



# Bison Oil Well Cementing Single Cement Surface Pipe

Date: 2/27/2015  
 Invoice # 35125  
 API# \_\_\_\_\_  
 Foreman: kirk kallhoff

**Customer:** Anadarko Petroleum Corporation  
**Well Name:** skim 13n-28hz

County: Weld  
 State: Colorado  
 Sec: 21  
 Twp: 3n  
 Range: 65w

Consultant: toby  
 Rig Name & Number: advanced 10  
 Distance To Location: 10  
 Units On Location: 4038-3103/4020-3212  
 Time Requested: 430pm  
 Time Arrived On Location: 300 pm  
 Time Left Location: 7:30 pm

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>1,212</u>	Cement Yield (cuft) :	<u>1.49</u>
Total Depth (ft) :	<u>1230</u>	Gallons Per Sack:	<u>7.48</u>
Open Hole Diameter (in.) :	<u>13.50</u>	% Excess:	<u>15%</u>
Conductor Length (ft) :	<u>45</u>	Displacement Fluid lb/gal:	<u>8.3</u>
Conductor ID :	<u>16</u>	BBL to Pit:	
Shoe Joint Length (ft) :	<u>39</u>	Fluid Ahead (bbls):	<u>30.0</u>
Landing Joint (ft) :	<u>8</u>	H2O Wash Up (bbls):	<u>10.0</u>
Max Rate:		Spacer Ahead Makeup	
Max Pressure:			

Casing ID	8.921	Casing Grade	J-55 only used
<b>Calculated Results</b>		<b>Displacement: 91.30 bbls</b> (Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)	
<b>cuft of Shoe</b>	<b>16.93 cuft</b>	<b>Pressure of cement in annulus</b>	
(Casing ID Squared) X (.005454) X (Shoe Joint ft)		<b>Hydrostatic Pressure: 894.09 PSI</b>	
<b>cuft of Conductor</b>	<b>40.09 cuft</b>	<b>Pressure of the fluids inside casing</b>	
(Conductor Width Squared) -(Casing Size OD Squared) X (.005454) X (Conductor Length ft)		<b>Displacement: 505.78 psi</b>	
<b>cuft of Casing</b>	<b>655.90 cuft</b>	<b>Shoe Joint: 28.77 psi</b>	
(Open Hole Squared)-(Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length )		<b>Total 534.55 psi</b>	
<b>Total Slurry Volume</b>	<b>712.92 cuft</b>	<b>Differential Pressure: 359.55 psi</b>	
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)		<b>Collapse PSI: 2020.00 psi</b>	
<b>bbls of Slurry</b>	<b>126.97 bbls</b>	<b>Burst PSI: 3520.00 psi</b>	
(Total Slurry Volume) X (.1781)		<b>Total Water Needed: 216.51 bbls</b>	
<b>Sacks Needed</b>	<b>478 sk</b>		
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)			
<b>Mix Water</b>	<b>85.21 bbls</b>		
(Sacks Needed) X (Gallons Per Sack) ÷ 42			

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  
skim 13n-28hz

INVOICE #  
LOCATION  
FOREMAN  
Date

35125  
Weld  
kirk kallhoff  
2/27/2015

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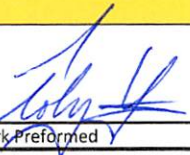
**DESCRIPTION OF JOB EVENTS**

		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	537pm															
MIRU	400pm															
CIRCULATE	603pm	0	640pm	10	0			0			0			0		
Drop Plug		10	642pm	60	10			10			10			10		
640 pm		20	644pm	60	20			20			20			20		
		30	646pm	70	30			30			30			30		
		40	648pm	130	40			40			40			40		
M & P		50	650pm	200	50			50			50			50		
Time	Sacks	60	652pm	270	60			60			60			60		
609 pm	478	70	654pm	340	70			70			70			70		
636 pm stop		80	656pm	390	80			80			80			80		
		90	659pm	380	90			90			90			90		
		100			100			100			100			100		
		110			110			110			110			110		
% Excess	15%	120			120			120			120			120		
Mixed bbls	85.2	130			130			130			130			130		
Total Sacks	478	140			140			140			140			140		
bbl Returns	19	150			150			150			150			150		
Water Temp																

Notes:

bumped plug at 701 pm 830 psi

floats held

X   
Work Performed

X \_\_\_\_\_  
Title

X 2-27-15  
Date

# M/D TOTCO 2000 SERIES

— PSI — Barrels / Minute — Barrels — Lbs / Gallon — Stage Volume

