Picterra

Geospatial machine learning
in mining & quarries

With the increased demand for minerals to support decarbonization pathways, everyone benefits from safe and sustainable operations. Mining use cases range from monitoring the impact on local ecosystems to assessing haul road conditions and post-blast sites; and identifying water bodies that could pose a risk to workers and equipment.

Application areas

- Water bodies detection
- Weeds mapping & classification
- Cracks & erosion localization
- Blast site analysis
- Haul roads / in-pit roads mappingbodies detection
- Well pad boundaries mapping for disturbance footprints
- Mines rehabilitation incl. re-vegetation monitoring
- Create digital records for ESG reporting

Adding value from geospatial intelligence across the mine life cycle

Before mining

- Land mapping, vegetation & biodiversity assessment of the local ecosystem
- Identifying environmentally sensitive or protected habitats
- Monitoring the progress of a new mine construction

Mining

- Automation of site inspections for safety monitoring (cracks, erosion, water bodies) or illegal activities detection
- Creation of digital records for ESG reporting
- Intelligence gathering on competitors activities

After Mining

- Monitoring and reporting on mine rehabilitation progress
- Tracking re-vegetation, invasive species detection, change detection in local biodiversity ecosystem

Find out more on our webiste

Request a personalized demo

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We understand your challenges

Reach zero fatalities

Create safer working environment by identifying and mitigating potential risks before they occur.

Embrace digitalisation

Embrace step-change technologies that enhance performance across the entire mining value chain & improve your bottom line.

Tighten control over environmental footprint

Take proactive measures that reduce your environmental impact throughout the mine's lifecycle.

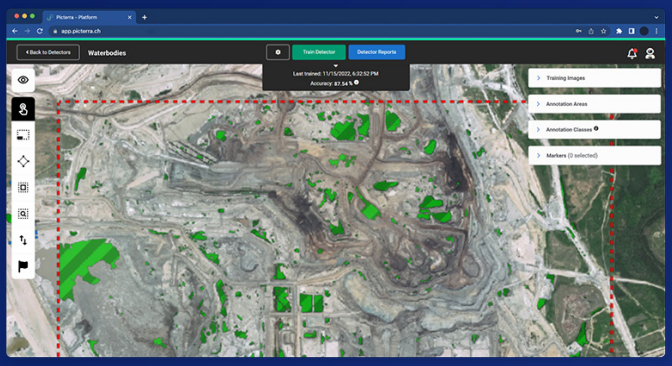
Efficiently manage assets

Reduce downtime and increase productivity through efficient asset management and proactive maintenance.

Mitigate climate change risks

Allign strategy with UN SDGs, support responsible business practices that mitigate climate change risks.

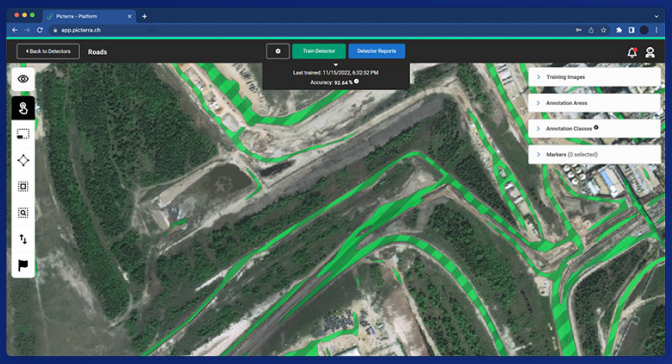
Use cases



Water bodies detection

2X classes of water bodies monitored

- reduction in equipment failures
- reduction in worker injuries
- improvement in accuracy



Haul roads & in-pit roads mapping

1.5X improvement in tire life span

- reduction in operating costs
- less accidents
- improvement in analysis quality

Cracks & erosion localization

3X classes of cracks identified & monitored

- increase in efficiency
- reduction in risk assessment costs
- improvement in accuracy

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