



# Bison Oil Well Cementing Single Cement Surface Pipe

Date: 10/28/2014  
Invoice #: 55032  
API#:   
Foreman: Monte

Customer: EnCana Oil & Gas (USA) Inc.  
Well Name: Newnan 2B-32H 0264

County: Weld  
State: Colorado  
Sec: 32  
Twp: 2n  
Range: 64w

Consultant: Mike  
Rig Name & Number: ensign 124  
Distance To Location: 22.5  
Units On Location: 4028-3102 4022-3213  
Time Requested: 4:30pm  
Time Arrived On Location: 3:30pm  
Time Left Location: 12:30

## WELL DATA

Casing Size OD (in) : 9.625  
Casing Weight (lb) : 40.00  
Casing Depth (ft.) : 989  
Total Depth (ft) : 1025  
Open Hole Diameter (in.) : 12.25  
Conductor Length (ft) : 133  
Conductor ID : 15.6  
Shoe Joint Length (ft) : 46  
Landing Joint (ft) : 17

Max Rate:  
Max Pressure:

## Cement Data

Cement Name: BFN III  
Cement Density (lb/gal) : 15.2  
Cement Yield (cuft) : 1.27  
Gallons Per Sack: 5.89  
% Excess: 50%  
Displacement Fluid lb/gal: 8.3  
BBL to Pit:  
Fluid Ahead (bbls): 50.0  
H2O Wash Up (bbls): 20.0

Spacer Ahead Makeup  
10 fresh 10 dye 30 fresh

Casing ID

8.835

Casing Grade

J-55 only used

## Calculated Results

**cuft of Shoe** 19.58 cuft  
(Casing ID Squared) X (.005454) X (Shoe Joint ft)

**cuft of Conductor** 109.33 cuft  
(Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X (Conductor Length ft)

**cuft of Casing** 402.12 cuft  
(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)

**Total Slurry Volume** 531.03 cuft  
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)

**bbls of Slurry** 94.58 bbls  
(Total Slurry Volume) X (.1781)

**Sacks Needed** 418 sk  
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)

**Mix Water** 58.64 bbls  
(Sacks Needed) X (Gallons Per Sack) ÷ 42

**Displacement:** 72.79 bbls

(Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)

## Pressure of cement in annulus

**Hydrostatic Pressure:** 780.91 PSI

## Pressure of the fluids inside casing

**Displacement:** 406.60 psi

**Shoe Joint:** 36.32 psi

**Total** 442.93 psi

**Differential Pressure:** 337.99 psi

**Collapse PSI:** 2570.00 psi

**Burst PSI:** 3950.00 psi

**Total Water Needed:** 201.43 bbls

x *Michael R...*  
Authorization To Proceed

Customers hereby acknowledges and specifically agrees to the terms and condition on this work order, including, without limitation, the provisions on this work order.



DISPERSEMENT  
Single Cement Surface Pipe

Customer  
Well Name

EnCana Oil & Gas (USA) Inc.  
Newnan 2B-32H 0264

INVOICE #  
LOCATION  
FOREMAN  
Date

00032  
Weld  
Monte  
10/28/2014

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DESCRIPTION OF JOB EVENTS

		Displace 1			Displace 2			Displace 3			Displace 4			Displace 5		
		BBLS	Time	PSI	BBLS	Time	PSI	BBLS	Time	PSI	BBLS	Time	PSI	BBLS	Time	PSI
Safety Meeting	4:30															
MIRU	4:15															
CIRCULATE	4:50	0	5:20	0	0			0			0			0		
Drop Plug		10	5:25	10	10			10			10			10		
5:20		20	5:27	170	20			20			20			20		
		30	5:29	270	30			30			30			30		
		40	5:31	300	40			40			40			40		
M & P		50	5:33	390	50			50			50			50		
Time	Sacks	60	5:35	390	60			60			60			60		
4:55-5:16	418	70	5:38	340	70			70			70			70		
		80	5:40	700	80			80			80			80		
		90			90			90			90			90		
		100			100			100			100			100		
		110			110			110			110			110		
% Excess	50%	120			120			120			120			120		
Mixed bbls	58.64	130			130			130			130			130		
Total Sacks	418	140			140			140			140			140		
bbl Returns	27	150			150			150			150			150		
Water Temp	64															

Notes:

safty meeting, miru, pressure test per company man, circulate 30 bbls ahead with dye in 2nd 10, mix and pump 418 sks,  
drop plug and displace 72.79 bbls h2o, bump plug at 540 p m at 700 psi, raise to 1500 psi hold 15 min. 27 back

X

*Michael Rame*

Work Performed

X

*Company Rep*

Title

X

*10-28-14*

Date