



ATLAS

Benefits of Used Oil Monitoring System

- Stop costly abrasion and wear.
- Spot coolant leaks.
- Detect and measure fuel dilution.
- Verify warranty problems.
- Spot operator abuse.
- Spot oil degradation.
- Monitor air filtration systems.
- Determine your best oil change intervals.
- Extend equipment life.
- Increase equipment trade-in value.
- Stop progressive damage and breakdowns.



Why Oil Analysis?

Oil analysis of lubricants, is a vital tool in avoiding costly failures and ensuring a long life for your machinery and equipment.

The four main components of condition monitoring are:

- 1. Analysis for wear metals** to provide an indication of the mechanical condition of the unit and allow early detection of faults.
- 2. Physical testing** to detect the presence of contaminants which can indicate problems (eg. Fuel or water in engine oil and/or cross contamination of lubricants). Test cleanliness of oils to ISO 4406 and NAS 1638.
- 3. Assessment of the condition of the oil** to estimate it's remaining service life and allow cost effective top up rather than an unnecessary oil change.
- 4. Analysis of the oil** to ensure that the correct type and grade have been used and that the appropriate additives are present.

COST SAVING through Oil Analysis

Oil is the life blood of all machinery and can tell you so much about it's condition - why not get a 'health check' right now.

The small cost of regular oil condition monitoring is a very worthwhile investment to protect expensive machinery and equipment.

Condition monitoring can provide the following advantages and cost savings:

What can we Analyse?

Fuel analysis -We undertake analysis of all fuels - petrol, derv, gas oil, kerosene, aviation fuels, marine fuels etc.

Automotive and industrial oils from every conceivable application including Industrial machinery and production equipment, construction plant, HGV, marine, aerospace, locomotives, cars and motorcycles.

All types of lubricants including engine, gear and transmission oils. Hydraulic oils, turbine oils, compressor oils, heat transfer oils and quench oils. Production oils - neat cutting oils and soluble oils. Process oils, aviation oils, marine oils, transformer oils. Automotive and industrial greases. +

Analysis for wear Metals:

- Avoids catastrophic failure of a machine
- Prevents costly downtime with resulting inconvenience
- Allows for preventative maintenance to be carried out
- Avoids the need for expensive repairs
- Allows maintenance to be scheduled with confidence

Analysis of the oil:

- Ensures the correct grade of oil is being used
- Ensures that the correct additives are present in the right concentrations to lubricate effectively
- Identifies leakage of water, coolant or fuel into oil
- Avoids unnecessary oil changes++

In short, if it has anything to do with oil, lubrication or wear, we can help.

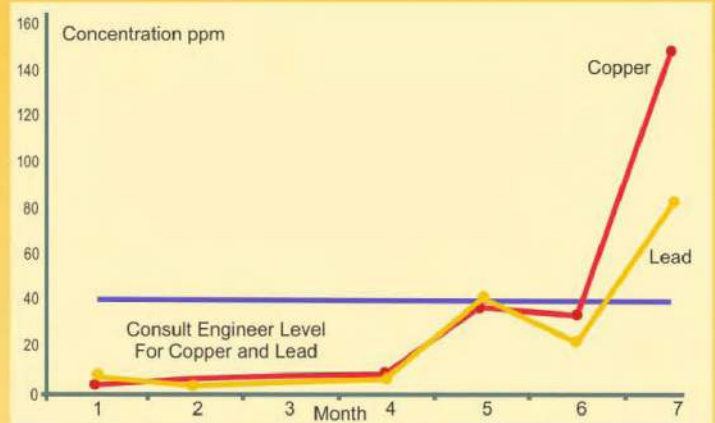
Many organizations make use of a Used Oil Analysis programme. It is generally used as part of a maintenance programme and is used for a range of equipment types including:

Who uses it and on what types of equipment?

- Aero Engines
- Air and Refrigeration Compressors
- Electrical Oil Systems
- Gas Compressors
- Gas Engines
- Gas and Steam Turbines
- Gearboxes and Transmissions
- Heat Transfer and Heat Treatment Systems
- Hydraulic systems
- Large Grease Lubricated Bearings
- Marine Engines
- Power Generator Engines
- Pumps
- Truck and Bus Engines
- Stern Tubes

Tests conducted in our Laboratory

Physical Properties	Test Method
1 Appearance	Visual
2 Water, Pct	ASTM D6304
3 Viscosity @ 40c, CST	ASTM D445
4 Viscosity @ 100c, CST	ASTM D445
5 Viscosity Index	ASTM D2270
6 Seta Flash	ASTM D3278
7 Base Number	ASTM D4739
8 Glycol, Pct	ASTM D2982
9 Fuel, Pct	OL1007 – GC
10 Soot, Pct	ASTM D4055
11 Oxidation, ABS	ASTM E2412
12 Nitration, ABS	ASTM E2412
Spectrographic Analysis (ppm)	ASTM D6595



This graph shows a typical bearing failure. Increasing levels of both lead and copper occur. When they exceed the recommended examination level, the unit must be stopped and the bearing inspected. Failure to take action at this stage would almost certainly lead to a damaged shaft and major expense.



**Analytical
Testing
Laboratory
And
Surveyors**



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