EOMAP
a Fugro company

Enhancing Operations Safety

SUSTAINABLE MINING FROM SPACE

Rare earths are essential for energy transition and digitalisation efforts, yet mining must balance resource demand with environmental responsibility. Monitoring mining sites from space supports efficient operations, informed decisions, and long-term planning for reclamation and biodiversity protection.

Earth observation helps mining operators meet regulatory requirements while optimising resources. It provides high-resolution data for land cover, water quality, and elevation models. Constant updates and AI-driven analytics enable early warnings, risk reduction, and transparent sustainability reporting.

CHALLENGE ACCEPTED

+ Monitor remote and inaccessible areas safely
+ Measure and analyse changes on site in real time
+ Validate models and reduce operational risk
+ Track turbidity, sediment, and water quality

WHY BUILD ON EOMAP SERVICES

Credibility
Meet international standards for transparency and sustainability reporting supporting regulatory compliance and responsible mining practices.

Early warnings & risk reduction
Receive daily updates and real-time alerts for early detection and to minimise operational risks.

Enhanced decision support
Access high-resolution data and AI-driven insights for exploration mapping, risk analysis, and ground modeling.

Contact us
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OUR SOLUTIONS

Satellite-Derived Bathymetry (SDB)

Rely on precise shallow-water mapping through SDB: Enhance mining infrastructure planning and meet environmental requirements with a spatial resolution up to 1 m.

Water Quality Monitoring

Enhance environmental oversight. Monitor contaminants and sedimentation and deliver solid data for environmental impact assessments, and access daily updates via the eoapp™ AQUA.

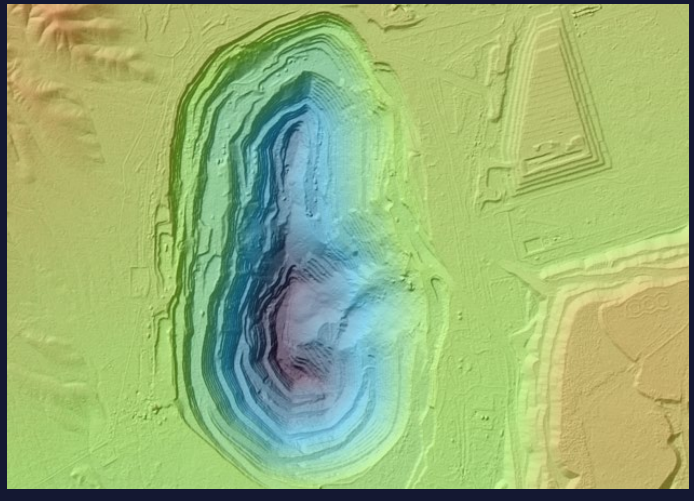
Digital Surface Models (DSM) & Digital Terrain Models (DTM)

Gain accurate elevation data for mine design and site characterisation. Improve geotechnical risk assessments with imagery reaching a spatial resolution up to 30 cm.

Land Cover Classifications

Optimise mining planning with Land Cover Classification. Identify vegetation and bare land, monitor reclamation, and deliver sustainability reporting powered by AI/ML and ultra-high 15 cm resolution.

USE CASES



DEM of the Chuquicamata Mine in Chile | 50 cm DSM/DTM enabled precise volumetric analysis and safety monitoring across the Chuquicamata open-pit mine in Chile.

Chlorophyll-a in the Barragem Sul tailings dam in Brazil | Concentrations derived from Planet SuperDove, supported by additional water-quality analytics, enabled detailed algae-bloom monitoring.

Learn more
eomap.com/markets

Earth Observation and Environmental Services | **eomap.com**

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