



# Bison Oil Well Cementing Single Cement Surface Pipe

Date: 11/18/2017  
 Invoice # 900212  
 API# 05-123-45503  
 Foreman: Corey Barras

**Customer:** Anadarko Petroleum Corporation  
**Well Name:** Papa Jo 2-25 29N-8HZ

County: Weld Consultant: Matt  
 State: Colorado Rig Name & Number: Cartel 88  
 Distance To Location: 42  
 Sec: 8 Units On Location: 1027-3103/4020-3214/4030/321  
 Twp: 1N Time Requested: 1000  
 Range: 68W Time Arrived On Location: 930  
 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>1,864</u>	Cement Yield (cuft) : <u>1.48</u>
Total Depth (ft) : <u>1874</u>	Gallons Per Sack: <u>7.40</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>44</u>	Fluid Ahead (bbls): <u>30.0</u>
Landing Joint (ft) : <u>15</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 with Die in 2nd 10</u>

Calculated Results	Displacement: <u>141.86 bbls</u>
<b>cuft of Shoe</b> <u>19.10</u> <b>cuft</b> (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> <u>61.05</u> <b>cuft</b> (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> <u>915.49</u> <b>cuft</b> (Open Hole Squared)-(Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length )	<b>Hydrostatic Pressure:</b> <u>1375.07 PSI</u>
<b>Total Slurry Volume</b> <u>995.64</u> <b>cuft</b> (cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)	<b>Pressure of the fluids inside casing</b>
<b>bbls of Slurry</b> <u>177.32</u> <b>bbls</b> (Total Slurry Volume) X (.1781)	<b>Displacement:</b> <u>784.75 psi</u>
<b>Sacks Needed</b> <u>673</u> <b>sk</b> (Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)	<b>Shoe Joint:</b> <u>32.46 psi</u>
<b>Mix Water</b> <u>118.53</u> <b>bbls</b> (Sacks Needed) X (Gallons Per Sack) ÷ 42	<b>Total</b> <u>817.21 psi</u>
	<b>Differential Pressure:</b> <u>557.86 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>310.39 bbls</u>

  
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 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.



**Bison Oil Well Cementing  
Single Cement Surface Pipe**

Customer  
Well Name

Anadarko Petroleum Corporation  
Papa Jo 2-25 29N-8HZ

INVOICE #  
LOCATION  
FOREMAN  
Date

900212  
Weld  
Corey Barras  
11/18/2017

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**DESCRIPTION OF JOB EVENTS**

Amount Pumped		Event	Description	Rate	BBLs	Pressure
% Excess	5%	930	What rig is doing upon Bison Arrival			
Mixed bbls	118.53	940	JSA			
Total Sacks	673	950	Rig up			
bbl Returns	19	1200	Safety Meeting			
Water Temp	58	1220	Start Job			
		1222	Pressure Test			
Notes:						
		1225	Spacer Ahead	2nd 10 with die	5	30 80
		1230	Lead Cement	14.2 ppg	6	177 80
		1300	Shutdown			
		1302	Drop Plug	Preloaded in plug container		
		1304	Start Displacement		7	90 340
		1328	Bump Plug	500 over final lift (1140 PSI)	2	141 510
		1330	Floats Held	Held for 2 MIN with .5 bll back		
		1335	End Job			
		1340	Rig Down			
		1415	Leave Location			

X \_\_\_\_\_  
Work Preformed

X \_\_\_\_\_  
Title

X 11-18-17 \_\_\_\_\_  
Date

# Papa Jo 2-25 29N-8HZ

