Photograph NCIS-052: From Sta. 1+120/-87 m (approx.), looking SW. Placement of a 1.5 to 2 m thick (approx.) lift of UM rockfill from El. 148 m to El. 150 m (approx.) with a dozer from Sta. 1+115 m to 1+100 m (-107 m to -45 m). The material is of good quality and is well graded.

Photograph NCIS-053: From Sta. 2+840/-37 m (approx.), looking S. Removing of UM rockfill material from the capping with a dozer to level the surface to El. 152 m from Sta. 2+850 m to 2+980 m (offset -38 to -24 m).

Photograph NCIS-054: From Sta. 2+580/-31 m (approx.), looking SE. Compaction of the 0.5 m lift (approx.) of coarse filter between El. 150 and 152 m with a 10-tonne smooth-drum compactor with vibration (4 passes) in the upstream slope from Sta. 2+560 m to 2+815 m.

Photograph NCIS-055: From Sta. 1+730/-42 m (approx.), looking NE. Placement of a 0.5 m thick lift of fine filter over the coarse filter in the upstream slope from El. 150 m to 152 m with an excavator from Sta. 1+820 m to 1+595 m.

Photograph NCIS-056: From Sta. 1+290/-39 m (approx.), looking S. Profiling of the upstream slope (3H:1V) from El. 148 to 150 m with an excavator from Sta. 1+340 m to 1+130 m.

Photograph NCIS-057: From Sta. 3+010/-15 m (approx.), looking SW. Removing of UM rockfill material from the capping with a dozer to level the surface to El. 152 m from Sta. 2+980 m to 3+050 m (offset -30 to -20 m).

Photograph NCIS-058: From Sta. 1+340/-34 m (approx.), looking S. Placement of a 0.5 m thick lift of coarse filter in the upstream slope from El. 148 m to 152 m with an excavator from Sta. 1+340 m to 1+270 m.

Photograph NCIS-059: From Sta. 1+330/-34 m (approx.), looking S. Placement of a 1.5 to 2 m thick (approx.) lift of UM rockfill from El. 148 m to El. 150 m (approx.) with a dozer from Sta. 1+120 m to 1+100 m (-96 m to -60 m). The material is of good quality and is well graded.

Photograph NCIS-060: From Sta. 1+365/-35 m (approx.), looking SW. Placement of a 2 m thick (approx.) lift of UM rockfill from El. 150 m to El. 152 m (approx.) with a dozer from Sta. 1+340 m to 1+320 m (-19 m to +16 m). The material is of good quality and is well graded.

Photograph NCIS-061: From Sta. 1+365/-35 m (approx.), looking S. Compaction of the 0.5 m lift of coarse filter between El. 148 and 152 m with a 10-tonne smooth-drum compactor with vibration (4 passes) in the upstream slope from Sta. 1+340 m to 1+270 m.

Photograph NCIS-062: From Sta. 1+525/-33 m (approx.), looking N. Placement of a 0.5 m thick lift of fine filter over the coarse filter in the upstream slope from El. 150 m to 152 m with an excavator from Sta. 1+330 m to 1+260 m and from Sta. 1+595 m to 1+550 m.

Photograph NCIS-063: From Sta. 1+200/-65 m (approx.), looking SW. Placement of a 0.5 m thick lift of coarse filter in the upstream slope from El. 148 m to 152 m with an excavator from Sta. 1+270 m to 1+100 m.

Photograph NCIS-064: From Sta. 1+200/-65 m (approx.), looking W. Placement of a 2 m thick (approx.) lift of UM rockfill from El. 150 m to El. 152 m (approx.) with a dozer from Sta. 1+320 m to 1+235 m (-65 m to -45 m). The material is of good quality and is well graded.

Photograph NCIS-065: From Sta. 1+140/-96 m (approx.), looking NE. Compaction of the 0.5 m lift of coarse filter between El. 148 and 152 m with a 10-tonne smooth-drum compactor with vibration (4 passes) in the upstream slope from Sta. 1+270 m to 1+100 m.

Photograph NCIS-066: From Sta. 1+400/-34 m (approx.), looking N. Placement of a 0.5 m thick lift of fine filter over the coarse filter in the upstream slope from El. 150 m to 152 m with an excavator from Sta. 1+595 m to 1+550 m.

Photograph NCIS-067: From Sta. 2+880/-26 m (approx.), looking SW. Profiling of the upstream slope (3H:1V) from El. 150 to 152 m with an excavator from Sta. 2+860 m to 2+975 m.

Photograph NCIS-068: From Sta. 1+150/-62 m (approx.), looking S. Placement of a 0.5 m thick lift of fine filter over the coarse filter in the upstream slope from El. 148 m to 150 m with an excavator from Sta. 1+180 m to 1+100 m.

Photograph NCIS-069: From Sta. 1+180/-56 m (approx.), looking NW. Placement of a 2 m thick (approx.) lift of UM rockfill from El. 150 m to El. 152 m (approx.) with a dozer from Sta. 1+235 m to 1+160 m (-60 m to -44 m). The material is of good quality and is well graded.

Photograph NCIS-070: From Sta. 1+160/-89 m (approx.), looking S. Compaction of the 0.5 m lift of fine filter between El. 150 and 152 m with a 10-tonne smooth-drum compactor with vibration (4 passes) in the upstream slope from Sta. 1+335 m to 1+100 m.

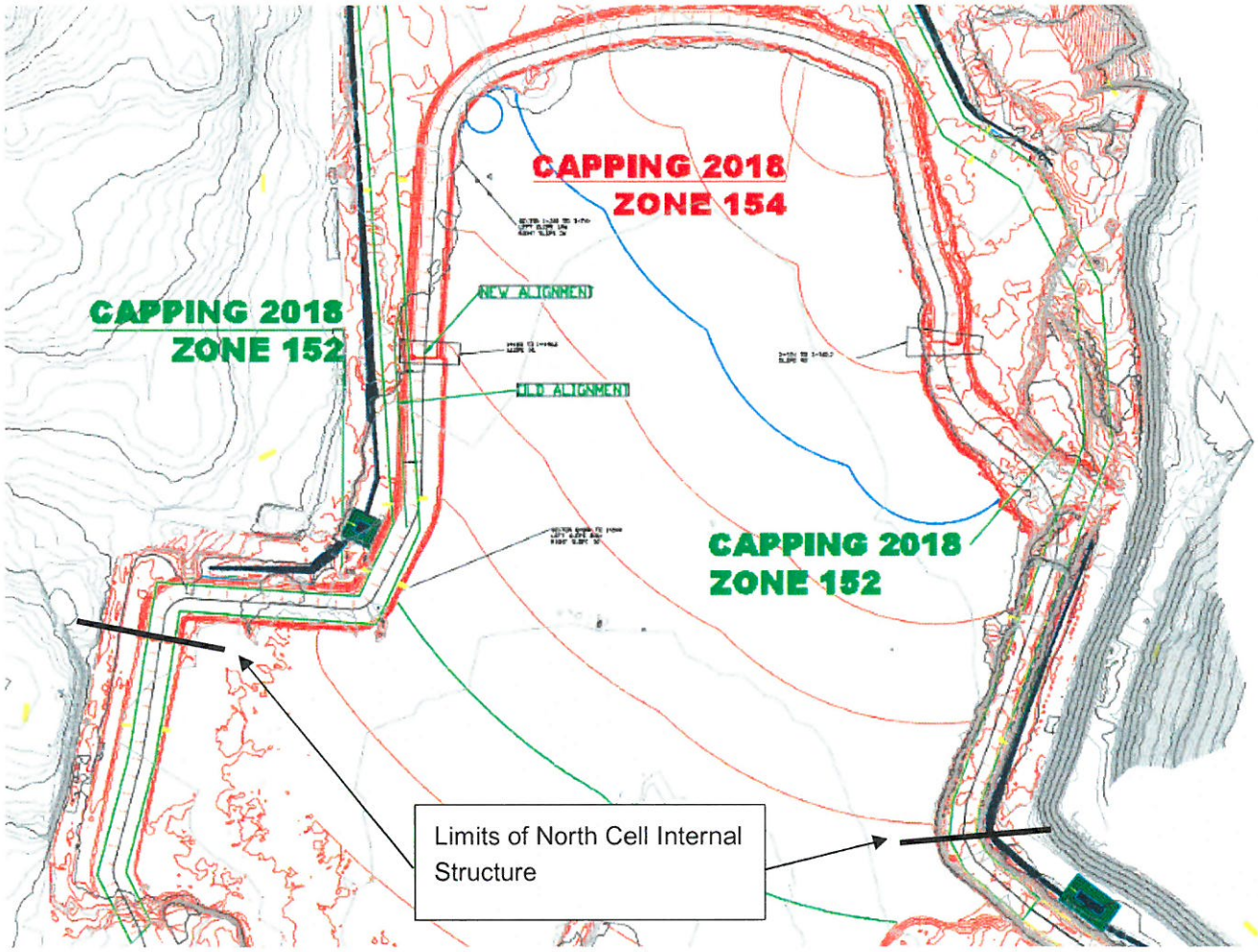

Figure 1: New proposed configuration for the North Cell Internal Structure and planned deposition

REGISTERED PROFESSIONAL ENGINEER
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NT/NU
2018-07-02

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https://golderassociates.sharepoint.com/sites/1897439/preparation of deliverables/weekly reports/2018-06-25 to 2018-07-01/1897439-1577-tm-rev0 qa weekly report north cell 2018-06-25 to 2018-07-01.docx

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GOLDER ASSOCIATES LTD.
Signature
Date 2018-07-02
PERMIT NUMBER: P 049
NT/NU Association of Professional Engineers and Geoscientists

QA WEEKLY REPORT

DATE July 9th 2018 1897439-1577-TM-Rev0

TO Patrice Gagnon, Pier-Éric McDonald
Agnico Eagle Mines Ltd, Meadowbank Division

CC Frédérick Bolduc, Alexandre Lavallée

FROM Samuel Barbeau **EMAIL sbarbeau@golder.com**

QA WEEKLY REPORT FROM JULY 2ND TO JULY 8TH – TSF NORTH CELL CONSTRUCTION MEADOWBANK (1897439)

This document summarizes QA activities performed by Golder from July 2nd to July 8th, 2018 inclusively, related to the construction activities of the North Cell Internal Structure at the Meadowbank mine site.

Unless otherwise specified, the construction activities use the centreline of the structures for a dike crest elevation of 152 m for reference (refer to the Drawings). The description of activities refers to the stations and offsets from the centreline (e.g., Sta. 0+500/-50 m). The "+" and "-" symbols indicate the location of the work downstream and upstream of the centreline, respectively.

1.0 GOLDER PERSONNEL ON SITE

Golder personnel on site during this reporting period is summarized in Table 1.

Table 1: Golder Personnel on Site

Name	Comments
Marion Habersetzer	QA Manager (departure on July 3rd)
Samuel Barbeau	QA Manager (arrival on July 2nd)

2.0 HEALTH AND SAFETY

H&S meetings were held with AEM and FGL/SANA during the daily construction meetings. Minutes from these meetings are recorded and stored in Golder's on-site office. The key H&S elements for the reporting period were as follows:

- Dust is still an issue on the construction field; be vigilant by staying out of the dust cloud near construction activities and road circulation.
- Coactivity on the dike: be aware of blind spots and safe spots, maintain good communication and visual contact with the operators.
- Keep a safe distance from the compactor as it is towed in the slope by an excavator, in case of a failure of the steel cable.
- An off-duty employee was killed by a polar bear. A psychologist will be present on site to support employees affected by the tragedy.
- The fog causes a visibility issue on the roads and on the dikes. Reduce driving speed and keep safety distances between vehicles. Make sure to be visible by the equipment operators.
- The rain is an issue, as the muddy and very slippery ground causes a high risk of slips and falls. Extra caution must be applied when walking or driving on wet surfaces.
- It was iterated to wear proper PPE and to report any incident as soon as possible.
- Radio channels on the North Cell Internal Structure were reiterated: Portage Operations must be used on the traffic lane, whereas MBDykes must be used when working behind the boulders (e.g., excavators working on the slope).

3.0 SUMMARY OF MAIN DISCUSSIONS IN CONSTRUCTION MEETINGS

Construction meetings were held daily during the reporting period and were attended by the QA Manager. The following items were discussed:

General

- The coarse and fine filters first stockpiles were finished. Stockpiles from last year (crushed UM material) were then used. QA and QC personnel sampled the other stockpiles for gradations.
- Following discussion with AEM, SANA will build an enlarged access ramp for the El. 154 m lift over the water pipe crossing the dike at El. 152 m around Sta. 2+780 (approx.), as the current access is too narrow for the passage of two haul trucks.
- The QA Manager observed a few holes up to 0.1 m deep and 0.2 m (approx.) wide in the fine filter surface around Sta. 1+360 m. According to the SANA foreman, they may result from the thawing of ice blocks in the filter material. This section of fine filter is yet to be compacted. According to the SANA foreman, the compaction should fill the holes. If holes remain they will be filled with fine filter material.
- No compactor was available to compact the fine filter from July 6th to July 8th as it was used to compact the airstrip. The activity was postponed for latter.

- AEM asked for details regarding the location, spacing of the captors and depth of the planned thermistors on the North Cell Internal Structure. The question was forwarded to the Designer.
- On July 7th, rockfill came from the remains of the intermediate volcanic (IV) rockfill stockpile used for the construction of Central Dike.

Follow-up

- Ditches and sumps to be constructed will be discussed between Golder and AEM. A meeting is scheduled on July 9th.

4.0 SUMMARY OF CONSTRUCTION ACTIVITIES AND TEST RESULTS

Periodic QA inspections to monitor the construction activities and progress were performed by the QA Manager; these are summarized in the tables below. For the location and extent of the construction works, refer to the enclosed plans.

Table 2: QA Observations for the North Cell Internal Structure

Activity or Area	Comments
Crest	■ Placement of a 2 m thick (approx.) lift of UM rockfill from El. 150 m to El. 152 m (approx.) with a dozer from Sta. 1+160 m to 1+130 m (-55 m to -102 m). The material is of good quality and is well graded. ■ Placement of a 2 m thick (approx.) lift of IV rockfill from El. 150 m to El. 152 m (approx.) with a dozer from Sta. 1+160 m to 1+140 m (-64 m to -111 m). The material is of good quality and is well graded.
Upstream	■ Profiling of the upstream slope (3H:1V) from El. 150 to 152 m with an excavator from Sta. 2+975 m to 3+160 m and from 1+300 m to 1+165 m. ■ Placement of a 0.5 m thick lift of coarse filter in the upstream slope from El. 150 m to 152 m with an excavator from Sta. 2+815 m to 3+160 m and from 1+300 m to 1+200 m. The material visually seemed well graded and of good quality. ■ Placement of a 0.5 m thick lift of fine filter over the coarse filter in the upstream slope from El. 150 m to 152 m with an excavator from Sta. 1+210 m to 1+550 m, from Sta. 1+610 m to 1+630 m and from Sta. 2+800 m to 3+160 m. The material visually seemed well graded and of good quality.

Activity or Area	Comments
	■ Compaction of the 0.5 m lift (approx.) of coarse filter between El. 150 and 152 m with a 10-tonne smooth-drum compactor (4 passes) in the upstream slope from Sta. 2+810 m to 3+160 m and from Sta. 1+300 m to 1+200 m. ■ Compaction of the 0.5 m lift of fine filter between El. 150 and 152 m with a 10-tonne smooth-drum compactor with vibration (4 passes) in the upstream slope from Sta. 1+335 m to 1+100 m and from Sta. 2+095 m to 2+000 m. ■ Compaction of the 0.5 m lift (approx.) of fine filter between El. 150 and 152 m with a 10-tonne smooth-drum compactor (4 passes) in the upstream slope from Sta. 2+810 m to 2+095 m. Vibration is used except for the first pass down the slope in order to stabilize the material and limit deformation of the lift.

5.0 SAMPLING, LABORATORY AND FIELD TESTING

Table 3 and Table 4 present the samples collected or tested by the QA and QC.

Table 3: Samples Taken by the QC

Sample ID	Date Sampled	Date Tested	Fill Material Type	Location (Station/Offset Elevation)	Test	Testing Result
FF-399-2018	2018-06-21	2018-07-02	Fine filter	SANA crusher stockpile	Gradation	Compliant
					Water content	2.90%
FF-401-2018	2018-06-21	2018-07-02	Fine filter	SANA crusher stockpile	Gradation	Compliant
					Water content	4.30%
FF-402-2018	2018-06-21	2018-07-03	Fine Filter	SANA Crusher Stockpile	Gradation	Compliant
					Water content	3.80%
CF-383-2018	2018-06-21	2018-07-04	Coarse filter	SANA crusher stockpile	Gradation	Compliant
					Water content	Not noted

Sample ID	Date Sampled	Date Tested	Fill Material Type	Location (Station/Offset Elevation)	Test	Testing Result
CF-387-2018	2018-07-02	2018-07-05	Coarse Filter	SANA Crusher Second Stockpile	Gradation	Compliant
					Water content	1.23%
FF-413-20108	2018-07-02	2018-07-05	Fine Filter	North Cell Internal Structure, Sta. 1+100/-102 m, El. 150 m	Gradation	Compliant
					Water content	3.20%
CF-387-2018	2018-07-02	2018-07-05	Coarse Filter	SANA Crusher Second Stockpile	Gradation	Compliant
					Water content	1.23%
CF-384-2018	2018-06-21	2018-07-06	Coarse filter	SANA crusher stockpile	Gradation	Compliant
					Water content	0.76%
FF-414-2018	2018-07-02	2018-07-06	Fine Filter	SANA Crusher Second Stockpile	Gradation	Compliant
					Water content	5.38%
FF-414-2018	2018-07-02	2018-07-06	Fine Filter	SANA Crusher Second Stockpile	Gradation	Compliant
					Water content	5.38%
FF-416-2018	2018-07-05	2018-07-07	Fine Filter	North Cell Internal Structure, Sta. 2+900/-31 m, El. 152 m	Gradation	Compliant
					Water content	2.30%
FF-417-2018	2018-07-06	2018-07-08	Fine Filter	North Cell Internal Structure, Sta. 3+100/-33 m, El. 152 m	Gradation	Compliant
					Water content	2.00%

Table 4: Samples Taken by the QA

Sample ID	Date Sampled	Date Tested	Fill Material Type	Location (Station/Offset Elevation)	Test	Testing Result
FF-412-2018	2018-07-01	2018-07-03	Fine Filter	North Cell Internal Structure, Sta. 1+120/-102 m, El. 150 m	Gradation	Compliant
					Water content	2.58 %
FF-415-2018	2018-07-02	2018-07-04	Fine Filter	SANA Crusher Second Stockpile	Gradation	Slightly too many large particles, but accepted provided the material is well-graded
					Water content	3.56%
CF-388-2018	2018-07-02	2018-07-03	Coarse Filter	SANA Crusher Second Stockpile	Gradation	The material contains slightly too much sand particles, but is acceptable provided it is well graded.
					Water content	1.13 %

6.0 PHOTOGRAPHS

Photograph NCIS-071: From Sta. 2+670/-28 m (approx.), looking SE. Placement of a 0.5 m thick lift of fine filter over the coarse filter in the upstream slope from El. 150 m to 152 m with an excavator from Sta. 1+550 m to 1+320 m and 1+630 m to 1+610 m.

Photograph NCIS-072: From Sta. 2+790/-38 m (approx.), looking W. Profiling of the upstream slope (3H:1V) from El. 150 to 152 m with an excavator from Sta. 2+975 m to 3+070 m.

Photograph NCIS-073: From Sta. 1+300/-33 m (approx.), looking N. Placement of a 0.5 m thick lift of fine filter over the coarse filter in the upstream slope from El. 150 m to 152 m with an excavator from Sta. 1+320 m to 1+300 m.

Photograph NCIS-074: From Sta. 2+750/-37 m (approx.), looking SE. Compaction of the 0.5 m lift (approx.) of fine filter between El. 150 m and 152 m with a 10-tonne smooth-drum compactor (4 passes) in the upstream slope from Sta. 2+810 m to 2+095 m. Vibration is used except for the first pass down the slope in order to stabilize the material and limit deformation of the lift.

Photograph NCIS-075: From Sta. 2+860/-36 m (approx.), looking S. Placement of a 0.5 m thick lift of coarse filter in the upstream slope from El. 150 m to 152 m with an excavator from Sta. 2+815 m to 2+980 m.

Photograph NCIS-076: From Sta. 2+940/-15 m (approx.), looking SW. Placement of a 0.5 m thick lift of coarse filter in the upstream slope from El. 150 m to 152 m with an excavator from Sta. 2+980 m to 3+160 m.

Photograph NCIS-077: From Sta. 1+310/-32 m (approx.), looking S. Profiling of the upstream slope (3H:1V) from El. 150 to 152 m with an excavator from Sta. 1+300 m to 1+175 m and from 3+070 m to 3+160 m.