



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 1/22/2015
Invoice #: 25133
API#: 05-123-40886
Foreman: Calvin Reimers

Customer: Anadarko Petroleum Corporation
Well Name: Hunziker 2N-4HZ

County: Weld
State: Colorado
Sec: 28
Twp: 2N
Range: 67W
Consultant: Sam
Rig Name & Number: Advanced 10
Distance To Location: 20 Miles
Units On Location: 4023-3104/4020-3212
Time Requested: 200pm
Time Arrived On Location: 1230pm
Time Left Location: 5:45pm

WELL DATA

Casing Size OD (in) : 9.625
Casing Weight (lb) : 36.00
Casing Depth (ft.) : 1,304
Total Depth (ft) : 1319
Open Hole Diameter (in.) : 13.50
Conductor Length (ft) : 45
Conductor ID : 16
Shoe Joint Length (ft) : 42
Landing Joint (ft) : 8

Max Rate: 5
Max Pressure: 2500

Cement Data

Cement Name: BFN III
Cement Density (lb/gal) : 14.2
Cement Yield (cuft) : 1.49
Gallons Per Sack: 7.48
% Excess: 20%
Displacement Fluid lb/gal: 8.3
BBL to Pit: 18
Fluid Ahead (bbls): 30.0
H2O Wash Up (bbls): 20.0

Spacer Ahead Makeup
30bbls H2O+Dye in 2nd 10bbls

Casing ID 8.921 Casing Grade J-55 only used

Calculated Results

cuft of Shoe 18.28 cuft
(Casing ID Squared) X (.005454) X (Shoe Joint ft)

cuft of Conductor 40.09 cuft
(Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X (Conductor Length ft)

cuft of Casing 738.33 cuft
(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)

Total Slurry Volume 796.70 cuft
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)

bbls of Slurry 141.89 bbls
(Total Slurry Volume) X (.1781)

Sacks Needed 535 sk
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)

Mix Water 95.23 bbls
(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 98.17 bbls

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

Pressure of cement in annulus

Hydrostatic Pressure: 961.90 PSI

Pressure of the fluids inside casing

Displacement: 544.07 psi

Shoe Joint: 31.06 psi

Total 575.13 psi

Differential Pressure: 386.77 psi

Collapse PSI: 2020.00 psi

Burst PSI: 3520.00 psi

Total Water Needed: 243.39 bbls

X *Randy Case*
Authorization To Proceed



DISON Oil Well Cementing
Single Cement Surface Pipe

Customer
Well Name

Anadarko Petroleum Corporation
Hunziker 2N-4HZ

INVOICE #
LOCATION
FOREMAN
Date

25133
Weld
Calvin Reimers
1/22/2015

Treatment Report Page 2

DESCRIPTION OF JOB EVENTS

Safety Meeting		Displace 1			Displace 2			Displace 3			Displace 4			Displace 5		
MIRU	1245pm	BBLS	Time	PSI	BBLS	Time	PSI	BBLS	Time	PSI	BBLS	Time	PSI	BBLS	Time	PSI
CIRCULATE	407pm	0	439pm	100	0			0			0			0		
Drop Plug		10	442pm	60	10			10			10			10		
438pm		20	443pm	90	20			20			20			20		
		30	445pm	90	30			30			30			30		
		40	447pm	200	40			40			40			40		
M & P		50	449pm	260	50			50			50			50		
Time	Sacks	60	451pm	310	60			60			60			60		
412pm	535	70	452pm	380	70			70			70			70		
435pm		80	454pm	420	80			80			80			80		
		90	456pm	410	90			90			90			90		
		100	459pm	370	100			100			100			100		
		110	Bump	1370	110	501pm		110			110			110		
% Excess	20%	120	Bump	1000	120	503pm		120			120			120		
Mixed bbls	95.23	130			130			130			130			130		
Total Sacks	535	140			140			140			140			140		
bbl Returns	18	150			150			150			150			150		
Water Temp	34.7															

Notes:

The day

1/2 bbl Back on Bleed Off

x Randy Case
Work Performed

x APC Consultant
Title

x 01/22/2015
Date

SERIES 2000

