



# Bison Oil Well Cementing Single Cement Surface Pipe

Date: 3/8/2014

Invoice # 12331

API#

Foreman: kirk

Customer: encana

Well Name: McConahay 4e-34h-p266

County: weld

State: Colorado

Sec: 34

Twp: 2n

Range: 66w

Consultant: dave

Rig Name & Number: ensign 124

Distance To Location:

Units On Location: 3103-3204

Time Requested: 900 am

Time Arrived On Location: 800 am

Time Left Location: 5:30pm

## WELL DATA

Casing Size OD (in) : 9.625  
Casing Weight (lb) : 40.00  
Casing Depth (ft) : 1,096  
Total Depth (ft) : 1225  
Open Hole Diameter (in.) : 12.25  
Conductor Length (ft) : 100  
Conductor ID : 15.5  
Shoe Joint Length (ft) : 39  
Landing Joint (ft) : 16

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: 40%  
Displacement Fluid lb/gal: 8.3  
BBL to Pit:  
Fluid Ahead (bbls):  
H2O Wash Up (bbls): 20.0

Spacer Ahead Makeup

Casing ID

8.835

Casing Grade

J-55 only used

## Calculated Results

cuft of Shoe 16.60 cuft

(Casing ID Squared) X (.005454) X (Shoe Joint ft)

cuft of Conductor 80.51 cuft

(Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X (Conductor Length ft)

cuft of Casing 311.93 cuft

(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)

Total Slurry Volume 409.04 cuft

(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)

bbls of Slurry 101.99 bbls

(Total Slurry Volume) X (.1781) X (% Excess Cement)

Sacks Needed 451 sk

(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)

Mix Water 63.23 bbls

(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 81.36 bbls

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

## Pressure of cement in annulus

Hydrostatic Pressure: 865.40 PSI

## Pressure of the fluids inside casing

Displacement: 455.76 psi

Shoe Joint: 30.79 psi

Total 486.55 psi

Differential Pressure: 378.85 psi

Collapse PSI: #N/A psi

Burst PSI: #N/A psi

Total Water Needed: 164.59 bbls

X   
Authorization To Proceed





**Bison Oil Well Cementing  
Single Cement Surface Pipe**

Customer  
Well Name

encana  
McConahay 4e-34h-p266

INVOICE #  
LOCATION  
FOREMAN  
Date

12331  
weld  
kirk  
3/8/2014

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**DESCRIPTION OF JOB EVENTS**

Safety Meeting		Displace 1			Displace 2			Displace 3			Displace 4			Displace 5		
MIRU		BBLS	Time	PSI	BBLS	Time	PSI	BBLS	Time	PSI	BBLS	Time	PSI	BBLS	Time	PSI
CIRCULATE	314 pm	0	415p	10	0			0			0			0		
Drop Plug	100 pm	10	417p	50	10			10			10			10		
	345 pm	20	419p	120	20			20			20			20		
		30	421p	240	30			30			30			30		
		40	423p	330	40			40			40			40		
		50	425p	410	50			50			50			50		
M & P		60	427p	440	60			60			60			60		
Time	Sacks	70	429p	490	70			70			70			70		
351 pm	451	80	432p	440	80			80			80			80		
412 pm stop		90			90			90			90			90		
		100			100			100			100			100		
		110			110			110			110			110		
% Excess	40%	120			120			120			120			120		
Mixed bbls	63.2	130			130			130			130			130		
Total Sacks	451	140			140			140			140			140		
bbl Returns	34	150			150			150			150			150		
Water Temp	0															

Notes:

bumped plug at 435 pm 700 psi 82.3 bbls slurry

casing test 1500 psi 15 min

X

Work Performed

X

Title

X

Date

3-8-14



# Bison Oil Well Cementing Single Cement Surface Pipe

## Cementing Customer Satisfaction Survey

Service Date 3/8/2014  
Well Name McConahay 4e-34h-p266  
County weld  
State Colorado  
SEC 34  
TWP 2n  
RNG 66w

Invoice Number 12331  
API # 0  
Job Type Single Cement Surface Pipe  
Company Name encana

Customer Representative dave

Supervisor Name kirk

Employee Name (Including Supervisor)  
chris  
jeff

Exposure Hours (Per Employee)  
9.5  
9.5

Total Exposure Hours

19

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

3 Personnel -  
3 Equipment -  
3 Job Design -  
3 Product/Material -  
3 Health & Safety -  
3 Environmental -  
3 Timeliness -  
3 Condition/Appearance -  
3 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  
Yes No  
Yes No  
Yes No  
Yes No

Did an accident or injury occur?  
Did an injury requiring medical treatment occur?  
Did a first-aid injury occur?  
Did a vehicle accident occur?  
Was a post-job safety meeting held?

Please Circle:

Yes No  
Yes No  
Yes No  
Yes No  
Yes No

Was a pre-job safety meeting held?  
Was a job safety analysis completed?  
Were emergency services discussed?  
Did environmental incident occur?  
Did any near misses occur?

Additional Comments:

THE INFORMATION HEREIN IS CORRECT -

X   
Customer Representative's Signature

DATE:

3-8-14



# M/D TOTCO 2000 SERIES

