



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 6/19/2014
Invoice #: 12269
API#:
Foreman: monte

Customer: noble
Well Name: zisch 3c-6h-m368

County: weld
State: colorado
Sec: 6
Twp: 3n
Range: 68w

Consultant: david
Rig Name & Number: ensign 124
Distance To Location: 26
Units On Location: 4028-3102/4017-3211
Time Requested: 2:00pm
Time Arrived On Location: 1:30
Time Left Location: 7:00

WELL DATA

Casing Size OD (in) : 9.625
Casing Weight (lb) : 40.00
Casing Depth (ft) : 844
Total Depth (ft) : 860
Open Hole Diameter (in.) : 12.25
Conductor Length (ft) : 93
Conductor ID : 15.6
Shoe Joint Length (ft) : 38
Landing Joint (ft) : 36

Max Rate:
Max Pressure:

Cement Data

Cement Name: BFN III
Cement Density (lb/gal) : 15.2
Cement Yield (cuft) : 1.27
Gallons Per Sack: 5.89
% Excess: 50%
Displacement Fluid lb/gal: 8.3
BBL to Pit: 0.0
Fluid Ahead (bbls): 30.0
H2O Wash Up (bbls): 20.0

Spacer Ahead Makeup
20 fresh 10 dye

Casing ID

8.835

Casing Grade

J-55 only used

Calculated Results

cuft of Shoe 16.18 cuft
(Casing ID Squared) X (.005454) X (Shoe Joint ft)

cuft of Conductor 76.45 cuft
(Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X (Conductor Length ft)

cuft of Casing 352.80 cuft
(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)

Total Slurry Volume 445.42 cuft
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)

bbls of Slurry 79.33 bbls
(Total Slurry Volume) X (.1781)

Sacks Needed 351 sk
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)

Mix Water 49.19 bbls
(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 63.84 bbls
(Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)

Pressure of cement in annulus

Hydrostatic Pressure: 666.42 PSI

Pressure of the fluids inside casing

Displacement: 347.53 psi

Shoe Joint: 30.00 psi

Total 377.54 psi

Differential Pressure: 288.89 psi

Collapse PSI: 2570.00 psi

Burst PSI: 3950.00 psi

Total Water Needed: 163.03 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

noble
zisch 3c-6h-m368

INVOICE #
LOCATION
FOREMAN
Date

12269
weld
monte
6/19/2014

Treatment Report Page 2

DESCRIPTION OF JOB EVENTS

Safety Meeting MIRU CIRCULATE Drop Plug 5:10 M & P Time Sacks	4:10 3:10 4:41	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
		0	310	0	0			0			0			0		
		10	513	30	10			10			10			10		
		20	516	110	20			20			20			20		
		30	520	160	30			30			30			30		
		40	523	270	40			40			40			40		
		50	526	290	50			50			50			50		
		60	529	320	60			60			60			60		
4:47-5:10	351	670	530	580	70			70			70			70		
		80			80			80			80			80		
		90			90			90			90			90		
		100			100			100			100			100		
		110			110			110			110			110		
% Excess	0%	120			120			120			120			120		
Mixed bbls	49.19	130			130			130			130			130		
Total Sacks	351	140			140			140			140			140		
bbl Returns	24	150			150			150			150			150		
Water Temp	85															

Notes:

safty meeting. Miru, pressure test per company man. Circulate 30 bbls ahead with dye in last 10, mix and pump 351 bbls at 15.2 lb at 50 excess, drop plug and displa
bump plug at 5:30 pm at 580 bbls back. Raise to 1500 psi hold 15 min, 24 bbls back to pit

Work Preformed

X
Title

X
Date