MEMORANDUM: 03-102

DATE: October 17, 2003

TO: Joe Franklin, Chairman, CBT Surveillance Panel

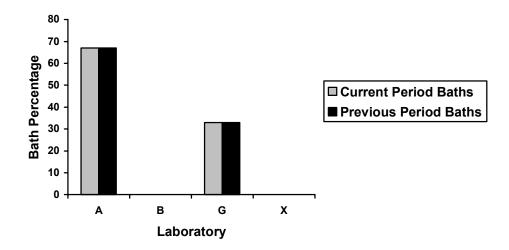
FROM: Jeff Clark

SUBJECT: Corrosion Bench Test Status from April 1, 2003 through September 30, 2003

A total of 28 Corrosion Bench Test results from three baths in two labs were reported to the TMC during the period from April 1, 2003 through September 30, 2003.

The following chart shows the distribution by laboratory.

Laboratory/Bath Distribution



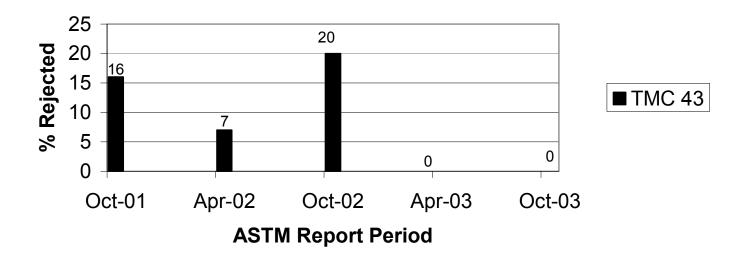
The following summarizes the status of the reference oil tests reported to the TMC:

	TMC Validity Codes	No. of Tests
Operationally and Statistically Acceptable	AC	27
Failed Acceptance Criteria	OC	0
Declared Invalid by Laboratory	LC	0
Aborted	XC	1
Total		28

There was one aborted test reported. The test was aborted due to a heater malfunction.

The following presents the fail rate for this period with the fail rates of previous periods.

Comparison of Rejection Rates for This Period Versus Previous Periods



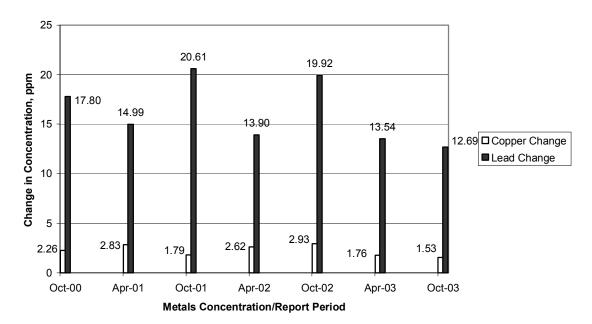
Industry Severity and Precision

The current severity for the change in metals concentration parameters on all operationally valid tests, for the current and previous periods, is tabulated below.

Period	n	Δ Cu	ΔPb
		Mean Δ /s	Mean Δ/s
4/1/03 through 9/30/03	27	0.08	0.43
10/1/02 through 3/31/03	29	0.11	-0.04
4/1/02 through 9/30/02	41	0.32	0.38
10/1/01 through 3/31/02	27	0.37	-0.23
4/1/01 through 9/30/01	25	0.78	0.13

Figures 1 and 2 plot the Summation delta/s from target for both change in copper and change in lead, respectively. Figure 1 shows copper change to be on target for the period. Figure 2 shows lead change to be severe for the period. Precision estimates, by report period are depicted below. Precision for both Cu and Pb change show improvement compared to both the previous period and historical levels (see chart below).

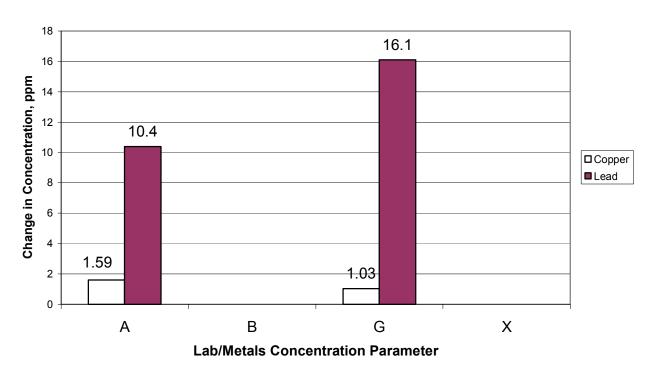
Precision Estimates by ASTM Report Period



Laboratory Severity and Precision:

The following plot shows the precision for this period, by lab.

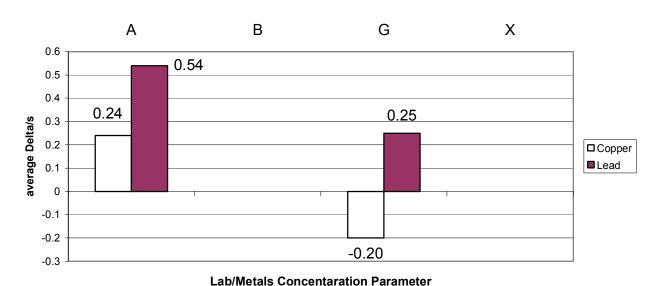
Precision By Lab, TMC Oil 43



Precision estimates for Copper show better precision at lab G, while precision estimates for Lead show better precision at lab A. Precision estimates are not available for labs B and X (no test activity).

The following plot shows the average Δ /s by laboratory and concentration parameter for this

Average Delta/s By Lab, TMC Oil 43



Memo 03-102 Page 5 ASTM report period.

For both copper and lead, Lab A was severe compared to Lab G.

Reference Oil Supply

Reference oil quantities available at the laboratories and TMC, as well as estimated life of these oils, are tabulated below.

Oil	TMC Inventory, in	TMC Inventory, in	Laboratory	Estimated life
	gallons	tests	Inventory, in tests	
43	60.9	~1950	20	10+ Years

Information Letters and Memorandum

Information Letter 03-1 was issued on September 22, 2003. Topics covered were air source, specimen immersion depth, and the report forms and data dictionary.

Additional Information

The CBT database is available on the TMC's website. If you have any questions on how to access this information, contact the TMC.

JAC/jac/mem03-102.jac.doc

c: CBT Surveillance Panel

ftp://ftp.astmtmc.cmu.edu/docs/bench/cbt/semiannualreports/cbt-10-2003.pdf

J. L. Zalar

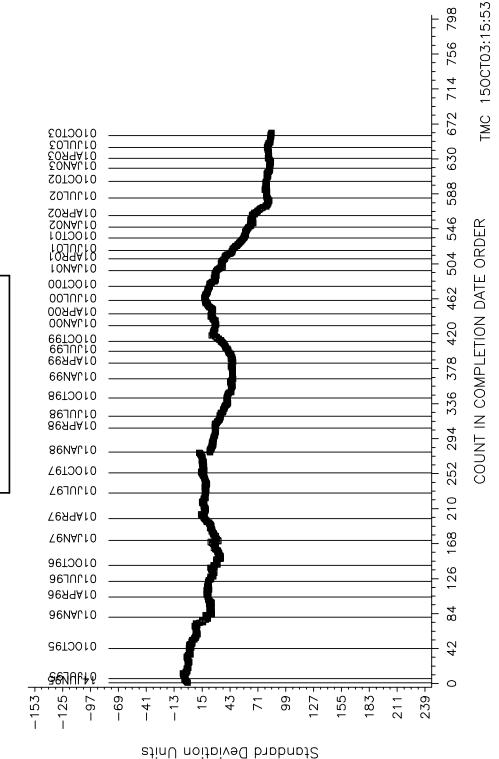
F. M. Farber

Distribution: Email

Figure 1 cbt industry operationally valid data



CUSUM Severity Analysis



TMC 150CT03:15:53 672 714 756 798 010010 010AU03 01APR03 010L00 010CT03 630 588 οιηριος 10MAL10 10MAL10 10JUL10 10JUL10 10JUL10 20MAL10 20MAL10 294 336 378 420 462 504 546 COUNT IN COMPLETION DATE ORDER 01JAN00 0079A10 01JUL00 01JOCT00 **CUSUM Severity Analysis** 01APR99 01JUL99 01OCT99 66NAL10 010CT98 01APR98 01JUL98 86NAL10 252 010CT97 76JUL10 210 76A9A10 168 76NAL10 010CT96 126 9670110 96A9A10 84 **96NAL10** 010CT95 42 **€€**711149€ 0 -292] 16--96--68 -264 -236 -208 -180-152-124-40 Standard Deviation Units

Figure 2 CBT INDUSTRY OPERATIONALLY VALID DATA

LEAD CHANGE (ppm)