



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 2/1/2017
Invoice # 900039
API# 05-123-44032
Foreman: JASON

Customer: Anadarko Petroleum Corporation
Well Name: WHISTON 40N-33HZ

County: Weld
State: Colorado
Sec: 4
Twp: 2N
Range: 67W
Consultant: SEAN
Rig Name & Number: WM 252
Distance To Location: 26
Units On Location: 4027-3103,4033-3213,4032-3213
Time Requested: 300
Time Arrived On Location: 130
Time Left Location: 730

WELL DATA

Casing Size OD (in) : 9.625
Casing Weight (lb) : 36.00
Casing Depth (ft.) : 1,871
Total Depth (ft) : 1881
Open Hole Diameter (in.) : 13.50
Conductor Length (ft) : 80
Conductor ID : 15.25
Shoe Joint Length (ft) : 45
Landing Joint (ft) : 15

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: 7.49
% Excess: 15%
Displacement Fluid lb/gal: 8.3
BBL to Pit: 28.0
Fluid Ahead (bbls): 30.0
H2O Wash Up (bbls): 20.0

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 19.32 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 1006.44 cuft
(Open Hole Squared)-(Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)

Total Slurry Volume 1086.81 cuft
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)

bbls of Slurry 193.56 bbls
(Total Slurry Volume) X (.1781)

Sacks Needed 734 sk
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)

Mix Water 130.96 bbls
(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 142.34 bbls

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

Pressure of cement in annulus

Hydrostatic Pressure: 1380.01 PSI

Pressure of the fluids inside casing

Displacement: 787.41 psi

Shoe Joint: 32.84 psi

Total 820.25 psi

Differential Pressure: 559.76 psi

Collapse PSI: 2020.00 psi

Burst PSI: 3520.00 psi

Total Water Needed: 323.29 bbls

Authorization To Proceed

X 02/01/19
Date

WHISTON 40N-33HZ SURFACE

