



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 9/3/2015

Invoice # 80441

API# 05-123-41978

Foreman: Calvin Reimers

Customer: Anadarko Petroleum Corporation

Well Name: Meguire 3N-16HZ

County: Weld

State: Colorado

Sec: 21

Twp: 2N

Range: 65W

Consultant: Sean / Chris

Rig Name & Number: Noble 2

Distance To Location: 28 Miles

Units On Location: 4023-3104/4033-3203

Time Requested: 1200am

Time Arrived On Location: 920pm

Time Left Location: 6:00 Am

WELL DATA

Casing Size OD (in) : 9.625
Casing Weight (lb) : 36.00
Casing Depth (ft.) : 1,839
Total Depth (ft) : 1855
Open Hole Diameter (in.) : 13.50
Conductor Length (ft) : 40
Conductor ID : 15.25
Shoe Joint Length (ft) : 44
Landing Joint (ft) : 10

Max Rate: 6
Max Pressure: 1750

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: 23
Fluid Ahead (bbls): 30.0
H2O Wash Up (bbls): 15.0

Spacer Ahead Makeup

30 bbls With Dye in 2nd 10 bbls

Casing ID

8.921

Casing Grade

J-55 only used

Calculated Results

cuft of Shoe 19.28 cuft

(Casing ID Squared) X (.005454) X (Shoe Joint ft)

cuft of Conductor 30.53 cuft

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

cuft of Casing 1011.09 cuft

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

Total Slurry Volume 1060.90 cuft

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

bbls of Slurry 188.95 bbls

(Total Slurry Volume) X (.1781)

Sacks Needed 712 sk

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

Mix Water 126.81 bbls

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

Displacement: 139.51 bbls

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

Pressure of cement in annulus

Hydrostatic Pressure: 1356.61 PSI

Pressure of the fluids inside casing

Displacement: 773.77 psi

Shoe Joint: 32.78 psi

Total 806.55 psi

Differential Pressure: 550.06 psi

Collapse PSI: 2020.00 psi

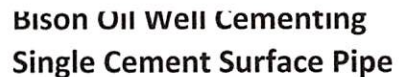
Burst PSI: 3520.00 psi

Total Water Needed: 311.31 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.



Meguire 3N-16HZ

9/4/2015

Treatment Report Page 2

DESCRIPTION OF JOB EVENTS

Date _____

SERIES 2000

