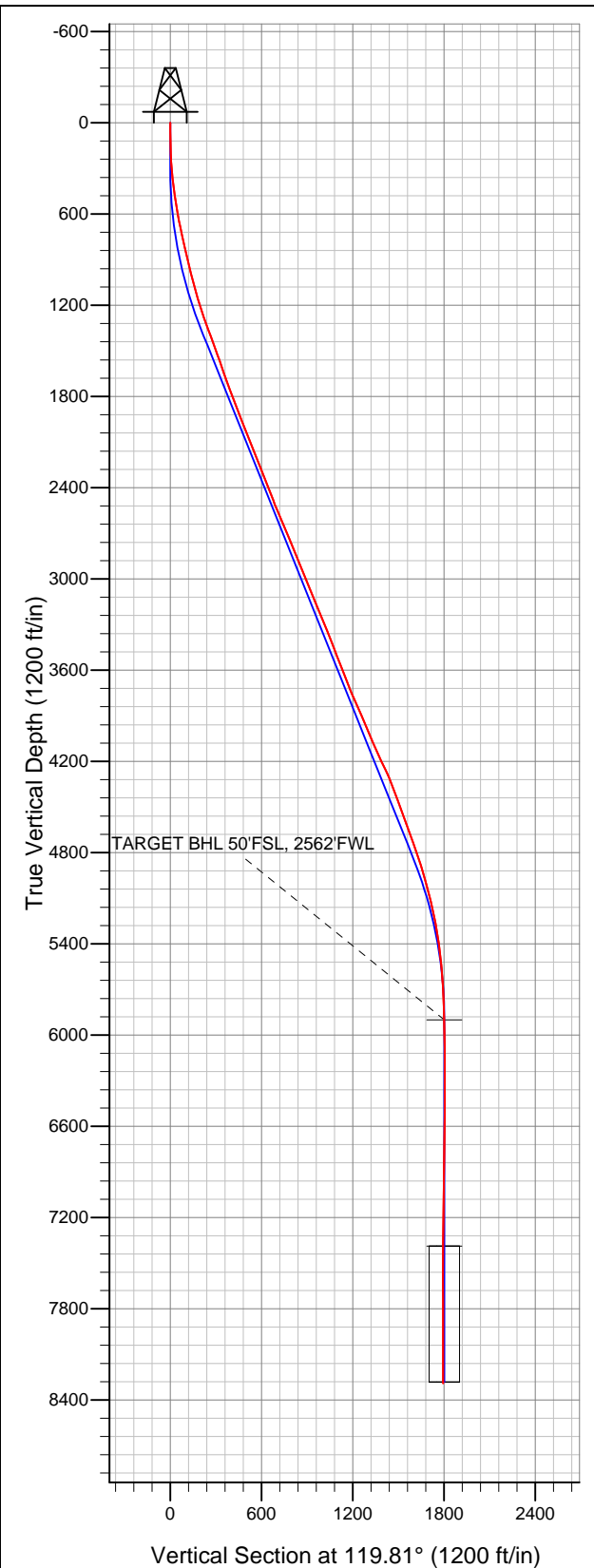


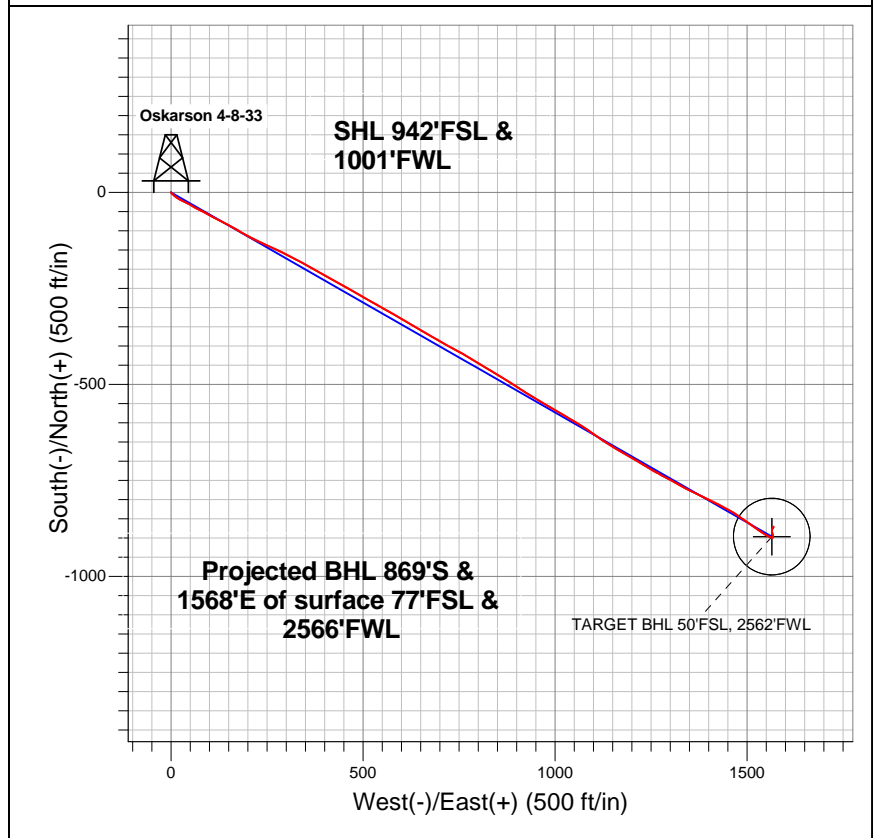
**Well Name: Oskarson 4-8-33**

Surface Location: Oskarson 2-8-33 Pad Sec.33-T2N-R68W  
North American Datum 1983 US State Plane 1983Colorado Northern Zone  
Ground Elevation: 4986.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1276095.13	3135940.21	40.090250	-105.014120	
Original Well Elev			WELL @ 4999.0ft (Original Well Elev)			



**EnCana Oil & Gas Weld County CO**



**LEGEND**

- Wellbore #1
- Oskarson 4-8-33, Wellbore #1, Plan #1 (7-23-12) R V0
- Survey #1

**Final Survey Plot**

Projected Final Survey -  
8605'MD & 8290'TVD @ 1793'VS  
0.50 deg Inc 23.60 deg AZ

Project: SEC.33-T2N-R68W  
Site: Oskarson 2-8-33 Pad Sec.33-T2N-R68W  
Well: Oskarson 4-8-33  
Plan: Wellbore #1



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

**SEC.33-T2N-R68W**

**Oskarson 2-8-33 Pad Sec.33-T2N-R68W**

**Oskarson 4-8-33**

**Wellbore #1**

**Survey: Survey #1**

## **Standard Survey Report**

**02 August, 2012**

<b>Company:</b>	EnCana Oil & Gas Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Oskarson 4-8-33
<b>Project:</b>	SEC.33-T2N-R68W	<b>TVD Reference:</b>	WELL @ 4999.0ft (Original Well Elev)
<b>Site:</b>	Oskarson 2-8-33 Pad Sec.33-T2N-R68W	<b>MD Reference:</b>	WELL @ 4999.0ft (Original Well Elev)
<b>Well:</b>	Oskarson 4-8-33	<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

<b>Project</b>	SEC.33-T2N-R68W, Weld County, Colorado		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		Using Well Reference Point
<b>Map Zone:</b>	Colorado Northern Zone		Using geodetic scale factor

Site		Oskarson 2-8-33 Pad Sec.33-T2N-R68W			
Site Position:		Northing:	1,276,095.08ft	Latitude:	40.090250
From:	Lat/Long	Easting:	3,135,929.02ft	Longitude:	-105.014160
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.31 °

Well	Oskarson 4-8-33					
Well Position	+N/-S	0.0 ft	Northing:	1,276,095.13 ft	Latitude:	40.090250
	+E/-W	0.0 ft	Easting:	3,135,940.21 ft	Longitude:	-105.014120
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,986.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	7/23/2012	8.82	66.72	52,824

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	119.81	

Survey Program		Date	8/2/2012		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
108.0	8,605.0	Survey #1 (Wellbore #1)	MWD	MWD - Standard	

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 Survey	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
	108.0	1.10	142.10	108.0	-0.8	0.6	1.0	1.02	1.02	0.00
	200.0	2.50	141.20	199.9	-3.1	2.4	3.6	1.52	1.52	-0.98
	291.0	4.50	132.00	290.8	-7.0	6.3	9.0	2.28	2.20	-10.11
	381.0	6.50	127.30	380.4	-12.5	13.0	17.5	2.28	2.22	-5.22
	470.0	7.70	116.70	468.7	-18.2	22.3	28.4	1.99	1.35	-11.91
	561.0	9.80	116.90	558.6	-24.4	34.7	42.3	2.31	2.31	0.22
	650.0	11.00	119.20	646.1	-32.0	48.9	58.3	1.43	1.35	2.58
	741.0	12.20	118.00	735.3	-40.8	64.9	76.6	1.35	1.32	-1.32
	836.0	13.50	117.10	827.9	-50.5	83.7	97.7	1.38	1.37	-0.95
	890.0	14.00	119.00	880.4	-56.6	95.0	110.5	1.25	0.93	3.52
	927.0	13.00	116.40	916.3	-60.6	102.6	119.2	3.16	-2.70	-7.03
1,013.0	13.50	116.90	1,000.0	-69.4	120.3	138.9	0.60	0.58	0.58	

<b>Company:</b>	EnCana Oil & Gas Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Oskarson 4-8-33
<b>Project:</b>	SEC.33-T2N-R68W	<b>TVD Reference:</b>	WELL @ 4999.0ft (Original Well Elev)
<b>Site:</b>	Oskarson 2-8-33 Pad Sec.33-T2N-R68W	<b>MD Reference:</b>	WELL @ 4999.0ft (Original Well Elev)
<b>Well:</b>	Oskarson 4-8-33	<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)
1,098.0	15.00	118.20	1,082.4	-79.1	138.8	159.8	1.80	1.76	1.53
1,183.0	17.60	119.40	1,164.0	-90.6	159.7	183.6	3.08	3.06	1.41
1,269.0	19.00	120.60	1,245.7	-104.1	183.1	210.6	1.69	1.63	1.40
1,354.0	19.50	116.70	1,325.9	-117.5	207.7	238.6	1.62	0.59	-4.59
1,439.0	20.20	115.70	1,405.9	-130.3	233.6	267.4	0.92	0.82	-1.18
1,525.0	20.20	115.00	1,486.6	-143.0	260.4	297.0	0.28	0.00	-0.81
1,610.0	19.10	114.50	1,566.6	-155.0	286.3	325.5	1.31	-1.29	-0.59
1,695.0	19.20	117.10	1,646.9	-167.1	311.4	353.3	1.01	0.12	3.06
1,780.0	20.70	118.90	1,726.8	-180.7	337.0	382.3	1.91	1.76	2.12
1,866.0	20.70	118.70	1,807.3	-195.4	363.7	412.7	0.08	0.00	-0.23
1,953.0	20.90	119.90	1,888.6	-210.5	390.6	443.6	0.54	0.23	1.38
2,040.0	21.30	119.90	1,969.8	-226.1	417.8	474.9	0.46	0.46	0.00
2,128.0	20.80	118.30	2,051.9	-241.5	445.4	506.5	0.87	-0.57	-1.82
2,215.0	22.20	119.70	2,132.8	-257.0	473.3	538.4	1.71	1.61	1.61
2,302.0	22.30	119.90	2,213.3	-273.3	501.8	571.3	0.14	0.11	0.23
2,390.0	22.10	119.40	2,294.8	-289.8	530.7	604.6	0.31	-0.23	-0.57
2,477.0	21.10	120.40	2,375.7	-305.7	558.5	636.6	1.22	-1.15	1.15
2,564.0	20.40	117.80	2,457.1	-320.7	585.4	667.4	1.33	-0.80	-2.99
2,651.0	22.70	121.00	2,538.0	-336.5	613.2	699.3	2.97	2.64	3.68
2,739.0	22.30	120.10	2,619.3	-353.6	642.2	733.0	0.60	-0.45	-1.02
2,826.0	23.50	121.00	2,699.4	-370.8	671.4	766.9	1.44	1.38	1.03
2,913.0	23.00	119.70	2,779.4	-388.1	701.0	801.2	0.82	-0.57	-1.49
3,001.0	22.60	118.30	2,860.5	-404.7	730.8	835.3	0.77	-0.45	-1.59
3,088.0	21.50	119.90	2,941.1	-420.5	759.4	868.0	1.44	-1.26	1.84
3,175.0	21.50	120.80	3,022.1	-436.7	786.9	899.8	0.38	0.00	1.03
3,263.0	22.80	121.80	3,103.6	-453.9	815.2	933.0	1.54	1.48	1.14
3,350.0	23.20	120.30	3,183.7	-471.4	844.4	967.0	0.82	0.46	-1.72
3,437.0	22.70	122.20	3,263.8	-489.0	873.4	1,000.9	1.03	-0.57	2.18
3,524.0	21.50	122.40	3,344.4	-506.5	901.0	1,033.6	1.38	-1.38	0.23
3,612.0	21.30	121.50	3,426.3	-523.5	928.3	1,065.7	0.44	-0.23	-1.02
3,699.0	21.10	122.60	3,507.4	-540.2	954.9	1,097.1	0.51	-0.23	1.26
3,786.0	21.50	119.90	3,588.5	-556.6	982.0	1,128.7	1.22	0.46	-3.10
3,874.0	21.50	119.90	3,670.4	-572.7	1,009.9	1,161.0	0.00	0.00	0.00
3,961.0	22.40	120.30	3,751.1	-589.0	1,038.0	1,193.5	1.05	1.03	0.46
4,048.0	24.70	122.40	3,830.8	-607.1	1,067.7	1,228.2	2.81	2.64	2.41
4,136.0	23.50	125.40	3,911.1	-627.1	1,097.5	1,264.0	1.95	-1.36	3.41
4,223.0	21.60	124.10	3,991.5	-646.1	1,124.9	1,297.3	2.26	-2.18	-1.49
4,310.0	23.80	120.70	4,071.7	-664.1	1,153.3	1,330.8	2.94	2.53	-3.91
4,397.0	24.90	119.70	4,151.0	-682.1	1,184.3	1,366.7	1.35	1.26	-1.15
4,485.0	25.50	122.20	4,230.6	-701.4	1,216.4	1,404.1	1.39	0.68	2.84
4,572.0	23.60	119.40	4,309.8	-719.9	1,247.4	1,440.3	2.56	-2.18	-3.22
4,659.0	20.30	118.20	4,390.4	-735.6	1,275.9	1,472.8	3.83	-3.79	-1.38
4,747.0	19.50	119.40	4,473.2	-750.0	1,302.2	1,502.7	1.02	-0.91	1.36
4,834.0	19.30	118.30	4,555.3	-764.0	1,327.5	1,531.6	0.48	-0.23	-1.26
4,921.0	20.90	116.40	4,637.0	-777.7	1,354.0	1,561.5	1.99	1.84	-2.18
5,009.0	20.60	115.50	4,719.2	-791.3	1,382.1	1,592.6	0.50	-0.34	-1.02
5,096.0	19.00	116.20	4,801.1	-804.2	1,408.6	1,622.0	1.86	-1.84	0.80
5,183.0	17.00	118.00	4,883.8	-816.4	1,432.5	1,648.8	2.39	-2.30	2.07
5,270.0	15.60	118.90	4,967.3	-828.0	1,454.0	1,673.2	1.64	-1.61	1.03
5,358.0	14.60	124.30	5,052.3	-840.0	1,473.5	1,696.1	1.96	-1.14	6.14
5,445.0	13.50	125.40	5,136.7	-852.0	1,490.9	1,717.2	1.30	-1.26	1.26
5,532.0	11.60	125.20	5,221.6	-863.0	1,506.3	1,736.0	2.18	-2.18	-0.23
5,620.0	9.60	125.00	5,308.1	-872.3	1,519.5	1,752.1	2.27	-2.27	-0.23
5,707.0	7.80	123.60	5,394.1	-879.7	1,530.4	1,765.2	2.08	-2.07	-1.61

<b>Company:</b>	EnCana Oil & Gas Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Oskarson 4-8-33
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<b>Site:</b>	Oskarson 2-8-33 Pad Sec.33-T2N-R68W	<b>MD Reference:</b>	WELL @ 4999.0ft (Original Well Elev)
<b>Well:</b>	Oskarson 4-8-33	<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)	
5,794.0	6.40	123.60	5,480.4	-885.7	1,539.4	1,775.9	1.61	-1.61	0.00	
5,882.0	5.10	122.90	5,568.0	-890.5	1,546.7	1,784.7	1.48	-1.48	-0.80	
5,969.0	3.80	120.80	5,654.7	-894.1	1,552.4	1,791.5	1.51	-1.49	-2.41	
6,056.0	2.80	114.10	5,741.6	-896.4	1,556.9	1,796.5	1.23	-1.15	-7.70	
6,143.0	1.90	110.40	5,828.5	-897.8	1,560.2	1,800.0	1.05	-1.03	-4.25	
6,214.6	1.49	102.08	5,900.0	-898.4	1,562.2	1,802.1	0.67	-0.58	-11.62	
TARGET BHL 50'FSL, 2562'FWL										
6,231.0	1.40	99.50	5,916.5	-898.5	1,562.6	1,802.5	0.67	-0.54	-15.72	
6,318.0	1.10	96.00	6,003.5	-898.7	1,564.5	1,804.2	0.36	-0.34	-4.02	
6,493.0	0.40	65.90	6,178.4	-898.7	1,566.7	1,806.1	0.45	-0.40	-17.20	
6,667.0	0.60	3.20	6,352.4	-897.5	1,567.3	1,806.1	0.31	0.11	-36.03	
6,842.0	1.10	357.90	6,527.4	-894.9	1,567.3	1,804.8	0.29	0.29	-3.03	
7,016.0	1.10	346.70	6,701.4	-891.6	1,566.8	1,802.8	0.12	0.00	-6.44	
7,191.0	1.10	341.70	6,876.3	-888.4	1,565.9	1,800.4	0.05	0.00	-2.86	
7,366.0	1.10	349.10	7,051.3	-885.1	1,565.1	1,798.0	0.08	0.00	4.23	
7,540.0	0.90	0.20	7,225.3	-882.1	1,564.8	1,796.2	0.16	-0.11	6.38	
7,701.5	0.90	6.84	7,386.7	-879.6	1,564.9	1,795.1	0.06	0.00	4.12	
TARGET CIRCLE 50'FSL & 2562'FWL										
7,715.0	0.90	7.40	7,400.3	-879.4	1,565.0	1,795.0	0.06	0.00	4.11	
7,889.0	0.70	19.20	7,574.2	-877.0	1,565.5	1,794.3	0.15	-0.11	6.78	
8,064.0	0.80	34.00	7,749.2	-875.0	1,566.5	1,794.2	0.12	0.06	8.46	
8,239.0	0.70	31.20	7,924.2	-873.1	1,567.8	1,794.3	0.06	-0.06	-1.60	
8,413.0	0.40	5.50	8,098.2	-871.6	1,568.4	1,794.1	0.22	-0.17	-14.77	
8,560.0	0.50	23.60	8,245.2	-870.5	1,568.7	1,793.8	0.12	0.07	12.31	
8,605.0	0.50	23.60	8,290.2	-870.1	1,568.8	1,793.8	0.00	0.00	0.00	

Checked By: _____	Approved By: _____	Date: _____
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