



Significant Incident Report No. 265

Subject: Manned loader falling into an open stope

Date: 03 August 2018

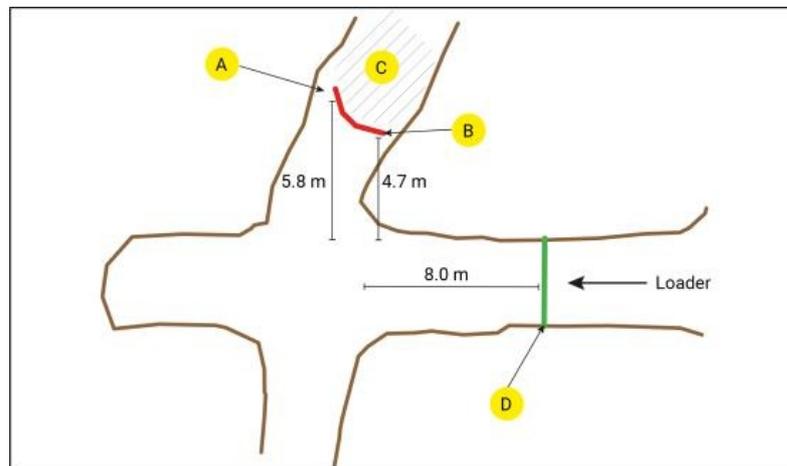
Summary of incident

Note: The Department of Mines, Industry Regulation and Safety's investigation is ongoing. The information contained in this significant incident report is based on materials received, knowledge and understanding at the time of writing.

In February 2018 a loader operator was instructed to build a rock bund, using a loader, at the upper ledge of an open stope in an underground mine.

The operator trammed to the level, bogged dirt from a stockpile and then drove towards the open stope. On approaching the stope, there was a sign hanging on a chain that restricted unauthorised access to the stope and surrounding area. The operator removed the sign and conducted a visual inspection of the work area before returning to the loader and driving in close proximity to the edge of the stope to place the bund.

As the operator was tipping the load, the right hand side of the loader slumped and the operator exited the loader via the cab door. The loader kept moving forward under its own power and fell over the crest into the stope, coming to rest on the rill of ore below. The operator was uninjured.



Level plan showing the direction the loader was travelling, as well as the brow pick-up (A), the edge of the open stope (B), the void (C) and the location of the restricted access sign (D) in the drive.

Direct causes

- Lack of adequate controls to manage the risks for mining activities near a void.

Contributory causes

- No visual markers on the wall for the operator to position the bund safely.
- Reduced operator visibility:
 - the edge to an open stope was located on a bend
 - the loader was still articulated at the point of tipping (poor operator visibility)
 - there was limited lighting.
- The operator misjudged the location of the edge leading into the void.

Actions required

Mine operators, managers and front line supervisors are reminded of the importance of developing safe systems of work and implementing appropriate controls for all work near open stopes or any voids underground. The following actions are recommended:

- perform a formal team-based risk assessment to identify hazards and control measures before any work is commenced in the vicinity of an open stope or any other void. This should be in addition to lower level risk assessments (e.g. field level risk assessments, Task Hazard Analysis)
- install physical hard barriers in conjunction with lower level access controls (e.g. signage, demarcation). Hard barriers prevent workers and equipment accessing the edges of voids and should be:
 - designed and constructed at appropriate locations before open stopes or voids
 - where practicable, installed *before* creating a void
- use markers or spotters for or during the construction of bunds when safe to do so.

Further information

- Department of Mines, Industry Regulation and Safety, Safety publications, www.dmirs.wa.gov.au/ResourcesSafety

Vertical opening safety practice in underground mines – guideline

Working at height in underground mines – guideline

Significant Incident Report No. 110 *Vehicle over stope edge*

Significant Incident Report No. 149 *Loader falling into an open stope*

Significant Incident Report No. 199 *Manned loader drives into open stope – fatal accident*

Significant Incident Report No. 234 *Light vehicle driven partly over edge of open stope*

- Coroner's Court of Western Australia, www.coronerscourt.wa.gov.au

Inquest into the death of Wayne Ross

This Significant Incident Report was approved for release by the State Mining Engineer on 03 August 2018