



Lubricants LAB – Laboratory ISO 17025
State of Art & Technology





Laboratory is a leading Total Quality Assurance of Lube analysis provider covering needs of individuals and companies across Saudi Arabia. The 250 square meters Laboratory was established to support Lube oil Blending Plant and our customers.

For more than 20 years, companies and individuals in KSA have depended on the Lab to help ensure the quality and safety of their products/oils.

Through state-of-the-art facilities and technical expertise, we provide innovative and bespoke Assurance and Testing services to customers.

Laboratory can support to ensure that your products meet quality, health, environmental, safety, and social accountability standards. We hold extensive global accreditations, recognitions, and agreements; we are fully accredited By ISO/IEC17025:2017 and ISO9001:2015





What We Do?

Testing & Analyzing

- Evaluating how your products meet and exceed quality, safety, sustainability and performance standards.
- We are a reliable platform for testing and analyzing Lubricants & automotive ancillaries' fluids



Technical Staff

Laboratory is operated by well selected and qualified technicians with experiences in the field of lubricant testing and quality control procedures.

All technicians is kept updated and in pace with the modern development in the field of instrumentation and analytical techniques through attending seminars focused on quality systems & special trainings on test method assessment that enable them to adopt easily with any upcoming high tech tasks or procedures.



Equipment & Test Methods

All our equipment is kept fully in order through in-house and outside calibration and maintenance programs. In addition, the performance of the instruments is regularly monitored through statistical quality control (SQC) and Interim validation program with Certified Reference Materials (CRM)

Laboratory instruments (with latest version):

1

- ICP- Spectrometer-ICP1&2
- Density Meter- DM1 &2
- Foam Test Apparatus
- Auto - Titrator for TBN
- Auto Flash Point, COC, Tester
- Cold Crank Simulator-CCS1&2
- Flash Point, MCCC
- Automatic Viscometer-CAV1
- Noack Apparatus
- Emulsion Characteristics of Oils

2

- pH & Conductivity meter
- Digital Penetrometer
- Dropping Point
- Roll Stability
- FTIR, Spectrometer-FTIR1
- FTIR, Spectrometer-FTIR2
- Rust Test
- Copper Strip test Bath
- Color comparator

3

- Air Release Test
- Computrac Vapor Pro
- Automatic Viscometer 40 & 100C
- Auto Pour Tester
- Spectro- Colorimeter
- Brookfield Viscometer
- Flash Point, PMCC
- Mini-Rotary Viscometer
- Nitrogen Kjeldahl Method

Lab is fully furnished with Latest Equipment from various brand leaders which able to comply various ASTM Test Methods

Method No.	Method Title
ASTM D-92	Flash & Fire Points By COC
ASTM D-93	Flash Points By PMCC
ASTM D-130	Copper strip Corrosion
ASTM D-217	Cone Penetration of Lubricating Grease
ASTM D-445	KV of Transparent & Opaque Liquids
ASTM D-665	Rust Preventive Characteristics
ASTM D-892	Foaming characteristics
ASTM D-974	Acid & Base No.by volumetric titrations
ASTM D-1401	Water Separability of Petroleum oils & Synthetic lubes
ASTM D-1403	Cone Penetration of Lubricating Grease using 1/4 and 1/2 scale cone
ASTM D-1500	ASTM Color of Petroleum products
ASTM D-1831	Roll Stability of Lubricating Grease
ASTM D-2265	Dropping Point for Grease

Method No.	Method Title
ASTM D-3228	Total Nitrogen in lubricating oils by Kjeldahl Method
ASTM D-3427	Air Release Properties
ASTM D-4052	Density/Rel.d by digital density meter
ASTM D-4684	Yield Stress and Apparent Viscosity of Eng Oil at Low Temp.
ASTM D-5185	Additive & wear elements in used and unused lubricating oils by ICP
ASTM D-5293	CCS viscosity
ASTM D-5800	Evaporation Loss of Lubricating Oils by Noack Method
ASTM D-6045	Color of Petroleum Product by Auto Tristimulus Method
ASTM D-6749	Pour point of Petroleum Product (Automatic air pressure method)
ASTM D-7094	Flash Point by modified continuously closed cup (MCCCFP)
ASTM D-7279	KV of Transparent & Opaque Liquids by Auto- Houllion Visco
	Condition Monitoring of In-Service Lubricants by Trend Analysis using FT-IR
ASTM E-2412	IR
ASTM D-2983	Low Temperature Viscosity of Lubricants by Brookfield Visc.
ASTM D-2896	Base No. of Petroleum Products

Complete Laboratory ancillary units like oven, pumps, air drying units, calibrated analytical balances, water baths, certified thermometers, certified standard materials and controlled heating mediums are present wherever required

Oil Condition Monitoring Program

- Oil Condition Monitoring (OCM) predictive maintenance programs help customers avoid costly machinery and engine failures by tracking changes in machinery lubricant's quality. Providing vital 'early-warning' of impending problems and supporting smooth and reliable machinery operation. Operational issues in machines, engines and other parts are often caused due to the lubricant oil being used. Regularly scheduled oil condition monitoring can identify mechanical problems before they affect the efficient running of machinery, avoiding costly headaches later on.
- Lubricants have to work under demanding conditions, exposed to constant high pressures, temperatures and other harmful factors, including water contamination, corrosion, fuel, and air ingested particles. High levels of wear particles give advance warning of possible machinery malfunction, allowing early remedial action to be taken. Where analytical results suggest no undue wearing is taking place, the operator may extend the interval between services or oil changes.

Scheduled lubricant testing and expert advice can avoid and mitigate costly component or system failures and unscheduled maintenance.





How the program works

1. Program Initialization

- Prepare sampling tools & bottles.
- Equipment information loaded to Labels .
- initial sample scheduling.

2. Take/Submit Samples

- Take samples from scheduled service equipment, provide postage and submit them to the laboratory for analysis.

3. Review Reports

- Review samples in your active list and decide upon corrective actions from abnormal and severe sample reports.

4. Take/Confirm Corrective Actions

- Confirm that maintenance actions were carried out and determine if corrective actions were sufficient to correct initial problem.
- Schedule resamples on problem equipment, define and carry out any necessary maintenance actions.

5. Periodic Program Review

- Perform monthly and yearly program reviews to validate effectiveness of the oil analysis program



ASTM Proficiency Programs

Laboratory is participating in the international ASTM proficiency program as a strong QC tool to keep a check on the correct analytical output. Results have been at 100% success rate for the tests where Laboratory is commonly participated thrice a year.

The Program Report shows results for all participating laboratories. It is similar to the Laboratory Report, but without reference to a specific laboratory. The intent of the Program Report is to assess the performance of a method, rather than a specific lab. The Program report is directed to PTP program managers, to the subcommittees responsible either for the test methods or for the product's specifications, and to laboratories desiring to investigate overall test method performance.

