



BISON

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

Invoice

Date	Invoice #
9/30/2013	12711

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

Location	Well Name & No.	Terms	Job Type		
Weld CO	Seyler State B10-64-1HN	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%				
Service Charge	Iron Inspection	1			
Plugs	Plug	1			
	Subtotal of Services				
BFN III Summer ...	BFN III Blend	277	Sack		
Discount 15%	Discount 15%				
KCL Mud Flush	(BHS 117)	4	qt		
Discount 15%	Discount 15%				
Dye - 4880	Dye (Hot Pink 4880)	16	oz		
Discount 15%	Discount 15%				
Sugar	Sugar	100	lb		
	Subtotal of Materials				

Please Remit Payment To:

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

Subtotal	
Sales Tax (2.9%)	
Total	
Balance Due	

BISON OIL WELL CEMENTING, INC.

1547 Gaylord Street
Denver, Colorado 80206
Phone: 303-296-3010
Fax: 303-298-8143
E-mail: bisonoil1@qwestoffice.net



INVOICE #
LOCATION
FOREMAN

12711
358435
route

TREATMENT REPORT

DATE	WELL NAME	SECTION	TWP	RGE	COUNTY
9-30-13	Seyler state B10-64-14N	10	3N	54 W	WY
BILL TO	CONSULTANT				
ivablr	Hewey				
OWNER	RIG NAME & NUMBER				
	HHP 121				
MAILING ADDRESS	DISTANCE TO LOCATION		UNITS ON LOCATION		
	23.5		3103 & 3210		
CITY	TIME REQUESTED		TIME ARRIVED ON LOCATION		
	6:30		6:15		
STATE, ZIP	TIME LEFT LOCATION				

WELL DATA

HOLE SIZE	TUBING SIZE	PERFORATIONS
8 1/2 13 3/4		
TOTAL DEPTH	TUBING DEPTH	SHOTS/FT
588		
CASING SIZE	TUBING WEIGHT	OPEN HOLE
9 5/8		
CASING DEPTH	TUBING CONDITION	TREATMENT VIA
575.4		
CASING WEIGHT	PACKER DEPTH	
36		
CASING CONDITION	Good	
Max Rate		
Max Pressure		

Cement Makeup

Cement Blend	BFN #1302.BCC-1.2516 BFLA-1		
Cement - Specs	lbs	Yield	Water Requirements
	15.2	1.27	5.89
Annulus Factor	Capacity Factor		
15259	10873		
<p>TYPE OF TREATMENT</p> <p><input checked="" type="checkbox"/> Surface Pipe <input type="checkbox"/> Production <input type="checkbox"/> Squeeze</p> <p><input type="checkbox"/> MISC Pump <input type="checkbox"/> P&A</p>			

HYD HHP = RATE X PRESSURE / 40.8

% Excess

50%

BBL to Pit

15

DESCRIPTION OF JOB EVENTS

Safety meeting MFRU Pressure test Per company man circulate 40 bbls ahead with dye I and 10 mix + Pump 317 sls cement at 3000 excess drop plug + displace 41.2 bbls @ 20 Bcp plug 150 PSF above lift pressure Hold 5 min Release pressure Wash up Rig down

John M Taylor
Authorization To Proceed

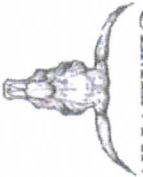
Title

9-30-13
Date

Customer 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.

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LOCATION
FOREMAN

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Treatment Report Page 2

DESCRIPTION OF JOB EVENTS

Safety Meeting MIRU CIRCULATE Drop Plug 1125	7/5 64C 1058	Displace 1		Displace 2		Displace 3		Displace 4		Displace 5		Displace 5	
		BLS	Time	PSI	BLS	Time	PSI	BLS	Time	PSI	BLS	Time	PSI
		0			0			0			0		
		10			10			10			10		
		20			20			20			20		
		30			30			30			30		
		40			40			40			40		
		50			50			50			50		
M & P		60			60			60			60		
Time	Sacks	70			70			70			70		
1126	277	80			80			80			80		
1124 stop		90			90			90			90		
		100			100			100			100		
		110			110			110			110		
		120			120			120			120		
		130			130			130			130		
		140			140			140			140		
		150			150			150			150		

Notes:

evaluate 40 bbls Ahead with dye in 2nd 10 mix + Pump 277sks cement
at 15.11b 1.27 yield 5.89 H2O drop plug + Disp 19we 412bbls H2O Bump plug
at 15.11b 1.27 yield 5.89 H2O drop plug + Disp 19we 412bbls H2O Bump plug
5 70 excess 15 bbls back to pit

X John M. Taylor

X C. Man

X 9.30-13

Work Performed

Title

Date



Bison Oil Well Cementing Single Cement Surface Pipe

Invoice # 12711
API# 445564
Foreman: monte

Customer: noble
Well Name: selyer b10-64-1hn

County: Weld
State: Colorado
Sec: 10
Twp: 3n
Range: 54w

Consultant: hewey
Rig Name & Number: h&p121
Distance To Location: 23.4
Units On Location: 3103 & 3210
Time Requested: 630
Time Arrived On Location: 615
Time Left Location: 1000

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) :	575	Cement Yield (cuft) :	1.274
Total Depth (ft) :	588	Gallons Per Sack:	5.89
Open Hole Diameter (in.) :	13.75	% Excess:	5%
Conductor Length (ft) :	80	Displacement Fluid lb/gal:	8.3
Conductor ID :	16	BBL to Pit:	
Shoe Joint Length (ft) :	36	Fluid Ahead (bbls):	43.3
Landing Joint (ft) :	21	H2O Wash Up (bbls):	20.0
Max Rate:		Spacer Ahead Makeup	
Max Pressure:		10 fresh 10 dye 20 fresh	

Casing ID	8.921	Casing Grade	J-55 only used
Calculated Results		Displacement: 43.29 bbls (Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)	
cuft of Shoe	15.63 cuft (Casing ID Squared) X (.005454) X (Shoe Joint ft)	Pressure of cement in annulus	
cuft of Conductor	71.28 cuft (Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X (Conductor Length ft)	Hydrostatic Pressure: 454.34 PSI	
cuft of Casing	249.69 cuft (Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length - Landing Joint)	Pressure of the fluids inside casing	
Total Slurry Volume	336.59 cuft (cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)	Displacement: 232.58 psi	
bbls of Slurry	62.94 bbls (Total Slurry Volume) X (.1781) X (% Excess Cement)	Shoe Joint: 28.43 psi	
Sacks Needed	277 sk (Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)	Total 261.00 psi	
Mix Water	38.90 bbls (Sacks Needed) X (Gallons Per Sack) ÷ 42	Differential Pressure: 193.33 psi	
		Collapse PSI: 2020.00 psi	
		Burst PSI: 3520.00 psi	
		Total Water Needed: 102.20 bbls	
<div>X</div> <div>Authorization To Proceed</div>			
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