



# Oil Regeneration

**All industrial oils and lubricants have a finite operational life - additive depletion, water ingress and solids contamination reduces their efficiency to a level where replacement is required.**

Even when oils are spent, the base hydrocarbon is usually untouched and can be brought back to its original specification by removing tramp water and solids, followed by replenishment of additive packages.

The result is clean dry and sterilised oil with the same performance characteristics as when new but at a fraction of the cost of buying virgin products.

Midland Oil Refinery's comprehensive facilities offer a unique combination of technical expertise and practical experience gained through over 40 years of oil reconditioning and recovery.

## Waste Disposal Protocol



## Why Recovery



### Why recover used mineral oils?

The recovery and reuse of spent mineral oil represents the best practical environmental option for the majority of mineral oil users. Disposal of used oils is becoming increasingly difficult.

The waste oil and landfill directives will continue to make waste oil disposal increasingly problematical and costly. Further legislation is bound to push users to recycle wherever practically possible.

Oil recovery represents an environmentally sound and cost effective means of husbanding oil resources and meeting these needs. It can be a significant benefit especially to companies seeking ISO 14000:2004 attestation.

Recovered oil is reused back in its original application and will have the same performance characteristics as the original used oil.





# Oil Regeneration

One of our team of expert salesmen can collect representative samples of used oil directly from your system or from your oil storage area. These samples are analysed in on-site laboratories to ensure compliance with site authorisation and to determine their suitability for recovery and anticipated yields.

A quotation is submitted at this stage. Quality criteria are also agreed. A trial load is then processed and its performance carefully monitored to ensure complete customer satisfaction.

**STEPS TO REGENERATION**

- 1 Pre Acceptance** Expert visual appraisal and representative sample taken for assessment.
- 2 Regeneration Assessment** Laboratory assessment at MOR with reported condition and advise regeneration options.
- 3 Collection** Waste to be regenerated is collected in packages or in bulk by specialised MOR road tanker.
- 4 Pre-treatment** Product is heated to sterilise and dehydrate before moving to contacting.
- 5 Contacting** Absorbents remove oxidation, acidity and other impurities, improving colour and clarity.
- 6 Filtration** A three to four step process that filters down as fine as 5 microns.
- 7 Blending** Where necessary your regenerated oil is blended with precise proportions of base oils to adjust the viscosity. Additives can be added if needed to meet your exact specification.

**Oils that can be Regenerated**

<b>INDUSTRIAL OILS</b>	<b>Hydraulic</b>	HVI ISO 5 - 320 <i>viscosity range</i>	All types of mineral based hydraulic oils the scope includes zinc-free, high VI, zinc containing and most phosphate ester based products.
	<b>Gear</b>	68 - 680 <i>viscosity range</i>	EP mineral oil and POA based gear lubricants and in particular those gear oils that have been formulated using low odour technology additives.
	<b>Lubricating</b>	10 - 680 <i>viscosity range</i>	The comprehensive range of general lubricants with inherent resistance to oxidation can all be regenerated.
	<b>Slideway, Multipurpose &amp; Morg Oils</b>	32 - 680 <i>viscosity range</i>	The range of multi-purpose and slideway lubricants used in gears, bearings, slideways and hydraulic systems.
	<b>Compressor &amp; Turbine</b>	32 - 150 <i>viscosity range</i>	All mineral and POA based oils for use in air compressors and turbines.
	<b>Oils from Lagoons</b>		Oils in open lagoons or pits can be recovered as feedstocks.
	<b>Transformer Oils</b>	68 - 680 <i>viscosity range</i>	Cannot be recovered to specification but can be recovered as a feedstock.
	<b>Mixed Lubricant Streams</b>	All viscosities	Oils that are mixed during processes or at the point of waste collection can be regenerated as a feedstock.
<b>PRODUCTION OILS</b>	<b>Neat Cutting Oils</b>	All viscosities	All mineral oil based oils containing performance additives such as sulphur, phosphor, fat, chlorine and oils free of these compounds can be regenerated.
	<b>Drawing &amp; Stamping Oils</b>	All viscosities	All mineral oil based oils containing performance additives such as sulphur, phosphor, fat, chlorine and oils free of these compounds can be regenerated.
	<b>Heat Treatment</b>	All viscosities	Full range of heat treatment products that cover all aspects of its industry including accelerated, non-accelerated and hot quenching oils.
<b>SPECIALITY ANCILLARY</b>	<b>Mould Release</b>	All viscosities	Neat oil based concrete and metal release agents for construction industry.
	<b>Chain Saw Oil</b>	All viscosities	Variety of viscosities of cutter bar lubricants.
	<b>Process Oils</b>	All viscosities	All types of mineral oil based process oils dependant on aromatic content.