



# Bison Oil Well Cementing Single Cement Surface Pipe

Date: 1/14/2017  
Invoice #: 900030  
API#: 05-123-42568  
Foreman: JASON

Customer: Anadarko Petroleum Corporation  
Well Name: PUMA FED 4C-14HZ

County: Weld  
State: Colorado  
Sec: 23  
Twp: 1N  
Range: 67W  
Consultant: BRYAN  
Rig Name & Number: WM 252  
Distance To Location: 35  
Units On Location: 1027-3103,4032-3215,4019-3214  
Time Requested: 400  
Time Arrived On Location: 300  
Time Left Location: 1430

## WELL DATA

Casing Size OD (in) : 9.625  
Casing Weight (lb) : 36.00  
Casing Depth (ft.) : 2,249  
Total Depth (ft) : 2301  
Open Hole Diameter (in.) : 13.50  
Conductor Length (ft) : 80  
Conductor ID : 15.25  
Shoe Joint Length (ft) : 44  
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) : 1.48  
Gallons Per Sack: 7.49  
% Excess: 15%  
Displacement Fluid lb/gal: 8.3  
BBL to Pit: 11.0  
Fluid Ahead (bbls): 30.0  
H2O Wash Up (bbls): 20.0  
Spacer Ahead Makeup  
30 BBL WATER DYE IN 2ND 10

Casing ID

8.921

Casing Grade

J-55 only used

## Calculated Results

cuft of Shoe 19.31 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 1219.06 cuft  
(Open Hole Squared)-(Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length )  
Total Slurry Volume 1299.42 cuft  
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)  
bbls of Slurry 231.43 bbls  
(Total Slurry Volume) X (.1781)  
Sacks Needed 878 sk  
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)  
Mix Water 156.57 bbls  
(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 171.59 bbls

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

## Pressure of cement in annulus

Hydrostatic Pressure: 1659.09 PSI

## Pressure of the fluids inside casing

Displacement: 950.54 psi

Shoe Joint: 32.82 psi

Total 983.36 psi

Differential Pressure: 675.72 psi

Collapse PSI: 2020.00 psi

Burst PSI: 3520.00 psi

Total Water Needed: 378.16 bbls

X   
Authorization To Proceed



## BISON Oil well Cementing Single Cement Surface Pipe

Customer  
Well Name

Anadarko Petroleum Corporation  
PUMA FED 4C-14HZ

INVOICE #  
LOCATION  
FOREMAN  
Date

900030
Weld
JASON
1/14/2017

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## DESCRIPTION OF JOB EVENTS

[illegible]

ix

**Work Performed**

Bryan Brown

X

Title

Co. Man

1

Date \_\_\_\_\_

1/14/17



# PUMA FED 4C-14HZ SURFACE

