05	
11,580.0	89.80	269.90	5,986.3	724.3	-4,644.9	4,640.5	0.59	0.35	-0.47	
11,665.0	90.70	270.30	5,986.0	724.4	-4,729.9	4,725.5	1.16	1.06	0.47	
11,750.0	90.30	270.60	5,985.2	725.1	-4,814.9	4,810.5	0.59	-0.47	0.35	
11,834.0	90.90	271.20	5,984.3	726.4	-4,898.9	4,894.5	1.01	0.71	0.71	
Last Archer Survey										
11,893.0	91.30	271.30	5,983.2	727.7	-4,957.9	4,953.5	0.70	0.68	0.17	
BHL 1302°FSL & 850°FEL - State Pronghorn X-32-31MRLNB tgt										
11,956.0	91.30	271.30	5,981.8	729.1	-5,020.8	5,016.4	0.00	0.00	0.00	

Survey Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
517.0	517.0	0.2	1.8	First Archer Survey	
6,502.0	5,979.7	755.2	432.2	ICP 1322'FSL & 624'FEL	
6,596.0	5,976.9	754.0	338.3	TOP 1321'FSL & 719'FEL	
11,893.0	5,983.2	727.7	-4,957.9	Last Archer Survey	
11,956.0	5,981.8	729.1	-5,020.8	BHL 1302'FSL & 850'FEL	

Checked By: _____ Approved By: _____ Date: _____