



# Bison Oil Well Cementing Single Cement Surface Pipe

Date: 3/10/2015

Invoice # 80057

API#

Foreman: kirk kallhoff

Customer: Anadarko Petroleum Corporation

Well Name: cream 28n-21hn

County: Weld

State: Colorado

Sec: 28

Twp: 3n

Range: 65w

Consultant: vivian

Rig Name & Number: advanced 10

Distance To Location: 10

Units On Location: 4038-3103/4034-3211

Time Requested: 330 am

Time Arrived On Location: 130 am

Time Left Location: 8:30 am

## WELL DATA

Casing Size OD (in) : 9.625  
Casing Weight (lb) : 36.00  
Casing Depth (ft.) : 1,195  
Total Depth (ft) : 1213  
Open Hole Diameter (in.) : 13.50  
Conductor Length (ft) : 45  
Conductor ID : 16  
Shoe Joint Length (ft) : 39  
Landing Joint (ft) : 8

Max Rate:

Max Pressure:

## Cement Data

Cement Name: BFN III  
Cement Density (lb/gal) : 14.2  
Cement Yield (cuft) : 1.49  
Gallons Per Sack: 7.48  
% Excess: 20%  
Displacement Fluid lb/gal: 8.3  
BBL to Pit:  
Fluid Ahead (bbls): 30.0  
H2O Wash Up (bbls): 10.0

Spacer Ahead Makeup

Casing ID

8.921

Casing Grade

J-55 only used

## Calculated Results

**cuft of Shoe** 16.93 cuft  
(Casing ID Squared) X (.005454) X (Shoe Joint ft)

**cuft of Conductor** 40.09 cuft  
(Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X (Conductor Length ft)

**cuft of Casing** 674.45 cuft  
(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)

**Total Slurry Volume** 731.47 cuft  
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)

**bbls of Slurry** 130.27 bbls  
(Total Slurry Volume) X (.1781)

**Sacks Needed** 491 sk  
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)

**Mix Water** 87.43 bbls  
(Sacks Needed) X (Gallons Per Sack) ÷ 42

**Displacement:** 89.99 bbls

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

## Pressure of cement in annulus

**Hydrostatic Pressure:** 881.55 PSI

## Pressure of the fluids inside casing

**Displacement:** 498.45 psi

**Shoe Joint:** 28.77 psi

**Total** 527.22 psi

**Differential Pressure:** 354.34 psi

**Collapse PSI:** 2020.00 psi

**Burst PSI:** 3520.00 psi

**Total Water Needed:** 217.42 bbls

*[Signature]*

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  
cream 28n-21hn

INVOICE #  
LOCATION  
FOREMAN  
Date

80057  
Weld  
kirk kallhoff  
3/10/2015

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**DESCRIPTION OF JOB EVENTS**

Safety Meeting		Displace 1			Displace 2			Displace 3			Displace 4			Displace 5		
MIRU		BBLS	Time	PSI	BBLS	Time	PSI	BBLS	Time	PSI	BBLS	Time	PSI	BBLS	Time	PSI
CIRCULATE	639am	0	731am	10	0			0			0			0		
Drop Plug	200am	10	733am	70	10			10			10			10		
731 am	655am	20	735am	80	20			20			20			20		
		30	737am	100	30			30			30			30		
		40	741am	170	40			40			40			40		
M & P		50	743am	230	50			50			50			50		
Time	Sacks	60	745am	290	60			60			60			60		
701 am	491	70	747am	360	70			70			70			70		
728 am stop		80	749am	400	80			80			80			80		
		90	753am	390	90			90			90			90		
		100			100			100			100			100		
		110			110			110			110			110		
% Excess	20%	120			120			120			120			120		
Mixed bbls	87.4	130			130			130			130			130		
Total Sacks	491	140			140			140			140			140		
bbl Returns	20	150			150			150			150			150		
Water Temp																

Notes:

bumped plug at 753 am 910 psi

floats held

x Vivian B  
Work Preformed

x foreman  
Title

x 3-10-15  
Date



# M/D TOTCO 2000 SERIES

