



BISON

Invoice

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

| Date | Invoice # |
|-----------|-----------|
| 9/10/2014 | 55025 |

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

| Location | Well Name & No. | Terms | Job Type | | |
|----------------------|---------------------------|--------|--------------|------|--------|
| Weld CO | Heartland State C31-79-1H | 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 | | | |
| Service Charge | PSI Test | 1 | | | |
| | Subtotal of Services | | | | |
| BFN III Summer ... | BFN III Blend | 350 | Sack | | |
| Discount 15% | Discount 15% | | | | |
| KCL Mud Flush | (BHS 117) | 5 | qt | | |
| Discount 15% | Discount 15% | | | | |
| Dye - 4880 | Dye (Hot Pink 4880) | 16 | oz | | |
| Discount 15% | Discount 15% | | | | |
| Sugar | Sugar | 100 | lb | | |
| | Subtotal of Materials | | | | |

Please Remit Payment To:

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

| Subtotal |
|-----------|
| Sales Tax |
| Total |
| Balance D |



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 9/10/2014
Invoice #: 55025
API#:
Foreman: monte

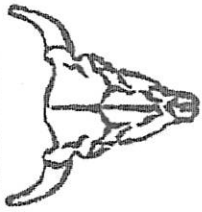
Customer: Noble Energy Inc.
Well Name: Heartland State c31-79-1hn

County: Weld
State: Colorado
Sec: 25
Twp: 4n
Range: 65w

Consultant: Devan
Rig Name & Number: pd 828
Distance To Location: 9
Units On Location: 4028-3201 4020-3212
Time Requested: 2:00am
Time Arrived On Location: 1:20am
Time Left Location: 6:35am

| 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) : 672 | Cement Yield (cuft) : 1.27 |
| Total Depth (ft) : 721 | Gallons Per Sack: 5.89 |
| Open Hole Diameter (in.) : 13.75 | % Excess: 15% |
| Conductor Length (ft) : 90 | Displacement Fluid lb/gal: 8.3 |
| Conductor ID : 15.6 | BBL to Pit: |
| Shoe Joint Length (ft) : 44 | Fluid Ahead (bbls): 50.0 |
| Landing Joint (ft) : 19 | H2O Wash Up (bbls): 20.0 |
| Max Rate: 5 | Spacer Ahead Makeup |
| Max Pressure: 2000 | 10 fresh 10 dye 30 fresh |

| | | | |
|--|-------------|--|----------------|
| Casing ID | 8.921 | Casing Grade | J-55 only used |
| Calculated Results | | Displacement: 50.02 bbls (Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint) | |
| cuft of Shoe | 19.10 cuft | Pressure of cement in annulus | |
| (Casing ID Squared) X (.005454) X (Shoe Joint ft) | | Hydrostatic Pressure: | 530.61 PSI |
| cuft of Conductor | 73.98 cuft | Pressure of the fluids inside casing | |
| (Conductor Width Squared) -(Casing Size OD Squared) X (.005454) X (Conductor Length ft) | | Displacement: | 270.78 psi |
| cuft of Casing | 351.97 cuft | Shoe Joint: | 34.74 psi |
| (Open Hole Squared)-(Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length) | | Total | 305.52 psi |
| Total Slurry Volume | 445.06 cuft | Differential Pressure: | 225.09 psi |
| (cuft of Shoe) + (cuft of Conductor) + (cuft of Casing) | | Collapse PSI: | 2020.00 psi |
| bbls of Slurry | 79.26 bbls | Burst PSI: | 3520.00 psi |
| (Total Slurry Volume) X (.1781) | | Total Water Needed: | 169.16 bbls |
| Sacks Needed | 350 sk | | |
| (Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement) | | | |
| Mix Water | 49.14 bbls | | |
| (Sacks Needed) X (Gallons Per Sack) ÷ 42 | | | |
| <div>X P. [Signature] Authorization To Proceed</div> <div>Customers hereby acknowledges and specifically agrees to the terms and condition on this work order, including, without limitation, the provisions on this work order.</div> | | | |



Bison Oil Well Cementing
Single Cement Surface Pipe

Customer
Well Name

Noble Energy Inc.
Heartland State c31-79-1hn

INVOICE #
LOCATION
FOREMAN
Date

55025
Weld
monte
9/10/2014

Treatment Report Page 2

DESCRIPTION OF JOB EVENTS

| | 4:05 3:30 4:48 | 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 | 5:19 | 0 | 0 | | | 0 | | | 0 | | | 0 | | |
| MIRU | | 10 | 5:21 | 80 | 10 | | | 10 | | | 10 | | | 10 | | |
| CIRCULATE | | 20 | 5:23 | 120 | 20 | | | 20 | | | 20 | | | 20 | | |
| Drop Plug | | 30 | 5:25 | 220 | 30 | | | 30 | | | 30 | | | 30 | | |
| 5:18 | | 40 | 5:27 | 270 | 40 | | | 40 | | | 40 | | | 40 | | |
| | | 50 | 5:30 | 450 | 50 | | | 50 | | | 50 | | | 50 | | |
| M & P | | 60 | | | 60 | | | 60 | | | 60 | | | 60 | | |
| Time | | 70 | | | 70 | | | 70 | | | 70 | | | 70 | | |
| 4:55-5:19 | Sacks | 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 | 15% | 130 | | | 130 | | | 130 | | | 130 | | | 130 | | |
| Mixed bbls | 49.14 | 140 | | | 140 | | | 140 | | | 140 | | | 140 | | |
| Total Sacks | 350 | 150 | | | 150 | | | 150 | | | 150 | | | 150 | | |
| bbl Returns | 10 | | | | | | | | | | | | | | | |
| Water Temp | 66 | | | | | | | | | | | | | | | |

Notes:

Safety Meeting, miru, pressure test per company man circulate 50 bbls ahead with dye in 2nd 10,

mix and pump 350 sks at 15 % excess. drop plug and displace 50.02 bbls h2o

cassing test 1000 lb 15 min

X *J. Mueden*

X WSS
Title

X 9/10/14
Date

Work Performed

M/D TOTCO 2000 SERIES

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

