

Testing is essential for high-quality oil and gas production during upstream, midstream, and downstream oil and gas processes. Testing for composition, purity, and contaminants are required for seamless production, trading, and distribution. The diverse analysis of contaminants ensures the performance of catalysts, prevents equipment corrosion, and assures high quality and purity of the oil and gas used in a variety of industries.

Our analytical instruments provide fast, sensitive, and costeffective detection of a wide range of elements allow you to streamline your analysis and optimize your plant production output.

Oil & Gas list of Standards:

## Thermo Scientific<sup>™</sup> ARL<sup>™</sup> Energy Dispersive XRF (EDXRF) Spectrometer

- 1. ASTM D4294 (Sulfur In Petroleum)
- 2. ASTM D7751 (Elements In Lube Oils)
- 3. ASTM D6481 (P, S, Ca & Zn In Lube Oils)
- 4. ASTM D5839 (Elements in Waste Fuel)
- 5. ASTM D7212 (S In Automotive Fuels)
- 6. ISO 8754 (S in petroleum products)

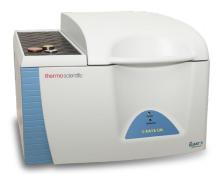
# Thermo Scientific™ ARL™ Wavelength Dispersive XRF (WDXRF) Spectrometer

- 1. ASTM 2622 (S in Petroleum Products)
- 2. ASTM D4927 (Elements in Lubricant)
- 3. ASTM D6443 (Elements in Unused Lube Oils)
- 4. ASTM D5059 (Pb & Mn in Gasoline)
- 5. ASTM D4929 (CI in Crude Oil)
- 6. ASTM D6247 (Elements In Polyolefins)
- 7. ASTM D6334 (S in Gasoline)
- 8. ISO 14597 (V & Ni in Petroleum Products)
- 9. ISO 20884 (S in Automotive Fuels)
- 10. ISO 15597 (CI & Br in Petroleum)
- 11. ISO 14596 (S in Petroleum Products)
- 12. DIN 51577 (CI & Br in Mineral Oils)
- 13. DIN 51769 (Pb in Gasoline)
- 14. UOP method 979-02 (Cl in Catalysts)
- 15. IFP 9303 (Cl and S in Catalysts)
- 16. IP433 (V & Ni in Petroleum Products)
- 17. IP 503 (CI & Br in Petroleum Products)



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### Thermo Scientific XRF solutions in oil & gas industry



ARL QUANT'X EDXRF

#### Thermo Scientific™ ARL™ QUANT'X EDXRF Spectrometer

- Latest generation silicon drift detector (SSD)
- High-performance, multi-element analysis
- Exceptional sensitivity for trace analysis
- Liquids analysed in air or helium

#### In compliance to:

- ASTM D4294
- ASTM D5839
- ASTM D6481
- ASTM D7751 & ISO 8754



ARLOPTIM'X WDXRF

#### Thermo Scientific™ ARL™ OPTIM'X WDXRF Spectrometer

- Simultaneous-Sequential Spectrometer
- features UCCO technology (Ultra Closely Coupled Optics)
- 200W Performance from 50W Power
- Gearless Goniometer
- No water cooling

#### In compliance to:

- ASTM D2622
- ASTM D4927 and ASTM D6443



ARL PERFORM'X WDXRF

#### Thermo Scientific™ ARL™ PERFORM'X WDXRF Spectrometer

- Gearless Goniometer
- 1500W-2500W (W/O Chiller)
- 4200W (W Chiller)
- Unique LoadSafe design & the Secutainer<sup>™</sup> (for accidental breakage)
- Dual Sample Loading with 1 Reference position
- Optional X-Ray Tube Shield against spillage

#### In compliance to:

- ASTM D2622
- ASTM D4927
- ASTM D5059
- ISO 20884
- ASTM D6443



Learn more at thermofisher.com/xray or email us at SGenquiries.cad@thermofisher.com

