

ILLUMINATE

A guide to assessing fluid analysis laboratories



TESTOIL

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ABOUT TESTOIL

TestOil has been in the lubricant analysis business since 1988.

We started out providing Analytical Ferrography services to power customers and in the early 90's expanded our services. We have focused exclusively on assisting large industrial facilities reduce their maintenance costs and avoid unexpected downtime through oil analysis program implementation.

Our customers rely on us to be their technical experts when it comes to diagnosing oil related issues in equipment such as turbines, hydraulics, gearboxes, pumps, compressors, and diesel generators.

Our state-of-the-art-laboratory has the capacity to process and analyze 3500 samples per day. We employ lean process management to drive excellence and ensure that we maintain our guarantee of providing same day turn around on all routine testing.

“Management, operations, engineering, and financial personnel should adopt the concept that: Maintenance Doesn’t Cost, It Pays.”

- AISE Steel Technology Magazine –

SECTION 1

FINDING THE RIGHT LAB: AN INTRODUCTION



You are already aware that lubricant analysis is a valuable tool to include in your predictive maintenance toolbox, but getting connected with the best laboratory for servicing can be quite a daunting process. You may have already discussed your company's needs with colleagues, industry counterparts, and even a variety of vendors, but what you may not realize is that your discussion could be omitting some very key components from consideration.

One crucial thing to remember as you move forward, is that it is not enough to solely rely on your manufacturer to provide you with information regarding your lubricant. There are many factors that go into the analysis of your machine(s) lubricants and working with a laboratory will provide you with the expertise you need to maintain a quality program.

Becoming well equipped with the right questions to ask when researching different laboratories, is the first step to finding the right match. Yet, with so many options available, what is it that you should really be looking to assess?

As you begin your search, be sure to keep the following in mind:

-  Laboratory Quality
-  Turnaround Time
-  Cost Benefit
-  Customer Service Experience
-  Education/Training Options
-  Level of Field Support

Choosing a lab for your organization's lubrication analysis program or even considering switching labs, can be a tricky process. Knowing the right questions to ask will help match you with a quality program that is fit to serve you and your company's needs.

SECTION 2

QUALITY COUNTS



Imagine you are driving around looking for a place to eat. You pass by a restaurant called “Big E’s Burgers” and you decide to stop in. As soon as you walk inside, you notice that everything looks dirty and that the health inspection certificate on the wall states the establishment only received a “D” on their last review. Although you were really looking forward to ordering a burger, you decide to leave and eat elsewhere.

When we shop, whether for goods or services, we are always looking for quality sources to buy from. We do this to ensure that we are getting the best that our money can buy or, like in the case above, to ensure we do not end up ill.

The Connection

Although you will not contract food poisoning from your lubrication analysis reports, faulty data could lead to some serious complications for your machines. In order to avoid costly machine failures and unwanted downtime, quality lab service must be investigated. This is done by keeping the proper questions in mind.

Consider the following when reviewing a laboratory's quality standards:

Quality Assurance Program

- *TestOil is committed to operating within the highest professional standards to provide our clients with quality test data. Through the TrustPLUS program, we strive to continually demonstrate technical competence and extraordinary services to existing clients, potential clients and independent auditing authorities. Consistent excellent performance is achieved through the implementation of our Quality Assurance Program.*

Accreditation

- *TestOil follows the standards issued by ISO 17025 for all tests listed on our scope of accreditation, and functions to continually improve the effectiveness of the management system. Employees are educated regarding the location and content of quality documents which pertain to their responsibilities. Employees are required to carry out the quality policies and procedures in their work.*

Experience

- *Since 1988, TestOil (Insight Services Inc.) has been providing fast and reliable lubrication analysis results across all industries throughout the Americas.*

Testing Validation Procedures

- *TestOil utilizes "Round Robin" testing to generate the data used to support the statistical validity of the test method. Typically, a series of laboratories will run the test(s) described in the proposed or existing method and all results will ultimately be compared on an interlaboratory basis.*

TIMING IS EVERYTHING



Imagine that you have forgotten to purchase a birthday gift for a loved one, so you turn to the internet to hopefully get one delivered as fast as possible. You find what you are looking for, add it to your cart and click over to the check out. You finally get to the shipping page and are provided with a variety of options. Will you pick the standard shipping option that estimates a date of arrival two weeks out? How about the express shipping option that estimates an arrival of only two days out? What about the overnight option that ensures your gift reaches its recipient by tomorrow morning?

Time sensitivity is another key component that we take into consideration when shopping. Items that we buy, such as birthday presents, can contain this time sensitive component. In our case above, we need to choose an option that allows our recipient to receive the item in a timely manner.

The Connection

Although a present for a loved one may not cause a huge stir if it arrives late, a sample of lubricant could have much greater consequences. Each sample contains time sensitive information on rotating equipment health, therefore requiring a swift and sure response to data. How fast you can obtain your results can mean the difference between a machine that runs with little to no downtime, to a critical interruption in your company operations costing you thousands.

Consider the following when reviewing a laboratory's turnaround time:

Sample Receiving Procedures

- *TestOil's commitment to our customers is to analyze and process samples the same day they are received. That's why we pick up your samples from your preferred delivery method (USPS, UPS, FedEx). This ensures that your samples get to us as fast as possible.*
- *TestOil now offers a new Global Logistics Solution which allows us to receive samples from virtually anywhere in the world in 4 days or less. This means that with TestOil's Turnaround Time Guarantee, you will receive your results the very same day your samples are received by our lab.*

Sample Processing Procedures

- *At TestOil, once samples are received, they are admitted to the lab and assigned a unique lab number, which follows your sample throughout the entire testing process. We deliver same-day test results every time you submit a sample for routine analysis. This means that all routine test results are available in less than 24 hours.*

SECTION 4

THE QUESTION OF COST



Imagine you are looking to join a local gym. You visit a few different locations and find out what equipment is made available to you when purchasing a membership. As you continue to learn about each gym, you find that each one offers a special set of perks with their memberships. One gym offers a free drink every month from their juice bar while another offers access to personal trainers for a more customized experience.

No matter what you buy into, you can almost always find additional perks beyond that of the base service you are looking to acquire. Many times, there are different levels of membership/service that you can choose from, and each one offers different incentives. The trick is figuring out which one offers you the most for the best price.

The Connection

As with anything, a cost is going to be incurred when using a laboratory for lubricant analysis services. When looking at costs, always keep your return on investment (ROI) in mind. Often the labor and parts for maintenance on an issue caught ahead of time will prove to be a much lower cost than what you will pay during unwanted downtime.

Aside from your ROI, it is important to weigh everything that you can obtain for a given price. Look into not only what testing services are included in your program, but any other offerings that are made available to you in which you can, and should, take advantage of.

Consider the following when reviewing a laboratory's pricing:

Package Flexibility

- *TestOil develops a package of tests that are appropriate for your equipment and lubricant. We do not pigeon hole you into a standard package. Our goal is to assign the appropriate tests that will find lubricant problems and machine problems for your application*

Included Services

- *Analytical Ferrography is among the most powerful diagnostic tools in oil analysis today. When implemented correctly, it is an excellent tool to use when attempting to diagnose an active wear problem. TestOil performs Analytical Ferrography on all machine condition anomalies triggered by the basic testing. If we see a Marginal or Critical machine condition, an Analytical Ferrography is added to the sample at NO additional charge.*
- *Karl Fischer water content testing is also available at no additional cost for customers whose samples test positive for the presence of water during crackle testing in the early analysis stages.*

Additional Offerings

- *TestOil provides all sampling supplies free of charge. This includes sample bottles, tubes, labels and shipping boxes.*
- *Rush sampling is available free of charge when you need answers NOW.*
- *TestOil also offers a web based service portal called Datasight. Here, customers can view reports and trending data, manage equipment and schedules, and even order more supplies for their program.*
- *At TestOil, we are focused on education. Anyone is welcome to view the plethora of educational resources including reference guides, videos and our blog, all made available through the Knowledge Center on our website. *see more in section 6**
- *AssetLink, TestOil's very own in-house application, offers a quicker sampling solution that will speed up your collection proces. AssetLink allows you to easily log details, document sample locations, create custom routes and submit your samples online.*

SECTION 5

CUSTOMER SERVICE AND YOU



Imagine you are getting ready to book a vacation. You decide to use a local travel agent to help you out with the planning process. You call up the agency and are immediately connected to an automated menu. As you attempt to navigate the menu options, you finally hear an automated voice state they are going to connect you with an agent. Upon doing so, the phone rings and rings until you end up receiving a representative's voicemail. Feeling defeated, you hang up and decide to try another agency.

We know that wait time is just one of the many factors that make up customer experience. Many times, we may wait minutes up to hours until we are finally connected with an agent and even then, they may not be the right source we were looking for (thus, begins the transferring process). Finding quality customer service can be difficult, but a company that truly values this aspect will provide great relief when it comes to getting your questions answered.

The Connection

Just like the many questions you would have for a travel agent, such as dates, hotels, etc., you will have plenty of questions for your lab as well. These questions can range from reminders about basic shipping procedures to a request to speak with an analyst to gain a more detailed explanation of your recent report. Working with a lab that offers quality customer service, will likely be the key factor between having a smooth program or having a headache.

Personalizing Your Experience

Another highly overlooked factor when considering a laboratory to work with, is the personalization factor. When we think of customer service, we often look at it as only a means for getting our questions answered when it can be, and is, so much more.

When it comes to your lubricant analysis program, personalization and customer care is key. Just like you would work with a travel agent to book a vacation that is the best fit for you, the laboratory you choose, should be working with you to build an analysis program that fits the needs of both you and your company. Finding a laboratory that provides proactive customer service can save you time, money, and energy in the long run.

Consider the following when reviewing a laboratory's customer service experience:

Operator Status

- *When you call TestOil or use our online chat service, during regular business hours, you will always reach a live operator. We do not use voicemail or chat bots to communicate with our customers.*

Inquiry Resolution Rate

- *At TestOil, our Customer Engagement Specialists strive for first call resolution. Anytime a customer calls in with an inquiry we do everything in our power to answer their questions without having to be placed on hold or be transferred.*

Personalization & Customer Care

- *At TestOil, we strive to deliver remarkable interactions. That is why one of our core values is "Customer Is King". Whether it is a lubricant update or a complete overhaul of your program, we will do whatever it takes to ensure that you are satisfied with the service we have provided. That is why TestOil has an unheard of 99% customer retention rate over the last 5 years.*

SECTION 6

EDUCATIONAL OPPORTUNITIES



Imagine you are going to buy a new phone. You find a product you like, make your purchase and are ready to try it out. You open the packaging and find a variety of papers and pamphlets that contain content regarding the phone's usage, how to install certain items, a diagram of the phone, and even information regarding various services that can be used in case you are in need of assistance.

Many items we purchase come with instructions or some form of educational material to help us get started. Some items even come with access to online portals that allow us to gain an even greater understanding of our new purchase. Each of these resources, not matter the form of media, promote customer education and are extremely useful throughout the life cycle of the user experience.

The Connection

Although lubricant analysis is a service, there is still an educational component that must be considered when starting and/or growing your program. We often feel that once we are onboarded to a lab that the education ends there, but a good laboratory will offer you more than just the basics. A quality lab will work with you to assess educational deficits and provide materials and services to build up your knowledge base and overall program in these areas.

Education Versus Training

While offering educational materials such as guides and webinars are excellent resources for customers, another often overlooked item of value is certification training. Training to become certified in any capacity provides an individual with a rigorous exam preparation process that awards them a high level of industrial competence. A laboratory can set itself above others, by way of education, through the offering of such courses.

Consider the following when reviewing a laboratory's educational opportunities:

Access to Educational Resources

- *At TestOil, we value learning. That's why we offer a variety of free resources to not only current customers, but anyone interested in learning more about specific lubrication topics. Our content development team is continuously cultivating new materials for publication on our website.*

Types of Available Resources

- *TestOil offers a variety of educational resources in a variety of medias. Engage with a live webinar or learn at your own pace with our topic specific ebooks, blogs and webinars on demand.*

Training Styles

- *TestOil offers customizable, onsite, private trainings for your team featuring options that educate personnel in a variety of topics related to lubrication and oil analysis.*
- *With either the CLS or Comprehensive classes you have the option to challenge the certification through ICML or STLE.*

Certification Prep Options

- *Any public or private training courses can be designed to prepare individuals to challenge the following certification exams offered through the Society of Tribologists and Lubrication Engineers:*
 - **Certified Lubrication Specialist (CLS)**
 - **Certified Oil Monitoring Analyst I (OMA I)**
- *Any public or private training courses can be designed to prepare individuals to challenge the following certification exams offered through the International Council for Machinery Lubrication:*
 - **Machinery Lubrication Technician Level I (MLT I)**
 - **Machinery Lubrication Analyst Level I and/or Level II (MLA I & II)**

SECTION 7

FIELD SUPPORT



Imagine you are going to the grocery store to buy some fresh ingredients for a new dish you would like to make. The recipe calls for apples, so you head over to the produce section and find a variety of apple types to choose from. You are not sure which to choose, so you pull out your phone and search the web for “best apples to cook with”. You find a blog post from a local chef that discusses the topic and click on the link to read more.

We buy all kinds of items that we use in a variety of ways and although a manufacturer is a product’s creator, we do not always rely on them to determine how best to use our purchases. For example, even though the apple manufacturer produced the apples we are looking to buy, we rely on others (such as chefs) to give us advice on how best to use them.

The Connection

Just as a chef would give us advice on cooking, a lab should provide you with advice on your lubricants and sampling. It is not enough to simply rely on your lubricant supplier to provide you with the information you need to use your lubricant properly. The most successful oil analysis programs are those that are thoughtfully designed after careful evaluation and development of clearly defined goals. Finding a lab that can assist in the program evaluation process as well as the development of your program goals is just another essential piece to keep in mind when considering laboratories.

Advice Versus Servicing

What if you want a quality program but lack the ability to keep up with the best possible practices? Perhaps there is a lack of appropriate personnel in your company or even a lack of time to commit to maintaining a quality program. Another overlooked piece to consider when searching for a lab is what kind of support they can offer beyond that of simply providing advice over the phone/computer. Finding a lab that offers program serviceability can be crucial to the proper maintenance of your lubricant analysis program.

Consider the following when reviewing a laboratory's field support services:

Program Auditing Options

- *TestOil offers consultation services to help you determine the level of audit needed to achieve your program goals. These audits include a range of onsite inspections of your program and facility. Higher level audits provide you with a detailed report outlining our findings and recommendations. This document will serve as a roadmap to effective program start-up, as well as continuous improvement.*

Program Serviceability

- *TestOil's new KickStart program is designed to give your team the knowledge and tools to run your oil analysis program successfully. We provide you with a series of onsite and virtual visits coupled with personalized training to ensure retention. Your team will gain the confidence to perform the proper tasks and determine the appropriate next steps to ensure your efforts return the maximum value.*
- *TestOil PRO is a hands-off approach to your oil analysis program. Our highly trained team will come onsite to collect your samples using best practices and our in-house AssetLink technology. After your samples have been tested in our lab, you will receive a thorough analysis report for each sample as well as an email highlighting the most critical reports and next step recommendations. TestOil PRO leaves you with the confidence that your program is being run successfully with minimal effort to you and your company.*

SECTION 8

LAB VENDOR CHECKLIST



Now that you have learned about the importance of each factor in the laboratory consideration process, use the following checklist to help guide your conversations as you assess potential labs.

	Quality
	<i>Quality Assurance Program</i>
	<i>Accreditation</i>
	<i>Experience</i>
	<i>Testing Validation Procedures</i>
	Turnaround Time
	<i>Sample Receiving Procedures</i>
	<i>Sample Processing Procedures</i>
	Cost Benefit
	<i>Package Flexibility</i>
	<i>Included Services</i>
	<i>Additional Offerings</i>

	Customer Service Experience
	<i>Operator Status</i>
	<i>Inquiry Resolution Rate</i>
	<i>Personalization & Customer Care</i>
	Educational Opportunities
	<i>Access to Educational Resources</i>
	<i>Types of Available Resources</i>
	<i>Training Styles</i>
	<i>Certification Prep Options</i>
	Field Support
	<i>Program Auditing Options</i>
	<i>Program Serviceability</i>



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