



# Bison Oil Well Cementing Single Cement Surface Pipe

Date: 2/3/2015  
Invoice #: 25141  
API#: 05-123-40912  
Foreman: Calvin Reimers

Customer: Anadarko Petroleum Corporation  
Well Name: Griswold 1N-11HZ

County: Weld  
State: Colorado  
Sec: 11  
Twp: 4N  
Range: 65W  
Consultant: Toby/Ellis  
Rig Name & Number: Advanced 10  
Distance To Location: 26 Miles  
Units On Location: 4023-3104/4024-3203  
Time Requested: 500pm  
Time Arrived On Location: 210pm  
Time Left Location: 7:00 pm

## WELL DATA

Casing Size OD (in) : 9.625  
Casing Weight (lb) : 36.00  
Casing Depth (ft.) : 1,734  
Total Depth (ft) : 1748  
Open Hole Diameter (in.) : 13.50  
Conductor Length (ft) : 47  
Conductor ID : 16  
Shoe Joint Length (ft) : 43  
Landing Joint (ft) : 8

Max Rate: 5  
Max Pressure: 2500

## Cement Data

Cement Name: BFN III  
Cement Density (lb/gal) : 14.2  
Cement Yield (cuft) : 1.49  
Gallons Per Sack: 7.48  
% Excess: 15%  
Displacement Fluid lb/gal: 8.3  
BBL to Pit: 11  
Fluid Ahead (bbls): 30.0  
H2O Wash Up (bbls): 20.0

Spacer Ahead Makeup  
30bbls H2O+Dye in 2nd 10bbls

Casing ID

8.921

Casing Grade

J-55 only used

## Calculated Results

cuft of Shoe 18.84 cuft  
(Casing ID Squared) X (.005454) X (Shoe Joint ft)  
cuft of Conductor 41.88 cuft  
(Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X (Conductor Length ft)  
cuft of Casing 947.88 cuft  
(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)  
Total Slurry Volume 1008.59 cuft  
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)  
bbls of Slurry 179.63 bbls  
(Total Slurry Volume) X (.1781)  
Sacks Needed 677 sk  
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)  
Mix Water 120.55 bbls  
(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 131.28 bbls

(Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)

## Pressure of cement in annulus

Hydrostatic Pressure: 1278.80 PSI

## Pressure of the fluids inside casing

Displacement: 728.74 psi

Shoe Joint: 32.02 psi

Total 760.76 psi

Differential Pressure: 518.05 psi

Collapse PSI: 2020.00 psi

Burst PSI: 3520.00 psi

Total Water Needed: 301.83 bbls

X

Authorization To Proceed





Displacement Cementing  
Single Cement Surface Pipe

Customer  
Well Name

Anadarko Petroleum Corporation  
Griswold 1N-11HZ

INVOICE #  
LOCATION  
FOREMAN  
Date

20141  
Weld  
Calvin Reimers  
2/3/2015

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DESCRIPTION OF JOB EVENTS

		Displace 1			Displace 2			Displace 3			Displace 4			Displace 5		
		BBLS	Time	PSI	BBLS	Time	PSI	BBLS	Time	PSI	BBLS	Time	PSI	BBLS	Time	PSI
Safety Meeting	426pm															
MIRU	345pm															
CIRCULATE	452pm	0	539pm	80	0	Bump	1010	0	610pm		0			0		
Drop Plug		10	542pm	50	10			10			10			10		
538pm		20	544pm	80	20			20			20			20		
		30	546pm	100	30			30			30			30		
		40	547pm	110	40			40			40			40		
M & P		50	549pm	130	50			50			50			50		
Time	Sacks	60	551pm	200	60			60			60			60		
500pm	677	70	553pm	260	70			70			70			70		
534pm		80	555pm	320	80			80			80			80		
		90	557pm	380	90			90			90			90		
		100	558pm	450	100			100			100			100		
		110	600pm	500	110			110			110			110		
% Excess	15%	120	602pm	520	120			120			120			120		
Mixed bbls	120.55	130	605pm	480	130			130			130			130		
Total Sacks	677	140	606pm	480	140			140			140			140		
bbl Returns	11	150	Bump	1470	150	608pm		150			150			150		
Water Temp	50.2															

Notes:

The day

1/2 bbl Back on Bleed Off

X

Work Performed

X

Title

X

Date

## SERIES 2000

