

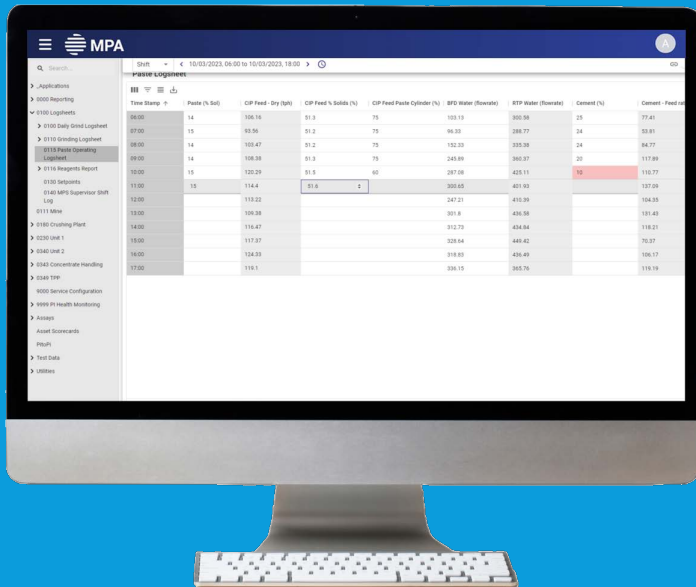


NORTHERN STAR
RESOURCES LIMITED



MPA SOFTWARE Logsheets

A case study with Northern
Star Resources Limited
Pogo Operations
Alaska, USA



November 2024





Case Study



The operations team at Northern Star's Pogo mine in Alaska spent hours every day managing Excel logsheets. And sometimes more, fixing macros issues when they arose. Manual data entry was time-consuming and legacy issues across documents continually made things difficult for the metallurgists.

Frustrated and ready to take the first step towards a digital plant, the met team decided to start by digitalising their logsheets. The result was well beyond what they had hoped for: they now spend zero hours maintaining Excel-based logsheets, which has freed them up to do more important work in the plant.

Problems and Challenges

The Met team had numerous issues with Excel spreadsheets. One time, a ‘catastrophic failure’ error message appeared where the damage to the file was so extensive that they couldn’t repair it.

“This is the type of thing we would face on an almost daily basis with the sheer number of Excel spreadsheets we had,” said James Sweeney, Project Metallurgist for Northern Star Resources – Pogo Operations, in a presentation at AVEVA World.

Managing different operators with different accounts also caused headaches. The operators and the metallurgists spent hours fixing issues with these spreadsheets.

In 2022, the Pogo team began to look for ways to digitalise their logsheets by leveraging the existing plant data in the AVEVA PI System.

They wanted to configure them closely to the Excel versions but as a web-based program using the PI Asset Framework. When it came to the data, it was important that they could specify the timestamps so they coincided with the operators’ rounds. And from a plant visibility standpoint, they were interested in having real-time PI data uploads and access to better visualisations.

They considered all their software options, including other AVEVA PI ecosystem products, but had shied away from those due to clunky interfaces and slow, cumbersome UX.

An aerial photograph of a mining operation. In the foreground, there's a large, light-colored, terraced slope. To the right, a large industrial building with a tan roof and several windows is visible. In the background, there are dense evergreen forests and snow-capped mountains under a clear blue sky. A large, semi-transparent blue circle is overlaid on the center of the image, containing white text.

The solution

Northern Star approached Mipac after partnering on other PI System work together. Our product specialists reviewed their plant's technical set-up and recommended they choose software built specifically for mineral processing plants to visualise and share data with the PI system.

We knew MPA would be ideal to solve their issues because it has:

- A workflow engine that combines data from PI AF and other systems
- A simple UI that allows quick navigation around logsheets and time periods
- Conditional formatting to reduce entry errors and surface issues quickly

Results

The time-saving benefits of digitalised logsheets were apparent immediately because it removed manual data entry.

But it was other aspects of the new system that they began to appreciate once it was live. For starters, the met team had access to real-time PI System data.

As soon as data is collected and entered by the operator, the metallurgy team can see it on the PI System and know exactly what is happening at the time rather than the day after.

In terms of communication site-wide, the plant data is readily accessible to view and share with a wider audience at all times.


The data is much easier to visualise and MPA has created a single source of truth for the plant.

The increased accuracy and reliability of information has led the wider business to see the value in digitalisation and they are now looking to roll MPA out to several other Northern Star mine sites.

Northern Star's Pogo mine is a great example of a mature process plant taking the first steps towards digitalisation in an easy and manageable way.

Digitalising a manual process like logsheets can save your team hours of time and frees you up to do more important work. The software that is available now is easy to implement and a good place to start.

The met team at Pogo's plant are enjoying seeing the results of these small changes. They now have better quality data and are able to use that knowledge of their plant to make better maintenance and reliability decisions.



“I tried to calculate the benefit based on percent improvement in time savings, but it is not possible to divide by zero! With MPA Digital Logsheets, we no longer spend ANY time maintaining our Logsheets system.”

James Sweeney/ Project Metallurgist, Northern Star Resources Limited, Pogo Operations, Alaska

“Northern Star Resources Pogo worked with Mipac at Pogo on the digitisation of the operator logsheets into the MPA system and are extremely pleased with the results. Mipac went above and beyond to accommodate specific feature requests that were not yet included into MPA and were very helpful in putting the vision of the logsheets to paper (pardon the pun).

Mipac’s quick responses and attention to detail have made the roll-out seamless, saving time for operations and the met team on a daily basis, while also allowing for the plant data to now be live-monitored by the team. The benefits from MPA were realised immediately.”

Mark Pliska/ Processing Manager, Northern Star Resources Limited, Pogo Operations, Alaska

Why Mipac

Global leaders in operational technology, control systems and engineering services, Mipac is the perfect partner in driving operational performance.

Our team of trusted advisers includes knowledgeable senior engineers and creative, skilful innovators in technology.

We partner to provide early-stage consultation and continuous optimisation strategies to whole-of operations. From the solid foundations of control systems, software, and engineering, to the latest digital technology advancements, we're committed to pushing boundaries to

create innovative, flexible solutions that consistently fulfill our clients' commitment.

We embrace complex challenges and solve problems in the areas of performance, productivity, and safety by enhancing existing infrastructure systems and technology and providing reporting and decision-making solutions.

We do this by drawing on our extensive onsite experience and unparalleled knowledge of comparative solutions on the market to bring real value and insights to maximise the potential for success.

Solutions and Services

We work across various industries to realise the total value of your operation and recommend solutions and services that produce optimal outcomes and increased performance.

- Advanced Process Control
- Industrial Automation
- Data Analytics and Visualisation
- Cybersecurity
- Process Optimisation
- Industrial Software
- Electrical and Instrumentation
- Operations Support
- Mining 4.0 Consulting

Transforming the mining value chain

Over the past

3

decades

our team of

180

engineering professionals

have delivered over

730

projects

across

55

countries globally

for more than

110

customers



We believe in working together
with our clients and partners
to achieve their goals.

At Mipac, we go
beyond the solution.