



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 4/6/2014
Invoice #: 12345
API#:
Foreman: LEE SHARP

Customer: NOBLE
Well Name: WELLS RANCH AE 30-67-1 BHNA

County: WELD
State: Colorado
Sec:
Twp:
Range:
Consultant: SHANE
Rig Name & Number: H & P 322
Distance To Location: 35
Units On Location: 4027-3106; 4024
Time Requested: 6:00 AM
Time Arrived On Location: 5:00
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) :	15.2
Casing Depth (ft.) :	651	Cement Yield (cuft) :	1.27
Total Depth (ft) :	661	Gallons Per Sack:	5.89
Open Hole Diameter (in.) :	13.75	% Excess:	30%
Conductor Length (ft) :	124	Displacement Fluid lb/gal:	8.3
Conductor ID :	15.5	BBL to Pit:	0.0
Shoe Joint Length (ft) :	41	Fluid Ahead (bbls):	30.0
Landing Joint (ft) :	24	H2O Wash Up (bbls):	20.0
Max Rate:		Spacer Ahead Makeup	
Max Pressure:		30KCL=10F+10DYE+10F	

Casing ID	B 921	Casing Grade	J-55 only used
Calculated Results		Displacement: 49.01 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	99.83 cuft	Hydrostatic Pressure:	513.95 PSI
(Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X (Conductor Length ft)		Pressure of the fluids inside casing	
cuft of Casing	277.09 cuft	Displacement:	262.98 psi
(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)		Shoe Joint:	32.37 psi
Total Slurry Volume	394.71 cuft	Total	295.35 psi
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)		Differential Pressure:	218.60 psi
bbls of Slurry	91.39 bbls	Collapse PSI:	#N/A psi
(Total Slurry Volume) X (.1781) X (% Excess Cement)		Burst PSI:	#N/A psi
Sacks Needed	404 sk	Total Water Needed:	155.67 bbls
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)			
Mix Water	56.66 bbls		
(Sacks Needed) X (Gallons Per Sack) ÷ 42			
 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.			



INVOICE #
LOCATION
FOREMAN
Date

12345
WELD
E SHAR
/6/2014

Customer
Well Name

NOBLE
WELLS RANCH AE 30-67-1 BHNA

Treatment Report Page 2

DESCRIPTION OF JOB EVENTS

[illegible]

Notes:

The day JOB WENT WELL

✕

Amir

x 11.65

Title

$$x \frac{d^2 u}{dx^2} + \frac{du}{dx}$$

Date _____

Work Performed