



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 8/16/2015
Invoice #: 80432
API#: 05-123-41904
Foreman: Calvin Reimers

Customer: Anadarko Petroleum Corporation
Well Name: Powers 13N-22HZ

County: Weld
State: Colorado
Sec: 22
Twp: 2N
Range: 65W

Consultant: Bryan / Hayden
Rig Name & Number: Noble 2
Distance To Location: 40 Miles
Units On Location: 4023-3104/4034-3203
Time Requested: 1000pm
Time Arrived On Location: 815pm
Time Left Location: 1:45 pm

WELL DATA

Casing Size OD (in) : 9.625
Casing Weight (lb) : 36.00
Casing Depth (ft.) : 1,861
Total Depth (ft) : 1877
Open Hole Diameter (in.) : 13.50
Conductor Length (ft) : 60
Conductor ID : 15.5
Shoe Joint Length (ft) : 43
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: 25
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 18.63 cuft
(Casing ID Squared) X (.005454) X (Shoe Joint ft)

cuft of Conductor 48.30 cuft
(Conductor Width Squared) -(Casing Size OD Squared) X (.005454) X (Conductor Length ft)

cuft of Casing 1012.05 cuft
(Open Hole Squared)-(Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)

Total Slurry Volume 1078.99 cuft
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)

bbls of Slurry 192.17 bbls
(Total Slurry Volume) X (.1781)

Sacks Needed 724 sk
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)

Mix Water 128.97 bbls
(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 141.30 bbls

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

Pressure of cement in annulus

Hydrostatic Pressure: 1372.62 PSI

Pressure of the fluids inside casing

Displacement: 783.78 psi

Shoe Joint: 31.66 psi

Total 815.45 psi

Differential Pressure: 557.18 psi

Collapse PSI: 2020.00 psi

Burst PSI: 3520.00 psi

Total Water Needed: 315.27 bbls

X *Hayden*
Authorization To Proceed

Bison Oil Well Cementing Single Cement Surface Pipe

Customer
Well Name

Anadarko Petroleum Corporation
Powers 13N-22HZ

INVOICE #
LOCATION
FOREMAN
Date

80432
Weld
Calvin Reimers
8/17/2015

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DESCRIPTION OF JOB EVENTS

[illegible]

☒

Work Performed

X

Title

x

Date _____

SERIES 2000

