

BISON OIL WELL CEMENTING, INC.

1738 Wynkoop St., Ste. 102
 Denver, Colorado 80202
 Phone: 303-296-3010
 Fax: 303-290-8143
 E-mail: bisonoil@qwestoffice.net



SERVICE INVOICE

Nº 12592

WELL NO. AND FARM Cockroft B11-62-111N	COUNTY Weld	STATE Colo.	DATE 11-28-13
CHARGE TO Noble	WELL LOCATION SEC. 11 TWP. 5N RANGE 64W	CONTRACTOR H&P Rig 315	
DELIVERED TO WCR 388+55.5		LOCATION 1 Shop	CODE
SHIPPED VIA 3106/3212		LOCATION 2 388+55.5	CODE
TYPE AND PURPOSE OF JOB SURFACE PIPE		LOCATION 3 Shop	CODE
		WELL TYPE Gas+Oil	CODE

PRICE REFERENCE	DESCRIPTION	UNITS		UNIT PRICE	AMOUNT
		QTY.	MEAS.		
	Pump Charge	1	EA.		
	BFN JL 3% BCCA-1 .25 1 1/2 SK BFLA-1	351	SK		
	BCLY-1	5	QT.		
	Pink Dye	16	OZ.		
	Mileage 150 mile 60 mile min Round Trip	3	EA.		
	Data Int.	1	EA.		
	Casing Psi Test	1	EA.		

RIG NAME & NUMBER: H&P WELL NAME & NUMBER: COCKROFT B11-62111N AFE NUMBER: 136857 TASK (DRL, COAP, WOOD, DRUG) DRUG EXP. TYPE: ACTG CODE: 011 0017 DOLLAR TOTAL BEING APPLIED 9646.60 FIELD APPROVAL MOH ROUTE TO APPROVER MOH DATE 11/29/13 MAIL TO: NOBLE ENERGY ATTN: ACCOUNTS PAYABLE 1625 BROADWAY, SUITE 3000 DENVER, CO 80202 NO INVOICE WILL BE PAID UNTIL ATTACHED SIGNED FIELD T	Loaded Miles TAX REFERENCES Thanks CALVIN
--	---

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 1/4% which is equal to an ANNUAL PERCENTAGE RATE OF 18%.

"TAXES WILL BE ADDED AT CORPORATE OFFICE"

Calvin
 Customer or His Agent

SUBJECT TO CORRECTION

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

Bison Oil Well Cementing, Inc. Representative



Bison Oil Well Cementing Single Cement Surface Pipe

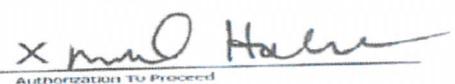
Date: 11/28/2013
 Invoice #: 12592
 API#: 05-123-37202-00
 Foreman: Calvin Reimers

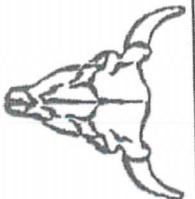
Customer: Noble
 Well Name: Cockroft B11-G2-1HN

County: Weld
 State: Colorado
 Sec: 11
 Twp: 5N
 Range: 64W

Consultant: Martim / Mike
 Rig Name & Number: H&P 315
 Distance To Location: 19 Miles
 Units On Location: 3106/3212
 Time Requested: 700pm
 Time Arrived On Location: 530pm
 Time Left Location: 600am

WELL DATA		Cement Data	
Casing Size OD (in) :	9.6250	Cement Name:	BFN III
Casing Weight (lb) :	36	Cement Density (lb/gal) :	15.2
Casing Depth (ft.) :	603	Cement Yield (cuft) :	1.27
Total Depth (ft) :	632	Gallons Per Sack:	5.89
Open Hole Diameter (in.) :	13.75	% Excess:	20%
Conductor Length (ft) :	100	Displacement Fluid lb/gal:	8.3
Conductor ID :	16	BBL to Pit:	15.0
Shoe Joint Length (ft) :	43	Fluid Ahead (bbls):	
Landing Joint (ft) :	29	H2O Wash Up (bbls):	20.0
Max Rate:	7	Spacer Ahead Makeup	
Max Pressure:	2500	Is H2O with KCL+Dye in 2nd 10bbbls	

Calculated Results			Displacement: 45.54 bbls	
cuft of Shoe	18.49	cuft	(Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)	
(Casing ID Squared) X (.005454) X (Shoe Joint ft)			Pressure of cement in annulus	
cuft of Conductor	89.10	cuft	Hydrostatic Pressure: 475.81 PSI	
(Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X (Conductor Length ft)			Pressure of the fluids inside casing	
cuft of Casing	264.31	cuft	Displacement: 241.47 psi	
(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)			Shoe Joint: 33.63 psi	
Total Slurry Volume	371.89	cuft	Total: 275.09 psi	
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)			Differential Pressure: 200.72 psi	
bbls of Slurry	79.48	bbls	Collapse PSI: 2020.00 psi	
(Total Slurry Volume) X (.1781) X (% Excess Cement)			Burst PSI: 3520.00 psi	
Sacks Needed	351	sk	Total Water Needed: 69.28 bbls	
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)				
Mix Water	49.28	bbls		
(Sacks Needed) X (Gallons Per Sack) ÷ 42				
 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
Well Name

Noble
Cockroft B11-62-1HN

INVOICE #
LOCATION
FOREMAN
Date

12592
Weld
Calvin Reimers
11/28/2013

Treatment Report Page 2

DESCRIPTION OF JOB EVENTS

	Displace 1			Displace 2			Displace 3			Displace 4			Displace 5		
	BBLs	Time	PSI	BBLs	Time	PSI	BBLs	Time	PSI	BBLs	Time	PSI	BBLs	Time	PSI
Safety Meeting	400am														
MIRU	845pm														
CIRCULATE	409am														
Drop Plug		444am	50												
		446am	160												
		447am	220												
		449am	280												
		451am	300												
		454am	230												
M & P		454am	230												
		Bump	500												
	Time	Sacks													
	420am	351													
	437am														
		80													
		90													
		100													
		110													
		120													
		130													
		140													
		150													
% Excess	20%														
Mixed bbls	49.28														
Total Sacks	351														
bbl Returns		15													

Notes:

The day
PSI Test 455am
1020 psi to 510am
1010psi Float Held

X *Hand Done*

X W.S.S

X 11/29/13

Work Performed

Title

Date



Bison Oil Well Cementing Single Cement Surface Pipe

Cementing Customer Satisfaction Survey

Service Date	11/28/2013
Well Name	Cockroft B11-62-1HN
County	Weld
State	Colorado
SEC	11
TWP	5N
RNG	64W

Invoice Number	20511
API #	05-123-37202-00
Job Type	Single Cement Surface Pipe
Company Name	Noble

Customer Representative: Martin / Mike

Supervisor Name: Calvin Reimers

Employee Name (Including Supervisor)
Calvin Reimers
Pablo S
Kurt C

Exposure Hours (Per Employee)
12
12
12
36

Total Exposure Hours

Did we encounter any problems on this job? Yes No

To Be Completed By Customer

Rating/Description

- 5 - Superior Performance (Established new quality/performance standards)
 - 4 - Exceeded Expectation (Provided more than what was required/expected)
 - 3 - Met Expectations (Did what was expected)
 - 2 - Below Expectations (Job problems/failures occurred - *Recovery made)
 - 1 - Poor Performance (Job problems/failures occurred - *Some recovery made)
- *Recovery: resolved issue(s) on jobsite in a timely and professional manner

RATING CATEGORY

<u>5</u>	Personnel -
<u>5</u>	Equipment -
<u>3</u>	Job Design -
<u>5</u>	Product/Material -
<u>5</u>	Health & Safety -
<u>5</u>	Environmental -
<u>5</u>	Timeliness -
<u>4</u>	Condition/Appearance -
<u>5</u>	Communication -

CUSTOMER SATISFACTION RATING

- Did our personnel perform to your satisfaction?
- Did our equipment perform to your satisfaction?
- Did we perform the job to the agreed upon design?
- Did our products and materials perform as you expected?
- Did we perform in a safe and careful manner (Pre/post mtgs, PPE, TSMR, etc..)?
- Did we perform in an environmentally sound manner (spills, leaks, cleanup, etc..)?
- Was job performed as scheduled (On time to site, accessible to customers, completed when expected)?
- Did the equipment condition and appearance meet your expectations?
- How well did our personnel communicate during mobilization, rig up and job execution?

Please Circle:

- Yes No Did an accident or injury occur?
- Yes No Did an injury requiring medical treatment occur?
- Yes No Did a first-aid injury occur?
- Yes No Did a vehicle accident occur?
- Yes No Was a post-job safety meeting held?

Please Circle:

- Yes No Was a pre-job safety meeting held?
- Yes No Was a job safety analysis completed?
- Yes No Were emergency services discussed?
- Yes No Did environmental incident occur?
- Yes No Did any near misses occur?

Additional Comments:

THE INFORMATION HEREIN IS CORRECT -

X mmO'Hara
Customer Representative's Signature

DATE: 11/29/13

Any additional Customer Comments or HSE concerns should be described on the back of this form