

<b>Customer</b>	<b>BROOKS-PSI AUTOMATION</b>							
<b>Material</b>	Cement			<b>Est. Bulk Density (gm/cu.cm)</b>			<b>Date</b>	4/14/03
<b>Desired Sample size</b>	NA			1.3gm/cc			rh	75%
<b>Desired accuracy</b>	1.5% Repeatability of samples at various settings					<b>Pipette Size</b>	0.500	

**Micrometer setting**

1.00

↓

**Sample weight gm**

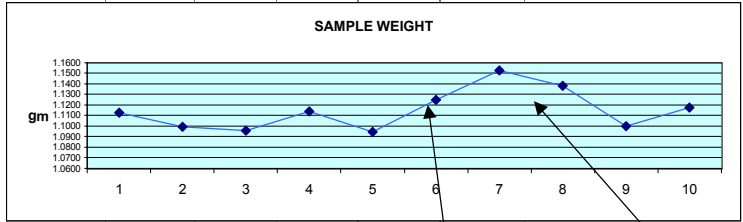
1.1128  
1.0994  
1.0957  
1.1140  
1.0943  
1.1248  
1.1530  
1.1382  
1.1001  
1.1173

1.1150 Av  
1.1148 Mean  
0.0193 Std Dev

**Control unit settings**

Vacuum (1in hg)    Air (psi)

5                      4



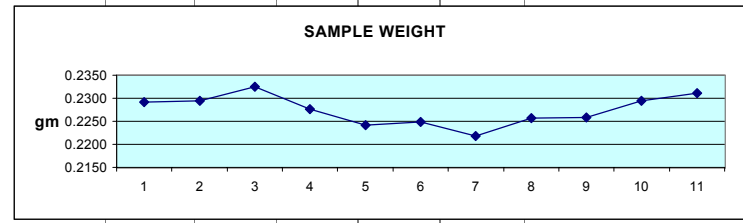
0.20

↓

0.2291  
0.2294  
0.2325  
0.2276  
0.2241  
0.2248  
0.2218  
0.2257  
0.2259  
0.2294  
0.2311

0.2274 Av  
0.2274 Mean  
0.0032 Std Dev

5                      4



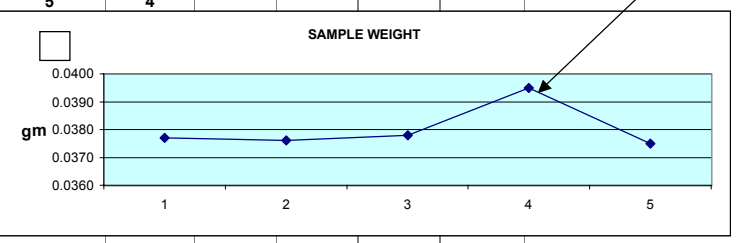
0.01

↓

0.0377  
0.0376  
0.0378  
0.0395  
0.0375

0.0380 Av  
0.0380 Mean  
0.0008 Std Dev

5                      4



- Notes:**
- Limited amount of customer supplied material (15 ml) caused a change in sample tap density as the material in the supply vessel was depleted. Samples began to pack as bottom of the vessel was approached with the pipette tip.
  - Would expect more uniform sample sizes if a larger amount of material is in the supply vessel.
  - Suggest sharp edge or wire to level tip end for small samples, especially at the smaller samples.
  - Larger samples were more uniform using the scraper plate.