



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 4/12/2017
Invoice #: 666108
API#: 05-123-44408
Foreman: Nick Vigil

Customer: Anadarko Petroleum Corporation

Well Name: Butterball 25N-34HZ

County: Weld
State: Colorado

Sec: 10
Twp: 2N
Range: 67W

Consultant: Brian
Rig Name & Number: WMO 252
Distance To Location: 27 miles
Units On Location: 4023/4019/4030
Time Requested: 7:00
Time Arrived On Location: 6:15
Time Left Location:

WELL DATA

Casing Size OD (in) : 9.625
Casing Weight (lb) : 36.00
Casing Depth (ft.) : 1,817
Total Depth (ft) : 1827
Open Hole Diameter (in.) : 13.50
Conductor Length (ft) : 80
Conductor ID : 15.25
Shoe Joint Length (ft) : 44
Landing Joint (ft) : 10

Max Rate:
Max Pressure:

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: 0.0
Fluid Ahead (bbls): 30.0
H2O Wash Up (bbls): 20.0

Spacer Ahead Makeup

Casing ID

8.921

Casing Grade

J-55 only used

Calculated Results

cuft of Shoe 19.10 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 976.26 cuft
(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)

Total Slurry Volume 1056.41 cuft
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)

bbls of Slurry 188.15 bbls
(Total Slurry Volume) X (.1781)

Sacks Needed 709 sk
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)

Mix Water 126.27 bbls
(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 137.84 bbls

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

Pressure of cement in annulus

Hydrostatic Pressure: 1340.40 PSI

Pressure of the fluids inside casing

Displacement: 764.48 psi

Shoe Joint: 32.46 psi

Total 796.94 psi

Differential Pressure: 543.46 psi

Collapse PSI: 2020.00 psi

Burst PSI: 3520.00 psi

Total Water Needed: 314.11 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.



Customer	Inadarko Petroleum Corporation
Well Name	Butterball 25N-34HZ

INVOICE #
LOCATION
FOREMAN
Date

666108
Weld
Nick Vigil
4/12/2017

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DESCRIPTION OF JOB EVENTS

[illegible]

X B. Brown / Bryan Brown
Work Performed

X Co. Man
Title

X 4-12-17
Date

Butterball 25N-34HZ

