



Test Monitoring Center

6555 Penn Avenue
Pittsburgh, PA 15206-4489
(412) 365-1000

MEMORANDUM: 06-058
DATE: October 2, 2006
TO: Jim Gutzwiller, Chairman, C13 Surveillance Panel
FROM: Jeff Clark
SUBJECT: C13 Calibration Testing for the October 2006 ASTM Report Period

The following is a summary of C13 reference oil tests completed during the October 2006 ASTM report period, which began on April 1, 2006 and ended on September 30, 2006.

Test Status	TMC Validity Code	Number of Tests
Acceptable Calibration Test	AC	0
Failed Calibration Test (LTMS Criteria)	OC	1
Operationally Invalid Test	LC	0
Aborted Test	XC	0
Non-blind, Information	NI	1
Total		2

The test that failed the LTMS criteria (OC validity) was due to severe oil consumption. The non-blind test (NI validity) was run for stand shakedown purposes.

Severity and Precision:

Figures 1 through 4 (attached) show the current industry EWMA severity, EWMA precision, and cumsum charts for Top Groove Carbon (TGC), Top Land Carbon (TLC), Second Ring Top Carbon (R2TC), and Delta Oil Consumption (OC). All four parameters are currently within control chart limits. However, low-test activity makes it difficult to offer any meaningful commentary regarding severity.

Precision estimates will be presented on an annual basis, in the table below. The precision estimate for 2005 was primarily generated from the PC-10 matrix program. No estimate is yet available for 2006.

C13 Precision Estimates

Parameter	2005	2006	2007	2008	2009
df	22				
TGC	7.36				
TLC	5.99				
R2TC	0.3088				
OC	1.1881				

Reference Oils:

The current reference oil test targets are shown below:

Oils	N	Parameter	Units	Mean	S
831 (PC10B)	9	TGC	Demerits	46.24	7.63
		TLC	Demerits	24.92	7.10
		R2TC	LN(Dem.)	2.8869	0.1939
		OC	SQRT(g/h)	5.9235	0.8879

To date, nine tests have been completed on oil 831. The TMC will notify the surveillance panel when ten tests have been completed.

Information Letters:

No C13 Information Letters were issued this ASTM period.

TMC Laboratory Visits:

One TMC laboratory visit was conducted this ASTM period. Deficiencies noted included an incorrect external oil pump, improperly located intake air temperature and pressure sensors, and an upward sloping blowby hose.

Additional Information:

The C13 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/mem06-058.jac.doc

Attachments

c: J.L. Zalar, TMC

F.M. Farber, TMC

Cummins Surveillance Panel

ftp://ftp.astmtmc.cmu.edu/docs/diesel/cat_c13/semiannualreports/C13-10-2006.pdf

Distribution: Email

FIGURE 1 C13 INDUSTRY OPERATIONALLY VALID DATA

TOP GROOVE CARBON AVERAGE – FINAL RESULT

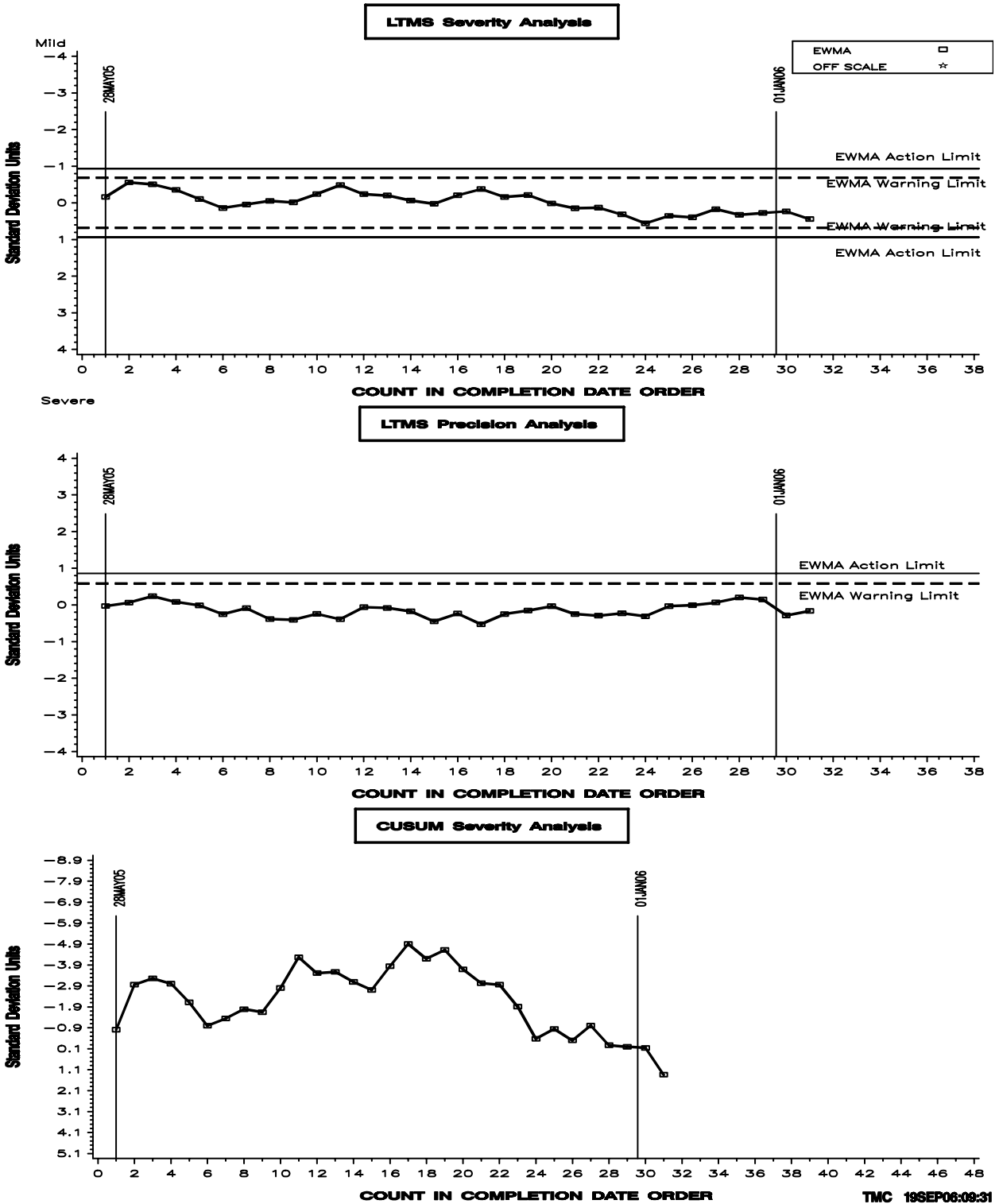


FIGURE 2 C13 INDUSTRY OPERATIONALLY VALID DATA

TOP LAND CARBON AVERAGE – FINAL RESULT

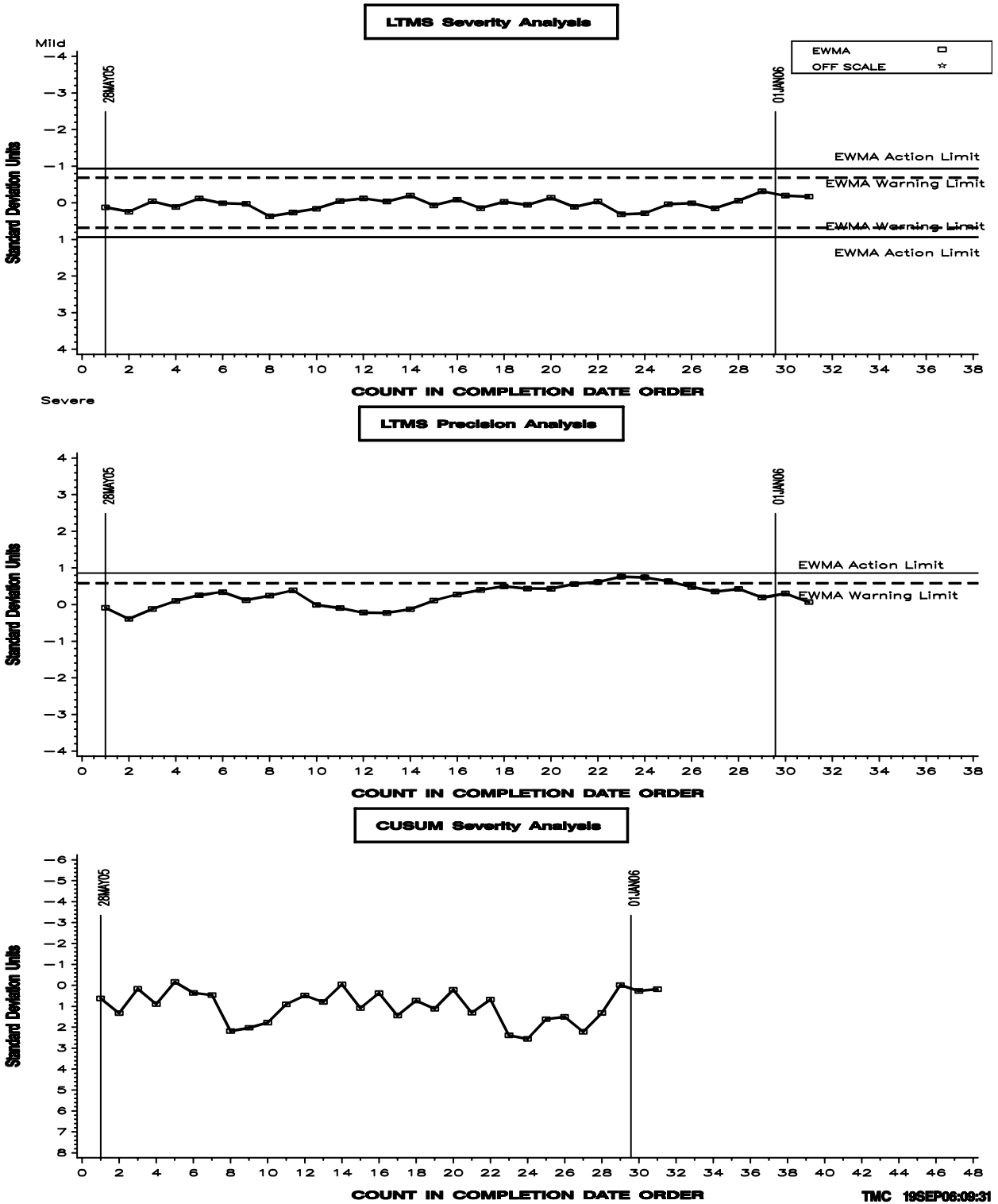


FIGURE 3 C13 INDUSTRY OPERATIONALLY VALID DATA

2ND RING TOP CARBON AVERAGE – FINAL RESULT

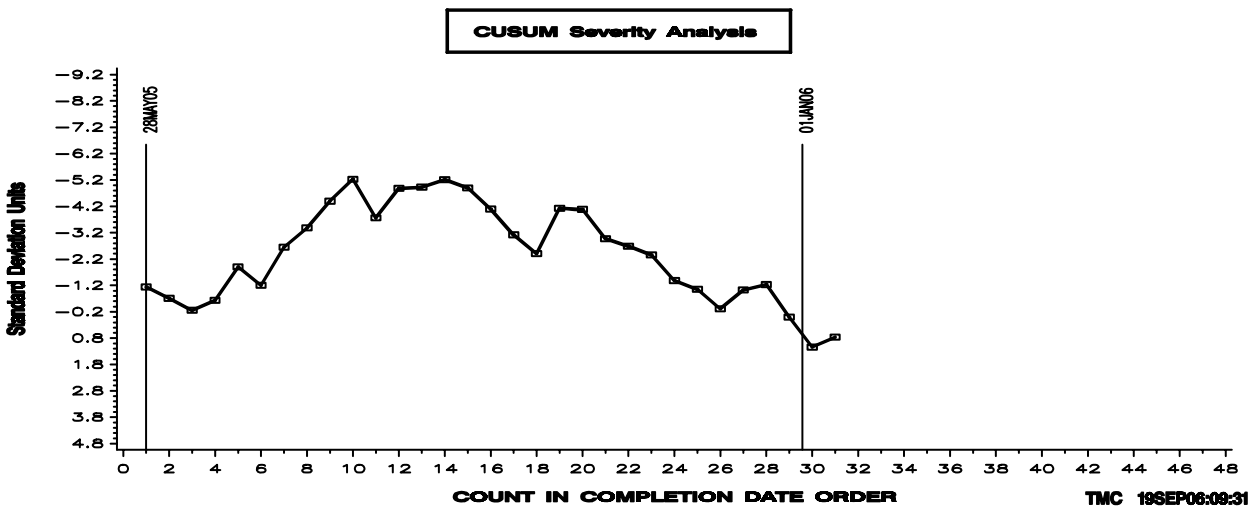
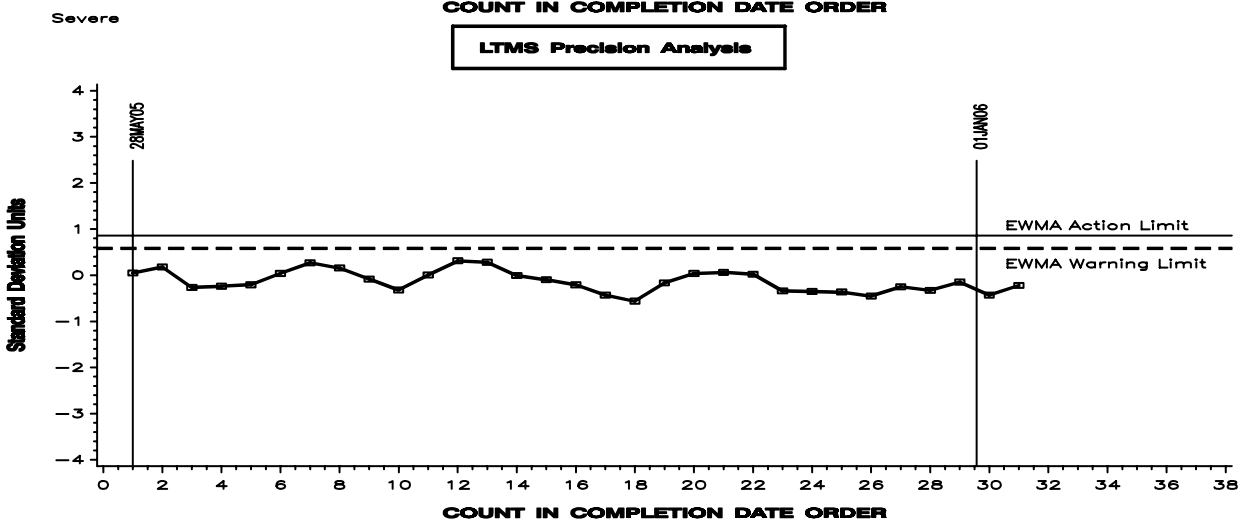
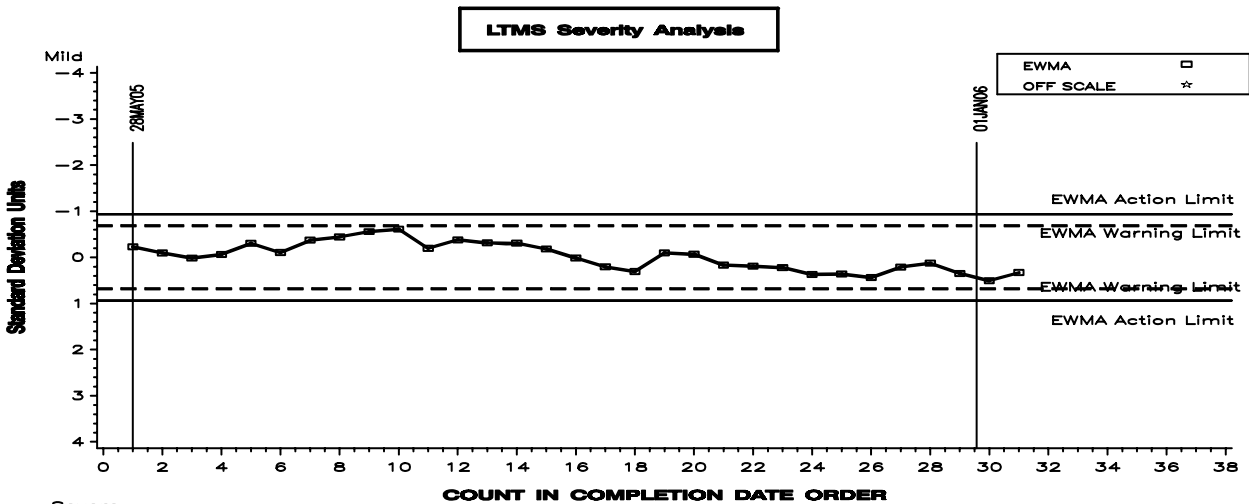


FIGURE 4 C13 INDUSTRY OPERATIONALLY VALID DATA

OIL CONSUMPTION DELTA - FINAL RESULT

