



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 7/5/2017
 Invoice # 900129
 API# 05-123-44797
 Foreman: Corey B.

Customer: Anadarko Petroleum Corporation
Well Name: Cannon 28N-W4HZ

County: Weld Consultant: Matt
 State: Colorado Rig Name & Number: Cartel 88
 Distance To Location: 31
 Sec: 33 Units On Location: 027/3103-4033/3212-4020/321
 Twp: 3N Time Requested: 300
 Range: 65W Time Arrived On Location: 200
 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>1,851</u>	Cement Yield (cuft) : <u>1.48</u>
Total Depth (ft) : <u>1869</u>	Gallons Per Sack: <u>7.40</u>
Open Hole Diameter (in.) : <u>13.50</u>	% Excess: <u>15%</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 @nd 10</u>

Calculated Results	Displacement: 140.86 bbls
cuft of Shoe <u>19.10</u> cuft (Casing ID Squared) X (.005454) X (Shoe Joint ft)	(Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)
cuft of Conductor <u>61.05</u> cuft (Conductor Width Squared) -(Casing Size OD Squared) X (.005454) X (Conductor Length ft)	Pressure of cement in annulus
cuft of Casing <u>995.37</u> cuft (Open Hole Squared)-(Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)	Hydrostatic Pressure: 1365.48 PSI
Total Slurry Volume <u>1075.52</u> cuft (cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)	Pressure of the fluids inside casing
bbls of Slurry <u>191.55</u> bbls (Total Slurry Volume) X (.1781)	Displacement: 779.14 psi
Sacks Needed <u>727</u> sk (Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)	Shoe Joint: 32.46 psi
Mix Water <u>128.04</u> bbls (Sacks Needed) X (Gallons Per Sack) ÷ 42	Total 811.60 psi
	Differential Pressure: 553.88 psi
	Collapse PSI: 2020.00 psi
	Burst PSI: 3520.00 psi
	Total Water Needed: 318.89 bbls


 Authorization To Proceed



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

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Cannon 28N-W4HZ**

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LOCATION Weld
FOREMAN Corey B.
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DESCRIPTION OF JOB EVENTS

Amount Pumped	Time	Event	Description	Rate	BBLs	Pressure
% Excess 15%	200	What rig is doing upon Bison Arrival	Running casing			
Mixed bbls 128.04	205	JSA	Bison Crew			
Total Sacks 727	215	Rig up				
bbl Returns 30	705	Safety Meeting	Bison and Rig crew			
Water Temp 70	730	Start Job				
	732	Pressure Test				
Notes:						
	735	Spacer Ahead	2nd 10 with die	5	30	100
	740	Lead Cement	14.2 ppg	6	191	60
	815	Shutdown				
	817	Drop Plug	Preloaded in plug container			
	820	Start Displacement		7	90	390
	840	Bump Plug	500 over final lift 1160 psi	2	140	520
	843	Floats Held	Held for 3 min with 1/2 BBL Back			
	845	End Job				
	855	Rig Down				
	930	Leave Location				

X
Work Performed

X Comen
Title

X 75-17
Date

Cannon 28N-W4HZ

