

The Value of **Cat® S•O•S℠ Services**



Lower your Costs with S·O·S℠ Services

Are you interested in saving hundreds—even thousands—in owning and operating costs by preventing unexpected failures and unplanned downtime? Let S·O·S℠ Services reduce your owning and operating costs by leveraging our Caterpillar branded proprietary process that turns fluids analysis data into valuable information.

Similar to going to the doctor for a routine checkup, S·O·S Services offers the largest OEM in-house fluid sampling capabilities and uses the latest technology to assess whether your equipment is at risk for potential failure. Your Cat® dealer provides expert advice and performs any actions needed, all while having the backing and support of Caterpillar scientists and engineers.

We're confident that the S·O·S Services program offers more value than any other program. Let our fluids experts perform the sophisticated analysis so all you have to do is follow the recommended actions.

By identifying excessive wear or contaminated fluids, S·O·S Services has been revealing "unseen" product issues for five decades, predicting a problem before it occurs and allowing for repair before failure by leveraging scheduled repairs and downtime to fit workload.

Routine fluid analysis helps…
Avoid costly failures.
Allowing an issue to go to failure will increase your repair costs by double, triple, or more. Using expert recommendations, you can adjust or replace a single part—preventing a small problem from becoming a major repair. Save yourself time, money, and undo stress by leveraging a program that is designed to help you be successful.

Be more productive & profitable.
Expert fluid analysis helps you manage overall equipment health, thus reducing owning and operating costs. Get the most use out of replaceable components by knowing exactly when they need to be changed, and build a service history that can improve resale value when it's time to upgrade.

Shorten repair time.
When you track what's going on "behind the scenes"—like component wear and oil performance—you can predict problems and schedule accordingly. Since you and your Cat dealer are working as a team to manage your equipment, you'll know parts and shop time are readily available.

The Value of S•O•S Services

966H Example

Sampling Compartment
– Engine oil

Sampling Analysis
– Fuel dilution in the oil

Root Cause
– Leaking transfer fuel pump seals

✗ Repair **without** routine sampling Engine replacement - 6 day repair time	$32,670
✓ Repair **with** routine sampling Pump reseal - .5 day repair time	– $415
✓ **Total savings** with routine sampling 5.5 day repair time	**$32,225**



Get fast results with actionable recommendations.

Much like a doctor reading test results, we figure out what caused the elevated analysis results. Did it come from a part? The environment? It's what we're doing with the information that gives real value to the customer.

When it comes to sampling your oil, coolant or fuel, the expert analysis work of S·O·S Services is just one part of a powerful value proposition. There's also quick turnaround, knowledgeable interpretation and recommendations you can act on … and actually understand without an advanced degree in chemistry.

All kinds of equipment owners and industries can take advantage—whether they own Cat® products or not.



Optimize your drain interval

If you only needed to perform half of the scheduled oil drain maintenance intervals, how much impact would that make to your bottom line? Hundreds, thousands, millions? Let us help you. The Caterpillar S·O·S Services program is much more than fluid analysis for identifying potential failures, we can also help minimize your maintenance costs by optimizing your equipment oil drain intervals. We provide a maintenance management tool that evaluates oil deterioration and detects the early signs of abnormal wear on product components which help you understand the factors affecting your fluids and allow you to manage the product life cycle and reduce costs.

Work with our experts

We will work with you to optimize the oil change intervals for your Cat engines. Keep in mind, the process of determining new oil change intervals is not simple, and will require that you work closely with your local Cat dealer over a period of several months. Once new intervals are established, it will be more important than ever to carefully monitor oil performance and engine wear with normally scheduled sampling intervals.



WE SAMPLE ALL EQUIPMENT, WHETHER MADE BY CATERPILLAR OR ANOTHER OEM

Mixed Fleet? No Problem!

We're your total fluid analysis solution for your entire fleet. Whether you are using Cat or competitive fluids for your fleet in all applications, Cat S·O·S Services can handle it. Currently, more than 25% of our fluid sampling business is for competitive or non-commercial equipment.

Yes, many other OEM's offer fluid sampling services, but they are often outsourced to a third party. Cat S·O·S Services not only offers the largest in-house fluid sampling capabilities on the market, they provide quality and quickness. We strive to return all samples and interpretations within 24 hours. The sooner you receive the results and recommendations, the more likely to prevent a failure before it occurs.












If it has a lubricated system, takes coolant, or runs on diesel, S·O·S Services is your complete solution—from massive mining machines, to generators for emergency power, to your personal vehicle and much more. Get an accurate look into the health of your machinery along with targeted recommendations if a problem is detected.

EXAMPLES OF INDUSTRIES SERVED:

- Agriculture
- Aviation
- Construction
- Demolition, scrap & waste
- Forestry
- Governmental (municipal and defense)
- Industrial power
- Landscaping
- Marine
- Material handling
- Mining
- Oil & gas
- Power generation
- Quarry, aggregates & cement
- Rail

EXAMPLES OF NON-COMMERCIAL EQUIPMENT:

- Automotive & racing
- Lawn & garden
- Personal / recreational
- Yachting & pleasure craft







Here's What Our Customers are Saying

"We have 4,500 pieces of construction equipment and 45,000 employees. We operate several hundred track type tractors...close to mud and dirt. A lot of material builds up around the final drives, and there's entry. We are able to do pre-failure repair to them.

From a cost-savings standpoint, if we have a dirt entry and metal wear in the oil, we can do a repair or reseal for $7,000. A failure can cost $25,000. That's a continuous savings for us."

Waste Management
JOHN MEESE

- Senior director of Heavy Equipment
- Also Chairman, Association of Equipment Management Professionals

"We sample every component, on- and off highway. We do coolants, differential, hydraulics, transmission. Every component gets a sample—many thousands.

We used to use Polaris Labs for one of our larger districts. There was some pushback initially (when we switched to Cat S·O·S Services) because they had been using Polaris for years, and they had reservations about changing to a new system. But...they've been real pleased with overall results, the way the data is presented. They like the comments better, feel like they get better recommendations coming from Caterpillar. Caterpillar knows their equipment better than an outside lab does."

Martin Marietta
TOM CRAWFORD

- Director of Mobile Fleets
- Works with SW Division

The History of S•O•S Services

For nearly 50 years, the Cat S·O·S Services team has been providing oil sampling expertise to our dealerships and customers. In 1968, S·O·S Services began by sampling oil looking for metals, viscosity, particle count, and oil condition along with contamination due to fuel, water, and glycol.
By leveraging current analysis technology and listening to the needs of our customers, our program has evolved and grown to remain a leader in the industry. We are continuously looking at new innovative ways to get you the reliable and valuable information you need – faster.



Backed by Caterpillar Scientists, Engineers, and Product Support Experts.

The Cat S·O·S Services Team includes highly trained scientists, engineers, and product support experts with decades of equipment know-how. We're focused on one goal: looking out for the health of your products and saving you on owning and operating costs.



Laboratory Scientists



Engineering Experts

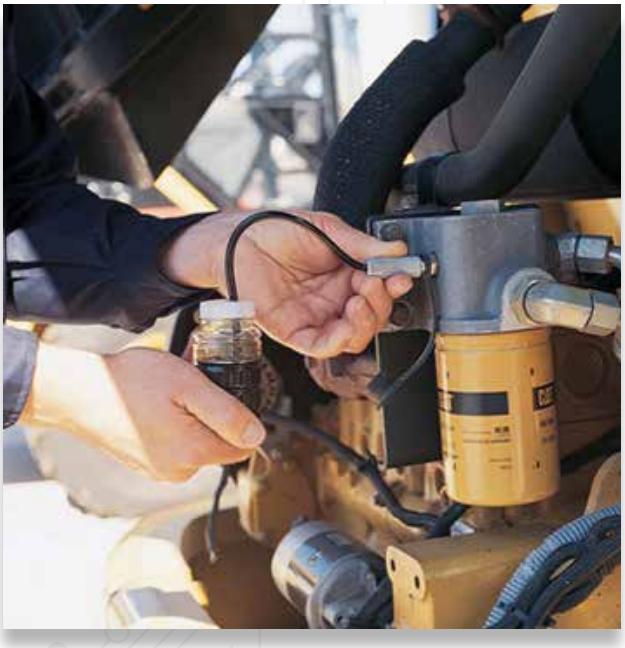


Product Support Teams

Our Capabilities



Whether you're new to sampling or a seasoned pro, using Cat fluids or another brand, a Do It Yourself (DIY) customer or prefer to let your Cat dealer handle it all for you, S·O·S Services is here for you. We're focused on one goal: looking out for the health of your products and the bottom line of your operation, every day. We provide full test options for oil, coolant, and fuel samples.



When it comes to oil testing, visual inspections are limited to the larger particles. We can spot early signs of damaging wear metals, the condition of your oil, overall particle analysis, and identify contaminants that hurt performance (water, fuel, glycol, dirt, etc). Our technicians perform comprehensive analysis on lubricated systems (engines, transmissions, hydraulics, final drives, differentials, gearboxes, compressors).





Cooling system testing is often overlooked, but the damage that could occur from overheating won't be overlooked or forgotten. Coolant testing is an easy check to determine whether your coolant has the right chemical balance for maximum system protection and cooling efficiency. We offer two levels of testing for coolant. The first level checks routine characteristics, whereas the second level check provides more in-depth analysis.

Don't forget about your diesel fuel. Poor-quality fuel can affect how your equipment performs—including abnormal wear of components, valves, valve guides, piston rings, etc. This has bottom-line impacts on your maintenance and operating costs.



Minimize operating costs with routine S·O·S sampling. Contact your local Cat dealer and their trained experts will be able to identify the unseen issues and save your bottom line.



Reduce risk and save on owning and operating costs with Cat S·O·S Services.

The Value of **Cat® S·O·S℠ Services**

PEDJ0349
© 2017 Caterpillar • All Rights Reserved
CAT, CATERPILLAR, BUILT FOR IT, their respective logos, "Caterpillar Yellow," the "Power Edge" trade dress as well as corporate and product identity used herein, are trademarks of Caterpillar and may not be used without permission.