



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 9/22/2018
Invoice # 300194
API# 05-123-47712
Foreman: JASON KELEHER

Customer: Anadarko Petroleum Corporation
Well Name: CASTLE PINE 19-5HZ

County: Weld
State: Colorado
Sec: 19
Twp: 2N
Range: 66W
Consultant: BRYAN
Rig Name & Number: CARTEL 88
Distance To Location: 25
Units On Location: 1028-3106,4039-3214,4030-3214
Time Requested: 1000
Time Arrived On Location: 830
Time Left Location: 1300

WELL DATA

Casing Size OD (in) : 9.625
Casing Weight (lb) : 36.00
Casing Depth (ft.) : 1,874
Total Depth (ft) : 1884
Open Hole Diameter (in.) : 13.50
Conductor Length (ft) : 80
Conductor ID : 15.25
Shoe Joint Length (ft) : 43
Landing Joint (ft) : 5
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: 11.0
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 18.56 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 964.49 cuft
(Open Hole Squared)-(Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)
Total Slurry Volume 1044.10 cuft
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)
bbls of Slurry 185.95 bbls
(Total Slurry Volume) X (.1781)
Sacks Needed 705 sk
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)
Mix Water 125.64 bbls
(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 141.96 bbls

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

Pressure of cement in annulus

Hydrostatic Pressure: 1382.49 PSI

Pressure of the fluids inside casing

Displacement: 789.63 psi

Shoe Joint: 31.54 psi

Total 821.16 psi

Differential Pressure: 561.33 psi

Collapse PSI: 2020.00 psi

Burst PSI: 3520.00 psi

Total Water Needed: 307.60 bbls

X
Authorization To Proceed

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CASTLE PINE 19-5HZ SURFACE

