

Ore Characterisation...

Whether it's a new resource or an orebody already in production, an ore characterisation study can provide critical information that will either assist in the development of a new processing flowsheet or the optimisation of an existing one. XPS has an integrated approach using techniques such as QEMSCAN and Electron Microprobe to provide our clients with a clear understanding of the mineralogical characteristics within a deposit. The cornerstone of this approach is the use of automated technology to provide quantitative datasets, which is a distinct advantage over the traditional 'point counting' methods of optical microscopy.

XPS recommends that in addition to mineralogical characterisation, a corresponding set of metallurgical tests are done on the identical sample set. Results can be linked back to 3D space to provide the operation with knowledge of metallurgical performance and impact to the mining plan.



Above: QEMSCAN images of crushed composite mineral particles and polished thin sections. Imaging of ores provides geologists and metallurgists a view of textures, mineral associations and primary grind targets.
Top Far left: Onsite Services
Top Middle: Liberation chart
Far bottom left: QEMSCAN in operation at XPS
Bottom Middle: Mineral Science team

Below: Mineralogical features can be plotted in existing 3D models. This can provide mining and processing personnel with an indication of locations of problematic mineralogy.



Ore Characterisation Deliverables:

- QEMSCAN images
- Modal mineralogy
- Mineral grain size
- Elemental deportment across minerals and mineral compositions
- Identification of deleterious minerals and remediation strategies
- Estimation of metal recovery
- Mineralogical characteristics can be plotted with 3D Software
- Quality Assured through our rigorous QA/QC process
- Flowsheet concepts prior to metallurgical testwork



For further information on XPS ore characterisation services please contact:

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...Reducing risk"