



# Bison Oil Well Cementing Single Cement Surface Pipe

Date: 8/26/2014

Invoice # 35025

API#

Foreman: Kirk Kallhoff

**Customer:** Anadarko Petroleum Corporation

**Well Name:** burkherdt 37n-3hz

County: Weld

State: Colorado

Sec: 3

Twp: 1n

Range: 66w

Consultant: bob

Rig Name & Number: major 42

Distance To Location: 20

Units On Location: 4030-3103/4024-3203

Time Requested: 200 am

Time Arrived On Location: 1245 am

Time Left Location: 11:30 am

WELL DATA		Cement Data	
Casing Size OD (in) :	9.625	Cement Name:	BFN III
Casing Weight (lb) :	36.00	Cement Density (lb/gal) :	14.2
Casing Depth (ft.) :	1,652	Cement Yield (cuft) :	1.49
Total Depth (ft) :	1670	Gallons Per Sack:	7.48
Open Hole Diameter (in.) :	13.50	% Excess:	21%
Conductor Length (ft) :		Displacement Fluid lb/gal:	8.3
Conductor ID :		BBL to Pit:	25
Shoe Joint Length (ft) :	38	Fluid Ahead (bbls):	30.0
Landing Joint (ft) :	8	H2O Wash Up (bbls):	20.0
Max Rate:		Spacer Ahead Makeup	
Max Pressure:			

Calculated Results	Displacement:	125.39 bbls
<b>cuft of Shoe</b> 16.49 cuft (Casing ID Squared) X (.005454) X (Shoe Joint ft)	(Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)	
<b>cuft of Conductor</b> 0.00 cuft (Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X (Conductor Length ft)	<b>Pressure of cement in annulus</b>	
<b>cuft of Casing</b> 976.93 cuft (Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)	<b>Hydrostatic Pressure:</b> 1218.68 PSI	
<b>Total Slurry Volume</b> 993.43 cuft (cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)	<b>Pressure of the fluids inside casing</b>	
<b>bbls of Slurry</b> 176.93 bbls (Total Slurry Volume) X (.1781)	<b>Displacement:</b> 695.93 psi	
<b>Sacks Needed</b> 667 sk (Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)	<b>Shoe Joint:</b> 28.03 psi	
<b>Mix Water</b> 118.74 bbls (Sacks Needed) X (Gallons Per Sack) ÷ 42	<b>Total</b> 723.96 psi	
	<b>Differential Pressure:</b> 494.72 psi	
	<b>Collapse PSI:</b> 2020.00 psi	
	<b>Burst PSI:</b> 3520.00 psi	
	<b>Total Water Needed:</b> 294.13 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: Anadarko Petroleum Corporation  
Well Name: burkherdt 37n-3hz

INVOICE #: 35025  
LOCATION: Weld  
FOREMAN: Kirk Kallhoff  
Date: 8/26/2014

**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	910am															
MIRU	850am															
CIRCULATE	927am	0	1021am	10	0			0			0			0		
Drop Plug		10	1024am	30	10			10			10			10		
1021 am		20	1027am	30	20			20			20			20		
		30	1029am	80	30			30			30			30		
		40	1031am	160	40			40			40			40		
M & P		50	1033am	220	50			50			50			50		
Time	Sacks	60	1035am	280	60			60			60			60		
936 am	665	70	1037am	360	70			70			70			70		
1018 am stop		80	1039am	420	80			80			80			80		
		90	1041am	480	90			90			90			90		
		100	1043am	540	100			100			100			100		
		110	1045am	580	110			110			110			110		
% Excess	21%	120	1047am	540	120			120			120			120		
Mixed bbls	118.4	130			130			130			130			130		
Total Sacks	665	140			140			140			140			140		
bbl Returns	25	150			150			150			150			150		
Water Temp																

Notes:

bumped plug at 1052 am 1100 psi 176.9 bbls slurry

floats held

x Bob Spitzer m42  
Work Performed

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

X 8-26-14  
Date

# M/D TOTCO 2000 SERIES

