



Long Wall Move Optimization

Assigned to: Glen Robinson
Assigned by: Tyler Mitchelson
Date assigned: February 26, 2020

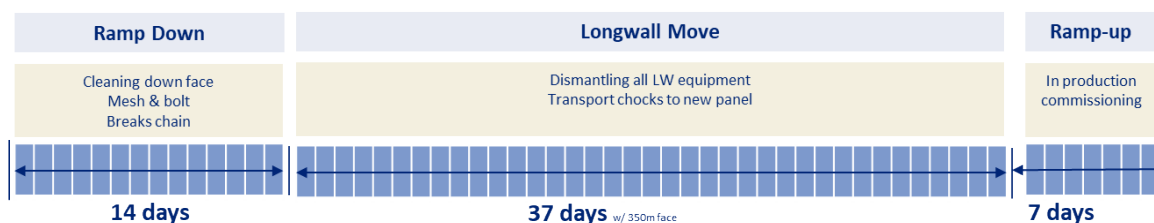
Context:

Recent longwall moves and ramp ups have not achieved planned timelines nor ramp up performance for a number of reasons (late development, gas, strata, mechanical, electrical or software, etc). As part of sustainably delivering 24 MTPA ROM in the MG complex, the ramp down, duration and ramp up of the LW moves are a critical element to providing stability but also an opportunity to add productive time for coal production. As the retreat rates increase, the frequency of LW moves will increase to greater than one move per year.

For the purposes of this task assignment, longwall moves will be broken into 3 broad areas:

- Longwall and associated equipment rebuilds (including transportation to/from mine sites)
- Longwall moves (removal and installation)
- Longwall commissioning and ramp up

The current process as shown below results in no coal production for 37 days and with materially reduced production during the ramp down and ramp up periods.



Materially improving all aspects of the LW move can result in significant production increases over a calendar period.

- Reducing the productive loss from the entire LW Move process by 50% would result in an additional potential 1.5mt

There are currently very detailed plans in place (P6 schedules etc) to plan, execute and monitor the work across these 3 areas. This has been in place previously and not necessarily delivered the desired outcomes for the business to current schedules. As the business pushes towards higher production rates, the LW Move process must be optimized to provide stability with much greater efficiency and effectiveness.

Purpose:

Redesign the LW Move systems to safely reduce the current process by up to 50% without investment in a complete set of second supports.



Quantity:

Develop alternative approaches to reduce the lost production from the 3 phases of the Long wall move.

- LW Ramp down: reduce overall productive time lost and improve risk mitigation strategies to management strata and gas.
- LW Move: material reduction in movement, mtce and install times within the current regulatory constraints
- LW Ramp Up: Target zero failures and improve commissioning process to achieve target production rates in 3 days

This should review and evaluate alternative approaches to each phase of the move with properly costed and risk assessed alternatives. All alternatives must have a realistic implementation schedule with the target to be fully or partially implemented for LW 606 and LW 105. However, options that extend beyond the next LW moves will still be considered by the Steering Committee.

The project will assess the entire planning and execution process with all the critical enablers to allow for success. As part of the recommended approach, the organization design and resourcing will be development.

Quality:

The proposals need to be fully developed to comply with all regulations and maintenance requirements on the equipment. Clear understanding of the current process design as well as the challenges that have occurred over the recent LW moves.

Project management disciplines including critical path analysis and BI principles of constraint analysis must be applied across the entire process to clearly defined the largest opportunities and the associated cost and risk. For this phase of the work, purchasing of additional supports is not to be included unless part of a broader system change – this is not about buying capacity.

The project will deliver a complete implementation and change management plan to ensure stakeholder engagement throughout the entire process design.

Time:

Project Alignment: Feb 26th

Project milestone defined and reviewed by SC: March 11th

Fortnightly update with SC

Proposal and recommendation: Oct 6th

Resources:

Steering Team:

- Tyler Mitchelson
- Glen Britton
- Luca Rocchi



- Dan Reynolds
- Glen Robinson

MCLT Lead: Glen Robinson

Project Lead: Marc Kirsten – Development of the project execution plan phase. Recruitment of project lead underway.

Resources:

- Alan Taylor
- Rob Gow
- Site Engineering Mgr
- Project team experts
- Dave Goodall – rebuild and mtce
- BI constraint analysis expertise (transformation team or external)
- Mtce Analysis completed by BCO on rebuild quality
- Existing detailed P6 schedules and commissioning schedules
- Recent LW moves