



BISON

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

Invoice

Date	Invoice #
10/24/2014	45060

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

Location	Well Name & No.	Terms	Job Type		
Weld CO	Oscar Y10-75-1HN	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%				
HOURS	Wait Time	0.5			
Service Charge	PSI Test	1			
	Subtotal of Services				
BFN III Summer ...	BFN III Blend	462	Sack		
Discount 15%	Discount 15%				
KCL Mud Flush	(BHS 117)	4	qt		
Discount 15%	Discount 15%				
Rhodamine Dye	Rhodamine Liquid Dye	16	oz		
Discount 15%	Discount 15%				
	Subtotal of Materials				

Please Remit Payment To:

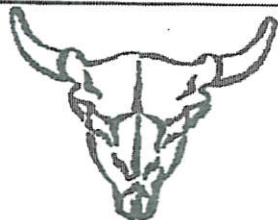
Bison Oil Well Cementing, Inc.
P.O. Box 29671
Thornton, CO 80229

Subtotal

Sales Tax

Total

Balance Due



Bison Oil Well Cementing
1547 Gaylord Street
Denver, CO 80206

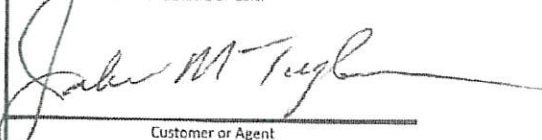
FIELD INVOICE #

45060

FIELD INVOICE

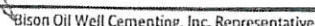
WELL NO. AND FARM		COUNTY	STATE	DATE	Contractor
OSCAR Y10-75-1HN		Weld	Colorado	10/24/2014	H&P 315
CHARGE TO		WELL LOCATION			
Noble Energy Inc.		Section	TWP	RANGE	
Attn: Accounting		10	2N	64W	
1625 Broadway Ste 2000		DELIVERED TO		LOCATION 1	CODE
Denver, CO 80202		CR 18 & CR 55		SHOP	
		SHIPPED VIA		LOCATION 2	CODE
		4031-3106/ 4022-3213		18 & 55	
		TYPE AND PURPOSE OF JOB		LOCATION 3	CODE
		SURFACE		SHOP	
				WELL TYPE	CODE
ITEM	DESCRIPTION	QTY.	MEAS.	UNIT PRICE	AMOUNT
PUMP CHARGE					
SURFACE		1	ea	\$	
MILLEAGE CHARGE					
Pickup	\$1.50 per Mile	360	mile	\$	
CEMENT CHARGE:					
BFN III	HIG NAME & NUMBER: H&P 315 WELL NAME & NUMBER: OSCAR Y10-75-1HN WFE NUMBER: 200 2001	462	sack	\$	
ADDITIVES CHARGE:					
Liquid Dye Rhodamine		16	oz	\$	
KCL	1/4 SK (BRI. COMP. W/O PAA) DRI	4	qts	\$	
FLOAT EQUIPMENT:					
	320-10-0017 DOLLAR TOTAL BEING PAID 12,385.63 FIELD APPROVAL DATE 10-24-14 ROUTED APPROVER Baxter				
OTHER CHARGES:					
DATA ACQUISITION FEE	MAIL TO: NOBLE ENERGY INC. ATTN: ACCOUNTS PAYABLE 1625 BROADWAY, SUITE 220 DENVER, CO 80202	1	ea	\$	
Wait Time		0.5	hour	\$	
PSI Test	NO INVOICE WILL BE PAID W/O ALL ATTACHED SIGNED FIELD TICKETS	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%.


Customer or Agent

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 side hereof which include the release and indemnity.



Bison Oil Well Cementing Tail & Lead

Customer: NOBLE
Well Name: OSCAR Y10-75-1HN

Date: 10/15/2014
Invoice #: 45060
API#: 05-123-38202
Foreman: JASON KELEHER

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

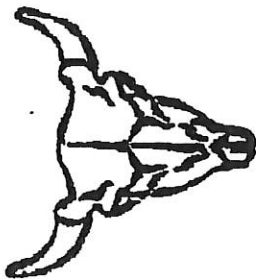
Consultant: JOHN
Rig Name & Number: H&P 315
Distance To Location: 33
Units On Location: 3
Time Requested: 2330
Time Arrived On Location: 2230
Time Left Location: 400

WELL DATA	Cement Data
Casing Size (in) : 9.625 Casing Weight (lb) : 36 Casing Depth (ft.) : 1,164 Total Depth (ft) : 1194 Open Hole Diameter (in) : 13.50 Conductor Length (ft) : 80 Conductor ID : 15.25 Shoe Joint Length (ft) : 45 Landing Joint (ft) : 30	Lead Cement Name: BFN III Cement Density (lb/gal) : 13.1 Cement Yield (cuft) : 1.69 Gallons Per Sack : 8.64 % Excess : 31%
Sacks of Tail Requested : 100 HOC Tail (ft): <small>One or the other, cannot have quantity in both</small>	Tail Cement Name: BFN III Cement Density (lb/gal) : 15.2 Cement Yield (cuft) : 1.27 Gallons Per Sack : 5.89 % Excess:
Max Rate: 7 Max Pressure: 2000	Fluid Ahead (bbls) : 30.0 H2O Wash Up (bbls) : 20.0 Spacer Ahead Makeup 30 BBL WATER W/KCL, 2ND 10 W/DYE

Casing ID 8.921	Casing Grade J-55 only used
Lead Calculated Results	Tail Calculated Results
HOC of Lead 833.89 ft	Tail Cement Volume In Ann 127.00 cuft (HOC Tail) X (OH Ann)
Casing Depth - HOC Tail	Total Volume of Tail Cement 107.68 Cuft (HOC Tail X OH Ann) - (Shoe Length X Shoe Joint Ann)
Volume of Lead Cement 407.55 cuft	bbls of Tail Cement 22.62 bbls (HOC of Tail) X (OH Ann) + (Cement Yield) X (Shoe Joint Ann) X (.1781) X (% Excess)
HOC of Lead X Open Hole Ann	HOC Tail 220.33 ft (Tail Cement Volume) ÷ (OH Ann)
Volume of Conductor 61.05 cuft	Sacks of Tail Cement 100.00 sk (Total Volume of Tail Cement) ÷ (Cement Yield)
(Conductor ID Squared) - (Casing Size OD Squared) X (.005454) X (Conductor Length ft)	bbls of Tail Mix Water 14.02 bbls (Sacks of Tail Cement X Gallons Per Sack) ÷ 42
Total Volume of Lead Cement 468.60 cuft (cuft of Lead Cement) + (Cuft of Conductor)	Pressure of cement in annulus
bbls of Lead Cement 109.00 bbls (Total cuft of Lead Cement) X (.1781) X (1+%Lead Excess)	Hydrostatic Pressure 792.32 PSI
Sacks of Lead Cement 362.12 sk (Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)	Collapse PSI: 2020.00 psi
bbls of Lead Mix Water 74.49 bbls (Sacks Needed) X (Gallons Per Sack) ÷ 42	Burst PSI: 3520.00 psi
Displacement 88.89 bbls (Casing ID Squared) X (.0009714) X (Casing Depth) + (Landing Joint) - (Shoe Length)	
Total Water Needed: 227.41 bbls	

X *John M. Tuz*
Authorization To Proceed

Customers hereby acknowledge 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
Two Cement Surface Pipe**

Date 10/15/2014
INVOICE # 45060
LOCATION Weld
FOREMAN JASON KELEHER

Customer NOBLE
Well Name OSCAR Y10-75-1HN

Treatment Report Page 2

DESCRIPTION OF JOB EVENTS

	1250	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	1210	0	205	0	0			0			0			0		
MIRU	123	10	208	10	10			10			10			10		
CIRCULATE		20	212	30	20			20			20			20		
Drop Plug		30	215	80	30			30			30			30		
205		40	216	130	40			40			40			40		
		50	218	210	50			50			50			50		
M & P		60	220	270	60			60			60			60		
Time		70	222	340	70			70			70			70		
0137-0156		80	227	350	80			80			80			80		
0156-0202		90	231	340	90			90			90			90		
		100	BUMP	880	100			100			100			100		
		110			110			110			110			110		
		120			120			120			120			120		
Lead mixed bbls	74.4	130			130			130			130			130		
Lead % Excess	30%	140			140			140			140			140		
Lead Sacks	362	150			150			150			150			150		

Notes:

14.02 PERFORMED PRESSURE TEST TO 1500 PSI AT 0120, PUMPED 40 BBL WATER WITH DYE IN THE 2ND 10 AT 0123, MIXED AND PUMPED 362 SKS AT 13.1,
0% 108.9 BBLs AT 0137, MIXED AND PUMPED 100 SKS AT 15.2, 22.6 BBL AT 0156, SHUT DOWN AT 0202, DROPPED PLUG AT 0205, STARTED
100 DISPLACEMENT AT 0205, LANDED PLUG AT 340 PSI AT 0231 AND PRESSURE UP 880 PSI AND HELD FOR 2 MINUTES, PRESSURED UP TO 1000 PSI AND
PERFORMED CASING TEST FOR 15 MINUTES, RELEASED PRESSURE AND GOT .5 BBL BACK

Total Sacks 462
Water Temp 62
bbl Returns 20

Jason Keleher
Title X
Date X