

6/7/2014

12263

# Invoice

1547 Gaylord Street  
Denver, CO 80206  
303-296-3010

Bill To

Noble Energy Inc.  
Attn: Accounting



## BISON

Date

Invoice #

Bison Oil Well Cementing, Inc.

1625 Broadway Ste 2000  
Denver, CO 80202

Location	Well Name & No.	Terms	Job Type		
Weld CO	Tina LC29-75-1HNA	Net 30	Surface Pipe		
Item	Description	Qty	U/M	Rate	Amount
Pump surface	PUMP Charge-surface pipe	1			
Discount 15%	Discount 15%				
MILEAGE	Mileage charge	360			
Discount 15%	Discount 15%				
Data Acquisition ...	Data Acquisition Charge	1			
Discount 15%	Discount 15%				
Service Charge	Casing PSI test	1			
HOURS	Wait Time	2			
	Subtotal of Services				
BFN III Summer ...	BFN III Blend	344	Sack		
Discount 15%	Discount 15%				
KCL Mud Flush	(BHS 117)	4	qt		
Discount 15%	Discount 15%				
Dye - 4880	Dye (Hot Pink 4880)	16	oz		
Discount 15%	Discount 15%				
	Subtotal of Materials				

Please Remit Payment To:

Bison Oil Well Cementing, Inc.  
P.O. Box 29671  
Thornton, CO 80229

Subtotal

Sales Tax

Total

Balance Due



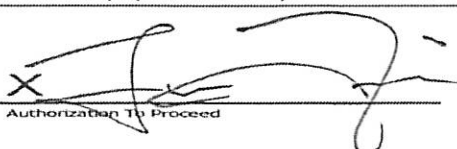
# Bison Oil Well Cementing Single Cement Surface Pipe

Date: 6/7/2014  
Invoice #: 12663  
API#:   
Foreman: monte

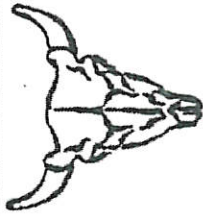
Customer: noble  
Well Name: tina lc29=75-1hna

County: weld  
State: colorado  
Sec: 29  
Twp: 9n  
Range: 59w  
Consultant: lane  
Rig Name & Number: h&p 273  
Distance To Location: 66.4  
Units On Location: 4028-3102 / 4007-3210  
Time Requested: 1:00  
Time Arrived On Location: 1:00  
Time Left Location:

WELL DATA	Cement Data
Casing Size OD (in) : 9.625	Cement Name: BFN III
Casing Weight (lb) : 36.00	Cement Density (lb/gal) : 15.2
Casing Depth (ft) : 585	Cement Yield (cuft) : 1.27
Total Depth (ft) : 640	Gallons Per Sack: 5.89
Open Hole Diameter (in.) : 13.75	% Excess: 30%
Conductor Length (ft) : 124	Displacement Fluid lb/gal: 8.3
Conductor ID : 15.6	BBL to Pit: 0.0
Shoe Joint Length (ft) : 45	Fluid Ahead (bbls): 40.0
Landing Joint (ft) : 28	H2O Wash Up (bbls): 20.0
Max Rate:	Spacer Ahead Makeup
Max Pressure:	10 fresh 10 dye 20 fresh

Casing ID 8.921	Casing Grade J-55 only used
<b>Calculated Results</b> cuft of Shoe 19.53 cuft (Casing ID Squared) X (.005454) X (Shoe Joint ft) cuft of Conductor 101.93 cuft (Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X (Conductor Length ft) cuft of Casing 315.16 cuft (Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length) Total Slurry Volume 436.63 cuft (cuft of Shoe) + (cuft of Conductor) + (cuft of Casing) bbls of Slurry 77.76 bbls (Total Slurry Volume) X (.1781) Sacks Needed 344 sk (Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement) Mix Water 48.21 bbls (Sacks Needed) X (Gallons Per Sack) ÷ 42	Displacement: 43.91 bbls (Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint) <b>Pressure of cement in annulus</b> Hydrostatic Pressure: 461.92 PSI <b>Pressure of the fluids inside casing</b> Displacement: 232.84 psi Shoe Joint: 35.53 psi Total 268.37 psi Differential Pressure: 193.55 psi Collapse PSI: 2020.00 psi Burst PSI: 3520.00 psi Total Water Needed: 152.12 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.	





Bison Oil Well Cementing  
Single Cement Surface Pipe

INVOICE #  
LOCATION  
FOREMAN  
Date

12663  
weld  
monte  
6/7/2014

Customer  
Well Name

noble  
tina lc29=75-1hna

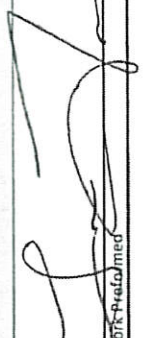
Treatment Report Page 2

DESCRIPTION OF JOB EVENTS

	3:35 3:00 4:10	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		0			0			0			0			0		
MIRU		10			10			10			10			10		
CIRCULATE		20			20			20			20			20		
Drop Plug		30			30			30			30			30		
4:55		40			40			40			40			40		
		50			50			50			50			50		
M & P		60			60			60			60			60		
Time		70			70			70			70			70		
4:20-4:50		80			80			80			80			80		
		90			90			90			90			90		
		100			100			100			100			100		
		110			110			110			110			110		
		120			120			120			120			120		
% Excess	0%	130			130			130			130			130		
Mixed bbls	48.21	140			140			140			140			140		
Total Sacks	344	150			150			150			150			150		
bbl Returns	10															
Water Temp	67															

Notes:

safety meeting. Miru, pressure test per company man. Circulate 40 bbls ahead with dye in 2nd 10, mix and pump 344 bbls at 15.2 lb at 30 excess, drop plug and display bump plug at 5:10 am at 380 psi 10 bbls back

X   
Title

X WJSS  
Title

X 6-7-14  
Date