

BISON OIL WELL CEMENTING, INC.

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



SERVICE INVOICE

11-6-14

WELL NO. AND FARM Measure 23-12F		COUNTY weld	STATE CO	DATE 11-6-14
CHARGE TO Noble		WELL LOCATION SEC. 23 TWP. 41N RANGE 66W		CONTRACTOR Allan
		DELIVERED TO 42-33		LOCATION 1 Shop
		SHIPPED VIA 4028-3102 - 4033-3205		LOCATION 2 42-33
		TYPE AND PURPOSE OF JOB Annular Fill		LOCATION 3 Shop
				WELL TYPE 605
				CODE

PRICE REFERENCE	DESCRIPTION	UNITS		UNIT PRICE	AMOUNT
		QTY.	MEAS.		
	Pump charge	1	ea		
	6 Next	350	SKB		
	millage 150 per mile	1	ea		
	millage 400 per mile	2	ea		
	Sugar	50	lb		
	wait time	1	hr		
	MATERIAL				
	23-12F				
	200899				
	ANN FILL				
	130,150.19				
	<i>[Signature]</i>				
	Total Weight				
	Loaded Miles				
			Ton Miles		

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 REFERENCES

"TAXES WILL BE ADDED AT CORPORATE OFFICE"

Monte Bedard

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

Invoice # 13068

API# _____

Foreman: Monte Bede

Date 11/6/201

Customer: Noble

Well Name: Mosure 23-12F
23

County: Weld

Consultant: Allan

State: Colorado

Rig Name & Number: Leed 710

Distance To Location: 2.7

Sec: 23

Units On Location: 4028-3102 4033-3205

Twp: 4n

Time Requested: 9:00am

Range: 66w

Time Arrived On Location: 8:30am

Time Left Location: _____

Plug Job

Well Data

OD Inches	1.315	
String Weight Per ft	3.02	
First Plug Sacks	150	
First Plug Depth	4300	
Second Plug Sacks	150	
Second Plug Depth	3832	
Third Plug Sacks	50	
Third Plug Depth	666	
Fourth Plug Sacks		
Fourth Plug Depth		
ID	#N/A	
First Plug Displacement	#N/A	bbl
Second Plug Displacement	#N/A	bbl
Third Plug Displacement	#N/A	bbl
Fourth Plug Displacement	#N/A	bbl
bbls of Spacer Ahead	5	bbls

bbls of Slurry

First Plug bbls of Slurry	30.7223 bbls
Second Plug bbls of Slurry	30.7223 bbls
Third Plug bbls of Slurry	10.2408 bbls
Fourth Plug bbls of Slurry	0.0000 bbls

First Plug Cement Data

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

Second Plug Cement Data

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

Third Plug Cement Data

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

Fourth Plug Cement Data

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

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

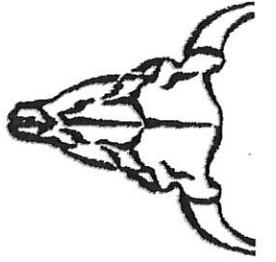
bbls of Mix Water

First Plug bbls Mix Water	17.8571 bbls
Second Plug bbls Mix Wat	17.8571 bbls
Third Plug bbls Mix Water	5.95000 bbls
Fourth Plug bbls Mix Wat	0.0000 bbls

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
 Masure 27-12F

INVOICE #
 LOCATION
 FOREMAN
 Date

13068
 Weld
 Monte Bedeaux
 11/6/2014

Treatment Report Page 2

DESCRIPTION OF JOB EVENTS

	Time	Sacks	Displace 1			Displace 2			Displace 3			Displace 4		
			BbLS	Time	PSI	BbLS	Time	PSI	BbLS	Time	PSI	BbLS	Time	PSI
Safety Meeting	9:30													
MIRU	8:45													
CIRCULATE	9:45		0			0	10:45	1760	0	11:35	970	0		
CIRCULATE	10:15		10			10	10:47	1810	10	11:36	980	10		
CIRCULATE			20			20			20			20		
CIRCULATE			30			30			30			30		
CIRCULATE			40			40			40			40		
M & P			50			50			50			50		
			60			60			60			60		
First Plug	9:47-10:00	150	70			70			70			70		
Second Plug	10:28-10:40	150	80			80			80			80		
Third Plug	11:33-11:45	50	90			90			90			90		
Fourth Plug			100			100			100			100		
Mixed bbLS			110			110			110			110		
First Plug			120			120			120			120		
Second Plug			130			130			130			130		
Third Plug			140			140			140			140		
Fourth Plug			150			150			150			150		
Water Temp	62													

Notes:

safety meeting, miru, pressure test per company man, 1st plug, circulate 3 bbLS ahead, mix and pump 150 sks cement, pull pipe, mix and pump 150 sks, dis
 circulate 5 bbLS ahead, mix and pump 50 sks cement, displace 1/2 bbLS h2o.

X _____ X _____
 Title Date

Work Performed

BISON OILWELL CEMENTING JOB SAFETY ANALYSIS WORKSHEET



JOB/TASK: Plug and Abandon		CEMENTER/SUPERVISOR: monte bedeaux		PAGE 1	OF 3																								
WELL NAME: Mosure 22-12F		RIG # Leed 710	LOCATION: 42-33	DATE: 11-6-14																									
OPERATOR: monte	CONSULTANT: Allan		INVOICE # 13068																										
PPE REQUIRED: <table border="0" style="width: 100%;"> <tr> <td><input type="checkbox"/> Hard Hat</td> <td><input type="checkbox"/> FR Coveralls</td> <td colspan="4">ADDITIONAL PPE (based on job specific hazards)</td> </tr> <tr> <td><input type="checkbox"/> Safety Glasses</td> <td><input type="checkbox"/> Reflective Vest</td> <td><input type="checkbox"/> Goggles</td> <td><input type="checkbox"/> Faceshield</td> <td><input type="checkbox"/> Air Purifying Respirator</td> <td><input type="checkbox"/> Supplied Air Respirator</td> </tr> <tr> <td><input type="checkbox"/> Steel Toe Boots</td> <td></td> <td><input type="checkbox"/> Chemical Resistant Gloves</td> <td><input type="checkbox"/> Chemical Resistant Clothing</td> <td><input type="checkbox"/> Personal H2S Monitor</td> <td><input type="checkbox"/> Personal Methane Monitor</td> </tr> <tr> <td><input type="checkbox"/> Impact Gloves</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>						<input type="checkbox"/> Hard Hat	<input type="checkbox"/> FR Coveralls	ADDITIONAL PPE (based on job specific hazards)				<input type="checkbox"/> Safety Glasses	<input type="checkbox"/> Reflective Vest	<input type="checkbox"/> Goggles	<input type="checkbox"/> Faceshield	<input type="checkbox"/> Air Purifying Respirator	<input type="checkbox"/> Supplied Air Respirator	<input type="checkbox"/> Steel Toe Boots		<input type="checkbox"/> Chemical Resistant Gloves	<input type="checkbox"/> Chemical Resistant Clothing	<input type="checkbox"/> Personal H2S Monitor	<input type="checkbox"/> Personal Methane Monitor	<input type="checkbox"/> Impact Gloves					
<input type="checkbox"/> Hard Hat	<input type="checkbox"/> FR Coveralls	ADDITIONAL PPE (based on job specific hazards)																											
<input type="checkbox"/> Safety Glasses	<input type="checkbox"/> Reflective Vest	<input type="checkbox"/> Goggles	<input type="checkbox"/> Faceshield	<input type="checkbox"/> Air Purifying Respirator	<input type="checkbox"/> Supplied Air Respirator																								
<input type="checkbox"/> Steel Toe Boots		<input type="checkbox"/> Chemical Resistant Gloves	<input type="checkbox"/> Chemical Resistant Clothing	<input type="checkbox"/> Personal H2S Monitor	<input type="checkbox"/> Personal Methane Monitor																								
<input type="checkbox"/> Impact Gloves																													
JOB STEPS			POTENTIAL HAZARDS																										
1. Review JSA			Misunderstanding																										
2. Conduct pre job safety meeting			Misunderstanding																										
3. Move trucks in and rig up equipment			Other traffic on location, overhead lines, pinch points, heavy lifting, slips/falls																										
4. Raise hose to rig floor			Overhead work, improper hook up/load not properly secured, miscommunication between ground personnel and the crane/tugger operator																										
5. Attach swage to tubing/Connect to swage on drill pipe			Connections/equipment falling under pressure, spills, slips and falls																										
6. Pressure test lines			Equipment falling under high pressures																										
Test to:		PSI- 1500		Pressure relief valve set to: PSI- 2000																									
Maximum pressure allowed for job:		PSI- 1500		Max. pump pressure: PSI- 2000																									
RECOMMENDED ACTION OR PROCEDURE			REVIEWED BY																										
Clarify job and associated hazards and safety concerns 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			mb																										
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			mb																										
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			mb																										
Insure swage has proper pressure rating for the job and falls within the parameters of the <i>Bison Oilwell Cementing Iron Inspection Program</i> 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			mb																										
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			mb																										

BISON OILWELL CEMENTING JOB SAFETY ANALYSIS WORKSHEET



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 	mb
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 	mb
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) 	mb
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 	mb
11. General Precautions/Stop Work OTHER HAZARDS SPECIFIC TO LOCATION OR ENVIRONMENT NOT ADDRESSED ABOVE:	<ul style="list-style-type: none"> -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. -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. 		mb
DESIGNATED EMERGENCY MUSTER AREA: HEAD COUNT-	access rd	NEAREST EMERGENCY MEDICAL FACILITY (OTHER THAN 911): Greeley	

SERIES 2000

— PSI — Barrels / Minute — Barrels — Lbs / Gallon — Stage Volume

