

## **Lubricant Compliance Survey – Assessment Method Supplement**

**Document 160**

**August 2025**

## ATC

The Technical Committee of Petroleum Additive Manufacturers in Europe (ATC) was established in 1974 for member companies to discuss topics of a technical and statutory nature that are of concern to our industry. ATC works to develop common industry approaches based on scientific and technical principles, to the benefit of end consumers and environmental protection in response to health, safety and regulatory legislation. ATC provides its members with a platform to build and share high-level technical expertise and to cooperate with relevant stakeholders active in the development of petroleum additive specifications and testing. Our members continuously innovate to find ways to improve the performance of lubricants and fuels, whilst ensuring that their products are safe when used as intended.

## Lubricant Compliance Survey – Assessment Method Supplement

### 1. Scope

This ATC position paper outlines an optional, supplemental compliance assessment step in the context of Lubricants Conformance Surveys under the European Engine Lubricants Quality Management System (EELQMS).

### 2. Background and Context

EELQMS defines the compliance process for claiming lubricant performance in compliance with the ACEA Engine Oil Sequences.

SAIL (Services to Associations and Industry in the Lubricants Sector) conducts periodic quality surveys on behalf of ATIEL to ensure that ACEA claims for engine oil products in the market are valid and properly supported.

Compliance assessment includes, for example, the sulphated ash (SASH) parameter by ASTM D874 as specified by ACEA. ASTM D874 has known limitations as outlined in the method itself and in public literature:

SAE paper #95-2548 reports the limitations on reliability and reproducibility of ASTM D874 on technologies containing magnesium and boron, for example.

The ASTM D874 method itself states the method should not be used in production specifications without a clear understanding between a buyer and seller of the unreliability of an ash value, as an indicator of the total metallic compound content.

### 3. Technical Challenges

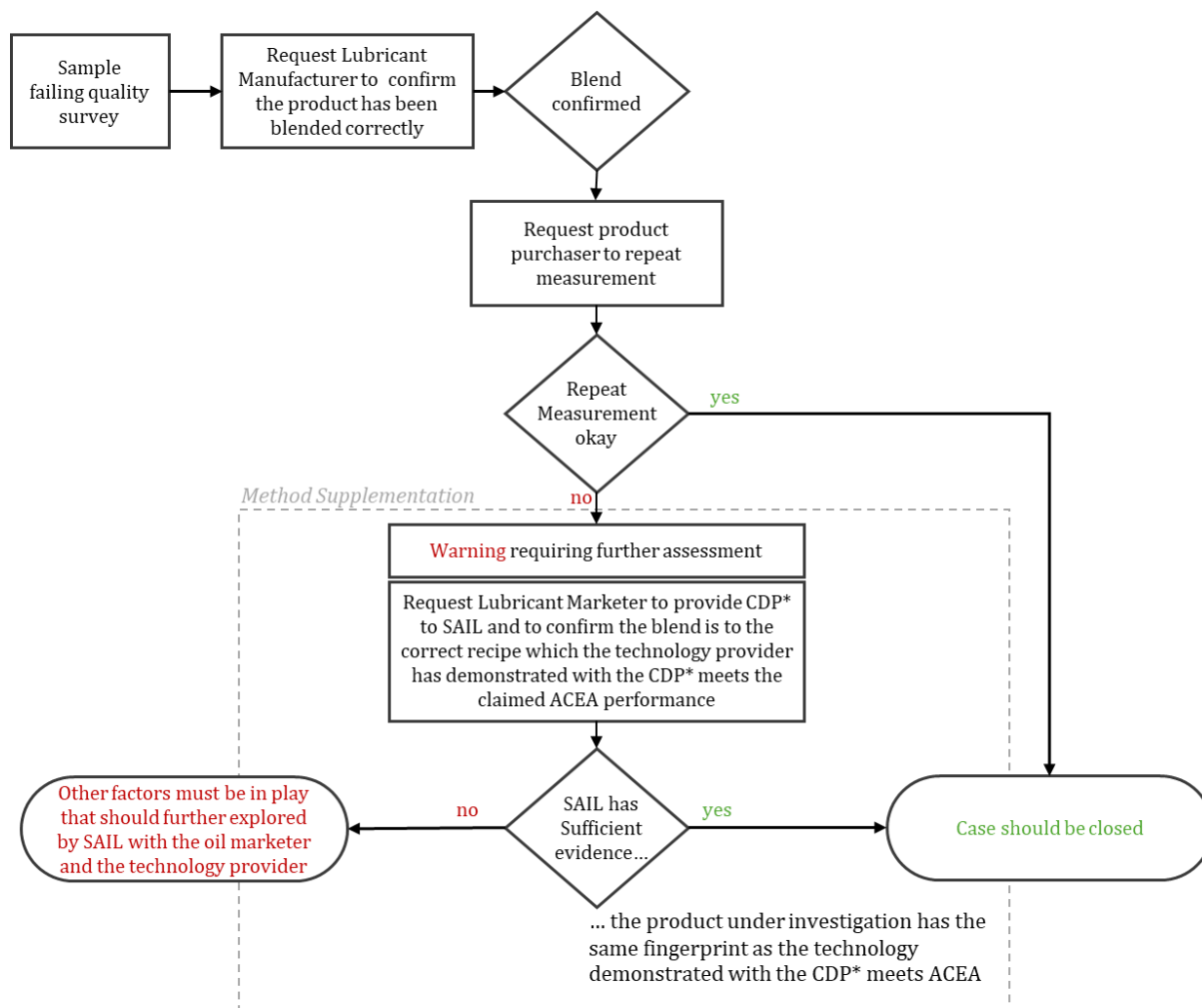
Due to the known limitations of analytical methods, a quality survey measurement can be repeatably outside of the specification window, while the technology under assessment is indeed compliant with the ACEA requirements.

Continuing with the SASH example, especially technologies containing elements mentioned above, formulations are at risk to give results outside of the specification window due to the known limitations of ASTM D874 in the presence of such metals.

## 4. Compliance Assessment Methodology

This methodology for dealing with questions of potential product non-conformance related measurement, supplements and reinforces current procedures.

In the event of a product failing a quality survey measurement, the following steps are recommended:



\*) In this supplemental process step the Candidate Data Package (CDP) or other suitable EELQMS-compliant documents, like but not limited to ATIEL Form C, serve as central documents for verifying ACEA performance claims and identifying formulation fingerprints.

## 5. Benefits

The proposed methodology offers the following benefits:

- aligns with EELQMS Bulletins No. 8. and following.
- helps prevent the spread of non-compliant or counterfeit lubricants.
- reinforces the importance of CDPs or other EELQMS conform documentation in compliance investigations.

## 6. ATC Position

ATC supports the supplemental compliance assessment methodology step as outlined above.

## 7. Regulatory and Technical Notes

The ATIEL Code of Practice emphasizes the availability of market records for audit and compliance checks.

References include SAE paper 95-2548 and the ASTM D874 method, which highlight the unreliability of SASH as a sole compliance metric.



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