



Bison Oil Well Cementing
1547 Gaylord Street
Denver, CO 80206

FIELD INVOICE #
80656

FIELD INVOICE

WELL NO. AND FARM	COUNTY	STATE	DATE	Contractor
ALVIN 26C-29HZ	Weld	Colorado	11/17/2015	NOBLE 2
CHARGE TO	WELL LOCATION			
Anadarko Petroleum Corporation	Section	TWP	RANGE	
PO Box 4995	29	2N	65W	
The Woodlands, TX 77387	DELIVERED TO		LOCATION 1	CODE
	CR 41 & CR 16		SHOP	
	SHIPPED VIA		LOCATION 2	CODE
	4023-3104/ 4030-3203		41 & 16	
	TYPE AND PURPOSE OF JOB		LOCATION 3	CODE
	SURFACE		SHOP	
WELL TYPE			CODE	

ITEM	DESCRIPTION	UNITS		UNIT PRICE	AMOUNT
		QTY.	MEAS.		
PUMP CHARGE					
SURFACE		1	ea		
MILLEAGE CHARGE					
Pickup		62	ea		
Truck/Equipment		62	ea		
Truck/Equipment		62	ea		
Truck/Equipment		62	ea		
CEMENT CHARGE:					
TYPE 3 NEAT		741	sack		
ADDITIVES CHARGE:					
Liquid Dye Rhodamine		32	oz		
FLOAT EQUIPMENT:					
OTHER CHARGES:					
DATA ACQUISITION FEE		1	ea		
Containment		1	ea		
Wait Time		3	hour		

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

ALVIN 26C-29HZ NOBLE 2
FRANK KINNEY USER ID: CU0741
CONSULTANT: *Hydant Stone*
AFE# 2109776 DATE: 11-17-15
GL CODE: 80012090

SUBJECT TO CORRECTION

[Signature]
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: 11/17/2015
Invoice # 80656
API# 05-123-42206
Foreman: JASON KELEHER

Customer: Anadarko Petroleum Corporation
Well Name: ALVIN 26C-29HZ

County: Weld
State: Colorado
Sec: 29
Twp: 2N
Range: 65W
Consultant: HAYDEN
Rig Name & Number: NOBLE 2
Distance To Location: 31
Units On Location: 4023-3104/ 4030-3203
Time Requested: 430
Time Arrived On Location: 300
Time Left Location: 1200

WELL DATA

Casing Size OD (in) : 9.625
Casing Weight (lb) : 36.00
Casing Depth (ft) : 1,909
Total Depth (ft) : 1919
Open Hole Diameter (in.) : 13.50
Conductor Length (ft) : 60
Conductor ID : 15.25
Shoe Joint Length (ft) : 44
Landing Joint (ft) : 7

Max Rate: 7
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: 15%
Displacement Fluid lb/gal: 8.3
BBL to Pit: 56.0
Fluid Ahead (bbls): 50.0
H2O Wash Up (bbls): 20.0

Spacer Ahead Makeup
50BBL WATER/ DYE IN 2ND 10

Casing ID

8.921

Casing Grade

J-55 only used

Calculated Results

cuft of Shoe 19.20 cuft
(Casing ID Squared) X (.005454) X (Shoe Joint ft)
cuft of Conductor 45.79 cuft
(Conductor Width Squared) -(Casing Size OD Squared) X (.005454) X (Conductor Length ft)
cuft of Casing 1039.13 cuft
(Open Hole Squared)-(Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)
Total Slurry Volume 1104.11 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: 144.69 bbls
(Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)

Pressure of cement in annulus

Hydrostatic Pressure: 1408.16 PSI

Pressure of the fluids inside casing

Displacement: 803.99 psi

Shoe Joint: 32.63 psi

Total 836.62 psi

Differential Pressure: 571.54 psi

Collapse PSI: 2020.00 psi

Burst PSI: 3520.00 psi

Total Water Needed: 346.66 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
ALVIN 26C-29HZ

INVOICE #
LOCATION
FOREMAN
Date

80656
Weld
JASON KELEHER
11/17/2015

Treatment Report Page 2

DESCRIPTION OF JOB EVENTS

X 
Customer Signature

X
Title

X
Date

ALVIN 26C-29HZ SURFACE

