



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	Cement Data
Casing Size OD (in) : <u>9.625</u>	Cement Name: <u>BFN III</u>
Casing Weight (lb) : <u>40.00</u>	Cement Density (lb/gal) : <u>15.2</u>
Casing Depth (ft.) : <u>1,124</u>	Cement Yield (cuft) : <u>1.27</u>
Total Depth (ft) : <u>1150</u>	Gallons Per Sack: <u>5.89</u>
Open Hole Diameter (in.) : <u>12.25</u>	% Excess: <u>40%</u>
Conductor Length (ft) : <u>100</u>	Displacement Fluid lb/gal: <u>8.3</u>
Conductor ID : <u>15.5</u>	BBL to Pit: _____
Shoe Joint Length (ft) : <u>40</u>	Fluid Ahead (bbls): <u>30.0</u>
Landing Joint (ft) : <u>16</u>	H2O Wash Up (bbls): <u>15.0</u>
Max Rate: _____	Spacer Ahead Makeup _____
Max Pressure: _____	

Calculated Results	Pressure of cement in annulus
cuft of Shoe <u>16.82</u> cuft (Casing ID Squared) X (.005454) X (Shoe Joint ft)	Displacement: <u>83.45</u> bbls (Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)
cuft of Conductor <u>80.51</u> cuft (Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X (Conductor Length ft)	Pressure of cement in annulus Hydrostatic Pressure: <u>887.51</u> PSI
cuft of Casing <u>320.70</u> cuft (Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)	Pressure of the fluids inside casing Displacement: <u>467.62</u> psi Shoe Joint: <u>31.19</u> psi Total <u>498.81</u> psi
Total Slurry Volume <u>418.02</u> cuft (cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)	Differential Pressure: <u>388.71</u> psi
bbls of Slurry <u>104.23</u> bbls (Total Slurry Volume) X (.1781) X (% Excess Cement)	Collapse PSI: <u>#N/A</u> psi Burst PSI: <u>#N/A</u> psi
Sacks Needed <u>461</u> sk (Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)	Total Water Needed: <u>193.07</u> bbls
Mix Water <u>64.62</u> bbls (Sacks Needed) X (Gallons Per Sack) ÷ 42	

X [Signature]
 Authorization To Proceed



**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 DAH
Work Performed

X _____
Title

X 4-3-14
Date



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:

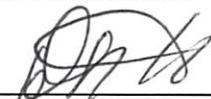
- Yes No Did an accident or injury occur?
- Yes No Did an injury requiring medical treatment occur?
- Yes No Did a first-aid injury occur?
- Yes No Did a vehicle accident occur?
- Yes No Was a post-job safety meeting held?

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

— PSI — Barrels / Minute — Barrels — Lbs / Gallon — Stage Volume

