



STS Directory

Accreditation number: STS 0579

International standard: ISO/IEC 17025:2017

Swiss standard: SN EN ISO/IEC 17025:2018

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Initial accreditation: 01.11.2012
Current accreditation: 01.11.2022 to 31.10.2027
Scope of accreditation see: www.sas.admin.ch
(Accredited bodies)

Scope of accreditation as of 01.11.2022

Testing laboratory for chemical and physical tests of petroleum, petroleum products, oil and lubricants

| Group of products or materials, field of activity | Principle of measurement ²⁾ (characteristics, measuring ranges, type of test) | Test methods, remarks (national, international standards, in-house test methods) |
|---|--|--|
| Petroleum and petroleum products oil and lubricants | <p>Chemical and physical Tests</p> <p>Elemental analysis by ICP-OES Al, Sn, Mn, Cu, Cr, Ti, Pb, Na, W, Ni, B, P, Fe, Zn, Si, Ca, Cd, Ag, Mg, Sb, Mo, Ba, Be, Li, V, K, S, Cl.</p> <p>General filter analysis by chemical and SEM analysis: AMS numbers quoted to nearest match in SAE and AMS numbers</p> | <p>M019 based on ASTM D5185</p> <p>M032</p> |



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|---|--|--|
| Petroleum and petroleum products oil and lubricants | Particle examination by SEM composition of solid particles quoted in SAE and AMS numbers | M013 |
| | Oxidation, nitration, glycol and water by FTIR quoted in Abs/cm or %wt | M017 based on MM 1067 |
| | Total Acid Number (TAN) of oils using automatic titroprocessor quoted in mg KOH/g | M007 based on ASTM 664 and IP 177 |
| | Total Base Number (TBN) using automatic titroprocessor quoted in mg KOH/g | M006 based on IP 276 and ASTM D2896 |
| | Water content using automatic coulometric titration | M023 adapted from ASTM D6304C |
| | Water contamination (positive or negative), qualitative determination by crackle test quoted in +ve or -ve | M026 |
| | Initial pH by pH meter | M016 based on ASTM D7946 |
| | Determination of the Flash Point by Cleveland Open Cup | M020 based on ASTM D92 |
| | Determination of the Flash Point by Pensky Martin | M031 based on ASTM D93 and IP34 |
| | Determination of the Flash Point | M001 based on ASTM D7094 and ASTM D93A (mode) |
| | Insoluble matter by Pentane membrane filtration | M010 based on MM 1068 |
| | Metallic debris | M022 based on WI 1456-1 |
| | Colour (Lovibond) Range 0-8 Lovibond units | M009 based on ASTM ASTM D6045 and converted instrumentally to ASTM D1500 |
| Density and Specific Gravity of petroleum products using Densitometer and autosampler | M011 based on ASTM D5002 | |



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|--|---|--|
| Petroleum and petroleum products oil and lubricants | Viscosity of new and used oil at 40 ° C and 100° C by semi-automatic viscometer ISL and Cannon quoted in centistokes | M002 based on ASTM D445 |
| Transformer oil | Particle sizing and counting (contamination) in 1 ml or 100 ml of sample by Particle counter, quoted in counts/100 ml or 1 ml | M033 |
| | Water content by Coulometric Karl Fischer Titration | ASTM D1533 |
| | Determination of Dielectric Break-down Voltage using VDE (Verband Deutscher Elektrotechniker) Electrodes | ASTM D1816 |
| | Content of dissolved gases by Gas Chromatography | ASTM D3612 Method C |

| Abbreviation | Signification |
|--------------|---|
| AMS | Aerospace Material Specifications |
| ASTM | American Society for Testing and Materials |
| FTIR | Fourier Transform Infrared Spectroscopy |
| ICP | Inductively Coupled Plasma |
| IP | IP Standard Test Methods from Energy Institute (EI) |
| ISL | Integrated Scientific Limited |
| Mnnn | In-House Method |
| MM | Mobil Method |
| SAE | Society of Automotive Engineers |
| SEM | Scanning Electron Microscope |
| WInnn | Working instruction |

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