

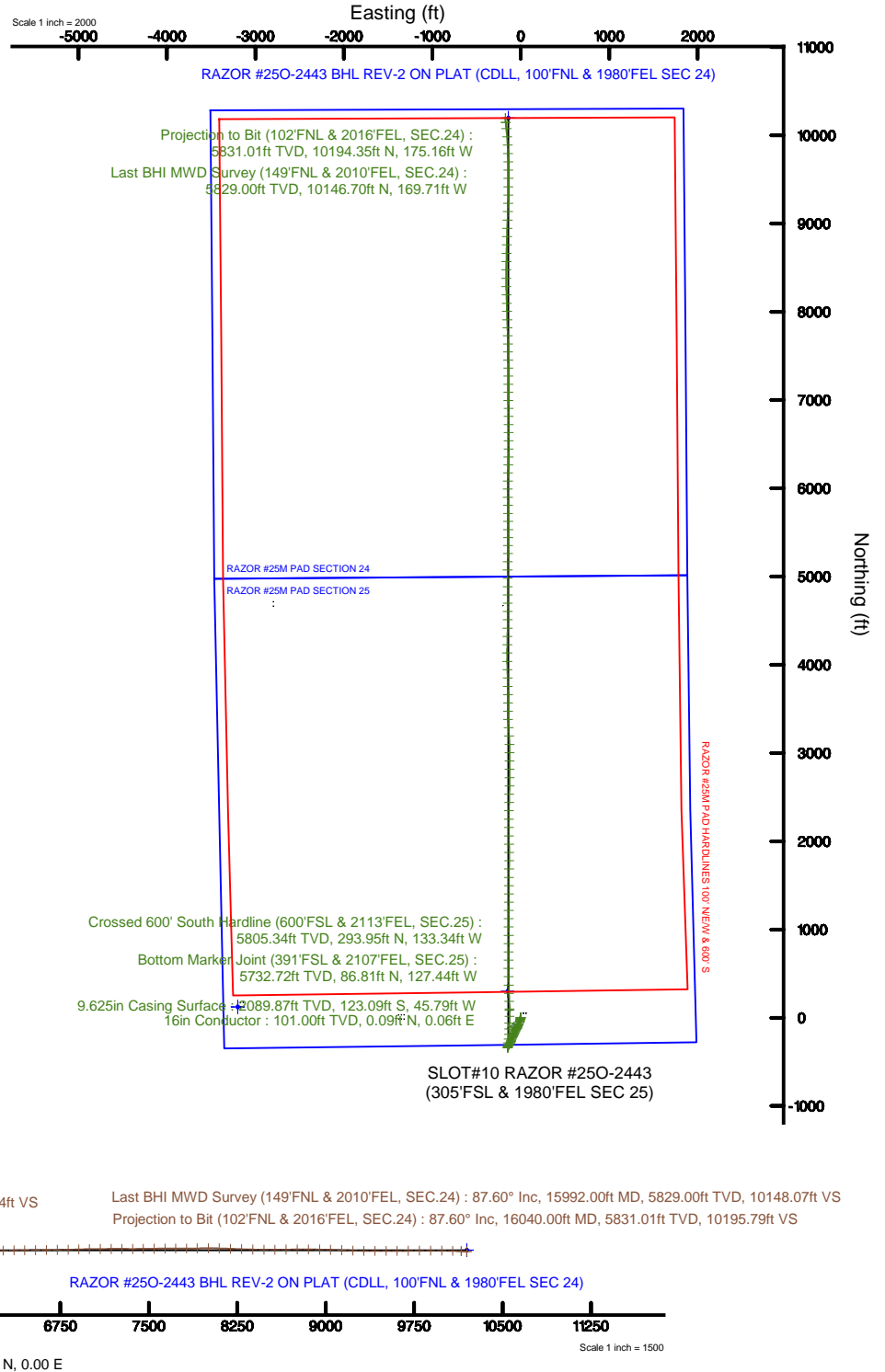
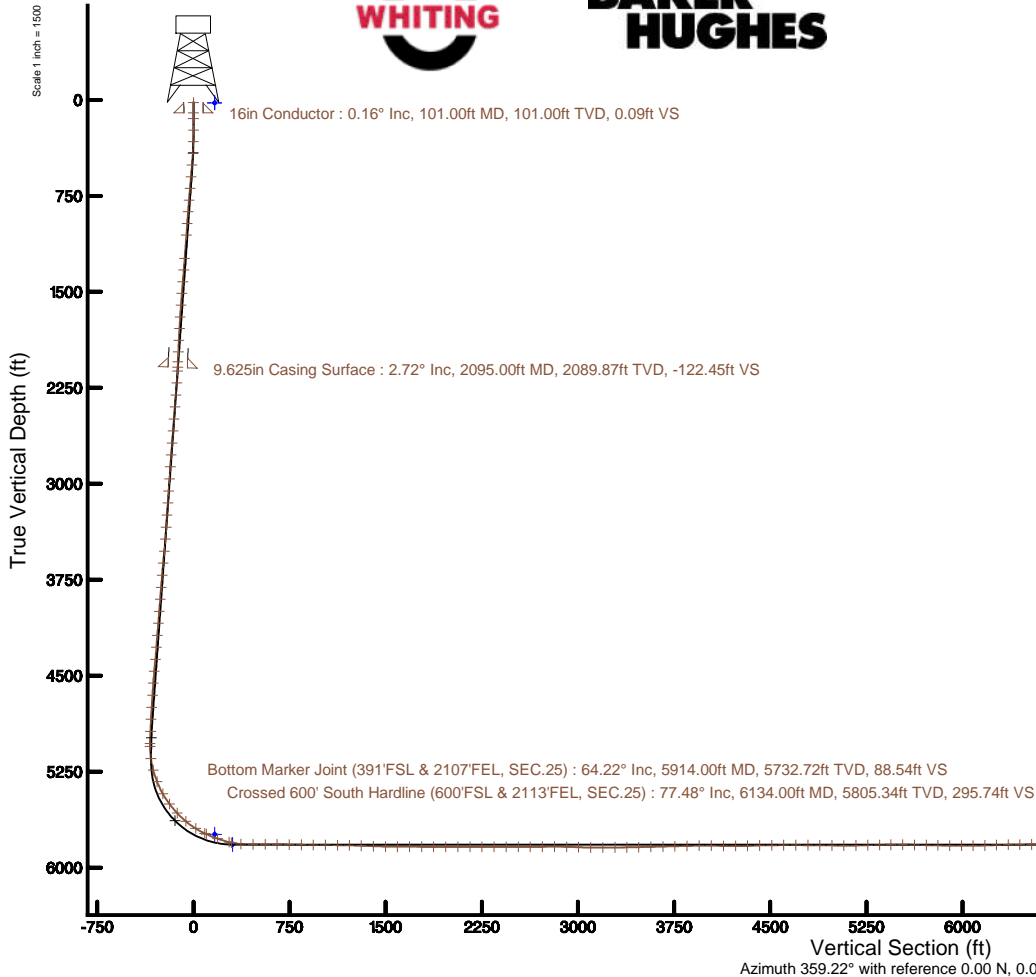
# WHITING OIL & GAS CORPORATION

Location: COLORADO Slot: SLOT#10 RAZOR #250-2443 (305'FSL & 1980'FEL SEC 25)  
 Field: WELD COUNTY Well: RAZOR #250-2443  
 Facility: SEC.25-T10N-R58W Wellbore: RAZOR #250-2443 PWB

Plot reference wellpath is RAZOR #250-2443 REV-B.0 PWP		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#10 RAZOR #250-2443 (305'FSL & 1980'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#10 RAZOR #250-2443 (305'FSL & 1980'FEL SEC 25)	-121.24	3199.19	3467769.990	1539953.930	40°48'11.9607"N	103°49'37.090"W
UNIT 406 (21) (RK8) to Mud line (At Slot: SLOT#10 RAZOR #250-2443 (305'FSL & 1980'FEL SEC 25))					4739ft	
Mean Sea Level to Mud line (At Slot: SLOT#10 RAZOR #250-2443 (305'FSL & 1980'FEL SEC 25))					0ft	
UNIT 406 (21) (RK8) to Mean Sea Level					4739ft	





# Actual Wellpath Report

RAZOR #250-2443 AWP

Page 1 of 10



## REFERENCE WELLPATH IDENTIFICATION

Operator	WHITING OIL & GAS CORPORATION	Slot	SLOT#10 RAZOR #250-2443 (305'FSL & 1980'FEL SEC 25)
Area	COLORADO	Well	RAZOR #250-2443
Field	WELD COUNTY	Wellbore	RAZOR #250-2443 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 10:36:09 AM
Convergence at slot	1.10° East	Database/Source file	WA_DEN_Denver_Defn/RAZOR_#250-2443_AWP.xml

## WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-121.24	3199.19	3467769.99	1539953.93	40°48'11.960"N	103°48'37.090"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#10 RAZOR #250-2443 (305'FSL & 1980'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	359.22°



# Actual Wellpath Report

RAZOR #250-2443 AWP

Page 2 of 10



## REFERENCE WELLPATH IDENTIFICATION

Operator	WHITING OIL & GAS CORPORATION	Slot	SLOT#10 RAZOR #250-2443 (305'FSL & 1980'FEL SEC 25)
Area	COLORADO	Well	RAZOR #250-2443
Field	WELD COUNTY	Wellbore	RAZOR #250-2443 AWB
Facility	SEC.25-T10N-R58W		

## WELLPATH DATA (176 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS ["/100ft]	Comments
0.00†	0.000	33.310	0.00	0.00	0.00	0.00	0.00	
21.00	0.000	33.310	21.00	0.00	0.00	0.00	0.00	
146.00	0.250	33.310	146.00	0.23	0.23	0.15	0.20	
237.00	0.340	71.330	237.00	0.47	0.48	0.51	0.23	
327.00	1.670	200.400	326.99	-0.67	-0.66	0.31	2.11	
418.00	3.580	198.420	417.89	-4.59	-4.60	-1.05	2.10	
510.00	5.170	197.240	509.62	-11.24	-11.29	-3.19	1.73	
601.00	5.190	195.930	600.24	-19.08	-19.16	-5.53	0.13	
693.00	4.910	195.430	691.89	-26.85	-26.96	-7.72	0.31	
784.00	4.580	193.730	782.58	-34.11	-34.24	-9.62	0.39	
876.00	4.490	192.710	874.29	-41.16	-41.32	-11.28	0.13	
968.00	4.230	189.230	966.02	-48.01	-48.18	-12.62	0.40	
1059.00	4.910	205.760	1056.74	-54.80	-55.00	-14.85	1.62	
1241.00	4.760	207.980	1238.09	-68.38	-68.69	-21.78	0.13	
1333.00	4.880	209.820	1329.76	-75.10	-75.45	-25.52	0.21	
1424.00	5.210	204.320	1420.41	-82.17	-82.58	-29.14	0.64	
1516.00	5.190	205.050	1512.03	-89.70	-90.15	-32.62	0.08	
1608.00	4.770	205.130	1603.68	-96.89	-97.39	-36.01	0.46	
1700.00	3.950	202.830	1695.42	-103.23	-103.77	-38.86	0.91	
1791.00	3.360	198.890	1786.23	-108.61	-109.18	-40.94	0.70	
1883.00	2.740	195.700	1878.10	-113.26	-113.85	-42.41	0.70	
1974.00	2.690	199.220	1969.00	-117.35	-117.96	-43.70	0.19	
2053.00	2.550	202.540	2047.92	-120.71	-121.33	-44.99	0.26	
2124.00	2.840	209.310	2118.84	-123.68	-124.33	-46.45	0.61	
2218.00	5.400	212.070	2212.59	-129.41	-130.11	-49.94	2.73	
2312.00	5.060	208.980	2306.20	-136.73	-137.48	-54.30	0.47	
2406.00	4.850	207.720	2399.84	-143.82	-144.62	-58.16	0.25	
2500.00	5.050	206.840	2493.49	-150.97	-151.83	-61.87	0.23	
2594.00	5.040	206.830	2587.13	-158.30	-159.21	-65.60	0.01	
2688.00	4.960	204.240	2680.77	-165.64	-166.60	-69.14	0.25	



# Actual Wellpath Report

RAZOR #250-2443 AWP

Page 3 of 10



## REFERENCE WELLPATH IDENTIFICATION

Operator	WHITING OIL & GAS CORPORATION	Slot	SLOT#10 RAZOR #250-2443 (305'FSL & 1980'FEL SEC 25)
Area	COLORADO	Well	RAZOR #250-2443
Field	WELD COUNTY	Wellbore	RAZOR #250-2443 AWB
Facility	SEC.25-T10N-R58W		

## WELLPATH DATA (176 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
2782.00	4.860	206.920	2774.43	-172.85	-173.85	-72.61	0.27	
2876.00	4.870	205.840	2868.09	-179.94	-181.00	-76.15	0.10	
2971.00	4.190	200.950	2962.79	-186.77	-187.87	-79.15	0.82	
3065.00	3.850	197.230	3056.56	-192.96	-194.09	-81.31	0.46	
3159.00	4.430	204.410	3150.32	-199.25	-200.41	-83.75	0.83	
3254.00	4.440	201.660	3245.03	-205.97	-207.17	-86.62	0.22	
3348.00	3.690	202.040	3338.79	-212.12	-213.35	-89.10	0.80	
3442.00	5.500	216.430	3432.49	-218.49	-219.78	-92.91	2.27	
3537.00	5.960	208.920	3527.02	-226.40	-227.76	-98.00	0.92	
3631.00	5.700	194.940	3620.54	-235.14	-236.54	-101.56	1.53	
3726.00	5.340	196.850	3715.10	-243.89	-245.33	-104.06	0.43	
3820.00	4.820	199.370	3808.73	-251.77	-253.24	-106.64	0.60	
3914.00	4.670	196.510	3902.40	-259.13	-260.64	-109.03	0.30	
4009.00	4.550	188.150	3997.10	-266.54	-268.08	-110.67	0.72	
4103.00	4.870	201.370	4090.78	-273.92	-275.48	-112.65	1.20	
4197.00	5.420	208.850	4184.41	-281.48	-283.09	-116.24	0.92	
4291.00	4.880	210.600	4278.03	-288.75	-290.42	-120.42	0.60	
4385.00	6.960	214.870	4371.52	-296.79	-298.53	-125.71	2.26	
4479.00	6.250	219.320	4464.90	-305.33	-307.16	-132.21	0.93	
4573.00	5.300	219.300	4558.42	-312.57	-314.48	-138.20	1.01	
4668.00	4.740	213.800	4653.05	-319.16	-321.14	-143.17	0.78	
4762.00	4.000	208.430	4746.78	-325.22	-327.25	-146.89	0.90	
4856.00	2.860	174.250	4840.62	-330.41	-332.47	-148.21	2.44	
4951.00	2.660	169.910	4935.51	-334.95	-337.00	-147.59	0.30	
5045.00	0.470	197.610	5029.47	-337.47	-339.51	-147.33	2.40	
5069.00	0.310	170.820	5053.47	-337.63	-339.67	-147.34	0.99	
5163.00	7.220	1.530	5147.23	-331.97	-334.01	-147.15	8.01	
5257.00	15.760	0.140	5239.26	-313.27	-315.30	-146.96	9.09	
5352.00	22.200	15.670	5329.10	-283.10	-285.07	-142.07	8.56	
5457.00	29.200	2.140	5423.74	-238.41	-240.28	-135.74	8.66	



# Actual Wellpath Report

RAZOR #250-2443 AWP

Page 4 of 10



## REFERENCE WELLPATH IDENTIFICATION

Operator	WHITING OIL & GAS CORPORATION	Slot	SLOT#10 RAZOR #250-2443 (305'FSL & 1980'FEL SEC 25)
Area	COLORADO	Well	RAZOR #250-2443
Field	WELD COUNTY	Wellbore	RAZOR #250-2443 AWB
Facility	SEC.25-T10N-R58W		

## WELLPATH DATA (176 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS ["/100ft]	Comments
5551.00	37.160	4.200	5502.35	-187.14	-188.97	-132.80	8.55	
5645.00	43.240	0.800	5574.13	-126.61	-128.40	-130.27	6.87	
5739.00	49.720	1.690	5638.82	-58.53	-60.29	-128.76	6.93	
5833.00	58.470	0.540	5693.89	17.50	15.76	-127.32	9.36	
5914.00†	64.217	359.306	5732.72	88.54	86.81	-127.44	7.22	Bottom Marker Joint (391'FSL & 2107'FEL, SEC.25)
5927.00	65.140	359.120	5738.28	100.29	98.56	-127.60	7.22	
6022.00	70.850	358.060	5773.86	188.32	186.57	-129.78	6.10	
6116.00	75.430	358.110	5801.12	278.24	276.46	-132.79	4.87	
6134.00†	77.483	358.262	5805.34	295.74	293.95	-133.34	11.43	Crossed 600' South Hardline (600'FSL & 2113'FEL, SEC.25)
6210.00	86.150	358.880	5816.14	370.89	369.08	-135.21	11.43	
6305.00	90.590	358.170	5818.85	465.82	463.98	-137.66	4.73	
6399.00	90.740	0.920	5817.75	559.80	557.96	-138.40	2.93	
6493.00	88.860	0.650	5818.08	653.76	651.95	-137.12	2.02	
6587.00	88.770	0.680	5820.03	747.71	745.92	-136.03	0.10	
6681.00	88.920	0.380	5821.92	841.67	839.90	-135.16	0.36	
6774.00	89.880	359.460	5822.89	934.65	932.89	-135.29	1.43	
6869.00	89.410	359.240	5823.48	1029.65	1027.88	-136.36	0.55	
6963.00	88.800	0.300	5824.95	1123.63	1121.87	-136.74	1.30	
7056.00	89.200	1.000	5826.57	1216.59	1214.85	-135.69	0.87	
7150.00	87.470	0.710	5829.31	1310.51	1308.80	-134.28	1.87	
7244.00	88.520	359.960	5832.59	1404.43	1402.73	-133.74	1.37	
7338.00	88.340	0.050	5835.17	1498.38	1496.70	-133.73	0.21	
7432.00	89.690	0.460	5836.79	1592.35	1590.68	-133.31	1.50	
7526.00	90.310	0.630	5836.79	1686.33	1684.68	-132.41	0.68	
7620.00	89.140	0.510	5837.24	1780.30	1778.67	-131.48	1.25	
7714.00	89.660	359.490	5838.22	1874.28	1872.66	-131.48	1.22	
7808.00	90.310	359.360	5838.25	1968.28	1966.66	-132.42	0.71	
7902.00	89.600	0.210	5838.32	2062.28	2060.66	-132.78	1.18	
7997.00	90.180	359.750	5838.50	2157.27	2155.66	-132.81	0.78	
8091.00	90.490	359.240	5837.95	2251.26	2249.65	-133.64	0.63	



# Actual Wellpath Report

RAZOR #250-2443 AWP

Page 5 of 10



## REFERENCE WELLPATH IDENTIFICATION

Operator	WHITING OIL & GAS CORPORATION	Slot	SLOT#10 RAZOR #250-2443 (305'FSL & 1980'FEL SEC 25)
Area	COLORADO	Well	RAZOR #250-2443
Field	WELD COUNTY	Wellbore	RAZOR #250-2443 AWB
Facility	SEC.25-T10N-R58W		

## WELLPATH DATA (176 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
8186.00	89.320	0.930	5838.11	2346.25	2344.64	-133.50	2.16	
8280.00	89.850	1.310	5838.79	2440.19	2438.62	-131.66	0.69	
8375.00	90.250	1.270	5838.71	2535.13	2533.60	-129.52	0.42	
8468.00	90.280	0.550	5838.28	2628.09	2626.59	-128.04	0.77	
8562.00	91.080	0.450	5837.16	2722.06	2720.57	-127.22	0.86	
8657.00	90.000	0.540	5836.27	2817.03	2815.57	-126.40	1.14	
8751.00	88.120	359.870	5837.81	2911.00	2909.55	-126.07	2.12	
8845.00	87.780	0.170	5841.17	3004.93	3003.49	-126.03	0.48	
8939.00	89.910	357.280	5843.07	3098.89	3097.43	-128.12	3.82	
9034.00	90.590	357.690	5842.65	3193.84	3192.34	-132.29	0.84	
9128.00	89.940	356.040	5842.22	3287.76	3286.19	-137.43	1.89	
9221.00	90.400	357.490	5841.94	3380.67	3379.04	-142.68	1.64	
9315.00	91.690	0.400	5840.23	3474.64	3473.00	-144.41	3.39	
9409.00	91.570	359.920	5837.55	3568.59	3566.96	-144.15	0.53	
9503.00	91.320	359.250	5835.18	3662.56	3660.92	-144.83	0.76	
9597.00	91.450	359.220	5832.91	3756.53	3754.89	-146.09	0.14	
9692.00	91.420	358.590	5830.53	3851.50	3849.84	-147.90	0.66	
9786.00	91.600	357.930	5828.05	3945.45	3943.76	-150.75	0.73	
9880.00	88.740	0.310	5827.78	4039.44	4037.74	-152.20	3.96	
9975.00	88.430	359.650	5830.12	4134.40	4132.71	-152.23	0.77	
10070.00	90.490	1.360	5831.02	4229.36	4227.69	-151.39	2.82	
10164.00	91.320	1.090	5829.53	4323.29	4321.66	-149.38	0.93	
10257.00	91.820	0.130	5826.98	4416.23	4414.61	-148.39	1.16	
10352.00	90.550	0.770	5825.02	4511.18	4509.59	-147.65	1.50	
10446.00	90.220	0.440	5824.39	4605.15	4603.58	-146.65	0.50	
10540.00	89.820	0.200	5824.36	4699.14	4697.58	-146.13	0.50	
10634.00	89.720	359.850	5824.73	4793.13	4791.58	-146.09	0.39	
10728.00	89.380	359.220	5825.47	4887.12	4885.57	-146.85	0.76	
10822.00	88.830	359.010	5826.94	4981.11	4979.55	-148.30	0.63	
10916.00	89.690	0.920	5828.15	5075.09	5073.54	-148.36	2.23	



# Actual Wellpath Report

RAZOR #250-2443 AWP

Page 6 of 10



## REFERENCE WELLPATH IDENTIFICATION

Operator	WHITING OIL & GAS CORPORATION	Slot	SLOT#10 RAZOR #250-2443 (305'FSL & 1980'FEL SEC 25)
Area	COLORADO	Well	RAZOR #250-2443
Field	WELD COUNTY	Wellbore	RAZOR #250-2443 AWB
Facility	SEC.25-T10N-R58W		

## WELLPATH DATA (176 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
11011.00	91.600	1.540	5827.08	5170.02	5168.50	-146.32	2.11	
11103.00	91.200	0.840	5824.84	5261.94	5260.45	-144.41	0.88	
11194.00	91.350	0.700	5822.81	5352.88	5351.42	-143.19	0.23	
11283.00	90.090	0.420	5821.69	5441.85	5440.41	-142.32	1.45	
11374.00	90.090	359.640	5821.55	5532.84	5531.41	-142.27	0.86	
11466.00	88.770	0.180	5822.47	5624.82	5623.40	-142.42	1.55	
11558.00	88.580	359.400	5824.59	5716.79	5715.38	-142.75	0.87	
11650.00	88.980	358.930	5826.55	5808.77	5807.35	-144.09	0.67	
11741.00	89.570	359.240	5827.70	5899.76	5898.33	-145.55	0.73	
11833.00	89.750	359.510	5828.25	5991.76	5990.32	-146.55	0.35	
11924.00	90.120	1.620	5828.35	6082.73	6081.31	-145.65	2.35	
12016.00	91.850	1.670	5826.77	6174.63	6173.25	-143.01	1.88	
12106.00	91.630	1.030	5824.04	6264.53	6263.19	-140.89	0.75	
12198.00	91.360	1.090	5821.64	6356.45	6355.14	-139.19	0.30	
12289.00	90.770	0.450	5819.95	6447.40	6446.12	-137.97	0.96	
12381.00	90.180	359.910	5819.18	6539.38	6538.11	-137.68	0.87	
12473.00	90.740	0.110	5818.44	6631.37	6630.11	-137.66	0.65	
12565.00	90.800	0.250	5817.21	6723.35	6722.10	-137.38	0.17	
12657.00	91.140	359.710	5815.65	6815.33	6814.08	-137.41	0.69	
12748.00	91.660	359.310	5813.43	6906.30	6905.05	-138.19	0.72	
12839.00	91.420	358.560	5810.98	6997.26	6996.00	-139.88	0.87	
12930.00	90.180	359.990	5809.71	7088.25	7086.98	-141.03	2.08	
13022.00	90.150	0.110	5809.45	7180.24	7178.98	-140.95	0.13	
13113.00	89.880	0.120	5809.42	7271.23	7269.98	-140.76	0.30	
13204.00	89.910	359.210	5809.59	7362.22	7360.98	-141.30	1.00	
13295.00	91.110	359.530	5808.78	7453.22	7451.97	-142.30	1.36	
13387.00	90.740	359.200	5807.29	7545.21	7543.95	-143.32	0.54	
13479.00	90.710	358.950	5806.13	7637.20	7635.93	-144.80	0.27	
13570.00	90.250	358.490	5805.37	7728.19	7726.91	-146.83	0.71	
13661.00	90.000	358.040	5805.17	7819.18	7817.86	-149.59	0.57	



# Actual Wellpath Report

RAZOR #250-2443 AWP

Page 7 of 10



## REFERENCE WELLPATH IDENTIFICATION

Operator	WHITING OIL & GAS CORPORATION	Slot	SLOT#10 RAZOR #250-2443 (305'FSL & 1980'FEL SEC 25)
Area	COLORADO	Well	RAZOR #250-2443
Field	WELD COUNTY	Wellbore	RAZOR #250-2443 AWB
Facility	SEC.25-T10N-R58W		

## WELLPATH DATA (176 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS ["/100ft]	Comments
13752.00	90.550	358.480	5804.73	7910.16	7908.82	-152.35	0.77	
13847.00	90.620	358.180	5803.76	8005.15	8003.78	-155.12	0.32	
13940.00	88.120	358.380	5804.78	8098.12	8096.72	-157.91	2.70	
14035.00	87.850	358.420	5808.13	8193.05	8191.62	-160.56	0.29	
14129.00	87.880	358.800	5811.63	8286.98	8285.53	-162.84	0.41	
14223.00	88.650	0.090	5814.47	8380.94	8379.48	-163.75	1.60	
14318.00	89.910	0.400	5815.67	8475.91	8474.47	-163.34	1.37	
14412.00	90.800	1.200	5815.08	8569.87	8568.46	-162.03	1.27	
14506.00	89.750	1.000	5814.63	8663.82	8662.44	-160.23	1.14	
14601.00	91.290	1.720	5813.77	8758.74	8757.40	-157.97	1.79	
14695.00	89.350	1.720	5813.25	8852.65	8851.36	-155.15	2.06	
14790.00	88.830	1.880	5814.75	8947.54	8946.30	-152.17	0.57	
14884.00	88.490	1.980	5816.95	9041.41	9040.22	-149.00	0.38	
14978.00	88.240	2.110	5819.64	9135.26	9134.12	-145.65	0.30	
15073.00	87.910	1.740	5822.83	9230.10	9229.01	-142.46	0.52	
15166.00	89.380	0.950	5825.03	9323.00	9321.96	-140.28	1.79	
15261.00	89.080	359.940	5826.30	9417.97	9416.94	-139.54	1.11	
15355.00	90.490	0.440	5826.65	9511.95	9510.94	-139.23	1.59	
15449.00	90.740	359.190	5825.65	9605.94	9604.93	-139.53	1.36	
15543.00	90.710	358.920	5824.46	9699.93	9698.91	-141.08	0.29	
15638.00	90.770	357.910	5823.23	9794.92	9793.87	-143.71	1.06	
15732.00	90.090	357.050	5822.52	9888.87	9887.77	-147.84	1.17	
15827.00	88.920	355.520	5823.34	9983.74	9982.56	-154.00	2.03	
15921.00	87.720	354.420	5826.10	10077.43	10076.16	-162.24	1.73	
15992.00	87.600	353.480	5829.00	10148.07	10146.70	-169.71	1.33	Last BHI MWD Survey (149'FNL & 2010'FEL, SEC.24)
16040.00	87.600	353.480	5831.01	10195.79	10194.35	-175.16	0.00	Projection to Bit (102'FNL & 2016'FEL, SEC.24)



# Actual Wellpath Report

RAZOR #250-2443 AWP

Page 8 of 10



## REFERENCE WELLPATH IDENTIFICATION

Operator	WHITING OIL & GAS CORPORATION	Slot	SLOT#10 RAZOR #250-2443 (305'FSL & 1980'FEL SEC 25)
Area	COLORADO	Well	RAZOR #250-2443
Field	WELD COUNTY	Wellbore	RAZOR #250-2443 AWB
Facility	SEC.25-T10N-R58W		

## HOLE & CASING SECTIONS - Ref Wellbore: RAZOR #250-2443 AWB Ref Wellpath: RAZOR #250-2443 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	0.09	0.06
9.625in Casing Surface	21.00	2095.00	2074.00	21.00	2089.87	0.00	0.00	-123.09	-45.79
13.5in Open Hole	101.00	2106.00	2005.00	101.00	2100.86	0.09	0.06	-123.55	-46.03
8.5in Open Hole	2106.00	16040.00	13934.00	2100.86	5831.01	-123.55	-46.03	10194.35	-175.16

## 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	121.65	-3199.17	3464569.07	1540014.61	40°48'13.160"N	103°49'18.690"W	polygon
RAZOR #25M PAD SECTION 25	23.00	121.65	-3199.17	3464569.07	1540014.61	40°48'13.160"N	103°49'18.690"W	polygon
RAZOR #25M PAD HARDLINES 100' N/E/W & 600' S	5740.00	121.65	-3199.17	3464569.07	1540014.61	40°48'13.160"N	103°49'18.690"W	polygon
RAZOR #250-2443 BHL REV-1 ON PLAT (CDLL, 100'FNL & 1980'FEL SEC 24)	5819.00	10196.44	-139.14	3467436.60	1550145.88	40°49'52.710"N	103°48'38.900"W	point
RAZOR #250-2443 TOP OF PRODUCING (610'FSL & 2119'FEL SEC 25)	5819.00	303.62	-147.65	3467616.58	1540254.68	40°48'14.960"N	103°48'39.010"W	point
RAZOR #250-2443 BHL REV-2 ON PLAT (CDLL, 100'FNL & 1980'FEL SEC 24)	5820.00	10196.44	-139.14	3467436.60	1550145.88	40°49'52.710"N	103°48'38.900"W	point



# Actual Wellpath Report

RAZOR #250-2443 AWP

Page 9 of 10



REFERENCE WELLPATH IDENTIFICATION			
Operator	WHITING OIL & GAS CORPORATION	Slot	SLOT#10 RAZOR #250-2443 (305'FSL & 1980'FEL SEC 25)
Area	COLORADO	Well	RAZOR #250-2443
Field	WELD COUNTY	Wellbore	RAZOR #250-2443 AWB
Facility	SEC.25-T10N-R58W		

WELLPATH COMPOSITION - Ref Wellbore: RAZOR #250-2443 AWB Ref Wellpath: RAZOR #250-2443 AWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
21.00	2053.00	Custom BHI NaviTrak (IFR1, Standard Rotating, SAG) (Rockies 0.03Gt model)	BHI NAVITRAK MWD ROCKIES GT, SURCON IFR MSA <146-2053>	RAZOR #250-2443 AWB
2053.00	15992.00	Custom BHI NaviTrak (IFR1, Standard Rotating, SAG) (Rockies 0.03Gt model)	BHI NAVITRAK MWD ROCKIES GT, SURCON IFR MSA 8 1/2" MONO <2124-15992>	RAZOR #250-2443 AWB
15992.00	16040.00	Blind Drilling (std)	Projection to bit	RAZOR #250-2443 AWB



# Actual Wellpath Report

RAZOR #250-2443 AWP

Page 10 of 10



REFERENCE WELLPATH IDENTIFICATION			
Operator	WHITING OIL & GAS CORPORATION	Slot	SLOT#10 RAZOR #250-2443 (305'FSL & 1980'FEL SEC 25)
Area	COLORADO	Well	RAZOR #250-2443
Field	WELD COUNTY	Wellbore	RAZOR #250-2443 AWB
Facility	SEC.25-T10N-R58W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
5914.00	64.217	359.306	5732.72	Bottom Marker Joint (391'FSL & 2107'FEL, SEC.25)
6134.00	77.483	358.262	5805.34	Crossed 600' South Hardline (600'FSL & 2113'FEL, SEC.25)
15992.00	87.600	353.480	5829.00	Last BHI MWD Survey (149'FNL & 2010'FEL, SEC.24)
16040.00	87.600	353.480	5831.01	Projection to Bit (102'FNL & 2016'FEL, SEC.24)