



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 2/27/2014
Invoice #: 12121
API#: 445564
Foreman: Lee

Customer: Excell Services

Well Name: Craig 42-18

County: Washington

State: Colorado

Sec: 18

Twp: 45

Range: 49W

Consultant: Mark Z.

Rig Name & Number: Excel 3

Distance To Location: 145

Units On Location: 4027 3106

Time Requested: 10:00 PM

Time Arrived On Location: 10:25 PM

Time Left Location:

WELL DATA

Casing Size OD (in) : 8.6250
Casing Weight (lb) : 36
Casing Depth (ft.) : 198
Total Depth (ft) : 227
Open Hole Diameter (in.) : 11.00
Conductor Length (ft) : 0
Conductor ID : 0
Shoe Joint Length (ft) : 40
Landing Joint (ft) : 12

Max Rate:

Max Pressure:

Cement Data

Cement Name: BFN III
Cement Density (lb/gal) : 15.2
Cement Yield (cuft) : 1.27
Gallons Per Sack: 5.89
% Excess: 85%
Displacement Fluid lb/gal: 8.3
BBL to Pit:
Fluid Ahead (bbls):
H2O Wash Up (bbls): 20.0

Spacer Ahead Makeup

Casing ID

7.825

Casing Grade

J-55 only used

Calculated Results

cuft of Shoe 13.36 cuft

(Casing ID Squared) X (.005454) X (Shoe Joint ft)

cuft of Conductor 0.00 cuft

(Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X (Conductor Length ft)

cuft of Casing 50.33 cuft

(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)

Total Slurry Volume 63.69 cuft

(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)

bbls of Slurry 20.99 bbls

(Total Slurry Volume) X (.1781) X (% Excess Cement)

Sacks Needed 93 sk

(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)

Mix Water 13.01 bbls

(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 10.11 bbls

(Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)

Pressure of cement in annulus

Hydrostatic Pressure: 156.34 PSI

Pressure of the fluids inside casing

Displacement: 68.13 psi

Shoe Joint: 31.58 psi

Total 99.71 psi

Differential Pressure: 56.63 psi

Collapse PSI: 3450.00 psi

Burst PSI: 4460.00 psi

Total Water Needed: 33.01 bbl



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

Excell Services
Craig 42-18

INVOICE #
LOCATION
FOREMAN
Date

12121
Washington
Lee
2/27/2014

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DESCRIPTION OF JOB EVENTS

		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	12:20 AM															
MIRU	12:40															
CIRCULATE	12:45	0	12:53 AM	10	0			0			0			0		
Drop Plug		10	12:56	80	10			10			10			10		
12:53 AM		20			20			20			20			20		
		30			30			30			30			30		
		40			40			40			40			40		
M & P		50			50			50			50			50		
Time	Sacks	60			60			60			60			60		
12:47:00 AM	86	70			70			70			70			70		
		80			80			80			80			80		
		90			90			90			90			90		
		100			100			100			100			100		
		110			110			110			110			110		
% Excess	85%	120			120			120			120			120		
Mixed bbls	13	130			130			130			130			130		
Total Sacks	93	140			140			140			140			140		
		150			150			150			150			150		
bbl Returns	10															

Notes:

safety Meeting 12:20 AM; MIRU 12:40; BREAK CIRCULATION 12:45; MIX & PUMP 21 BBL SLURRY; DISPLACED 10 BBL

X M. Anderson
Work Performed

X Push
Title

X 2/28/14
Date



Bison Oil Well Cementing Single Cement Surface Pipe

Cementing Customer Satisfaction Survey

Service Date 2/27/2014
Well Name Craig 42-18
County Washington
State Colorado
SEC 18
TWP 4S
RNG 49W

Invoice Number 20511
API # 445564
Job Type Single Cement Surface Pipe
Company Name Excell Services

Customer Representative MARK Z

Supervisor Name LEE

Employee Name (Including Supervisor)
Lee Sharp
Keith
Pablo

Exposure Hours (Per Employee)

1
1
1
3

Total Exposure Hours

Did we encounter any problems on this job?

☐ Yes ☒ No

To Be Completed By Customer

Rating/Description

- 5 - Superior Performance (Established new quality/performance standards)
 - 4 - Exceeded Expectation (Provided more than what was required/expected)
 - 3 - Met Expectations (Did what was expected)
 - 2 - Below Expectations (Job problems/failures occurred - *Recovery made)
 - 1 - Poor Performance (Job problems/failures occurred - *Some recovery made)
- *Recovery: resolved issue(s) on jobsite in a timely and professional manner

RATING CATEGORY

7 Personnel -
Equipment -
Job Design -
Product/Material -
Health & Safety -
Environmental -
Timeliness -
Condition/Appearance -
Communication -

CUSTOMER SATISFACTION RATING

Did our personnel perform to your satisfaction?
Did our equipment perform to your satisfaction?
Did we perform the job to the agreed upon design?
Did our products and materials perform as you expected?
Did we perform in a safe and careful manner (Pre/post mtgs, PPE, TSMR, etc.)?
Did we perform in an environmentally sound manner (spills, leaks, cleanup, etc.)?
Was job performed as scheduled (On time to site, accessible to customers, completed when expected)?
Did the equipment condition and appearance meet your expectations?
How well did our personnel communicate during mobilization, rig up and job execution?

Please Circle:

Yes No Did an accident or injury occur?
Yes No Did an injury requiring medical treatment occur?
Yes No Did a first-aid injury occur?
Yes No Did a vehicle accident occur?
Yes No Was a post-job safety meeting held?

Please Circle:

Yes No Was a pre-job safety meeting held?
Yes No Was a job safety analysis completed?
Yes No Were emergency services discussed?
Yes No Did environmental incident occur?
Yes No Did any near misses occur?

Additional Comments:

THE INFORMATION HEREIN IS CORRECT -

Customer Representative Signature

DATE: _____

Any additional Customer Comments or HSE concerns should be described on the back of this form

Release and Indemnification

Customer acknowledges and assumes the risks associated with oil well drilling, cementing and acidizing, including, without limitation, destabilization, loss of production, contamination, fracturing and loss of well control. Customer agrees to release Bison Oil Well Cementing, Inc., Bison Energy Services, Inc., its agents, employees and assigns, from any and all liability for any and all damages whatsoever to property of any kind owned by, in the possession of, or leased by customer and those persons or entities customer has the ability to bind by contract. Customer also agrees to indemnify and hold harmless Bison Oil Well Cementing, Inc., Bison Energy Services, Inc., its agents, employees and assigns, from and against any and all liability, claims, costs, expenses, attorneys fees and damages whatsoever for claims, costs, expenses, attorneys fees and damages whatsoever for personal injury, illness, death, property damage and loss resulting from: loss or reduction of production, destabilization loss of oil well control, failure of or contamination by acid stimulation, hydraulic fracturing, cementing, pumping services, incompatible fluid or other processes to stimulate, complete or end production, and/or any other condition. Customer's release, indemnity and hold harmless obligation shall apply even if the liability and claims are caused by the sole, concurrent, active or passive negligence, fault, or strict liability of Bison Oil Well Cementing, Inc. and/or Bison Energy Services, Inc. or any defect in the data, products, supplies, materials or equipment furnished by Bison Oil Well Cementing, Inc. whether in the design, manufacturing, maintenance, or marketing thereof or from failure to warn of such defect. In the event that any portion of this release and indemnity is found by a court of competent jurisdiction to be inoperable or unenforceable, the remaining portions and provisions shall apply, and customer agrees that the contract price herein shall be the limit of Bison Oil Well Cementing, Inc.'s liability, if any.