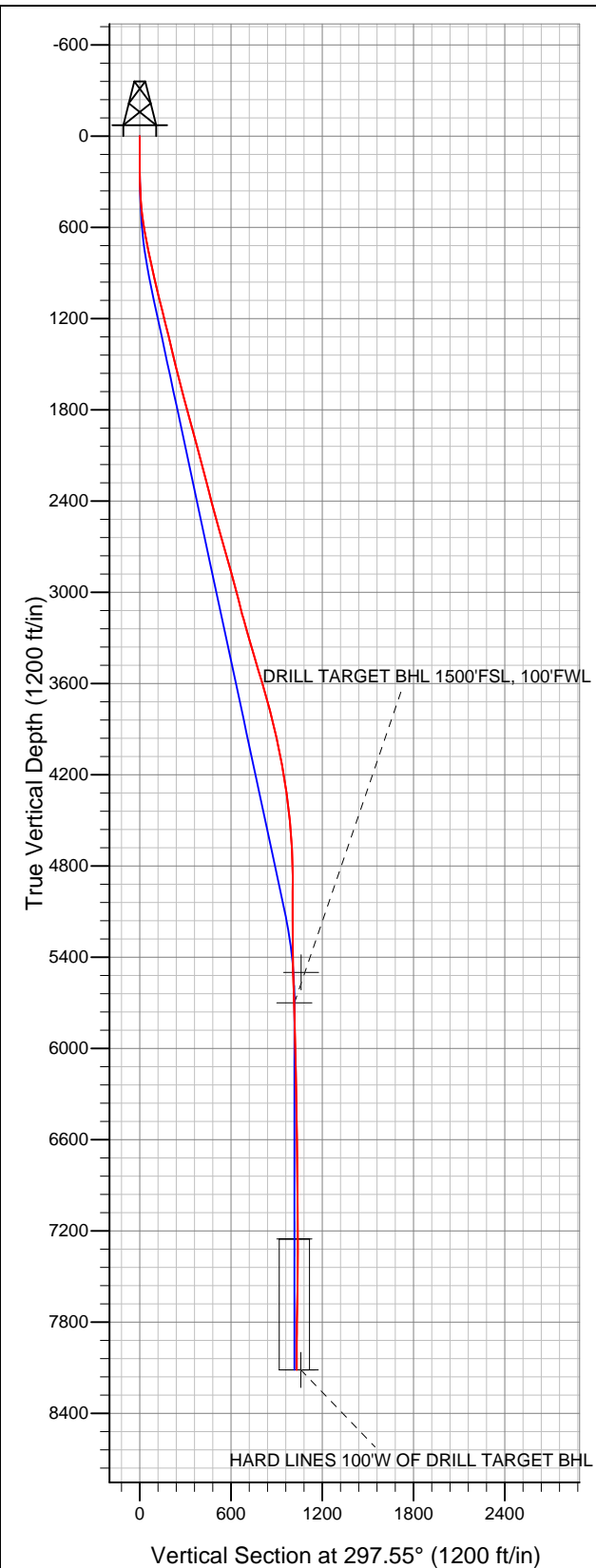


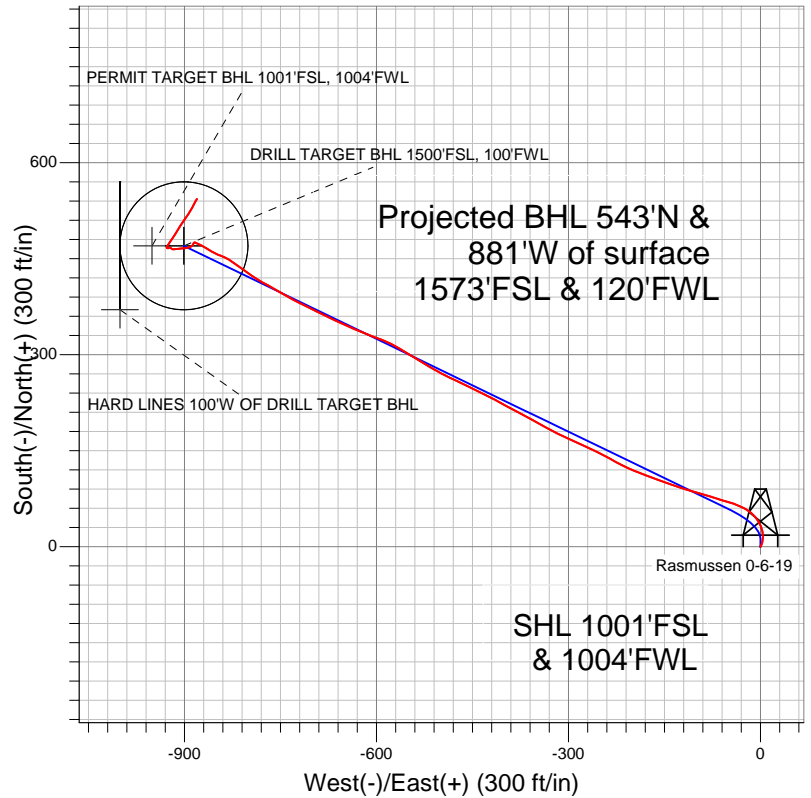
Well Name: Rasmussen 0-6-19

Surface Location: Rasmussen 0-6-19 Pad Sec.19-T2N-R68W
North American Datum 1983 US State Plane 1983 Colorado Northern Zone
Ground Elevation: 5001.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1286636.30	3125338.98	40.119340	-105.051820	
		Original Well Elev	WELL @ 5014.0ft (Original Well Elev)			



EnCana Oil & Gas Weld County CO



LEGEND

- Survey #1
- Rasmussen 0-6-19, Wellbore #1, Plan #1 (1-24-12) V0
- Wellbore #1

Final Survey Plot

Projected Final Survey -
8245'MD & 8115'TVD @ 1031'VS
4.80 deg Inc 27.40 deg AZ

Project: SEC.19-T2N-R68W
Site: Rasmussen 0-6-19 Pad Sec.19-T2N-R68W
Well: Rasmussen 0-6-19
Plan: Wellbore #1



EnCana Oil & Gas Weld County CO

SEC.19-T2N-R68W

Rasmussen 0-6-19 Pad Sec.19-T2N-R68W

Rasmussen 0-6-19

Wellbore #1

Survey: Survey #1

Standard Survey Report

13 February, 2012

Company:	EnCana Oil & Gas Weld County CO	Local Co-ordinate Reference:	Well Rasmussen 0-6-19
Project:	SEC.19-T2N-R68W	TVD Reference:	WELL @ 5014.0ft (Original Well Elev)
Site:	Rasmussen 0-6-19 Pad Sec.19-T2N-R68W	MD Reference:	WELL @ 5014.0ft (Original Well Elev)
Well:	Rasmussen 0-6-19	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Project	SEC.19-T2N-R68W, Weld County, Colorado		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		Using Well Reference Point
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site		Rasmussen 0-6-19 Pad Sec.19-T2N-R68W			
Site Position:		Northing:		1,286,636.30ft	
From:	Lat/Long	Easting:		Longitude:	
		3,125,338.98ft		-105.051820	
Position Uncertainty:		Slot Radius:		Grid Convergence:	
0.0 ft		"		0.29 °	

Well	Rasmussen 0-6-19					
Well Position	+N/-S	0.0 ft	Northing:	1,286,636.30 ft	Latitude:	40.119340
	+E/-W	0.0 ft	Easting:	3,125,338.98 ft	Longitude:	-105.051820
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	5,001.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	1/24/2012	8.91	66.75	52,887

Design	Wellbore #1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.0	0.0	0.0	297.55	

Survey Program		Date	2/13/2012		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
41.0	8,245.0	Survey #1 (Wellbore #1)	MWD	MWD - Standard	

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)
Survey Data	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
	41.0	0.50	41.60	41.0	0.1	0.1	0.0	1.22	1.22	0.00
	132.0	1.30	24.70	132.0	1.4	0.8	-0.1	0.92	0.88	-18.57
	224.0	2.80	21.60	223.9	4.4	2.1	0.2	1.63	1.63	-3.37
	315.0	4.70	9.30	314.7	10.2	3.5	1.6	2.26	2.09	-13.52
	407.0	6.30	354.70	406.3	18.9	3.6	5.5	2.30	1.74	-15.87
	499.0	8.60	341.30	497.5	30.4	1.0	13.2	3.12	2.50	-14.57
	590.0	10.20	323.90	587.3	43.4	-6.0	25.4	3.56	1.76	-19.12
	682.0	11.30	305.20	677.7	55.2	-18.1	41.6	3.96	1.20	-20.33
	746.0	11.30	294.20	740.5	61.4	-29.0	54.1	3.36	0.00	-17.19
	810.0	11.30	294.20	803.3	66.5	-40.4	66.6	0.00	0.00	0.00
	814.0	12.00	285.80	807.2	66.8	-41.2	67.4	45.82	17.50	-210.00
	902.0	12.70	288.10	893.1	72.3	-59.2	85.9	0.97	0.80	2.61

Company:	EnCana Oil & Gas Weld County CO	Local Co-ordinate Reference:	Well Rasmussen 0-6-19
Project:	SEC.19-T2N-R68W	TVD Reference:	WELL @ 5014.0ft (Original Well Elev)
Site:	Rasmussen 0-6-19 Pad Sec.19-T2N-R68W	MD Reference:	WELL @ 5014.0ft (Original Well Elev)
Well:	Rasmussen 0-6-19	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)	
989.0	13.50	286.80	977.9	78.2	-78.0	105.3	0.98	0.92	-1.49	
1,076.0	13.90	285.80	1,062.4	84.0	-97.8	125.5	0.53	0.46	-1.15	
1,164.0	14.70	286.60	1,147.7	90.0	-118.6	146.8	0.94	0.91	0.91	
1,251.0	14.30	289.30	1,231.9	96.7	-139.3	168.3	0.90	-0.46	3.10	
1,338.0	13.80	291.00	1,316.3	104.0	-159.2	189.2	0.75	-0.57	1.95	
1,426.0	13.60	290.00	1,401.8	111.3	-178.7	209.9	0.35	-0.23	-1.14	
1,513.0	13.50	292.40	1,486.4	118.7	-197.7	230.2	0.66	-0.11	2.76	
1,600.0	14.00	296.80	1,570.9	127.3	-216.5	250.8	1.33	0.57	5.06	
1,687.0	14.90	299.30	1,655.1	137.5	-235.6	272.5	1.26	1.03	2.87	
1,775.0	14.90	296.70	1,740.2	148.1	-255.6	295.1	0.76	0.00	-2.95	
1,862.0	14.50	294.00	1,824.3	157.6	-275.5	317.2	0.91	-0.46	-3.10	
1,949.0	15.20	294.00	1,908.4	166.7	-295.9	339.4	0.80	0.80	0.00	
2,037.0	15.70	296.50	1,993.2	176.7	-317.1	362.9	0.95	0.57	2.84	
2,124.0	15.20	299.30	2,077.1	187.5	-337.6	386.0	1.03	-0.57	3.22	
2,211.0	14.80	299.10	2,161.1	198.5	-357.2	408.5	0.46	-0.46	-0.23	
2,299.0	14.40	297.20	2,246.3	208.9	-376.8	430.7	0.71	-0.45	-2.16	
2,386.0	14.20	299.10	2,330.6	219.1	-395.7	452.2	0.59	-0.23	2.18	
2,473.0	14.60	297.40	2,414.9	229.3	-414.8	473.8	0.67	0.46	-1.95	
2,560.0	15.30	296.50	2,498.9	239.5	-434.8	496.3	0.85	0.80	-1.03	
2,648.0	15.90	295.40	2,583.7	249.8	-456.1	519.9	0.76	0.68	-1.25	
2,735.0	16.20	296.50	2,667.3	260.4	-477.7	544.0	0.49	0.34	1.26	
2,822.0	15.80	296.80	2,750.9	271.1	-499.2	567.9	0.47	-0.46	0.34	
2,910.0	15.70	300.90	2,835.6	282.6	-520.1	591.8	1.27	-0.11	4.66	
2,997.0	14.60	302.30	2,919.6	294.5	-539.4	614.5	1.33	-1.26	1.61	
3,084.0	14.90	301.40	3,003.7	306.2	-558.2	636.6	0.43	0.34	-1.03	
3,172.0	14.20	296.60	3,088.9	317.0	-577.6	658.7	1.58	-0.80	-5.45	
3,259.0	15.80	290.20	3,172.9	325.8	-598.2	681.1	2.64	1.84	-7.36	
3,346.0	15.90	290.50	3,256.6	334.1	-620.5	704.7	0.15	0.11	0.34	
3,433.0	16.30	295.40	3,340.2	343.5	-642.7	728.7	1.63	0.46	5.63	
3,521.0	16.20	294.00	3,424.7	353.8	-665.1	753.3	0.46	-0.11	-1.59	
3,608.0	16.40	297.70	3,508.2	364.4	-687.0	777.7	1.22	0.23	4.25	
3,695.0	16.20	294.70	3,591.7	375.2	-708.9	802.1	0.99	-0.23	-3.45	
3,783.0	15.60	298.40	3,676.4	386.0	-730.5	826.2	1.34	-0.68	4.20	
3,870.0	14.90	300.70	3,760.3	397.2	-750.4	849.0	1.06	-0.80	2.64	
3,957.0	14.30	299.30	3,844.5	408.2	-769.4	870.9	0.80	-0.69	-1.61	
4,045.0	13.60	301.00	3,929.9	418.9	-787.7	892.1	0.92	-0.80	1.93	
4,132.0	12.50	305.30	4,014.6	429.6	-804.2	911.7	1.69	-1.26	4.94	
4,219.0	10.70	308.40	4,099.9	440.0	-818.2	928.9	2.19	-2.07	3.56	
4,306.0	8.90	299.10	4,185.6	448.3	-830.4	943.6	2.75	-2.07	-10.69	
4,394.0	8.20	293.00	4,272.6	454.1	-842.1	956.7	1.30	-0.80	-6.93	
4,481.0	7.70	294.00	4,358.8	458.9	-853.2	968.7	0.60	-0.57	1.15	
4,568.0	7.30	303.90	4,445.0	464.3	-863.1	980.0	1.55	-0.46	11.38	
4,656.0	4.80	297.90	4,532.5	469.2	-871.0	989.2	2.93	-2.84	-6.82	
4,743.0	4.20	295.30	4,619.3	472.2	-877.1	996.0	0.73	-0.69	-2.99	
4,830.0	2.10	296.70	4,706.1	474.3	-881.4	1,000.8	2.42	-2.41	1.61	
4,918.0	1.10	282.20	4,794.1	475.2	-883.6	1,003.2	1.22	-1.14	-16.48	
5,092.0	1.10	197.30	4,968.1	474.0	-885.8	1,004.6	0.85	0.00	-48.79	
5,267.0	1.10	218.80	5,143.1	471.1	-887.3	1,004.6	0.23	0.00	12.29	
5,441.0	1.20	240.20	5,317.0	468.9	-889.9	1,005.9	0.25	0.06	12.30	
5,616.0	1.30	255.20	5,492.0	467.4	-893.5	1,008.3	0.19	0.06	8.57	
5,625.5	1.33	255.72	5,501.5	467.4	-893.7	1,008.5	0.30	0.28	5.41	
PERMIT TARGET BHL 1001'FSL, 1004'FWL										
5,791.0	1.80	262.20	5,666.9	466.6	-898.1	1,012.1	0.30	0.29	3.92	
5,824.2	1.91	263.30	5,700.1	466.4	-899.2	1,012.9	0.36	0.34	3.31	

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Well:	Rasmussen 0-6-19	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)
DRILL TARGET BHL 1500'FSL, 100'FWL									
5,965.0	2.40	266.80	5,840.8	466.0	-904.4	1,017.4	0.36	0.35	2.49
6,140.0	1.80	260.60	6,015.7	465.3	-910.8	1,022.8	0.37	-0.34	-3.54
6,314.0	1.70	264.20	6,189.6	464.6	-916.1	1,027.1	0.09	-0.06	2.07
6,489.0	0.80	304.90	6,364.6	465.1	-919.7	1,030.5	0.69	-0.51	23.26
6,664.0	0.50	315.50	6,539.5	466.3	-921.2	1,032.4	0.18	-0.17	6.06
6,838.0	0.60	285.20	6,713.5	467.1	-922.6	1,034.0	0.17	0.06	-17.41
7,013.0	0.60	245.30	6,888.5	466.9	-924.3	1,035.5	0.23	0.00	-22.80
7,187.0	0.60	245.80	7,062.5	466.2	-926.0	1,036.6	0.00	0.00	0.29
7,362.0	0.80	314.80	7,237.5	466.7	-927.7	1,038.3	0.46	0.11	39.43
7,378.1	0.92	343.77	7,253.6	466.9	-927.8	1,038.5	2.76	0.74	179.51
TARGET CIRCLE 1500'FSL & 100'FWL									
7,537.0	4.90	34.90	7,412.3	473.7	-924.3	1,038.6	2.76	2.51	32.19
7,711.0	9.80	32.30	7,584.8	492.3	-912.1	1,036.4	2.82	2.82	-1.49
7,886.0	7.20	34.40	7,757.9	513.9	-897.9	1,033.8	1.50	-1.49	1.20
8,060.0	5.00	29.50	7,930.9	529.5	-888.1	1,032.3	1.30	-1.26	-2.82
8,195.0	4.80	27.40	8,065.4	539.7	-882.6	1,032.1	0.20	-0.15	-1.56
8,227.3	4.80	27.40	8,097.6	542.1	-881.3	1,032.1	0.00	0.00	0.00
HARD LINES 100'W OF DRILL TARGET BHL									
8,245.0	4.80	27.40	8,115.2	543.4	-880.6	1,032.1	0.00	0.00	0.00

Checked By: _____	Approved By: _____	Date: _____
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