Paratherm™
HEAT TRANSFER FLUIDS
A Division of Lubrizol

Fluid Analysis – When and How

When and How to Test Thermal Fluid

Sooner or later in the life of any thermal fluid system, the question of when to test the thermal fluid arises. In some cases, the issue comes up when the system performance begins to falter or when it just flat out won't run. At that point, the issue of "when" or "if ever" the fluid has been tested is not as important as figuring out what went wrong.

Helping to pinpoint the cause of the failure is the hidden benefit of fluid monitoring since many equipment and/or operational problems that can lead to catastrophic fluid failure will show up in the test results. So before you find yourself attempting to predict when the system will be back on line, here are some tips on when to test the thermal fluid:

- During the first year of operation for brand new systems – Any major screwups in the equipment design or layout that can affect the fluid will show up in the test results
- A week or so after a fluid change – Even if you don't change brands, there will have been enough change in the old fluid properties so that any residue will show up in the test results of the new charge
- Annually – Scheduling an annual preventive-maintenance item takes the guess work out of "when" and more important, keeps a current report on file for your insurance company

How to test the fluid is another issue. Lube oil tests (which include dissolved metals and particles) are cheap but are not designed to identify changes in the properties required for high temperature operation. Outside labs may be able to run the correct tests but can't properly interpret the results. The most effective test results are provided by the thermal fluid supplier. They have the experience with the fluid to interpret the test results and provide recommendations for improvements.