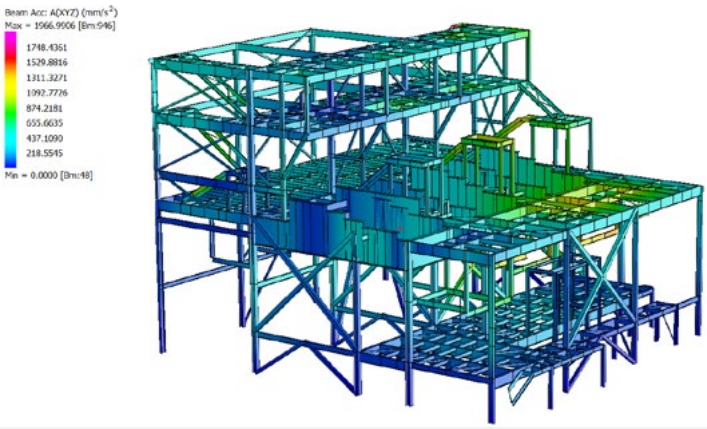
Gahcho Kué Mine Forensic Analysis and Vibration Baselining



Project Overview: Gahcho Kué Mine Forensic Analysis and Vibration Baselining

Client: ADP

Location: Canada

Completion Date: 2020

Scope:

ET-Global undertook a critical forensic analysis and vibration baselining task for the Gahcho Kué Mine, addressing the challenge of steel structures failing due to fatigue. This project was pivotal in identifying and rectifying design oversights related to dynamic loads not originally accounted for.

Key Contributions:

- Conducted an extensive baselining of existing structures on-site using accelerometers to understand the current state and deficiencies.
- Developed a comprehensive Finite Element Analysis (FEA) model that accurately reflected the existing vibration profiles, enabling precise identification of problem areas.
- Utilized the FEA model results to devise and recommend effective remedial actions aimed at reinforcing the steel beams and connections, thus rectifying fatigue issues.
- Ensured that all remedial solutions aligned with required specifications, significantly enhancing the structural integrity and longevity of the mine's infrastructure.
- Our efforts not only provided a pathway to restore structural integrity but also underscored the importance of considering dynamic effects in the design of industrial steel structures, especially in harsh operational environments like mining.