



# Giant Mine Environmental Assessment

## Technical Session Undertakings

EA No: 0809-001

November 14, 2011

### UNDERTAKING RESPONSE

EA No: 0809-001

Undertaking No: 10

#### Date Received

Transcript: Day 4, pg. 23

#### Undertaking:

The Giant Mine Project Team (GMPT) to post to the registry information on when it will have timelines and scope for a plan for the wetting.

#### Response:

#### *Background*

One of the variables that requires further investigation is the engineering design for wetting the arsenic trioxide dust. In parallel to the Freeze Optimization Study (FOS) application methods and costs need to be determined to support preliminary and detailed designs. The following provides the scope and schedule to undertake such activities:

#### *Scope for Developing Wetting Plan*

The GMPT's plan for the arsenic trioxide dust wetting engineering investigations includes the following steps:

- a) Using results from the FOS, estimate dust temperatures at the completion of the "frozen shell", *i.e.* the earliest possible time at which wetting could begin.
- b) Review phenomena that could be important during wetting of the partially cooled dust (e.g. flow fingering, ice exclusion, frost jacking); Assess whether sufficient information exists to understand each phenomenon and the best methods for further investigation.
- c) Carry out laboratory tests of important phenomena that are amenable to physical investigation.
- d) Carry out modeling of important phenomena that are amenable to mathematical treatment.





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- e) Develop recommendations for larger scale testing if warranted.
- f) Assess results of (c), (d) and (e) to determine whether the results indicate a need for changes to the frozen shell timing and/or specific requirements for wetting.
- g) Develop overall wetting requirements.
- h) Review wetting methods that have the potential to meet the requirements defined in (g).
- i) Recommend a wetting method(s), including equipment, sequence, wetting rates, monitoring requirements and any necessary changes to backfill, bulkhead or frozen shell designs.

### ***Timeline for Developing Wetting Plan***

Steps (a) through (g) are expected to be completed in Q2 (July-September) -fiscal year 2012.

Steps (h) and (i) are expected to be completed in Q3 (October-December) -fiscal year 2012.

Step (i) and (j) will continue as needed through advanced design, Water Licensing, detailed design, procurement and implementation.

