



# Bison Oil Well Cementing Single Cement Surface Pipe

Date: 10/9/2014  
 Invoice # 25065  
 API# 05-123-38983  
 Foreman: Calvin Reimers

Customer: Anadarko Petroleum Corporation  
 Well Name: Kerr 35N-25HZ

County: Weld  
 State: Colorado  
 Sec: 13  
 Twp: 2N  
 Range: 67W

Consultant: Ellis  
 Rig Name & Number: Major 29  
 Distance To Location: 21 Miles  
 Units On Location: 4023-3104/4018-3204  
 Time Requested: 1000pm  
 Time Arrived On Location: 730pm  
 Time Left Location: 1:00 AM

## WELL DATA

Casing Size OD (in) : 9.625  
 Casing Weight (lb) : 36.00  
 Casing Depth (ft.) : 1,079  
 Total Depth (ft) : 1095  
 Open Hole Diameter (in.) : 13.50  
 Conductor Length (ft) : \_\_\_\_\_  
 Conductor ID : \_\_\_\_\_  
 Shoe Joint Length (ft) : 39  
 Landing Joint (ft) : 8  
 Max Rate: 7  
 Max Pressure: 2500

## Cement Data

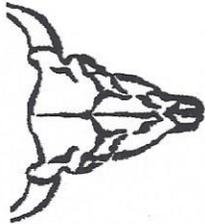
Cement Name: BFN III  
 Cement Density (lb/gal) : 14.2  
 Cement Yield (cuft) : 1.49  
 Gallons Per Sack: 7.48  
 % Excess: 17%  
 Displacement Fluid lb/gal: 8.3  
 BBL to Pit: //  
 Fluid Ahead (bbls): 30.0  
 H2O Wash Up (bbls): 20.0

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

Casing ID	8.921	Casing Grade	J-55 only used
<b>Calculated Results</b>		<b>Displacement:</b>	<b>81.05 bbls</b>
<b>cuft of Shoe</b> <u>16.92</u> <b>cuft</b>		<small>(Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)</small>	
<small>(Casing ID Squared) X (.005454) X (Shoe Joint ft)</small>		<b>Pressure of cement in annulus</b>	
<b>cuft of Conductor</b> <u>0.00</u> <b>cuft</b>		<b>Hydrostatic Pressure:</b> <u>796.24 PSI</u>	
<small>(Conductor Width Squared) -(Casing Size OD Squared) X (.005454) X (Conductor Length ft)</small>		<b>Pressure of the fluids inside casing</b>	
<b>cuft of Casing</b> <u>616.34</u> <b>cuft</b>		<b>Displacement:</b> <u>448.59 psi</u>	
<small>(Open Hole Squared)-(Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length )</small>		<b>Shoe Joint:</b> <u>28.75 psi</u>	
<b>Total Slurry Volume</b> <u>633.26</u> <b>cuft</b>		<b>Total</b> <u>477.34 psi</u>	
<small>(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)</small>		<b>Differential Pressure:</b> <u>318.90 psi</u>	
<b>bbls of Slurry</b> <u>112.78</u> <b>bbls</b>		<b>Collapse PSI:</b> <u>2020.00 psi</u>	
<small>(Total Slurry Volume) X (.1781)</small>		<b>Burst PSI:</b> <u>3520.00 psi</u>	
<b>Sacks Needed</b> <u>425</u> <b>sk</b>		<b>Total Water Needed:</b> <u>206.74 bbls</u>	
<small>(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)</small>			
<b>Mix Water</b> <u>75.69</u> <b>bbls</b>			
<small>(Sacks Needed) X (Gallons Per Sack) ÷ 42</small>			

X Calvin Reimers Major 29  
 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**

INVOICE # 25065  
 LOCATION Weld  
 FOREMAN Calvin Reimers  
 Date 10/10/2014

Customer Anadarko Petroleum Corporation  
 Well Name Kerr 35N-25HZ

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	0	11:49pm	50	0			0			0			0		
MIRU	10	11:52pm	40	10			10			10			10		
CIRCULATE	20	11:54pm	50	20			20			20			20		
Drop Plug	30	11:56pm	100	30			30			30			30		
1148pm	40	11:57pm	150	40			40			40			40		
M & P	50	11:59pm	230	50			50			50			50		
Time	60	12:01am	300	60			60			60			60		
Sacks	70	12:03am	360	70			70			70			70		
1131pm	80	12:05am	310	80			80			80			80		
1146pm	90	12:06am	310	90			90			90			90		
	100	Bump	1320	100	12:08am		100			100			100		
	110	Bump	1020	110	12:10am		110			110			110		
% Excess	120			120			120			120			120		
Mixed bbls	130			130			130			130			130		
Total Sacks	140			140			140			140			140		
bbl Returns	150			150			150			150			150		
Water Temp															

Notes:

The day

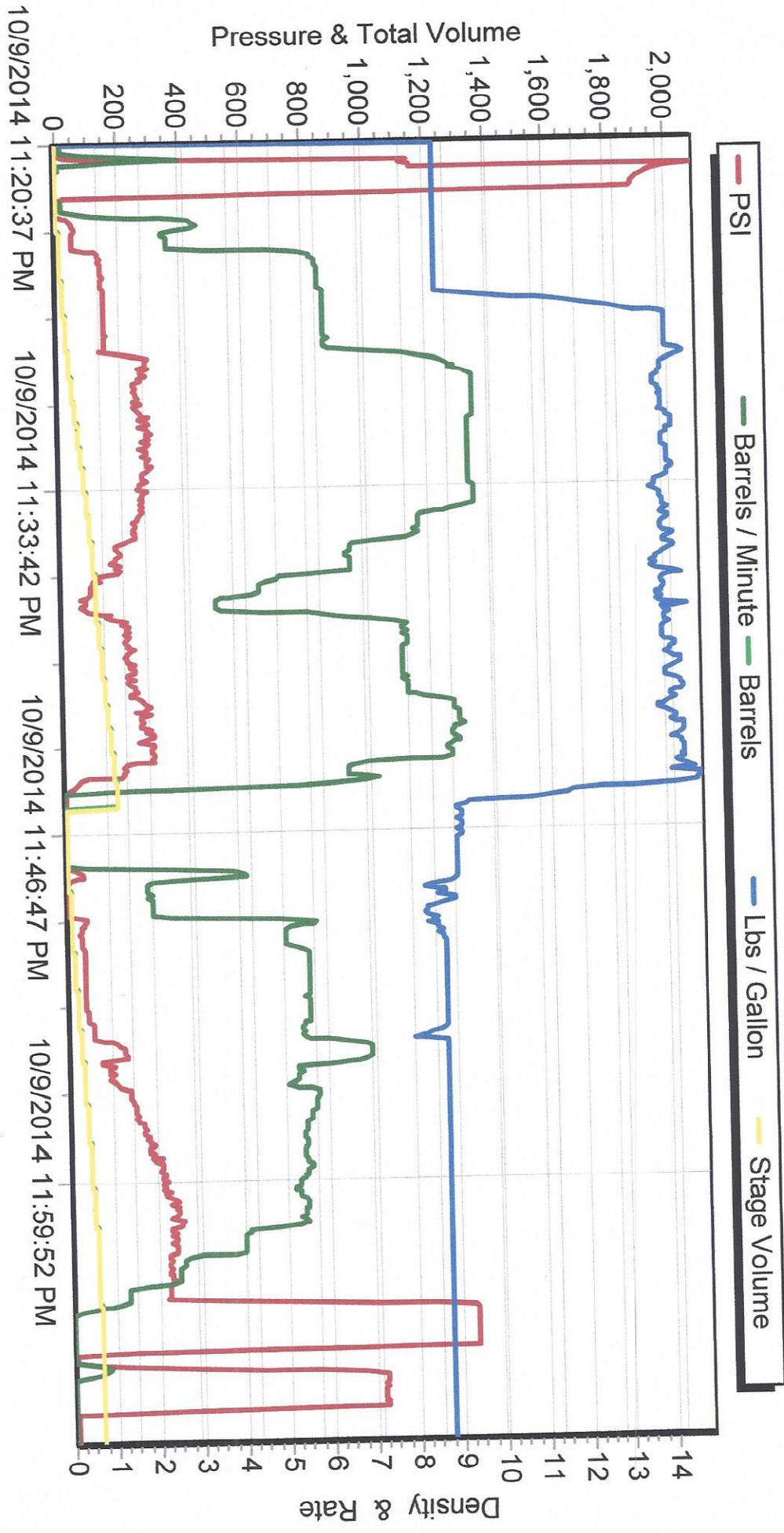
1/2 bbl back on bleed off

X *Salvador Major* Title Major

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

X \_\_\_\_\_ Date \_\_\_\_\_

# SERIES 2000



## Release and Indemnification

Customer acknowledges and assumes the risks associated with oil well drilling, cementing and acidizing, including, without limitation, destabilization, loss of production, contamination, fracturing and loss of well control. Customer agrees to release Bison Oil Well Cementing, Inc., Bison Energy Services, Inc., its agents, employees and assigns, from any and all liability for any and all damages whatsoever to property of any kind owned by, in the possession of, or leased by customer and those persons or entities customer has the ability to bind by contract. Customer also agrees to indemnify and hold harmless Bison Oil Well Cementing, Inc., Bison Energy Services, Inc., its agents, employees and assigns, from and against any and all liability, claims, costs, expenses, attorneys fees and damages whatsoever for claims, costs, expenses, attorneys fees and damages whatsoever for personal injury, illness, death, property damage and loss resulting from: loss or reduction of production, destabilization loss of oil well control, failure of or contamination by acid stimulation, hydraulic fracturing, cementing, pumping services, incompatible fluid or other processes to stimulate, complete or end production, and/or any other condition. Customer's release, indemnity and hold harmless obligation shall apply even if the liability and claims are caused by the sole, concurrent, active or passive negligence, fault, or strict liability of Bison Oil Well Cementing, Inc. and/or Bison Energy Services, Inc. or any defect in the data, products, supplies, materials or equipment furnished by Bison Oil Well Cementing, Inc. whether in the design, manufacturing, maintenance, or marketing thereof or from failure to warn of such defect. In the event that any portion of this release and indemnity is found by a court of competent jurisdiction to be inoperable or unenforceable, the remaining portions and provisions shall apply, and customer agrees that the contract price herein shall be the limit of Bison Oil Well Cementing, Inc.'s liability, if any.