



# Bison Oil Well Cementing Single Cement Surface Pipe

Date: 12/18/2018  
Invoice #: 200374  
API#  
Foreman: KirkKallhoff

Customer: Anadarko Petroleum Corporation  
Well Name: reese 21-3hz

County: Weld  
State: Colorado  
Sec: 30  
Twp: 2N  
Range: 65w  
Consultant: bryan  
Rig Name & Number: Cartel 88  
Distance To Location: 28  
Units On Location: 4047/4030/4023  
Time Requested: 230 pm  
Time Arrived On Location: 1230 pm  
Time Left Location: 5:30 pm

## WELL DATA

Casing Size OD (in) : 9.625  
Casing Weight (lb) : 36.00  
Casing Depth (ft.) : 1,861  
Total Depth (ft) : 1871  
Open Hole Diameter (in.) : 13.50  
Conductor Length (ft) : 80  
Conductor ID : 15.25  
Shoe Joint Length (ft) : 41  
Landing Joint (ft) : 8  
Max Rate: 8  
Max Pressure: 2000

## Cement Data

Cement Name: BFN III  
Cement Density (lb/gal) : 14.2  
Cement Yield (cuft) : 1.48  
Gallons Per Sack: 7.40  
% Excess: 10%  
Displacement Fluid lb/gal: 8.3  
BBL to Pit:  
Fluid Ahead (bbls): 30.0  
H2O Wash Up (bbls): 10.0  
Spacer Ahead Makeup  
30 bbl with Die in 2nd 10

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** 61.05 cuft  
(Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X (Conductor Length ft)  
**cuft of Casing** 957.47 cuft  
(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)  
**Total Slurry Volume** 1036.32 cuft  
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)  
**bbls of Slurry** 184.57 bbls  
(Total Slurry Volume) X (.1781)  
**Sacks Needed** 700 sk  
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)  
**Mix Water** 123.37 bbls  
(Sacks Needed) X (Gallons Per Sack) ÷ 42

**Displacement:** 141.32 bbls

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

## Pressure of cement in annulus

**Hydrostatic Pressure:** 1372.86 PSI

## Pressure of the fluids inside casing

**Displacement:** 784.75 psi

**Shoe Joint:** 30.25 PSI

**Total** 815.00 psi

**Differential Pressure:** 557.86 psi

**Collapse PSI:** 2020.00 psi

**Burst PSI:** 3520.00 psi

**Total Water Needed:** 304.69 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.



## Bison Oil Well Cementing Single Cement Surface Pipe

Customer  
Well Name

Anadarko Petroleum Corporation  
reese 21-3hz

INVOICE #  
LOCATION  
FOREMAN  
Date

200374

Weld

KirkKallhoff

12/18/2018

Treatment Report Page 2

## DESCRIPTION OF JOB EVENTS

[illegible]

**X**

Work Preformed

**X**

**Title**

3

Date \_\_\_\_\_

# SERIES 2000

