



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 12/24/2013

Invoice # 12604

API# 05-123-37727

Foreman: Calvin Reimers

Customer: Noble

Well Name: Seyler B 10-62-1HN

County: Weld

State: Colorado

Sec: 10

Twp: 5N

Range: 64W

Consultant: Martin

Rig Name & Number: H&P 315

Distance To Location: 18 Miles

Units On Location: 3106/3203

Time Requested: 430am

Time Arrived On Location: 430am

Time Left Location: 1200pm

WELL DATA

Casing Size OD (in) : 9.6250
Casing Weight (lb) : 36
Casing Depth (ft) : 596
Total Depth (ft) : 625
Open Hole Diameter (in.) : 13.75
Conductor Length (ft) : 100
Conductor ID : 16
Shoe Joint Length (ft) : 41
Landing Joint (ft) : 30

Max Rate: 7

Max Pressure: 2500

Cement Data

Cement Name: BEN III
Cement Density (lb/gal) : 15.2
Cement Yield (cuft) : 1.27
Gallons Per Sack: 5.89
% Excess: 10%
Displacement Fluid lb/gal: 8.3
BBL to Pit: 12.0
Fluid Ahead (bbbls):
H2O Wash Up (bbbls): 20.0

Spacer Ahead Makeup

45bbbls H2O Dye in 2nd 10bbbls

Casing ID

B 921

Casing Grade

J 55 only used

Calculated Results

cuft of Shoe 17.59 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 260.75 cuft
(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)
Total Slurry Volume 367.44 cuft
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)
bbbls of Slurry 71.98 bbbls
(Total Slurry Volume) X (.1781) X (% Excess Cement)
Sacks Needed 318 sk
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)
Mix Water 44.63 bbbls
(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 45.26 bbbls
(Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)

Pressure of cement in annulus

Hydrostatic Pressure: 470.48 PSI

Pressure of the fluids inside casing

Displacement: 239.44 psi

Shoe Joint: 31.99 psi

Total 271.44 psi

Differential Pressure: 199.04 psi

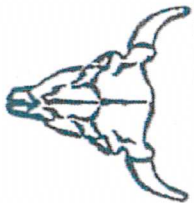
Collapse PSI: 2020.00 psi

Burst PSI: 3520.00 psi

Total Water Needed: 64.63 bbbls

Authorization to Proceed

Customer hereby acknowledges and specifically agrees to the terms and conditions 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
Seyler B 10-62-1HN

INVOICE #
LOCATION
FOREMAN
Date

12604
Weld
Calvin Reimers
12/24/2013

Treatment Report Page 2

DESCRIPTION OF JOB EVENTS

Safety Meeting	849am	Displace 1			Displace 2			Displace 3			Displace 4			Displace 5		
MIRU	750am	BBLs	Time	PSI	BBLs	Time	PSI	BBLs	Time	PSI	BBLs	Time	PSI	BBLs	Time	PSI
CIRCULATE	952am	0	1030am	90	0			0			0			0		
Drop Plug		10	1034am	140	10			10			10			10		
		20	1036am	220	20			20			20			20		
		30	1037am	300	30			30			30			30		
		40	1039am	270	40			40			40			40		
M & P		50	1043am	240	50			50			50			50		
		60	Bump	560	60			60			60			60		
	Time	Sacks	70		70			70			70			70		
		318	80		80			80			80			80		
1002am																
1025am																
% Excess	10%	120			110			110			110			110		
Mixed bbls	44.63	130			120			120			120			120		
Total Sacks	318	140			130			130			130			130		
		150			140			140			140			140		
bbl Returns		150			150			150			150			150		
	12															

Notes:

The day

Float Held Casing psi Test 990psi at 1046am
to 1000psi at 1101am

X Marta A. Sanchez TRM

X ALSS

X 12-24-2013

Work performed

Title

Date