



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 11/23/2014
Invoice #: 35073
API#
Foreman: kirk kallhoff

Customer: Anadarko Petroleum Corporation

Well Name: greenleaf 36n-15hz

County: Weld
State: Colorado
Sec: 15
Twp: 2n
Range: 55w

Consultant: lester
Rig Name & Number: major 42
Distance To Location: 10
Units On Location: 4030-3103/4018-3204
Time Requested: 1200 pm
Time Arrived On Location: 1100 am
Time Left Location: 3:30 pm

WELL DATA

Casing Size OD (in) : 9.625
Casing Weight (lb) : 36.00
Casing Depth (ft.) : 801
Total Depth (ft) : 815
Open Hole Diameter (in.) : 13.50
Conductor Length (ft) :
Conductor ID :
Shoe Joint Length (ft) : 41
Landing Joint (ft) : 8

Max Rate:
Max Pressure:

Cement Data

Cement Name: BFN III
Cement Density (lb/gal) : 14.2
Cement Yield (cuft) : 1.49
Gallons Per Sack: 7.48
% Excess: 15%
Displacement Fluid lb/gal: 8.3
BBL to Pit:
Fluid Ahead (bbls): 30.0
H2O Wash Up (bbls): 20.0

Spacer Ahead Makeup

Casing ID

8.921

Casing Grade

J-55 only used

Calculated Results

cuft of Shoe 17.80 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 450.19 cuft
(Open Hole Squared)-(Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)
Total Slurry Volume 467.99 cuft
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)
bbls of Slurry 83.35 bbls
(Total Slurry Volume) X (.1781)
Sacks Needed 314 sk
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)
Mix Water 55.94 bbls
(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 59.37 bbls
(Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)

Pressure of cement in annulus

Hydrostatic Pressure: 590.90 PSI

Pressure of the fluids inside casing

Displacement: 327.70 psi

Shoe Joint: 30.25 psi

Total 357.94 psi

Differential Pressure: 232.95 psi

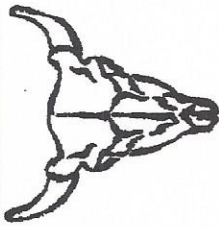
Collapse PSI: 2020.00 psi

Burst PSI: 3520.00 psi

Total Water Needed: 165.31 bbls

X *[Signature]*
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**

INVOICE #
LOCATION
FOREMAN
Date

35073
Weld
kirk kallhoff
11/23/2014

Customer
Well Name

Anadarko Petroleum Corporation
greenleaf 36n-15hz

Treatment Report Page 2

DESCRIPTION OF JOB EVENTS

	Displace 1			Displace 2			Displace 3			Displace 4			Displace 5		
	BBS	Time	PSI	BBS	Time	PSI	BBS	Time	PSI	BBS	Time	PSI	BBS	Time	PSI
Safety Meeting	127 pm			0			0			0			0		
MIRU	1130 am			10			10			10			10		
CIRCULATE	149 pm			20			20			20			20		
Drop Plug				30			30			30			30		
217 pm				40			40			40			40		
				50			50			50			50		
M & P				60			60			60			60		
Time	Sacks			70			70			70			70		
156 pm	314			80			80			80			80		
214 pm stop				90			90			90			90		
				100			100			100			100		
				110			110			110			110		
% Excess	15%			120			120			120			120		
Mixed bbls	55.9			130			130			130			130		
Total Sacks	314			140			140			140			140		
bbl Returns	10			150			150			150			150		
Water Temp															

Notes:

bumped plug at 233 pm at 1260 psi

floats held

X *J P Case* Title
X *11-23-14* Date

X Work Performed

M/D TOTCO 2000 SERIES

