



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 6/15/2017
Invoice #: 666149
API#: 05-123-42272
Foreman: Nick Vigil

Customer: Anadarko Petroleum Corporation
Well Name: FL Greens 14N-8HZ

County: Weld
State: Colorado
Sec: 8
Twp: 1N
Range: 66W

Consultant: Alan M
Rig Name & Number: Precision 461
Distance To Location: 36 Miles
Units On Location: 4023/4030/4034
Time Requested: 1:00
Time Arrived On Location: 23:45
Time Left Location:

WELL DATA

Casing Size OD (in) : 9.625
Casing Weight (lb) : 36.00
Casing Depth (ft.) : 1,891
Total Depth (ft) : 1901
Open Hole Diameter (in.) : 13.50
Conductor Length (ft) : 80
Conductor ID : 15.25
Shoe Joint Length (ft) : 45
Landing Joint (ft) : 10

Max Rate: 8
Max Pressure: 2000

Cement Data

Cement Name: BFN 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: 0.0
Fluid Ahead (bbls): 30.0
H2O Wash Up (bbls): 20.0

Spacer Ahead Makeup
Dye in second 10 bbl

Casing ID

8.921

Casing Grade

J-55 only used

Calculated Results

cuft of Shoe 19.53 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 1017.85 cuft
(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)
Total Slurry Volume 1098.44 cuft
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)
bbls of Slurry 195.63 bbls
(Total Slurry Volume) X (.1781)
Sacks Needed 737 sk
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)
Mix Water 131.29 bbls
(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 143.48 bbls

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

Pressure of cement in annulus

Hydrostatic Pressure: 1394.99 PSI

Pressure of the fluids inside casing

Displacement: 795.96 psi

Shoe Joint: 33.20 psi

Total 829.16 psi

Differential Pressure: 565.83 psi

Collapse PSI: 2020.00 psi

Burst PSI: 3520.00 psi

Total Water Needed: 324.78 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.

X 6-15-17
Date

FL Green 14N-8HZ

