

BONANZA CREEK ENERGY

Location: COLORADO Slot: SLOT#16 STATE ANTELOPE 34-31-30XRLNC (540'FSL & 2472'FEL, SEC.31)
Field: WELD COUNTY (NAD83/TRUE) Well: STATE ANTELOPE 34-31-30XRLNC
Facility: SEC.31-T05N-R62W Wellbore: STATE ANTELOPE 34-31-30XRLNC PWB

Plot reference wellpath is STATE ANTELOPE 34-31-30XRLNC PWP (REV-C.0)

Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet

True vertical depths are referenced to RIG (17) (RKB)

North Reference: True north

Reference wellpath measured depths are referenced to RIG (17) (RKB)

Scale: True distance

RIG (17) (RKB) to Mean Sea Level: 4569 feet

Coordinates are in feet referenced to Slot

Mean Sea Level to Ground level (At Slot: SLOT#16 STATE ANTELOPE 34-31-30XRLNC (540'FSL & 2472'FEL, SEC.31)): 0 feet

Depths are in feet

Other wellpath MDs are referenced to each path's default MD datum

Created by: robale01 on 2019-12-30; Database: WA_DENVER

Location Information

Facility Name			Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.31-T05N-R62W			3317947.515	1376496.776	40°21'40.5720"N	104°21'32.4720"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SLOT#16 STATE ANTELOPE 34-31-30XRLNC (540'FSL & 2472'FEL, SEC.31)	-3907.51	-1936.59	3316061.448	1372564.847	40°21'1.9584"N	104°21'57.4848"W
RIG (17) (RKB) to Ground level (At Slot: SLOT#16 STATE ANTELOPE 34-31-30XRLNC (540'FSL & 2472'FEL, SEC.31))						4569ft
Mean Sea Level to Ground level (At Slot: SLOT#16 STATE ANTELOPE 34-31-30XRLNC (540'FSL & 2472'FEL, SEC.31))						0ft
RIG (17) (RKB) to Mean Sea Level						4569ft

Survey Program

Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
17.00	1600.00	BH NavTrak (superseded model)	BH NavTrak (Rotating+Axial Cor)		STATE ANTELOPE 34-31-30XRLNC PWB
1600.00	16881.47	BH AutoTrak Curve (superseded model)	BH AutoTrak Curve (Short)		STATE ANTELOPE 34-31-30XRLNC PWB

Targets

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.06-T4N-R62W	N/A	0.00	120.22	-29.27	3316030.65	1372684.68	40°21'3.1464"N	104°21'57.8628"W
SEC.30-T5N-R62W	N/A	0.00	120.22	-29.27	3316030.65	1372684.68	40°21'3.1464"N	104°21'57.8628"W
SEC.31-T5N-R62W	N/A	0.00	120.22	-29.27	3316030.65	1372684.68	40°21'3.1464"N	104°21'57.8628"W
SEC.05-T4N-R62W	N/A	16.00	120.22	-29.27	3316030.65	1372684.68	40°21'3.1464"N	104°21'57.8628"W
STATE ANTELOPE 34-31-30XRLNC BHL (470'FNL & 1893'FEL, SEC.30)	16881.47	6352.00	9467.06	686.41	3316626.70	1382039.50	40°22'35.5089"N	104°21'48.6158"W
STATE ANTELOPE 34-31-30XRLNC LP (10'FSL & 1909'FEL, SEC.31)	6868.45	6352.00	-545.09	554.43	3316622.78	1372026.92	40°20'56.5719"N	104°21'50.3239"W

Hole and Casing Sections

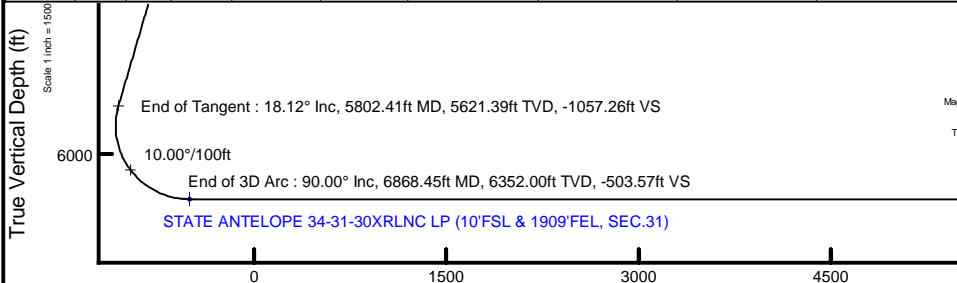
Name	Start MD (ft)	End MD (ft)	Interval (ft)	Start TVD (ft)	End TVD (ft)	Start Local N (ft)	Start Local E (ft)	End Local N (ft)	End Local E (ft)	Wellbore
9.625in Casing Surface	17.00	1600.00	1583.00	17.00	1600.00	0.00	0.00	-0.40	0.17	STATE ANTELOPE 34-31-30XRLNC PWB
8.5in Open Hole	1600.00	16881.47	15281.47	1600.00	6352.00	-0.40	0.17	9467.06	686.40	STATE ANTELOPE 34-31-30XRLNC PWB

Well Profile Data

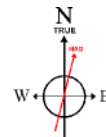
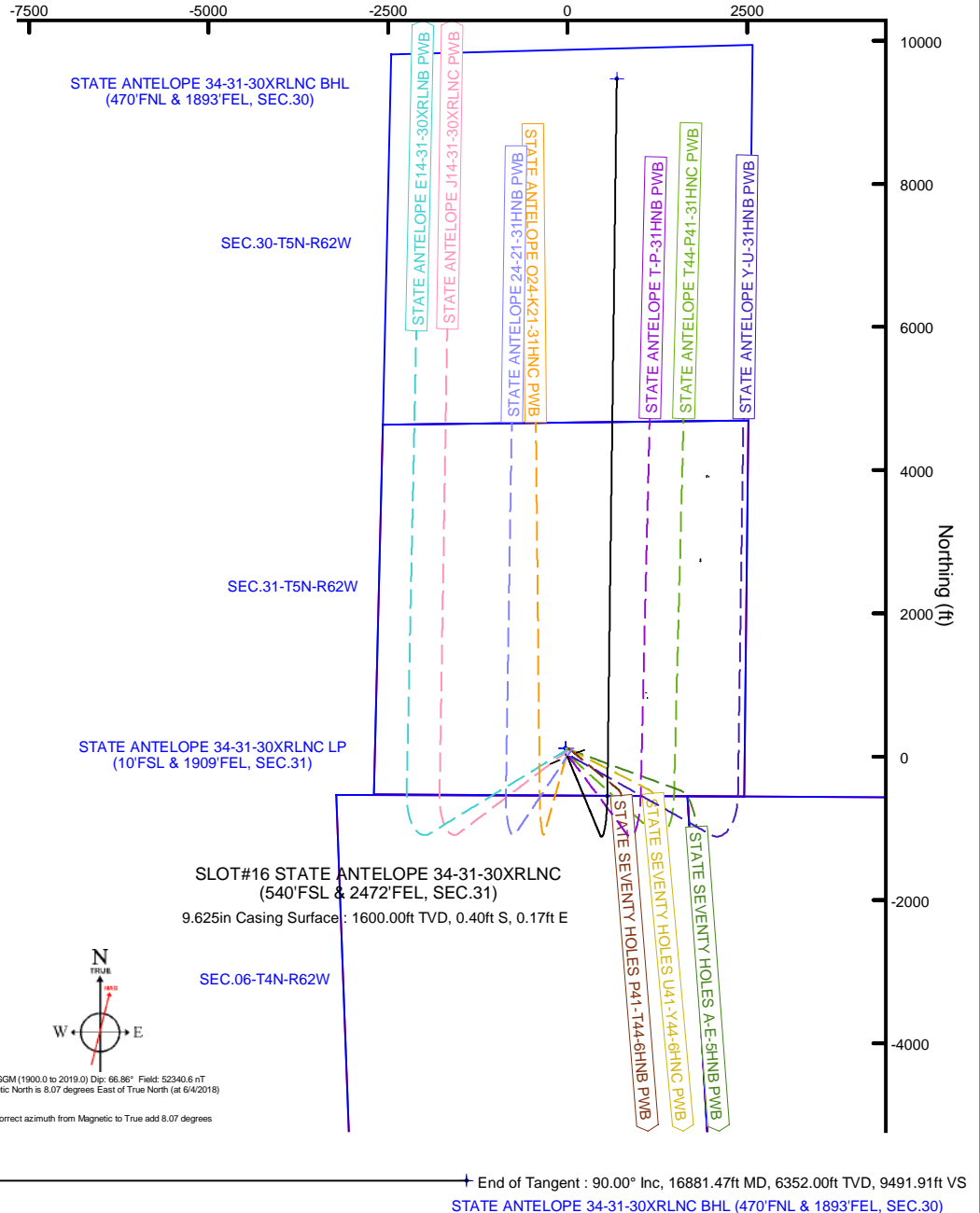
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	17.00	0.000	157.495	17.00	0.00	0.00	0.00	0.00
End of Tangent	1550.00	0.000	157.495	1550.00	0.00	0.00	0.00	0.00
End of Build	2456.10	18.122	157.495	2441.07	-131.28	54.39	2.00	-127.01
End of Tangent	5802.41	18.122	157.495	5621.39	-1092.86	452.78	0.00	-1057.26
End of 3D Arc	6868.45	90.000	0.755	6352.00	-545.09	554.43	10.00	-503.57
End of Tangent	16881.47	90.000	0.755	6352.00	9467.06	686.41	0.00	9491.91

Bottom Hole Location

MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
16881.47	90.00	0.755	6352.00	9467.06	686.41	3316626.70	1382039.50	40°22'35.5089"N	104°21'48.6158"W



Scale 1 inch = 2500



BGOM (1900.0 to 2019.0) Dip: 66.86° Field: 52340.6 nT
Magnetic North is 6.07 degrees East of True North (at 6/4/2018)

To correct azimuth from Magnetic to True add 6.07 degrees

Vertical Section (ft)

0 1500 3000 4500 6000 7500 9000 10500 12000 13500

Scale 1 inch = 1500

Azimuth 4.15° with reference 0.00 N, 0.00 E



Planned Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK ENERGY	Well	STATE ANTELOPE 34-31-30XRLNC
Field	WELD COUNTY (NAD83/TRUE)	API/Legal	
Facility	SEC.31-T05N-R62W	Wellbore	STATE ANTELOPE 34-31-30XRLNC PWB
Slot	SLOT#16 STATE ANTELOPE 34-31-30XRLNC (540'FSL & 2472'FEL, SEC.31)		

REPORT SETUP INFORMATION			
Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 6.0
North Reference	True	User	Robiale01
Scale	0.999958	Report Generated	12/20/2019 at 3:52:06 PM
Convergence at slot	0.73° East	Database	WA_DENVER

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-3907.51	-1936.59	3316061.45	1372564.85	40°21'1.9584"N	104°21'57.4848"W
Facility Reference Pt			3317947.52	1376496.78	40°21'40.5720"N	104°21'32.4720"W
Field Reference Pt			3224525.77	1254425.87	40°01'44.4000"N	104°41'53.5560"W

WELLPATH DATUM			
Calculation method	Minimum curvature	RIG (17") (RKB) to Facility Vertical Datum	4569.00ft
Horizontal Reference Pt	Slot	RIG (17") (RKB) to Mean Sea Level	4569.00ft
Vertical Reference Pt	RIG (17") (RKB)	RIG (17") (RKB) to Ground Level at Slot (SLOT#16 STATE ANTELOPE 34-31-30XRLNC (540'FSL & 2472'FEL, SEC.31))	4569.00ft
MD Reference Pt	RIG (17") (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	4.15°



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Field	WELD COUNTY (NAD83/TRUE)	API/Legal	
Facility	SEC.31-T05N-R62W	Wellbore	STATE ANTELOPE 34-31-30XRLNC PWB
Slot	SLOT#16 STATE ANTELOPE 34-31-30XRLNC (540'FSL & 2472'FEL, SEC.31)		

WELLPATH DATA (175 stations) † = interpolated, ‡ = extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00†	0.000	157.495	0.00	0.00	0.00	0.00	40°21'1.9584"N	104°21'57.4848"W	0.00	
17.00	0.000	157.495	17.00	0.00	0.00	0.00	40°21'1.9584"N	104°21'57.4848"W	0.00	Tie On
117.00†	0.000	157.495	117.00	0.00	0.00	0.00	40°21'1.9584"N	104°21'57.4848"W	0.00	
217.00†	0.000	157.495	217.00	0.00	0.00	0.00	40°21'1.9584"N	104°21'57.4848"W	0.00	
317.00†	0.000	157.495	317.00	0.00	0.00	0.00	40°21'1.9584"N	104°21'57.4848"W	0.00	
417.00†	0.000	157.495	417.00	0.00	0.00	0.00	40°21'1.9584"N	104°21'57.4848"W	0.00	
517.00†	0.000	157.495	517.00	0.00	0.00	0.00	40°21'1.9584"N	104°21'57.4848"W	0.00	
617.00†	0.000	157.495	617.00	0.00	0.00	0.00	40°21'1.9584"N	104°21'57.4848"W	0.00	
717.00†	0.000	157.495	717.00	0.00	0.00	0.00	40°21'1.9584"N	104°21'57.4848"W	0.00	
817.00†	0.000	157.495	817.00	0.00	0.00	0.00	40°21'1.9584"N	104°21'57.4848"W	0.00	
917.00†	0.000	157.495	917.00	0.00	0.00	0.00	40°21'1.9584"N	104°21'57.4848"W	0.00	
1017.00†	0.000	157.495	1017.00	0.00	0.00	0.00	40°21'1.9584"N	104°21'57.4848"W	0.00	
1117.00†	0.000	157.495	1117.00	0.00	0.00	0.00	40°21'1.9584"N	104°21'57.4848"W	0.00	
1217.00†	0.000	157.495	1217.00	0.00	0.00	0.00	40°21'1.9584"N	104°21'57.4848"W	0.00	
1317.00†	0.000	157.495	1317.00	0.00	0.00	0.00	40°21'1.9584"N	104°21'57.4848"W	0.00	
1417.00†	0.000	157.495	1417.00	0.00	0.00	0.00	40°21'1.9584"N	104°21'57.4848"W	0.00	
1517.00†	0.000	157.495	1517.00	0.00	0.00	0.00	40°21'1.9584"N	104°21'57.4848"W	0.00	
1550.00	0.000	157.495	1550.00	0.00	0.00	0.00	40°21'1.9584"N	104°21'57.4848"W	0.00	End of Tangent
1617.00†	1.340	157.495	1616.99	-0.70	-0.72	0.30	40°21'1.9512"N	104°21'57.4809"W	2.00	
1717.00†	3.340	157.495	1716.91	-4.35	-4.50	1.86	40°21'1.9140"N	104°21'57.4607"W	2.00	
1817.00†	5.340	157.495	1816.61	-11.11	-11.49	4.76	40°21'1.8449"N	104°21'57.4233"W	2.00	
1917.00†	7.340	157.495	1916.00	-20.98	-21.69	8.99	40°21'1.7441"N	104°21'57.3687"W	2.00	
2017.00†	9.340	157.495	2014.93	-33.94	-35.09	14.54	40°21'1.6117"N	104°21'57.2970"W	2.00	
2117.00†	11.340	157.495	2113.31	-49.99	-51.67	21.41	40°21'1.4478"N	104°21'57.2083"W	2.00	
2217.00†	13.340	157.495	2210.99	-69.08	-71.41	29.59	40°21'1.2527"N	104°21'57.1027"W	2.00	
2317.00†	15.340	157.495	2307.87	-91.22	-94.29	39.07	40°21'1.0266"N	104°21'56.9802"W	2.00	
2417.00†	17.340	157.495	2403.83	-116.36	-120.28	49.83	40°21'0.7698"N	104°21'56.8412"W	2.00	
2456.10	18.122	157.495	2441.07	-127.01	-131.28	54.39	40°21'0.6611"N	104°21'56.7823"W	2.00	End of Build
2517.00†	18.122	157.495	2498.95	-143.94	-148.78	61.64	40°21'0.4882"N	104°21'56.6886"W	0.00	
2617.00†	18.122	157.495	2593.99	-171.73	-177.52	73.55	40°21'0.2042"N	104°21'56.5349"W	0.00	



Planned Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK ENERGY	Well	STATE ANTELOPE 34-31-30XRLNC
Field	WELD COUNTY (NAD83/TRUE)	API/Legal	
Facility	SEC.31-T05N-R62W	Wellbore	STATE ANTELOPE 34-31-30XRLNC PWB
Slot	SLOT#16 STATE ANTELOPE 34-31-30XRLNC (540'FSL & 2472'FEL, SEC.31)		

WELLPATH DATA (175 stations) † = interpolated, ‡ = extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
2717.00†	18.122	157.495	2689.03	-199.53	-206.25	85.45	40°20'59.9203"N	104°21'56.3811"W	0.00	
2817.00†	18.122	157.495	2784.07	-227.33	-234.99	97.36	40°20'59.6363"N	104°21'56.2274"W	0.00	
2917.00†	18.122	157.495	2879.11	-255.13	-263.72	109.26	40°20'59.3523"N	104°21'56.0736"W	0.00	
3017.00†	18.122	157.495	2974.15	-282.93	-292.46	121.17	40°20'59.0684"N	104°21'55.9198"W	0.00	
3117.00†	18.122	157.495	3069.18	-310.73	-321.20	133.07	40°20'58.7844"N	104°21'55.7661"W	0.00	
3217.00†	18.122	157.495	3164.22	-338.53	-349.93	144.98	40°20'58.5005"N	104°21'55.6123"W	0.00	
3317.00†	18.122	157.495	3259.26	-366.33	-378.67	156.88	40°20'58.2165"N	104°21'55.4585"W	0.00	
3417.00†	18.122	157.495	3354.30	-394.13	-407.40	168.79	40°20'57.9326"N	104°21'55.3048"W	0.00	
3517.00†	18.122	157.495	3449.34	-421.93	-436.14	180.69	40°20'57.6486"N	104°21'55.1510"W	0.00	
3617.00†	18.122	157.495	3544.38	-449.73	-464.87	192.60	40°20'57.3646"N	104°21'54.9972"W	0.00	
3717.00†	18.122	157.495	3639.42	-477.53	-493.61	204.51	40°20'57.0807"N	104°21'54.8435"W	0.00	
3817.00†	18.122	157.495	3734.46	-505.33	-522.34	216.41	40°20'56.7967"N	104°21'54.6897"W	0.00	
3917.00†	18.122	157.495	3829.50	-533.13	-551.08	228.32	40°20'56.5128"N	104°21'54.5360"W	0.00	
4017.00†	18.122	157.495	3924.54	-560.93	-579.82	240.22	40°20'56.2288"N	104°21'54.3822"W	0.00	
4117.00†	18.122	157.495	4019.58	-588.73	-608.55	252.13	40°20'55.9449"N	104°21'54.2284"W	0.00	
4217.00†	18.122	157.495	4114.62	-616.52	-637.29	264.03	40°20'55.6609"N	104°21'54.0747"W	0.00	
4317.00†	18.122	157.495	4209.66	-644.32	-666.02	275.94	40°20'55.3769"N	104°21'53.9209"W	0.00	
4417.00†	18.122	157.495	4304.70	-672.12	-694.76	287.84	40°20'55.0930"N	104°21'53.7672"W	0.00	
4517.00†	18.122	157.495	4399.74	-699.92	-723.49	299.75	40°20'54.8090"N	104°21'53.6134"W	0.00	
4617.00†	18.122	157.495	4494.78	-727.72	-752.23	311.65	40°20'54.5251"N	104°21'53.4596"W	0.00	
4717.00†	18.122	157.495	4589.82	-755.52	-780.96	323.56	40°20'54.2411"N	104°21'53.3059"W	0.00	
4817.00†	18.122	157.495	4684.86	-783.32	-809.70	335.46	40°20'53.9572"N	104°21'53.1521"W	0.00	
4917.00†	18.122	157.495	4779.90	-811.12	-838.44	347.37	40°20'53.6732"N	104°21'52.9984"W	0.00	
5017.00†	18.122	157.495	4874.94	-838.92	-867.17	359.27	40°20'53.3892"N	104°21'52.8446"W	0.00	
5117.00†	18.122	157.495	4969.98	-866.72	-895.91	371.18	40°20'53.1053"N	104°21'52.6908"W	0.00	
5217.00†	18.122	157.495	5065.02	-894.52	-924.64	383.08	40°20'52.8213"N	104°21'52.5371"W	0.00	
5317.00†	18.122	157.495	5160.06	-922.32	-953.38	394.99	40°20'52.5374"N	104°21'52.3833"W	0.00	
5417.00†	18.122	157.495	5255.10	-950.12	-982.11	406.90	40°20'52.2534"N	104°21'52.2296"W	0.00	
5517.00†	18.122	157.495	5350.14	-977.92	-1010.85	418.80	40°20'51.9694"N	104°21'52.0758"W	0.00	
5617.00†	18.122	157.495	5445.18	-1005.72	-1039.58	430.71	40°20'51.6855"N	104°21'51.9221"W	0.00	



Planned Wellpath Report
STATE ANTELOPE 34-31-30XRLNC PWP (REV-C.0)
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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK ENERGY	Well	STATE ANTELOPE 34-31-30XRLNC
Field	WELD COUNTY (NAD83/TRUE)	API/Legal	
Facility	SEC.31-T05N-R62W	Wellbore	STATE ANTELOPE 34-31-30XRLNC PWB
Slot	SLOT#16 STATE ANTELOPE 34-31-30XRLNC (540'FSL & 2472'FEL, SEC.31)		

WELLPATH DATA (175 stations) † = interpolated, ‡ = extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
5717.00†	18.122	157.495	5540.22	-1033.51	-1068.32	442.61	40°20'51.4015"N	104°21'51.7683"W	0.00	
5802.41	18.122	157.495	5621.39	-1057.26	-1092.86	452.78	40°20'51.1590"N	104°21'51.6370"W	0.00	End of Tangent
5817.00†	16.803	155.416	5635.31	-1061.14	-1096.88	454.53	40°20'51.1193"N	104°21'51.6144"W	10.00	
5917.00†	8.976	125.844	5732.81	-1077.95	-1114.63	466.89	40°20'50.9439"N	104°21'51.4547"W	10.00	
6017.00†	8.813	57.226	5831.86	-1077.45	-1115.06	479.69	40°20'50.9397"N	104°21'51.2894"W	10.00	
6117.00†	16.543	26.548	5929.44	-1059.64	-1098.13	492.53	40°20'51.1069"N	104°21'51.1236"W	10.00	
6217.00†	25.856	16.222	6022.61	-1025.06	-1064.37	505.01	40°20'51.4405"N	104°21'50.9624"W	10.00	
6317.00†	35.528	11.183	6108.51	-974.78	-1014.81	516.77	40°20'51.9303"N	104°21'50.8105"W	10.00	
6417.00†	45.328	8.096	6184.55	-910.31	-950.94	527.44	40°20'52.5614"N	104°21'50.6727"W	10.00	
6517.00†	55.187	5.911	6248.41	-833.61	-874.71	536.70	40°20'53.3147"N	104°21'50.5531"W	10.00	
6617.00†	65.076	4.198	6298.15	-747.01	-788.44	544.27	40°20'54.1672"N	104°21'50.4553"W	10.00	
6717.00†	74.982	2.742	6332.26	-653.15	-694.74	549.91	40°20'55.0931"N	104°21'50.3824"W	10.00	
6817.00†	84.897	1.416	6349.71	-554.88	-596.47	553.46	40°20'56.0642"N	104°21'50.3365"W	10.00	
6868.45	90.000	0.755	6352.00†	-503.57	-545.09	554.43	40°20'56.5719"N	104°21'50.3239"W	10.00	End of 3D Arc
6917.00†	90.000	0.755	6352.00	-455.11	-496.55	555.07	40°20'57.0516"N	104°21'50.3157"W	0.00	
7017.00†	90.000	0.755	6352.00	-355.28	-396.56	556.39	40°20'58.0397"N	104°21'50.2986"W	0.00	
7117.00†	90.000	0.755	6352.00	-255.46	-296.56	557.71	40°20'59.0278"N	104°21'50.2816"W	0.00	
7217.00†	90.000	0.755	6352.00	-155.63	-196.57	559.03	40°21'0.0159"N	104°21'50.2645"W	0.00	
7317.00†	90.000	0.755	6352.00	-55.81	-96.58	560.35	40°21'1.0039"N	104°21'50.2475"W	0.00	
7417.00†	90.000	0.755	6352.00	44.02	3.41	561.66	40°21'1.9920"N	104°21'50.2304"W	0.00	
7517.00†	90.000	0.755	6352.00	143.84	103.40	562.98	40°21'2.9801"N	104°21'50.2133"W	0.00	
7617.00†	90.000	0.755	6352.00	243.67	203.39	564.30	40°21'3.9682"N	104°21'50.1963"W	0.00	
7717.00†	90.000	0.755	6352.00	343.49	303.38	565.62	40°21'4.9563"N	104°21'50.1792"W	0.00	
7817.00†	90.000	0.755	6352.00	443.32	403.37	566.94	40°21'5.9444"N	104°21'50.1622"W	0.00	
7917.00†	90.000	0.755	6352.00	543.14	503.37	568.25	40°21'6.9325"N	104°21'50.1451"W	0.00	
8017.00†	90.000	0.755	6352.00	642.97	603.36	569.57	40°21'7.9205"N	104°21'50.1281"W	0.00	
8117.00†	90.000	0.755	6352.00	742.79	703.35	570.89	40°21'8.9086"N	104°21'50.1110"W	0.00	
8217.00†	90.000	0.755	6352.00	842.62	803.34	572.21	40°21'9.8967"N	104°21'50.0940"W	0.00	
8317.00†	90.000	0.755	6352.00	942.44	903.33	573.53	40°21'10.8848"N	104°21'50.0769"W	0.00	
8417.00†	90.000	0.755	6352.00	1042.27	1003.32	574.84	40°21'11.8729"N	104°21'50.0599"W	0.00	



Planned Wellpath Report

STATE ANTELOPE 34-31-30XRLNC PWP (REV-C.0)

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK ENERGY	Well	STATE ANTELOPE 34-31-30XRLNC
Field	WELD COUNTY (NAD83/TRUE)	API/Legal	
Facility	SEC.31-T05N-R62W	Wellbore	STATE ANTELOPE 34-31-30XRLNC PWB
Slot	SLOT#16 STATE ANTELOPE 34-31-30XRLNC (540'FSL & 2472'FEL, SEC.31)		

WELLPATH DATA (175 stations) † = interpolated, ‡ = extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8517.00†	90.000	0.755	6352.00	1142.09	1103.31	576.16	40°21'12.8610"N	104°21'50.0428"W	0.00	
8617.00†	90.000	0.755	6352.00	1241.91	1203.31	577.48	40°21'13.8491"N	104°21'50.0258"W	0.00	
8717.00†	90.000	0.755	6352.00	1341.74	1303.30	578.80	40°21'14.8371"N	104°21'50.0087"W	0.00	
8817.00†	90.000	0.755	6352.00	1441.56	1403.29	580.12	40°21'15.8252"N	104°21'49.9917"W	0.00	
8917.00†	90.000	0.755	6352.00	1541.39	1503.28	581.43	40°21'16.8133"N	104°21'49.9746"W	0.00	
9017.00†	90.000	0.755	6352.00	1641.21	1603.27	582.75	40°21'17.8014"N	104°21'49.9575"W	0.00	
9117.00†	90.000	0.755	6352.00	1741.04	1703.26	584.07	40°21'18.7895"N	104°21'49.9405"W	0.00	
9217.00†	90.000	0.755	6352.00	1840.86	1803.25	585.39	40°21'19.7776"N	104°21'49.9234"W	0.00	
9317.00†	90.000	0.755	6352.00	1940.69	1903.24	586.71	40°21'20.7657"N	104°21'49.9064"W	0.00	
9417.00†	90.000	0.755	6352.00	2040.51	2003.24	588.02	40°21'21.7537"N	104°21'49.8893"W	0.00	
9517.00†	90.000	0.755	6352.00	2140.34	2103.23	589.34	40°21'22.7418"N	104°21'49.8723"W	0.00	
9617.00†	90.000	0.755	6352.00	2240.16	2203.22	590.66	40°21'23.7299"N	104°21'49.8552"W	0.00	
9717.00†	90.000	0.755	6352.00	2339.99	2303.21	591.98	40°21'24.7180"N	104°21'49.8382"W	0.00	
9817.00†	90.000	0.755	6352.00	2439.81	2403.20	593.30	40°21'25.7061"N	104°21'49.8211"W	0.00	
9917.00†	90.000	0.755	6352.00	2539.64	2503.19	594.61	40°21'26.6942"N	104°21'49.8040"W	0.00	
10017.00†	90.000	0.755	6352.00	2639.46	2603.18	595.93	40°21'27.6822"N	104°21'49.7870"W	0.00	
10117.00†	90.000	0.755	6352.00	2739.29	2703.17	597.25	40°21'28.6703"N	104°21'49.7699"W	0.00	
10217.00†	90.000	0.755	6352.00	2839.11	2803.17	598.57	40°21'29.6584"N	104°21'49.7529"W	0.00	
10317.00†	90.000	0.755	6352.00	2938.94	2903.16	599.89	40°21'30.6465"N	104°21'49.7358"W	0.00	
10417.00†	90.000	0.755	6352.00	3038.76	3003.15	601.20	40°21'31.6346"N	104°21'49.7188"W	0.00	
10517.00†	90.000	0.755	6352.00	3138.59	3103.14	602.52	40°21'32.6227"N	104°21'49.7017"W	0.00	
10617.00†	90.000	0.755	6352.00	3238.41	3203.13	603.84	40°21'33.6108"N	104°21'49.6846"W	0.00	
10717.00†	90.000	0.755	6352.00	3338.24	3303.12	605.16	40°21'34.5988"N	104°21'49.6676"W	0.00	
10817.00†	90.000	0.755	6352.00	3438.06	3403.11	606.48	40°21'35.5869"N	104°21'49.6505"W	0.00	
10917.00†	90.000	0.755	6352.00	3537.89	3503.11	607.79	40°21'36.5750"N	104°21'49.6335"W	0.00	
11017.00†	90.000	0.755	6352.00	3637.71	3603.10	609.11	40°21'37.5631"N	104°21'49.6164"W	0.00	
11117.00†	90.000	0.755	6352.00	3737.54	3703.09	610.43	40°21'38.5512"N	104°21'49.5994"W	0.00	
11217.00†	90.000	0.755	6352.00	3837.36	3803.08	611.75	40°21'39.5393"N	104°21'49.5823"W	0.00	
11317.00†	90.000	0.755	6352.00	3937.19	3903.07	613.07	40°21'40.5273"N	104°21'49.5652"W	0.00	
11417.00†	90.000	0.755	6352.00	4037.01	4003.06	614.38	40°21'41.5154"N	104°21'49.5482"W	0.00	



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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK ENERGY	Well	STATE ANTELOPE 34-31-30XRLNC
Field	WELD COUNTY (NAD83/TRUE)	API/Legal	
Facility	SEC.31-T05N-R62W	Wellbore	STATE ANTELOPE 34-31-30XRLNC PWB
Slot	SLOT#16 STATE ANTELOPE 34-31-30XRLNC (540'FSL & 2472'FEL, SEC.31)		

WELLPATH DATA (175 stations) † = interpolated, ‡ = extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11517.00†	90.000	0.755	6352.00	4136.84	4103.05	615.70	40°21'42.5035"N	104°21'49.5311"W	0.00	
11617.00†	90.000	0.755	6352.00	4236.66	4203.04	617.02	40°21'43.4916"N	104°21'49.5141"W	0.00	
11717.00†	90.000	0.755	6352.00	4336.48	4303.04	618.34	40°21'44.4797"N	104°21'49.4970"W	0.00	
11817.00†	90.000	0.755	6352.00	4436.31	4403.03	619.66	40°21'45.4678"N	104°21'49.4800"W	0.00	
11917.00†	90.000	0.755	6352.00	4536.13	4503.02	620.97	40°21'46.4558"N	104°21'49.4629"W	0.00	
12017.00†	90.000	0.755	6352.00	4635.96	4603.01	622.29	40°21'47.4439"N	104°21'49.4458"W	0.00	
12117.00†	90.000	0.755	6352.00	4735.78	4703.00	623.61	40°21'48.4320"N	104°21'49.4288"W	0.00	
12217.00†	90.000	0.755	6352.00	4835.61	4802.99	624.93	40°21'49.4201"N	104°21'49.4117"W	0.00	
12317.00†	90.000	0.755	6352.00	4935.43	4902.98	626.25	40°21'50.4082"N	104°21'49.3947"W	0.00	
12417.00†	90.000	0.755	6352.00	5035.26	5002.98	627.56	40°21'51.3963"N	104°21'49.3776"W	0.00	
12517.00†	90.000	0.755	6352.00	5135.08	5102.97	628.88	40°21'52.3843"N	104°21'49.3605"W	0.00	
12617.00†	90.000	0.755	6352.00	5234.91	5202.96	630.20	40°21'53.3724"N	104°21'49.3435"W	0.00	
12717.00†	90.000	0.755	6352.00	5334.73	5302.95	631.52	40°21'54.3605"N	104°21'49.3264"W	0.00	
12817.00†	90.000	0.755	6352.00	5434.56	5402.94	632.84	40°21'55.3486"N	104°21'49.3094"W	0.00	
12917.00†	90.000	0.755	6352.00	5534.38	5502.93	634.15	40°21'56.3367"N	104°21'49.2923"W	0.00	
13017.00†	90.000	0.755	6352.00	5634.21	5602.92	635.47	40°21'57.3248"N	104°21'49.2752"W	0.00	
13117.00†	90.000	0.755	6352.00	5734.03	5702.91	636.79	40°21'58.3128"N	104°21'49.2582"W	0.00	
13217.00†	90.000	0.755	6352.00	5833.86	5802.91	638.11	40°21'59.3009"N	104°21'49.2411"W	0.00	
13317.00†	90.000	0.755	6352.00	5933.68	5902.90	639.43	40°22'0.2890"N	104°21'49.2241"W	0.00	
13417.00†	90.000	0.755	6352.00	6033.51	6002.89	640.74	40°22'1.2771"N	104°21'49.2070"W	0.00	
13517.00†	90.000	0.755	6352.00	6133.33	6102.88	642.06	40°22'2.2652"N	104°21'49.1899"W	0.00	
13617.00†	90.000	0.755	6352.00	6233.16	6202.87	643.38	40°22'3.2533"N	104°21'49.1729"W	0.00	
13717.00†	90.000	0.755	6352.00	6332.98	6302.86	644.70	40°22'4.2413"N	104°21'49.1558"W	0.00	
13817.00†	90.000	0.755	6352.00	6432.81	6402.85	646.02	40°22'5.2294"N	104°21'49.1388"W	0.00	
13917.00†	90.000	0.755	6352.00	6532.63	6502.84	647.33	40°22'6.2175"N	104°21'49.1217"W	0.00	
14017.00†	90.000	0.755	6352.00	6632.46	6602.84	648.65	40°22'7.2056"N	104°21'49.1046"W	0.00	
14117.00†	90.000	0.755	6352.00	6732.28	6702.83	649.97	40°22'8.1937"N	104°21'49.0876"W	0.00	
14217.00†	90.000	0.755	6352.00	6832.11	6802.82	651.29	40°22'9.1817"N	104°21'49.0705"W	0.00	
14317.00†	90.000	0.755	6352.00	6931.93	6902.81	652.61	40°22'10.1698"N	104°21'49.0534"W	0.00	
14417.00†	90.000	0.755	6352.00	7031.76	7002.80	653.92	40°22'11.1579"N	104°21'49.0364"W	0.00	



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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK ENERGY	Well	STATE ANTELOPE 34-31-30XRLNC
Field	WELD COUNTY (NAD83/TRUE)	API/Legal	
Facility	SEC.31-T05N-R62W	Wellbore	STATE ANTELOPE 34-31-30XRLNC PWB
Slot	SLOT#16 STATE ANTELOPE 34-31-30XRLNC (540'FSL & 2472'FEL, SEC.31)		

WELLPATH DATA (175 stations) † = interpolated, ‡ = extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
14517.00†	90.000	0.755	6352.00	7131.58	7102.79	655.24	40°22'12.1460"N	104°21'49.0193"W	0.00	
14617.00†	90.000	0.755	6352.00	7231.40	7202.78	656.56	40°22'13.1341"N	104°21'49.0023"W	0.00	
14717.00†	90.000	0.755	6352.00	7331.23	7302.78	657.88	40°22'14.1222"N	104°21'48.9852"W	0.00	
14817.00†	90.000	0.755	6352.00	7431.05	7402.77	659.20	40°22'15.1102"N	104°21'48.9681"W	0.00	
14917.00†	90.000	0.755	6352.00	7530.88	7502.76	660.51	40°22'16.0983"N	104°21'48.9511"W	0.00	
15017.00†	90.000	0.755	6352.00	7630.70	7602.75	661.83	40°22'17.0864"N	104°21'48.9340"W	0.00	
15117.00†	90.000	0.755	6352.00	7730.53	7702.74	663.15	40°22'18.0745"N	104°21'48.9169"W	0.00	
15217.00†	90.000	0.755	6352.00	7830.35	7802.73	664.47	40°22'19.0626"N	104°21'48.8999"W	0.00	
15317.00†	90.000	0.755	6352.00	7930.18	7902.72	665.79	40°22'20.0506"N	104°21'48.8828"W	0.00	
15417.00†	90.000	0.755	6352.00	8030.00	8002.71	667.10	40°22'21.0387"N	104°21'48.8658"W	0.00	
15517.00†	90.000	0.755	6352.00	8129.83	8102.71	668.42	40°22'22.0268"N	104°21'48.8487"W	0.00	
15617.00†	90.000	0.755	6352.00	8229.65	8202.70	669.74	40°22'23.0149"N	104°21'48.8316"W	0.00	
15717.00†	90.000	0.755	6352.00	8329.48	8302.69	671.06	40°22'24.0030"N	104°21'48.8146"W	0.00	
15817.00†	90.000	0.755	6352.00	8429.30	8402.68	672.38	40°22'24.9911"N	104°21'48.7975"W	0.00	
15917.00†	90.000	0.755	6352.00	8529.13	8502.67	673.69	40°22'25.9791"N	104°21'48.7804"W	0.00	
16017.00†	90.000	0.755	6352.00	8628.95	8602.66	675.01	40°22'26.9672"N	104°21'48.7634"W	0.00	
16117.00†	90.000	0.755	6352.00	8728.78	8702.65	676.33	40°22'27.9553"N	104°21'48.7463"W	0.00	
16217.00†	90.000	0.755	6352.00	8828.60	8802.64	677.65	40°22'28.9434"N	104°21'48.7292"W	0.00	
16317.00†	90.000	0.755	6352.00	8928.43	8902.64	678.97	40°22'29.9315"N	104°21'48.7122"W	0.00	
16417.00†	90.000	0.755	6352.00	9028.25	9002.63	680.28	40°22'30.9195"N	104°21'48.6951"W	0.00	
16517.00†	90.000	0.755	6352.00	9128.08	9102.62	681.60	40°22'31.9076"N	104°21'48.6780"W	0.00	
16617.00†	90.000	0.755	6352.00	9227.90	9202.61	682.92	40°22'32.8957"N	104°21'48.6610"W	0.00	
16717.00†	90.000	0.755	6352.00	9327.73	9302.60	684.24	40°22'33.8838"N	104°21'48.6439"W	0.00	
16817.00†	90.000	0.755	6352.00	9427.55	9402.59	685.56	40°22'34.8719"N	104°21'48.6269"W	0.00	
16881.47	90.000	0.755	6352.00‡	9491.91	9467.06	686.41	40°22'35.5089"N	104°21'48.6158"W	0.00	End of Tangent



Planned Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK ENERGY	Well	STATE ANTELOPE 34-31-30XRLNC
Field	WELD COUNTY (NAD83/TRUE)	API/Legal	
Facility	SEC.31-T05N-R62W	Wellbore	STATE ANTELOPE 34-31-30XRLNC PWB
Slot	SLOT#16 STATE ANTELOPE 34-31-30XRLNC (540'FSL & 2472'FEL, SEC.31)		

HOLE & CASING SECTIONS - Ref Wellbore: STATE ANTELOPE 34-31-30XRLNC PWB Ref Wellpath: STATE ANTELOPE 34-31-30XRLNC PWP (REV-C.0)									
String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	17.00	1600.00	1583.00	17.00	1600.00	0.00	0.00	-0.40	0.17
8.5in Open Hole	1600.00	16881.47	15281.47	1600.00	6352.00	-0.40	0.17	9467.06	686.40

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.06-T4N-R62W	N/A	0.00	120.22	-29.27	3316030.65	1372684.68	40°21'3.1464"N	104°21'57.8628"W	polygon
	2D Polygon: dimensions not calculated								
SEC.30-T5N-R62W	N/A	0.00	120.22	-29.27	3316030.65	1372684.68	40°21'3.1464"N	104°21'57.8628"W	polygon
	2D Polygon: dimensions not calculated								
SEC.31-T5N-R62W	N/A	0.00	120.22	-29.27	3316030.65	1372684.68	40°21'3.1464"N	104°21'57.8628"W	polygon
	2D Polygon: dimensions not calculated								
SEC.05-T4N-R62W	N/A	16.00	120.22	-29.27	3316030.65	1372684.68	40°21'3.1464"N	104°21'57.8628"W	polygon
	2D Polygon: dimensions not calculated								
2) STATE ANTELOPE 34-31-30XRLNC BHL (470'FNL & 1893'FEL, SEC.30)	16881.47	6352.00	9467.06	686.41	3316626.70	1382039.50	40°22'35.5089"N	104°21'48.6158"W	point
1) STATE ANTELOPE 34-31-30XRLNC LP (10'FSL & 1909'FEL, SEC.31)	6868.45	6352.00	-545.09	554.43	3316622.78	1372026.92	40°20'56.5719"N	104°21'50.3239"W	point



Planned Wellpath Report

STATE ANTELOPE 34-31-30XRLNC PWP (REV-C.0)

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK ENERGY	Well	STATE ANTELOPE 34-31-30XRLNC
Field	WELD COUNTY (NAD83/TRUE)	API/Legal	
Facility	SEC.31-T05N-R62W	Wellbore	STATE ANTELOPE 34-31-30XRLNC PWB
Slot	SLOT#16 STATE ANTELOPE 34-31-30XRLNC (540'FSL & 2472'FEL, SEC.31)		

SURVEY PROGRAM - Ref Wellbore: STATE ANTELOPE 34-31-30XRLNC PWB Ref Wellpath: STATE ANTELOPE 34-31-30XRLNC PWP (REV-C.0)				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	1600.00	BHI NaviTrak (Rotating+Axial Corr)		STATE ANTELOPE 34-31-30XRLNC PWB
1600.00	16881.47	BH AutoTrak Curve (Short)		STATE ANTELOPE 34-31-30XRLNC PWB



Planned Wellpath Report

STATE ANTELOPE 34-31-30XRLNC PWP (REV-C.0)

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK ENERGY	Well	STATE ANTELOPE 34-31-30XRLNC
Field	WELD COUNTY (NAD83/TRUE)	API/Legal	
Facility	SEC.31-T05N-R62W	Wellbore	STATE ANTELOPE 34-31-30XRLNC PWB
Slot	SLOT#16 STATE ANTELOPE 34-31-30XRLNC (540'FSL & 2472'FEL, SEC.31)		

DESIGN COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
17.00	0.000	157.495	17.00	Tie On
1550.00	0.000	157.495	1550.00	End of Tangent
2456.10	18.122	157.495	2441.07	End of Build
5802.41	18.122	157.495	5621.39	End of Tangent
6868.45	90.000	0.755	6352.00	End of 3D Arc
16881.47	90.000	0.755	6352.00	End of Tangent