



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 12/21/2014
 Invoice #: 35092
 API#:
 Foreman: Kirk Kallhoff

Customer: Bill Barrett Corp.
 Well Name: will 6-62-15-0461 bh2

County: Weld
 State: Colorado
 Sec: 15
 Twp: 6n
 Range: 62w

Consultant: easy
 Rig Name & Number: major 43
 Distance To Location: 37
 Units On Location: 4030-3103/4020-3212
 Time Requested: 900 am
 Time Arrived On Location: 700 am
 Time Left Location:

WELL DATA	Cement Data
Casing Size OD (in) : 9.625	Cement Name: BFN III
Casing Weight (lb) : 36.00	Cement Density (lb/gal) : 15.2
Casing Depth (ft.) : 778	Cement Yield (cuft) : 1.27
Total Depth (ft) : 800	Gallons Per Sack: 5.89
Open Hole Diameter (in.) : 13.50	% Excess: 5%
Conductor Length (ft) :	Displacement Fluid lb/gal: 8.3
Conductor ID :	BBL to Pit:
Shoe Joint Length (ft) : 43	Fluid Ahead (bbls): 20.0
Landing Joint (ft) : 8	H2O Wash Up (bbls): 10.0
Max Rate:	Spacer Ahead Makeup
Max Pressure:	

Calculated Results	Pressure of cement in annulus
cuft of Shoe 18.66 cuft (Casing ID Squared) X (.005454) X (Shoe Joint ft)	Displacement: 57.44 bbls (Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)
cuft of Conductor 0.00 cuft (Conductor Width Squared) -(Casing Size OD Squared) X (.005454) X (Conductor Length ft)	Hydrostatic Pressure: 614.31 PSI
cuft of Casing 399.24 cuft (Open Hole Squared)-(Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)	Pressure of the fluids inside casing
Total Slurry Volume 417.91 cuft (cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)	Displacement: 316.92 psi
bbls of Slurry 74.43 bbls (Total Slurry Volume) X (.1781)	Shoe Joint: 33.95 psi
Sacks Needed 329 sk (Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)	Total 350.87 psi
Mix Water 46.15 bbls (Sacks Needed) X (Gallons Per Sack) ÷ 42	Differential Pressure: 263.44 psi
	Collapse PSI: 2020.00 psi
	Burst PSI: 3520.00 psi
	Total Water Needed: 133.59 bbls

X *Cosy*
 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.

M/D TOTCO 2000 SERIES

