

# CASE STUDY

## EARLY INTRODUCTION OF FEED PROJECT



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### OUR GOAL:

The Overland Conveyor must perform at an effective rate to allow for maximised output of materials. Currently feed is allowed on the belt when the conveyor speed is above 90%. By reducing this limit and allowing the feeders to start feeding earlier, there will be an increase in feeding time and therefore an increase in output of the conveyor system

### OUR SOLUTION:

Upon analysis, it was found that it was taking 8 minutes from starting up the conveyor to reach the set point of 90% that would trigger the feeders to start releasing ore onto the belt. Also discovered was that the conveyor was restarted approximately 1000 times over the space of 12 months. This calculated to an approximate total of 8000 minutes (or 133.33 hours) per year being lost to downtime as well as the movement of a substantial amount of tonnes was also lost.

Key implemented a solution that meant the feeder could start operating earlier rather than when the conveyor reached the limit of 90% speed, by allowing the feeders to do so, feeder time increases and consequently so does the output of the conveyor system. To achieve this, Key reduced the conveyor systems limit to 50% speed, to avoid overloading the ore onto the belt the feeder would also run at a reduced rate.



### KEY INSIGHTS



*"A complex problem can be solved with a simple solution.  
This solution could easily be used at other sites."*

### UNLOCKED POTENTIAL:

Key implemented a solution that meant the same volume would still be fed onto the belt despite the speed the conveyor would run at.

Results would come with a benefit of 200 000 tonnes of ore per year and further works are being considered to reduce the limit to 20-25% as results have proven effective and successful.

### KEY MILESTONES

| Understand   | Identify/Review                               | Opportunity for Growth   | Action Plans  | Handover   |
|--|---|--|---|--|
| Understand how a few minutes of downtime can contribute over time to a large production loss | Identify an opportunity to improve the system | Due to the amount of production loss, the solution would have a great tonnes benefit | Proposing the improvement and seeing it through from approvals through to completion. | The solution was implemented and handed over to production |