



# Bison Oil Well Cementing Single Cement Surface Pipe

Date: 7/20/2015

Invoice # 80506

API#

Foreman: Kirk Kallhoff

Customer: Anadarko Petroleum Corporation

Well Name: Carter 35N-33HZ

County: Weld

State: Colorado

Sec: 33

Twp: 2n

Range: 66w

Consultant: luke

Rig Name & Number: noble 2

Distance To Location: 19

Units On Location: 4029-3206/4024-3203

Time Requested: 330 pm

Time Arrived On Location: 130 pm

Time Left Location: 5:45 pm

## WELL DATA

Casing Size OD (in) : 9.625  
Casing Weight (lb) : 36.00  
Casing Depth (ft) : 1,872  
Total Depth (ft) : 1884  
Open Hole Diameter (in.) : 13.50  
Conductor Length (ft) : 47  
Conductor ID : 16  
Shoe Joint Length (ft) : 41  
Landing Joint (ft) : 10

Max Rate:

Max Pressure:

## Cement Data

Cement Name: BFN III  
Cement Density (lb/gal) : 14.2  
Cement Yield (cuft) : 1.49  
Gallons Per Sack: 7.48  
% Excess: 20%  
Displacement Fluid lb/gal: 8.3  
BBL to Pit:  
Fluid Ahead (bbls): 30.0  
H2O Wash Up (bbls): 10.0

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** 41.88 cuft  
(Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X (Conductor Length ft)

**cuft of Casing** 1070.32 cuft  
(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)

**Total Slurry Volume** 1129.99 cuft  
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)

**bbls of Slurry** 201.25 bbls  
(Total Slurry Volume) X (.1781)

**Sacks Needed** 758 sk  
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)

**Mix Water** 135.06 bbls  
(Sacks Needed) X (Gallons Per Sack) ÷ 42

**Displacement:** 142.32 bbls  
(Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)

## Pressure of cement in annulus

**Hydrostatic Pressure:** 1380.97 PSI

## Pressure of the fluids inside casing

**Displacement:** 789.49 psi

**Shoe Joint:** 30.25 psi

**Total** 819.74 psi

**Differential Pressure:** 561.24 psi

**Collapse PSI:** 2020.00 psi

**Burst PSI:** 3520.00 psi

**Total Water Needed:** 317.39 bbls

X *Luke Raso*  
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.



X 7-20-15  
Date

# M/D TOTCO 2000 SERIES

