



# Bison Oil Well Cementing Single Cement Surface Pipe

Date: 3/14/2015

Invoice # 80109

API# 05-123-40947

Foreman: JASON KELEHER

Customer: Anadarko Petroleum Corporation

Well Name: CHEESE STATE 26C-21HZ

County: Weld

State: Colorado

Sec: 28

Twp: 3N

Range: 65W

Consultant: TIM

Rig Name & Number: ADVANCED 10

Distance To Location: 12

Units On Location: 4031-3107, 4030-3203

Time Requested: 700

Time Arrived On Location: 600

Time Left Location: 1100

## WELL DATA

Casing Size OD (in) : 9.625  
Casing Weight (lb) : 36.00  
Casing Depth (ft) : 1,164  
Total Depth (ft) : 1180  
Open Hole Diameter (in.) : 13.50  
Conductor Length (ft) : 40  
Conductor ID : 15.25  
Shoe Joint Length (ft) : 44  
Landing Joint (ft) : 5

Max Rate: 6

Max Pressure: 1500

## 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: 17.0

Fluid Ahead (bbls): 30.0

H2O Wash Up (bbls): 20.0

Spacer Ahead Makeup

30 BBL WATER W/ DYE IN 2ND 10

Casing ID

8.921

Casing Grade

J-55 only used

## Calculated Results

cuft of Shoe 18.99 cuft

(Casing ID Squared) X (.005454) X (Shoe Joint ft)

cuft of Conductor 30.53 cuft

(Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X (Conductor Length ft)

cuft of Casing 661.45 cuft

(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)

Total Slurry Volume 710.97 cuft

(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)

bbls of Slurry 126.62 bbls

(Total Slurry Volume) X (.1781)

Sacks Needed 477 sk

(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)

Mix Water 84.98 bbls

(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 87.00 bbls

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

## Pressure of cement in annulus

Hydrostatic Pressure: 858.76 PSI

## Pressure of the fluids inside casing

Displacement: 483.08 psi

Shoe Joint: 32.27 psi

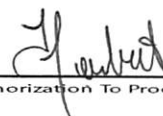
Total 515.35 psi

Differential Pressure: 343.41 psi

Collapse PSI: 2020.00 psi

Burst PSI: 3520.00 psi

Total Water Needed: 221.98 bbls

X   
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  
CHEESE STATE 26C-21HZ

INVOICE #  
LOCATION  
FOREMAN  
Date

80109  
Weld  
JASON KELEHER  
3/14/2015

Treatment Report Page 2

**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	840															
MIRU	630															
CIRCULATE	900	0	938	0	0			0			0			0		
Drop Plug		10	940	40	10			10			10			10		
938		20	943	20	20			20			20			20		
		30	946	80	30			30			30			30		
		40	948	170	40			40			40			40		
M & P		50	950	230	50			50			50			50		
Time	Sacks	60	952	310	60			60			60			60		
0904-0936	477	70	954	360	70			70			70			70		
		80	956	380	80			80			80			80		
		90	958	360	90			90			90			90		
		100	BUMP	920	100			100			100			100		
		110			110			110			110			110		
% Excess	20%	120			120			120			120			120		
Mixed bbls	84.9	130			130			130			130			130		
Total Sacks	477	140			140			140			140			140		
bbl Returns	17	150			150			150			150			150		
Water Temp	48															

Notes:

PERFORMED PRESSURE TEST TO 1500 PSI AT 0858, PUMPED 30 BBL WATER WITH DYE IN 2ND 10 AT 0900, MIXED AND PUMPED 477 SKS AT 14.2,  
126.6 BBL AT 10904, SHUT DOWN AT 0936, STARTED DISPLACEMENT AT 0938, PLUG LANDED AT 360 PSI AT 0958 AND PRESSURED UP TO 920, HELD  
FOR 5 MINUTES AND RELEASED TO CHECK FLOATS, GOT .5 BBL WATER BACK, FLOATS HELD.

X

Signature

X

Title

X

Date



# CHEESE STATE 26C-21HZ SURFACE

