BONANZA CREEK OIL COMPANY

Location:	COLORADO	Slot:	SLOT#08 STATE ANTELOPE 42-12-13HNB (2627'FNL & 510'FEL,SEC.13)
Field:	WELD COUNTY	Well:	STATE ANTELOPE 42-12-13HNB
Facility:	SEC.13-T5N-R62W	Wellbore:	STATE ANTELOPE 42-12-13HNB PWB

Plot reference wellpath is STATE ANTELOPE 42-12-13HNB PWP (REV-A.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
Measured depths are referenced to RIG (17) (RKB)	Scale: True distance
RIG (17) (RKB) to Mean Sea Level: 4590 feet	Depths are in feet
Mean Sea Level to Ground level (At Slot: SLOT#08 STATE ANTELOPE 42-12-13HNB (2627'FNL & 510'FEL,SEC.13)): 0 feet	Created by: robiale01 on 2018-11-15
Coordinates are in feet referenced to Slot	Database: WA DENVER

Location Information

Facility Name			Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.13-T5N-R62W			3339859.889	1389969.906	40°23'50.820"N	104°16'47.028"W
Slot	**Local N (ft)**	**Local E (ft)**	**Grid East (US ft)**	**Grid North (US ft)**	**Latitude**	**Longitude**
SLOT#08 STATE ANTELOPE 42-12-13HNB (2627'FNL & 510'FEL,SEC.13)	1376.05	4472.43	3344312.769	1391407.307	40°24'04.414"N	104°15'49.219"W

RIG (17) (RKB) to Ground level (At Slot: SLOT#08 STATE ANTELOPE 42-12-13HNB (2627'FNL & 510'FEL,SEC.13))	4590ft
Mean Sea Level to Ground level (At Slot: SLOT#08 STATE ANTELOPE 42-12-13HNB (2627'FNL & 510'FEL,SEC.13))	0ft
RIG (17) (RKB) to Mean Sea Level	4590ft

Survey Program

Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
17.00	1550.00	BHI NaviTrak	BHI NaviTrak (Rotating)		STATE ANTELOPE 42-12-13HNB PWB
1550.00	11226.99	BHI AutoTrak Curve	BHI AutoTrak Curve (Short)		STATE ANTELOPE 42-12-13HNB PWB

Hole and Casing Sections

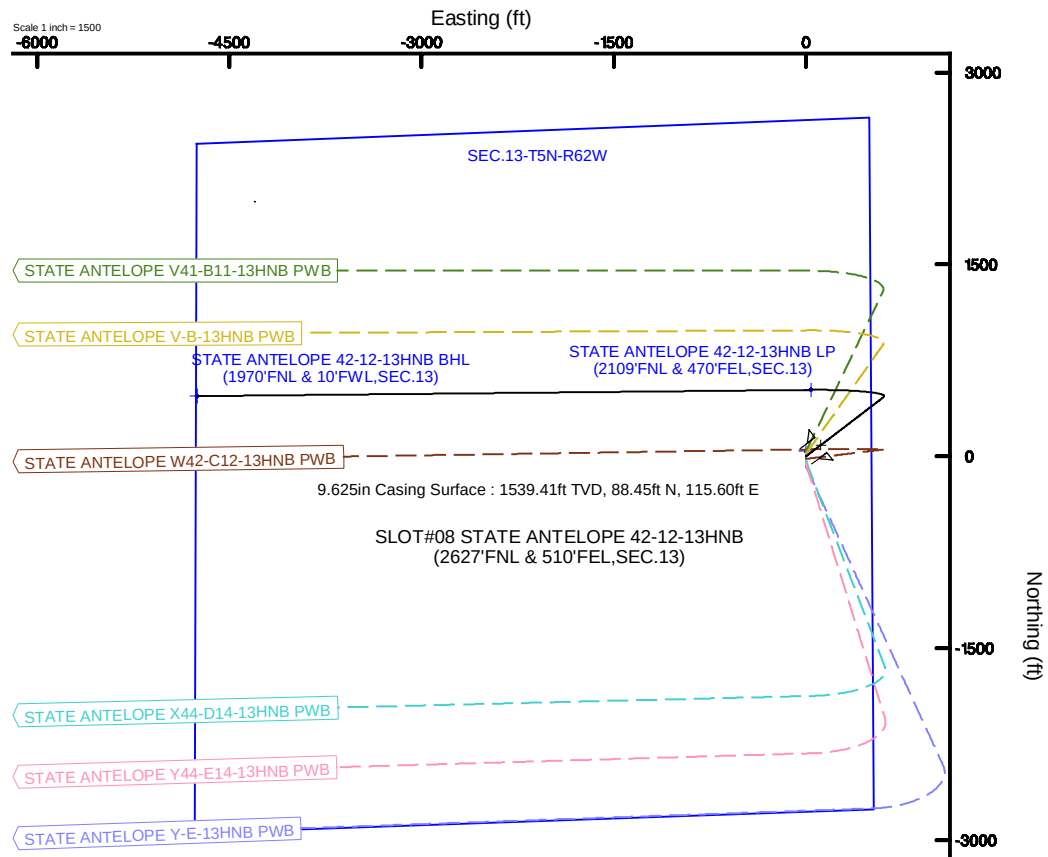
Name	Start MD (ft)	End MD (ft)	Interval (ft)	Start TVD (ft)	End TVD (ft)	Start Local N (ft)	Start Local E (ft)	End Local N (ft)	End Local E (ft)	Wellbore
13.5in Open Hole	17.00	1550.00	1533.00	17.00	1539.41	0.00	0.00	88.45	115.60	STATE ANTELOPE 42-12-13HNB PWB
9.625in Casing Surface	17.00	1550.00	1533.00	17.00	1539.41	0.00	0.00	88.45	115.60	STATE ANTELOPE 42-12-13HNB PWB
8.5in Open Hole	1550.00	11226.99	9676.99	1539.41	N/A	88.45	115.60	N/A	N/A	STATE ANTELOPE 42-12-13HNB PWB

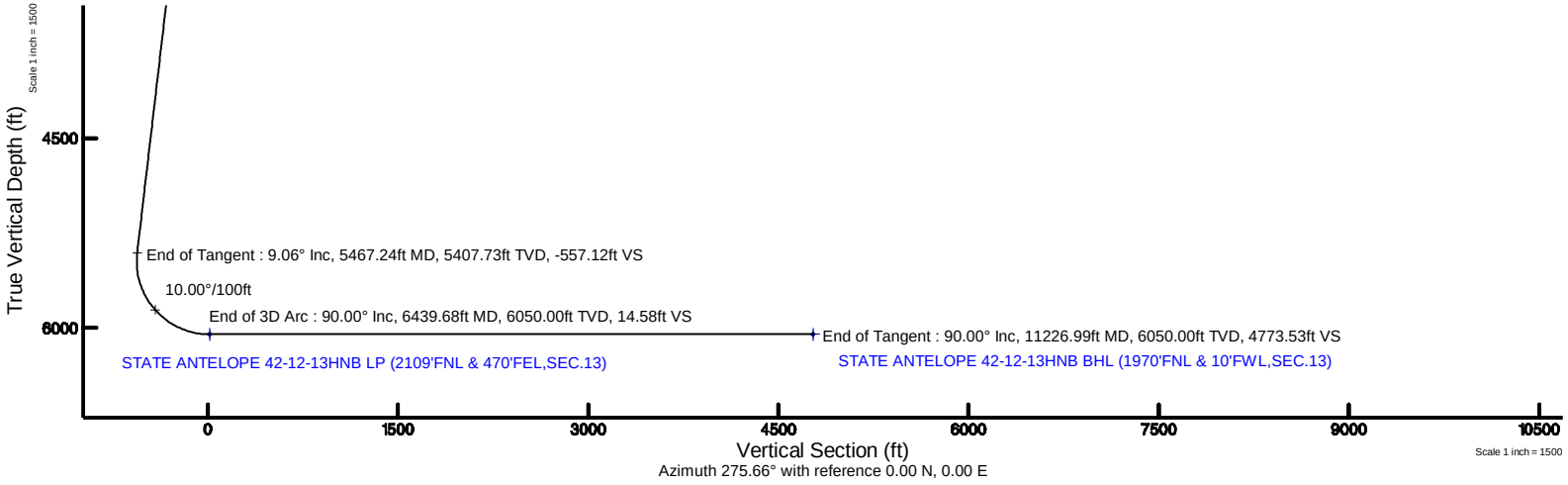
Well Profile Data

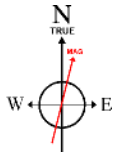
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	17.00	0.000	52.578	17.00	0.00	0.00	0.00	0.00
End of Tangent	400.00	0.000	52.578	400.00	0.00	0.00	0.00	0.00
End of Build	853.24	9.065	52.578	851.36	21.74	28.42	2.00	-26.13
End of Tangent	5467.24	9.065	52.578	5407.73	463.49	605.74	0.00	-557.12
End of 3D Arc	6439.68	90.000	269.417	6050.00	519.14	36.76	10.00	14.58
End of Tangent	11226.99	90.000	269.417	6050.00	470.42	-4750.29	0.00	4773.53

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
11226.99	90.000	269.417	6050.00	470.42	-4750.29	3339556.58	1391811.44	40°24'09.058"N	104°16'50.621"W







BGGM (1945.0 to 2015.0) Dip: 67.01° Field: 52833.7 nT
Magnetic North is 8.26 degrees East of True North (at 4/24/2014)

To correct azimuth from Magnetic to True add 8.26 degrees

Planned Wellpath Report

STATE ANTELOPE 42-12-13HNB PWP (REV-A.0)

REFERENCE WELLPATH IDENTIFICATION

Operator	**BONANZA CREEK OIL COMPANY**	Slot	**SLOT#08 STATE ANTELOPE 42-12-13HNB (2627'FNL & 510'FEL,SEC.13)**
Area	**COLORADO**	Well	**STATE ANTELOPE 42-12-13HNB**
Field	**WELD COUNTY**	Wellbore	**STATE ANTELOPE 42-12-13HNB PWB**
Facility	**SEC.13-T5N-R62W**		

REPORT SETUP INFORMATION

Projection System	**NAD83 / Lambert Colorado SP, Northern Zone (501), US feet**	Software System	**WellArchitect® 5.1**
North Reference	**True**	User	**Robiale01**
Scale	**0.999960**	Report Generated	**11/15/2018** at **9:57:52 AM**
Convergence at slot	**0.80° East**	Database/Source file	**WA DENVER/STATE_ANTELOPE_42-12-13HNB_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	1376.05	4472.43	3344312.77	1391407.31	**40°24'04.414"N**	**104°15'49.219"W**
Facility Reference Pt			3339859.89	1389969.91	**40°23'50.820"N**	**104°16'47.028"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') (RKB) to Facility Vertical Datum	**4590.00ft**
Horizontal Reference Pt	**Slot**	RIG (17') (RKB) to Mean Sea Level	**4590.00ft**
Vertical Reference Pt	**RIG (17') (RKB)**	RIG (17') (RKB) to Ground Level at Slot (SLOT#08 STATE ANTELOPE 42-12-13HNB (2627'FNL & 510'FEL,SEC.13))	**4590.00ft**
MD Reference Pt	**RIG (17') (RKB)**	Section Origin	**N 0.00, E 0.00 ft**
Field Vertical Reference	**Mean Sea Level**	Section Azimuth	**275.66°**

Planned Wellpath Report

STATE ANTELOPE 42-12-13HNB PWP (REV-A.0)

REFERENCE WELLPATH IDENTIFICATION

Operator	**BONANZA CREEK OIL COMPANY**	Slot	**SLOT#08 STATE ANTELOPE 42-12-13HNB (2627'FNL & 510'FEL,SEC.13)**
Area	**COLORADO**	Well	**STATE ANTELOPE 42-12-13HNB**
Field	**WELD COUNTY**	Wellbore	**STATE ANTELOPE 42-12-13HNB PWB**
Facility	**SEC.13-T5N-R62W**		

WELLPATH DATA (119 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	52.578	0.00	0.00	0.00	0.00	40°24'04.414"N	104°15'49.219"W	0.00	
17.00	0.000	52.578	17.00	0.00	0.00	0.00	40°24'04.414"N	104°15'49.219"W	0.00	Tie On
117.00†	0.000	52.578	117.00	0.00	0.00	0.00	40°24'04.414"N	104°15'49.219"W	0.00	
217.00†	0.000	52.578	217.00	0.00	0.00	0.00	40°24'04.414"N	104°15'49.219"W	0.00	
317.00†	0.000	52.578	317.00	0.00	0.00	0.00	40°24'04.414"N	104°15'49.219"W	0.00	
400.00	0.000	52.578	400.00	0.00	0.00	0.00	40°24'04.414"N	104°15'49.219"W	0.00	End of Tangent
417.00†	0.340	52.578	417.00	-0.04	0.03	0.04	40°24'04.414"N	104°15'49.219"W	2.00	
517.00†	2.340	52.578	516.97	-1.74	1.45	1.90	40°24'04.428"N	104°15'49.195"W	2.00	
617.00†	4.340	52.578	616.79	-6.00	4.99	6.52	40°24'04.463"N	104°15'49.135"W	2.00	
717.00†	6.340	52.578	716.35	-12.80	10.65	13.91	40°24'04.519"N	104°15'49.039"W	2.00	
817.00†	8.340	52.578	815.53	-22.13	18.41	24.06	40°24'04.596"N	104°15'48.908"W	2.00	
853.24	9.065	52.578	851.36	-26.13	21.74	28.42	40°24'04.628"N	104°15'48.852"W	2.00	End of Build
917.00†	9.065	52.578	914.32	-33.47	27.85	36.39	40°24'04.689"N	104°15'48.749"W	0.00	
1017.00†	9.065	52.578	1013.07	-44.98	37.42	48.91	40°24'04.783"N	104°15'48.587"W	0.00	
1117.00†	9.065	52.578	1111.82	-56.49	47.00	61.42	40°24'04.878"N	104°15'48.425"W	0.00	
1217.00†	9.065	52.578	1210.57	-68.00	56.57	73.93	40°24'04.973"N	104°15'48.264"W	0.00	
1317.00†	9.065	52.578	1309.32	-79.50	66.14	86.44	40°24'05.067"N	104°15'48.102"W	0.00	
1417.00†	9.065	52.578	1408.07	-91.01	75.72	98.96	40°24'05.162"N	104°15'47.940"W	0.00	
1517.00†	9.065	52.578	1506.82	-102.52	85.29	111.47	40°24'05.256"N	104°15'47.778"W	0.00	
1617.00†	9.065	52.578	1605.57	-114.03	94.87	123.98	40°24'05.351"N	104°15'47.617"W	0.00	
1717.00†	9.065	52.578	1704.32	-125.54	104.44	136.49	40°24'05.446"N	104°15'47.455"W	0.00	
1817.00†	9.065	52.578	1803.07	-137.04	114.01	149.01	40°24'05.540"N	104°15'47.293"W	0.00	
1917.00†	9.065	52.578	1901.83	-148.55	123.59	161.52	40°24'05.635"N	104°15'47.131"W	0.00	
2017.00†	9.065	52.578	2000.58	-160.06	133.16	174.03	40°24'05.729"N	104°15'46.970"W	0.00	
2117.00†	9.065	52.578	2099.33	-171.57	142.74	186.54	40°24'05.824"N	104°15'46.808"W	0.00	
2217.00†	9.065	52.578	2198.08	-183.08	152.31	199.06	40°24'05.919"N	104°15'46.646"W	0.00	
2317.00†	9.065	52.578	2296.83	-194.59	161.89	211.57	40°24'06.013"N	104°15'46.485"W	0.00	
2417.00†	9.065	52.578	2395.58	-206.09	171.46	224.08	40°24'06.108"N	104°15'46.323"W	0.00	
2517.00†	9.065	52.578	2494.33	-217.60	181.03	236.59	40°24'06.202"N	104°15'46.161"W	0.00	
2617.00†	9.065	52.578	2593.08	-229.11	190.61	249.11	40°24'06.297"N	104°15'45.999"W	0.00	
2717.00†	9.065	52.578	2691.83	-240.62	200.18	261.62	40°24'06.392"N	104°15'45.838"W	0.00	
2817.00†	9.065	52.578	2790.59	-252.13	209.76	274.13	40°24'06.486"N	104°15'45.676"W	0.00	
2917.00†	9.065	52.578	2889.34	-263.63	219.33	286.64	40°24'06.581"N	104°15'45.514"W	0.00	
3017.00†	9.065	52.578	2988.09	-275.14	228.90	299.16	40°24'06.676"N	104°15'45.352"W	0.00	
3117.00†	9.065	52.578	3086.84	-286.65	238.48	311.67	40°24'06.770"N	104°15'45.191"W	0.00	
3217.00†	9.065	52.578	3185.59	-298.16	248.05	324.18	40°24'06.865"N	104°15'45.029"W	0.00	

WELLPATH DATA (119 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
3317.00†	9.065	52.578	3284.34	-309.67	257.63	336.69	40°24'06.959"N	104°15'44.867"W	0.00	
3417.00†	9.065	52.578	3383.09	-321.17	267.20	349.21	40°24'07.054"N	104°15'44.705"W	0.00	
3517.00†	9.065	52.578	3481.84	-332.68	276.78	361.72	40°24'07.149"N	104°15'44.544"W	0.00	
3617.00†	9.065	52.578	3580.59	-344.19	286.35	374.23	40°24'07.243"N	104°15'44.382"W	0.00	
3717.00†	9.065	52.578	3679.34	-355.70	295.92	386.74	40°24'07.338"N	104°15'44.220"W	0.00	
3817.00†	9.065	52.578	3778.10	-367.21	305.50	399.26	40°24'07.432"N	104°15'44.059"W	0.00	
3917.00†	9.065	52.578	3876.85	-378.72	315.07	411.77	40°24'07.527"N	104°15'43.897"W	0.00	
4017.00†	9.065	52.578	3975.60	-390.22	324.65	424.28	40°24'07.622"N	104°15'43.735"W	0.00	
4117.00†	9.065	52.578	4074.35	-401.73	334.22	436.79	40°24'07.716"N	104°15'43.573"W	0.00	

Planned Wellpath Report

STATE ANTELOPE 42-12-13HNB PWP (REV-A.0)

REFERENCE WELLPATH IDENTIFICATION

Operator	**BONANZA CREEK OIL COMPANY**	Slot	**SLOT#08 STATE ANTELOPE 42-12-13HNB (2627'FNL & 510'FEL,SEC.13)**
Area	**COLORADO**	Well	**STATE ANTELOPE 42-12-13HNB**
Field	**WELD COUNTY**	Wellbore	**STATE ANTELOPE 42-12-13HNB PWB**
Facility	**SEC.13-T5N-R62W**		

WELLPATH DATA (119 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4217.00†	9.065	52.578	4173.10	-413.24	343.79	449.31	40°24'07.811"N	104°15'43.412"W	0.00	
4317.00†	9.065	52.578	4271.85	-424.75	353.37	461.82	40°24'07.905"N	104°15'43.250"W	0.00	
4417.00†	9.065	52.578	4370.60	-436.26	362.94	474.33	40°24'08.000"N	104°15'43.088"W	0.00	
4517.00†	9.065	52.578	4469.35	-447.76	372.52	486.84	40°24'08.095"N	104°15'42.926"W	0.00	
4617.00†	9.065	52.578	4568.10	-459.27	382.09	499.36	40°24'08.189"N	104°15'42.765"W	0.00	
4717.00†	9.065	52.578	4666.86	-470.78	391.67	511.87	40°24'08.284"N	104°15'42.603"W	0.00	
4817.00†	9.065	52.578	4765.61	-482.29	401.24	524.38	40°24'08.378"N	104°15'42.441"W	0.00	
4917.00†	9.065	52.578	4864.36	-493.80	410.81	536.89	40°24'08.473"N	104°15'42.279"W	0.00	
5017.00†	9.065	52.578	4963.11	-505.30	420.39	549.41	40°24'08.568"N	104°15'42.118"W	0.00	
5117.00†	9.065	52.578	5061.86	-516.81	429.96	561.92	40°24'08.662"N	104°15'41.956"W	0.00	
5217.00†	9.065	52.578	5160.61	-528.32	439.54	574.43	40°24'08.757"N	104°15'41.794"W	0.00	
5317.00†	9.065	52.578	5259.36	-539.83	449.11	586.94	40°24'08.851"N	104°15'41.632"W	0.00	
5417.00†	9.065	52.578	5358.11	-551.34	458.68	599.46	40°24'08.946"N	104°15'41.471"W	0.00	
5467.24	9.065	52.578	5407.73	-557.12	463.49	605.74	40°24'08.994"N	104°15'41.389"W	0.00	End of Tangent
5517.00†	5.915	22.001	5457.07	-560.71	468.26	609.82	40°24'09.041"N	104°15'41.337"W	10.00	
5617.00†	9.458	304.461	5556.38	-554.94	477.71	604.96	40°24'09.134"N	104°15'41.400"W	10.00	
5717.00†	18.529	286.000	5653.35	-532.05	486.76	582.86	40°24'09.224"N	104°15'41.685"W	10.00	
5817.00†	28.223	279.683	5745.05	-492.74	495.14	544.18	40°24'09.306"N	104°15'42.185"W	10.00	
5917.00†	38.067	276.433	5828.68	-438.18	502.59	490.10	40°24'09.380"N	104°15'42.884"W	10.00	
6017.00†	47.968	274.363	5901.71	-370.06	508.88	422.26	40°24'09.442"N	104°15'43.761"W	10.00	
6117.00†	57.896	272.858	5961.91	-290.42	513.83	342.73	40°24'09.491"N	104°15'44.789"W	10.00	
6217.00†	67.838	271.650	6007.46	-201.70	517.29	253.91	40°24'09.525"N	104°15'45.937"W	10.00	
6317.00†	77.788	270.603	6036.98	-106.58	519.14	158.52	40°24'09.544"N	104°15'47.170"W	10.00	
6417.00†	87.742	269.633	6049.55	-7.97	519.33	59.44	40°24'09.545"N	104°15'48.451"W	10.00	
6439.68	90.000	269.417	6050.00[1]	14.58	519.14	36.76	40°24'09.544"N	104°15'48.744"W	10.00	End of 3D Arc
6517.00†	90.000	269.417	6050.00	91.44	518.36	-40.55	40°24'09.536"N	104°15'49.743"W	0.00	
6617.00†	90.000	269.417	6050.00	190.84	517.34	-140.55	40°24'09.526"N	104°15'51.036"W	0.00	
6717.00†	90.000	269.417	6050.00	290.25	516.32	-240.54	40°24'09.516"N	104°15'52.328"W	0.00	
6817.00†	90.000	269.417	6050.00	389.66	515.30	-340.54	40°24'09.506"N	104°15'53.621"W	0.00	
6917.00†	90.000	269.417	6050.00	489.07	514.29	-440.53	40°24'09.496"N	104°15'54.913"W	0.00	
7017.00†	90.000	269.417	6050.00	588.48	513.27	-540.53	40°24'09.485"N	104°15'56.206"W	0.00	
7117.00†	90.000	269.417	6050.00	687.88	512.25	-640.52	40°24'09.475"N	104°15'57.498"W	0.00	
7217.00†	90.000	269.417	6050.00	787.29	511.23	-740.51	40°24'09.465"N	104°15'58.791"W	0.00	
7317.00†	90.000	269.417	6050.00	886.70	510.22	-840.51	40°24'09.455"N	104°16'00.084"W	0.00	
7417.00†	90.000	269.417	6050.00	986.11	509.20	-940.50	40°24'09.445"N	104°16'01.376"W	0.00	

WELLPATH DATA (119 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7517.00†	90.000	269.417	6050.00	1085.51	508.18	-1040.50	40°24'09.435"N	104°16'02.669"W	0.00	
7617.00†	90.000	269.417	6050.00	1184.92	507.16	-1140.49	40°24'09.425"N	104°16'03.961"W	0.00	
7717.00†	90.000	269.417	6050.00	1284.33	506.14	-1240.49	40°24'09.415"N	104°16'05.254"W	0.00	
7817.00†	90.000	269.417	6050.00	1383.74	505.13	-1340.48	40°24'09.405"N	104°16'06.546"W	0.00	
7917.00†	90.000	269.417	6050.00	1483.15	504.11	-1440.48	40°24'09.395"N	104°16'07.839"W	0.00	
8017.00†	90.000	269.417	6050.00	1582.55	503.09	-1540.47	40°24'09.384"N	104°16'09.131"W	0.00	
8117.00†	90.000	269.417	6050.00	1681.96	502.07	-1640.47	40°24'09.374"N	104°16'10.424"W	0.00	
8217.00†	90.000	269.417	6050.00	1781.37	501.06	-1740.46	40°24'09.364"N	104°16'11.716"W	0.00	
8317.00†	90.000	269.417	6050.00	1880.78	500.04	-1840.46	40°24'09.354"N	104°16'13.009"W	0.00	
8417.00†	90.000	269.417	6050.00	1980.18	499.02	-1940.45	40°24'09.344"N	104°16'14.301"W	0.00	

Planned Wellpath Report

STATE ANTELOPE 42-12-13HNB PWP (REV-A.0)

REFERENCE WELLPATH IDENTIFICATION

Operator	**BONANZA CREEK OIL COMPANY**	Slot	**SLOT#08 STATE ANTELOPE 42-12-13HNB (2627'FNL & 510'FEL,SEC.13)**
Area	**COLORADO**	Well	**STATE ANTELOPE 42-12-13HNB**
Field	**WELD COUNTY**	Wellbore	**STATE ANTELOPE 42-12-13HNB PWB**
Facility	**SEC.13-T5N-R62W**		

WELLPATH DATA (119 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	269.417	6050.00	2079.59	498.00	-2040.45	40°24'09.334"N	104°16'15.594"W	0.00	
8617.00†	90.000	269.417	6050.00	2179.00	496.98	-2140.44	40°24'09.324"N	104°16'16.886"W	0.00	
8717.00†	90.000	269.417	6050.00	2278.41	495.97	-2240.44	40°24'09.314"N	104°16'18.179"W	0.00	
8817.00†	90.000	269.417	6050.00	2377.82	494.95	-2340.43	40°24'09.303"N	104°16'19.471"W	0.00	
8917.00†	90.000	269.417	6050.00	2477.22	493.93	-2440.43	40°24'09.293"N	104°16'20.764"W	0.00	
9017.00†	90.000	269.417	6050.00	2576.63	492.91	-2540.42	40°24'09.283"N	104°16'22.056"W	0.00	
9117.00†	90.000	269.417	6050.00	2676.04	491.90	-2640.42	40°24'09.273"N	104°16'23.349"W	0.00	
9217.00†	90.000	269.417	6050.00	2775.45	490.88	-2740.41	40°24'09.263"N	104°16'24.641"W	0.00	
9317.00†	90.000	269.417	6050.00	2874.85	489.86	-2840.41	40°24'09.253"N	104°16'25.934"W	0.00	
9417.00†	90.000	269.417	6050.00	2974.26	488.84	-2940.40	40°24'09.242"N	104°16'27.226"W	0.00	
9517.00†	90.000	269.417	6050.00	3073.67	487.82	-3040.40	40°24'09.232"N	104°16'28.519"W	0.00	
9617.00†	90.000	269.417	6050.00	3173.08	486.81	-3140.39	40°24'09.222"N	104°16'29.811"W	0.00	
9717.00†	90.000	269.417	6050.00	3272.49	485.79	-3240.39	40°24'09.212"N	104°16'31.104"W	0.00	
9817.00†	90.000	269.417	6050.00	3371.89	484.77	-3340.38	40°24'09.202"N	104°16'32.396"W	0.00	
9917.00†	90.000	269.417	6050.00	3471.30	483.75	-3440.37	40°24'09.191"N	104°16'33.689"W	0.00	
10017.00†	90.000	269.417	6050.00	3570.71	482.73	-3540.37	40°24'09.181"N	104°16'34.982"W	0.00	
10117.00†	90.000	269.417	6050.00	3670.12	481.72	-3640.36	40°24'09.171"N	104°16'36.274"W	0.00	
10217.00†	90.000	269.417	6050.00	3769.52	480.70	-3740.36	40°24'09.161"N	104°16'37.567"W	0.00	
10317.00†	90.000	269.417	6050.00	3868.93	479.68	-3840.35	40°24'09.151"N	104°16'38.859"W	0.00	
10417.00†	90.000	269.417	6050.00	3968.34	478.66	-3940.35	40°24'09.140"N	104°16'40.152"W	0.00	
10517.00†	90.000	269.417	6050.00	4067.75	477.65	-4040.34	40°24'09.130"N	104°16'41.444"W	0.00	
10617.00†	90.000	269.417	6050.00	4167.16	476.63	-4140.34	40°24'09.120"N	104°16'42.737"W	0.00	
10717.00†	90.000	269.417	6050.00	4266.56	475.61	-4240.33	40°24'09.110"N	104°16'44.029"W	0.00	
10817.00†	90.000	269.417	6050.00	4365.97	474.59	-4340.33	40°24'09.100"N	104°16'45.322"W	0.00	
10917.00†	90.000	269.417	6050.00	4465.38	473.57	-4440.32	40°24'09.089"N	104°16'46.614"W	0.00	
11017.00†	90.000	269.417	6050.00	4564.79	472.56	-4540.32	40°24'09.079"N	104°16'47.907"W	0.00	
11117.00†	90.000	269.417	6050.00	4664.19	471.54	-4640.31	40°24'09.069"N	104°16'49.199"W	0.00	
11217.00†	90.000	269.417	6050.00	4763.60	470.52	-4740.31	40°24'09.059"N	104°16'50.492"W	0.00	
11226.99	90.000	269.417	6050.00[2]	4773.53	470.42	-4750.29	40°24'09.058"N	104°16'50.621"W	0.00	End of Tangent

HOLE & CASING SECTIONS - Ref Wellbore: STATE ANTELOPE 42-12-13HNB PWB Ref Wellpath: STATE ANTELOPE 42-12-13HNB PWP (REV-A.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]
13.5in Open Hole	17.00	1550.00	1533.00	17.00	1539.41	0.00	0.00	88.45	115.60

HOLE & CASING SECTIONS - Ref Wellbore: STATE ANTELOPE 42-12-13HNB PWB Ref Wellpath: STATE ANTELOPE 42-12-13HNB PWP (REV-A.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	1550.00	1533.00	17.00	1539.41	0.00	0.00	88.45	115.60
8.5in Open Hole	1550.00	11226.99	9676.99	1539.41	N/A	88.45	115.60	N/A	N/A

Planned Wellpath Report

STATE ANTELOPE 42-12-13HNB PWP (REV-A.0)

REFERENCE WELLPATH IDENTIFICATION			
Operator	**BONANZA CREEK OIL COMPANY**	Slot	**SLOT#08 STATE ANTELOPE 42-12-13HNB (2627'FNL & 510'FEL,SEC.13)**
Area	**COLORADO**	Well	**STATE ANTELOPE 42-12-13HNB**
Field	**WELD COUNTY**	Wellbore	**STATE ANTELOPE 42-12-13HNB PWB**
Facility	**SEC.13-T5N-R62W**		

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.13-T5N-R62W		0.00	40.07	0.00	3344312.21	1391447.38	40°24'04.810"N	104°15'49.219"W	polygon
2) STATE ANTELOPE 42-12-13HNB BHL (1970'FNL & 10'FWL,SEC.13)	11226.99	6050.00	470.42	-4750.29	3339556.58	1391811.44	**40°24'09.058"N**	**104°16'50.621"W**	point
1) STATE ANTELOPE 42-12-13HNB LP (2109'FNL & 470'FEL,SEC.13)	6439.68	6050.00	519.14	36.76	3344342.29	1391926.89	**40°24'09.544"N**	**104°15'48.744"W**	point

SURVEY PROGRAM - Ref Wellbore: STATE ANTELOPE 42-12-13HNB PWB Ref Wellpath: STATE ANTELOPE 42-12-13HNB PWP (REV-A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	1550.00	BHI NaviTrak (Rotating)		STATE ANTELOPE 42-12-13HNB PWB
1550.00	11226.99	BHI AutoTrak Curve (Short)		STATE ANTELOPE 42-12-13HNB PWB

Planned Wellpath Report

STATE ANTELOPE 42-12-13HNB PWP (REV-A.0)

REFERENCE WELLPATH IDENTIFICATION			
Operator	**BONANZA CREEK OIL COMPANY**	Slot	**SLOT#08 STATE ANTELOPE 42-12-13HNB (2627'FNL & 510'FEL,SEC.13)**
Area	**COLORADO**	Well	**STATE ANTELOPE 42-12-13HNB**
Field	**WELD COUNTY**	Wellbore	**STATE ANTELOPE 42-12-13HNB PWB**
Facility	**SEC.13-T5N-R62W**		

DESIGN COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
17.00	0.000	52.578	17.00	Tie On
400.00	0.000	52.578	400.00	End of Tangent
853.24	9.065	52.578	851.36	End of Build
5467.24	9.065	52.578	5407.73	End of Tangent
6439.68	90.000	269.417	6050.00	End of 3D Arc
11226.99	90.000	269.417	6050.00	End of Tangent

Clearance Report

STATE ANTELOPE 42-12-13HNB PWP (REV-A.0)

Closest Approach

REFERENCE WELLPATH IDENTIFICATION

Operator	**BONANZA CREEK OIL COMPANY**	Slot	**SLOT#08 STATE ANTELOPE 42-12-13HNB (2627'FNL & 510'FEL,SEC.13)**
Area	**COLORADO**	Well	**STATE ANTELOPE 42-12-13HNB**
Field	**WELD COUNTY**	Wellbore	**STATE ANTELOPE 42-12-13HNB PWB**
Facility	**SEC.13-T5N-R62W**		

REPORT SETUP INFORMATION

Projection System	**NAD83 / Lambert Colorado SP, Northern Zone (501), US feet**	Software System	**WellArchitect® 5.1**
North Reference	**True**	User	**Robiale01**
Scale	**0.999960**	Report Generated	**11/15/2018** at **9:58:57 AM**
Convergence at slot	**0.80° East**	Database/Source file	**WA DENVER/STATE_ANTELOPE_42-12-13HNB_PWP__REV-A.0__CR.xml**

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	**East[ft]**	**Easting[US ft]**	**Northing[US ft]**	**Latitude**	**Longitude**
Slot Location	1376.05	4472.43	3344312.77	1391407.31	**40°24'04.414"N**	**104°15'49.219"W**
Facility Reference Pt			3339859.89	1389969.91	**40°23'50.820"N**	**104°16'47.028"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') (RKB) to Facility Vertical Datum	**4590.00ft**
Horizontal Reference Pt	**Slot**	RIG (17') (RKB) to Mean Sea Level	**4590.00ft**
Vertical Reference Pt	**RIG (17') (RKB)**	RIG (17') (RKB) to Ground Level at Slot (SLOT#08 STATE ANTELOPE 42-12-13HNB (2627'FNL & 510'FEL,SEC.13))	**4590.00ft**
MD Reference Pt	**RIG (17') (RKB)**		
Field Vertical Reference	**Mean Sea Level**		

POSITIONAL UNCERTAINTY CALCULATION SETTINGS

Ellipse Confidence Limit	**3.00 Std Dev**	Ellipse Start MD	**17.00ft**	Surface Position Uncertainty	**included**
Declination	**8.26° East of TN**	Dip Angle	**67.01°**	Mag Field Strength	**52834 nT**
Slot Surface Uncertainty @1SD		Horizontal	**0.100ft**	Vertical	**1.000ft**
Facility Surface Uncertainty @1SD		Horizontal	**8.200ft**	Vertical	**3.000ft**

Positional Uncertainty values in the WELLPATH DATA table are the projection of the ellipsoid of uncertainty onto the vertical and horizontal planes

ANTI-COLLISION RULE

ANTI-COLLISION RULE			
Rule Name	**Baker Hughes Stop Drilling (offset is HSE risk)**	Rule Based On	**Ratio**
Plane of Rule	**Closest Approach**	Threshold Value	**1.00**
Include Casing & Hole Size	**yes**	Apply Cone of Safety	**no**

Clearance Report

STATE ANTELOPE 42-12-13HNB PWP (REV-A.0)

Closest Approach

REFERENCE WELLPATH IDENTIFICATION

Operator	**BONANZA CREEK OIL COMPANY**	Slot	**SLOT#08 STATE ANTELOPE 42-12-13HNB (2627'FNL & 510'FEL,SEC.13)**
Area	**COLORADO**	Well	**STATE ANTELOPE 42-12-13HNB**
Field	**WELD COUNTY**	Wellbore	**STATE ANTELOPE 42-12-13HNB PWB**
Facility	**SEC.13-T5N-R62W**		

HOLE & CASING SECTIONS - Ref Wellbore: STATE ANTELOPE 42-12-13HNB PWB Ref Wellpath: STATE ANTELOPE 42-12-13HNB PWP (REV-A.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]
13.5in Open Hole	17.00	1550.00	1533.00	17.00	1539.41	0.00	0.00	88.45	115.60
9.625in Casing Surface	17.00	1550.00	1533.00	17.00	1539.41	0.00	0.00	88.45	115.60
8.5in Open Hole	1550.00	11226.99	9676.99	1539.41	N/A	88.45	115.60	N/A	N/A

SURVEY PROGRAM - Ref Wellbore: STATE ANTELOPE 42-12-13HNB PWB Ref Wellpath: STATE ANTELOPE 42-12-13HNB PWP (REV-A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	1550.00	BHI NaviTrak (Rotating)		STATE ANTELOPE 42-12-13HNB PWB
1550.00	11226.99	BHI AutoTrak Curve (Short)		STATE ANTELOPE 42-12-13HNB PWB

CALCULATION RANGE & CUTOFF

From: **17.00ft MD**	To: **11226.99ft MD**	C-C Cutoff: **1000.00 ft**

OFFSET WELL CLEARANCE SUMMARY (6 Offset Wellpaths selected) Ratios are calculated in Closest Approach plane

Offset Facility	Offset Slot	Offset Well	Offset Wellbore	Offset Wellpath	C-C Clearance Distance			ACR Separation Ratio			
					Ref MD [ft]	Min C-C Clear Dist [ft]	Diverging from MD [ft]	Ref MD of Min Ratio [ft]	Min Ratio	Min Ratio Dvrg from [ft]	ACR Status
SEC.13-T5N-R62W	SLOT#07 STATE ANTELOPE V-B-13HNB (2607'FNL & 510'FEL,SEC.13)	STATE ANTELOPE V-B-13HNB	STATE ANTELOPE V-B-13HNB PWB	STATE ANTELOPE V-B-13HNB PWP (REV-A.0)	17.00	20.04	217.00	11226.99	0.87	11226.99	FAIL
SEC.13-T5N-R62W	SLOT#09 STATE ANTELOPE W42-C12-13HNB (2647'FNL & 510'FEL,SEC.13)	STATE ANTELOPE W42-C12-13HNB	STATE ANTELOPE W42-C12-13HNB PWB	STATE ANTELOPE W42-C12-13HNB PWP (REV-A.0)	17.00	20.04	400.00	11226.99	0.87	11226.99	FAIL
SEC.13-T5N-R62W	SLOT#06 STATE ANTELOPE V41-B11-13HNB (2587'FNL & 510'FEL,SEC.13)	STATE ANTELOPE V41-B11-13HNB	STATE ANTELOPE V41-B11-13HNB PWB	STATE ANTELOPE V41-B11-13HNB PWP (REV-A.0)	17.00	40.07	117.00	11226.99	1.75	11226.99	PASS
SEC.13-T5N-R62W	SLOT#10 STATE ANTELOPE X44-D14-13HNB (2667'FNL & 510'FEL,SEC.13)	STATE ANTELOPE X44-D14-13HNB	STATE ANTELOPE X44-D14-13HNB PWB	STATE ANTELOPE X44-D14-13HNB PWP (REV-A.0)	17.00	40.08	217.00	11226.99	4.40	11226.99	PASS
SEC.13-T5N-R62W	SLOT#11 STATE ANTELOPE Y44-E14-13HNB (2687'FNL & 510'FEL,SEC.13)	STATE ANTELOPE Y44-E14-13HNB	STATE ANTELOPE Y44-E14-13HNB PWB	STATE ANTELOPE Y44-E14-13HNB PWP (REV-A.0)	17.00	60.11	217.00	11226.99	5.26	11226.99	PASS
SEC.13-T5N-R62W	SLOT#12 STATE ANTELOPE Y-E-13HNB (2699'FSL & 510'FEL,SEC.13)	STATE ANTELOPE Y-E-13HNB	STATE ANTELOPE Y-E-13HNB PWB	STATE ANTELOPE Y-E-13HNB PWP (REV-A.0)	17.00	80.15	117.00	11226.99	5.88	11226.99	PASS

Clearance Report

STATE ANTELOPE 42-12-13HNB PWP (REV-A.0)

Closest Approach

REFERENCE WELLPATH IDENTIFICATION

Operator	**BONANZA CREEK OIL COMPANY**	Slot	**SLOT#08 STATE ANTELOPE 42-12-13HNB (2627'FNL & 510'FEL,SEC.13)**
Area	**COLORADO**	Well	**STATE ANTELOPE 42-12-13HNB**
Field	**WELD COUNTY**	Wellbore	**STATE ANTELOPE 42-12-13HNB PWB**
Facility	**SEC.13-T5N-R62W**		

CLEARANCE DATA - Offset Wellbore: STATE ANTELOPE V-B-13HNB PWB Offset Wellpath: STATE ANTELOPE V-B-13HNB PWP (REV-A.0)

Facility: SEC.13-T5N-R62W Slot: SLOT#07 STATE ANTELOPE V-B-13HNB (2607'FNL & 510'FEL,SEC.13) Well: STATE ANTELOPE V-B-13HNB Threshold Value=1.00 † = interpolated/extrapolated station

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
17.00	17.00	0.00	0.00	17.00	17.00	20.04	0.00	0.00	20.04	1.56	31.79	PASS
117.00†	117.00	0.00	0.00	117.00	117.00	20.04	0.00	0.00	20.04	2.18	15.64	PASS
217.00†	217.00	0.00	0.00	217.00	217.00	20.04	0.00	0.00	20.04	3.16	8.67	PASS
317.00†	317.00	0.00	0.00	316.90	316.90	20.08	0.03	0.08	20.08	4.18	5.93	PASS
400.00	400.00	0.00	0.00	399.39	399.37	21.45	0.99	2.65	21.48	5.15	4.90	PASS
417.00†	417.00	0.03	0.04	416.27	416.24	21.96	1.36	-49.13	21.99	5.35	4.79	PASS
517.00†	516.97	1.45	1.90	515.50	515.29	26.66	4.67	-46.21	25.41	6.84	4.16	PASS
617.00†	616.79	4.99	6.52	614.58	613.95	34.14	9.95	-45.66	29.48	8.35	3.86	PASS
717.00†	716.35	10.65	13.91	713.51	712.07	44.38	17.17	-46.65	34.16	9.71	3.79	PASS
817.00†	815.53	18.41	24.06	812.27	809.54	57.36	26.33	-48.58	39.48	10.96	3.85	PASS
853.24	851.36	21.74	28.42	848.01	844.68	62.74	30.12	-49.43	41.57	11.40	3.89	PASS
917.00†	914.32	27.85	36.39	910.81	906.19	73.04	37.39	-50.40	45.93	12.11	4.03	PASS
1017.00†	1013.07	37.42	48.91	1010.46	1003.57	90.36	49.61	-50.90	53.79	13.18	4.33	PASS
1117.00†	1111.82	47.00	61.42	1110.15	1100.98	107.68	61.83	-51.28	61.65	14.29	4.55	PASS
1217.00†	1210.57	56.57	73.93	1209.84	1198.39	125.00	74.05	-51.56	69.51	15.44	4.73	PASS
1317.00†	1309.32	66.14	86.44	1309.53	1295.80	142.32	86.26	-51.79	77.37	16.65	4.87	PASS
1417.00†	1408.07	75.72	98.96	1409.22	1393.21	159.64	98.48	-51.98	85.23	17.84	4.99	PASS
1517.00†	1506.82	85.29	111.47	1508.91	1490.62	176.96	110.70	-52.14	93.09	19.07	5.09	PASS
1617.00†	1605.57	94.87	123.98	1608.60	1588.03	194.28	122.92	-52.27	100.96	19.62	5.30	PASS
1717.00†	1704.32	104.44	136.49	1708.29	1685.44	211.60	135.14	-52.38	108.82	20.03	5.60	PASS
1817.00†	1803.07	114.01	149.01	1807.98	1782.85	228.92	147.36	-52.48	116.69	20.51	5.86	PASS
1917.00†	1901.83	123.59	161.52	1907.67	1880.26	246.24	159.58	-52.56	124.55	21.07	6.08	PASS
2017.00†	2000.58	133.16	174.03	2007.36	1977.67	263.56	171.80	-52.64	132.42	21.70	6.27	PASS
2117.00†	2099.33	142.74	186.54	2107.05	2075.08	280.88	184.02	-52.70	140.28	22.40	6.43	PASS
2217.00†	2198.08	152.31	199.06	2206.74	2172.49	298.21	196.24	-52.76	148.15	23.16	6.57	PASS
2317.00†	2296.83	161.89	211.57	2306.43	2269.90	315.53	208.45	-52.82	156.01	23.97	6.68	PASS
2417.00†	2395.58	171.46	224.08	2406.12	2367.31	332.85	220.67	-52.87	163.88	24.83	6.76	PASS
2517.00†	2494.33	181.03	236.59	2505.81	2464.72	350.17	232.89	-52.91	171.75	25.74	6.83	PASS
2617.00†	2593.08	190.61	249.11	2605.50	2562.13	367.49	245.11	-52.95	179.61	26.68	6.89	PASS
2717.00†	2691.83	200.18	261.62	2705.19	2659.54	384.81	257.33	-52.99	187.48	27.66	6.93	PASS
2817.00†	2790.59	209.76	274.13	2804.88	2756.95	402.13	269.55	-53.02	195.34	28.67	6.96	PASS
2917.00†	2889.34	219.33	286.64	2904.57	2854.36	419.45	281.77	-53.05	203.21	29.71	6.98	PASS
3017.00†	2988.09	228.90	299.16	3004.26	2951.77	436.77	293.99	-53.08	211.08	30.77	7.00	PASS

CLEARANCE DATA - Offset Wellbore: **STATE ANTELOPE V-B-13HNB PWB** Offset Wellpath: **STATE ANTELOPE V-B-13HNB PWP (REV-A.0)**

Facility: SEC.13-T5N-R62W Slot: SLOT#07 STATE ANTELOPE V-B-13HNB (2607'FNL & 510'FEL,SEC.13) Well: STATE ANTELOPE V-B-13HNB Threshold Value=1.00 † = interpolated/extrapolated station

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
3117.00†	3086.84	238.48	311.67	3103.95	3049.19	454.09	306.21	-53.11	218.94	31.86	7.01	PASS
3217.00†	3185.59	248.05	324.18	3203.64	3146.60	471.41	318.42	-53.13	226.81	32.97	7.01	PASS
3317.00†	3284.34	257.63	336.69	3303.33	3244.01	488.73	330.64	-53.15	234.68	34.09	7.01	PASS
3417.00†	3383.09	267.20	349.21	3403.02	3341.42	506.05	342.86	-53.18	242.54	35.23	7.00	PASS
3517.00†	3481.84	276.78	361.72	3502.71	3438.83	523.37	355.08	-53.20	250.41	36.39	7.00	PASS
3617.00†	3580.59	286.35	374.23	3602.40	3536.24	540.69	367.30	-53.21	258.28	37.56	6.99	PASS
3717.00†	3679.34	295.92	386.74	3702.09	3633.65	558.02	379.52	-53.23	266.14	38.74	6.98	PASS
3817.00†	3778.10	305.50	399.26	3801.78	3731.06	575.34	391.74	-53.25	274.01	39.94	6.97	PASS
3917.00†	3876.85	315.07	411.77	3901.47	3828.47	592.66	403.96	-53.27	281.88	41.14	6.95	PASS
4017.00†	3975.60	324.65	424.28	4001.16	3925.88	609.98	416.18	-53.28	289.74	42.35	6.94	PASS
4117.00†	4074.35	334.22	436.79	4100.85	4023.29	627.30	428.40	-53.30	297.61	43.57	6.93	PASS
4217.00†	4173.10	343.79	449.31	4200.54	4120.70	644.62	440.61	-53.31	305.48	44.80	6.91	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

Clearance Report

STATE ANTELOPE 42-12-13HNB PWP (REV-A.0)

Closest Approach

REFERENCE WELLPATH IDENTIFICATION

Operator	**BONANZA CREEK OIL COMPANY**	Slot	**SLOT#08 STATE ANTELOPE 42-12-13HNB (2627'FNL & 510'FEL,SEC.13)**
Area	**COLORADO**	Well	**STATE ANTELOPE 42-12-13HNB**
Field	**WELD COUNTY**	Wellbore	**STATE ANTELOPE 42-12-13HNB PWB**
Facility	**SEC.13-T5N-R62W**		

CLEARANCE DATA - Offset Wellbore: STATE ANTELOPE V-B-13HNB PWB Offset Wellpath: STATE ANTELOPE V-B-13HNB PWP (REV-A.0)

Facility: SEC.13-T5N-R62W Slot: SLOT#07 STATE ANTELOPE V-B-13HNB (2607'FNL & 510'FEL,SEC.13) Well: STATE ANTELOPE V-B-13HNB Threshold Value=1.00 † = interpolated/extrapolated station

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
4317.00†	4271.85	353.37	461.82	4300.23	4218.11	661.94	452.83	-53.32	313.34	46.04	6.90	PASS
4417.00†	4370.60	362.94	474.33	4399.92	4315.52	679.26	465.05	-53.33	321.21	47.28	6.88	PASS
4517.00†	4469.35	372.52	486.84	4499.61	4412.93	696.58	477.27	-53.35	329.08	48.53	6.87	PASS
4617.00†	4568.10	382.09	499.36	4599.30	4510.34	713.90	489.49	-53.36	336.94	49.79	6.85	PASS
4717.00†	4666.86	391.67	511.87	4698.99	4607.75	731.22	501.71	-53.37	344.81	51.05	6.84	PASS
4817.00†	4765.61	401.24	524.38	4798.68	4705.16	748.54	513.93	-53.38	352.68	52.31	6.82	PASS
4917.00†	4864.36	410.81	536.89	4898.37	4802.57	765.86	526.15	-53.39	360.55	53.58	6.81	PASS
5017.00†	4963.11	420.39	549.41	4998.06	4899.98	783.18	538.37	-53.40	368.41	54.85	6.79	PASS
5117.00†	5061.86	429.96	561.92	5097.75	4997.39	800.50	550.58	-53.41	376.28	56.13	6.78	PASS
5217.00†	5160.61	439.54	574.43	5197.44	5094.81	817.83	562.80	-53.41	384.15	57.41	6.76	PASS
5317.00†	5259.36	449.11	586.94	5297.13	5192.22	835.15	575.02	-53.42	392.01	58.69	6.75	PASS
5417.00†	5358.11	458.68	599.46	5396.82	5289.63	852.47	587.24	-53.43	399.88	59.98	6.73	PASS
5467.24	5407.73	463.49	605.74	5446.91	5338.57	861.17	593.38	-53.43	403.83	60.63	6.73	PASS
5517.00†	5457.07	468.26	609.82	5496.45	5386.98	869.78	599.45	-23.19	407.72	61.10	6.74	PASS
5617.00†	5556.38	477.71	604.96	5595.25	5483.85	886.98	607.43	54.88	415.66	61.33	6.85	PASS
5717.00†	5653.35	486.76	582.86	5696.00	5582.58	904.43	598.86	73.91	423.93	61.93	6.91	PASS
5817.00†	5745.05	495.14	544.18	5799.34	5680.71	921.68	571.99	80.72	432.26	61.38	7.11	PASS
5917.00†	5828.68	502.59	490.10	5905.39	5774.82	938.12	526.30	84.34	440.34	61.56	7.22	PASS
6017.00†	5901.71	508.88	422.26	6014.14	5861.05	953.07	462.01	86.63	447.81	61.81	7.32	PASS
6117.00†	5961.91	513.83	342.73	6125.43	5935.31	965.81	380.35	88.16	454.32	63.08	7.27	PASS
6217.00†	6007.46	517.29	253.91	6238.93	5993.63	975.65	283.68	89.18	459.54	65.70	7.06	PASS
6317.00†	6036.98	519.14	158.52	6354.13	6032.49	981.99	175.63	89.78	463.19	69.58	6.72	PASS
6417.00†	6049.55	519.33	59.44	6470.34	6049.38	984.40	60.88	90.00	465.07	74.38	6.30	PASS
6439.68	6050.00	519.14	36.76	6496.76	6050.00	984.37	34.47	90.00	465.23	75.56	6.21	PASS
6517.00†	6050.00	518.36	-40.55	6574.15	6050.00	983.98	-42.92	90.00	465.63	79.76	5.88	PASS
6617.00†	6050.00	517.34	-140.55	6674.15	6050.00	983.47	-142.92	90.00	466.14	86.04	5.45	PASS
6717.00†	6050.00	516.32	-240.54	6774.15	6050.00	982.96	-242.91	90.00	466.65	95.69	4.91	PASS
6817.00†	6050.00	515.30	-340.54	6874.15	6050.00	982.46	-342.91	90.00	467.16	101.19	4.64	PASS
6917.00†	6050.00	514.29	-440.53	6974.14	6050.00	981.95	-442.91	90.00	467.67	109.61	4.29	PASS
7017.00†	6050.00	513.27	-540.53	7074.14	6050.00	981.44	-542.91	90.00	468.18	118.43	3.97	PASS
7117.00†	6050.00	512.25	-640.52	7174.14	6050.00	980.93	-642.90	90.00	468.69	127.58	3.69	PASS
7217.00†	6050.00	511.23	-740.51	7274.14	6050.00	980.42	-742.90	90.00	469.19	136.98	3.44	PASS
7317.00†	6050.00	510.22	-840.51	7374.14	6050.00	979.91	-842.90	90.00	469.70	146.60	3.21	PASS

CLEARANCE DATA - Offset Wellbore: **STATE ANTELOPE V-B-13HNB PWB** Offset Wellpath: **STATE ANTELOPE V-B-13HNB PWP (REV-A.0)**

Facility: SEC.13-T5N-R62W **Slot: SLOT#07 STATE ANTELOPE V-B-13HNB (2607'FNL & 510'FEL,SEC.13)** **Well: STATE ANTELOPE V-B-13HNB** **Threshold Value=1.00** **† = interpolated/extrapolated station**

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
7417.00†	6050.00	509.20	-940.50	7474.14	6050.00	979.41	-942.89	90.00	470.21	156.38	3.02	PASS
7517.00†	6050.00	508.18	-1040.50	7574.14	6050.00	978.90	-1042.89	90.00	470.72	166.31	2.84	PASS
7617.00†	6050.00	507.16	-1140.49	7674.14	6050.00	978.39	-1142.89	90.00	471.23	176.35	2.68	PASS
7717.00†	6050.00	506.14	-1240.49	7774.13	6050.00	977.88	-1242.89	90.00	471.74	186.49	2.54	PASS
7817.00†	6050.00	505.13	-1340.48	7874.13	6050.00	977.37	-1342.88	90.00	472.25	196.71	2.41	PASS
7917.00†	6050.00	504.11	-1440.48	7974.13	6050.00	976.86	-1442.88	90.00	472.76	207.00	2.29	PASS
8017.00†	6050.00	503.09	-1540.47	8074.13	6050.00	976.36	-1542.88	90.00	473.27	217.36	2.18	PASS
8117.00†	6050.00	502.07	-1640.47	8174.13	6050.00	975.85	-1642.88	90.00	473.78	227.76	2.08	PASS
8217.00†	6050.00	501.06	-1740.46	8274.13	6050.00	975.34	-1742.87	90.00	474.29	238.21	1.99	PASS
8317.00†	6050.00	500.04	-1840.46	8374.13	6050.00	974.83	-1842.87	90.00	474.80	248.70	1.91	PASS
8417.00†	6050.00	499.02	-1940.45	8474.13	6050.00	974.32	-1942.87	90.00	475.31	259.23	1.84	PASS
8517.00†	6050.00	498.00	-2040.45	8574.12	6050.00	973.81	-2042.87	90.00	475.82	269.78	1.77	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

Clearance Report

STATE ANTELOPE 42-12-13HNB PWP (REV-A.0)

Closest Approach

REFERENCE WELLPATH IDENTIFICATION

Operator	**BONANZA CREEK OIL COMPANY**	Slot	**SLOT#08 STATE ANTELOPE 42-12-13HNB (2627'FNL & 510'FEL,SEC.13)**
Area	**COLORADO**	Well	**STATE ANTELOPE 42-12-13HNB**
Field	**WELD COUNTY**	Wellbore	**STATE ANTELOPE 42-12-13HNB PWB**
Facility	**SEC.13-T5N-R62W**		

CLEARANCE DATA - Offset Wellbore: STATE ANTELOPE V-B-13HNB PWB Offset Wellpath: STATE ANTELOPE V-B-13HNB PWP (REV-A.0)

Facility: SEC.13-T5N-R62W Slot: SLOT#07 STATE ANTELOPE V-B-13HNB (2607'FNL & 510'FEL,SEC.13) Well: STATE ANTELOPE V-B-13HNB Threshold Value=1.00 † = interpolated/extrapolated station

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
8617.00†	6050.00	496.98	-2140.44	8674.12	6050.00	973.30	-2142.86	90.00	476.33	280.37	1.70	PASS
8717.00†	6050.00	495.97	-2240.44	8774.12	6050.00	972.80	-2242.86	90.00	476.84	290.97	1.64	PASS
8817.00†	6050.00	494.95	-2340.43	8874.12	6050.00	972.29	-2342.86	90.00	477.35	301.60	1.58	PASS
8917.00†	6050.00	493.93	-2440.43	8974.12	6050.00	971.78	-2442.86	90.00	477.86	312.25	1.53	PASS
9017.00†	6050.00	492.91	-2540.42	9074.12	6050.00	971.27	-2542.85	90.00	478.36	322.91	1.48	PASS
9117.00†	6050.00	491.90	-2640.42	9174.12	6050.00	970.76	-2642.85	90.00	478.87	333.60	1.44	PASS
9217.00†	6050.00	490.88	-2740.41	9274.12	6050.00	970.25	-2742.85	90.00	479.38	344.29	1.39	PASS
9317.00†	6050.00	489.86	-2840.41	9374.11	6050.00	969.75	-2842.85	90.00	479.89	355.00	1.35	PASS
9417.00†	6050.00	488.84	-2940.40	9474.11	6050.00	969.24	-2942.84	90.00	480.40	365.72	1.31	PASS
9517.00†	6050.00	487.82	-3040.40	9574.11	6050.00	968.73	-3042.84	90.00	480.91	376.45	1.28	PASS
9617.00†	6050.00	486.81	-3140.39	9674.11	6050.00	968.22	-3142.84	90.00	481.42	387.20	1.24	PASS
9717.00†	6050.00	485.79	-3240.39	9774.11	6050.00	967.71	-3242.84	90.00	481.93	397.95	1.21	PASS
9817.00†	6050.00	484.77	-3340.38	9874.11	6050.00	967.20	-3342.83	90.00	482.44	408.71	1.18	PASS
9917.00†	6050.00	483.75	-3440.37	9974.11	6050.00	966.70	-3442.83	90.00	482.95	419.47	1.15	PASS
10017.00†	6050.00	482.73	-3540.37	10074.10	6050.00	966.19	-3542.83	90.00	483.46	430.25	1.12	PASS
10117.00†	6050.00	481.72	-3640.36	10174.10	6050.00	965.68	-3642.82	90.00	483.97	441.03	1.10	PASS
10217.00†	6050.00	480.70	-3740.36	10274.10	6050.00	965.17	-3742.82	90.00	484.48	451.81	1.07	PASS
10317.00†	6050.00	479.68	-3840.35	10374.10	6050.00	964.66	-3842.82	90.00	484.99	462.61	1.05	PASS
10417.00†	6050.00	478.66	-3940.35	10474.10	6050.00	964.15	-3942.82	90.00	485.50	473.41	1.03	PASS
10517.00†	6050.00	477.65	-4040.34	10574.10	6050.00	963.65	-4042.81	90.00	486.01	484.21	1.00	PASS
10617.00†	6050.00	476.63	-4140.34	10674.10	6050.00	963.14	-4142.81	90.00	486.52	495.02	0.98	FAIL
10717.00†	6050.00	475.61	-4240.33	10774.10	6050.00	962.63	-4242.81	90.00	487.03	505.83	0.96	FAIL
10817.00†	6050.00	474.59	-4340.33	10874.09	6050.00	962.12	-4342.81	90.00	487.53	516.65	0.94	FAIL
10917.00†	6050.00	473.57	-4440.32	10974.09	6050.00	961.61	-4442.80	90.00	488.04	527.47	0.93	FAIL
11017.00†	6050.00	472.56	-4540.32	11074.09	6050.00	961.10	-4542.80	90.00	488.55	538.29	0.91	FAIL
11117.00†	6050.00	471.54	-4640.31	11174.09	6050.00	960.60	-4642.80	90.00	489.06	549.12	0.89	FAIL
11217.00†	6050.00	470.52	-4740.31	11274.09	6050.00	960.09	-4742.80	90.00	489.57	559.95	0.87	FAIL
11226.99	6050.00	470.42	-4750.29	11280.38	6050.00	960.06	-4749.09	90.00	489.64	560.99	0.87	FAIL

C-C Clearance Distance Cutoff: 1000.00 ft

POSITIONAL UNCERTAINTY - Offset Wellbore: STATE ANTELOPE V-B-13HNB PWB Offset Wellpath: STATE ANTELOPE V-B-13HNB PWP (REV-A.0)

Slot Surface Uncertainty @1SD	Horizontal	**0.100ft**	Vertical	**1.000ft**

POSITIONAL UNCERTAINTY - Offset Wellbore: STATE ANTELOPE V-B-13HNB PWB Offset Wellpath: STATE ANTELOPE V-B-13HNB PWP (REV-A.0)				
Facility Surface Uncertainty @1SD	Horizontal	**8.200ft**	Vertical	**3.000ft**

HOLE & CASING SECTIONS - Offset Wellbore: STATE ANTELOPE V-B-13HNB PWB Offset Wellpath: STATE ANTELOPE V-B-13HNB PWP (REV-A.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]
13.5in Open Hole	17.00	1550.00	1533.00	17.00	1530.77	12.21	0.00	62.22	35.28
9.625in Casing Surface	17.00	1550.00	1533.00	17.00	1530.77	12.21	0.00	62.22	35.28
8.5in Open Hole	1550.00	11280.38	9730.38	1530.77	N/A	62.22	35.28	N/A	N/A

REFERENCE WELLPATH IDENTIFICATION

Operator	**BONANZA CREEK OIL COMPANY**	Slot	**SLOT#08 STATE ANTELOPE 42-12-13HNB (2627'FNL & 510'FEL,SEC.13)**
Area	**COLORADO**	Well	**STATE ANTELOPE 42-12-13HNB**
Field	**WELD COUNTY**	Wellbore	**STATE ANTELOPE 42-12-13HNB PWB**
Facility	**SEC.13-T5N-R62W**		

SURVEY PROGRAM - Offset Wellbore: STATE ANTELOPE V-B-13HNB PWB Offset Wellpath: STATE ANTELOPE V-B-13HNB PWP (REV-A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	1550.00	BHI NaviTrak (Rotating)		STATE ANTELOPE V-B-13HNB PWB
1550.00	11280.38	BHI AutoTrak Curve (Short)		STATE ANTELOPE V-B-13HNB PWB

OFFSET WELLPATH REFERENCE - Offset Wellbore: STATE ANTELOPE V-B-13HNB PWB Offset Wellpath: STATE ANTELOPE V-B-13HNB PWP (REV-A.0)

MD Reference: **RIG (17') (RKB)**	*Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)*
Ellipse Start MD	**17.00ft**

Clearance Report

STATE ANTELOPE 42-12-13HNB PWP (REV-A.0)

Closest Approach

REFERENCE WELLPATH IDENTIFICATION

Operator	**BONANZA CREEK OIL COMPANY**	Slot	**SLOT#08 STATE ANTELOPE 42-12-13HNB (2627'FNL & 510'FEL,SEC.13)**
Area	**COLORADO**	Well	**STATE ANTELOPE 42-12-13HNB**
Field	**WELD COUNTY**	Wellbore	**STATE ANTELOPE 42-12-13HNB PWB**
Facility	**SEC.13-T5N-R62W**		

CLEARANCE DATA - Offset Wellbore: STATE ANTELOPE W42-C12-13HNB PWB Offset Wellpath: STATE ANTELOPE W42-C12-13HNB PWP (REV-A.0)

Facility: SEC.13-T5N-R62W Slot: SLOT#09 STATE ANTELOPE W42-C12-13HNB (2647'FNL & 510'FEL,SEC.13) Well: STATE ANTELOPE W42-C12-13HNB Threshold Value=1.00 † = interpolated/extrapolated station

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
17.00	17.00	0.00	0.00	17.00	17.00	-20.04	0.28	179.20	20.04	1.56	31.79	PASS
117.00†	117.00	0.00	0.00	117.00	117.00	-20.04	0.28	179.20	20.04	2.18	15.65	PASS
217.00†	217.00	0.00	0.00	217.00	217.00	-20.04	0.28	179.20	20.04	3.16	8.67	PASS
317.00†	317.00	0.00	0.00	317.00	317.00	-20.04	0.28	179.20	20.04	4.19	5.92	PASS
400.00	400.00	0.00	0.00	400.00	400.00	-20.04	0.28	179.20	20.04	5.04	4.68	PASS
417.00†	417.00	0.03	0.04	417.00	417.00	-20.04	0.28	126.74	20.07	5.22	4.49	PASS
517.00†	516.97	1.45	1.90	516.99	516.99	-20.03	0.33	131.58	21.54	6.32	3.84	PASS
617.00†	616.79	4.99	6.52	617.10	617.07	-19.75	2.65	136.26	25.04	7.62	3.62	PASS
717.00†	716.35	10.65	13.91	717.25	717.04	-19.04	8.45	137.77	30.19	8.90	3.68	PASS
817.00†	815.53	18.41	24.06	817.37	816.72	-17.91	17.71	137.22	36.89	10.14	3.92	PASS
853.24	851.36	21.74	28.42	853.64	852.74	-17.40	21.92	136.71	39.70	10.56	4.04	PASS
917.00†	914.32	27.85	36.39	917.26	915.83	-16.41	30.00	135.50	44.74	11.23	4.26	PASS
1017.00†	1013.07	37.42	48.91	1016.93	1014.68	-14.85	42.73	134.00	52.66	12.33	4.55	PASS
1117.00†	1111.82	47.00	61.42	1116.61	1113.53	-13.30	55.47	132.89	60.61	13.48	4.77	PASS
1217.00†	1210.57	56.57	73.93	1216.29	1212.38	-11.75	68.20	132.04	68.58	14.66	4.94	PASS
1317.00†	1309.32	66.14	86.44	1315.97	1311.23	-10.19	80.94	131.36	76.56	15.88	5.07	PASS
1417.00†	1408.07	75.72	98.96	1415.64	1410.08	-8.64	93.67	130.82	84.54	17.11	5.18	PASS
1517.00†	1506.82	85.29	111.47	1515.32	1508.93	-7.08	106.40	130.36	92.54	18.35	5.27	PASS
1617.00†	1605.57	94.87	123.98	1615.00	1607.78	-5.53	119.14	129.98	100.53	18.90	5.49	PASS
1717.00†	1704.32	104.44	136.49	1714.68	1706.62	-3.97	131.87	129.66	108.54	19.30	5.80	PASS
1817.00†	1803.07	114.01	149.01	1814.35	1805.47	-2.42	144.60	129.38	116.54	19.79	6.07	PASS
1917.00†	1901.83	123.59	161.52	1914.03	1904.32	-0.86	157.34	129.13	124.55	20.35	6.30	PASS
2017.00†	2000.58	133.16	174.03	2013.71	2003.17	0.69	170.07	128.92	132.56	20.99	6.50	PASS
2117.00†	2099.33	142.74	186.54	2113.39	2102.02	2.24	182.81	128.73	140.57	21.69	6.66	PASS
2217.00†	2198.08	152.31	199.06	2213.06	2200.87	3.80	195.54	128.56	148.58	22.46	6.80	PASS
2317.00†	2296.83	161.89	211.57	2312.74	2299.72	5.35	208.27	128.41	156.59	23.27	6.91	PASS
2417.00†	2395.58	171.46	224.08	2412.42	2398.56	6.91	221.01	128.27	164.61	24.14	6.99	PASS
2517.00†	2494.33	181.03	236.59	2512.10	2497.41	8.46	233.74	128.15	172.62	25.05	7.06	PASS
2617.00†	2593.08	190.61	249.11	2611.77	2596.26	10.02	246.48	128.03	180.64	25.99	7.12	PASS
2717.00†	2691.83	200.18	261.62	2711.45	2695.11	11.57	259.21	127.93	188.66	26.97	7.16	PASS
2817.00†	2790.59	209.76	274.13	2811.13	2793.96	13.12	271.94	127.83	196.67	27.99	7.18	PASS
2917.00†	2889.34	219.33	286.64	2910.81	2892.81	14.68	284.68	127.75	204.69	29.02	7.20	PASS
3017.00†	2988.09	228.90	299.16	3010.49	2991.66	16.23	297.41	127.66	212.71	30.08	7.22	PASS

CLEARANCE DATA - Offset Wellbore: **STATE ANTELOPE W42-C12-13HNB PWB** Offset Wellpath: **STATE ANTELOPE W42-C12-13HNB PWP (REV-A.0)**

Facility: SEC.13-T5N-R62W **Slot: SLOT#09 STATE ANTELOPE W42-C12-13HNB (2647'FNL & 510'FEL,SEC.13)** **Well: STATE ANTELOPE W42-C12-13HNB** **Threshold Value=1.00** **† = interpolated/extrapolated station**

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
3117.00†	3086.84	238.48	311.67	3110.16	3090.51	17.79	310.14	127.59	220.73	31.17	7.22	PASS
3217.00†	3185.59	248.05	324.18	3209.84	3189.35	19.34	322.88	127.52	228.74	32.27	7.22	PASS
3317.00†	3284.34	257.63	336.69	3309.52	3288.20	20.90	335.61	127.45	236.76	33.39	7.22	PASS
3417.00†	3383.09	267.20	349.21	3409.20	3387.05	22.45	348.35	127.39	244.78	34.53	7.22	PASS
3517.00†	3481.84	276.78	361.72	3508.87	3485.90	24.01	361.08	127.34	252.80	35.68	7.21	PASS
3617.00†	3580.59	286.35	374.23	3608.55	3584.75	25.56	373.81	127.28	260.82	36.84	7.20	PASS
3717.00†	3679.34	295.92	386.74	3708.23	3683.60	27.11	386.55	127.23	268.84	38.02	7.19	PASS
3817.00†	3778.10	305.50	399.26	3807.91	3782.45	28.67	399.28	127.18	276.86	39.20	7.17	PASS
3917.00†	3876.85	315.07	411.77	3907.58	3881.29	30.22	412.02	127.14	284.88	40.40	7.16	PASS
4017.00†	3975.60	324.65	424.28	4007.26	3980.14	31.78	424.75	127.10	292.90	41.60	7.15	PASS
4117.00†	4074.35	334.22	436.79	4106.94	4078.99	33.33	437.48	127.06	300.92	42.81	7.13	PASS
4217.00†	4173.10	343.79	449.31	4206.62	4177.84	34.89	450.22	127.02	308.95	44.03	7.11	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

Clearance Report

STATE ANTELOPE 42-12-13HNB PWP (REV-A.0)

Closest Approach

REFERENCE WELLPATH IDENTIFICATION

Operator	**BONANZA CREEK OIL COMPANY**	Slot	**SLOT#08 STATE ANTELOPE 42-12-13HNB (2627'FNL & 510'FEL,SEC.13)**
Area	**COLORADO**	Well	**STATE ANTELOPE 42-12-13HNB**
Field	**WELD COUNTY**	Wellbore	**STATE ANTELOPE 42-12-13HNB PWB**
Facility	**SEC.13-T5N-R62W**		

CLEARANCE DATA - Offset Wellbore: STATE ANTELOPE W42-C12-13HNB PWB Offset Wellpath: STATE ANTELOPE W42-C12-13HNB PWP (REV-A.0)

Facility: SEC.13-T5N-R62W Slot: SLOT#09 STATE ANTELOPE W42-C12-13HNB (2647'FNL & 510'FEL,SEC.13) Well: STATE ANTELOPE W42-C12-13HNB Threshold Value=1.00 † = interpolated/extrapolated station

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
4317.00†	4271.85	353.37	461.82	4306.29	4276.69	36.44	462.95	126.98	316.97	45.26	7.10	PASS
4417.00†	4370.60	362.94	474.33	4405.97	4375.54	38.00	475.68	126.95	324.99	46.49	7.08	PASS
4517.00†	4469.35	372.52	486.84	4505.65	4474.39	39.55	488.42	126.92	333.01	47.73	7.07	PASS
4617.00†	4568.10	382.09	499.36	4605.33	4573.24	41.10	501.15	126.88	341.03	48.97	7.05	PASS
4717.00†	4666.86	391.67	511.87	4705.00	4672.08	42.66	513.89	126.85	349.05	50.22	7.04	PASS
4817.00†	4765.61	401.24	524.38	4804.68	4770.93	44.21	526.62	126.83	357.07	51.47	7.02	PASS
4917.00†	4864.36	410.81	536.89	4904.36	4869.78	45.77	539.35	126.80	365.09	52.73	7.01	PASS
5017.00†	4963.11	420.39	549.41	5004.04	4968.63	47.32	552.09	126.77	373.12	53.99	6.99	PASS
5117.00†	5061.86	429.96	561.92	5103.71	5067.48	48.88	564.82	126.75	381.14	55.25	6.98	PASS
5217.00†	5160.61	439.54	574.43	5203.39	5166.33	50.43	577.55	126.72	389.16	56.52	6.96	PASS
5317.00†	5259.36	449.11	586.94	5303.07	5265.18	51.99	590.29	126.70	397.18	57.79	6.95	PASS
5417.00†	5358.11	458.68	599.46	5402.75	5364.02	53.54	603.02	126.68	405.20	59.06	6.93	PASS
5467.24	5407.73	463.49	605.74	5452.78	5413.65	54.32	609.33	126.68	409.23	59.70	6.93	PASS
5517.00†	5457.07	468.26	609.82	5502.10	5462.84	55.05	612.66	157.53	413.26	60.25	6.93	PASS
5617.00†	5556.38	477.71	604.96	5601.02	5561.44	56.31	606.58	-124.41	421.43	61.79	6.89	PASS
5717.00†	5653.35	486.76	582.86	5699.74	5657.34	57.27	583.71	-105.48	429.51	63.82	6.79	PASS
5817.00†	5745.05	495.14	544.18	5798.31	5747.78	57.91	544.81	-98.79	437.23	64.01	6.90	PASS
5917.00†	5828.68	502.59	490.10	5896.81	5830.16	58.22	491.04	-95.29	444.37	63.70	7.04	PASS
6017.00†	5901.71	508.88	422.26	5995.29	5902.13	58.17	423.99	-93.11	450.71	63.85	7.13	PASS
6117.00†	5961.91	513.83	342.73	6093.81	5961.59	57.78	345.60	-91.68	456.06	64.90	7.09	PASS
6217.00†	6007.46	517.29	253.91	6192.39	6006.78	57.05	258.12	-90.74	460.25	67.13	6.92	PASS
6317.00†	6036.98	519.14	158.52	6291.08	6036.36	56.01	164.10	-90.20	463.16	70.53	6.62	PASS
6417.00†	6049.55	519.33	59.44	6389.88	6049.39	54.68	66.30	-90.00	464.70	74.88	6.26	PASS
6439.68	6050.00	519.14	36.76	6412.30	6049.99	54.34	43.88	-90.00	464.85	75.94	6.17	PASS
6517.00†	6050.00	518.36	-40.55	6489.58	6050.00	53.15	-33.38	-90.00	465.26	80.14	5.85	PASS
6617.00†	6050.00	517.34	-140.55	6589.58	6050.00	51.61	-133.37	-90.00	465.78	86.44	5.42	PASS
6717.00†	6050.00	516.32	-240.54	6689.57	6050.00	50.07	-233.35	-90.00	466.31	93.60	5.01	PASS
6817.00†	6050.00	515.30	-340.54	6789.57	6050.00	48.53	-333.34	-90.00	466.83	101.43	4.63	PASS
6917.00†	6050.00	514.29	-440.53	6889.57	6050.00	46.99	-433.33	-90.00	467.35	109.80	4.28	PASS
7017.00†	6050.00	513.27	-540.53	6989.57	6050.00	45.45	-533.31	-90.00	467.88	118.58	3.96	PASS
7117.00†	6050.00	512.25	-640.52	7089.57	6050.00	43.91	-633.30	-90.00	468.40	127.69	3.68	PASS
7217.00†	6050.00	511.23	-740.51	7189.57	6050.00	42.36	-733.29	-90.00	468.92	137.07	3.43	PASS
7317.00†	6050.00	510.22	-840.51	7289.57	6050.00	40.82	-833.27	-90.00	469.45	146.65	3.21	PASS

CLEARANCE DATA - Offset Wellbore: **STATE ANTELOPE W42-C12-13HNB PWB** Offset Wellpath: **STATE ANTELOPE W42-C12-13HNB PWP (REV-A.0)**

Facility: SEC.13-T5N-R62W Slot: SLOT#09 STATE ANTELOPE W42-C12-13HNB (2647'FNL & 510'FEL,SEC.13) Well: STATE ANTELOPE W42-C12-13HNB Threshold Value=1.00 † = interpolated/extrapolated station

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
7417.00†	6050.00	509.20	-940.50	7389.57	6050.00	39.28	-933.26	-90.00	469.97	156.41	3.01	PASS
7517.00†	6050.00	508.18	-1040.50	7489.56	6050.00	37.74	-1033.25	-90.00	470.50	166.33	2.84	PASS
7617.00†	6050.00	507.16	-1140.49	7589.56	6050.00	36.20	-1133.23	-90.00	471.02	176.34	2.68	PASS
7717.00†	6050.00	506.14	-1240.49	7689.56	6050.00	34.66	-1233.22	-90.00	471.54	186.46	2.53	PASS
7817.00†	6050.00	505.13	-1340.48	7789.56	6050.00	33.12	-1333.21	-90.00	472.07	196.67	2.41	PASS
7917.00†	6050.00	504.11	-1440.48	7889.56	6050.00	31.57	-1433.19	-90.00	472.59	206.95	2.29	PASS
8017.00†	6050.00	503.09	-1540.47	7989.56	6050.00	30.03	-1533.18	-90.00	473.11	217.29	2.18	PASS
8117.00†	6050.00	502.07	-1640.47	8089.56	6050.00	28.49	-1633.17	-90.00	473.64	227.68	2.08	PASS
8217.00†	6050.00	501.06	-1740.46	8189.55	6050.00	26.95	-1733.15	-90.00	474.16	238.12	1.99	PASS
8317.00†	6050.00	500.04	-1840.46	8289.55	6050.00	25.41	-1833.14	-90.00	474.68	248.60	1.91	PASS
8417.00†	6050.00	499.02	-1940.45	8389.55	6050.00	23.87	-1933.13	-90.00	475.21	259.11	1.84	PASS
8517.00†	6050.00	498.00	-2040.45	8489.55	6050.00	22.33	-2033.11	-90.00	475.73	269.66	1.77	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

Clearance Report

STATE ANTELOPE 42-12-13HNB PWP (REV-A.0)

Closest Approach

REFERENCE WELLPATH IDENTIFICATION

Operator	**BONANZA CREEK OIL COMPANY**	Slot	**SLOT#08 STATE ANTELOPE 42-12-13HNB (2627'FNL & 510'FEL,SEC.13)**
Area	**COLORADO**	Well	**STATE ANTELOPE 42-12-13HNB**
Field	**WELD COUNTY**	Wellbore	**STATE ANTELOPE 42-12-13HNB PWB**
Facility	**SEC.13-T5N-R62W**		

CLEARANCE DATA - Offset Wellbore: STATE ANTELOPE W42-C12-13HNB PWB Offset Wellpath: STATE ANTELOPE W42-C12-13HNB PWP (REV-A.0)

Facility: SEC.13-T5N-R62W Slot: SLOT#09 STATE ANTELOPE W42-C12-13HNB (2647'FNL & 510'FEL,SEC.13) Well: STATE ANTELOPE W42-C12-13HNB Threshold Value=1.00 † = interpolated/extrapolated station

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
8617.00†	6050.00	496.98	-2140.44	8589.55	6050.00	20.78	-2133.10	-90.00	476.26	280.23	1.70	PASS
8717.00†	6050.00	495.97	-2240.44	8689.55	6050.00	19.24	-2233.09	-90.00	476.78	290.83	1.64	PASS
8817.00†	6050.00	494.95	-2340.43	8789.55	6050.00	17.70	-2333.07	-90.00	477.30	301.45	1.58	PASS
8917.00†	6050.00	493.93	-2440.43	8889.54	6050.00	16.16	-2433.06	-90.00	477.83	312.09	1.53	PASS
9017.00†	6050.00	492.91	-2540.42	8989.54	6050.00	14.62	-2533.05	-90.00	478.35	322.75	1.48	PASS
9117.00†	6050.00	491.90	-2640.42	9089.54	6050.00	13.08	-2633.03	-90.00	478.87	333.42	1.44	PASS
9217.00†	6050.00	490.88	-2740.41	9189.54	6050.00	11.54	-2733.02	-90.00	479.40	344.11	1.39	PASS
9317.00†	6050.00	489.86	-2840.41	9289.54	6050.00	10.00	-2833.01	-90.00	479.92	354.81	1.35	PASS
9417.00†	6050.00	488.84	-2940.40	9389.54	6050.00	8.45	-2933.00	-90.00	480.44	365.52	1.32	PASS
9517.00†	6050.00	487.82	-3040.40	9489.54	6050.00	6.91	-3032.98	-90.00	480.97	376.25	1.28	PASS
9617.00†	6050.00	486.81	-3140.39	9589.53	6050.00	5.37	-3132.97	-90.00	481.49	386.98	1.24	PASS
9717.00†	6050.00	485.79	-3240.39	9689.53	6050.00	3.83	-3232.96	-90.00	482.02	397.72	1.21	PASS
9817.00†	6050.00	484.77	-3340.38	9789.53	6050.00	2.29	-3332.94	-90.00	482.54	408.48	1.18	PASS
9917.00†	6050.00	483.75	-3440.37	9889.53	6050.00	0.75	-3432.93	-90.00	483.06	419.24	1.15	PASS
10017.00†	6050.00	482.73	-3540.37	9989.53	6050.00	-0.79	-3532.92	-90.00	483.59	430.00	1.12	PASS
10117.00†	6050.00	481.72	-3640.36	10089.53	6050.00	-2.34	-3632.90	-90.00	484.11	440.78	1.10	PASS
10217.00†	6050.00	480.70	-3740.36	10189.53	6050.00	-3.88	-3732.89	-90.00	484.63	451.56	1.07	PASS
10317.00†	6050.00	479.68	-3840.35	10289.53	6050.00	-5.42	-3832.88	-90.00	485.16	462.35	1.05	PASS
10417.00†	6050.00	478.66	-3940.35	10389.52	6050.00	-6.96	-3932.86	-90.00	485.68	473.14	1.03	PASS
10517.00†	6050.00	477.65	-4040.34	10489.52	6050.00	-8.50	-4032.85	-90.00	486.21	483.93	1.00	PASS
10617.00†	6050.00	476.63	-4140.34	10589.52	6050.00	-10.04	-4132.84	-90.00	486.73	494.74	0.98	FAIL
10717.00†	6050.00	475.61	-4240.33	10689.52	6050.00	-11.58	-4232.82	-90.00	487.25	505.54	0.96	FAIL
10817.00†	6050.00	474.59	-4340.33	10789.52	6050.00	-13.13	-4332.81	-90.00	487.78	516.35	0.94	FAIL
10917.00†	6050.00	473.57	-4440.32	10889.52	6050.00	-14.67	-4432.80	-90.00	488.30	527.17	0.93	FAIL
11017.00†	6050.00	472.56	-4540.32	10989.52	6050.00	-16.21	-4532.78	-90.00	488.82	537.99	0.91	FAIL
11117.00†	6050.00	471.54	-4640.31	11089.51	6050.00	-17.75	-4632.77	-90.00	489.35	548.81	0.89	FAIL
11217.00†	6050.00	470.52	-4740.31	11189.51	6050.00	-19.29	-4732.76	-90.00	489.87	559.63	0.88	FAIL
11226.99	6050.00	470.42	-4750.29	11199.50	6050.00	-19.45	-4742.74	-90.00	489.92	560.71	0.87	FAIL

C-C Clearance Distance Cutoff: 1000.00 ft

POSITIONAL UNCERTAINTY - Offset Wellbore: STATE ANTELOPE W42-C12-13HNB PWB Offset Wellpath: STATE ANTELOPE W42-C12-13HNB PWP (REV-A.0)

Slot Surface Uncertainty @1SD	Horizontal	**0.100ft**	Vertical	**1.000ft**

POSITIONAL UNCERTAINTY - Offset Wellbore: STATE ANTELOPE W42-C12-13HNB PWB Offset Wellpath: STATE ANTELOPE W42-C12-13HNB PWP (REV-A.0)				
Facility Surface Uncertainty @1SD	Horizontal	8.200ft	Vertical	3.000ft

HOLE & CASING SECTIONS - Offset Wellbore: **STATE ANTELOPE W42-C12-13HNB PWB** Offset Wellpath: **STATE ANTELOPE W42-C12-13HNB PWP (REV-A.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]
13.5in Open Hole	17.00	1550.00	1533.00	17.00	1543.32	-12.21	0.17	-8.10	33.87
9.625in Casing Surface	17.00	1550.00	1533.00	17.00	1543.32	-12.21	0.17	-8.10	33.87
8.5in Open Hole	1550.00	11208.26	9658.26	1543.32	6050.00	-8.10	33.87	-12.08	-1448.17

REFERENCE WELLPATH IDENTIFICATION

Operator	**BONANZA CREEK OIL COMPANY**	Slot	**SLOT#08 STATE ANTELOPE 42-12-13HNB (2627'FNL & 510'FEL,SEC.13)**
Area	**COLORADO**	Well	**STATE ANTELOPE 42-12-13HNB**
Field	**WELD COUNTY**	Wellbore	**STATE ANTELOPE 42-12-13HNB PWB**
Facility	**SEC.13-T5N-R62W**		

SURVEY PROGRAM - Offset Wellbore: STATE ANTELOPE W42-C12-13HNB PWB Offset Wellpath: STATE ANTELOPE W42-C12-13HNB PWP (REV-A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	1550.00	BHI NaviTrak (Rotating)		STATE ANTELOPE W42-C12-13HNB PWB
1550.00	11208.26	BHI AutoTrak Curve (Short)		STATE ANTELOPE W42-C12-13HNB PWB

OFFSET WELLPATH REFERENCE - Offset Wellbore: STATE ANTELOPE W42-C12-13HNB PWB Offset Wellpath: STATE ANTELOPE W42-C12-13HNB PWP (REV-A.0)

MD Reference: **RIG (17') (RKB)**	*Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)*
Ellipse Start MD	**17.00ft**

Clearance Report

STATE ANTELOPE 42-12-13HNB PWP (REV-A.0)

Closest Approach

REFERENCE WELLPATH IDENTIFICATION

Operator	**BONANZA CREEK OIL COMPANY**	Slot	**SLOT#08 STATE ANTELOPE 42-12-13HNB (2627'FNL & 510'FEL,SEC.13)**
Area	**COLORADO**	Well	**STATE ANTELOPE 42-12-13HNB**
Field	**WELD COUNTY**	Wellbore	**STATE ANTELOPE 42-12-13HNB PWB**
Facility	**SEC.13-T5N-R62W**		

CLEARANCE DATA - Offset Wellbore: STATE ANTELOPE V41-B11-13HNB PWB Offset Wellpath: STATE ANTELOPE V41-B11-13HNB PWP (REV-A.0)

Facility: SEC.13-T5N-R62W Slot: SLOT#06 STATE ANTELOPE V41-B11-13HNB (2587'FNL & 510'FEL,SEC.13) Well: STATE ANTELOPE V41-B11-13HNB Threshold Value=1.00 † = interpolated/extrapolated station

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
17.00	17.00	0.00	0.00	17.00	17.00	40.07	0.00	0.00	40.07	1.56	65.18	PASS
117.00†	117.00	0.00	0.00	117.00	117.00	40.07	0.00	0.00	40.07	2.18	32.08	PASS
217.00†	217.00	0.00	0.00	216.79	216.79	40.12	0.02	0.03	40.12	3.16	17.82	PASS
317.00†	317.00	0.00	0.00	315.48	315.45	42.17	1.01	1.37	42.21	4.38	12.08	PASS
400.00	400.00	0.00	0.00	397.20	397.04	46.19	2.94	3.64	46.38	5.63	9.73	PASS
417.00†	417.00	0.03	0.04	413.90	413.70	47.27	3.46	-48.42	47.48	5.89	9.44	PASS
517.00†	516.97	1.45	1.90	512.01	511.39	55.37	7.35	-46.65	54.48	7.30	8.44	PASS
617.00†	616.79	4.99	6.52	609.83	608.43	66.45	12.67	-46.52	62.33	8.75	7.88	PASS
717.00†	716.35	10.65	13.91	707.31	704.67	80.46	19.40	-47.48	70.99	10.09	7.68	PASS
817.00†	815.53	18.41	24.06	804.45	799.97	97.34	27.51	-49.13	80.52	11.30	7.69	PASS
853.24	851.36	21.74	28.42	839.56	834.26	104.15	30.79	-49.84	84.20	11.72	7.74	PASS
917.00†	914.32	27.85	36.39	901.15	894.18	117.03	36.98	-50.96	91.43	12.44	7.88	PASS
1017.00†	1013.07	37.42	48.91	997.20	986.95	139.41	47.73	-51.76	105.29	13.58	8.27	PASS
1117.00†	1111.82	47.00	61.42	1095.87	1081.79	163.95	59.52	-52.02	120.76	14.67	8.74	PASS
1217.00†	1210.57	56.57	73.93	1194.66	1176.75	188.52	71.33	-52.22	136.24	15.83	9.10	PASS
1317.00†	1309.32	66.14	86.44	1293.46	1271.71	213.09	83.13	-52.37	151.72	16.97	9.42	PASS
1417.00†	1408.07	75.72	98.96	1392.25	1366.66	237.66	94.94	-52.50	167.20	18.16	9.67	PASS
1517.00†	1506.82	85.29	111.47	1491.04	1461.62	262.23	106.75	-52.61	182.69	19.38	9.87	PASS
1617.00†	1605.57	94.87	123.98	1589.84	1556.58	286.81	118.55	-52.70	198.17	19.95	10.26	PASS
1717.00†	1704.32	104.44	136.49	1688.63	1651.54	311.38	130.36	-52.78	213.65	20.40	10.82	PASS
1817.00†	1803.07	114.01	149.01	1787.43	1746.50	335.95	142.17	-52.84	229.14	20.86	11.33	PASS
1917.00†	1901.83	123.59	161.52	1886.22	1841.45	360.52	153.97	-52.90	244.62	21.41	11.78	PASS
2017.00†	2000.58	133.16	174.03	1985.01	1936.41	385.09	165.78	-52.95	260.10	22.03	12.17	PASS
2117.00†	2099.33	142.74	186.54	2083.81	2031.37	409.66	177.59	-53.00	275.59	22.71	12.49	PASS
2217.00†	2198.08	152.31	199.06	2182.60	2126.33	434.24	189.39	-53.04	291.07	23.46	12.76	PASS
2317.00†	2296.83	161.89	211.57	2281.39	2221.29	458.81	201.20	-53.08	306.56	24.26	12.98	PASS
2417.00†	2395.58	171.46	224.08	2380.19	2316.24	483.38	213.00	-53.11	322.04	25.12	13.16	PASS
2517.00†	2494.33	181.03	236.59	2478.98	2411.20	507.95	224.81	-53.14	337.53	26.02	13.31	PASS
2617.00†	2593.08	190.61	249.11	2577.77	2506.16	532.52	236.62	-53.17	353.01	26.96	13.42	PASS
2717.00†	2691.83	200.18	261.62	2676.57	2601.12	557.09	248.42	-53.19	368.50	27.93	13.51	PASS
2817.00†	2790.59	209.76	274.13	2775.36	2696.08	581.67	260.23	-53.21	383.98	28.94	13.58	PASS
2917.00†	2889.34	219.33	286.64	2874.16	2791.04	606.24	272.04	-53.24	399.47	29.97	13.63	PASS
3017.00†	2988.09	228.90	299.16	2972.95	2885.99	630.81	283.84	-53.25	414.95	31.04	13.66	PASS

CLEARANCE DATA - Offset Wellbore: **STATE ANTELOPE V41-B11-13HNB PWB** Offset Wellpath: **STATE ANTELOPE V41-B11-13HNB PWP (REV-A.0)**

Facility: SEC.13-T5N-R62W Slot: SLOT#06 STATE ANTELOPE V41-B11-13HNB (2587'FNL & 510'FEL,SEC.13) Well: STATE ANTELOPE V41-B11-13HNB Threshold Value=1.00 † = interpolated/extrapolated station

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
3117.00†	3086.84	238.48	311.67	3071.74	2980.95	655.38	295.65	-53.27	430.44	32.12	13.68	PASS
3217.00†	3185.59	248.05	324.18	3170.54	3075.91	679.95	307.46	-53.29	445.92	33.23	13.69	PASS
3317.00†	3284.34	257.63	336.69	3269.33	3170.87	704.52	319.26	-53.31	461.41	34.36	13.69	PASS
3417.00†	3383.09	267.20	349.21	3368.12	3265.83	729.10	331.07	-53.32	476.89	35.50	13.69	PASS
3517.00†	3481.84	276.78	361.72	3466.92	3360.78	753.67	342.88	-53.33	492.38	36.66	13.68	PASS
3617.00†	3580.59	286.35	374.23	3565.71	3455.74	778.24	354.68	-53.35	507.86	37.84	13.66	PASS
3717.00†	3679.34	295.92	386.74	3664.51	3550.70	802.81	366.49	-53.36	523.35	39.02	13.64	PASS
3817.00†	3778.10	305.50	399.26	3763.30	3645.66	827.38	378.30	-53.37	538.83	40.22	13.62	PASS
3917.00†	3876.85	315.07	411.77	3862.09	3740.62	851.95	390.10	-53.38	554.32	41.43	13.60	PASS
4017.00†	3975.60	324.65	424.28	3960.89	3835.57	876.53	401.91	-53.39	569.81	42.65	13.57	PASS
4117.00†	4074.35	334.22	436.79	4059.68	3930.53	901.10	413.72	-53.40	585.29	43.87	13.54	PASS
4217.00†	4173.10	343.79	449.31	4158.47	4025.49	925.67	425.52	-53.41	600.78	45.11	13.51	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

Clearance Report

STATE ANTELOPE 42-12-13HNB PWP (REV-A.0)

Closest Approach

REFERENCE WELLPATH IDENTIFICATION

Operator	**BONANZA CREEK OIL COMPANY**	Slot	**SLOT#08 STATE ANTELOPE 42-12-13HNB (2627'FNL & 510'FEL,SEC.13)**
Area	**COLORADO**	Well	**STATE ANTELOPE 42-12-13HNB**
Field	**WELD COUNTY**	Wellbore	**STATE ANTELOPE 42-12-13HNB PWB**
Facility	**SEC.13-T5N-R62W**		

CLEARANCE DATA - Offset Wellbore: STATE ANTELOPE V41-B11-13HNB PWB Offset Wellpath: STATE ANTELOPE V41-B11-13HNB PWP (REV-A.0)

Facility: SEC.13-T5N-R62W Slot: SLOT#06 STATE ANTELOPE V41-B11-13HNB (2587'FNL & 510'FEL,SEC.13) Well: STATE ANTELOPE V41-B11-13HNB Threshold Value=1.00 † = interpolated/extrapolated station

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
4317.00†	4271.85	353.37	461.82	4257.27	4120.45	950.24	437.33	-53.42	616.26	46.35	13.49	PASS
4417.00†	4370.60	362.94	474.33	4356.06	4215.41	974.81	449.13	-53.43	631.75	47.60	13.46	PASS
4517.00†	4469.35	372.52	486.84	4454.85	4310.36	999.38	460.94	-53.44	647.23	48.86	13.43	PASS
4617.00†	4568.10	382.09	499.36	4553.65	4405.32	1023.96	472.75	-53.44	662.72	50.12	13.40	PASS
4717.00†	4666.86	391.67	511.87	4652.44	4500.28	1048.53	484.55	-53.45	678.20	51.39	13.37	PASS
4817.00†	4765.61	401.24	524.38	4751.24	4595.24	1073.10	496.36	-53.46	693.69	52.66	13.34	PASS
4917.00†	4864.36	410.81	536.89	4850.03	4690.20	1097.67	508.17	-53.47	709.18	53.94	13.31	PASS
5017.00†	4963.11	420.39	549.41	4948.82	4785.15	1122.24	519.97	-53.47	724.66	55.22	13.28	PASS
5117.00†	5061.86	429.96	561.92	5047.62	4880.11	1146.81	531.78	-53.48	740.15	56.50	13.25	PASS
5217.00†	5160.61	439.54	574.43	5146.41	4975.07	1171.38	543.59	-53.48	755.63	57.79	13.22	PASS
5317.00†	5259.36	449.11	586.94	5245.20	5070.03	1195.96	555.39	-53.49	771.12	59.09	13.20	PASS
5417.00†	5358.11	458.68	599.46	5344.00	5164.99	1220.53	567.20	-53.50	786.60	60.38	13.17	PASS
5467.24	5407.73	463.49	605.74	5393.63	5212.70	1232.87	573.13	-53.50	794.38	61.04	13.16	PASS
5517.00†	5457.07	468.26	609.82	5442.73	5259.89	1245.09	579.00	-23.78	802.06	61.56	13.17	PASS
5617.00†	5556.38	477.71	604.96	5539.96	5353.34	1269.27	590.62	52.94	817.31	62.09	13.30	PASS
5717.00†	5653.35	486.76	582.86	5633.25	5443.03	1292.48	601.58	71.53	832.93	62.30	13.51	PASS
5817.00†	5745.05	495.14	544.18	5730.40	5536.96	1316.78	602.52	78.32	849.59	61.59	13.94	PASS
5917.00†	5828.68	502.59	490.10	5835.56	5637.21	1342.73	585.07	82.06	866.90	61.55	14.24	PASS
6017.00†	5901.71	508.88	422.26	5950.82	5741.50	1369.72	544.62	84.66	884.12	61.45	14.54	PASS
6117.00†	5961.91	513.83	342.73	6078.35	5845.15	1396.55	475.82	86.67	900.30	62.60	14.54	PASS
6217.00†	6007.46	517.29	253.91	6219.69	5939.67	1421.02	374.12	88.28	914.21	65.08	14.19	PASS
6317.00†	6036.98	519.14	158.52	6374.61	6012.20	1439.80	239.07	89.43	924.51	69.37	13.45	PASS
6417.00†	6049.55	519.33	59.44	6539.62	6048.08	1449.10	78.85	89.97	929.97	75.06	12.50	PASS
6439.68	6050.00	519.14	36.76	6577.80	6049.92	1449.58	40.73	90.00	930.44	76.47	12.27	PASS
6517.00†	6050.00	518.36	-40.55	6658.99	6050.00	1449.61	-40.46	90.00	931.25	80.70	11.63	PASS
6617.00†	6050.00	517.34	-140.55	6758.99	6050.00	1449.62	-140.46	90.00	932.27	86.96	10.80	PASS
6717.00†	6050.00	516.32	-240.54	6858.98	6050.00	1449.62	-240.45	90.00	933.30	94.07	9.99	PASS
6817.00†	6050.00	515.30	-340.54	6958.98	6050.00	1449.63	-340.45	90.00	934.33	97.46	9.65	PASS
6917.00†	6050.00	514.29	-440.53	7058.97	6050.00	1449.64	-440.44	90.00	935.36	110.18	8.54	PASS
7017.00†	6050.00	513.27	-540.53	7158.97	6050.00	1449.65	-540.44	90.00	936.38	118.94	7.91	PASS
7117.00†	6050.00	512.25	-640.52	7258.96	6050.00	1449.66	-640.43	90.00	937.41	128.05	7.36	PASS
7217.00†	6050.00	511.23	-740.51	7358.95	6050.00	1449.67	-740.43	90.00	938.44	137.41	6.86	PASS
7317.00†	6050.00	510.22	-840.51	7458.95	6050.00	1449.68	-840.42	90.00	939.47	146.99	6.42	PASS

CLEARANCE DATA - Offset Wellbore: **STATE ANTELOPE V41-B11-13HNB PWB** Offset Wellpath: **STATE ANTELOPE V41-B11-13HNB PWP (REV-A.0)**

Facility: SEC.13-T5N-R62W Slot: SLOT#06 STATE ANTELOPE V41-B11-13HNB (2587'FNL & 510'FEL,SEC.13) Well: STATE ANTELOPE V41-B11-13HNB Threshold Value=1.00 † = interpolated/extrapolated station

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
7417.00†	6050.00	509.20	-940.50	7558.94	6050.00	1449.69	-940.41	90.00	940.49	156.74	6.02	PASS
7517.00†	6050.00	508.18	-1040.50	7658.94	6050.00	1449.70	-1040.41	90.00	941.52	166.64	5.67	PASS
7617.00†	6050.00	507.16	-1140.49	7758.93	6050.00	1449.71	-1140.40	90.00	942.55	176.65	5.35	PASS
7717.00†	6050.00	506.14	-1240.49	7858.93	6050.00	1449.72	-1240.40	90.00	943.58	186.77	5.07	PASS
7817.00†	6050.00	505.13	-1340.48	7958.92	6050.00	1449.73	-1340.39	90.00	944.60	196.97	4.81	PASS
7917.00†	6050.00	504.11	-1440.48	8058.92	6050.00	1449.74	-1440.39	90.00	945.63	207.24	4.58	PASS
8017.00†	6050.00	503.09	-1540.47	8158.91	6050.00	1449.75	-1540.38	90.00	946.66	217.58	4.36	PASS
8117.00†	6050.00	502.07	-1640.47	8258.91	6050.00	1449.76	-1640.38	90.00	947.69	227.97	4.17	PASS
8217.00†	6050.00	501.06	-1740.46	8358.90	6050.00	1449.77	-1740.37	90.00	948.71	238.40	3.99	PASS
8317.00†	6050.00	500.04	-1840.46	8458.90	6050.00	1449.78	-1840.37	90.00	949.74	248.88	3.82	PASS
8417.00†	6050.00	499.02	-1940.45	8558.89	6050.00	1449.79	-1940.36	90.00	950.77	259.39	3.67	PASS
8517.00†	6050.00	498.00	-2040.45	8658.89	6050.00	1449.80	-2040.36	90.00	951.79	269.94	3.53	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

Clearance Report

STATE ANTELOPE 42-12-13HNB PWP (REV-A.0)

Closest Approach

REFERENCE WELLPATH IDENTIFICATION

Operator	**BONANZA CREEK OIL COMPANY**	Slot	**SLOT#08 STATE ANTELOPE 42-12-13HNB (2627'FNL & 510'FEL,SEC.13)**
Area	**COLORADO**	Well	**STATE ANTELOPE 42-12-13HNB**
Field	**WELD COUNTY**	Wellbore	**STATE ANTELOPE 42-12-13HNB PWB**
Facility	**SEC.13-T5N-R62W**		

CLEARANCE DATA - Offset Wellbore: STATE ANTELOPE V41-B11-13HNB PWB Offset Wellpath: STATE ANTELOPE V41-B11-13HNB PWP (REV-A.0)

Facility: SEC.13-T5N-R62W Slot: SLOT#06 STATE ANTELOPE V41-B11-13HNB (2587'FNL & 510'FEL,SEC.13) Well: STATE ANTELOPE V41-B11-13HNB Threshold Value=1.00 † = interpolated/extrapolated station

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
8617.00†	6050.00	496.98	-2140.44	8758.88	6050.00	1449.81	-2140.35	90.00	952.82	280.51	3.40	PASS
8717.00†	6050.00	495.97	-2240.44	8858.88	6050.00	1449.82	-2240.35	90.00	953.85	291.11	3.28	PASS
8817.00†	6050.00	494.95	-2340.43	8958.87	6050.00	1449.83	-2340.34	90.00	954.88	301.73	3.17	PASS
8917.00†	6050.00	493.93	-2440.43	9058.86	6050.00	1449.83	-2440.34	90.00	955.90	312.37	3.06	PASS
9017.00†	6050.00	492.91	-2540.42	9158.86	6050.00	1449.84	-2540.33	90.00	956.93	323.03	2.97	PASS
9117.00†	6050.00	491.90	-2640.42	9258.85	6050.00	1449.85	-2640.32	90.00	957.96	333.70	2.87	PASS
9217.00†	6050.00	490.88	-2740.41	9358.85	6050.00	1449.86	-2740.32	90.00	958.99	344.39	2.79	PASS
9317.00†	6050.00	489.86	-2840.41	9458.84	6050.00	1449.87	-2840.31	90.00	960.01	355.10	2.71	PASS
9417.00†	6050.00	488.84	-2940.40	9558.84	6050.00	1449.88	-2940.31	90.00	961.04	365.81	2.63	PASS
9517.00†	6050.00	487.82	-3040.40	9658.83	6050.00	1449.89	-3040.30	90.00	962.07	376.54	2.56	PASS
9617.00†	6050.00	486.81	-3140.39	9758.83	6050.00	1449.90	-3140.30	90.00	963.10	387.27	2.49	PASS
9717.00†	6050.00	485.79	-3240.39	9858.82	6050.00	1449.91	-3240.29	90.00	964.12	398.02	2.42	PASS
9817.00†	6050.00	484.77	-3340.38	9958.82	6050.00	1449.92	-3340.29	90.00	965.15	408.78	2.36	PASS
9917.00†	6050.00	483.75	-3440.37	10058.81	6050.00	1449.93	-3440.28	90.00	966.18	419.54	2.31	PASS
10017.00†	6050.00	482.73	-3540.37	10158.81	6050.00	1449.94	-3540.28	90.00	967.20	430.31	2.25	PASS
10117.00†	6050.00	481.72	-3640.36	10258.80	6050.00	1449.95	-3640.27	90.00	968.23	441.09	2.20	PASS
10217.00†	6050.00	480.70	-3740.36	10358.80	6050.00	1449.96	-3740.27	90.00	969.26	451.87	2.15	PASS
10317.00†	6050.00	479.68	-3840.35	10458.79	6050.00	1449.97	-3840.26	90.00	970.29	462.66	2.10	PASS
10417.00†	6050.00	478.66	-3940.35	10558.79	6050.00	1449.98	-3940.26	90.00	971.31	473.46	2.05	PASS
10517.00†	6050.00	477.65	-4040.34	10658.78	6050.00	1449.99	-4040.25	90.00	972.34	484.26	2.01	PASS
10617.00†	6050.00	476.63	-4140.34	10758.78	6050.00	1450.00	-4140.25	90.00	973.37	495.07	1.97	PASS
10717.00†	6050.00	475.61	-4240.33	10858.77	6050.00	1450.01	-4240.24	90.00	974.40	505.88	1.93	PASS
10817.00†	6050.00	474.59	-4340.33	10958.76	6050.00	1450.02	-4340.24	90.00	975.42	516.69	1.89	PASS
10917.00†	6050.00	473.57	-4440.32	11058.76	6050.00	1450.03	-4440.23	90.00	976.45	527.51	1.85	PASS
11017.00†	6050.00	472.56	-4540.32	11158.75	6050.00	1450.04	-4540.22	90.00	977.48	538.33	1.82	PASS
11117.00†	6050.00	471.54	-4640.31	11258.75	6050.00	1450.04	-4640.22	90.00	978.51	549.16	1.78	PASS
11217.00†	6050.00	470.52	-4740.31	11358.74	6050.00	1450.05	-4740.21	90.00	979.53	559.99	1.75	PASS
11226.99	6050.00	470.42	-4750.29	11366.41	6050.00	1450.06	-4747.88	90.00	979.64	561.01	1.75	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

POSITIONAL UNCERTAINTY - Offset Wellbore: STATE ANTELOPE V41-B11-13HNB PWB Offset Wellpath: STATE ANTELOPE V41-B11-13HNB PWP (REV-A.0)

Slot Surface Uncertainty @1SD	Horizontal	**0.100ft**	Vertical	**1.000ft**

POSITIONAL UNCERTAINTY - Offset Wellbore: STATE ANTELOPE V41-B11-13HNB PWB Offset Wellpath: STATE ANTELOPE V41-B11-13HNB PWP (REV-A.0)				
Facility Surface Uncertainty @1SD	Horizontal	**8.200ft**	Vertical	**3.000ft**

HOLE & CASING SECTIONS - Offset Wellbore: **STATE ANTELOPE V41-B11-13HNB PWB** Offset Wellpath: **STATE ANTELOPE V41-B11-13HNB PWP (REV-A.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]
13.5in Open Hole	17.00	1550.00	1533.00	17.00	1518.29	24.43	0.00	96.61	34.68
9.625in Casing Surface	17.00	1550.00	1533.00	17.00	1518.29	24.43	0.00	96.61	34.68
8.5in Open Hole	1550.00	11366.41	9816.41	1518.29	N/A	96.61	34.68	N/A	N/A

REFERENCE WELLPATH IDENTIFICATION

Operator	**BONANZA CREEK OIL COMPANY**	Slot	**SLOT#08 STATE ANTELOPE 42-12-13HNB (2627'FNL & 510'FEL,SEC.13)**
Area	**COLORADO**	Well	**STATE ANTELOPE 42-12-13HNB**
Field	**WELD COUNTY**	Wellbore	**STATE ANTELOPE 42-12-13HNB PWB**
Facility	**SEC.13-T5N-R62W**		

SURVEY PROGRAM - Offset Wellbore: STATE ANTELOPE V41-B11-13HNB PWB Offset Wellpath: STATE ANTELOPE V41-B11-13HNB PWP (REV-A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	1550.00	BHI NaviTrak (Rotating)		STATE ANTELOPE V41-B11-13HNB PWB
1550.00	11366.41	BHI AutoTrak Curve (Short)		STATE ANTELOPE V41-B11-13HNB PWB

OFFSET WELLPATH REFERENCE - Offset Wellbore: STATE ANTELOPE V41-B11-13HNB PWB Offset Wellpath: STATE ANTELOPE V41-B11-13HNB PWP (REV-A.0)

MD Reference: **RIG (17') (RKB)**	*Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)*
Ellipse Start MD	**17.00ft**

Clearance Report

STATE ANTELOPE 42-12-13HNB PWP (REV-A.0)

Closest Approach

REFERENCE WELLPATH IDENTIFICATION

Operator	**BONANZA CREEK OIL COMPANY**	Slot	**SLOT#08 STATE ANTELOPE 42-12-13HNB (2627'FNL & 510'FEL,SEC.13)**
Area	**COLORADO**	Well	**STATE ANTELOPE 42-12-13HNB**
Field	**WELD COUNTY**	Wellbore	**STATE ANTELOPE 42-12-13HNB PWB**
Facility	**SEC.13-T5N-R62W**		

CLEARANCE DATA - Offset Wellbore: STATE ANTELOPE X44-D14-13HNB PWB Offset Wellpath: STATE ANTELOPE X44-D14-13HNB PWP (REV-A.0)

Facility: SEC.13-T5N-R62W Slot: SLOT#10 STATE ANTELOPE X44-D14-13HNB (2667'FNL & 510'FEL,SEC.13) Well: STATE ANTELOPE X44-D14-13HNB Threshold Value=1.00 † = interpolated/extrapolated station

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
17.00	17.00	0.00	0.00	17.00	17.00	-40.07	0.28	179.60	40.08	1.56	65.19	PASS
117.00†	117.00	0.00	0.00	117.00	117.00	-40.07	0.28	179.60	40.08	2.18	32.08	PASS
217.00†	217.00	0.00	0.00	217.00	217.00	-40.07	0.28	179.60	40.08	3.16	17.78	PASS
317.00†	317.00	0.00	0.00	316.78	316.78	-40.12	0.30	179.58	40.12	4.18	12.16	PASS
400.00	400.00	0.00	0.00	398.67	398.65	-41.66	0.89	178.78	41.69	5.17	9.68	PASS
417.00†	417.00	0.03	0.04	415.42	415.39	-42.25	1.11	125.96	42.32	5.38	9.37	PASS
517.00†	516.97	1.45	1.90	513.71	513.52	-47.52	3.13	125.83	49.10	6.88	8.13	PASS
617.00†	616.79	4.99	6.52	611.22	610.60	-55.85	6.32	127.19	61.15	8.35	8.14	PASS
717.00†	716.35	10.65	13.91	707.50	706.12	-67.10	10.62	129.03	78.48	9.75	8.82	PASS
817.00†	815.53	18.41	24.06	802.15	799.59	-81.07	15.97	130.76	101.07	11.02	9.96	PASS
853.24	851.36	21.74	28.42	835.99	832.87	-86.76	18.15	131.31	110.55	11.43	10.47	PASS
917.00†	914.32	27.85	36.39	894.97	890.70	-97.57	22.29	132.22	128.39	12.17	11.37	PASS
1017.00†	1013.07	37.42	48.91	986.20	979.66	-116.46	29.52	132.81	158.65	13.29	12.80	PASS
1117.00†	1111.82	47.00	61.42	1075.78	1066.33	-137.57	37.60	132.79	191.58	14.39	14.19	PASS
1217.00†	1210.57	56.57	73.93	1163.55	1150.53	-160.71	46.46	132.43	227.09	15.49	15.56	PASS
1317.00†	1309.32	66.14	86.44	1249.43	1232.14	-185.66	56.01	131.90	265.12	16.49	17.01	PASS
1417.00†	1408.07	75.72	98.96	1334.67	1312.33	-212.64	66.34	131.26	305.59	17.66	18.25	PASS
1517.00†	1506.82	85.29	111.47	1425.68	1397.64	-242.25	77.67	130.67	346.91	18.76	19.44	PASS
1617.00†	1605.57	94.87	123.98	1516.69	1482.95	-271.86	89.01	130.20	388.26	19.48	20.70	PASS
1717.00†	1704.32	104.44	136.49	1607.70	1568.27	-301.46	100.34	129.83	429.62	19.97	22.27	PASS
1817.00†	1803.07	114.01	149.01	1698.71	1653.58	-331.07	111.67	129.51	471.00	20.39	23.90	PASS
1917.00†	1901.83	123.59	161.52	1789.72	1738.89	-360.67	123.00	129.25	512.39	20.86	25.39	PASS
2017.00†	2000.58	133.16	174.03	1880.73	1824.20	-390.28	134.34	129.03	553.78	21.41	26.72	PASS
2117.00†	2099.33	142.74	186.54	1971.74	1909.51	-419.88	145.67	128.84	595.18	22.02	27.90	PASS
2217.00†	2198.08	152.31	199.06	2062.75	1994.82	-449.49	157.00	128.67	636.59	22.69	28.93	PASS
2317.00†	2296.83	161.89	211.57	2153.76	2080.13	-479.10	168.34	128.53	678.00	23.41	29.84	PASS
2417.00†	2395.58	171.46	224.08	2244.77	2165.44	-508.70	179.67	128.40	719.41	24.18	30.62	PASS
2517.00†	2494.33	181.03	236.59	2335.78	2250.75	-538.31	191.00	128.28	760.83	25.00	31.29	PASS
2617.00†	2593.08	190.61	249.11	2426.79	2336.07	-567.91	202.34	128.18	802.25	25.86	31.87	PASS
2717.00†	2691.83	200.18	261.62	2517.80	2421.38	-597.52	213.67	128.09	843.67	26.75	32.37	PASS
2817.00†	2790.59	209.76	274.13	2608.81	2506.69	-627.12	225.00	128.00	885.09	27.68	32.79	PASS
2917.00†	2889.34	219.33	286.64	2699.82	2592.00	-656.73	236.34	127.93	926.51	28.64	33.15	PASS
3017.00†	2988.09	228.90	299.16	2790.83	2677.31	-686.34	247.67	127.86	967.93	29.63	33.45	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

POSITIONAL UNCERTAINTY - Offset Wellbore: STATE ANTELOPE X44-D14-13HNB PWB Offset Wellpath: STATE ANTELOPE X44-D14-13HNB PWP (REV-A.0)				
Slot Surface Uncertainty @1SD	Horizontal	**0.100ft**	Vertical	**1.000ft**
Facility Surface Uncertainty @1SD	Horizontal	**8.200ft**	Vertical	**3.000ft**

Clearance Report

STATE ANTELOPE 42-12-13HNB PWP (REV-A.0)

Closest Approach

REFERENCE WELLPATH IDENTIFICATION

Operator	**BONANZA CREEK OIL COMPANY**	Slot	**SLOT#08 STATE ANTELOPE 42-12-13HNB (2627'FNL & 510'FEL,SEC.13)**
Area	**COLORADO**	Well	**STATE ANTELOPE 42-12-13HNB**
Field	**WELD COUNTY**	Wellbore	**STATE ANTELOPE 42-12-13HNB PWB**
Facility	**SEC.13-T5N-R62W**		

HOLE & CASING SECTIONS - Offset Wellbore: STATE ANTELOPE X44-D14-13HNB PWB Offset Wellpath: STATE ANTELOPE X44-D14-13HNB PWP (REV-A.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]
13.5in Open Hole	17.00	1550.00	1533.00	17.00	1514.18	-24.43	0.17	-98.38	28.48
9.625in Casing Surface	17.00	1550.00	1533.00	17.00	1514.18	-24.43	0.17	-98.38	28.48
8.5in Open Hole	1550.00	11521.25	9971.25	1514.18	N/A	-98.38	28.48	N/A	N/A

SURVEY PROGRAM - Offset Wellbore: STATE ANTELOPE X44-D14-13HNB PWB Offset Wellpath: STATE ANTELOPE X44-D14-13HNB PWP (REV-A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	1550.00	BHI NaviTrak (Rotating)		STATE ANTELOPE X44-D14-13HNB PWB
1550.00	11521.25	BHI AutoTrak Curve (Short)		STATE ANTELOPE X44-D14-13HNB PWB

OFFSET WELLPATH REFERENCE - Offset Wellbore: STATE ANTELOPE X44-D14-13HNB PWB Offset Wellpath: STATE ANTELOPE X44-D14-13HNB PWP (REV-A.0)

MD Reference: **RIG (17') (RKB)**	*Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)*
Ellipse Start MD	**17.00ft**

Clearance Report

STATE ANTELOPE 42-12-13HNB PWP (REV-A.0)

Closest Approach

REFERENCE WELLPATH IDENTIFICATION

Operator	**BONANZA CREEK OIL COMPANY**	Slot	**SLOT#08 STATE ANTELOPE 42-12-13HNB (2627'FNL & 510'FEL,SEC.13)**
Area	**COLORADO**	Well	**STATE ANTELOPE 42-12-13HNB**
Field	**WELD COUNTY**	Wellbore	**STATE ANTELOPE 42-12-13HNB PWB**
Facility	**SEC.13-T5N-R62W**		

CLEARANCE DATA - Offset Wellbore: STATE ANTELOPE Y44-E14-13HNB PWB Offset Wellpath: STATE ANTELOPE Y44-E14-13HNB PWP (REV-A.0)

Facility: SEC.13-T5N-R62W Slot: SLOT#11 STATE ANTELOPE Y44-E14-13HNB (2687'FNL & 510'FEL,SEC.13) Well: STATE ANTELOPE Y44-E14-13HNB Threshold Value=1.00 † = interpolated/extrapolated station

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
17.00	17.00	0.00	0.00	17.00	17.00	-60.11	0.56	179.47	60.11	1.56	98.58	PASS
117.00†	117.00	0.00	0.00	117.00	117.00	-60.11	0.56	179.47	60.11	2.18	48.51	PASS
217.00†	217.00	0.00	0.00	217.00	217.00	-60.11	0.56	179.47	60.11	3.16	26.90	PASS
317.00†	317.00	0.00	0.00	315.67	315.66	-60.83	0.78	179.27	60.85	4.22	18.37	PASS
400.00	400.00	0.00	0.00	396.92	396.85	-63.71	1.67	178.50	63.81	5.33	14.40	PASS
417.00†	417.00	0.03	0.04	413.53	413.44	-64.57	1.94	125.73	64.73	5.56	13.89	PASS
517.00†	516.97	1.45	1.90	510.91	510.55	-71.45	4.07	125.53	73.22	7.02	11.92	PASS
617.00†	616.79	4.99	6.52	607.35	606.42	-81.38	7.14	126.52	86.99	8.48	11.45	PASS
717.00†	716.35	10.65	13.91	702.42	700.54	-94.17	11.10	128.04	106.04	9.86	11.81	PASS
817.00†	815.53	18.41	24.06	795.71	792.41	-109.61	15.88	129.62	130.35	11.11	12.75	PASS
853.24	851.36	21.74	28.42	829.01	825.07	-115.82	17.80	130.16	140.45	11.54	13.19	PASS
917.00†	914.32	27.85	36.39	887.00	881.77	-127.49	21.41	131.15	159.41	12.24	14.05	PASS
1017.00†	1013.07	37.42	48.91	976.63	968.86	-147.67	27.66	132.01	191.48	13.36	15.37	PASS
1117.00†	1111.82	47.00	61.42	1064.50	1053.57	-169.98	34.56	132.33	226.26	14.44	16.71	PASS
1217.00†	1210.57	56.57	73.93	1150.50	1135.75	-194.20	42.06	132.32	263.63	15.52	18.04	PASS
1317.00†	1309.32	66.14	86.44	1234.56	1215.29	-220.15	50.09	132.10	303.52	16.58	19.37	PASS
1417.00†	1408.07	75.72	98.96	1316.58	1292.11	-247.60	58.59	131.77	345.85	17.63	20.69	PASS
1517.00†	1506.82	85.29	111.47	1396.53	1366.16	-276.37	67.49	131.36	390.54	18.67	22.00	PASS
1617.00†	1605.57	94.87	123.98	1475.21	1438.20	-306.60	76.85	130.92	437.50	19.28	23.58	PASS
1717.00†	1704.32	104.44	136.49	1562.92	1518.10	-341.16	87.54	130.46	485.42	19.85	25.32	PASS
1817.00†	1803.07	114.01	149.01	1650.63	1598.00	-375.73	98.24	130.09	533.37	20.34	27.13	PASS
1917.00†	1901.83	123.59	161.52	1738.33	1677.89	-410.29	108.94	129.77	581.33	20.78	28.93	PASS
2017.00†	2000.58	133.16	174.03	1826.04	1757.79	-444.86	119.64	129.51	629.30	21.28	30.55	PASS
2117.00†	2099.33	142.74	186.54	1913.75	1837.69	-479.43	130.34	129.28	677.27	21.86	31.99	PASS
2217.00†	2198.08	152.31	199.06	2001.46	1917.59	-513.99	141.04	129.08	725.26	22.49	33.26	PASS
2317.00†	2296.83	161.89	211.57	2089.17	1997.48	-548.56	151.74	128.91	773.25	23.18	34.38	PASS
2417.00†	2395.58	171.46	224.08	2176.88	2077.38	-583.12	162.43	128.76	821.25	23.92	35.35	PASS
2517.00†	2494.33	181.03	236.59	2264.59	2157.28	-617.69	173.13	128.62	869.25	24.71	36.19	PASS
2617.00†	2593.08	190.61	249.11	2352.30	2237.18	-652.26	183.83	128.50	917.25	25.54	36.92	PASS
2717.00†	2691.83	200.18	261.62	2440.01	2317.08	-686.82	194.53	128.39	965.26	26.40	37.54	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

POSITIONAL UNCERTAINTY - Offset Wellbore: STATE ANTELOPE Y44-E14-13HNB PWB Offset Wellpath: STATE ANTELOPE Y44-E14-13HNB PWP (REV-A.0)				
Slot Surface Uncertainty @1SD	Horizontal	**0.100ft**	Vertical	**1.000ft**
Facility Surface Uncertainty @1SD	Horizontal	**8.200ft**	Vertical	**3.000ft**

HOLE & CASING SECTIONS - Offset Wellbore: **STATE ANTELOPE Y44-E14-13HNB PWB** Offset Wellpath: **STATE ANTELOPE Y44-E14-13HNB PWP (REV-A.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]
13.5in Open Hole	17.00	1550.00	1533.00	17.00	1506.33	-36.64	0.34	-120.76	26.37
9.625in Casing Surface	17.00	1550.00	1533.00	17.00	1506.33	-36.64	0.34	-120.76	26.37
8.5in Open Hole	1550.00	11675.40	10125.40	1506.33	N/A	-120.76	26.37	N/A	N/A

REFERENCE WELLPATH IDENTIFICATION

Operator	**BONANZA CREEK OIL COMPANY**	Slot	**SLOT#08 STATE ANTELOPE 42-12-13HNB (2627'FNL & 510'FEL,SEC.13)**
Area	**COLORADO**	Well	**STATE ANTELOPE 42-12-13HNB**
Field	**WELD COUNTY**	Wellbore	**STATE ANTELOPE 42-12-13HNB PWB**
Facility	**SEC.13-T5N-R62W**		

SURVEY PROGRAM - Offset Wellbore: STATE ANTELOPE Y44-E14-13HNB PWB Offset Wellpath: STATE ANTELOPE Y44-E14-13HNB PWP (REV-A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	1550.00	BHI NaviTrak (Rotating)		STATE ANTELOPE Y44-E14-13HNB PWB
1550.00	11675.40	BHI AutoTrak Curve (Short)		STATE ANTELOPE Y44-E14-13HNB PWB

OFFSET WELLPATH REFERENCE - Offset Wellbore: STATE ANTELOPE Y44-E14-13HNB PWB Offset Wellpath: STATE ANTELOPE Y44-E14-13HNB PWP (REV-A.0)

MD Reference: **RIG (17') (RKB)**	*Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)*
Ellipse Start MD	**17.00ft**

Clearance Report

STATE ANTELOPE 42-12-13HNB PWP (REV-A.0)

Closest Approach

REFERENCE WELLPATH IDENTIFICATION

Operator	**BONANZA CREEK OIL COMPANY**	Slot	**SLOT#08 STATE ANTELOPE 42-12-13HNB (2627'FNL & 510'FEL,SEC.13)**
Area	**COLORADO**	Well	**STATE ANTELOPE 42-12-13HNB**
Field	**WELD COUNTY**	Wellbore	**STATE ANTELOPE 42-12-13HNB PWB**
Facility	**SEC.13-T5N-R62W**		

CLEARANCE DATA - Offset Wellbore: STATE ANTELOPE Y-E-13HNB PWB Offset Wellpath: STATE ANTELOPE Y-E-13HNB PWP (REV-A.0)

Facility: SEC.13-T5N-R62W Slot: SLOT#12 STATE ANTELOPE Y-E-13HNB (2699'FSL & 510'FEL,SEC.13) Well: STATE ANTELOPE Y-E-13HNB Threshold Value=1.00 † = interpolated/extrapolated station

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
17.00	17.00	0.00	0.00	17.00	17.00	-80.15	0.56	179.60	80.15	1.56	131.98	PASS
117.00†	117.00	0.00	0.00	117.00	117.00	-80.15	0.56	179.60	80.15	2.18	64.95	PASS
217.00†	217.00	0.00	0.00	216.58	216.58	-80.19	0.58	179.59	80.20	3.16	36.07	PASS
317.00†	317.00	0.00	0.00	314.03	314.00	-82.21	1.50	178.95	82.28	4.37	23.87	PASS
400.00	400.00	0.00	0.00	394.72	394.57	-86.16	3.31	177.80	86.40	5.60	18.41	PASS
417.00†	417.00	0.03	0.04	411.22	411.02	-87.23	3.80	124.94	87.54	5.86	17.68	PASS
517.00†	516.97	1.45	1.90	507.83	507.24	-95.17	7.43	123.93	97.27	7.24	15.34	PASS
617.00†	616.79	4.99	6.52	603.48	602.15	-105.94	12.36	123.86	112.05	8.62	14.52	PASS
717.00†	716.35	10.65	13.91	697.77	695.27	-119.37	18.50	124.39	131.80	9.94	14.58	PASS
817.00†	815.53	18.41	24.06	790.34	786.17	-135.26	25.78	125.19	156.46	11.15	15.26	PASS
853.24	851.36	21.74	28.42	823.40	818.49	-141.58	28.67	125.50	166.60	11.58	15.60	PASS
917.00†	914.32	27.85	36.39	881.01	874.61	-153.41	34.08	126.20	185.57	12.26	16.34	PASS
1017.00†	1013.07	37.42	48.91	970.06	960.82	-173.70	43.36	126.78	217.56	13.41	17.40	PASS
1117.00†	1111.82	47.00	61.42	1057.40	1044.66	-195.95	53.55	126.92	252.18	14.52	18.53	PASS
1217.00†	1210.57	56.57	73.93	1142.94	1126.00	-219.99	64.54	126.79	289.35	15.55	19.78	PASS
1317.00†	1309.32	66.14	86.44	1226.56	1204.73	-245.62	76.27	126.49	328.99	16.71	20.84	PASS
1417.00†	1408.07	75.72	98.96	1308.21	1280.78	-272.64	88.64	126.09	371.03	17.78	22.00	PASS
1517.00†	1506.82	85.29	111.47	1387.82	1354.08	-300.88	101.56	125.62	415.40	18.86	23.15	PASS
1617.00†	1605.57	94.87	123.98	1465.35	1424.60	-330.15	114.95	125.13	462.03	19.52	24.58	PASS
1717.00†	1704.32	104.44	136.49	1540.76	1492.35	-360.28	128.74	124.62	510.84	20.14	26.31	PASS
1817.00†	1803.07	114.01	149.01	1614.06	1557.33	-391.10	142.84	124.12	561.76	20.61	28.19	PASS
1917.00†	1901.83	123.59	161.52	1685.22	1619.58	-422.47	157.19	123.62	614.70	20.99	30.27	PASS
2017.00†	2000.58	133.16	174.03	1768.50	1691.86	-460.07	174.40	123.08	668.75	21.54	32.07	PASS
2117.00†	2099.33	142.74	186.54	1852.47	1764.75	-497.99	191.75	122.62	722.84	22.14	33.69	PASS
2217.00†	2198.08	152.31	199.06	1936.45	1837.64	-535.91	209.10	122.22	776.96	22.81	35.12	PASS
2317.00†	2296.83	161.89	211.57	2020.43	1910.53	-573.83	226.45	121.88	831.10	23.54	36.37	PASS
2417.00†	2395.58	171.46	224.08	2104.40	1983.42	-611.76	243.80	121.57	885.26	24.32	37.46	PASS
2517.00†	2494.33	181.03	236.59	2188.38	2056.31	-649.68	261.15	121.30	939.44	25.15	38.40	PASS
2617.00†	2593.08	190.61	249.11	2272.36	2129.20	-687.60	278.50	121.06	993.63	26.02	39.22	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

POSITIONAL UNCERTAINTY - Offset Wellbore: STATE ANTELOPE Y-E-13HNB PWB Offset Wellpath: STATE ANTELOPE Y-E-13HNB PWP (REV-A.0)

POSITIONAL UNCERTAINTY - Offset Wellbore: STATE ANTELOPE Y-E-13HNB PWB Offset Wellpath: STATE ANTELOPE Y-E-13HNB PWP (REV-A.0)				
Slot Surface Uncertainty @1SD	Horizontal	**0.100ft**	Vertical	**1.000ft**
Facility Surface Uncertainty @1SD	Horizontal	**8.200ft**	Vertical	**3.000ft**

HOLE & CASING SECTIONS - Offset Wellbore: **STATE ANTELOPE Y-E-13HNB PWB** Offset Wellpath: **STATE ANTELOPE Y-E-13HNB PWP (REV-A.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]
13.5in Open Hole	17.00	1550.00	1533.00	17.00	1500.59	-48.86	0.34	-135.40	39.94
9.625in Casing Surface	17.00	1550.00	1533.00	17.00	1500.59	-48.86	0.34	-135.40	39.94
8.5in Open Hole	1550.00	12383.68	10833.68	1500.59	N/A	-135.40	39.94	N/A	N/A

Clearance Report

STATE ANTELOPE 42-12-13HNB PWP (REV-A.0)

Closest Approach

REFERENCE WELLPATH IDENTIFICATION			
Operator	**BONANZA CREEK OIL COMPANY**	Slot	**SLOT#08 STATE ANTELOPE 42-12-13HNB (2627'FNL & 510'FEL,SEC.13)**
Area	**COLORADO**	Well	**STATE ANTELOPE 42-12-13HNB**
Field	**WELD COUNTY**	Wellbore	**STATE ANTELOPE 42-12-13HNB PWB**
Facility	**SEC.13-T5N-R62W**		

SURVEY PROGRAM - Offset Wellbore: STATE ANTELOPE Y-E-13HNB PWB Offset Wellpath: STATE ANTELOPE Y-E-13HNB PWP (REV-A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	1550.00	BHI NaviTrak (Rotating)		STATE ANTELOPE Y-E-13HNB PWB
1550.00	12383.68	BHI AutoTrak Curve (Short)		STATE ANTELOPE Y-E-13HNB PWB

OFFSET WELLPATH REFERENCE - Offset Wellbore: STATE ANTELOPE Y-E-13HNB PWB Offset Wellpath: STATE ANTELOPE Y-E-13HNB PWP (REV-A.0)

MD Reference: **RIG (17') (RKB)**	*Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)*
Ellipse Start MD	**17.00ft**