# Wind Turbine Fluid Analysis Oils | Greases





## **Benefits of Wind Turbine Fluid Analysis**

Bureau Veritas wind turbine oil analysis programs enable our clients to meet customer demand with a proactive means of increasing operational efficiencies. Our programs address the environmental, operational and mechanical challenges of cost-effectively maintaining wind turbine reliability.

### Why You Should Test

Oil analysis is critical to maximizing wind turbine uptime and planning for downtime. Extreme temperature changes, load variations and contamination make oil analysis an invaluable tool for monitoring:

- Contamination
- Component Wear
- Lubricant Degradation

In determining a lubricant's remaining useful life, oil analysis plays a significant role in:

- Safely extending oil change intervals
- Reducing lubricant, labor and disposal costs

#### What You Should Test

In determining what components to test, consider criticality to overall production, susceptibility to environmental operating conditions, accessibility for maintenance and the costs of unscheduled maintenance, overhaul or replacement.

- Main gearbox
- Hydraulic Pitch Actuator (Brake)
- Bearings
- Blade
- Yaw

#### **Test with Bureau Veritas**

Our team of experts gives you the tools and support you need to take informed, decisive maintenance action that maximizes production. You get more than test results – Bureau Veritas wind turbine oil analysis is:

- Insightful LOAMS<sup>SM</sup> is the global platform for managing program data
- Actionable Smart laboratory systems and expert data analysts equal recommendations that save money and equipment
- Personable Customer care and consultation services are focused on the highest return for your oil analysis investment







## **Wind Turbine Oil and Grease Test Packages**

Industrial lubricants and greases are designed to optimize equipment performance – often with additives specific to extreme pressures and temperatures, wear, oxidation and foaming. Bureau Veritas wind turbine oil analysis and grease analysis programs can determine if the proper lubricant or grease is being used and whether or not additive levels are providing adequate component protection.

	COMPONENTS						
TEST	Main Gearbox (oil)	Hydraulic Pitch Actuator (Brake) (oil)	Bearings (grease)	Pitch (grease)	Blade (grease)	Yaw (grease)	
Appearance	X	X	X	X	X	X	
Elemental Analysis (Wear, Contaminant & Additive Elements by ICP)	х	x	x	X	X	x	
Viscosity @ 40°	X	×					
Oxidation/Cross Contamination (by FTIR)	Х	Х	X	Х	X	Х	
Total Acid Number (TAN)	Х	X					
Water (by Karl Fischer)	X	×	X (optional)	X (optional)	X (optional)	X (optional)	
PQi	X	X					
Particle Count	X	x					
FDM+ (PQ)			X	X	X	X	



#### **Contact details**

Los Angeles (USA West)	+1 800-424-0099	Netherlands	+31 10 472 04 22
Houston (USA South)	+1 800-248-7778	South Africa	+27(0) 61-091-1981
Chicago (USA North)	+1 800-222-0071	Saudi Arabia	+966-13-361-7960
Atlanta (USA East)	+1 800-241-6315	United Arab Emirates	+971 (4) 899-8100
Canada	+1 855-998-9899	China	+86 181 1600-8062
Mexico	+52 81 8335-7560	Japan	+81 (0)3 3436-5660
Spain	+34 943 25 69 35	Australia	+61 (0)8 8416-5237



E-Mail <u>ocm@bureauveritas.com</u>

Website