



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 8/26/2014
Invoice #: 55016
API#:
Foreman: monte

Customer: Bill Barrett Corp.
Well Name: anschutz equis farms 4-62-15 041ch2

County: Weld
State: Colorado

Sec: 15
Twp: 4n
Range: 62w

Consultant: casey
Rig Name & Number: major 42
Distance To Location: 46
Units On Location: 4028-3201 4033-3210
Time Requested: 5:30
Time Arrived On Location: 5:30
Time Left Location: 9:30

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) : 769	Cement Yield (cuft) : 1.27
Total Depth (ft) : 810	Gallons Per Sack: 5.89
Open Hole Diameter (in.) : 13.50	% Excess: 30%
Conductor Length (ft) :	Displacement Fluid lb/gal: 8.3
Conductor ID : 15.6	BBL to Pit:
Shoe Joint Length (ft) : 41	Fluid Ahead (bbls): 60.0
Landing Joint (ft) : 8	H2O Wash Up (bbls): 20.0
Max Rate: 5	Spacer Ahead Makeup
Max Pressure: 2000	10 fresh 10 dye 40 fresh

Casing ID 8.921	Casing Grade J-55 only used
Calculated Results	Displacement: 56.90 bbls <small>(Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe joint)</small>
cuft of Shoe 17.80 cuft <small>(Casing ID Squared) X (.005454) X (Shoe Joint ft)</small>	Pressure of cement in annulus
cuft of Conductor 0.00 cuft <small>(Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X (Conductor Length ft)</small>	Hydrostatic Pressure: 607.20 PSI
cuft of Casing 488.58 cuft <small>(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)</small>	Pressure of the fluids inside casing
Total Slurry Volume 506.38 cuft <small>(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)</small>	Displacement: 313.90 psi
bbls of Slurry 90.19 bbls <small>(Total Slurry Volume) X (.1781)</small>	Shoe Joint: 32.37 psi
Sacks Needed 399 sk <small>(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)</small>	Total 346.27 psi
Mix Water 55.92 bbls <small>(Sacks Needed) X (Gallons Per Sack) ÷ 42</small>	Differential Pressure: 260.93 psi
	Collapse PSI: 2020.00 psi
	Burst PSI: 3520.00 psi
	Total Water Needed: 192.82 bbls
<div><div>x</div><div>Casey</div><div>Authorised Signature</div></div>	



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DESCRIPTION OF JOB EVENTS

Safety Meeting		Displace 1			Displace 2			Displace 3			Displace 4			Displace 5		
MIRU	Time	BBLS	Time	PSI	BBLS	Time	PSI	BBLS	Time	PSI	BBLS	Time	PSI	BBLS	Time	PSI
CIRCULATE	7:13	0	7:57	0	0			0			0			0		
Drop Plug		10	8:00	50	10			10			10			10		
	7:55	20	8:02	70	20			20			20			20		
		30	8:04	110	30			30			30			30		
		40	8:06	200	40			40			40			40		
M & P		50	8:08	240	50			50			50			50		
Time	Sacks	60	8:10	780	60			60			60			60		
7:25 7:55	399	70			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	30%	120			120			120			120			120		
Mixed bbls	55.92	130			130			130			130			130		
Total Sacks	399	140			140			140			140			140		
bbl Returns	12	150			150			150			150			150		
Water Temp	75.5															

Notes:

Safety Meeting, miru, pressure test per company man circulate 60 bbls ahead with dye in 2nd 10,

mix and pump 399 sks at 30 % excess. drop plug and displace 56.9 bbls h2o

Casey Pan
Work Performed

X Co-man
Title

X
Date