

# **BONANZA CREEK ENERGY**

**WELD COUNTY**

**SEC 30-T5N-R61W**

**STATE PRONGHORN FEDERAL D14-X44-30HNB**

**OWB**

**Design: FINAL SURVEY**

## **Standard Survey Report**

**27 December, 2021**

Project: WELD COUNTY  
Site: SEC 30-T5N-R61W  
Well: STATE PRONGHORN FEDERAL D14-X44-30HNB  
Wellbore: OWB  
Design: FINAL SURVEY

PROJECT DETAILS: WELD COUNTY

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

System Datum: Mean Sea Level



Azimuths to True North  
Magnetic North: 7.53°

Magnetic Field  
Strength: 51949.9nT  
Dip Angle: 66.68°  
Date: 11/9/2021  
Model: IGRF2020

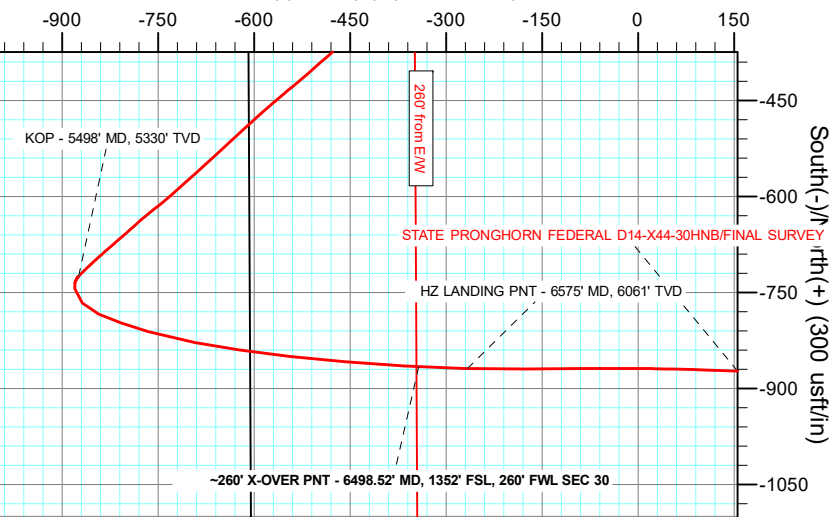
WELL DETAILS: STATE PRONGHORN FEDERAL D14-X44-30HNB

ANNOTATIONS

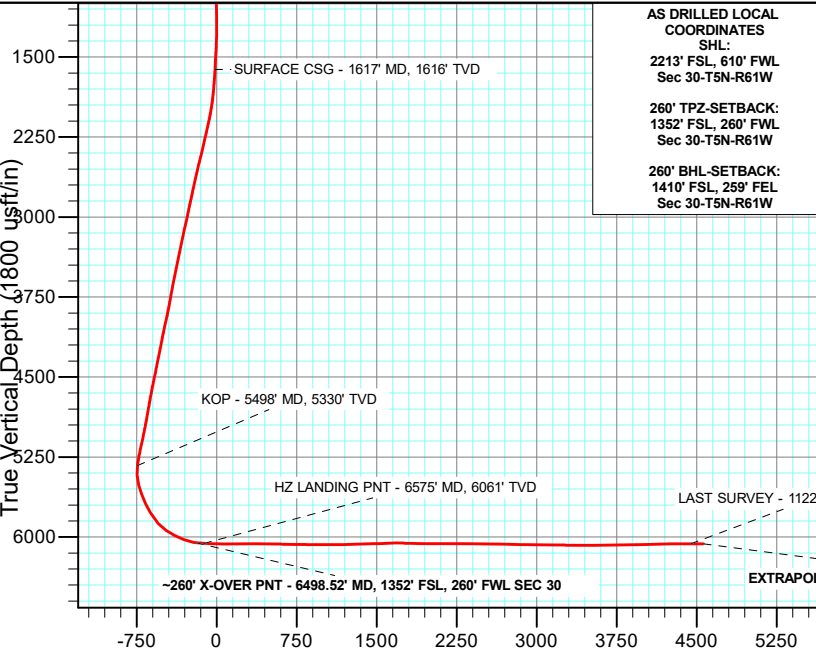
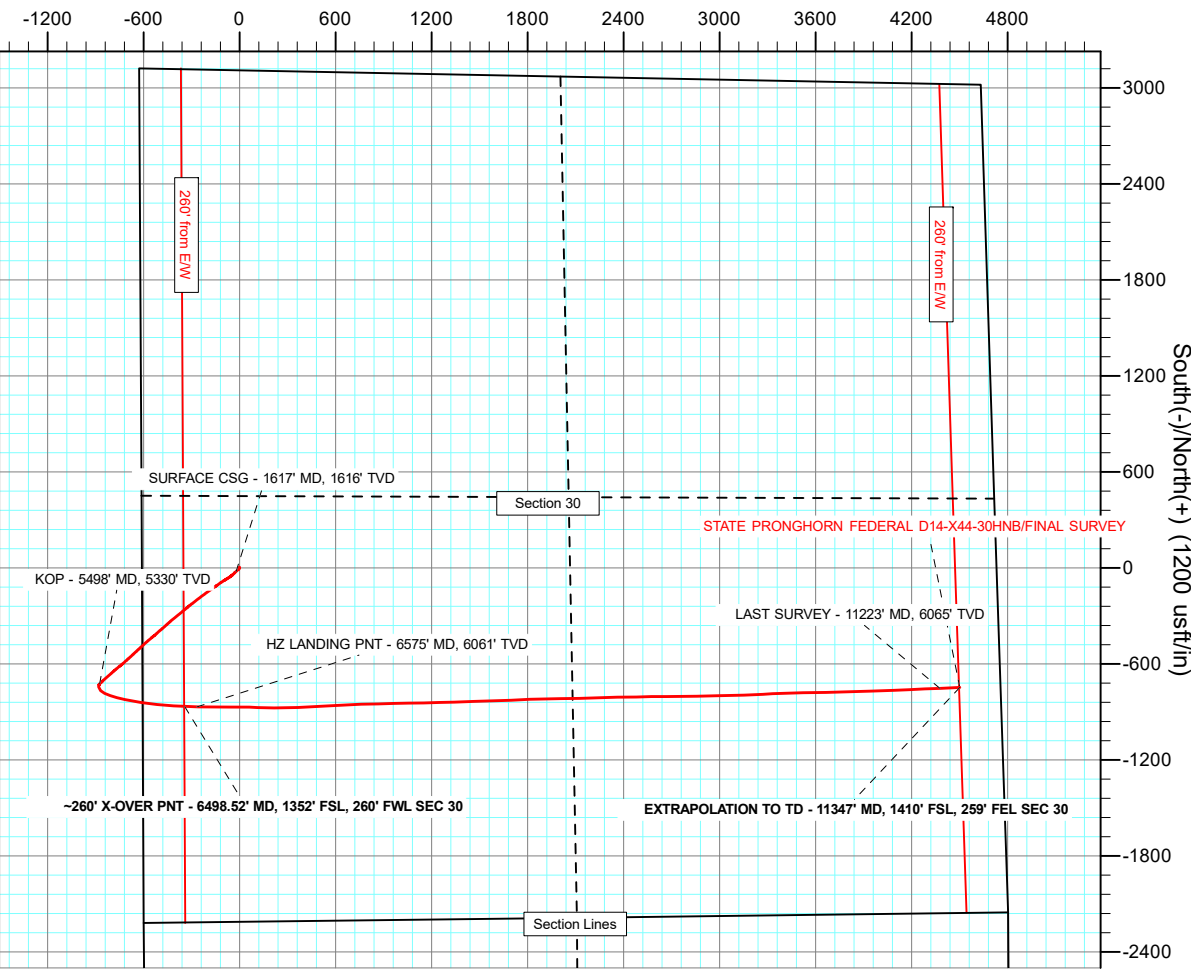
+N/-S    +E/-W    Northing    Easting    4526.00    Latitude    Longitude    Slot  
0.00    0.00    1380202.40    3345651.07    40.370420°N    104.259430°W

MD	Inc	Azi	TVD	+N/-S	+E/-W	Vsect	Departure	Annotation
1617.00	5.60	226.53	1615.71	-21.28	-20.66	-16.90	48.46	SURFACE CSG - 1617' MD, 1616' TVD
5498.00	14.30	222.60	5329.93	-724.59	-874.17	-743.93	1156.10	KOP - 5498' MD, 5330' TVD
6498.52	80.39	93.19	6053.89	-866.18	-342.75	-196.51	1746.14	~260' X-OVER PNT - 6498.52' MD, 1352' FSL, 260' FWL SEC 30
6575.00	88.89	90.98	6060.66	-868.88	-266.70	-121.05	1822.00	HZ LANDING PNT - 6575' MD, 6061' TVD
11223.00	90.19	87.37	6064.56	-751.84	4378.22	4442.23	6469.31	LAST SURVEY - 11223' MD, 6065' TVD
11347.00	90.19	87.37	6064.15	-746.15	4502.09	4563.51	6593.31	EXTRAPOLATION TO TD - 11347' MD, 1410' FSL, 259' FEL SEC 30

West(-)/East(+) (300 usft/in)



West(-)/East(+) (1200 usft/in)



AS DRILLED LOCAL  
COORDINATES  
SHL:  
2213' FSL, 610' FWL  
Sec 30-T5N-R61W  
  
260' TPZ-SETBACK:  
1352' FSL, 260' FWL  
Sec 30-T5N-R61W  
  
260' BHL-SETBACK:  
1410' FSL, 259' FEL  
Sec 30-T5N-R61W

Vertical Section at 99.41° (1800 usft/in)

## Survey Report

<b>Company:</b>	BONANZA CREEK ENERGY	<b>Local Co-ordinate Reference:</b>	Well STATE PRONGHORN FEDERAL D14-X44-30HNB
<b>Project:</b>	WELD COUNTY	<b>TVD Reference:</b>	KB 25' @ 4551.00usft
<b>Site:</b>	SEC 30-T5N-R61W	<b>MD Reference:</b>	KB 25' @ 4551.00usft
<b>Well:</b>	STATE PRONGHORN FEDERAL D14-X44-30HNB	<b>North Reference:</b>	True
<b>Wellbore:</b>	OWB	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	FINAL SURVEY	<b>Database:</b>	EDT_32Bit_ODBC

<b>Project</b>	WELD COUNTY		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Northern Zone		Using geodetic scale factor

Site		SEC 30-T5N-R61W			
Site Position:		Northing:	1,380,645.52 usft	Latitude:	40.371660°N
From:	Lat/Long	Easting:	3,345,031.84 usft	Longitude:	104.261630°W
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence:	0.80 °

Well	STATE PRONGHORN FEDERAL D14-X44-30HNB					
Well Position	+N/-S	0.00 usft	Northing:	1,380,202.40 usft	Latitude:	40.370420°N
	+E/-W	0.00 usft	Easting:	3,345,651.08 usft	Longitude:	104.259430°W
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	4,526.00 usft

<b>Wellbore</b>	OWB				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2020	11/9/2021	7.54	66.68	51,949.85859629

<b>Design</b>	FINAL SURVEY				
<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>	
	0.00	0.00	0.00	223.71	

<b>Survey Program</b>	<b>Date</b>	12/27/2021			
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
158.00	1,567.00	SURFACE SURVEY (OWB)	MWD OWSG	OWSG MWD - Standard	
1,669.00	11,347.00	FINAL SURVEY (OWB)	MWD OWSG	OWSG MWD - Standard	

<b>Survey</b>										
<b>Measured Depth (usft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Vertical Section (usft)</b>	<b>Dogleg Rate (°/100ft)</b>	<b>Build Rate (°/100ft)</b>	<b>Turn Rate (°/100ft)</b>	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
158.00	0.70	345.11	158.00	0.93	-0.25	-0.50	0.44	0.44	0.00	
249.00	0.79	357.07	248.99	2.10	-0.42	-1.22	0.20	0.10	13.14	
341.00	0.79	359.35	340.98	3.36	-0.46	-2.11	0.03	0.00	2.48	
425.00	1.06	356.19	424.97	4.72	-0.52	-3.05	0.33	0.32	-3.76	
512.00	1.32	270.00	511.96	5.52	-1.58	-2.90	1.88	0.30	-99.07	
598.00	1.93	253.36	597.92	5.11	-3.95	-0.96	0.89	0.71	-19.35	
685.00	0.79	229.27	684.90	4.30	-5.81	0.91	1.44	-1.31	-27.69	

## Survey Report

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<b>Project:</b>	WELD COUNTY	<b>TVD Reference:</b>	KB 25' @ 4551.00usft
<b>Site:</b>	SEC 30-T5N-R61W	<b>MD Reference:</b>	KB 25' @ 4551.00usft
<b>Well:</b>	STATE PRONGHORN FEDERAL D14-X44-30HNB	<b>North Reference:</b>	True
<b>Wellbore:</b>	OWB	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	FINAL SURVEY	<b>Database:</b>	EDT_32Bit_ODBC

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
770.00	1.23	211.17	769.88	3.13	-6.73	2.39	0.63	0.52	-21.29	
855.00	0.88	141.38	854.87	1.84	-6.79	3.36	1.46	-0.41	-82.11	
939.00	1.32	132.77	938.86	0.68	-5.68	3.43	0.56	0.52	-10.25	
1,024.00	1.49	130.13	1,023.83	-0.70	-4.12	3.35	0.21	0.20	-3.11	
1,112.00	1.67	135.41	1,111.80	-2.35	-2.34	3.31	0.26	0.20	6.00	
1,197.00	0.35	132.95	1,196.78	-3.41	-1.28	3.35	1.55	-1.55	-2.89	
1,285.00	1.41	230.33	1,284.77	-4.28	-1.92	4.42	1.70	1.20	110.66	
1,370.00	3.34	234.90	1,369.70	-6.37	-4.75	7.89	2.28	2.27	5.38	
1,455.00	5.10	225.58	1,454.46	-10.44	-9.48	14.09	2.22	2.07	-10.96	
1,540.00	5.72	225.58	1,539.08	-16.05	-15.20	22.10	0.73	0.73	0.00	
1,567.00	5.63	226.29	1,565.95	-17.91	-17.12	24.77	0.42	-0.33	2.63	
1,617.00	5.60	226.53	1,615.71	-21.28	-20.66	29.66	0.08	-0.06	0.49	
SURFACE CSG - 1617' MD, 1616' TVD										
1,669.00	5.57	226.79	1,667.46	-24.75	-24.34	34.71	0.08	-0.06	0.49	
1,763.00	7.34	226.41	1,760.86	-32.02	-32.02	45.27	1.88	1.88	-0.40	
1,858.00	9.44	226.35	1,854.84	-41.58	-42.05	59.11	2.21	2.21	-0.06	
1,952.00	11.98	234.61	1,947.20	-52.55	-55.58	76.40	3.15	2.70	8.79	
2,047.00	13.98	238.62	2,039.77	-64.24	-73.42	97.17	2.31	2.11	4.22	
2,143.00	16.68	238.74	2,132.35	-77.43	-95.10	121.69	2.81	2.81	0.12	
2,238.00	17.62	235.30	2,223.13	-92.69	-118.58	148.94	1.46	0.99	-3.62	
2,333.00	17.15	234.26	2,313.79	-109.06	-141.77	176.79	0.59	-0.49	-1.09	
2,429.00	19.33	235.51	2,404.96	-126.32	-166.36	206.27	2.31	2.27	1.30	
2,523.00	18.86	234.36	2,493.79	-143.99	-191.53	236.43	0.64	-0.50	-1.22	
2,618.00	18.48	233.85	2,583.79	-161.81	-216.16	266.34	0.44	-0.40	-0.54	
2,714.00	17.98	233.58	2,674.97	-179.59	-240.37	295.91	0.53	-0.52	-0.28	
2,808.00	16.95	232.02	2,764.63	-196.63	-262.85	323.76	1.20	-1.10	-1.66	
2,903.00	18.39	232.05	2,855.15	-214.37	-285.58	352.30	1.52	1.52	0.03	
2,999.00	16.88	231.43	2,946.63	-232.38	-308.42	381.09	1.59	-1.57	-0.65	
3,093.00	19.05	230.49	3,036.05	-250.65	-330.93	409.85	2.33	2.31	-1.00	
3,214.00	17.99	229.94	3,150.78	-275.24	-360.46	448.04	0.89	-0.88	-0.45	
3,309.00	17.91	230.63	3,241.16	-293.94	-382.99	477.12	0.24	-0.08	0.73	
3,404.00	18.12	230.59	3,331.50	-312.59	-405.69	506.29	0.22	0.22	-0.04	
3,499.00	18.10	230.30	3,421.79	-331.39	-428.46	535.62	0.10	-0.02	-0.31	
3,594.00	17.27	228.84	3,512.30	-350.10	-450.43	564.32	0.99	-0.87	-1.54	
3,689.00	16.41	227.50	3,603.23	-368.45	-470.94	591.76	0.99	-0.91	-1.41	
3,785.00	17.11	229.90	3,695.15	-386.71	-491.74	619.33	1.03	0.73	2.50	
3,879.00	15.87	227.50	3,785.28	-404.30	-511.80	645.90	1.50	-1.32	-2.55	
3,974.00	16.84	230.70	3,876.44	-421.79	-532.02	672.52	1.39	1.02	3.37	
4,070.00	19.37	229.92	3,967.68	-440.85	-554.97	702.15	2.65	2.64	-0.81	
4,164.00	18.49	228.93	4,056.59	-460.68	-578.13	732.50	1.00	-0.94	-1.05	
4,260.00	16.94	227.67	4,148.04	-480.10	-599.95	761.61	1.66	-1.61	-1.31	
4,355.00	17.63	227.86	4,238.75	-499.07	-620.85	789.77	0.73	0.73	0.20	
4,450.00	19.05	227.34	4,328.92	-519.23	-642.92	819.59	1.50	1.49	-0.55	

# Survey Report

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<b>Project:</b>	WELD COUNTY	<b>TVD Reference:</b>	KB 25' @ 4551.00usft
<b>Site:</b>	SEC 30-T5N-R61W	<b>MD Reference:</b>	KB 25' @ 4551.00usft
<b>Well:</b>	STATE PRONGHORN FEDERAL D14-X44-30HNB	<b>North Reference:</b>	True
<b>Wellbore:</b>	OWB	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	FINAL SURVEY	<b>Database:</b>	EDT_32Bit_ODBC

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,546.00	17.89	226.35	4,419.98	-540.03	-665.11	849.95	1.25	-1.21	-1.03
4,640.00	18.56	228.89	4,509.26	-559.83	-686.83	879.28	1.11	0.71	2.70
4,736.00	17.09	228.15	4,600.65	-579.29	-708.85	908.56	1.55	-1.53	-0.77
4,831.00	16.40	228.02	4,691.62	-597.57	-729.22	935.85	0.73	-0.73	-0.14
4,926.00	14.74	232.57	4,783.13	-613.89	-748.79	961.17	2.17	-1.75	4.79
5,020.00	15.32	230.23	4,873.92	-629.10	-767.83	985.32	0.89	0.62	-2.49
5,115.00	17.06	227.69	4,965.15	-646.51	-787.78	1,011.69	1.98	1.83	-2.67
5,211.00	18.73	229.47	5,056.50	-666.01	-809.91	1,041.08	1.83	1.74	1.85
5,305.00	18.45	228.83	5,145.60	-685.61	-832.58	1,070.91	0.37	-0.30	-0.68
5,400.00	18.01	227.06	5,235.83	-705.51	-854.65	1,100.54	0.74	-0.46	-1.86
5,495.00	14.47	224.07	5,327.03	-724.05	-873.66	1,127.08	3.83	-3.73	-3.15
5,498.00	14.30	222.60	5,329.93	-724.59	-874.17	1,127.83	13.41	-5.55	-49.15
KOP - 5498' MD, 5330' TVD									
5,589.00	14.51	172.01	5,418.41	-744.23	-880.22	1,146.20	13.41	0.23	-55.59
5,685.00	17.44	135.68	5,510.91	-766.49	-868.46	1,154.17	10.66	3.05	-37.84
5,780.00	21.09	114.19	5,600.69	-783.71	-842.89	1,148.94	8.33	3.84	-22.62
5,875.00	25.69	109.27	5,687.87	-797.51	-807.84	1,134.70	5.26	4.84	-5.18
5,969.00	30.24	106.37	5,770.88	-810.92	-765.87	1,115.39	5.05	4.84	-3.09
6,096.00	42.94	101.18	5,872.66	-828.39	-692.43	1,077.27	10.28	10.00	-4.09
6,191.00	53.52	97.74	5,935.87	-839.85	-622.63	1,037.32	11.46	11.14	-3.62
6,285.00	62.86	96.83	5,985.36	-849.93	-543.48	989.92	9.97	9.94	-0.97
6,380.00	70.27	94.24	6,023.12	-858.28	-456.78	936.04	8.19	7.80	-2.73
6,475.00	77.59	93.91	6,049.40	-864.75	-365.79	877.85	7.71	7.71	-0.35
6,498.52	80.39	93.19	6,053.89	-866.18	-342.75	862.96	12.28	11.90	-3.08
~260' X-OVER PNT - 6498.52' MD, 1352' FSL, 260' FWL SEC 30									
6,570.00	88.90	91.04	6,060.56	-868.79	-271.70	815.75	12.28	11.91	-3.00
6,575.00	88.89	90.98	6,060.66	-868.88	-266.70	812.36	1.29	-0.23	-1.27
HZ LANDING PNT - 6575' MD, 6061' TVD									
6,665.00	88.68	89.83	6,062.57	-869.52	-176.72	750.64	1.29	-0.23	-1.27
6,760.00	88.03	89.37	6,065.29	-868.85	-81.77	684.55	0.84	-0.68	-0.48
6,855.00	90.92	90.68	6,066.16	-868.89	13.22	618.94	3.34	3.04	1.38
6,950.00	90.75	91.99	6,064.78	-871.11	108.18	554.92	1.39	-0.18	1.38
7,045.00	90.65	91.91	6,063.62	-874.34	203.12	491.66	0.13	-0.11	-0.08
7,140.00	89.40	87.85	6,063.58	-874.14	298.10	425.88	4.47	-1.32	-4.27
7,235.00	88.70	88.02	6,065.15	-870.72	393.02	357.81	0.76	-0.74	0.18
7,329.00	88.58	86.10	6,067.38	-865.90	486.87	289.48	2.05	-0.13	-2.04
7,424.00	89.11	86.32	6,069.30	-859.62	581.64	219.45	0.60	0.56	0.23
7,519.00	89.55	87.02	6,070.41	-854.10	676.47	149.94	0.87	0.46	0.74
7,614.00	89.65	89.32	6,071.07	-851.07	771.41	82.14	2.42	0.11	2.42
7,709.00	90.09	88.64	6,071.29	-849.38	866.40	15.28	0.85	0.46	-0.72
7,804.00	89.61	88.37	6,071.54	-846.90	961.36	-52.14	0.58	-0.51	-0.28
7,899.00	91.34	89.29	6,070.75	-844.96	1,056.34	-119.17	2.06	1.82	0.97

## Survey Report

<b>Company:</b>	BONANZA CREEK ENERGY	<b>Local Co-ordinate Reference:</b>	Well STATE PRONGHORN FEDERAL D14-X44-30HNB
<b>Project:</b>	WELD COUNTY	<b>TVD Reference:</b>	KB 25' @ 4551.00usft
<b>Site:</b>	SEC 30-T5N-R61W	<b>MD Reference:</b>	KB 25' @ 4551.00usft
<b>Well:</b>	STATE PRONGHORN FEDERAL D14-X44-30HNB	<b>North Reference:</b>	True
<b>Wellbore:</b>	OWB	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	FINAL SURVEY	<b>Database:</b>	EDT_32Bit_ODBC

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
7,994.00	91.69	88.85	6,068.24	-843.42	1,151.29	-185.89	0.59	0.37	-0.46	
8,089.00	91.76	88.29	6,065.38	-841.05	1,246.22	-253.20	0.59	0.07	-0.59	
8,185.00	91.70	88.41	6,062.48	-838.29	1,342.13	-321.48	0.14	-0.06	0.12	
8,280.00	91.22	88.33	6,060.06	-835.58	1,437.06	-389.03	0.51	-0.51	-0.08	
8,376.00	91.24	88.12	6,058.00	-832.61	1,533.00	-457.47	0.22	0.02	-0.22	
8,470.00	89.15	87.91	6,057.68	-829.36	1,626.93	-524.73	2.23	-2.22	-0.22	
8,565.00	88.43	86.85	6,059.68	-825.01	1,721.81	-593.43	1.35	-0.76	-1.12	
8,659.00	88.38	87.45	6,062.30	-820.34	1,815.66	-661.66	0.64	-0.05	0.64	
8,754.00	90.62	89.90	6,063.13	-818.15	1,910.62	-728.86	3.49	2.36	2.58	
8,849.00	90.15	89.35	6,062.49	-817.52	2,005.61	-794.96	0.76	-0.49	-0.58	
8,944.00	89.90	88.05	6,062.45	-815.37	2,100.58	-862.14	1.39	-0.26	-1.37	
9,038.00	89.32	87.85	6,063.09	-812.01	2,194.52	-929.48	0.65	-0.62	-0.21	
9,133.00	89.88	88.78	6,063.75	-809.21	2,289.48	-997.12	1.14	0.59	0.98	
9,228.00	89.70	89.17	6,064.10	-807.51	2,384.46	-1,063.98	0.45	-0.19	0.41	
9,323.00	89.08	88.63	6,065.11	-805.69	2,479.44	-1,130.93	0.87	-0.65	-0.57	
9,418.00	88.71	89.42	6,066.95	-804.07	2,574.40	-1,197.72	0.92	-0.39	0.83	
9,512.00	88.45	90.30	6,069.27	-803.84	2,668.37	-1,262.82	0.98	-0.28	0.94	
9,608.00	89.05	88.80	6,071.37	-803.09	2,764.35	-1,329.68	1.68	0.62	-1.56	
9,703.00	89.55	88.87	6,072.53	-801.16	2,859.32	-1,396.71	0.53	0.53	0.07	
9,798.00	89.31	88.77	6,073.47	-799.20	2,954.29	-1,463.75	0.27	-0.25	-0.11	
9,892.00	89.00	88.94	6,074.86	-797.32	3,048.26	-1,530.04	0.38	-0.33	0.18	
9,987.00	89.80	88.20	6,075.86	-794.95	3,143.23	-1,597.38	1.15	0.84	-0.78	
10,082.00	89.54	86.62	6,076.40	-790.66	3,238.13	-1,666.05	1.69	-0.27	-1.66	
10,176.00	89.69	87.29	6,077.03	-785.67	3,331.99	-1,734.52	0.73	0.16	0.71	
10,272.00	89.25	88.21	6,077.92	-781.90	3,427.91	-1,803.53	1.06	-0.46	0.96	
10,367.00	90.89	89.25	6,077.81	-779.79	3,522.88	-1,870.68	2.04	1.73	1.09	
10,462.00	89.98	89.08	6,077.09	-778.41	3,617.87	-1,937.32	0.97	-0.96	-0.18	
10,556.00	91.66	88.57	6,075.74	-776.48	3,711.84	-2,003.64	1.87	1.79	-0.54	
10,651.00	91.26	88.40	6,073.32	-773.97	3,806.77	-2,071.06	0.46	-0.42	-0.18	
10,746.00	91.44	88.06	6,071.08	-771.04	3,901.70	-2,138.78	0.40	0.19	-0.36	
10,842.00	91.63	87.76	6,068.51	-767.54	3,997.60	-2,207.57	0.37	0.20	-0.31	
10,937.00	91.54	88.13	6,065.88	-764.13	4,092.50	-2,275.61	0.40	-0.09	0.39	
11,032.00	89.45	86.89	6,065.06	-760.01	4,187.40	-2,344.17	2.56	-2.20	-1.31	
11,128.00	90.48	87.97	6,065.12	-755.70	4,283.31	-2,413.55	1.55	1.07	1.12	
11,223.00	90.19	87.37	6,064.56	-751.84	4,378.22	-2,481.94	0.70	-0.31	-0.63	
LAST SURVEY - 11223' MD, 6065' TVD										
11,347.00	90.19	87.37	6,064.15	-746.15	4,502.09	-2,571.64	0.00	0.00	0.00	
EXTRAPOLATION TO TD - 11347' MD, 1410' FSL, 259' FEL SEC 30										

## Survey Report

<b>Company:</b>	BONANZA CREEK ENERGY	<b>Local Co-ordinate Reference:</b>	Well STATE PRONGHORN FEDERAL D14-X44-30HNB
<b>Project:</b>	WELD COUNTY	<b>TVD Reference:</b>	KB 25' @ 4551.00usft
<b>Site:</b>	SEC 30-T5N-R61W	<b>MD Reference:</b>	KB 25' @ 4551.00usft
<b>Well:</b>	STATE PRONGHORN FEDERAL D14-X44-30HNB	<b>North Reference:</b>	True
<b>Wellbore:</b>	OWB	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	FINAL SURVEY	<b>Database:</b>	EDT_32Bit_ODBC

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
ST PRONGHORN FED - actual wellpath misses target center by 11.00usft at 6499.59usft MD (6054.07 TVD, -866.24 N, -341.70 E) - Point	0.00	0.00	6,065.00	-866.98	-342.75	1,379,330.75	3,345,320.51	40.368040°N	104.260660°W
ST PRONGHORN FED - actual wellpath misses target center by 11.55usft at 11347.00usft MD (6064.15 TVD, -746.15 N, 4502.09 E) - Point	0.00	0.00	6,065.00	-757.63	4,503.04	1,379,507.87	3,350,164.09	40.368339°N	104.243270°W

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,617.00	1,615.71	-21.28	-20.66	SURFACE CSG - 1617' MD, 1616' TVD
5,498.00	5,329.93	-724.59	-874.17	KOP - 5498' MD, 5330' TVD
6,498.52	6,053.89	-866.18	-342.75	~260' X-OVER PNT - 6498.52' MD, 1352' FSL, 260' FWL SEC 30
6,575.00	6,060.66	-868.88	-266.70	HZ LANDING PNT - 6575' MD, 6061' TVD
11,223.00	6,064.56	-751.84	4,378.22	LAST SURVEY - 11223' MD, 6065' TVD
11,347.00	6,064.15	-746.15	4,502.09	EXTRAPOLATION TO TD - 11347' MD, 1410' FSL, 259' FEL SEC 30

Checked By: _____	Approved By: _____	Date: _____
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