



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 3/13/2018
Invoice #: 200264
API#
Foreman: Kirk Kallhoff

Customer: Anadarko Petroleum Corporation

Well Name: quarter circle 24-10hz

County: Weld
State: Colorado
Sec: 24
Twp: 1n
Range: 67w
Consultant: levi
Rig Name & Number: CARTEL 88
Distance To Location: 33
Units On Location: 4028/4041/4030
Time Requested: 930 am
Time Arrived On Location: 800 am
Time Left Location: 12:30pm

WELL DATA

Casing Size OD (in) : 9.625
Casing Weight (lb) : 36.00
Casing Depth (ft.) : 1,868
Total Depth (ft) : 1878
Open Hole Diameter (in.) : 13.50
Conductor Length (ft) : 80
Conductor ID : 15.5
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: 7.48
% Excess: 10%
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 WATER, DYE 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 64.40 cuft
(Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X (Conductor Length ft)

cuft of Casing 961.23 cuft
(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)

Total Slurry Volume 1043.00 cuft
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)

bbls of Slurry 185.76 bbls
(Total Slurry Volume) X (.1781)

Sacks Needed 705 sk
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)

Mix Water 125.51 bbls
(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 141.94 bbls

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

Pressure of cement in annulus

Hydrostatic Pressure: 1378.02 PSI

Pressure of the fluids inside casing

Displacement: 788.20 psi

Shoe Joint: 29.51 psi

Total 817.71 psi

Differential Pressure: 560.32 psi

Collapse PSI: 2020.00 psi

Burst PSI: 3520.00 psi

Total Water Needed: 307.45 bbls

X *Kirk Kallhoff*
Authorization To Proceed



Anadarko Petroleum Corporation
quarter circle 24-10hz

200264
Weld
Kirk Kallhoff
3/13/2018

X 3-13-18
Date

SERIES 2000

