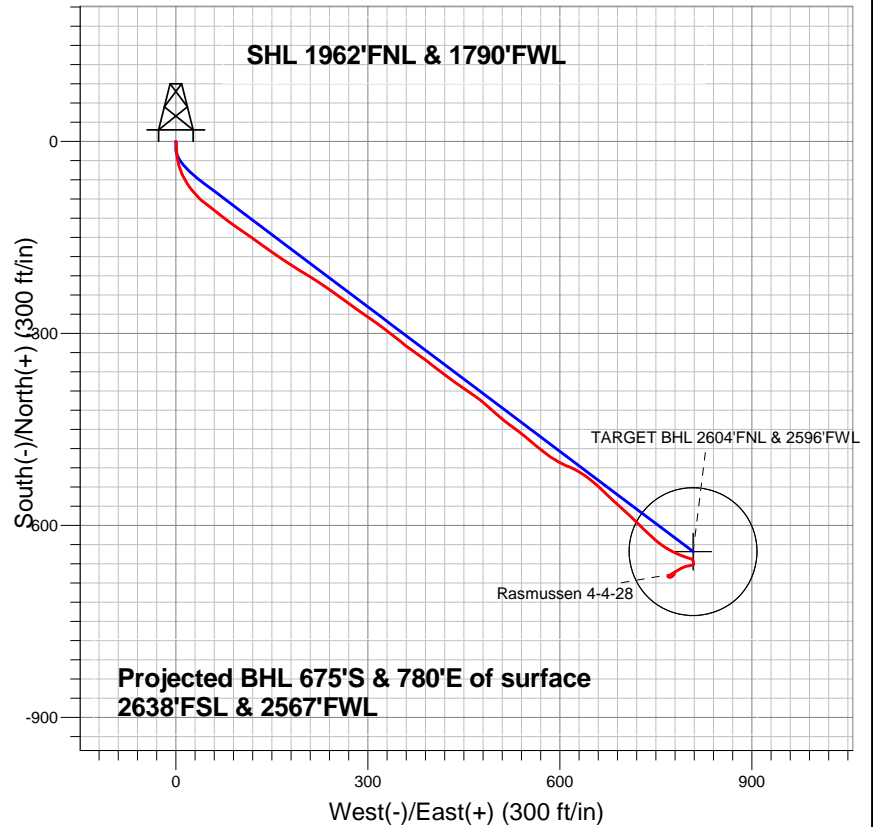


EnCana Oil & Gas Weld County CO



LEGEND

- + Rasmussen 4-4-28, Wellbore #1, Plan #1 (3-08-13)R V0
- + Wellbore #1
- Survey #1

Final Survey Plot

Projected Final Survey -
 8252'MD & 8131'TVD @ 1031'VS
 1.2 deg Inc 34.48 deg AZ

Project: SEC.28-T2N-R68W
 Site: Rasmussen 4-4-28 Pad Sec.28-T2N-R68W
 Well: Rasmussen 4-4-28
 Plan: Wellbore #1



Directional

EnCana Oil & Gas Weld County CO

SEC.28-T2N-R68W

Rasmussen 4-4-28 Pad Sec.28-T2N-R68W

Rasmussen 4-4-28

Wellbore #1

Survey: Survey #1

Standard Survey Report

18 March, 2013

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)
Main Survey	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
	78.0	1.30	149.20	78.0	-0.8	0.5	0.8	1.67	1.67	0.00
	138.0	2.30	176.60	138.0	-2.5	0.9	2.3	2.15	1.67	45.67
	198.0	3.50	176.40	197.9	-5.6	1.1	4.3	2.00	2.00	-0.33
	258.0	4.40	178.70	257.7	-9.7	1.2	7.0	1.52	1.50	3.83
	318.0	5.90	178.40	317.5	-15.1	1.4	10.4	2.50	2.50	-0.50
	379.0	6.50	175.70	378.1	-21.7	1.7	14.8	1.09	0.98	-4.43
	440.0	7.70	168.90	438.7	-29.1	2.8	20.3	2.40	1.97	-11.15
	500.0	8.70	162.90	498.1	-37.4	4.9	27.1	2.19	1.67	-10.00
	561.0	9.80	159.20	558.3	-46.7	8.1	35.3	2.05	1.80	-6.07
	622.0	10.70	152.20	618.3	-56.5	12.6	45.0	2.52	1.48	-11.48
	683.0	11.10	148.70	678.2	-66.6	18.2	55.6	1.27	0.66	-5.74
	744.0	10.90	140.00	738.1	-76.0	25.0	66.8	2.74	-0.33	-14.26

Company:	EnCana Oil & Gas Weld County CO	Local Co-ordinate Reference:	Well Rasmussen 4-4-28
Project:	SEC.28-T2N-R68W	TVD Reference:	WELL @ 4948.0ft (Original Well Elev)
Site:	Rasmussen 4-4-28 Pad Sec.28-T2N-R68W	MD Reference:	WELL @ 4948.0ft (Original Well Elev)
Well:	Rasmussen 4-4-28	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)
789.0	10.90	137.80	782.3	-82.4	30.6	75.2	0.92	0.00	-4.89
844.0	10.90	135.11	836.3	-89.9	37.8	85.5	0.92	0.00	-4.89
868.0	11.30	126.30	859.8	-92.9	41.3	90.1	7.25	1.67	-36.71
954.0	12.10	128.40	944.0	-103.5	55.1	107.5	1.05	0.93	2.44
1,040.0	13.00	129.20	1,028.0	-115.2	69.7	126.2	1.07	1.05	0.93
1,126.0	13.50	126.20	1,111.7	-127.3	85.3	145.9	0.99	0.58	-3.49
1,211.0	13.80	123.90	1,194.3	-138.8	101.7	165.9	0.73	0.35	-2.71
1,297.0	13.70	125.60	1,277.8	-150.4	118.5	186.3	0.48	-0.12	1.98
1,383.0	13.90	126.00	1,361.3	-162.4	135.1	206.8	0.26	0.23	0.47
1,469.0	13.50	124.40	1,444.9	-174.2	151.8	227.1	0.64	-0.47	-1.86
1,554.0	13.60	124.10	1,527.5	-185.4	168.2	247.0	0.14	0.12	-0.35
1,640.0	14.10	121.80	1,611.0	-196.6	185.5	267.5	0.86	0.58	-2.67
1,726.0	15.20	123.00	1,694.2	-208.2	203.9	289.1	1.33	1.28	1.40
1,812.0	15.30	121.80	1,777.2	-220.4	223.0	311.6	0.38	0.12	-1.40
1,897.0	14.00	123.70	1,859.4	-232.0	241.0	333.0	1.63	-1.53	2.24
1,983.0	13.80	128.30	1,942.9	-244.1	257.7	353.6	1.31	-0.23	5.35
2,069.0	15.70	125.10	2,026.1	-257.2	275.3	375.5	2.40	2.21	-3.72
2,154.0	16.80	124.80	2,107.7	-270.8	294.8	399.2	1.30	1.29	-0.35
2,240.0	16.20	125.60	2,190.2	-284.9	314.8	423.6	0.75	-0.70	0.93
2,326.0	15.50	128.30	2,272.9	-299.0	333.5	447.1	1.18	-0.81	3.14
2,412.0	14.50	128.40	2,356.0	-312.8	351.0	469.4	1.16	-1.16	0.12
2,497.0	12.80	126.20	2,438.6	-324.9	366.9	489.4	2.09	-2.00	-2.59
2,583.0	14.20	125.60	2,522.2	-336.7	383.2	509.5	1.64	1.63	-0.70
2,669.0	15.30	128.40	2,605.3	-349.9	400.7	531.4	1.52	1.28	3.26
2,755.0	14.60	126.90	2,688.4	-363.5	418.2	553.5	0.93	-0.81	-1.74
2,840.0	13.60	126.30	2,770.9	-375.8	434.9	574.2	1.19	-1.18	-0.71
2,926.0	13.20	122.50	2,854.5	-387.1	451.3	594.1	1.12	-0.47	-4.42
3,012.0	13.40	125.50	2,938.2	-398.1	467.7	613.8	0.84	0.23	3.49
3,097.0	14.20	130.70	3,020.8	-410.6	483.6	634.1	1.74	0.94	6.12
3,183.0	13.30	132.00	3,104.3	-424.1	499.0	654.5	1.11	-1.05	1.51
3,269.0	13.50	129.00	3,188.0	-437.1	514.1	674.4	0.84	0.23	-3.49
3,355.0	14.20	125.60	3,271.5	-449.5	530.5	695.0	1.25	0.81	-3.95
3,440.0	15.00	129.70	3,353.7	-462.6	547.4	716.4	1.54	0.94	4.82
3,526.0	14.30	130.40	3,436.9	-476.6	564.1	738.1	0.84	-0.81	0.81
3,612.0	14.20	126.50	3,520.3	-489.8	580.6	759.3	1.12	-0.12	-4.53
3,698.0	14.00	118.30	3,603.7	-501.0	598.3	780.1	2.33	-0.23	-9.53
3,783.0	12.50	111.60	3,686.4	-509.3	615.9	799.0	2.52	-1.76	-7.88
3,869.0	12.00	122.60	3,770.5	-517.5	632.1	816.8	2.77	-0.58	12.79
3,955.0	11.80	127.70	3,854.6	-527.7	646.6	834.5	1.24	-0.23	5.93
4,041.0	12.60	133.00	3,938.7	-539.5	660.4	852.6	1.60	0.93	6.16
4,126.0	14.40	134.20	4,021.4	-553.2	674.7	872.4	2.14	2.12	1.41
4,212.0	15.10	131.40	4,104.5	-568.0	690.8	894.2	1.16	0.81	-3.26
4,298.0	14.20	132.80	4,187.7	-582.6	707.0	915.9	1.12	-1.05	1.63
4,383.0	11.30	134.80	4,270.6	-595.6	720.5	934.6	3.45	-3.41	2.35
4,469.0	11.00	133.50	4,355.0	-607.1	732.4	951.1	0.46	-0.35	-1.51
4,555.0	10.40	133.70	4,439.5	-618.2	744.0	967.0	0.70	-0.70	0.23
4,641.0	9.80	127.40	4,524.2	-628.0	755.4	982.1	1.46	-0.70	-7.33
4,726.0	8.80	122.10	4,608.1	-635.8	766.7	995.8	1.55	-1.18	-6.24
4,812.0	7.10	114.40	4,693.2	-641.5	777.1	1,007.5	2.33	-1.98	-8.95
4,898.0	6.00	114.40	4,778.7	-645.6	786.0	1,017.0	1.28	-1.28	0.00
4,984.0	4.70	111.00	4,864.3	-648.7	793.4	1,024.7	1.56	-1.51	-3.95
5,069.0	3.50	104.50	4,949.1	-650.6	799.2	1,030.4	1.51	-1.41	-7.65
5,155.0	3.00	105.60	5,034.9	-651.8	803.9	1,034.9	0.59	-0.58	1.28
5,241.0	1.80	143.20	5,120.9	-653.5	806.9	1,038.3	2.23	-1.40	43.72

Company:	EnCana Oil & Gas Weld County CO	Local Co-ordinate Reference:	Well Rasmussen 4-4-28
Project:	SEC.28-T2N-R68W	TVD Reference:	WELL @ 4948.0ft (Original Well Elev)
Site:	Rasmussen 4-4-28 Pad Sec.28-T2N-R68W	MD Reference:	WELL @ 4948.0ft (Original Well Elev)
Well:	Rasmussen 4-4-28	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)
5,327.0	1.50	151.70	5,206.8	-655.6	808.2	1,040.6	0.45	-0.35	9.88
5,412.0	1.20	158.20	5,291.8	-657.4	809.1	1,042.4	0.40	-0.35	7.65
5,584.0	0.80	194.50	5,463.8	-660.2	809.4	1,044.5	0.42	-0.23	21.10
5,720.0	0.68	231.35	5,599.8	-661.7	808.6	1,044.7	0.35	-0.09	27.09
TARGET BHL 2604'FNL & 2596'FWL									
5,755.0	0.70	241.50	5,634.8	-661.9	808.2	1,044.5	0.35	0.06	29.02
5,927.0	0.90	260.80	5,806.7	-662.6	806.0	1,043.2	0.19	0.12	11.22
6,098.0	1.10	261.70	5,977.7	-663.1	803.0	1,041.2	0.12	0.12	0.53
6,270.0	1.30	258.20	6,149.7	-663.7	799.5	1,038.8	0.12	0.12	-2.03
6,441.0	1.20	256.40	6,320.6	-664.5	795.8	1,036.5	0.06	-0.06	-1.05
6,612.0	1.10	241.80	6,491.6	-665.7	792.6	1,034.7	0.18	-0.06	-8.54
6,784.0	1.70	242.50	6,663.6	-667.7	788.9	1,033.0	0.35	0.35	0.41
6,955.0	2.10	238.80	6,834.5	-670.5	784.0	1,030.9	0.24	0.23	-2.16
7,127.0	2.60	236.00	7,006.3	-674.3	778.1	1,028.6	0.30	0.29	-1.63
7,298.0	2.10	244.30	7,177.2	-677.8	772.0	1,026.1	0.35	-0.29	4.85
7,414.8	0.86	237.49	7,293.9	-679.2	769.4	1,024.8	1.07	-1.06	-5.83
TARGET CIRCLE 2604'FNL & 2596'FWL									
7,470.0	0.30	214.40	7,349.1	-679.5	768.9	1,024.7	1.07	-1.01	-41.82
7,641.0	1.00	124.60	7,520.1	-680.8	769.9	1,026.2	0.61	0.41	-52.51
7,813.0	1.10	79.10	7,692.1	-681.3	772.8	1,028.8	0.48	0.06	-26.45
7,984.0	1.10	50.40	7,863.1	-679.9	775.6	1,030.2	0.32	0.00	-16.78
8,109.0	1.20	40.20	7,988.0	-678.2	777.4	1,030.5	0.18	0.08	-8.16
8,209.0	1.20	36.20	8,088.0	-676.5	778.7	1,030.5	0.08	0.00	-4.00
8,252.0	1.20	34.48	8,131.0	-675.8	779.2	1,030.5	0.08	0.00	-4.00

Checked By: _____ Approved By: _____ Date: _____