



Bison Oil Well Cementing
1547 Gaylord Street
Denver, CO 80206

FIELD INVOICE #

80454

FIELD INVOICE

WELL NO. AND FARM		COUNTY	STATE	DATE	Contractor
Wilson Ranch 33C-27HZ		Weld	Colorado	10/14/2015	Noble 2
CHARGE TO		WELL LOCATION			
Anadarko Petroleum Corporation		Section	TWP	RANGE	
PO Box 4995		26	4N	68W	
The Woodlands, TX 77387		DELIVERED TO		LOCATION 1	CODE
		WCR 41+24		Shop	
		SHIPPED VIA		LOCATION 2	CODE
		4023-3104/4034-3103		41+24	
		TYPE AND PURPOSE OF JOB		LOCATION 3	CODE
		SURFACE		Shop	
				WELL TYPE	CODE
				Oil	
ITEM	DESCRIPTION	UNITS		UNIT PRICE	AMOUNT
		QTY.	MEAS.		
PUMP CHARGE					
	SURFACE	1	ea		\$ -
MILLEAGE CHARGE					
	Pickup	50	mile		
	Truck/Equipment	50	mile		
	Truck/Equipment	50	mile		
	Truck/Equipment	50	mile		
CEMENT CHARGE:					
	BFN III	741	sack		
ADDITIVES CHARGE:					
	KCL	5	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		

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%.

TAX

THANKS CALVIN
WILSON RANCH 33C-27HZ NOBLE 2
FRANK KINNEY USER ID: CU0741
CONSULTANT: *Hayden Stone*
AFE# 2097556 DATE: 10-14-15
GL CODE: 800/2090

SUBJECT TO CORRECTION

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 reverse hereof which include the release and indemnity.



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 10/13/2015
Invoice #: 80454
API#: 05-123-41052
Foreman: Calvin Reimers

Customer: Anadarko Petroleum Corporation
Well Name: Wilson Ranch 33C-27HZ

County: Weld
State: Colorado
Sec: 26
Twp: 4N
Range: 68W

Consultant: Hayden / Bryan
Rig Name & Number: Noble 2
Distance To Location: 25 Miles
Units On Location: 4023-3104/4034-3103
Time Requested: 1130pm
Time Arrived On Location: 935pm
Time Left Location: 1:00 PM

WELL DATA

Casing Size OD (in) : 9.625
Casing Weight (lb) : 36.00
Casing Depth (ft.) : 1,838
Total Depth (ft) : 1854
Open Hole Diameter (in.) : 13.50
Conductor Length (ft) : 40
Conductor ID : 15.25
Shoe Joint Length (ft) : 44
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: 25
Fluid Ahead (bbls): 50.0
H2O Wash Up (bbls): 15.0

Spacer Ahead Makeup

50 bbls H2O + Dye in last 10 bbls

Casing ID

8.921

Casing Grade

J-55 only used

Calculated Results

cuft of Shoe 19.29 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 1054.25 cuft
(Open Hole Squared)-(Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)

Total Slurry Volume 1104.07 cuft
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)

bbls of Slurry 196.64 bbls
(Total Slurry Volume) X (.1781)

Sacks Needed 741 sk
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)

Mix Water 131.97 bbls
(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 139.40 bbls

(Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)

Pressure of cement in annulus

Hydrostatic Pressure: 1355.60 PSI

Pressure of the fluids inside casing

Displacement: 773.18 psi

Shoe Joint: 32.79 psi

Total 805.97 psi

Differential Pressure: 549.64 psi

Collapse PSI: 2020.00 psi

Burst PSI: 3520.00 psi

Total Water Needed: 336.37 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.



Customer
Well Name


Anadarko Petroleum Corporation
Wilson Ranch 33C-27HZ

INVOICE #
LOCATION
FOREMAN
Date

80454
Weld
Calvin Reimers
10/14/2015

Treatment Report Page 2

DESCRIPTION OF JOB EVENTS

X 
Work Performed

X
Title

X
Date

SERIES 2000

