Monalco Problem Statement—Lucien Meteumba

Monalco goal is how to decrease the maintenance cost expenditure to less than $24M/yr and reduce the frequency at which ore crushers are maintained once every 3 years before the end of 2020.

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1 Context

Monalco Mining is one of the world's largest iron ore mining companies in the world which has seen the price of iron ore decrease from $110/ Ton to $55/ton. The manager is concerned with the recent prices hovering around $55/ton, and the operating break-even hovering around $50/ton. The company spent in 2018 $30M on ore crusher maintenance with this forecast to rise to $45M for 2019. Maintenance logs are indicating 'excess wear' is responsible for at least 80% of our work request.

2 Criteria for success

Find by how much the maintenance cost will decrease if we maintain the ore crushers once every 3 years.

3 Scope of solution space

We will collect data from 2017 to 2019 from AWS-S3 Database and Sap Maintenance Database to do our analysis.

4 Constraints within solution space

Resistance from the reliability engineering team.

We can't cut more than the recommended OEM limit of one maintenance event at every 50,000 tons of iron ore processed.

5 Stakeholders to provide key insight

ChanelAdams – Reliability Engineer
Jonas Richards – Asset Integrity Manager
Bruce Banner – Maintenance SME
Jane Steere - Principal Maintenance,
Fargo Williams–Change Manager
Tara Starr - Maintenance SME

6 Key data sources

AWS-S3 objects Database

Sap Maintenance Database

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