

# SEA-Mate<sup>®</sup> Blending-on-Board

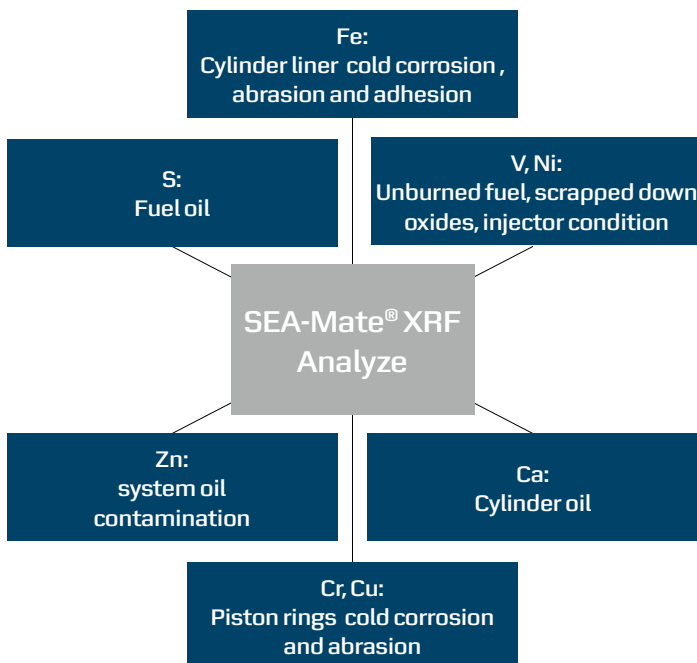
## Introducing the SEA-Mate<sup>®</sup> XRF Analyzer

### SEA-MATE<sup>®</sup> XRF ANALYZER

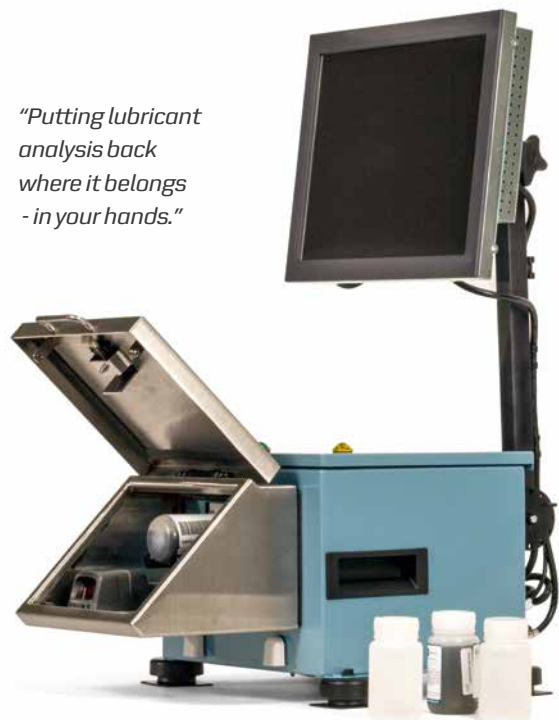
The SEA-Mate<sup>®</sup> XRF Analyzer is an accurate and easy-to-use on-board or on-site lubricant analysis tool to help streamline maintenance management and reduce the net cost of operation and Total Cost of Ownership.

Designed specifically for the maritime and power generation industries, the SEA-Mate<sup>®</sup> XRF Analyzer delivers results in just 4 minutes rather than the standard two weeks - putting critical diagnostic process control firmly back into your hands.

*“SEA-Mate<sup>®</sup> Analyzer is a direct measurement and measures the true and total iron content – abrasive and corrosive”*



*“Putting lubricant analysis back where it belongs - in your hands.”*



## SEA-Mate® BENEFITS

The accuracy and speed of the SEA-Mate® XRF Analyzer enables you to identify issues before they become a problem. Other features include:

- X-ray spectrometer that allows precise quantification of wear elements inside the piston, reducing engine damage and cylinder oil feed rate by immediate crew action
- Unlike many other onboard devices that only measure magnetic iron, the SEA-Mate® XRF Analyzer allows the measurement of iron originating from cold corrosion, abrasion or adhesion
- System oil condition monitoring capabilities including the condition of specific components (bearings, gears, camshaft, etc.)
- On-the-spot analysis of how your engine is behaving to help reduce cylinder lube oil consumption and optimize Time Between Overhauls (TBOs)
- Tools to control the effective sulfur content of the fuel oil in use
- Mapping of the engine's actual response to fuel sulfur and operational conditions to enable safe setting of optimal cylinder oil feed rate

## Elements measured and calibration ranges:

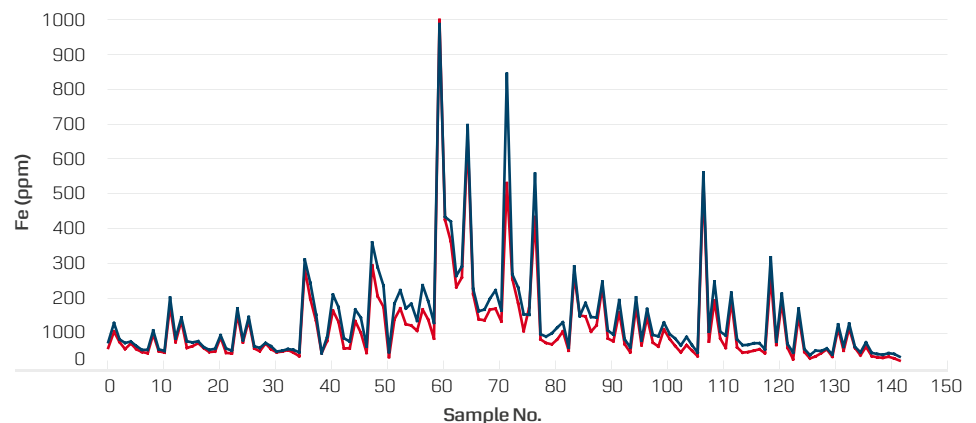
	Fuel	Fe	Pb	Cu	V	Ni	Cr	Zn	Ca
<b>M4000</b>	X	X	X	X	X	X	X	X	X
<b>Detection range /PPM</b>	100-6000	0-5000	0-1000	0-1000	0-1000	0-1000	0-1000	0-5000	100-50000

## FIELD DATA

Maersk Fluid Technology has carried out extensive field tests on several vessels and power plants. As the graphs show, there is excellent correlation between SEA-Mate® XRF Analyzer results and those from the same sample run at a land-based lab.

- SEA-Mate®
- DNV Norway

Scrape-down oil from MAN B+W 12K90MC - Iron analysis, High Wear Regime



<b>System Specification</b>	<b>M4000</b>
<b>Dimensions</b>	27 kg, 65x39x39 cm
<b>Excitation source</b>	X-Ray Florescent: using X-ray tube with 25KV to 45 KV with max 1,5 W
<b>Detector</b>	Si PIN diode detector
<b>Ambient temperature</b>	5-40 °C
<b>Operation</b>	Windows-based PC

For more information, please visit us [www.maerskfluid.com](http://www.maerskfluid.com)