





# Bison Oil Well Cementing Single Cement Surface Pipe

Date: 10/5/2019

Invoice # 900414

API# 05-069-50519

Foreman: Corey Barras

**Customer:** Anadarko Petroleum Corporation

**Well Name:** Mae J 8-3HZ

County: Weld

State: Colorado

Sec: 25

Twp: 5n

Range: 68w

Consultant: Bryan

Rig Name & Number: CARTEL 88

Distance To Location: 39

Units On Location: 4028/3103-4024/3214-4044/3205

Time Requested: 1730

Time Arrived On Location: 1600

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.) : 1,914	Cement Yield (cuft) : 1.48
Total Depth (ft) : 1925	Gallons Per Sack: 7.48
Open Hole Diameter (in.) : 13.50	% Excess: 15%
Conductor Length (ft) : 80	Displacement Fluid lb/gal: 8.3
Conductor ID : 15.25	BBL to Pit:
Shoe Joint Length (ft) : 42	Fluid Ahead (bbls): 30.0
Landing Joint (ft) : 8	H2O Wash Up (bbls): 20.0
Max Rate: 8	Spacer Ahead Makeup
Max Pressure: 2000	30 BBL WATER, DYE IN 2ND 10

Casing ID 8.921 Casing Grade J-55 only used

Calculated Results	Pressure of cement in annulus
<b>Displacement:</b> 145.34 bbls	(Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)
<b>cuft of Shoe</b> 18.23 cuft (Casing ID Squared) X (.005454) X (Shoe Joint ft)	<b>Pressure of cement in annulus</b>
<b>cuft of Conductor</b> 61.05 cuft (Conductor Width Squared) -(Casing Size OD Squared) X (.005454) X (Conductor Length ft)	<b>Hydrostatic Pressure:</b> 1411.96 PSI
<b>cuft of Casing</b> 1030.78 cuft (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> 1110.06 cuft (cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)	<b>Displacement:</b> 807.17 psi
<b>bbls of Slurry</b> 197.70 bbls (Total Slurry Volume) X (.1781)	<b>Shoe Joint:</b> 30.98 psi
<b>Sacks Needed</b> 750 sk (Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)	<b>Total</b> 838.15 psi
<b>Mix Water</b> 133.58 bbls (Sacks Needed) X (Gallons Per Sack) ÷ 42	<b>Differential Pressure:</b> 573.80 psi
	<b>Collapse PSI:</b> 2020.00 psi
	<b>Burst PSI:</b> 3520.00 psi
	<b>Total Water Needed:</b> 328.92 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.

# Mae J 8-3HZ

