Bureau Veritas - Amdel

Mineral & Laboratory Services

QEMSCAN® - IRON ORE ANALYSIS

Cutting Edge Technology for Iron Ore Mineralogical Analysis

SOLUTION FOCUSED TECHNOLOGY

QEMSCAN is a key technology for the analysis of iron ore. QEMSCAN provides quantifiable data for studies into the various iron oxide species including grain size distribution, liberation, gangue association and predictive recoveries. QEMSCAN stands for *Quantitative Evaluation of Minerals by SCANning electron microscopy.* As experts in mineralogical analysis and mineral laboratory services across Australia and internationally, Bureau Veritas - Amdel are proud to offer QEMSCAN solutions to achieve measurable results and set new standards of excellence for our clients.

Bureau Veritas - Amdel now have two QEMSCAN units at their mineralogical hub in Wingfield, South Australia. The existing Zeiss unit has been complimented with the recent installation of a state-of-the-art QANTA unit. The new unit utilises an FEI QANTA platform (as used by MLA) and incorporates the latest advances in QEMSCAN hardware and software.

The new QANTA unit has the software and hardware system that will be fully supported by FEI into the future, which provides a stable platform for ongoing continuity of results and mineralogical interpretations for our clients.

OUR SERVICES

Our iron ore mineralogical analysis method produces repeatable and statistically reliable measurements that are invaluable in iron ore project management and improvement. Data may be used to design and drive metallurgical test work and to identify opportunities to optimise and improve extraction and beneficiation processes. Quantitative data is essential in ore characterisation, resource and feasibility planning and gives an 'edge' to product sales and marketing. Our team comprises highly skilled professionals with demonstrated experience in iron ore analysis by QEMSCAN, XRD and optical techniques. Our method has been developed and validated in house and is tailored specifically for the iron ore commodity. Our QEMSCAN units offer excellent light element detection and stability and with the addition of BSE pre-amplification, this enables accurate differentiation of the iron oxide species in a practical measurement time.

WHY IS QEMSCAN TECHNOLOGY IMPORTANT ?

- What is the mineralogical make up of the sample?
- What are the main iron oxide species in my sample?
- What is the grain size distribution of my target mineral?
- What is the degree of liberation for my target mineral?
- How does Si get into my DTR concentrate? What are my options to remove it?

QEMSCAN®

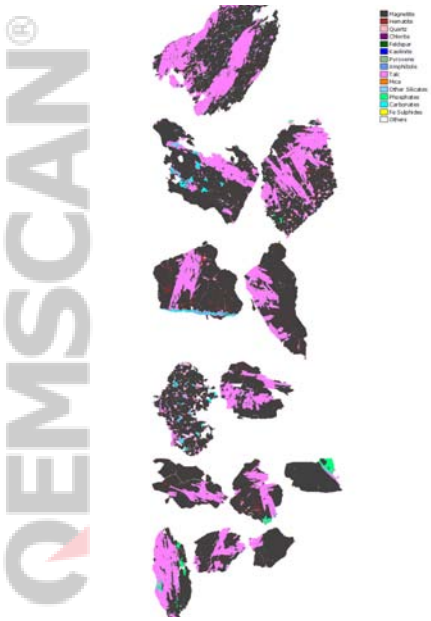
QEMSCAN - A FEI™ Technology Product

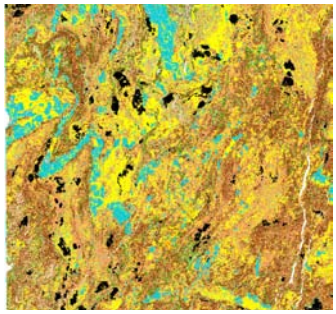
- What are the main gangue minerals in my samples?
- Are there asbestiform minerals in my sample?
- Is it possible to upgrade my product?
- Do I have penalty elements in my concentrate?
- Investigate the structure and composition of iron ore pellets.

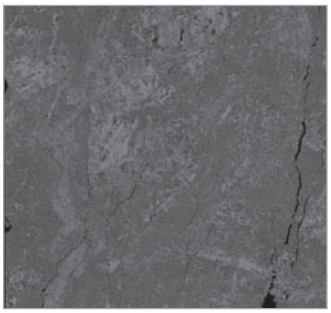
Improve And Protect Your Mineral Resource

KEY BENEFITS

- Fast and accurate analysis allows for cost effective gathering of large datasets
- Greater stability of analysis platform specifically designed for Iron Ore analysis
- Variety of sample holder options allows from analysis of samples from fine DTR products to specific core samples for detailed mineralogical description
- Visual representation of key mineral associations aids in development of extractive methods
- Particle images allow for indication of possible asbestiform material







WHY CHOOSE BUREAU VERITAS - AMDEL?

Experience Our mineralogy team has over 20 years experience in the mining industry and more than 15 years experience in Automated Mineralogy technology. Our expertise in the usage of QEMSCAN technology allows us to tailor a solution to client's specific needs.

Recognition Founded in 1828, Bureau Veritas is a world leader specialising in conformity assessment services related to Quality, Health, Safety & Environment (QHSE).
Certified to ISO 9001 for all of its activities globally, Bureau Veritas is well known for its ability to adapt to changing client environments and situations and for its commitment to providing leading solutions through quality service.

Knowledge & Expertise Through expert local teams and technical knowledge, Bureau Veritas are able to deliver packaged and targeted solutions and information, to support our clients' unique business requirements.

Network With a global network of over 1300 offices and laboratories in more than 140 countries, Bureau Veritas provides tailored solutions to clients throughout the world across a diverse range of industries.

CONTACT

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FOR MORE **INFORMATION**

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