



BISON

Bison Oil Well Cementing Inc.
 Suite 102
 Denver, CO 80202
 303-296-3010

Invoice

Date	Invoice #
2/10/2013	11307

Bill To
Noble Energy Inc. Attn: Accounting 1625 Broadway Ste 2000 Denver, CO 80202

Location	Well Name & No.	Terms	Job Type		
Weld, CO	Furrow Federal PCAB14-62H	Net 30	Surface		
Item	Description	Qty	U/M	Rate	Amount
Pump surface	PUMP Charge-surface pipe	1			
Discount 15%	Discount 15%				
MILEAGE	Mileage charge	360			
Discount 15%	Discount 15%				
Data Acquisition ...	Data Acquisition Charge	1			
Discount 15%	Discount 15%				
HOURS	Wait Time	4			
Type III Cement	Type III Cement	490			
Discount 15%	Discount 15%				
KCL Mud Flush	(BHS 117)	5	qt		
Discount 15%	Discount 15%				

Please Remit Payment To:

Bison Oil Well Cementing, Inc.
 P.O. Box 29671
 Thornton, CO 80229

Subtotal	
Sales Tax (2.5%)	
Total	
Balance Due	

BISON OIL WELL CEMENTING, INC.



1738 Wynkoop St., Ste. 102
Denver, Colorado 80202
Phone: 303-296-3010
Fax: 303-298-8143
E-mail: bisonoil1@qwestoffice.net

REF. INVOICE # 11307

LOCATION WCR 55+80

FOREMAN CALVIN REIMERS

TREATMENT REPORT

DATE	WELL NAME	SECTION	TWP	RGE	COUNTY	FORMATION
2-10-13	FURROW FEDERAL PC AB 1462 AN	14	7N	64W	Weld	

CHARGE TO	Noble	OWNER	
MAILING ADDRESS		OPERATOR	Noble
CITY		CONTRACTOR	ENSIGN Rig 121
STATE ZIP CODE		DISTANCE TO LOCATION	
TIME ARRIVED ON LOCATION	5:00 pm.	TIME LEFT LOCATION	2:00 AM.

WELL DATA			PRESSURE LIMITATIONS		
HOLE SIZE	13 3/4	TUBING SIZE	PERFORATIONS	THEORETICAL	INSTRUCTED
TOTAL DEPTH	1172	TUBING DEPTH	SHOTS/FT	SURFACE PIPE ANNULUS LONG	
PBTD	1119.37	TUBING WEIGHT	OPEN HOLE	STRING	
CASING SIZE	9 5/8	TUBING CONDITION		TUBING	

CASING DEPTH	1149	TREATMENT VIA	TYPE OF TREATMENT	TREATMENT RATE
CASING WEIGHT	3616	PACKER DEPTH	<input checked="" type="checkbox"/> SURFACE PIPE	BREAKDOWN BPM
CASING CONDITION	Good		<input type="checkbox"/> PRODUCTION CASING	INITIAL BPM

TPWLS	1162	PRESSURE SUMMARY		<input type="checkbox"/> SOEZE CEMENT	FINAL BPM
BREAKDOWN or CIRCULATING	psi	AVERAGE	psi	<input type="checkbox"/> ACID BREAKDOWN	MINIMUM BPM
FINAL DISPLACEMENT	psi	ISIP	psi	<input type="checkbox"/> ACID STIMULATION	MAXIMUM BPM
ANNULUS	psi	5 MIN SIP	psi	<input type="checkbox"/> ACID SPOTTING	AVERAGE BPM
MAXIMUM	psi	15 MIN SIP	psi	<input type="checkbox"/> MISC PUMP	
MINIMUM	psi			<input type="checkbox"/> OTHER	HYD HHP = RATE X PRESSURE X 40.8

INSTRUCTIONS PRIOR TO JOB Safety meeting, Rig up, Ps check to 500 Psi, Circ 50 bbls H₂O with KCL, Mix + pump Lead with 20% Excess to cover 945' = 390 sks at 13.1 lb. 1.69 yield, Mix + pump Tail with 0% Excess to cover 204' shoe = 100 sks at 15.2 lbs. 1.27 yield, Drop plug, Displace 86.5 bbls H₂O, Bump Plug at 150 Psi over Lift Psi, Wait 5 min. then bleed off Psi, Wash up, Rig down,

JOB SUMMARY
DESCRIPTION OF JOB EVENTS Safety meeting 11:00 pm, Circ 11:38 pm, Cement 11:59 am to 12:39 am.

Drop Plug 12:40 am Displace 12:41 am

10 bbls. 100 Psi	12:46 am	3.0 bbls/m	60 bbls. 300 Psi	1:03 am	4.5 bbls/m
20 bbls. 100 Psi	12:49 am	3.0 bbls/m	70 bbls. 320 Psi	1:06 am	4.5 bbls/m
30 bbls. 130 Psi	12:52 am	3.0 bbls/m	80 bbls. 380 Psi	1:09 am	3.0 bbls/m
40 bbls. 200 Psi	12:56 am	4.5 bbls/m	86.5 bbls. 340 Psi	1:13 am	1.0 bbls/m
50 bbls. 240 Psi	1:00 am	4.5 bbls/m	Bump Plug	470 Psi	At 1:13 am.

Float Collar Held.
USED Lead 390 sks, 117.38 bbls Slurry 20% EXCESS
USED Tail 100 sks, 22.61 bbls Slurry 0% EXCESS
TOTAL 490 sks, 139.99 bbls Slurry
40 bbls Slurry To The P.T

John M Taylor
AUTHORIZATION TO PROCEED

TITLE

2-10-13

DATE

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.