



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 1/11/2014

Invoice #: 12292

API#: 445564

Foreman: MONTE

Customer: encana

Well Name: mcCanahy 4c-34h

County: weld

State: colorado

Sec: 24

Twp: 2n

Range: 66w

Consultant: mike

Rig Name & Number: encana 124

Distance To Location: 23.8

Units On Location: 3106-3211

Time Requested: 400pm

Time Arrived On Location: 320pm

Time Left Location:

WELL DATA

Casing Size OD (in): 9.6250
Casing Weight (lb): 40
Casing Depth (ft): 1,234
Total Depth (ft): 1244
Open Hole Diameter (in.): 12.25
Conductor Length (ft): 97
Conductor ID: 15.5
Shoe Joint Length (ft): 44
Landing Joint (ft):

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: 45%

Displacement Fluid lb/gal:

BBL to Pit:

Fluid Ahead (bbls):

H2O Wash Up (bbls): 20.0

Spacer Ahead Makeup

10 freseh 10 dye 40 fresh

Casing ID

8.835

Casing Grade

J-55 only used

Calculated Results

cuft of Shoe 18.73 cuft

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

cuft of Conductor 78.09 cuft

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

cuft of Casing 356.08 cuft

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

Total Slurry Volume 452.91 cuft

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

bbls of Slurry 116.96 bbls

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

Sacks Needed 517 sk

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

Mix Water 72.52 bbls

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

Displacement: 90.23 bbls

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

Pressure of cement in annulus

Hydrostatic Pressure: 974.37 PSI

Pressure of the fluids inside casing

Displacement: #N/A psi

Shoe Joint: 34.74 psi

Total #N/A psi

Differential Pressure: #N/A psi

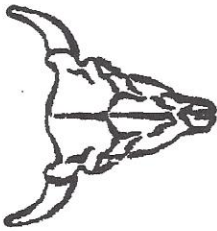
Collapse PSI: 2570.00 psi

Burst PSI: 3950.00 psi

Total Water Needed: 92.52 bbls

x Paul Carey
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

12292
weld
MONTE
1/11/2014

Customer
Well Name

encana
mcCanahy 4c-34h

Treatment Report Page 2

DESCRIPTION OF JOB EVENTS

	Safety Meeting MIRU CIRCULATE Drop Plug 6:10 M & P Time	Displace 1		Displace 2		Displace 3		Displace 4		Displace 5	
		BbLS	Time	PSI	BbLS	Time	PSI	BbLS	Time	PSI	BbLS
	4:45pm	0	6:12	10	0			0			0
	4:00	10	6:15	100	10			10			10
	5:30	20	6:17	110	20			20			20
		30	6:19	210	30			30			30
		40	6:21	310	40			40			40
		50	6:23	430	50			50			50
		60	6:25	510	60			60			60
		70	6:27	590	70			70			70
		80	6:29	570	80			80			80
		90	6:31	690	90			90			90
		100			100			100			100
		110			110			110			110
		120			120			120			120
		130			130			130			130
		140			140			140			140
		150			150			150			150
% Excess	45%										
Mixed bbls	72.52										
Total Sacks	517										
bbl Returns	20										

Notes:

safety meeting, miru, pressure test per company man, circulate 30 bbls ahead with dye in 2nd 10. mix and pump 517 sks at 45% excess, drop plug and displace bbls 90
drop plug and displace 59.2 bbls h2o,
bump plug at 6:31pm at 690 psi

Paul Carey

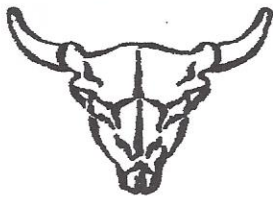
X

Title

X

Date

1-19-14



Bison Oil Well Cementing Single Cement Surface Pipe

Cementing Customer Satisfaction Survey

Service Date 1/11/2014
Well Name mcCanahy 4c-34h
County weld
State colorado
SEC 24
TWP 2n
RNG 66w

Invoice Number 20511
API # 445564
Job Type Single Cement Surface Pipe
Company Name encana

Customer Representative robert

Supervisor Name monte

Employee Name (Including Supervisor)
lee
jeff
kurt
kieth

Exposure Hours (Per Employee)

4
4
4
12

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

5 Personnel -
5 Equipment -
5 Job Design -
5 Product/Material -
5 Health & Safety -
5 Environmental -
5 Timeliness -
5 Condition/Appearance -
5 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
Yes
Yes
Yes
Yes

No
No
No
No
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
Yes
Yes
Yes
Yes

No
No
No
No
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:

Good Job, Appreciate the Competance of
All workers

THE INFORMATION HEREIN IS CORRECT -

X Paul Caray
Customer Representative's Signature

DATE: _____

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

M/D TOTCO 2000 SERIES

