



# Bison Oil Well Cementing Single Cement Surface Pipe

Date: 11/15/2017  
Invoice #: 900210  
API#: 05-123-45500  
Foreman: Corey Barras

Customer: Anadarko Petroleum Corporation  
Well Name: Yellowhammer 30N-8HZ

County: Weld  
State: Colorado  
Sec: 8  
Twp: 1N  
Range: 68W

Consultant: Matt  
Rig Name & Number: Cartel 88  
Distance To Location: 42  
Units On Location: 4  
Time Requested: 700  
Time Arrived On Location: 615  
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) : 14.2
Casing Depth (ft.) : 1,867	Cement Yield (cuft) : 1.48
Total Depth (ft) : 1877	Gallons Per Sack: 7.40
Open Hole Diameter (in.) : 13.50	% Excess: 5%
Conductor Length (ft) : 80	Displacement Fluid lb/gal: 8.3
Conductor ID : 15.25	BBL to Pit:
Shoe Joint Length (ft) : 44	Fluid Ahead (bbls): 30.0
Landing Joint (ft) : 15	H2O Wash Up (bbls): 20.0
Max Rate: 8	Spacer Ahead Makeup
Max Pressure: 2000	30 bbl with Die in 2nd 10

Casing ID	8.921	Casing Grade	J-55 only used
<b>Calculated Results</b>		<b>Displacement:</b> 142.09 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>Pressure of cement in annulus</b>		<b>Hydrostatic Pressure:</b> 1377.29 PSI	
<b>cuft of Conductor</b> 61.05 cuft (Conductor Width Squared) -(Casing Size OD Squared) X (.005454) X (Conductor Length ft)	<b>Pressure of the fluids inside casing</b>		
<b>cuft of Casing</b> 917.03 cuft (Open Hole Squared)-(Casing Size Squared) X ( .005454) X (Casing Depth - Conductor Length )	<b>Displacement:</b> 786.04 psi		
<b>Total Slurry Volume</b> 997.18 cuft (cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)	<b>Shoe Joint:</b> 32.46 psi		
	<b>Total</b> 818.50 psi		
<b>bbls of Slurry</b> 177.60 bbls (Total Slurry Volume) X (.1781)	<b>Differential Pressure:</b> 558.78 psi		
<b>Sacks Needed</b> 674 sk (Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)	<b>Collapse PSI:</b> 2020.00 psi		
<b>Mix Water</b> 118.71 bbls (Sacks Needed) X (Gallons Per Sack) ÷ 42	<b>Burst PSI:</b> 3520.00 psi		
	<b>Total Water Needed:</b> 310.80 bbls		

X   
Authorization To Proceed

X 11/15/17  
Date

# Yellowhammer 30N-8HZ

