



# Bison Oil Well Cementing Single Cement Surface Pipe

Date: 7/14/2015  
Invoice #: 80417  
API#: 05-123-41796  
Foreman: Calvin Reimers

Customer: Anadarko Petroleum Corporation

Well Name: Tedford 30N-28HZ

County: Weld  
State: Colorado  
Sec: 28  
Twp: 2N  
Range: 66W

Consultant: Sean / Chris  
Rig Name & Number: Noble 2  
Distance To Location: 19 Miles  
Units On Location: 4023-3104/4034-3203  
Time Requested: 1030pm  
Time Arrived On Location: 900pm  
Time Left Location: 2:00 AM

## WELL DATA

Casing Size OD (in) : 9.625  
Casing Weight (lb) : 36.00  
Casing Depth (ft.) : 1,858  
Total Depth (ft) : 1875  
Open Hole Diameter (in.) : 13.50  
Conductor Length (ft) : 40  
Conductor ID : 15.25  
Shoe Joint Length (ft) : 43  
Landing Joint (ft) : 10

Max Rate: 6  
Max Pressure: 1750

## 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: 19  
Fluid Ahead (bbls): 30.0  
H2O Wash Up (bbls): 15.0

### Spacer Ahead Makeup

30 bbls With Dye in 2nd 10 bbls

Casing ID

8.921

Casing Grade

J-55 only used

## Calculated Results

cuft of Shoe 18.49 cuft

(Casing ID Squared) X (.005454) X (Shoe Joint ft)

cuft of Conductor 30.53 cuft  
(Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X (Conductor Length ft)

cuft of Casing 1066.46 cuft  
(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)

Total Slurry Volume 1115.48 cuft  
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)

bbls of Slurry 198.67 bbls  
(Total Slurry Volume) X (.1781)

Sacks Needed 749 sk  
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)

Mix Water 133.33 bbls  
(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 141.15 bbls

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

## Pressure of cement in annulus

Hydrostatic Pressure: 1370.96 PSI

## Pressure of the fluids inside casing

Displacement: 782.95 psi

Shoe Joint: 31.43 psi

Total 814.38 psi

Differential Pressure: 556.58 psi

Collapse PSI: 2020.00 psi

Burst PSI: 3520.00 psi

Total Water Needed: 319.48 bbls

X Authorization To Proceed





Anadarko Petroleum Corporation  
Tedford 30N-28HZ

INVOICE #  
LOCATION  
FOREMAN  
Date

80417
Weld
Calvin Reimers
7/15/2015

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## Work Performed

X \_\_\_\_\_  
Title \_\_\_\_\_

Date \_\_\_\_\_

# SERIES 2000

