



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 6/21/2015
Invoice #: 80150
API#: 05-123-41492
Foreman: JASON KELEHER

Customer: Anadarko Petroleum Corporation
Well Name: ENGLISH FARMS 38N-8HZ

County: Weld
State: Colorado
Sec: 8
Twp: 1N
Range: 65W
Consultant: CHRIS
Rig Name & Number: NOBLE 2
Distance To Location: 20
Units On Location: 4031-3106/ 3105-3204
Time Requested: 530
Time Arrived On Location: 400
Time Left Location: 1200

WELL DATA

Casing Size OD (in) : 9.625
Casing Weight (lb) : 36.00
Casing Depth (ft) : 1,850
Total Depth (ft) : 1860
Open Hole Diameter (in.) : 13.50
Conductor Length (ft) : 47
Conductor ID : 15.25
Shoe Joint Length (ft) : 38
Landing Joint (ft) : 7

Max Rate: 6
Max Pressure: 1000

Cement Data

Cement Name: BFN III
Cement Density (lb/gal) : 14.2
Cement Yield (cuft) : 1.49
Gallons Per Sack: 7.48
% Excess: 10%
Displacement Fluid lb/gal: 8.3
BBL to Pit: 90.0
Fluid Ahead (bbls): 30.0
H2O Wash Up (bbls): 20.0

Spacer Ahead Makeup
30BBL WATER/ DYE IN 2ND 10

Casing ID

8.921

Casing Grade

J-55 only used

Calculated Results

cuft of Shoe 16.49 cuft
(Casing ID Squared) X (.005454) X (Shoe Joint ft)

cuft of Conductor 35.87 cuft
(Conductor Width Squared) -(Casing Size OD Squared) X (.005454) X (Conductor Length ft)

cuft of Casing 969.30 cuft
(Open Hole Squared)-(Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)

Total Slurry Volume 1021.66 cuft
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)

bbls of Slurry 181.96 bbls
(Total Slurry Volume) X (.1781)

Sacks Needed 686 sk
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)

Mix Water 122.12 bbls
(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 140.62 bbls
(Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)

Pressure of cement in annulus

Hydrostatic Pressure: 1364.75 PSI

Pressure of the fluids inside casing

Displacement: 781.30 psi

Shoe Joint: 28.03 psi

Total 809.33 psi

Differential Pressure: 555.41 psi

Collapse PSI: 2020.00 psi

Burst PSI: 3520.00 psi

Total Water Needed: 312.74 bbls

X *Jason Keleher*
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.

X
Date

ENGLISH FARMS 38N-8HZ SURFACE

