



# Bison Oil Well Cementing Single Cement Surface Pipe

Date: 2/24/2014

Invoice # 12070

API# 05-123-38940

Foreman: Calvin Reimers

Customer: Encana

Well Name: McConahay 4D-34H

County: Weld  
State: ColoradoSec: 34  
Twp: 2N  
Range: 66WConsultant: Rich / Mike  
Rig Name & Number: Ensign 124

Distance To Location: 24 Miles

Units On Location: 3103/3203

Time Requested: 400am

Time Arrived On Location: 230am

Time Left Location: 1:45pm

## WELL DATA

Casing Size OD (in): 9.625  
Casing Weight (lb): 40.00  
Casing Depth (ft): 1,105  
Total Depth (ft): 1135  
Open Hole Diameter (in.): 12.25  
Conductor Length (ft): 84  
Conductor ID: 16  
Shoe Joint Length (ft): 45  
Landing Joint (ft): 23

Max Rate: 7  
Max Pressure: 2500

## Cement Data

Cement Name: BFN III  
Cement Density (lb/gal): 15.2  
Cement Yield (cuft): 1.27  
Gallons Per Sack: 5.89  
% Excess: 45%  
Displacement Fluid lb/gal: 8.3  
BBL to Pit: 30  
Fluid Ahead (bbls): 30.0  
H2O Wash Up (bbls): 20.0

Spacer Ahead Makeup  
10bbls H2O+KCL+Dye in 2nd 10bbls

Casing ID

8.835

Casing Grade

J-55 only used

## Calculated Results

**cuft of Shoe** 19.19 cuft  
(Casing ID Squared) X (.005454) X (Shoe Joint ft)

**cuft of Conductor** 74.84 cuft  
(Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X (Conductor Length ft)

**cuft of Casing** 319.73 cuft  
(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)

**Total Slurry Volume** 413.76 cuft  
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)

**bbls of Slurry** 106.85 bbls  
(Total Slurry Volume) X (.1781) X (% Excess Cement)

**Sacks Needed** 472 sk  
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)

**Mix Water** 66.25 bbls  
(Sacks Needed) X (Gallons Per Sack) ÷ 42

**Displacement:** 82.09 bbls  
(Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)

## Pressure of cement in annulus

**Hydrostatic Pressure:** 872.44 PSI

## Pressure of the fluids inside casing

**Displacement:** 456.98 psi

**Shoe Joint:** 35.60 psi

**Total** 492.57 psi

**Differential Pressure:** 379.86 psi

**Collapse PSI:** #N/A psi

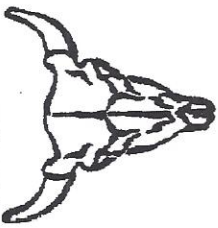
**Burst PSI:** #N/A psi

**Total Water Needed:** 198.34 bbls

X   
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.





Bison Oil Well Cementing  
Single Cement Surface Pipe

INVOICE #  
LOCATION  
FOREMAN  
Date

12070  
Weld  
Calvin Reimers  
2/24/2014

Encana  
McConahay 4D-34H

Customer  
Well Name

Treatment Report Page 2

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	0	1218pm	50	0			0			0			0		
MIRU	10	1220pm	80	10			10			10			10		
CIRCULATE	20	1221pm	170	20			20			20			20		
Drop Plug	30	1223pm	280	30			30			30			30		
1217pm	40	1225pm	370	40			40			40			40		
	50	1226pm	450	50			50			50			50		
M & P	60	1228pm	490	60			60			60			60		
Time	70	1230pm	540	70			70			70			70		
1133am	80	1233pm	460	80			80			80			80		
1213pm	90	1236pm	450	90			90			90			90		
	100	Bump	960	100			100			100			100		
	110			110			110			110			110		
	120			120			120			120			120		
% Excess	130			130			130			130			130		
Mixed bbls	140			140			140			140			140		
Total Sacks	150			150			150			150			150		
bbl Returns															
Water Temp															

Notes:  
The day  
Float Held  
1/2 bbl back on bleed off  
Casing PSI Test 1237pm 1510psi to 1252pm 1480psi

X Michael Roman Title  
X Coman Title  
X 2-23-14 Date  
Work Performed



# Bison Oil Well Cementing Single Cement Surface Pipe

## Cementing Customer Satisfaction Survey

Service Date	2/24/2014
Well Name	McConahay 4D-34H
County	Weld
State	Colorado
SEC	34
TWP	2N
RNG	66W

Invoice Number	12070
API #	05-123-38940
Job Type	Single Cement Surface Pipe
Company Name	Encana

Customer Representative **Rich / Mike**

Supervisor Name **Calvin Reimers**

Employee Name (Including Supervisor)
Calvin Reimers
Pablo S
Jeff K
Keith P

Exposure Hours (Per Employee)
11.25
11.25
11.25
11.25
45

Total Exposure Hours

Did we encounter any problems on this job? ☐ Yes ☒ No

### To Be Completed By Customer

Rating/Description  
5 - Superior Performance (Established new quality/performance standards)  
4 - Exceeded Expectation (Provided more than what was required/expected)  
3 - Met Expectations (Did what was expected)  
2 - Below Expectations (Job problems/failures occurred - \*Recovery made)  
1 - Poor Performance (Job problems/failures occurred - \*Some recovery made)  
\*Recovery: resolved issue(s) on jobsite in a timely and professional manner

RATING	CATEGORY
	Personnel -
	Equipment -
	Job Design -
	Product/Material -
	Health & Safety -
	Environmental -
	Timeliness -
	Condition/Appearance -
	Communication -

### CUSTOMER SATISFACTION RATING

Did our personnel perform to your satisfaction?  
Did our equipment perform to your satisfaction?  
Did we perform the job to the agreed upon design?  
Did our products and materials perform as you expected?  
Did we perform in a safe and careful manner (Pre/post mtgs, PPE, TSMR, etc.)?  
Did we perform in an environmentally sound manner (spills, leaks, cleanup, etc.)?  
Was job performed as scheduled (On time to site, accessible to customers, completed when expected)?  
Did the equipment condition and appearance meet your expectations?  
How well did our personnel communicate during mobilization, rig up and job execution?

Please Circle:  
Yes No Did an accident or injury occur?  
Yes No Did an injury requiring medical treatment occur?  
Yes No Did a first-aid injury occur?  
Yes No Did a vehicle accident occur?  
Yes No Was a post-job safety meeting held?

Please Circle:  
Yes No Was a pre-job safety meeting held?  
Yes No Was a job safety analysis completed?  
Yes No Were emergency services discussed?  
Yes No Did environmental incident occur?  
Yes No Did any near misses occur?

Additional Comments:

THE INFORMATION HEREIN IS CORRECT -

**X** *Michael R. Roon*  
Customer Representative's Signature

DATE: **2-24-14**

Any additional Customer Comments or HSE concerns should be described on the back of this form



# M/D TOTCO 2000 SERIES

