



# Bison Oil Well Cementing Tail & Lead

Date: 3/27/2018

Invoice # 900282

API# 05-123-46459

Foreman: J Corey Barras

Customer: Bison Oil and Gas II

Well Name: Hunt 8-60 6C-5-10

County: Weld

State: Colorado

Sec: 28

Twp: 3N

Range: 68W

Consultant: Matt R.

Rig Name & Number: Ensign 140

Distance To Location: 49 miles

Units On Location: 4027/3103-421 024/3201-4040/3201

Time Requested: 130

Time Arrived On Location: 1230

Time Left Location:

## WELL DATA

Casing Size (in) : 9.625  
Casing Weight (lb) : 36  
Casing Depth (ft) : 1,902  
Total Depth (ft) : 1935  
Open Hole Diameter (in) : 13.50  
Conductor Length (ft) : 80  
Conductor ID : 15.6  
Shoe Joint Length (ft) : 44  
Landing Joint (ft) : 24

Sacks of Tail Requested 100  
HOC Tail (ft): 0

One or the other, cannot have quantity in both

Max Rate:

Max Pressure:

## Cement Data

### Lead

Cement Name:  
Cement Density (lb/gal) : 13.5  
Cement Yield (cuft) : 1.68  
Gallons Per Sack 8.90  
% Excess 15%

### Tail

Cement Name:  
Cement Density (lb/gal) : 15.2  
Cement Yield (cuft) : 1.27  
Gallons Per Sack: 5.80  
% Excess: 0%

Fluid Ahead (bbls) 30.0  
H2O Wash Up (bbls) 20.0

### Spacer Ahead Makeup

30 Bbl of water with die in 2nd 10bbl

Casing ID

8.921

Casing Grade

J-55 only used

## Lead Calculated Results

HOC of Lead 1577.22 ft  
Casing Depth - HOC Tail  
Volume of Lead Cement 770.83 cuft  
HOC of Lead X Open Hole Ann  
Volume of Conductor 65.76 cuft  
(Conductor ID Squared) - (Casing Size OD Squared) X (.005454) X  
(Conductor Length ft)  
Total Volume of Lead Cement 836.60 cuft  
(cuft of Lead Cement) + (Cuft of Conductor)  
bbls of Lead Cement 171.35 bbls  
(Total cuft of Lead Cement) X (.1781) X (1+%Lead Excess)  
Sacks of Lead Cement 572.67 sk  
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)  
bbls of Lead Mix Water 121.35 bbls  
(Sacks Needed) X (Gallons Per Sack) ÷ 42  
Displacement 145.48 bbls  
(Casing ID Squared) X (.0009714) X (Casing Depth) + (Landing Joint) - (Shoe Length)  
Total Water Needed: 330.64 bbls

## Tail Calculated Results

Tail Cement Volume In Ann 127.00 cuft  
(HOC Tail) X (OH Ann)  
Total Volume of Tail Cement 107.90 Cuft  
(HOC Tail X OH Ann) - (Shoe Length X Shoe Joint Ann)  
bbls of Tail Cement 22.62 bbls  
(HOC of Tail) X (OH Ann) + (Cement Yield) X (Shoe Joint Ann) X (.1781) X (% Excess)  
HOC Tail 220.78 ft  
(Tail Cement Volume) ÷ (OH Ann)  
Sacks of Tail Cement 100.00 sk  
(Total Volume of Tail Cement) ÷ (Cement Yield)  
bbls of Tail Mix Water 13.81 bbls  
(Sacks of Tail Cement X Gallons Per Sack) ÷ 42  
Pressure of cement in annulus  
Hydrostatic Pressure 585.23 PSI  
Collapse PSI: 2020.00 psi  
Burst PSI: 3520.00 psi

X *Michael J. Barras*  
Authorization To Proceed

Date \_\_\_\_\_





## Bison Oil Well Cementing Tail & Lead

### Cementing Customer Satisfaction Survey

Service Date	3/27/2018
Well Name	Hunt 8-60 6C-5-10
County	Weld
State	Colorado
SEC	28
TWP	3N
RNG	68W

Invoice Number	900282
API #	05-123-46459
Job Type	Two Cement
Company Name	Bison Oil and Gas II

Customer Representative

Supervisor Name J. Corey Barras

Employee Name (Including Supervisor)
Corey B
Monte B.
Jesse R.
Enrique V.
Tommie H / Terry R.

Exposure Hours (Per Employee)
6
6
6
6
6
30

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
5	Personnel -
5	Equipment -
5	Job Design -
5	Product/Material -
5	Health & Safety -
5	Environmental -
5	Timeliness -
5	Condition/Appearance -
5	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
- Yes ☒ No
- Yes ☒ No
- Yes ☒ No
- Yes ☒ No

Did an accident or injury occur?

Did an injury requiring medical treatment occur?

Did a first-aid injury occur?

Did a vehicle accident occur?

Was a post-job safety meeting held?

Please Circle:

- Yes ☒ No
- Yes ☒ No
- Yes ☒ No
- Yes ☒ No
- Yes ☒ No

Was a pre-job safety meeting held?

Was a job safety analysis completed?

Were emergency services discussed?

Did environmental incident occur?

Did any near misses occur?

Additional Comments:

DID GREAT JOB!!!!

THE INFORMATION HEREIN IS CORRECT -

X   
Customer Representative's Signature

DATE:

3-27-18

## Hunt 8-60 6C-5-10

