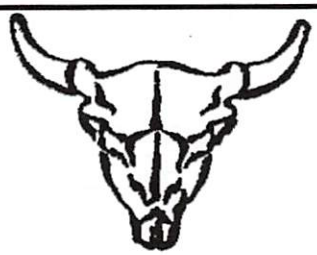


Bison Oil Well Cementing
1547 Gaylord Street
Denver, CO 80206

FIELD INVOICE #
80456

FIELD INVOICE

WELL NO. AND FARM	COUNTY	STATE	DATE	Contractor
Cook 1C-16HZ	Weld	Colorado	10/20/2015	Noble 2

CHARGE TO	WELL LOCATION Section	TWP	RANGE	
Anadarko Petroleum Corporation	16	2N	65W	
	DELIVERED TO		LOCATION 1	CODE
PO Box 4995	WCR 41+22		Shop	
	SHIPPED VIA		LOCATION 2	CODE
The Woodlands, TX 77387	4023-3104/4020-3203		41+22	
-	TYPE AND PURPOSE OF JOB		LOCATION 3	CODE
	SURFACE		Shop	
			WELL TYPE	CODE
			Oil	

ITEM	DESCRIPTION	UNITS QTY.	UNITS MEAS.	UNIT PRICE	AMOUNT
PUMP CHARGE					$ -
SURFACE		1	ea		
MILLEAGE CHARGE					
Pickup		60	mile		
Truck/Equipment		60	mile		
Truck/Equipment		60	mile		
Truck/Equipment		60	mile		
CEMENT CHARGE:					
BFN III		765	sack		
ADDITIVES CHARGE:					
KCL		3	qt		
Liquid Dye Rhodamine		16	oz		
Sugar			lb		
FLOAT EQUIPMENT:					
RUBBER PLUG - 9 5/8"			ea		
OTHER CHARGES:					
DATA ACQUISITION FEE		1	ea		
Containment		1	ea		
Winterization			ea		
Wait Time			hour		
PSI Test			ea		

COOK 1C-16HZ NOBLE 2
FRANK KINNEY USER ID: CUO741
CONSULTANT: BBow / Bryan Brown
AFE# 2111709 DATE: 10/20/15
GL CODE: 800 12090

Thanks Calvin

TAX

If this account is not paid within 30 days of invoice date a FINANCE CHARGE will be made. Computed at a single monthly rate of 1 1/2% which is equal to an ANNUAL PERCENTAGE RATE OF 18%.

SUBJECT TO CORRECTION

BBow / Bryan Brown
Customer or Agent

Bison Oil Well Cementing, Inc. Representative

Customers hereby acknowledges and specifically agrees to the terms and conditions on this work order, including, without limitation, the provisions on the riverside hereof which include the release and indemnity.

Bison Oil Well Cementing
Single Cement Surface Pipe

Date: 10/20/2015
Invoice # 80456
API# 05-123-42240
Foreman: Calvin Reimers

Customer: Anadarko Petroleum Corporation
Well Name: Cook 1C-16HZ

County: Weld
State: Colorado

Sec: 16
Twp: 2N
Range: 65W

Consultant: Bryan / Hayden
Rig Name & Number: Noble 2
Distance To Location: 30 Miles
Units On Location: 4023-3104/4020-3203
Time Requested: 1000am
Time Arrived On Location: 805am
Time Left Location: 12:30pm

WELL DATA

Casing Size OD (in) :	9.625
Casing Weight (lb) :	36.00
Casing Depth (ft.) :	1,900
Total Depth (ft) :	1917
Open Hole Diameter (in.) :	13.50
Conductor Length (ft) :	40
Conductor ID :	15.25
Shoe Joint Length (ft) :	43
Landing Joint (ft) :	10
Max Rate:	8
Max Pressure:	1250

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:	29
Fluid Ahead (bbls):	30.0
H20 Wash Up (bbls):	15.0

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

Casing ID 8.921 Casing Grade J-55 only used

Calculated Results

cuft of Shoe 18.53 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 1091.10 cuft
(Open Hole Squared)-(Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)

Total Slurry Volume 1140.15 cuft
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)

bbls of Slurry 203.06 bbls
(Total Slurry Volume) X (.1781)

Sacks Needed 765 sk
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)

Mix Water 136.28 bbls
(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 144.39 bbls
(Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)

Pressure of cement in annulus

Hydrostatic Pressure: 1401.95 PSI

Pressure of the fluids inside casing

Displacement: 801.03 psi
Shoe Joint: 31.49 psi
Total 832.51 psi

Differential Pressure: 569.44 psi

Collapse PSI: 2020.00 psi
Burst PSI: 3520.00 psi

Total Water Needed: 325.67 bbls

x Bryan Brown
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	Cook 1C-16HZ

INVOICE #	80456
LOCATION	Weld
FOREMAN	Calvin Reimers
Date	10/20/2015

Treatment Report Page 2

DESCRIPTION OF JOB EVENTS

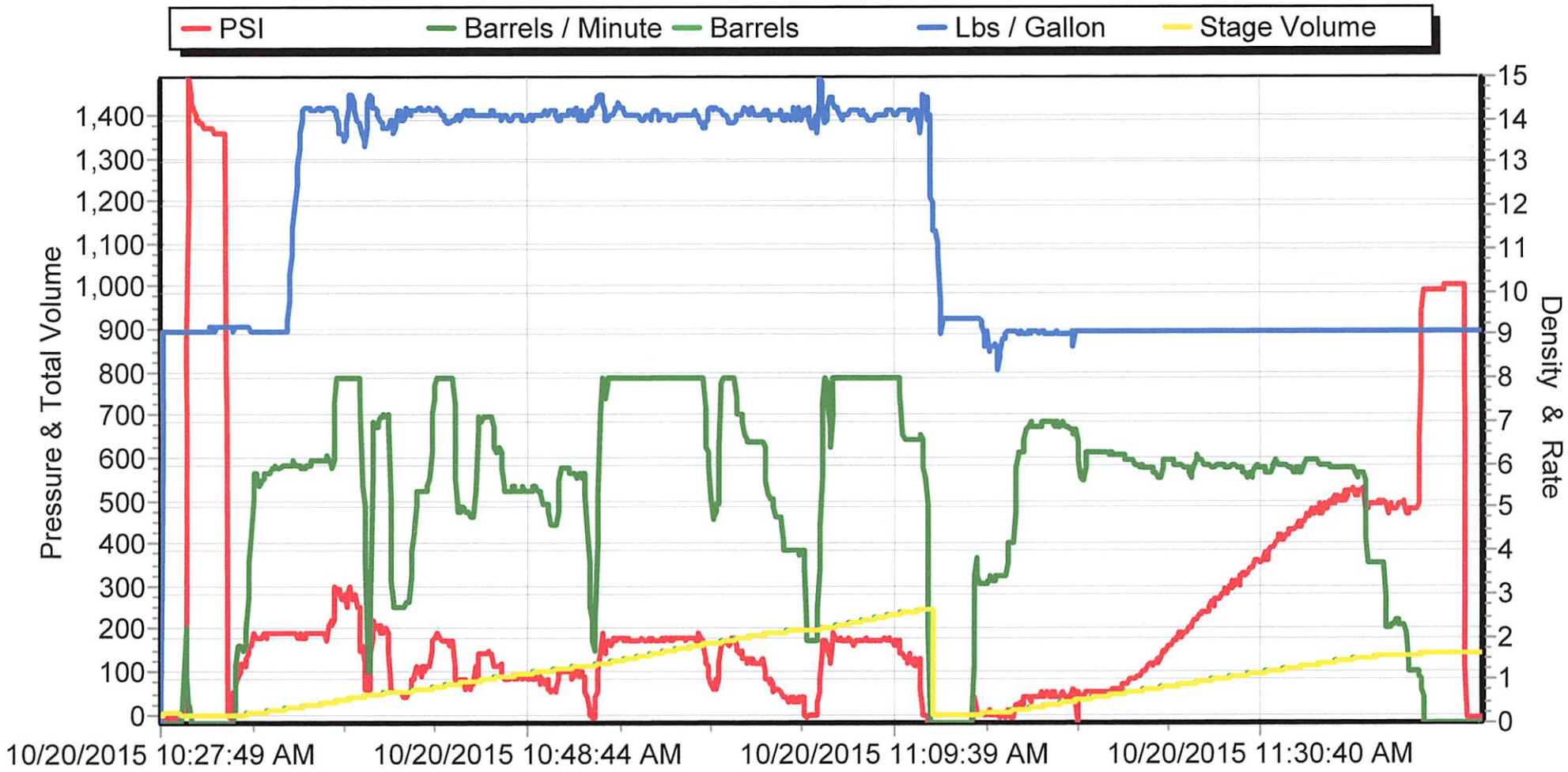
Amount Pumped		Time/Date	Event	Description	Rate	BBLs	Pressure
% Excess	20%	805am	MIRU	Rigged Up Equipment			
Mixed bbls	136.28	1004am	JSA	Safety Meeting			
Total Sacks	765	1031am	Pressure Test	Pressure Test Lines to Cement Head	0.5	1	1300
bbl Returns	29	1033am	Spacer Ahead	Pump Spacer (Dye in Last 10)	6	30	190
Water Temp	55.6	1038am	Lead Cement	14.2ppg 765 sks	6	203.06	300
		1112am	Shutdown	Stop Cementing			
Notes:		1114am	Drop Plug	Release Plug			
		1115am	Start Displacement	Displaced With Fresh Water	6	144.39	50
		1141am	Bump Plug	Land Plug at 500PSI Over Lift PSI	1		520
		1143am	Floats Held	Checked Floats			480
		1200pm	End Job	Rigged Down Equipment			990
		1230pm	Leave Location	Leave Location			
		805am	What rig is doing upon Bison Arrival	Running Casing			

X Bryan Brown
Work Preformed

X Co Man
Title

X 10/20/15
Date

SERIES 2000


PSI
Barrels / Minute
Barrels
Lbs / Gallon
Stage Volume
Pressure & Total Volume
Density & Rate
1,400
1,300
1,200
1,100
1,000
900
800
700
600
500
400
300
200
100
0
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1
0
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