

# S·O·S<sup>SM</sup>

## Scheduled Oil Sampling



**Louisiana Cat** can help  
you detect **minor** problems...  
...before they become **MAJOR** failures.

Louisiana 

# Physical Tests

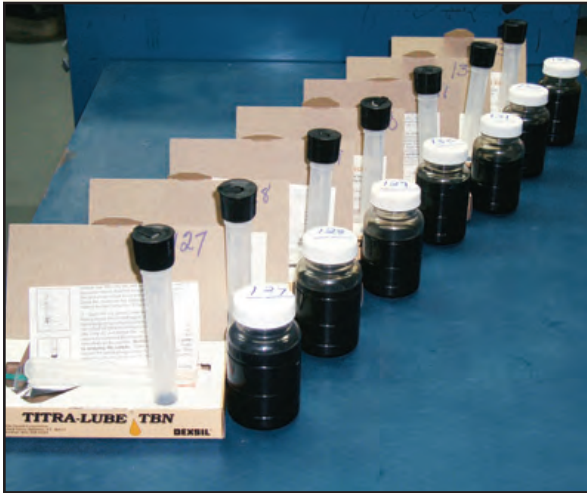
To further identify potential problems, Louisiana Cat also tests your oil for fuel dilution, water and antifreeze contamination.

## The four physical tests are:

- Fuel Indication
- Flash Test
- Water Indication
- Antifreeze Indication



**Flash Tests help identify problems in your oil.**



**We can measure the alkaline in your oil with a TBN test.**

# Total Base Number (TBN)

Most diesel fuel contains some degree of sulfur. How much depends on the amount in the crude oil from which it was produced and/or the refiner's ability to remove it. One of the functions of lubricating oil is to neutralize sulfur by-products, namely sulfurous and sulfuric acids and thus retard corrosive damage to the engine. Additives in the oil contain alkaline compounds which are formulated to neutralize these acids. The measure of this reserve alkalinity in an oil is known as its total base number. Generally, the higher the TBN value, the more reserve alkalinity or acid neutralizing capacity the oil contains. TBN is done by request only.

After all oil analysis tests have been completed, test data is entered into history files. Qualified technical interpreters review the results of each oil sample taking into consideration changing climatic and working conditions. Wear is closely monitored. When test data looks suspicious, indicating a potential problem, our lab personnel respond immediately by contacting you to discuss your sample results and provide their service recommendations.

When your oil analysis tests are normal, a copy of current test results, including previous sample history are mailed within 24 hours of our receipt of your sample. We suggest these reports be kept with your equipment records.

# S.O.S. Sampling Kits

S.O.S. Sampling Kits, including bottles for sampling, sample labels and mailing tubes with pre-addressed mailing labels, are available in a variety of sizes.

The initial kit comes with a sampling gun that works with Caterpillar's pressurized sampling valves or can be used as a vacuum pump. We also have the capability to retrofit most Caterpillar equipment with easy to use sampling valves.



**Easy to use S•O•S<sup>SM</sup> sampling kit.**



# Listen to **Your Oil!**

The high costs of doing business these days make maintenance more important than ever before. Owners want to keep equipment running efficiently and productively. Unplanned repairs, early replacement and costly downtime must be avoided.



***Our trained technicians interpret your samples.***



***We examine the condition of your oil without disassembly.***

By regularly measuring the level of microscopic wear particles and contaminants suspended in oil, Louisiana Cat's Scheduled Oil Sampling (S.O.S.) Program, properly administered, is your key to planning preventive maintenance. Not only will it help you detect minor problems before they become major failures, but S.O.S. will help you schedule any needed repairs and at a time convenient for you.

## **S.O.S. Testing** Is Quick And Easy To Do.

All the test components are included in a handy, complete kit. When you enlist your machine or engine in Louisiana Cat's oil sampling program, each sample you submit is put through a thorough series of tests in our completely equipped laboratory by trained technicians utilizing the most modern technology.

These experts know what's happening inside the equipment, and how it relates to sample findings. Their evaluation is supplied in an easy-to-understand test report. Louisiana Cat's S.O.S. Program will

help you monitor the condition of diesel engines, transmission, hydraulics, final drives and other lubricated components. Regardless of the size of your operation, Louisiana Cat is dedicated to assisting you in receiving "full value" from your equipment investment.



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***Fully equipped lab.***



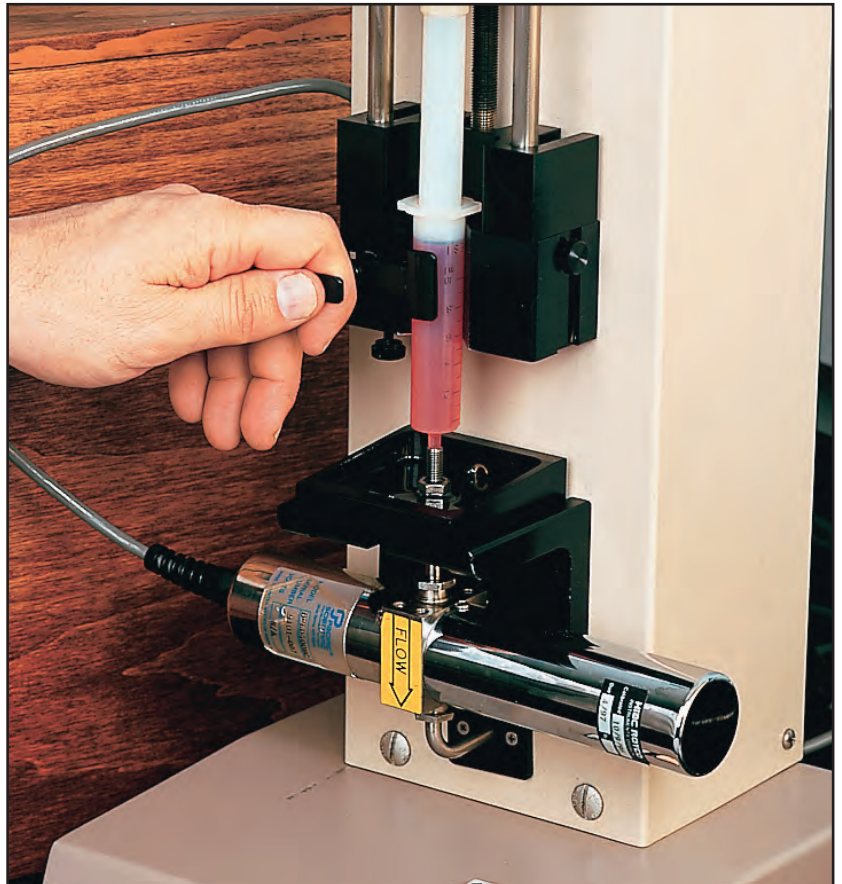
# Wear Element Tests

Using a spectrometer we precisely detect wear elements suspended in your oil. In this Wear Element Test we monitor 17 different microscopic elements suspended in the oil. 13 of which are wear elements or metals and 4 are additives. The amount of each of these elements, measured over a period of time, establishes the wear for specific components in your equipment.

***We analyze the wear metals in your oil.***

# Particle Count

The buildup of wear particles in oil is a key indicator of potential machine problems. Observing the rise in small particles of a specific element can identify what is wearing. Also, tracking the amount and buildup rate of large and small particles over time indicates the severity of system wear. This is why our S.O.S. program interpreters use two tests: traditional Spectrographic analysis that measures the small elemental particles, to tell what might be wearing, and now Particle Count that quantifies the buildup of all sized particles whatever their composition to reveal the accumulation of particulates in the component.



***Determine the build-up of particles in your oil with Particle Count Technology.***



# Oil Condition Tests

Through the use of infrared analysis we inspect your oil's condition by determining the degree of deterioration it has experienced. The test examines factors which reduce the oil's ability to cool, lubricate, and clean.

## Specifically, we measure the following:

- Oxidation
- Sulfur
- Soot
- Nitration

## We also look for the presence of:

- Coolant
- Fuel
- Water



***Inspecting your oil can save you time and money.***



***Let us determine your oil's viscosity.***

# Viscosity Tests

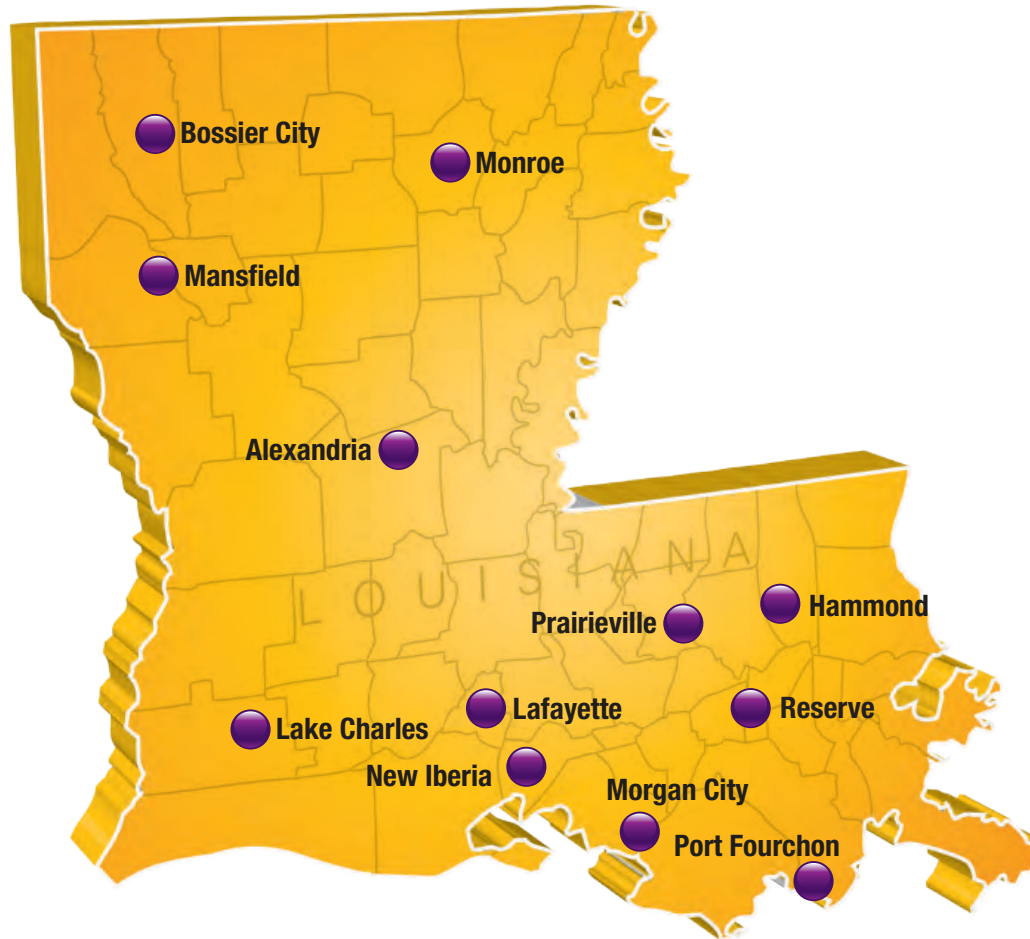
The viscosity of all oil samples is tested at 100 c and reported in centistokes (cST). Viscosity is the measure of the time it takes a set amount of fluid at a certain temperature to flow through a set orifice. The higher the value the more viscous the fluid. Water, oxidation, soot, and antifreeze cause the oil's viscosity to increase or thicken. Fuel causes the oil's viscosity to decrease. Extended oil drains may do either; high soot and oxidation will thicken an oil and extreme temperature may cause a multigrade oil to shear down to its lowest number. A change in viscosity of more than  $\pm 3$  centistokes from the original indicates a serious problem.



**S·O·S<sup>SM</sup>**

# Twelve locations

across Louisiana.



#### **Alexandria**

3575 N Bolton Avenue  
Alexandria, LA 71303  
**318-443-2577**

#### **Bossier City**

5606 Industrial Dr. Ext  
Bossier City, LA 71112  
**318-746-2341**

#### **Hammond**

42440 Jackson Road  
Hammond, LA 70403  
**985-340-2820**

#### **Lafayette**

100 Boyce Drive  
Lafayette, LA 70518  
**337-837-2476**

#### **Lake Charles**

5415 E. Broad Street  
Lake Charles, LA 70615  
**337-439-3601**

#### **Mansfield**

1936 Hwy 3248  
Mansfield, LA 71052  
**318-872-9700**

#### **Monroe**

2201 Ticheli Road  
Monroe, LA 71202  
**318-323-1345**

#### **Morgan City**

9592 Hwy 182  
Morgan City, LA 70380  
**985-631-0561**

#### **New Iberia**

6111 Port Rd.  
New Iberia, LA 70560  
337-374-1901

#### **Port Fourchon**

686 AO Rappelet Rd  
Golden Meadow, LA 70357  
**985-396-3908**

#### **Prairieville**

16613 Airline Hwy  
Prairieville, LA 70769  
**225-673-3480**

#### **Reserve**

3799 West Airline Hwy  
Reserve, LA 70084  
**985-536-1121**

**Louisiana** 

LouisianaCat.com

***For details on how our S.O.S. Program can help you operate more profitably call your local Product Support Representative.***