



# Bison Oil Well Cementing Single Cement Surface Pipe

Date: 8/30/2017  
Invoice # 900162  
API# 05-123-43474  
Foreman: Corey B.

Customer: Anadarko Petroleum Corporation  
Well Name: Wagner 27C-10HZ

County: Weld Consultant: Matt  
State: Colorado Rig Name & Number: Cartel 88  
Distance To Location: 44  
Sec: 22 Units On Location: 1027/3103-4033/3212-4020/321  
Twp: 1N Time Requested: 200  
Range: 67W Time Arrived On Location: 1245  
Time Left Location: 530

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>1,890</u>	Cement Yield (cuft) : <u>1.48</u>
Total Depth (ft) : <u>1880</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: <u>13.0</u>
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>	30 bbl with Die in @nd 10

Casing ID	8.921	Casing Grade	J-55 only used
<b>Calculated Results</b>	<b>Displacement:</b>	<b>143.87</b>	<b>bbls</b>
<b>cuft of Shoe</b>	<b>19.10</b>	<b>cuft</b>	(Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)
(Casing ID Squared) X (.005454) X (Shoe Joint ft)	<b>Pressure of cement in annulus</b>		
<b>cuft of Conductor</b>	<b>61.05</b>	<b>cuft</b>	<b>Hydrostatic Pressure:</b>
(Conductor Width Squared) -(Casing Size OD Squared) X (.005454) X (Conductor Length ft)	<b>1394.25</b>	<b>PSI</b>	
<b>cuft of Casing</b>	<b>928.83</b>	<b>cuft</b>	<b>Pressure of the fluids inside casing</b>
(Open Hole Squared)-(Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length )	<b>Displacement:</b>	<b>795.96</b>	<b>psi</b>
<b>Total Slurry Volume</b>	<b>1008.98</b>	<b>cuft</b>	<b>Shoe Joint:</b>
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)	<b>32.46</b>	<b>psi</b>	
<b>bbls of Slurry</b>	<b>179.70</b>	<b>bbls</b>	<b>Total</b>
(Total Slurry Volume) X (.1781)	<b>828.42</b>	<b>psi</b>	
<b>Sacks Needed</b>	<b>682</b>	<b>sk</b>	<b>Differential Pressure:</b>
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)	<b>565.83</b>	<b>psi</b>	
<b>Mix Water</b>	<b>120.12</b>	<b>bbls</b>	<b>Collapse PSI:</b>
(Sacks Needed) X (Gallons Per Sack) ÷ 42	<b>3520.00</b>	<b>psi</b>	
	<b>Burst PSI:</b>	<b>3520.00</b>	<b>psi</b>
	<b>Total Water Needed:</b>	<b>313.99</b>	<b>bbls</b>

X   
Authorization To Proceed



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

Customer  
Well Name

Anadarko Petroleum Corporation  
Wagner 27C-10HZ

INVOICE #  
LOCATION  
FOREMAN  
Date

900162  
Weld  
Corey B.  
8/30/2017

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**DESCRIPTION OF JOB EVENTS**

Amount Pumped	Time	Event	Description	Rate	BBLs	Pressure
% Excess <b>5%</b>	1245	What rig is doing upon Bison Arrival	Running casing			
Mixed bbls 120.12	1250	JSA	Bison Crew			
Total Sacks <b>682</b>	100	Rig up				
bbl Returns 13	300	Safety Meeting	Bison and Rig crew			
Water Temp 64	348	Start Job				
	350	Pressure Test				
Notes:						
	355	Spacer Ahead	2nd 10 with die	5	30	60
	401	Lead Cement	14.2 ppg	6	179	70
	430	Shutdown				
	432	Drop Plug	Preloaded in plug container			
	435	Start Displacement		7	90	340
	500	Bump Plug	500 over final lift 1080 psi	2	143	510
	502	Floats Held	Held for 2 MIN with 1/2 bll back			
	505	End Job				
	510	Rig Down				
	530	Leave Location				

X

Work Performed

*[Signature]*

X

Title

*Co. Man*

X

Date

*8-30-17*

# Wagner 27C-10HZ

