

1738 Wynkoop St., Ste. 102
Denver, Colorado 80202
Phone: 303-296-3010
Fax: 303-298-8143
E-mail: bisonoil1@gwestoffice.net



№ 12655

WELL NO. AND FARM Devore 16-34H		COUNTY Well	STATE CO	DATE 9-2-13	
CHARGE TO Encanta		WELL LOCATION SEC. 34 TWP. 30N RANGE 66W		CONTRACTOR Calib	
		DELIVERED TO 28+31		LOCATION 1 SHOP	CODE
		SHIPPED VIA 3106 - 3210		LOCATION 2 28+31	CODE
		TYPE AND PURPOSE OF JOB Surface		LOCATION 3 SHOP	CODE
				WELL TYPE Gas	CODE

PRICE REFERENCE	DESCRIPTION	UNITS		UNIT PRICE	AMOUNT	
		QTY.	MEAS.			
	Pump charge	1	ea	1400 ⁰⁰	1400	00
	BFWIII 3% BCC-1 .25 lb BFLA-1	275	sks	29 ⁴⁵	8418	75
	BCLY-1	3	qt	25 ⁰⁰	75	(X)
	Blue Dye	16	oz	15 ⁶⁰	240	(X)
	millage .400 per mile 60 mi le min Round trip	2	eq	240 ⁰⁰	480	00
	millage .150 Per mile 60 mi le min Road trip	1	eq	90 ⁰⁰	90	00
	Data Acc	1	eq	225 ⁰⁰	225	00
	Sugar	3	kg	50 ⁰⁰	300	00
	Torn Inspection	1	ea	500 ⁰⁰	500	00
	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 1/4% which is equal to an ANNUAL PERCENTAGE RATE OF 18%.

TAX REFERENCES

SUB TOTAL

1172	8	75
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TAX

TOTAL

SUBJECT TO CORRECTION

Engine Oil & Gas (USA) Inc.

Dr. Bando

Walt Devore 16-34H

AFE: 13174996

Major: 8715.618

SIGNATURE: Leonard Clark
APPROVER: PC: KB.

Customer or His Agent

"TAXES WILL BE ADDED AT CORPORATE OFFICE"

#11,728
75

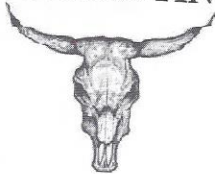
rente Below

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, INC.

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



LOCATION
FOREMAN

28+31
north

TREATMENT REPORT

DATE 9-2-13	WELL NAME Devore 16-34 H	SECTION 34	TWP 3 N	RGE 66W	COUNTY Weld
BILL TO Encanto		CONSULTANT Calib			
OWNER		RIG NAME & NUMBER Patterson 272			
MAILING ADDRESS		DISTANCE TO LOCATION 185		UNITS ON LOCATION 3106 3210	
CITY		TIME REQUESTED 530		TIME ARRIVED ON LOCATION 430	
STATE, ZIP		TIME LEFT LOCATION 1030			

WELL DATA

HOLE SIZE 12 1/4	TUBING SIZE	PERFORATIONS
TOTAL DEPTH 1014	TUBING DEPTH	SHOTS/FT
CASING SIZE 9 5/8	TUBING WEIGHT	OPEN HOLE
CASING DEPTH 1004	TUBING CONDITION	TREATMENT VIA
CASING WEIGHT 40	PACKER DEPTH	
CASING CONDITION Good		
Max Rate		
Max Pressure		

Cement Makeup

Cement Blend	BFN III 3% BCC-1.2516 BFLA-1		
Cement - Specs	lbs 15.2	Yield 1.29	Water Requirements 5.89
Annulus Factor .3131	Capacity Factor 1.0758		

TYPE OF TREATMENT

<input checked="" type="checkbox"/> Surface Pipe	<input type="checkbox"/> Production	<input type="checkbox"/> Squeeze
<input type="checkbox"/> MISC Pump	<input type="checkbox"/> P&A	

HYD HHP = RATE X PRESSURE / 40.8

% Excess

BBL to Pit

25%
27

DESCRIPTION OF JOB EVENTS

safety meeting mFRU Pressure test Per Company man Circulate 30 bbls
Ahead with Dye In 2nd 10 min + Pump 420 SKS cement Drop
Plug + Disp 72.6 bbls H2O Bump Plug 150 pst above 1. ft
Pressure Hold 5 min Release Pressure wash up Rig down

Leonard Clark

X Leonard Clark

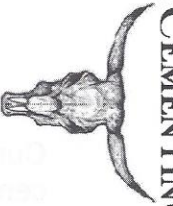
Drill Site Manager.

X 9-2-13
Date

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INVOICE #
LOCATION
FOREMAN

12655
28431
marte

Treatment Report Page 2

DESCRIPTION OF JOB EVENTS

Safety Meeting	810A	Displace 1			Displace 2			Displace 3			Displace 4			Displace 5			Displace 5		
MIRU	850A	BLS	Time	PSI	BLS	Time	PSI	BLS	Time	PSI	BLS	Time	PSI	BLS	Time	PSI	BLS	Time	PSI
CIRCULATE	845A	0	915	100	0			0			0			0			0		
Drop Plug		10	917	100	10			10			10			10			10		
915A		20	919	140	20			20			20			20			20		
		30	921	230	30			30			30			30			30		
		40	923	330	40			40			40			40			40		
		50	925	420	50			50			50			50			50		
M & P		60	927	460	60			60			60			60			60		
Time	Sacks	70	929	410	70			70			70			70			70		
850A	375	70	929	410	80			80			80			80			80		
910A stop		90	932	410	90			90			90			90			90		
		100			100			100			100			100			100		
		110			110			110			110			110			110		
		120			120			120			120			120			120		
84.8 slurry		130			130			130			130			130			130		
52.5 mix		140			140			140			140			140			140		
		150			150			150			150			150			150		

Notes:

circulate 306bbls H₂O with dye in 2nd ID may + Pump 375 sacks cement at 25070 express
1.27yeld 15.215 5.89H₂O drop plug + drop 72.6bbls H₂O Bump plug at 9324am at 6101b
Hold 5 min Release pressure work up Rig down

X Deonard Clark
Work Performed

X Drill Site Manager
Title

X 9-2-13
Date



Bison Oil Well Cementing, Inc
1738 Wynkoop St., Ste. 102
Denver, CO 80202
303-296-3010
www.Bisonoilwell.com

Cementing Customer Satisfaction Survey

Service Date 9-2-13 Invoice Number 12655
Invoice Amount _____ Well Permit Number _____
Well Name Devore IG-34H Well Type Gas
Well Location 28+31 Well Number IG-34H
County Weld Lease _____
SEC/TWP/RNG 34 3N 66W Job Type Surface
State CO Company Name Encanta
Supervisor Name mate Customer Representative Calib
Customer Phone Number _____
Employee Name mate Exposure Hours (Per Employee) 5
Steven 5

Total Exposure Hours 10 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 Expectations (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

Opportunity

- Best Practices
- Potential Best Practice
- Prevention/Improvement

RATING / CATEGORY

- 4 Personnel -
- 4 Equipment -
- 5 Job Design -
- 4 Product / Material -
- 4 Health & Safety -
- 4 Environmental -
- 5 Timeliness -
- 3 Condition / Appearance -
- 4 Communication -
- None Improvement -

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 customer,completed when expected)?
- Did the equipment condition and appearance meet your expectation?
- How well did our personnel communicate during mobilization, rig up, and job execution?
- What can we do to improve our service?

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:

Job went textbook as planned. Thanks.

THE INFORMATION HEREIN IS CORRECT -

Leonard Clark
Customer Representative's Signature

9-2-13
Date

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



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B.O.C. Tailgate Safety Meeting Report

INVOICE 121055

Date 9-2-13 Time 850 ☒ AM ☐ PM Meeting Facilitator Monte Ballou
 Facility Name and Location Devore IG-34H Work to be Undertaken Surface
 Nearest Emergency Medical Service Number (Other than 911) Greeley

MINIMUM STANDARDS REQUIREMENT VERIFICATION (must be verified for all members of a work party)

- ☐ Hard Hat ☐ Safety Glasses w/sideshields ☐ Safety Toed Footwear ☐ Personal Methane Monitor ☐ Verify Safety Training
☐ Flame Resistant Clothing ☐ New on Job Review ☐ Onsite Orientation ☐ Other (specify) _____

HAZARD IDENTIFICATION AND SAFETY BRIEFING DISCUSSION (Check and Discuss all Relevant Hazards)

- | | | |
|--|--|--|
| <input checked="" type="checkbox"/> Positions of People | <input type="checkbox"/> Job Safety Analysis Reviewed (if applicable) | <input type="checkbox"/> Hazardous Substance |
| <input type="checkbox"/> Falling from Heights | <input type="checkbox"/> NORM or Other Radiation | <input type="checkbox"/> Hazardous Atmosphere |
| <input checked="" type="checkbox"/> Slips/Trips/Falls | <input type="checkbox"/> Overhead work/suspended Loads/Chains/Slings | <input checked="" type="checkbox"/> Walking/Working Surfaces |
| <input type="checkbox"/> Extreme Heat/Cold | <input checked="" type="checkbox"/> Trapped Pressure | <input type="checkbox"/> Noise Levels |
| <input type="checkbox"/> Electrical Current | <input type="checkbox"/> Flammable/Combustible/Explosives | <input type="checkbox"/> Sharp Edges |
| <input checked="" type="checkbox"/> Overexertion/Heavy Lifting | <input checked="" type="checkbox"/> Pinch Points/Moving/Rotating Equipment | <input type="checkbox"/> Insects/Snakes/etc. |
| <input type="checkbox"/> Spills/Releases | <input type="checkbox"/> Waste Handling/Disposal | <input type="checkbox"/> MSDS's Reviewed |
| <input type="checkbox"/> Flying Particles | <input type="checkbox"/> Excavation Collapse | <input type="checkbox"/> Walk Around Site Assessment |
| <input type="checkbox"/> Overhead Power Lines | <input type="checkbox"/> _____ | <input type="checkbox"/> _____ |

ADDITIONAL PPE REQUIREMENT (based on the job specific hazards, check all that apply)

- | | | | |
|---|--|---|---|
| Eyes/Face | Hands | Feet | Other |
| <input type="checkbox"/> Tinted Lenses | <input type="checkbox"/> Chemical Resistant Gloves | <input type="checkbox"/> Rubber Boots | <input type="checkbox"/> Air Purifying Respirator |
| <input type="checkbox"/> Goggles | <input type="checkbox"/> Heat Resistant Gloves | <input type="checkbox"/> Over Boots | <input type="checkbox"/> Supplied Air Respirator |
| <input type="checkbox"/> Faceshield | <input type="checkbox"/> Cotton or Leather Gloves | <input type="checkbox"/> Dielectric Boots | <input type="checkbox"/> Personal H2S Monitor (if in sour area) |
| <input type="checkbox"/> Hearing Protection | <input type="checkbox"/> Dielectric Gloves | <input type="checkbox"/> _____ | <input type="checkbox"/> Chemical Resistant Clothing |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> Personal Fall Arrest Systems |
| | | | <input type="checkbox"/> _____ |

EMERGENCY PREPARATIONS

- ☒ Muster Areas ☐ Communication Methods ☒ Means of Egress ☐ Emergency Equipment

Additional Topics Covered:

Attendees (Signature)/Company	Attendees (Signature)/Company
<u>Monte Ballou</u>	<u>Justin Ballou</u>
<u>Steven Daniels</u> <u>Bison</u>	<u>Walter Hernandez</u>
<u>Mark Schuster</u> <u>Bison</u>	<u>CHAD ROWNING</u>
<u>Walter Hernandez</u> <u>Wise</u>	
<u>Brett Allison</u> <u>Wise</u>	

Other Considerations and Field Notes:

Leonard Clark

Cez Hay
Jim Ballou



Bison Oil Well Cementing Single Cement Surface Pipe

Invoice # 12655
API# 445564
Foreman: monte

Customer: encanta
Well Name: devore 1g-34h

County: Weld
State: Colorado
Sec: 34
Twp: 3n
Range: 66w

Consultant: calib
Rig Name & Number: patterson 272
Distance To Location: 15.5
Units On Location: 3106 & 3210
Time Requested: 530
Time Arrived On Location: 430
Time Left Location: 1030

WELL DATA

Casing Size OD (in) : 9.6250
Casing Weight (lb) : 40
Casing Depth (ft.) : 1,004
Total Depth (ft) : 1014
Open Hole Diameter (in.) : 12.25
Conductor Length (ft) : 100
Conductor ID : 16
Shoe Joint Length (ft) : 45
Landing Joint (ft) : 29

Max Rate:
Max Pressure:

Cement Data

Cement Name: BFN III
Cement Density (lb/gal) : 15.2
Cement Yield (cuft) : 1.274
Gallons Per Sack: 5.89
% Excess: 25%
Displacement Fluid lb/gal: 8.3
BBL to Pit:
Fluid Ahead (bbls): 74.9
H2O Wash Up (bbls): 20.0

Spacer Ahead Makeup
10 fresh 10 dye 10 fresh

Casing ID

8.835

Casing Grade

J-55 only used

Calculated Results

cuft of Shoe 19.16 cuft
(Casing ID Squared) X (.005454) X (Shoe Joint ft)

cuft of Conductor 89.10 cuft
(Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X (Conductor Length ft)

cuft of Casing 274.16 cuft
(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length - Landing Joint)

Total Slurry Volume 382.41 cuft
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)

bbls of Slurry 85.13 bbls
(Total Slurry Volume) X (.1781) X (% Excess Cement)

Sacks Needed 375 sk
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)

Mix Water 52.62 bbls
(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 74.88 bbls

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

Pressure of cement in annulus

Hydrostatic Pressure: 792.76 PSI

Pressure of the fluids inside casing

Displacement: 413.50 psi

Shoe Joint: 35.53 psi

Total 449.03 psi

Differential Pressure: 343.72 psi

Collapse PSI: 2570.00 psi

Burst PSI: 3950.00 psi

Total Water Needed: 147.50 bbls

X *Leonard Clonk*
Authorization To Proceed

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