AGNICO-EAGLE
MEADOWBANK DIVISION

December 4, 2009

Via Email

Mr. Richard Dwyer
Licensing Administrator
Nunavut Water Board
PO Box 119
Gjoa Haven, NU X0B 1J0
Phone: (867) 360-6338

Dear Mr. Dwyer,

Re: Water License 2AM-MEA0815 Independent Geotechnical Expert Review Panel Report No.4

As per Water License 2AM-MEA0815 Part I, Item 14, for the information of interested parties prior to the annual report, please find enclosed Report No.4 from the Independent Geotechnical Expert Review Panel (Meadowbank Dike Review Board / MDRB).

Agnico-Eagle Mines Limited – Meadowbank Division (AEM) has responded to the MDRB's findings in the document entitled, '*Response to Report No.4 Meadowbank Mine Dike Review Board'*, which is also enclosed.

Should you have any questions, please contact me directly at 819-763-0229 or via email at stephane.robert@agnico-eagle.com.

Regards,
Agnico-Eagle Mines Limited – Meadowbank Division

Stéphane Robert
Environment Superintendent

Encl (2)

cc: *Ian Rumbolt, INAC - Ian.Rumbolt@inac-ainc.gc.ca*
David Abernethy, INAC – David.Abernethy@inac-ainc.gc.ca

August 19, 2009

Mr. Dennis Gourde, P.Eng.
General Manager
Agnico – Eagle Meadowbank Division
Baker Lake Office

Email: denis.gourde@agnico-eagle.com

Dear Mr. Gourde,

Report No 4
Meadowbank Mine Dike Review Board
Meeting July 20-23, 2009

1. INTRODUCTION

The dike review meeting was held, as planned, at site. The objective of the meeting was to learn of responses to past reports from the Board, to review the design of various water and tailings retention structures, to inspect site conditions, and to assess the way forward.

The sequence of activities was adjusted according to ongoing site work, and followed the agenda as presented in Attachment A.

All three Board members participated in visits and meetings. A list of the persons participating in the discussions is presented in attachment B.

Prior to and during the meeting, information packages were sent out in electronic format. The documents were also made available in hard copy during the meeting. The packages included:

- Stormwater Dike and Saddle Dam 1 Geomembranes, Tailings Storage Facility, Meadowbank Gold Project, Memo.
- TSF IFC drawings
- Bay-Goose IFC drawings and Specs
- East Dike Grouting Contingency Memo
- Response to MDRB Report #3

Electronic copies of the PowerPoint presentations made during the meeting were also made available.

In the report which follows, the Board recommendations are underlined.

2. RESPONSES TO RECOMMENDATIONS FROM REPORT No 3

There has been a comprehensive assessment by Golder Associates Limited (GAL) of the Board recommendations made during the previous meetings, and they have been responsive to all input. Some recommended changes to the specifications have been incorporated already. The implementation of other technical aspects is still under consideration as is mentioned in the succeeding sections of the report.

The management of seepage flows beneath the East Dike will be undertaken by Agnico-Eagles Mines (AEM) as part of the overall pit dewatering procedures. However, the Board notes that AEM have been slow to formulate a definitive plan that includes estimates of seepage, toe drain and sump details, pumping station design, and contingencies for adaptation to possible increased flow rates.

3 PROJECT STATUS

All plant buildings were closed in over the winter and major items of equipment were installed, which facilitates the remaining mechanical and electrical work. The work is on schedule for a mill start-up in 6 months.

The camp capacity is stressed with 470 staff on site and additional accommodation for 180 is required.

Three dikes are to be built this year namely:

- Bay–Goose North;
- Stormwater dike;
- Saddle Dyke No 1.

It is to be noted that the latter two structures are essential for 2010 start-up, whereas the first is required to ensure continuity in production in 2011.

The Board is pleased to be informed that the same contractor, Fernand Gilbert (FGL), and the same sub-contractors have been awarded the contract to build the Bay-Goose and Saddle Dike No1. This will ensure continuity and a shorter learning curve which is good for the project.

While all reasonable efforts will be made to control TSS, the Regulator has been advised that construction of the dikes will not be stopped should construction activities result in TSS exceeding permitted limits.

The Board notes that there is no margin for error in reaching the goal for completion of the required work for this year and believes that inadequate planning has been done in order to meet the start-up deadline.

The responsibilities for tailings management during mill operation will fall on the Mill Superintendant and the Environmental Manager. This facet of the work should not be underestimated given the added complexities of working in an extreme northern climate. Consequently, the Board would like to be provided with a copy of the detailed organization chart at the next meeting.

Furthermore, the Board was advised of a potential increase in ore reserves, which places additional emphasis on the need for good advance planning of tailings facilities with regards to capacity and management for the anticipated future production. It is expected that this item will be the subject of discussion at future meetings.

4. SITE INSPECTION

The Board inspected the site on several occasions during the course of the meetings and notes the following:

i) Silt curtain

Silt curtain mobilization for Bay-Goose is underway. The anchors, in the form of selected blocks of rock, are being set by means of a helicopter (See photo #1). Given that no large barge is available, this is an efficient and apparently cost effective way of carrying out this component of the work. In parallel, the assembly of sections of curtain on land will accelerate the installation. It is noted that the curtains will be full depth to lake bed as compared to the open bottomed installation used last year. This should be more effective with respect to the lateral translation of the sediment plume but the curtain will need to resist current forces.

The Board considers that all practical efforts to make effective use of silt curtains are being implemented.

ii) Material sources

a) A stockpile of 0-20 mm material has been built near the abutment from which the Bay-Goose embankment will be launched. Some segregation was noted as shown in photo #2. Although material with a maximum size such as 20 mm is not particularly prone to segregation, care is still required when handling the material in a dry state. Lifts in the pile should not exceed 2 m in height. The pile should be stepped and material should not be allowed to spill down the full length of side slopes.

b) The unfrozen till deposits, which have been exposed along the shore of arm the 2nd Portage Lake by the dewatering, appear to offer a promising source of construction material. Exploitation of the deposit has begun and a stockpile is being built up adjacent to the east abutment of the Stormwater dike. From a visual appreciation, the material is of good quality and not excessively moist; though some sand pockets were observed. It is considered that the extent of the deposit around the Tailings Storage Facility (TSF) basin should be adequate for current design needs.

iii) South Camp Dike

The Board made a brief inspection of this completed structure. Construction was carried out in winter which permitted the excavation of a 4.5 m deep cut-off trench in the dry, due to permafrost and grounded lake ice, which removed the need for a cofferdam. Maintenance of frozen conditions was desirable given the 25 m depth of till below the dike foundation. The foundation conditions are monitored by two sets of thermistors that can be seen in photo # 3.

iv) East Dike

This was the first visit since completion of the dike. The final configuration with an increased width of haul road was noted. An inspection was made of the area at the toe downstream of the remedial grouting work carried out in March of this year. Seepage emanates from the toe in the area between Stn. 6+450 and 6+490 but the precise location of the source has yet to be determined due in part to the presence of fill material from a ramp used to install the dewatering pumps. The ramp was being excavated at the time of the visit. Consequently, the water turbidity was at least in part due to this disturbance. The seepage exited from the east side of the fill (photo # 4) until a channel was excavated on the west side. The majority of the flow is now seen to originate on the west side (photos # 5 and 6). Monitoring by way of weirs or flow pipes is required at both locations, and visual description of changes in suspended fines is necessary.

The lake elevation was at 133.1 m and the small impounded pond at the toe of the dike was at 126.75 m. The discharge rate was not known but estimated to be about 30–40 l/s.

Inspection along the shore revealed a number of smaller discharges; some of which may be from ice thaw. It is likely that several small flows distributed around the perimeter of the basin contribute to the total inflow which, since pumping has been stopped, amounts to something of the order of 75 l/s. The 75 l/s includes the flow from the upper pond so this number also includes thaw water inflows from the upper basin.

The sediments exposed on the lakebed are sandy silt at the surface to more plastic silts at depth. Characterisation of these materials is yet to be done.

The dewatering of the north arm of 2nd Portage Lake has permitted an appreciation of the extent of the boulder fields (photo # 7) which ring the lake shore and surround the islands. The boulders, derived from the till from which the fines have been winnowed away by wave action, are moved around by the ice sheet to form what appears almost as man made fill. The presence of these deposits is of interest in the design of the near shore portions of the dikes built in water.

A second visit was made to the dike on the morning of July 22nd to inspect the sinkhole which had been detected in the afternoon of July 21st. This sinkhole occurred at St 6+472 (+/-), located 1 to 2 m upstream of the cut-off wall (see photos #8 and 9), in the base of a trench excavated recently to make a repair to an instrument cable. An excavation was conducted at the opposite end of the trench to investigate whether an apparent depression was a manifestation of another sinkhole but this was not the case. The general area has been the site of significant settlement since construction, as shown by the punching of the rigid drill casings through the surface cap (photo #10). Further studies are to be conducted in the field and office as noted in the discussion below. It is important to note that there was neither a perceptible increase nor a change in turbidity of nearby seepage resulting from the July 21st sinkhole.

v) Stormwater Dike

A walkover inspection of the Stormwater Dike foundation was carried out from east to west. The variable foundation conditions from soft lakebed to extensive boulder fields to bedrock outcrops were noted (photos # 11 to 13). The boulder fields, similar to those described for the East dike, are to be addressed in the detailed directives to be formulated to cover foundation preparation. Requirements will vary according to the location across the dike section. Foundation stripping had just started on the East abutment. This will be carried out in stages until the ice rich material is removed.

vi) Saddle Dam No 1

The proximity of this structure to the lease boundary and the adjacent 3rd Portage Lake was noted. This is of significance for the management of any seepage in both short and long term.

The visit included a walkover along the dike centerline. The steep rock abutments on the right flank transitioning to ice rich frozen soils in the valley bottom were noted (photo # 14).

5. TECHNICAL COMENTARY

5.1 East dike

The 3rd meeting of the Board was held shortly after the completion of the remedial grouting and a diagnostic of the source of increased seepage had not been made. There is still some doubt as to the precise location of the seepage window through or under the wall, despite the fact that the grouting exercise was apparently successful.

The Board has the following concerns which were aggravated by the sinkhole discovery:

(i) There is an immediate need to monitor D/S seepage flow rates by whatever means are practical;

(ii) There is also a need for prompt response, including contingency grouting plans, should there be a recurrence of the leak;

(iii) The detailed design (including collection system and pump station) for long-term seepage management should be tied to levels of leakage rate. In this regard it would be useful to document
- what is the design seepage scenario?
- how will it be handled?
- what is the demand capacity ratio for the collection system and how robust is the logic?
- how does this relate to the AEM emergency measures and evacuation plan for the pit?
- is there an Emergency Response Plan (ERP) to define responsibilities, lines of communication and actions to cover abnormal instrument readings, inspector observations etc.?;

It is to be noted that the behaviour during drawdown has been highly non-linear with a rapid increase from almost zero seepage to something of the order of 600 l/s. This inflow was sufficient to negate the influence of the dewatering pumps installed at that time. It is therefore important to establish the design basis and it is recommended that a

series of alert levels be established (for example green, orange, and red alert levels) through which the type and rapidity of response can be better assured.

All of these points require prompt action. It should be accepted by all concerned that the mine cannot operate without such a systematic approach to the seepage and other indicators of dike performance.

The appearance of a sinkhole reveals that not only was there loss of water but also the migration of solids which is a more serious issue. Likely the sinkhole is a result of leakage prior to the remedial grouting program but this requires confirmation. The situation requires immediate attention to confirm that:

i) leakage is not increasing with time
ii) the integrity of slurry wall has not been compromised.

A way forward on this issue was discussed in detail with GAL & AEM and the action items and schedule are shown in Attachment C.

The Board requested that a teleconference be held in the week of August 10 for an update on the findings and recommendations for advancing this component of the work. This meeting was held on August 11, prior to completion of this report. A record of this teleconference is to be provided by GAL.

5.2 Bay-Goose Dike North

The Bay-Goose dike will be constructed over two seasons. The characterisation of the foundation conditions permits the work to proceed on the northern sector but additional site investigation work is required to finalise the design of the southern sector.

The Board agrees with the alignment and the cross-section as currently proposed for the northern sector but noted, from discussions held after the meeting, that input should be sought from the Contractor to confirm the constructability of the slurry trench at the points of deflection in the dike axis.

The Board notes that inadequate attention may have been paid to the influence of freeze/thaw effects on the soil/bentonite slurry wall conductivity and recommends a test program tied to thermal modeling and cyclic freeze thaw effects. If the results indicate that this may be a significant factor, then additional thermal insulation may be needed.

Outside the lakebed, the foundation is affected by permafrost and the timing of abutment construction to minimize thaw needs to be addressed.

Although the onus is on the slurry wall contractor to determine if the densification of the central zone of the embankment is adequate to ensure trench stability, the Board agrees with the use of the Large Penetration Test (LPT) to guide future work and identify any current flaws. This may lead to more rigorous requirements in future specifications for the treatment of deeper fills.

Based on the sinkhole experience, and despite the fact that the root cause has yet to be identified, the Board is of the opinion that continuity of the downstream filter and possible extension into a blanket beneath the shoulder would contribute to control of piping. Discussions held after the formal meeting identified avenues to be further studied by GAL, particularly related to the geometry of the coarse filter which, in fact, may not be necessary at the bedrock contact.

In all areas where the foundation rock level dips below elevation 125 m, the soil-bentonite (SB) is to be replaced by a cement-soil-bentonite (CSB) material in order to achieve greater resistance to erosion. The interface between CSB/SB merits attention. The Board holds the view that this contact is essentially little different from the rock/SB interface except that it will not be grouted. However, the upstream and downstream zones of 0-20 mm material and the filter cake of bentonite formed on the trench faces will provide protection. Nevertheless, precaution is warranted and the following points are raised:

I. The Contractors construction methods should be reviewed to ensure continuity in the placement of the CSB as there is concern about the possibility of cold joints within the CSB.

II. The Board prefers ensuring no shearing of CSB interface and hence a minimum set time should be adopted prior to placing the SB material. However, there should also be a control of the maximum time before SB placement to minimize the accumulation of sand settling out of the bentonite slurry.

With respect to grouting, the Board notes with favour a number of potential improvements that have or are to be added to the specifications but, given the experience on the East dike, the Board questions whether there is more that can be done to improve the completeness of treatment and the reduction of the possibility of a repetition of the incident of high seepage and the coarse particle erosion that appears to have occurred.

The Board expresses a preference for the Tube à Manchette method but understands that it is likely that 'perforated' casing will be used. This merits additional evaluations.

The grout holes will be located immediately upstream of the cut-off wall which permits more flexibility in drilling and grouting methods and in hole orientation. For example inclined holes may be used, if required, to better intercept the principal rock joints. It has also been proposed that more systematic flushing of in-filled joints be carried out. To this end a modification to the specification permits, under the direction of the Engineer, the drilling of adjacent secondary and tertiary holes prior to the grouting of primaries. In the same vein, it is suggested that drilling parameters may assist in the identification of joint openings, as may televiewer images. Side discharge bits may improve the effectiveness of hole washing. The need for further investigation, after construction of the initial rockfill embankment, should be considered. There is a need for GAL to advise on the best available technology to optimise the grouting effort in order to avoid sinkholes in the future.

5.3 Bay-Goose Dike South

The Board is of the view that the base case design should be a cut-off to rock and this design should advance. However, the Board is open to a demonstration by detailed site investigation that a partial cut-off is an acceptable optimization. A site investigation is needed in any case to evaluate the presence of boulders, granular zones etc. in the till for a constructability assessment of the cut-off. In these conditions, the Sonic core is the preferred tool, as good recovery is paramount.

The above comments relating to the provision of a downstream filter take on additional pertinence for the partial cut-off and the Board is of the view that a filter beneath the rockfill shell is an integral part of design. As mentioned in section 3, all shorelines and lakebed where water is less than the depth of annual ice formation are characterised by

relatively thick deposits of boulders, in some areas overlain by cobbles and gravel. This material, unless removed, precludes the placing of crushed stone directly on the lakebed to achieve a protection against internal erosion. Underwater video may be required to locate areas of boulder accumulation that may affect the detail design.

With respect to specifications for both segments of the Bay-Goose Dike, there is now additional clarity concerning responsibilities, testing frequencies, and QC/QA for fill materials

5.4 TSF Stormwater Dike

The basic layout, as currently proposed, optimises fill volumes by incorporating the mid-lake ridge and the rock outcrops on the west bank. However, further adjustment to the alignment may be required to improve the cut-off location.

The cross-section and foundation treatment are acceptable as proposed, with the possible exception of the location of the cut-off trench which currently sits inside the upstream toe. The benefits from a thermal insulation point of view will be minor but the construction sequence and duration may be severely handicapped by the need to complete the cut-off trench and the membrane placement before placing the body of the embankment. The cut-off trench should be moved upstream out from under the dam to facilitate construction. Furthermore, there is a need for clarification of the specifications covering the backfill materials and its placement in the trench. It is noted that the dewatering was stopped on July 10th for reasons related to water quality at an elevation of 127.8 m. Cofferdams may be required for construction but this should not be a reason to eliminate the possibility of the change of the cut-off alignment.

It is understood that the Coletanche liner material is in shipment to the site and the Board accepts its use but insists on meticulous inspection of bedding and coarse filter zone. The drawings currently show a rockfill cover to protect the Coletanche membrane against ice. The Board is concerned that this solution may in fact lead to damage to the liner due to downward drag of loose placed material. Moreover, the presence of a rockfill cover would preclude ready access to perform repair work. Thus it is questioned whether protection could not be adequately provided by relying on tailings beaches, pond control, or a Linear Low Density Polyethylene (LLDPE) rub sheet.

The Board expresses the wish to review the specifications, when issued.

Construction Plan:

The Board is disturbed to note that planning is not more advanced given the critical path nature of this structure in overall mine start-up. The Board was re-assured by project staff that planning is in progress and adequate equipment will be available. Nevertheless, the Board wishes to receive a copy of the planning so that it can participate in tracking the effective sequencing. The Board notes that design changes are taking place simultaneously with construction planning and consequently, close cooperation between GAL and AEM is essential and particular care should be taken to ensure that all design changes are documented.

There is a particularly urgent need for investigation of the till/ rock conditions along the cut-off trench alignment. The presence of jointed and frost jacked rock (photo #12) indicates a requirement for an adequate filter between fine grained materials and the

rock wherever the hydraulic gradient could lead to piping. It is to be recalled that no rock grouting is planned for this structure due to its temporary nature.

5.5 Saddle Dam No.1

As mentioned in report No 3, this is a permanent closure structure, situated near the lake, and hence is sensitive for environmental concerns. This structure, and the other saddle dams, merit their own Design base Memorandum (DBM) and Design Report. The design criteria and hypotheses for operation and closure should be clearly laid out and approved by AEM.

As with the Stormwater Dike, the Board suggests that a simplified key trench detail be adopted to move this element upstream so as to facilitate construction. However, before this decision can be made there is a need to review the anticipated performance of the dike and its foundation. There may be a need for further seepage and thermal modelling to determine the potential for thaw of the foundation, the impact on dike integrity, and requirements for a seepage collection and a pump-back system at the downstream toe. Subsequent to this work, the location of the cut-off trench can be optimised and the potential need for such control measures as thermosyphons evaluated.

The Board notes that filters have been added downstream of the cut-off trench but the extent is to be confirmed.

Direction is needed from AEM in relation to the design for closure as a function of the management of cyanide and other contaminants. Reliance on frozen ground for primary seepage control may be applicable in the short term for operations but a design is required that can be relied upon despite the long term potential for thawing resulting from current predictions of global warming.

It should be noted that future degradation may be uncontrolled and may lead to the need for perpetual care.

6 NEXT MEETING

A telephone conference call was planned for the week of August 10 and was held on August 11th.

The next meeting, to review the 2009 construction work, is proposed for December 17-18 either in Vancouver or Montreal at AEMs discretion. However, the Board members reiterate their interest in being kept up to date with the planning and design progress during the intervening period.

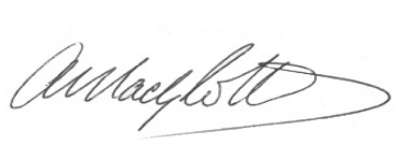
7 ACKNOWLEDGEMENTS

The Board once again wishes to thank the personnel of AEM and GAL for their participation in the site visit and the meetings, and for the excellent documentation and presentations made by AEM and GAL which contributed to the efficiency and effectiveness of the proceedings.

Signed:

Norbert R. Morgenstern, P.Eng

D. Anthony Rattue, P.Eng.



Andrew M. Robertson, P. Eng.

ATTACHMENT A

AGENDA FOR BOARD MEETING NO. 4

July 20-23, 2009

AGNICO-EAGLE MINES - MEADOWBANK DIVISION

MEADOWBANK DIKE REVIEW BOARD

Meeting #5 - July 20 to 23, 2009

Meadowbank Mine Site, Nunavut

AGENDA

Monday July 20

Dr. Morgenstern, Dr. Robertson and Mr. Bonin arrive in Baker Lake at approximately 14:30 pm local time. AEM to provide transport from Baker Lake to site (~ 2 hrs).

Mr. Rattue, Mr. Julien, Ms. Beaulieu and Ms. Esford arrive on site in early afternoon from Montreal on AEM Charter. Mr. Bedell is already on site.

17:30 *Check-in, room assignments and site H&S orientation (AEM to provide)*

18:30 **Welcome** (AEM to confirm meeting room)

Dinner (site cafeteria)

Tuesday July 21 – Morning Session (Office & Field)

6:30 *Breakfast (site cafeteria)*

7:30 **Review of the Agenda**

7:45 **MDRB Report #3**

Review and Respond to MDRB Report #3

- East Dike
- Bay-Goose Dike
- TSF Structures (Stormwater Dike and Saddle Dam 1)
- Other

8:15 **East Dike**

- Instrumentation data update
- Grouting contingency planning update

8:45 *Coffee Break*

9h00 **Field Visit**

- **Bay-Goose Dike Field Visit**
  - General site area
  -
  - Turbidity Barriers Anchors Installation
- **East Dike Field Visit**
  - As-built conditions
  - Downstream toe inspection
  - Instrumentation location
- **South Camp Dike**

11h00 Bay Goose Dike

- IFC Drawings and Specifications
- Construction Plan and schedule

12h30 Lunch (Site Cafeteria)

Tuesday July 21 – Afternoon Session (Field & Office)

13:30 Field Visit

- **East Dike Field Visit** (second downstream toe inspection)
- **Borrow Pit**
- **TSF Field Visit**
  - Stormwater Dike
  - Saddle Dam 1
  - Dewatering progress

16h00 Bay Goose Dike (Cont'd)

- 2009-2010 Geotechnical Investigation
- QC/QA Roles and Responsibilities

18:30 Dinner (Site Cafeteria)

Wednesday July 22 – Morning Session (Field and Office)

6:30 Breakfast (site cafeteria)

7:30 Field Visit – East Dike sink hole

8:30 East Dike sink hole discussion

9:30 Coffee Break

10:00 TSF Stormwater Dike & Saddle Dam 1

- IFC Drawings and Specifications
- Liner Options
- Construction Plan and schedule
- QA Program

12:30 Lunch (Site Cafeteria)

Wednesday July 22 – Afternoon Session (Office)

13:30 **Deliberation by the Board Members**

18:30 *Dinner (site cafeteria)*

19:30 **Preliminary report by the Board Members**

20:30 **Closure**

Thursday July 23 – Morning (Meadowbank/Baker Lake)

Dr. Morgenstern, Dr. Robertson and Mr. Bonin to depart for Baker Lake no later than 8:30 am local time. AEM to provide transport from site to Baker Lake (~ 2 hrs).

Mr. Rattue, Mr. Bedell, Ms. Beaulieu and Ms. Esford depart site in early afternoon for Montreal on AEM Charter. Mr. Julien will remain on site.

ATTACHMENT B

ATTENDANCE AT JULY 2009 MEETING
Held at the Meadowbank Mine site, NU

Attendance		
Gaston Blanchette	AEM	Dike Superintendant
Denis Gourde	AEM	General Manager
Eric Lamontagne	AEM	Mine manager
Sebastien Tolyesi	AEM	Mining Superintendant
Paul Henri ???????	AEM	Regional Manager
Michel Julien	Golder Associates	Project Manager
Annie Beaulieu	Golder Associates	
Paul Bedell	Golder Associates	
Grant Bonin	Golder Associates	Grouting Specialist
Fiona Esford	Golder Associates	
Norbert Morgenstern	Self	Dike Review Board
Anthony Rattue	SNC Lavalin	Dike Review Board
Andrew Robertson	Robertson Geoconsultants	Dike Review Board

ATTACHMENT C

Activity Planning for East Dike

AGNICO-EAGLE MINES - MEADOWBANK DIVISION

MEADOWBANK DIKE REVIEW BOARD
Meeting #4 - July 20 to 23, 2009
Meadowbank Mine Site, Nunavut

East Dike Sink Hole Plan of Action

Facts (Tuesday July 21st, evening):

- Sinkhole at 472 + Water inflow estimated to be increasing + turbidity downstream.
- Dimensions (~1.2m deep x 1.7m wide and 2 m long)
- Thermistor 485 shows unexpected temperature increase
- Inclinometers maybe showing some displacement

Plan of Action:

Monitoring & Investigation

- Water flow to monitor
- Use of Tracer (Contact Stéphane for appropriate/acceptable tracer on an environmental point of view
- Review of latest pond elevation & Air temperature data
- Get supplies on site to intervene
    - Cement HE type 3 or G/U
    - Rheomac (+2 drums)
- Film identification – Bentonite? (XRay diffraction) NOTE: this could be from recently installed instruments.
- Investigate the wall, primarily to prove the wall is or isn't intact (paramount) and secondarily to identify what/where material has been displaced:
    - Airtrack under thermal cap (airtrack drilling through the frozen cap)
    - Cone testing with skilled operator (6m, 3m, 1.5m → STA 464.5 to 497.5)
- Proceed with mass balance
- Investigate settlements within wall (Plate + pipe to monitor)

Schedule

1. Weir + Sediment Trap (July 22-23)
2. Sampling of water (July 22-23) + sample to leave site with Fiona & Paul on 23rd.
3. Airtrack drilling through frozen core + access for CPT and plastic casing + videocamera (Week of July 27th)
4. Tracer test (Prepare this week (contact Stéphane) and proceed Week of July 27th)
5. CPT testing (organization week of 27, mob end of week of 27th, pushing: 1 week (August 3 to August 7)
6. Review data (pond elevation and temperature)
7. Review of data & Recommendations
8. Memo to address the integrity of the wall & Conf call with MDRB at the end of the week.
9. Memo includes: review of data (water elevation & temperature) data from grouting & mass balance, results from analysis(bentonite content in water), settlement and flow measurements, and will conclude with recommendations for path forward

by August 15:

A memo will be completed and discussions with MDRB will have happened

In parallel, proceed with procurement (initiate 23-24 and get the material on site during the week of 27-28)

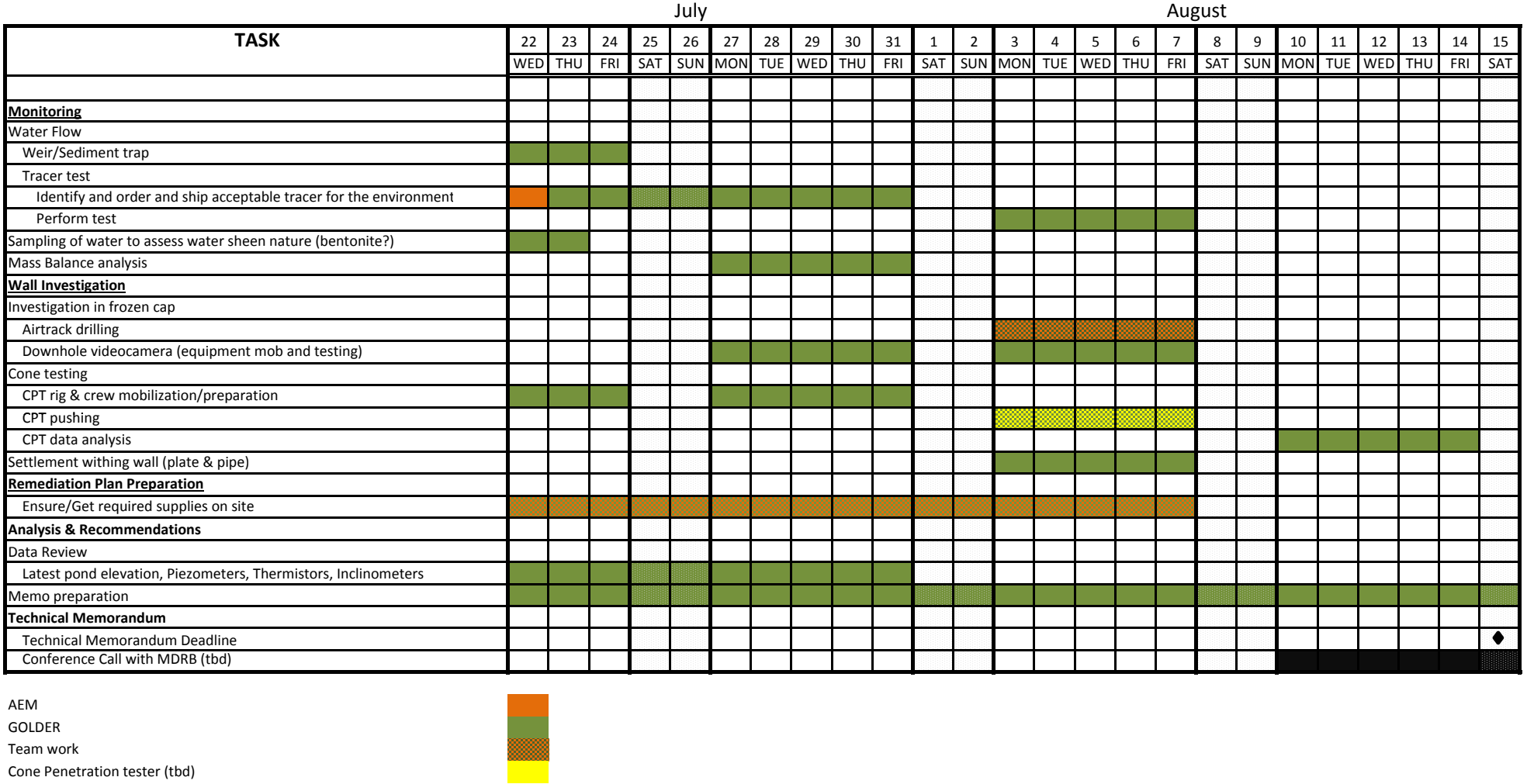
AGNICO-EAGLE MINES - MEADOWBANK DIVISION

MEADOWBANK DIKE REVIEW BOARD

Meeting #4 - July 20 to 23, 2009

Meadowbank Mine Site, Nunavut

East Dike Sink Hole and Seepage Plan of Action Schedule



ATTACHMENT D

Photographs

Photo # 1 Silt curtain anchor placement

Photo # 2 Stockpile of 0-20 mm material

Photo # 3 South Camp dike, upstream toe

Photo # 4 East Dike, seepage to east of ramp

Photo # 5 East Dike, pool at toe to west of ramp

Photo # 6 East Dike, seepage to west of ramp, note slightly cloudy

Photo # 7 East Dike, boulder field along downstream toe of dike

Photo # 8 East Dike, sinkhole at stn. 6+472

Photo # 9 East Dike,
Trench in which sinkhole
was located

Photo # 10, East Dike
Punching of crest by
drill casings

Photo # 11 Stormwater Dike, variation of foundation conditions

Photo # 12 Stormwater Dike, open joint in rock foundation

Photo # 13 Stormwater Dike, boulder accumulation along shoreline

Photo # 14 Saddle dike No1, view from south to north abutment