

GIM Drives Multiple Efficiencies at Anglo American's Coal business

Paul Murtagh is fascinated with data.

An experienced exploration geologist, he's spent a lot of time in the field gathering data from boreholes. Working on part of a standardisation initiative at Anglo American, Murtagh had the opportunity to take a closer look at how geoscientific information was being managed across seven mine sites in Australia and Canada.

He realised that while the exploration target commodity was effectively the same, each site had their own subtle ways of collecting, storing and delivering the exploration data.

In short

Company:

- Anglo American

Industry:

- Mining Exploration

Solution:

- Geoscientific Information Management using GIM Solution from acQuire

The Challenge:

- Standardise the way geoscientific information is stored across 7 mine sites
- Create a single source of data with standardised workflows and procedures for managing the data

The Results:

- Overall time savings and quality improvements in the way data is managed
- Metadata more comprehensive than ever before
- Standard reporting automatically produced
- Significant business insight into the total cost of each borehole due to combined financial and geoscience data storage

Multiple mine sites, multiple data systems

What Murtagh discovered is what amounted to seven bespoke and decentralised systems for managing coal exploration data assets.

“At the time of the project, the bulk of the exploration data was managed locally at the mine sites by different people, in different databases, spread sheets or mine modelling software,” says Murtagh.

“There was no single source of this data. There was no business-wide solution offering standardised workflows or procedures for managing the data.”

“Data is our product”

Realising the critical exploration asset was being underutilised, Murtagh led a project to look for ways to maximise efficiencies related to data management and, in turn, improve productivity and reduce costs.

“What we’re about in exploration is high-quality data,” explains Murtagh. “We’re judged by the quality of our service in exploration and the main deliverable is data.”

Ultimately, high quality exploration data is where the long-term value is.”

Shopping list for a GIM solution

Anglo American began looking for software designed to store and manage comprehensive coal exploration and mining geological data. They needed to capture and validate data from a number of different sources including non-geological data sets such as costs, contract and tenement data.

Database security and audit tracking was essential to the decision process. Importantly, Anglo American expected a demonstrable commitment to research and development. In addition, Geoscientific Information Management (GIM) had to be the core business or a major development focus of the vendor.



Focus on people, processes and technology

After evaluating three geological database options, Anglo American's Australian and Canadian Coal business selected the acQuire GIM solution, in part because they provided an easily configurable product. No other vendor offered the same flexibility to manage workflows, objects and processes along the way.

"The key for Anglo American was the 3-part focus acQuire puts on people, processes and technology," said Murtagh.

"They understand what it takes to succeed from a personnel standpoint and focus on mentoring and training."

Staged, comprehensive implementations

With six separate database implementations spanning various mine sites and two countries, the GIM Solution rollout was comprehensive.

"The complex nature of the data and sheer volume of historical information presented a number of challenges throughout the implementations.

Personnel from several different parts of the Anglo American operation were involved including a Geoscientific Information Specialist, Mine Geologists, Technical Services Managers, Resource Geologists.

"acQuire provided competent personnel who engaged with the sites and key people to ensure the implementations were in line with each site's requirements."

"Each implementation took 6-8 weeks and was phased so that critical datasets were validated and loaded first," recalled Murtagh.

Improved data quality, time savings across multiple departments

Up to 100 internal users from Anglo American's Coal business use the acQuire GIM solution. The main users of the solution are the exploration personnel along with mine site and project Geoscientists including the Resource Geologists.

"First and foremost, the GIM solution is the main repository of critical exploration data which is used in building and improving the accuracy of our geological models for planning," says Murtagh.

"All historical exploration data has been or is being captured in the GIM solution. All relevant metadata is being captured, as well."



Unexpected benefits

Interestingly, other departments have discovered the power of acQuire's GIM solution and peripheral data about each site is also stored. Mining Engineers, Coal Processing and Marketing access the database on a regular basis. Benefits to the wider business are an added bonus to the GIM Solution investment.

"Exploration costs are now also captured in the GIM solution which has allowed for more accurate borehole cost analysis," explains Murtagh.

"Anglo American is experiencing more efficient approvals and processing of expenditure and more effective tracking and allocation of time.

"With the implementation of QA/QC of borehole data, we're experiencing improved delivery of data to internal customers.

"The key for Anglo American was the 3-part focus acQuire puts on people, processes and technology."

More comprehensive data than ever before

By implementing a company-wide GIM solution from acQuire Technology Solutions focused on people, processes and technology, Anglo American's Coal business experienced overall improvements in the efficiency of extracting and logging geotechnical data from the field.

In addition, they have access to more comprehensive META data than ever before. As an added benefit, peripheral data stored in GIM Solution is providing valuable financial information about the cost of each borehole.

With standardized reporting in place, Anglo American is realising the full value of their data assets.

"I'm passionate about data and a supporter of acQuire," says Murtagh.

"The GIM solution has given us higher quality data, more accessible data and more useful data for our business."

Paul Murtagh is the Exploration Services Superintendent at Anglo American's Coal business based in Brisbane, Australia.

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