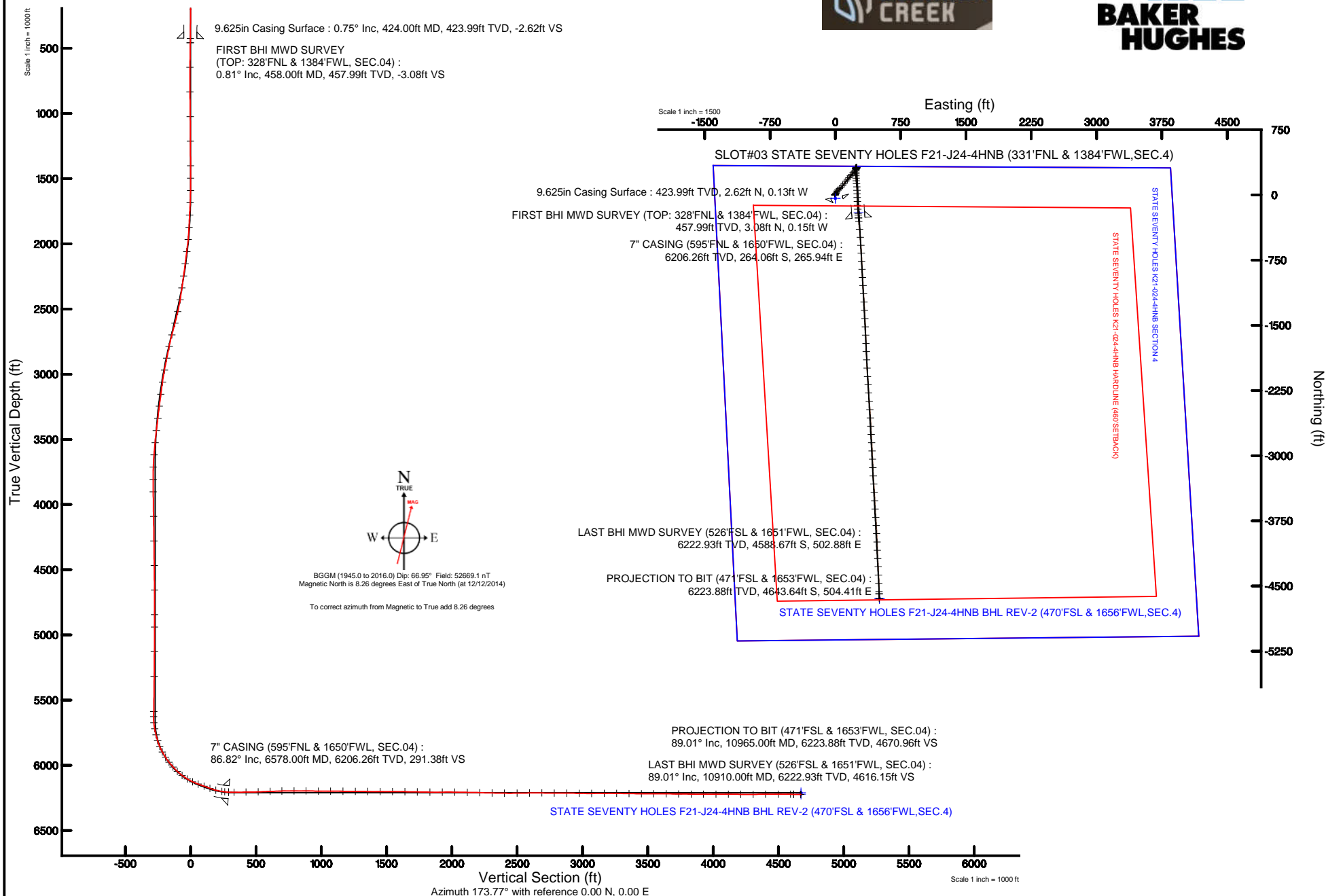


BONANZA CREEK OIL COMPANY

Location: COLORADO Slot: SLOT#03 STATE SEVENTY HOLES F21-J24-4HNB (331'FNL & 1384'FWL, SEC.4)
Field: WELD COUNTY Well: STATE SEVENTY HOLES F21-J24-4HNB
Facility: SEC.04-T4N-R62W Wellbore: STATE SEVENTY HOLES F21-J24-4HNB PWB

Plot reference wellpath is STATE SEVENTY HOLES F21-J24-4HNB (REV-B.0) PWP

True vertical depths are referenced to FRONTIER 4 (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to FRONTIER 4 (RKB)	North Reference: True north
FRONTIER 4 (RKB) to Mean Sea Level: 4573 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#03 STATE SEVENTY HOLES F21-J24-4HNB (331'FNL & 1384'FWL, SEC.4)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: ingmjmr on 3/27/2015





Actual Wellpath Report

STATE SEVENTY HOLES F21-J24-4HNB AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#03 STATE SEVENTY HOLES F21-J24-4HNB (331'FNL & 1384'FWL,SEC.4)
Area	COLORADO	Well	STATE SEVENTY HOLES F21-J24-4HNB
Field	WELD COUNTY	Wellbore	STATE SEVENTY HOLES F21-J24-4HNB AWB
Facility	SEC.04-T4N-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	Ingmjmr
Scale	0.999958	Report Generated	3/27/2015 at 1:57:40 PM
Convergence at slot	0.75° East	Database/Source file	Denver/STATE_SEVENTY_HOLES_F21-J24-4HNB_AWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	40.07	-0.00	3324450.34	1371757.65	40°20'52.908"N	104°20'09.276"W
Facility Reference Pt			3324450.87	1371717.58	40°20'52.512"N	104°20'09.276"W
Field Reference Pt			3335925.10	1457282.25	40°34'56.460"N	104°17'26.016"W

WELLPATH DATUM

Calculation method	Minimum curvature	FRONTIER 4 (RKB) to Facility Vertical Datum	4573.00ft
Horizontal Reference Pt	Slot	FRONTIER 4 (RKB) to Mean Sea Level	4573.00ft
Vertical Reference Pt	FRONTIER 4 (RKB)	FRONTIER 4 (RKB) to Mud Line at Slot (SLOT#03 STATE SEVENTY HOLES F21-J24-4HNB (331'FNL & 1384'FWL,SEC.4))	4573.00ft
MD Reference Pt	FRONTIER 4 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	173.77°



Actual Wellpath Report

STATE SEVENTY HOLES F21-J24-4HNB AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#03 STATE SEVENTY HOLES F21-J24-4HNB (331'FNL & 1384'FWL,SEC.4)
Area	COLORADO	Well	STATE SEVENTY HOLES F21-J24-4HNB
Field	WELD COUNTY	Wellbore	STATE SEVENTY HOLES F21-J24-4HNB AWB
Facility	SEC.04-T4N-R62W		

WELLPATH DATA (113 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
0.00†	0.000	357.230	0.00	0.00	0.00	0.00	0.00	
22.00	0.000	357.230	22.00	0.00	0.00	0.00	0.00	
458.00	0.810	357.230	457.99	-3.08	3.08	-0.15	0.19	FIRST BHI MWD SURVEY (TOP: 328'FNL & 1384'FWL, SEC.04)
646.00	0.780	20.490	645.97	-5.55	5.60	0.23	0.17	
834.00	1.420	232.910	833.95	-5.49	5.40	-1.18	1.13	
1024.00	1.340	237.310	1023.90	-3.30	2.78	-4.92	0.07	
1213.00	0.140	208.130	1212.88	-2.12	1.38	-6.89	0.65	
1402.00	0.880	137.080	1401.87	-0.77	0.11	-6.01	0.45	
1496.00	1.120	90.520	1495.86	-0.08	-0.42	-4.60	0.87	
1591.00	2.280	55.360	1590.82	-0.87	0.64	-2.12	1.59	
1685.00	3.100	28.130	1684.71	-3.86	3.95	0.62	1.59	
1780.00	3.330	32.200	1779.57	-8.14	8.55	3.30	0.34	
1874.00	3.220	12.230	1873.42	-12.78	13.44	5.31	1.21	
1968.00	5.850	25.910	1967.12	-19.34	20.33	7.97	3.01	
2062.00	8.590	18.770	2060.36	-29.76	31.29	12.32	3.06	
2157.00	9.820	37.420	2154.16	-42.06	44.44	19.53	3.38	
2251.00	12.260	45.360	2246.42	-54.06	57.82	31.50	3.05	
2345.00	14.000	49.730	2337.96	-66.63	72.19	47.28	2.13	
2440.00	16.080	47.280	2429.70	-80.88	88.54	65.72	2.29	
2534.00	18.030	39.160	2519.57	-98.84	108.66	84.47	3.27	
2628.00	18.960	35.130	2608.72	-120.52	132.43	102.45	1.68	
2723.00	19.160	34.560	2698.51	-143.91	157.89	120.17	0.29	
2817.00	17.340	43.540	2787.80	-164.64	180.75	138.58	3.56	
2911.00	16.610	40.370	2877.71	-182.92	201.15	156.93	1.25	
3006.00	14.990	41.090	2969.11	-200.57	220.75	173.80	1.72	
3100.00	12.510	41.820	3060.41	-215.62	237.50	188.58	2.64	
3195.00	11.850	46.030	3153.28	-228.47	251.94	202.46	1.16	
3290.00	11.070	46.070	3246.38	-240.02	265.04	216.05	0.82	
3384.00	10.480	42.040	3338.72	-251.22	277.65	228.27	1.02	
3479.00	8.730	32.950	3432.39	-262.56	290.12	237.98	2.43	



Actual Wellpath Report

STATE SEVENTY HOLES F21-J24-4HNB AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#03 STATE SEVENTY HOLES F21-J24-4HNB (331'FNL & 1384'FWL,SEC.4)
Area	COLORADO	Well	STATE SEVENTY HOLES F21-J24-4HNB
Field	WELD COUNTY	Wellbore	STATE SEVENTY HOLES F21-J24-4HNB AWP
Facility	SEC.04-T4N-R62W		

WELLPATH DATA (113 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
3573.00	6.630	30.250	3525.55	-272.46	300.80	244.60	2.27	
3667.00	4.560	9.530	3619.10	-280.42	309.17	247.95	3.04	
3761.00	2.260	343.180	3712.94	-285.84	314.63	248.03	2.90	
3856.00	1.610	252.360	3807.90	-287.41	316.02	246.22	2.94	
3951.00	1.540	235.890	3902.86	-286.55	314.90	243.89	0.48	
4140.00	1.430	222.140	4091.80	-283.80	311.73	240.20	0.20	
4328.00	1.230	230.300	4279.75	-281.13	308.70	237.08	0.15	
4516.00	0.770	204.020	4467.72	-278.93	306.26	235.01	0.34	
4705.00	0.750	217.990	4656.71	-276.94	304.12	233.73	0.10	
4893.00	0.280	306.010	4844.70	-276.37	303.42	232.60	0.42	
4988.00	0.130	351.630	4939.70	-276.63	303.66	232.40	0.22	
5177.00	0.490	24.300	5128.70	-277.54	304.61	232.70	0.20	
5367.00	0.560	359.480	5318.69	-279.17	306.28	233.03	0.12	
5636.00	0.950	4.440	5587.66	-282.67	309.82	233.19	0.15	
5675.00	1.200	19.850	5626.66	-283.35	310.53	233.35	0.97	
5722.00	5.000	158.410	5673.60	-281.82	309.08	234.27	12.67	
5769.00	10.190	170.760	5720.18	-275.68	303.07	235.70	11.51	
5817.00	13.910	180.240	5767.12	-265.71	293.11	236.35	8.75	
5864.00	18.300	182.580	5812.26	-252.80	280.08	236.00	9.44	
5910.00	23.180	180.250	5855.27	-236.65	263.80	235.63	10.76	
5957.00	27.660	178.560	5897.71	-216.58	243.63	235.87	9.66	
6005.00	32.910	177.390	5939.14	-192.45	219.45	236.74	11.01	
6052.00	38.570	176.930	5977.28	-165.05	192.05	238.11	12.06	
6099.00	41.730	175.700	6013.20	-134.78	161.81	240.07	6.93	
6146.00	46.970	173.190	6046.80	-101.95	129.13	243.28	11.76	
6194.00	52.470	175.800	6077.82	-65.35	92.70	246.76	12.18	
6242.00	58.200	178.570	6105.12	-25.97	53.28	248.66	12.84	
6288.00	66.000	178.670	6126.62	14.51	12.67	249.64	16.96	
6335.00	69.870	177.460	6144.28	57.93	-30.85	251.11	8.57	
6383.00	69.900	177.090	6160.78	102.92	-75.87	253.26	0.73	



Actual Wellpath Report

STATE SEVENTY HOLES F21-J24-4HNB AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#03 STATE SEVENTY HOLES F21-J24-4HNB (331'FNL & 1384'FWL,SEC.4)
Area	COLORADO	Well	STATE SEVENTY HOLES F21-J24-4HNB
Field	WELD COUNTY	Wellbore	STATE SEVENTY HOLES F21-J24-4HNB AWP
Facility	SEC.04-T4N-R62W		

WELLPATH DATA (113 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
6430.00	69.990	177.050	6176.90	147.00	-119.96	255.51	0.21	
6478.00	75.240	175.970	6191.24	192.74	-165.67	258.31	11.15	
6525.00	81.280	175.520	6200.80	238.71	-211.54	261.72	12.89	
6547.00	83.650	175.530	6203.68	260.50	-233.28	263.42	10.77	
6578.00†	86.823	175.132	6206.26	291.38	-264.06	265.94	10.32	7" CASING (595'FNL & 1650'FWL, SEC.04)
6619.00	91.020	174.610	6207.03	332.36	-304.88	269.60	10.32	
6710.00	90.550	174.360	6205.78	423.34	-395.45	278.35	0.58	
6803.00	91.970	175.630	6203.74	516.29	-488.07	286.46	2.05	
6895.00	92.220	176.210	6200.37	608.17	-579.78	293.00	0.69	
6986.00	91.170	177.260	6197.68	699.00	-670.59	298.18	1.63	
7078.00	89.420	177.110	6197.21	790.83	-762.47	302.70	1.91	
7170.00	90.250	176.750	6197.47	882.69	-854.34	307.62	0.98	
7266.00	88.950	176.950	6198.14	978.55	-950.19	312.90	1.37	
7358.00	90.250	176.630	6198.79	1070.42	-1042.04	318.05	1.46	
7454.00	88.830	176.430	6199.56	1166.30	-1137.86	323.86	1.49	
7549.00	90.280	176.440	6200.29	1261.19	-1232.67	329.77	1.53	
7644.00	88.710	177.070	6201.13	1356.05	-1327.51	335.15	1.78	
7739.00	90.710	176.940	6201.61	1450.90	-1422.37	340.11	2.11	
7834.00	89.410	177.550	6201.51	1545.72	-1517.26	344.67	1.51	
7929.00	89.170	177.830	6202.69	1640.49	-1612.18	348.50	0.39	
8024.00	88.800	177.970	6204.37	1735.23	-1707.10	351.98	0.42	
8120.00	88.950	177.520	6206.26	1830.98	-1803.01	355.76	0.49	
8216.00	91.020	177.920	6206.28	1926.74	-1898.92	359.58	2.20	
8311.00	89.080	176.680	6206.20	2021.55	-1993.81	364.05	2.42	
8407.00	89.050	176.100	6207.77	2117.44	-2089.61	370.10	0.60	
8502.00	88.340	176.420	6209.93	2212.33	-2184.38	376.29	0.82	
8597.00	88.520	176.360	6212.53	2307.19	-2279.16	382.27	0.20	
8693.00	89.410	175.390	6214.27	2403.11	-2374.89	389.18	1.37	
8789.00	90.800	175.470	6214.09	2499.06	-2470.58	396.83	1.45	
8884.00	91.020	177.170	6212.58	2593.95	-2565.37	402.92	1.80	



Actual Wellpath Report

STATE SEVENTY HOLES F21-J24-4HNB AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#03 STATE SEVENTY HOLES F21-J24-4HNB (331'FNL & 1384'FWL,SEC.4)
Area	COLORADO	Well	STATE SEVENTY HOLES F21-J24-4HNB
Field	WELD COUNTY	Wellbore	STATE SEVENTY HOLES F21-J24-4HNB AWP
Facility	SEC.04-T4N-R62W		

WELLPATH DATA (113 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
8979.00	89.180	177.370	6212.42	2688.77	-2660.26	407.45	1.95	
9075.00	89.080	176.730	6213.87	2784.60	-2756.12	412.39	0.67	
9171.00	90.490	176.880	6214.23	2880.46	-2851.97	417.74	1.48	
9266.00	88.430	177.570	6215.13	2975.28	-2946.85	422.34	2.29	
9361.00	90.400	177.110	6216.10	3070.09	-3041.73	426.74	2.13	
9457.00	90.220	178.030	6215.58	3165.87	-3137.65	430.82	0.98	
9552.00	89.600	176.200	6215.73	3260.71	-3232.52	435.60	2.03	
9647.00	88.980	176.450	6216.91	3355.60	-3327.32	441.69	0.70	
9742.00	89.160	176.620	6218.45	3450.48	-3422.13	447.43	0.26	
9838.00	90.490	177.280	6218.74	3546.33	-3517.99	452.53	1.55	
9933.00	89.350	176.590	6218.87	3641.18	-3612.85	457.61	1.40	
10028.00	89.480	176.370	6219.84	3736.07	-3707.67	463.45	0.27	
10124.00	88.670	175.780	6221.39	3831.98	-3803.43	470.02	1.04	
10218.00	90.800	177.970	6221.83	3925.83	-3897.28	475.14	3.25	
10315.00	89.780	177.800	6221.34	4022.57	-3994.21	478.72	1.07	
10409.00	89.570	177.430	6221.87	4116.36	-4088.13	482.63	0.45	
10504.00	89.290	177.240	6222.82	4211.17	-4183.02	487.05	0.36	
10599.00	90.490	177.720	6223.00	4305.97	-4277.93	491.22	1.36	
10695.00	90.220	176.840	6222.40	4401.79	-4373.81	495.78	0.96	
10791.00	90.490	178.330	6221.81	4497.57	-4469.72	499.83	1.58	
10886.00	88.730	178.710	6222.46	4592.24	-4564.69	502.28	1.90	
10910.00	89.010	178.410	6222.93	4616.15	-4588.67	502.88	1.71	LAST BHI MWD SURVEY (526'FSL & 1651'FWL, SEC.04)
10965.00	89.010	178.410	6223.88	4670.96	-4643.64	504.41	0.00	PROJECTION TO BIT (471'FSL & 1653'FWL, SEC.04)



Actual Wellpath Report

STATE SEVENTY HOLES F21-J24-4HNB AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#03 STATE SEVENTY HOLES F21-J24-4HNB (331'FNL & 1384'FWL,SEC.4)
Area	COLORADO	Well	STATE SEVENTY HOLES F21-J24-4HNB
Field	WELD COUNTY	Wellbore	STATE SEVENTY HOLES F21-J24-4HNB AWP
Facility	SEC.04-T4N-R62W		

HOLE & CASING SECTIONS -

Ref Wellbore: STATE SEVENTY HOLES F21-J24-4HNB AWP Ref Wellpath: STATE SEVENTY HOLES F21-J24-4HNB 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]
9.625in Casing Surface	22.00	424.00	402.00	22.00	423.99	0.00	0.00	2.62	-0.13
8.75in Open Hole	424.00	6589.00	6165.00	423.99	6206.76	2.62	-0.13	-275.01	266.88
7in Casing Intermediate	22.00	6578.00	6556.00	22.00	6206.26	0.00	0.00	-264.06	265.94
6.125in Open Hole	6589.00	10965.00	4376.00	6206.76	6223.88	-275.01	266.88	-4643.64	504.41

TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
STATE SEVENTY HOLES K21-024-4HNB SECTION 4	-1.00	-40.07	0.00	3324450.86	1371717.58	40°20'52.512"N	104°20'09.276"W	polygon
STATE SEVENTY HOLES F21-J24-4HNB BHL REV-2 (470'FSL & 1656'FWL,SEC.4)	6210.00	-4644.93	507.39	3325018.64	1367119.98	40°20'07.008"N	104°20'02.724"W	point
STATE SEVENTY HOLES K21-024-4HNB HARDLINE (460'SETBACK)	6221.00	-40.07	0.00	3324450.86	1371717.58	40°20'52.512"N	104°20'09.276"W	polygon
STATE SEVENTY HOLES F-21-J24-4HNB BHL REV-1 (470'FSL & 1656'FWL,SEC.4)	6222.00	-4644.93	507.39	3325018.64	1367119.99	40°20'07.008"N	104°20'02.724"W	point
STATE SEVENTY HOLES F-21-J24-4HNB TARGET	6222.00	-204.01	267.59	3324720.57	1371557.18	40°20'50.892"N	104°20'05.820"W	point

WELLPATH COMPOSITION -

Ref Wellbore: STATE SEVENTY HOLES F21-J24-4HNB AWP Ref Wellpath: STATE SEVENTY HOLES F21-J24-4HNB AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
22.00	6547.00	NaviTrak (MagCorr)	BHI/Navitrak MagCorr MWD 8.75" Hole <458'-6547>	STATE SEVENTY HOLES F21-J24-4HNB AWP
6547.00	10910.00	NaviTrak (MagCorr)	BHI/Navitrak MagCorr MWD 6.125" Hole <6619'-10910>	STATE SEVENTY HOLES F21-J24-4HNB AWP
10910.00	10965.00	Blind Drilling (std)	Projection to bit	STATE SEVENTY HOLES F21-J24-4HNB AWP



Actual Wellpath Report

STATE SEVENTY HOLES F21-J24-4HNB AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#03 STATE SEVENTY HOLES F21-J24-4HNB (331'FNL & 1384'FWL, SEC.4)
Area	COLORADO	Well	STATE SEVENTY HOLES F21-J24-4HNB
Field	WELD COUNTY	Wellbore	STATE SEVENTY HOLES F21-J24-4HNB AWB
Facility	SEC.04-T4N-R62W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
458.00	0.810	357.230	457.99	FIRST BHI MWD SURVEY (TOP: 328'FNL & 1384'FWL, SEC.04)
6578.00	86.823	175.132	6206.26	7" CASING (595'FNL & 1650'FWL, SEC.04)
10910.00	89.010	178.410	6222.93	LAST BHI MWD SURVEY (526'FSL & 1651'FWL, SEC.04)
10965.00	89.010	178.410	6223.88	PROJECTION TO BIT (471'FSL & 1653'FWL, SEC.04)