Photograph CD-1888: From Sta. 0+525/-26 m, looking N. Installation of the LLDPE liner on the upstream slope 2H:1V between El. 143 m and 145 m from Sta. 0+320 m to 0+150 m (panel numbers 911 to 933).

Photograph CD-1889: From Sta. 0+150/-28 m, looking N. View of the underlying liner that has been cut at around Sta. 0+160 m to drain the water.

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QA DAILY REPORT

DATE June 6th 2018 1897439-1576-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 DAILY REPORT FOR JUNE 5TH, 2018 – TSF SOUTH CELL CONSTRUCTION - MEADOWBANK (1897439)

1.0 WEATHER

Temperature around 2°C, sunny.

2.0 HEALTH AND SAFETY

- Cold weather and ice: apply caution when driving or walking on icy surfaces, wear appropriate clothing.
- Dust is still an issue on the construction field; be vigilant by staying out of the dust cloud near construction activities and road circulation.
- There is important heavy equipment coactivity on Central Dike because of geosynthetics installation operations: personnel on foot must make sure to be visible at all time.
- Frozen LLDPE liner is slippery in the morning: be careful when walking on the liner in the upstream slope.
- AEM reiterated to keep a 75 m safety distance when following a haul truck.
- A blast is planned at 12:45 at Pit E.

3.0 DISCUSSION AND DAILY CONSTRUCTION MEETING

During the daily construction meeting and during the day the following discussions were held:

- The water pounding on the first compacted sieved till layer of the upstream toe liner tie-in at approx. Sta. 20+595 m was pumped. A Genset Frost-fighter is heating the sieved till layer and a pump is evacuating the water.
- The work for the installation of the LLDPE liner protection cover on SD3 are scheduled for July 16th to August 6th.

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- The QA Manager reiterated that the services of a Surveyor will be required for the approval of the SD3 upstream slope liner foundation. SANA surveyor will survey the slope tomorrow morning.
- The QA Manager observed holes on the LLDPE liner panel 832, 833 and 834. All holes were marked in paint. They will be repaired and vaccum tested tomorrow.
- Water leaking from extrusion fillet seams were noticed by the QA Manager at the bottom of panel 803, 807, 808, 810, 814, 815, 816 and 818. All leaks were marked in paint. They will be repaired and vaccum tested tomorrow.

4.0 DESCRIPTION OF CONSTRUCTION WORK PERFORMED AND QA OBSERVATIONS

The QA activities by Golder are based on periodic inspections performed by the QA Engineer in order to monitor the construction activities and progress of the structure of the South Cell of the TSF. This report must be read in conjunction with the QC Report. The following tables summarize the progress and observations made for each structure.

Table 1: QA observations for Saddle Dam 3

Activity or Area	Comments
Water management	■ The water ponding on the first compacted sieved till layer of the upstream toe liner tie-in at approx. Sta. 20+595 m was pumped.
Upstream	■ Correction of the surface of the fine filter with a hand rake on the upstream slope from Sta. 20+590 m to 20+600 m.

Table 2: QA Observations for Central Dike

Activity or Area	Comments
Geotextile and LLDPE liner installation	■ AM and PM calibration results met Technical Specifications. Loads at failure in peel and shear were greater than minimum values presented in Table 6-2 from Technical Specifications. ■ The total extrusion fillet seam length is about 160 m. ■ Vacuum box tests were performed from Sta. 0+740 m to 0+400 m. No leak has been identified.

Activity or Area	Comments
	■ Destructive testing was carried out on sample D-8 collected yesterday on the LLDPE geomembrane at Sta. 0+240 m (see Table 3). Loads at failure in peel and shear were greater than minimum values presented in Table 6-2 from Technical Specifications. Sample was kept for the Owner's Representative.

Table 3: Details of the Destructive Testing and Follow-up on Repairs

Name	Structure	Station	Seam	Comment
D-8	Central Dike	Sta. 0+240 m	Between panels 920 and 921	Compliant

5.0 FOUNDATION APPROVAL

No foundation approval was done during the reporting period.

Table 4: Details of the Foundation Approvals

Name	Structure	Sta. and Offset	Date of Approval	Comment

6.0 SAMPLING, LABORATORY AND FIELD TESTING

Table 5 and Table 6 present the samples collected or tested by the QA and QC as well as PNG field results.

Table 5: Samples taken by the QC

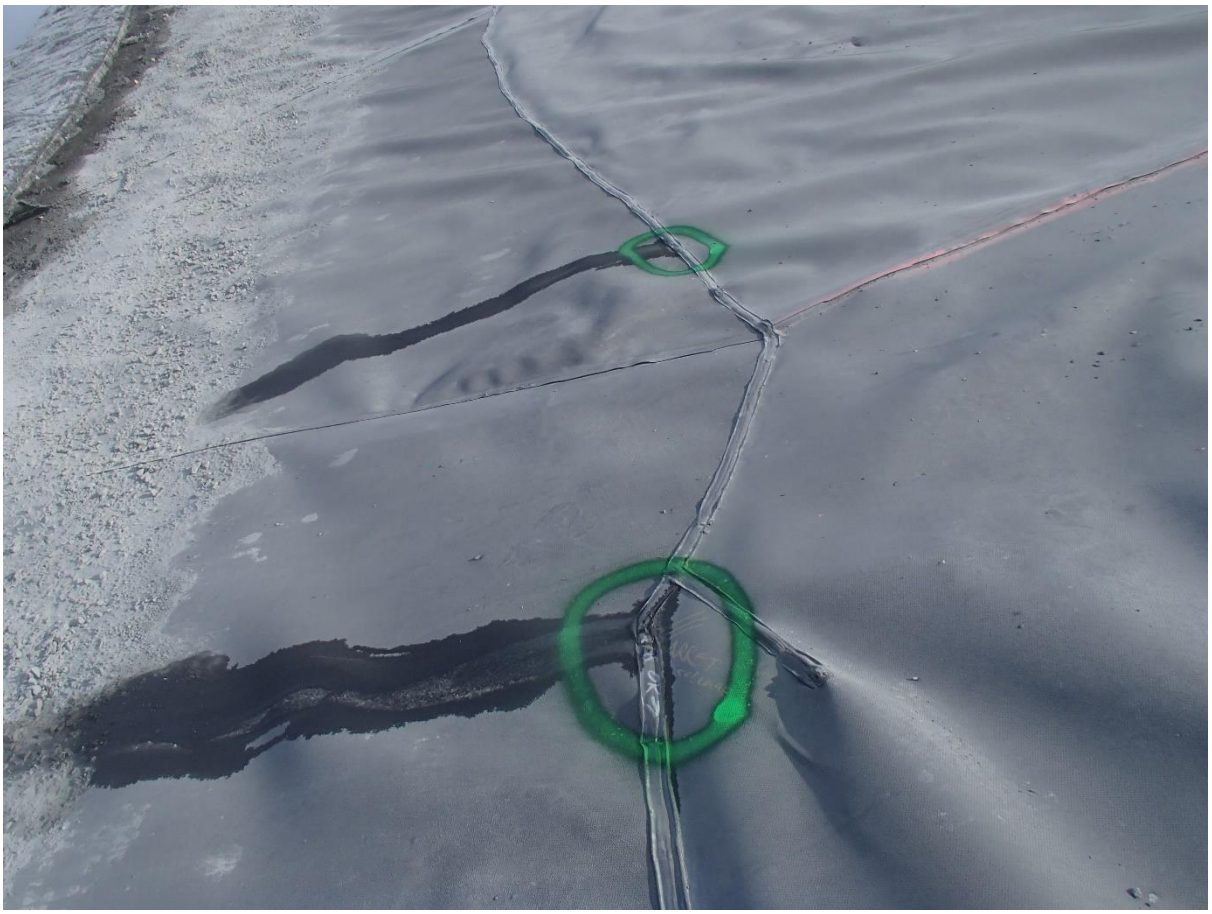
Sample ID	Date Sampled	Date Tested	Fill Material Type	Location (Station/Offset Elevation)	Test	Testing Result

Table 6: Samples taken by the QA

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

7.0 PHOTOGRAPH

Photograph CD-1890: From Sta. 0+310/-26 m, looking N. View of the extrusion welding.



Photograph CD-1891: From Sta. 0+960/-28 m, looking N. View of leaking extrusion fillet seam before their repair on panel 816 and 818.

Photograph SD3-305: From Sta. 20+610/-48 m, looking NW. Dewatering of the water ponding on the first compacted sieved till layer of upstream toe liner tie-in. A Genset Frost-fighter is heating the sieved till layer and a pump is evacuating the water.

QA DAILY REPORT

DATE June 7th 2018 1897439-1576-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 DAILY REPORT FOR JUNE 6TH, 2018 – TSF SOUTH CELL CONSTRUCTION - MEADOWBANK (1897439)

1.0 WEATHER

Temperature around -4°C, cloudy then sunny.

2.0 HEALTH AND SAFETY

- Cold weather and ice: apply caution when driving or walking on icy surfaces, wear appropriate clothing.
- Dust is still an issue on the construction field; be vigilant by staying out of the dust cloud near construction activities and road circulation.
- There is important heavy equipment coactivity on Central Dike because of geosynthetics installation operations: personnel on foot must make sure to be visible at all time.
- Frozen LLDPE liner is slippery in the morning: be careful when walking on the liner in the upstream slope.
- Fog in the morning: reduce speed while driving and increase distance with other vehicles.
- A backhoe circulated on the North Cell tailings last week. AEM produced a Near Miss report.
- A blast is planned at 12:45 at km 10 on Amaruq road.

3.0 DISCUSSION AND DAILY CONSTRUCTION MEETING

During the daily construction meeting and during the day the following discussions were held:

- The QA Manager reiterated that the first class sieved till stockpile's surface should be scraped with an excavator as it thaws to assure that the till will be unfroze on time for the installation of the LLDPE liner protection cover on SD3 planed for July 16th.
- The underlying liner that has been cut at around Sta. 0+160 m to drain the water is overlapped by the new panel 933.

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- The holes that were marked in paint yesterday by the QA Manager on the LLDPE liner panel 832, 833 and 834 were repaired and vacuum tested.
- Water leaking from extrusion fillet seams were noticed yesterday by the QA Manager at the bottom of panels 803, 807, 808, 810, 814, 815, 816 and 818. All leaks were marked in paint repaired and vacuum tested. The extrusion fillet seams at the bottom of panels 814 and 815 are still leaking water. They will be repaired and vacuum tested this week.
- The QA Manager observed holes on panel 879, 883 and 922. They were marked in paint and will be repaired and vacuum tested this week.
- The water pounding on the first compacted sieved till layer of the upstream toe liner tie-in at approx. Sta. 20+595 m was pumped. A Genset Frost-fighter is heating the sieved till layer and a pump is evacuating the water.
- The SD3 upstream slope liner bedding was surveyed by SANA surveyor.
- The installation of geosynthetics at Saddle Dam 3 began this afternoon.
- In order to take advantage of the good weather, priority was given to installing LLDPE liner panels on SD3. The extrusion and vacuum box testing will be performed tomorrow.
- Because of the overlap of the panels caused by the geometry of the mound where SD3 is curved toward the inside of the cell because of the fault in the bedrock foundation, the geotextile panels were spot-welded together with at least 450 mm overlap from 20+620 m to 20+625 m (approx.). Welding with dual hot wedge instrument would have required a lot of cutting of geotextile resulting in loss of time and increased risk of perforating the LLDPE liner underneath.

4.0 DESCRIPTION OF CONSTRUCTION WORK PERFORMED AND QA OBSERVATIONS

The QA activities by Golder are based on periodic inspections performed by the QA Engineer in order to monitor the construction activities and progress of the structure of the South Cell of the TSF. This report must be read in conjunction with the QC Report. The following tables summarize the progress and observations made for each structure.

Table 1: QA observations for Saddle Dam 3

Activity or Area	Comments
Water management	■ The water ponding on the first compacted sieved till layer of the upstream toe liner tie-in at approx. Sta. 20+595 m was pumped.
Upstream	■ Correction of the surface of the fine filter in the upstream slope and the top of the first class compacted sieved till layer with an excavator from Sta. 20+803 m to 20+793 m.
Geotextile and LLDPE liner installation	■ PM calibration results met Technical Specifications. Loads at failure in peel and shear were greater than minimum values presented in Table 6-2 from Technical Specifications. ■ Installation of the geotextile on the upstream slope 2H:1V between El. 143 m and 145 m from Sta. 20+620 m to 20+630 m. The geotextile surface was inspected before being covered with LLDPE. ■ Installation of the LLDPE liner on the upstream slope 2H:1V between El. 143 m and 145 m from Sta. 20+620 m to 20+630 m (panel numbers 934 to 939). The LLDPE was free of fold and hole. Seam tests (air channel tests) were carried out under the supervision of the QA Engineer and results met Technical Specifications. ■ The total fusion seam length is about 50 m. ■ Vacuum box tests have not been performed yet. ■ Backfilling of the geosynthetics tie-in from Sta. 20+620 m to 20+630 m. The material has not been compacted yet.

Table 2: QA Observations for Central Dike

Activity or Area	Comments
Geotextile and LLDPE liner installation	■ AM calibration results met Technical Specifications. Loads at failure in peel and shear were greater than minimum values presented in Table 6-2 from Technical Specifications. ■ The total extrusion fillet seam length is about 150 m.

Activity or Area	Comments
	■ Vacuum box tests were performed from Sta. 0+400 m to 0+160 m. No leak has been identified. ■ Compaction of the geosynthetics tie-in material at El. 145 m with a 10-tonne smooth-drum compactor with vibration (4 passes) from Sta. 0+480 m to 0+160 m.

Table 3: Details of the Destructive Testing and Follow-up on Repairs

Name	Structure	Station	Seam	Comment

5.0 FOUNDATION APPROVAL

No foundation approval was done during the reporting period.

Table 4: Details of the Foundation Approvals

Name	Structure	Sta. and Offset	Date of Approval	Comment
FND-SD3-37	Saddle Dam 3	Sta. 20+610.15 m to 20+803.45 m (o.s. -43.01 m to -25.29 m)	2018-06-06	Upstream slope approved for geosynthetics installation

6.0 SAMPLING, LABORATORY AND FIELD TESTING

Table 5 and Table 6 present the samples collected or tested by the QA and QC as well as PNG field results.

Table 5: Samples taken by the QC

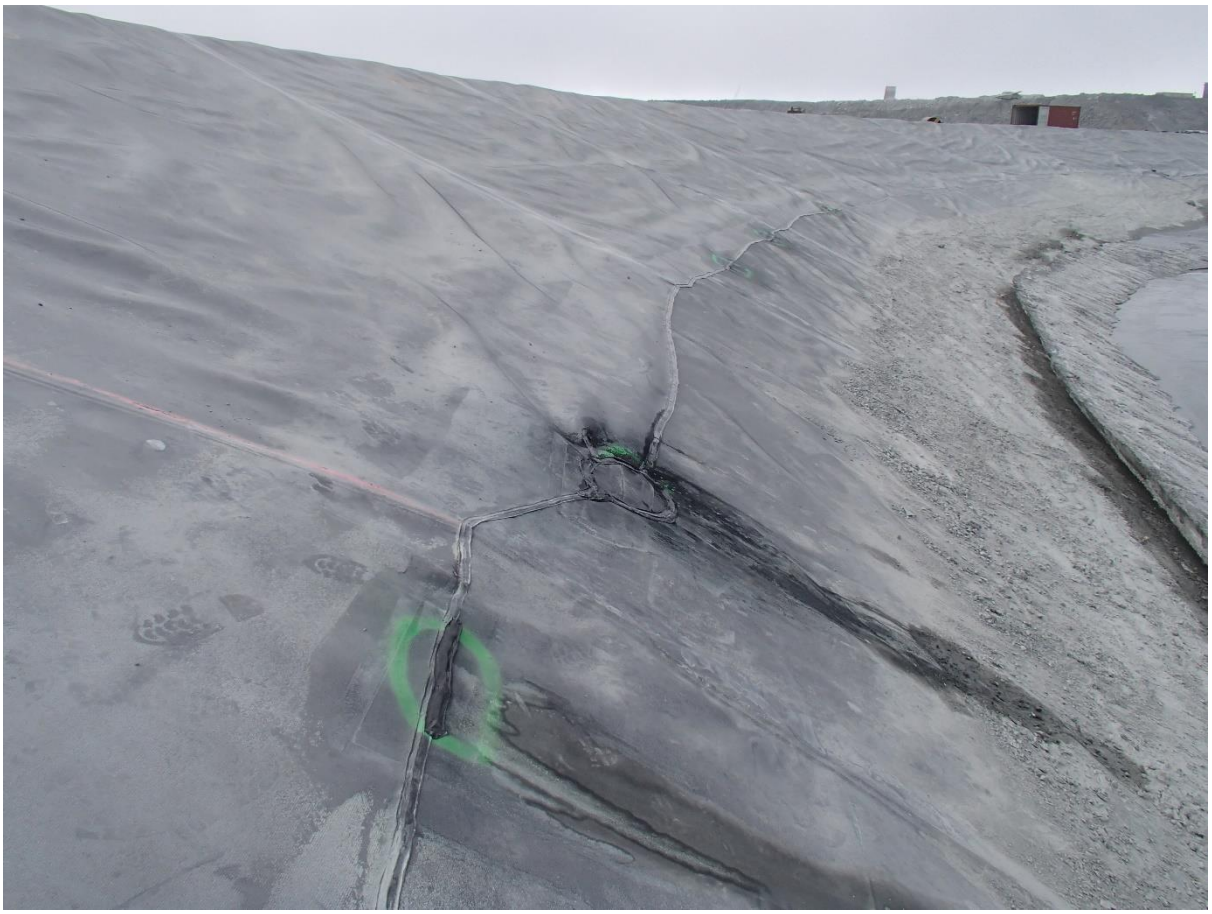
Sample ID	Date Sampled	Date Tested	Fill Material Type	Location (Station/Offset Elevation)	Test	Testing Result

Table 6: Samples taken by the QA

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

7.0 PHOTOGRAPH

Photograph CD-1892: From Sta. 0+155/-32 m, looking S. View of the liner panel 933 overlapping the underlying liner that has been cut at around Sta. 0+160 m to drain the water.

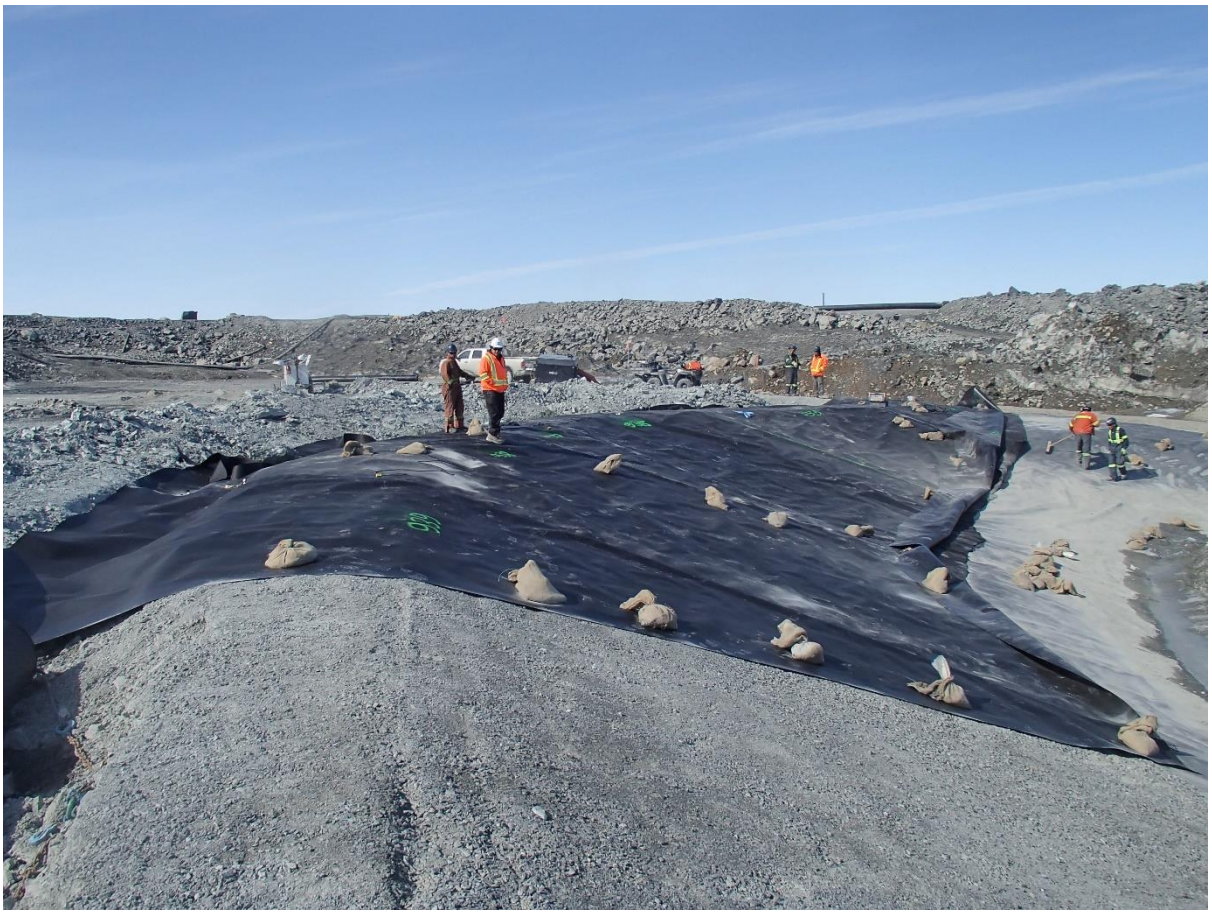


Photograph CD-1893: From Sta. 0+950/-27 m, looking SW. View of repair patches on the extrusion weld at the bottom of the panels 803, 807, 808, 810, 814, 815, 816 and 818.

Photograph SD3-306: From Sta. 20+780/-25 m, looking S. Correction of the surface of the fine filter in the upstream slope and the top of the first class compacted sieved till layer with an excavator from Sta. 20+803 m to 20+793 m.

Photograph SD3-307: From Sta. 20+800/-25 m, looking N. View of the liner bedding ready for geosynthetics installation.

Photograph SD-308: From Sta. 20+620/-48 m, looking SW. Installation of the geotextile on the upstream slope 2H:1V between El. 143 m and 145 m from Sta. 20+620 m to 20+630 m.



Photograph SD-309: From Sta. 20+640/-26 m, looking N. Installation of the LLDPE liner on the upstream slope 2H:1V between El. 143 m and 145 m from Sta. 20+620 m to 20+630 m (panel numbers 934 to 939).

QA DAILY REPORT

DATE June 8th 2018 1897439-1576-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 DAILY REPORT FOR JUNE 7TH, 2018 – TSF SOUTH CELL CONSTRUCTION - MEADOWBANK (1897439)

1.0 WEATHER

Temperature around 3°C, sunny.

2.0 HEALTH AND SAFETY

- Cold weather and ice: apply caution when driving or walking on icy surfaces, wear appropriate clothing.
- Dust is still an issue on the construction field; be vigilant by staying out of the dust cloud near construction activities and road circulation.
- There is important heavy equipment coactivity on Central Dike because of geosynthetics installation operations: personnel on foot must make sure to be visible at all time.
- Frozen LLDPE liner is slippery in the morning: be careful when walking on the liner in the upstream slope.

3.0 DISCUSSION AND DAILY CONSTRUCTION MEETING

During the daily construction meeting and during the day the following discussions were held:

- The QA Manager observed holes on panel 943. They were marked in paint and repaired, and will be vacuum tested tomorrow.
- The water pounding on the first compacted sieved till layer of the upstream toe liner tie-in at approx. Sta. 20+595 m was pumped. A Genset Frost-fighter is heating the sieved till layer and a pump is evacuating the water.

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4.0 DESCRIPTION OF CONSTRUCTION WORK PERFORMED AND QA OBSERVATIONS

The QA activities by Golder are based on periodic inspections performed by the QA Engineer in order to monitor the construction activities and progress of the structure of the South Cell of the TSF. This report must be read in conjunction with the QC Report. The following tables summarize the progress and observations made for each structure.

Table 1: QA observations for Saddle Dam 3

Activity or Area	Comments
Water management	■ The water ponding on the first compacted sieved till layer of the upstream toe liner tie-in at approx. Sta. 20+595 m was pumped.
Geotextile and LLDPE liner installation	■ AM and PM calibration results met Technical Specifications. Loads at failure in peel and shear were greater than minimum values presented in Table 6-2 from Technical Specifications. ■ Installation of the geotextile on the upstream slope 2H:1V between El. 143 m and 145 m from Sta. 20+630 m to 20+800 m. The geotextile surface was inspected before being covered with LLDPE. ■ Installation of the LLDPE liner on the upstream slope 2H:1V between El. 143 m and 145 m from Sta. 20+630 m to 20+800 m (panel numbers 940 to 964). The LLDPE was free of fold and hole. Seam tests (air channel tests) were carried out under the supervision of the QA Engineer and results met Technical Specifications. ■ The total fusion seam length is about 300 m. The total extrusion fillet seam length is about 70 m. ■ Vacuum box tests have not been performed yet. ■ Backfilling of the geosynthetics tie-in from Sta. 20+630 m to 20+800 m. The material has not been compacted yet. ■ Compaction of the geosynthetics tie-in material at El. 145 m with a 10-tonne smooth-drum compactor with vibration (4 passes) from Sta. 20+610 m to 20+800 m. ■ Sample D-9 was collected on the LLDPE geomembrane at Sta 20+615 m and destructive testing will be carried out tomorrow (see Table 2). The sample was kept for the Owner's Representative.

Table 2: Details of the Destructive Testing and Follow-up on Repairs

Name	Structure	Station	Seam	Comment
D-9	Central Dike	Sta. 20+615 m	Between panels 935 and 936	Sampled on June 7th, will be tested tomorrow.

5.0 FOUNDATION APPROVAL

No foundation approval was done during the reporting period.

Table 3: Details of the Foundation Approvals

Name	Structure	Sta. and Offset	Date of Approval	Comment

6.0 SAMPLING, LABORATORY AND FIELD TESTING

Table 4 and Table 5 present the samples collected or tested by the QA and QC as well as PNG field results.

Table 4: Samples taken by the QC

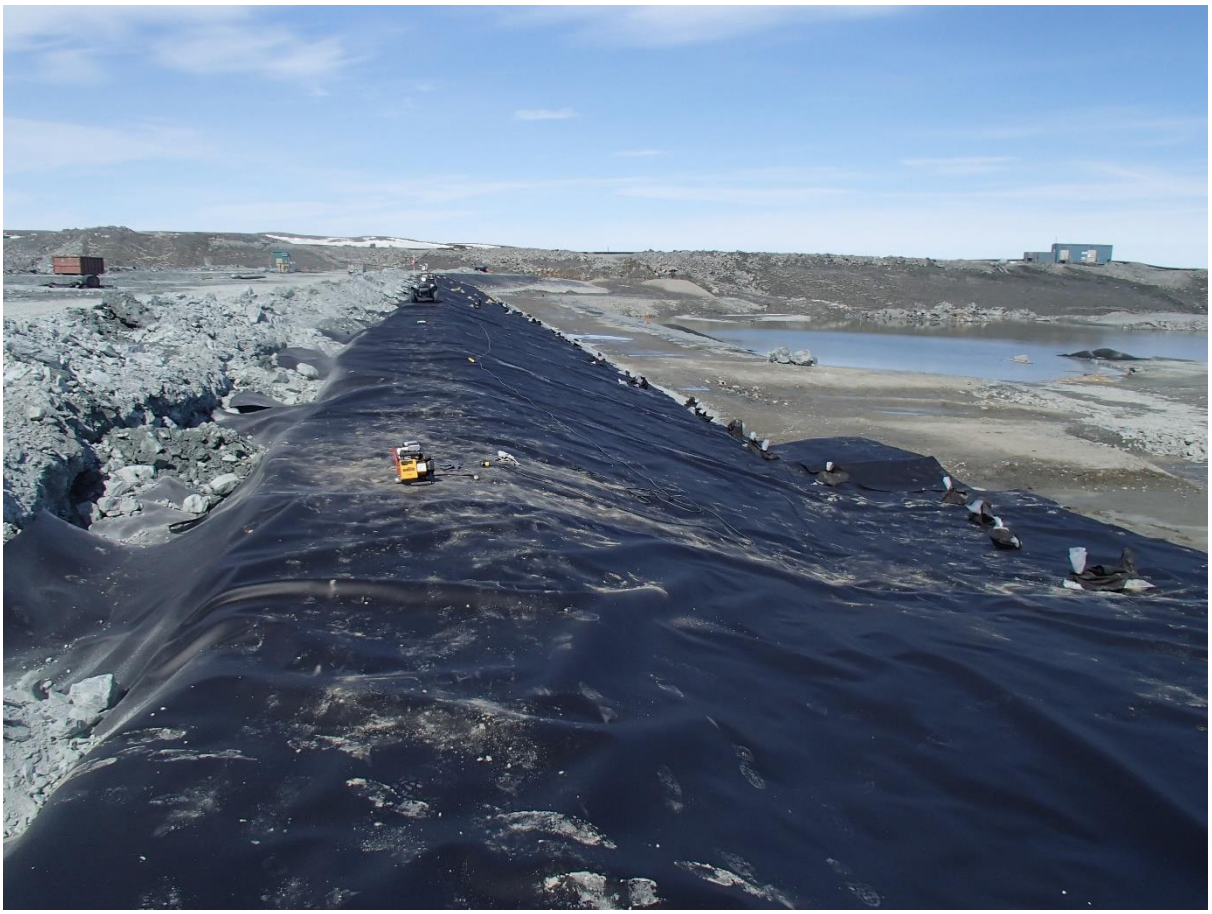
Sample ID	Date Sampled	Date Tested	Fill Material Type	Location (Station/Offset Elevation)	Test	Testing Result

Table 5: Samples taken by the QA

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

7.0 PHOTOGRAPH

Photograph SD-310: From Sta. 20+635/-24 m, looking S. Installation of the geotextile on the upstream slope 2H:1V between El. 143 m and 145 m from Sta. 20+630 m to 20+800 m.



Photograph SD-311: From Sta. 20+810/-26 m, looking N. Installation of the LLDPE liner on the upstream slope 2H:1V between El. 143 m and 145 m from Sta. 20+630 m to 20+800 m (panel numbers 939 to 964).

QA DAILY REPORT

DATE June 9th 2018 1897439-1576-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 DAILY REPORT FOR JUNE 8TH, 2018 – TSF SOUTH CELL CONSTRUCTION - MEADOWBANK (1897439)

1.0 WEATHER

Temperature around 3°C, sunny then cloudy.

2.0 HEALTH AND SAFETY

- Cold weather and ice: apply caution when driving or walking on icy surfaces, wear appropriate clothing.
- Dust is still an issue on the construction field; be vigilant by staying out of the dust cloud near construction activities and road circulation.
- There is important heavy equipment coactivity on Saddle Dam 3 because of geosynthetics installation operations: personnel on foot must make sure to be visible at all time.
- Frozen LLDPE liner is slippery in the morning: be careful when walking on the liner in the upstream slope.

3.0 DISCUSSION AND DAILY CONSTRUCTION MEETING

During the daily construction meeting and during the day the following discussions were held:

- The QA Manager observed a depression on the compacted sieved till layer of the upstream toe liner tie-in at approx. Sta. 20+595 m where the pump was evacuating the water for the last three days. The depression is approximately 3 m wide by 5m length and 0,15m deep. It was fill with compacted sieved till. As no portable nuclear gauge is present on site, a sample was taken for water content analysis and gradation and no compaction test could be done. Compaction tests will be required on the compacted sieved till before the next phase of construction for the installation of the LLDPE liner protection cover on SD3.
- Sample D-12 was collected on a seam of questionable quality at the bottom of panel 949 at Sta. 20+700 m (approx.) at the QA Manager's request. As the section of the seam of questionable quality was about 0.1 m, long, only two coupons were collected. Destructive testing failed. Seams of similar questionable quality at the bottom of panels 934, 948, 949 and 952 were repaired and vacuum tested.

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4.0 DESCRIPTION OF CONSTRUCTION WORK PERFORMED AND QA OBSERVATIONS

The QA activities by Golder are based on periodic inspections performed by the QA Engineer in order to monitor the construction activities and progress of the structure of the South Cell of the TSF. This report must be read in conjunction with the QC Report. The following tables summarize the progress and observations made for each structure.

Table 1: QA observations for Saddle Dam 3

Activity or Area	Comments
Upstream toe liner tie-in	■ Placement of a 0.15 m thick lift of compacted sieved till from Sta. 20+596.4 m to 20+601.6 m (o.s. -42.6 to -46.3 m) to fill the depression in the compacted sieved till layer. ■ Compaction of the 0.15 m-thick lift of compacted sieved till with a 10-tonne smooth-drum compactor without vibration from Sta. 20+596 m to 20+601 m. PNG tests were not conducted and will need to be conducted before the next step of construction.
Geotextile and LLDPE liner installation	■ AM and PM calibration results met Technical Specifications. Loads at failure in peel and shear were greater than minimum values presented in Table 6-2 from Technical Specifications. ■ 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. The geotextile surface was inspected before being covered with LLDPE. ■ 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). The LLDPE was free of fold and hole. Seam tests (air channel tests) were carried out under the supervision of the QA Engineer and results met Technical Specifications. ■ The total fusion seam length is about 20 m. The total extrusion fillet seam length is about 130 m. ■ Vacuum box tests were performed from Sta. 20+610 m to 20+800m, including on repairs. One leak was identified on the extrusion fillet seam at the bottom on panel 954 and was marked and repaired. ■ Backfilling of the geosynthetics tie-in from Sta. 20+590 m to 20+620 m.

Activity or Area	Comments
	■ Compaction of the geosynthetics tie-in material at El. 145 m with a 10-tonne smooth-drum compactor with vibration (4 passes) from Sta. 20+590 m to 20+620 m. ■ Destructive testing was carried out on the sample D-9 collected on June 7th and D-10 and D-11 collected on June 8th on the LLDPE geomembrane at Sta. 20+615 m, Sta. 20+695 m and Sta. 20+795m (see ■ Table 2). Loads at failure in peel and shear were greater than minimum values presented in Table 6-2 from Technical Specifications. The samples were kept for the Owner's Representative.

Table 2: Details of the Destructive Testing and Follow-up on Repairs

Name	Structure	Station	Seam	Comment
D-9	SD3	Sta. 20+615 m	Between panels 935 and 936	Compliant
D-10	SD3	Sta. 20+695 m	Between panels 948 and 949	Compliant
D-11	SD3	Sta. 20+795 m	Between panels 959 and 960	Compliant
D-12	SD3	Sta. 20+700 m	Bottom extrusion seam of panel 949	Non-compliant. The seam was repaired and vacuum tested.

5.0 FOUNDATION APPROVAL

One foundation approval was done during the reporting period.

Table 3: Details of the Foundation Approvals

Name	Structure	Sta. and Offset	Date of Approval	Comment
FND-SD3-38	Saddle Dam 3	Sta. 20+593.20 m to 20+617.31 m (o.s. – 49.64 m to -32.08 m)	2018-06-08	Upstream slope approved for geosynthetics installation

6.0 SAMPLING, LABORATORY AND FIELD TESTING

Table 4 and Table 5 present the samples collected or tested by the QA and QC as well as PNG field results.

Table 4: 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		Compacted sieved till	Sta. 20+601.59m /-46.2 m El. 143.22 m		

Table 5: Samples taken by the QA

Sample ID	Date Sampled	Date Tested	Fill Material Type	Location (Station/Offset Elevation)	Test	Testing Result
ST-444-2018	2018-06-08		Compacted sieved till	Sta. 20+601.59m /-46.2 m El. 143.22 m		

7.0 PHOTOGRAPH

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 (o.s. -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 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).

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QA DAILY REPORT

DATE June 10th 2018 1897439-1576-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 DAILY REPORT FOR JUNE 9TH, 2018 – TSF SOUTH CELL CONSTRUCTION - MEADOWBANK (1897439)

1.0 WEATHER

Temperature around 2°C, cloudy.

2.0 HEALTH AND SAFETY

- Dust is still an issue on the construction field; be vigilant by staying out of the dust cloud near construction activities and road circulation.
- There is important heavy equipment coactivity on Saddle Dam 3 because of geosynthetics installation operations: personnel on foot must make sure to be visible at all time.
- Frozen LLDPE liner is slippery in the morning: be careful when walking on the liner in the upstream slope.

3.0 DISCUSSION AND DAILY CONSTRUCTION MEETING

During the daily construction meeting and during the day the following discussions were held:

- The QA Manager observed bubbles in the extrusion seam between panel 965 and the existing LLDPE panel at Sta. 20+595 m (approx.). The seam was repaired and vacuum tested.

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4.0 DESCRIPTION OF CONSTRUCTION WORK PERFORMED AND QA OBSERVATIONS

The QA activities by Golder are based on periodic inspections performed by the QA Engineer in order to monitor the construction activities and progress of the structure of the South Cell of the TSF. This report must be read in conjunction with the QC Report. The following tables summarize the progress and observations made for each structure.

Table 1: QA observations for Saddle Dam 3

Activity or Area	Comments
Geotextile and LLDPE liner installation	■ AM calibration results met Technical Specifications. Loads at failure in peel and shear were greater than minimum values presented in Table 6-2 from Technical Specifications. ■ The total extrusion fillet seam length is about 2 m. ■ Repairs on the extrusion fillet seam between LLDPE panel 965 and the existing LLDPE panel at Sta. 20+600 m (approx.). ■ Vacuum box tests were performed on repairs. No leak has been identified.

Table 2: QA Observations for Central Dike

Activity or Area	Comments
Geotextile and LLDPE liner installation	■ AM calibration results met Technical Specifications. Loads at failure in peel and shear were greater than minimum values presented in Table 6-2 from Technical Specifications. ■ Repairs on the extrusion fillet seam at the bottom of the LLDPE liner panels 814 and 815. ■ Repair of holes on the LLDPE liner panels 879, 883 and 922. ■ Vacuum box tests were performed on repairs. No leak has been identified.

Table 3: Details of the Destructive Testing and Follow-up on Repairs

Name	Structure	Station	Seam	Comment

5.0 FOUNDATION APPROVAL

No foundation approval was done during the reporting period.

Table 4: Details of the Foundation Approvals

Name	Structure	Sta. and Offset	Date of Approval	Comment

6.0 SAMPLING, LABORATORY AND FIELD TESTING

Table 5 and Table 6 present the samples collected or tested by the QA and QC as well as PNG field results.

Table 5: Samples taken by the QC

Sample ID	Date Sampled	Date Tested	Fill Material Type	Location (Station/Offset Elevation)	Test	Testing Result
ST-445-2018	2018-06-09		Compacted sieved till	Stockpile (SANA Crusher)		

Table 6: Samples taken by the QA

Sample ID	Date Sampled	Date Tested	Fill Material Type	Location (Station/Offset Elevation)	Test	Testing Result
ST-446-2018	2018-06-09		Compacted sieved till	Stockpile (SANA Crusher)		

7.0 PHOTOGRAPH

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.).

QA DAILY REPORT

DATE June 11th 2018 1897439-1576-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 DAILY REPORT FOR JUNE 10TH, 2018 – TSF SOUTH CELL CONSTRUCTION - MEADOWBANK (1897439)

1.0 WEATHER

Temperature around 4°C, cloudy then sunny.

2.0 HEALTH AND SAFETY

- Dust is still an issue on the construction field; be vigilant by staying out of the dust cloud near construction activities and road circulation.
- Frozen LLDPE liner is slippery in the morning: be careful when walking on the liner in the upstream slope.
- An operator wasn't answering to his radio. After an inquire, it was found out the operator has audition problem and was not wearing is hearing aid. AEM reiterated the importance of reporting if an employee appears to be unfit for duty.

3.0 DISCUSSION AND DAILY CONSTRUCTION MEETING

During the daily construction meeting and during the day the following discussions were held:

- The QC Personnel observed that the compaction of the backfilling of the geosynthetics tie-in on Central Dike from approx. Sta 0+950 m to 1+050 m was inadequate and informed SANA foreman. It will be compacted tomorrow.
- The QA Manager reiterated that the mechanical properties of the TenCate Mirafi S1600 are inferior to those of the Texel 934, as required per the design change regarding the liner erosion protection cover on SD3. An alternative solution will need to be found with the agreement of the Designer.
- The QA Manager observed a few stones in direct contact with the liner following the construction of the deposition fingers on Central Dike and asked SANA foreman to remove them.

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4.0 DESCRIPTION OF CONSTRUCTION WORK PERFORMED AND QA OBSERVATIONS

The QA activities by Golder are based on periodic inspections performed by the QA Engineer in order to monitor the construction activities and progress of the structure of the South Cell of the TSF. This report must be read in conjunction with the QC Report. The following tables summarize the progress and observations made for each structure.

Table 1: QA Observations for Central Dike

Activity or Area	Comments
	■ No activity

5.0 FOUNDATION APPROVAL

The following foundation approval were done during the reporting period.

Table 2: Details of the Foundation Approvals

Name	Structure	Sta. and Offset	Date of Approval	Comment
LLDPE-SD3-003	Saddle Dam 3	Sta. 20+592 m to 20+807 m /o.s. -31 m to -50 m	2018-06-10	Compliant
LLDPE-CD-31	Central Dike	Sta. 0+157 m to 1+077 m /o.s. -21 m to -44 m	2018-06-10	Compliant

6.0 SAMPLING, LABORATORY AND FIELD TESTING

Table 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

Table 4: Samples taken by the QA

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

7.0 PHOTOGRAPHS

Photograph CD-1894: From Sta. 0+800/-28 m, looking E. View of a bloc in direct contact with the LLDPE liner following the construction of the deposition fingers on Central Dike.

QA DAILY REPORT

DATE June 12th 2018 1897439-1576-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 DAILY REPORT FOR JUNE 11TH, 2018 – TSF SOUTH CELL CONSTRUCTION - MEADOWBANK (1897439)

1.0 WEATHER

Temperature around 4°C, sunny then cloudy.

2.0 HEALTH AND SAFETY

- 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.
- Grizzlies were spotted near Vault yesterday. AEM informed his personnel by email and shared the information on the radio. As the QA and QC were in the lab wearing ear protection, they did not ear the radio communication. Next time wildlife is spotted on site, AEM will share the email with the QA and QC personnel.

3.0 DISCUSSION AND DAILY CONSTRUCTION MEETING

During the daily construction meeting and during the day the following discussions were held:

- The QC Personnel observed that the compaction of the backfilling of the geosynthetics tie-in on Central Dike from approx. Sta 0+950 m to 1+050 m was inadequate yesterday. It was recompacted today.
- The QA Manager will leave the site on June 12th.

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4.0 DESCRIPTION OF CONSTRUCTION WORK PERFORMED AND QA OBSERVATIONS

The QA activities by Golder are based on periodic inspections performed by the QA Engineer in order to monitor the construction activities and progress of the structure of the South Cell of the TSF. This report must be read in conjunction with the QC Report. The following tables summarize the progress and observations made for each structure.

Table 1: QA Observations for Central Dike

Activity or Area	Comments
Crest	■ Compaction of the geosynthetics tie-in material at El. 145 m with a 10-tonne smooth-drum compactor with vibration (4 passes) from Sta. 40+670 m to 0+950 m (approx.).

5.0 FOUNDATION APPROVAL

The following foundation approval were done during the reporting period.

Table 2: Details of the Foundation Approvals

Name	Structure	Sta. and Offset	Date of Approval	Comment

6.0 SAMPLING, LABORATORY AND FIELD TESTING

Table 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%

Table 4: Samples taken by the QA

Sample ID	Date Sampled	Date Tested	Fill Material Type	Location (Station/Offset Elevation)	Test	Testing Result
ST-444-2018	2018-06-08	2018-06-11	Compacted sieved till	Sta. 20+601.59m /-46.2 m El. 143.22 m	Gradation	Compliant
					Water content	10.8%
ST-446-2018	2018-06-09	2018-06-11	Compacted sieved till	Stockpile (SANA Crusher)	Gradation	Compliant
					Water content	13.0%