

June 15 Teleconference – AEM Meadowbank Dewatering

Larry Connell, Stephane Robert, Louise Grandin - AEM

Amy Liu, Gary Cooper – DFO; Anne Wilson - EC

Luis and Team in Wpg

Andrew Keim, Kevin Buck – INAC; Steve Hartman - KIA

Date: Monday June 15, 2009

Time: 18:30 Eastern Time (17:30 Central Time – 16:30 Mountain Time - 15:30 Pacific Time)

Call In Number: 1-877-579-4178

Participant Pass Code: 629642#

The current water level within the tailings impoundment arm of Second Portage Lake is 127.45 meters (the original water level was 133.43 meters). Our critical target elevation to allow construction of the Storm Water Dike to start construction is 127 meters. We expect that once the freshet is complete we may see an additional 0.5 meter rise in the tailings impoundment arm meaning that we anticipate having to lower this section by an additional 0.95 meters to reach our target elevation of 127. This should take around two to three weeks at current pumping productivity.

Larry: To date we have met both the NTU and TSS water license standards for discharge (both daily and monthly means) but with the onset of freshet we have some concern that we will start to exceed the NTU standard before we reach the 127 m level. We note that based on our sampling results to date the relationship between NTU and TSS is not consistent, however the TSS values typically are less than the corresponding NTU value. We also expect the with the spring freshet the NTU and TSS background levels within Third Portage Lake will increase. We will compile and forward to you data from our sampling over the weekend ahead of the call.

It is critical to the mine schedule that the Storm water Dike be constructed in 2009. Missing this window will adversely impact mill start-up (possibly prevent tailings deposition by up to one year). Consequently we want to explore options to complete dewatering to the 127 m level before the ice comes off if we reach the NTU limit.

We have shipped the two Actiflo Water Treatment Plants to the port for transfer to Meadowbank but realistically they will not be operational until late August early September which would be too late for the start of the Storm Water Dike Construction but in time to continue dewatering to the next target level of 116 m for Portage Pit.

2nd Portage arm currently at 127.45m still have ice cover but breaking up along shoreline. Will have for rest of June most likely. Need 127 m to start stormwater dike. So far have compliance with turbidity and TSS standards (15 mg/L each). See change in relationship between; not consistent. Erratic. Below ice coverage were similar but growing difference. NTU increasing more rapidly than TSS.

Turbidity values (field) approaching 30 NTU 24 hour mean. Lab TSS lag, significantly less than NTU values. May exceed licence limits. Want to push forward to get to 127 before ice off.

Do during high freshet to get maximum dilution, avoid wind stirring problems.

May hit turbidity value, be below the TSS value.

Can't apply to NWB for special authorization

Calibrate between 0 and 10 NTU, use two meters. Also calibrate to 100 NTU.

4 pumps discharging to 3PL, 2 at 2PL on other side of dike.

Have open water near both discharges, open all year following discharge.

Sampling on lake itself, well within standards.

1.5 weeks ago went on the ice 75 m from discharge took samples to check TSS and NTUs.

Stopped now because of ice cover, this week will go with canoe. In a few days.

Results were 0.5 NTU, 1-4 TSS grab samples Profile difficult because of icing of probe.

Steve Hartman – treatment timing?

Will be on first barges to Baker Lake, arrive beginning of August. Install and operating by end of August. Need power, piping, come as package plant. Rates: only need one plant to meet planned discharge. 50K m³

Want to be about 160 m elevation by January.

As go lower in elevation, would be pumping sed.

Early onset of turbidity a surprise as not near sed, freshet may be a factor.

Steve: High value areas for trout spawning, but what about spring?

Gary – no grayling in these lakes, mostly fall spawning fish.

Steve - Portage outflow to Tehek? Would this activity affect that?

Gary - Don't think are in that area.

Question of smothering, benthics effects on stream area.

Last year's aquatic effects didn't look at channel

Baseline work wouldn't show this trend in past sampling. Related to lowering of 7 m shoreline exposure during freshet.

Not seeing in unimpacted areas – see some turbidity but not what we're seeing here.

Around 8 at shore of 3PL, 2PL is around 28-30 NTU.

Sampling 3 turb/day, 1 TSS. Can't get onsite lab set up, can't have accreditation quickly.

Kevin – can't say can exceed,

Larry - this is strictly an informational session.

Louise – will keep pumping for 2-3 weeks then go on hold until treatment packages on site.

Gary – timing for results back?

Stephane – send today, have Wed. – 2 days because of planes, at minimum.

Flights Mon, Tues, Thurs. Gap over weekend.

80K m³ / day discharge

Can't put sed curtains in at this point, only a small lead.

Amy: Move intake?

Stephane No – went on ice, all 2PL arm in same condition, no advantage to moving.

Summarized last year's effects

Silt curtain? Likely wouldn't help on intake side, but could on discharge side to contain?

Wouldn't help with turbidity which would be due to fine particles.

Will stop the pumps if see steep increase, e.g. 50 NTUs. Have less than a m to go (0.9) keep pushing forward and hope to get done.

Actiflo – consists of clarifier with ultrafine sand mix to floc and a weighting agent.

Used in same application frequently.

Can cut flow volumes in fall. Will have to reduce as expose sediments.

Steve – KIA what about daily flights to Wpg?

Larry – reliability problems with commercial air traffic not guaranteed to get sample on to plane. Use charter for same day delivery.

Discussion of which was more important TSS or turbidity, and effects of each.
Will continue consultation over next weeks.

Gary: Plan for monitoring – will increase frequency?

Stephane: No, changes only 1-2 NTUs over the 24 hours. If see increase will revisit. More readings during the day of so.

Larry: Dike construction needs key for liner to be above water. Must expose to 127 so excavation can be above water line.

Steve: How is area near dike after last year's construction?

Larry – back to background before lake frozen last fall. Outlet at Tehek monitored.

Stephane – April/May monitoring done in 3PL and 2PL.

Larry. Once dyke closed and trench excavated saw drop off in seds in lake.

Kevin. Lake level in 3PL?

Stephane: Hasn't changed, have current from 2PL to 3PL. Normal levels.

Larry: Tehek came up then equalized.

Thursday will have a TSS result; can have call or do by email.

Kevin: Idea of shutting off worst pumps.

Larry: doing mean of all and are all similar readings. Intakes very close to each other.

Steve: what next?

Larry, pump and monitor, even if exceed NTU. That is their plan, assess on day-by-day basis. Once see ice off will be worse situation. Judgement call at which point stop and risk year delay.

Kevin – what does approved plan say?

Stephane – will stop pumping, advise regulators and check, what mitigation plan. Don't have other than August treatment plant installation.

But...won't stop pumping.

Larry: Will make decision as go on results. Need this dike to be constructed over summer months, so is there for tailings deposition. Different type of construction from lake dykes, around 800 m long. Needs liner which can't easily be installed in winter. January 2010 target.

Louise: Don't want to risk quality of liner installation.

Would a halt be possible, where could resume pumping?

Larry: Unlikely to get better with waiting – wind along exposed beach will cause situation to get worse.

Kevin: Cross when get there.

AEM will keep all informed. Talk Thursday.

Could have exceedance for turbidity as soon as tomorrow. Not TSS.

Steve KIA – all on course running 8-5 until Friday. Wpg time. Early morning okay. 6 am MDT for us.

Will keep informed daily meanwhile.

Stormwater dike construction start date in August/late July. Deposition January 2010.