





# Actual Wellpath Report

WINDSOR LV C-14H AWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	EXTRACTION OIL & GAS	Slot	SLOT#03 WINDSOR LV C-14H (1269'FNL & 265'FEL, SEC.14)
Area	COLORADO	Well	WINDSOR LV C-14H
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	WINDSOR LV C-14H AWB
Facility	SEC.14-T06N-R67W		

## REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 4.0.0
North Reference	True	User	Ingmjamr
Scale	0.999966	Report Generated	1/13/2015 at 4:23:41 PM
Convergence at slot	n/a	Database/Source file	Denver/WINDSOR_LV_C-14H_AWB.xml

## WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-57.58	0.00	3180161.87	1422293.98	40°29'26.851"N	104°51'08.100"W
Facility Reference Pt			3180161.45	1422351.56	40°29'27.420"N	104°51'08.100"W
Field Reference Pt			3185481.27	1419166.81	40°28'55.560"N	104°49'59.556"W

## WELLPATH DATUM

Calculation method	Minimum curvature	H&P 319 (24'KB) (RKB) to Facility Vertical Datum	4869.00ft
Horizontal Reference Pt	Slot	H&P 319 (24'KB) (RKB) to Mean Sea Level	4869.00ft
Vertical Reference Pt	H&P 319 (24'KB) (RKB)	H&P 319 (24'KB) (RKB) to Mud Line at Slot (SLOT#03 WINDSOR LV C-14H (1269'FNL & 265'FEL, SEC.14))	4869.00ft
MD Reference Pt	H&P 319 (24'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	274.37°



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## WELLPATH DATA (78 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
0.00†	0.000	95.490	0.00	0.00	0.00	0.00	0.00	
24.00	0.000	95.490	24.00	0.00	0.00	0.00	0.00	
296.00	0.770	95.490	295.99	-1.83	-0.17	1.82	0.28	FIRST BHI MWD SURVEY
696.00	1.560	123.900	695.91	-9.25	-3.47	9.01	0.24	
834.00	1.690	129.870	833.85	-12.54	-5.82	12.14	0.15	
924.00	5.140	81.890	923.69	-17.56	-6.10	17.15	4.67	
1013.00	7.640	53.490	1012.15	-25.93	-2.02	25.85	4.45	
1103.00	8.440	32.330	1101.29	-33.55	7.12	34.20	3.38	
1372.00	8.740	31.930	1367.27	-52.26	41.15	55.56	0.11	
1743.00	8.270	32.500	1734.19	-77.88	87.58	84.81	0.13	
2109.00	6.040	48.250	2097.35	-103.64	122.60	113.32	0.81	
2476.00	4.900	46.210	2462.67	-127.48	146.31	139.04	0.32	
2843.00	5.100	17.480	2828.33	-141.64	172.72	155.26	0.68	
3027.00	3.320	29.730	3011.83	-145.78	185.15	160.36	1.08	
3211.00	2.780	31.280	3195.57	-150.08	193.59	165.32	0.30	
3578.00	1.860	22.670	3562.27	-155.97	206.69	172.23	0.27	
3955.00	4.190	23.850	3938.72	-162.49	224.93	180.16	0.62	
4143.00	2.540	27.510	4126.39	-166.42	234.91	184.86	0.88	
4519.00	2.060	16.690	4502.09	-171.13	248.77	190.65	0.17	
4801.00	1.830	4.740	4783.92	-172.24	258.12	192.48	0.16	
5083.00	3.110	33.040	5065.67	-175.94	269.02	197.02	0.61	
5365.00	1.070	19.510	5347.46	-180.30	277.91	202.07	0.74	
5648.00	2.840	5.330	5630.29	-181.11	287.39	203.61	0.64	
5930.00	2.910	6.750	5911.94	-181.52	301.45	205.10	0.04	
6307.00	4.440	32.040	6288.17	-188.69	323.33	213.97	0.58	
6401.00	3.510	23.600	6381.95	-191.33	329.05	217.05	1.17	
6495.00	11.820	317.180	6475.14	-185.20	338.77	211.64	11.59	
6590.00	30.350	306.650	6563.42	-157.52	360.43	185.54	19.83	
6684.00	38.720	292.610	6640.91	-109.35	386.00	139.19	12.24	
6778.00	39.320	274.220	6714.19	-51.45	399.54	82.15	12.30	



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Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	WINDSOR LV C-14H AWB
Facility	SEC.14-T06N-R67W		

## WELLPATH DATA (78 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
6873.00	36.760	265.170	6789.06	6.76	399.36	23.75	6.45	
6967.00	35.520	263.090	6864.98	61.31	393.71	-31.39	1.86	
7061.00	43.580	261.440	6937.40	119.77	385.58	-90.63	8.65	
7155.00	58.920	265.790	6996.08	191.60	377.76	-163.27	16.71	
7193.00†	64.417	267.242	7014.11	224.72	375.74	-196.65	14.85	CROSSED 460' SETBACK
7249.00	72.540	269.160	7034.63	276.47	374.13	-248.67	14.85	
7343.00	79.380	270.940	7057.43	367.34	374.23	-339.80	7.50	
7411.00	81.590	270.590	7068.67	434.27	375.12	-406.86	3.29	
7481.00	91.110	270.000	7073.12	503.87	375.48	-476.63	13.63	
7574.00	90.370	269.610	7071.92	596.57	375.16	-569.62	0.90	
7668.00	90.240	269.460	7071.42	690.23	374.40	-663.62	0.21	
7763.00	88.940	270.220	7072.10	784.93	374.13	-758.61	1.59	
7857.00	89.320	270.300	7073.52	878.68	374.56	-852.60	0.41	
7951.00	88.060	270.540	7075.67	972.43	375.25	-946.57	1.36	
8046.00	88.320	270.310	7078.67	1067.15	375.95	-1041.52	0.37	
8140.00	88.610	270.560	7081.19	1160.90	376.67	-1135.49	0.41	
8234.00	89.350	270.020	7082.86	1254.64	377.14	-1229.47	0.97	
8328.00	90.030	269.930	7083.37	1348.37	377.10	-1323.47	0.73	
8423.00	90.090	270.180	7083.27	1443.10	377.19	-1418.47	0.27	
8517.00	90.980	270.960	7082.40	1536.88	378.13	-1512.46	1.26	
8611.00	89.220	270.270	7082.23	1630.68	379.14	-1606.45	2.01	
8706.00	89.750	270.590	7083.09	1725.45	379.85	-1701.44	0.65	
8800.00	89.750	270.630	7083.50	1819.24	380.85	-1795.43	0.04	
8895.00	90.060	270.900	7083.65	1914.06	382.12	-1890.42	0.43	
8989.00	91.230	271.640	7082.60	2007.91	384.20	-1984.39	1.47	
9084.00	90.700	269.440	7081.00	2102.68	385.10	-2079.37	2.38	
9178.00	90.430	268.560	7080.07	2196.26	383.46	-2173.35	0.98	
9273.00	90.860	268.810	7079.00	2290.78	381.28	-2268.32	0.52	
9367.00	90.120	269.240	7078.20	2384.37	379.68	-2362.30	0.91	
9462.00	88.860	268.950	7079.04	2478.96	378.18	-2457.28	1.36	



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Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	WINDSOR LV C-14H AWB
Facility	SEC.14-T06N-R67W		

## WELLPATH DATA (78 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
9556.00	89.100	268.980	7080.71	2572.53	376.48	-2551.25	0.26	
9651.00	89.110	269.070	7082.20	2667.10	374.86	-2646.23	0.10	
9746.00	89.260	269.470	7083.55	2761.72	373.65	-2741.21	0.45	
9840.00	89.600	269.630	7084.48	2855.38	372.92	-2835.20	0.40	
9934.00	89.600	269.520	7085.14	2949.05	372.22	-2929.20	0.12	
10029.00	89.820	269.550	7085.62	3043.71	371.45	-3024.19	0.23	
10123.00	90.280	269.650	7085.54	3137.38	370.79	-3118.19	0.50	
10218.00	90.870	270.110	7084.59	3232.09	370.59	-3213.18	0.79	
10407.00	89.040	268.630	7084.73	3420.35	368.51	-3402.16	1.25	
10596.00	89.820	268.360	7086.61	3608.35	363.55	-3591.08	0.44	
10690.00	90.120	268.250	7086.66	3701.82	360.77	-3685.04	0.34	
10784.00	90.430	268.500	7086.21	3795.31	358.10	-3779.00	0.42	
10879.00	89.850	269.610	7085.98	3889.90	356.54	-3873.99	1.32	
10973.00	90.190	269.290	7085.95	3983.55	355.64	-3967.98	0.50	
11067.00	88.180	268.180	7087.28	4077.08	353.56	-4061.94	2.44	
11162.00	88.420	268.190	7090.10	4171.48	350.55	-4156.86	0.25	
11411.00	89.220	268.600	7095.23	4419.07	343.58	-4405.70	0.36	LAST BHI MWD SURVEY
11478.00	89.220	268.600	7096.14	4485.73	341.94	-4472.68	0.00	PROJECTION TO BIT

## HOLE & CASING SECTIONS - Ref Wellbore: WINDSOR LV C-14H AWB Ref Wellpath: WINDSOR LV C-14H 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	24.00	760.00	736.00	24.00	759.88	0.00	0.00	-4.50	10.46
8.75in Open Hole	760.00	7475.00	6715.00	759.88	7073.19	-4.50	10.46	375.48	-470.63
7in Casing Intermediate	24.00	7446.00	7422.00	24.00	7072.34	0.00	0.00	375.39	-441.65
6.125in Open Hole	7475.00	11478.00	4003.00	7073.19	7096.14	375.48	-470.63	341.94	-4472.68



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Facility	SEC.14-T06N-R67W		

## TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.14-T6N-R67W		0.00	57.58	0.00	3180161.45	1422351.56	40°29'27.420"N	104°51'08.100"W	polygon
WINDSOR LV C-14H BHL ON PLAT REV-1 (900'FNL & 460'FWL, SEC.14)		7040.00	345.81	-4522.61	3175637.02	1422606.73	40°29'30.264"N	104°52'06.636"W	point
WINDSOR LV C-14H DRILLING CORRIDOR (60')		7040.00	0.00	0.00	3180161.87	1422293.98	40°29'26.851"N	104°51'08.100"W	polygon
WINDSOR LV C-14H LANDING POINT		7040.00	370.89	-191.92	3179967.26	1422663.45	40°29'30.516"N	104°51'10.584"W	point
WINDSOR LV C-14H LANDING POINT REV-2		7075.00	370.89	-323.57	3179835.61	1422662.49	40°29'30.516"N	104°51'12.288"W	point
WINDSOR LV C-14H TARGET 2		7075.00	364.23	-1406.26	3178753.04	1422647.92	40°29'30.450"N	104°51'26.301"W	point
WINDSOR LV C-14H TARGET 3		7080.00	361.24	-1906.25	3178253.10	1422641.28	40°29'30.420"N	104°51'32.773"W	point
WINDSOR LV C-14H TARGET 4		7080.00	358.25	-2406.24	3177753.17	1422634.63	40°29'30.390"N	104°51'39.244"W	point
WINDSOR LV C-14H BHL ON PLAT REV-2 (900'FNL & 460'FWL, SEC.14)		7087.00	345.81	-4522.61	3175637.02	1422606.73	40°29'30.264"N	104°52'06.636"W	point
WINDSOR LV C-14H TARGET 5		7087.00	355.26	-2906.22	3177253.24	1422627.99	40°29'30.360"N	104°51'45.715"W	point
WINDSOR LV C-14H TARGET 6		7087.00	347.50	-4206.20	3175953.40	1422610.74	40°29'30.281"N	104°52'02.541"W	point

## TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.14-T6N-R67W HARDLINES (460'FEL/FWL)		7205.00	57.58	0.00	3180161.45	1422351.56	40°29'27.420"N	104°51'08.100"W	polygon



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## WELLPATH COMPOSITION - Ref Wellbore: WINDSOR LV C-14H AWB Ref Wellpath: WINDSOR LV C-14H AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
24.00	696.00	NaviTrak (Standard)	BHI MWD/ NAVITRAK (STD) 13.5" HOLE <296-696>	WINDSOR LV C-14H AWB
696.00	7411.00	NaviTrak (Standard)	BHI MWD/ NAVITRAK (STD) 8.75" HOLE <834-7411>	WINDSOR LV C-14H AWB
7411.00	11411.00	NaviTrak (Standard)	BHI MWD/NAVITRAK (STD) 6.125" HOLE <7481-11411>	WINDSOR LV C-14H AWB
11411.00	11478.00	Blind Drilling (std)	Projection to bit	WINDSOR LV C-14H AWB



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MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
296.00	0.770	95.490	295.99	FIRST BHI MWD SURVEY
7193.00	64.417	267.242	7014.11	CROSSED 460' SETBACK
11411.00	89.220	268.600	7095.23	LAST BHI MWD SURVEY
11478.00	89.220	268.600	7096.14	PROJECTION TO BIT