



Anadarko Petroleum Corporation
folley 13-8hz

INVOICE #
LOCATION
FOREMAN
Date

200562
larimer
Kirk Kallhoff
1/15/2020

Treatment Report Page 2

[illegible]

Work Performed

Title

Date _____



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 1/15/2020
Invoice #: 200562
API#
Foreman: Kirk Kallhoff

Customer: Anadarko Petroleum Corporation
Well Name: folley 13-8hz

County: Larimer
State: Colorado
Sec: 13
Twp: 5n
Range: 68w
Consultant: dave
Rig Name & Number: Cartel 88
Distance To Location: 26
Units On Location: 4047/4033/4032
Time Requested: 1230 pm
Time Arrived On Location: 1030 am
Time Left Location: 4:20 pm

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.) : 1,885	Cement Yield (cuft) : 1.48
Total Depth (ft) : 1895	Gallons Per Sack: 7.40
Open Hole Diameter (in.) : 13.50	% Excess: 10%
Conductor Length (ft) : 80	Displacement Fluid lb/gal: 8.3
Conductor ID : 15.25	BBL to Pit:
Shoe Joint Length (ft) : 41	Fluid Ahead (bbls): 30.0
Landing Joint (ft) : 8	H2O Wash Up (bbls): 10.0
Max Rate: 8	Spacer Ahead Makeup
Max Pressure: 2000	30 bbl with Die in 2nd 10

Casing ID	8.921	Casing Grade	J-55 only used
Calculated Results		Displacement: 143.17 bbls	
cuft of Shoe 17.80 cuft		(Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)	
(Casing ID Squared) X (.005454) X (Shoe Joint ft)		Pressure of cement in annulus	
cuft of Conductor 61.05 cuft		Hydrostatic Pressure: 1390.56 PSI	
(Conductor Width Squared) -(Casing Size OD Squared) X (.005454) X (Conductor Length ft)		Pressure of the fluids inside casing	
cuft of Casing 970.37 cuft		Displacement: 795.10 psi	
(Open Hole Squared)-(Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)		Shoe Joint: 30.25 PSI	
Total Slurry Volume 1049.22 cuft		Total 825.34 psi	
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)		Differential Pressure: 565.22 psi	
bbls of Slurry 186.87 bbls		Collapse PSI: 2020.00 psi	
(Total Slurry Volume) X (.1781)		Burst PSI: 3520.00 psi	
Sacks Needed 709 sk		Total Water Needed: 308.08 bbls	
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)			
Mix Water 124.91 bbls			
(Sacks Needed) X (Gallons Per Sack) ÷ 42			

X
Authorization To Proceed

SERIES 2000

