

Well Name: **Cosslett 32-22**

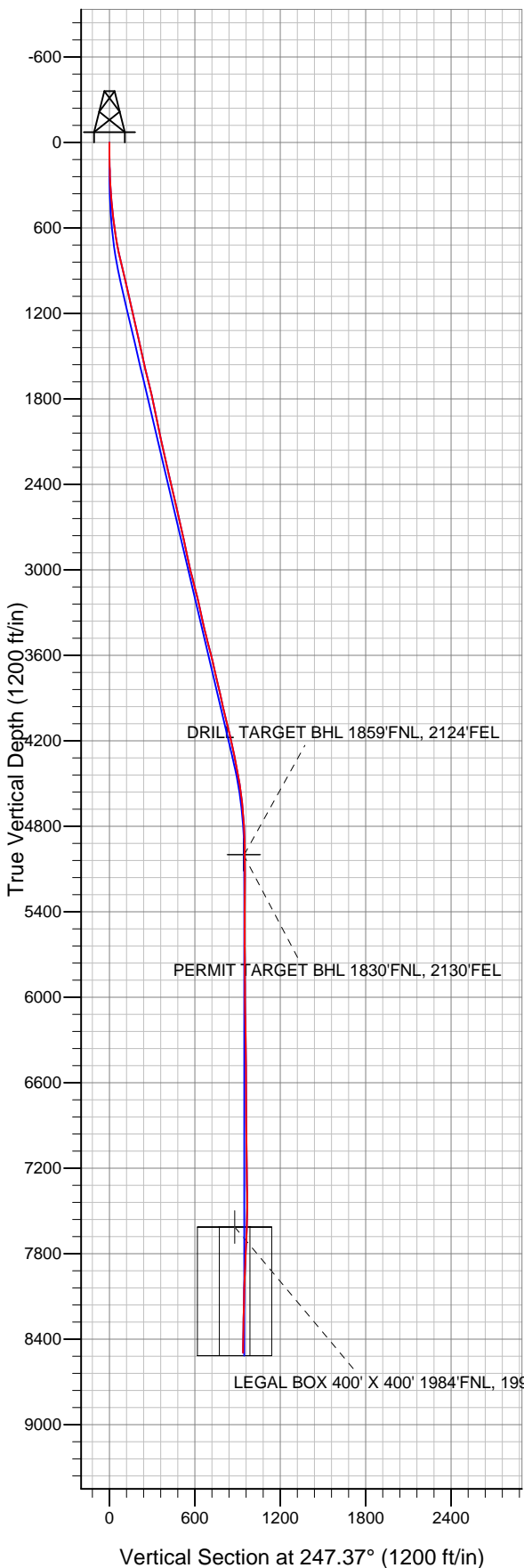
Surface Location: Cosslett 4-0-22 Pad Sec.22-T1N-R68W  
North American Datum 1983 US State Plane 1983 Colorado Northern Zone

Ground Elevation: 5185.0

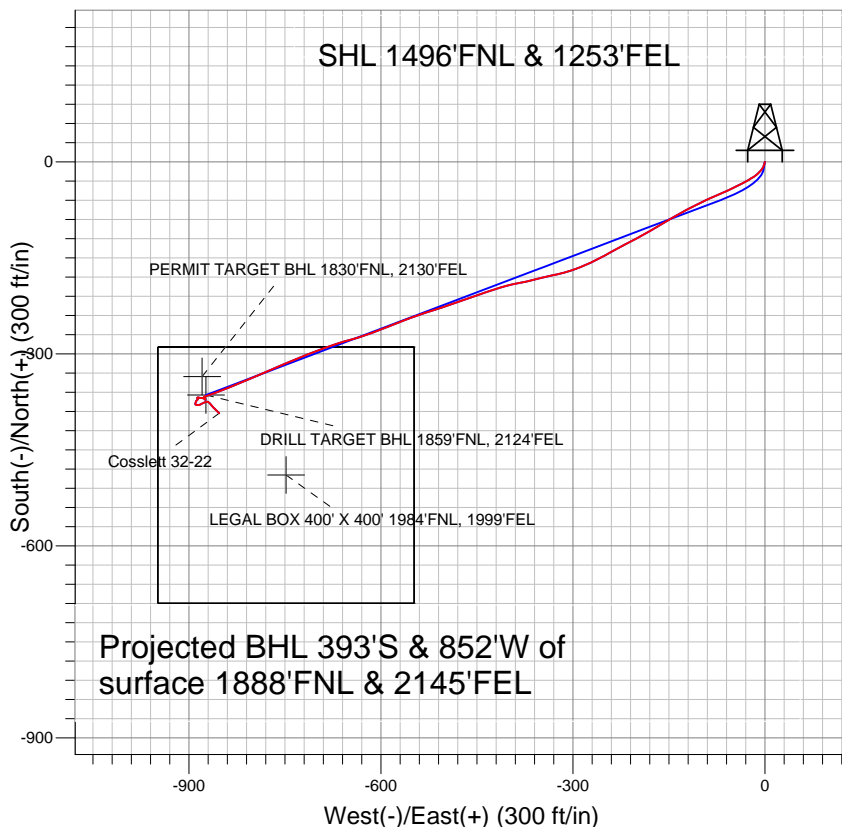
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	1257775.38	3144328.42	40.039830	-104.984520

Original Well Elev WELL @ 5198.0ft (Original Well Elev)

Slot



## EnCana Oil & Gas Weld County CO



### LEGEND

- Cosslett 32-22, Wellbore #1, Plan #1 (11-23-11) R V0
- Wellbore #1
- Survey #1

## Final Survey Plot

Projected Final Survey -  
8600'MD & 8496'TVD @ 938'VS  
2.5 deg Inc 133.0 deg AZ

Project: SEC.22-T1N-R68W  
Site: Cosslett 4-0-22 Pad Sec.22-T1N-R68W  
Well: Cosslett 32-22  
Plan: Wellbore #1



## **Directional**

### **EnCana Oil & Gas Weld County CO**

**SEC.22-T1N-R68W**

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

**Cosslett 32-22**

**Wellbore #1**

**Survey: Survey #1**

### **Standard Survey Report**

**28 November, 2011**



<b>Company:</b>	EnCana Oil & Gas Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Cosslett 32-22
<b>Project:</b>	SEC.22-T1N-R68W	<b>TVD Reference:</b>	WELL @ 5198.0ft (Original Well Elev)
<b>Site:</b>	Cosslett 4-0-22 Pad Sec.22-T1N-R68W	<b>MD Reference:</b>	WELL @ 5198.0ft (Original Well Elev)
<b>Well:</b>	Cosslett 32-22	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	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)
1,245.0	12.50	239.50	1,228.2	-89.4	-148.2	171.2	1.22	-1.17	-1.49
1,338.0	11.70	239.30	1,319.1	-99.3	-165.0	190.5	0.86	-0.86	-0.22
1,431.0	12.40	239.50	1,410.1	-109.2	-181.7	209.7	0.75	0.75	0.22
1,525.0	13.20	242.50	1,501.7	-119.3	-199.9	230.4	1.11	0.85	3.19
1,619.0	13.70	242.20	1,593.1	-129.4	-219.3	252.2	0.54	0.53	-0.32
1,712.0	13.70	240.80	1,683.5	-139.9	-238.7	274.1	0.36	0.00	-1.51
1,806.0	13.00	243.70	1,775.0	-150.0	-257.9	295.7	1.03	-0.74	3.09
1,899.0	12.20	243.40	1,865.7	-159.1	-276.0	316.0	0.86	-0.86	-0.32
1,993.0	11.30	251.80	1,957.8	-166.4	-293.6	335.1	2.05	-0.96	8.94
2,086.0	11.90	253.40	2,048.9	-172.0	-311.5	353.7	0.73	0.65	1.72
2,180.0	12.80	257.60	2,140.7	-177.0	-330.9	373.6	1.35	0.96	4.47
2,273.0	13.20	256.20	2,231.3	-181.7	-351.3	394.2	0.55	0.43	-1.51
2,367.0	13.30	257.60	2,322.8	-186.6	-372.3	415.4	0.36	0.11	1.49
2,460.0	12.80	258.50	2,413.4	-191.0	-392.8	436.1	0.58	-0.54	0.97
2,554.0	13.50	252.50	2,504.9	-196.3	-413.5	457.2	1.63	0.74	-6.38
2,647.0	13.00	251.80	2,595.5	-202.9	-433.8	478.5	0.56	-0.54	-0.75
2,741.0	12.80	250.20	2,687.1	-209.7	-453.6	499.4	0.44	-0.21	-1.70
2,834.0	12.10	251.10	2,777.9	-216.3	-472.6	519.4	0.78	-0.75	0.97
2,927.0	11.70	250.80	2,868.9	-222.6	-490.7	538.6	0.44	-0.43	-0.32
3,021.0	12.80	252.50	2,960.8	-228.9	-509.6	558.5	1.23	1.17	1.81
3,114.0	14.50	251.50	3,051.1	-235.7	-530.5	580.3	1.85	1.83	-1.08
3,208.0	14.30	250.20	3,142.2	-243.3	-552.6	603.7	0.40	-0.21	-1.38
3,303.0	13.10	248.30	3,234.5	-251.3	-573.6	626.1	1.35	-1.26	-2.00
3,397.0	12.20	248.10	3,326.2	-258.9	-592.7	646.7	0.96	-0.96	-0.21
3,490.0	13.40	249.40	3,416.9	-266.4	-611.9	667.3	1.33	1.29	1.40
3,584.0	14.90	253.20	3,508.0	-273.7	-633.7	690.2	1.88	1.60	4.04
3,677.0	13.90	254.60	3,598.1	-280.1	-655.9	713.2	1.14	-1.08	1.51
3,771.0	12.40	249.20	3,689.6	-286.7	-676.2	734.5	2.06	-1.60	-5.74
3,864.0	13.40	251.10	3,780.3	-293.8	-695.8	755.2	1.17	1.08	2.04
3,959.0	12.90	247.80	3,872.8	-301.3	-716.0	776.8	0.95	-0.53	-3.47
4,054.0	12.90	248.80	3,965.4	-309.2	-735.7	798.0	0.23	0.00	1.05
4,148.0	13.60	245.50	4,056.9	-317.5	-755.5	819.6	1.10	0.74	-3.51
4,242.0	14.20	245.70	4,148.1	-326.9	-776.1	842.1	0.64	0.64	0.21
4,335.0	11.60	248.00	4,238.8	-335.1	-795.2	862.9	2.85	-2.80	2.47
4,429.0	11.40	247.50	4,330.9	-342.2	-812.5	881.6	0.24	-0.21	-0.53
4,522.0	10.60	248.70	4,422.2	-348.8	-829.0	899.4	0.89	-0.86	1.29
4,616.0	9.00	248.30	4,514.8	-354.6	-843.9	915.4	1.70	-1.70	-0.43
4,709.0	6.50	248.00	4,607.0	-359.3	-855.5	927.9	2.69	-2.69	-0.32
4,802.0	4.80	247.60	4,699.5	-362.8	-864.0	937.1	1.83	-1.83	-0.43
4,896.0	3.70	252.50	4,793.2	-365.2	-870.5	944.0	1.23	-1.17	5.21
4,989.0	1.80	257.30	4,886.1	-366.4	-874.8	948.4	2.06	-2.04	5.16
5,083.0	0.10	269.90	4,980.1	-366.7	-876.3	950.0	1.81	-1.81	13.40
5,102.9	0.06	237.57	5,000.0	-366.7	-876.4	950.0	0.29	-0.18	-162.68
<b>DRILL TARGET BHL 1859'FNL, 2124'FEL - PERMIT TARGET BHL 1830'FNL, 2130'FEL</b>									
5,177.0	0.20	143.40	5,074.1	-366.9	-876.3	950.0	0.29	0.18	-127.04
5,270.0	0.50	162.90	5,167.1	-367.4	-876.1	950.0	0.34	0.32	20.97
5,364.0	0.80	146.70	5,261.1	-368.3	-875.6	949.9	0.37	0.32	-17.23
5,457.0	1.00	142.50	5,354.1	-369.5	-874.8	949.6	0.23	0.22	-4.52
5,551.0	0.70	174.30	5,448.1	-370.7	-874.2	949.6	0.58	-0.32	33.83
5,644.0	0.30	223.50	5,541.1	-371.5	-874.3	949.9	0.59	-0.43	52.90
5,738.0	0.40	319.70	5,635.1	-371.4	-874.7	950.3	0.56	0.11	102.34
5,831.0	0.40	328.10	5,728.1	-370.9	-875.1	950.4	0.06	0.00	9.03
5,925.0	0.50	317.40	5,822.1	-370.3	-875.5	950.6	0.14	0.11	-11.38
6,018.0	0.60	293.50	5,915.1	-369.8	-876.3	951.1	0.27	0.11	-25.70

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<b>Well:</b>	Cosslett 32-22	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	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)
6,112.0	0.90	293.30	6,009.1	-369.3	-877.4	951.9	0.32	0.32	-0.21
6,206.0	0.70	277.80	6,103.1	-368.9	-878.6	953.0	0.31	-0.21	-16.49
6,299.0	1.20	271.10	6,196.0	-368.8	-880.2	954.3	0.55	0.54	-7.20
6,393.0	1.10	278.10	6,290.0	-368.7	-882.1	956.0	0.18	-0.11	7.45
6,486.0	1.20	281.20	6,383.0	-368.4	-883.9	957.6	0.13	0.11	3.33
6,580.0	1.00	277.80	6,477.0	-368.1	-885.7	959.1	0.22	-0.21	-3.62
6,674.0	0.50	239.20	6,571.0	-368.2	-886.8	960.2	0.73	-0.53	-41.06
6,768.0	0.90	146.20	6,665.0	-369.0	-886.8	960.5	1.12	0.43	-98.94
6,861.0	0.40	132.00	6,758.0	-369.8	-886.1	960.2	0.56	-0.54	-15.27
6,955.0	0.40	180.50	6,852.0	-370.4	-885.9	960.2	0.35	0.00	51.60
7,049.0	0.50	217.90	6,946.0	-371.0	-886.1	960.7	0.32	0.11	39.79
7,142.0	0.80	218.60	7,039.0	-371.9	-886.8	961.6	0.32	0.32	0.75
7,235.0	1.00	233.40	7,132.0	-372.8	-887.9	963.0	0.33	0.22	15.91
7,329.0	0.90	206.00	7,225.9	-374.0	-888.8	964.3	0.49	-0.11	-29.15
7,422.0	1.40	201.50	7,318.9	-375.7	-889.6	965.6	0.55	0.54	-4.84
7,516.0	1.30	181.30	7,412.9	-377.8	-890.0	966.9	0.51	-0.11	-21.49
7,609.0	1.50	114.40	7,505.9	-379.4	-888.9	966.5	1.67	0.22	-71.94
7,703.0	1.40	91.50	7,599.8	-379.9	-886.7	964.6	0.62	-0.11	-24.36
7,719.6	1.48	87.69	7,616.4	-379.9	-886.2	964.2	0.74	0.46	-22.94
<b>LEGAL BOX 400' X 400' 1984'FNL, 1999'FEL</b>									
7,797.0	1.90	74.50	7,693.8	-379.6	-884.0	962.0	0.74	0.55	-17.04
7,890.0	2.90	65.70	7,786.7	-378.2	-880.4	958.1	1.14	1.08	-9.46
7,984.0	3.50	60.10	7,880.6	-375.8	-875.7	952.9	0.72	0.64	-5.96
8,077.0	2.50	99.60	7,973.5	-374.7	-871.3	948.4	2.40	-1.08	42.47
8,164.0	3.10	138.10	8,060.4	-376.8	-867.8	946.0	2.22	0.69	44.25
8,257.0	3.40	135.80	8,153.2	-380.6	-864.2	944.1	0.35	0.32	-2.47
8,358.0	3.00	139.00	8,254.1	-384.7	-860.4	942.2	0.43	-0.40	3.17
8,444.0	2.70	134.40	8,339.9	-387.9	-857.5	940.7	0.44	-0.35	-5.35
8,554.0	2.50	133.00	8,449.8	-391.3	-853.9	938.7	0.19	-0.18	-1.27
8,600.0	2.50	133.00	8,495.8	-392.7	-852.4	937.9	0.00	0.00	0.00

Checked By: _____	Approved By: _____	Date: _____
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