



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 3/14/2015

Invoice # 80010

API# 05-123-40905

Foreman: Calvin Reimers

Customer: Noble Energy Inc.

Well Name: Colt A 13-628

County: Weld

State: Colorado

Sec: 17

Twp: 6N

Range: 63W

Consultant: Justin/Mike

Rig Name & Number: H&P 273

Distance To Location: 26 Miles

Units On Location: 4027-3106/4034-3211

Time Requested: 330pm

Time Arrived On Location: 145pm

Time Left Location: 715pm

WELL DATA

Casing Size OD (in) : 9.625
Casing Weight (lb) : 36.00
Casing Depth (ft.) : 895
Total Depth (ft) : 928
Open Hole Diameter (in.) : 13.50
Conductor Length (ft) : 100
Conductor ID : 16
Shoe Joint Length (ft) : 45
Landing Joint (ft) : 29

Max Rate: 7
Max Pressure: 2500

Cement Data

Cement Name: BFN III
Cement Density (lb/gal) : 14.2
Cement Yield (cuft) : 1.49
Gallons Per Sack: 7.48
% Excess: 10%
Displacement Fluid lb/gal: 8.3
BBL to Pit: 22.0
Fluid Ahead (bbls): 60.0
H2O Wash Up (bbls): 20.0

Spacer Ahead Makeup
60bbls H2O+Gye in 2nd 10bbls

Casing ID

8.921

Casing Grade

J-55 only used

Calculated Results

cuft of Shoe 19.43 cuft
(Casing ID Squared) X (.005454) X (Shoe Joint ft)
cuft of Conductor 89.10 cuft
(Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X (Conductor Length ft)
cuft of Casing 427.16 cuft
(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)
Total Slurry Volume 535.69 cuft
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)
bbls of Slurry 95.41 bbls
(Total Slurry Volume) X (.1781)
Sacks Needed 360 sk
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)
Mix Water 64.03 bbls
(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 67.95 bbls

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

Pressure of cement in annulus

Hydrostatic Pressure: 659.92 PSI

Pressure of the fluids inside casing

Displacement: 366.41 psi

Shoe Joint: 33.03 psi

Total 399.44 psi

Differential Pressure: 260.48 psi

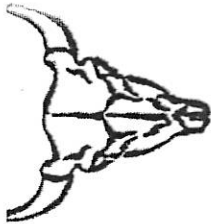
Collapse PSI: 2020.00 psi

Burst PSI: 3520.00 psi

Total Water Needed: 211.98 bbls

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.



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Single Cement Surface Pipe

INVOICE #
LOCATION
FOREMAN
Date

80010
Weld
Calvin Reimers
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Customer
Well Name

Noble Energy Inc.
Colt A 13-628

Treatment Report Page 2

DESCRIPTION OF JOB EVENTS

		Displace 1			Displace 2			Displace 3			Displace 4			Displace 5		
		BBS	Time	PSI	BBS	Time	PSI	BBS	Time	PSI	BBS	Time	PSI	BBS	Time	PSI
Safety Meeting	457pm	0	550pm	70	0			0			0			0		
MIRU	430pm	10	553pm	30	10			10			10			10		
CIRCULATE	517pm	20	555pm	30	20			20			20			20		
Drop Plug		30	557pm	100	30			30			30			30		
549pm		40	559pm	230	40			40			40			40		
		50	601pm	270	50			50			50			50		
M & P		60	603pm	240	60			60			60			60		
Time	Sack's	70	608pm	230	70			70			70			70		
528pm		80	Bump	390	80			80			80			80		
546pm		90			90			90			90			90		
		100			100			100			100			100		
		110			110			110			110			110		
% Excess	10%	120			120			120			120			120		
Mixed bbls	64.03	130			130			130			130			130		
Total Sacks	360	140			140			140			140			140		
bbl Returns	27	150			150			150			150			150		
Water Temp	60.2															

Notes:

The day

1/2 bbl Back on Bleed Off

Casing PSI Test 608pm 1000psi to 623pm 1010psi

X

X

X

Work Performed

Title

Date