



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 4/3/2014
Invoice #: 12171
API#:
Foreman: kirk

Customer: encana
Well Name: McConahay 1c-34h

County: weld
State: Colorado
Sec: 34
Twp: 2n
Range: 66w

Consultant: dave
Rig Name & Number: ensign 124
Distance To Location:
Units On Location: 3103-3210
Time Requested: 730 am
Time Arrived On Location: 700 am
Time Left Location: 1:00pm

WELL DATA

Casing Size OD (in) : 9.625
Casing Weight (lb) : 40.00
Casing Depth (ft) : 1,124
Total Depth (ft) : 1150
Open Hole Diameter (in.) : 12.25
Conductor Length (ft) : 100
Conductor ID : 15.5
Shoe Joint Length (ft) : 40
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): 30.0
H2O Wash Up (bbls): 15.0

Spacer Ahead Makeup

Casing ID

8.835

Casing Grade

J-55 only used

Calculated Results

cuft of Shoe 16.82 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 320.70 cuft
(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)

Total Slurry Volume 418.02 cuft
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)

bbls of Slurry 104.23 bbls
(Total Slurry Volume) X (.1781) X (% Excess Cement)

Sacks Needed 461 sk
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)

Mix Water 64.62 bbls
(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 83.45 bbls
(Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)

Pressure of cement in annulus

Hydrostatic Pressure: 887.51 PSI

Pressure of the fluids inside casing

Displacement: 467.62 psi

Shoe Joint: 31.19 psi

Total 498.81 psi

Differential Pressure: 388.71 psi

Collapse PSI: #N/A psi

Burst PSI: #N/A psi

Total Water Needed: 193.07 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**

Customer
Well Name

encana
McConahay 1c-34h

INVOICE #
LOCATION
FOREMAN
Date

12171
weld
kirk
4/3/2014

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	1042am															
MIRU	940am															
CIRCULATE	1113am	0	1143a	10	0			0			0			0		
Drop Plug		10	1145a	60	10			10			10			10		
1143 am		20	1147a	160	20			20			20			20		
		30	1149a	250	30			30			30			30		
		40	1151a	350	40			40			40			40		
M & P		50	1153a	410	50			50			50			50		
Time	Sacks	60	1155a	470	60			60			60			60		
1118 am	461	70	1157a	510	70			70			70			70		
1141 am stop		80	1200p	450	80			80			80			80		
		90			90			90			90			90		
		100			100			100			100			100		
		110			110			110			110			110		
% Excess	40%	120			120			120			120			120		
Mixed bbls	64.6	130			130			130			130			130		
Total Sacks	461	140			140			140			140			140		
bbl Returns	40	150			150			150			150			150		
Water Temp																

Notes:

bumped plug at 1203 pm 710 psi 104.2 bbls slurry

casing test 1500 psi for 15 min

X

Work Preformed

X

Title

X

Date

4-3-14



Bison Oil Well Cementing Single Cement Surface Pipe

Cementing Customer Satisfaction Survey

Service Date	4/3/2014
Well Name	McConahay 1c-34h
County	weld
State	Colorado
SEC	34
TWP	2n
RNG	66w

Invoice Number	12171
API #	0
Job Type	Single Cement Surface Pipe
Company Name	encana

Customer Representative **dave**

Supervisor Name **kirk**

Employee Name (Including Supervisor)
chris
carlos

Exposure Hours (Per Employee)
6
6

Total Exposure Hours

12

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 | 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

Customer Representative's Signature

DATE:

4-3-14

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

M/D TOTCO 2000 SERIES

