



# Bison Oil Well Cementing Single Cement Surface Pipe

Date: 8/16/2019  
 Invoice # 900394  
 API# 05-069-06503  
 Foreman: Corey Barras

**Customer:** Anadarko Petroleum Corporation  
**Well Name:** Jodster South 25-9HZ

County: Larimer Consultant: Josh  
 State: Colorado Rig Name & Number: CARTEL 88  
 Sec: 25 Distance To Location: 20  
 Twp: 5n Units On Location: 4028/3103-4024/3214-4039/3212  
 Range: 68w Time Requested: 2200  
 Time Arrived On Location: 2100  
 Time Left Location: \_\_\_\_\_

WELL DATA	Cement Data
Casing Size OD (in) : <u>9.625</u>	Cement Name: <u>BFN III</u>
Casing Weight (lb) : <u>36.00</u>	Cement Density (lb/gal) : <u>14.2</u>
Casing Depth (ft.) : <u>1,861</u>	Cement Yield (cuft) : <u>1.48</u>
Total Depth (ft) : <u>1871</u>	Gallons Per Sack: <u>7.48</u>
Open Hole Diameter (in.) : <u>13.50</u>	% Excess: <u>5%</u>
Conductor Length (ft) : <u>80</u>	Displacement Fluid lb/gal: <u>8.3</u>
Conductor ID : <u>15.25</u>	BBL to Pit:
Shoe Joint Length (ft) : <u>42</u>	Fluid Ahead (bbls): <u>30.0</u>
Landing Joint (ft) : <u>8</u>	H2O Wash Up (bbls): <u>20.0</u>
Max Rate: <u>8</u>	Spacer Ahead Makeup
Max Pressure: <u>2000</u>	<u>30 BBL WATER, DYE IN 2ND 10</u>

Calculated Results	Pressure of cement in annulus
<b>Displacement:</b> <u>141.24 bbls</u>	(Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)
<b>cuft of Shoe</b> <u>18.23 cuft</u> (Casing ID Squared) X (.005454) X (Shoe Joint ft)	<b>Pressure of cement in annulus</b>
<b>cuft of Conductor</b> <u>61.05 cuft</u> (Conductor Width Squared) -(Casing Size OD Squared) X (.005454) X (Conductor Length ft)	<b>Hydrostatic Pressure:</b> <u>1372.86 PSI</u>
<b>cuft of Casing</b> <u>913.95 cuft</u> (Open Hole Squared)-(Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length )	<b>Pressure of the fluids inside casing</b>
<b>Total Slurry Volume</b> <u>993.23 cuft</u> (cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)	<b>Displacement:</b> <u>784.32 psi</u>
<b>bbls of Slurry</b> <u>176.89 bbls</u> (Total Slurry Volume) X (.1781)	<b>Shoe Joint:</b> <u>30.98 psi</u>
<b>Sacks Needed</b> <u>671 sk</u> (Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)	<b>Total</b> <u>815.30 psi</u>
<b>Mix Water</b> <u>119.52 bbls</u> (Sacks Needed) X (Gallons Per Sack) ÷ 42	<b>Differential Pressure:</b> <u>557.56 psi</u>
	<b>Collapse PSI:</b> <u>2020.00 psi</u>
	<b>Burst PSI:</b> <u>3520.00 psi</u>
	<b>Total Water Needed:</b> <u>310.76 bbls</u>

X [Signature]  
 Authorization to Proceed



# Jodster 25-9HZ

