



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 1/10/2017
Invoice #: 666058
API#: 05-123-42562
Foreman: Nick

Customer: Anadarko Petroleum Corporation

Well Name: Puma Fed 30N-14HZ

County: Weld
State: Colorado
Sec: 23
Twp: 1N
Range: 67W

Consultant: Brian/Jeremy
Rig Name & Number: WMO
Distance To Location: 34 miles
Units On Location: 4019/4028/4030
Time Requested: 17:30
Time Arrived On Location: 16:30
Time Left Location:

WELL DATA	Cement Data
Casing Size OD (in) : 9.625	Cement Name: BFN III
Casing Weight (lb) : 36.00	Cement Density (lb/gal) : 14.2
Casing Depth (ft.) : 2,272	Cement Yield (cuft) : 1.49
Total Depth (ft) : 2281	Gallons Per Sack: 7.48
Open Hole Diameter (in.) : 13.50	% Excess: 15%
Conductor Length (ft) : 80	Displacement Fluid lb/gal: 8.3
Conductor ID : 15.25	BBL to Pit:
Shoe Joint Length (ft) : 44	Fluid Ahead (bbls): 30.0
Landing Joint (ft) : 0	H2O Wash Up (bbls): 20.0
Max Rate: 8	Spacer Ahead Makeup
Max Pressure: 2000	Dye in the second 10 bbl

Casing ID	8.921	Casing Grade	J-55 only used
Calculated Results		Displacement: 172.24 bbls	
cuft of Shoe 19.10 cuft (Casing ID Squared) X (.005454) X (Shoe Joint ft)		(Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)	
cuft of Conductor 61.05 cuft (Conductor Width Squared) -(Casing Size OD Squared) X (.005454) X (Conductor Length ft)		Pressure of cement in annulus	
cuft of Casing 1231.99 cuft (Open Hole Squared)-(Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)		Hydrostatic Pressure: 1676.05 PSI	
Total Slurry Volume 1312.14 cuft (cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)		Pressure of the fluids inside casing	
bbls of Slurry 233.69 bbls (Total Slurry Volume) X (.1781)		Displacement: 960.67 psi	
Sacks Needed 881 sk (Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)		Shoe Joint: 32.46 psi	
Mix Water 156.84 bbls (Sacks Needed) X (Gallons Per Sack) ÷ 42		Total 993.13 psi	
		Differential Pressure: 682.92 psi	
		Collapse PSI: 2020.00 psi	
		Burst PSI: 3520.00 psi	
		Total Water Needed: 379.08 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
Puma Fed 30N-14HZ

INVOICE #
LOCATION
FOREMAN
Date

666058

Weld

Nick

1/10/2017

Treatment Report Page 2

DESCRIPTION OF JOB EVENTS

[illegible]

X

Work Performed

X

Title

x

Date _____

Puma Fed 30N-14HZ

