



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 10/23/2019

Invoice # 200531

API#

Foreman: Kirk Kallhoff

Customer: Anadarko Petroleum Corporation

Well Name: cleland 15-2hz

County: Weld

State: Colorado

Sec: 12

Twp: 1n

Range: 68w

Consultant: bryan

Rig Name & Number: Cartel 88

Distance To Location: 39

Units On Location: 4047/4028/4020

Time Requested: 530 pm

Time Arrived On Location: 330 pm

Time Left Location: 9:40pm

WELL DATA

Casing Size OD (in) : 9.625

Casing Weight (lb) : 36.00

Casing Depth (ft.) : 1,897

Total Depth (ft) : 1907

Open Hole Diameter (in.) : 13.50

Conductor Length (ft) : 80

Conductor ID : 15.25

Shoe Joint Length (ft) : 40

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: 100%

Displacement Fluid lb/gal: 8.3

BBL to Pit:

Fluid Ahead (bbls): 30.0

H2O Wash Up (bbls): 10.0

Spacer Ahead Makeup

30 bbl with Die in 2nd 10

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 61.05 cuft

(Conductor Width Squared) -(Casing Size OD Squared) X (.005454) X (Conductor Length ft)

cuft of Casing 1776.04 cuft

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

Total Slurry Volume 1854.46 cuft

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

bbls of Slurry 330.28 bbls

(Total Slurry Volume) X (.1781)

Sacks Needed 1253 sk

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

Mix Water 220.77 bbls

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

Displacement: 144.18 bbls

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

Pressure of cement in annulus

Hydrostatic Pressure: 1399.42 PSI

Pressure of the fluids inside casing

Displacement: 800.70 psi

Shoe Joint: 29.51 PSI

Total 830.21 psi

Differential Pressure: 569.21 psi

Collapse PSI: 2020.00 psi

Burst PSI: 3520.00 psi

Total Water Needed: 404.95 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.

Date _____

SERIES 2000

