



# Bison Oil Well Cementing Single Cement Surface Pipe

Date: 4/28/2017  
Invoice #: 200077  
API#  
Foreman: Kirk Kallhoff

Customer: Anadarko Petroleum Corporation

Well Name: butterball 24n2-34hz

County: Weld  
State: Colorado  
Sec: 10  
Twp: 2n  
Range: 67w

Consultant: lane  
Rig Name & Number: wmo 252  
Distance To Location: 26  
Units On Location: 4028/4030/4033  
Time Requested: 230 pm  
Time Arrived On Location: 100 pm  
Time Left Location: 6:15 pm

## WELL DATA

Casing Size OD (in) : 9.625  
Casing Weight (lb) : 36.00  
Casing Depth (ft.) : 1,830  
Total Depth (ft) : 1855  
Open Hole Diameter (in.) : 13.50  
Conductor Length (ft) : 80  
Conductor ID : 15.6  
Shoe Joint Length (ft) : 42  
Landing Joint (ft) : 15  
Max Rate: 8  
Max Pressure: 2000

## Cement Data

Cement Name: BFN III  
Cement Density (lb/gal) : 14.2  
Cement Yield (cuft) : 1.49  
Gallons Per Sack: 7.40  
% Excess: 15%  
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 18.23 cuft  
(Casing ID Squared) X (.005454) X (Shoe Joint ft)  
cuft of Conductor 65.76 cuft  
(Conductor Width Squared) -(Casing Size OD Squared) X (.005454) X (Conductor Length ft)  
cuft of Casing 983.57 cuft  
(Open Hole Squared)-(Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)  
Total Slurry Volume 1067.56 cuft  
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)  
bbls of Slurry 190.13 bbls  
(Total Slurry Volume) X (.1781)  
Sacks Needed 716 sk  
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)  
Mix Water 126.24 bbls  
(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 139.39 bbls

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

## Pressure of cement in annulus

Hydrostatic Pressure: 1349.99 PSI

## Pressure of the fluids inside casing

Displacement: 770.95 psi

Shoe Joint: 30.98 psi

Total 801.94 psi

Differential Pressure: 548.06 psi

Collapse PSI: 2020.00 psi

Burst PSI: 3520.00 psi

Total Water Needed: 305.62 bbls

X

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.

Date \_\_\_\_\_

SERIES 2000

