

Chicora Foundation Mortar Analysis Data Sheet

Name: Michael Trinkley **Sample No.:** 2004-9
Date: 12/23/04 **Origin of Sample:** 38CH932, Youghal Plantation, ice house, interior, level 1

Visual Description of sample (color, texture, hardness, inclusions, etc.):
 appears to be portland cement -- gray, 2.5YR5/1, only inclusions appear to be small sand grains, otherwise homogeneous composition.

Mortar Analysis

Original weight of powdered sample	8.46
Weight of filter paper	1.60
Weight of filter paper + dry fines	2.33
Weight dry fines	0.73
Weight of dry sand	4.48
% of sand	52.96
% of fines	8.63
% of dissolved binder	38.42

Observations (dissolution of binder, color of liquid, reaction):
 very minor and short lived reaction, dark liquid

Characterization of Sand:

Microscopic Examination:
 rounded quartz, UID red to brown inclusions about 1 mm in siz.

	wt. % finer than		wt (gm)	%
	4.75mm		0.00	0
	2.36mm		0.11	2.455357
	1.18mm		0.42	9.375
	600µm		0.80	17.85714
	300µm		1.89	42.1875
	150µm		1.13	25.22321
	75µm		0.12	2.678571
	53µm		0.01	0.223214
	38µm		0.00	0
Total sand weight			4.48	

Munsell Color(s) of Sand: light gray, 10YR7/1

