



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 6/27/2014
Invoice #: 12052
API#:
Foreman: Kirk Kallhoff

Customer: Noble
Well Name: nclp aa 06-69-1hna

County: weld
State: Colorado
Sec: 4
Twp: 6n
Range: 63w
Consultant: stetson
Rig Name & Number: h&p321
Distance To Location: 30
Units On Location: 3103-3210
Time Requested: 1000 am
Time Arrived On Location: 900 am
Time Left Location: 1:00 pm

WELL DATA

Casing Size OD (in) : 9.625
Casing Weight (lb) : 36.00
Casing Depth (ft) : 849
Total Depth (ft) : 889
Open Hole Diameter (in.) : 13.50
Conductor Length (ft) : 100
Conductor ID : 16
Shoe Joint Length (ft) : 43
Landing Joint (ft) : 30

Max Rate:
Max Pressure:

Cement Data

Cement Name: BFN III
Cement Density (lb/gal) : 15.2
Cement Yield (cuft) : 1.27
Gallons Per Sack: 5.69
% Excess: 30%
Displacement Fluid lb/gal: 8.3
BBL to Pit:
Fluid Ahead (bbls): 60.0
H2O Wash Up (bbls): 20.0

Spacer Ahead Makeup

Casing ID

8.921

Casing Grade

J-55 only used

Calculated Results

cuft of Shoe 18.66 cuft
(Casing ID Squared) X (.005454) X (Shoe Joint ft)
cuft of Conductor 89.10 cuft
(Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X (Conductor Length ft)
cuft of Casing 475.88 cuft
(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)
Total Slurry Volume 583.64 cuft
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)
bbls of Slurry 103.95 bbls
(Total Slurry Volume) X (.1781)
Sacks Needed 460 sk
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)
Mix Water 64.45 bbls
(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 64.63 bbls
(Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)

Pressure of cement in annulus

Hydrostatic Pressure: 670.37 PSI

Pressure of the fluids inside casing

Displacement: 347.53 psi

Shoe Joint: 33.95 psi

Total 381.48 psi

Differential Pressure: 288.89 psi

Collapse PSI: 2020.00 psi

Burst PSI: 3520.00 psi

Total Water Needed: 209.08 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.

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Customer
Well Name

Noble

nclp aa 06-69-1hna

INVOICE #
LOCATION
FOREMAN
Date

12052

weld

Kirk Kallhoff

6/27/2014

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DESCRIPTION OF JOB EVENTS

[illegible]

Notes:

bumped plug at 1211 pm 540 psi

91.8 bbls slurry

Work Performed	
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X WSS

Title

X 6-27-14
Date