

OVERVIEW

Sirovision enabled the client to improve operational outcomes which led to:

- Less manual work
- Significantly minimised data errors
- Increased processing capacity

"Since implementing
Sirovision, Mapping an area
of about 200m length by 20m
high can be completed in a
couple of hours as opposed
to the conventional mapping
which could take up to a
week or two."

- Geology Superintendent

THE CHALLENGE

The ability to obtain accurate geological data by mapping features on rock faces within a mine site is frequently hampered by geologists having restricted access to exposed faces. Restrictions are imposed due to safety concerns caused by things such as unstable ground and a desire to not impede production. Lack of easy access to faces results in relatively poor data quality which takes time to obtain and ultimately results in sub-standard geological models that are used to help guide a mine's production plan. The client made the decision to implement a technical solution to resolve these issues.



DATA QUALITY

Restrictions in access led to the teams ability to collect data, and the quality of data available.



SAFETY HAZARDS

Unable to ensure the safety of personnel working at the rock faces and highwalls



ACCESS

Difficulty assessing unstable grounds and having access to highwalls hindered the clients ability to gather quality data.



SOLUTION

Sirovision is developed in collaboration with the Commonwealth Scientific and Industrial Research Organisation (CSIRO). It allows for remote and safe capture of geological and geotechnical features while avoiding costly disruption to production activities. Mapping of both geological and geotechnical features is supported, along with automatic recognition of mineralogy. Further analysis tools for wedge detection and slope stability provide valuable inputs to geotechnical support designs and for identifying safety hazards in open pits and underground environments.

THE PLAN



THE DECISION:

Sirovison was selected by the client on the basis of its ability to improve personnel safety and ensure quality of the data collected moving forward.



REQUIREMENTS:

The client required their personnel to be able to collect remotely and assess geological mapping data.



ADAPTATION

The client shared the details of their specific requirements and the Datamine team ensured the solution was adapted to their needs.



TRAINING

Training in the new technology took place over a few days and allowed the team to get up to speed with best practive in using Sirovision quickly.



Sirovision allows for the

features while avoiding

costly disruption to

production activities

remote and safe capture of

geological and geotechnical

THE WINS

The client chose Datamine's Sirovision in January, 2021 due to its user-friendly interface and fit for purpose technology. Sirovision enables structural mapping of rock faces without needing to approach the face under unsupported ground or on difficult terrain, thus improving safety. The highly accurate photogrammetry technology in Sirovision has improved the overall quality of the data being collected.

Sirovision is being used by the client to effectively collect mapping data for geotechnical analysis and as inputs into lithological modelling. Since implementing the solution, the client has increased the safety of personnel and the quality and quantity of data collection. This has resulted in more time being spent on data analysis to make better informed decisions and improved operational outcomes.

Specifically, for the client, Sirovision has aided in achieving critical time savings and accuracy of data capture and analysis. Since implementing Sirovision, "Mapping for an area of about 200m length by 20m high can be completed in a couple of hours as opposed to the conventional mapping which could take up to a week or two," says Geology Superintendent, the client.



TRANSFORMATION

The client has transformed their mapping operations from a conventional process that took up to two weeks to an automated and safer process that takes just a few hours. From single photos taken via a camera, transferred slowly into a system used to create an informative visual with the photos, they now use Sirovision to capture multiple photos from multiple angles, often using a drone with simple data transfer to Sirovision. Upgrading to this faster, more automated workflow has resulted in easier data capture, higher quality of data and more time for quality analysis and modelling.



IMPROVED TECHNOLOGY

Automatically pull data remotely via drone into Sirovision.



IMPROVED ANALYSIS

Upgrading to a faster, more automated workflow resulted in easier data capture.



CONTACT US

www.dataminesoftware.com sales@dataminesoftware.com

