

D874 Sulfated Ash Surveillance Panel Teleconference Minutes

A D874 Sulfated Ash Surveillance Panel Teleconference was held on Tuesday June 9, 2020 at 9:30 CDT. The following were in attendance:

Jeff	Winfield	Lubrizol
Becky	Grinfield	Southwest Research Institute
Tom	Schofield	TMC
Yongli	McFarland	Southwest Research Institute
Matt	Schlaff	Intertek Automotive Research

The antitrust statement was reviewed followed by roll call.

Adoption of official TMC requirements document:

The only item on the agenda was the LTMS calibration document. The proposed calibration requirement document was reviewed. It was noted that the document matches what is already being done and has previously communicated via information letters and technical memos. The document would consolidate all information and be added the TMC LTMS document. After review, Tom Schofield made the motion to adopt the document and add to the LTMS document. The motion was seconded by Jeff Winfield. The motion passed unanimously. The effective date for the document was set at 6/23/2020.

New Business:

With no other agenda items, the floor was opened for any new business. Jeff Winfield inquired about our current reference oil supply and if there is a need to work acquiring new reference oils. After discussion, it was decided current reference oil supply is in good standing and no action is required now.

The meeting was adjourned at approximately 9:47 CDT.

Respectfully Submitted,
Matt Schlaff
Intertek Automotive Research
ASTM D02.0B.07 D874 Surveillance Panel Chair



D874 SP agenda
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D874 Sulfated Ash Surveillance Panel Teleconference

Matt Schlaff

Intertek Automotive Research

6/9/2020

Agenda

- Antitrust statement
- Roll Call
- TMC Calibration Requirements Discussion
- Vote on approval?
- Adjournment

ASTM Antitrust Statement

ASTM International is a not-for-profit organization and developer of voluntary consensus standards. ASTM's leadership in international standards development is driven by the contributions of its members: more than 30,000 technical experts and business professionals representing 135 countries.

The purpose of antitrust laws is to preserve economic competition in the marketplace by prohibiting, among other things, unreasonable restraints of trade. In ASTM activities, it is important to recognize that participants often represent competitive interests. Antitrust laws require that all competition be open and unrestricted.

It is ASTM's policy, and the policy of each of its committees and subcommittees, to conduct all business and activity in full compliance with international, federal and state antitrust and competition laws. The ASTM Board of Directors has adopted an antitrust policy which is found in Section 19 of ASTM Regulations Governing Technical Committees. All members need to be aware of and compliant with this policy. The Regulations are accessible on the ASTM website (<http://www.astm.org/COMMIT/Regs.pdf>).

- Electronic recording of ASTM meetings is prohibited.

Roll Call

Calibration Document Discussion

D874 (Sulfated Ash) TMC Calibration Requirements Surveillance Panel Approved Version YYYYMMDD

The following are the specific D874 (Sulfated Ash) TMC calibration test requirements as approved by the ASTM D02.B0.07 Sulfated Ash Surveillance Panel by Teleconference vote on YYYYMMDD, and effective YYYYMMDD.

A. Reference Oils and Critical Parameters

1. The critical pass/fail parameter is Mass % Sulfated Ash. The reference oils, performance targets and acceptance criteria required for the test stand calibration with the TMC are listed in Table 1 and have been approved by the ASTM D02.B0.07 Sulfated Ash Surveillance Panel.

Table 1
D874 (Sulfated Ash) Reference Oil Targets and Acceptance Bands Effective 20001002

Test	Oil Code	Parameter	n	Mean	sR	Acceptance Bands*	
						Lower	Upper
Sulfated Ash by D874	90	Mass % Sulfated Ash	27	1.07	0.08	0.91	1.23
	91	Mass % Sulfated Ash	27	0.82	0.05	0.72	0.92
	820-2	Mass % Sulfated Ash	27	1.57	0.08	1.40	1.73

*95% Acceptance Bands = Mean +/- (1.960 x sR)

B. Test Stand Defined

1. This test method does not have a specific instrument or test stand to be calibrated, but rather is a wet-chemistry process. The TMC D874 calibration program is to periodically confirm the expected results of the D874 test process at each participating lab using oils of known performance in the test (reference oils). Therefore, the 'test stand' is defined as the participating lab ID for this test.

C. Acceptance Criteria

1. New Laboratories

- a. A minimum of two (2) operationally valid calibration tests which fall within the acceptance bands for the oils assigned are required to calibrate a lab for the first time. These must be simultaneous or consecutive runs, though exceptions can be made at the sole discretion of the TMC for operational fails for reasons that would be considered to have had no bearing on the operational performance of the test stand for subsequent tests.
- b. Passing two back-to-back consecutive TMC calibrations places the lab's D874 process in TMC calibrated status. Both tests must pass on operational and statistical criteria.

Calibration Document Vote

- Will someone propose motion to accept the document as the official TMC calibration requirement for D874?
- Second?
- Vote tally:

Discussion

- Thank you.

D874 (Sulfated Ash) TMC Calibration Requirements
Surveillance Panel Approved Version **YYYYMMDD**

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b. Passing two back-to-back consecutive TMC calibrations places the lab’s D874 process in TMC calibrated status. Both tests must pass on operational and statistical criteria.

- c. TMC calibrated status of a lab's D874 process is valid for no more than 90 days from date completed of a valid TMC calibration. To renew the calibration at the end of the calibration period, see Item 2 for Existing Laboratory.

2. Existing Laboratory

- a. An existing TMC calibrated lab, or one where the TMC calibrated status had expired within the past 90 days, can renew its TMC calibrated status by demonstrating a successful calibration on another single TMC blind calibration audit. The test must pass on both operational and statistical criteria.
- b. TMC calibrated status of an existing lab process is valid for no more than 90 days from date completed of a valid TMC calibration (that is, the day of the final ash weighing). Labs that exceed these time/run specifications are considered to be out of calibration for TMC monitoring purposes.
- c. A lab that has been out of TMC calibration for more than 90 days from the prior TMC calibration expiration date will require New Laboratory calibration as listed in C.1.a through C.1.c. of this document.
- d. A lab must pass the TMC calibration within two operationally valid test runs. If a lab cannot produce a calibration test that falls into the acceptance bands for the assigned oil within two operationally valid runs, renewing calibration on that stand will require the two-test calibration as listed in C.1.a through C.1.c.

3. Tracking and Reporting Lab ID's

- a. Tracking a lab's calibration status will be effected by tracking the lab's two letter lab ID, Date Completed and the calibration test sulfated ash results.

4. Reference Oil Assignment:

- a. Of the two tests required to bring a new lab into TMC calibrated status, the tests shall be conducted on reference oils listed in Table 1, or reblends or replacement oils as approved by the surveillance panel. Once a lab has attained TMC calibrated status (existing test lab), 100% of the scheduled calibration tests shall be conducted on an assigned blind reference oil sample from the currently accepted set of reference oils. There shall be no preference for any one reference oil in blind calibration runs, and each shall be assigned for approximately 1/3 of the passing runs at each lab.

5. Mandatory QC Check Sample

- a. All TMC-monitored instruments must utilize TMC reference oil 90 to comply with the Quality Control sections of D874 test method. The frequency is to be one QC oil run with each batch of routine test samples and the QC test result must be in the approved acceptance range for TMC reference oil 90. A non-

conforming result places the results of the batch of samples run concurrently in question and all must be rerun.

- b. One-liter aliquots of TMC oil 90, for use as a D874 daily QC check fluid, are available for purchase from the TMC.

6. Calibration Test Evaluation:

- a. The calibration status of the lab will be based on a review of operational parameters for compliance with the test method, followed by a statistical evaluation of the critical parameter test result against the acceptance ranges in Section A, Table 1 (commonly referred to as a Shewhart severity evaluation). Unless otherwise noted, the acceptance bands in Section A are based on a 95% confidence treatment of round robin test results with data exclusions as approved by the surveillance panel.

7. Introduction of New or Re-Blended Reference Oils

- b. Introduction of new or replacement reference oils will be conducted at the discretion of the surveillance panel. Participating laboratories may be asked to donate tests on the new oil(s) to establish baseline performance in the D874 Sulfated Ash test. The number of tests requested will be sufficient to rigorously evaluate the oil's performance. Preliminary statistical performance targets and acceptance criteria will be established by the surveillance panel, and those values will be re-assessed as the TMC collects additional calibration data.