BISON

Bison Oil Well Cementing Inc.
1547 Gaylord Street
Denver, CO 80206
303-296-3010

Invoice

Date	Invoice #
3/15/2014	12086

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

Location	Well Name & No.	Terms	Job Type
Weld CO	Oscar Y10-79-1HNC	Net 30	Surface Pipe

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%				
Service Charge	Casing Psi Test	1			
HOURS	Wait Time	2			
	Subtotal of Services				
BFN III Winter ...	BFN III Blend	508	Sack		
Discount 15%	Discount 15%				
KCL Mud Flush	(BHS 117)	3	qt		
Discount 15%	Discount 15%				
Dye - 4880	Dye (Hot Pink 4880)	8	oz		
Discount 15%	Discount 15%				
Sugar	Sugar	50	lb		
	Subtotal of Materials				

Please Remit Payment To:

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

Subtot	
Sales	
Total	
Balanc	

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

SERVICE INVOICE

№ 12086

WELL NO. AND FARM	COUNTY	STATE	DATE
Oscar Y 10-79-1HC	Weld	Colo.	3-15-14

CHARGE TO	WELL LOCATION	CONTRACTOR
Noble	SEC. 10 TWP. 2N RANGE 64W	H&P 330

DELIVERED TO	LOCATION 1	CODE
WCR 55+20	Shop	
SHIPPED VIA	**LOCATION 2**	**CODE**
4027-3106/4018-3203	55+20	
TYPE AND PURPOSE OF JOB	**LOCATION 3**	**CODE**
Surface Pipe	Shop	
	WELL TYPE	**CODE**
	Gas+Oil	

PRICE REFERENCE	DESCRIPTION	UNITS QTY.	UNITS MEAS.	UNIT PRICE	AMOUNT
	Pump Charge	1	EA.		
	BFN III 3% BCCA-1.25 lb/sk BFLA-1	508	SK		
	BCLY-1	3	Gal.		
	Pink Dye	8	oz.		
	Mileage 1.50 mile 60 mile Min Round Trip	3	EA.		
	Data Int.	1	EA.		
	Casing Ps. Test	1	EA.		
	Sugar	50	lb.		
	Waiting Time	2	HR.		

Total Weight | Loaded Miles | Ton Miles

RIG NAME & NUMBER: HP 330
WELL NAME & NUMBER: 17875-7
AFE NUMBER: Oscar 10-79-1HC
TASK (DRL, COMP, WO, P&A): Drill
EXP TYPE:
ACTG CODE: 0017
DOWELL TOTAL BELOW PVD
TAX REFERENCES
FIELD APPROVAL: DATE
ROUTE TO APPROVER

MAIL TO: NOBLE ENERGY
ATTN: ACCOUNTS PAYABLE
1625 BROADWAY, SUITE 2200
DENVER, CO 80202
NO INVOICE WILL BE PAID W/O ALL ATTACHED SIGNED FIELD TICKETS

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 1½% which is equal to an ANNUAL PERCENTAGE RATE OF 18%.

"TAXES WILL BE ADDED AT CORPORATE OFFICE"

TOTAL

SUBJECT TO CORRECTION

Customer or His 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 side hereof which include the release and indemnity.

Bison Oil Well Cementing
Two Cement Surface Pipe

Customer	Noble Energy
Well Name	OSCAR Y10-79-1HC

Date	3/15/20014
INVOICE #	12128
LOCATION	Weld
FOREMAN	LEE

Treatment Report Page 2

DESCRIPTION OF JOB EVENTS

Safety Meeting	13:45
MIRU	14:00
CIRCULATE	14:30
Drop Plug	
15:00	
M & P	

Time	Sacks
14:32	413
14:55	100

Lead mixed bbls	84
Lead % Excess	33%
Lead Sacks	408
Tail mixed bbls	14
Tail % Excess	0%
Tail Sacks	100
Total Sacks	508
bbl Returns	39

	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
	0	15:00		0			0			0			0		
	10	15:03	160	10			10			10			10		
	20	15:05	160	20			20			20			20		
	30	15:08	220	30			30			30			30		
	40	15:09	270	40			40			40			40		
	50	15:11	340	50			50			50			50		
	60	15:13	370	60			60			60			60		
	70	15:14	420	70			70			70			70		
	80	15:16	440	80			80			80			80		
	90	15:18	1330	90			90			90			90		
	100			100			100			100			100		
	110			110			110			110			110		
	120			120			120			120			120		
	130			130			130			130			130		
	140			140			140			140			140		
	150			150			150			150			150		

Notes:

JOB WENT SMOOTHLY NO ISSUES TO REPORT

X Michael Magee
Work Preformed

X W.S.S.
Title

X 3-15-14
Date

Bison Oil Well Cementing
Tail & Lead

Date: 3/15/20014
Invoice # 12128
API# 05-123-38192
Foreman: LEE

Customer: Noble Energy
Well Name: OSCAR Y10-79-1HC

Consultant:
Rig Name & Number: HP 330
Distance To Location: 26
Units On Location: 3206-
Time Requested: 10:00 AM
Time Arrived On Location: 8:15 AM
Time Left Location:

County: Weld
State: Colorado
Sec: 10
Twp: 2N
Range: 64W

WELL DATA

Casing Size (in)	9.625
Casing Weight (lb)	36
Casing Depth (ft)	1,165
Total Depth (ft) :	1176
Open Hole Diameter (in) :	13.75
Conductor Length (ft)	100
Conductor ID	15.5
Shoe Joint Length (ft)	44
Landing Joint (ft)	30
Sacks of Tail Requested	100
HOC Tail (ft):	0

One or the other, cannot have quantity in both

Max Rate:
Max Pressure:

Cement Data

Lead

Cement Name:	
Cement Density (lb/gal) :	13.1
Cement Yield (cuft) :	1.69
Gallons Per Sack	8.64
% Excess	35%

Tail

Cement Name:	
Cement Density (lb/gal) :	15.2
Cement Yield (cuft) :	1.27
Gallons Per Sack:	5.89
% Excess:	0%

Fluid Ahead (bbls)	30.0
H20 Wash Up (bbls)	20.0

Spacer Ahead Makeup
30 bbl die in second 10

Casing ID 8.921
Casing Grade J 55 only used

Lead Calculated Results

HOC of Lead 830.03 ft
Casing Depth - HOC Tail

Volume of Lead Cement 436.50 cuft
HOC of Lead X Open Hole Ann

Volume of Conductor 80.51 cuft
(Conductor ID Squared) -(Casing Size OD Squared) X (.005454) X (Conductor Length ft)

Total Volume of Lead Cement 517.00 cuft
(cuft of Lead Cement) + (Cuft of Conductor)

bbls of Lead Cement 124.31 bbls
(Total cuft of Lead Cement) X (.1781) X (1+%Lead Excess)

Sacks of Lead Cement 412.99 sk
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)

bbls of Lead Mix Water 84.96 bbls
(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement 88.95 bbls
(Casing ID Squared) X (.0009714) X (Casing Depth) + (Landing Joint) - (Shoe Length)

Total Water Needed: 134.96 bbls

Tail Calculated Results

Tail Cement Volume In Ann 127.00 cuft
(HOC Tail) X (OH Ann)

Total Volume of Tail Cement 107.79 Cuft
(HOC Tail X OH Ann) - (Shoe Length X Shoe Joint Ann)

bbls of Tail Cement 22.62 bbls
(HOC of Tail) X (OH Ann) + (Cement Yield) X (Shoe Joint Ann) X (.1781) X (% Excess)

HOC Tail 204.97 ft
(Tail Cement Volume) ÷ (OH Ann)

Sacks of Tail Cement 100.00 sk
(Total Volume of Tail Cement) ÷ (Cement Yield)

bbls of Tail Mix Water 14.02 bbls
(Sacks of Tail Cement X Gallons Per Sack) ÷ 42

Pressure of cement in annulus

Hydrostatic Pressure 792.78 PSI

Collapse PSI: 2020.00 psi
Burst PSI: 3520.00 psi

X Michael Mayer
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.