

The Journey of Process Improvement – Ok Tedi's Vision

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ABSTRACT

Ok Tedi has been operational since 1984 and is the longest running open pit mine in PNG, producing copper, gold, and silver. In 2015, Ok Tedi conducted an internal gap analysis on the state of their existing data network and control systems to identify priority work fronts to de-risk the operation in order to achieve the business objective to safely deliver on Life of Mine production.

Various improvement projects were executed during 2015 to 2017 to mitigate the identified business risks such as upgrading of the network infrastructure and improving reliability of instrumentation and equipment on site. However, declining ore grades and various production challenges leading into 2018 culminated in Ok Tedi experiencing low gold and copper recoveries due to unstable operation, resulting in operations reverting to manual control of the processing plant as they had lost trust in the process control system. The operating norm became one of reacting and firefighting, further compounding the situation was the lack of visibility and transparency of underperformance root cause, once again bringing to the limelight gaps identified in the 2015 review relating to insufficient digital maturity for business intelligence.

The Processing Improvement department at Ok Tedi was established in 2018 as part of the business improvement strategy. The group initiated various engagements with subject matter experts and concurrent improvement projects to address the poor performance and mitigate future business risks based on the previous gaps identified.

This paper discusses the process improvement journey Ok Tedi embarked upon in 2019 and some of project initiatives executed by the technical services group and partnerships which ultimately resulted in recovery improvement uplifts of greater than 4% for both copper and gold.