



Bison Oil Well Cementing
1547 Gaylord Street
Denver, CO 80206

FIELD INVOICE #

80647

FIELD INVOICE

WELL NO. AND FARM		COUNTY	STATE	DATE	Contractor
WILSON RANCH 32N-S27HZ		Weld	Colorado	11/5/2015	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
		CR 38 & EAST FRONTAGE RD		SHOP	
		SHIPPED VIA		LOCATION 2	CODE
		4023-3104/ 4034-3203		38 & E. FRONT	
		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		70	ea		
Truck/Equipment		70	ea		
Truck/Equipment		70	ea		
Truck/Equipment		70	ea		
CEMENT CHARGE:					
TYPE 3 NEAT		711	sack		
ADDITIVES CHARGE:					
Liquid Dye Rhodamine		32	oz		
FLOAT EQUIPMENT:					
OTHER CHARGES:					
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%.

WILSON RANCH 32N-S27HZ NOBLE 2
FRANK KINNEY USER ID: CU0741
CONSULTANT: *Hayden Stone*
AFE#2097549 DATE: 11-5-15
GL CODE: 800/12090

TAX

SUBJECT TO CORRECTION

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: 11/5/2015
Invoice # 80647
API# 05-123-41312
Foreman: JASON KELEHER

Customer: Anadarko Petroleum Corporation
Well Name: WILSON RANCH 32N-S27HZ

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

Consultant: HAYDEN
Rig Name & Number: NOBLE 2
Distance To Location: 35
Units On Location: 4023-3104/ 4034-3203
Time Requested: 930
Time Arrived On Location: 800
Time Left Location: 1230

WELL DATA

Casing Size OD (in) : 9.625
Casing Weight (lb) : 36.00
Casing Depth (ft) : 1,837
Total Depth (ft) : 1847
Open Hole Diameter (in.) : 13.50
Conductor Length (ft) : 40
Conductor ID : 15.25
Shoe Joint Length (ft) : 45
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: 19.0
Fluid Ahead (bbls): 30.0
H2O Wash Up (bbls): 20.0

Spacer Ahead Makeup
30BBL WATER/ DYE IN 2ND 10

Casing ID

8.921

Casing Grade

J-55 only used

Calculated Results

cuft of Shoe 19.67 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 1009.93 cuft
(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)

Total Slurry Volume 1060.13 cuft
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)

bbls of Slurry 188.81 bbls
(Total Slurry Volume) X (.1781)

Sacks Needed 711 sk
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)

Mix Water 126.71 bbls
(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 139.05 bbls

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

Pressure of cement in annulus

Hydrostatic Pressure: 1355.09 PSI

Pressure of the fluids inside casing

Displacement: 772.50 psi

Shoe Joint: 33.43 psi

Total 805.93 psi

Differential Pressure: 549.16 psi

Collapse PSI: 2020.00 psi

Burst PSI: 3520.00 psi

Total Water Needed: 315.76 bbls

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 32N-S27HZ

INVOICE #
LOCATION
FOREMAN
Date

80647
Weld
JASON KELEHER
11/5/2015

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DESCRIPTION OF JOB EVENTS

X 
Customer Signature

X
Title

X
Date

WILSON RANCH 32N-S27HZ SURFACE

