Purpose: Determine particle size of slurry product

Equipment:

Computer – Gateway 2000

Particle Size Analyzer – Horiba LA-910

Printer – Desk Jet 660C

Timer

Flosperse 9000

2 - 3ml Droppers

500ml Beaker of water

1000ml Graduated Cylinder – Catch Tube

Procedure:

1. After recording data from slurry sample bottle shake sample until all settling has re-suspended.
2. Turn on computer, monitor, Horiba, and printer.
3. Press *ESC* to boot computer.
4. Double click on *Horiba LA* shortcut.
5. Double click on *Measure*.
6. In liquid measure program click on the *MEAS* button.
7. Fill the sample chamber of the Horiba with water to the top line.
8. Start the agitation and circulation. To do this click on the *agitation* icon and *circulation* icon. The setting for agitation and circulation should be at 3.
9. Add 5 drops of Flosperse 9000 to the sample chamber and wait 45 seconds.
10. After 45 seconds click on the *BLANK* button on the left side of the screen. The message "In Measuring" should pop up at top of screen.
11. Once the "In Measuring" message goes away the system is blanked. Turn off the *circulation* pump.
12. Add 1 drop of slurry sample to sample chamber.
13. Start the ultrasonic. To do this click on the *ultrasonic* icon. The setting for the ultrasonic should be at 60. Once you start the ultrasonic the 60 should start counting down.

14. Once the ultrasonic has finished, turn the *circulation* pump back on and wait for 30 seconds.
15. After 30 seconds click on *MEASURE* button on the left side of the screen. The message "In Measuring" should pop up at the top of the screen. This step will produce the particle size of the sample.
16. The next screen should be your analysis.
17. Record the Median reading on slurry log
18. In the top right corner will be the *PRINT* button. Click on the print button.
19. Label the print out with sample id and date and retain for records.
20. Click on the *MEAS* button. This should take you back to the measure screen.
21. Next drain the sample chamber. To do this click on the *ALL* button located on the left side of screen underneath the *DRAIN* title.
22. Once the Horiba has drained, the circulation pump and agitator should stop.
23. Next clean the sample chamber. To do this, circulate fresh water through the system.
24. Refill the sample cup to the second line with water.
25. Turn on the *agitator* and *circulation* pump. (Step 8 above)
26. Allow to run for 1 minute.
27. Drain the machine as done previously. (Step 21 above)
28. Empty the catch tube located in floor beneath the Horiba.
29. Close out program and shut down computer.
30. Turn off Horiba, computer, monitor, and printer.

TRAINING DOCUMENTATION

	EMPLOYEE	TITLE	SIGNATURE	DATE
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Revision Number	Revision Date	Revision Author	Revision Description
00	10/18/11	LC	New Document