



Bison Oil Well Cementing
1547 Gaylord Street
Denver, CO 80206

FIELD INVOICE #

80085

FIELD INVOICE

WELL NO. AND FARM	COUNTY	STATE	DATE	Contractor
viper pyro 26n2-14hz	Weld	Colorado	6/5/2015	pinnergy 4

CHARGE TO	WELL LOCATION
Anadarko Petroleum Corporation	Section 15 TWP 3n RANGE 67w
PO Box 4995	DELIVERED TO 34-19 LOCATION 1 CODE shop
The Woodlands, TX 77387	SHIPPED VIA 4038-3103/4024-3210 LOCATION 2 CODE 34-19
	TYPE AND PURPOSE OF JOB LOCATION 3 CODE
	SURFACE shop
	WELL TYPE CODE
	gas

ITEM	DESCRIPTION	UNITS		UNIT PRICE	AMOUNT
		QTY.	MEAS.		
PUMP CHARGE					
SURFACE		1	ea		
MILLEAGE CHARGE					
Pickup		34	mile		
Truck/Equipment		34	mile		
Truck/Equipment		34	mile		
CEMENT CHARGE:					
BFN III		341	sacks		
ADDITIVES CHARGE:					
KCL		3	qt		
Liquid Dye Rhodamine		15	oz		
KEN GATHINGS DATE: 6/5/15					
USER ID: TBN133 PINNERGY RIG 4					
2108129 Viper Pyro					
AFE: DRL WELL NAME: 26n2-14hz					
GL ACCT: 8001 - 2090					
OTHER CHARGES: Samuel Gathings					
DATA ACQUISITION FEE		1	ea		
Containment		1	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

SUBJECT TO CORRECTION

Samuel Gathings
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: 6/5/2015
Invoice #: 80085
API#:
Foreman: Kirk Kallhoff

Customer: Anadarko Petroleum Corporation
Well Name: viper pyro 26n2-14hz

County: Weld
State: Colorado
Sec: 15
Twp: 3n
Range: 67w

Consultant: sam
Rig Name & Number: pinergy 4
Distance To Location: 26
Units On Location: 4038-3103/4024-3210
Time Requested: 530 am
Time Arrived On Location: 400 am
Time Left Location: 9:30 am

WELL DATA

Casing Size OD (in) : 9.625
Casing Weight (lb) : 36.00
Casing Depth (ft) : 806
Total Depth (ft) : 826
Open Hole Diameter (in.) : 13.50
Conductor Length (ft) : 60
Conductor ID : 16
Shoe Joint Length (ft) : 40
Landing Joint (ft) : 10

Max Rate:
Max Pressure:

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:
Fluid Ahead (bbls): 30.0
H2O Wash Up (bbls): 10.0

Spacer Ahead Makeup

Casing ID

8.921

Casing Grade

J-55 only used

Calculated Results

cuft of Shoe 17.36 cuft
(Casing ID Squared) X (.005454) X (Shoe Joint ft)

cuft of Conductor 53.46 cuft
(Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X (Conductor Length ft)

cuft of Casing 437.51 cuft
(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)

Total Slurry Volume 508.33 cuft
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)

bbls of Slurry 90.53 bbls
(Total Slurry Volume) X (.1781)

Sacks Needed 341 sk
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)

Mix Water 60.76 bbls
(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 59.99 bbls
(Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)

Pressure of cement in annulus

Hydrostatic Pressure: 594.59 PSI

Pressure of the fluids inside casing

Displacement: 330.28 psi

Shoe Joint: 29.51 psi

Total 359.79 psi

Differential Pressure: 234.79 psi

Collapse PSI: 2020.00 psi

Burst PSI: 3520.00 psi

Total Water Needed: 160.75 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.

X 6-5-15
Date

M/D TOTCO 2000 SERIES

