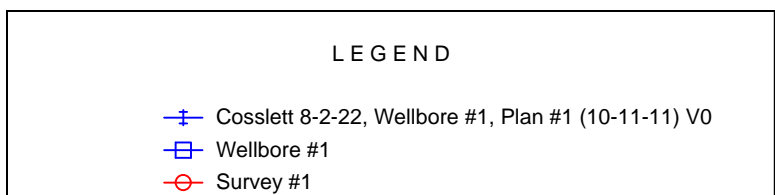
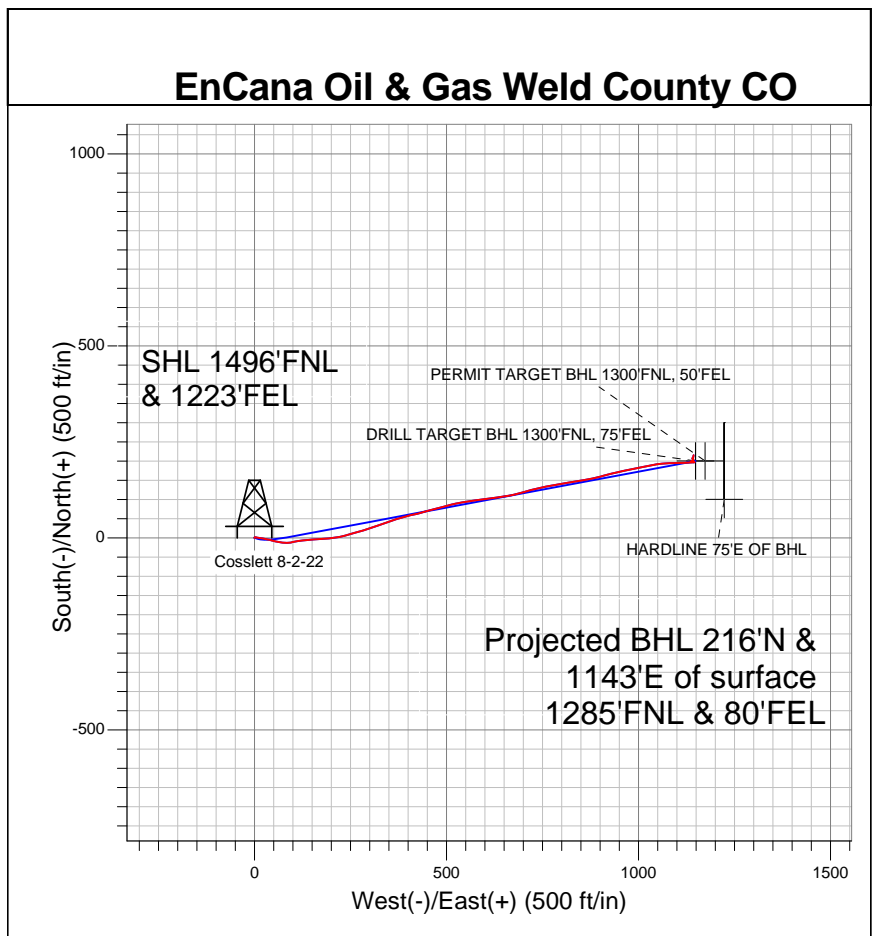
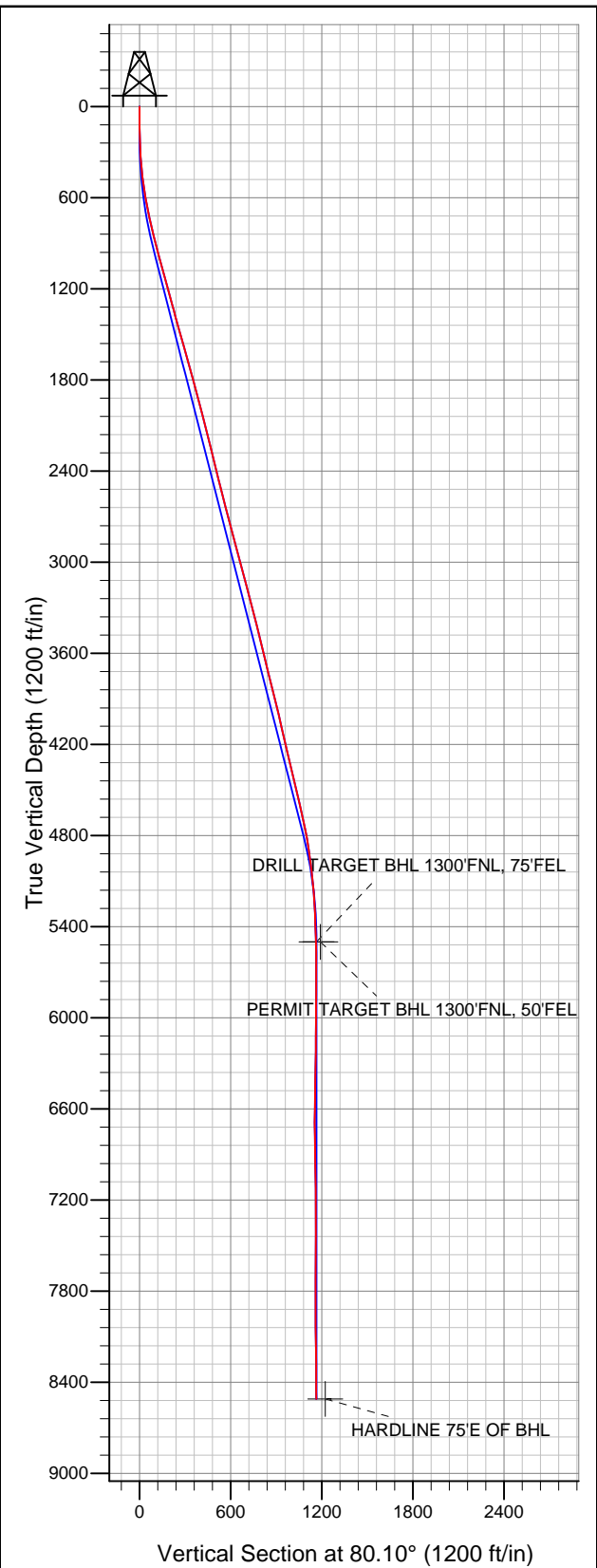




Well Name: Cosslett 8-2-22

Surface Location: Cosslett 4-0-22 Pad Sec.22-T1N-R68W
North American Datum 1983 US State Plane 1983Colorado Northern Zone
Ground Elevation: 5185.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1257775.55	3144356.42	40.039830	-104.984420	
Original Well EleWELL @ 5198.0ft (Original Well Elev)						



Final Survey Plot

Projected Final Survey -
8650'MD & 8510'TVD @ 1163'VS
1.1 deg Inc 11.9 deg AZ

Project: SEC.22-T1N-R68W
Site: Cosslett 4-0-22 Pad Sec.22-T1N-R68W
Well: Cosslett 8-2-22
Plan: Wellbore #1



EnCana Oil & Gas Weld County CO

SEC.22-T1N-R68W

Cosslett 4-0-22 Pad Sec.22-T1N-R68W

Cosslett 8-2-22

Wellbore #1

Survey: Survey #1

Standard Survey Report

24 October, 2011

Company:	EnCana Oil & Gas Weld County CO	Local Co-ordinate Reference:	Well Cosslett 8-2-22
Project:	SEC.22-T1N-R68W	TVD Reference:	WELL @ 5198.0ft (Original Well Elev)
Site:	Cosslett 4-0-22 Pad Sec.22-T1N-R68W	MD Reference:	WELL @ 5198.0ft (Original Well Elev)
Well:	Cosslett 8-2-22	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Project	SEC.22-T1N-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	Cosslett 4-0-22 Pad Sec.22-T1N-R68W		
Site Position:		Northing:	1,257,775.21 ft
From:	Lat/Long	Easting:	3,144,297.62 ft
Position Uncertainty:	0.0 ft	Slot Radius:	"
		Latitude:	40.039830
		Longitude:	-104.984630
		Grid Convergence:	0.33 °

Well	Cosslett 8-2-22		
Well Position	+N/-S	0.0 ft	Northing: 1,257,775.55 ft
	+E/-W	0.0 ft	Easting: 3,144,356.42 ft
Position Uncertainty	0.0 ft	Wellhead Elevation:	ft
		Latitude:	40.039830
		Longitude:	-104.984420
		Ground Level:	5,185.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	10/11/2011	8.91	66.71	52,881

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 (°)	
	5,500.0	0.0	0.0	80.10	

Survey Program	Date	10/24/2011			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
139.0	8,650.0	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)	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	
139.0	0.90	8.40	139.0	1.1	0.2	0.3	0.65	0.65	0.00	
230.0	1.70	88.40	230.0	1.8	1.6	1.9	1.96	0.88	87.91	
321.0	3.70	103.60	320.9	1.2	5.8	5.9	2.32	2.20	16.70	
413.0	6.40	100.00	412.5	-0.4	13.8	13.5	2.95	2.93	-3.91	
504.0	8.40	96.80	502.7	-2.1	25.3	24.6	2.24	2.20	-3.52	
595.0	9.80	106.10	592.6	-5.0	39.4	37.9	2.23	1.54	10.22	
686.0	11.80	102.60	682.0	-9.2	55.9	53.5	2.31	2.20	-3.85	
779.0	13.70	95.70	772.7	-12.4	76.2	72.9	2.61	2.04	-7.42	
872.0	15.00	77.80	862.8	-10.9	98.9	95.5	4.95	1.40	-19.25	
1,026.0	14.90	86.10	1,011.6	-5.4	138.1	135.1	1.39	-0.06	5.39	
1,120.0	15.70	85.90	1,102.3	-3.6	162.9	159.8	0.85	0.85	-0.21	
1,213.0	15.70	85.70	1,191.8	-1.8	188.0	184.9	0.06	0.00	-0.22	

Company:	EnCana Oil & Gas Weld County CO	Local Co-ordinate Reference:	Well Cosslett 8-2-22
Project:	SEC.22-T1N-R68W	TVD Reference:	WELL @ 5198.0ft (Original Well Elev)
Site:	Cosslett 4-0-22 Pad Sec.22-T1N-R68W	MD Reference:	WELL @ 5198.0ft (Original Well Elev)
Well:	Cosslett 8-2-22	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)
1,307.0	14.30	81.00	1,282.6	1.0	212.1	209.1	1.97	-1.49	-5.00
1,400.0	15.60	73.80	1,372.5	6.3	235.5	233.0	2.44	1.40	-7.74
1,494.0	15.30	74.60	1,463.1	13.1	259.6	258.0	0.39	-0.32	0.85
1,587.0	16.10	74.30	1,552.6	19.8	283.8	283.0	0.86	0.86	-0.32
1,681.0	16.40	70.40	1,642.9	27.8	308.9	309.0	1.20	0.32	-4.15
1,774.0	15.60	70.10	1,732.3	36.5	333.0	334.3	0.86	-0.86	-0.32
1,868.0	15.40	70.10	1,822.9	45.0	356.6	359.0	0.21	-0.21	0.00
1,961.0	14.20	76.20	1,912.8	52.0	379.3	382.6	2.11	-1.29	6.56
2,055.0	14.20	76.40	2,003.9	57.4	401.7	405.6	0.05	0.00	0.21
2,149.0	14.90	75.30	2,094.9	63.2	424.6	429.1	0.80	0.74	-1.17
2,242.0	15.00	73.80	2,184.7	69.6	447.7	453.0	0.43	0.11	-1.61
2,335.0	13.80	76.40	2,274.8	75.6	470.1	476.1	1.47	-1.29	2.80
2,429.0	13.50	75.50	2,366.2	80.9	491.6	498.2	0.39	-0.32	-0.96
2,522.0	13.50	74.30	2,456.6	86.6	512.5	519.8	0.30	0.00	-1.29
2,616.0	14.70	80.80	2,547.8	91.5	534.9	542.6	2.11	1.28	6.91
2,709.0	14.30	82.40	2,637.8	94.9	557.9	565.9	0.61	-0.43	1.72
2,803.0	14.90	79.40	2,728.8	98.6	581.3	589.6	1.03	0.64	-3.19
2,896.0	14.90	83.40	2,818.6	102.2	604.9	613.5	1.11	0.00	4.30
2,990.0	15.00	83.60	2,909.5	105.0	629.0	637.7	0.12	0.11	0.21
3,083.0	15.40	80.60	2,999.2	108.3	653.2	662.1	0.95	0.43	-3.23
3,176.0	14.90	75.90	3,089.0	113.2	676.9	686.3	1.43	-0.54	-5.05
3,271.0	14.90	75.50	3,180.8	119.3	700.6	710.7	0.11	0.00	-0.42
3,366.0	14.20	74.80	3,272.7	125.4	723.7	734.5	0.76	-0.74	-0.74
3,459.0	14.20	75.70	3,362.9	131.2	745.7	757.2	0.24	0.00	0.97
3,552.0	13.70	80.40	3,453.2	135.8	767.7	779.6	1.33	-0.54	5.05
3,646.0	14.30	81.80	3,544.4	139.4	790.1	802.3	0.73	0.64	1.49
3,739.0	13.60	79.20	3,634.6	143.0	812.2	824.7	1.01	-0.75	-2.80
3,833.0	14.20	81.00	3,725.9	146.9	834.5	847.3	0.79	0.64	1.91
3,927.0	13.80	79.90	3,817.1	150.7	856.9	870.1	0.51	-0.43	-1.17
4,022.0	13.80	79.60	3,909.3	154.7	879.2	892.7	0.08	0.00	-0.32
4,117.0	13.20	73.60	4,001.7	159.8	900.8	914.8	1.60	-0.63	-6.32
4,210.0	13.30	78.00	4,092.2	165.1	921.4	936.1	1.09	0.11	4.73
4,304.0	13.60	75.90	4,183.7	170.0	942.7	957.9	0.61	0.32	-2.23
4,397.0	12.30	75.30	4,274.3	175.2	962.9	978.7	1.41	-1.40	-0.65
4,491.0	13.60	81.00	4,365.9	179.4	983.5	999.7	1.94	1.38	6.06
4,584.0	13.30	79.20	4,456.4	183.2	1,004.8	1,021.3	0.55	-0.32	-1.94
4,678.0	13.30	77.60	4,547.8	187.5	1,026.0	1,042.9	0.39	0.00	-1.70
4,771.0	13.30	80.10	4,638.3	191.6	1,047.0	1,064.3	0.62	0.00	2.69
4,864.0	12.00	87.50	4,729.1	193.9	1,067.2	1,084.6	2.23	-1.40	7.96
4,958.0	9.80	87.50	4,821.4	194.7	1,084.9	1,102.2	2.34	-2.34	0.00
5,052.0	8.30	87.80	4,914.2	195.3	1,099.7	1,116.9	1.60	-1.60	0.32
5,146.0	7.20	88.20	5,007.4	195.7	1,112.4	1,129.4	1.17	-1.17	0.43
5,239.0	6.00	88.70	5,099.7	196.0	1,123.0	1,140.0	1.29	-1.29	0.54
5,332.0	4.00	88.20	5,192.4	196.2	1,131.1	1,148.0	2.15	-2.15	-0.54
5,426.0	2.60	87.50	5,286.2	196.4	1,136.6	1,153.4	1.49	-1.49	-0.74
5,520.0	2.00	89.60	5,380.1	196.5	1,140.3	1,157.1	0.64	-0.64	2.23
5,613.0	1.70	84.50	5,473.1	196.7	1,143.3	1,160.1	0.37	-0.32	-5.48
5,640.0	1.41	82.95	5,500.1	196.8	1,144.0	1,160.8	1.09	-1.08	-5.73
DRILL TARGET BHL 1300'FNL, 75'FEL									
5,640.5	1.40	82.92	5,500.5	196.8	1,144.1	1,160.9	1.09	-1.07	-6.93
PERMIT TARGET BHL 1300'FNL, 50'FEL									
5,707.0	0.70	73.60	5,567.1	197.0	1,145.3	1,162.1	1.09	-1.06	-14.01
5,800.0	0.10	355.90	5,660.1	197.2	1,145.8	1,162.6	0.74	-0.65	-83.55
5,894.0	0.30	329.30	5,754.1	197.5	1,145.7	1,162.6	0.23	0.21	-28.30

Company:	EnCana Oil & Gas Weld County CO	Local Co-ordinate Reference:	Well Cosslett 8-2-22
Project:	SEC.22-T1N-R68W	TVD Reference:	WELL @ 5198.0ft (Original Well Elev)
Site:	Cosslett 4-0-22 Pad Sec.22-T1N-R68W	MD Reference:	WELL @ 5198.0ft (Original Well Elev)
Well:	Cosslett 8-2-22	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)
5,987.0	0.20	290.10	5,847.1	197.8	1,145.4	1,162.3	0.21	-0.11	-42.15
6,081.0	0.40	295.10	5,941.1	198.0	1,144.9	1,161.9	0.21	0.21	5.32
6,174.0	0.50	292.80	6,034.1	198.3	1,144.3	1,161.3	0.11	0.11	-2.47
6,268.0	0.40	270.80	6,128.1	198.4	1,143.6	1,160.7	0.21	-0.11	-23.40
6,361.0	0.70	273.50	6,221.1	198.5	1,142.7	1,159.8	0.32	0.32	2.90
6,455.0	1.00	284.00	6,315.0	198.7	1,141.3	1,158.5	0.36	0.32	11.17
6,549.0	1.00	274.20	6,409.0	199.0	1,139.7	1,156.9	0.18	0.00	-10.43
6,642.0	1.10	248.30	6,502.0	198.7	1,138.0	1,155.3	0.52	0.11	-27.85
6,736.0	0.70	260.80	6,596.0	198.3	1,136.6	1,153.8	0.47	-0.43	13.30
6,830.0	0.40	356.80	6,690.0	198.5	1,136.1	1,153.3	0.90	-0.32	102.13
6,924.0	0.70	57.30	6,784.0	199.1	1,136.5	1,153.8	0.65	0.32	64.36
7,017.0	0.80	65.50	6,877.0	199.7	1,137.6	1,155.0	0.16	0.11	8.82
7,111.0	0.80	51.10	6,971.0	200.4	1,138.7	1,156.2	0.21	0.00	-15.32
7,204.0	1.10	64.30	7,064.0	201.2	1,140.0	1,157.6	0.40	0.32	14.19
7,298.0	1.10	60.10	7,157.9	202.0	1,141.6	1,159.3	0.09	0.00	-4.47
7,391.0	1.10	20.70	7,250.9	203.3	1,142.7	1,160.6	0.80	0.00	-42.37
7,484.0	0.40	342.20	7,343.9	204.5	1,142.9	1,161.0	0.89	-0.75	-41.40
7,578.0	0.40	315.50	7,437.9	205.0	1,142.6	1,160.8	0.20	0.00	-28.40
7,672.0	0.70	301.00	7,531.9	205.5	1,141.9	1,160.2	0.35	0.32	-15.43
7,766.0	0.50	292.10	7,625.9	206.0	1,141.0	1,159.4	0.23	-0.21	-9.47
7,859.0	0.40	289.30	7,718.9	206.2	1,140.3	1,158.8	0.11	-0.11	-3.01
7,952.0	0.40	356.80	7,811.9	206.7	1,140.0	1,158.5	0.48	0.00	72.58
8,046.0	0.70	26.70	7,905.9	207.5	1,140.2	1,158.9	0.43	0.32	31.81
8,139.0	0.40	48.30	7,998.9	208.2	1,140.7	1,159.5	0.39	-0.32	23.23
8,233.0	1.00	44.60	8,092.9	209.0	1,141.5	1,160.5	0.64	0.64	-3.94
8,327.0	0.90	17.50	8,186.9	210.3	1,142.3	1,161.5	0.48	-0.11	-28.83
8,420.0	0.80	8.50	8,279.9	211.7	1,142.7	1,162.0	0.18	-0.11	-9.68
8,514.0	1.10	7.80	8,373.9	213.2	1,142.9	1,162.5	0.32	0.32	-0.74
8,604.0	1.10	11.90	8,463.8	214.9	1,143.2	1,163.1	0.09	0.00	4.56
8,648.3	1.10	11.90	8,508.1	215.7	1,143.3	1,163.4	0.00	0.00	0.00
HARDLINE 75'E OF BHL									
8,650.0	1.10	11.90	8,509.8	215.8	1,143.3	1,163.4	0.00	0.00	0.00

Checked By: _____ Approved By: _____ Date: _____