



# **Bayswater**

**Windsor**

**Windsor LV 14H**

**Windsor LV G-14H**

**Windsor LV G-14H**

**Plan: Windsor LV G-14H**

## **Standard Planning Report**

**11 November, 2013**

<b>Database:</b>	Compass DB	<b>Local Co-ordinate Reference:</b>	Well Windsor LV G-14H
<b>Company:</b>	Bayswater	<b>TVD Reference:</b>	WELL @ 4848.00usft (Original Well Elev)
<b>Project:</b>	Windsor	<b>MD Reference:</b>	WELL @ 4848.00usft (Original Well Elev)
<b>Site:</b>	Windsor LV 14H	<b>North Reference:</b>	True
<b>Well:</b>	Windsor LV G-14H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Windsor LV G-14H		
<b>Design:</b>	Windsor LV G-14H		

<b>Project</b>	Windsor, Colorado		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Central Zone		Using geodetic scale factor

Site	Windsor LV 14H				
Site Position:		Northing:	1,968,660.741 usft	Latitude:	40.490950
From:	Lat/Long	Easting:	3,180,209.343 usft	Longitude:	-104.852250
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.41

Well	Windsor LV G-14H					
Well Position	+N/-S	-193.10 usft	Northing:	1,968,467.584 usft	Latitude:	40.490420
	+E/-W	-2.78 usft	Easting:	3,180,207.938 usft	Longitude:	-104.852260
Position Uncertainty		0.00 usft	Wellhead Elevation:	4,848.00 usft	Ground Level:	4,848.00 usft

<b>Wellbore</b>	Windsor LV G-14H				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	6/7/2013	8.65	67.04	52,961

<b>Design</b>	Windsor LV G-14H				
<b>Audit Notes:</b>					
<b>Version:</b>	1	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>	
	0.00	0.00	0.00	254.64	

<b>Plan Sections</b>										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,291.62	11.83	161.32	1,287.42	-57.67	19.49	2.00	2.00	0.00	161.32	
6,604.13	11.83	161.32	6,487.06	-1,089.63	368.32	0.00	0.00	0.00	0.00	
7,547.02	90.60	269.67	7,085.00	-1,213.17	-208.62	10.00	8.35	11.49	107.86	LV G-14H Landing
11,844.00	90.60	269.67	7,040.00	-1,238.00	-4,505.29	0.00	0.00	0.00	90.95	

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<b>Project:</b>	Windsor	<b>MD Reference:</b>	WELL @ 4848.00usft (Original Well Elev)
<b>Site:</b>	Windsor LV 14H	<b>North Reference:</b>	True
<b>Well:</b>	Windsor LV G-14H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Windsor LV G-14H		
<b>Design:</b>	Windsor LV G-14H		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
800.00	2.00	161.32	799.98	-1.65	0.56	-0.10	2.00	2.00	0.00
900.00	4.00	161.32	899.84	-6.61	2.23	-0.40	2.00	2.00	0.00
1,000.00	6.00	161.32	999.45	-14.87	5.03	-0.91	2.00	2.00	0.00
1,100.00	8.00	161.32	1,098.70	-26.41	8.93	-1.61	2.00	2.00	0.00
1,200.00	10.00	161.32	1,197.47	-41.23	13.94	-2.51	2.00	2.00	0.00
1,291.62	11.83	161.32	1,287.42	-57.67	19.49	-3.52	2.00	2.00	0.00
Start 5312.52 hold at 1291.62 MD									
1,300.00	11.83	161.32	1,295.63	-59.29	20.04	-3.62	0.00	0.00	0.00
1,400.00	11.83	161.32	1,393.50	-78.72	26.61	-4.80	0.00	0.00	0.00
1,500.00	11.83	161.32	1,491.38	-98.14	33.18	-5.98	0.00	0.00	0.00
1,600.00	11.83	161.32	1,589.25	-117.57	39.74	-7.17	0.00	0.00	0.00
1,700.00	11.83	161.32	1,687.13	-137.00	46.31	-8.35	0.00	0.00	0.00
1,800.00	11.83	161.32	1,785.00	-156.42	52.87	-9.54	0.00	0.00	0.00
1,900.00	11.83	161.32	1,882.88	-175.85	59.44	-10.72	0.00	0.00	0.00
2,000.00	11.83	161.32	1,980.75	-195.27	66.01	-11.91	0.00	0.00	0.00
2,100.00	11.83	161.32	2,078.63	-214.70	72.57	-13.09	0.00	0.00	0.00
2,200.00	11.83	161.32	2,176.50	-234.12	79.14	-14.28	0.00	0.00	0.00
2,300.00	11.83	161.32	2,274.38	-253.55	85.70	-15.46	0.00	0.00	0.00
2,400.00	11.83	161.32	2,372.25	-272.97	92.27	-16.64	0.00	0.00	0.00
2,500.00	11.83	161.32	2,470.13	-292.40	98.84	-17.83	0.00	0.00	0.00
2,600.00	11.83	161.32	2,568.00	-311.82	105.40	-19.01	0.00	0.00	0.00
2,700.00	11.83	161.32	2,665.88	-331.25	111.97	-20.20	0.00	0.00	0.00
2,800.00	11.83	161.32	2,763.75	-350.67	118.53	-21.38	0.00	0.00	0.00
2,900.00	11.83	161.32	2,861.63	-370.10	125.10	-22.57	0.00	0.00	0.00
3,000.00	11.83	161.32	2,959.50	-389.52	131.67	-23.75	0.00	0.00	0.00
3,100.00	11.83	161.32	3,057.38	-408.95	138.23	-24.94	0.00	0.00	0.00
3,200.00	11.83	161.32	3,155.25	-428.37	144.80	-26.12	0.00	0.00	0.00
3,300.00	11.83	161.32	3,253.13	-447.80	151.37	-27.30	0.00	0.00	0.00
3,400.00	11.83	161.32	3,351.00	-467.22	157.93	-28.49	0.00	0.00	0.00
3,500.00	11.83	161.32	3,448.88	-486.65	164.50	-29.67	0.00	0.00	0.00
3,600.00	11.83	161.32	3,546.75	-506.07	171.06	-30.86	0.00	0.00	0.00
3,700.00	11.83	161.32	3,644.63	-525.50	177.63	-32.04	0.00	0.00	0.00
3,800.00	11.83	161.32	3,742.51	-544.92	184.20	-33.23	0.00	0.00	0.00
3,900.00	11.83	161.32	3,840.38	-564.35	190.76	-34.41	0.00	0.00	0.00
4,000.00	11.83	161.32	3,938.26	-583.77	197.33	-35.60	0.00	0.00	0.00
4,100.00	11.83	161.32	4,036.13	-603.20	203.89	-36.78	0.00	0.00	0.00
4,200.00	11.83	161.32	4,134.01	-622.62	210.46	-37.96	0.00	0.00	0.00
4,300.00	11.83	161.32	4,231.88	-642.05	217.03	-39.15	0.00	0.00	0.00
4,400.00	11.83	161.32	4,329.76	-661.47	223.59	-40.33	0.00	0.00	0.00
4,500.00	11.83	161.32	4,427.63	-680.90	230.16	-41.52	0.00	0.00	0.00
4,600.00	11.83	161.32	4,525.51	-700.32	236.73	-42.70	0.00	0.00	0.00
4,700.00	11.83	161.32	4,623.38	-719.75	243.29	-43.89	0.00	0.00	0.00
4,800.00	11.83	161.32	4,721.26	-739.17	249.86	-45.07	0.00	0.00	0.00
4,900.00	11.83	161.32	4,819.13	-758.60	256.42	-46.26	0.00	0.00	0.00
5,000.00	11.83	161.32	4,917.01	-778.02	262.99	-47.44	0.00	0.00	0.00

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<b>Site:</b>	Windsor LV 14H	<b>North Reference:</b>	True
<b>Well:</b>	Windsor LV G-14H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Windsor LV G-14H		
<b>Design:</b>	Windsor LV G-14H		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
5,100.00	11.83	161.32	5,014.88	-797.45	269.56	-48.62	0.00	0.00	0.00	
5,200.00	11.83	161.32	5,112.76	-816.87	276.12	-49.81	0.00	0.00	0.00	
5,300.00	11.83	161.32	5,210.63	-836.30	282.69	-50.99	0.00	0.00	0.00	
5,400.00	11.83	161.32	5,308.51	-855.72	289.25	-52.18	0.00	0.00	0.00	
5,500.00	11.83	161.32	5,406.38	-875.15	295.82	-53.36	0.00	0.00	0.00	
5,600.00	11.83	161.32	5,504.26	-894.57	302.39	-54.55	0.00	0.00	0.00	
5,700.00	11.83	161.32	5,602.13	-914.00	308.95	-55.73	0.00	0.00	0.00	
5,800.00	11.83	161.32	5,700.01	-933.43	315.52	-56.92	0.00	0.00	0.00	
5,900.00	11.83	161.32	5,797.88	-952.85	322.08	-58.10	0.00	0.00	0.00	
6,000.00	11.83	161.32	5,895.76	-972.28	328.65	-59.29	0.00	0.00	0.00	
6,100.00	11.83	161.32	5,993.63	-991.70	335.22	-60.47	0.00	0.00	0.00	
6,200.00	11.83	161.32	6,091.51	-1,011.13	341.78	-61.65	0.00	0.00	0.00	
6,300.00	11.83	161.32	6,189.38	-1,030.55	348.35	-62.84	0.00	0.00	0.00	
6,400.00	11.83	161.32	6,287.26	-1,049.98	354.92	-64.02	0.00	0.00	0.00	
6,500.00	11.83	161.32	6,385.14	-1,069.40	361.48	-65.21	0.00	0.00	0.00	
6,600.00	11.83	161.32	6,483.01	-1,088.83	368.05	-66.39	0.00	0.00	0.00	
6,604.13	11.83	161.32	6,487.06	-1,089.63	368.32	-66.44	0.00	0.00	0.00	
<b>Start DLS 10.00 TFO 107.86</b>										
6,700.00	12.69	207.49	6,580.95	-1,108.33	366.60	-59.83	10.00	0.90	48.16	
6,800.00	19.40	235.15	6,677.13	-1,127.62	347.85	-36.64	10.00	6.71	27.66	
6,900.00	28.09	247.66	6,768.64	-1,146.10	312.35	2.49	10.00	8.69	12.51	
7,000.00	37.40	254.46	6,852.68	-1,163.23	261.18	56.37	10.00	9.31	6.80	
7,100.00	46.97	258.84	6,926.70	-1,178.48	195.89	123.36	10.00	9.56	4.38	
7,200.00	56.65	262.02	6,988.47	-1,191.38	118.48	201.43	10.00	9.68	3.18	
7,247.20	61.25	263.28	7,012.81	-1,196.54	78.38	241.46	10.00	9.74	2.66	
<b>LV A-14H Landing</b>										
7,300.00	66.40	264.56	7,036.09	-1,201.54	31.28	288.21	10.00	9.76	2.43	
7,323.33	68.68	265.09	7,045.00	-1,203.48	9.81	309.42	10.00	9.77	2.29	
<b>Nio Entry</b>										
7,400.00	76.19	266.74	7,068.13	-1,208.66	-63.05	381.05	10.00	9.79	2.15	
7,500.00	85.99	268.75	7,083.60	-1,212.52	-161.64	477.14	10.00	9.80	2.00	
7,547.02	90.60	269.67	7,085.00	-1,213.17	-208.62	522.61	10.00	9.81	1.95	
<b>Start DLS 0.00 TFO 90.95 - LV G-14H Landing</b>										
7,600.00	90.60	269.67	7,084.45	-1,213.47	-261.60	573.78	0.00	0.00	0.00	
7,700.00	90.60	269.67	7,083.40	-1,214.05	-361.59	670.35	0.00	0.00	0.00	
7,800.00	90.60	269.67	7,082.35	-1,214.63	-461.58	766.92	0.00	0.00	0.00	
7,900.00	90.60	269.67	7,081.30	-1,215.21	-561.58	863.49	0.00	0.00	0.00	
8,000.00	90.60	269.67	7,080.26	-1,215.79	-661.57	960.07	0.00	0.00	0.00	
8,100.00	90.60	269.67	7,079.21	-1,216.37	-761.56	1,056.64	0.00	0.00	0.00	
8,200.00	90.60	269.67	7,078.16	-1,216.95	-861.56	1,153.21	0.00	0.00	0.00	
8,300.00	90.60	269.67	7,077.11	-1,217.53	-961.55	1,249.78	0.00	0.00	0.00	
8,400.00	90.60	269.67	7,076.07	-1,218.11	-1,061.54	1,346.36	0.00	0.00	0.00	
8,500.00	90.60	269.67	7,075.02	-1,218.69	-1,161.53	1,442.93	0.00	0.00	0.00	
8,600.00	90.60	269.67	7,073.97	-1,219.27	-1,261.53	1,539.50	0.00	0.00	0.00	
8,700.00	90.60	269.67	7,072.93	-1,219.84	-1,361.52	1,636.07	0.00	0.00	0.00	
8,800.00	90.60	269.67	7,071.88	-1,220.42	-1,461.51	1,732.64	0.00	0.00	0.00	
8,900.00	90.60	269.67	7,070.83	-1,221.00	-1,561.51	1,829.22	0.00	0.00	0.00	
9,000.00	90.60	269.67	7,069.78	-1,221.58	-1,661.50	1,925.79	0.00	0.00	0.00	
9,100.00	90.60	269.67	7,068.74	-1,222.16	-1,761.49	2,022.36	0.00	0.00	0.00	
9,200.00	90.60	269.67	7,067.69	-1,222.74	-1,861.48	2,118.93	0.00	0.00	0.00	
9,300.00	90.60	269.67	7,066.64	-1,223.32	-1,961.48	2,215.51	0.00	0.00	0.00	
9,400.00	90.60	269.67	7,065.60	-1,223.89	-2,061.47	2,312.08	0.00	0.00	0.00	
9,500.00	90.60	269.67	7,064.55	-1,224.47	-2,161.46	2,408.65	0.00	0.00	0.00	

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<b>Project:</b>	Windsor	<b>MD Reference:</b>	WELL @ 4848.00usft (Original Well Elev)
<b>Site:</b>	Windsor LV 14H	<b>North Reference:</b>	True
<b>Well:</b>	Windsor LV G-14H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Windsor LV G-14H		
<b>Design:</b>	Windsor LV G-14H		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
9,600.00	90.60	269.67	7,063.50	-1,225.05	-2,261.45	2,505.22	0.00	0.00	0.00	
9,700.00	90.60	269.67	7,062.45	-1,225.63	-2,361.45	2,601.79	0.00	0.00	0.00	
9,800.00	90.60	269.67	7,061.41	-1,226.21	-2,461.44	2,698.37	0.00	0.00	0.00	
9,900.00	90.60	269.67	7,060.36	-1,226.78	-2,561.43	2,794.94	0.00	0.00	0.00	
10,000.00	90.60	269.67	7,059.31	-1,227.36	-2,661.43	2,891.51	0.00	0.00	0.00	
10,100.00	90.60	269.67	7,058.26	-1,227.94	-2,761.42	2,988.08	0.00	0.00	0.00	
10,200.00	90.60	269.67	7,057.22	-1,228.52	-2,861.41	3,084.65	0.00	0.00	0.00	
10,300.00	90.60	269.67	7,056.17	-1,229.09	-2,961.40	3,181.23	0.00	0.00	0.00	
10,400.00	90.60	269.67	7,055.12	-1,229.67	-3,061.40	3,277.80	0.00	0.00	0.00	
10,500.00	90.60	269.67	7,054.08	-1,230.25	-3,161.39	3,374.37	0.00	0.00	0.00	
10,600.00	90.60	269.67	7,053.03	-1,230.82	-3,261.38	3,470.94	0.00	0.00	0.00	
10,700.00	90.60	269.67	7,051.98	-1,231.40	-3,361.38	3,567.51	0.00	0.00	0.00	
10,800.00	90.60	269.67	7,050.93	-1,231.98	-3,461.37	3,664.08	0.00	0.00	0.00	
10,900.00	90.60	269.67	7,049.89	-1,232.55	-3,561.36	3,760.66	0.00	0.00	0.00	
11,000.00	90.60	269.67	7,048.84	-1,233.13	-3,661.35	3,857.23	0.00	0.00	0.00	
11,100.00	90.60	269.67	7,047.79	-1,233.71	-3,761.35	3,953.80	0.00	0.00	0.00	
11,200.00	90.60	269.67	7,046.75	-1,234.28	-3,861.34	4,050.37	0.00	0.00	0.00	
11,300.00	90.60	269.67	7,045.70	-1,234.86	-3,961.33	4,146.94	0.00	0.00	0.00	
11,400.00	90.60	269.67	7,044.65	-1,235.44	-4,061.33	4,243.51	0.00	0.00	0.00	
11,500.00	90.60	269.67	7,043.60	-1,236.01	-4,161.32	4,340.09	0.00	0.00	0.00	
11,600.00	90.60	269.67	7,042.56	-1,236.59	-4,261.31	4,436.66	0.00	0.00	0.00	
11,700.00	90.60	269.67	7,041.51	-1,237.17	-4,361.30	4,533.23	0.00	0.00	0.00	
11,800.00	90.60	269.67	7,040.46	-1,237.74	-4,461.30	4,629.80	0.00	0.00	0.00	
11,844.00	90.60	269.67	7,040.00	-1,238.00	-4,505.29	4,672.29	0.00	0.00	0.00	
TD at 11844.00										

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
LV G-14H Landing	0.00	0.00	7,085.00	-1,213.17	-208.62	1,967,252.682	3,180,007.925	40.487090	-104.853010
- hit/miss target									
- Shape									
- plan hits target center									
- Circle (radius 15.00)									
LV A-14H Landing	0.00	0.00	7,088.00	1,355.27	-178.01	1,969,821.864	3,180,020.230	40.494140	-104.852900
- plan misses target center by 2565.75usft at 7224.81usft MD (7001.67 TVD, -1194.17 N, 97.65 E)									
- Circle (radius 15.00)									

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
7,323.33	9,753.50	Nio Entry		0.00		

<b>Database:</b>	Compass DB	<b>Local Co-ordinate Reference:</b>	Well Windsor LV G-14H
<b>Company:</b>	Bayswater	<b>TVD Reference:</b>	WELL @ 4848.00usft (Original Well Elev)
<b>Project:</b>	Windsor	<b>MD Reference:</b>	WELL @ 4848.00usft (Original Well Elev)
<b>Site:</b>	Windsor LV 14H	<b>North Reference:</b>	True
<b>Well:</b>	Windsor LV G-14H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Windsor LV G-14H		
<b>Design:</b>	Windsor LV G-14H		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
700.00	700.00	0.00	0.00	Start Build 2.00
1,291.62	1,287.42	-57.67	19.49	Start 5312.52 hold at 1291.62 MD
6,604.13	6,487.06	-1,089.63	368.32	Start DLS 10.00 TFO 107.86
7,547.02	7,085.00	-1,213.17	-208.62	Start DLS 0.00 TFO 90.95
11,844.00	7,040.00	-1,238.00	-4,505.29	TD at 11844.00