



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 1/31/2015
Invoice #: 35116
API#
Foreman: kirk kallhoff

Customer: Anadarko Petroleum Corporation

Well Name: griswald 27n-11hz

County: Weld
State: Colorado

Sec: 11
Twp: 4n
Range: 65w

Consultant: elis
Rig Name & Number: advanced 10
Distance To Location: 30
Units On Location: 4030-3203/4024-3203
Time Requested: 900 am
Time Arrived On Location: 615 am
Time Left Location: 1:00 pm

WELL DATA

Casing Size OD (in) : 9.625
Casing Weight (lb) : 36.00
Casing Depth (ft) : 1,730
Total Depth (ft) : 1748
Open Hole Diameter (in.) : 13.50
Conductor Length (ft) : 47
Conductor ID : 16
Shoe Joint Length (ft) : 42
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): 10.0

Spacer Ahead Makeup

Casing ID

8.921

Casing Grade

J-55 only used

Calculated Results

cuft of Shoe 18.23 cuft
(Casing ID Squared) X (.005454) X (Shoe Joint ft)

cuft of Conductor 41.88 cuft
(Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X (Conductor Length ft)

cuft of Casing 945.91 cuft
(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)

Total Slurry Volume 1006.02 cuft
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)

bbls of Slurry 179.17 bbls
(Total Slurry Volume) X (.1781)

Sacks Needed 675 sk
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)

Mix Water 120.25 bbls
(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 131.11 bbls
(Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)

Pressure of cement in annulus

Hydrostatic Pressure: 1276.22 PSI

Pressure of the fluids inside casing

Displacement: 727.83 psi

Shoe Joint: 30.98 psi

Total 758.82 psi

Differential Pressure: 517.40 psi

Collapse PSI: 2020.00 psi

Burst PSI: 3520.00 psi

Total Water Needed: 291.36 bbls

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**

Customer
Well Name

Anadarko Petroleum Corporation
griswald 27n-11hz

INVOICE #
LOCATION
FOREMAN
Date

35116
Weld
kirk kallhoff
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Treatment Report Page 2

DESCRIPTION OF JOB EVENTS

Safety Meeting MIRU CIRCULATE Drop Plug 1139 am M & P Time 1059 am 1136 am stop % Excess Mixed bbls Total Sacks bbl Returns Water Temp	1028a 915am 1052a Sacks 675 15% 120.3 675 4	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	1139a	10	0			0			0			0		
		10	1142a	30	10			10			10			10		
		20	1144a	50	20			20			20			20		
		30	1146a	60	30			30			30			30		
		40	1148a	70	40			40			40			40		
		50	1150a	130	50			50			50			50		
		60	1152a	190	60			60			60			60		
		70	1154a	240	70			70			70			70		
		80	1156a	280	80			80			80			80		
		90	1158a	350	90			90			90			90		
		100	1200p	400	100			100			100			100		
		110	1203p	460	110			110			110			110		
		120	1205p	520	120			120			120			120		
		130	1208p	520	130			130			130			130		
		140			140			140			140			140		
		150			150			150			150			150		

Notes:

bumped plug at 1209 pm 1500 psi

floats held

X AE/10
Work Performed

X _____
Title

X 1-31-15
Date

M/D TOTCO 2000 SERIES

