



# Bison Oil Well Cementing Single Cement Surface Pipe

Date: 10/31/2017  
 Invoice #: 200188  
 API#: \_\_\_\_\_  
 Foreman: Kirk Kallhoff

**Customer:** Anadarko Petroleum Corporation

**Well Name:** newby state 27n-33hz

County: Weld  
 State: Colorado  
 Sec: 17  
 Twp: 1n  
 Range: 66w

Consultant: matt  
 Rig Name & Number: CARTEL 88  
 Distance To Location: 31  
 Units On Location: 4028/4039/4030  
 Time Requested: 930 am  
 Time Arrived On Location: 730 am  
 Time Left Location: 1:30 pm

WELL DATA		Cement Data	
Casing Size OD (in) :	9.625	Cement Name:	BFN III
Casing Weight (lb) :	36.00	Cement Density (lb/gal) :	14.2
Casing Depth (ft.) :	780	Cement Yield (cuft) :	1.48
Total Depth (ft) :	790	Gallons Per Sack:	7.48
Open Hole Diameter (in.) :	13.50	% Excess:	10%
Conductor Length (ft) :	80	Displacement Fluid lb/gal:	8.3
Conductor ID :	15.5	BBL to Pit:	
Shoe Joint Length (ft) :	44	Fluid Ahead (bbls):	30.0
Landing Joint (ft) :	8	H2O Wash Up (bbls):	10.0
Max Rate:	8	<b>Spacer Ahead Makeup</b>	
Max Pressure:	2000	<b>30 BBL WATER, DYE IN 2ND 10</b>	

Calculated Results	Displacement:	57.52 bbls
<b>cuft of Shoe</b> 19.10 cuft (Casing ID Squared) X (.005454) X (Shoe Joint ft)	(Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)	
<b>cuft of Conductor</b> 64.40 cuft (Conductor Width Squared) -(Casing Size OD Squared) X (.005454) X (Conductor Length ft)	<b>Pressure of cement in annulus</b>	
<b>cuft of Casing</b> 376.32 cuft (Open Hole Squared)-(Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length )	<b>Hydrostatic Pressure:</b> 575.41 PSI	
<b>Total Slurry Volume</b> 459.82 cuft (cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)	<b>Pressure of the fluids inside casing</b>	
<b>bbls of Slurry</b> 81.89 bbls (Total Slurry Volume) X (.1781)	<b>Displacement:</b> 317.35 psi	
<b>Sacks Needed</b> 311 sk (Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)	<b>Shoe Joint:</b> 32.46 psi	
<b>Mix Water</b> 55.33 bbls (Sacks Needed) X (Gallons Per Sack) ÷ 42	<b>Total</b> 349.81 psi	
	<b>Differential Pressure:</b> 225.60 psi	
	<b>Collapse PSI:</b> 2020.00 psi	
	<b>Burst PSI:</b> 3520.00 psi	
	<b>Total Water Needed:</b> 152.85 bbls	

X \_\_\_\_\_  
 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.



SERIES 2000

