

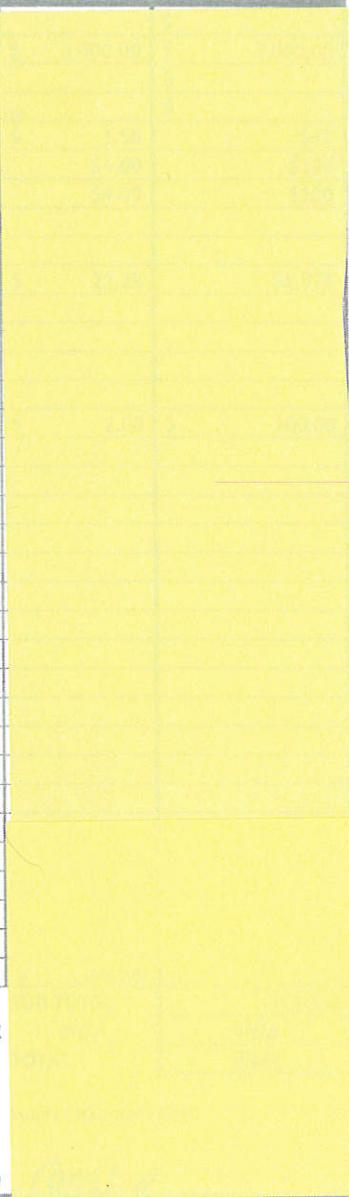
Bison Oil Well Cementing
 1547 Gaylord Street
 Denver, CO 80206

FIELD INVOICE #
 72022

FIELD INVOICE

WELL NO. AND FARM	COUNTY	STATE	DATE	Contractor
RITCHEY H27-05	WELD	Colorado	11/19/2014	LEED#710
CHARGE TO	WELL LOCATION			
Noble Energy Inc.	Section	TWP	RANGE	
	27	3N	65W	
Attn: Accounting	DELIVERED TO		LOCATION 1	CODE
	CR-43-CR30		LA SALLE	
1625 Broadway Ste 2000	SHIPPED VIA		LOCATION 2	CODE
	3101-4029-3205-4033		CR43-CR-30	
Denver, CO 80202	TYPE AND PURPOSE OF JOB		LOCATION 3	CODE
	PLUG		LA SALLE	
		WELL TYPE	CODE	
		GAS		

PUMP CHARGE			
PLUG		1	
MILLEAGE CHARGE			
Pickup	\$1.50 per Mile	30	
Truck/Equipment	\$4.00 per Mile	30	
Truck/Equipment	\$4.00 per Mile	30	
CEMENT CHARGE:			
G Cement		386	
ADDITIVES CHARGE:			
Sugar		50	
FLOAT EQUIPMENT:			
OTHER CHARGES:			
IRON INSPECTION		1	
DATA ACQUISITION FEE		1	
DEPTH CHARGE			
Supervisor Charge		1	
Wait Time			



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%.

TAX

[Signature]
 Bison Oil Well Cementing, Inc. Representative

Customer or Agent

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

Customer: NOBLE

Well Name: RITCHEY H27-05

Invoice # 72022

API# 05-123-21908

Foreman: AARON

Date 11/20/2014

County: Weld

State: Colorado

Sec: 27

Twp: 3N

Range: 65W

Consultant: ALLEN

Rig Name & Number: LEED #710

Distance To Location: 15-MILLES

Units On Location: 3101-4029=108-4033-3205

Time Requested: 9AM

Time Arrived On Location: 8:30AM

Time Left Location:

Plug Job

Well Data

OD Inches	1.315	
String Weight Per ft	2.3	
First Plug Sacks	386	
First Plug Depth	1251	
Second Plug Sacks		
Second Plug Depth		
Third Plug Sacks		
Third Plug Depth		
Fourth Plug Sacks		
Fourth Plug Depth		
ID	#N/A	
First Plug Displacement	#N/A	bbbl
Second Plug Displacement	#N/A	bbbl
Thirst Plug Displacement	#N/A	bbbl
Fourth Plug Displacement	#N/A	bbbl
bbbls of Spacer Ahead	5	bbbls

First Plug Cement Data

Cement Name: neat g
 Cement Density (lb/gal) : 15.8
 Cement Yield (cuft) : 1.15
 Gallons Per Sack: 5.00

Second Plug Cement Data

Cement Name:
 Cement Density (lb/gal) :
 Cement Yield (cuft) :
 Gallons Per Sack:

Third Plug Cement Data

Cement Name: neat g
 Cement Density (lb/gal) :
 Cement Yield (cuft) :
 Gallons Per Sack:

Fourth Plug Cement Data

Cement Name:
 Cement Density (lb/gal) :
 Cement Yield (cuft) :
 Gallons Per Sack:

Displacement Fluid lb/gal: 8.3
 Fluid Ahead (bbbls): 15.0
 H2O Wash Up (bbbls): 20.0

bbbls of Slurry

First Plug bbbls of Slurry	79.0586 bbbls
Second Plug bbbls of Slurry	0.0000 bbbls
Third Plug bbbls of Slurry	0.0000 bbbls
Fourth Plug bbbls of Slurry	0.0000 bbbls

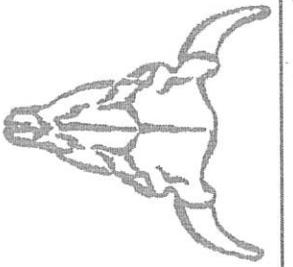
bbbls of Mix Water

First Plug bbbls Mix Wate	45.9524 bbbls
Second Plug bbbls Mix Wat	0.0000 bbbls
Third Plug bbbls Mix Wate	0.0000 bbbls
Fourth Plug bbbls Mix Wat	0.0000 bbbls

X

Authorized 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

NOBLE
 RITCHEY H27-05

INVOICE #
 LOCATION
 FOREMAN
 Date

72022
 Weld
 AARON
 11/20/2014

Treatment Report Page 2

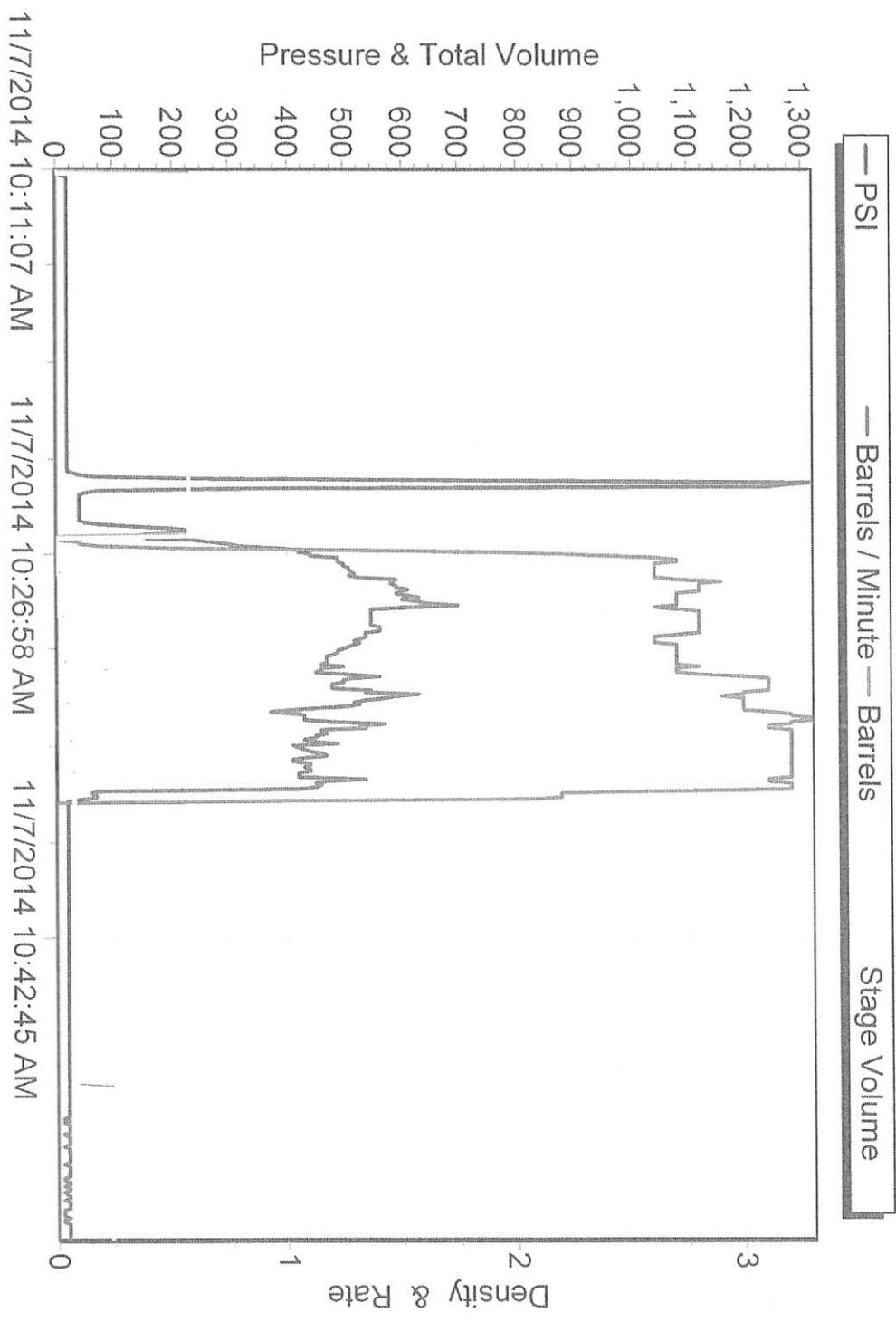
DESCRIPTION OF JOB EVENTS

	Time	Sacks	Displace 1			Displace 2			Displace 3			Displace 4		
			BLS	Time	PSI									
Safety Meeting	9:20AM													
MIRU	8:45AM		0			0			0			0		
CIRCULATE	9:27AM		10			10			10			10		
CIRCULATE			20			20			20			20		
CIRCULATE			30			30			30			30		
CIRCULATE			40			40			40			40		
CIRCULATE			50			50			50			50		
M & P			60			60			60			60		
First Plug	9:31AM	386	70			70			70			70		
Second Plug		#DIV/0!	80			80			80			80		
Third Plug		#DIV/0!	90			90			90			90		
Fourth Plug		#DIV/0!	100			100			100			100		
First Plug			110			110			110			110		
Second Plug	46		120			120			120			120		
Third Plug			130			130			130			130		
Fourth Plug			140			140			140			140		
Water Temp	49		150			150			150			150		

Notes:

X _____ X _____
 Work Performed _____ Title _____ Date _____

SERIES 2000





BISON OILWELL CEMENTING JOB SAFETY ANALYSIS WORKSHEET

JOB/TASK: Plug and Abandon CEMENTER/SUPERVISOR: AARON CARRASCO PAGE 1 OF 3

WELL NAME: RITCHEY H27-05 RIG #LEED #710 LOCATION: CR-43-CR-30 DATE: 11-20-14

OPERATOR: NOBLE CONSULTANT: ALLEN INVOICE # 72022

PPE REQUIRED: Hard Hat FR Coveralls Goggles Air Purifying Respirator
 Safety Glasses Reflective Vest Faceshield Supplied Air Respirator
 Steel Toe Boots Chemical Resistant Gloves Personal H2S Monitor
 Impact Gloves Chemical Resistant Clothing Personal Methane Monitor

ADDITIONAL PPE (based on job specific hazards)

JOB STEPS

POTENTIAL HAZARDS

RECOMMENDED ACTION OR PROCEDURE

REVIEWED BY

1. Review JSA Misunderstanding Clarify job and associated hazards and safety concerns AC

2. Conduct pre job safety meeting Misunderstanding Hold safety meeting with all personnel on location, ensure everyone pays attention to ensure they understand their role and responsibility during the job
 -Review treatment report with consultant and attain signature for authorization to proceed
 -Identify and address short service employees (SSE) who are on location
 -Verify method of relaying hand signals to rig crew for shutting down mud pump AC

3. Move trucks in and rig up equipment Other traffic on location, overhead lines, pinch points, heavy lifting, slips/falls
 -Coordinate with well site supervisor for directions on where and when to park the equipment
 -All Bison crew members walk the location prior to driving in to access specific hazards
 -Utilize spotters when trucks are in motion
 -Establish buffer zone around equipment utilizing cones and caution tape
 -Cementer follows up to ensure connections are secure
 -Lift with your legs and use teamwork when rigging up
 -Utilize reflective vests and wands to increase visibility at night
 -Deploy spill berms and buckets
 -Verify connections on mudline for compatibility AC

4. Raise hose to rig floor Overhead work, improper hook up/load not properly secured, miscommunication between ground personnel and the crane/tugger operator
 -Inspect chains, slings, hooks prior to lift
 -Ensure line of sight with crane/tugger operator is maintained throughout the lift and hand signals are clarified before the lift.
 -Ensure no personnel are under suspended loads
 -Utilize tag line AC

5. Attach swage to tubing/Connect to swage on drill pipe Connections/equipment failing under pressure, spills, slips and falls
 -Insure swage has proper pressure rating for the job and falls within the parameters of the *Bison Oilwell Cementing Iron Inspection Program*
 -Verify the compatibility of the connections on a swage/pin provided by the rig
 -Minimize number of people on rig floor, utilize Bison personnel to attach cement lines
 -Be aware of surroundings when swinging a hammer AC

6. Pressure test lines Test to: PSI- 1500 Equipment failing under high pressures
 -Ensure rig floor is clear and personnel are away from hoses prior to test
 -Establish buffer area around high pressure hoses
 -Lines are checked from a distance and using pressure gauges
 -Cementer ensures pressure gauges are working properly
 Pressure relief valve set to: PSI- 1500 AC

BISON OILWELL CEMENTING JOB SAFETY ANALYSIS WORKSHEET



Maximum pressure allowed for job: PSI- 1500		Max. pump pressure: PSI- 5000	
7. Pump Spacer/Mix and Pump Cement	Serious injury from high pressure line failure or catastrophic equipment failure. Burns or skin irritation from splashing cement, uncontrolled spills	<ul style="list-style-type: none"> -Pressure test prior to job, utilize heavy duty hose hobbles and pressure relief valve -Keep rig floor and buffer area clear while pumping -Utilize proper PPE -Have access to water to rinse affected skin -Deploy spill berms and buckets 	AC
8. Displacement	Unexpected pressure associated with resuming of pumping, serious injury from high pressure line failure catastrophic equipment failure, spills, overpressure of mudlines	<ul style="list-style-type: none"> -Ensure rig floor remains clear and non-essential personnel stay clear from buffer area -Pump operator monitors pump pressure constantly -Utilize proper PPE -During displacement ensure one mudline valve is always open -Review method of relaying hand signals to rig crew to engage/disengage mud pumps 	AC
REPEAT STEPS 7 AND 8 AS REQUIRED			
9. Wash up / rig down	Splashing cement slurry, heavy lifting, pinch points, unsecured hoses	<ul style="list-style-type: none"> -Utilize stakes or portable tank manifold to secure hoses -Use proper lifting technique (2 man lift, lift with legs, plan your route) 	AC
10. Depart location	Other traffic and personnel and location, overhead lines	<ul style="list-style-type: none"> -All Bison crew member walk the planned exit route to access possible obstacles and hazards -Utilize spotters while backing 	AC
11. General Precautions/Stop Work	<p>-If you see a leaking connection, notify the cementer. Do not attempt to hammer up a leaking connection as there may be pressure on the lines.</p> <p>- Any person on location, regardless of their position or experience level has the authority and responsibility to stop the job if they witness an unsafe act or condition.</p>		AC
OTHER HAZARDS SPECIFIC TO LOCATION OR ENVIRONMENT NOT ADDRESSED ABOVE:			
DESIGNATED EMERGENCY MUSTER AREA:		NEAREST EMERGENCY MEDICAL FACILITY (OTHER THAN 911):	
HEAD COUNT-		GREELEY COLORADO WELD COUNTY	