



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 11/28/2014
Invoice # 25092
API# 05-123-40536
Foreman: Calvin Reimers

Customer: Anadarko Petroleum Corporation

Well Name: Vollmar 4N-11HZ

County: Weld
State: Colorado
Sec: 14
Twp: 2N
Range: 67W

Consultant: Lester
Rig Name & Number: Major 42
Distance To Location: 21 Miles
Units On Location: 4023-3104/4018-3204
Time Requested: 700pm
Time Arrived On Location: 520pm
Time Left Location: 9:00pm

WELL DATA

Casing Size OD (in) : 9.625
Casing Weight (lb) : 36.00
Casing Depth (ft.) : 1,200
Total Depth (ft) : 1215
Open Hole Diameter (in.) : 13.50
Conductor Length (ft) :
Conductor ID :
Shoe Joint Length (ft) : 43
Landing Joint (ft) : 8

Max Rate: 7
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: 15%
Displacement Fluid lb/gal: 8.3
BBL to Pit: 21
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 18.55 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 675.74 cuft
(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)

Total Slurry Volume 694.29 cuft
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)

bbls of Slurry 123.65 bbls
(Total Slurry Volume) X (.1781)

Sacks Needed 466 sk
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)

Mix Water 82.99 bbls
(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 90.10 bbls

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

Pressure of cement in annulus

Hydrostatic Pressure: 885.39 PSI

Pressure of the fluids inside casing

Displacement: 499.08 psi

Shoe Joint: 31.53 psi

Total 530.61 psi

Differential Pressure: 354.79 psi

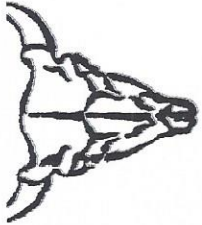
Collapse PSI: 2020.00 psi

Burst PSI: 3520.00 psi

Total Water Needed: 223.09 bbls

X
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.



SPECIALTY WELL SERVICES

Single Cement Surface Pipe

INVOICED BY
LOCATION
FOREMAN
Date

40074

Weld
Calvin Reimers
11/28/2014Customer
Well NameAnadarko Petroleum Corporation
Vollmar 4N-11HZ

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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	713pm			0	759pm	60	0			0			0		
MIRU	525pm			10	802pm	30	10			10			10		
CIRCULATE	733pm			20	804pm	60	20			20			20		
Drop Plug				30	806pm	80	30			30			30		
758pm				40	808pm	180	40			40			40		
				50	810pm	240	50			50			50		
M & P				60	811pm	320	60			60			60		
Time	Sacks			70	813pm	390	70			70			70		
738pm		466		80	814pm	410	80			80			80		
756pm				90	817pm	380	90			90			90		
				100	Bump	1420	100	819pm		100			100		
				110			110			110			110		
% Excess	15%			120			120			120			120		
Mixed bbls	82.99			130			130			130			130		
Total Sacks	466			140			140			140			140		
bbl Returns	21			150			150			150			150		
Water Temp	53.7														

Notes:

The day

1/2 bbl Back on Bleed Off

X

Work Performed

X

Title

X

Date

SERIES 2000

