

# BONANZA CREEK OIL COMPANY

Location: COLORADO Slot: SLOT#27 ANTELOPE FEDERAL 34-20-17XRLNC (749'FSL & 2356'FEL, SEC.20)  
 Field: WELD COUNTY Well: ANTELOPE FEDERAL 34-20-17XRLNC  
 Facility: SEC.20-T05N-R62W Wellbore: ANTELOPE FEDERAL 34-20-17XRLNC PWB

Plot reference wellpath is ANTELOPE FEDERAL 34-20-17XRLNC PWP (REV-A.0)		Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
True vertical depths are referenced to RIG (17KB) (RKB)		* - Wellpath was transformed from a different geoidetic datum
Measured depths are referenced to RIG (17KB) (RKB)		North Reference: True north
RIG (17KB) (RKB) to Mean Sea Level: 4673 feet		Scale: True distance
Mean Sea Level to Ground level (At Slot: SLOT#27 ANTELOPE FEDERAL 34-20-17XRLNC (749'FSL & 2356'FEL, SEC.20)): 0 feet		Depths are in feet
Coordinates are in feet referenced to Slot		Created by: imjgjam on 2018-07-31
		Database: Denver

## Location Information

Facility Name		Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.20-T05N-R62W		3318982.546	1383318.349	40°22'47.856"N	104°21'17.964"W
Slot		Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)
SLOT#27 ANTELOPE FEDERAL 34-20-17XRLNC (749'FSL & 2356'FEL, SEC.20)		-12.24	2333.00	3321316.415	1383337.238
RIG (17KB) (RKB) to Ground level (At Slot: SLOT#27 ANTELOPE FEDERAL 34-20-17XRLNC (749'FSL & 2356'FEL, SEC.20))		4673ft			
Mean Sea Level to Ground level (At Slot: SLOT#27 ANTELOPE FEDERAL 34-20-17XRLNC (749'FSL & 2356'FEL, SEC.20))		0ft			
RIG (17KB) (RKB) to Mean Sea Level		4673ft			

## 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	161.904	17.00	0.00	0.00	0.00	0.00
End of Tangent	900.00	0.000	161.904	900.00	0.00	0.00	0.00	0.00
End of Build	1943.95	20.879	161.904	1921.00	-178.81	58.43	2.00	-176.25
End of Tangent	4788.76	20.879	161.904	4579.00	-1142.53	373.36	0.00	-1126.17
End of Drop (S)	5832.71	0.000	353.000	5600.00	-1321.34	431.79	2.00	-1302.41
End of Tangent (S)	6080.54	0.000	353.000	5847.84	-1321.34	431.79	0.00	-1302.41
Build (S)	6380.54	30.000	353.000	6134.31	-1245.16	422.44	10.00	-1226.67
End of 3D Arc	6984.36	90.000	1.717	6423.00	-746.53	412.12	10.00	-728.90
End of 3D Arc (J)	12249.25	90.000	359.160	6423.00	4517.77	452.42	0.05	4532.58
End of Tangent (J)	17004.03	90.000	359.160	6423.00	9272.04	382.71	0.00	9279.94

## Hole and Casing Sections

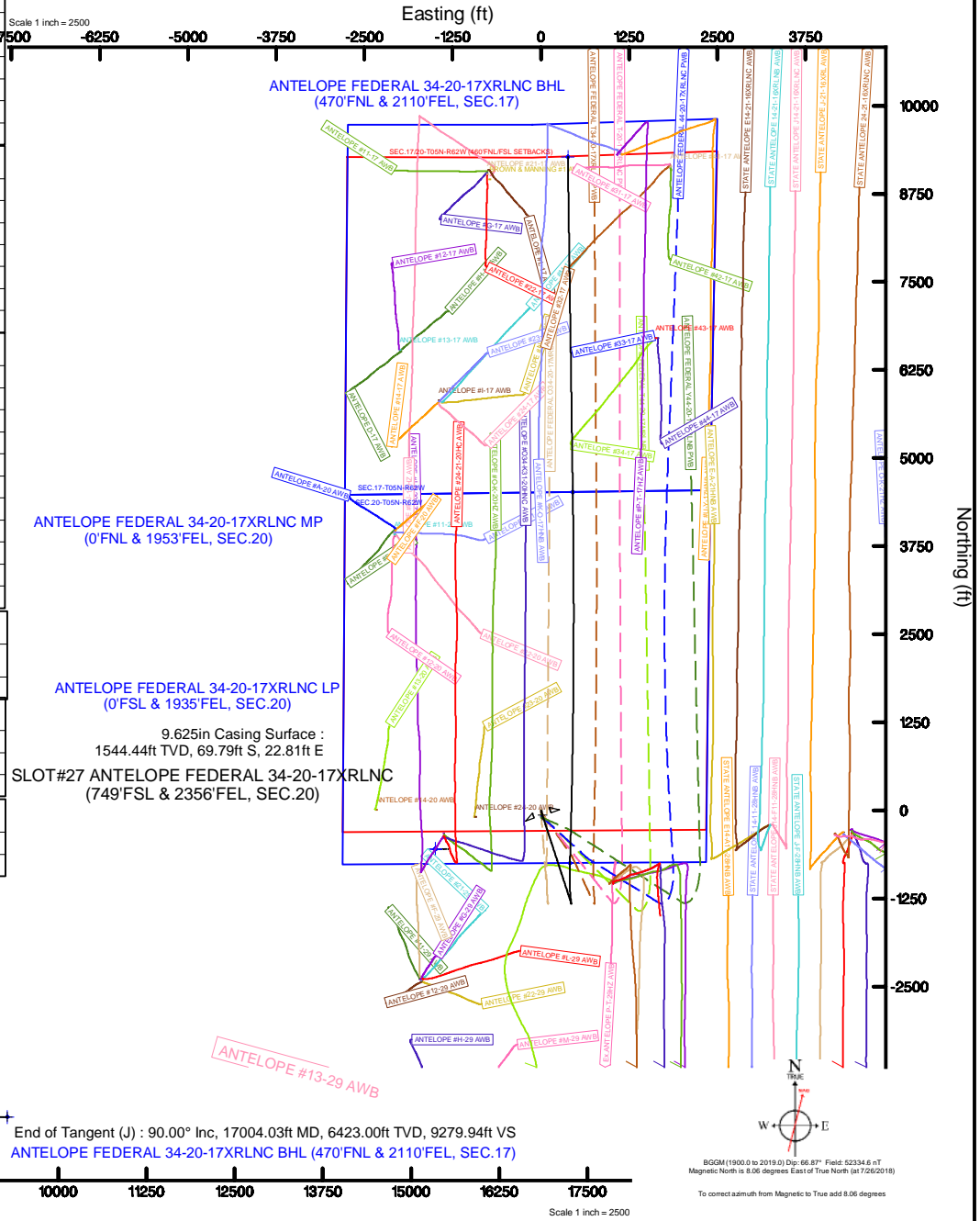
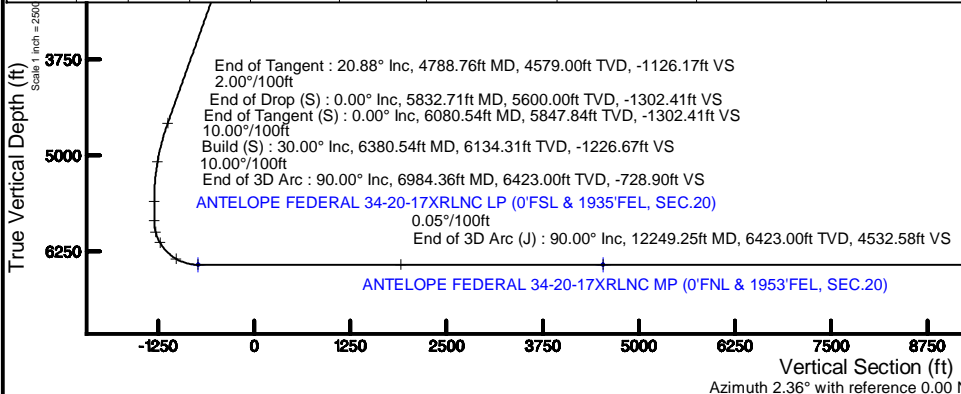
Name	Start MD (ft)	End MD (ft)	Interval (ft)	Start TVD (ft)	End TVD (ft)	Start Local N (ft)	Start Local E (ft)	End Local N (ft)	End Local E (ft)	Wellbore
9.625in Casing Surface	17.00	1550.00	1533.00	17.00	1544.44	0.00	0.00	-69.79	22.81	ANTELOPE FEDERAL 34-20-17XRLNC PWB

## Survey Program

Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
17.00	1550.00	BHI NavTrak	BHI NavTrak (Rotating+Axial Corr)		ANTELOPE FEDERAL 34-20-17XRLNC PWB
1550.00	17095.10	BHI AutoTrak Curve	BHI AutoTrak Curve (Axial Corr, Short spacing)		ANTELOPE FEDERAL 34-20-17XRLNC PWB

## 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
17004.03	90.000	359.160	6423.00	9272.04	382.71	3321577.48	1392613.08	40°24'19.357"N	104°20'42.871"W



BGM (1900.0 to 2019.0) Dip: 66.87° Field: 62334.6 nT  
 Magnetic North is 8.06 degrees East of True North (at 7/26/2018)  
 To correct azimuth from Magnetic to True add 8.06 degrees



# Planned Wellpath Report

## ANTELOPE FEDERAL 34-20-17XRLNC PWP (REV-A.0)

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#27 ANTELOPE FEDERAL 34-20-17XRLNC (749'FSL & 2356'FEL, SEC.20)
Area	COLORADO	Well	ANTELOPE FEDERAL 34-20-17XRLNC
Field	WELD COUNTY	Wellbore	ANTELOPE FEDERAL 34-20-17XRLNC PWB
Facility	SEC.20-T05N-R62W		

REPORT SETUP INFORMATION			
Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 5.0
North Reference	True	User	Ingmjmr
Scale	0.999959	Report Generated	7/31/2018 at 9:52:09 AM
Convergence at slot	0.75° East	Database/Source file	Denver/ANTELOPE_FEDERAL_34-20-17XRLNC_PWP__REV-A.0_.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-12.24	2333.00	3321315.42	1383337.24	40°22'47.734"N	104°20'47.818"W
Facility Reference Pt			3318982.55	1383319.35	40°22'47.856"N	104°21'17.964"W
Field Reference Pt			3224525.77	1254425.87	40°01'44.400"N	104°41'53.556"W

WELLPATH DATUM			
Calculation method	Minimum curvature	RIG (17'KB) (RKB) to Facility Vertical Datum	4673.00ft
Horizontal Reference Pt	Slot	RIG (17'KB) (RKB) to Mean Sea Level	4673.00ft
Vertical Reference Pt	RIG (17'KB) (RKB)	RIG (17'KB) (RKB) to Ground Level at Slot (SLOT#27 ANTELOPE FEDERAL 34-20-17XRLNC (749'FSL & 2356'FEL, SEC.20))	4673.00ft
MD Reference Pt	RIG (17'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	2.36°



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## ANTELOPE FEDERAL 34-20-17XRLNC PWP (REV-A.0)



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Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#27 ANTELOPE FEDERAL 34-20-17XRLNC (749'FSL & 2356'FEL, SEC.20)
Area	COLORADO	Well	ANTELOPE FEDERAL 34-20-17XRLNC
Field	WELD COUNTY	Wellbore	ANTELOPE FEDERAL 34-20-17XRLNC PWB
Facility	SEC.20-T05N-R62W		

WELLPATH DATA (180 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	161.904	0.00	0.00	0.00	0.00	40°22'47.734"N	104°20'47.818"W	0.00	
17.00	0.000	161.904	17.00	0.00	0.00	0.00	40°22'47.734"N	104°20'47.818"W	0.00	Tie On
117.00†	0.000	161.904	117.00	0.00	0.00	0.00	40°22'47.734"N	104°20'47.818"W	0.00	
217.00†	0.000	161.904	217.00	0.00	0.00	0.00	40°22'47.734"N	104°20'47.818"W	0.00	
317.00†	0.000	161.904	317.00	0.00	0.00	0.00	40°22'47.734"N	104°20'47.818"W	0.00	
417.00†	0.000	161.904	417.00	0.00	0.00	0.00	40°22'47.734"N	104°20'47.818"W	0.00	
517.00†	0.000	161.904	517.00	0.00	0.00	0.00	40°22'47.734"N	104°20'47.818"W	0.00	
617.00†	0.000	161.904	617.00	0.00	0.00	0.00	40°22'47.734"N	104°20'47.818"W	0.00	
717.00†	0.000	161.904	717.00	0.00	0.00	0.00	40°22'47.734"N	104°20'47.818"W	0.00	
817.00†	0.000	161.904	817.00	0.00	0.00	0.00	40°22'47.734"N	104°20'47.818"W	0.00	
900.00	0.000	161.904	900.00	0.00	0.00	0.00	40°22'47.734"N	104°20'47.818"W	0.00	End of Tangent
917.00†	0.340	161.904	917.00	-0.05	-0.05	0.02	40°22'47.734"N	104°20'47.818"W	2.00	
1017.00†	2.340	161.904	1016.97	-2.24	-2.27	0.74	40°22'47.712"N	104°20'47.808"W	2.00	
1117.00†	4.340	161.904	1116.79	-7.70	-7.81	2.55	40°22'47.657"N	104°20'47.785"W	2.00	
1217.00†	6.340	161.904	1216.35	-16.42	-16.65	5.44	40°22'47.569"N	104°20'47.748"W	2.00	
1317.00†	8.340	161.904	1315.53	-28.38	-28.80	9.41	40°22'47.449"N	104°20'47.696"W	2.00	
1417.00†	10.340	161.904	1414.20	-43.59	-44.22	14.45	40°22'47.297"N	104°20'47.631"W	2.00	
1517.00†	12.340	161.904	1512.24	-62.01	-62.91	20.56	40°22'47.112"N	104°20'47.552"W	2.00	
1617.00†	14.340	161.904	1609.54	-83.63	-84.84	27.73	40°22'46.896"N	104°20'47.460"W	2.00	
1717.00†	16.340	161.904	1705.97	-108.41	-109.99	35.94	40°22'46.647"N	104°20'47.354"W	2.00	
1817.00†	18.340	161.904	1801.42	-136.33	-138.32	45.20	40°22'46.367"N	104°20'47.234"W	2.00	
1917.00†	20.340	161.904	1895.77	-167.36	-169.79	55.49	40°22'46.056"N	104°20'47.101"W	2.00	
1943.95	20.879	161.904	1921.00	-176.25	-178.81	58.43	40°22'45.967"N	104°20'47.063"W	2.00	End of Build
2017.00†	20.879	161.904	1989.25	-200.64	-203.56	66.52	40°22'45.723"N	104°20'46.958"W	0.00	
2117.00†	20.879	161.904	2082.68	-234.03	-237.43	77.59	40°22'45.388"N	104°20'46.815"W	0.00	
2217.00†	20.879	161.904	2176.12	-267.42	-271.31	88.66	40°22'45.053"N	104°20'46.672"W	0.00	
2317.00†	20.879	161.904	2269.55	-300.81	-305.19	99.73	40°22'44.718"N	104°20'46.529"W	0.00	
2417.00†	20.879	161.904	2362.99	-334.21	-339.06	110.80	40°22'44.383"N	104°20'46.386"W	0.00	
2517.00†	20.879	161.904	2456.42	-367.60	-372.94	121.87	40°22'44.049"N	104°20'46.243"W	0.00	
2617.00†	20.879	161.904	2549.85	-400.99	-406.82	132.94	40°22'43.714"N	104°20'46.100"W	0.00	



# Planned Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#27 ANTELOPE FEDERAL 34-20-17XRLNC (749'FSL & 2356'FEL, SEC.20)
Area	COLORADO	Well	ANTELOPE FEDERAL 34-20-17XRLNC
Field	WELD COUNTY	Wellbore	ANTELOPE FEDERAL 34-20-17XRLNC PWB
Facility	SEC.20-T05N-R62W		

WELLPATH DATA (180 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
2717.00†	20.879	161.904	2643.29	-434.38	-440.69	144.01	40°22'43.379"N	104°20'45.957"W	0.00	
2817.00†	20.879	161.904	2736.72	-467.77	-474.57	155.08	40°22'43.044"N	104°20'45.814"W	0.00	
2917.00†	20.879	161.904	2830.15	-501.16	-508.45	166.15	40°22'42.710"N	104°20'45.671"W	0.00	
3017.00†	20.879	161.904	2923.59	-534.55	-542.32	177.22	40°22'42.375"N	104°20'45.528"W	0.00	
3117.00†	20.879	161.904	3017.02	-567.94	-576.20	188.29	40°22'42.040"N	104°20'45.385"W	0.00	
3217.00†	20.879	161.904	3110.45	-601.34	-610.08	199.36	40°22'41.705"N	104°20'45.242"W	0.00	
3317.00†	20.879	161.904	3203.89	-634.73	-643.95	210.43	40°22'41.371"N	104°20'45.099"W	0.00	
3417.00†	20.879	161.904	3297.32	-668.12	-677.83	221.50	40°22'41.036"N	104°20'44.956"W	0.00	
3517.00†	20.879	161.904	3390.75	-701.51	-711.71	232.57	40°22'40.701"N	104°20'44.813"W	0.00	
3617.00†	20.879	161.904	3484.19	-734.90	-745.58	243.64	40°22'40.366"N	104°20'44.670"W	0.00	
3717.00†	20.879	161.904	3577.62	-768.29	-779.46	254.71	40°22'40.032"N	104°20'44.527"W	0.00	
3817.00†	20.879	161.904	3671.05	-801.68	-813.34	265.78	40°22'39.697"N	104°20'44.384"W	0.00	
3917.00†	20.879	161.904	3764.49	-835.07	-847.21	276.85	40°22'39.362"N	104°20'44.241"W	0.00	
4017.00†	20.879	161.904	3857.92	-868.47	-881.09	287.92	40°22'39.027"N	104°20'44.098"W	0.00	
4117.00†	20.879	161.904	3951.36	-901.86	-914.97	298.99	40°22'38.693"N	104°20'43.955"W	0.00	
4217.00†	20.879	161.904	4044.79	-935.25	-948.84	310.07	40°22'38.358"N	104°20'43.812"W	0.00	
4317.00†	20.879	161.904	4138.22	-968.64	-982.72	321.14	40°22'38.023"N	104°20'43.669"W	0.00	
4417.00†	20.879	161.904	4231.66	-1002.03	-1016.60	332.21	40°22'37.688"N	104°20'43.526"W	0.00	
4517.00†	20.879	161.904	4325.09	-1035.42	-1050.47	343.28	40°22'37.354"N	104°20'43.383"W	0.00	
4617.00†	20.879	161.904	4418.52	-1068.81	-1084.35	354.35	40°22'37.019"N	104°20'43.240"W	0.00	
4717.00†	20.879	161.904	4511.96	-1102.20	-1118.23	365.42	40°22'36.684"N	104°20'43.096"W	0.00	
4788.76	20.879	161.904	4579.00	-1126.17	-1142.53	373.36	40°22'36.444"N	104°20'42.994"W	0.00	End of Tangent
4817.00†	20.314	161.904	4605.44	-1135.47	-1151.98	376.45	40°22'36.350"N	104°20'42.954"W	2.00	
4917.00†	18.314	161.904	4699.81	-1166.46	-1183.42	386.72	40°22'36.040"N	104°20'42.821"W	2.00	
5017.00†	16.314	161.904	4795.27	-1194.34	-1211.70	395.96	40°22'35.760"N	104°20'42.702"W	2.00	
5117.00†	14.314	161.904	4891.71	-1219.09	-1236.81	404.17	40°22'35.512"N	104°20'42.596"W	2.00	
5217.00†	12.314	161.904	4989.02	-1240.66	-1258.69	411.32	40°22'35.296"N	104°20'42.503"W	2.00	
5317.00†	10.314	161.904	5087.07	-1259.04	-1277.34	417.41	40°22'35.112"N	104°20'42.425"W	2.00	
5417.00†	8.314	161.904	5185.75	-1274.20	-1292.73	422.44	40°22'34.960"N	104°20'42.360"W	2.00	
5517.00†	6.314	161.904	5284.93	-1286.13	-1304.83	426.39	40°22'34.840"N	104°20'42.309"W	2.00	



# Planned Wellpath Report

## ANTELOPE FEDERAL 34-20-17XRLNC PWP (REV-A.0)



REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#27 ANTELOPE FEDERAL 34-20-17XRLNC (749'FSL & 2356'FEL, SEC.20)
Area	COLORADO	Well	ANTELOPE FEDERAL 34-20-17XRLNC
Field	WELD COUNTY	Wellbore	ANTELOPE FEDERAL 34-20-17XRLNC PWB
Facility	SEC.20-T05N-R62W		

WELLPATH DATA (180 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
5617.00†	4.314	161.904	5384.50	-1294.81	-1313.63	429.27	40°22'34.753"N	104°20'42.271"W	2.00	
5717.00†	2.314	161.904	5484.32	-1300.22	-1319.12	431.07	40°22'34.699"N	104°20'42.248"W	2.00	
5817.00†	0.314	161.904	5584.29	-1302.37	-1321.30	431.78	40°22'34.677"N	104°20'42.239"W	2.00	
5832.71	0.000	353.000	5600.00	-1302.41	-1321.34	431.79	40°22'34.677"N	104°20'42.239"W	2.00	End of Drop (S)
5917.00†	0.000	353.000	5684.29	-1302.41	-1321.34	431.79	40°22'34.677"N	104°20'42.239"W	0.00	
6017.00†	0.000	353.000	5784.29	-1302.41	-1321.34	431.79	40°22'34.677"N	104°20'42.239"W	0.00	
6080.54	0.000	353.000	5847.84	-1302.41	-1321.34	431.79	40°22'34.677"N	104°20'42.239"W	0.00	End of Tangent (S)
6117.00†	3.646	353.000	5884.27	-1301.27	-1320.19	431.65	40°22'34.688"N	104°20'42.241"W	10.00	
6217.00†	13.646	353.000	5983.01	-1286.46	-1305.29	429.82	40°22'34.835"N	104°20'42.264"W	10.00	
6317.00†	23.646	353.000	6077.64	-1254.95	-1273.60	425.93	40°22'35.149"N	104°20'42.315"W	10.00	
6380.54	30.000	353.000	6134.31	-1226.67	-1245.16	422.44	40°22'35.430"N	104°20'42.360"W	10.00	Build (S)
6417.00†	33.595	354.148	6165.30	-1207.69	-1226.07	420.30	40°22'35.618"N	104°20'42.387"W	10.00	
6517.00†	43.496	356.426	6243.41	-1145.92	-1164.04	415.32	40°22'36.231"N	104°20'42.452"W	10.00	
6617.00†	53.427	357.995	6309.65	-1071.47	-1089.37	411.76	40°22'36.969"N	104°20'42.498"W	10.00	
6717.00†	63.374	359.203	6361.98	-986.58	-1004.33	409.73	40°22'37.809"N	104°20'42.524"W	10.00	
6817.00†	73.330	0.216	6398.82	-893.85	-911.51	409.29	40°22'38.727"N	104°20'42.530"W	10.00	
6917.00†	83.290	1.127	6419.06	-796.09	-813.71	410.45	40°22'39.693"N	104°20'42.515"W	10.00	
6984.36	90.000	1.717	6423.00†	-728.90	-746.53	412.12	40°22'40.357"N	104°20'42.493"W	10.00	End of 3D Arc
7017.00†	90.000	1.701	6423.00	-696.26	-713.90	413.09	40°22'40.679"N	104°20'42.480"W	0.05	
7117.00†	90.000	1.653	6423.00	-596.27	-613.94	416.02	40°22'41.667"N	104°20'42.443"W	0.05	
7217.00†	90.000	1.604	6423.00	-496.27	-513.98	418.86	40°22'42.655"N	104°20'42.406"W	0.05	
7317.00†	90.000	1.556	6423.00	-396.28	-414.02	421.62	40°22'43.643"N	104°20'42.370"W	0.05	
7417.00†	90.000	1.507	6423.00	-296.29	-314.06	424.29	40°22'44.631"N	104°20'42.336"W	0.05	
7517.00†	90.000	1.459	6423.00	-196.31	-214.09	426.88	40°22'45.618"N	104°20'42.302"W	0.05	
7617.00†	90.000	1.410	6423.00	-96.32	-114.12	429.38	40°22'46.606"N	104°20'42.270"W	0.05	
7717.00†	90.000	1.361	6423.00	3.67	-14.15	431.80	40°22'47.594"N	104°20'42.239"W	0.05	
7817.00†	90.000	1.313	6423.00	103.65	85.82	434.13	40°22'48.582"N	104°20'42.208"W	0.05	
7917.00†	90.000	1.264	6423.00	203.63	185.79	436.38	40°22'49.570"N	104°20'42.179"W	0.05	
8017.00†	90.000	1.216	6423.00	303.61	285.77	438.54	40°22'50.558"N	104°20'42.151"W	0.05	
8117.00†	90.000	1.167	6423.00	403.59	385.75	440.62	40°22'51.546"N	104°20'42.124"W	0.05	



# Planned Wellpath Report

## ANTELOPE FEDERAL 34-20-17XRLNC PWP (REV-A.0)



REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#27 ANTELOPE FEDERAL 34-20-17XRLNC (749'FSL & 2356'FEL, SEC.20)
Area	COLORADO	Well	ANTELOPE FEDERAL 34-20-17XRLNC
Field	WELD COUNTY	Wellbore	ANTELOPE FEDERAL 34-20-17XRLNC PWB
Facility	SEC.20-T05N-R62W		

WELLPATH DATA (180 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS ["/100ft]	Comments
8217.00†	90.000	1.119	6423.00	503.57	485.73	442.62	40°22'52.534"N	104°20'42.099"W	0.05	
8317.00†	90.000	1.070	6423.00	603.55	585.71	444.53	40°22'53.522"N	104°20'42.074"W	0.05	
8417.00†	90.000	1.021	6423.00	703.52	685.70	446.35	40°22'54.510"N	104°20'42.050"W	0.05	
8517.00†	90.000	0.973	6423.00	803.49	785.68	448.09	40°22'55.498"N	104°20'42.028"W	0.05	
8617.00†	90.000	0.924	6423.00	903.46	885.67	449.75	40°22'56.486"N	104°20'42.006"W	0.05	
8717.00†	90.000	0.876	6423.00	1003.43	985.65	451.32	40°22'57.474"N	104°20'41.986"W	0.05	
8817.00†	90.000	0.827	6423.00	1103.39	1085.64	452.80	40°22'58.462"N	104°20'41.967"W	0.05	
8917.00†	90.000	0.779	6423.00	1203.36	1185.63	454.21	40°22'59.450"N	104°20'41.949"W	0.05	
9017.00†	90.000	0.730	6423.00	1303.32	1285.62	455.52	40°23'00.438"N	104°20'41.932"W	0.05	
9117.00†	90.000	0.681	6423.00	1403.27	1385.62	456.75	40°23'01.426"N	104°20'41.916"W	0.05	
9217.00†	90.000	0.633	6423.00	1503.23	1485.61	457.90	40°23'02.414"N	104°20'41.901"W	0.05	
9317.00†	90.000	0.584	6423.00	1603.18	1585.60	458.96	40°23'03.402"N	104°20'41.887"W	0.05	
9417.00†	90.000	0.536	6423.00	1703.13	1685.60	459.94	40°23'04.390"N	104°20'41.874"W	0.05	
9517.00†	90.000	0.487	6423.00	1803.08	1785.60	460.83	40°23'05.379"N	104°20'41.863"W	0.05	
9617.00†	90.000	0.439	6423.00	1903.03	1885.59	461.64	40°23'06.367"N	104°20'41.852"W	0.05	
9717.00†	90.000	0.390	6423.00	2002.97	1985.59	462.36	40°23'07.355"N	104°20'41.843"W	0.05	
9817.00†	90.000	0.341	6423.00	2102.91	2085.59	463.00	40°23'08.343"N	104°20'41.835"W	0.05	
9917.00†	90.000	0.293	6423.00	2202.84	2185.59	463.56	40°23'09.331"N	104°20'41.828"W	0.05	
10017.00†	90.000	0.244	6423.00	2302.78	2285.59	464.02	40°23'10.319"N	104°20'41.822"W	0.05	
10117.00†	90.000	0.196	6423.00	2402.71	2385.58	464.41	40°23'11.308"N	104°20'41.817"W	0.05	
10217.00†	90.000	0.147	6423.00	2502.63	2485.58	464.71	40°23'12.296"N	104°20'41.813"W	0.05	
10317.00†	90.000	0.099	6423.00	2602.56	2585.58	464.92	40°23'13.284"N	104°20'41.810"W	0.05	
10417.00†	90.000	0.050	6423.00	2702.48	2685.58	465.05	40°23'14.272"N	104°20'41.808"W	0.05	
10517.00†	90.000	0.001	6423.00	2802.39	2785.58	465.10	40°23'15.260"N	104°20'41.808"W	0.05	
10617.00†	90.000	359.953	6423.00	2902.31	2885.58	465.06	40°23'16.248"N	104°20'41.808"W	0.05	
10717.00†	90.000	359.904	6423.00	3002.22	2985.58	464.93	40°23'17.236"N	104°20'41.810"W	0.05	
10817.00†	90.000	359.856	6423.00	3102.12	3085.58	464.72	40°23'18.225"N	104°20'41.812"W	0.05	
10917.00†	90.000	359.807	6423.00	3202.03	3185.58	464.43	40°23'19.213"N	104°20'41.816"W	0.05	
11017.00†	90.000	359.758	6423.00	3301.92	3285.58	464.05	40°23'20.201"N	104°20'41.821"W	0.05	
11117.00†	90.000	359.710	6423.00	3401.82	3385.58	463.58	40°23'21.189"N	104°20'41.827"W	0.05	



# Planned Wellpath Report

## ANTELOPE FEDERAL 34-20-17XRLNC PWP (REV-A.0)

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#27 ANTELOPE FEDERAL 34-20-17XRLNC (749'FSL & 2356'FEL, SEC.20)
Area	COLORADO	Well	ANTELOPE FEDERAL 34-20-17XRLNC
Field	WELD COUNTY	Wellbore	ANTELOPE FEDERAL 34-20-17XRLNC PWB
Facility	SEC.20-T05N-R62W		

WELLPATH DATA (180 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11217.00†	90.000	359.661	6423.00	3501.71	3485.58	463.04	40°23'22.177"N	104°20'41.834"W	0.05	
11317.00†	90.000	359.613	6423.00	3601.60	3585.58	462.40	40°23'23.165"N	104°20'41.842"W	0.05	
11417.00†	90.000	359.564	6423.00	3701.48	3685.57	461.68	40°23'24.154"N	104°20'41.851"W	0.05	
11517.00†	90.000	359.516	6423.00	3801.36	3785.57	460.88	40°23'25.142"N	104°20'41.862"W	0.05	
11617.00†	90.000	359.467	6423.00	3901.23	3885.57	459.99	40°23'26.130"N	104°20'41.873"W	0.05	
11717.00†	90.000	359.418	6423.00	4001.10	3985.56	459.02	40°23'27.118"N	104°20'41.886"W	0.05	
11817.00†	90.000	359.370	6423.00	4100.97	4085.56	457.96	40°23'28.106"N	104°20'41.899"W	0.05	
11917.00†	90.000	359.321	6423.00	4200.83	4185.55	456.82	40°23'29.094"N	104°20'41.914"W	0.05	
12017.00†	90.000	359.273	6423.00	4300.69	4285.54	455.59	40°23'30.082"N	104°20'41.930"W	0.05	
12117.00†	90.000	359.224	6423.00	4400.54	4385.53	454.28	40°23'31.070"N	104°20'41.947"W	0.05	
12217.00†	90.000	359.176	6423.00	4500.39	4485.53	452.89	40°23'32.058"N	104°20'41.965"W	0.05	
12249.25	90.000	359.160	6423.00 <sup>2</sup>	4532.58	4517.77	452.42	40°23'32.377"N	104°20'41.971"W	0.05	End of 3D Arc (J)
12317.00†	90.000	359.160	6423.00	4600.23	4585.51	451.42	40°23'33.046"N	104°20'41.984"W	0.00	
12417.00†	90.000	359.160	6423.00	4700.07	4685.50	449.96	40°23'34.035"N	104°20'42.003"W	0.00	
12517.00†	90.000	359.160	6423.00	4799.92	4785.49	448.49	40°23'35.023"N	104°20'42.022"W	0.00	
12617.00†	90.000	359.160	6423.00	4899.76	4885.48	447.03	40°23'36.011"N	104°20'42.041"W	0.00	
12717.00†	90.000	359.160	6423.00	4999.60	4985.47	445.56	40°23'36.999"N	104°20'42.060"W	0.00	
12817.00†	90.000	359.160	6423.00	5099.45	5085.46	444.09	40°23'37.987"N	104°20'42.078"W	0.00	
12917.00†	90.000	359.160	6423.00	5199.29	5185.45	442.63	40°23'38.975"N	104°20'42.097"W	0.00	
13017.00†	90.000	359.160	6423.00	5299.14	5285.44	441.16	40°23'39.963"N	104°20'42.116"W	0.00	
13117.00†	90.000	359.160	6423.00	5398.98	5385.43	439.70	40°23'40.951"N	104°20'42.135"W	0.00	
13217.00†	90.000	359.160	6423.00	5498.82	5485.42	438.23	40°23'41.939"N	104°20'42.154"W	0.00	
13317.00†	90.000	359.160	6423.00	5598.67	5585.41	436.76	40°23'42.927"N	104°20'42.173"W	0.00	
13417.00†	90.000	359.160	6423.00	5698.51	5685.40	435.30	40°23'43.915"N	104°20'42.192"W	0.00	
13517.00†	90.000	359.160	6423.00	5798.35	5785.39	433.83	40°23'44.903"N	104°20'42.211"W	0.00	
13617.00†	90.000	359.160	6423.00	5898.20	5885.37	432.36	40°23'45.891"N	104°20'42.230"W	0.00	
13717.00†	90.000	359.160	6423.00	5998.04	5985.36	430.90	40°23'46.879"N	104°20'42.249"W	0.00	
13817.00†	90.000	359.160	6423.00	6097.89	6085.35	429.43	40°23'47.867"N	104°20'42.268"W	0.00	
13917.00†	90.000	359.160	6423.00	6197.73	6185.34	427.97	40°23'48.855"N	104°20'42.287"W	0.00	
14017.00†	90.000	359.160	6423.00	6297.57	6285.33	426.50	40°23'49.843"N	104°20'42.306"W	0.00	



# Planned Wellpath Report

## ANTELOPE FEDERAL 34-20-17XRLNC PWP (REV-A.0)

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#27 ANTELOPE FEDERAL 34-20-17XRLNC (749'FSL & 2356'FEL, SEC.20)
Area	COLORADO	Well	ANTELOPE FEDERAL 34-20-17XRLNC
Field	WELD COUNTY	Wellbore	ANTELOPE FEDERAL 34-20-17XRLNC PWB
Facility	SEC.20-T05N-R62W		

WELLPATH DATA (180 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS ["/100ft]	Comments
14117.00†	90.000	359.160	6423.00	6397.42	6385.32	425.03	40°23'50.831"N	104°20'42.324"W	0.00	
14217.00†	90.000	359.160	6423.00	6497.26	6485.31	423.57	40°23'51.820"N	104°20'42.343"W	0.00	
14317.00†	90.000	359.160	6423.00	6597.10	6585.30	422.10	40°23'52.808"N	104°20'42.362"W	0.00	
14417.00†	90.000	359.160	6423.00	6696.95	6685.29	420.64	40°23'53.796"N	104°20'42.381"W	0.00	
14517.00†	90.000	359.160	6423.00	6796.79	6785.28	419.17	40°23'54.784"N	104°20'42.400"W	0.00	
14617.00†	90.000	359.160	6423.00	6896.64	6885.27	417.70	40°23'55.772"N	104°20'42.419"W	0.00	
14717.00†	90.000	359.160	6423.00	6996.48	6985.26	416.24	40°23'56.760"N	104°20'42.438"W	0.00	
14817.00†	90.000	359.160	6423.00	7096.32	7085.25	414.77	40°23'57.748"N	104°20'42.457"W	0.00	
14917.00†	90.000	359.160	6423.00	7196.17	7185.23	413.30	40°23'58.736"N	104°20'42.476"W	0.00	
15017.00†	90.000	359.160	6423.00	7296.01	7285.22	411.84	40°23'59.724"N	104°20'42.495"W	0.00	
15117.00†	90.000	359.160	6423.00	7395.85	7385.21	410.37	40°24'00.712"N	104°20'42.514"W	0.00	
15217.00†	90.000	359.160	6423.00	7495.70	7485.20	408.91	40°24'01.700"N	104°20'42.533"W	0.00	
15317.00†	90.000	359.160	6423.00	7595.54	7585.19	407.44	40°24'02.688"N	104°20'42.552"W	0.00	
15417.00†	90.000	359.160	6423.00	7695.39	7685.18	405.97	40°24'03.676"N	104°20'42.571"W	0.00	
15517.00†	90.000	359.160	6423.00	7795.23	7785.17	404.51	40°24'04.664"N	104°20'42.589"W	0.00	
15617.00†	90.000	359.160	6423.00	7895.07	7885.16	403.04	40°24'05.652"N	104°20'42.608"W	0.00	
15717.00†	90.000	359.160	6423.00	7994.92	7985.15	401.58	40°24'06.640"N	104°20'42.627"W	0.00	
15817.00†	90.000	359.160	6423.00	8094.76	8085.14	400.11	40°24'07.628"N	104°20'42.646"W	0.00	
15917.00†	90.000	359.160	6423.00	8194.60	8185.13	398.64	40°24'08.617"N	104°20'42.665"W	0.00	
16017.00†	90.000	359.160	6423.00	8294.45	8285.12	397.18	40°24'09.605"N	104°20'42.684"W	0.00	
16117.00†	90.000	359.160	6423.00	8394.29	8385.11	395.71	40°24'10.593"N	104°20'42.703"W	0.00	
16217.00†	90.000	359.160	6423.00	8494.14	8485.10	394.24	40°24'11.581"N	104°20'42.722"W	0.00	
16317.00†	90.000	359.160	6423.00	8593.98	8585.08	392.78	40°24'12.569"N	104°20'42.741"W	0.00	
16417.00†	90.000	359.160	6423.00	8693.82	8685.07	391.31	40°24'13.557"N	104°20'42.760"W	0.00	
16517.00†	90.000	359.160	6423.00	8793.67	8785.06	389.85	40°24'14.545"N	104°20'42.779"W	0.00	
16617.00†	90.000	359.160	6423.00	8893.51	8885.05	388.38	40°24'15.533"N	104°20'42.798"W	0.00	
16717.00†	90.000	359.160	6423.00	8993.35	8985.04	386.91	40°24'16.521"N	104°20'42.817"W	0.00	
16817.00†	90.000	359.160	6423.00	9093.20	9085.03	385.45	40°24'17.509"N	104°20'42.836"W	0.00	
16917.00†	90.000	359.160	6423.00	9193.04	9185.02	383.98	40°24'18.497"N	104°20'42.855"W	0.00	
17004.03	90.000	359.160	6423.00 <sup>3</sup>	9279.94	9272.04	382.71	40°24'19.357"N	104°20'42.871"W	0.00	End of Tangent (J)

<b>HOLE &amp; CASING SECTIONS</b>									
<b>- Ref Wellbore: ANTELOPE FEDERAL 34-20-17XRLNC PWB</b>					<b>Ref Wellpath: ANTELOPE FEDERAL 34-20-17XRLNC PWP (REV-A.0)</b>				
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	1550.00	1533.00	17.00	1544.44	0.00	0.00	-69.79	22.81

<b>TARGETS</b>									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.17-T05N-R62W		-8.00	-547.94	-1493.90	3319828.83	1382769.94	40°22'42.319"N	104°21'07.121"W	polygon
SEC.20-T05N-R62W		-8.00	-547.94	-1493.90	3319828.83	1382769.94	40°22'42.319"N	104°21'07.121"W	polygon
SEC.17/20-T05N-R62W (460'FNL/FSL SETBACKS)		6373.00	-547.94	-1493.90	3319828.83	1382769.94	40°22'42.319"N	104°21'07.121"W	polygon
3) ANTELOPE FEDERAL 34-20-17XRLNC BHL (470'FNL & 2110'FEL, SEC.17)	17004.03	6423.00	9272.04	382.71	3321577.48	1392613.08	40°24'19.357"N	104°20'42.871"W	point
1) ANTELOPE FEDERAL 34-20-17XRLNC LP (0'FSL & 1935'FEL, SEC.20)	6984.36	6423.00	-746.53	412.12	3321737.19	1382596.16	40°22'40.357"N	104°20'42.493"W	point
2) ANTELOPE FEDERAL 34-20-17XRLNC MP (0'FNL & 1953'FEL, SEC.20)	12249.25	6423.00	4517.77	452.42	3321709.02	1387860.32	40°23'32.377"N	104°20'41.971"W	point

<b>SURVEY PROGRAM -</b>				
<b>Ref Wellbore: ANTELOPE FEDERAL 34-20-17XRLNC PWB</b>			<b>Ref Wellpath: ANTELOPE FEDERAL 34-20-17XRLNC PWP (REV-A.0)</b>	
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	1550.00	BHI NaviTrak (Rotating+Axial Corr)		ANTELOPE FEDERAL 34-20-17XRLNC PWB
1550.00	17095.10	BHI AutoTrak Curve (Axial Corr, Short spacing)		ANTELOPE FEDERAL 34-20-17XRLNC PWB



# Planned Wellpath Report

ANTELOPE FEDERAL 34-20-17XRLNC PWP (REV-A.0)  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#27 ANTELOPE FEDERAL 34-20-17XRLNC (749'FSL & 2356'FEL, SEC.20)
Area	COLORADO	Well	ANTELOPE FEDERAL 34-20-17XRLNC
Field	WELD COUNTY	Wellbore	ANTELOPE FEDERAL 34-20-17XRLNC PWB
Facility	SEC.20-T05N-R62W		

DESIGN COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
17.00	0.000	161.904	17.00	Tie On
900.00	0.000	161.904	900.00	End of Tangent
1943.95	20.879	161.904	1921.00	End of Build
4788.76	20.879	161.904	4579.00	End of Tangent
5832.71	0.000	353.000	5600.00	End of Drop (S)
6080.54	0.000	353.000	5847.84	End of Tangent (S)
6380.54	30.000	353.000	6134.31	Build (S)
6984.36	90.000	1.717	6423.00	End of 3D Arc
12249.25	90.000	359.160	6423.00	End of 3D Arc (J)
17004.03	90.000	359.160	6423.00	End of Tangent (J)