

# FLUID LIFE STATIONARY EQUIPMENT TESTING OPTIONS

## Available Testing Packages

INDUSTRIAL PLANT OIL ANALYSIS TEST PACKAGES	PLANT1	PLANT2	PLANT3	PLANT4	PLANT5
Applications	Failure Finding	Contamination Control	Advanced	Varnish Monitoring	Comprehensive
ICP Spectrometry 25 Elements	•	•	•	•	•
Viscosity @ 40°C or 100°C	•	•	•	•	•
Oxidation Non-Gears	•	•	•	•	•
Water Contamination Crackle Test	•	•			
% Water Karl Fischer Method		Tr.	•	•	•
% Soot by FTIR Diesel Engines	•	•	•	•	
% Glycol, Triggered GC Engines	•	•	•	•	
% Fuel, Triggered GC Engines	•	•	•	•	
Acid Number by FTIR	•	•			
ISO Particle Count Non-Gears		•	•	•	•
OPC Particle Count Gears		•	•	•	
Acid Number by Titration			•	•	•
Initial pH			•	•	•
Varnish Potential				•	•
RPVOT (Oxidation Stability) – relates to oil service life					•
RULER (Antioxidant Levels) – relates to oil service life					•
Rust Test (ability of oil to prevent rust)					•
Demulsibility (oil separation from water)					•
Foam Tendency & Stability (Seq. 1)					•
Air Release (oil separation from entrained air)					•
Sample Volume	100ml	100ml	100ml	250ml	4L

# FLUID LIFE STATIONARY EQUIPMENT TESTING OPTIONS

OIL AND GAS INDUSTRY OIL ANALYSIS TEST PACKAGES	ONG1	ONG2
Applications	Basic Oil Condition	Advanced Oil Condition
ICP Spectrometry 25 Elements	•	•
Viscosity @ 40°C or 100°C	•	•
Water Contamination Crackle Test	•	•
Oxidation / Nitration / Sulfation Engines	•	•
% Soot / % Fuel Diesel Engines	•	•
% Glycol Triggered GC Engines	•	•
% Fuel, Triggered GC Engines	•	•
Acid Number by FTIR (AN)		•
ISO Particle Count Screw Compressors		•
% Water by Karl Fisher Screw Compressors		•
Sample Volume	100ml	100ml

WIND TURBINE OIL ANALYSIS TEST PACKAGE	Package
Spectroscopy 25 Elements	•
Viscosity (40C or 100C)	•
% Water by Karl Fisher	•
Oxidation by FTIR Non-Gears	•
Total Acid Number	•
ISO Particle Count	•
Total Magnetic Iron	•

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GREASE ANALYSIS TEST PACKAGES	Grease Screening	Grease Standard	Grease Advanced
<b>Applications</b> *May require additional, triggered or custom tests. Contact Fluid Life for more information.	<ul style="list-style-type: none"> <li>• Small electric motors</li> <li>• Chain grease</li> <li>• Mobile joints</li> <li>• Wheel bearings</li> </ul>	<ul style="list-style-type: none"> <li>• Large electric motors</li> <li>• Automatic greasing systems</li> <li>• Robot arms</li> </ul>	<ul style="list-style-type: none"> <li>• Large diameter bearings</li> <li>• Troubleshooting bearing failures*</li> <li>• Confirmation of grease quality, stability, compatibility*</li> </ul>
<b>Total Magnetic Iron</b> PQ Equivalent	•	•	•
<b>Oxidation by FTIR</b>	•	•	•
<b>Color</b>	•	•	•
<b>ICP Spectrometry</b> 25 Elements		•	•
<b>Penetration Test</b> Unworked		•	•
<b>RULER</b> Remaining Useful Life			•
<b>Analytical Ferrography</b>			•
<b>Sample Volume</b>	10ml	10ml	10ml

SEM-EDS WEAR DEBRIS ANALYSIS		
SEMO: Basic Oil	SEMIX: Basic Other	SEMS: Custom Analysis
<b>Sample Type</b> Oil	<b>Sample Type</b> Filters, Spinner Filters, Grease	<b>Sample Type</b> Any suitable sample – specific situational analysis
<b>SEM Analysis</b> Defined report and deliverable	<b>SEM Analysis</b> Defined report and deliverable	<b>SEM Analysis</b> Open ended custom service tailored to needs
<b>Outputs</b> Basic Report SEM micrographs, particle count & classification, observations, and Reliability review.	<b>Outputs</b> Basic Report SEM micrographs, particle count & classification, observations, and Reliability review.	<b>Outputs</b> Variable – based on requirements Includes SEM micrographs, particle count & classification, observations, and Reliability review. Structured to address a specific concern.

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HEAT TRANSFER (HTF) OIL ANALYSIS TEST PACKAGE	Package
<b>Spectroscopy</b> 25 Elements	•
<b>Viscosity</b> (40C or 100C)	•
<b>Total Acid Number</b> (ASTM D664)	•
<b>Flash Point, Open Cup</b> (ASTM D92) (Outsourced)	•
<b>Flash Point, Closed Cup</b> (ASTM D93) (Outsourced)	•
<b>Pentane Insolubles</b> (ASTM D893) (Outsourced)	•

WATER SOLUBLE TEST PACKAGE	Basic	Advanced
<b>Viscosity</b> at 40C	•	•
<b>ISO Particle Count</b>	•	•
<b>% Water</b> (Refractive Index)	•	•
<b>pH</b>	•	•
<b>Reserve Alkalinity</b>		•
<b>ICP Spectrometry</b> (Outsourced)		•

## NOTES:

- Customer is responsible for shipping.
- Testing may be performed at an alternate Fluid Life laboratory without prior notice.
- Test results are reported in an abbreviated format.

# FLUID LIFE STATIONARY EQUIPMENT TESTING OPTIONS

## Available Individual Tests

Test	Product Code
Oil Samples	
Scanning Electron Microscopy (SEM) - Basic Oil	100577
ICP Spectrometry on oils	Contact Fluid Life for details
Total Magnetic Iron (TMI)	100497
Analytical Ferrography (ASTM D7690)	100348
Acid Number by FTIR (Fluid Life Method)	100349
Total Acid Number via Titration (ASTM D664 mod)	100612
Acid Number via Titration (ASTM D974 mod)	100596
Total Base Number (ASTM D4739)	100613
Base Number by FTIR (BN)	100362
% Water by Karl Fischer (ASTM D6304)	100478
ISO Particle Count (ISO 4406:99 / ISO 11500 / ISO 11171)	100469
ISO Particle Count with Optical Particle Classification (OPC), (ASTM D7596)	100526
ISO Particle Count via Patch Method	100533
FTIR (Oxidation, Nitration, Sulfation) (ASTM E2412)	100431
% Glycol via Gas Chromatography (ASTM D7922 mod.)	100438
% Fuel via Gas Chromatography (ASTM D7593 mod.)	100437
ipH (NOTE: This requires base testing TAN (ASTM D664) in order to offer the ipH option)	100461
Reserve Alkalinity for Water Soluble Oils	100566
Color	100389
RPVOT (Rotating Pressure Vessel Oxidation Test) (ASTM D2272)	100571
Varnish Potential (MPC) (ASTM D7843)	100629
RULER (Remaining Useful Life Evaluation Routine) (ASTM D6810)	100572
Demulsibility (Water Separability) (ASTM D1401)	100394
Copper Corrosion, (ASTM D130)	100392
Rust Test (ASTM 665)	100573
Density (ASTM D4052)	100395
*Pour Point (ASTM D97)	100821
*Foam (Sequence 1) (ASTM D892)	100939
*Flash Point, Closed Cup (ASTM D93)	100796
*Flash Point, Open Cup (ASTM D92)	100527
*Air Release	100783
*Conductivity (ASTM D2624)	101159

# FLUID LIFE STATIONARY EQUIPMENT TESTING OPTIONS

Test	Product Code
<b>Oil Samples Continued</b>	
*Sulphur PPM (ASTM D1552)	101199
*ICP Spectrometry on Water Soluble Oils	100837
*ISO Particle Count on Water Soluble Oils	100658
*Viscosity at 40C on Water Soluble Oils	100646
<b>Diesel Fuel Samples</b>	
% Water by Karl Fischer (ASTM D6304)	100478
ISO Particle Count On Fuels	100425
Bottom Sediment & Water (BS&W) – ASTM D2709 mod. (Edmonton) / ASTM D2709 (Irving)	100377
Fuel Bacteria Test	100432
Distillation (ASTM D86 mod.) (Canada - In House / USA - Outsourced)	100416 / 100825
Density (ASTM D4052 mod.) (Canada - In House / USA - Outsourced)	100395 / 100802
Cetane Index (includes Density & Distillation) (ASTM D976)	101236
*Sulphur in Diesel (ASTM D7039)	100830
*Cloud Point	100797
*DEF Contamination in Fuel	101232
<b>Grease Samples</b>	
ICP Spectrometry on Greases	100445
Grease Oxidation	100440
RULER (Remaining Useful Life Evaluation Routine) (ASTM D6810)	100572
Total Magnetic Iron (TMI)	100497
Analytical Ferrography (ASTM D7690)	100348
Penetration Test (1/4 Cup Unworked) (ASTM D1403 mod.)	100532
Penetration Test (1/4 Cup Worked) (ASTM D1403 mod.)	101094
Scanning Electron Microscope (SEM) Basic	100579
*Four Ball Wear (ASTM D2266)	101217

(\*) indicates an outsourced test. Contact your Fluid Life representative if you require testing that is not included in the Fluid Life Individual Test Options menu.

# FLUID LIFE STATIONARY EQUIPMENT TESTING OPTIONS

Test	Product Code
Coolant Samples	
Coolant Test Package (Appearance, Conductivity, Nitrites, PH and Refractive Index)	100391
*ICP Spectrometry on coolants	100793
Filter Samples	
Scanning Electron Microscope (SEM) Basic, Other (Sludge, Filters, Debris etc).	100579
Filter Analysis	100436

(\*) indicates an outsourced test. Contact your Fluid Life representative if you require testing that is not included in the Fluid Life Individual Test Options menu.

## Fluid Life Lab Locations

### Canada

4371 Savaryn Dr SW  
Edmonton, AB T6X 2E8

### Canada

95 Copernicus Blvd  
Brantford, ON N3P 1N4

### United States

9555 James Ave S #210,  
Bloomington, MN 55431

### United States

3710 W Royal Ln #145  
Irving, TX 75063

Contact us today to place an order for prepaid test kits. For technical support, contact Fluid Life at 1 (877) 962-2400.