

From: Mark Burke
Sent: Friday, March 10, 2006 1:57 PM
To: Les Galbraith
Subject: RE: Zone U Samples

Les,

The top meter and a half of the Zone U is representative to samples 71 and 71b. This was the cyclone sand from the stock pile which was placed on top of the sand cells. Sample 81 was taken near the drain of sand cell P2 (approx. 300m along the embankment). It is the more silty than the rest of the cell and is localized near the drain. The sand closer to the tailings pipeline is the cyclone sand gradation and has less silt than the sand near the drain. Samples representative to the sand in the middle of the cell are on the network under lab test results\south dam sand trial see samples S1 and S3. Sample S2 was very silty because they tried to share one drain with two cells and the valve was leaking. Which meant that when panel S2 wasn't being worked with the cat tailings water was allowed to slowly collect on the surface, causing thin layers of silts to deposit.

I'll call you to explain further...

The sand from the bell pit (with lime added) is unsuitable and is currently being excavated and placed in the pond.

Today Lake Excavating is removing snow in the borrow area and removing the sand from the bell pit.

Mark

-----Original Message-----

From: Les Galbraith
Sent: Fri 3/10/2006 11:18 AM
To: Mark Burke
Cc:
Subject: RE: Zone U Samples

Mark:

There is a big difference between samples 71, 71b and 81. Sample 81 has app. 30% fines passing the #200 sieve while the others are approximately 10%. I would not consider sample 81 to be free draining. The Zone U material around the U/S toe drain should be free draining so the 10% samples are closer to what we want. What was the source of these samples?. Some of the sand was from tailings from the Wight Pit and some was from tailings from the Bell Pit (with added lime?). We want this material to be as free draining as possible so placing the sand material from the borrow pit is a good idea. Take record samples of this material though to confirm that it will be free draining. The zone U material for Stage 5 (on top of the U/S toe drain) will also have to be free draining so the drain is effective in removing as much water from the dam as possible.

Take more samples of the existing Zone U material if you think it is variable along its length.

From: Mark Burke
Sent: Friday, March 10, 2006 10:56 AM
To: Les Galbraith
Subject: RE: Zone U Samples

Les,

KP05-81, KP05-71, and KP05-71b are all samples of the sands placed upstream of the core on the Perimeter Embankment. This material is the same product as the cyclone sands, it drains slowly but fast enough such that water does not pool. These samples can be found on the M drive under Lab test results\Zone S.xls. This sand has been placed between chainages 44+00 to 36+50 (approximately). The Zone U between chainages 28+00 and 36+00 has not yet been placed. I can make sure that the top meter of the Zone U is the Zone FT material I showed you in Borrow area 3. We have taken samples of that, and it drains very well.

I'll get that weekly to you by the end of the day,

Mark

-----Original Message-----

From: Les Galbraith
Sent: Thu 3/9/2006 4:19 PM
To: Mark Burke
Cc:
Subject: Zone U Samples

Mark:

We are planning to install an upstream toe drain on the PE this year. The current plan is to install the drain in the Zone U material once the dam has reached 948 m. I need to know what the Zone U material is constructed of for the entire length of the PE. For most of the PE I believe it was tailings sand but I think you said that the work to be completed by Lake involves using other materials for the Zone U. We would ideally like this material to be free draining so the upstream toe drain is effective. I need you to collect Zone U samples all along the PE (chainages 28+00 to 44+00) and test for PSA. Use your judgment to figure out how many samples you need to collect to characterize the Zone U material at the PE.

Call me if you have any questions.

Any word on the progress of last week's weekly report?

Les Galbraith, P.Eng.
Senior Engineer

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