

5 Crown Pillar Remediation

5.1 Crown Pillar Risk Ranking

DIAND has recently developed a risk ranking system that can be used to assess the severity and the likelihood of an adverse event, such as a crown pillar failure, and to determine whether remedial actions are required.

The risk ranking system was used to determine that crown pillar failure would generally have “moderate” consequences (i.e. an expected cost of remediation measures in the range of \$500 000 - \$2.5 million) as well as heightened concern by the local community, criticism by NGO’s, and/or adverse local/regional media attention. The only stope where a crown pillar failure would have more severe consequences is C212, where the resulting inflow of Baker Creek to the underlying stope could flood the mine, leading to loss of life and very high remediation costs. However, the likelihood of such an event was considered to be much lower.

Complete results of the risk ranking are summarized in Table 13. The last column indicates the level of response required to meet DIAND’s risk management standards.

Table 13: Remediation requirement evaluation for Crown Pillars

Stope/Chamber	Likelihood of Failure	Consequence Severity	Risk Ranking	Remediation Requirement
C212 Stope	Very Unlikely	Major	Moderate	Mitigation Plan in place and should implement within 5 years
C312 Stope	Very Unlikely	Moderate	Low	Continue to track and re-evaluate regularly
B233 Chamber	Very Unlikely	Minor	Low	Continue to track and re-evaluate regularly
B235/B236 Chambers	Unlikely	Minor	Low	Continue to track and re-evaluate regularly
B208 Stope	Possible	Moderate	Moderately High	Must have mitigation plan in place, and should implement plan within two years or as soon as possible.
B306 Stope	Unlikely	Moderate	Moderate	Mitigation Plan in place and should implement within 5 years
B212 – B214 Stopes	Possible	Moderate	Moderately High	Must have mitigation plan in place, and should implement plan within two years or as soon as possible.
B204, B206 and B207 Stopes	Possible	Low	Low	Continue to track and re-evaluate regularly