



BISON

Invoice

Date	Invoice #
1/25/2014	12274

Bison Oil Well Cementing Inc.
1547 Gaylord Street
Denver, CO 80206
303-296-3010

Bill To
Noble Energy Inc. Attn: Accounting 1625 Broadway Ste 2000 Denver, CO 80202

Location	Well Name & No.	Terms	Job Type		
Weld CO	Marie D04-721N-1 6N	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%				
HOURS	Wait Time	1			
	Subtotal of Services				
BFN III Winter ...	BFN III Blend-Lead	357	Sack		
Discount 15%	Discount 15%				
KCL Mud Flush	(BHS 117)	5	qt		
Discount 15%	Discount 15%				
Dye - 4880	Dye (Hot Pink 4880)	10	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: 1/25/2014
Invoice #: 12274
API#:
Foreman: Kirk

Customer: noble
Well Name: marie d04-72h-1b1w

County: weld
State: Colorado
Sec: 4
Twp: 3n
Range: 64w

Consultant: johnny
Rig Name & Number: h&p 343
Distance To Location:
Units On Location: 3103-3211
Time Requested: 1100 am
Time Arrived On Location: 900am
Time Left Location: 4:00pm

WELL DATA

Casing Size OD (in) : 9.6250
Casing Weight (lb) : 36
Casing Depth (ft) : 630
Total Depth (ft) : 668
Open Hole Diameter (in.) : 13.75
Conductor Length (ft) : 100
Conductor ID : 15.5
Shoe Joint Length (ft) : 41
Landing Joint (ft) : 28

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: 30%
Displacement Fluid lb/gal: 8.3
BBL to Pit:
Fluid Ahead (bbls):
H2O Wash Up (bbls): 20.0

Spacer Ahead Makeup

Casing ID

8.921

Casing Grade

J-55 only used

Calculated Results

cuft of Shoe 17.80 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 278.72 cuft
(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing
Depth - Conductor Length)
Total Slurry Volume 377.02 cuft
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)
bbls of Slurry 87.29 bbls
(Total Slurry Volume) X (.1781) X (% Excess Cement)
Sacks Needed 386 sk
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)
Mix Water 54.12 bbls
(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 47.70 bbls

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

Pressure of cement in annulus

Hydrostatic Pressure: 497.45 PSI

Pressure of the fluids inside casing

Displacement: 253.97 psi

Shoe Joint: 32.37 psi

Total 286.34 psi

Differential Pressure: 211.11 psi

Collapse PSI: 2020.00 psi

Burst PSI: 3520.00 psi

Total Water Needed: 74.12 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.



INVOICE #
LOCATION
FOREMAN
Date

12274
weld
Kirk
1/25/201

Customer Well Name

noble	marie d04-7216-142
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Treatment Report Page 2

DESCRIPTION OF JOB EVENTS

[illegible]

Notes:

bumped plug at 303 pm 500 psi 80.5 bbls slurry

X

Preformed

X	Title
1	1. The first title
2	2. The second title
3	3. The third title
4	4. The fourth title
5	5. The fifth title
6	6. The sixth title
7	7. The seventh title
8	8. The eighth title
9	9. The ninth title
10	10. The tenth title

W.S.S

X
Date