

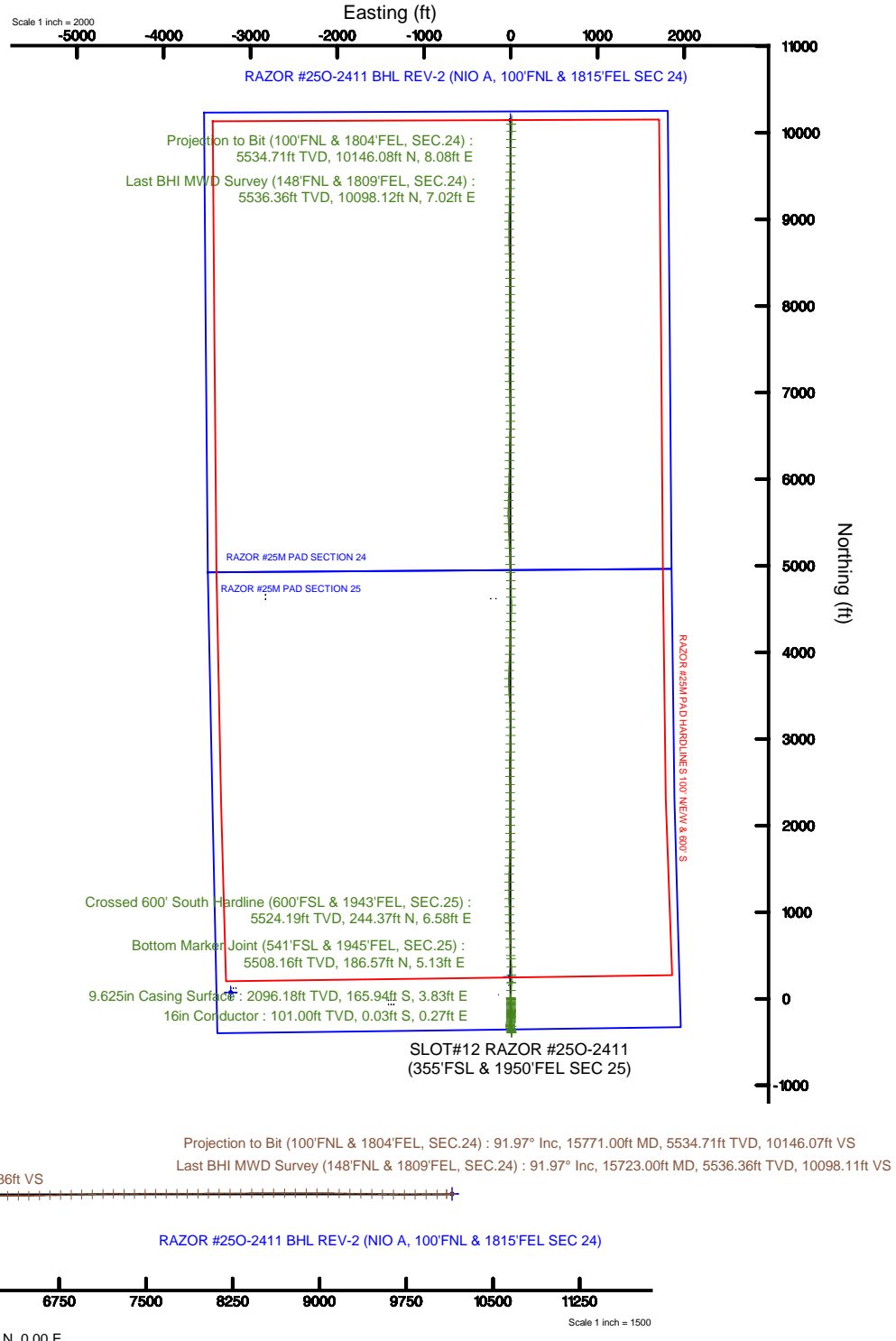
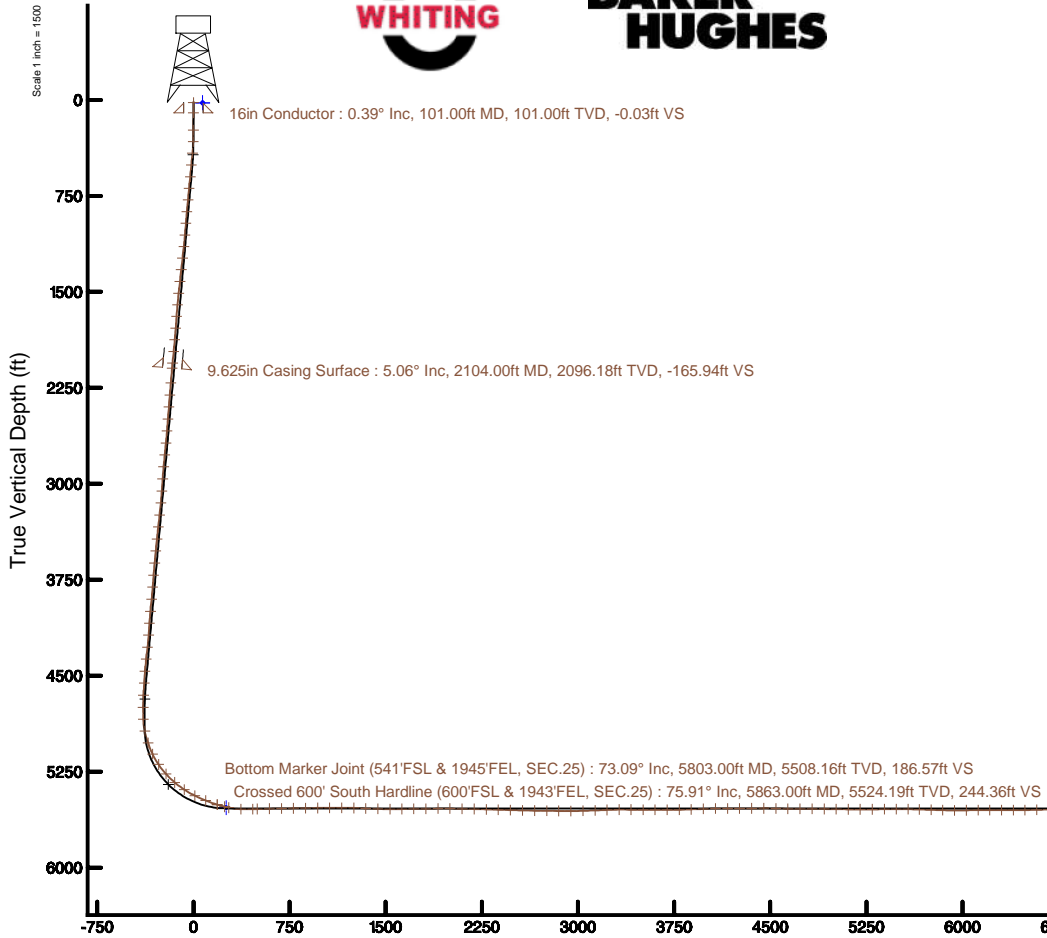
# WHITING OIL & GAS CORPORATION

Location: COLORADO Slot: SLOT#12 RAZOR #250-2411 (355'FSL & 1950'FEL SEC 25)  
 Field: WELD COUNTY Well: RAZOR #250-2411  
 Facility: SEC.25-T10N-R58W Wellbore: RAZOR #250-2411 PWB

<b>Plot reference wellpath is RAZOR #250-2411 REV-B.0 PWP</b>		Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
True vertical depths are referenced to UNIT 406 (21) (RK8)		* - Wellpath was transformed from a different geodetic datum
Measured depths are referenced to UNIT 406 (21) (RK8)		North Reference: True north
UNIT 406 (21) (RK8) to Mean Sea Level: 4739 feet		Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#12 RAZOR #250-2411 (355'FSL & 1950'FEL SEC 25)): 0 feet		Depths are in feet
Coordinates are in feet referenced to Slot		Created by: ingmjmn on 2016-12-15
		Database: WA_DEN_Denver_DeIn

## Location Information

Facility Name				Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.25-T10N-R58W				3464569.074	1540014.606	40°48'13.1607"N	103°49'18.690"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	
SLOT#12 RAZOR #250-2411 (355'FSL & 1950'FEL SEC 25)	-70.63	3228.41	3467798.244	1540005.980	40°48'12.4607"N	103°49'36.710"W	
UNIT 406 (21) (RK8) to Mud line (At Slot: SLOT#12 RAZOR #250-2411 (355'FSL & 1950'FEL SEC 25))						4739ft	
Mean Sea Level to Mud line (At Slot: SLOT#12 RAZOR #250-2411 (355'FSL & 1950'FEL SEC 25))						0ft	
UNIT 406 (21) (RK8) to Mean Sea Level						4739ft	



Projection to Bit (100'FNL & 1804'FEL, SEC.24) : 91.97° Inc, 15771.00ft MD, 5534.71ft TVD, 10146.07ft VS  
 Last BHI MWD Survey (148'FNL & 1809'FEL, SEC.24) : 91.97° Inc, 15723.00ft MD, 5536.36ft TVD, 10098.11ft VS

Vertical Section (ft)  
 Azimuth 359.98° with reference 0.00 N, 0.00 E

Scale 1 inch = 1500



# Actual Wellpath Report

RAZOR #250-2411 AWP

Page 1 of 10



## REFERENCE WELLPATH IDENTIFICATION

Operator	WHITING OIL & GAS CORPORATION	Slot	SLOT#12 RAZOR #250-2411 (355'FSL & 1950'FEL SEC 25)
Area	COLORADO	Well	RAZOR #250-2411
Field	WELD COUNTY	Wellbore	RAZOR #250-2411 AWB
Facility	SEC.25-T10N-R58W		

## REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 5.0
North Reference	True	User	Ingmjmr
Scale	1.000003	Report Generated	12/15/2016 at 10:22:59 AM
Convergence at slot	1.10° East	Database/Source file	WA_DEN_Denver_Defn/RAZOR_#250-2411_AWP.xml

## WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-70.63	3228.41	3467798.24	1540005.08	40°48'12.460"N	103°48'36.710"W
Facility Reference Pt			3464569.07	1540014.61	40°48'13.160"N	103°49'18.690"W
Field Reference Pt			3471270.16	1558347.59	40°51'13.010"N	103°47'46.990"W

## WELLPATH DATUM

Calculation method	Minimum curvature	UNIT 406 (21') (RKB) to Facility Vertical Datum	4739.00ft
Horizontal Reference Pt	Slot	UNIT 406 (21') (RKB) to Mean Sea Level	4739.00ft
Vertical Reference Pt	UNIT 406 (21') (RKB)	UNIT 406 (21') (RKB) to Mud Line at Slot (SLOT#12 RAZOR #250-2411 (355'FSL & 1950'FEL SEC 25))	4739.00ft
MD Reference Pt	UNIT 406 (21') (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	359.98°



# Actual Wellpath Report

RAZOR #250-2411 AWP

Page 2 of 10



## REFERENCE WELLPATH IDENTIFICATION

Operator	WHITING OIL & GAS CORPORATION	Slot	SLOT#12 RAZOR #250-2411 (355'FSL & 1950'FEL SEC 25)
Area	COLORADO	Well	RAZOR #250-2411
Field	WELD COUNTY	Wellbore	RAZOR #250-2411 AWB
Facility	SEC.25-T10N-R58W		

## WELLPATH DATA (172 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS ["/100ft]	Comments
0.00†	0.000	96.660	0.00	0.00	0.00	0.00	0.00	
21.00	0.000	96.660	21.00	0.00	0.00	0.00	0.00	
237.00	1.050	96.660	236.99	-0.23	-0.23	1.97	0.49	
326.00	2.530	158.870	325.95	-2.16	-2.16	3.48	2.52	
417.00	4.420	179.410	416.78	-7.54	-7.54	4.24	2.46	
509.00	5.670	183.760	508.42	-15.62	-15.62	3.98	1.42	
601.00	5.670	183.890	599.97	-24.69	-24.69	3.38	0.01	
692.00	5.440	180.790	690.55	-33.49	-33.48	3.01	0.42	
784.00	5.310	179.930	782.14	-42.10	-42.10	2.96	0.17	
876.00	5.070	179.140	873.76	-50.42	-50.42	3.02	0.27	
967.00	4.760	178.320	964.43	-58.22	-58.22	3.19	0.35	
1059.00	4.640	178.290	1056.12	-65.75	-65.75	3.42	0.13	
1149.00	6.530	181.200	1145.69	-74.51	-74.51	3.42	2.12	
1241.00	6.320	182.190	1237.11	-84.80	-84.80	3.12	0.26	
1332.00	6.170	178.570	1327.57	-94.69	-94.69	3.05	0.46	
1424.00	6.470	179.230	1419.01	-104.82	-104.82	3.24	0.34	
1516.00	6.160	177.400	1510.45	-114.93	-114.93	3.53	0.40	
1608.00	5.270	176.170	1601.99	-124.08	-124.08	4.04	0.98	
1699.00	4.290	174.530	1692.68	-131.64	-131.64	4.64	1.09	
1791.00	3.720	172.080	1784.45	-138.02	-138.02	5.38	0.65	
1882.00	5.560	179.760	1875.15	-145.35	-145.35	5.81	2.13	
1973.00	5.460	187.430	1965.73	-154.06	-154.05	5.27	0.82	
2064.00	5.150	186.940	2056.34	-162.40	-162.40	4.21	0.34	
2221.00	4.810	181.140	2212.75	-175.98	-175.98	3.23	0.39	
2315.00	4.710	181.110	2306.43	-183.78	-183.78	3.08	0.11	
2409.00	4.320	179.040	2400.13	-191.18	-191.17	3.06	0.45	
2503.00	4.670	175.980	2493.84	-198.53	-198.53	3.39	0.45	
2597.00	4.250	172.890	2587.56	-205.81	-205.80	4.09	0.51	
2691.00	6.080	187.640	2681.18	-214.20	-214.20	3.86	2.39	
2785.00	5.660	186.660	2774.69	-223.74	-223.73	2.66	0.46	



# Actual Wellpath Report

RAZOR #250-2411 AWP

Page 3 of 10



## REFERENCE WELLPATH IDENTIFICATION

Operator	WHITING OIL & GAS CORPORATION	Slot	SLOT#12 RAZOR #250-2411 (355'FSL & 1950'FEL SEC 25)
Area	COLORADO	Well	RAZOR #250-2411
Field	WELD COUNTY	Wellbore	RAZOR #250-2411 AWB
Facility	SEC.25-T10N-R58W		

## WELLPATH DATA (172 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
2879.00	5.080	181.860	2868.27	-232.50	-232.50	1.99	0.78	
2973.00	4.110	177.940	2961.97	-240.02	-240.02	1.97	1.08	
3068.00	3.630	175.650	3056.75	-246.43	-246.43	2.32	0.53	
3162.00	6.130	190.460	3150.41	-254.33	-254.33	1.64	2.96	
3257.00	6.130	187.630	3244.87	-264.34	-264.34	0.04	0.32	
3351.00	6.050	189.160	3338.34	-274.21	-274.21	-1.41	0.19	
3445.00	6.080	188.930	3431.81	-284.02	-284.02	-2.97	0.04	
3539.00	5.730	190.060	3525.31	-293.55	-293.56	-4.57	0.39	
3634.00	5.110	189.770	3619.88	-302.39	-302.39	-6.11	0.65	
3729.00	4.690	182.240	3714.54	-310.44	-310.45	-6.98	0.81	
3823.00	4.250	176.790	3808.25	-317.76	-317.76	-6.94	0.65	
3917.00	5.890	170.500	3901.88	-326.00	-326.00	-5.95	1.84	
4012.00	5.270	161.750	3996.43	-334.95	-334.95	-3.78	1.11	
4106.00	4.670	160.190	4090.08	-342.65	-342.65	-1.13	0.65	
4200.00	3.980	158.050	4183.81	-349.28	-349.28	1.39	0.75	
4294.00	7.210	170.100	4277.35	-358.12	-358.11	3.62	3.64	
4388.00	5.960	171.730	4370.73	-368.76	-368.76	5.34	1.34	
4482.00	4.720	173.000	4464.32	-377.43	-377.42	6.51	1.33	
4576.00	3.460	175.330	4558.08	-384.09	-384.09	7.22	1.35	
4670.00	3.260	169.960	4651.92	-389.55	-389.55	7.91	0.40	
4765.00	0.440	69.630	4746.87	-392.08	-392.08	8.73	3.54	
4859.00	2.060	17.630	4840.85	-390.35	-390.35	9.58	1.94	
4953.00	11.870	359.020	4934.04	-379.04	-379.04	9.92	10.57	
5048.00	19.070	357.950	5025.54	-353.73	-353.73	9.20	7.58	
5142.00	25.080	356.770	5112.61	-318.46	-318.46	7.53	6.41	
5236.00	34.140	358.510	5194.25	-272.11	-272.10	5.71	9.68	
5330.00	42.060	357.270	5268.17	-214.19	-214.19	3.52	8.46	
5425.00	49.530	358.800	5334.36	-146.18	-146.18	1.25	7.95	
5519.00	57.050	0.080	5390.51	-70.89	-70.89	0.55	8.07	
5613.00	63.280	0.220	5437.25	10.62	10.62	0.77	6.63	



# Actual Wellpath Report

RAZOR #250-2411 AWP

Page 4 of 10



## REFERENCE WELLPATH IDENTIFICATION

Operator	WHITING OIL & GAS CORPORATION	Slot	SLOT#12 RAZOR #250-2411 (355'FSL & 1950'FEL SEC 25)
Area	COLORADO	Well	RAZOR #250-2411
Field	WELD COUNTY	Wellbore	RAZOR #250-2411 AWB
Facility	SEC.25-T10N-R58W		

## WELLPATH DATA (172 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS ["/100ft]	Comments
5707.00	67.870	1.560	5476.11	96.17	96.17	2.12	5.05	
5801.00	73.000	2.230	5507.58	184.66	184.66	5.05	5.50	
5803.00†	73.094	2.180	5508.16	186.57	186.57	5.13	5.26	Bottom Marker Joint (541'FSL & 1945'FEL, SEC.25)
5863.00†	75.915	0.712	5524.19	244.36	244.37	6.58	5.26	Crossed 600' South Hardline (600'FSL & 1943'FEL, SEC.25)
5896.00	77.470	359.920	5531.79	276.48	276.48	6.76	5.26	
5990.00	88.650	358.280	5543.13	369.62	369.63	5.28	12.02	
6084.00	91.350	357.500	5543.13	463.55	463.55	1.82	2.99	
6119.00	91.820	357.930	5542.16	498.51	498.51	0.42	1.82	
6213.00	91.200	358.960	5539.68	592.44	592.44	-2.13	1.28	
6308.00	90.120	356.860	5538.59	687.37	687.37	-5.59	2.49	
6402.00	92.190	357.810	5536.69	781.24	781.24	-9.96	2.42	
6496.00	90.060	358.910	5534.85	875.18	875.18	-12.65	2.55	
6590.00	90.830	358.940	5534.12	969.16	969.16	-14.41	0.82	
6684.00	90.030	359.710	5533.41	1063.15	1063.15	-15.52	1.18	
6778.00	90.740	359.580	5532.78	1157.15	1157.14	-16.10	0.77	
6872.00	87.690	359.770	5534.07	1251.12	1251.12	-16.64	3.25	
6966.00	87.870	359.750	5537.71	1345.05	1345.05	-17.03	0.19	
7060.00	88.280	1.050	5540.87	1439.00	1438.99	-16.37	1.45	
7154.00	89.110	2.130	5543.01	1532.93	1532.93	-13.77	1.45	
7247.00	92.090	2.500	5542.04	1625.84	1625.84	-10.01	3.23	
7341.00	89.940	0.900	5540.37	1719.77	1719.77	-7.22	2.85	
7435.00	90.310	0.040	5540.17	1813.77	1813.77	-6.45	1.00	
7529.00	91.230	0.410	5538.90	1907.76	1907.76	-6.08	1.05	
7623.00	88.680	359.980	5538.98	2001.75	2001.75	-5.76	2.75	
7718.00	89.510	359.830	5540.48	2096.74	2096.73	-5.92	0.89	
7812.00	88.400	359.900	5542.19	2190.72	2190.72	-6.14	1.18	
7906.00	88.430	359.420	5544.79	2284.68	2284.68	-6.70	0.51	
8000.00	88.370	359.590	5547.42	2378.64	2378.64	-7.51	0.19	
8095.00	88.090	359.160	5550.35	2473.59	2473.59	-8.55	0.54	
8189.00	89.350	358.970	5552.45	2567.55	2567.55	-10.08	1.36	



# Actual Wellpath Report

RAZOR #250-2411 AWP

Page 5 of 10



## REFERENCE WELLPATH IDENTIFICATION

Operator	WHITING OIL & GAS CORPORATION	Slot	SLOT#12 RAZOR #250-2411 (355'FSL & 1950'FEL SEC 25)
Area	COLORADO	Well	RAZOR #250-2411
Field	WELD COUNTY	Wellbore	RAZOR #250-2411 AWB
Facility	SEC.25-T10N-R58W		

## WELLPATH DATA (172 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS ["/100ft]	Comments
8283.00	87.910	359.390	5554.70	2661.51	2661.51	-11.42	1.60	
8378.00	89.850	2.440	5556.55	2756.47	2756.47	-9.91	3.80	
8472.00	89.420	2.260	5557.15	2850.39	2850.38	-6.05	0.50	
8566.00	89.970	0.950	5557.65	2944.34	2944.34	-3.42	1.51	
8660.00	91.690	0.510	5556.29	3038.32	3038.32	-2.22	1.89	
8755.00	92.090	359.810	5553.16	3133.27	3133.27	-1.96	0.85	
8849.00	92.500	359.040	5549.39	3227.19	3227.19	-2.90	0.93	
8943.00	90.590	358.830	5546.86	3321.13	3321.13	-4.65	2.04	
9037.00	89.020	355.760	5547.18	3415.02	3415.01	-9.08	3.67	
9131.00	90.000	356.750	5547.98	3508.81	3508.81	-15.22	1.48	
9224.00	90.490	358.630	5547.59	3601.73	3601.73	-18.97	2.09	
9318.00	89.480	359.980	5547.61	3695.72	3695.72	-20.11	1.79	
9413.00	90.990	2.300	5547.22	3790.69	3790.69	-18.22	2.91	
9506.00	91.970	2.590	5544.82	3883.57	3883.57	-14.25	1.10	
9601.00	92.470	1.850	5541.14	3978.43	3978.43	-10.58	0.94	
9696.00	90.740	1.170	5538.48	4073.35	4073.35	-8.07	1.96	
9790.00	89.780	1.770	5538.05	4167.32	4167.32	-5.66	1.20	
9884.00	90.860	2.520	5537.53	4261.25	4261.25	-2.15	1.40	
9979.00	89.720	1.630	5537.05	4356.18	4356.18	1.29	1.52	
10073.00	90.490	2.030	5536.87	4450.13	4450.13	4.30	0.92	
10168.00	88.370	359.070	5537.82	4545.11	4545.11	5.21	3.83	
10261.00	89.050	359.120	5539.91	4638.07	4638.07	3.74	0.73	
10356.00	89.540	358.830	5541.08	4733.05	4733.05	2.04	0.60	
10450.00	90.310	358.410	5541.20	4827.02	4827.02	-0.22	0.93	
10544.00	88.890	358.500	5541.86	4920.98	4920.98	-2.76	1.51	
10638.00	89.050	358.320	5543.55	5014.93	5014.93	-5.37	0.26	
10731.00	89.820	358.100	5544.47	5107.88	5107.88	-8.27	0.86	
10825.00	89.850	357.520	5544.74	5201.82	5201.81	-11.86	0.62	
10920.00	90.120	357.440	5544.76	5296.73	5296.72	-16.04	0.30	
11015.00	90.920	357.880	5543.90	5391.64	5391.64	-19.92	0.96	



# Actual Wellpath Report

RAZOR #250-2411 AWP

Page 6 of 10



## REFERENCE WELLPATH IDENTIFICATION

Operator	WHITING OIL & GAS CORPORATION	Slot	SLOT#12 RAZOR #250-2411 (355'FSL & 1950'FEL SEC 25)
Area	COLORADO	Well	RAZOR #250-2411
Field	WELD COUNTY	Wellbore	RAZOR #250-2411 AWB
Facility	SEC.25-T10N-R58W		

## WELLPATH DATA (172 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
11106.00	90.120	357.420	5543.08	5482.56	5482.56	-23.65	1.01	
11198.00	88.860	359.500	5543.89	5574.52	5574.51	-26.12	2.64	
11287.00	88.830	1.320	5545.69	5663.49	5663.49	-25.48	2.04	
11378.00	87.910	0.840	5548.28	5754.44	5754.43	-23.77	1.14	
11470.00	88.340	2.370	5551.29	5846.35	5846.34	-21.19	1.73	
11562.00	89.940	1.380	5552.67	5938.29	5938.28	-18.19	2.05	
11653.00	90.830	1.080	5552.06	6029.26	6029.26	-16.23	1.03	
11745.00	90.490	0.700	5551.00	6121.24	6121.24	-14.80	0.55	
11837.00	89.850	0.260	5550.72	6213.24	6213.24	-14.03	0.84	
11928.00	90.030	1.680	5550.82	6304.22	6304.22	-12.49	1.57	
12020.00	89.320	1.280	5551.34	6396.19	6396.19	-10.12	0.89	
12110.00	91.600	2.070	5550.62	6486.14	6486.14	-7.49	2.68	
12202.00	91.380	0.900	5548.23	6578.08	6578.07	-5.10	1.29	
12293.00	91.320	0.430	5546.08	6669.04	6669.04	-4.05	0.52	
12385.00	91.260	359.440	5544.01	6761.02	6761.02	-4.15	1.08	
12477.00	91.260	359.190	5541.99	6852.99	6852.99	-5.25	0.27	
12569.00	91.540	358.750	5539.74	6944.95	6944.95	-6.90	0.57	
12660.00	91.570	357.890	5537.27	7035.88	7035.87	-9.57	0.95	
12752.00	91.660	357.660	5534.68	7127.77	7127.77	-13.14	0.27	
12843.00	89.540	0.120	5533.72	7218.74	7218.73	-14.90	3.57	
12934.00	89.320	359.950	5534.63	7309.73	7309.73	-14.85	0.31	
13025.00	90.620	1.260	5534.68	7400.72	7400.72	-13.89	2.03	
13117.00	90.150	0.590	5534.06	7492.71	7492.71	-12.40	0.89	
13208.00	90.370	0.980	5533.65	7583.70	7583.70	-11.15	0.49	
13299.00	90.310	0.390	5533.11	7674.69	7674.69	-10.07	0.65	
13391.00	90.060	0.320	5532.81	7766.69	7766.68	-9.50	0.28	
13482.00	89.570	359.560	5533.10	7857.69	7857.68	-9.59	0.99	
13574.00	90.860	0.120	5532.76	7949.68	7949.68	-9.85	1.53	
13665.00	90.650	0.050	5531.56	8040.67	8040.67	-9.71	0.24	
13756.00	90.310	0.350	5530.80	8131.67	8131.67	-9.40	0.50	



# Actual Wellpath Report

RAZOR #250-2411 AWP

Page 7 of 10



## REFERENCE WELLPATH IDENTIFICATION

Operator	WHITING OIL & GAS CORPORATION	Slot	SLOT#12 RAZOR #250-2411 (355'FSL & 1950'FEL SEC 25)
Area	COLORADO	Well	RAZOR #250-2411
Field	WELD COUNTY	Wellbore	RAZOR #250-2411 AWB
Facility	SEC.25-T10N-R58W		

## WELLPATH DATA (172 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
13850.00	90.250	359.940	5530.34	8225.67	8225.67	-9.16	0.44	
13944.00	90.310	359.870	5529.88	8319.67	8319.66	-9.31	0.10	
14039.00	90.620	359.260	5529.11	8414.66	8414.66	-10.04	0.72	
14133.00	90.090	359.190	5528.52	8508.65	8508.65	-11.31	0.57	
14227.00	90.060	358.670	5528.40	8602.63	8602.63	-13.06	0.55	
14322.00	90.030	357.930	5528.33	8697.59	8697.59	-15.88	0.78	
14416.00	89.420	0.650	5528.78	8791.58	8791.57	-17.05	2.97	
14510.00	90.000	0.350	5529.25	8885.57	8885.57	-16.22	0.69	
14604.00	90.830	359.720	5528.57	8979.57	8979.56	-16.17	1.11	
14699.00	89.260	1.130	5528.50	9074.56	9074.55	-15.46	2.22	
14794.00	88.580	1.930	5530.29	9169.51	9169.50	-12.93	1.11	
14888.00	89.320	1.380	5532.01	9263.45	9263.45	-10.21	0.98	
14982.00	89.940	1.090	5532.62	9357.42	9357.42	-8.19	0.73	
15077.00	88.090	1.800	5534.25	9452.37	9452.37	-5.79	2.09	
15170.00	88.490	1.290	5537.03	9545.30	9545.30	-3.29	0.70	
15265.00	88.920	0.860	5539.17	9640.26	9640.26	-1.50	0.64	
15359.00	89.880	0.670	5540.16	9734.24	9734.24	-0.25	1.04	
15453.00	90.830	0.310	5539.58	9828.23	9828.23	0.56	1.08	
15547.00	89.780	1.710	5539.08	9922.21	9922.21	2.21	1.86	
15642.00	90.980	1.630	5538.45	10017.17	10017.17	4.98	1.27	
15723.00	91.970	1.260	5536.36	10098.11	10098.12	7.02	1.30	Last BHI MWD Survey (148'FNL & 1809'FEL, SEC.24)
15771.00	91.970	1.260	5534.71	10146.07	10146.08	8.08	0.00	Projection to Bit (100'FNL & 1804'FEL, SEC.24)



# Actual Wellpath Report

RAZOR #250-2411 AWP

Page 8 of 10



## REFERENCE WELLPATH IDENTIFICATION

Operator	WHITING OIL & GAS CORPORATION	Slot	SLOT#12 RAZOR #250-2411 (355'FSL & 1950'FEL SEC 25)
Area	COLORADO	Well	RAZOR #250-2411
Field	WELD COUNTY	Wellbore	RAZOR #250-2411 AWB
Facility	SEC.25-T10N-R58W		

## HOLE & CASING SECTIONS - Ref Wellbore: RAZOR #250-2411 AWB Ref Wellpath: RAZOR #250-2411 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]
16in Conductor	21.00	101.00	80.00	21.00	101.00	0.00	0.00	-0.03	0.27
13.5in Open Hole	101.00	2118.00	2017.00	101.00	2110.13	-0.03	0.27	-167.16	3.71
9.625in Casing Surface	21.00	2104.00	2083.00	21.00	2096.18	0.00	0.00	-165.94	3.83
8.5in Open Hole	2118.00	15771.00	13653.00	2110.13	5534.71	-167.16	3.71	10146.08	8.08

## TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
RAZOR #25M PAD SECTION 24	23.00	71.06	-3228.40	3464569.07	1540014.61	40°48'13.160"N	103°49'18.690"W	polygon
RAZOR #25M PAD SECTION 25	23.00	71.06	-3228.40	3464569.07	1540014.61	40°48'13.160"N	103°49'18.690"W	polygon
RAZOR #250-2411 BHL REV-1 (NIO A, 100'FNL & 1815'FEL SEC 24)	5531.00	10146.85	-3.07	3467601.82	1550150.04	40°49'52.720"N	103°48'36.750"W	point
RAZOR #250-2411 TOP OF PRODUCING (610'FSL & 1953 SEC 25)	5531.00	255.04	-10.77	3467782.62	1540259.87	40°48'14.980"N	103°48'36.850"W	point
RAZOR #250-2411 BHL REV-2 (NIO A, 100'FNL & 1815'FEL SEC 24)	5537.00	10146.85	-3.08	3467601.82	1550150.05	40°49'52.720"N	103°48'36.750"W	point
RAZOR #25M PAD HARDLINES 100' N/E/W & 600' S	5740.00	71.06	-3228.40	3464569.07	1540014.61	40°48'13.160"N	103°49'18.690"W	polygon



# Actual Wellpath Report

RAZOR #250-2411 AWP

Page 9 of 10



REFERENCE WELLPATH IDENTIFICATION			
Operator	WHITING OIL & GAS CORPORATION	Slot	SLOT#12 RAZOR #250-2411 (355'FSL & 1950'FEL SEC 25)
Area	COLORADO	Well	RAZOR #250-2411
Field	WELD COUNTY	Wellbore	RAZOR #250-2411 AWB
Facility	SEC.25-T10N-R58W		

WELLPATH COMPOSITION - Ref Wellbore: RAZOR #250-2411 AWB Ref Wellpath: RAZOR #250-2411 AWP				
Start MD	End MD	Positional Uncertainty Model	Log Name/Comment	Wellbore
[ft]	[ft]			
21.00	2064.00	Custom BHI NaviTrak (IFR1, Standard Rotating, SAG) (Rockies 0.03Gt model)	BHI NAVITRAK MWD ROCKIES GT, SURCON IFR SAG 13 1/2" <237-2064>	RAZOR #250-2411 AWB
2064.00	15723.00	Custom BHI NaviTrak (IFR1, Standard Rotating, SAG) (Rockies 0.03Gt model)	BHI NAVITRAK MWD ROCKIES GT, SURCON IFR SAG 8 1/2" MONO <2221-15723>	RAZOR #250-2411 AWB
15723.00	15771.00	Blind Drilling (std)	Projection to bit	RAZOR #250-2411 AWB



# Actual Wellpath Report

RAZOR #250-2411 AWP

Page 10 of 10



REFERENCE WELLPATH IDENTIFICATION			
Operator	WHITING OIL & GAS CORPORATION	Slot	SLOT#12 RAZOR #250-2411 (355'FSL & 1950'FEL SEC 25)
Area	COLORADO	Well	RAZOR #250-2411
Field	WELD COUNTY	Wellbore	RAZOR #250-2411 AWB
Facility	SEC.25-T10N-R58W		

WELLPATH COMMENTS					
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment	
5803.00	73.094	2.180	5508.16	Bottom Marker Joint (541'FSL & 1945'FEL, SEC.25)	
5863.00	75.915	0.712	5524.19	Crossed 600' South Hardline (600'FSL & 1943'FEL, SEC.25)	
15723.00	91.970	1.260	5536.36	Last BHI MWD Survey (148'FNL & 1809'FEL, SEC.24)	
15771.00	91.970	1.260	5534.71	Projection to Bit (100'FNL & 1804'FEL, SEC.24)	