Photograph SD3-308: From Sta. 20+620/-48 m, looking SW. Installation of the geotextile on the upstream slope 3H:1V between El. 143 m and 145 m from Sta. 20+610 m to 20+810 m.

Photograph SD3-309: From Sta. 20+640/-26 m, looking N. Installation of the LLDPE liner on the upstream slope 3H:1V between El. 143 m and 145 m from Sta. 20+610 m to 20+810 m (panel numbers 934 to 964).

Photograph SD3-310: From Sta. 20+635/-24 m, looking S. Installation of the geotextile on the upstream slope 3H:1V between El. 143 m and 145 m from Sta. 20+630 m to 20+800 m.

Photograph SD3-311: From Sta. 20+810/-26 m, looking N. Installation of the LLDPE liner on the upstream slope 3H:1V between El. 143 m and 145 m from Sta. 20+630 m to 20+800 m (panel numbers 939 to 964).

Photograph SD3-312: From Sta. 20+610/-48 m, looking W. Placement of a 0.15 m thick lift of compacted sieved till from Sta. 20+596.4 m to 20+601.6 m (offset -42.6 to -46.3 m) to fill the depression in the compacted sieved till layer.

Photograph SD3-313: From Sta. 20+600/-52 m, looking S. Compaction of the 0.15 m-thick lift of compacted sieved till with a 10-tonne smooth-drum compactor without vibration (4 passes) from Sta. 20+596 m to 20+601 m.

Photograph SD3-314: From Sta. 20+590/-32 m, looking E. View of the liner bedding ready for geosynthetics installation.

Photograph SD3-315: From Sta. 20+615/-46 m, looking W. Installation of the geotextile on the upstream slope 3H:1V between El. 143 m and 145 m from Sta. 20+593 m to 20+610 m and installation of the LLDPE liner on the upstream slope 3H:1V between El. 143 m and 145 m from Sta. 20+593 m to 20+610 m (panel numbers 965 to 967).

Photograph SD3-316: From Sta. 20+610/-45 m, looking NW. Repairs on the extrusion fillet seam between LLDPE panel 965 and the existing LLDPE panel at Sta. 20+600 m (approx.).

Marion Habersetzer
for: Samuel Barbeau
Mine Waste Group

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

Yves Boulianne, P.Eng.
Associate, Senior Geotechnical Engineer

SB/MH/YB/

https://golderassociates.sharepoint.com/sites/1897439/preparation of deliverables/weekly reports/2018-06-04 to 2018-06-11/1897439-1577-tm-rev0 qa weekly report south cell 2018-06-04 to 2018-06-11.docx

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Date 2018-06-11
PERMIT NUMBER: P 049
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QA WEEKLY REPORT

DATE July 16th 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 7TH TO JULY 15TH – TSF SOUTH CELL CONSTRUCTION MEADOWBANK (1897439)

This document summarizes QA activities performed by Golder from July 7th to June 15th, 2018 inclusively, related to the construction activities of Saddle Dam 3 (SD3) and Central Dike (CD) at the Meadowbank mine site.

Unless otherwise specified, the construction activities use the centreline of the structures for a dike crest elevation of 150 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
Samuel Barbeau	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. Wear a mask in the lab.
- Coactivity on the dike: be aware of blind spots and safe spots, keep good communication and visual contact with the operators.
- 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.
- A wolverine was spotted on the North Cell. It was reiterated to remain vigilant for wildlife when exiting a vehicle.
- It was reiterated to wear proper PPE and to report any incident as soon as possible.
- A pickup passed a haul truck on the west road without calling on the radio. It was reiterated to never pass a haul truck on the west road and, where acceptable, to always call on the radio when passing a vehicle.
- It was reiterated to drink a lot of water to stay hydrated despite the heat.

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 Portable Nuclear Gauge was received on site. It is locked with chains in a locked container near SANA storage pad.

Saddle Dam 3

- Due to the level of the South Cell supernatant pond, it was impossible to access the upstream side of SD3 from the ground. The erosion protection offered a too narrow platform for the articulated trucks to access the work area. The rockfill layer was widened and the access road to SD3 was reworked before construction works on SD3 could resume.
- Following discussions with AEM's representative, the thermistors upstream of SD3 were unplugged and the cables were moved temporarily at the base of SD3, for placement of the erosion protection layer. The cables were protected with crusher reject material before placement of the rockfill for the access road and the end of the cables that comes out of the reject was installed on a crusher reject mound to assure that no articulated truck would circulate over it. The crusher reject mound is visible on photograph SD3-324.
- The QA Manager reiterated that articulated trucks and excavator can only traffic above the LLDPE geomembrane if a minimum of 2 m of material covers the LLDPE geomembrane.

- The design change for the erosion protection cover on SD3 required geotextile type Texel 934 or equivalent. Given that the mechanical properties of the only geotextile available on site, TenCate Mirafi S1600, are inferior to those of Texel 934, an alternative of two layers of TenCate Mirafi S1600 was accepted. It should be noted that the use of two layers of geotextile is generally not a recommended practice as the two layers may slip on each other. The acceptance is based on the fact that the dike would likely not being built to its final initially planned elevation. Should the dike be raised further, this aspect of the design will need to be reviewed.
- The QA Manager reiterated that the maximum particle size acceptable for the fine rockfill of the erosion protection is 500 mm.
- As the excavator has enough waiting time between the loading of each articulate truck to sieve the till, and to simplify the placement of the till on the erosion protection cover, the till is installed as a single 0.5 m thick lift of low quality till (0-150 mm) rather than 0.5 m of low quality till (0-50 mm) followed by low quality till (0-300 mm). With the presence of the two layers of geotextile, low quality till (0-150 mm) is acceptable. A close follow-up is required by the QA and QC personnel to assure that no oversize particle or any particularly sharp rock is laid against the slope.
- The QA Manager observed many particles larger than 300 mm in the low quality till sieved with the bucket of the excavator (0-150 mm) on SD3 at the beginning of the construction of the first lift. It was reiterated that the sieving operation aims to remove particles of size over 150 mm. The bigger particles were removed with an excavator on SD3. The SANA foreman forwarded the information to the operator of the excavator sieving and loading the till at the E5 stockpile.
- The QA Manager reiterated that the surface of the final lift of low quality till (0-150 mm) at El. 143.5 m will need to be profiled with a slight slope towards the interior of the cell to prevent water accumulation against the LLDPE geomembrane.
- The QA Manager asked to pump the water ponding on the LLDPE geomembrane and the first compacted sieved till layer of the upstream toe liner tie-in at approx. Sta. 20+595 m to allow for the till to dry. As no portable nuclear gauge was present on site when the till layer thickness was corrected on June 8th, compaction tests were required and completed before construction of the upstream toe liner tie-in of the north abutment of Saddle Dam 3 resumed.
- The QC personnel measured some water content values with the portable nuclear gauge in the low quality till stockpile at E5 and on the low quality till lift at El. 142.5 m every 20 m from Sta. 20+620 m to 20+740 m after placement on SD3, prior to compaction. Four values were measured in the stockpile and ranged from 8.6% to 9.8% with a 9.1% average. Seven values were measured on SD3 and ranged from 5.8% to 9.8% with a 7.7% average. These water contents suggest that adequate compaction can be achieved, based on the reference boards.
- The compactor was sinking in the low quality till at El. 142.5 m from Sta. 20+615 m to 20+635 m, when turning to follow the curve of Saddle Dam 3. As the water content measured with the portable nuclear gauge indicated a 6.1% water content, it was assumed that it was the underlying compacted sieved till layer that

was too soft. Following discussion with the Designer, it was decided not to excavate the underlying till layer to prevent damaging the LLDPE geomembrane below the compacted sieved till. The surface of the low quality till at El. 142.5 m was corrected with the excavator and was then compacted with a 10-tonne smooth-drum compactor without vibration. The compaction was carried out perpendicularly to the longitudinal axe of Saddle Dam 3 from Sta. 20+615 m to 20+635 to avoid the necessity to turn on the low quality till for the compactor.

- The compaction tests for PNG number 44 to 47 were based on the Central Dike reference board of 2017, as no reference board had been completed yet this year.
- The QC Personnel completed a reference board on the second lift of compacted sieved till in the south abutment upstream toe liner tie-in at Saddle Dam 3. The second lift was thus compacted with 8 passes of a 10-tonne smooth-drum compactor with vibrations. The optimum compaction would have been reached with 4 passes.
- Following discussions with AEM, the depressions in the surface between SD2 and SD3 were filled with low quality till up to El. 145 m to limit water ponding and runoff in this area during freshet.
- The IV rockfill stockpile north of Central Dike was emptied on July 12th. The Pit B ultramafic (UM) rockfill stockpile is now being used for the fine rockfill layer of the erosion protection cover on SD3.

Follow-up

- Junction of the upstream erosion protection cover and upstream toe liner tie-ins to be discussed.

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.

Table 2: QA Observations for Saddle Dam 3

Activity or Area	Comments
Water management	■ The water ponding at El. 142 m on the compacted sieved till layer of the upstream toe liner tie-in at approx. Sta. 20+620 m to 20+630 m was pumped. ■ The water ponding on the LLDPE geomembrane and the first compacted sieved till layer of the upstream toe liner tie-in at approx. Sta. 20+595 m was pumped out.
Upstream erosion protection cover	■ Placement of IV rockfill in the water up to El. 142 m with an excavator from Sta. 20+785 m to 20+610 m, at the bottom of the upstream slope of SD3 to

Activity or Area	Comments
	widen the rockfill layer and allow access to the erosion protection. The material is of good quality and is well graded. ■ Placement of a 1 m thick (approx.) lift of fine IV rockfill over the compacted till in the upstream slope from El. 142 m to 144 m with an excavator from Sta. 20+600 m to 20+610 m. The material is of good quality and is well graded. ■ Installation of two layers of geotextile on the upstream slope 3H:1V between El. 142 m and 144 m (approx.) from Sta. 20+610 m to 20+800 m. ■ Placement of the first 0.5 m lift of low quality till (0-150 mm) from El. 142 m to 142.5 m from Sta. 20+610 m to 20+760 m. The material visually seemed of good quality. ■ Placement of a first 0.5 m thick lift of fine rockfill (0-500 mm) upstream of the low quality till from El. 142 m to 142.5 m from Sta. 20+610 m to 20+760 m. The material is of good quality and is well graded. ■ Compaction of the 0.5 m lift of low quality till (0-150 mm) at El. 142.5 m with a 10-tonne smooth-drum compactor with vibration (4 passes) from Sta. 20+610 m to 20+615 m and from Sta. 20+635 m to 20+760 m. ■ Compaction perpendicularly to the longitudinal axe of Saddle Dam 3 of the 0.5 m lift of low quality till (0-150 mm) at El. 142.5 m with a 10-tonne smooth-drum compactor without vibration (4 passes) from Sta. 20+615 m to 20+635 m. ■ Compaction of the 0.5 m lift of fine rockfill at El. 142.5 m with a 10-tonne smooth-drum compactor without vibration (4 passes) from Sta. 20+600m to 20+760 m. ■ Placement of a second 0.5 m thick lift of low quality till (0-150 mm) from El. 142.5 m to 143 m from Sta. 20+610 m to 20+760 m. The material visually seemed of good quality. ■ Placement of a second 0.5 m thick lift of fine rockfill (0-500 mm) upstream of the low quality till (0-150mm) from El. 142.5 m to 143 m from Sta. 20+610 m to 20+760 m. The material is of good quality and is well graded.

Activity or Area	Comments
	■ Compaction of the 0.5 m lift of low quality till (0-150 mm) at El. 143 m with a 10-tonne smooth-drum compactor with vibration (4 passes) from Sta. 20+610 m to 20+615 m and from Sta. 20+635 m to 20+760 m. ■ Compaction perpendicularly to the longitudinal axe of Saddle Dam 3 of the 0.5 m lift of low quality till (0-150 mm) at El. 143 m with a 10-tonne smooth-drum compactor without vibration (4 passes) from Sta. 20+615 m to 20+635 m. ■ Compaction of the 0.5 m lift of fine rockfill at El. 143 m with a 10-tonne smooth-drum compactor with vibration (4 passes) from Sta. 20+610 m to 20+760 m.
Upstream toe liner tie-in – south abutment	■ Placement of a first 0.5 m thick lift of compacted sieved till over the LLDPE geomembrane on the upstream toe liner tie-in with an excavator from Sta. 20+775 m to 20+800 m. The material visually seemed of good quality. ■ Compaction of the first 0.5 m thick lift of compacted sieved till of the upstream toe liner tie-in with a 10-tonne smooth-drum compactor with vibrations (4 passes) from Sta. 20+775 m to 20+800 m, only where no LLDPE geomembrane lies underneath the layer. The material was tested with PNG. ■ Placement of a second 0.5 m thick lift of compacted sieved till on the upstream toe liner tie-in with an excavator from Sta. 20+770 m to 20+800 m. The material visually seemed of good quality. The lift was compacted with a 10-tonne smooth-drum compactor with vibrations (8 passes) only where the LLDPE geomembrane lies at least 0.5 m underneath the layer. The material was tested with PNG. ■ Placement of a third 0.5 m thick lift of compacted sieved till on the upstream toe liner tie-in with an excavator from Sta. 20+760 m to 20+820 m. The material visually seemed of good quality. ■ Compaction of the third 0.5 m thick lift of compacted sieved till on the upstream toe liner tie-in with an excavator from Sta. 20+760 m to 20+820 m. The lift was compacted with a 10-tonne smooth-drum compactor with vibrations (4 passes), only where no LLDPE geomembrane lies underneath the layer. The material was tested with PNG. ■ Placement of a first, second, third and fourth 0.5 m thick lifts of fine filter upstream of the compacted sieved till with an excavator from Sta. 20+775

Activity or Area	Comments
	to 20+800 m. The material visually seemed well graded and of good quality. The lifts were compacted with a 10-tonne smooth-drum compactor with vibrations (4 passes). ■ Placement of a first, second, third and fourth 0.5 m thick lifts of coarse filter upstream of the fine filter with an excavator from Sta. 20+775 to 20+800 m. The lifts were compacted with a 10-tonne smooth-drum compactor with vibrations (4 passes). ■ Placement of a first, second, third and fourth 0.5 m thick lifts of fine UM rockfill upstream of the coarse filter with an excavator from Sta. 20+775 to 20+800 m. The material visually seemed well graded and of good quality. The lifts were compacted with a 10-tonne smooth-drum compactor with vibrations (4 passes).
Upstream toe liner tie-in – north abutment	■ Placement of a first 0.5 m thick lift of compacted sieved till over the LLDPE geomembrane on the upstream toe liner tie-in with an excavator from Sta. 20+588 m to 20+600 m. The material visually seemed of good quality. ■ Compaction of the first 0.5 m thick lift of compacted sieved till over the LLDPE geomembrane on the upstream toe liner tie-in with an excavator from Sta. 20+588 m to 20+600 m. The lift was compacted with a 10-tonne smooth-drum compactor with vibrations (4 passes), only where no LLDPE geomembrane lies underneath the layer. The material was tested with PNG. ■ Placement of a second 0.5 m thick lift of compacted sieved till over the LLDPE geomembrane on the upstream toe liner tie-in with an excavator from Sta. 20+588 m to 20+600 m. The material visually seemed of good quality. The lift was compacted with a 10-tonne smooth-drum compactor with vibrations (4 passes), only where the LLDPE geomembrane lies at least 0.5 m underneath the layer. The material was tested with PNG. ■ Placement of a first 0.5 m thick lift of compacted low quality till over the second lift of compacted sieved till on the upstream toe liner tie-in with an excavator from Sta. 20+588 m to 20+599 m. The material visually seemed of good quality. The lift was not compacted yet. ■ Placement of a first 0.5 m thick lift of fine filter on the upstream slope of the compacted sieved till with an excavator from Sta. 20+588 m to 20+600 m. The material visually seemed well graded and of good quality. The lift was

Activity or Area	Comments
	compacted with a 10-tonne smooth-drum compactor with vibrations (4 passes). ■ Placement of a first 0.5 m thick lift of coarse filter on the upstream slope of the fine filter with an excavator from Sta. 20+588 m to 20+600 m. The material visually seemed well graded and of good quality. The lift was compacted with a 10-tonne smooth-drum compactor with vibrations (4 passes). ■ Placement of a first 0.5 m thick lift of fine rockfill on the upstream slope of the coarse filter with an excavator from Sta. 20+588 m to 20+600 m. The material visually seemed well graded and of good quality. The lift was compacted with a 10-tonne smooth-drum compactor with vibrations (4 passes). ■ Placement of a second 0.5 m thick lift of fine filter on the upstream slope of the upstream toe liner tie-in with an excavator from Sta. 20+588 m to 20+605 m. The material visually seemed well graded and of good quality. ■ Placement of a second 0.5 m thick lift of coarse filter on the upstream slope of the upstream toe liner tie-in with an excavator from Sta. 20+588 m to 20+605 m. The material visually seemed well graded and of good quality. ■ Placement of a second 0.5 m thick lift of fine rockfill on the upstream slope of the upstream toe liner tie-in with an excavator from Sta. 20+588 m to 20+605 m. The material visually seemed well graded and of good quality.

Note 1: In the south abutment, the elevation of the second lift of fine and coarse filters and fine rockfill corresponds to the elevation of the first lift of sieved till, as the first lift of filters and rockfill were placed along the existing compacted sieved till layer of the upstream toe liner tie-in.

Note 2: In the north abutment, the elevation of the first lift of fine and coarse filters and fine rockfill corresponds to the elevation of the second lift of sieved till, as the first lift of compacted sieved till was placed in a depression in the bedrock.

5.0 SAMPLING, LABORATORY AND FIELD TESTING

Note: The compaction tests for PNG number 46 and 47 were compared to the CD compacted sieve till reference board of 2017, while number 48 to 56 were compared to the SD3 compacted sieve till reference board of 2018.

Table 4Table 3 and Table 4 present the samples collected or tested by the QA and QC as well as PNG field results.

Table 3: Samples Taken by the QC

Sample ID	Date Sampled	Date Tested	Fill Material Type	Location (Station/Offset Elevation)	Test	Testing Result
ST-443-2018	2018-06-08	2018-06-11	Compacted sieved till	Sta. 20+601.59m /-46.2 m El. 143.22 m	Gradation	Compliant
					Water content	9.2%
ST-445-2018	2018-06-09	2018-06-11	Compacted sieved till	Stockpile (SANA Crusher)	Gradation	Compliant
					Water content	10.3%
#44 (PNG)	2018-07-12	2018-07-12	Compacted sieved till	SD3 (in place) 20+599.7/-48.3 m El. 143.3m	Dry density	2181 (compliant)
					Water content (PNG)	8.5%
#45 (PNG)	2018-07-12	2018-07-12	Compacted sieved till	SD3 (in place) 20+599.0/-47.3 m El. 143.3m	Dry density	2226 (compliant)
					Water content (PNG)	9.4%
#46 (PNG)	2018-07-13	2018-07-13	Compacted sieved till	SD3 (in place) 20+791.5/-35.8 m El. 143.7 m	Dry density	2228 (compliant)
					Water content (PNG)	5.9%
#47 (PNG)	2018-07-13	2018-07-13	Compacted sieved till	SD3 (in place) 20+782.6/-37.6 m El. 143.3m	Dry density	2195 (compliant)
					Water content (PNG)	6.2%
#48 (PNG)	2018-07-13	2018-07-13	Compacted sieved till	SD3 (in place) 20+785.4/-33.3 m El. 143.9 m	Dry density	2154 (compliant)
					Water content (PNG)	8.5%

Sample ID	Date Sampled	Date Tested	Fill Material Type	Location (Station/Offset Elevation)	Test	Testing Result
#49 (PNG)	2018-07-13	2018-07-13	Compacted sieved till	SD3 (in place) 20+788.8/-32.9 m El. 144.1 m	Dry density	2133 (compliant)
					Water content (PNG)	9.4%
#50 (PNG)	2018-07-13	2018-07-13	Compacted sieved till	SD3 (in place) 20+792.2/-33.1 m El. 144.3 m	Dry density	2129 (compliant)
					Water content (PNG)	5.9%
FF-418-2018	2018-07-14	2018-07-15	Fine Filter	North Cell Internal Structure, Sta. 20+818/-33.6 m, El. 145 m	Gradation	Compliant
					Water content	3.49%
#51 (PNG)	2018-07-15	2018-07-15	Compacted sieved till	SD3 (in place) 20+597.3/-47.8 m, El. 143.8 m	Dry density	2141 (compliant)
					Water content (PNG)	8.3%
#52 (PNG)	2018-07-15	2018-07-15	Compacted sieved till	SD3 (in place) 20+597.1/-49.9 m, El. 143.7 m	Dry density	2115 (compliant)
					Water content (PNG)	8.5%
#53 (PNG)	2018-07-15	2018-07-15	Compacted sieved till	SD3 (in place) 20+792.1/-34.2 m, El. 144.7 m	Dry density	2165 (compliant)
					Water content (PNG)	7.2%
#54 (PNG)	2018-07-15	2018-07-15	Compacted sieved till		Dry density	2157 (compliant)

Sample ID	Date Sampled	Date Tested	Fill Material Type	Location (Station/Offset Elevation)	Test	Testing Result
				SD3 (in place) 20+781.1/-33.6 m, El. 144.4 m	Water content (PNG)	6.0%
#55 (PNG)	2018-07-15	2018-07-15	Compacted sieved till	SD3 (in place) 20+596.0/-46.5 m El. 144.4 m	Dry density	2113 (compliant)
					Water content (PNG)	8.6%
#56 (PNG)	2018-07-15	2018-07-15	Compacted sieved till	SD3 (in place) 20+602.2/-50.0 m El. 144 m	Dry density	2140 (compliant)
					Water content (PNG)	7.0%

Note: The compaction tests for PNG number 46 and 47 were compared to the CD compacted sieve till reference board of 2017, while number 48 to 56 were compared to the SD3 compacted sieve till reference board of 2018.

Table 4: Samples Taken by the QA

Sample ID	Date Sampled	Date Tested	Fill Material Type	Location (Station/Offset Elevation)	Test	Testing Result

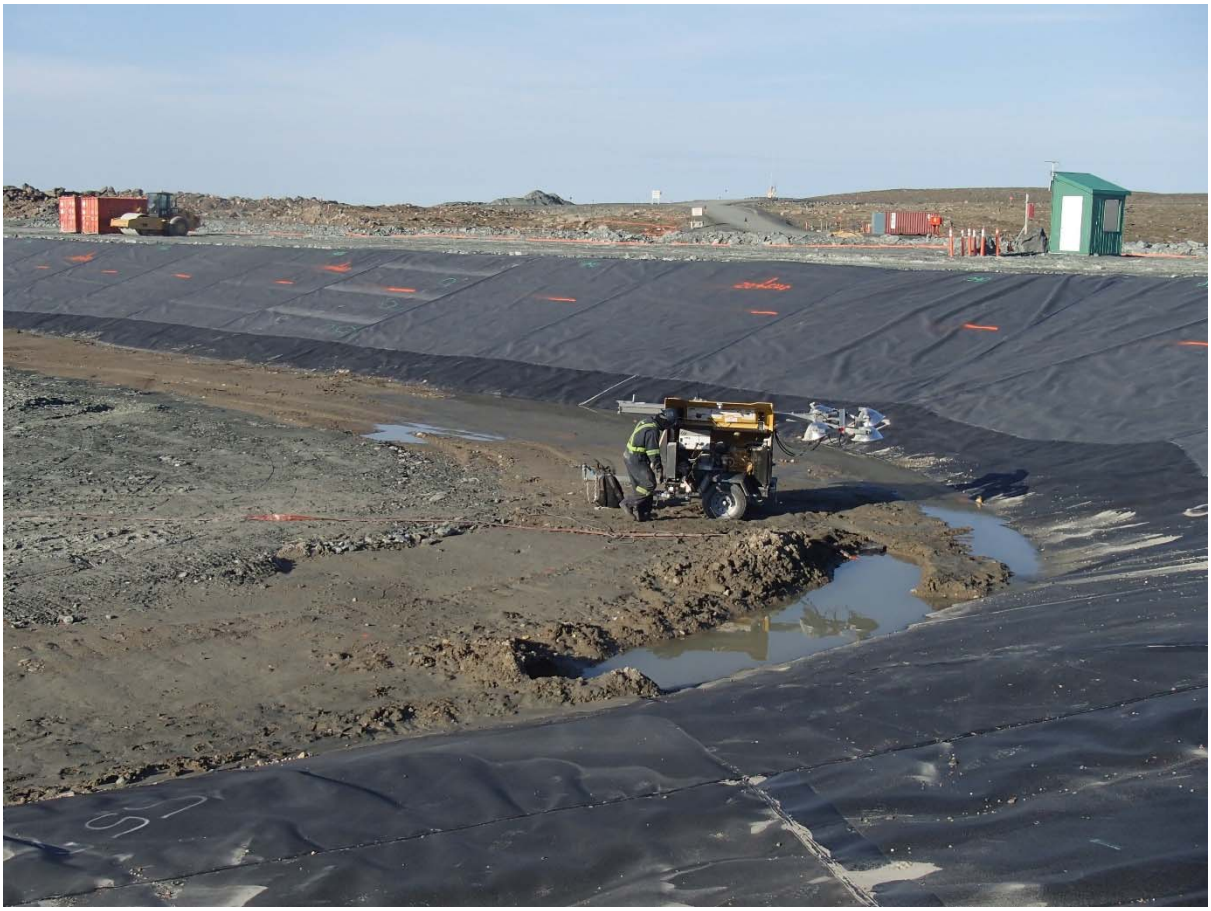
6.0 PHOTOGRAPHS

Photograph SD3-317: From Sta. 20+800/-22 m, looking E. Reworking of the access to SD3.

Photograph SD3-318: From Sta. 20+710/-24 m, looking SE. Placement of IV rockfill in the water up to El. 142 m with an excavator from Sta. 20+785 m to 20+730 m, at the bottom of the upstream slope of SD3 to widen the rockfill layer and allow access to the erosion protection.

Photograph SD3-319: From Sta. 20+740/-31 m, looking SE. Placement of IV rockfill in the water up to El. 142 m with an excavator from Sta. 20+730 m to 20+610 m, at the bottom of the upstream slope of SD3 to widen the rockfill layer and allow access to the erosion protection.

Photograph SD3-320: From Sta. 20+620/-67 m, looking E. Placement of a 1 m thick (approx.) lift of fine IV rockfill over the compacted till in the upstream slope from El. 142 m to 144 m with an excavator from Sta. 20+600 m to 20+610 m.



Photograph SD3-321: From Sta. 20+610/-56 m, looking SW. Water ponding at El. 142m on the compacted sieved till layer of the upstream toe liner tie-in at approx. Sta. 20+620 m to 20+630 m was pumped.

Photograph SD3-322: From Sta. 20+625/-63 m, looking W. Installation of two layers of geotextile on the upstream slope 3H:1V between El. 142 m and 143 m (approx.) from Sta. 20+610 m to 20+800 m.

Photograph SD3-323: From Sta. 20+610/-43 m, looking S. Placement of the first lift of low quality till (0-150 mm) from El. 142 m to 142.5 m from Sta. 20+610 m to 20+715 m.

Photograph SD3-324: From Sta. 20+680/-39m, looking S. Placement of a 0.5 m thick lift of low quality till (0-150 mm) from El. 142 m to 142.5 m from Sta. 20+715 m to 20+760 m.

Photograph SD3-325: From Sta. 20+610/-43 m, looking S. Placement of a first 0.5 m thick lift of fine rockfill (0-500 mm) upstream of the low quality till from El. 142 m to 142.5 m from Sta. 20+610 m to 20+760 m.

Photograph SD3-326: From Sta. 20+820/-34 m, looking N. Placement of the 0.5 m thick lift of low class till, fine filter, coarse filter and fine rockfill on the upstream slope of the upstream toe liner tie-in with an excavator from Sta. 20+780 to 20+810 m.

Photograph SD3-327: From Sta. 20+610/-43 m, looking S. Compaction of the 0.5 m lift of low quality till (0-150 mm) at El. 142.5 m with a 10-tonne smooth-drum compactor with vibration (4 passes) from Sta. 20+610 m to 20+615 m and from Sta. 20+635 m to 20+760 m.

Photograph SD3-328: From Sta. 20+610/-43 m, looking S. Compaction perpendicularly to the longitudinal axe of Saddle Dam 3 of the 0.5 m lift of low quality till (0-150 mm) at El. 142.5 m with a 10-tonne smooth-drum compactor without vibration (4 passes) from Sta. 20+615m to 20+635 m.

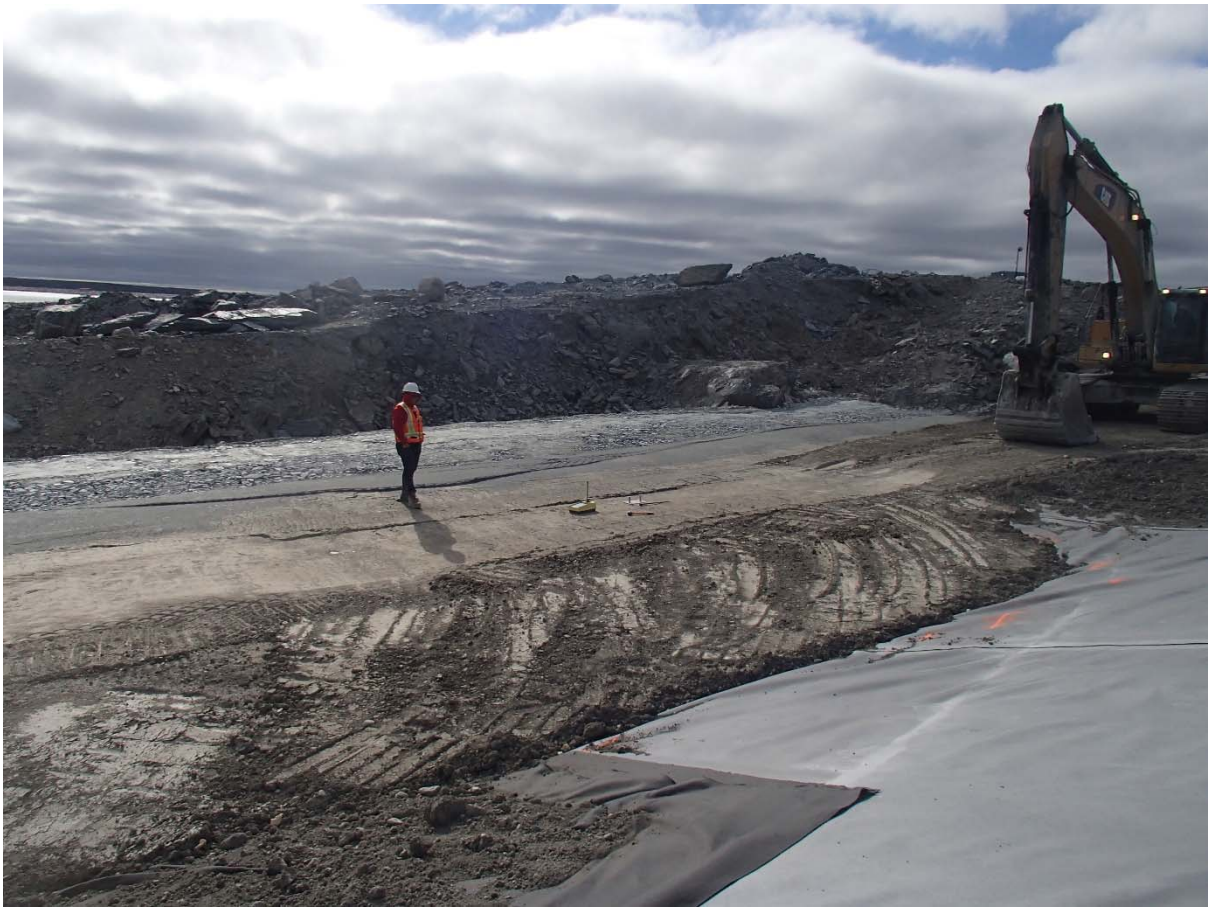
Photograph SD3-329: From Sta. 20+610/-43 m, looking S. Placement of a 0.5 m thick lift of low quality till (0-150 mm) from El. 142.5 m to 143 m from Sta. 20+610 m to 20+760 m.

Photograph SD3-330: From Sta. 20+610/-43 m, looking S. Placement of a second 0.5 m thick lift of fine rockfill (0-500 mm) upstream of the low quality till (0-150 mm) from El. 142.5 m to 143 m from Sta. 20+610 m to 20+760 m.

Photograph SD3-331: From Sta. 20+610/-43 m, looking S. Compaction of the 0.5 m lift of low quality till (0-150 mm) at El. 143 m with a 10-tonne smooth-drum compactor with vibration (4 passes) from Sta. 20+610 m to 20+760 m.

Photograph SD3-332: From Sta. 20+775/-23 m, looking SE. Placement of a first 0.5 m thick lift of compacted sieved till over the LLDPE geomembrane on the upstream toe liner tie-in with an excavator from Sta. 20+775 m to 20+800 m.

Photograph SD3-333: From Sta. 20+817/-29 m, looking N. Placement of a second 0.5 m thick lift of fine rockfill on the upstream slope of the upstream toe liner tie-in with an excavator from Sta. 20+775 m to 20+800 m.



Photograph SD3-334: From Sta. 20+780/-26 m, looking SE. Compaction of the second 0.5 m thick lift of compacted sieved till and third lift of fine filter, coarse filter and fine rockfill of the upstream toe liner tie-in with a 10-tonne smooth-drum compactor with vibrations from Sta. 20+770 m to 20+800 m.

Photograph SD3-335: From Sta. 20+815/-27 m, looking N. Placement of a third 0.5 m thick lift of compacted sieved till on the upstream toe liner tie-in with an excavator from Sta. 20+760 m to 20+810 m.

Photograph SD3-336: From Sta. 20+755/-48 m, looking S. Placement of a fourth 0.5 m thick lifts of fine filter, coarse filter and fine rockfill on the upstream slope of the upstream toe liner tie-in with an excavator from Sta. 20+770 to 20+800 m.

Photograph SD3-337: From Sta. 20+760/-37 m, looking S. Compaction of the fourth 0.5 m thick lifts of fine filter, coarse filter and fine rockfill on the upstream slope of the upstream toe liner tie-in with a 10-tonne smooth-drum compactor with vibrations (4 passes) from Sta. 20+770 to 20+800 m.