



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 9/9/2017
Invoice #: 900171
API#: 05-123-42748
Foreman: Corey B.

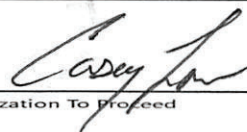
Customer: Bill Barrett Corp.

Well Name: Anschutz Equus Farms 4-62-29-5764C

County: Weld
State: Colorado
Sec: 28
Twp: 4N
Range: 62W
Consultant: Matt
Rig Name & Number: WM 344
Distance To Location: 26
Units On Location: 4024/3103 -4034/3213
Time Requested: 2300
Time Arrived On Location: 2245
Time Left Location: 140

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.) : 815	Cement Yield (cuft) : 1.48
Total Depth (ft) : 815	Gallons Per Sack: 7.40
Open Hole Diameter (in.) : 13.50	% Excess: 40%
Conductor Length (ft) : 0	Displacement Fluid lb/gal: 8.3
Conductor ID :	BBL to Pit: 9.0
Shoe Joint Length (ft) : 44	Fluid Ahead (bbls): 20.0
Landing Joint (ft) : 0	H2O Wash Up (bbls): 20.0
Max Rate: 8	Spacer Ahead Makeup
Max Pressure: 2500	20 BBL with die in 2nd 10

Casing ID	8.921	Casing Grade	J-55 only used
Calculated Results	Displacement:	58.52	bbls
cuft of Shoe 19.10 cuft (Casing ID Squared) X (.005454) X (Shoe Joint ft)	(Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)		
cuft of Conductor 0.00 cuft (Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X (Conductor Length ft)	Pressure of cement in annulus		
cuft of Casing 548.06 cuft (Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)	Hydrostatic Pressure:	590.90	PSI
Total Slurry Volume 567.16 cuft (cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)	Pressure of the fluids inside casing		
bbls of Slurry 101.01 bbls (Total Slurry Volume) X (.1781)	Displacement:	326.40	psi
Sacks Needed 383 sk (Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)	Shoe Joint:	32.46	psi
Mix Water 67.52 bbls (Sacks Needed) X (Gallons Per Sack) ÷ 42	Total	358.86	psi
	Differential Pressure:	232.03	psi
	Collapse PSI:	2020.00	psi
	Burst PSI:	3520.00	psi
	Total Water Needed:	166.04	bbls

X 
Authorization To Proceed

Y

Date _____