



Test Monitoring Center

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MEMORANDUM: 05-083
DATE: November 4, 2005
TO: Warren Totten, Chairman, Cummins Surveillance Panel
FROM: Jeff Clark
SUBJECT: ISM Calibration Testing for the October 2005 ASTM Report Period

The following is a summary of ISM reference oil tests completed during the October 2005 ASTM report period, which began on April 1, 2005 and ended on September 30, 2005.

Test Status	TMC Validity Code	Number of Tests
Acceptable Calibration Test	AC	2
Failed Calibration Test (LTMS Criteria)	OC	0
Acceptable Donated Test	AG	0
Aborted Donated Test	XG	0
Total		0

Severity and Precision:

Figures 1, 2, 3, and 4 (attached) show the current industry EWMA severity, EWMA precision, and cusum charts for Crosshead Weight Loss (CWL), Filter Plugging Delta P (FPD), Average Sludge Rating (ASR), and Injector Adjusting Screw Weight Loss (IAS). All parameters are currently within control chart limits, however, low-test activity makes it difficult to offer any meaningful commentary regarding severity trends.

Precision estimates will be presented on an annual basis. The precision estimate for 2004 is shown in the following table. No estimate is yet available for 2005.

ISM Precision Estimates

Parameter	2004
df	6
CWL	1.4
FPD (ln units)	0.4227
ASR	0.13
IAS	7.0

Reference Oils:

The current reference oil test targets are shown below:

Oils	N	Parameter	Mean (cSt)	S
830-2	7	CWL	4.8	1.4
		FPD	2.4556	0.4227
		ASR	9.04	0.20
		IAS	30.0	7.0
830-2**	10**	CWL	5.3	1.4
		FPD	2.3363	0.4130
		ASR	8.99	0.15
		IAS	26.6	7.9

** *To be considered by Cummins Surveillance Panel.*

Ten tests have been completed on oil 830-2, and the proposed ten-test targets for surveillance panel consideration are shown in the table above.

Information Letters:

No ISM Information Letters were issued this ASTM period.

TMC Laboratory Visits:

No TMC laboratory visits were conducted this ASTM period.

Additional Information:

The ISM database, timeline, and alarm logs can be accessed on the TMC's homepage. If you have any questions on how to access this information, contact the TMC.

JAC/jac/mem05-083.jac.doc

Attachments

c: J.L. Zalar, TMC

F.M. Farber, TMC

Cummins Surveillance Panel

<ftp://ftp.astmtmc.cmu.edu/docs/diesel/cummins/semiannualreports/ISM-10-2005.pdf>

Distribution: Email

FIGURE 1
ISM INDUSTRY OPERATIONALLY VALID DATA
FINA ORIG UNIT CROSSHEAD MASS LOSS ADJUSTED TO 3.9

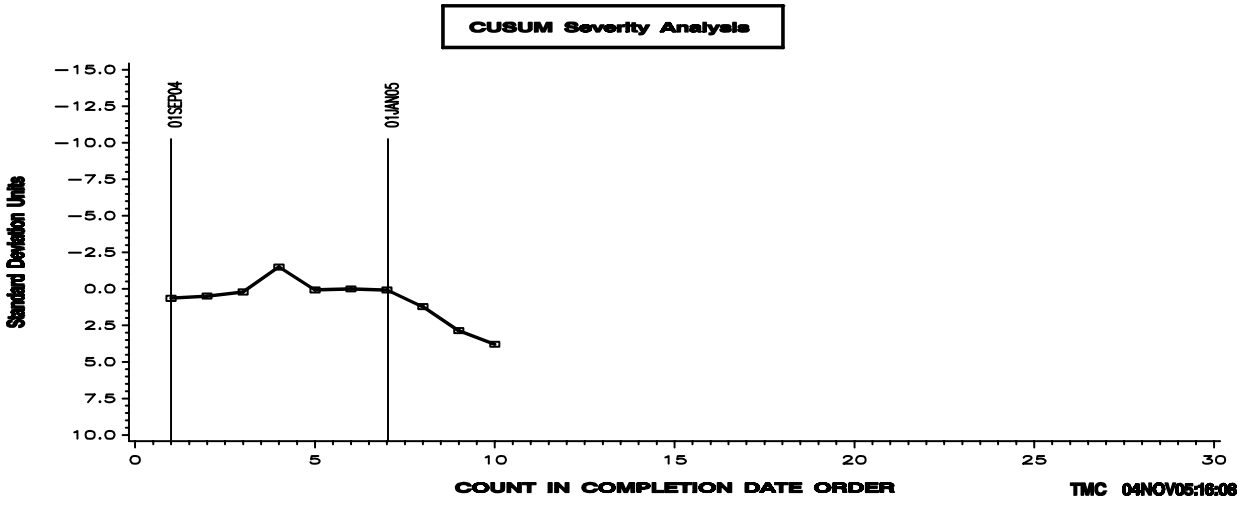
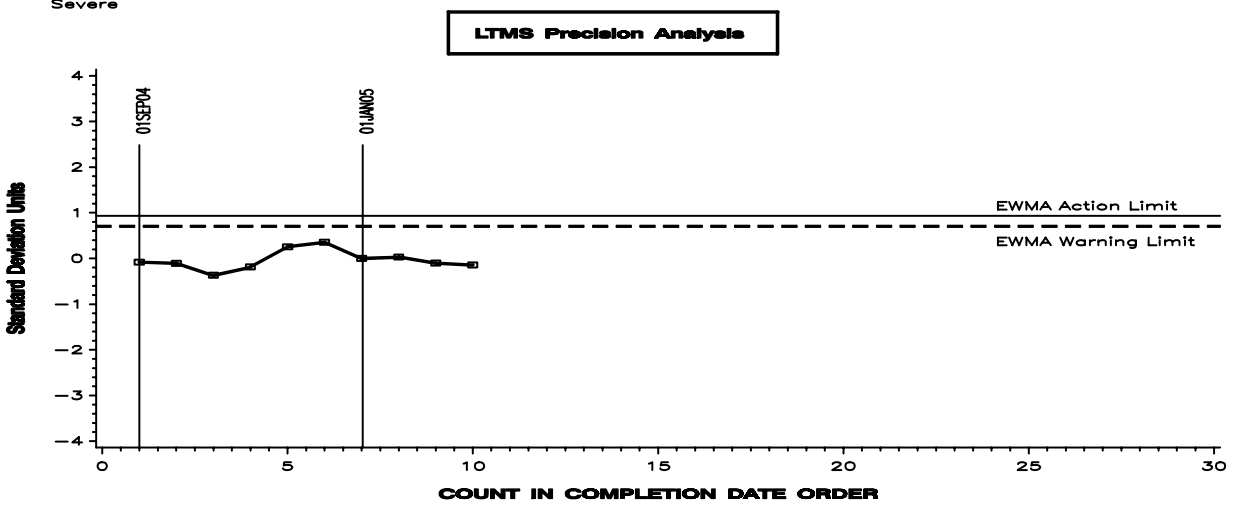
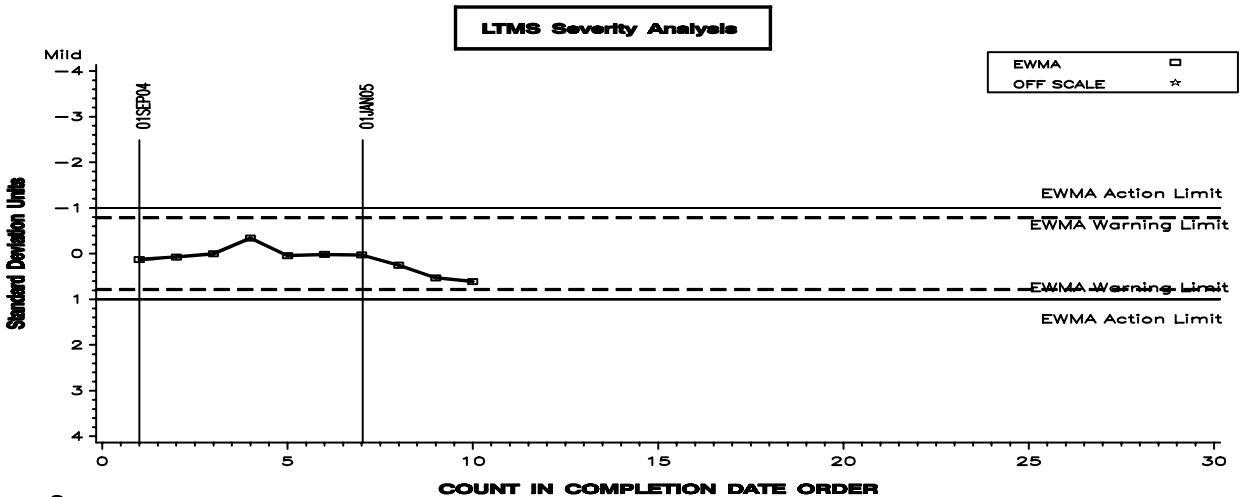
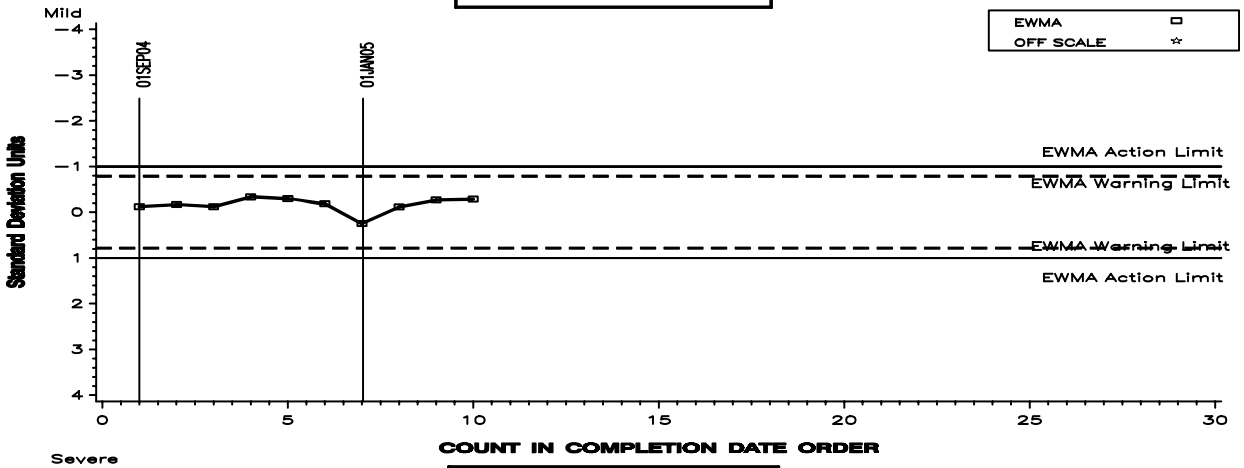


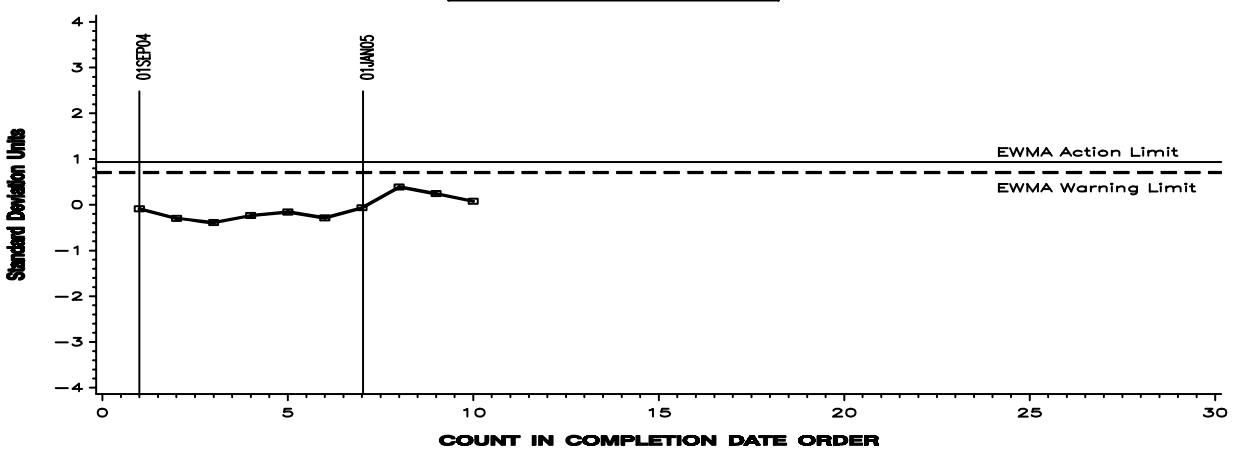
FIGURE 2 ISM INDUSTRY OPERATIONALLY VALID DATA

FILTER PLUGGING DELTA P

LTMS Severity Analysis



LTMS Precision Analysis



CUSUM Severity Analysis

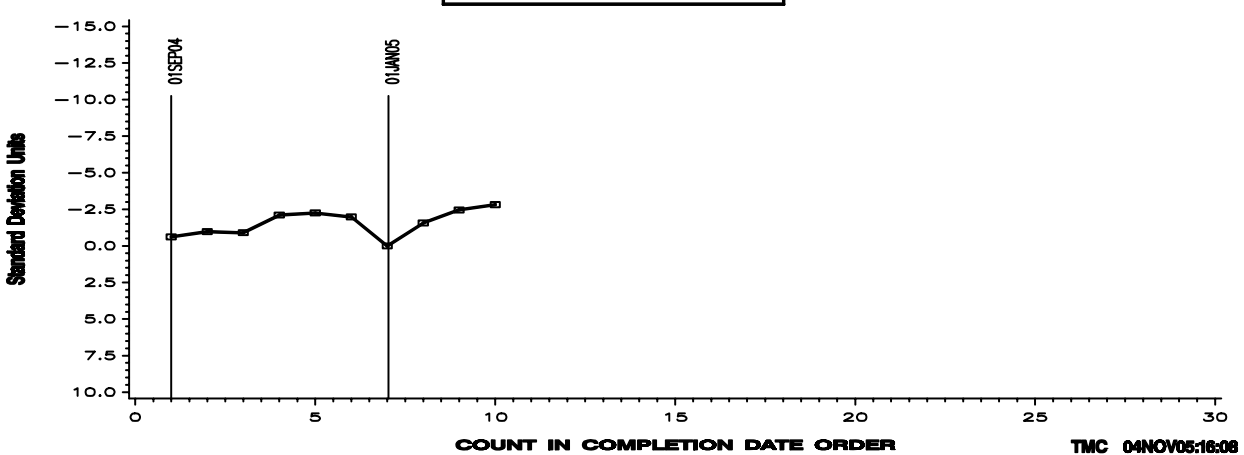


FIGURE 3 ISM INDUSTRY OPERATIONALLY VALID DATA

AVERAGE SLUDGE RATING

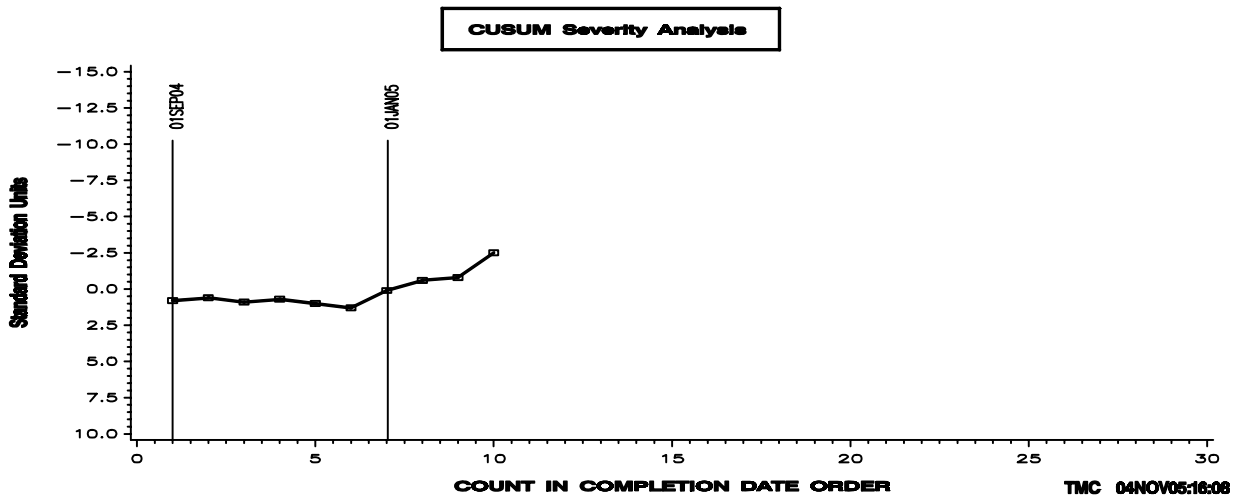
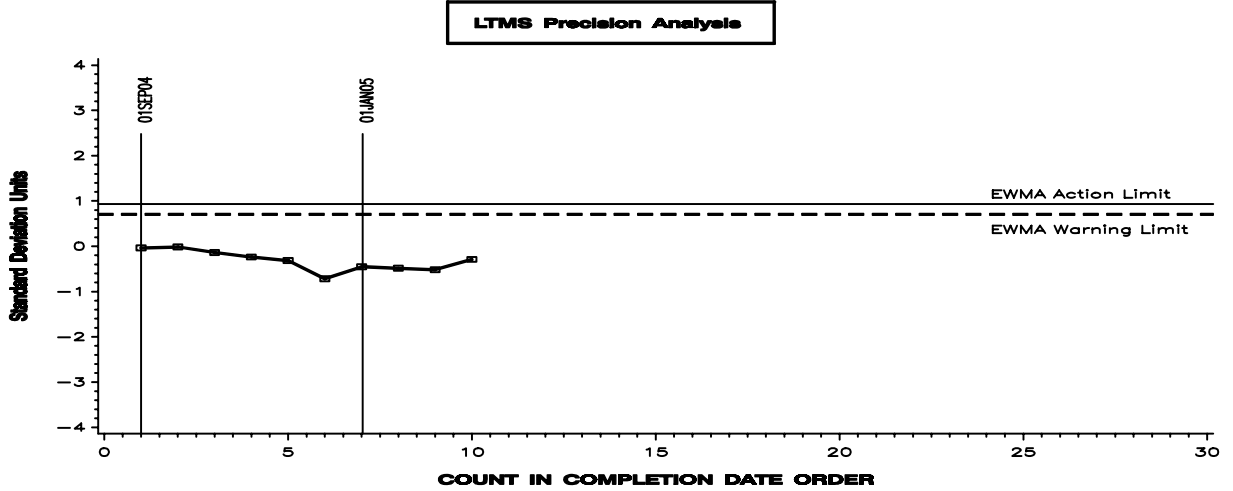
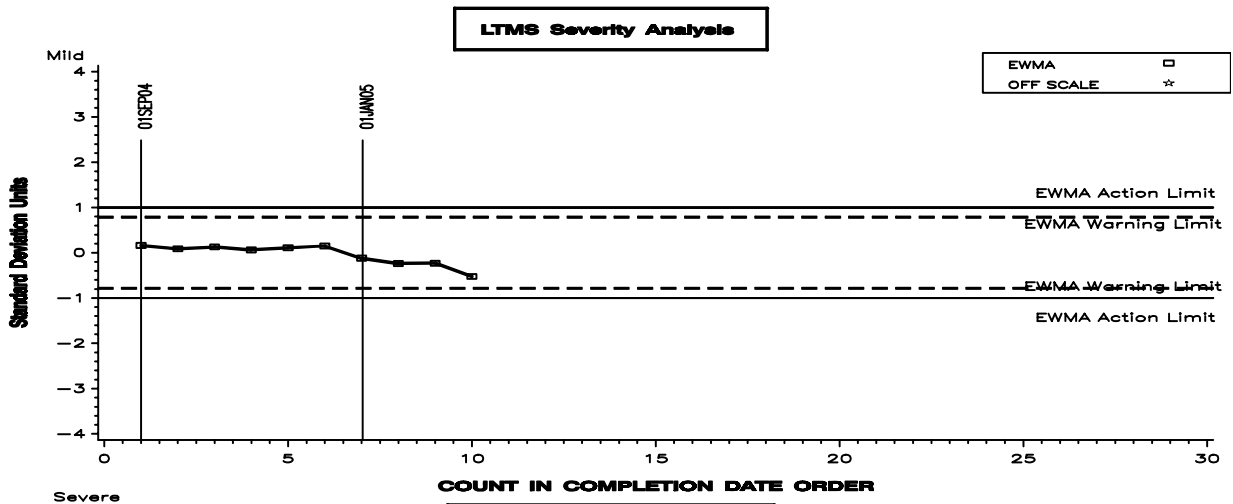


FIGURE 4 ISM INDUSTRY OPERATIONALLY VALID DATA

FINAL ORIG UNIT INJ ADJUSTING SCREW MASS LOSS ADJUSTED TO 3.9% SOOT

