

HAMMOND RIVER

H O L D I N G S

Number:	SOP - 202	Revision:	A
Title:	Stemming Sinking Cuts	Cancel:	n/a
Date:	10/31/2022	Dated:	n/a

Standard Operating Procedures

PURPOSE

To mitigate the increased risk of excessive air over pressure during sinking cut operations.

BACKGROUND

Stemming is used to ensure the explosive force of a blast is directed into the surrounding rock. When stemming is not placed adequately in each bore hole, some of the explosive force is directed up. High air over pressure readings are most commonly correlated with improper stemming, allowing some of the blast forces to be exerted up instead of into the surrounding rock. It can be more difficult to stem properly when performing a sinking cut due to the inherent difficulty in dewatering the blast area.

Typical blast procedures on site use gypsum/anhydrite for stemming material, and cardboard tubes inserted in the bore holes. This is meant to reduce contaminants and foreign materials in the final product.

Gypsum/Anhydrite stemming has high percent fines by weight, and may not adequately seal the bore hole when saturated with water. Cardboard tubes, if left submerged for too long, may collapse or become deformed, also making it difficult to seal the bore hole.

PROCEDURE

1. Make every effort to dewater the blast area.
2. Only use plastic pipe when performing sinking cuts.
3. Use clear stone (no fines) for stemming, especially in holes containing water.

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HOLDINGS

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REVISION LOG

REVISION (A,B,C,etc.)	CHANGE DATE	REVISION CHANGES	CHANGED BY

APPROVALS

DANIEL GUEST
Process Owner


Signature