



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 4/10/2017

Invoice # 900077

API# 05-123-44410

Foreman: Corey B.

Customer: Anadarko Petroleum Corporation

Well Name: BUTTERBALL 11N-34HZ

County: Weld

State: Colorado

Sec: 10

Twp: 2N

Range: 67W

Consultant: Matt

Rig Name & Number: 252

Distance To Location: 36

Units On Location: 1027-3103/4020-3212/4019-321

Time Requested: 1000

Time Arrived On Location: 1000

Time Left Location:

WELL DATA

Casing Size OD (in) : 9.625

Casing Weight (lb) : 36.00

Casing Depth (ft.) : 1,826

Total Depth (ft) : 1836

Open Hole Diameter (in.) : 13.50

Conductor Length (ft) : 80

Conductor ID : 15.25

Shoe Joint Length (ft) : 44

Landing Joint (ft) : 15

Max Rate: 8bm

Max Pressure: 2000

Cement Data

Cement Name: BFN III

Cement Density (lb/gal) : 14.2

Cement Yield (cuft) : 1.48

Gallons Per Sack: 7.49

% Excess: 15%

Displacement Fluid lb/gal: 8.3

BBL to Pit:

Fluid Ahead (bbls): 30.0

H2O Wash Up (bbls): 20.0

Spacer Ahead Makeup

30 bbl /2nd 10 BBL with Die

Casing ID

8.921

Casing Grade

J-55 only used

Calculated Results

cuft of Shoe 19.10 cuft

(Casing ID Squared) X (.005454) X (Shoe Joint ft)

cuft of Conductor 61.05 cuft

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

cuft of Casing 981.32 cuft

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

Total Slurry Volume 1061.47 cuft

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

bbls of Slurry 189.05 bbls

(Total Slurry Volume) X (.1781)

Sacks Needed 717 sk

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

Mix Water 127.90 bbls

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

Displacement: 138.92 bbls

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

Pressure of cement in annulus

Hydrostatic Pressure: 1347.04 PSI

Pressure of the fluids inside casing

Displacement: 768.36 psi

Shoe Joint: 32.46 psi

Total 800.82 psi

Differential Pressure: 546.22 psi

Collapse PSI: 2020.00 psi

Burst PSI: 3520.00 psi

Total Water Needed: 316.82 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
BUTTERBALL 11N-34HZ

INVOICE #
LOCATION
FOREMAN
Date

900077
Weld
Corey B.
4/10/2017

Treatment Report Page 2

DESCRIPTION OF JOB EVENTS

Amount Pumped	Time/Date	Event	Description	Rate	BBLs	Pressure
% Excess 15%						
Mixed bbls 127.9						
Total Sacks 717	1000	What rig is doing upon Bison Arrival	Running Casing			
bbl Returns 22	1005	JSA	Bison Crew			
Water Temp 62	1015	Rig up				
	1230	Safety Meeting	Bison and Rig crew			
Notes:	1320	Start Job				
	1322	Pressure Test				
	1324	Spacer Ahead	2nd 10 with die	5	30	100
	1327	Lead Cement	14.2 ppg	6	189	150
	1402	Shutdown				
	1405	Drop Plug	Preloaded in plug container			
	1408	Start Displacement		7	90	480
	1427	Bump Plug	500 psi over final lift (1120psi)	2	139	550
	1430	Floats Held	Held for 3 min			
	1432	End Job				
	1335	Rig Down				
	1515	Leave Location				

X

Work Performed

X

Title

X

Date

Butterball 11N-34HZ

