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FS_INSTRUCTIONS_TRACER-TEST_070724_65.DOC [E:\TECHNICAL]
[E:\DOCUMENTS\Write-Ups_2006\X-WRITE_UPS_AND_PUBLICATIONS_2006_09_M18\X-TRACER_TEST/....]
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INSTRUCTIONS FOR CONDUCTING TRACER TESTS ON FLOW SORT X-RAY DIAMOND RECOVERY MACHINES

Conduct a tracer test daily or after any service work or set up changes have been done.
Record the results on Flow Sort's "**X-TRACER_TEST_070724_5_65.XLS**" forms.

ONLY USE FLOW SORT APPROVED TRACERS

PROCEDURE

Switch off the feeder to the sorter

1. Enter Date and Time
2. Enter name of person conducting the test
3. Enter name of Mine / Site / Customer
4. Enter the Sorter's Model number i.e. XR2/19 or TSXR 2/19 or XR 15/50 etc.
5. Enter the Sorter Serial numbers for the 1st stage and for the 2nd stage of the Sorter
6. Enter the material size and type that this sorter is set up for i.e. +2mm-5mm ALU or +5mm-12mm KIM etc.
7. Switch off the feeder
8. Record the Selector switch position (1,2 or 3)
9. Record the relevant sensitivity dial settings
10. Record all μ Amp meter readings
11. Record the concentrate bin number that is inserted in the 1st stage
12. Record the concentrate bin number that is inserted in the 2nd stage
13. Reset all Ejection counters to zero (or record the current Ejection counts to determine the counts added during the Tracer test)

14. Record the number of tracers inserted into the left / right side of the Sorter's 1st and 2nd stage in the relevant fields
- 14a. Insert the tracers in the relevant tracer insertion ports
- 14b. **Note:** Sorters without tracer insertion ports must be tested by placing the tracers into the Sorter's feed inlet chute (left side and right side respectively)
Note: Twin Stage Sorters without tracer insertion ports at their second stage must be tested by inserting the tracers into the Sorter's feed inlet chutes of the first stage (left side and right side respectively) after the relevant sensitivity ports of the first stage sorter have been turned to zero (0).
- 14c. **Important:** Make sure that the sensitivity potentiometers that have been zeroed during a second stage tracer test **ARE SET TO EXACTLY** the same position as they were set before.
15. Record the ejection counts (ejection count increase) of each ejection counter in the relevant fields
16. Count the number of tracers that reported to tailings and record in the field provided for.
17. The tracer test record sheets must now be handed to the Sort House
- 17a. The Sorter must enter the number of marbles that he / she finds in the relevant concentrate bins, into the fields provided.
18. The completed test sheets must be handed to the person that carries the overall responsibility for the X-Ray recovery section, who must enter his / her name and signature in the field " Results Checked By:"
- 18a. If any action is required he / she must indicate this in the provided space
19. Please note that any person that is involved in a Tracer test must record any comment that he / she thinks are appropriate.
20. Completed and "signed-off" Tracer test forms must be filed in date order in separate files for each Sorter
21. If action is required then a copy of the tracer test report must be handed to the person that is responsible to conduct, supervise and / or place an order for the relevant action to be executed.
22. After the required action has been carried out, the relevant repair / adjustment etc. report must be filed with the original Tracer test sheet in the relevant Sorter's tracer record file
23. A new Tracer test must follow immediately after point 21. has been attended to
24. Please note that the information to be filled into the Tracer Test Form fields listed under points 2 / 3 / 4 / 5 / 6 / 14 above may be "pre-entered" to same time during the test.