



# Bison Oil Well Cementing Single Cement Surface Pipe

Date: 1/14/2021  
Invoice #: 200661  
API#  
Foreman: kirk

Customer: Occidental Petroleum  
Well Name: nelson 35-17 hz

County: Weld  
State: Colorado  
Sec: 25  
Twp: 2n  
Range: 68w  
Consultant: jeremy  
Rig Name & Number: icon  
Distance To Location: 35  
Units On Location: 4028 4032 4033  
Time Requested: 1230 am  
Time Arrived On Location: 1000 pm  
Time Left Location:

## WELL DATA

Casing Size OD (in) : 9.625  
Casing Weight (lb) : 36.00  
Casing Depth (ft) : 1,852  
Total Depth (ft) : 1862  
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: 15%  
Displacement Fluid lb/gal: 8.3  
BBL to Pit:  
Fluid Ahead (bbls): 30.0  
H2O Wash Up (bbls): 5.0

Spacer Ahead Makeup  
10 fresh 10 dye 10 fresh

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 995.93 cuft

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

Total Slurry Volume 1074.78 cuft

(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)

bbls of Slurry 191.42 bbls

(Total Slurry Volume) X (.1781)

Sacks Needed 726 sk

(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)

Mix Water 127.95 bbls

(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 140.62 bbls

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

## Pressure of cement in annulus

Hydrostatic Pressure: 1366.22 PSI

## Pressure of the fluids inside casing

Displacement: 780.87 psi

Shoe Joint: 30.25 psi

Total 811.11 psi

Differential Pressure: 555.11 psi

Collapse PSI: 2020.00 psi

Burst PSI: 3520.00 psi

Total Water Needed: 303.57 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.