

EI Laboratory correlation schemes

Integral to fuel quality control procedures

Participation in EI correlation schemes forms a fundamental part of any petroleum laboratory's QA system.

Laboratories accredited to ISO 17025 are required to participate in interlaboratory comparison or proficiency testing programmes. Being a member of the EI schemes provides laboratories with a means to demonstrate their ability to meet the highest level of standards for their customers on the performance of their laboratory and the integrity of their results.

Inter centre precision monitoring scheme (ICPMS)

The ICPMS is a highly regarded proficiency testing scheme with more than 90 laboratories participating worldwide. The products are tested on a monthly basis with the statistical reports containing 'Z scores' and trend graphs.

The EI is able to analyse the statistical data in order to produce bespoke reports for the participants.

The products available for testing are:

- kerosene/Jet A
- fuel oil
- diesel/gas oil
- motor gasoline
- bitumen

For further details of membership please contact e: icpms@energyinst.org.

EI Gasoline and diesel fuel engine correlation scheme

Laboratories conducting tests for the assessment of automotive fuel quality must be a member of an inter-laboratory correlation scheme. Membership of the *EI Gasoline and diesel fuel engine correlation scheme* enables laboratories to meet this requirement for both gasoline and diesel fuel engines while at the same time checking their engines for rating bias and minimizing 'give away'.

Samples of gasoline or reference blends are tested for both research and motor octane number and diesel fuel for cetane number. Results are statistically analysed and published monthly, enabling laboratories to compare their results with the statistical mean and obtain a 'Z score'. Companies can submit gasoline or diesel fuel for testing in the scheme and this enables them to have a 'golden standard' that has a statistically robust octane or cetane number.

For further details of membership please contact cfrcs@energyinst.org.

EI Derived Cetane Number correlation scheme

Run parallel to and use the same diesel fuels that are used for the *EI Diesel fuel engine correlation scheme*. The scheme enables laboratories determining the Derived Cetane Number (DCN) of diesel fuels using the IQT or CID instruments or the Generic Cetane Number (GCN) using the AFIDA instrument to:

- Compare their results with the statistical mean and obtain a 'Z score'.
- Compare the DCN or GCN to the mean of the Cetane Number (CN) as determined by IP 41/ASTM D613 in the *EI Diesel fuel engine correlation scheme*.
- Have a set of secondary working standards with known DCN, GCN and CN values that can be used for quality control measurements.

For further details of membership please contact dcncs@energyinst.org.

