



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 7/7/2014
Invoice #: 12057
API#:
Foreman: Kirk Kallhoff

Customer: Noble
Well Name: nclp aa 06-67-1hnc

County: weld
State: Colorado
Sec: 4
Twp: 6n
Range: 63w
Consultant: jim b
Rig Name & Number: h&p343
Distance To Location: 25
Units On Location: 3103-3211
Time Requested: 930 pm
Time Arrived On Location: 845 pm
Time Left Location: 1230 PM

WELL DATA	Cement Data
Casing Size OD (in) : 9.625	Cement Name: BFN III
Casing Weight (lb) : 36.00	Cement Density (lb/gal) : 15.2
Casing Depth (ft) : 808	Cement Yield (cuft) : 1.27
Total Depth (ft) : 848	Gallons Per Sack: 5.89
Open Hole Diameter (in.) : 13.75	% Excess: 30%
Conductor Length (ft) :	Displacement Fluid lb/gal: 8.3
Conductor ID :	BBL to Pit:
Shoe Joint Length (ft) : 43	Fluid Ahead (bbls): 60.0
Landing Joint (ft) : 30	H2O Wash Up (bbls): 20.0
Max Rate:	Spacer Ahead Makeup
Max Pressure:	

Casing ID	8.921	Casing Grade	J-55 only used
Calculated Results		Displacement: 61.46 bbls	
cuft of Shoe 18.66 cuft		(Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)	
cuft of Conductor 0.00 cuft		Pressure of cement in annulus	
(Conductor Width Squared) -(Casing Size OD Squared) X (.005454) X (Conductor Length ft)		Hydrostatic Pressure: 638.00 PSI	
cuft of Casing 552.39 cuft		Pressure of the fluids inside casing	
(Open Hole Squared)-(Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)		Displacement: 329.85 psi	
Total Slurry Volume 571.05 cuft		Shoe Joint: 33.95 psi	
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)		Total 363.81 psi	
bbls of Slurry 101.70 bbls		Differential Pressure: 274.19 psi	
(Total Slurry Volume) X (.1781)		Collapse PSI: 2020.00 psi	
Sacks Needed 450 sk		Burst PSI: 3520.00 psi	
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)		Total Water Needed: 204.52 bbls	
Mix Water 63.06 bbls			
(Sacks Needed) X (Gallons Per Sack) ÷ 42			

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

Noble
nclp aa 06-67-1hnc

INVOICE #
LOCATION
FOREMAN
Date

12057
weld
Kirk Kallhoff
7/8/2014

Treatment Report Page 2

DESCRIPTION OF JOB EVENTS

		Displace 1			Displace 2			Displace 3			Displace 4			Displace 5		
		BBLS	Time	PSI	BBLS	Time	PSI	BBLS	Time	PSI	BBLS	Time	PSI	BBLS	Time	PSI
Safety Meeting	1136pm															
MIRU	1055pm															
CIRCULATE	1156pm	0	1234am	10	0			0			0			0		
Drop Plug		10	1236am	60	10			10			10			10		
1234 am		20	1239am	80	20			20			20			20		
		30	1241am	140	30			30			30			30		
		40	1243am	230	40			40			40			40		
M & P		50	1246am	300	50			50			50			50		
Time	Sacks	60	1249am	320	60			60			60			60		
1210 am	421	70			70			70			70			70		
1231 am stop		80			80			80			80			80		
		90			90			90			90			90		
		100			100			100			100			100		
		110			110			110			110			110		
% Excess	20%	120			120			120			120			120		
Mixed bbls	59	130			130			130			130			130		
Total Sacks	421	140			140			140			140			140		
bbl Returns	5	150			150			150			150			150		
Water Temp																

Notes:

bumped plug at 1251 am 520 psi 95.2 bbls slurry

X

Work Prepared

X

Title

X

Date

7-8-14