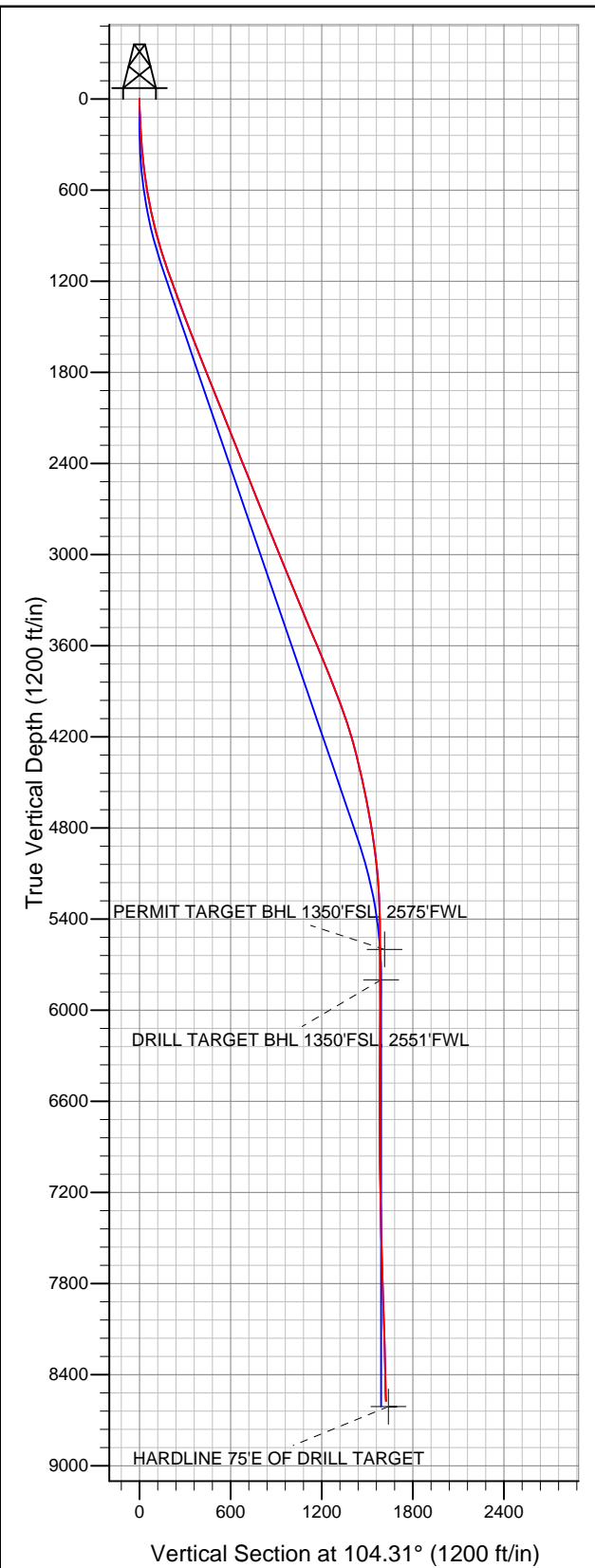




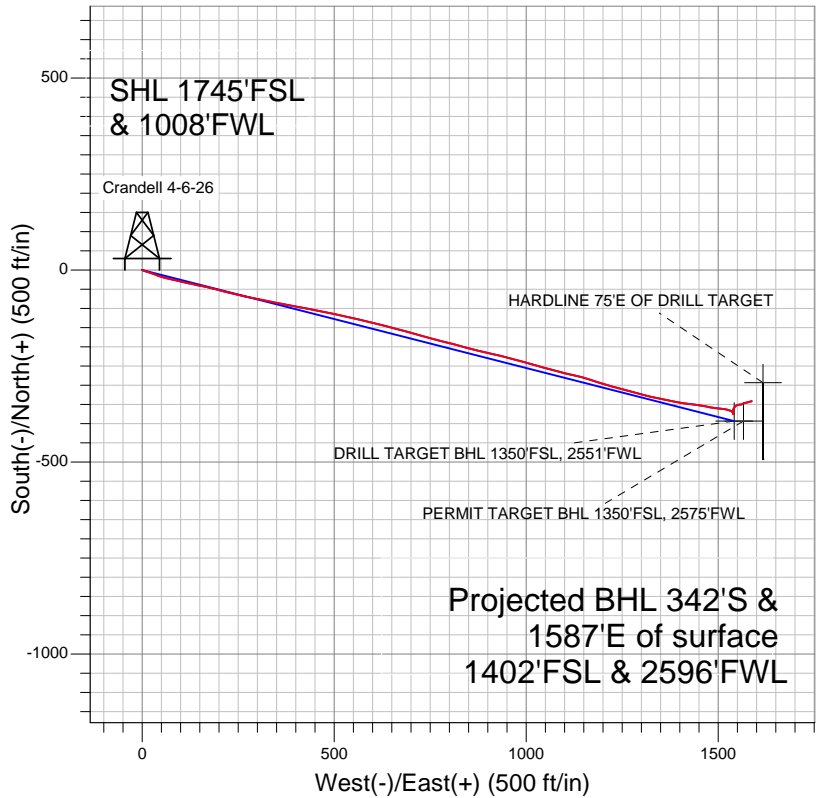
Well Name: **Crandell 4-6-26**

Surface Location: Crandell 2-8-26 Pad Sec.26-T1N-R68W
North American Datum 1983 US State Plane 1983Colorado Northern Zone
Ground Elevation: 5217.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1250448.45	3146606.03	40.019680	-104.976540	
Original Well EleWELL @ 5230.0ft (Original Well Elev)						



EnCana Oil & Gas Broomfield County, CO



LEGEND

- +— Crandell 4-6-26, Wellbore #1, Plan #1 (9-07-11) V0
- +— Wellbore #1
- Survey #1

Final Survey Plot

Projected Final Survey -
8845'MD & 8575'TVD @ 1622'VS
1.5 deg Inc 70.3 deg AZ

Project: SEC.26-T1N-R68W
Site: Crandell 2-8-26 Pad Sec.26-T1N-R68W
Well: Crandell 4-6-26
Plan: Wellbore #1



EnCana Oil & Gas Broomfield County, CO

SEC.26-T1N-R68W

Crandell 2-8-26 Pad Sec.26-T1N-R68W

Crandell 4-6-26

Wellbore #1

Survey: Survey #1

Standard Survey Report

28 October, 2011

Survey	Wellbore Data									
	Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
Main Wellbore	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
	74.0	2.00	104.70	74.0	-0.3	1.2	1.3	2.70	2.70	0.00
	166.0	3.10	117.00	165.9	-1.9	5.0	5.3	1.33	1.20	13.37
	257.0	4.00	111.40	256.7	-4.1	10.2	10.9	1.06	0.99	-6.15
	349.0	5.00	102.60	348.4	-6.2	17.1	18.1	1.32	1.09	-9.57
	440.0	6.00	109.80	439.0	-8.7	25.4	26.8	1.33	1.10	7.91
	533.0	8.40	111.70	531.3	-12.8	36.3	38.3	2.59	2.58	2.04
	625.0	9.60	106.50	622.1	-17.5	49.9	52.7	1.57	1.30	-5.65
	717.0	11.30	105.40	712.6	-22.1	65.9	69.4	1.86	1.85	-1.20
	805.0	13.40	100.50	798.6	-26.2	84.3	88.1	2.66	2.39	-5.57
	893.0	14.90	103.70	883.9	-30.7	105.3	109.6	1.92	1.70	3.64
	980.0	16.90	102.20	967.6	-36.1	128.5	133.5	2.35	2.30	-1.72
1,031.0	18.30	102.20	1,016.2	-39.3	143.6	148.9	2.75	2.75	0.00	

Company:	EnCana Oil & Gas Broomfield County, CO	Local Co-ordinate Reference:	Well Crandell 4-6-26
Project:	SEC.26-T1N-R68W	TVD Reference:	WELL @ 5230.0ft (Original Well Elev)
Site:	Crandell 2-8-26 Pad Sec.26-T1N-R68W	MD Reference:	WELL @ 5230.0ft (Original Well Elev)
Well:	Crandell 4-6-26	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
1,095.0	19.00	102.20	1,076.8	-43.6	163.6	169.3	1.09	1.09	0.00	
1,183.0	18.50	103.70	1,160.2	-50.0	191.2	197.6	0.79	-0.57	1.70	
1,270.0	20.30	104.90	1,242.2	-57.1	219.2	226.5	2.12	2.07	1.38	
1,357.0	20.50	103.80	1,323.8	-64.6	248.6	256.8	0.50	0.23	-1.26	
1,444.0	20.40	101.70	1,405.3	-71.4	278.2	287.2	0.85	-0.11	-2.41	
1,532.0	20.70	100.30	1,487.7	-77.2	308.5	318.0	0.65	0.34	-1.59	
1,619.0	21.20	101.70	1,568.9	-83.2	339.0	349.1	0.81	0.57	1.61	
1,706.0	21.60	100.70	1,649.9	-89.3	370.2	380.8	0.62	0.46	-1.15	
1,794.0	21.60	101.00	1,731.7	-95.4	402.0	413.1	0.13	0.00	0.34	
1,881.0	21.70	100.80	1,812.6	-101.5	433.5	445.2	0.14	0.11	-0.23	
1,968.0	21.90	100.80	1,893.4	-107.6	465.3	477.4	0.23	0.23	0.00	
2,056.0	22.10	102.20	1,975.0	-114.1	497.6	510.3	0.64	0.23	1.59	
2,143.0	21.90	102.40	2,055.6	-121.1	529.4	542.9	0.25	-0.23	0.23	
2,230.0	21.40	103.10	2,136.5	-128.2	560.7	575.0	0.65	-0.57	0.80	
2,317.0	21.70	104.90	2,217.4	-135.9	591.7	606.9	0.83	0.34	2.07	
2,405.0	21.80	103.30	2,299.2	-143.8	623.3	639.5	0.68	0.11	-1.82	
2,492.0	22.00	103.10	2,379.9	-151.3	654.9	672.0	0.25	0.23	-0.23	
2,579.0	21.40	106.60	2,460.7	-159.5	686.0	704.1	1.64	-0.69	4.02	
2,667.0	21.50	105.10	2,542.6	-168.3	717.0	736.3	0.63	0.11	-1.70	
2,754.0	21.80	105.60	2,623.5	-176.8	747.9	768.4	0.40	0.34	0.57	
2,841.0	22.30	104.40	2,704.1	-185.2	779.5	801.1	0.77	0.57	-1.38	
2,929.0	22.50	104.40	2,785.5	-193.6	811.9	834.6	0.23	0.23	0.00	
3,016.0	21.30	105.20	2,866.2	-201.8	843.3	867.0	1.42	-1.38	0.92	
3,103.0	22.00	103.70	2,947.1	-209.8	874.4	899.1	1.03	0.80	-1.72	
3,190.0	22.80	103.30	3,027.5	-217.6	906.6	932.3	0.94	0.92	-0.46	
3,278.0	21.70	104.00	3,108.9	-225.4	939.0	965.6	1.29	-1.25	0.80	
3,365.0	22.60	103.70	3,189.5	-233.3	970.9	998.4	1.04	1.03	-0.34	
3,452.0	22.40	105.60	3,269.9	-241.7	1,003.1	1,031.7	0.87	-0.23	2.18	
3,540.0	22.20	107.30	3,351.3	-251.2	1,035.1	1,065.1	0.77	-0.23	1.93	
3,627.0	22.70	104.50	3,431.7	-260.2	1,067.0	1,098.3	1.36	0.57	-3.22	
3,714.0	22.60	103.10	3,512.0	-268.2	1,099.6	1,131.8	0.63	-0.11	-1.61	
3,802.0	23.20	104.00	3,593.1	-276.3	1,132.9	1,166.0	0.79	0.68	1.02	
3,889.0	23.00	108.10	3,673.1	-285.7	1,165.6	1,200.1	1.86	-0.23	4.71	
3,976.0	21.70	107.00	3,753.6	-295.7	1,197.2	1,233.1	1.57	-1.49	-1.26	
4,063.0	21.50	105.40	3,834.5	-304.6	1,227.9	1,265.1	0.71	-0.23	-1.84	
4,151.0	21.50	104.70	3,916.3	-313.0	1,259.1	1,297.4	0.29	0.00	-0.80	
4,238.0	20.40	105.20	3,997.6	-321.0	1,289.1	1,328.5	1.28	-1.26	0.57	
4,325.0	18.10	104.00	4,079.7	-328.3	1,316.9	1,357.2	2.68	-2.64	-1.38	
4,413.0	16.90	101.70	4,163.7	-334.2	1,342.7	1,383.6	1.57	-1.36	-2.61	
4,500.0	15.70	101.50	4,247.2	-339.1	1,366.6	1,408.0	1.38	-1.38	-0.23	
4,587.0	14.50	101.00	4,331.1	-343.5	1,388.8	1,430.6	1.39	-1.38	-0.57	
4,675.0	12.80	97.50	4,416.7	-346.9	1,409.3	1,451.3	2.15	-1.93	-3.98	
4,762.0	12.30	96.40	4,501.6	-349.2	1,428.1	1,470.1	0.64	-0.57	-1.26	
4,849.0	11.40	99.30	4,586.7	-351.6	1,445.8	1,487.8	1.24	-1.03	3.33	
4,936.0	11.00	101.50	4,672.1	-354.6	1,462.4	1,504.7	0.67	-0.46	2.53	
5,024.0	9.80	98.90	4,758.6	-357.5	1,478.0	1,520.5	1.46	-1.36	-2.95	
5,111.0	8.50	96.10	4,844.5	-359.3	1,491.7	1,534.2	1.58	-1.49	-3.22	
5,198.0	8.00	97.30	4,930.6	-360.7	1,504.1	1,546.6	0.61	-0.57	1.38	
5,286.0	6.40	97.50	5,017.9	-362.2	1,515.1	1,557.6	1.82	-1.82	0.23	
5,373.0	5.40	103.10	5,104.5	-363.7	1,523.8	1,566.5	1.32	-1.15	6.44	
5,460.0	4.20	114.20	5,191.2	-366.0	1,530.7	1,573.7	1.74	-1.38	12.76	
5,548.0	2.10	126.50	5,279.0	-368.2	1,535.0	1,578.4	2.49	-2.39	13.98	
5,722.0	0.90	152.50	5,453.0	-371.3	1,538.2	1,582.2	0.78	-0.69	14.94	
5,869.5	0.73	153.39	5,600.4	-373.2	1,539.1	1,583.6	0.11	-0.11	0.60	

Company:	EnCana Oil & Gas Broomfield County, CO	Local Co-ordinate Reference:	Well Crandell 4-6-26
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Site:	Crandell 2-8-26 Pad Sec.26-T1N-R68W	MD Reference:	WELL @ 5230.0ft (Original Well Elev)
Well:	Crandell 4-6-26	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
PERMIT TARGET BHL 1350'FSL, 2575'FWL									
5,897.0	0.70	153.60	5,627.9	-373.5	1,539.3	1,583.8	0.11	-0.11	0.77
6,069.2	0.20	141.15	5,800.1	-374.7	1,539.9	1,584.8	0.29	-0.29	-7.23
DRILL TARGET BHL 1350'FSL, 2551'FWL									
6,071.0	0.20	140.70	5,801.9	-374.7	1,539.9	1,584.8	0.29	-0.28	-25.10
6,246.0	0.40	243.10	5,976.9	-375.2	1,539.6	1,584.6	0.28	0.11	58.51
6,421.0	0.60	345.40	6,151.9	-374.6	1,538.8	1,583.7	0.45	0.11	58.46
6,595.0	0.80	349.00	6,325.9	-372.5	1,538.4	1,582.7	0.12	0.11	2.07
6,770.0	1.10	5.70	6,500.9	-369.7	1,538.3	1,581.9	0.23	0.17	9.54
6,944.0	1.50	6.80	6,674.8	-365.7	1,538.7	1,581.4	0.23	0.23	0.63
7,119.0	1.60	27.50	6,849.8	-361.3	1,540.1	1,581.6	0.32	0.06	11.83
7,294.0	1.70	31.90	7,024.7	-356.9	1,542.6	1,583.0	0.09	0.06	2.51
7,468.0	1.60	54.40	7,198.6	-353.3	1,546.0	1,585.3	0.37	-0.06	12.93
7,643.0	1.80	75.40	7,373.6	-351.2	1,550.6	1,589.3	0.37	0.11	12.00
7,817.0	1.70	89.80	7,547.5	-350.5	1,555.8	1,594.2	0.26	-0.06	8.28
7,992.0	1.30	77.50	7,722.4	-350.1	1,560.4	1,598.5	0.29	-0.23	-7.03
8,167.0	2.10	56.80	7,897.3	-347.9	1,565.0	1,602.4	0.57	0.46	-11.83
8,341.0	2.80	81.90	8,071.2	-345.5	1,571.9	1,608.5	0.73	0.40	14.43
8,516.0	1.80	72.20	8,246.0	-344.1	1,578.7	1,614.8	0.61	-0.57	-5.54
8,690.0	1.40	72.90	8,420.0	-342.6	1,583.4	1,618.9	0.23	-0.23	0.40
8,795.0	1.50	70.30	8,524.9	-341.8	1,585.9	1,621.1	0.11	0.10	-2.48
8,845.0	1.50	70.30	8,574.9	-341.4	1,587.1	1,622.2	0.00	0.00	0.00
HARDLINE 75'E OF DRILL TARGET									

Checked By: _____	Approved By: _____	Date: _____
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