



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 9/22/2014

Invoice # 35046

API#

Foreman: Kirk Kallhoff

Customer: Anadarko Petroleum Corporation

Well Name: summit 30n-29hz

County: Weld

State: Colorado

Sec: 29

Twp: 2n

Range: 65w

Consultant: toby

Rig Name & Number: major 42

Distance To Location: 15

Units On Location: 4030-3103/4024-3203

Time Requested: 1000 pm

Time Arrived On Location: 830 pm

Time Left Location: 2:00pm

WELL DATA

Casing Size OD (in) : 9.625
 Casing Weight (lb) : 36.00
 Casing Depth (ft.) : 1,093
 Total Depth (ft) : 1111
 Open Hole Diameter (in.) : 13.50
 Conductor Length (ft) :
 Conductor ID :
 Shoe Joint Length (ft) : 35
 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: 16%
 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 15.19 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 619.65 cuft

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

Total Slurry Volume 634.84 cuft

(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)

bbls of Slurry 113.07 bbls

(Total Slurry Volume) X (.1781)

Sacks Needed 426 sk

(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)

Mix Water 75.88 bbls

(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 82.41 bbls
 (Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)

Pressure of cement in annulus

Hydrostatic Pressure: 806.31 PSI

Pressure of the fluids inside casing

Displacement: 456.19 psi

Shoe Joint: 25.82 psi

Total 482.01 psi

Differential Pressure: 324.30 psi

Collapse PSI: 2020.00 psi

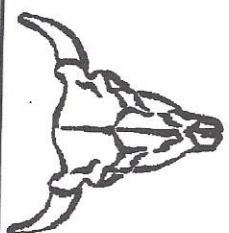
Burst PSI: 3520.00 psi

Total Water Needed: 208.29 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.



Bison Oil Well Cementing Single Cement Surface Pipe

INVOICE # 35046
 LOCATION Weld
 FOREMAN Kirk Kallhoff
 Date 9/23/2014

Customer Anadarko Petroleum Corporation
 Well Name summit 30n-29hz

Treatment Report Page 2

DESCRIPTION OF JOB EVENTS

	Displace 1			Displace 2			Displace 3			Displace 4			Displace 5		
	BMLS	Time	PSI	BMLS	Time	PSI	BMLS	Time	PSI	BMLS	Time	PSI	BMLS	Time	PSI
Safety Meeting	0	102am	10	0			0			0			0		
MIRU	10	104am	40	10			10			10			10		
CIRCULATE	20	107am	40	20			20			20			20		
Drop Plug	30	109am	140	30			30			30			30		
102 am	40	111am	200	40			40			40			40		
M & P	50	113am	270	50			50			50			50		
Time	60	115am	340	60			60			60			60		
1234 am	70	118am	400	70			70			70			70		
1259 am stop	80	121am	380	80			80			80			80		
	90			90			90			90			90		
	100			100			100			100			100		
	110			110			110			110			110		
% Excess	120		16%	120			120			120			120		
Mixed bbls	130		75.8	130			130			130			130		
Total Sacks	140		426	140			140			140			140		
bbl Returns	150		18	150			150			150			150		
Water Temp															

Notes:
 bumped plug at 82 bbls at 123 am at 1430 psi
 floats held
 113 bbls slurry

[Signature]

X Title _____ Date 1-23-14

X Title _____

X Work Performed _____

M/D TOTCO 2000 SERIES

