



# Bison Oil Well Cementing Single Cement Surface Pipe

Invoice # 12729  
API# 445564  
Foreman: monte

Customer: bill barrett  
Well Name: 70ranch 4-63-3-3225cdh

County: weld  
State: colorado  
Sec: 3  
Twp: 4n  
Range: 63w  
Consultant: casey  
Rig Name & Number: major  
Distance To Location: 157.6  
Units On Location: 3104-2313  
Time Requested: 1130pm  
Time Arrived On Location: 1030  
Time Left Location: 330

WELL DATA	
Casing Size OD (in) :	9.6250
Casing Weight (lb) :	36
Casing Depth (ft.) :	808
Total Depth (ft) :	820
Open Hole Diameter (in.) :	13.50
Conductor Length (ft) :	
Conductor ID :	
Shoe Joint Length (ft) :	43
Landing Joint (ft) :	6
Max Rate:	
Max Pressure:	

Cement Data	
Cement Name:	BFN III
Cement Density (lb/gal) :	15.2
Cement Yield (cuft) :	1.27
Gallons Per Sack:	5.89
% Excess:	-23%
Displacement Fluid lb/gal:	
BBL to Pit:	
Fluid Ahead (bbls):	
H2O Wash Up (bbls):	20.0
Spacer Ahead Makeup	
	10 fresh 10 dye 40 fresh

Casing ID 8.921 Casing Grade J-55 only used

Calculated Results		
<b>cuft of Shoe</b>	<b>18.62</b>	<b>cuft</b>
<small>(Casing ID Squared) X (.005454) X (Shoe Joint ft)</small>		
<b>cuft of Conductor</b>	<b>0.00</b>	<b>cuft</b>
<small>(Conductor Width Squared) -(Casing Size OD Squared) X (.005454) X (Conductor Length ft)</small>		
<b>cuft of Casing</b>	<b>394.89</b>	<b>cuft</b>
<small>(Open Hole Squared)-(Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length )</small>		
<b>Total Slurry Volume</b>	<b>413.51</b>	<b>cuft</b>
<small>(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)</small>		
<b>bbls of Slurry</b>	<b>56.71</b>	<b>bbls</b>
<small>(Total Slurry Volume) X (.1781) X (% Excess Cement)</small>		
<b>Sacks Needed</b>	<b>251</b>	<b>sk</b>
<small>(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)</small>		
<b>Mix Water</b>	<b>35.16</b>	<b>bbls</b>
<small>(Sacks Needed) X (Gallons Per Sack) ÷ 42</small>		

<b>Displacement:</b>	<b>59.61</b>	<b>bbls</b>
<small>(Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)</small>		
<b>Pressure of cement in annulus</b>		
<b>Hydrostatic Pressure:</b>	<b>638.00</b>	<b>PSI</b>
<b>Pressure of the fluids inside casing</b>		
<b>Displacement:</b>	<b>#N/A</b>	<b>psi</b>
<b>Shoe Joint:</b>	<b>33.87</b>	<b>psi</b>
<b>Total</b>	<b>#N/A</b>	<b>psi</b>
<b>Differential Pressure:</b>	<b>#N/A</b>	<b>psi</b>
<b>Collapse PSI:</b>	<b>2020.00</b>	<b>psi</b>
<b>Burst PSI:</b>	<b>3520.00</b>	<b>psi</b>
<b>Total Water Needed:</b>	<b>55.16</b>	<b>bbls</b>

X Casey Pa  
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.