

Bison Oil Well Cementing
 1547 Gaylord Street
 Denver, CO 80206

FIELD INVOICE #
 35057

FIELD INVOICE

WELL NO. AND FARM grant elmquist 2a-14h-c268	COUNTY Weld	STATE Colorado	DATE 10/18/2014	Contractor ensign 135
CHARGE TO EnCana Oil & Gas (USA) Inc. EnCana Oil & Gas (USA) Inc. 370 17th Street, Suite 1700 Denver, CO. 80202	WELL LOCATION Section 14			TWP 2n
	RANGE 68w			
	DELIVERED TO 22-11		LOCATION 1 shop	CODE
	SHIPPED VIA 4030-3103/4020 3211		LOCATION 2 22-11	CODE
	TYPE AND PURPOSE OF JOB SURFACE		LOCATION 3 shop	CODE
			WELL TYPE gas	CODE

ITEM	DESCRIPTION	UNITS		UNIT PRICE	AMOUNT
		QTY.	MEAS.		
PUMP CHARGE		1			
SURFACE					
MILLEAGE CHARGE		60			
Pickup		120			
Truck/Equipment					
CEMENT CHARGE:		375	sack		
BFN III					
ADDITIVES CHARGE:		16	oz		
Dye Blue		3	qts		
KCL		300	lbs		
Sugar					
FLOAT EQUIPMENT:					
OTHER CHARGES:					
DATA ACQUISITION FEE		1	ea	\$	
PSI Test		1	ea	\$	

Encana Oil & Gas (USA) Inc.
 DJ Basin Date: 10/18/2014
 Well: Grant Elmquist 2a-14h-c268
 AFE: 13175944
 Major/Minor CC: 8715.668
 Total Amount: 104
 Signature: [Signature]
 Approver: R.C.K.K.

SUB TOTAL \$
 TAX 2.90% \$
 TOTAL \$

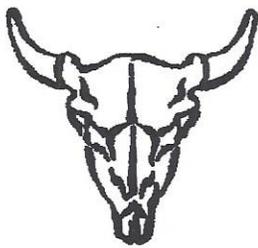
If this account is not paid within 30 days of invoice date a FINANCE CHARGE will be made. Computed at a single monthly rate of 1 1/2% which is equal to an ANNUAL PERCENTAGE RATE OF 18%.

SUBJECT TO CORRECTION

[Signature]
 Customer or Agent

[Signature]
 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 riverside hereof which include the release and indemnity.



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 10/18/2014
 Invoice # 35057
 API# _____
 Foreman: Kirk Kallhoff

Customer: EnCana Oil & Gas (USA) Inc.
Well Name: grant elmquist 2a-14h-c268

County: Weld
 State: Colorado
 Sec: 14
 Twp: 2n
 Range: 68w

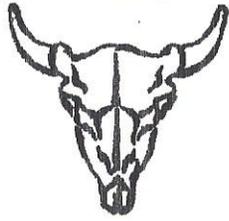
Consultant: dennis
 Rig Name & Number: ensign 135
 Distance To Location: 22
 Units On Location: 4030-3103/4020 3211
 Time Requested: 700 pm
 Time Arrived On Location: 615 pm
 Time Left Location: 10:15pm

WELL DATA		Cement Data	
Casing Size OD (in) :	<u>9.625</u>	Cement Name:	<u>BFN III</u>
Casing Weight (lb) :	<u>40.00</u>	Cement Density (lb/gal) :	<u>15.2</u>
Casing Depth (ft.) :	<u>836</u>	Cement Yield (cuft) :	<u>1.27</u>
Total Depth (ft) :	<u>864</u>	Gallons Per Sack:	<u>5.89</u>
Open Hole Diameter (in.) :	<u>12.25</u>	% Excess:	<u>60%</u>
Conductor Length (ft) :	<u>100</u>	Displacement Fluid lb/gal:	<u>8.3</u>
Conductor ID :	<u>16</u>	BBL to Pit:	<u>30.0</u>
Shoe Joint Length (ft) :	<u>44</u>	Fluid Ahead (bbls):	<u>20.0</u>
Landing Joint (ft) :	<u>18</u>	H2O Wash Up (bbls):	<u>20.0</u>
Max Rate:		Spacer Ahead Makeup	
Max Pressure:			

Calculated Results	Casing ID	8.835	Casing Grade	J-55 only used
Displacement: <u>61.42 bbls</u> (Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)				
Pressure of cement in annulus				
Hydrostatic Pressure: <u>660.11 PSI</u>				
Pressure of the fluids inside casing				
Displacement: <u>341.50 psi</u>				
Shoe Joint: <u>34.74 psi</u>				
Total: <u>376.24 psi</u>				
Differential Pressure: <u>283.87 psi</u>				
Collapse PSI: <u>2570.00 psi</u>				
Burst PSI: <u>3950.00 psi</u>				
Total Water Needed: <u>164.05 bbls</u>				
cuft of Shoe <u>18.73 cuft</u> (Casing ID Squared) X (.005454) X (Shoe Joint ft)				
cuft of Conductor <u>89.10 cuft</u> (Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X (Conductor Length ft)				
cuft of Casing <u>368.80 cuft</u> (Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)				
Total Slurry Volume <u>476.63 cuft</u> (cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)				
bbls of Slurry <u>84.89 bbls</u> (Total Slurry Volume) X (.1781)				
Sacks Needed <u>375 sk</u> (Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)				
Mix Water <u>52.63 bbls</u> (Sacks Needed) X (Gallons Per Sack) ÷ 42				

[Signature]
 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

EnCana Oil & Gas (USA) Inc.
grant elmquist 2a-14h-c268

INVOICE #
LOCATION
FOREMAN
Date

35057
Weld
Kirk Kallhoff
10/18/2014

Treatment Report Page 2

DESCRIPTION OF JOB EVENTS

	Time	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	816pm															
MIRU	735pm															
CIRCULATE	841pm	0	909pm	10	0			0			0			0		
Drop Plug		10	912pm	70	10			10			10			10		
909 pm		20	914pm	180	20			20			20			20		
		30	916pm	260	30			30			30			30		
		40	918pm	340	40			40			40			40		
M & P		50	921pm	400	50			50			50			50		
Time	Sacks	60	924pm	380	60			60			60			60		
848 pm	375	70			70			70			70			70		
907 pm stop		80			80			80			80			80		
		90			90			90			90			90		
		100			100			100			100			100		
		110			110			110			110			110		
		120			120			120			120			120		
% Excess		130			130			130			130			130		
Mixed bbls	52.6	140			140			140			140			140		
Total Sacks		140			140			140			140			140		
bbl Returns	24	150			150			150			150			150		
Water Temp																

Notes:

bumped plug at 926 pm 600 psi

84.8 bbls slurry

casing test 1500 psi 15 min

X Dennis J. Jacob
Work Performed

X EnCana Well Site Supv.
Title

X 10-18-14
Date