



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 1/15/2021
Invoice #: 200662
API#
Foreman: kirk

Customer: Occidental Petroleum
Well Name: nelson 35-16hz

County: Weld
State: Colorado
Sec: 35
Twp: 2n
Range: 68w
Consultant: jeremy
Rig Name & Number: icon
Distance To Location: 35
Units On Location: 4028 4032 4033
Time Requested: 1000 pm
Time Arrived On Location: 800 pm
Time Left Location:

WELL DATA

Casing Size OD (in) : 9.625
Casing Weight (lb) : 36.00
Casing Depth (ft.) : 1,872
Total Depth (ft) : 1882
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 1007.17 cuft

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

Total Slurry Volume 1086.02 cuft

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

bbls of Slurry 193.42 bbls

(Total Slurry Volume) X (.1781)

Sacks Needed 734 sk

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

Mix Water 129.29 bbls

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

Displacement: 142.17 bbls

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

Pressure of cement in annulus

Hydrostatic Pressure: 1380.97 PSI

Pressure of the fluids inside casing

Displacement: 789.49 psi

Shoe Joint: 30.25 psi

Total 819.74 psi

Differential Pressure: 561.24 psi

Collapse PSI: 2020.00 psi

Burst PSI: 3520.00 psi

Total Water Needed: 306.46 bbls

X *Jeremy White*
Authorization to Proceed