



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 11/24/2017
 Invoice #: 200203
 API#
 Foreman: Kirk Kallhoff

Customer: Anadarko Petroleum Corporation
Well Name: papa jo 2-25 36n-17hz

County: Weld
 State: Colorado
 Sec: 11
 Twp: 1n
 Range: 67w
 Consultant: bryan
 Rig Name & Number: CARTEL 88
 Distance To Location: 42
 Units On Location: 4028/4039/4035
 Time Requested: 200 am
 Time Arrived On Location: 1145 pm
 Time Left Location: 6:00 am

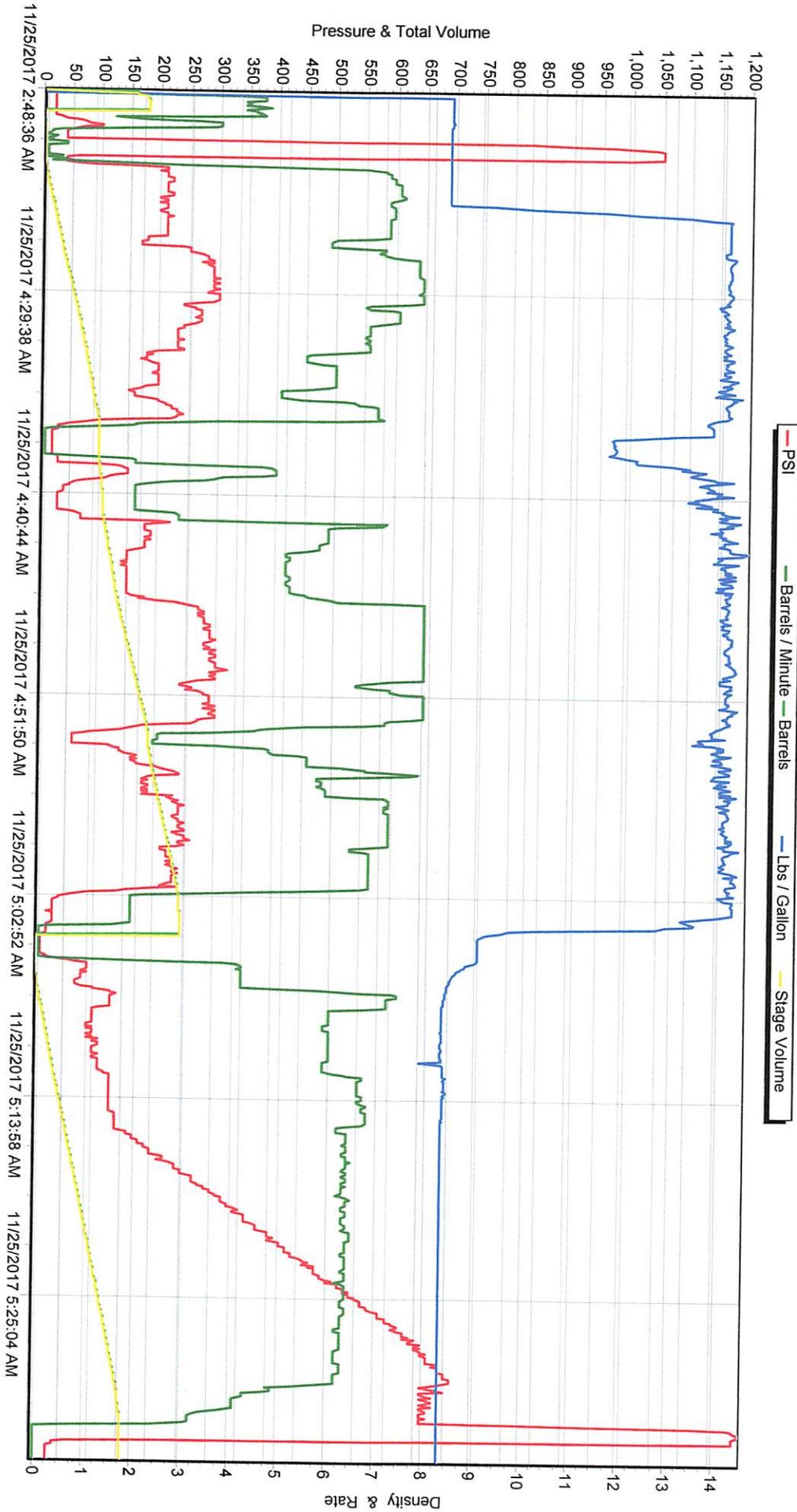
WELL DATA		Cement Data	
Casing Size OD (in) :	9.625	Cement Name:	BFN III
Casing Weight (lb) :	36.00	Cement Density (lb/gal) :	14.2
Casing Depth (ft.) :	1,867	Cement Yield (cuft) :	1.48
Total Depth (ft) :	1877	Gallons Per Sack:	7.48
Open Hole Diameter (in.) :	13.50	% Excess:	5%
Conductor Length (ft) :	80	Displacement Fluid lb/gal:	8.3
Conductor ID :	15.5	BBL to Pit:	
Shoe Joint Length (ft) :	41	Fluid Ahead (bbls):	30.0
Landing Joint (ft) :	8	H2O Wash Up (bbls):	10.0
Max Rate:	8	Spacer Ahead Makeup	
Max Pressure:	2000	30 BBL WATER, DYE IN 2ND 10	

Calculated Results	Displacement:	141.78 bbls
cuft of Shoe 17.80 cuft (Casing ID Squared) X (.005454) X (Shoe Joint ft)	(Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)	
cuft of Conductor 64.40 cuft (Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X (Conductor Length ft)	Pressure of cement in annulus	
cuft of Casing 917.03 cuft (Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)	Hydrostatic Pressure: 1377.29 PSI	
Total Slurry Volume 999.23 cuft (cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)	Pressure of the fluids inside casing	
bbls of Slurry 177.96 bbls (Total Slurry Volume) X (.1781)	Displacement: 787.34 psi	
Sacks Needed 675 sk (Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)	Shoe Joint: 30.25 psi	
Mix Water 120.24 bbls (Sacks Needed) X (Gallons Per Sack) ÷ 42	Total 817.58 psi	
	Differential Pressure: 559.70 psi	
	Collapse PSI: 2020.00 psi	
	Burst PSI: 3520.00 psi	
	Total Water Needed: 302.02 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.

SERIES 2000



RIPROCK