Photograph NCIS-027: From Sta. 1+360/+67 m, looking S. 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+365 m to 1+360 m (offset +9 m to -28 m).

Photograph NCIS-028: From Sta. 1+340/+3 m, looking E. View of the UM rockfill lift approximately 3.2 m thick.

Marion Habersetzer
for: Samuel Barbeau
Mine Waste Group

REGISTERED PROFESSIONAL ENGINEER
Y. BOULIANNE
LICENSEE
2018-06-11
NT/NU

Yves Boulianne, P.Eng.
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QA WEEKLY REPORT

DATE June 25th 2018 1897439-1577-TM-Rev0

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

CC Frédérick Bolduc, Alexandre Lavallée

FROM Marion Habersetzer **EMAIL mhabersetzer@golder.com**

QA WEEKLY REPORT FROM JUNE 19TH TO JUNE 24TH– TSF NORTH CELL CONSTRUCTION MEADOWBANK (1897439)

This document summarizes QA activities performed by Golder from June 19th to June 24th, 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 (arrival on June 19th)

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.
- As tailings have thawed and become very soft, it is now unsafe to walk or traffic on the tailings of the North Cell.
- It was reiterated not to pass behind heavy equipment without calling on the radio first.
- Personnel on foot must stay at a safe distance from the compactor attached to the excavator with a cable, in case the cable should break.

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 QA Manager arrived on site on June 19th for supervision of the North Cell Internal Structure construction. QC personnel arrived on site on June 20th.
- The QA Manager accompanied the Dike supervisor and AEM's representatives on June 19th to review work done without QA/QC supervision and to discuss the construction planning of the North Cell Internal Structure. Follow-up will be done on the system of peripheral ditches and sumps.
- The QA Manager asked to receive a weekly follow-up of the volumes of materials placed on the structure, in order to check that the QA/QC sampling rate is adequate.
- The coarse and fine filters are placed on the upstream slope of the North Cell Internal Structure each in a single lift, ranging from the upstream toe to the crest, with a thickness of 0.5 m perpendicular to the slope. Given the gentle 3H:1V slope, compaction is done on each lift with a smooth-drum compactor directly on the slope (attached to an excavator) rather than raising horizontal lifts. Placement in horizontal lifts would be problematic due to the limited reach of the excavator, and the fact that the tailings at the bottom of the slope are now too soft to be trafficked safely. Due to the soft foundation, the compactor is unable to reach the bottom of the slope (about 1 m from the toe), without deforming the slope. The lower portion of the slope will be flattened and compacted with the bucket of the excavator afterwards.
- The foundation has been exposed in the section where the structure is built on natural ground (approx. Sta. 1+800 to 1+900 m). The natural soil was constituted of a shallow layer of till and organic soil overlying bedrock. Till removal down to the bedrock with an excavator was done to ensure a sound foundation for the filters and reduce the risk of settlement. The foundation was approved by the QA Manager. No foundation approval forms are required for the North Cell Internal Structure.
- The alignment of the North Cell Internal Structure was slightly modified in the south-western section in order to avoid the cyanide burning area. This will avoid removal of material which would be difficult for accessibility

reasons. There will be no new centerline issued at the moment, but only a field fitting done. The crest width is checked during rockfill placement to ensure that the design is respected. The UM rockfill platform around Sta. 1+200 m was too narrow and will be widened to 48 m, as required for the crest width at El. 150 m.

- Given that a large amount of UM rockfill is expected to arrive on the structure very soon, priority was given to compaction of the crest (including underneath the safety berms) of the portion of lift at El. 150 m, in order to be ready to place the second lift at El. 152 m. Berms will be pushed downstream and replaced by boulders after compaction. If there is not enough time to complete the compaction, the placement activities might also be relocated to the portion of the structure that needs to be raised to El. 154 m.
- Coarse and fine filters are currently placed on the section of the structure that will be raised at 154 m, and will be extended to the rest of the structure while the second lift of UM rockfill from El. 152 m to 154 m is placed.
- Stockpiles will be surveyed to evaluate remaining quantities of coarse and fine filters. Another stockpile of coarse filter may be used if needed.
- The southeastern and southwestern limits of the North Cell Internal Structure will be confirmed with AEM based on the deposition plan.

Follow up

- After profiling of the upstream slope of the dike, it was confirmed that the layer of hard snow (up to 2 m thick) observed under the 2 m thick UM rockfill of the capping is not within the footprint of the dike, thus the foundation of the structure is free of snow and constituted of compacted rockfill only. The snow and UM rockfill were excavated to have sufficient space to place the filters, and the remainder was left in place inside the North Cell. Tailings deposition will be done from another spot, or the tailings pipe will be extended over the material left in place.
- The thickness of the UM rockfill cannot exceed 2.8 m as per the Designer’s criteria.The UM rockfill is placed in 2 lifts where in order to avoid exceeding 2 m in thickness, as the tailings elevation is around 148 m in the southern part of the North Cell.
- Ditches and sumps to be constructed will be discussed between Golder and AEM.

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	■ Compaction of the 2 m lift (approx.) of ultramafic (UM) rockfill at El. 152 m with a 10-tonne smooth-drum compactor with vibration (6 passes) between the haul truck traffic lane and the upstream slope from Sta. 1+660 to 1+380 m (offset -45 to -24 m). ■ 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+350 m to 1+150 m (-41 m to +9 m). The material is of good quality and is well graded.
Upstream	■ Final clean-up of the dike footprint with an excavator to reach a good quality bedrock from Sta. 1+850 to 1+750 m (offset -42 to -33 m). ■ Profiling of the upstream slope (3H:1V) from El. 150 to 152 m with an excavator from Sta. 1+860 m to 1+750 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+280 m to 1+420 m. The material visually seemed well graded and of good quality. ■ 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+524 m to 1+480 m. Vibration is used except for the first pass down the slope in order to stabilize the material and limit deformation of the lift. ■ 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. 2+542 m to 2+305 m and from Sta. 2+065 m to 1+835 m. The material visually seemed well graded and of good quality. ■ 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+542 m to 2+475 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
CF-380-2018	2018-06-21	2018-06-22	Coarse Filter	North Cell Internal Structure, Sta. 1+920/-23 m, El. 152 m	Gradation	Compliant
					Water content	2.50%
CF-382-2018	2018-06-21		Coarse filter	SANA crusher stockpile		
CF-383-2018	2018-06-21		Coarse filter	SANA crusher stockpile		
CF-384-2018	2018-06-21		Coarse filter	SANA crusher stockpile		
FF-392-2018	2018-06-21		Fine filter	SANA crusher stockpile		
FF-393-2018	2018-06-21		Fine filter	SANA crusher stockpile		
FF-394-2018	2018-06-21		Fine filter	SANA crusher stockpile		
FF-395-2018	2018-06-21		Fine filter	SANA crusher stockpile		
FF-396-2018	2018-06-21		Fine filter	SANA crusher stockpile		
FF-397-2018	2018-06-21		Fine filter	SANA crusher stockpile		
FF-398-2018	2018-06-21		Fine filter	SANA crusher stockpile		
FF-399-2018	2018-06-21		Fine filter	SANA crusher stockpile		

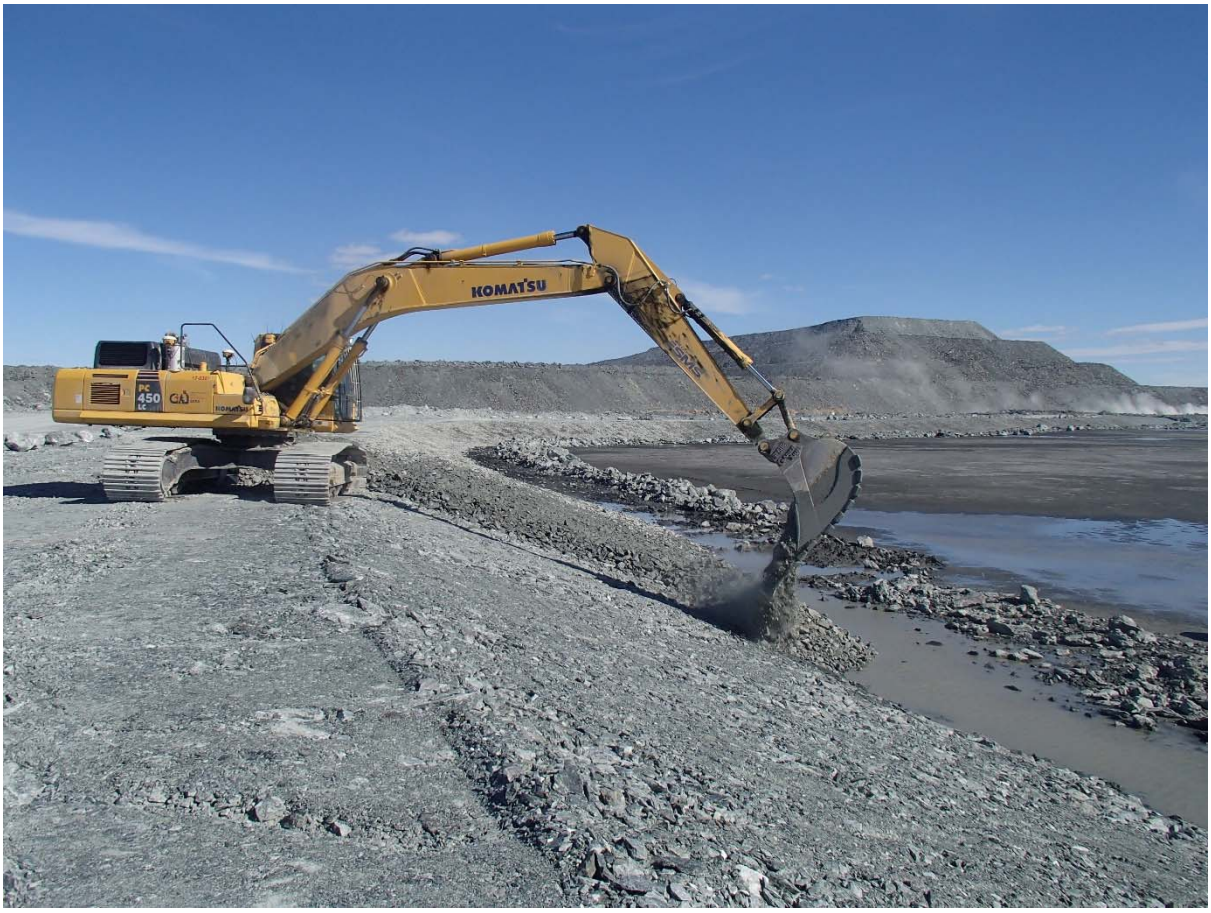
Sample ID	Date Sampled	Date Tested	Fill Material Type	Location (Station/Offset Elevation)	Test	Testing Result
FF-400-2018	2018-06-21		Fine filter	SANA crusher stockpile		
FF-401-2018	2018-06-21		Fine filter	SANA crusher stockpile		
FF-402-2018	2018-06-21		Fine filter	SANA crusher stockpile		
FF-406-2018	2018-06-22		Fine Filter	North Cell Internal Structure, Sta. 2+500/-22 m, El. 152 m		
CF-386-2018	2018-06-23		Coarse Filter	North Cell Internal Structure, Sta. 1+400/-24 m, El. 150 m		
FF-408-2018	2018-06-24		Fine Filter	North Cell Internal Structure, Sta. 2+380/-21 m, El. 150 m		

Table 4: Samples Taken by the QA

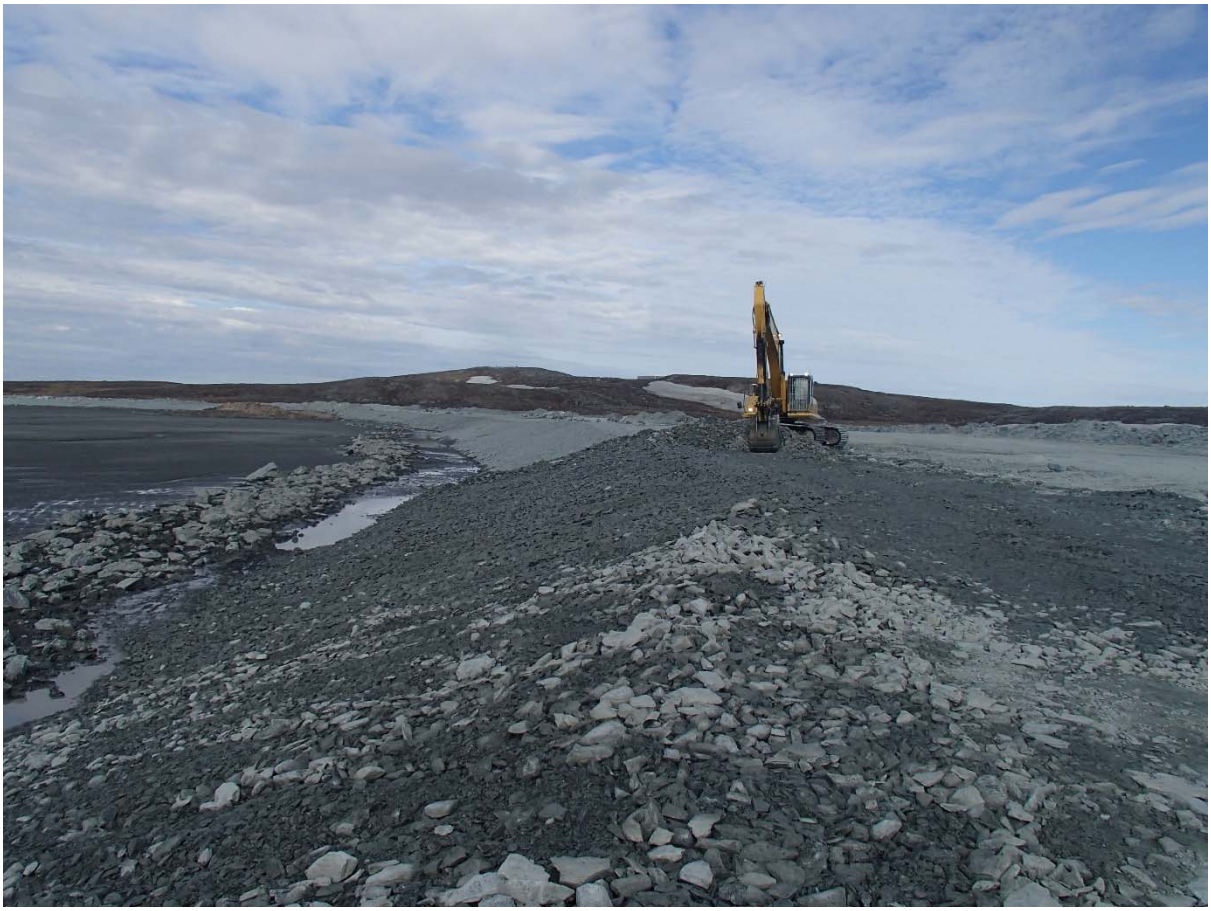
Sample ID	Date Sampled	Date Tested	Fill Material Type	Location (Station/Offset Elevation)	Test	Testing Result
CF-381-2018	2018-06-21	2018-06-23	Coarse Filter	North Cell Internal Structure, Sta. 1+920/-23 m, El. 152 m	Gradation	Compliant
					Water content	2.12%
CF-385-2018	2018-06-21		Coarse filter	SANA crusher stockpile		

Sample ID	Date Sampled	Date Tested	Fill Material Type	Location (Station/Offset Elevation)	Test	Testing Result
FF-403-2018	2018-06-21		Fine filter	SANA crusher stockpile		
FF-404-2018	2018-06-21		Fine filter	SANA crusher stockpile		
FF-405-2018	2018-06-21		Fine filter	SANA crusher stockpile		
FF-407-2018	2018-06-22		Fine Filter	North Cell Internal Structure, Sta. 2+500/-22 m, El. 152 m		

6.0 PHOTOGRAPHS

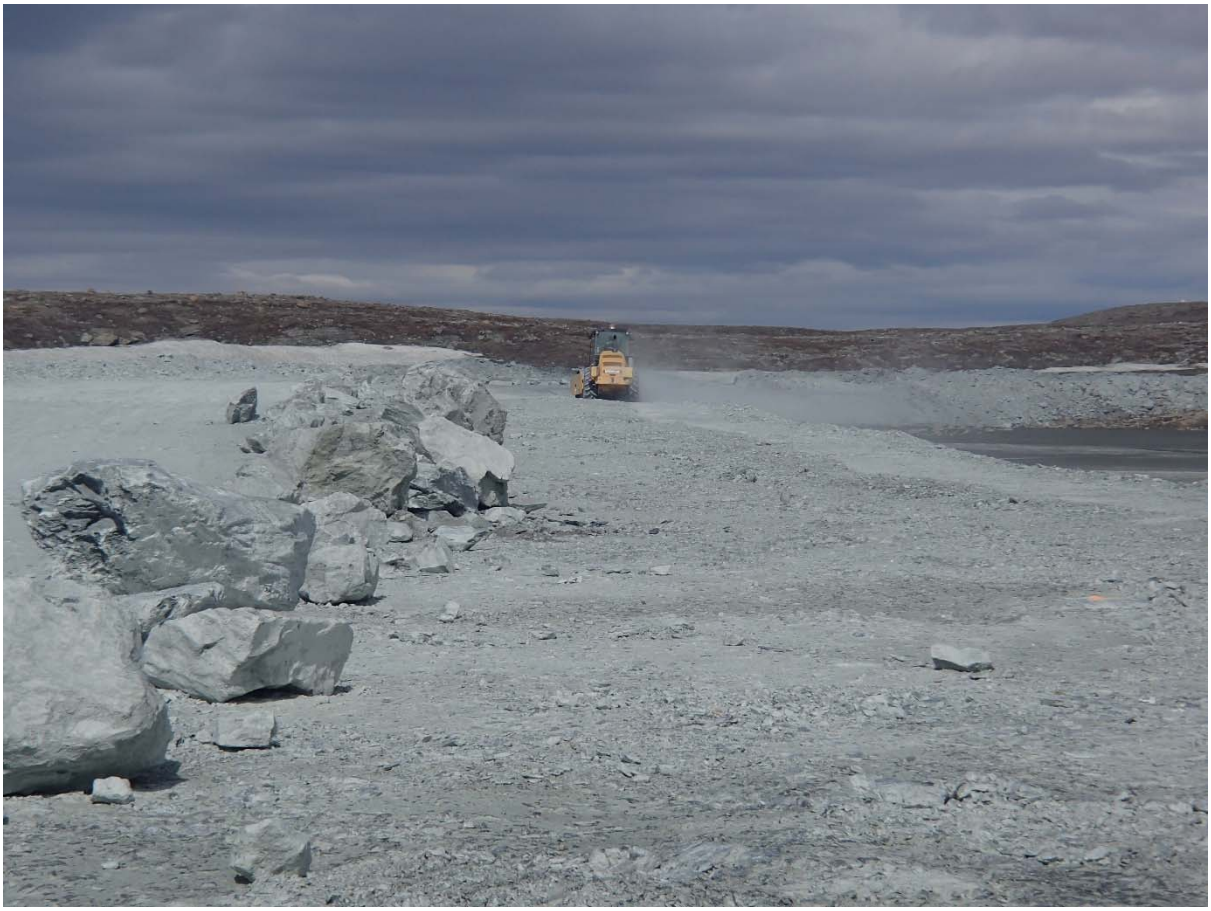


Photograph NCIS-029: From Sta. 2+120/-27 m (approx.), looking SE. Placement of a 0.5 m thick lift of coarse filter in the upstream slope from El. 150 m to 152 m with an excavator from Sta. 2+280 m to 2+105 m.

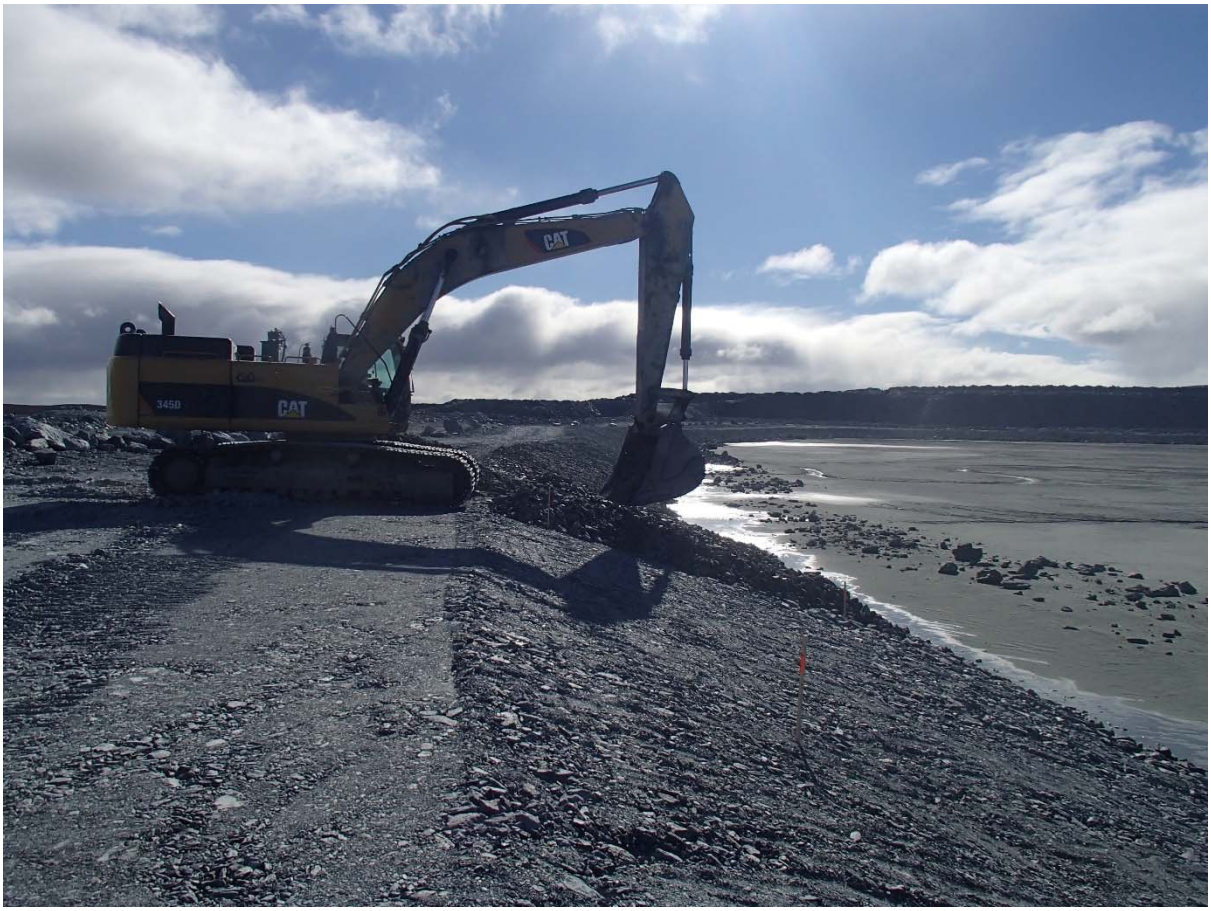


Photograph NCIS-030: From Sta. 2+140/-29 m (approx.), looking W. Placement of a 0.5 m thick lift of coarse filter in the upstream slope from El. 150 m to 152 m with an excavator from Sta. 2+105 m to 1+930 m. Notice the presence of water ponding at the bottom of the slope.

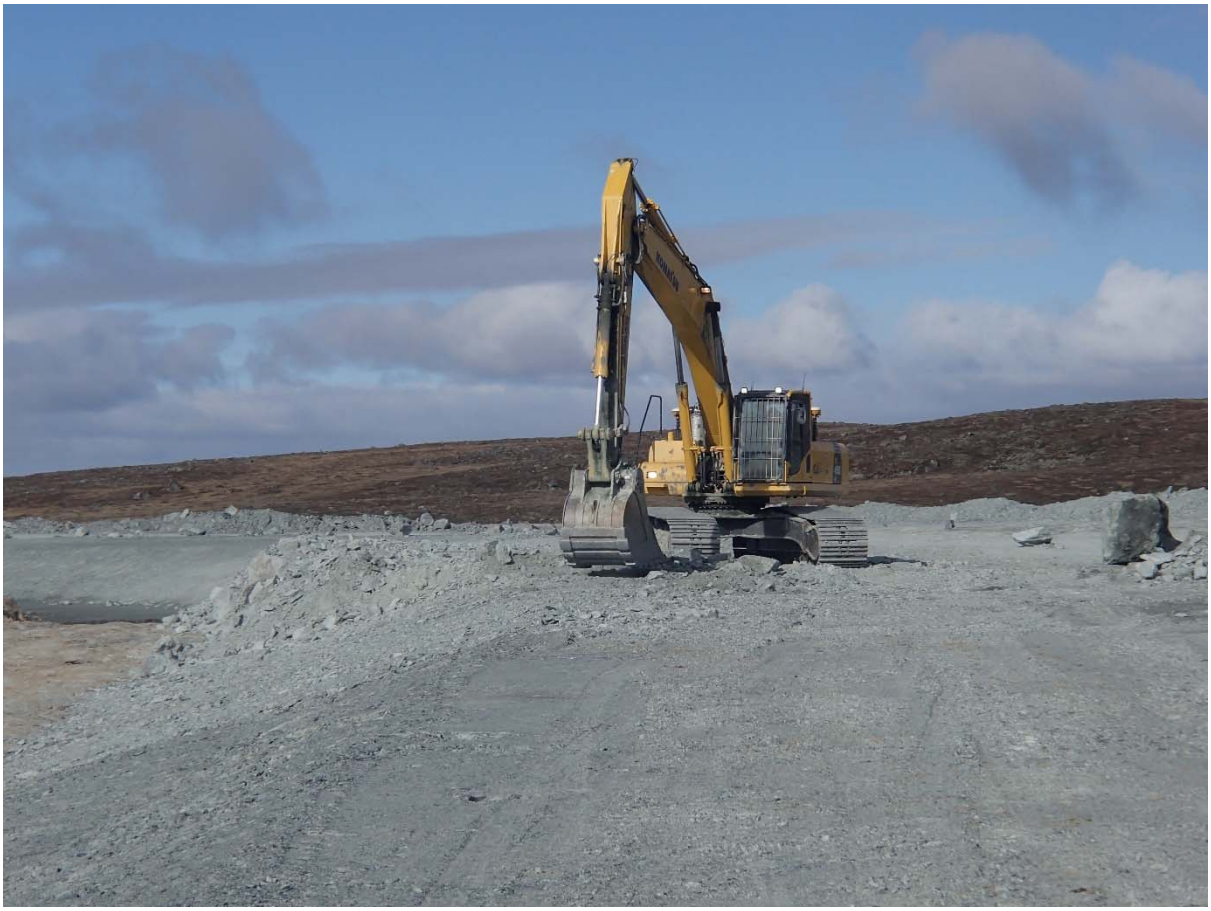
Photograph NCIS-031: From Sta. 1+880/-21 m (approx.), looking SW. Final clean-up of the dike footprint with an excavator to reach a good quality bedrock from Sta. 1+800 to 1+850 m (offset -42 to -33 m).



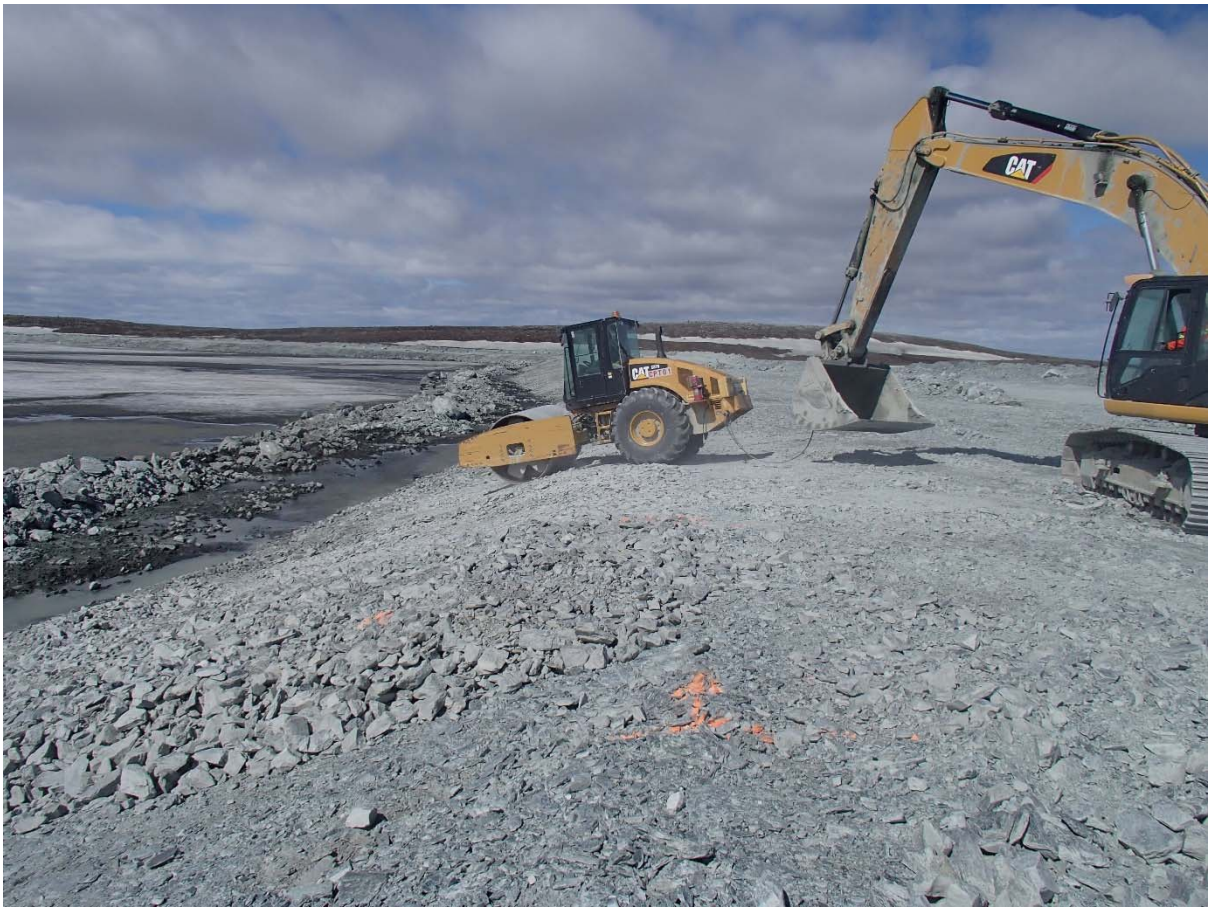
Photograph NCIS-032: From Sta. 1+400/-24 m (approx.), looking N. Compaction of the 2 m lift (approx.) of ultramafic (UM) rockfill at El. 152 m with a 10-tonne smooth-drum compactor with vibration (6 passes) between the haul truck traffic lane and the upstream slope from Sta. 1+660 to 1+380 m (offset -45 to -24 m).



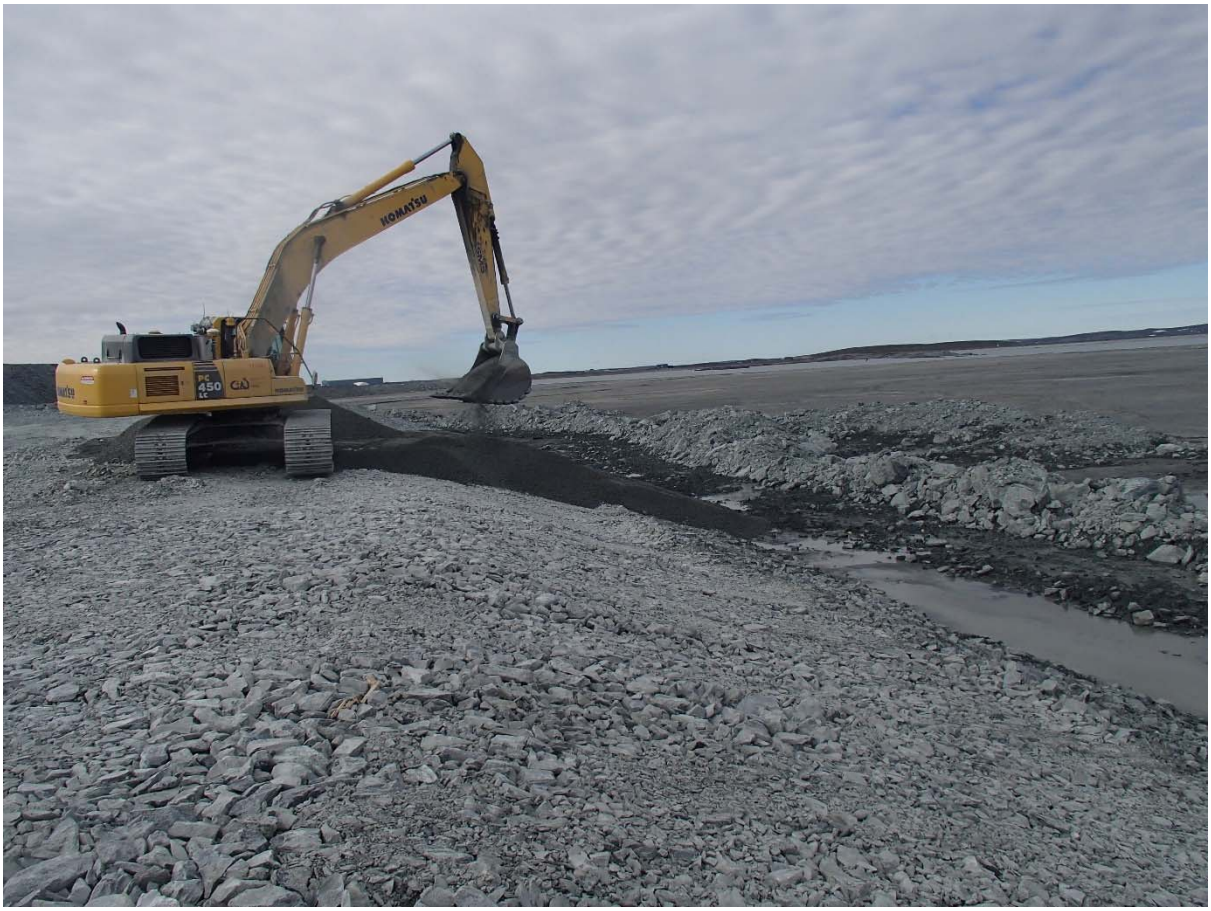
Photograph NCIS-033: From Sta. 1+900/-21 m (approx.), looking E. Placement of a 0.5 m thick lift of coarse filter in the upstream slope from El. 150 m to 152 m with an excavator from Sta. 1+930 m to 1+715 m.



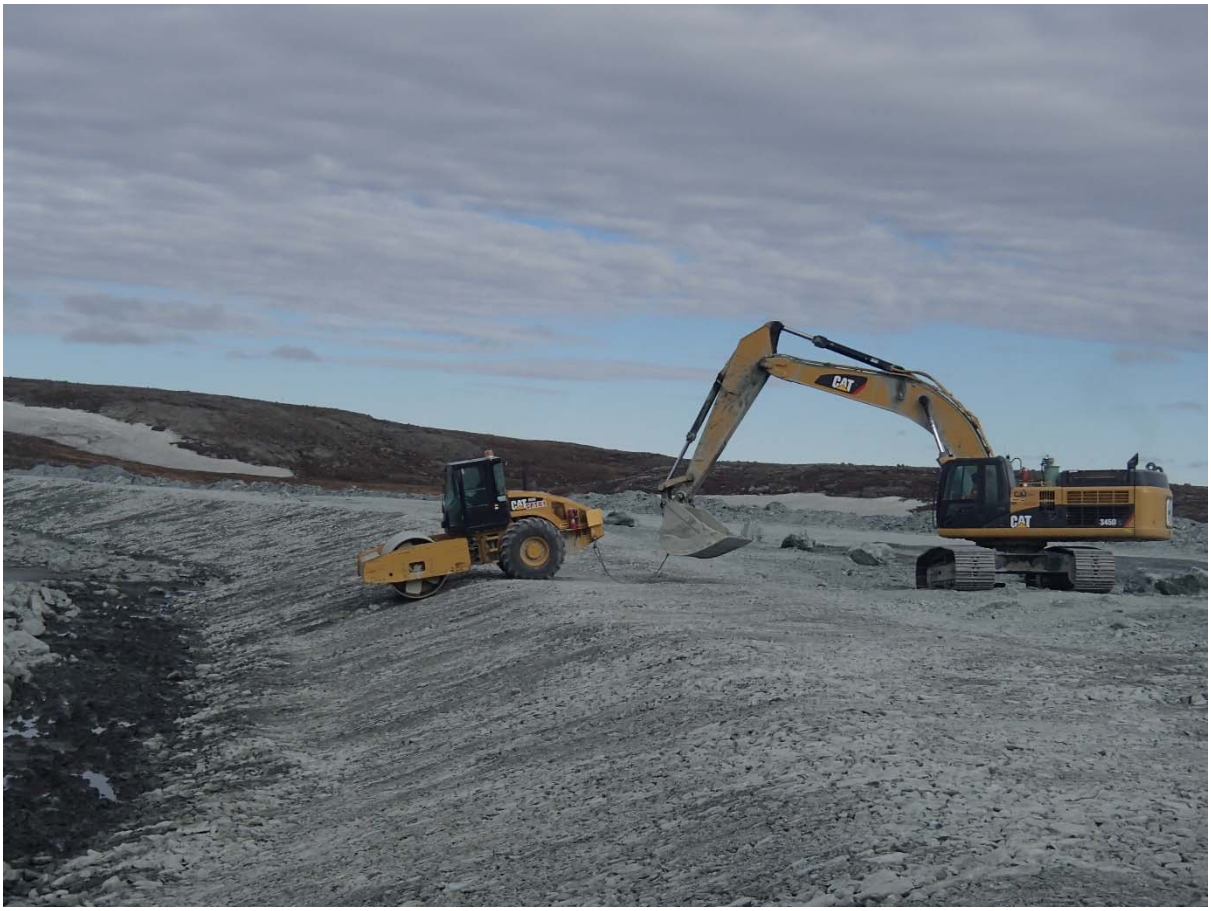
Photograph NCIS-034: From Sta. 1+900/-21 m (approx.), looking W. Profiling of the upstream slope (3H:1V) from El. 150 to 152 m with an excavator from Sta. 1+860 m to 1+750 m.



Photograph NCIS-035: From Sta. 2+550/-25 m (approx.), looking N. 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+524 m to 2+450 m.

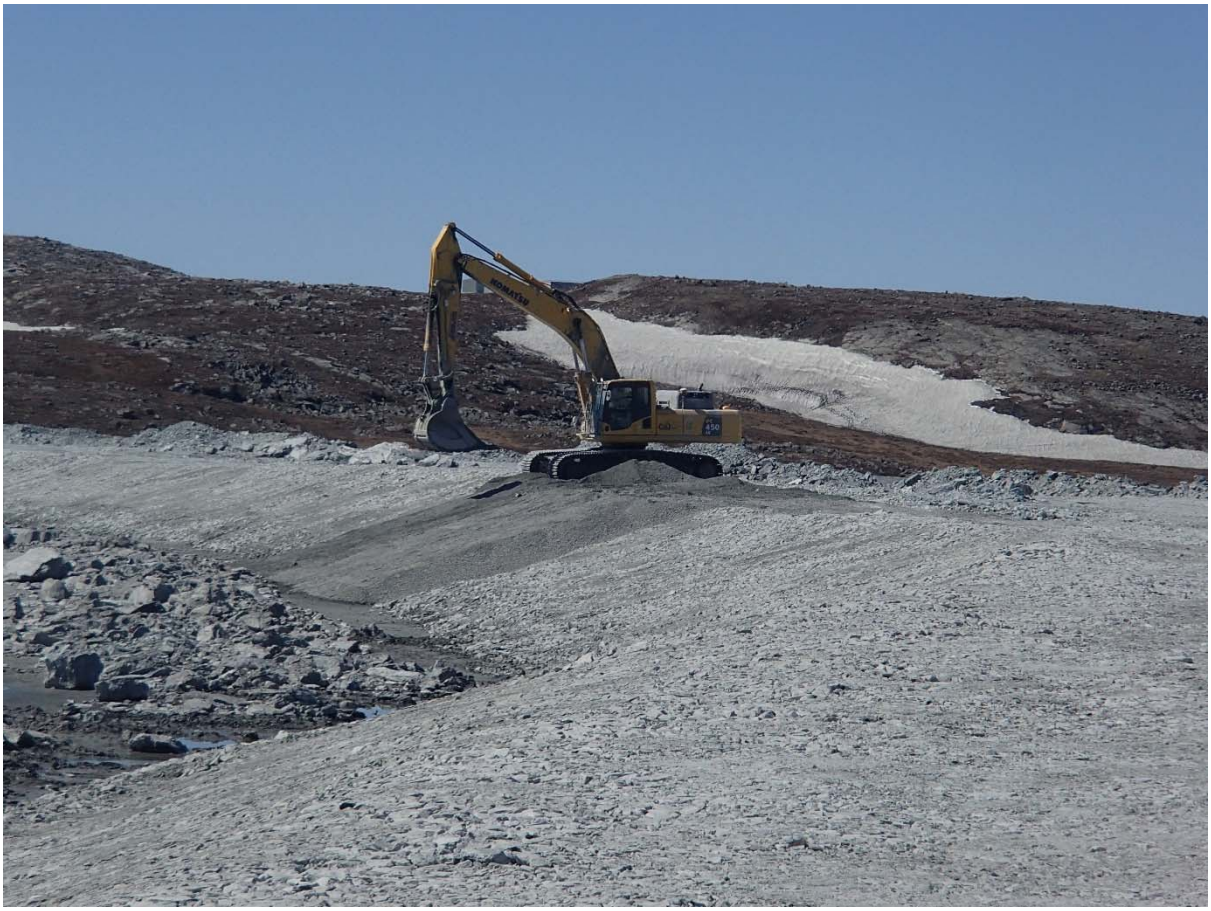


Photograph NCIS-036: From Sta. 1+900/-21 m (approx.), looking SE. Placement of a 0.5 m thick lift of fine filter over the coarse filter in the upstream slope from El. 150 m to 152 m with an excavator from Sta. 2+542 m to 2+475 m.

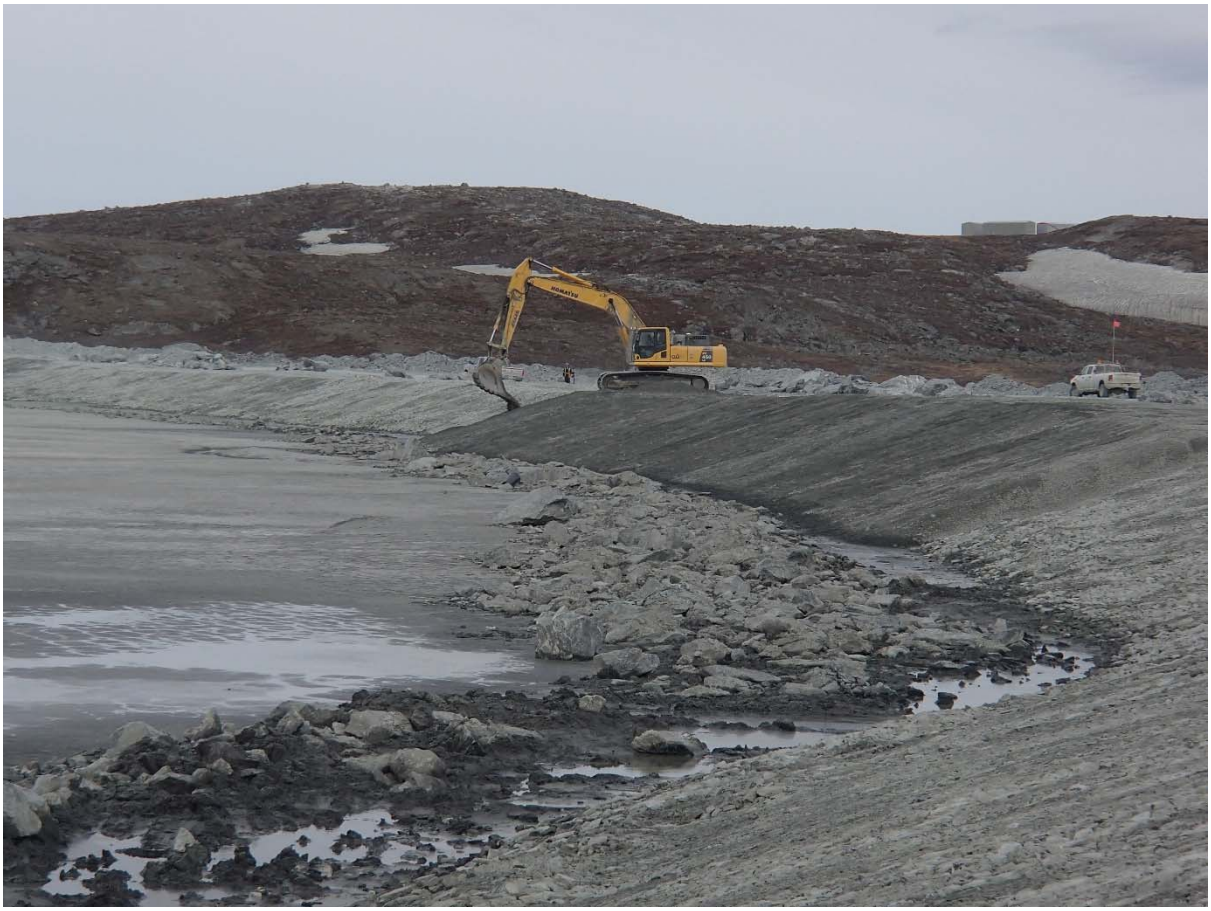


Photograph NCIS-037: From Sta. 1+550/-25 m (approx.), looking NW. Compaction of the 0.5 m lift (approx.) of coarse filter between El. 150 and 152 m with a 10-tonne smooth-drum compactor (4 passes) in the upstream slope from Sta. 2+450 to 1+805 m.

Photograph NCIS-038: From Sta. 2+510/-28 m (approx.), looking SE. 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+542 m to 2+475 m.



Photograph NCIS-039: From Sta. 2+200/-24 m (approx.), looking W. 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. 2+460 m to 2+475 m and from Sta. 2+065 m to 1+980 m.



Photograph NCIS-040: From Sta. 2+185/-25 m (approx.), looking W. 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. 2+305 m to 2+460 m and from Sta. 1+980 m to 1+835 m.

Photograph NCIS-041: From Sta. 1+220/-7 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+197 m to 1+150 m (-7 m to -41 m).

REGISTERED PROFESSIONAL ENGINEER
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2018-06-25

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NT/NU Association of Professional Engineers and Geoscientists

QA WEEKLY REPORT

DATE July 2nd 2018 1897439-1577-TM-Rev0

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

CC Frédérick Bolduc, Alexandre Lavallée

FROM Marion Habersetzer **EMAIL mhabersetzer@golder.com**

QA WEEKLY REPORT FROM JUNE 25TH TO JULY 1ST – TSF NORTH CELL CONSTRUCTION MEADOWBANK (1897439)

This document summarizes QA activities performed by Golder from June 25th to July 1st, 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

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, keep good communication and visual contact with the operators.
- A haul truck nearly went off the road on June 25th on the North Cell Internal Structure.
- Radio channels on the North Cell Internal Structure: 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).
- It was reiterated that no one should leave their work station without notifying their supervisor, for safety reasons.

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 limits of the North Cell Internal Structure have been modified by AEM based on the most recent deposition plan. The section at El. 154 m has been shifted toward the east (see Figure 1 below). Updated material quantities were issued.
- The contractor asked whether PAG rockfill could be used on the upstream side of the North Cell Internal Structure, since UM rockfill is not available in large quantities at the moment. This would not be compatible with the closure plans of the North Cell, therefore it is not an acceptable option.
- AEM indicated that the downstream slope of the structure would not be profiled with an excavator like the other dikes, but left at the angle of repose. With a 1.5H:1V slope, this is not expected to affect global stability, but minor rockfalls are possible.
- There were communication issues with the night shift staff, who do not have a supervisor on the North Cell Internal Structure. The upstream toe of the second lift of UM rockfill must be carefully marked on the first lift by the surveyor, in order to avoid rockfill falling onto the coarse and fine filters during placement. A slight offset is advisable to keep a safety distance, and the toe of the second lift will be completed by the excavator during slope profiling.
- The tailings surface has dried out and become harder underneath the filters. As a result, compaction of the filters is now possible with the compactor on the entire length of the slope using vibration without deforming the slope.
- Most of the UM rockfill surface between the haul truck traffic lane and the upstream edge of the crest has been compacted with the 10 t smooth-drum compactor. It was agreed that since 50 t loaded haul trucks continuously traffic on this surface for filter placement operations, the remainder of the surface will not require additional compaction with the smooth-drum compactor. It is estimated that haul truck traffic achieves a satisfactory compaction of the UM rockfill.

Follow-up

- Ditches and sumps to be constructed will be discussed between Golder and AEM.
- The tensiometer calibration certificate has been received from ZTG.
- AEM confirmed that the North Cell Internal Structure will be built to the design elevation, between 152 m and 154 m. The option to build it only to El. 153 m is discarded.

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 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+150 m to 1+100 m (-107 m to +10 m). The material is of good quality and is well graded. ■ Compaction of the 1.5 to 2 m lift (approx.) of ultramafic (UM) rockfill at El. 150 m with a 10-tonne smooth-drum compactor with vibration (6 passes) between the haul truck traffic lane and the upstream slope from Sta. 1+330 to 1+130 m (offset -91 to -24 m), and between the haul truck traffic lane and the downstream slope from Sta. 1+330 to 1+100 m (offset -47 to +13 m). ■ Removing of UM rockfill material from the capping with a dozer to level the surface to El. 152 m from Sta. 2+760 m to 3+150 m (offset -38 to -17 m). ■ 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+160 m (-65 m to +16 m). The material is of good quality and is well graded.
Upstream	■ Removal of till material mixed with the UM rockfill of the capping (about 1 to 2 m thick along the slope) with an excavator from Sta. 2+760 m to 2+850 m (offset -35 to -17 m). ■ Profiling of the upstream slope (3H:1V) from El. 152 to 154 m with a dozer from Sta. 2+840 to 2+980 m.

Activity or Area	Comments
	■ Profiling of the upstream slope (3H:1V) from El. 148 to 150 m with an excavator from Sta. 1+410 m to 1+100 m. ■ Profiling of the upstream slope (3H:1V) from El. 150 to 152 m with an excavator from Sta. 2+715 m to 2+975 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+560 m to 2+815 m. The material visually seemed well graded and of good quality. ■ 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+100 m. The material visually seemed well graded and of good quality. ■ Compaction of the 0.5 m lift 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. ■ 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+100 m. ■ 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+330 m to 1+100 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. 2+560 m to 2+630 m, from Sta. 2+305 m to 2+040 m and from Sta. 1+840 m to 1+550 m. The material visually seemed well graded and of good quality. ■ Compaction of the 0.5 m lift of fine filter between El. 148 and 150 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.

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
CF-382-2018	2018-06-21	2018-06-24	Coarse filter	SANA crusher stockpile	Gradation	Compliant
					Water content	-
CF-386-2018	2018-06-23	2018-06-25	Coarse Filter	North Cell Internal Structure, Sta. 1+400/-24 m, El. 150 m	Gradation	Compliant
					Water content	4.40%
FF-392-2018	2018-06-21	2018-06-26	Fine filter	SANA crusher stockpile	Gradation	The material lack a little sand-sized particles but is still acceptable.
					Water content	1.40%
FF-393-2018	2018-06-21	2018-06-28	Fine filter	SANA crusher stockpile	Gradation	Compliant
					Water content	2.10%
FF-394-2018	2018-06-21	2018-06-27	Fine filter	SANA crusher stockpile	Gradation	The material is lacking a little sand-sized particles but is still acceptable.
					Water content	1.60%
FF-395-2018	2018-06-21	2018-06-28	Fine filter	SANA crusher stockpile	Gradation	Compliant
					Water content	1.50%

Sample ID	Date Sampled	Date Tested	Fill Material Type	Location (Station/Offset Elevation)	Test	Testing Result
FF-396-2018	2018-06-21	2018-06-28	Fine filter	SANA crusher stockpile	Gradation	Compliant
					Water content	2.50%
FF-397-2018	2018-06-21	2018-06-29	Fine filter	SANA crusher stockpile	Gradation	Compliant
					Water content	-
FF-398-2018	2018-06-21	2018-06-29	Fine filter	SANA crusher stockpile	Gradation	Compliant
					Water content	2.30%
FF-400-2018	2018-06-21	2018-07-01	Fine filter	SANA crusher stockpile	Gradation	Compliant
					Water content	2.80%
FF-406	2018-06-22	2018-06-24	Fine Filter	North Cell Internal Structure, Sta. 2+500/-22 m, El. 152 m	Gradation	Compliant
					Water content	2.80%
FF-408-2018	2018-06-24	2018-06-27	Fine Filter	North Cell Internal Structure, Sta. 2+380/-21 m, El. 150 m	Gradation	Compliant
					Water content	2.10%
FF-409-2018	2018-06-25	2018-06-27	Fine Filter	North Cell Internal Structure, Sta. 2+262/-21 m, El. 152 m	Gradation	Compliant
					Water content	4%
FF-410-2018	2018-06-28	2018-06-30	Fine Filter	North Cell Internal Structure, Sta. 1+750/-24 m, El. 152 m	Gradation	Compliant
					Water content	2.50%

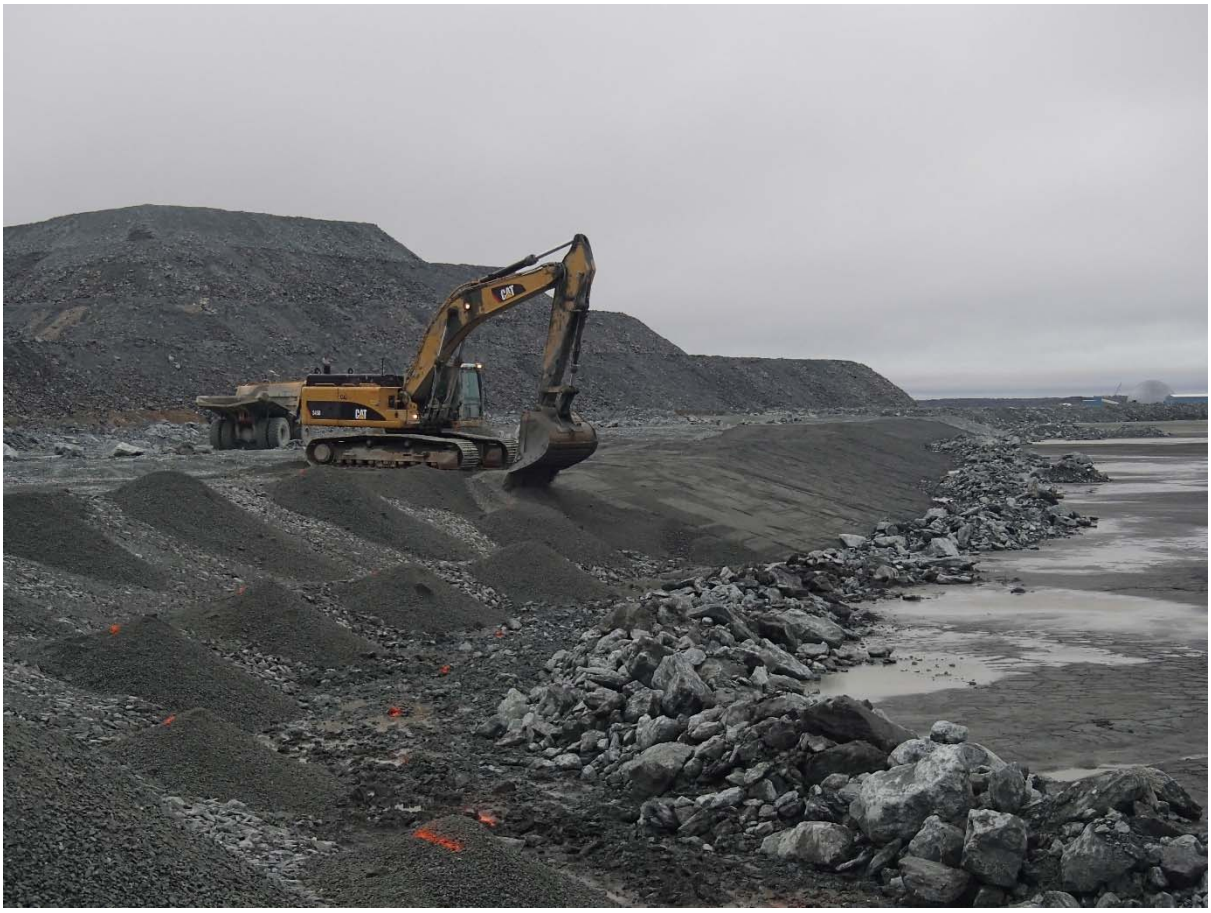
Sample ID	Date Sampled	Date Tested	Fill Material Type	Location (Station/Offset Elevation)	Test	Testing Result
FF-411-2018	2018-06-29	2018-07-01	Fine Filter	North Cell Internal Structure, Sta. 1+590/-37 m, El. 152 m	Gradation	Compliant
					Water content	2.30%

Table 4: Samples Taken by the QA

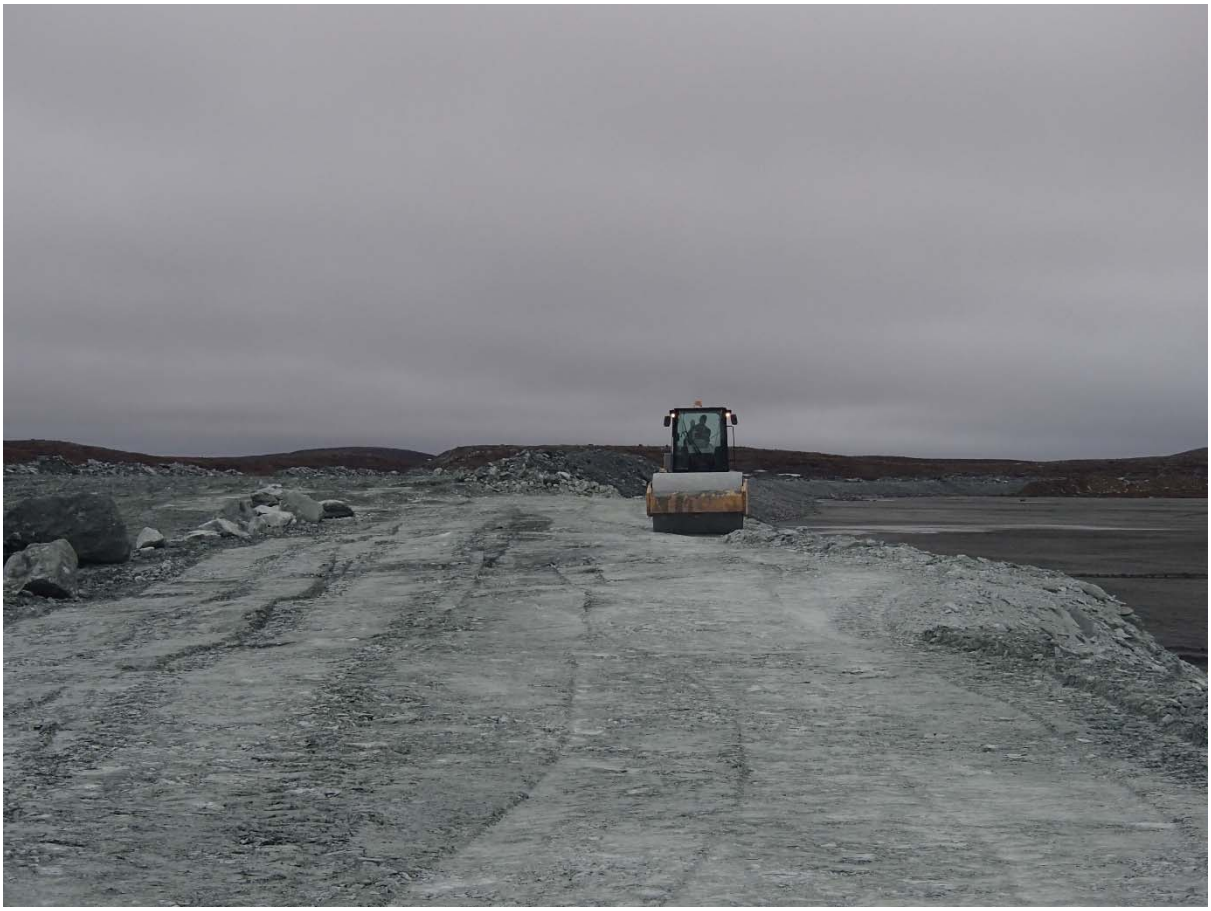
Sample ID	Date Sampled	Date Tested	Fill Material Type	Location (Station/Offset Elevation)	Test	Testing Result
CF-385-2018	2018-06-21	2018-06-29	Coarse filter	SANA crusher stockpile	Gradation	The material contains slightly too much fines particles, but is acceptable provided it is well graded.
					Water content	2.09%
FF-403-2018	2018-06-21	2018-06-25	Fine filter	SANA crusher stockpile	Gradation	Slightly too many large particles, but accepted provided the material is well-graded
					Water content	1.65%
FF-404-2018	2018-06-21	2018-06-26	Fine filter	SANA crusher stockpile	Gradation	Compliant
					Water content	2.75%

Sample ID	Date Sampled	Date Tested	Fill Material Type	Location (Station/Offset Elevation)	Test	Testing Result
FF-405-2018	2018-06-21	2018-06-27	Fine filter	SANA crusher stockpile	Gradation	Compliant
					Water content	2.12%
FF-407-2018	2018-06-22	2018-06-28	Fine Filter	North Cell Internal Structure, Sta. 2+500/-22 m, El. 152 m	Gradation	Compliant
					Water content	2.82%
FF-412-2018	2018-07-01		Fine Filter	North Cell Internal Structure, Sta. 1+120/-102 m, El. 150 m		

6.0 PHOTOGRAPHS

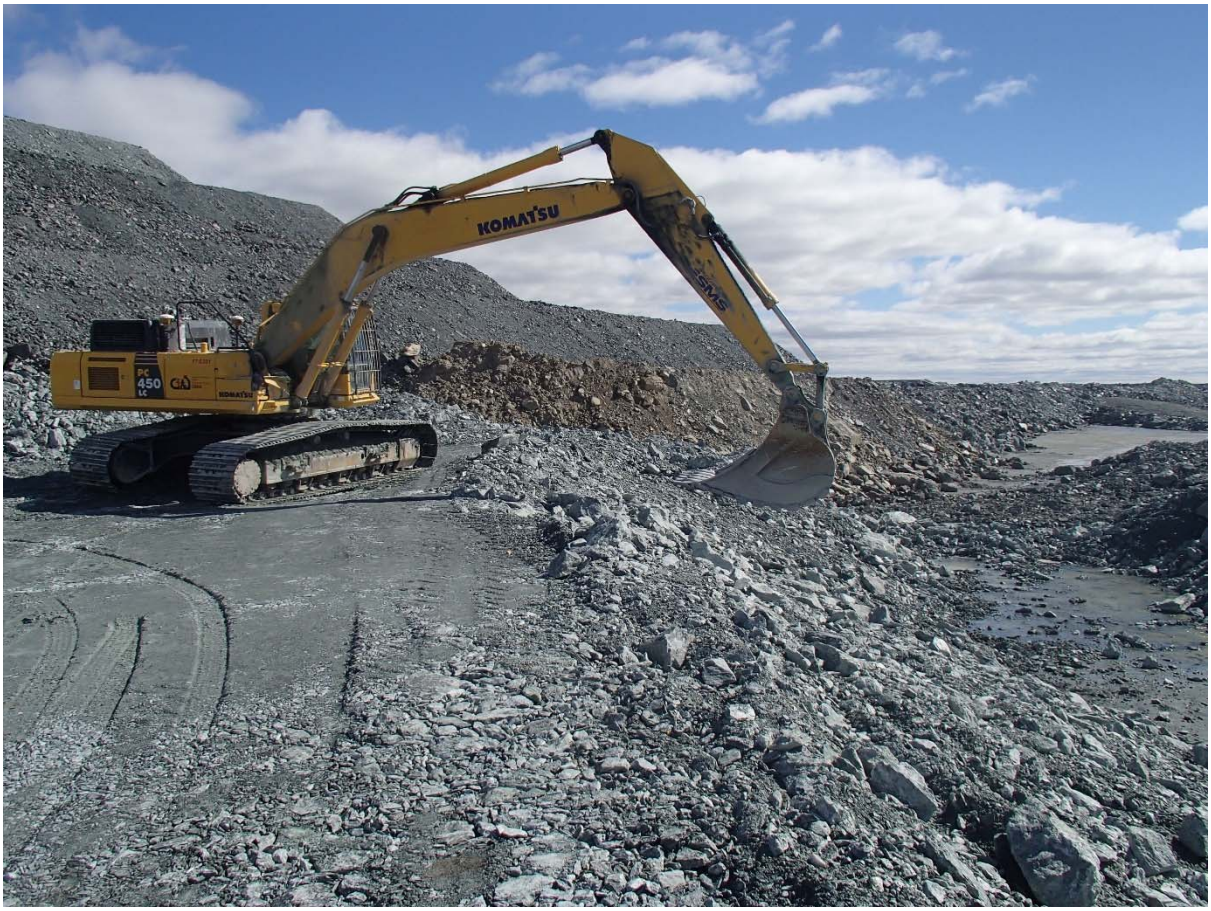


Photograph NCIS-042: From Sta. 2+210/-27 m (approx.), looking SE. Placement of a 0.5 m thick lift of fine filter over the coarse filter in the upstream slope from El. 150 m to 152 m with an excavator from Sta. 2+305 m to 2+040 m.

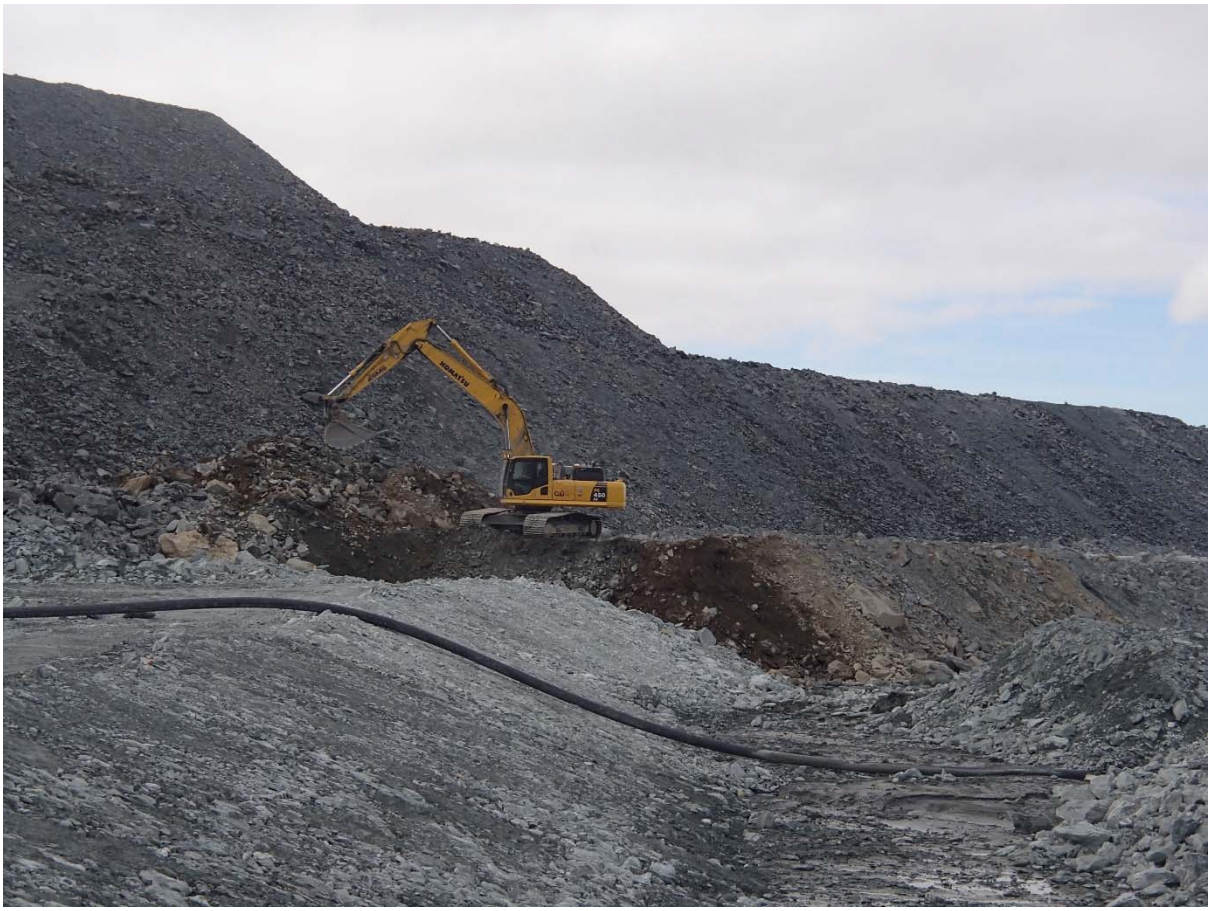


Photograph NCIS-043: From Sta. 1+250/-38 m (approx.), looking N. Compaction of the 1.5 to 2 m lift (approx.) of ultramafic (UM) rockfill at El. 150 m with a 10-tonne smooth-drum compactor with vibration (6 passes) between the haul truck traffic lane and the upstream slope from Sta. 1+330 to 1+200 m (offset -53 to -24 m).

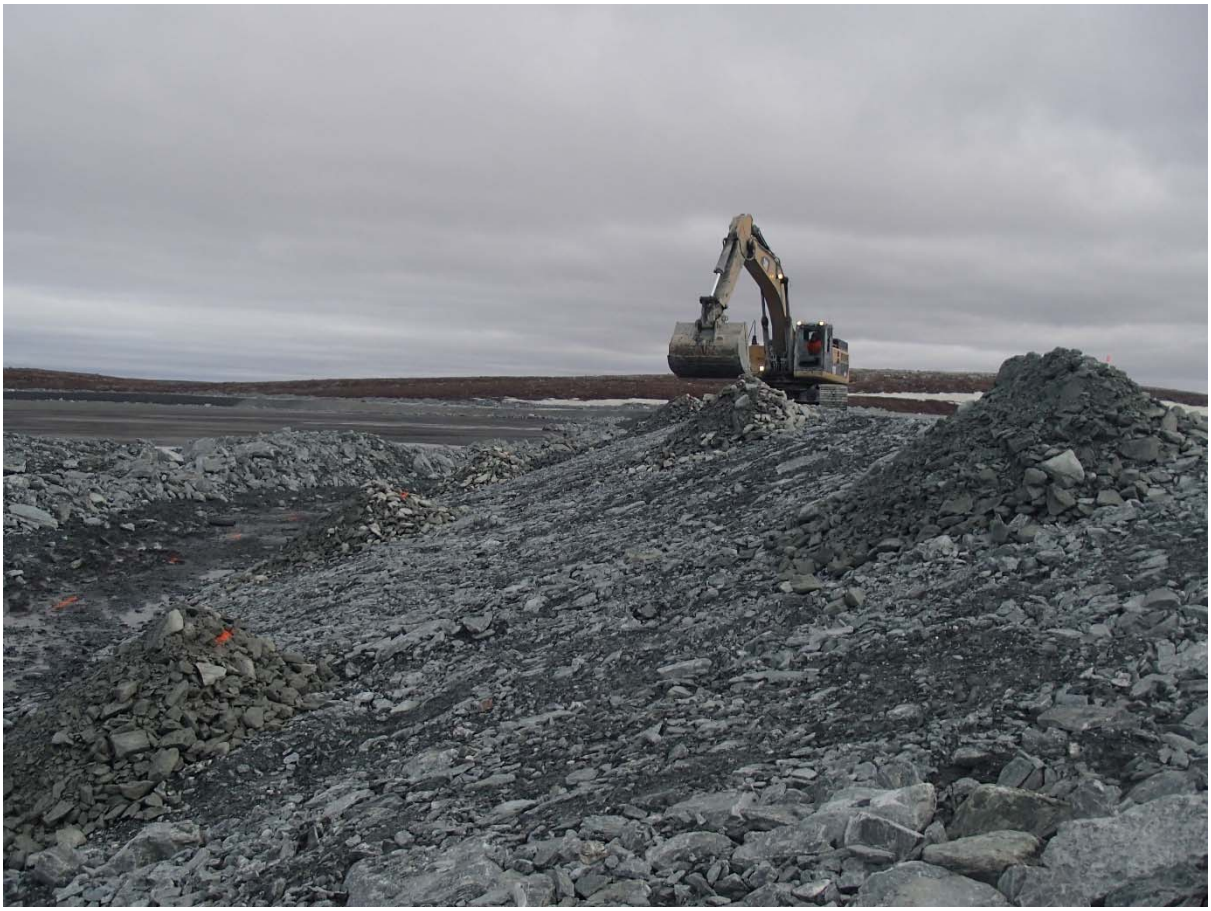
Photograph NCIS-044: From Sta. 1+200/-19 m (approx.), looking S. Placement of a 1.5 to 2 m thick (approx.) lift of UM rockfill from El. 148 m to El. 150 m (approx.) with a dozer from Sta. 1+150 m to 1+120 m (-92 m to +10 m). The material is of good quality and is well graded.



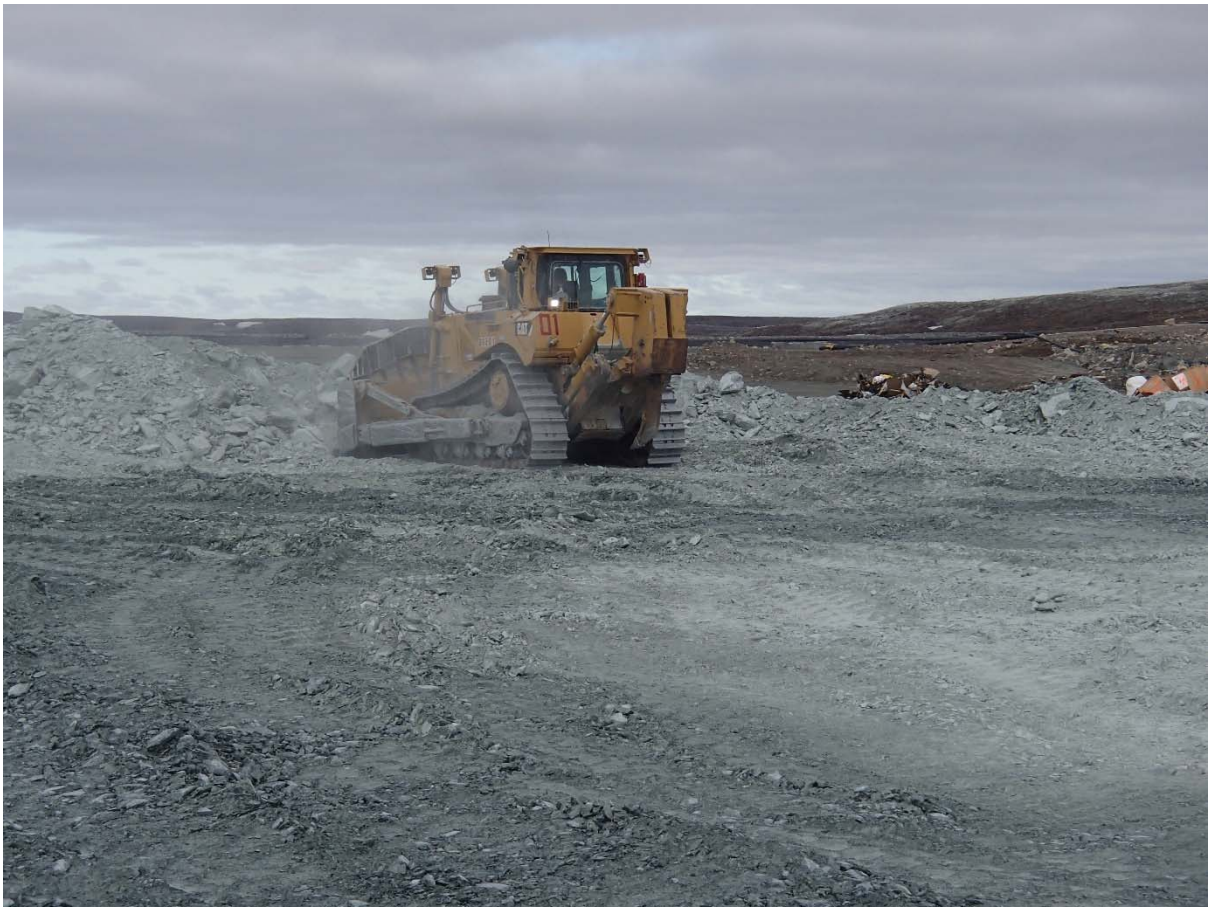
Photograph NCIS-045: From Sta. 2+760/-40 m (approx.), looking S. Profiling of the upstream slope (3H:1V) from El. 150 to 152 m with an excavator from Sta. 2+715 m to 2+825 m.



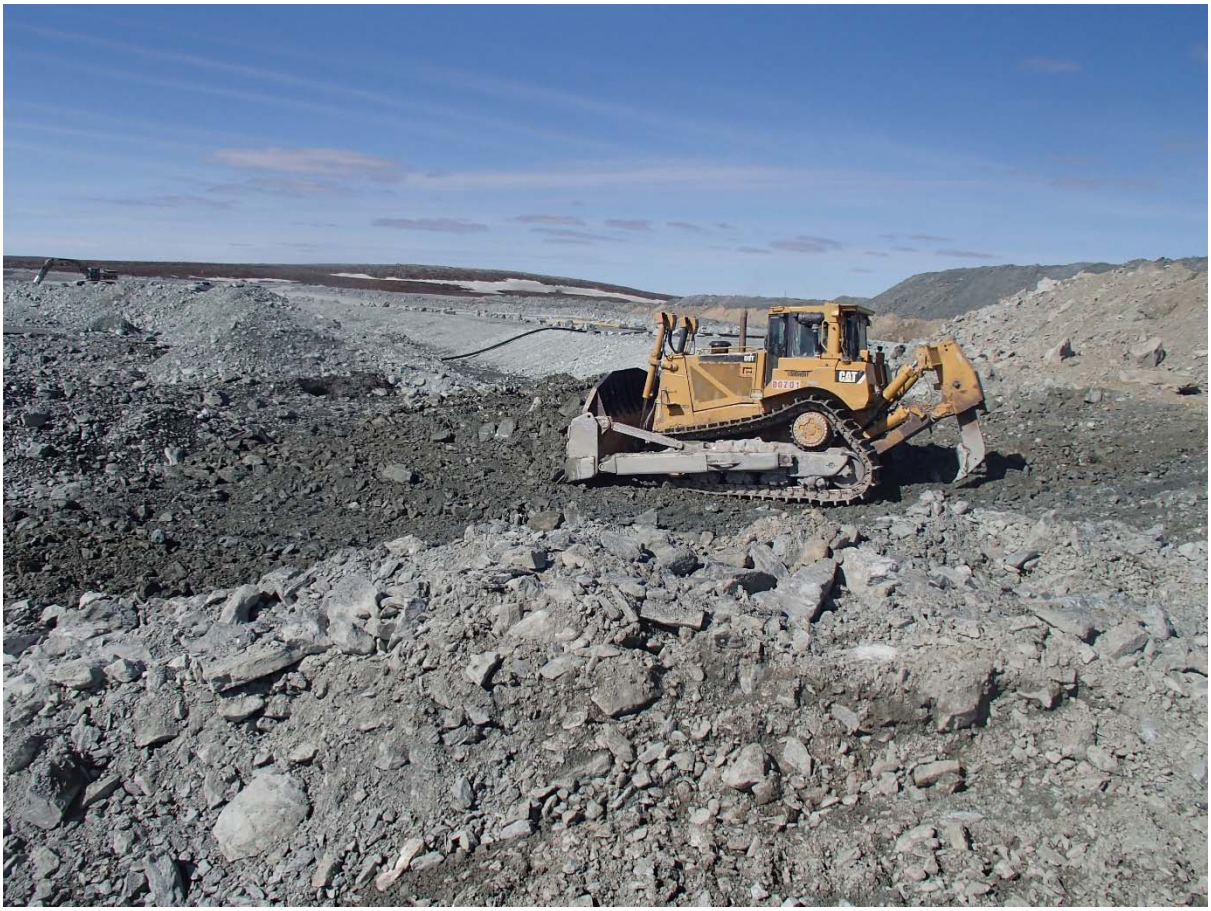
Photograph NCIS-046: From Sta. 2+680/-18 m (approx.), looking SE. Removal of till material mixed with the UM rockfill of the capping (about 1 to 2 m thick along the slope) with an excavator from Sta. 2+760 m to 2+850 m (offset -35 to -17 m).



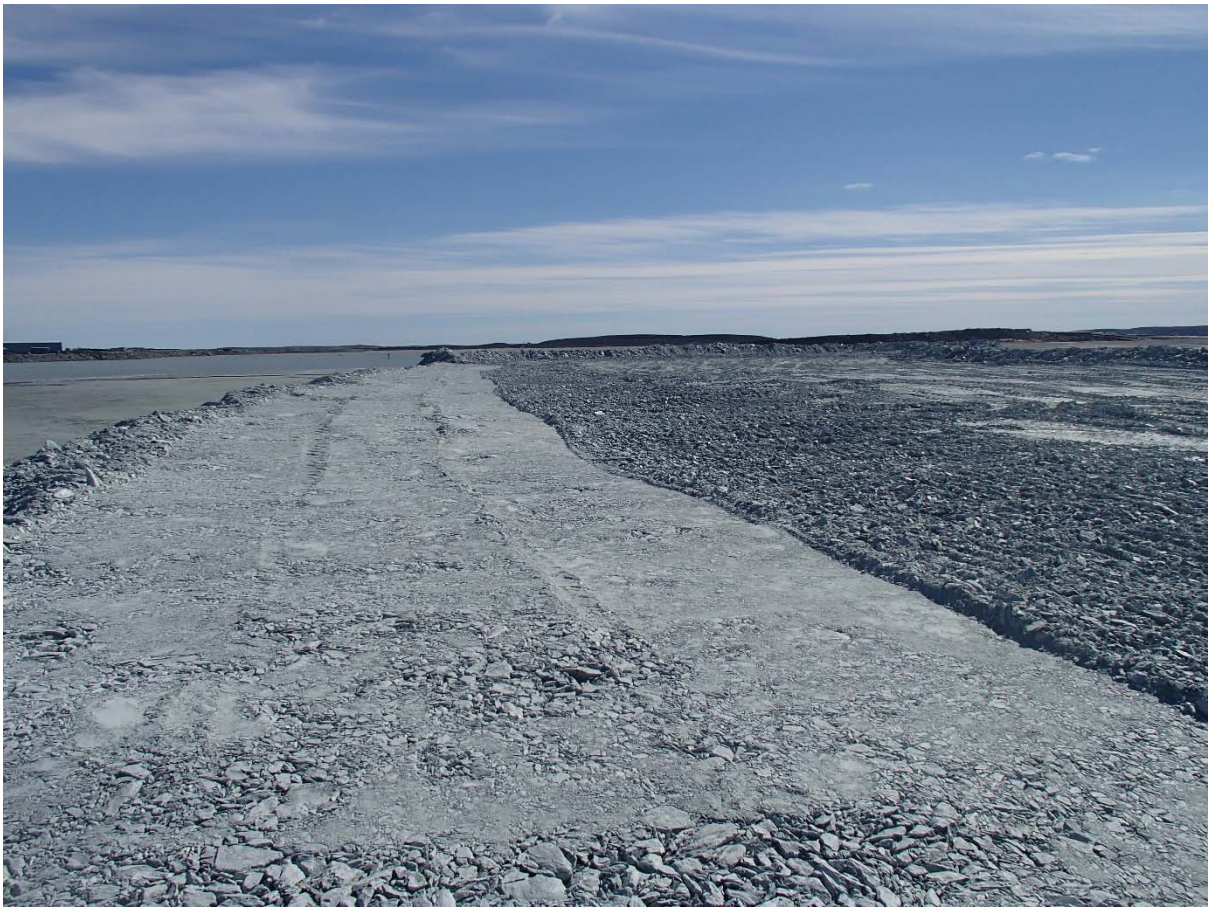
Photograph NCIS-047: From Sta. 2+580/-35 m (approx.), looking N. Placement of a 0.5 m thick lift of coarse filter in the upstream slope from El. 150 m to 152 m with an excavator from Sta. 2+560 m to 2+640 m.



Photograph NCIS-048: From Sta. 1+120/-92 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+125 m to 1+115 m (-92 m to -47 m). The material is of good quality and is well graded.



Photograph NCIS-049: From Sta. 2+870/-28 m (approx.), looking N. Removing of UM rockfill material from the capping with a dozer to level the surface to El. 150 m from Sta. 2+760 m to 2+850 m (offset -29 to -17 m).



Photograph NCIS-050: From Sta. 1+230/-55 m (approx.), looking S. Compaction of the 1.5 to 2 m lift (approx.) of ultramafic (UM) rockfill at El. 150 m with a 10-tonne smooth-drum compactor with vibration (6 passes) between the haul truck traffic lane and the upstream slope from Sta. 1+220 to 1+130 m (offset -91 to -44 m).

Photograph NCIS-051: From Sta. 2+630/-34 m (approx.), looking SE. 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+640 m to 2+815 m.