



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 9/20/2018
Invoice #: 200336
API#
Foreman: KirkKallhoff

Customer: Anadarko Petroleum Corporation
Well Name: castle pines 19-3hz

County: Weld
State: Colorado
Sec: 23
Twp: 2N
Range: 66W
Consultant: levi
Rig Name & Number: Cartel 88
Distance To Location: 25
Units On Location: 4028/4033/4024
Time Requested: 830 pm
Time Arrived On Location: 600 pm
Time Left Location: 12:30 pm

WELL DATA

Casing Size OD (in) : 9.625
Casing Weight (lb) : 36.00
Casing Depth (ft.) : 1,875
Total Depth (ft) : 1885
Open Hole Diameter (in.) : 13.50
Conductor Length (ft) : 80
Conductor ID : 15.25
Shoe Joint Length (ft) : 40
Landing Joint (ft) : 8
Max Rate: 8
Max Pressure: 2000

Cement Data

Cement Name: BFN III
Cement Density (lb/gal) : 14.2
Cement Yield (cuft) : 1.48
Gallons Per Sack: 7.40
% Excess: 10%
Displacement Fluid lb/gal: 8.3
BBL to Pit:
Fluid Ahead (bbls): 30.0
H2O Wash Up (bbls): 10.0
Spacer Ahead Makeup
30 bbl with Die in 2nd 10

Casing ID	8.921	Casing Grade	J-55 only used
Calculated Results		Displacement: 142.48 bbls	
cuft of Shoe 17.36 cuft (Casing ID Squared) X (.005454) X (Shoe Joint ft)		(Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)	
cuft of Conductor 61.05 cuft (Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X (Conductor Length ft)		Pressure of cement in annulus	
cuft of Casing 965.00 cuft (Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)		Hydrostatic Pressure: 1383.19 PSI	
Total Slurry Volume 1043.41 cuft (cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)		Pressure of the fluids inside casing	
bbls of Slurry 185.83 bbls (Total Slurry Volume) X (.1781)		Displacement: 791.22 psi	
Sacks Needed 705 sk (Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)		Shoe Joint: 29.51 PSI	
Mix Water 124.22 bbls (Sacks Needed) X (Gallons Per Sack) ÷ 42		Total 820.73 psi	
		Differential Pressure: 562.46 psi	
		Collapse PSI: 2020.00 psi	
		Burst PSI: 3520.00 psi	
		Total Water Needed: 306.69 bbls	

X
Authorization To Proceed

x 9-21-18
Date

SERIES 2000

