



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 3/23/2014
Invoice #: 12083
API#: 05-123-38057
Foreman: Calvin Reimers

Customer: Encana
Well Name: McConahay 1D-34H-H266

County: Weld
State: Colorado
Sec: 34
Twp: 2N
Range: 64W
Consultant: Rich
Rig Name & Number: Ensign 124
Distance To Location: 23 Miles
Units On Location: 3104/3203
Time Requested: 800pm
Time Arrived On Location: 615pm
Time Left Location: 6:30 am

WELL DATA	Cement Data
Casing Size OD (in) : 9.625	Cement Name: BFN III
Casing Weight (lb) : 40.00	Cement Density (lb/gal) : 15.2
Casing Depth (ft.) : 1,075	Cement Yield (cuft) : 1.27
Total Depth (ft) : 1110	Gallons Per Sack: 5.89
Open Hole Diameter (in.) : 12.25	% Excess: 45%
Conductor Length (ft) : 84	Displacement Fluid lb/gal: 8.3
Conductor ID : 16	BBL to Pit: 30
Shoe Joint Length (ft) : 40	Fluid Ahead (bbls): 30.0
Landing Joint (ft) : 23	H2O Wash Up (bbls): 20.0
Max Rate: 7	Spacer Ahead Makeup
Max Pressure: 2500	10bbls H2O+KCL+Dye in 2nd 10bbls

Casing ID	8.835	Casing Grade	J-55 only used
Calculated Results		Displacement: 80.24 bbls (Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)	
cuft of Shoe 16.93 cuft (Casing ID Squared) X (.005454) X (Shoe Joint ft)		Pressure of cement in annulus	
cuft of Conductor 74.84 cuft (Conductor Width Squared) -(Casing Size OD Squared) X (.005454) X (Conductor Length ft)		Hydrostatic Pressure: 849.02 PSI	
cuft of Casing 310.44 cuft (Open Hole Squared)-(Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)		Pressure of the fluids inside casing	
Total Slurry Volume 402.21 cuft (cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)		Displacement: 446.48 psi	
bbls of Slurry 103.87 bbls (Total Slurry Volume) X (.1781) X (% Excess Cement)		Shoe Joint: 31.40 psi	
Sacks Needed 459 sk (Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)		Total 477.88 psi	
Mix Water 64.40 bbls (Sacks Needed) X (Gallons Per Sack) ÷ 42		Differential Pressure: 371.14 psi	
		Collapse PSI: #N/A psi	
		Burst PSI: #N/A psi	
		Total Water Needed: 194.64 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 1D-34H-H266

INVOICE #
LOCATION
FOREMAN
Date

12083
Weld
Calvin Reimers
3/23/2014

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DESCRIPTION OF JOB EVENTS

Safety Meeting MIRU CIRCULATE Drop Plug 455am M & P Time 415am 452am % Excess Mixed bbls Total Sacks bbl Returns Water Temp	330am 130am 408am 455am M & P Time 415am 452am % Excess Mixed bbls Total Sacks bbl Returns Water Temp	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
		0	456am	30	0			0			0			0		
		10	458am	120	10			10			10			10		
		20	500am	210	20			20			20			20		
		30	502am	300	30			30			30			30		
		40	503am	410	40			40			40			40		
		50	505am	450	50			50			50			50		
		60	507am	490	60			60			60			60		
		70	509am	530	70			70			70			70		
		80	512am	440	80			80			80			80		
		90	Bump	1030	90			90			90			90		
		100			100			100			100			100		
		110			110			110			110			110		
		120			120			120			120			120		
		130			130			130			130			130		
		140			140			140			140			140		
		150			150			150			150			150		

Notes:

The day

Float Held

1/2 bbl back on bleed off

Casing PSI Test 513am 1500psi to 528am 1500psi

x James L. Bourn
Work Performed

x Go Man
Title

x 24 March 14
Date



Bison Oil Well Cementing Single Cement Surface Pipe

Cementing Customer Satisfaction Survey

Service Date	3/23/2014
Well Name	McConahay 1D-34H-H266
County	Weld
State	Colorado
SEC	34
TWP	2N
RNG	64W

Invoice Number	12083
API #	05-123-38057
Job Type	Single Cement Surface Pipe
Company Name	Encana

Customer Representative **Rich**

Supervisor Name **Calvin Reimers**

Employee Name (Including Supervisor)	Exposure Hours (Per Employee)
Calvin Reimers	12.25
Eric R	12.25
Keith P	12.25
Total Exposure Hours	
	36.75

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	CUSTOMER SATISFACTION RATING
	Personnel -	Did our personnel perform to your satisfaction?
	Equipment -	Did our equipment perform to your satisfaction?
	Job Design -	Did we perform the job to the agreed upon design?
	Product/Material -	Did our products and materials perform as you expected?
	Health & Safety -	Did we perform in a safe and careful manner (Pre/post mtgs, PPE, TSMR, etc..)?
	Environmental -	Did we perform in an environmentally sound manner (spills, leaks, cleanup, etc..)?
	Timeliness -	Was job performed as scheduled (On time to site, accessible to customers, completed when expected)?
	Condition/Appearance -	Did the equipment condition and appearance meet your expectations?
	Communication -	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 John L. Borne
Customer Representative's Signature

DATE: 24 March 14

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

M/D TOTCO 2000 SERIES

