



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 3/23/2015

Invoice # 80064

API#

Foreman: kirk kallhoff

Customer: Anadarko Petroleum Corporation

Well Name: troudt 36n-33hz

County: Weld

State: Colorado

Sec: 33

Twp: 2n

Range: 67w

Consultant: tim

Rig Name & Number: advanced 10

Distance To Location: 23

Units On Location: 4038-3103/4034-3211

Time Requested: 300 pm

Time Arrived On Location: 230 pm

Time Left Location: 5:13 pm

WELL DATA

Casing Size OD (in) : 9.625
Casing Weight (lb) : 36.00
Casing Depth (ft.) : 1,157
Total Depth (ft) : 1175
Open Hole Diameter (in.) : 13.50
Conductor Length (ft) : 40
Conductor ID : 16
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): 10.0

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 35.64 **cuft**
(Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X (Conductor Length ft)
cuft of Casing 627.80 **cuft**
(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)
Total Slurry Volume 681.23 **cuft**
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)
bbls of Slurry 121.33 **bbls**
(Total Slurry Volume) X (.1781)
Sacks Needed 457 **sk**
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)
Mix Water 81.43 **bbls**
(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 86.89 **bbls**

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

Pressure of cement in annulus

Hydrostatic Pressure: 853.52 **PSI**

Pressure of the fluids inside casing

Displacement: 481.20 **psi**

Shoe Joint: 30.25 **psi**

Total 511.44 **psi**

Differential Pressure: 342.08 **psi**

Collapse PSI: 2020.00 **psi**

Burst PSI: 3520.00 **psi**

Total Water Needed: 208.32 **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**

Customer
Well Name

Anadarko Petroleum Corporation
troudt 36n-33hz

INVOICE #
LOCATION
FOREMAN
Date

80064
Weld
kirk kallhoff
3/23/2015

Treatment Report Page 2

DESCRIPTION OF JOB EVENTS

Safety Meeting		Displace 1			Displace 2			Displace 3			Displace 4			Displace 5		
MIRU		BBLS	Time	PSI	BBLS	Time	PSI	BBLS	Time	PSI	BBLS	Time	PSI	BBLS	Time	PSI
CIRCULATE	344pm	0	436pm	10	0			0			0			0		
Drop Plug	230pm	10	438pm	10	10			10			10			10		
436 pm	400pm	20	441pm	30	20			20			20			20		
		30	443pm	70	30			30			30			30		
		40	445pm	130	40			40			40			40		
M & P		50	447pm	210	50			50			50			50		
Time	Sacks	60	449pm	280	60			60			60			60		
406 pm	457	70	451pm	360	70			70			70			70		
433 pm stop		80	453pm	370	80			80			80			80		
		90			90			90			90			90		
		100			100			100			100			100		
		110			110			110			110			110		
% Excess	15%	120			120			120			120			120		
Mixed bbls	81.4	130			130			130			130			130		
Total Sacks	457	140			140			140			140			140		
bbl Returns	10	150			150			150			150			150		
Water Temp																

Notes:

psi test 1000 psi, cicr 30 bbls h2o at 400 pm, m&p 457 sks 121.3 bbls slurry 406 pm to 433 pm, drop plug at 436pm

bumped plug at 456 pm 900 psi, psi before bump 380 psi, floats held, 10 bbls cement back

X

Work Performed

X

Title

X

Date

3-23-15

M/D TOTCO 2000 SERIES

— PSI — Barrels / Minute — Barrels — Lbs / Gallon — Stage Volume

