



Bison Oil Well Cementing Single Cement Surface Pipe

Customer: Anadarko Petroleum Corporation
Well Name: butterball 32c-34hz

County: Weld
State: Colorado

Sec: 10
Twp: 2n
Range: 67w

Date: 5/4/2017
Invoice # 200082
API#
Foreman: Kirk Kallhoff

Consultant: matt
Rig Name & Number: wmo 252
Distance To Location: 26
Units On Location: 4028/4020/4033
Time Requested: 800 am
Time Arrived On Location: 715 am
Time Left Location: 10:15 am

WELL DATA

Casing Size OD (in) : 9.625
Casing Weight (lb) : 36.00
Casing Depth (ft.) : 1,816
Total Depth (ft) : 1841
Open Hole Diameter (in.) : 13.50
Conductor Length (ft) : 80
Conductor ID : 15.6
Shoe Joint Length (ft) : 42
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) : 1.49
Gallons Per Sack: 7.40
% Excess: 15%
Displacement Fluid lb/gal: 8.3
BBL to Pit:
Fluid Ahead (bbls): 30.0
H2O Wash Up (bbls): 10.0

Spacer Ahead Makeup

Casing ID

8.921

Casing Grade

J-55 only used

Calculated Results

cuft of Shoe 18.23 cuft
(Casing ID Squared) X (.005454) X (Shoe Joint ft)

cuft of Conductor 65.76 cuft
(Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X (Conductor Length ft)

cuft of Casing 975.70 cuft
(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)

Total Slurry Volume 1059.69 cuft
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)

bbls of Slurry 188.73 bbls
(Total Slurry Volume) X (.1781)

Sacks Needed 711 sk
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)

Mix Water 125.31 bbls
(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 138.30 bbls

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

Pressure of cement in annulus

Hydrostatic Pressure: 1339.66 PSI

Pressure of the fluids inside casing

Displacement: 764.92 psi

Shoe Joint: 30.98 psi

Total 795.90 psi

Differential Pressure: 543.76 psi

Collapse PSI: 2020.00 psi

Burst PSI: 3520.00 psi

Total Water Needed: 303.61 bbls

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.



INVOICE #
LOCATION
FOREMAN
Date

200082	Weld	Kirk Kallho	5/4/2017
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Customer
Well Name

Anadarko Petroleum Corporation
butterball 32c-34hz

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DESCRIPTION OF JOB EVENTS

[illegible]

Work Performed

X Carmon
Title

X 5-41-17

SERIES 2000

PSI Barrels / Minute Barrels Lbs / Gallon Stage Volume

