



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 1/11/2015
Invoice #: 55057
API#
Foreman: Monte Bedeaux

Customer: EnCana Oil & Gas (USA) Inc.

Well Name: File 3I-32H

County: Weld
State: Colorado
Sec: 32
Twp: 2n
Range: 68W

Consultant: Norman
Rig Name & Number: patterson 326
Distance To Location: 28.2
Units On Location: 4027-3106 4020-3212
Time Requested: 3:00 PM
Time Arrived On Location: 11:00am
Time Left Location: 4:00

WELL DATA

Casing Size OD (in) : 9.625
Casing Weight (lb) : 36.00
Casing Depth (ft) : 822
Total Depth (ft) : 880
Open Hole Diameter (in.) : 12.25
Conductor Length (ft) : 110
Conductor ID : 15.6
Shoe Joint Length (ft) : 44
Landing Joint (ft) : 35
Max Rate: 5
Max Pressure: 2000

Cement Data

Cement Name: BFN III
Cement Density (lb/gal) : 15.2
Cement Yield (cuft) : 1.27
Gallons Per Sack: 5.89
% Excess: 50%
Displacement Fluid lb/gal: 8.3
BBL to Pit:
Fluid Ahead (bbls): 30.0
H2O Wash Up (bbls): 20.0
Spacer Ahead Makeup
10 fresh 10 dye 10 fresh

Casing ID

8.921

Casing Grade

J-55 only used

Calculated Results

cuft of Shoe 19.10 cuft
(Casing ID Squared) X (.005454) X (Shoe Joint ft)
cuft of Conductor 90.42 cuft
(Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X (Conductor Length ft)
cuft of Casing 334.48 cuft
(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)
Total Slurry Volume 444.00 cuft
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)
bbls of Slurry 79.08 bbls
(Total Slurry Volume) X (.1781)
Sacks Needed 350 sk
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)
Mix Water 49.03 bbls
(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 62.85 bbls

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

Pressure of cement in annulus

Hydrostatic Pressure: 649.05 PSI

Pressure of the fluids inside casing

Displacement: 335.46 psi

Shoe Joint: 34.74 psi

Total 370.20 psi

Differential Pressure: 278.85 psi

Collapse PSI: 2020.00 psi

Burst PSI: 3520.00 psi

Total Water Needed: 161.88 bbls

X
Authorization To Proceed



DISON Oil Well Cementing
Single Cement Surface Pipe

Customer
Well Name

EnCana Oil & Gas (USA) Inc.

File 3I-32H

INVOICE #
LOCATION
FOREMAN
Date

35037
Weld
Monte Bedeaux
1/11/2015

Treatment Report Page 2

DESCRIPTION OF JOB EVENTS

| Safety Meeting MIRU CIRCULATE Drop Plug 3:14 M & P Time Sacks 2:56-3:12 % Excess Mixed bbls Total Sacks bbl Returns Water Temp | 2:40 11:15 2:52 3:14 M & P Time Sacks 2:56-3:12 % Excess Mixed bbls Total Sacks bbl Returns Water Temp | 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 |
| | | 0 | 3:14 | 0 | 0 | | | 0 | | | 0 | | | 0 | | |
| | | 10 | 3:16 | 90 | 10 | | | 10 | | | 10 | | | 10 | | |
| | | 20 | 3:19 | 110 | 20 | | | 20 | | | 20 | | | 20 | | |
| | | 30 | 3:21 | 190 | 30 | | | 30 | | | 30 | | | 30 | | |
| | | 40 | 3:24 | 320 | 40 | | | 40 | | | 40 | | | 40 | | |
| | | 50 | 3:26 | 350 | 50 | | | 50 | | | 50 | | | 50 | | |
| | | 60 | 3:28 | 320 | 60 | | | 60 | | | 60 | | | 60 | | |
| | | 70 | 3:29 | 1020 | 70 | | | 70 | | | 70 | | | 70 | | |
| | | 80 | | | 80 | | | 80 | | | 80 | | | 80 | | |
| | | 90 | | | 90 | | | 90 | | | 90 | | | 90 | | |
| | | 100 | | | 100 | | | 100 | | | 100 | | | 100 | | |
| | | 110 | | | 110 | | | 110 | | | 110 | | | 110 | | |
| | | 120 | | | 120 | | | 120 | | | 120 | | | 120 | | |
| | | 130 | | | 130 | | | 130 | | | 130 | | | 130 | | |
| | | 140 | | | 140 | | | 140 | | | 140 | | | 140 | | |
| | | 150 | | | 150 | | | 150 | | | 150 | | | 150 | | |

Notes:

safty meeting, miru, pressure test per company man, circulate 30 bbls ahead with dye in 2nd 10, mix and pump 350 sks cement, drop plug and

displace 63.54 bbls h2o, bump plug at 3:29 p m at 1020 psi, raise to 1000 psi hold 5 min. release pressure, rash up rig down

X

Work Performed

X

Title

X

Date