



# Bison Oil Well Cementing Single Cement Surface Pipe

Date: 6/15/2015  
Invoice #: 80093  
API#:   
Foreman: Kirk Kallhoff

Customer: Anadarko Petroleum Corporation  
Well Name: joker 1n2-9hz

County: Weld  
State: Colorado  
Sec: 9  
Twp: 1n  
Range: 65w

Consultant: sean  
Rig Name & Number: noble 2  
Distance To Location: 26  
Units On Location: 038-3103/3105-3204/4019-321  
Time Requested: 1100 am  
Time Arrived On Location: 930 am  
Time Left Location: 5:00 pm

## WELL DATA

Casing Size OD (in) : 9.625  
Casing Weight (lb) : 36.00  
Casing Depth (ft) : 1,833  
Total Depth (ft) : 1853  
Open Hole Diameter (in.) : 13.50  
Conductor Length (ft) : 40  
Conductor ID : 16  
Shoe Joint Length (ft) : 40  
Landing Joint (ft) : 10

Max Rate:   
Max Pressure:

## Cement Data

Cement Name: BFW III  
Cement Density (lb/gal) : 14.2  
Cement Yield (cuft) : 1.49  
Gallons Per Sack: 7.48  
% Excess: 15%  
Displacement Fluid lb/gal: 8.3  
BBL to Pit:  
Fluid Ahead (bbls): 300  
H2O Wash Up (bbls): 100

Spacer Ahead Makeup

Casing ID

8.921

Casing Grade

J-55 only used

## Calculated Results

**cuft of Shoe** 17.36 cuft  
(Casing ID Squared) X (.005454) X (Shoe Joint ft)

**cuft of Conductor** 35.64 cuft  
(Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X (Conductor Length ft)

**cuft of Casing** 1007.74 cuft  
(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)

**Total Slurry Volume** 1060.74 cuft  
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)

**bbls of Slurry** 188.92 bbls  
(Total Slurry Volume) X (.1781)

**Sacks Needed** 712 sk  
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)

**Mix Water** 126.79 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:** 1352.20 PSI

## Pressure of the fluids inside casing

**Displacement:** 773.11 psi

**Shoe Joint:** 29.51 psi

**Total** 802.62 psi

**Differential Pressure:** 549.59 psi

**Collapse PSI:** 2020.00 psi

**Burst PSI:** 3520.00 psi

**Total Water Needed:** 306.17 bbls

X *Sean M. [Signature]*  
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  
joker 1n2-9hz

INVOICE #  
LOCATION  
FOREMAN  
Date

80093

Weld

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Kirk Kallhoff

6/15/2015

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## DESCRIPTION OF JOB EVENTS

[illegible]

X Sean Giddings Sean Giddings  
Work Preformed

X Company Man  
Title

X 6-15-15  
Date

# M/D TOTCO 2000 SERIES

