

## Two Supermini units introduced by ALS Coal

*Successful use of benchtop WDXRF in the coal industry*

ALS Coal (Australia) provides analytical services for the quality rating of coal and analysis of rock. With its main laboratories located in Brisbane, Maitland and Newcastle, ALS Coal also has satellite laboratories in Lithgow (NSW), Muswellbrook (NSW), Collie (WA), Emerald (QLD), Gladstone (QLD), Bowen (QLD) and Mackay (QLD) regions throughout Australia as well as several mine site laboratories.

600 km from Brisbane), is being used to analyze samples from local mines run by international resource majors such as BHP, Rio Tinto and Xstrata. In the Emerald satellite laboratory, the Supermini unit is being used to analyze for the elements P, Cl, Fe, and Ca in metallurgical coal and thermal coal.



**Mr. Jason Hubbard (Business Manager),  
Mr. Cameron Nix (Quality System Coordinator)**



Jason Hubbard and Cameron Nix, managers at ALS Coal, describe below the rationale behind acquiring the Supermini units.

Of the two Supermini units acquired by ALS Coal, one is being used in a mine site laboratory and one in the Emerald laboratory.

As of the beginning of 2012, the Supermini unit installed in this container laboratory was mainly being used to analyze metallurgical coal. The other Supermini unit installed in the satellite laboratory in Emerald (approx.

“Australia, Queensland (QLD) and New South Wales (NSW) are both known sources of coking and thermal coal. Metallurgical coal, used to make coke used in steel manufacture and thermal coal is used in thermal power stations. In metallurgical coal, the element phosphorus (P) is important. This is because P makes steel brittle and so its content must be controlled. In thermal coal, the element chlorine (Cl) is important because the Cl

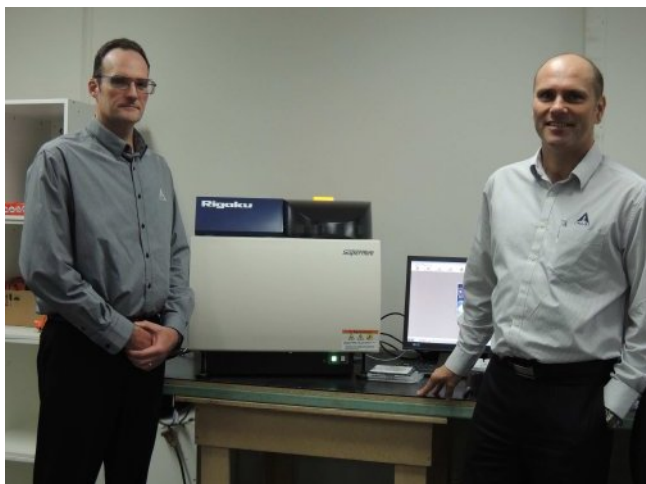
contained in combustion gases causes damage to equipment and problems in terms of emissions. Its content must also be controlled. The Supermini is a compact wavelength dispersive X-ray fluorescence spectrometer system capable of quickly analyzing light elements with high precision; a role that energy dispersive X-ray (EDX) spectroscopy is not ideally suited to. A benchtop system such as the Supermini is also perfect for use in satellite laboratories and mine site laboratories that are often in remote locations where space is a priority. Compared to larger equipment, the Supermini unit also allows a significant reduction in costs. Furthermore, the Supermini does not require hydrofluoric acid for operation, a necessity in conventional wet process analysis. And in terms of safety, the Supermini also has significant benefits.

Compared with conventional methods of analysis, the Supermini is safe, quick, and user-friendly, and is sure to supersede the traditional analytical methods. We can also foresee using Supermini units at remote laboratories and container laboratories when X-ray fluorescence (XRF) spectroscopy is needed.”



*Reported by Yurika Takumi ([yurika@rigaku.co.jp](mailto:yurika@rigaku.co.jp))*

*[Click here for more information about Rigaku's Supermini200, the latest in benchtop WDXRF.](#)*



*Richlands, QLD (15-20 minutes from Brisbane by car)  
August 8, 2012*