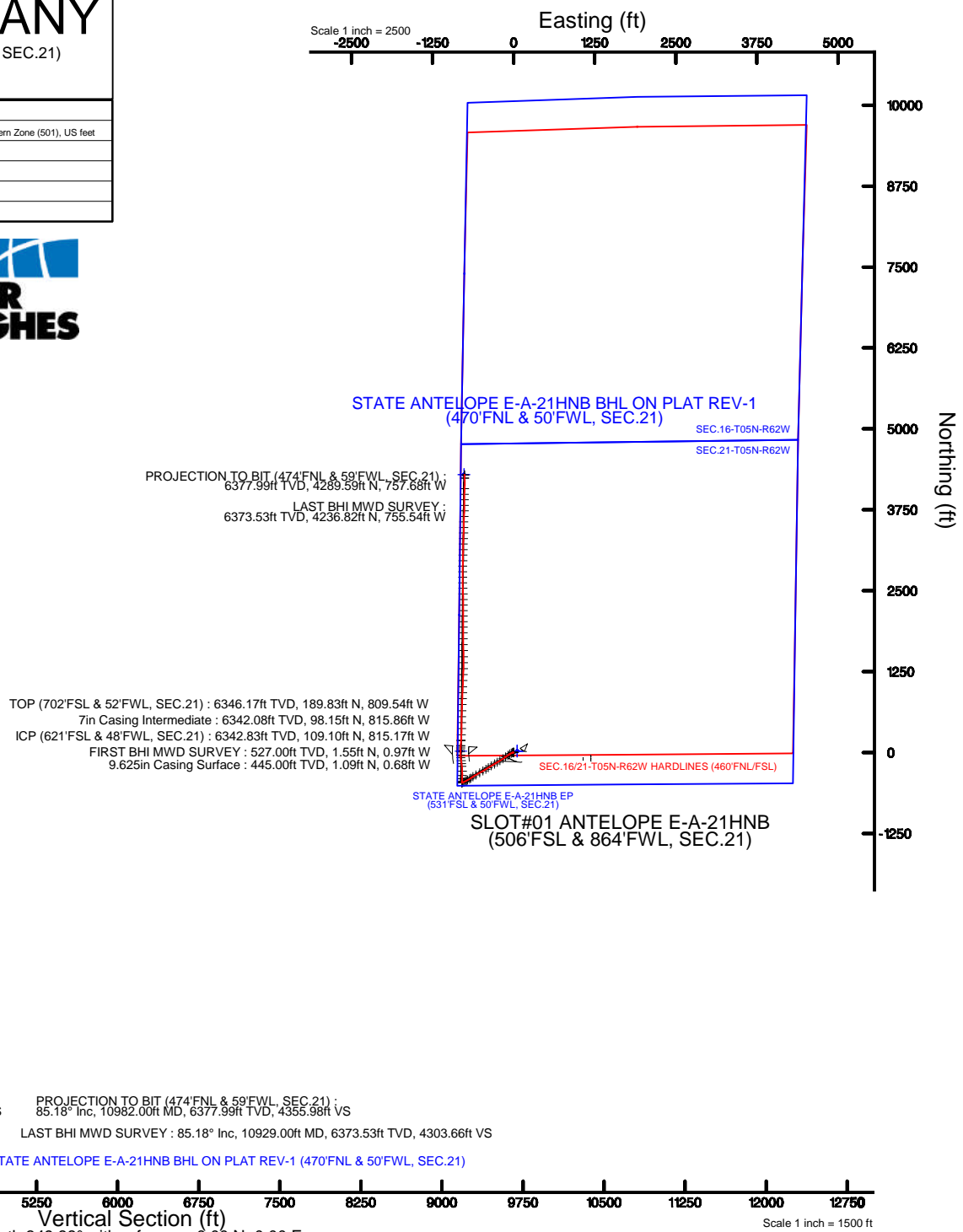
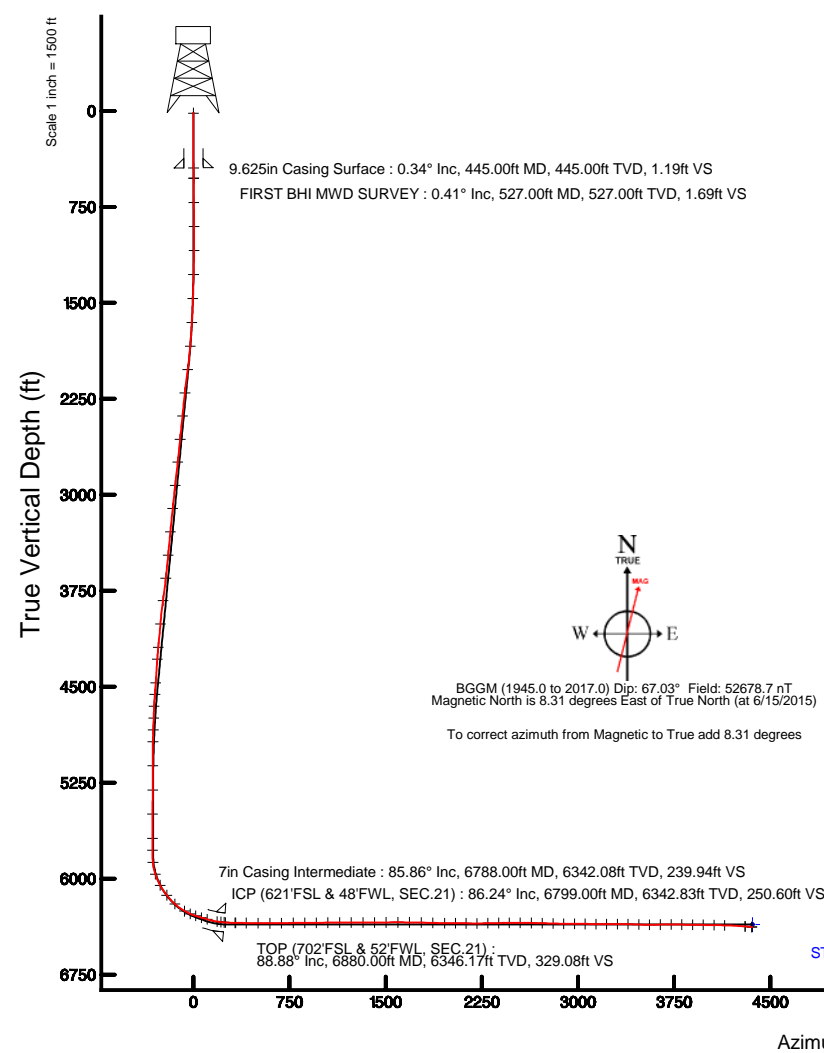


Location: COLORADO	Slot: SLOT#01 ANTELOPE E-A-21HNB (506'FSL & 864'FWL, SEC.21)
Field: WELD COUNTY	Well: ANTELOPE E-A-21HNB
Facility: SEC.21-T05N-R62WWellbore: ANTELOPE E-A-21HNB PWB	
Plot reference wellpath is ANTELOPE E-A-21HNB PWP (REV-B.0)	
True vertical depths are referenced to XTREME 22 (17KB) (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to XTREME 22 (17KB) (RKB)	North Reference: True north
XTREME 22 (17KB) (RKB) to Mean Sea Level: 4658 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#01 ANTELOPE E-A-21HNB (506'FSL & 864'FWL, SEC.21)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: hanisab on 8/21/2015





Actual Wellpath Report

ANTELOPE E-A-21HNB AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#01 ANTELOPE E-A-21HNB (506'FSL & 864'FWL, SEC.21)
Area	COLORADO	Well	ANTELOPE E-A-21HNB
Field	WELD COUNTY	Wellbore	ANTELOPE E-A-21HNB AWB
Facility	SEC.21-T05N-R62W		

REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 4.1.1
North Reference	True	User	Hanisab
Scale	0.999959	Report Generated	8/21/2015 at 10:36:49 AM
Convergence at slot	0.75° East	Database/Source file	WA_Denver/ANTELOPE_E-A-21HNB_AWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-0.40	0.26	3324534.45	1383156.68	40°22'45.534"N	104°20'06.256"W
Facility Reference Pt			3324534.18	1383157.08	40°22'45.538"N	104°20'06.259"W
Field Reference Pt			3335925.10	1457282.25	40°34'56.460"N	104°17'26.016"W

WELLPATH DATUM

Calculation method	Minimum curvature	XTREME 22 (17'KB) (RKB) to Facility Vertical Datum	4658.00ft
Horizontal Reference Pt	Slot	XTREME 22 (17'KB) (RKB) to Mean Sea Level	4658.00ft
Vertical Reference Pt	XTREME 22 (17'KB) (RKB)	XTREME 22 (17'KB) (RKB) to Mud Line at Slot (SLOT#01 ANTELOPE E-A-21HNB (506'FSL & 864'FWL, SEC.21))	4658.00ft
MD Reference Pt	XTREME 22 (17'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	349.88°



Actual Wellpath Report

ANTELOPE E-A-21HNB AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#01 ANTELOPE E-A-21HNB (506'FSL & 864'FWL, SEC.21)
Area	COLORADO	Well	ANTELOPE E-A-21HNB
Field	WELD COUNTY	Wellbore	ANTELOPE E-A-21HNB AWB
Facility	SEC.21-T05N-R62W		

WELLPATH DATA (97 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
0.00†	0.000	328.070	0.00	0.00	0.00	0.00	0.00	
17.00	0.000	328.070	17.00	0.00	0.00	0.00	0.00	
527.00	0.410	328.070	527.00	1.69	1.55	-0.97	0.08	FIRST BHI MWD SURVEY
715.00	0.570	337.140	714.99	3.23	2.98	-1.68	0.09	
903.00	0.550	339.330	902.98	5.03	4.69	-2.37	0.02	
1091.00	2.240	246.320	1090.93	5.06	4.06	-6.05	1.24	
1280.00	6.450	244.790	1279.34	1.42	-1.95	-19.04	2.23	
1468.00	6.790	244.880	1466.09	-4.20	-11.17	-38.66	0.18	
1657.00	8.130	236.170	1653.49	-12.47	-23.35	-59.88	0.93	
1845.00	11.740	236.560	1838.64	-25.39	-41.30	-86.89	1.92	
2033.00	15.490	231.620	2021.33	-44.86	-67.44	-122.54	2.09	
2222.00	16.550	238.600	2203.01	-66.58	-97.13	-165.31	1.16	
2410.00	15.690	238.750	2383.61	-85.47	-124.27	-209.90	0.46	
2599.00	14.920	237.560	2565.91	-103.92	-150.58	-252.28	0.44	
2786.00	17.320	239.690	2745.55	-122.68	-177.55	-296.64	1.32	
2975.00	16.830	238.830	2926.22	-142.22	-205.91	-344.33	0.29	
3163.00	15.780	237.760	3106.65	-161.62	-233.63	-389.24	0.58	
3352.00	13.400	237.100	3289.54	-179.78	-259.24	-429.37	1.26	
3541.00	17.120	241.700	3471.86	-196.95	-284.33	-472.27	2.07	
3730.00	19.730	241.490	3651.15	-215.70	-312.75	-524.81	1.38	
3919.00	20.970	239.100	3828.35	-237.77	-345.35	-581.86	0.79	
4108.00	12.940	238.250	4008.99	-257.60	-373.90	-628.96	4.25	
4296.00	11.550	232.050	4192.72	-274.15	-396.55	-661.70	1.02	
4390.00	12.220	241.450	4284.71	-281.69	-407.10	-677.86	2.18	
4578.00	11.120	239.250	4468.82	-294.37	-425.88	-710.92	0.63	
4670.00	10.590	236.760	4559.18	-300.82	-435.05	-725.61	0.77	
4764.00	11.170	246.690	4651.50	-306.29	-443.38	-741.20	2.08	
4859.00	8.480	245.470	4745.09	-310.13	-449.94	-756.03	2.84	
4953.00	7.810	245.310	4838.15	-313.46	-455.48	-768.14	0.71	
5047.00	7.670	252.340	4931.29	-315.90	-460.05	-779.92	1.02	



Actual Wellpath Report

ANTELOPE E-A-21HNB AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#01 ANTELOPE E-A-21HNB (506'FSL & 864'FWL, SEC.21)
Area	COLORADO	Well	ANTELOPE E-A-21HNB
Field	WELD COUNTY	Wellbore	ANTELOPE E-A-21HNB AWB
Facility	SEC.21-T05N-R62W		

WELLPATH DATA (97 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
5235.00	1.910	273.330	5118.56	-316.81	-463.68	-795.01	3.15	
5425.00	0.890	204.260	5308.52	-317.30	-464.84	-798.78	0.95	
5613.00	0.550	182.080	5496.50	-319.38	-467.07	-799.41	0.23	
5801.00	0.170	88.980	5684.50	-320.31	-467.97	-799.17	0.31	
5895.00	0.550	103.100	5778.50	-320.51	-468.07	-798.59	0.41	
5990.00	6.060	0.380	5873.32	-315.75	-463.15	-798.11	6.53	
6085.00	18.290	7.050	5966.01	-296.51	-443.27	-796.24	12.94	
6179.00	29.090	2.460	6051.97	-260.00	-405.69	-793.44	11.65	
6273.00	39.050	0.520	6129.74	-208.47	-353.11	-792.19	10.66	
6367.00	47.920	359.420	6197.87	-144.83	-288.49	-792.27	9.47	
6462.00	58.930	353.280	6254.43	-69.17	-212.55	-797.41	12.69	
6510.00	68.660	352.510	6275.60	-26.22	-169.87	-802.74	20.32	
6556.00	72.430	352.240	6290.92	17.11	-126.89	-808.50	8.21	
6604.00	73.540	353.490	6304.97	62.94	-81.35	-814.20	3.40	
6651.00	74.230	358.280	6318.02	107.83	-36.33	-817.43	9.90	
6699.00	77.160	359.400	6329.88	153.77	10.17	-818.37	6.51	
6732.00	80.570	0.470	6336.25	185.65	42.54	-818.41	10.81	
6761.00	84.930	3.290	6339.91	213.78	71.29	-817.46	17.86	
6799.00†	86.245	3.634	6342.83	250.60	109.10	-815.17	3.58	ICP (621'FSL & 48'FWL, SEC.21)
6874.00	88.840	4.310	6346.05	323.27	183.85	-809.98	3.58	
6880.00†	88.885	4.136	6346.17	329.08	189.83	-809.54	2.99	TOP (702'FSL & 52'FWL, SEC.21)
6966.00	89.530	1.650	6347.36	412.86	275.71	-805.20	2.99	
7059.00	89.190	0.550	6348.40	504.08	368.68	-803.41	1.24	
7152.00	89.750	359.930	6349.26	595.56	461.68	-803.02	0.90	
7245.00	91.010	2.230	6348.64	686.78	554.65	-801.27	2.82	
7338.00	91.470	1.930	6346.63	777.66	647.57	-797.90	0.59	
7431.00	90.090	2.020	6345.36	868.58	740.50	-794.69	1.49	
7523.00	90.330	2.120	6345.02	958.51	832.44	-791.37	0.28	
7616.00	90.460	2.040	6344.38	1049.41	925.37	-787.99	0.16	
7709.00	89.930	1.940	6344.07	1140.34	1018.32	-784.76	0.58	



Actual Wellpath Report

ANTELOPE E-A-21HNB AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#01 ANTELOPE E-A-21HNB (506'FSL & 864'FWL, SEC.21)
Area	COLORADO	Well	ANTELOPE E-A-21HNB
Field	WELD COUNTY	Wellbore	ANTELOPE E-A-21HNB AWB
Facility	SEC.21-T05N-R62W		

WELLPATH DATA (97 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
7802.00	90.030	2.440	6344.10	1231.20	1111.25	-781.21	0.55	
7895.00	90.090	2.530	6344.00	1321.96	1204.16	-777.18	0.12	
7987.00	90.890	0.260	6343.21	1412.10	1296.12	-774.94	2.62	
8080.00	90.370	0.350	6342.19	1503.56	1389.12	-774.44	0.57	
8172.00	89.930	359.430	6341.95	1594.16	1481.12	-774.62	1.11	
8265.00	89.620	359.560	6342.32	1685.85	1574.11	-775.44	0.36	
8358.00	88.610	358.840	6343.75	1777.61	1667.09	-776.74	1.33	
8450.00	88.320	0.220	6346.22	1868.27	1759.05	-777.49	1.53	
8543.00	89.320	0.470	6348.13	1959.71	1852.03	-776.93	1.11	
8629.00	89.870	0.520	6348.74	2044.23	1938.02	-776.19	0.64	
8714.00	89.130	359.030	6349.48	2127.96	2023.02	-776.52	1.96	
8800.00	90.240	0.260	6349.95	2212.72	2109.01	-777.06	1.93	
8885.00	90.770	359.280	6349.21	2296.45	2194.00	-777.40	1.31	
8971.00	91.810	0.420	6347.27	2381.13	2279.98	-777.62	1.79	
9056.00	90.000	358.930	6345.93	2464.87	2364.96	-778.10	2.76	
9142.00	89.900	358.270	6346.00	2549.88	2450.94	-780.21	0.78	
9228.00	89.100	358.030	6346.75	2634.98	2536.89	-782.98	0.97	
9314.00	88.150	358.390	6348.82	2720.05	2622.82	-785.67	1.18	
9400.00	88.730	359.710	6351.16	2804.92	2708.77	-787.09	1.68	
9485.00	89.130	1.150	6352.74	2888.46	2793.75	-786.45	1.76	
9571.00	89.660	1.550	6353.65	2972.74	2879.72	-784.43	0.77	
9656.00	89.530	1.430	6354.25	3056.00	2964.69	-782.22	0.21	
9742.00	88.480	1.150	6355.75	3140.29	3050.66	-780.28	1.26	
9827.00	90.520	1.450	6356.49	3223.60	3135.63	-778.35	2.43	
9913.00	90.180	1.150	6355.96	3307.89	3221.60	-776.40	0.53	
9998.00	89.160	1.960	6356.45	3391.13	3306.57	-774.10	1.53	
10084.00	87.920	2.030	6358.64	3475.19	3392.49	-771.10	1.44	
10169.00	90.030	0.040	6360.16	3558.56	3477.45	-769.57	3.41	
10254.00	90.930	2.050	6359.45	3641.95	3562.43	-768.02	2.59	
10340.00	89.900	1.930	6358.83	3726.03	3648.37	-765.03	1.21	



Actual Wellpath Report

ANTELOPE E-A-21HNB AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#01 ANTELOPE E-A-21HNB (506'FSL & 864'FWL, SEC.21)
Area	COLORADO	Well	ANTELOPE E-A-21HNB
Field	WELD COUNTY	Wellbore	ANTELOPE E-A-21HNB AWB
Facility	SEC.21-T05N-R62W		

WELLPATH DATA (97 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
10426.00	89.180	2.490	6359.52	3810.04	3734.31	-761.72	1.06	
10511.00	89.960	359.860	6360.16	3893.39	3819.28	-759.97	3.23	
10596.00	88.050	359.010	6361.63	3977.19	3904.26	-760.81	2.46	
10682.00	89.190	2.510	6363.71	4061.61	3990.21	-759.67	4.28	
10767.00	88.880	2.570	6365.14	4144.53	4075.11	-755.91	0.37	
10929.00	85.180	357.680	6373.53	4303.66	4236.82	-755.54	3.78	LAST BHI MWD SURVEY
10982.00	85.180	357.680	6377.99	4355.98	4289.59	-757.68	0.00	PROJECTION TO BIT (474'FNL & 59'FWL, SEC.21)

HOLE & CASING SECTIONS - Ref Wellbore: ANTELOPE E-A-21HNB AWB Ref Wellpath: ANTELOPE E-A-21HNB AWP

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	445.00	428.00	17.00	445.00	0.00	0.00	1.09	-0.68
9.625in Casing Surface	17.00	445.00	428.00	17.00	445.00	0.00	0.00	1.09	-0.68
8.75in Open Hole	445.00	6809.00	6364.00	445.00	6343.46	1.09	-0.68	119.06	-814.53
7in Casing Intermediate	17.00	6788.00	6771.00	17.00	6342.08	0.00	0.00	98.15	-815.86
6.125in Open Hole	6809.00	10982.00	4173.00	6343.46	6377.99	119.06	-814.53	4289.59	-757.68



Actual Wellpath Report

ANTELOPE E-A-21HNB AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#01 ANTELOPE E-A-21HNB (506'FSL & 864'FWL, SEC.21)
Area	COLORADO	Well	ANTELOPE E-A-21HNB
Field	WELD COUNTY	Wellbore	ANTELOPE E-A-21HNB AWB
Facility	SEC.21-T05N-R62W		

TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.16-T05N-R62W	0.00	21.15	56.00	3324590.16	1383178.56	40°22'45.743"N	104°20'05.532"W	polygon
SEC.21-T05N-R62W	0.00	21.15	56.00	3324590.16	1383178.56	40°22'45.743"N	104°20'05.532"W	polygon
STATE ANTELOPE E-A-21HNB BHL ON PLAT (470'FNL & 50'FWL, SEC.21)	6312.00	4293.42	-766.30	3323711.85	1387439.48	40°23'27.960"N	104°20'16.159"W	point
STATE ANTELOPE E-A-21HNB EP (531'FSL & 50'FWL, SEC.21)	6312.00	18.94	-813.80	3323720.51	1383164.92	40°22'45.721"N	104°20'16.771"W	point
STATE ANTELOPE E-A-21HNB BHL ON PLAT REV-1 (470'FNL & 50'FWL, SEC.21)	6359.00	4293.42	-766.30	3323711.85	1387439.48	40°23'27.960"N	104°20'16.159"W	point
SEC.16/21-T05N-R62W HARDLINES (460'FNL/FSL)	6376.00	21.15	56.00	3324590.16	1383178.56	40°22'45.743"N	104°20'05.532"W	polygon
SEC.21-T05N-R62W HARDLINES (460'FNL/FSL)	6376.00	21.15	56.00	3324590.16	1383178.56	40°22'45.743"N	104°20'05.532"W	polygon

WELLPATH COMPOSITION - Ref Wellbore: ANTELOPE E-A-21HNB AWB Ref Wellpath: ANTELOPE E-A-21HNB AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	6761.00	NaviTrak (MagCorr)	BHI MWD/NAVITRAK (MAGCORR) 8.75" HOLE <527-6761>	ANTELOPE E-A-21HNB AWB
6761.00	10929.00	NaviTrak (MagCorr)	BHI MWD/NAVITRAK (MAGCORR) 6.125" HOLE <6874-10929>	ANTELOPE E-A-21HNB AWB
10929.00	10982.00	Blind Drilling (std)	Projection to bit	ANTELOPE E-A-21HNB AWB



Actual Wellpath Report

ANTELOPE E-A-21HNB AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#01 ANTELOPE E-A-21HNB (506'FSL & 864'FWL, SEC.21)
Area	COLORADO	Well	ANTELOPE E-A-21HNB
Field	WELD COUNTY	Wellbore	ANTELOPE E-A-21HNB AWB
Facility	SEC.21-T05N-R62W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
527.00	0.410	328.070	527.00	FIRST BHI MWD SURVEY
6799.00	86.245	3.634	6342.83	ICP (621'FSL & 48'FWL, SEC.21)
6880.00	88.885	4.136	6346.17	TOP (702'FSL & 52'FWL, SEC.21)
10929.00	85.180	357.680	6373.53	LAST BHI MWD SURVEY
10982.00	85.180	357.680	6377.99	PROJECTION TO BIT (474'FNL & 59'FWL, SEC.21)