

BONANZA CREEK ENERGY

WELD COUNTY

SEC 31-T5N-R62W

STATE ANTELOPE O24-K21-31HNC

OWB

Design: FINAL SURVEY

Standard Survey Report

07 April, 2022

Project: WELD COUNTY
Site: SEC 31-T5N-R62W
Well: STATE ANTELOPE O24-K21-31HNC
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: 7.57°
Magnetic Field
Strength: 51909.7snT
Dip Angle: 66.65°
Date: 1/13/2022
Model: IGRF2020

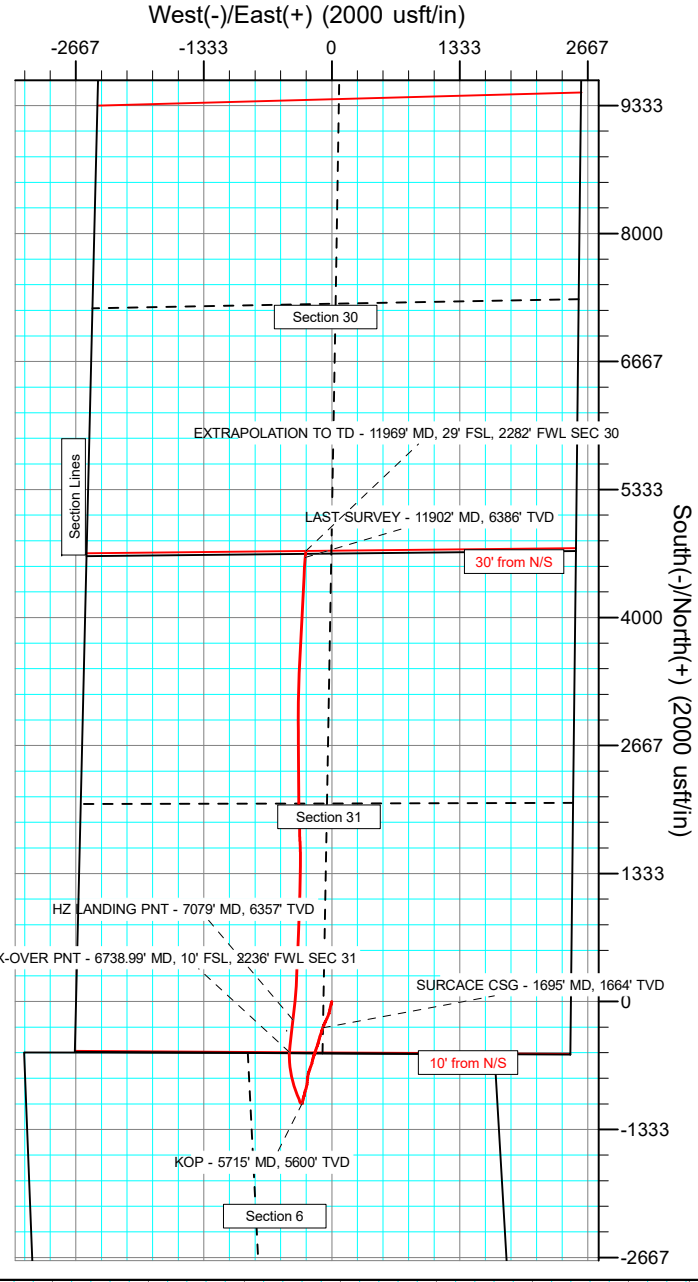
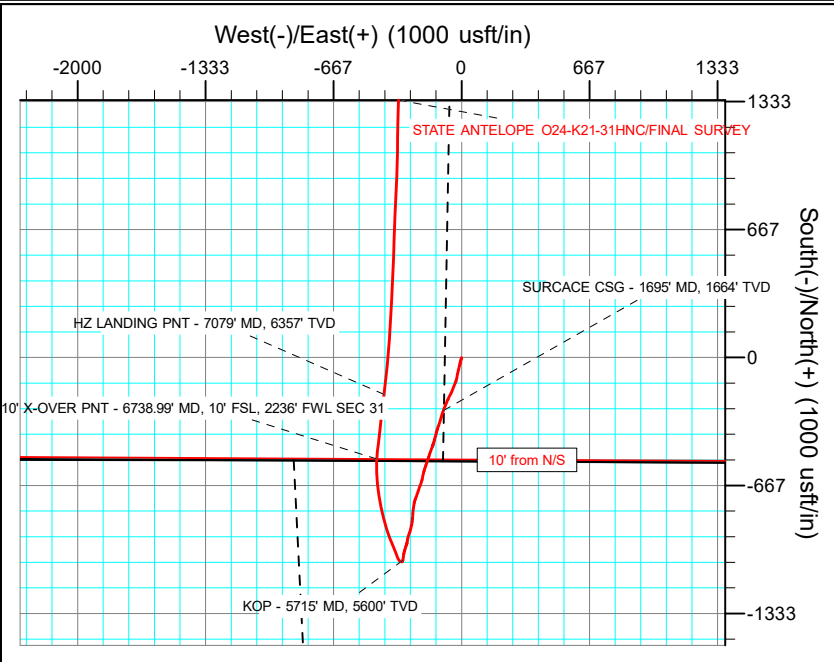
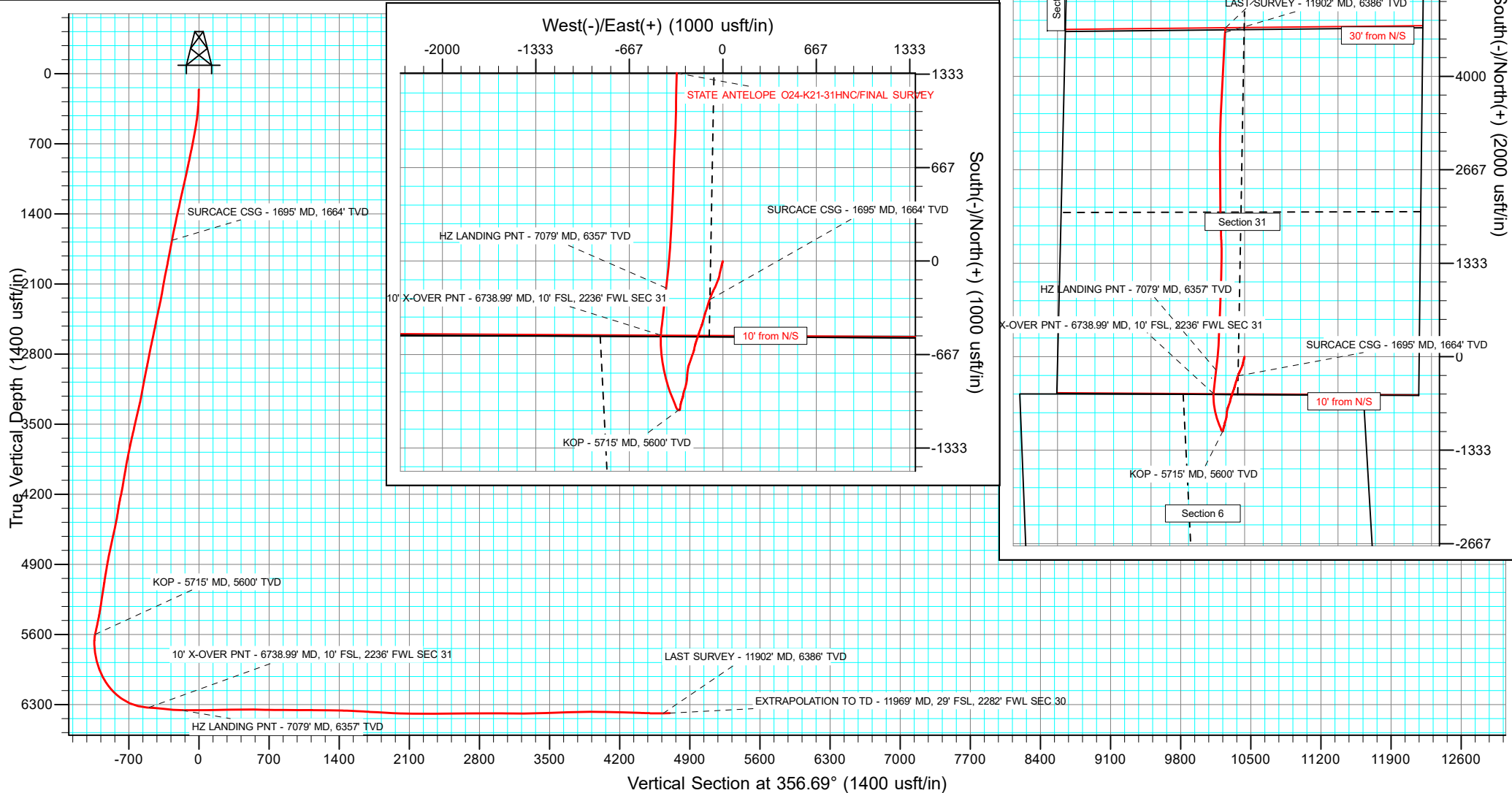
WELL DETAILS: STATE ANTELOPE O24-K21-31HNC

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	1372564.58	3316041.38	40.350544°N	104.366040°W	

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSec	Departure	Annotation
1695.00	11.99	200.42	1663.78	-275.41	-94.71	-269.48	291.66	SURFACE CSG - 1695' MD, 1664' TVD
5715.00	11.02	194.91	5599.77	-1056.56	-306.03	-1037.14	1103.77	KOP - 5715' MD, 5600' TVD
6738.99	85.77	4.44	6329.98	-528.24	-441.44	-501.88	1680.73	10' X-OVER PNT - 6738.99' MD, 10' FSL, 2236' FWL SEC 31
7079.00	90.33	6.55	6357.30	-191.46	-404.70	-167.78	2019.53	HZ LANDING PNT - 7079' MD, 6357' TVD
11902.00	90.81	4.87	6386.18	4625.33	-276.98	4633.60	6841.03	LAST SURVEY - 11902' MD, 6386' TVD
11969.00	90.81	4.87	6385.24	4692.08	-271.30	4699.91	6908.03	EXTRAPOLATION TO TD - 11969' MD, 29' FSL, 2282' FWL SEC 30

SHL:
541' FSL, 2492' FEL
Sec 31-T5N-R62W
-10' X-OVER PNT:
10' FSL, 2236' FWL
Sec 31-T5N-R62W
BHL:
29' FSL, 2282' FWL
Sec 30-T5N-R62W



Survey Report

Company:	BONANZA CREEK ENERGY	Local Co-ordinate Reference:	Well STATE ANTELOPE O24-K21-31HNC
Project:	WELD COUNTY	TVD Reference:	KB 24' @ 4576.00usft
Site:	SEC 31-T5N-R62W	MD Reference:	KB 24' @ 4576.00usft
Well:	STATE ANTELOPE O24-K21-31HNC	North Reference:	True
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEY	Database:	EDT_32Bit_ODBC

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

Site		SEC 31-T5N-R62W			
Site Position:		Northing:	1,377,287.48 usft	Latitude:	40.363420°N
From:	Lat/Long	Easting:	3,318,522.58 usft	Longitude:	104.356920°W
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence:	0.74 °

Well		STATE ANTELOPE O24-K21-31HNC				
Well Position	+N/-S	0.00 usft	Northing:	1,372,564.58 usft	Latitude:	40.350544°N
	+E/-W	0.00 usft	Easting:	3,316,041.39 usft	Longitude:	104.366040°W
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	4,552.00 usft

Wellbore	OWB				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	1/13/2022	7.57	66.65	51,909.71687009

Design	FINAL SURVEY				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	356.69	

Survey Program	Date	4/7/2022			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
249.00	1,635.00	SURFACE SURVEY (OWB)	MWD OWSG	OWSG MWD - Standard	
1,711.00	11,969.00	FINAL SURVEY (OWB)	MWD OWSG	OWSG MWD - Standard	

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)	
157.00	0.62	190.92	157.00	-0.78	-0.15	-0.77	0.00	0.00	0.00	
249.00	2.64	198.13	248.96	-3.28	-0.90	-3.22	2.20	2.20	7.84	
340.00	4.84	194.79	339.76	-8.99	-2.54	-8.83	2.43	2.42	-3.67	
413.00	6.51	193.21	412.40	-15.99	-4.27	-15.72	2.30	2.29	-2.16	
498.00	9.32	195.14	496.58	-27.33	-7.17	-26.87	3.32	3.31	2.27	
583.00	10.73	193.74	580.28	-41.66	-10.84	-40.97	1.68	1.66	-1.65	
671.00	11.49	193.55	666.63	-58.14	-14.84	-57.19	0.86	0.86	-0.22	
758.00	12.22	193.39	751.77	-75.52	-19.01	-74.30	0.84	0.84	-0.18	
847.00	11.87	189.52	838.82	-93.71	-22.70	-92.25	0.99	-0.39	-4.35	
932.00	12.40	191.98	921.92	-111.26	-26.04	-109.57	0.87	0.62	2.89	

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Site:	SEC 31-T5N-R62W	MD Reference:	KB 24' @ 4576.00usft
Well:	STATE ANTELOPE O24-K21-31HNC	North Reference:	True
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEY	Database:	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)
1,016.00	13.54	201.47	1,003.78	-129.24	-31.51	-127.20	2.87	1.36	11.30
1,103.00	13.89	202.17	1,088.30	-148.39	-39.18	-145.88	0.45	0.40	0.80
1,191.00	13.98	203.05	1,173.71	-167.95	-47.33	-164.94	0.26	0.10	1.00
1,280.00	14.42	204.99	1,259.99	-187.89	-56.22	-184.33	0.73	0.49	2.18
1,369.00	14.51	207.27	1,346.17	-207.84	-66.01	-203.68	0.65	0.10	2.56
1,458.00	12.93	203.23	1,432.63	-226.90	-75.05	-222.19	2.08	-1.78	-4.54
1,547.00	13.10	200.94	1,519.35	-245.47	-82.58	-240.30	0.61	0.19	-2.57
1,635.00	12.57	203.40	1,605.15	-263.57	-89.95	-257.94	0.86	-0.60	2.80
1,695.00	11.99	200.42	1,663.78	-275.41	-94.71	-269.48	1.43	-0.97	-4.96
SURFACE CSG - 1695' MD, 1664' TVD									
1,711.00	11.84	199.58	1,679.43	-278.51	-95.84	-272.51	1.43	-0.93	-5.26
1,845.00	10.96	195.79	1,810.79	-303.72	-103.92	-297.22	0.86	-0.66	-2.83
1,934.00	12.42	197.37	1,897.94	-321.00	-109.08	-314.17	1.68	1.64	1.78
2,023.00	11.71	198.47	1,984.97	-338.70	-114.80	-331.51	0.84	-0.80	1.24
2,113.00	11.36	198.52	2,073.16	-355.77	-120.51	-348.22	0.39	-0.39	0.06
2,202.00	10.34	199.62	2,160.56	-371.60	-125.97	-363.71	1.17	-1.15	1.24
2,291.00	11.67	192.70	2,247.93	-387.91	-130.63	-379.72	2.10	1.49	-7.78
2,380.00	13.39	195.30	2,334.81	-406.63	-135.33	-398.14	2.03	1.93	2.92
2,469.00	12.46	194.73	2,421.55	-425.86	-140.49	-417.04	1.05	-1.04	-0.64
2,558.00	11.22	196.18	2,508.66	-443.46	-145.35	-434.33	1.43	-1.39	1.63
2,647.00	13.52	200.85	2,595.59	-461.50	-151.46	-451.99	2.82	2.58	5.25
2,736.00	13.04	199.93	2,682.21	-480.66	-158.59	-470.71	0.59	-0.54	-1.03
2,825.00	12.33	198.34	2,769.03	-499.12	-165.00	-488.76	0.89	-0.80	-1.79
2,914.00	11.27	197.28	2,856.15	-516.44	-170.57	-505.74	1.22	-1.19	-1.19
3,003.00	12.86	200.15	2,943.18	-534.05	-176.57	-522.97	1.91	1.79	3.22
3,120.00	11.62	197.81	3,057.52	-557.49	-184.66	-545.90	1.14	-1.06	-2.00
3,209.00	10.56	199.44	3,144.86	-573.72	-190.12	-561.79	1.24	-1.19	1.83
3,298.00	11.75	196.27	3,232.18	-590.11	-195.37	-577.84	1.50	1.34	-3.56
3,387.00	13.96	191.25	3,318.94	-609.34	-200.00	-596.78	2.78	2.48	-5.64
3,476.00	13.83	192.61	3,405.34	-630.25	-204.42	-617.40	0.39	-0.15	1.53
3,565.00	13.48	199.66	3,491.83	-650.40	-210.23	-637.18	1.91	-0.39	7.92
3,654.00	13.79	200.46	3,578.32	-670.10	-217.43	-656.44	0.41	0.35	0.90
3,743.00	13.61	197.72	3,664.79	-690.02	-224.32	-675.92	0.76	-0.20	-3.08
3,832.00	12.81	198.61	3,751.43	-709.34	-230.66	-694.85	0.93	-0.90	1.00
3,921.00	12.11	200.32	3,838.34	-727.45	-237.05	-712.55	0.89	-0.79	1.92
4,010.00	10.61	200.63	3,925.59	-743.87	-243.18	-728.59	1.69	-1.69	0.35
4,099.00	9.94	187.54	4,013.18	-759.16	-247.08	-743.63	2.72	-0.75	-14.71
4,188.00	9.50	190.01	4,100.90	-774.01	-249.36	-758.32	0.68	-0.49	2.78
4,277.00	12.33	186.97	4,188.28	-790.67	-251.79	-774.82	3.24	3.18	-3.42
4,366.00	11.09	184.55	4,275.43	-808.64	-253.62	-792.65	1.50	-1.39	-2.72
4,456.00	8.57	184.06	4,364.10	-823.96	-254.78	-807.88	2.80	-2.80	-0.54
4,545.00	10.47	184.90	4,451.87	-838.63	-255.94	-822.46	2.14	2.13	0.94
4,634.00	12.68	187.37	4,539.05	-856.38	-257.89	-840.07	2.54	2.48	2.78

Survey Report

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Site:	SEC 31-T5N-R62W	MD Reference:	KB 24' @ 4576.00usft
Well:	STATE ANTELOPE O24-K21-31HNC	North Reference:	True
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEY	Database:	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)
4,723.00	13.04	193.27	4,625.83	-875.84	-261.45	-859.29	1.53	0.40	6.63
4,812.00	12.37	192.35	4,712.65	-894.93	-265.79	-878.09	0.79	-0.75	-1.03
4,901.00	12.99	199.40	4,799.48	-913.67	-271.15	-896.50	1.87	0.70	7.92
4,990.00	10.43	199.40	4,886.62	-930.71	-277.15	-913.16	2.88	-2.88	0.00
5,079.00	10.25	190.37	4,974.18	-946.10	-281.25	-928.29	1.83	-0.20	-10.15
5,168.00	8.22	186.00	5,062.02	-960.22	-283.34	-942.26	2.41	-2.28	-4.91
5,257.00	10.25	201.07	5,149.88	-973.94	-286.86	-955.76	3.53	2.28	16.93
5,346.00	8.66	196.05	5,237.67	-987.77	-291.56	-969.29	2.01	-1.79	-5.64
5,436.00	9.63	197.90	5,326.52	-1,001.44	-295.74	-982.70	1.13	1.08	2.06
5,525.00	10.96	191.47	5,414.09	-1,016.82	-299.71	-997.82	1.97	1.49	-7.22
5,614.00	12.90	187.54	5,501.17	-1,034.96	-302.70	-1,015.76	2.36	2.18	-4.42
5,703.00	12.33	189.26	5,588.02	-1,054.19	-305.53	-1,034.79	0.77	-0.64	1.93
5,715.00	11.02	194.91	5,599.77	-1,056.56	-306.03	-1,037.14	14.46	-10.88	47.12
KOP - 5715' MD, 5600' TVD									
5,792.00	8.26	263.96	5,675.90	-1,064.28	-313.45	-1,044.41	14.46	-3.59	89.67
5,881.00	8.97	321.73	5,764.05	-1,059.50	-324.13	-1,039.02	9.35	0.80	64.91
5,970.00	13.70	339.18	5,851.31	-1,044.19	-332.18	-1,023.27	6.51	5.31	19.61
6,059.00	21.30	340.02	5,936.13	-1,019.11	-341.46	-997.70	8.54	8.54	0.94
6,148.00	27.49	336.10	6,017.15	-985.10	-355.32	-962.95	7.19	6.96	-4.40
6,237.00	36.24	339.18	6,092.67	-941.65	-373.03	-918.54	10.00	9.83	3.46
6,275.00	39.46	340.02	6,122.67	-919.79	-381.15	-896.26	8.58	8.47	2.21
6,364.00	47.02	344.29	6,187.47	-861.78	-399.66	-837.27	9.10	8.49	4.80
6,453.00	55.41	347.60	6,243.18	-794.53	-416.37	-769.17	9.86	9.43	3.72
6,543.00	65.71	351.70	6,287.37	-717.53	-430.29	-691.49	12.11	11.44	4.56
6,632.00	77.24	353.77	6,315.61	-633.96	-440.89	-607.45	13.14	12.96	2.33
6,721.00	85.90	3.73	6,328.67	-546.13	-442.72	-519.67	14.73	9.73	11.19
6,738.99	85.77	4.44	6,329.98	-528.24	-441.44	-501.88	4.01	-0.75	3.95
10' X-OVER PNT - 6738.99' MD, 10' FSL, 2236' FWL SEC 31									
6,810.00	85.24	7.25	6,335.55	-457.82	-434.24	-431.99	4.01	-0.74	3.96
6,899.00	85.29	5.49	6,342.90	-369.68	-424.40	-344.56	1.97	0.06	-1.98
6,988.00	82.90	6.59	6,352.05	-281.65	-415.08	-257.22	2.95	-2.69	1.24
7,077.00	90.32	6.55	6,357.31	-193.45	-404.92	-169.75	8.34	8.34	-0.04
7,079.00	90.33	6.55	6,357.30	-191.46	-404.70	-167.78	0.59	0.55	-0.20
HZ LANDING PNT - 7079' MD, 6357' TVD									
7,166.00	90.81	6.37	6,356.43	-105.02	-394.91	-82.05	0.59	0.55	-0.20
7,255.00	90.72	5.49	6,355.25	-16.50	-385.72	5.79	0.99	-0.10	-0.99
7,344.00	91.16	4.78	6,353.79	72.13	-377.75	93.81	0.94	0.49	-0.80
7,433.00	90.01	3.37	6,352.88	160.89	-371.43	182.06	2.04	-1.29	-1.58
7,522.00	90.46	2.76	6,352.51	249.76	-366.67	270.51	0.85	0.51	-0.69
7,611.00	91.96	2.84	6,350.63	338.64	-362.32	358.99	1.69	1.69	0.09
7,700.00	89.75	2.23	6,349.31	427.53	-358.39	447.51	2.58	-2.48	-0.69
7,789.00	89.75	2.23	6,349.69	516.46	-354.93	536.09	0.00	0.00	0.00
7,878.00	89.09	2.18	6,350.59	605.39	-351.50	624.67	0.74	-0.74	-0.06
7,967.00	88.69	1.66	6,352.32	694.33	-348.52	713.29	0.74	-0.45	-0.58

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Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEY	Database:	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)	
8,056.00	89.97	2.36	6,353.36	783.26	-345.40	801.89	1.64	1.44	0.79	
8,145.00	89.48	3.55	6,353.79	872.14	-340.81	890.36	1.45	-0.55	1.34	
8,235.00	89.62	1.52	6,354.49	962.05	-336.83	979.89	2.26	0.16	-2.26	
8,324.00	90.15	0.99	6,354.67	1,051.02	-334.88	1,068.60	0.84	0.60	-0.60	
8,413.00	88.69	0.77	6,355.57	1,140.01	-333.51	1,157.36	1.66	-1.64	-0.25	
8,502.00	90.01	1.39	6,356.58	1,228.98	-331.84	1,246.09	1.64	1.48	0.70	
8,591.00	88.69	1.13	6,357.59	1,317.95	-329.88	1,334.80	1.51	-1.48	-0.29	
8,680.00	89.31	1.66	6,359.15	1,406.91	-327.71	1,423.48	0.92	0.70	0.60	
8,769.00	87.19	359.36	6,361.86	1,495.86	-326.92	1,512.23	3.51	-2.38	-2.58	
8,858.00	86.92	358.26	6,366.44	1,584.72	-328.77	1,601.05	1.27	-0.30	-1.24	
8,947.00	86.39	357.34	6,371.63	1,673.50	-332.18	1,689.88	1.19	-0.60	-1.03	
9,036.00	87.58	358.39	6,376.31	1,762.31	-335.49	1,778.74	1.78	1.34	1.18	
9,125.00	86.48	358.39	6,380.92	1,851.16	-337.99	1,867.58	1.24	-1.24	0.00	
9,214.00	87.05	358.44	6,385.94	1,939.98	-340.44	1,956.40	0.64	0.64	0.06	
9,303.00	88.69	358.88	6,389.25	2,028.89	-342.52	2,045.28	1.91	1.84	0.49	
9,392.00	89.53	359.54	6,390.63	2,117.87	-343.75	2,134.18	1.20	0.94	0.74	
9,481.00	89.66	358.92	6,391.26	2,206.86	-344.95	2,223.09	0.71	0.15	-0.70	
9,570.00	90.01	359.67	6,391.52	2,295.85	-346.04	2,312.00	0.93	0.39	0.84	
9,659.00	90.23	359.54	6,391.33	2,384.85	-346.65	2,400.88	0.29	0.25	-0.15	
9,748.00	90.85	0.38	6,390.49	2,473.84	-346.72	2,489.73	1.17	0.70	0.94	
9,837.00	90.90	359.54	6,389.14	2,562.83	-346.78	2,578.58	0.95	0.06	-0.94	
9,926.00	90.77	359.50	6,387.84	2,651.82	-347.52	2,667.46	0.15	-0.15	-0.04	
10,015.00	91.07	358.97	6,386.41	2,740.80	-348.71	2,756.36	0.68	0.34	-0.60	
10,104.00	88.91	0.07	6,386.43	2,829.79	-349.46	2,845.24	2.72	-2.43	1.24	
10,193.00	90.19	0.82	6,387.12	2,918.78	-348.77	2,934.05	1.67	1.44	0.84	
10,282.00	89.84	0.60	6,387.10	3,007.78	-347.66	3,022.83	0.46	-0.39	-0.25	
10,371.00	89.09	359.58	6,387.93	3,096.77	-347.52	3,111.67	1.42	-0.84	-1.15	
10,461.00	90.37	2.58	6,388.36	3,186.74	-345.83	3,201.39	3.62	1.42	3.33	
10,549.00	90.37	0.95	6,387.79	3,274.69	-343.12	3,289.04	1.85	0.00	-1.85	
10,639.00	90.37	0.24	6,387.21	3,364.69	-342.18	3,378.83	0.79	0.00	-0.79	
10,728.00	92.49	2.27	6,384.99	3,453.63	-340.23	3,467.51	3.30	2.38	2.28	
10,817.00	92.89	2.14	6,380.81	3,542.46	-336.81	3,556.00	0.47	0.45	-0.15	
10,906.00	93.15	1.92	6,376.12	3,631.28	-333.67	3,644.49	0.38	0.29	-0.25	
10,995.00	90.50	4.26	6,373.28	3,720.10	-328.87	3,732.88	3.97	-2.98	2.63	
11,084.00	90.59	4.78	6,372.44	3,808.82	-321.86	3,821.04	0.59	0.10	0.58	
11,173.00	89.57	3.59	6,372.31	3,897.57	-315.36	3,909.28	1.76	-1.15	-1.34	
11,262.00	89.88	3.51	6,372.74	3,986.40	-309.85	3,997.64	0.36	0.35	-0.09	
11,351.00	89.09	3.07	6,373.54	4,075.25	-304.74	4,086.05	1.02	-0.89	-0.49	
11,440.00	88.29	2.76	6,375.58	4,164.11	-300.22	4,174.50	0.96	-0.90	-0.35	
11,529.00	88.29	2.58	6,378.23	4,252.98	-296.07	4,262.98	0.20	0.00	-0.20	
11,618.00	88.25	2.62	6,380.92	4,341.84	-292.04	4,351.46	0.06	-0.04	0.04	
11,707.00	87.58	2.32	6,384.16	4,430.70	-288.21	4,439.95	0.82	-0.75	-0.34	
11,796.00	89.53	2.89	6,386.40	4,519.58	-284.16	4,528.44	2.28	2.19	0.64	

Survey Report

Company:	BONANZA CREEK ENERGY	Local Co-ordinate Reference:	Well STATE ANTELOPE O24-K21-31HNC
Project:	WELD COUNTY	TVD Reference:	KB 24' @ 4576.00usft
Site:	SEC 31-T5N-R62W	MD Reference:	KB 24' @ 4576.00usft
Well:	STATE ANTELOPE O24-K21-31HNC	North Reference:	True
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEY	Database:	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)
11,885.00	90.50	4.56	6,386.38	4,608.38	-278.38	4,616.77	2.17	1.09	1.88
11,902.00	90.81	4.87	6,386.18	4,625.33	-276.98	4,633.60	2.58	1.82	1.82
LAST SURVEY - 11902' MD, 6386' TVD									
11,969.00	90.81	4.87	6,385.24	4,692.08	-271.30	4,699.91	0.00	0.00	0.00
EXTRAPOLATION TO TD - 11969' MD, 29' FSL, 2282' FWL SEC 30									

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 ANTELOPE O24-LP - actual wellpath misses target center by 77.87usft at 6748.53usft MD (6330.69 TVD, -518.76 N, -440.68 E) - Point	0.00	0.00	6,356.00	-528.24	-367.65	1,372,031.71	3,315,680.54	40.349094°N	104.367359°W
ST ANTELOPE O24-PBI - actual wellpath misses target center by 31.32usft at 11967.68usft MD (6385.25 TVD, 4690.77 N, -271.41 E) - Point	0.00	0.00	6,367.00	4,692.67	-296.79	1,377,252.88	3,315,684.63	40.363425°N	104.367105°W

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
1,695.00	1,663.78	-275.41	-94.71	SURFACE CSG - 1695' MD, 1664' TVD	
5,715.00	5,599.77	-1,056.56	-306.03	KOP - 5715' MD, 5600' TVD	
6,738.99	6,329.98	-528.24	-441.44	10' X-OVER PNT - 6738.99' MD, 10' FSL, 2236' FWL SEC 31	
7,079.00	6,357.30	-191.46	-404.70	HZ LANDING PNT - 7079' MD, 6357' TVD	
11,902.00	6,386.18	4,625.33	-276.98	LAST SURVEY - 11902' MD, 6386' TVD	
11,969.00	6,385.24	4,692.08	-271.30	EXTRAPOLATION TO TD - 11969' MD, 29' FSL, 2282' FWL SEC 30	

Checked By: _____	Approved By: _____	Date: _____
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