



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 1/13/2018
Invoice #: 900236
API#: 05-123-42740
Foreman: Corey Barras

Customer: Bill Barrett Corp.
Well Name: Anschutz Equus Farms 4-62-28-109 C

County: Weld
State: Colorado
Sec: 4
Twp: 62N
Range: 28W
Consultant: Matt
Rig Name & Number: Savannah 802
Distance To Location: 24
Units On Location: 4024/3103 -4034/3213
Time Requested: 530
Time Arrived On Location: 430
Time Left Location:

WELL DATA

Casing Size OD (in) : 9.625
Casing Weight (lb) : 36.00
Casing Depth (ft.) : 883
Total Depth (ft) : 878
Open Hole Diameter (in.) : 13.50
Conductor Length (ft) : 80
Conductor ID : 15.25
Shoe Joint Length (ft) : 45
Landing Joint (ft) : 0
Max Rate: 8
Max Pressure: 2500

Cement Data

Cement Name: BFN III
Cement Density (lb/gal) : 14.2
Cement Yield (cuft) : 1.48
Gallons Per Sack: 7.49
% Excess: 10%
Displacement Fluid lb/gal: 8.3
BBL to Pit:
Fluid Ahead (bbls): 20.0
H2O Wash Up (bbls): 20.0
Spacer Ahead Makeup
20 BBL with die in 2nd 10

Casing ID

8.921

Casing Grade

J-55 only used

Calculated Results

cuft of Shoe 19.53 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 431.69 cuft
(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)
Total Slurry Volume 512.28 cuft
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)
bbls of Slurry 91.24 bbls
(Total Slurry Volume) X (.1781)
Sacks Needed 346 sk
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)
Mix Water 61.73 bbls
(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 64.78 bbls

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

Pressure of cement in annulus

Hydrostatic Pressure: 651.39 PSI

Pressure of the fluids inside casing

Displacement: 361.33 psi

Shoe Joint: 33.20 psi

Total 394.53 psi

Differential Pressure: 256.86 psi

Collapse PSI: 2020.00 psi

Burst PSI: 3520.00 psi

Total Water Needed: 166.51 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.

Bison Oil Well Cementing Single Cement Surface Pipe

Customer
Well Name

Bill Barrett Corp.
Anschutz Equus Farms 4-62-28-1609 0

INVOICE #
LOCATION
FOREMAN
Date

900236
Weld
Corey Barras
1/13/2018

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DESCRIPTION OF JOB EVENTS

[illegible]

x Robert L. Schultz
Work Performed

X Co-Rep
Title

X 1-13-18
Date