CONSTRUCTION SUMMARY REPORT VAULT DIKE

AGNICO-EAGLE MINES LIMITED MEADOWBANK GOLD PROJECT

JULY 29, 2013



EXECUTIVE SUMMARY

The construction of Vault Dike at Meadowbank was conducted from February 2013 to March 2013. Vault Dike is located across a shallow creek which connects Wally Lake and Vault Lake, at the Vault Pit area. Vault Dike is essential to allow the dewatering of Vault Lake and to isolate Vault Pit during mining activities from Wally Lake. Vault Dike is designed and constructed as a zoned rockfill dam with filter zones, an impervious upstream liner consisting of a bituminous membrane, and an upstream key trench made of aggregate mixed with bentonite. The filter zones minimize seepage and internal erosion and facilitate seepage collection.

Work carried out during construction of Vault Dike included blasting and excavation to bedrock, fill placement, membrane installation, and thermistor string installation. This construction report issued by AEM presents the general construction procedure for Vault Dike.

A monitoring program is essential to ensure the integrity of Vault Dike, including regular site visits, temperature measurement within the dike using the thermistors, monitoring of the upstream and downstream water level and detailed site inspections.

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CONSTRUCTION SUMMARY REPORT VAULT DIKE

SECTION 1.0 - INTRODUCTION

The construction of the Vault Dike at Meadowbank was conducted from February 2013 to March 2013. Vault Dike is located across a shallow creek which connects Wally Lake and Vault Lake, at the Vault Pit area approximately 8 km north of the main Meadowbank site. Vault Dike is essential to allow the dewatering of Vault Lake and to isolate Vault Pit during mining activities from Wally Lake.

Vault Dike is designed and constructed as a zoned rockfill dam with filter zones, an impervious upstream liner consisting of a bituminous membrane, and an upstream key trench made of aggregate mixed with bentonite. The filter zones minimize seepage and internal erosion and facilitate seepage collection. Vault Dike includes a key trench at the base of the upstream side filled with a 0-25 mm fill amended with bentonite surrounding the liner. Coarse and fine filter material was placed on the upstream slope as geomembrane bedding. The bulk part of the dike consists of coarse rockfill material. The embankment crest is at El. 142.4 m and the upstream toe is at approximately El. 139.4 m. The downstream toe is at approximately El. 139.6 m and the bottom of the key trench ranges from El. 135.6m to El. 142.3m, with an average height of El. 137.0m. The upstream and downstream fill slopes of the dam are 1.5H:1V.

Work carried out during construction of Vault Dike included blasting and excavation of overburden to bedrock, fill placement, membrane installation, and thermistor string installation. The design and technical specifications of Vault Dike was carried out by SNC-Lavalin Inc. (SNC) and reviewed by Agnico Eagle Mines - Engineering (AEM) and the Meadowbank Dike Review Board (MDRB). SANA was contracted to complete the construction of Vault Dike under the supervision of AEM. TCG was contracted to complete the drilling for Vault Dike under the supervision of AEM. SNC was responsible for carrying out the Quality Assurance (QA) program component of the construction for Vault Dike. Inspec-Sol was responsible for carrying out the Quality Control (QC) program under the supervision of AEM. Texel was responsible for carrying out the Quality Control (QC) program for the bituminous geomembrane installation under the supervision of AEM.

SECTION 2.0 - SCOPE

This construction summary report presents the general construction procedure for the Vault Dike conducted between February 2013 and March 2013 at Meadowbank. Work procedures and the QA/QC program for the construction are summarized in this report. A review of the design and technical specifications is presented, followed by the construction schedule and description of construction activities. The QC testing and results, and in-field design changes made during construction are then presented.

SECTION 3.0 - DESIGN AND TECHNICAL SPECIFICATIONS

The design and technical specifications were specified by SNC prior to the start of the Vault Dike construction and are described in the following section. The full design is available in the SNC report "Detailed Engineering of Vault Dike – Final Design Report". The full specifications are available in the SNC report "Construction of Vault Dike – Technical Specifications". Typical sections from the original design are available in Appendix A.

3.1 FILL MATERIALS, MEMBRANE, AND THERMISTORS

Vault Dike is a zoned rockfill dam, which includes four different zones of material. It also includes an impervious upstream membrane. The technical specifications and requirements for each zone, the geomembrane, and the thermistors are summarized below.

3.1.1 Rockfill (0-1000 mm)

- The rockfill material consists of waste clean blasted rock (0-1000 mm) from Vault quarry and is composed of NPAG (non-potentially acid generating) rock;
- No topsoil, unsuitable organic soils, peat, snow, or ice are allowed in this zone;
- Lift thickness specified: 2 000 mm maximum prior to compaction;
- Compaction: Use a loaded CAT-773 (50 tons) haul truck, final surface by 4 passes of heavy dozer or equivalent.

3.1.2 Coarse Filter (0-150 mm)

- The coarse filter material consists of waste clean blasted rock (0-150 mm) from Portage Pit and is composed of NPAG (non potentially acid generating) rock;
- No topsoil, unsuitable organic soils, peat, snow, or ice are allowed in this zone;
- Lift thickness specified: 500 mm maximum prior to compaction;
- Compaction and placement: Use an excavator for placement, and the excavator bucket for compaction;
- Must meet the gradation limits specified in the table below:

Particle Size (mm)	Percent passing by weight
200	100
152.4	86-100
76.20	35-100
25.4	5-40
12.7	0-18
4.76	0-9
2.36	0-5

3.1.3 Fine Filter (0-25 mm)

- The fine filter material consists of waste clean blasted rock (0-25 mm) from Portage Pit and is composed of NPAG (non-potentially acid generating) rock;
- No topsoil, unsuitable organic soils, peat, snow, or ice are allowed in this zone;
- Lift thickness specified: 500 mm maximum prior to compaction;

- Compaction and placement: Use an excavator for placement, and the excavator bucket for compaction;
- Must meet the gradation limits specified in the table below:

Particle	Dansant massis a burnsisht							
Size (mm)	Percent passing by weight							
25	100							
19	50-100							
9.5	23-68							
0.425	0-20							
0.075	0-15							

3.1.4 0-25 mm Amended with Bentonite

- The 0-25 mm amended with bentonite material consists of the fine filter mix described above mixed with 8% (weight basis) of sodium bentonite powder;
- This material must be well mixed in an area protected from the wind, and only small stockpiles are permitted to minimize the loss of fines and excessive particle segregation;
- Lift thickness specified: The layer between the key trench floor and the membrane must have a minimum compacted thickness of 300 mm after compaction. The layer above the membrane must have a minimum compacted thickness of 500 mm after compaction;
- Compaction and placement: Use an excavator for placement, and the excavator bucket and hand operated compactor for compaction. Great care must be taken to minimize the loss of fines during placement.

3.1.5 Bituminous Geomembrane

- The bituminous geomembrane shall be Teranap 431 4M, 4.1 mm. During construction this requirement was revised, see Section 7.0 for more details;
- The rolls must be stored, handled, rolled out, placed, and welded in accordance with the supplier's specifications;
- The Contractor shall roll-out the bituminous geomembrane horizontally;
- The bituminous geomembrane shall be free of folds before it is covered with fill.
 Cutting and patching may be performed to meet this requirement;
- All welding and repair work shall be carried out under the supervision of an experienced and certified technician and under the supervision of QA and QC representatives;
- The Contractor shall demonstrate their ability to adequately weld seams and make patches on site under arctic winter conditions;
- No fill material shall be placed over the geomembrane prior to the QA/QC personnel's approval;
- A minimum soil cover of 500 mm must be provided to all machinery tracks over the membrane:
- Patch dimensions shall overlap all defects by at least 20 cm;
- For each roll the Contractor shall provide AEM the identification label, the ASQUAL (Assurance Quality) label, and if the roll comes in one or two pieces.

3.1.6 Thermistors

- Thermistor strings must be stored, handled, and installed with care to minimize damage;
- All thermistor strings to be installed must be ice bath tested and verified. Test data sheets must be available for each thermistor string installed;
- For each thermistor string used the following must be noted: identification number, location, and spacing between each thermistor bead;
- The thermistor string beneath the liner must be placed prior to liner installation;
- Vertical thermistor strings must be placed once the dike construction has been completed;
- The Contractor shall survey and record all bead coordinates as well as the elevation of the thermistor string beneath;
- The Contractor shall survey and recorded the top (upper) thermistor bead coordinates and elevation of each thermistor string:
- Thermistor strings must be equipped with a connector for reading;
- The Contractor shall take all the necessary precautions to ensure that the thermistor strings are not damaged during installation.

3.2 ACCESS ROAD AND FOUNDATION PREPARATION

Access road and foundation preparation for Vault Dike consists of the following:

- Construction area access from Vault Dike Road West and from Vault Dike Road East;
- Foundation surface preparation prior to fill placement.

3.2.1 Construction Area Access

- Provide permanent access roads to the construction area for construction equipment;
- Road locations are planned in the Vault Pit general site plan, and then fine-tuned in the field by the AEM Engineering team.

3.2.2 <u>Foundation Surface Preparation</u>

- Removal of all snow, ice, frozen overburden and boulders within the Vault Dike footprint area;
- Disposal of snow and ice in Vault Lake, and all other excavated material to the Vault Waste Dump;
- Foundation surface shall be verified, checked by survey, tested (if needed) for strength, approved by QC and AEM Engineering Representative prior to fill placement;
- All foundations shall be approved by AEM, QA, and QC representatives. This shall be done by a through field inspection and signing Foundation Approval forms;
- All approved foundations shall be surveyed by the Contractor surveyor for record keeping and use in the As-Built drawings.

3.3 FILL PLACEMENT PROCEDURE

The lift thickness for the rockfill is to be 2 000 mm maximum prior to compaction and 500 mm maximum prior to compaction for the coarse and fine filters. The lift thickness for 0-25 mm amended with bentonite between the key trench floor and the membrane must have a minimum compacted thickness of 300 mm after compaction. The lift thickness for 0-25 mm amended with bentonite above the membrane must have a minimum compacted thickness of 500 mm after compaction.

Compaction of the rockfill is to be achieved through the use of loaded 50 ton haul trucks and final fill surface compaction is performed then by 4 passes of heavy dozer or equivalent. Compaction of the other materials is to be done either by excavator shovel or hand operated compactor. Lift thickness may be adjusted in the field based on observations during fill placement as well as the equipment used for compaction.

SECTION 4.0 - CONSTRUCTION SCHEDULE

Construction of Vault Dike was carried out between February 2013 and March 2013 at Meadowbank. The final construction schedule is available in Appendix B and is summarized as follows:

- Construction of access roads to the dike footprint occurred between January 27 and February 7.
- Foundation surface preparation occurred between January 27 and February 12.
- Key trench drilling, blasting, excavation and grading occurred between February 4 and February 18.
- Fill placement and compaction of the coarse filter (0-150 mm) occurred between February 9 and March 15.
- Fill placement and compaction of the fine filter (0-25 mm) occurred between February 9 and March 15.
- Fill placement and compaction of the 0-25 mm amended with bentonite occurred between February 13 and March 13.
- Fill placement and compaction of the rockfill (0-1000 mm) occurred between March 4 and March 20.
- Bituminous geomembrane installation occurred between March 3 and March 13.
- Thermistor strings installation occurred between February 26 and April 14.

SECTION 5.0 - VAULT DIKE CONSTRUCTION ACTIVITIES

The scope of work for the construction of the Cofferdam conducted from February 2013 to March 2013 consists of activity in the following major work items:

- Construction of access roads to the dike footprint;
- Foundation surface preparation (removal and proper disposal of all snow, ice, frozen overburden and boulders);
- Key trench drilling, blasting, excavation and grading;
- Granular fill preparation, loading, placement, and compaction;

- Bituminous geomembrane storage, handling, roll-out, welding and patching;
- Thermistor strings storage, handling, installation, and monitoring.

These items are discussed in the following sections below.

The Vault Dike as-built drawings and table of quantities used in construction are available in Appendix A. Selected photographs of the work progress taken throughout the construction program, showing various aspects of the construction work, are available in Appendix C.

5.1 ACCESS ROADS

Two access roads were constructed to the dike footprint – one from Vault Dike Road West and from Vault Dike Road East. Appendix D presents a map of the general Vault Pit area with the access roads. Vault Dike Road West begins where Vault Road ends at the Vault Waste Dump, runs northeast to pass Dewatering Road A and ends at the northwest end of the dike (Station 0+000). Vault Dike Road East begins at Vault Road between the Tower Pad and the Office Pad, runs northeast to pass Dewatering Road B and Dewatering Road C and ends at the southeast end of the dike (Station 0+350). The access roads were essential to the dike construction for providing temporary and permanent access to the dike area for construction equipment. The construction of the access roads consisted of rockfill dumped by CAT-773 (50 ton) haul trucks and pushed with dozers over the tundra, with minimal foundation preparation outside of the Vault Dike footprint. Construction of access roads to the dike footprint occurred between January 27 and February 7 2013.

5.2 FOUNDATION SURFACE PREPARATION

Starting on January 27, 2013, all the snow and ice along the dike footprint including the upstream key, was removed with backhoe excavators CAT-365 and 345. The ice within the dike footprint ranged from 0.5 to 1.5m thick over a length of about 100m. The frozen overburden thickness was between 0.3 to 3.5m. All the snow and ice which did not have a lot of sediment in it was disposed in Vault Lake. Snow and ice with high amounts of sediment was brought to the Vault Waste Dump using 50 ton haul trucks.

Starting on February 1, 2013 all of the frozen overburden and boulders along the dike footprint were removed with backhoe excavators CAT-365 and 345. The frozen overburden was excavated until reaching dense till. Foundation surface preparation was completed on February 12.

The foundation preparation consisted of the following key work steps:

- Excavate all the snow, ice, frozen overburden and boulders in the dike footprint with backhoe excavators going from Station 0+000 to station 0+350;
- Removal until reach of suitable foundation consisting of stiff dense till, free of all snow, ice, organic material, boulders, deleterious materials or any other material deemed objectionable by AEM/QC/QA representatives;
- Visual inspection of the foundation surface of stiff dense till and acceptance of the foundation was done by AEM/QC/QA representatives prior to fill placement.

The approved foundation area was surveyed by the Contractor. Approval foundation forms for all approved areas were filled out and signed by AEM/QC/QA, and can be found in Appendix E2.

A working platform was established in the dike footprint area once the foundation surface had been prepared and approved. It consisted of a rockfill pad extending the entire length of the dike and the width of the dike footprint. The working platform crest elevation was at 141.0m. It had a strip of foundation exposed along where Vault Dike's centerline would be, so that drilling and blasting could proceed more easily. Compaction of the rockfill in the construction platform was conducted by placing and compacting rockfill with the dozer, then using the vibratory roller.

5.3 KEY TRENCH DRILLING, BLASTING, EXCAVATION AND GRADING

Starting on February 4, 2013, the key trench blast holes were drilled using a Tamrock drill from TCG. The blast patterns were designed by AEM, with the Tamrock operator checking hole depth and spacing, and noting where bedrock was reached to ensure the drilled holes were drilled to the proper depth. Drilling started at the northwest end of the dike key trench, and proceeded to the southeast end of the dike key trench.

Once each pattern was finished being drilled it was then blasted. The first blast occurred on February 7, 2013, and was followed by three more blasts for a total of four blasts for the key trench. All of the blasts are listed below with the blast pattern name, the dates and times the blasts occurred, the number of holes blasted and drilled in that pattern, and the peak particle velocity (PPV) of that blast:

- Blast 5137KT001-1 on February 7, 2013 at 00:45, 99 holes, max. PPV of 6.92 mm/s
- Blast 5137KT001-2 on February 9, 2013 at 21:00, 182 holes, max. PPV of 5.06 mm/s
- Blast 5137KT001-3 on February 12, 2013 at 18:30, 99 holes, max. PPV of 3.14 mm/s
- Blast 5137KT001-4 on February 18, 2013 at 00:45, 138 holes, PPV not measured.

The PPV was not measured for the February 18th blast because the blast monitor installed did not record the event.

After each pattern was blasted it was then excavated using backhoe excavators CAT-365 and 345. Excavated material that was not needed for dike construction was hauled to the Vault Waste Dump using 50 ton haul trucks. Blasted material such as clean rockfill was left in place if it was deemed suitable for construction. Excavation started on February 7, 2013 at the northwest end of the dike key trench, and proceeded to the southeast end of the dike key trench as the blast patterns were blasted. The key trench floor needed to be excavated to bedrock or until specified by AEM/QA/QC representatives. If the key trench floor did not get approved it would be improved with blast corrections until acceptable.

After the excavation was complete in an area, the key trench slopes and floor were graded and then checked by the surveyor to see if their dimensions matched the design drawing. Adjustments were then made until the key trench depth, width (minimum 3m), and blasted rockfill upstream slopes (must be 2H:1V or as accepted by AEM/QA/QC) met the dimensions on the drawing. The slopes were compacted using the shovel bucket. The floor of the key trench was

cleaned thoroughly using the excavator bucket lip. Special care was taken during excavation of the key trench to ensure that no till or overburden was left in the area that would be under the liner. Then that area of the key trench would be approved by AEM and the QA/QC representatives prior to fill placement. Once accepted the key trench floor was surveyed for use in the as-built drawings.

It is important to note that drilling, excavation, and grading were sometimes proceeding at the same time in different areas of the key trench.

5.4 GRANULAR FILL PREPARATION, LOADING, PLACEMENT, AND COMPACTION

Once work on the key trench was completed, the preparation, loading, placement, and compaction of the various types of granular fill began. This work begun on February 10, 2013 and started at the northwest end of the dike key trench, and proceeded to the southeast end of the dike key trench. All of the granular fill (except for the 0-25 mm amended with bentonite) had been prepared before the project began and had been stockpiled on the Dam Pad west of the dike beside Vault Dike Road West. It was determined through QC testing that the various types of granular fill supplied met the specifications outlined above in Section 3.1.1 to Section 3.14. QC testing results are described in Section 6 and available in Appendix E1.

The granular fill was loaded into 50 ton haul trucks by a CAT-980 loader at the Dam Pad, and was then hauled down to the dike area. The 0-25 mm material amended with bentonite was removed with one of the backhoe excavators (CAT-365 or 345) and placed over the last lift of material.

All preparation, loading, placement, and compaction procedures were done to minimize segregation as much as possible. Lift thickness was adjusted in the field based on observations during fill placement as well as the equipment used for compaction. Every lift was inspected, tested and accepted by AEM, QA, and QC representatives prior to the next fill placement. The sub-sections below describe the specific preparation, placement, and compaction procedure details for each type of granular fill.

4.4.1. Rockfill (0-1000 mm)

Following the excavation of the blasted key trench, rockfill has to be added to build or adjust the upstream slope of the trench. It was prepared to comply with the specifications listed in Section 3.1.1 for the rockfill. The majority of the rockfill came from Vault Quarry, however some rockfill produced during the blasting of the key trench was used to build the upstream key trench slope. Rockfill was placed in lifts no greater than 2 000 prior to compaction. As the blasts produced an uneven and often close to vertical slope to accommodate the liner filters, the 2H:1V slope had to be created from rockfill. The existing working platform was adapted with more rockfill to create the proper slope for the liner and filters. It was achieved by dumping the material on the platform and placing it with the excavator. Compaction was achieved using the excavator bucket.

4.4.2. Coarse Filter (0-150 mm)

This was the first material to be placed once the key trench slope was complete. Placement of this material began on February 9, 2013 and was completed March 15, 2013. It was prepared to comply with the specifications listed in Section 3.1.2 for the coarse filter.

For placement an excavator was used, and to compact the material the excavator bucket was used. The coarse filter was placed in a layer 500 mm thick (after compaction) directly on the upstream slope of the key trench.

4.4.3. Fine Filter (0-25 mm)

This was the second material to be placed once the key trench was excavated. Placement of this material along the upstream slope of the key trench began on February 9, 2013 and was completed March 15, 2013. It was prepared to comply with the specifications listed in Section 3.1.3 for the fine filter.

For placement an excavator was used, and to compact the material the excavator bucket was used. The fine filter was placed in a layer 500 mm thick (after compaction) over the coarse filter layer on the slope of the key trench. The surface was reworked before geomembrane placement to provide proper subgrade conditions.

4.4.4. 0-25 mm Amended with Bentonite

This was the third material to be placed in the key trench. Placement of this material began on February 13, 2013 and was completed March 13, 2013. It was prepared only in very small batches right before it was needed in order to minimize the loss of fines and excessive particle segregation, as well as to comply with the specifications listed in Section 3.1.4 for the 0-25 mm amended with bentonite.

Before mixing the material to use in the key trench, a test was conducted to ensure the preparation procedure would minimize the loss of fines and excessive particle segregation. Based on these tests a final procedure was made to mix the 0-25 mm with bentonite. In order to get the mixture to have a minimum of 8% by weight of bentonite, the procedure to mix was to create a pad of 0-25mm, 7 m wide by 7 m long by 0.5 m thick. This represents an approximate volume of 24.5m³ for an approximate total mass of 0-25mm of 49,000kg. Three bags of bentonite were added to the material on the pad. This represents an approximate total mass of bentonite of 3,900kg. The mixing was done in an area with walls of seacans to protect from the wind. The mixing was done very gently with an excavator under the supervision of at least the QC representative. Any prepared batches were covered by tarps when not in use. In order to accelerate the above mentioned procedure, a new improved mixing method was implemented later during the construction. Buckets full of 0-25 mm material were dumped in the mixing area (with a CAT 980 loader) in an alcove shape, then bentonite bags were opened in the middle of the pile and everything was gently mixed with an excavator.

For placement an excavator was used, and to compact the material the excavator bucket was used as well as the vibratory roller compactor and the vibratory plate compactor. Placement of

this material only occurred at times when the wind speed was acceptably low as judged by the QA/QC/AEM representatives. The 0-25 mm amended with bentonite was placed in a layer 300 mm thick (after compaction) directly on the bedrock floor of the key trench, and above the bituminous membrane within the key trench.

5.5 <u>BITUMINOUS GEOMEMBRANE STORAGE, HANDLING, ROLL-OUT, WELDING AND PATCHING CONTROL</u>

Placement, welding, and patching of the bituminous geomembrane began on March 3, 2013 and was completed March 13, 2013. It was prepared to comply with the specifications listed in Section 3.1.5 for the bituminous geomembrane. The membrane was installed in the key trench and along the slope after the placement and compaction of the coarse filter, the fine filter, and the 0-25 mm amended with bentonite placed at the bottom of the key trench.

Preparation for installation of the membrane started on February 26, 2013 and consisted of the following steps:

- Cleaning all snow and ice from the slope and key trench using the excavator and workers with hand shovels;
- Smoothing and recompacting the subgrade in the slope and key trench using the excavator and workers manual compactor;
- Warming the rolls of membrane in a heated seacan at approximately 10 degrees Celsius.
 This was done to make the membrane more pliable for placement, and to restore the round shape of the membrane rolls so they would unroll easier;
- Getting the subgrade slope and key trench subgrade approved by AEM, QA, QC and QC liner representatives.

Installation of the membrane began on February 28, 2013. All of the preparation steps listed above had been completed for the area where the first section of membrane was to be placed. Placement of the Teranap membrane began by rolling out the membrane horizontally along the slope as specified in the design. However, the membrane developed a huge crack during placement, and smaller cracks propagated in the membrane even under small pressures such as a worker walking over the membrane. The Teranap membrane was then removed from the trench.

After testing the Teranap membrane with simple field tests it was determined that the Teranap membrane did not meet the manufacturer's flexibility minimum temperature of -26 degrees Celsius. The Teranap was not judged suitable for winter placement by the QA/AEM representatives. The Teranap membrane would not meet its specified purpose of being flexible and watertight so it was decided as much of the dike would be constructed with Coletanche membrane as possible. This decision was made by AEM and the designer SNC. This liner design modification is described in Section 7.0. Only 4 rolls of Coletanche membrane were available onsite; however, this would not be enough for the entire dike. Teranap membrane was used in an area judged less critical above El. 139.5m.

On March 3, 2013 the slope and key trench were cleaned, smoothed, recompacted, and approved in order to prepare the area again for membrane installation. One roll of Coletanche

membrane was then placed horizontally, patched and welded. Placement, patching and welding was closely supervised by the liner QC during membrane installation. Air tests were then performed on the membrane seams and patches. After QC testing and placement approval by QC/QA/AEM representatives the membrane would be carefully covered with the bentonite mix and compacted to protect the membrane from wind and snow. The procedure described in this paragraph was repeated for all membrane used on the dike. On March 13, 2013 the only Teranap membrane used on the dike was installed from Station 191 until Station 303 above El. 139.5m. This completed the liner installation for the entire dike.

At some points during installation, it was decided that the membrane would be placed vertically instead of horizontally in order to maximize the use of Coletanche membrane and minimize the use of Teranap membrane. This was also judged easier for deployment of the membrane. This decision was made by AEM, QA, QC and QC liner representatives, and is discussed in Section 7.0 of this report.

Membrane installation was halted in windy conditions at the liner QC representative's recommendations. No welding of membrane would proceed if snow was blowing or falling into the melted bitumen.

5.6 COMPLETION OF THE KEY TRENCH AND SLOPES

Once the bituminous geomembrane installation was completed, the following steps were taken in order to complete the construction of the key trench according to the technical specifications provided by SNC.

5.6.1 0-25mm amended with bentonite

After the membrane was placed on top of the first layer of 0-25 mm amended with bentonite, another 500 mm minimum thick (after compaction) layer was added on the membrane. It was compacted using the excavator bucket and the vibratory plate (for the part at the bottom of the slope) or the vibratory roller (for the rest of the key trench). Compaction tests were done as described in Section 6.0.

5.6.2 Fine Filter (0-25 mm)

The entire slope over the bituminous geomembrane liner was then covered with a layer 500mm thick after compaction of 0-25mm material that was compacted with the excavator bucket. Care was taken not to damage the liner during placement and compaction.

5.6.3 <u>Coarse filter (0-150 mm)</u>

A layer 500 mm thick after compaction of coarse filter (0-150mm) was then added over the fine filter and compacted with the excavator bucket.

5.7 MAIN ROCKFILL (0-1000 MM)

This was the final material to be placed once the key trench liner and filters were completed. Placement of this material began on March 4th, 2013 and was completed March 20th, 2013. Rockfill was used as embankment fill for the main shell structure of the dike, as well as for the safety berms on the crest, constructed on March 21st, 2013.

For placement rockfill was dumped from the 50 ton haul trucks and spread with the D8 dozer. The maximum allowable lift thickness was 2000 mm before compaction. Compaction was achieved mostly through the traffic of 50 ton haul trucks, and the vibratory roller compactor was used as well.

5.8 THERMISTOR STRINGS STORAGE, HANDLING, INSTALLATION, AND MONITORING

Installation of the thermistor strings began on February 26, 2013 and was completed April 14, 2013. Installation of the thermistors was completed by AEM with assistance from the Contractor /TCG and complied with the specifications described above in Section 3.1.6.

The thermistors installed during the geotechnical investigations in November 2012 and January 2013 (TH1, TH2, and TH4) were removed by AEM when they got in the way of construction activities. TH3 had been installed on the downstream side of the dike during the geotechnical investigations but was able to be kept throughout the dike construction. TH3 was installed in the deepest channel downstream of the dike.

TH5 was installed inclined under the liner on February 26, 2013. On March 13, 2013 a protective 0-20mm shell was built around TH5 to prevent it from getting damaged during the thermal cap building process. TH6, TH7, and TH8 were installed after construction was complete using a Rockmaster drill between April 12, 2013 and April 14, 2013. T6 was installed upstream of the dike in the deepest channel upstream of the liner. TH7 was installed east of the deepest channel in the unthawed till zone found during construction. TH8 was installed upstream of the dike in the deepest channel outside of the key trench.

The locations of the five thermistors at Vault Dike are shown on the as-built drawings in plan view in Appendix A.

SECTION 6.0 - QC TESTING AND RESULTS

6.1 FOUNDATION APPROVAL

Foundation areas were inspected and approved prior to initiating fill placement. Inspection requirements for foundation areas included ensuring the following:

- Complete and adequate clearing, stripping and grubbing;
- Complete and adequate foundation excavation and removal of unsuitable foundation materials;
- Complete and adequate preparation and treatment of the foundation surface.

The entire approved area surface was surveyed. Daily approval forms including each approved area were done and filed by QA/QC/AEM representatives. Approval foundation forms for all approved areas can be found in Appendix E2.

6.2 FILL PLACEMENT APPROVAL

Fill placement areas were inspected and approved after the completion of fill placement and compaction. Inspection requirements for fill placement included ensuring the following:

- Gradation of placed fill complies with the technical specifications for the material in Section 3.0;
- Complete and adequate placement in regard to segregation and lift thicknesses;
- Complete and adequate compaction;
- The fill is free of ice and snow;
- Fill type placed in appropriate location as per the technical construction drawings.

6.2.1 <u>Coarse Filter (0-150 mm)</u>

Coarse filter material was placed in two layers on the upstream side of the dam. The coarse filter was placed in two layers surrounding the fine filter material. The upstream slope of coarse filter material was spread and compacted as described above in Section 4.4.2.

A total of five (5) coarse filter control samples were collected during the construction period to determine the suitability of the materials for use in the work. Samples were collected from the stockpile at the dike construction pad, the upstream slope of the dike, in the key trench, and at the Contractor crusher stock pile. Grain size analysis testing was completed on all five samples. The results of the coarse filter tests are available in Appendix E1. The results of the QC testing demonstrate that the material tested met the technical requirements because it was well graded according to the material specifications listed above.

6.2.2 Fine Filter (0-25 mm)

Fine filter material was placed in two layers on the upstream side of the dam. The fine filter was placed in two layers surrounding the bituminuous liner. The upstream slope of fine filter material was spread and compacted as described above in Section 4.4.3.

A total of eight (8) fine filter control samples were collected during the construction period to determine the suitability of the materials for use in the work. Samples were collected from the stockpile at the dike construction pad, the upstream slope of the dike, and in the key trench. Grain size analysis testing was completed on all eight samples. The results of the fine filter tests are available in Appendix E1. The results of the QC testing demonstrate that the material tested met the technical requirements because it was well graded according to the material specifications listed above.

6.2.3 <u>0-25 mm Amended with Bentonite</u>

The 0-25 mm amended with bentonite was placed in one layer directly on the bedrock floor of the key trench. The layer of 0-25 mm amended with bentonite was spread and compacted as described above in Section 4.4.4.

A total of one (1) 0-25 mm amended with bentonite control sample was collected during the construction period to determine the suitability of the materials for use in the work. Other samples were collected to be tested at a later date or in the laboratory in Quebec. Samples were collected from the material placed in the key trench. Grain size analysis testing was completed on one sample, and permeability testing was completed in Quebec on another sample. The results of the 0-25 mm amended with bentonite tests are available in Appendix E1. The results of the QC testing demonstrate that the material tested met the technical requirements because it was well graded according to the material specifications listed above.

Inspec-sol representatives conducted 15 moisture content and field density tests on the 0-25 mm amended with bentonite using a nuclear densometer (Troxler Surface Moisture-Density Guage) during construction. The tests were completed on an ongoing basis to ensure that the material placed continually met the requirements of the Technical Specifications. The results of the 0-25 mm amended with bentonite compaction testing are available in Appendix E1, Table 1 and are summarized below. Prior to placing any 0-25 mm amended with bentonite two test pads were created on the dam pad outside of the dike footprint. These test pads were made of the 0-25 mm amended with bentonite and were compacted using the vibratory roller. After each pass of the vibratory roller the compaction was checked using the nuclear densometer. This method was used to establish how many passes would need to be done for proper compaction.

The measured field dry density is compared to the standard proctor maximum dry density (SPMDD) obtained to determine the percent compaction. The maximum dry density for this material was determined to be 1835 kg/m³. The measured field dry density ranged from 1856 kg/m³ to 2643 kg/m³ with a median value of 2015.5 kg/m³. The percent compaction ranged from 101.1% to 144.0%, with a median value of 110.0%. The field moisture content ranged from 4.1% to 5.7%, with a median value of 4.6%. After permeability testing the hydraulic conductivity for this material at 20°C was determined to be 3.5E-05 cm/sec, and its water content after the permeability testing was 22.8%. The results of the QC testing demonstrate that the material tested met the technical requirements for compaction and permeability.

6.3 BITUMINOUS GEOMEMBRANE APPROVAL

Prior to geomembrane placement the geomembrane subgrade was inspected and approved. The approved area surface was surveyed, and checked to ensure it respected all quotes and lines in the design. Daily approval forms including each approved area were completed by AEM, SNC, and Inspec-Sol. All daily approval forms were filed by AEM and can be found in Appendix E2.

Geomembrane areas were inspected and approved after the completion of geomembrane installation. Inspection requirements for geomembrane installation included ensuring the following:

- The geomembrane has no cracks or rips and is smooth and flat;
- The welding and patches are done properly;
- The geomembrane QC tests are done on all liner panels and the geomembrane passes all the tests.

The approved area surface was surveyed, and checked to ensure it respected all quotes and lines in the design. Daily approval forms including each approved area were completed by AEM, SNC, Inspec-Sol, and Texel representatives (Texel only filled out geomembrane approval forms). All daily approval forms were filed by AEM and can be found in Appendix E2. The QC report from the geomembrane installer Texel presenting the QC testing performed on the geomembrane is available in Appendix E3.

6.4 ROCKFILL (0-1000 MM)

The compaction for the rockfill material included 50 ton traffic compaction or vibratory roller over a maximum 2000 mm lift (prior to compaction), depending on the field conditions. Compaction of the rockfill material was observed and documented in the daily reports. No tests were required for the rockfill.

The field observations of the rockfill material confirmed that a dense, well graded and well compacted fill was constructed on Vault Dike.

6.5 SITE INSPECTION AND PROCEDURE REVIEW

AEM and SNC representatives routinely conducted visual observation of the work procedures during the construction of Vault Dike. Review of the work procedures was done on a daily basis and corrections were made if needed. A daily survey was conducted by Sana with the review of SNC and AEM representatives for daily progress and to ensure that limits and grades were followed correctly during the construction. Photographs of the work progress were taken throughout the construction program and selected construction photos are available in Appendix C. Daily reports for each work shift were issued and filed by AEM and SNC representatives. QC testing procedures and results from Inspec-Sol and Texel were reviewed on a regular basis by AEM and SNC.

SECTION 7.0 - FIELD CHANGES AND ADJUSTMENTS DURING CONSTRUCTION

Field changes and adjustments to the design were implemented by AEM in accordance with the designer SNC during construction of the dike to take advantage of existing site conditions and to optimize construction activities.

7.1 WORKING PLATFORM ENLARGEMENT ON WALLY LAKE SIDE

The working platform on the Wally Lake side was built larger than on the original design drawing. This enlargement was aimed to facilitate the excavation of the key trench with heavy equipment. The foundation of the platform was prepared and cleaned as specified in the technical specifications.

7.2 <u>KEY TRENCH DEPTH</u>

Due to blasting, some areas of the key trench are deeper than presented on the design drawing. Also due to adjustments made due to blasting, the upstream slope of the key trench presents in some areas an incline slightly steeper reaching approximately 1.75H:1V instead of 2H:1V as

shown on the design drawing. This slope did not cause any problems during fill placement or geomembrane installation.

7.3 TILL IN KEY TRENCH

An area of frozen till located within the key trench from station 147 to station 149 was left in the key trench. In this area, the bedrock was not reached during excavation as the area was not blasted properly. The area was excavated as much as possible with the excavator and dozer. However, the till that was left in place could not be removed by the excavator and dozer. The thickness of the frozen till layer that was left in place was between 0.3 to 1.5m thick and the till layer was free of ice. The till was left exposed as long as possible to let it freeze. Then the frozen till was covered with 2m of rockfill. Thermistors were installed in this area for detailed thermal monitoring.

7.4 TYPE OF LINER (TERANAP VERSUS COLETANCHE)

The Teranap liner was intended to be used for the Vault Dike construction. However, due to the unexpected behavior of the membrane during placement in cold conditions, the Teranap was not placed in the Vault Dike.

The Teranap 431 Bituminous Geomembrane was planned to be used in the Vault Dike. Teranap was offered as an equivalent product to Coletanche and was supposed to present the same characteristics. Coletanche was previously used at Meadowbank for other structures.

While unrolling the first roll of Teranap 431 onto the slope it was noted that the membrane was very wavy and somewhat brittle. The membrane was previously heated in a sea can with an air blowing heating system. No heat was blowing directly on the membrane. The temperature in the sea can was between approximately 7 to 10 degrees Celsius. Once the membrane was placed over the subgrade, a large crack through the bitumen rapidly formed at the spot on the membrane which was located at the corner of the slope and the horizontal key trench surface. The outside temperature on February 28th was -36 degrees Celsius, which is under the low temperature flexibility limit of the Teranap (-26 degrees Celsius - listed in Siplast's specifications for this product).

After these observations, testing on the Teranap 431 membrane was conducted. Tests done outside between -23 and -19 degrees Celsius proved that the membrane was not suitable for installation in cold conditions at Meadowbank. Major cracks through the bitumen occurred when rolling over the membrane with a pickup truck at -23 degrees Celsius. The material was later pickup truck tested at -19 degrees Celsius and cracks still appeared in the material, though they were smaller. Similar testing with a pickup truck was done on the Coletanche ES3 membrane in 2010 and also while testing the Teranap on March 1st 2013. The Coletanche developed really small cracks only superficially on the bitumen cover.

As a result of being unable to install the Teranap in our winter conditions, Coletanche ES3/ES2 still available on site from 2009-2010 was used instead of the Teranap on Vault Dike. The installation of the Coletanche during cold conditions went well and no problems such as cracking occurred. Because of the limited quantity of Coletanche available on site, it was not possible to

install only Coletanche at Vault Dike. Teranap was installed with the Coletanche in areas judged less critical by SNC and AEM, specifically at the crest section above El.139.5 m.

Teranap was installed horizontally from station 191 to station 298. The liner covers from approximately El. 139.5 m up to El. 141.0 m. All other liner used on Vault Dike was the Coletanche liner.

7.5 HORIZONTAL AND VERTICAL GEOMEMBRANE PLACEMENT

To ease the placement of the membrane in the irregular bottom of the key trench and also to minimize the loss of membrane, the geomembrane was placed vertically instead of horizontally as shown on the design drawing.

The geomembrane was placed horizontally from station 113 to station 298 from approximately El. 139.5 m up to El. 141.0 m. The geomembrane was also placed horizontally from station 120 to station 190 from the bottom of the key trench up to El. 139.5 m. For the rest of the liner placement the geomembrane was placed vertically. The QC report from the geomembrane installer Texel found in Appendix E3 shows the layout of the geomembrane panels.

SECTION 8.0 - OPERATION AND MONITORING

Vault Dike is essential to allow the dewatering of Vault Lake and to isolate Vault Pit during mining activities from Wally Lake. Therefore, the water level upstream of Vault Dike needs to be closely monitored and kept to an adequate level to preserve the integrity of the dike and to allow safe mining operations within Vault Pit.

A monitoring program is essential to ensure the integrity of Vault Dike. The monitoring program includes regular site visits after Vault Dike construction is complete, temperature measurement within the dike using the thermistors, updates on the downstream water levels after construction and during dewatering, and updates on the upstream water levels on an ongoing basis. After construction is complete and for the rest of the service life of the dike detailed site inspections of Vault Dike will be conducted and inspection reports will be issued on a regular basis by AEM. In addition, careful review and analysis will be performed regularly on the Vault Dike thermistor data.

SECTION 9.0 - SUMMARY AND CLOSURE

The construction of Vault Dike at Meadowbank was conducted from February 2013 to March 2013. Construction was completed in general accordance with the requirements of the Design and Technical Specifications elaborated by the designer SNC.

Data and observations for the Vault Dike construction program confirm that earthworks construction, including foundation preparation and fill placement for Vault Dike was completed in general compliance with the Technical Specifications and Design elaborated by SNC. During the

course of the work, five (5) field changes from the original Design were incorporated to take advantage of existing site conditions and to optimize construction activities.

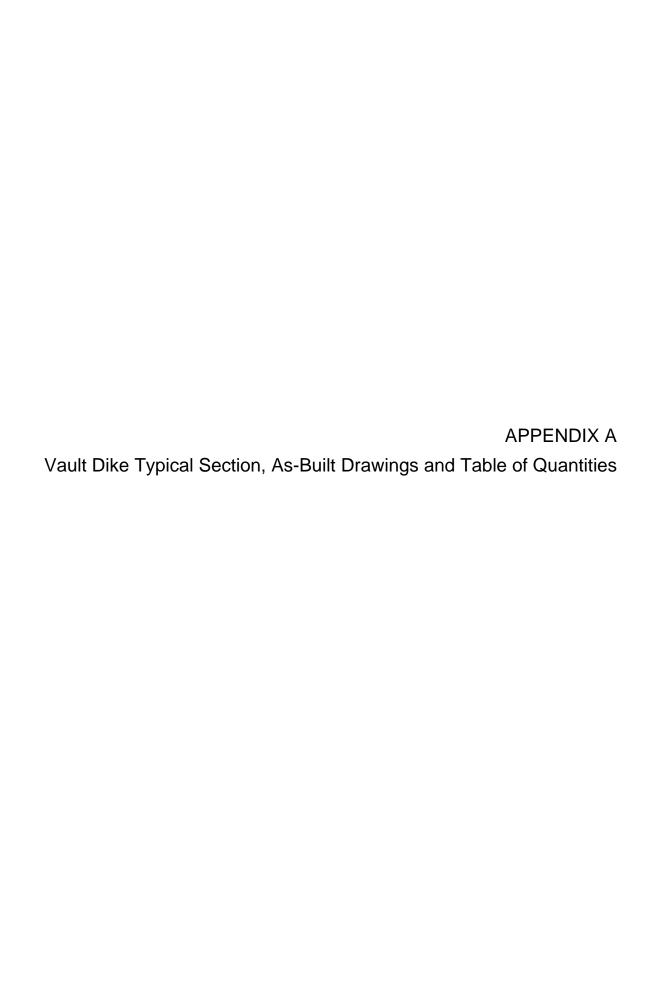
A monitoring program is essential to ensure the integrity of Vault Dike, including regular site visits, temperature measurement within the dike using the thermistors, monitoring of the upstream and downstream water level and detailed site inspections.

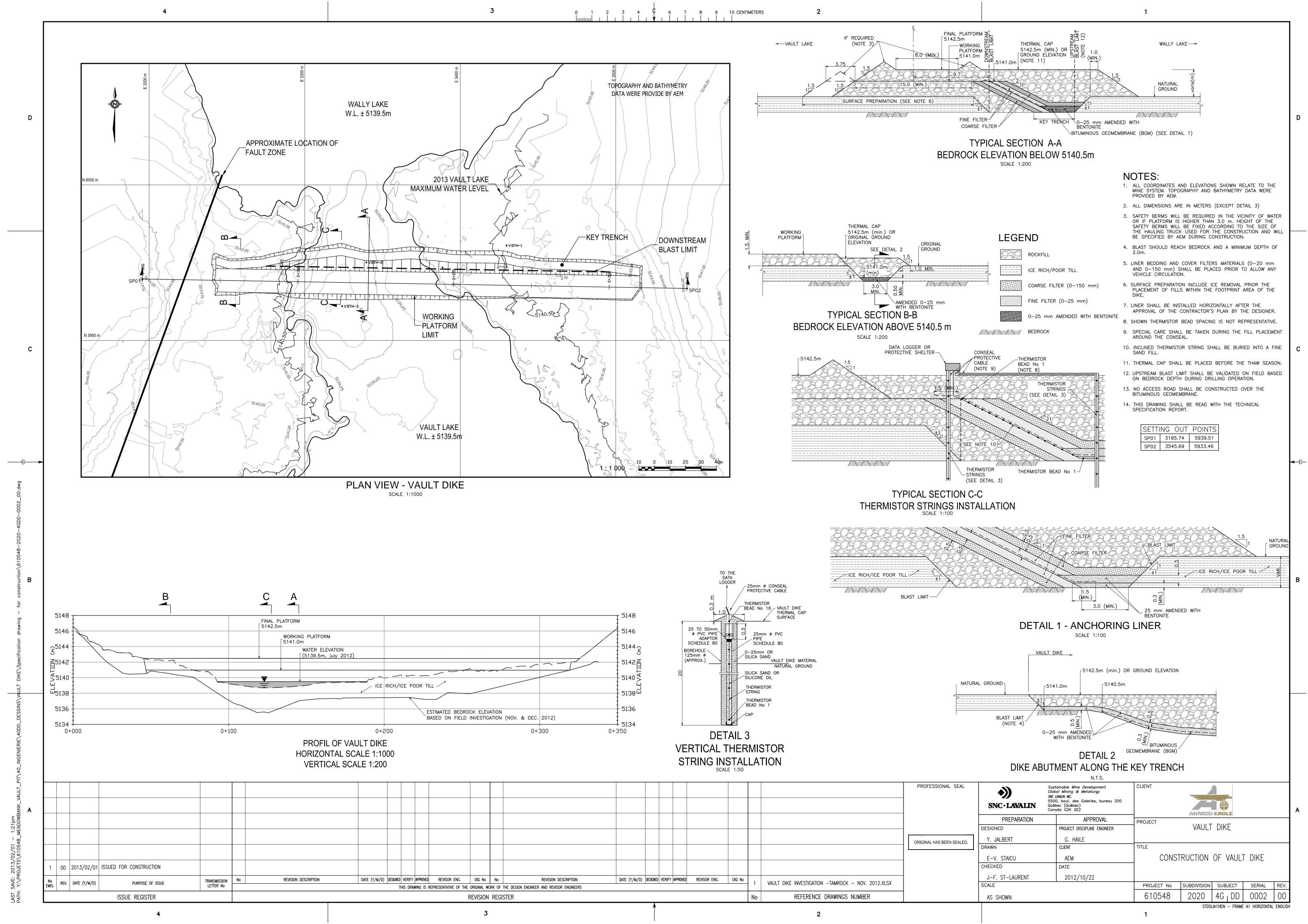


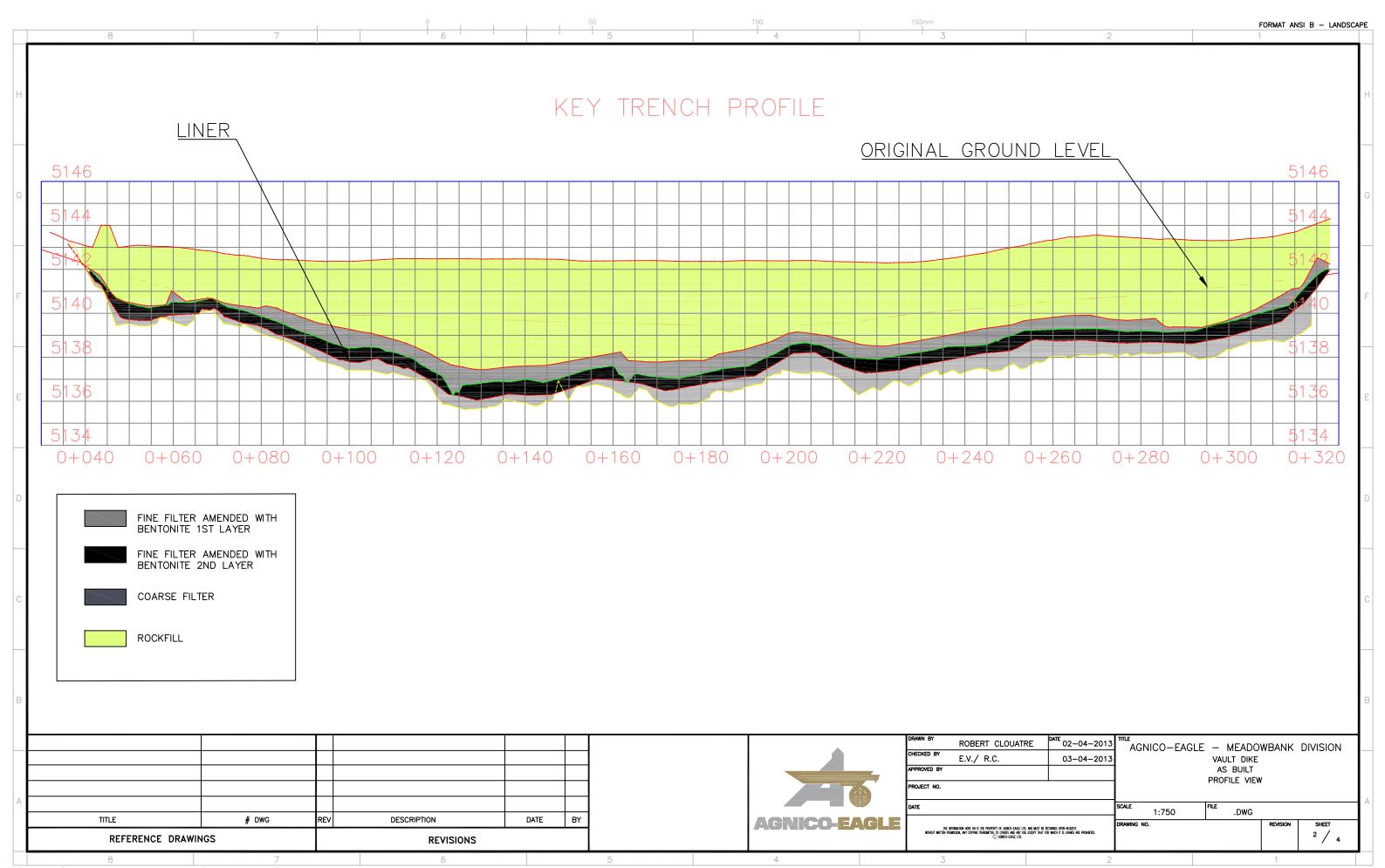
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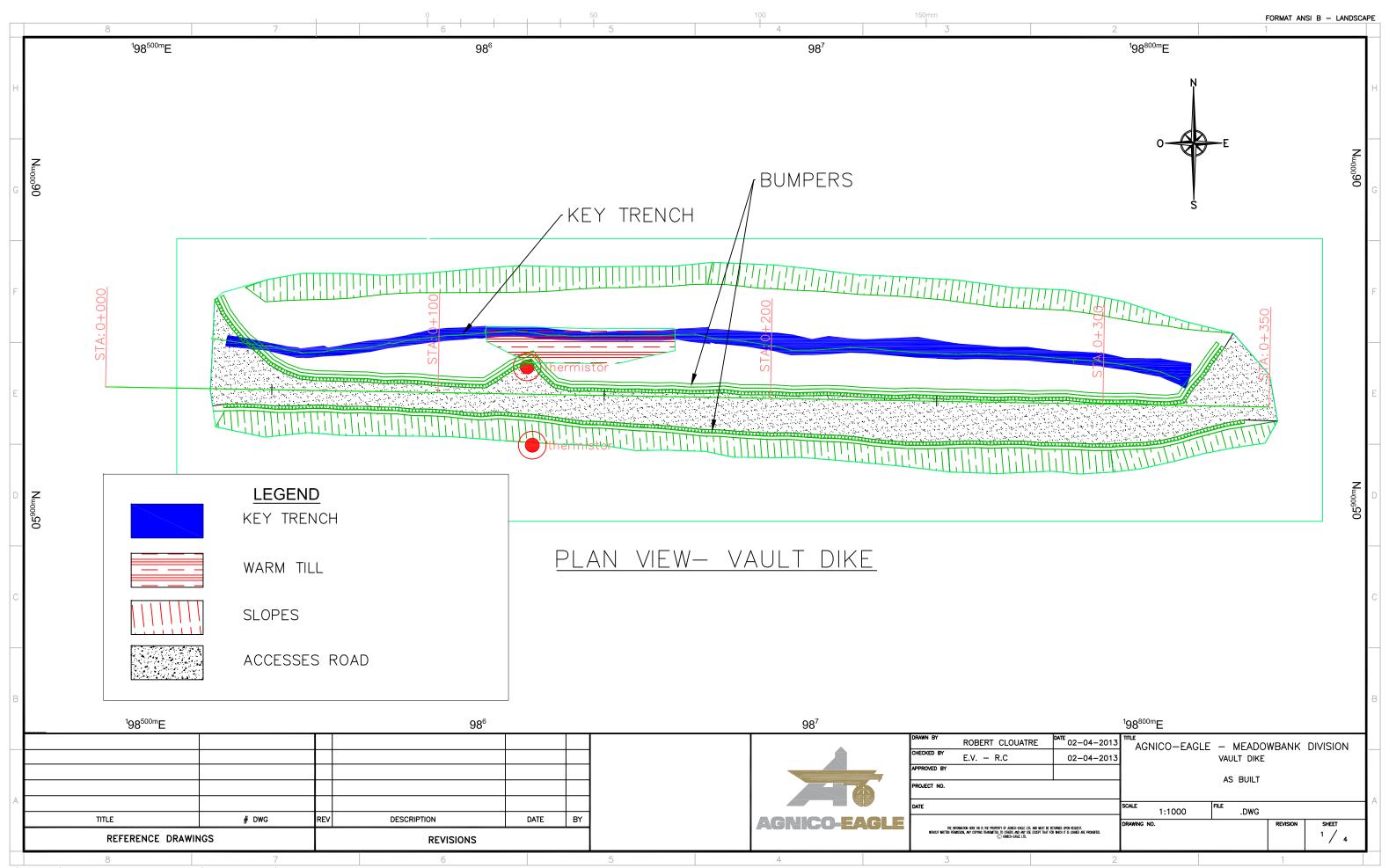
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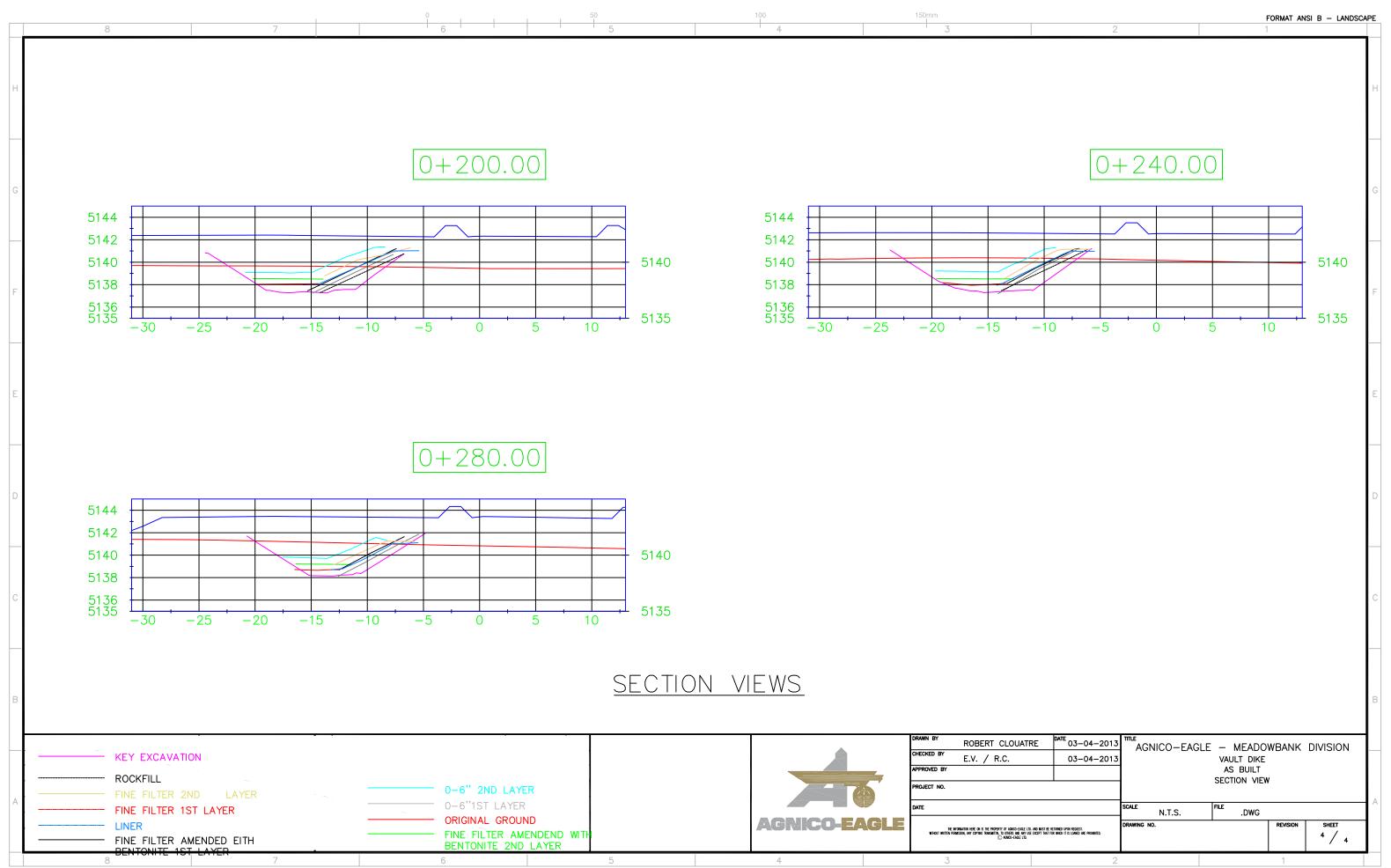
For AEM Geotechnical-Dikes Engineering











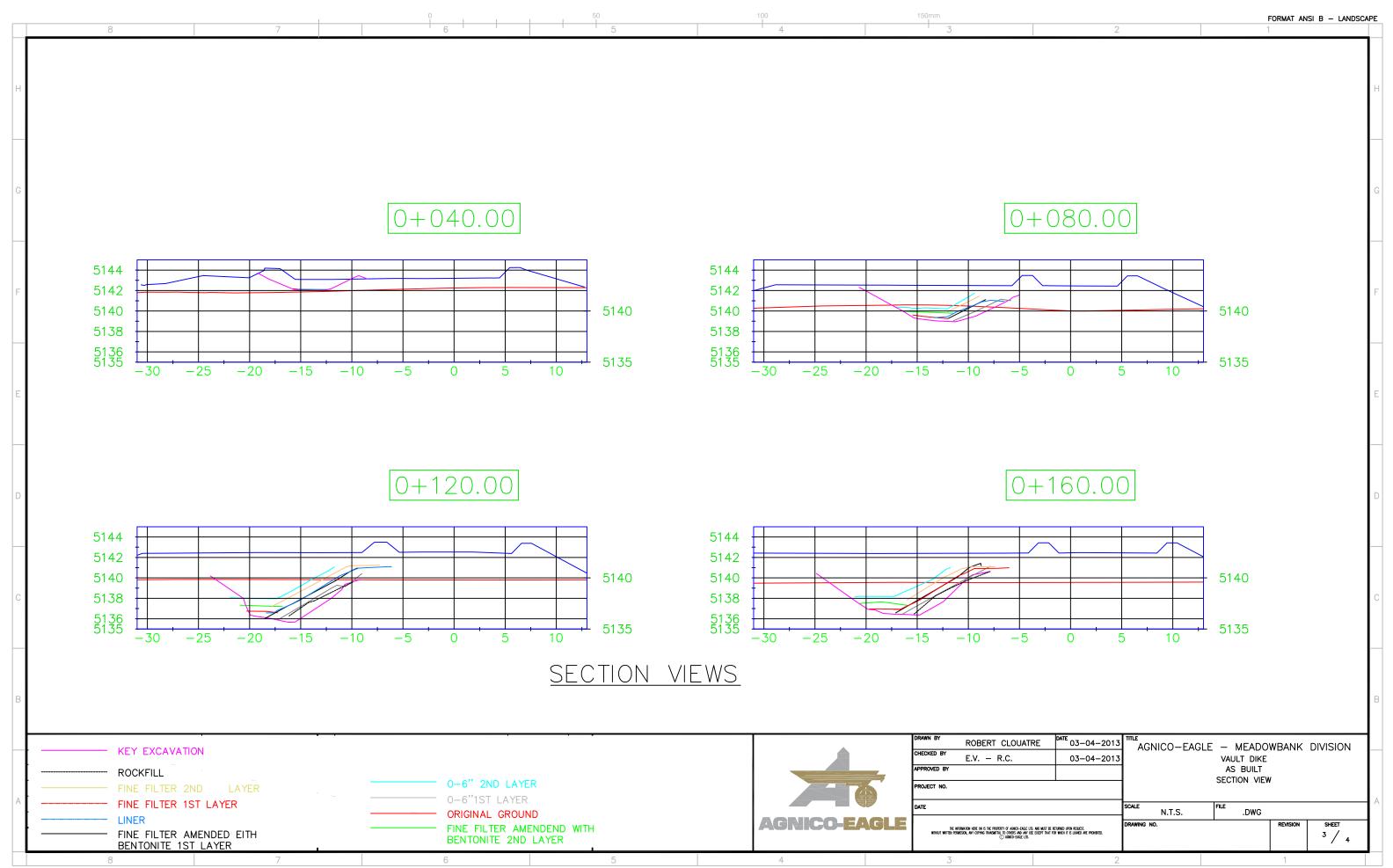


Table of Quantities for Vault Dike Construction

Material	Units	Total
Key trench excavation	m^3	7004.34
Rockfill on each side of the dike	m^3	8183.24
Rockfill to backfill the slope	m^3	648.15
0-6 " first layer	m^3	767.77
0-3/4" first layer	m^3	877.73
Bentonite first layer	m^3	482.11
Liner	m ²	1776.19
Bentonite second layer	m^3	729.62
0-3/4" second layer	m^3	887.69
0-6" second layer	m^3	1516.2
Final rockfill backfill	m ³	28768.05

Total rockfill used	m^3	37599.44
Total 0-6" used	m^3	2283.97
Total 0-3/4" used	m^3	1765.42
Total bentonite used	m ³	1211.73

APPENDIX B
Vault Dike Construction Schedule

2013 VAULT DIKE Schedule Meadowbank Division Agnico-Eagle

	Vault Dike Construction Tasks		Started task on		ays to	to Completed		ompleted JANUARY				FEBR	UARY		MARCH					APRIL			
					ete task	task on	4-Jan	an 11-Jan 18	18-Jan	25-Jan	n 1-Feb	8-Feb	15-Feb	22-Feb	1-Mar	8-Mar	15-Mar	22-Mar 29-	/lar 5	5-Apr	12-Apr	19-Apr	26-Apr
	CONSTRUCT ACCESS ROADS	Date	1/27/2013	# Days	11 days	2/7/2013																	
									27			7											
ш	FOOT PRINT AREA SNOW/ICE REMOVAL (SURFACE PREP)	Date	1/27/2013	# Days	16 days	2/12/2013																	
									27				12										
	DRILL, BLAST, EXCAVATE AND GRADING - KEY TRENCH	Date	2/4/2013	# Days	14 days	2/18/2013																	
_										4				18									
)	COARSE FILTER PLACEMENT AND COMPACTION (0-150 mm)	Date	2/9/2013	# Days	34 days	3/15/2013																	
											9						15						
_	FINE FILTER PLACEMENT AND COMPACTION (0-25 mm)	Date	2/9/2013	# Days	34 days	3/15/2013																	
•											9						15						
•	0-25 mm AMENDED WITH BENTONITE PLACEMENT AND COMPACTION	Date	2/13/2013	# Days	28 days	3/13/2013																	
)											13						13						
	ROCKFILL PLACEMENT AND COMPACTION (0-1000 mm)	Date	3/4/2013	# Days	16 days	3/20/2013																	
L														4				20					
•	BITUMINOUS GEOMEMBRANE INSTALLATION	Date	3/3/2013	# Days	10 days	3/13/2013																	
														3			13					•	
	THERMISTOR STRING INSTALLATION	Date	2/26/2013	# Days	47 days	4/14/2013																	
													26									14	

APPENDIX C
Selected Vault Dike Construction Photos



(Feb 3 2013) Foundation after preparation



(Feb 4 2013) Dumping rockfill to make working platform



(Feb 5 2013) Drill pattern laid out by surveyor



(Feb 3 2013) Part of the approved foundation



(Feb 5 2013) Compaction of working platform with vibratory roller



(Feb 5 2013) Drilling, making working platform, and foundation preparation all ongoing simultaneously



(Feb 5 2013) Rockfill placement for working platform



(Feb 5 2013) Snow, ice, overburden, and boulder removal



(Feb 5 2013) View of Vault Dike area from 0+330



(Feb 6 2013) Drilling blast pattern



(Feb 7 2013) Key trench after blasting and excavation



(Feb 7 2013) Key trench excavation



(Feb 8 2013) Floor of key trench



(Feb 9 2013) Key trench after blasting, excavation and grading



(Feb 9 2013) Placement of fine filter over coarse filter on key trench slope



(Feb 10 2013) Gently mixing bentonite and fine filter



(Feb 9 2013) Drilling boulder to smooth out slope



(Feb 9 2013) Placement of coarse filter over rockfill key trench slope



(Feb 10 2013) Ice found in till slope after blasting



(Feb 12 2013) Compacting fine filter and bentonite mix



(Feb 12 2013) Snow cleaning above fine filter and bentonite mix



(Feb 10 2013) Mixing bentonite with fine filter for compaction tests



(Feb 12 2013) Looking west at Vault Dike



(Feb 12 2013) Trench floor cleaning



(Feb 13 2013) Compacted fine filter layer



(Feb 13 2013) Fine filter with bentonite placement



(Feb 16 2013) Bentonite and fine filter mixing



(Feb 13 2013) Complete fine filter with bentonite layer in key trench



(Feb 14 2013) Rockfill slope Vault Lake side looking west



(Feb 21 2013) Bentonite and fine filter mix stockpile with cover



(Feb 24 2013) General view of Vault dike from the west end



(Feb 27 2013) Key trench and slope ready for geomembrane installation



(Feb 28 2013) Geomembrane on bottom of south slope, does not lie flat and begins to crack where the slope meets the key trench floor



(Feb 26 2013) Thermistor TH5 installed before geomembrane with rock crusher reject fill



(Feb 28 2013) First attempt to roll out the Teranap geomembrane



(Feb 28 2013) Cracks in geomembrane created by stepping on it



(Feb 28 2013) Line showing where the geomembrane edge should lie



(Mar 1 2013) Cracks in Teranap geomembrane from bending it with hands



(Mar 1 2013) Rip in Teranap geomembrane



(Feb 28 2013) Ripples in Teranap geomembrane



(Mar 1 2013) Rip in Teranap geomembrane from running over it with a truck



(Mar 1 2013) Stretch testing the Teranap geomembrane



(Mar 1 2013) Testing the Teranap geomembrane for permeability



(Mar 3 2013) Coletanche geomembrane placement successful



(Mar 3 2013) Welding the geomembrane



(Mar 3 2013) Rolling out the Coletanche geomembrane



(Mar 3 2013) Patch on Coletanche geomembrane



(Mar 3 2013) Compacting fine filter and bentonite layer over the geomembrane



(Mar 5 2013) Fine and coarse filters above geomembrane



(Mar 6 2013) Fine filter with bentonite placed above geomembrane and compacted



(Mar 4 2013) Horizontal geomembrane welding



(Mar 9 2013) Vertical geomembrane welding in progress



(Mar 10 2013) Vault Dike general overview during geomembrane placement



(Mar 10 2013) Vertical seams on Coletanche geomembrane



(Mar 13 2013) Coletanche and Teranap geomembrane



(Mar 14 2013) Vault Dike general overview looking west



(Mar 11 2013) Fine filter placement above geomembrane



(Mar 14 2013) Vault Dike general overview looking east



(Mar 19 2013) Placing rockfill on the top of Vault Dike



(Mar 20 2013) Adding rockfill to the top of Vault Dike



(Mar 26 2013) Adding berms to Vault Dike



(Mar 28 2013) Looking down Vault Dike from 0+080



(Mar 21 2013) Vault Dike before addition of berms and thermistor installation



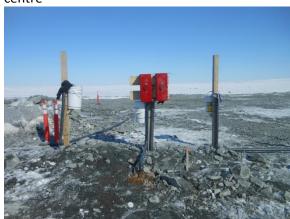
(Mar 28 2013) Downstream side of Vault Dike



(Mar 28 2013) Looking down Vault Dike from 0+330



(Mar 28 2013) Looking down Vault Dike from centre



(Apr 14 2013) Thermistor reading stations



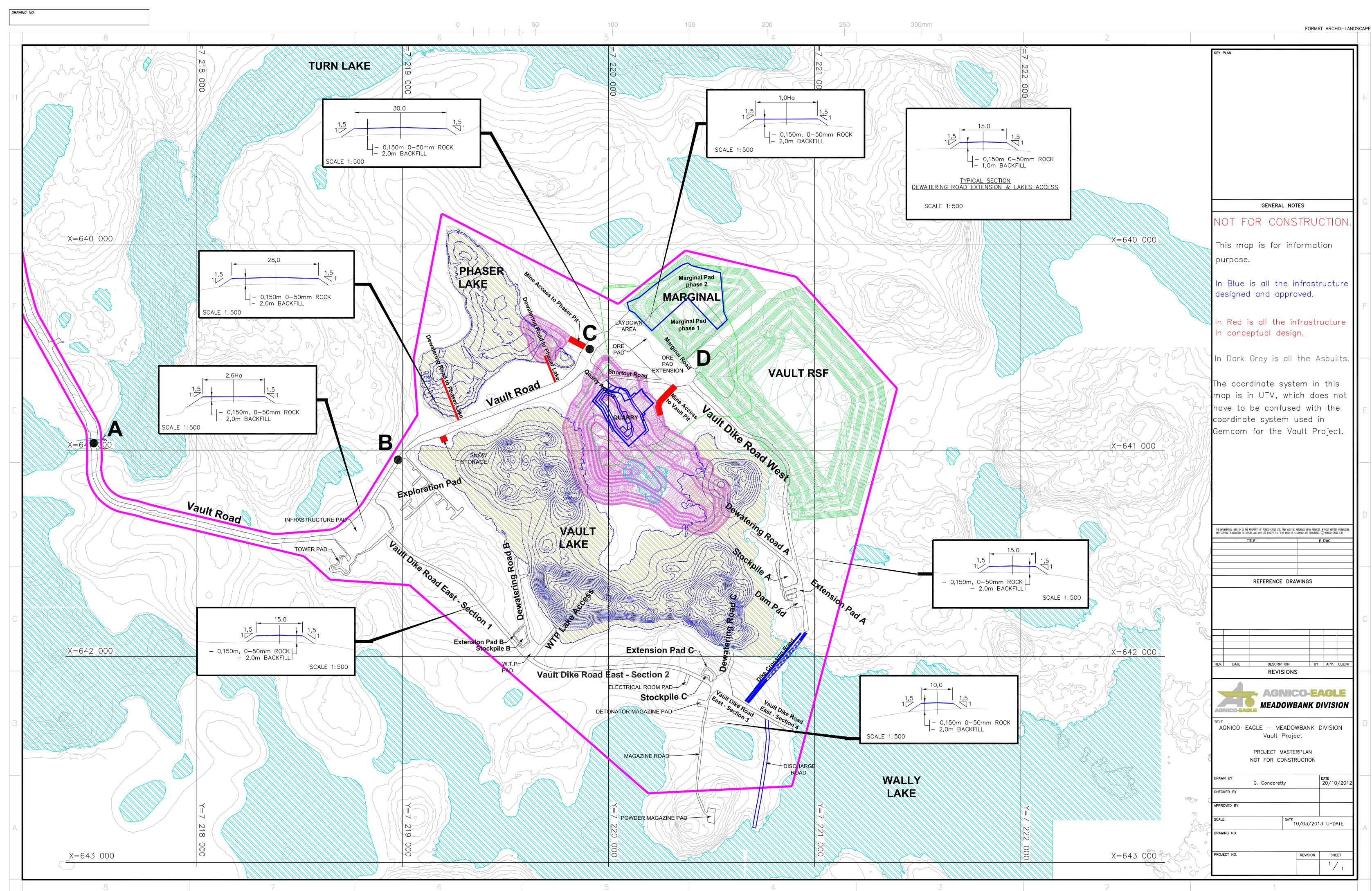
(Mar 28 2013) Upstream side of Vault Dike



(Apr 14 2013) Thermistor set up

APPENDIX D

Map of Vault Pit Area



X:\Vault Dike\18- As-Built Report and Drawings\Appendix Files\Appendix C\Map of Vault Pit Area.dwg, 18 Jul 2013

APPENDIX E QC Results – Geotechnical Testing Records

APPENDIX E1. Fill QC Results



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I KOOLII		vault D							ÉCHA	NTILL	ON NO:			VD	-01		
									DATE	:				2013-	02-22		
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cumul: Résul				100	100	100	100	00	==		-			,			4.0
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								=	Date de	e prélèv	ement:			7 févri	er 2013		
					GRA	ANULO	MÉTR	IE (% P	ASSAN	T) (LC	21-040)						
Tai	mis			X	200	150	75	25	19	12.5	4.76	2.00	0.85	0.425	0.25	0.15	0.075
Résu	ıltats			mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
cumu	ılatifs			100	100	100	86	<u>44</u>	36	<u>29</u>	<u>17</u>	<u>12</u>	8	7	6	5	4.0
Résu indivi																	
	min.		#N/A		100	86	35	5		0	0	0					
Exigences	max.		#N/A		100	100	100	40		18	9	5					
			100 t ¥0			D.C. Italia	Exig	gences		ESSA	I PROC	CTOR (NQ 250	1-255)		Rési	ultats
	AU	TRES E	SSAIS			Résultats	min.	max.	Masse	volumiqu	ie sèche	maximal	e				(kg/m ³)
									Humidi	té optim	ale						(%)
									Proctor Facteur	à 0% de de corre	pierre :		kg/m3				
									1		nétrique:	Coarse l	Filter: Ce	ntral Dike)		
												COU	RBE G	RANUI	LOMÉ/I	ŔĮQUI	100.0
									1								90.0
									1								80.0
									1								70.0
									4 📙								60.0
														- /			SSAPAT
															/-		40.6C
																	POPRCIPATAGE PA
									1 -								20 2
									-						/		1086
									4 🗀			1					····· 0.0
									0.01		0.1	1 DIME	ENSION D	10 DES PART	100 TICULES,		1000
									% grav	vier	83.2%	Cu =	29	D ₀₅ =	72.8	D ₁₅ =	3.5
									% sab % silt/a	e	12.9% 4.0%	Cc =		D ₈₅ = D ₆₀ = D ₅₀ =	37.9 29.2	D ₁₅ = D ₁₀ =	1.3
Remarques	s:	Écart(s)	aux tami	is suivan	it(s): 25,	12,5, 4,7	6, 2 mm	ı	•								
Préparé pa	r:			P	.B				Vé	rifié par:							



INGE	MIEKIE ET 20	DLUTIC)M2													
CLIENT:	AEM							PLAN	CHE N	O :						
DDO IET.	Voult Dile	•						PROJ	ET NO:				Q0311	36-B3		
PROJET:	Vault Dik	.e						ÉCHA	NTILLO	ON NO:			VD	-02		
	· —							DATE	:				2013-	02-22		
Description du matériau: Provenance (source 1 ^{ère})			0-25m	m / ben	ntonite		Localis	ation du	ı prélèv	ement:			0+0	070		
Provenance (source 1 ^{ère})			Fine F	ilter Sto	ckpile		_			•						
Provenance (source 1 ^{ère}) Jsage proposé:			rembl	ai, key t	rench		_		Préle	vé par:			Ρ.	.В		
	_						_	Date de	prélèv	ement:			2013-0	2-11_N		
				GR	ANULC	MÉTI	RIE (% I	PASSAN	NT) (LC	21-040)					
Tamis			0	0	150	50	25	19	9.5	4.76	2.00	0.85	0.425	0.25	0.15	0.075
			mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm

				GR	ANULC)MÉTR	IE (% l	PASSAN	NT) (LC	21-040)					
Tami	c		0	0	150	50	25	19	9.5	4.76	2.00	0.85	0.425	0.25	0.15	0.075
Tann	.5		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Résulta cumula			100	100	100	100	100	86	53	36	#####	#####	#####	#####	#####	#####
Résulta individu																
Exigences	min.					100	100	50	23				0			0.0
Largences	max.					100	100	100	68				20			15.0

A LITTING POG A 1G	D (14-4-	Exig	gences	ESS	AI PROC	TOR (NQ 2501	-255)	Résultats
AUTRES ESSAIS	Résultats	min.	max.	Masse volumie	que sèche m	aximale		(kg/m ³)
				Humidité optin				(%)
				Proctor à 0% d Facteur de corr	e pierre : rection:	kg/m3		
				Fuseau granulo		ine Filter: Sable e RBE GRANULOMÉ		100
				-				90
								70
								60 - 60 - 60 - 60 - 60 - 60 - 60 - 60 -
								30 Ao ano A
								10
				0.01	0.1 D	1 imension des particule	10 s, mm	100
				% gravier % sable % silt/argile	64.0% #DIV/0! #DIV/0!	Cu = #DIV/0! Cc = #DIV/0!	$D_{85} = \#DIV/0!$ $D_{60} = \#DIV/0!$ $D_{50} = \#DIV/0!$	D ₁₅ = #DIV/0! D ₁₀ = #DIV/0!

Remarques:	pas de granulométrie sur le sable		
Préparé par:		Vérifié par:	



CLIENT:		FGL S.	ANA/ AI	EM				_	PLAN	CHE N	0:						
PROJET:		VAULT	. DIKE						PROJ	ET NO	:			Q0311	136-B3		
FROJET.	•	VAOLI	DIKL						ÉCHA	NTILLO	ON NO			VD	-02		
									DATE	:				13 févri	ier 2013	3	
Description	on du ma	tériau:		fine fi	lter+ be	ntonite		Localis	ation du	u prélèv	ement:		Key	trench	st:0+070) CL	
Provenan	ce (sourc	e 1 ^{ère}):	;	Stock p	ile sana	a crusher		-									
Usage pro	oposé:				Dike			_			vé par:			Р	.В		
								_	Date de	e prélèv	ement:			11 févri	ier 2013		
					GRA	ANULO	MÉTR	IE (% P	ASSAN	T) (LC	21-040)						
Tai	mis			150	76.2	50	37.5	25	19	12.5	4.76	2.00	0.85	0.425	0.25	0.15	0.075
Résu	ıltats			mm 100	mm 100	mm 100	mm 100	100	mm <u>86</u>	mm 64	mm 36	mm #####	mm #####	mm #####	mm #####	mm #####	mm #####
cumu Résu				100	100	100	100	100	<u>00</u>	04	30	*****	*****	*****	*****	#####	******
indivi					1												
Exigences	min.							100	100	50	23			0			0.0
	max.							100	100	100	68			20			15.0
	ATI	TRES E	CCAIC			Résultats		gences		ESSA	I PRO	CTOR (NQ 250	1-255)		Résu	ıltats
	AU	IKESE	33AI3			resultats	min.	max.	Masse	volumiqu	ie sèche	maximal	e				(kg/m ³)
										ité optim							(%)
									Proctor Facteur	à 0% de r de corre	pierre : ction:		kg/m3				
									Fuseau	granulon	nétrique:	Fine Filt	er: Centra	al Dike			
											C	OURBE G	RANULO!	MÉTRIQU	JE		 100
																	90 80 70
																	60 50 50 50 50 50 50 50 50 50 50 50 50 50
									0.01		0.1	Dimension of	1 des particule	es, mm	10		10 0 100
Dépasse	ement du	% de pe	rte total						% grav % sabl % silt/a	le	64.0% #DIV/0! #DIV/0!		#DIV/0! #DIV/0!	$D_{60} =$	#DIV/0! #DIV/0! #DIV/0!	D ₁₅ = D ₁₀ =	#DIV/0! #DIV/0!
Remarques	s:	#DIV/0!															
Préparé pa	r·			Р	.B				Vé	rifié par							



CLIENT:		Agnico-	Eagle Mines	s Itd Mead	dowbank		LAB No.:	WLE	3 276
PROJECT/ SITE:			Nun	avut			PROJECT No.:	Q0301	136-B3
							_		
Borehole No.:		N	/A		Sample I	D:		N/A	
Depth:		N	/A		Sample [Date:		N/A	
								. 47.	
	Type of ma	aterial _	0-	·22 mm + be	entonite VD1	8	_		
	Sample Pa	rameters	Diamet			5.2			
		-	Heigh Volume			1.4 069	-		
	Type of material Sample Parameters Water Content D. Head 'h' Water Flore (cm) (cm3) 65 229.4 65 143.2 99 3535.4 Be Hydraulic Conduct Ctl: 0+201 x: 3397,0 Run 3 performed af		Dry Ma	ass, g	4	150			
			Wet Dens			101 006	_		
	Type of material Sample Parameters Water Content Head 'h' Water Flow (cm) (cm³) 65 229.4 65 143.2 99 3535.4 Hydraulic Conductive Ctl: 0+201 x: 3397,0 y Run 3 performed after		Dry Densi Moistu		1	2.8	1		
	Water Content				l ,	- 0	7		
	Water Con	tent	Before T			5.0 2.8	1		
	Water Content						_		
Run No.	Head 'h'	Water Flow	Time	Q	Hydrqulic Gradient	К	Temp of Water	Viscosity of Water	K Corrected
	(cm)	(cm³)	t (sec)	(cm ³ /sec)	(i)	(cm/sec)	°C	Water	(cm/sec)
1	65	229.4	5580	0.04	5.70	4.0E-05	23.0	0.94	3.7E-05
2			3600	0.04	5.70	3.8E-05	23.0	0.94	3.6E-05
3	99	3535.4	69120	0.05	8.68	3.2E-05	22.0	0.96	3.1E-05
Average									3.5E-05
71101030									0.02 00
	Hvdraulie	Conductivit	tv @ 20° C:	cm/sec		3.5E-0	5	1	
	, , , , , ,		,	<u> </u>				J	
REMARKS:	Ctl: 0+201	x: 3397.0 v·	5951.14 z· !	5138.7					
		•							
PERFORMED BY:		С	asey Adach	i		DATE:	17	7-Apr-13	
VERIFIED BY:		Micl	hael Braverr	man		DATE:	17	7-Apr-13	



CLIENT:	iii GEiii	AEM	30101	10110					DI AN	CHE N	٥.						
CLIENT.		ALIVI															
PROJET:		Vault D	Dike						PROJ	ET NO	:			Q0311	136-B3		
									ÉCHA	NTILL	ON NO:			VD	-03		
									DATE	:				2013-	02-13		
Description	on du m	natériau:		F	ine Filte	er		Localis	ation du	ı prélèv	ement:			0+0	060		
Provenan	ce (sou	ırce 1 ^{ère})		Fine F	Filter Sto	ockpile		- -									
Usage pro	oposé:		ı	remblai	slope, k	ey trenc	h	_		Préle	vé par:			M.	L.D		
								=	Date de	e prélèv	ement:			2013-02	2-13-joui	r	
					GR	ANULO)MÉTF	RIE (%	PASSAI	NT) (LC	C 21-040)					
Tam	is			0	0	150	50	25	19	9.5	4.76	2.00	0.85	0.425	0.25	0.15	0.075
Résul	tats			mm	mm	mm	mm 100	mm 100	mm 89	mm 61	mm 44	mm 31	mm 22	mm 17	mm 14	mm	mm 9.4
cumul: Résul				100	100	100	100	100	89	01	44	31	22	17	14	12	9.4
individ	luels																
Exigences	min.						100	100	50	23				0			0.0
	max.						100	100	100	68				20			15.0
		UZDEC I	EGGATO	,		Résultats	Exig	gences		ESSA	I PROC	CTOR (NQ 250	1-255)		Rési	ultats
	AU	UTRES 1	LSSAIS	•		Resultats	min.	max.	Masse	volumiqu	ie sèche i	naximal	e				(kg/m ³)
										ité optim							(%)
									Proctor Facteur	à 0% de r de corre	pierre : ction:		kg/m3				
									Fuseau	granulon	nétrique:						
											COL	RBEGR	ANULOM	IETRIQUE			00
																	90 80
															/	7	70
																	bassan.
														//			ourcentage passant
																	90 Pourc 01
																	20
																1	0
									0.0	01	0.1		1		10	100)
											1	Dimension	des particul	ies, mm			
									% grav % sab	vier	56.4% 34.1%	Cu = Cc =		D ₈₅ = D ₆₀ =	17.1 0.2	D ₁₅ = D ₁₀ =	0.3
									% silt/a	argile	9.4%	00 -	7	D ₅₀ =	6.2	D ₁₀ -	0.1
Remarques	s:					•		•									
Préparé pa	r:			Ρ.	.В.				Vé	rifié par:							



_																	
CLIENT:		FGL S	ANA/ AI	EΜ					PLAN	CHE N	0:						
PROJET:		VALII T	DIKE						PROJ	ET NO:	:			Q0311	36-B3		
i Koolii		77.021	Direc						ÉCHA	NTILLO	ON NO:			VD	-03		
									DATE	:				13 févri	er 2013	1	
Description	on du ma	tériau:		F	Fine filte	er		Localis	ation d	u prélèv	ement:		Ke	y trench	n st: 0+0	160	
Provenan	ce (sourc	e 1 ^{ère}):		Stock p	ile sana	crusher	•	_									
Usage pro	posé:				dike			_		Préle	vé par:			M.	L.D		
								=	Date d	e prélèv	ement:			11 févri	er 2013		
					GRA	ANULO	MÉTR	IE (% P	ASSAN	T) (LC	21-040)						
Tar	nis			150	76.2	50	37.5	25	19	12.5	4.76	2.00	0.85	0.425	0.25	0.15	0.075
				mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
cumu	latifs			100	100	100	100	100	<u>89</u>	71	44	31	22	17	14	12	9.4
Eniman	min.							100	100	50	23			0			0.0
Exigences	max.							100	100	100	68			20			15.0
							Exig	gences		ESSA	I PROC	CTOR (I	NQ 250	1-255)		Rési	ıltats
	AU	TRES E	SSAIS			Résultats	min.	max.	Masse	volumiqu	ie sèche	maximal	e				(kg/m ³)
									Humid	ité optim	ale						(%)
									Proctor	à 0% de	pierre :		kg/m3			I	
									1			Fine Filte	er: Centra	al Dike			
PROJET: VAULT DIKE																	
PROJET NO:						100											
PROJET NO:		- 80															
PROJET: VAULT DIKE			70														
PROJET: VAULT DIKE			OC O														
PROJET: VAULT DIKE			50 sentage														
PROJET: VAULT DIKE			- 30 Hour														
																	20
PROJET: VAULT DIKE			10														
									0.01			Dimension d	•		10	• • • • • • •	++ 0 100
									1		1	onnension e	ies partieuie	.s, mm			
PROJET NO: Q031136-B3 PROJET NO: D031136-B3 PROJET NO: D031136-B3 PROJET NO: D13 PROJET NO: D13 PROJET NO: D14 PROJET NO: D15 PROJET N			0.3														
									% sab % silt/a	ie argile		Cc =	4	D ₆₀ = D ₅₀ =	8.6 6.0	D ₁₀ =	U.1
Remarques	s:	Écart(s)	aux tami	s suivan	t(s): 19	mm											
Préparé par	r:			Р	'B				Vé	rifié par:							



CLIENT:	AEM		PLANCHE NO:		
			PROJET NO:	Q031136-B3	
PROJET:	Vault Dike		ÉCHANTILLON NO:	VD-06	
			DATE:	2013-02-22	
Description d	u matériau:	0-25mm	Localisation du prélèvement:	stockpile	
Provenance (source 1 ^{ère})	Fine Filter Stockpile			
Usage propos	sé:	remblai slope, key trench	Prélevé par:	M.L.D	
			Date de prélèvement:	2013-02-15_J	
		GRANULOMÉ	TRIE (% PASSANT) (LC 21-040)		

					GR.	ANULO	MÉTR	IE (% l	PASSAN	NT) (LC	21-040)					
Tami	ie			0	0	150	50	25	19	9.5	4.76	2.00	0.85	0.425	0.25	0.15	0.075
1 aiiii	13			mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
	Résultats cumulatifs				100	100	100	100	81	46	27	16	11	9	8	6	5.3
cumulatifs Résultats individuels																	
Exigences	min.						100	100	50	23				0			0.0
Largences	max.						100	100	100	68				20			15.0

A LIEDTEG PGG A IG	Résultats	Exig	gences	ESS	AI PROC	TOR (NQ 2501	1-255)	Résultats
AUTRES ESSAIS	Resultats	min.	max.	Masse volumic	que sèche n	naximale		(kg/m ³)
				Humidité optir				(%)
				Proctor à 0% de Facteur de corr	e pierre : ection:	kg/m3		
				Fuseau granulo	et gravier ÉTRIQUE			
								100
				-				80
								70 tuessi
				-				Pourcentage passant
								40 Source
								20
								10
				0.01	0.1	1 Dimension des particule	10 es, mm	100
				% gravier	73.4%	Cu = 22	$D_{85} = 20.3$	D ₁₅ = 1.6
				% gravier % sable % silt/argile	21.3% 5.3%	Cc = 4	$D_{60} = 12.6$ $D_{50} = 10.4$	$D_{15} = 1.6 D_{10} = 0.6$

Remarques:	pas de granulométrie sur le sable		
Préparé par:		Vérifié par:	
· · · · · · · · · · · · · · · · · · ·			



_																	
CLIENT:		FGL S	ANA/ AI	EΜ					PLAN	CHE N	0:						
PROJET:		VAULT	. DIKE						PROJ	ET NO:	:			Q0311	136-B3		
									ÉCHA	NTILLO	ON NO:			VD	-06		
									DATE	:				16 févri	er 2013	3	
Description	on du ma	tériau:		1	fine filte	er		Localis	ation du	ı prélèv	ement:		St	toke pile	vault di	ke	
Provenan	ce (sourc	e 1 ^{ère}):		Stock p	ile sana	crusher	-	_									
Usage pro	oposé:				DIKE			_		Préle	vé par:			M.	L.D		
								_	Date de	e prélèv	ement:			15 févri	er 2013		
					GRA	ANULO	MÉTR	IE (% P	ASSAN	T) (LC	21-040)						
Tar	mis			150	76.2	50	37.5	25	19	12.5	4.76	2.00	0.85	0.425	0.25	0.15	0.075
Résu		1		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
cumu	latifs			100	100	100	100	100	<u>81</u>	58	27	16	11	9	8	6	5.3
Résu indivi																	
г.	min.							100	100	50	23			0			0.0
Exigences	max.							100	100	100	68			20			15.0
							Exig	gences		ESSA	I PROC	CTOR (NQ 250	1-255)		Rési	ıltats
	AU	TRES E	SSAIS			Résultats	min.	max.	Masse	volumiqu	ie sèche	maximal	e				(kg/m ³)
									Humidi	té optim	ale						(%)
									Proctor	à 0% de	pierre :		kg/m3				
									1	de correc granulon		Fine Filte	er: Centra	al Dike			
										•	-			MÉTRIQU	JE		
																	100
															/		90
									1								70
									-								60 concentage bassaut
									-						//		50 pu
									-								40 Fources
									-					\mathscr{J}			20
																	10
				0.01		0.1		1		10		↓ 0 100					
												Dimension of	les particule	es, mm			
									0/ grov	dor	70.40/	C.	22	D	20.2	D	1./
									% grav % sabl % silt/a	e	73.4% 21.3% 5.3%	Cu = Cc =		D ₈₅ = D ₆₀ = D ₅₀ =	13.1	D ₁₅ = D ₁₀ =	0.6
Remarques	s:	Écart(s)	aux tami	s suivan	t(s): 19	mm	•	•									
Préparé par	r:			Р	.В				Vé	rifié par:							



INGÉNIERIE ET S	DLUTIONS													
CLIENT: AEM						PLAN	CHE N	0:						
PROJET: Vault Di	ko					PROJ	ET NO:				Q0311	136 B3		
PROJET: Vault Dil	ke					ÉCHA	NTILLO	ON NO:			VD	-08		
						DATE	:				2013-	02-20		
Description du matériau:	Co	oarse Fi	lter		Localis	ation d	ı prélèv	ement:			slope, ke	ey trench		
Provenance (source 1 ^{ère})	Sa	na crus	her								station	0+250		
Usage proposé:	rembl	lai, key	trench		-		Préle	vé par:			Fabie	en Zilli		
_					-	Date de	e prélèv	ement:		:	2013-02	-20_Nui	t	
		GR	ANULO	MÉTR	RIE (% l	PASSAI	NT) (LC	21-040)					
Tamis	Х	х	200.00	152.4	76.20	25.4	12.7	4.76	2.00	0.85	0.425	0.25	0.15	0.075
Résultats	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
cumulatifs Résultats	100	100	100	93	50	24	15	9	<u>6</u>	4	3	3	2	1.8
individuels														
Exigences min.	100		100	86	35	5	0	0	0					
max.	100		100	100	100	40	18	9	5					
AUTRES E			Résultats	Exig	ences		ESSA	I PROC	CTOR (NQ 250	1-255)		Résu	ıltats
AUTRES	55A15		Resultats	min.	max.	Masse	volumiqu	ie sèche i	naximal	e				(kg/m ³)
							ité optima							(%)
						Proctor Facteur	à 0% de p r de correc	pierre : ction:		kg/m3				
						Fuseau	granulom	nétrique:	0-150: 32	2 Central	Dyke			
									COURBE	GRANUL	OMÉTRIO	QUE		
COURBE GRANULOMÉTRIQUE												#N/A #N/A	D ₁₅ = D ₁₀ =	100 90 80 70 60 sessud assuranced 40 30 30 4 100 1000
Remarques:														

Vérifié par:

Maxime Côté

Préparé par:

FO-930.201/07-04



	INGÉN	ERIE ET SO	LUTIONS													
CLIENT:		AEM						PLAN	CHE N	0:						
PROJET:		Vault Dike						PROJ	ET NO:	:			Q0311	36-B3		
PROJET:		Vault Dike	;					ÉCHA	NTILLO	ON NO:			VD	-10		
								DATE	:				2013-	02-21		
Description	n du m	natériau:	F	ine Filte	er		Localis	ation du	ı prélèv	ement:			0+2	219		
Provenan	ce (sou	rce 1 ^{ère})	Fine F	Filter Sto	ockpile		=									
Usage pro	posé:		remblai	slope, k	ey trencl	h	_			vé par:			Maxim	e Côté		
							=	Date de	e prélèv	ement:			2013-0	2-20_N		
				GR	ANULO	MÉTE	RIE (%]	PASSAN	NT) (LC	21-040)					
Tami	is		0	0	150	50	25	19	9.5	4.76	2.00	0.85	0.425	0.25	0.15	0.075
Résult	ats		100	mm 100	mm 100	mm 100	mm 100	mm 82	mm 52	mm 40	mm 26	mm 17	mm 13	mm 11	mm 9	7.2
cumula Résult			100	100	100	100	100	02	32	40	20	''	13			1.2
individ	individuels min. igences max.						100	50	23				0			0.0
Exigences						100										
	max.		100	100	100	68				20			15.0			
	AU	JTRES ESS	SAIS		Résultats	Exig	ences		ESSA	I PROC	TOR (NQ 250	1-255)		Rési	ıltats
						min.	max.	Masse	volumiqu	ie sèche i	naximal	е				(kg/m ³)
									_							(%)
								Proctor Facteur	à 0% de de corre	pierre : ction:		kg/m3				
Dimension des particules, mm											9 8 7 6 5	O O O O O O O O O O O O O O O O O O O				
Remarques	:															
During 1			N 4 = is dis-	00 551 5				***	: C: /							
Préparé par	:		iviaixin	ne coté				Véi	rifié par:							



11101	LINE LI SOL	0110110													
CLIENT:	AEM						PLAN	CHE N	0:						
							PROJ	ET NO:	:			Q0311	36-B3		
PROJET:	Vault Dike						ÉCHA	NTILLO	ON NO:			VD	-10		
							DATE	:				2013-	02-21		
Description du	ı matériau:	F	ine Filte	er		Localis	ation d	u prélèv	ement:			0+2	219		
Provenance (s	ource 1 ^{ère})	Fine F	Filter Sto	ockpile		_									
Usage propos	é:	remblai	slope, k	ey trenc	h	=" 		Préle	vé par:			Maxim	e Côté		
						=" =-	Date d	e prélèv	ement:			2013-0	2-20_N		
			GR	ANUL(OMÉTI	RIE (% 1	PASSA	NT) (LC	21-040)					
Tamic		0	0	150	50	25	19	12.5	4.76	2.00	0.85	0.425	0.25	0.15	0.075

				GR	ANULO	MÉTR	EIE (% l	PASSAI	NT) (LC	21-040)					
Tami	c		0	0	150	50	25	19	12.5	4.76	2.00	0.85	0.425	0.25	0.15	0.075
Tann	.5		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Résult			100	100	100	100	100	<u>82</u>	52	40	26	17	13	11	9	7.2
cumula	cumulatifs		100	100	100	100	100	5	02	40	20	17	10		,	7.2
Résult	ats															
individ	ıels															
Exigences	min.						100	100	50	23	15		0			0.0
Exigences	max.						100	100	100	68	45		20			15.0

A LUMBER ESSA ES	D (lt-t-	Exig	ences	ESS	AI PROC	TOR (NQ 2501	1-255)	Résultats
AUTRES ESSAIS	Résultats	min.	max.	Masse volumio	que sèche n	naximale		(kg/m ³)
				Humidité optin				(%)
				Proctor à 0% de Facteur de corr	e pierre : ection:	kg/m3		
				1	ométrique: I COU	Fine Filter: Sable RBE GRANULOM 1 Dimension des particulor	ÉTRIQUE	100 90 80 70 100 60 september of the sep
				% gravier % sable % silt/argile	60.5% 32.3% 7.2%	Cu = 74 Cc = 2	$D_{85} = 27.1$ $D_{60} = 15.2$ $D_{50} = 11.1$	$D_{15} = 0.6 D_{10} = 0.2$

Remarques:			
Préparé par:	Maxime Côté	Vérifié par:	
		' '	



CLIENT:		AEM							PLAN	ICHE N	0:						
									PROJ	ET NO	:			Q0311	136-B3		
PROJET:		Vault Di	ke						ÉCHA	NTILL	ON NO:			VD	-13		
									DATE	:				2013-	02-27		
Description	on du m	natériau:		F	ine Filte	ər		Localis	sation du		/ement:		s	tock pile	Vault Dil	ке	
Provenan	ce (sou	ırce 1 ^{ère})		Fine F	Filter Sto	ockpile		=			•						
Usage pro	posé:	_	re	emblai s	slope, k	ey trencl	h	- -		Préle	evé par:			Maxim	e Côté		
		=							Date de	e prélèv	ement:			2013-0	2-26_N		
					GR	ANUL(OMÉTR	RIE (% !	PASSA	NT) (L(C 21-040))					
Tam	is			0	0	150	50	25	19	9.5	4.76	2.00	0.85	0.425	0.25	0.15	0.075
Résult				mm 100	mm 100	mm 100	mm 100	mm 99	mm 81	mm 55	mm 39	mm 26	mm 19	mm 13	mm 10	mm 7	mm 6.6
cumula Résult	tats			100	100	100	100		- 01	- 55	33	20	10	10	10	<u> </u>	0.0
individ						<u> </u>	100	100	50	22				2		 	100
Exigences							100	100	50	23	-			0		<u> </u>	0.0
	max.	. 100 100 100 68 20												<u> </u>	15.0		
	– Al	UTRES E	SSAIS			Résultats		gences		ESSA	AI PROC	CTOR (NQ 250	1-255)		Rési	ultats
						<u> </u>	min.	max.	Masse	volumiqu	ue sèche i	naximal	e			<u> </u>	(kg/m ³)
							<u> </u>	<u> </u>		ité optim `à 0% de			1.~/~2				(%)
								-	Facteur	r de corre	ection:		kg/m3				
							-	<u> </u>	Fuseau	granulor	métrique: COU			et gravie IÉTRIQUE		1	400
									0.0		0.1	Dimension	1 des particu	les, mm	0	9 8 8 7 7 6 6 6 5 5 4 4 3 3 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
									% grav % sabl % silt/a	le	60.6% 32.9% 6.6%	Cu = Cc =		D ₈₅ = D ₆₀ = D ₅₀ =	10.9	D ₁₅ = D ₁₀ =	0.5

Remarques:

Préparé par: FABIEN ZILLI Vérifié par:



	INGÉN	ERIE ET SO	LUTIONS													
CLIENT:		AEM						PLAN	CHE N	0:						
PROJET:		Vault Dike						PROJ	ET NO:	:			Q0311	136-B3		
PROJET:		vault Dike	•					ÉCHA	NTILLO	ON NO:			VD	-14		
								DATE	:				2013-	02-28		
Description	n du m	natériau:	F	ine Filte	er		Localis	ation du	ı prélèv	ement:		Si	tock pile	Vault Dik	се	
Provenan	ce (sou	rce 1 ^{ère})	Fine F	Filter Sto	ockpile		_									
Usage pro	posé:		remblai	slope, k	ey trencl	h	_			vé par:			Maxim	e Côté		
		_					_	Date de	e prélèv	ement:			2013-0	2-27_N		
				GR	ANULO	MÉTE	RIE (%)	PASSAN	NT) (LC	21-040)					
Tami	is		0	0	150	50	25	19	9.5	4.76	2.00	0.85	0.425	0.25	0.15	0.075
Résult			100	mm 100	mm 100	mm 100	mm 100	mm 93	mm 53	mm 32	mm 20	mm 14	mm 11	mm 9		mm 5.7
cumula Résult			100	100	100	100	100	30		02						0.7
individ	min. gences max.						100	50	23				0			0.0
Exigences						100	100	100	68				20			15.0
	max.				100											
	AU	UTRES ESS	SAIS		Résultats		ences			I PROC			1-255)		Rési	ıltats
						min.	max.			ie sèche i	naximal	e				(kg/m ³)
									_			ka/m2				(%)
								Facteur	de corre	ction:		Ky/III3				
Humidité optimale Proctor à 0% de pierre : kg/m3 Facteur de correction: Fuseau granulométrique: Fine Filter: Sable et gravier COURBE GRANULOMÉTRIQUE Out out out of the process of the											9 8 7 6 6 5	O O O O O O O O O O O O O O O O O O O				
Remarques	:															
Dudo: /			NAciode-	20.004.5				*77	.:c:/							
Préparé par			iviaixin	ne coté				Vėi	rifié par:							



	NGÉNII	ERIE ET SOL	UTIONS													
CLIENT:		AEM						PLAN	CHE N	0:						
PROJET:		Vault Dike						PROJ	ET NO:	:			Q0311	136-B3		
PROJET:		vault Dike						ÉCHA	NTILLO	ON NO:			VD	-15		
								DATE	:				2013-	03-02		
Description	n du m	natériau:	Co	oarse Fi	lter		Localis	ation du	ı prélèv	ement:		sto	ckpile Sa	ana Crus	her	
Provenan	ce (sou	rce 1 ^{ère})	Sa	na crus	her		=			,						
Usage pro	posé:		rembl	lai, key	trench		_			vé par:				e Côté		
							=	Date de	e prélèv	ement:		:	2013-03	-01_Nui	t	
				GR	ANULO	MÉTF	RIE (%	PASSAN	NT) (LC	21-040)					
Tami	is		х	х	200.00	152.4	76.20	25.4	12.7	4.76	2.00	0.85	0.425	0.25	0.15	0.075
Résult			100	mm 100	mm 100	mm 100	mm 41	mm 16	mm 7	mm 3	mm 2	mm 1	mm 1	mm 1	mm 1	mm 0.6
cumula Résult									•			•	•			0.0
individ	uels min.		100	100	86	35	5	0	0	0						
Exigences	max.		100		100	100	100	40	18	9	5					
												NO 250				
	AU	UTRES ESS	AIS		Résultats		gences			I PROC			1-255)			ıltats
						min.	max.			ie sèche i	maximal	e				(kg/m ³)
									té optim à 0% de			kg/m3				(%)
								Facteur	de corre	ction:						
								Fuseau	granulon	-			-	OUE		
											COURBE	GRANUI	OMETRI	QUE	7	100
Fuseau granulométrique: 0-150: 32 Central Dyke COURBE GRANULOMÉTRIQUE 0.01 0.1 1 10 100 Dimension des particules, mm													D ₁₅ = D ₁₀ =	90 80 70 10000 900000 900000 900000 900000 900000 900000 900000 9000000		
Remarques	:															
Préparé par	:		Maxim	e Cöté				Véi	rifié par:							



	INGÉN	ERIE ET SO	LUTIONS														
CLIENT:		AEM						PLAN	CHE N	0:							
DDO IET.		Vault Dike						PROJ	ET NO:	:			Q0311	136-B3			
CLIENT: PROJET: Description of Provenance Usage proportion of Résultats cumulatifs Résultats individuels individ		vault Dike						ÉCHA	NTILLO	ON NO:	: VD-16						
								DATE		s 2013	3						
Description	n du m	natériau:	F	ine Filte	er		Localis	ation du	ı prélèv	ement:			0+	177			
Provenan	ce (sou	rce 1 ^{ère})	Fine F	Filter Sto	ockpile		_										
Usage pro	posé:		remblai	slope, k	ey trencl	h	_		Préle	vé par:			P.	В.			
							=	Date de	prélèv	ement:			4 Mars	s 2013			
				GR	ANULO	MÉTE	RIE (%	PASSAN	NT) (LC	21-040)						
Tami	is		0	0	150	50	25	19	9.5	4.76	2.00	0.85	0.425	0.25	0.15	0.075	
			mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	
			100	100	100	100	100	89	62	44	32	23	17	14	11	9.1	
individuels																	
individuels min.						100	100	50	23				0			0.0	
Zingenees	max.					100	100	100	68				20			15.0	
		TENER ERR	LATO		D.C. It	Exig	gences		ESSA	I PROC	TOR (NQ 250	1-255)		Rési	ıltats	
	AU	JIKES ESS	AIS		Résultats	min.	max.	Masse	volumiqu	ie sèche i	naximal	e				(kg/m ³)	
									té optim							(%)	
								Proctor Facteur	à 0% de de corre	pierre : ction:		kg/m3					
								1	granulon	nétrique: COU	URBE GR	ANULOM 1 des particul	ÉTRIQUE	17.2	9 8 7 6 6 5	CO O O O O O O O O O O O O O O O O O O	
Remarques	:							-									
Préparé par	:		Patrick E	sourbea	au			Vé	rifié par:								



	NGÉNII	ERIE ET SOL	.UTIONS														
CLIENT:		AEM						PLAN	CHE N	0:							
DDO IET.		Voult Dike						PROJ	ET NO:	:			Q 031	136 B3			
PROJET:		Vault Dike	1					ÉCHA	NTILLO	ON NO:			VD	-17			
								DATE	:		7 Mars 2013						
Description	on du m	natériau:	Co	oarse Fi	lter		Localis	ation du	ı prélèv	ement:	keytrench						
Provenan	ce (sou	rce 1 ^{ère})	Sa	na crus	her		_						0+	170			
Usage pro	posé:		remb	lai, key	trench		_		Préle	vé par:			Ρ.	В.			
							=	Date de	it								
				GR	ANULO	MÉTE	RIE (%	PASSAN	NT) (LC	21-040)						
Tami	is		х	х	200.00	152.4	76.20	25.4	12.7	4.76	2.00	0.85	0.425	0.25	0.15	0.075	
Résult	ats		100	mm 100	mm 100	mm 88	42	mm 8	mm 5	mm 2	mm 1	mm 1	mm 1	mm 0	mm 0	mm 0.3	
cumula Résult			100	100	100	00	42	0	3	2	'	'	'	0		0.5	
individuels Exigences min. Exigences					100			_									
Exigences	mın.		100		100	86	35	5	0	0	0						
_			100		100	100	100	40	18	9	5						
	ΔΙ	UTRES ESS	IAIS		Résultats	Exig	gences		ESSA	I PROC	CTOR (NQ 250	1-255)		Rési	ultats	
						min.	max.	Masse	volumiqu	ie sèche i	maximal	e				(kg/m ³)	
									té optim							(%)	
								Proctor Facteur	à 0% de de corre	pierre : ction:		kg/m3					
								Fuseau	granulon	nétrique:	0-150: 3	2 Central	Dyke				
											COURBE	GRANUI	OMÉTRI	QUE		100	
								% grav % sabl % silt/a	е		Cu =	des particul #N/A #N/A	D ₈₅ = D ₆₀ =	100 #N/A #N/A #N/A	D ₁₅ = D ₁₀ =	100 90 80 70 100 50 see see see see see see see see see se	
Remarques	:																
Préparé par			P	В.				Vá	rifié par:								
- repaire pai			•					, 0	pui.								



	INGEN	ERIE ET	SOLUT	IONS														
CLIENT:		AEM							PLAN	CHE N	0:							
PROJET:		Vault D)iko						PROJ	ET NO:	:			Q0311	136-B3			
PROJET.		vauit L	JING.						ÉCHA	NTILLO	ON NO:			VD	-20			
									DATE	:		2013-03-08						
Description	on du m	atériau:		F	ine Filte	er		Localis	ation du	ı prélèv	ement:	0+238						
Provenan	ce (sou	rce 1 ^{ère})		Fine F	Filter Sto	ockpile		_										
Usage pro	posé:		1	emblai	slope, k	ey trencl	h	=		Préle	vé par:			M.	L.D			
								-	Date de	e prélèv	ement:			2013-03	3-08-joui	1		
					GR	ANULC	MÉTE	RIE (%]	PASSAN	NT) (LC	21-040)						
Tam	is			0	0	150	50	25	19	9.5	4.76	2.00	0.85	0.425	0.25	0.15	0.075	
Résult	tats			mm 100	mm 100	mm 100	mm 100	mm 100	mm 88	mm 60	mm 41	mm 28	mm 19	mm 14	mm 12	mm 10	mm 8.1	
cumula Résult				100	100	100	100	100	00	60	41	20	19	14	12	10	0.1	
individ																		
Exigences	min.						100	100	50	23				0			0.0	
Exigences	max.						100	100	100	68				20			15.0	
	A.T	UTRES I	ECC A TC	ı		Résultats	Exig	ences		ESSA	I PROC	CTOR (NQ 250	1-255)		Résu	ıltats	
	A	IKESI	LSSAIS			Resultats	min.	max.	Masse volumique sèche maximale								(kg/m ³)	
										té optim							(%)	
									Proctor Facteur	à 0% de de correc	pierre : ction:		kg/m3					
									Fuseau	granulon	nétrique:							
									1 [COL	JRBE GR	ANULOM	IÉTRIQUE		1	00	
																8	0	
														$/\!/$		5	ooo	
													//			3 2		
																1		
									0.0	11	0.1	Dimension	1 des particul		0	100		
% gravi % sable										rier e	58.9% 33.0%	Cu = Cc =		D ₈₅ = D ₆₀ =	17.7 9.5	D ₁₅ = D ₁₀ =	0.5	
									% silt/a	argile	8.1%	- 00	J	D ₆₀ =	6.6	510-	V. <u>C</u>	
Remarques	s:																	

Vérifié par:

P.B.

Préparé par:





	ERIL ET 3	OLUTIC	7113															
CLIENT:	AEM							PLAN	CHE N	0:								
PROJET:	Vault D	ike						PROJ	ET NO:	:								
PROJET: Vault Dike PROJET: Vault Dike	NTILLO	ON NO:			VD	-21												
								DATE	:				11 Mar	s 2013				
Description du n	natériau:		Сс	arse Fi	lter		Localis	ation du	ı prélèv	ement:	0+282							
Provenance (sou	ırce 1 ^{ère})		Sa	na crus	her		-			•								
Usage proposé:	-		rembl	ai, key	trench		_		Préle	vé par:			P.	B.				
	-						_	Date de	e prélèv	ement:		(9 Mars 2	013-Nu	.t			
				GR	ANULO	MÉTR	RIE (%)	(% PASSANT) (LC 21-040)										
Tamis									12.7	4.76	2.00	0.85	0.425	0.25	0.15	0.075		
Résultats									mm	mm	mm	mm 8	mm 6	mm 5	mm 4	mm 3.6		
			100	100	100	91	59	20	<u>22</u>	<u>17</u>	<u>11</u>	0	0	5	4	3.0		
									0	0	0				 			
max.			100		100	100	100	40	18	9	5							
A1	HTRFS I	PERATE			Résultats	Exig	ences		ESSA	I PROC	CTOR (NQ 250	1-255)		Rési	ıltats		
71	O TKLO I	2557115			robunats	min.	max.	Masse v	volumiqu	ie sèche i	naximal	e				(kg/m ³)		
									té optim							(%)		
								Proctor Facteur	à 0% de de corre	pierre : ction:		kg/m3						
								Fuseau	granulon	nétrique:	0-150: 32	2 Central	Dyke					
								COURBE GRANULOMÉTRIQUE								 100		
																90		
														/ //		80		
														/ //		70		
																60 es		
														//		Pourcentage passant		
																40 an		
																30 💆		
																20		
																10		
								0.01	0.1		1	1	10	100	+ + + + + + + + + + + + + + + + + + + +	₩ 0 1000		
										I	Dimension (des particul	es, mm					
								0/ grav	vior	02 20/	C··	#N1/A	D	#NI/A	D	2.4		
								% sabl	e "	83.2% 13.2% 3.6%		#N/A #NUM!	D ₈₅ = D ₆₀ =	#N/A	D ₁₅ = D ₁₀ =	3.6 #NUM!		
								% silt/a	argile	3.6%			D ₅₀ =	56.9				
Remarques:																		

Vérifié par:

P.B.

Préparé par:

FO-930.201/07-04



CLIENT:	iii GEiii	AEM	30101	10110					DI AN	CHE N	٥.							
CLIENT.		ALIVI																
PROJET:		Vault D	Dike						PROJ	ET NO	:			Q031	136-B3			
									ÉCHA	NTILL	ON NO:			VD	-23			
									DATE	:				2013-	03-13			
Description	on du m	natériau:	:	F	ine Filte	er		Localis	ation du	ı prélèv	ement:	0+154						
Provenan	ce (sou	ırce 1 ^{ère})		Fine F	Filter Sto	ockpile		- -										
Usage pro	pposé:		- 1	remblai	slope, k	ey trenc	h	_		Préle	vé par:			P.	.B.			
								_	Date de	e prélèv	ement:			2013-03	8-12-Nui	t		
					GR	ANULO	MÉTF	RIE (%	PASSA	NT) (LC	C 21-040)						
Tam	is			0	0	150	50	25	19	9.5	4.76	2.00	0.85	0.425	0.25	0.15	0.075	
Résul	tats			mm 100	mm 100	mm 100	mm 100	mm 100	mm 79	mm 60	mm 44	mm 28	mm 19	mm 15	mm 12	mm 11	mm 8.7	
cumulatifs Résultats				100	100	100	100	100	73	- 00	77	20	13	10	12		0.7	
individ							400	400										
Exigences							100	100	50	23				0			0.0	
	max.						100	100	100	68				20			15.0	
	ΔΙ	UTRES I	ESSAIS	1		Résultats	Exig	gences		ESSA	A PROC	CTOR (NQ 250	1-255)		Rési	ıltats	
	213		L007110	,		resumms	min.	max.	Masse	volumiqu	ue sèche i	naximal	e				(kg/m ³)	
										té optim							(%)	
									Proctor Facteur	à 0% de de corre	pierre : ction:		kg/m3					
									Fuseau	granulon	nétrique:		er: Sable ANULOM					
												KBE GK	AITCEOM	LTRIQUI			00	
																	0	
																7	0	
																6	ourcentage passant	
																	entage 0	
													//				o	
																1		
									0.0	11	0.1		1	<u>-</u>	10	100		
									-	,,		Dimension	des particul		10	100		
									% grav	vier	55.9%	Cu =	76	D ₈₅ =	20.6	D ₁₅ =	0.4	
									% sabl % silt/a	е	35.4% 8.7%	Cc =		D ₆₀ = D ₅₀ =	9.3	D ₁₀ =	0.1	
Remarques	S:																	
Préparé pa	r:			P	.В.				Vé	rifié par:								

Appendix E1, Table 1: Vault Dike Compaction Testing Results

No	material tune			lo	ocalisation			ovecuted by	date	reference	value of	Proctor num.	value	Dry density	moisture	% compaction	comp	oliance
No.	material type	Х	Υ	Z	o/s	station	note	executed by	uate	board num.	R.B (kg/m³)	Proctor nam.	Proctor (kg/m³)	(kg/m^3)	(%)	(%)	yes	no
VD-05	0-25mm / bentonite	3416.76	5952.76	5137.10	-	0+220	under the liner	M.C	2/23/2013	1	1835	-	-	2558	4.3	139.4	Х	
VD-06	0-25mm / bentonite	3428.77	5952.07	5137.85	-	0+233	under the liner	M.C	2/24/2013	1	1835	-	-	2460	5.3	134.1	Х	
VD-07	0-25mm / bentonite	3457.70	5949.70	5138.60	-	0+265	under the liner	M.C	2/24/2013	1	1835	-	-	2643	4.1	144.0	Х	
VD-08	0-25mm / bentonite	3496.35	5947.94	5138.93	-	0+300	under the liner	FZ	2/25/2013	1	1835	-	-	2476	4.5	134.9	Х	
VD-09	0-25mm / bentonite	3323.72	5956.08	5136.73	-	0+128	over the liner	M.C	3/3/2013	1	1835	-	-	2019	4.8	110.03	Х	
VD-10	0-25mm / bentonite	3348,56	5954.40	5137.38	-	0+141	over the liner	M.C	3/3/2013	1	1835	-	-	2111	4.5	115.04	Х	
VD-11	0-25mm / bentonite	3353.067	5954.07	5137.48	-	0+168	over the liner	M.L.D	3/4/2013	1	1835	-	-	2086	4.53	113.67	Х	
VD-12	0-25mm / bentonite	3345.082	5954.074	5136.95	-	0+175	over the liner	M.L.D	3/4/2013	1	1835	-	-	1974	5.16	107.57	Х	
VD-13	0-25mm / bentonite	3390,8	5954,5	5137,9	-	0+195	over the liner	M.L.D	3/6/2013	1	1835	-	-	2006	4.82	109.31	Х	
VD-14	0-25mm / bentonite	3417,2	5952,4	5137,8	-	0+222	over the liner	M.L.D	3/8/2013	1	1835	-	-	2012	4,4	109,64	Х	
VD-15	0-25mm/bentonite	3445,0	5950,0	5138,8		0+248	over the liner	P.B.	3/8/2013	1	1835			1856	4.6	101.1	Х	
VD-16	0-25mm/bentonite	3472.02	5948,2	5139.15		0+276	over the liner	M.L.D	3/9/2013	1	1835			2036	4.13	110.95	Х	
VD-17	0-25mm/bentonite	3485.4	5948.8	5139.47		0+289	over the liner	M.L.D	3/9/2013	1	1835			1962	5.62	106.92	Х	
VD-18	0-25mm/bentonite	3313.5	5956.2	5137.4		0+117	over the liner	P.B.	3/10/2013	1	1835			1928	4.9	105.1		
VD-19	0-25mm/bentonite	3281	5953.3	5139.5		0+085	over the liner	P.B.	3/10/2013	1	1835			1921	5.7	104.7		
VD-20	0-25mm/bentonite	3263	5950.2	5140.6		0+067	over the liner	P.B.	3/12/2013	1	1835			1963	4.6	107		

APPENDIX E2. Foundation Approval Forms

CERTIFICATE OF ACCEPTANCE OF FOUNDATION CONDITION - VAULT DIKE

Acceptance No.:		FND-VD-01	Date:	Sunday, February 3/2013
This Certificate of Acceptar	nce includes the followi	ng items, reviewed and accepte	ed by the undersigned:	
1) Foundation and Key Tre	nch Preparation and Ex	ccavation Checklist (from SNC)	;	
		Station and Offset (according to		
3) Photo of the accepted ar	ea, at the moment of th	ne acceptance;		
4) Any other relevant docum	mentation complementa	ary to this approval.		
The area has been inspecte	ed and accepted by au	torised personnel representing	Quality Control (QC) Pro	ogram, Quality
Assurance (QA) Program a	and the Owner Represe	entative.		
Topography of the approved	d foundation surface ha	s been surveyed for document	ation and as-built purpos	es, as
confirmed by the undersigne	ed surveyor.			
The area is accepted as per	the foundation condition	ons at the time of the inspection	and the condition of the	foundation is
required to be maintained pri				
Owner Representative	Name:	Rebecca Cameron AEM- Geotech	Relecco Con	
	Position:	AEM- Geotech	EIT	
QC Representative	Name:	N/A		
	Position:	INSPEC-SOL-		
QA Engineer	Name:	N/A		
_	Position:	SNC-		
Surveyor	Name:	Robert Clouatre		
	Position:	FGL- ZOC	500	



APPROBATION FORM

PROJECT:	Construction	n of Vault Dike						
PROJECT #:	W-				DATE:	Sunday, F	ebruary 3	/2013
DOCUMENT #:	(CLIENT:	AEM		
	(YYYYMMDD							
APPROBATION FO	_	Foundation Appro						
		Foundation Appro	val (Key Trer	nch)				
		Fill Placement ()				
		Other						
LOCATION			PREVIOUS A	PPROV	ATIONS			
FROM STATION:	0-	+050	FROM:		None			
TO:	0+075 (WP), 0+	150 (Around Key)	TO:					
ELEVATION:	VARIES							
		m						
DESDECT TO THE	DE OUTLO ATT				VERIFIC	CATIONS	MADE BY:	
KESI ECI TO THE :	SPECIFICATIO	NS ACCORDING TO:			EM	QC		N/A
1. Quotes and I	ines respect	ed		Y	И	Y	N	_
2. Free of Ice /								
3. Gradation (vi	sual)							
4. Placement (ii	n regards to	segregations, lift thic	kness)					
5. Compaction			,					
6. Foundation of	n Bedrock				5			
7. As built surve	y completed	1				П		
8						П		
9								
			L	_			5	ט
DETAILS (REFER TO	NUMBER AB	OVE)						
						QA	PROVED	QC
								П
	- The state of the							
ADDDOVED DO				SIGNA	TURE		D	ATE
APPROVED BY:		RESENTATIVE	N/A					
		RESENTATIVE	N/A					
	OWNER	REPRESENTATIVE	Melec	- C			February	3/2013

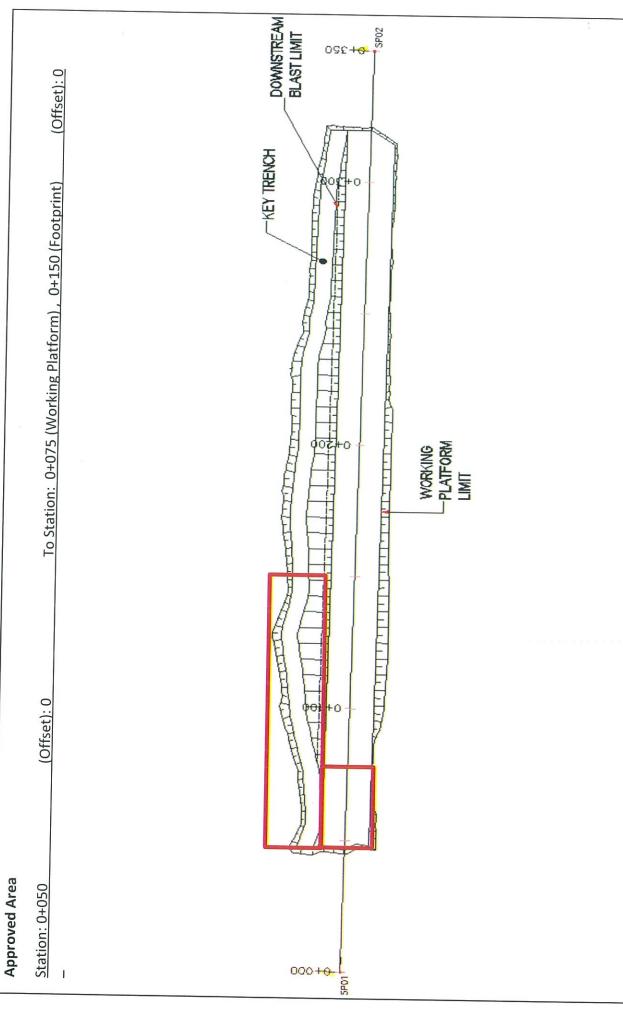


Figure 1 - Approximate approved foundation area

Sketch by (Initial):

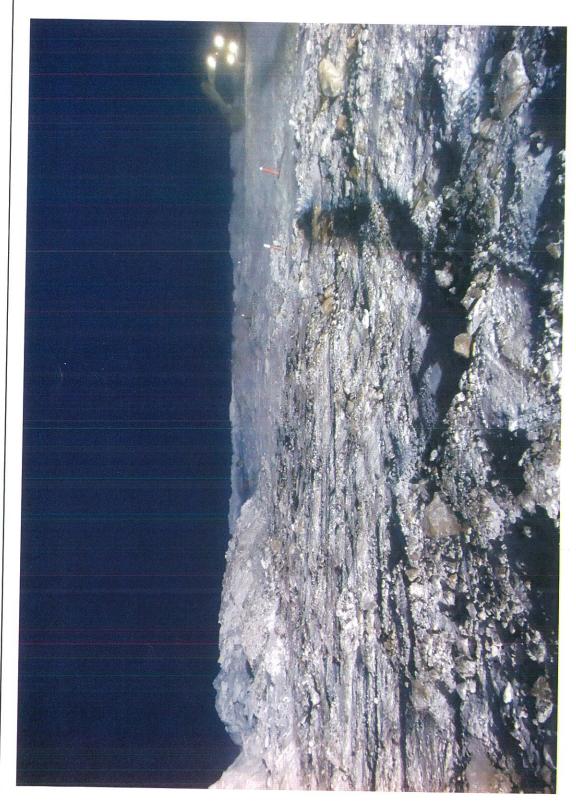


Photo 1- Approximate approved foundation area Footprint area

Date: Sunday, February 3/2013

Photo by (Initial):



Photo 1- Approximate approved foundation area Working platform portion

Date: Sunday, February 3/2013

Photo by (Initial) :

CERTIFICATE OF ACCEPTANCE OF FOUNDATION CONDITION - VAULT DIKE

Acceptance No.:		FND-VD- 02	Date:	2013-02-04	
This Certificate of Acceptar	nce includes the followin	ng items, reviewed and accep	ited by the undersigned	d:	
1) Foundation and Key Tre	nch Preparation and Exc	cavation Checklist (from SNC	2);		
2) Sketch of the approximat	te accepted area, incl. S	Station and Offset (according	to Vault Dike Stations)	,	
3) Photo of the accepted are	ea, at the moment of the	e acceptance;			
4) Any other relevant docum	nentation complementar	y to this approval.			
The area has been inspecte	d and accepted by auto	orised personnel representing	g Quality Control (QC)	Program, Quality	
Assurance (QA) Program a	nd the Owner Represer	ntative.			
Topography of the approved confirmed by the undersigne		been surveyed for documer	itation and as-built purp	poses, as	
The area is accepted as per	the foundation condition	ns at the time of the inspectio	n and the condition of t	the foundation is	_
required to be maintained prin	or to and during fill place	ement.			
Owner Representative QC Representative	Name: Position: Name:	Rebecca Can	neron Comment		
	Position:	INSPEC-SOL-	Mēlissa	Lapointe D.	
QA Engineer	Name:	Meli	a Jos	so ente	
	Position:	SNC- Jean fr	anios St-LAU	NENT / Frances St	2
Surveyor	Name:	R 0600	T clou	ATRE"	
	Position:	FGL-	-an		



APPROBATION FORM

PROJECT:	Const	ructio	n of Vault Dike						WHITE COLUMN TO SERVICE OF THE PARTY OF THE
PROJECT #:			/			DATE:	Feb 4	7013	
DOCUMENT #:		/				CLIENT:	AEM	- 2015	,
	(YYYYM	MMDD	-01)				ACM		
APPROBATION FO	OR:	∇	Foundation Appro						
			Foundation Appro	oval (Key Trer	nch)				
			Fill Placement (_)				
			Other						
LOCATION				PREVIOUS A	PPROVA	ATIONS			
FROM STATION:	0+0	75	(WP)	FROM:	\circ	1050			
TO:	0+15	50	(WP)	то:	0+0-	15 (WF	7).0+	15000	ound key)
ELEVATION:	VAR	RIES	•				,	-000	und key)
			m						
DESDECT TO THE						VERIFI	CATIONS	MADE BY:	
RESPECT TO THE	SPECIFIC	CATIO	NS ACCORDING TO:			VAEM	QC		N/A
1. Quotes and	lines res	spect	ed		Y	N	Y	N	_
2. Free of Ice /						_			
3. Gradation (v			•		23				
•		ls to	segregations, lift thi	oknogo)					4
5. Compaction		10 10	ocgregations, int till	ckriess)					49
6. Foundation of	on Bedro	ock							3
7. As built surve			ř.		2/A	п	П	п	
8							_		
9/									
				Į.	J				
DETAILS (REFER TO	ONUMBE	R AB	OVE)						
ITEM								PROVED	BY:
$-\!\!\!/-$							QA		QC_
$\overline{}$									
		/					H		
		/							_
		,			SIGNA	TURE		D.	ATF.
APPROVED BY:	QA	REPF	RESENTATIVE		SIGNA	TURE		_	ATE
APPROVED BY:			RESENTATIVE RESENTATIVE	-	SIGNA	TURE	-	Feb 4/2 Feb 4/2	013

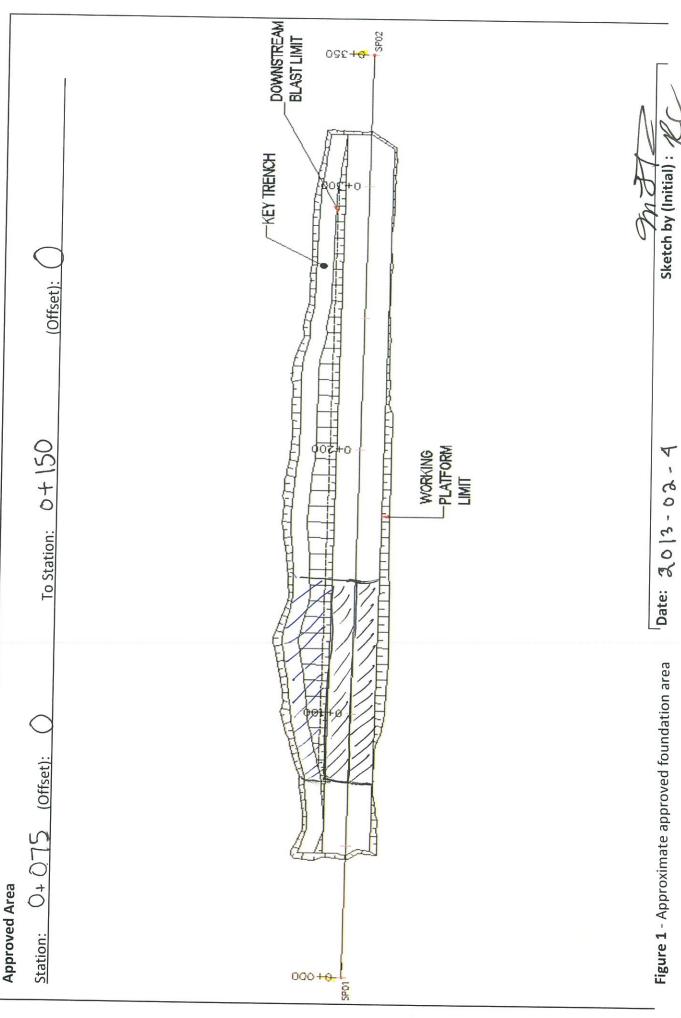


Figure 1 - Approximate approved foundation area

Sketch by (Initial):

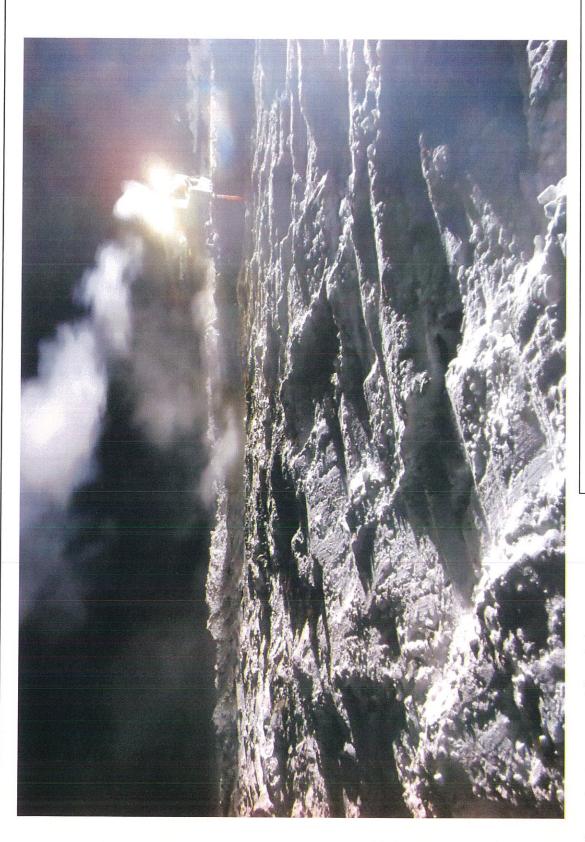


Photo 1- Approximate approved foundation area

Date:2013-02-04

Photo by (Initial):

CERTIFICATE OF ACCEPTANCE OF FOUNDATION CONDITION - VAULT DIKE

Acceptance No.:	FND-VD- 03	Date:	2013-02-05						
This Certificate of Acceptance include	des the following items, reviewed and acce	epted by the undersigne	ed:						
Foundation and Key Trench Preparation and Excavation Checklist (from SNC);									
2) Sketch of the approximate accepted area, incl. Station and Offset (according to Vault Dike Stations);									
3) Photo of the accepted area, at the moment of the acceptance;									
4) Any other relevant documentation	complementary to this approval.								
The area has been inspected and ac	cepted by autorised personnel representi	ng Quality Control (QC)) Program, Quality						
Assurance (QA) Program and the O	wner Representative.								
	on surface has been surveyed for docume	entation and as-built pur	rposes, as						
confirmed by the undersigned survey	or.								
The greet is eccented as youth a few									
	dation conditions at the time of the inspecti	ion and the condition of	the foundation is						
required to be maintained prior to and	during fill placement.								
Owner Representative N	lame: Rebecca (a meron							
Р	osition: AEM- Robec	ameron C							
QC Representative N	ame:								
Po	osition: INSPEC-SOL-								
QA Engineer Na	ame: Jean France	of Stilaure	nt						
Po	osition: SNC-								
Surveyor Na	ame: 706	ent CCO	a ATZE						
NOTES: 1 Original signed sortificate a	osition: FGL-	- Con	aATZE						



APPROBATION FORM

PROJECT:	Construction	on of Vault Dike						
PROJECT #:	/	/		-	DATE:	Feb5/2	1013	
DOCUMENT #:	/			0	CLIENT:	AEM	W12	
	(YYYYMMDD	-01)		-		1101-1		
APPROBATION FO		Foundation Appro						
		Foundation Appro	val (Key Trer	nch)				
		Fill Placement ()				
		Other						
LOCATION			PREVIOUS A	PPROV	ATIONS			
FROM STATION:	0+150	Footprint &			75 (2	107		
TO:	0+250	working platform	TO:		50 (v			
ELEVATION:	VARIES			UFI	30 W	<u> </u>		
		m						
-		<u>-</u> 20						
11					VERIFI	CATIONS N	IADE BY:	
RESPECT TO THE	SPECIFICATIO	NS ACCORDING TO:			4 AEM	QC		N/A
1. Quotes and	ince reenest	ad		Y	И	Y	N	
2. Free of Ice /								
		·r		7 2				
Translation (II								
	n regards to	segregations, lift thic	ckness)					2
5. Compaction								77
Foundation of								
As built surve	ey completed	I		2				
8								
9								
DETAILS (REFER TO	NUMBER AR	OVE	L					
ITEM	TO MOER AD	OVE!				ΔΡΡ	ROVED	BV.
						QA	TO TED	QC
/	/	/						
/-								
ADDDOVED DV			N	SIGNA	TURE		DA	ATE
APPROVED BY:		RESENTATIVE	ramia	SIL			Fe65	12013
		RESENTATIVE	10 1	-			Feb 51	
	OWNER	REPRESENTATIVE	Releu	~ 4			Feb 51	

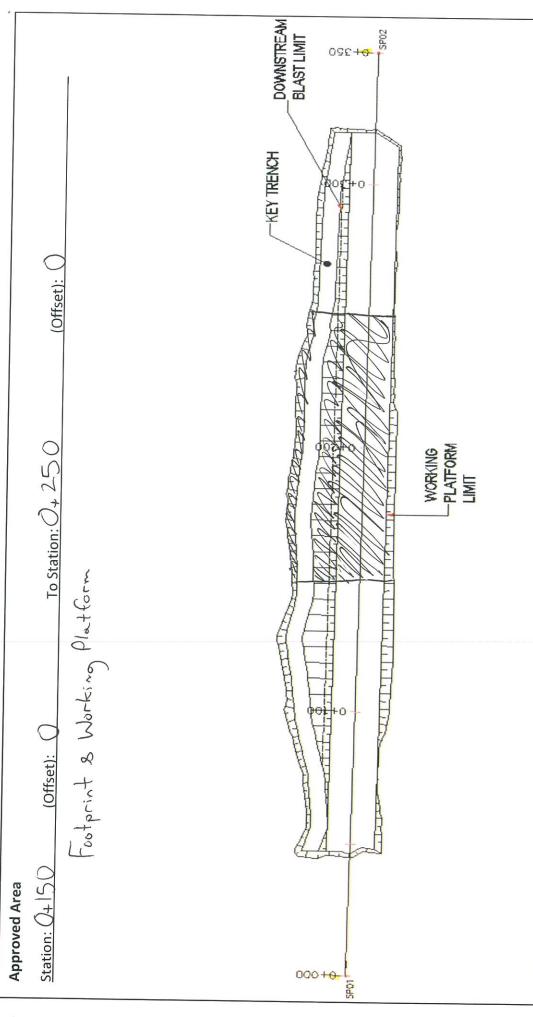


Figure 1 - Approximate approved foundation area

Date: 2013-02-05

Sketch by (Initial) : \mathcal{N}

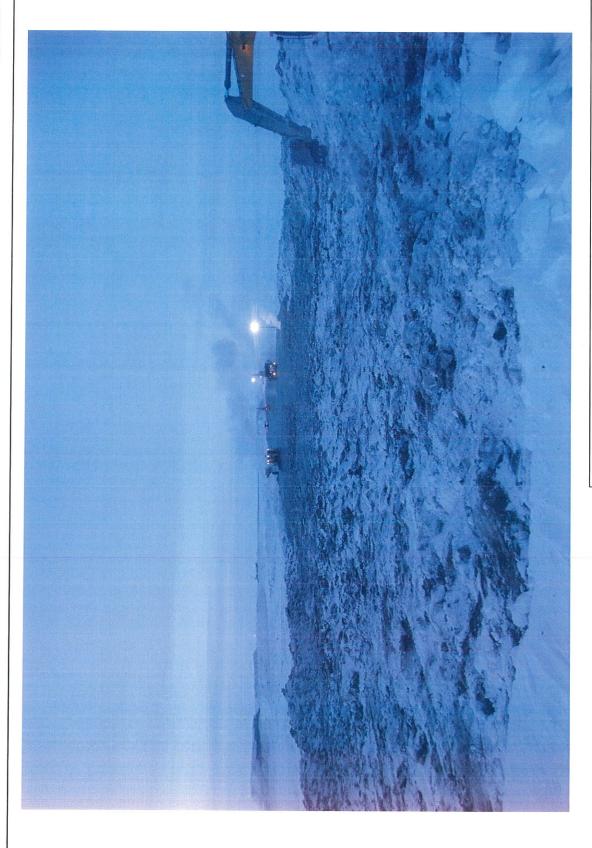


Photo 1- Approximate approved foundation area

Date:2013-02-05

Photo by (Initial):

1): 1

CERTIFICATE OF ACCEPTANCE OF FOUNDATION CONDITION - VAULT DIKE

Acceptance No.:		FND-VD-	Date:	Feb. 9	, 2013
This Certificate of Acceptar	nce includes the following	ng items, reviewed and accepte	d by the undersigned	l:	
1) Foundation and Key Tren	nch Preparation and Ex	cavation Checklist (from SNC);			
2) Sketch of the approximat	e accepted area, incl. S	Station and Offset (according to	Vault Dike Stations);		
3) Photo of the accepted are	ea, at the moment of th	e acceptance;			
4) Any other relevant docum	nentation complementa	ry to this approval.			
The area has been inspecte	d and accepted by aut	torised personnel representing (Quality Control (QC)	Program, Quality	
Assurance (QA) Program a	nd the Owner Represe	ntative.			
Topography of the approved confirmed by the undersigne		s been surveyed for documenta	tion and as-built purp	poses, as	
The area is accepted as per	the foundation conditio	ons at the time of the inspection	and the condition of t	he foundation is	
required to be maintained pri	or to and during fill plac	ement.			
Owner Representative	Name: Position:	AEM- OWner. Re) Fep C p. Ing-gcc	19,2013	
QC Representative	Name:	MELISSO 1	apointe	Dosbie	ns
QA Engineer	Name:	Jumois St	ni Coper		Cent .
	Position:	SNC- Desingue			-
Surveyor	Name:	Robert	CLOURT	+ RE	
	Position:	FGL- PSA	7 C	_	



APPROBATION FORM

PROJECT:	Construction	on of Vault Dike							
PROJECT #:	611614-	Verult			DATE:	7013-	02-09		ř
DOCUMENT #:	20130209	1-01			CLIENT:				8
	(YYYYMMDD	0-01)							ā.
APPROBATION F	OR:	Foundation Appro							
		Foundation Appro							9
		Fill Placement (o-	-150 mm 10-	20mm)	10-201	nm + 1	Bento		a
		Other							
LOCATION			PREVIOUS A	APPROV/	ATIONS				
FROM STATION:	0100 50)	FROM:						
TO:	O+ CENT	90	TO:		/				
ELEVATION:	▼ VARIES				/				
		m							
									11.
RESPECT TO THE	SDECIFIC ATIO	NS ACCORDING TO:				CATIONS	MADE BY:		- Not c
NEOF EOT TO THE	SPECIFICATIO	NS ACCORDING TO:		Q,	A N	Q Q		N/A	- Not c
1. Quotes and	lines respect	ed		X	Ö	, 	И		tield
2. Free of Ice /	Snow / Wate	er		X					•
Gradation (v	/isual)			XI					
4. Placement (in regards to	segregations, lift thic	ckness)	N			П		
Compaction				N					
6. Foundation	on Bedrock			X				5	
As built surv	ey completed	i		N			П		
8				П					
9									
DETAIL O (DESER									
DETAILS (REFER T						4.5	DD OVED		
2	Not saw on	AII PM-90 -05	hold be so	more to	DWON VOUS	QA	PROVED	QC	
3 OK		7.7.7.7.	700-10 1-0	V11000 75	10101.000				
4 OK	with Buck	1.				9			
3 UK	with buck	et.				9			
APPROVED BY:	0		N	SIGNA	TURE			ATE	
AFFROVED BY:		RESENTATIVE RESENTATIVE	[ramoi	>/h			2013.0	12-09	
		REPRESENTATIVE	-						
	CHAINEL	NECKLOCKIA IIVE							

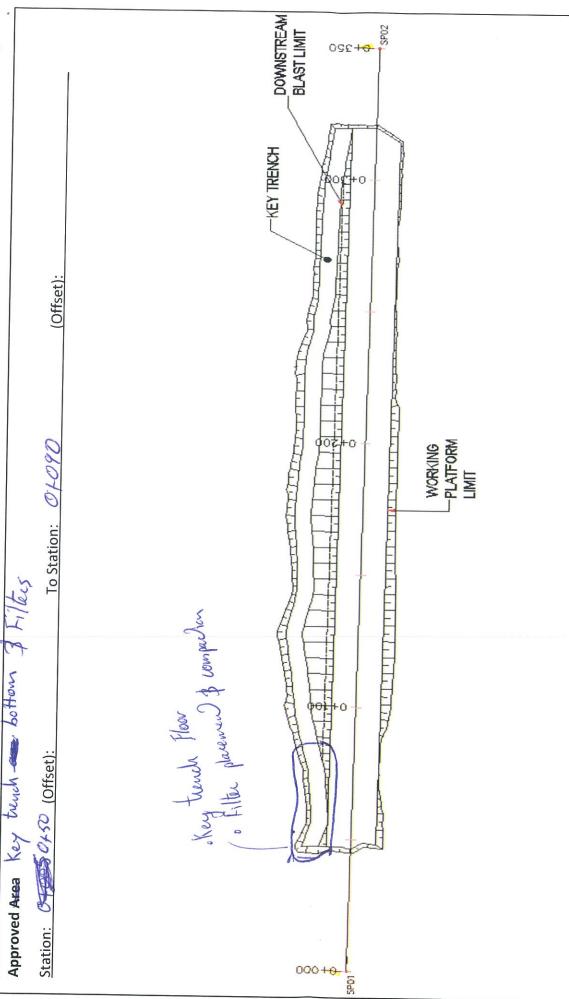


Figure 1 - Approximate approved foundation area

Date: 2013-02-09

Sketch by (Initial): 1646

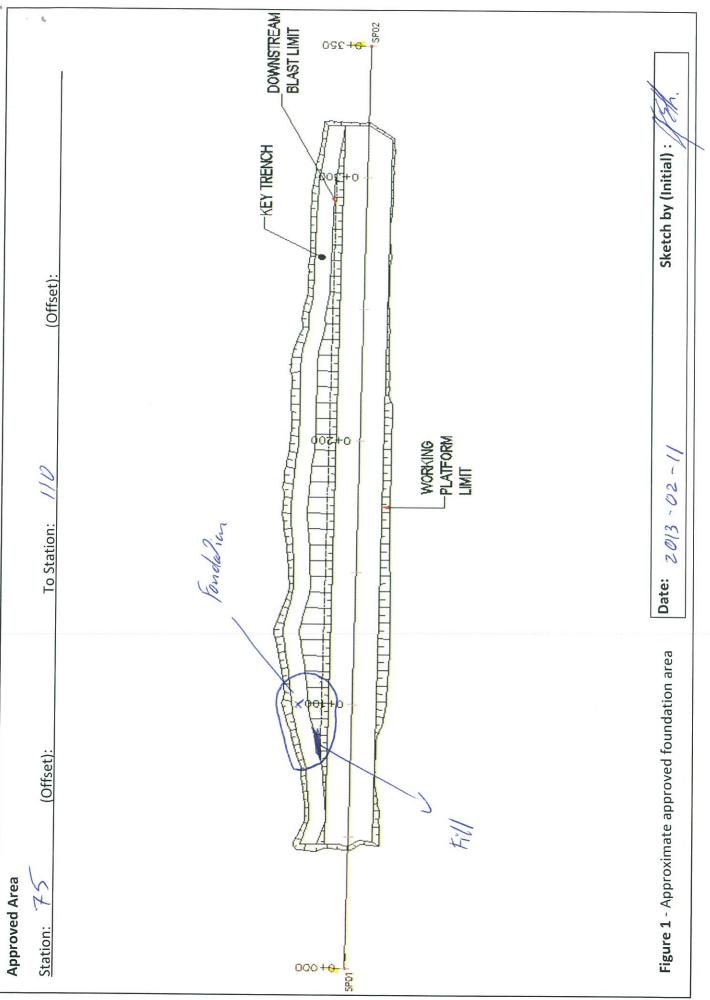
CERTIFICATE OF ACCEPTANCE OF FOUNDATION CONDITION - VAULT DIKE

Acceptance No.:		FND-VD- 05 Date: 11 Felo. 2013
This Certificate of Acceptance	ce includes the following	ng items, reviewed and accepted by the undersigned:
1) Foundation and Key Tren	ch Preparation and Exc	cavation Checklist (from SNC);
2) Sketch of the approximate	e accepted area, incl. S	Station and Offset (according to Vault Dike Stations);
3) Photo of the accepted are	a, at the moment of the	e acceptance;
4) Any other relevant docum	entation complementar	ry to this approval.
The area has been inspected Assurance (QA) Program ar		orised personnel representing Quality Control (QC) Program, Quality ntative.
Topography of the approved confirmed by the undersigned		s been surveyed for documentation and as-built purposes, as
The area is accepted as per required to be maintained price		ons at the time of the inspection and the condition of the foundation is betweent.
Owner Representative	Name:	AEM-
QC Representative	Name: Position:	INSPEC-SOL- Mellin Logar Condition
QA Engineer	Name: Position:	Isno- Compte Desirere
Surveyor	Name:	RoberT CLOUPTRE
		, , , , , , , , , , , , , , , , , , , ,



APPROBATION FORM

PROJECT:	Construction of Vault Dike					
PROJECT #:	611619		DATE:	11 Feb.	201	3
DOCUMENT #:	26130211-01		CLIENT:			
	(YYYYMMDD-01)					
APPROBATION FO	(, , , ,					
	Foundation Approval (Key Tr					
	Fill Placement (0 - 260 mm)	0-20141	4			
	Other					
LOCATION	PREVIOUS	APPROVA	TIONS			
FROM STATION:	0+75 2511 placement FROM	1: 0490	>	forda	Dian	^
TO:	07903	0+1	103	U		
ELEVATION:	₩ VARIES					
	m					
			VERIFI	CATIONS N	MADE BY:	
RESPECT TO THE	SPECIFICATIONS ACCORDING TO:	QA		QC		N/A
Quotes and	lines respected	Y	1/1	Y	M	
Free of Ice /		3				
Gradation (v						
	in regards to segregations, lift thickness)					
5. Compaction						
6. Foundation		V				
As built surv						
9						
DETAILS (REFER T	O NUMBER ABOVE)					
ITEM	J. HOMOLIC FILESON L.			API	PROVED	BY:
				QA		QC
		,	,			
APPROVED BY:	No.	my SH	URE)	_	ATE
AFFROVED DI:	QA REPRESENTATIVE QC REPRESENTATIVE	May) Ph			2013-0	2-11
	OWNER REPRESENTATIVE				ti -	
	OWNER REPRESENTATIVE					



CERTIFICATE OF ACCEPTANCE OF FOUNDATION CONDITION - VAULT DIKE

Acceptance No.:		FND-VD-	Date:	2013-02-12
This Certificate of Acceptar	nce includes the following	ng items, reviewed and accep	ted by the undersigned	d:
1) Foundation and Key Tre	nch Preparation and Ex	cavation Checklist (from SNC	5);	
2) Sketch of the approximat	te accepted area, incl. \$	Station and Offset (according	to Vault Dike Stations)	;
3) Photo of the accepted are				
4) Any other relevant docun	nentation complementa	ry to this approval.		
The area has been inspecte	ed and accepted by aut	orised personnel representing	g Quality Control (QC)	Program, Quality
Assurance (QA) Program a	nd the Owner Represe	ntative.		
Copography of the approved confirmed by the undersigne		s been surveyed for documer	ntation and as-built purp	poses, as
The area is accepted as per equired to be maintained pri		ns at the time of the inspection	n and the condition of	the foundation is
		. \		1
wner Representative	Name:	AEM- ()	w H	X
		AEM- Owner	Seguinte	X D
	Position:	AEM- Vuncus MELISSON INSPECSOL- ON	Sapointe nélipsa d	D. D. buance
C Representative	Position:	47	Sapointe nélissa de in-LAURENT	D. apante Pastur
C Representative	Position: Name: Position:	47	Sapointe nélissa di in-LAURENT	D. aponte Pastur
Owner Representative C Representative A Engineer	Position: Name: Position: Name:	1-FRANGES	Sapointe nélissa di in-LAURENT	D. aponte Pasbun 7786



APPROBATION FORM

PROJECT:	Construction of Vault Dike	NAME OF TAXABLE PARTY.	***************************************	***************************************		
PROJECT #:	611614		DATE	: 1) 6,	1. 201	5
DOCUMENT #:	2013 02 12 - 01		CLIENT		M	
	(YYYYMMDD-01)					
APPROBATION FO	· candadorry approvar (1 ootpil					
	▼ Foundation Approval (Key Tree)		(1)			
	Fill Placement (O-20 mm /	200 m	m 10-2	omm.	+ Ben to	
	Other				•	
LOCATION	PREVIOUS	APPROV.	ATIONS			
FROM STATION:	10 to 120 (0-20mm 30-200 mm) FROM	110			a a	
1	110 to 120 (0-20mm \$0-200 mm) FROM 35 to 90 (0-20mm + hendo) TO	190				
ELEVATION:	M VARIES					
_	m	oc \$ f	il (a	boor)		
RESPECT TO THE	PDE CIFIC ATTOMA		VERIF	ICATIONS I	MADE BY:	
RESI EST TO THE	SPECIFICATIONS ACCORDING TO:	Q.	A N	QC		N/A
1. Quotes and l	ines respected	X		Y	N	
2. Free of Ice /	Snow / Water	X)				
Gradation (vi	sual)	X				
4. Placement (ii	n regards to segregations, lift thickness)	N				
Compaction	to visual	Ø				
Foundation o	n Bedrock	X	_		_	
As built surve	ey completed after discussions	- Ø				
8	SUVUENT SAUR					
9						
DETAILS (REFER TO	NUMBER ABOVE					
ITEM				API	PROVED	BY:
				QA		QC
	/	SIGNA	71IDE			
APPROVED BY:	QA REPRESENTATIVE VARMON	51)			ATE
	QC REPRESENTATIVE	111		-	2613-0	C-12.
	OWNER REPRESENTATIVE	T			2013-	12-12
		\				

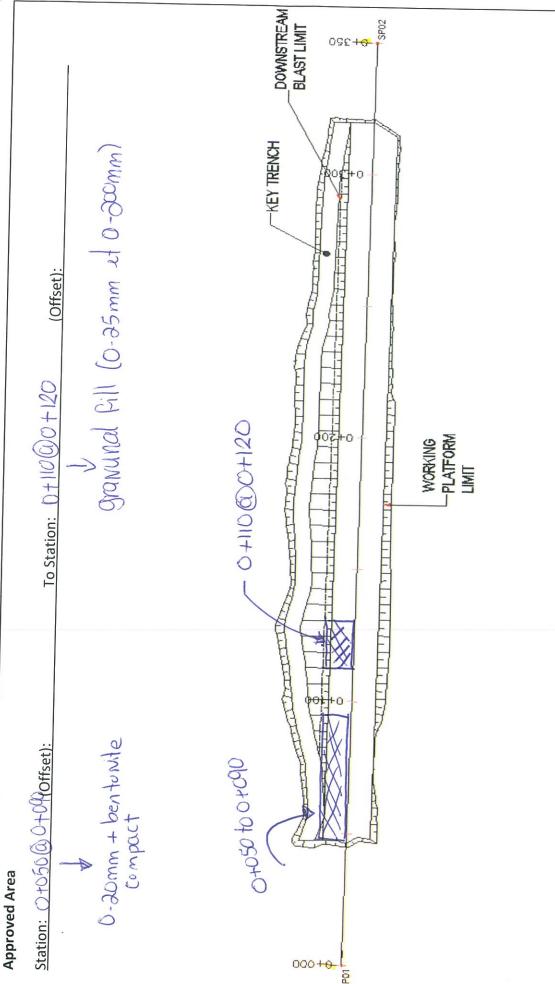


Figure 1 - Approximate approved foundation area

Date: 13-02-12

Sketch by (Initial) : \mathcal{PMHD}

CERTIFICATE OF ACCEPTANCE OF FOUNDATION CONDITION - VAULT DIKE

Acceptance No.:		FND-VD- 7 Date: 2013-02-13
This Certificate of Acceptar	nce includes the follow	ing items, reviewed and accepted by the undersigned:
1) Foundation and Key Tre	nch Preparation and E	xcavation Checklist (from SNC);
2) Sketch of the approxima	te accepted area, incl.	Station and Offset (according to Vault Dike Stations);
3) Photo of the accepted ar		
4) Any other relevant docur	mentation complementa	ary to this approval.
The area has been inspecte	ed and accepted by au	ntorised personnel representing Quality Control (QC) Program, Quality
Assurance (QA) Program a		
Q.		
Topography of the approved	foundation surface ha	as been surveyed for documentation and as-built purposes, as
confirmed by the undersigne		
The area is accepted as per	the foundation condition	ons at the time of the inspection and the condition of the foundation is
required to be maintained pri		
,		
Owner Representative	Name:	Thursey laplas 14- 12- 2013
	Position:	AEM- Nalves Re
QC Representative	Name:	Mélissa Japointe Desbiens
	Position:	INSPEC-SOL- Mélusa Jose al Johnson
QA Engineer	Name:	1-FRAyigis St-LAURENT
	Position:	SNC- Momigis SH
Surveyor	Name:	F. CLOUTTRE
	Position:	· FGL- Pappy
NOTES: 1. Original signed cer	rtificate must be siver	to the O

NOTES: 1. Original signed certificate must be given to the Owner Representative for documentation records. 2. Survey files from the approved area must be saved in appropriate location as required by the Owner Representative. 3. Photos of approved area must be caved in appropriate location as required by the Owner Representative. 3. area must be saved in appropriate location as required by the Owner Representative.



APPROBATION FORM

PROJECT:	Constructi	ion of Vault Dike						
PROJECT #:	611614				DATE:	/3	Ew. 20	1913
DOCUMENT #:	201302	13-01			CLIENT:	AEM	. 60	713
	(YYYYMMD					IIVI		
APPROBATION FO	DR: 🔟	Foundation Appro	oval (Footprin	t)				
	X	Foundation Appro	oval (Key Trer	nch)				
	X	Fill Placement (-20mm 30-	coomin	1 \$ 0-	20 mm	+ 13	BenJo
		Other					-	
LOCATION Cill	on slope		PREVIOUS A	PPROVA	HONS-	K:// 14	Ren	to 1
FROM STATION:	128		FROM:	63		(0.2	7	wench.
TO:	165		TO:	114		0 - 20	mm f	Deno)
ELEVATION:	X VARIES		1					
ELEVATION:	W VARIES	m						
		20(P)						
					VERIFIC	CATIONS !	MADE BY	-
RESPECT TO THE	SPECIFICATION	ONS ACCORDING TO:		QA		QC		N/A
Quotes and	li	4000		Y	M	Y	M	
 Quotes and Free of Ice / 				Ø				
Gradation (vi			100	Ø				
		V150	al. 5)	Y				
Compaction	regards to	segregations, lift thi	ickness)	Z				
6. Foundation of		Toda is mean too.		Z				
As built surve		a e		国				
				X				
8 9.								
-								
DETAILS (REFER TO	NUMBER A	BOVE						
TEM						API	ROVED	BY:
						QA.		QC
			N	SIGNAT	ÚRE .			ATE
			/1/	7/1	7	_	<u></u>	
APPROVED BY:	QA REP	RESENTATIVE	Manual	(1)	1		7013-	07-12
APPROVED BY:		RESENTATIVE RESENTATIVE	Manuell	Sh-		1	2013-	02-13
APPROVED BY:	QC REP		Melin	<i>I</i>	gpon	00	2013-	3.02.

Sketch by (Initial):

DOWNSTREAM * SP02 BLASTLIMIT 09246 KEY TRENCH Place and compact mo-20 bentonite Station (Office) Sampling 0-20mm- bestorite 0-20mm Slope 0-200mm 002 WORKING -PLATFORM To Station: Sampling 0-29mm 0-200mm and 0-20mm Stolion (Offset): Station: 0+128 Approved Area 000+0 <u>1</u>

Figure 1 - Approximate approved foundation area

CERTIFICATE OF ACCEPTANCE OF FOUNDATION CONDITION - VAULT DIKE

Acceptance No.:		FND-VD- 8 Date: 13-02-14
This Certificate of Accepta	ince includes the followin	ng items, reviewed and accepted by the undersigned:
1) Foundation and Key Tre	ench Preparation and Ex	ccavation Checklist (from SNC);
		Station and Offset (according to Vault Dike Stations);
3) Photo of the accepted ar		
4) Any other relevant docur	nentation complementa	ry to this approval.
		torised personnel representing Quality Control (QC) Program, Quality
Assurance (QA) Program a	ind the Owner Represe	ntative.
Topography of the approved	foundation surface has	s been surveyed for documentation and as-built purposes, as
confirmed by the undersigne		
The area is accepted as per required to be maintained pri		ns at the time of the inspection and the condition of the foundation is
8		
Owner Representative	Name:	AEM- A
QC Representative	Name:	Mélissa Langinte Deshiens
	Position:	INSPEC-SOL-Mélina Japo at Desbury
QA Engineer	Name:	1- FRANKIS ST-LAVAENT
	Position:	SNC- Yramai SIL
Surveyor	Name:	Robert eLouatre
	Position:	· FGL- / Seland
		the Owner Representative for documentation records. 2. Survey files location as required by the Owner Representative. 3. Photos of approved d by the Owner Representative.



APPROBATION FORM

PROJECT:	Constructi	ion of Vault Dike					AND SECTION SECTION AND SECTION SECTIO			
PROJECT #:	6/16/4 DATE: \3-02-14									
DOCUMENT #:		14-01			CLIENT					
	(YYYYMMD)	D-01)				AE	. •			
APPROBATION FO		Foundation Appr	oval (Footpri	nt)						
	N	Foundation Appr	oval (Key Tre	nch)						
	A	Fill Placement (1-1000 mm	0-20	no my m					
		Other								
LOCATION			PREVIOUS	APPROV/	ATIONS					
FROM STATION:	165		FROM:							
TO: J	200		TO:							
El Elle Tion	X VARIES			-						
ELEVATION:	VARIES									
_										
					WEDI	10 a T10				
RESPECT TO THE S	PECIFICATIO	ONS ACCORDING TO:		QA		QC		E N/A		
				Y	И	Y	14	mer He		
Quotes and lin				7						
2. Free of Ice / S			sual	4						
 Gradation (vis 		, ·		9						
4. Placement (in	regards to	segregations, lift th	ickness)	gr						
Compaction				g		П				
Foundation on				图		_	_			
As built survey	completed	d		3						
8										
9										
DETAIL & (DECED TO										
DETAILS (REFER TO	NUMBER AB	BOVE								
						QA	PROVED			
						GA.		QC		
ADDROVET			di.	SIGNAT	URE		D	ATE		
APPROVED BY:		RESENTATIVE	May	5/2			2013 -	-02-14		
		RESENTATIVE	melino	x tai	DOPAL	Dosbie	1 20	13-02		
	OWNER	REPRESENTATIVE	X	137			08.	18-20		
				/ /						
				1 1 1						

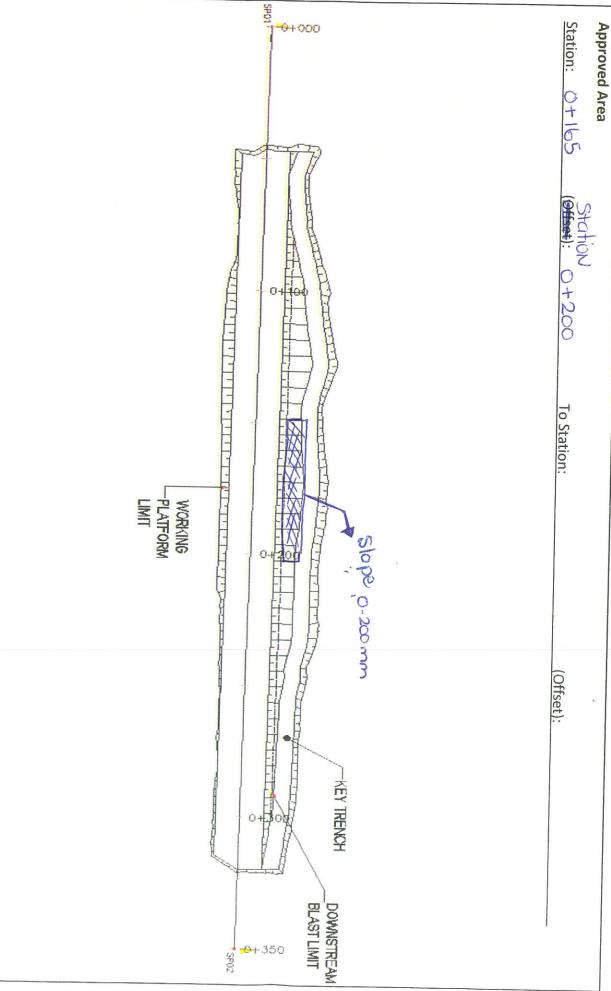


Figure 1 - Approximate approved foundation area

Date: 2013-02-15

Sketch by (Initial):

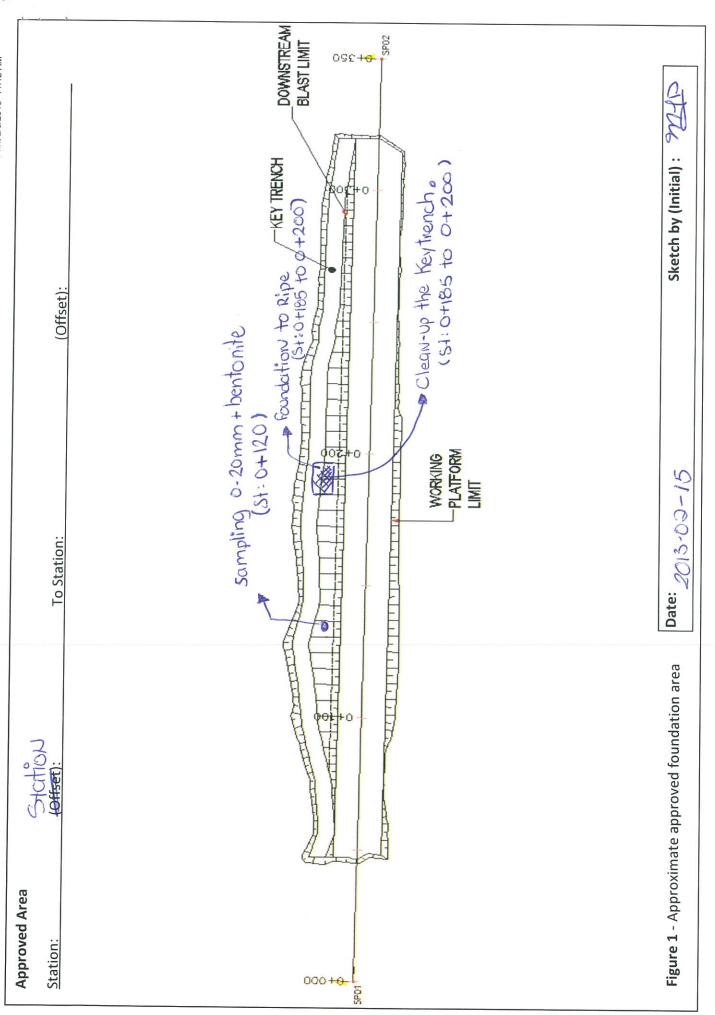
CERTIFICATE OF ACCEPTANCE OF FOUNDATION CONDITION - VAULT DIKE

Acceptance No.:		FND-VD-	W	Date:	2013-02-15
This Certificate of Acceptar	nce includes the following	g items, reviewe	d and accepted by	the undersigned	d:
1) Foundation and Key Trer	nch Preparation and Exc	avation Checklis	st (from SNC):		
2) Sketch of the approximat				ult Dike Stations)	ř
3) Photo of the accepted are					,
4) Any other relevant docum			ıl.		
The area has been inspecte	ed and accepted by auto	prised personnel	representing Qua	lity Control (QC)	Program, Quality
Assurance (QA) Program a				,	
Topography of the approved confirmed by the undersigne		been surveyed	for documentation	and as-built pur	poses, as
The area is accepted as per required to be maintained pri			the inspection and	the condition of	the foundation is
Owner Representative	Name:	AEM-	ing Dem	a	S. H-05-5013
QC Representative	Name:	Méli	ssa Sap	omto D	lesbiens
	Position:	INSPEC-S		eisa of	posit Tesbury
QA Engineer	Name:	St-LAI	RENT 1	EAN-FRAN	rivoir
Supposer	Position:	SNC-	Manuai 5	3/10	
Surveyor	Name: Position:	FGL-	ملیماد	tia-	
			(0000	1 We	~ * ~ (



APPROBATION FORM

PROJECT:	Construction	on of Vault Dike							
PROJECT #:	611614				DATE:	0013-	02-15		_
DOCUMENT #:	20136215-01 CLIENT: A.F.M.								_
	(YYYYMMDD	0-01)	100000000000000000000000000000000000000	- III			-		
APPROBATION F	OR:	Foundation Appro	val (Footprin	t)					
	×	Foundation Appro	val (Key Trer	nch) 18	5				
	W B	Fill Placement ()					_
		Other							_
LOCATION			PREVIOUS A	PPROVA	TIONS			***************************************	7
FROM STATION:	183		FROM:						
то:	200		TO:						
ELEVATION:	VARIES		1						
LLL WITTON.	+ MILLS	m							
		-							
			<u> </u>		VERIFI	CATIONS	MADE BY:		1
RESPECT TO THE	SPECIFICATIO	NS ACCORDING TO:		QA		QC		N/A	
Quotes and	lines	La d		Y	И	Y	N		1
	lines respect Snow / Water			□⁄					
		er		9					
3. Gradation (v									
		segregations, lift thi	ckness)						
5. Compaction									
6. Foundation				M					
As built surv				o o					
8									
9									
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ITEM	O NOMBER AL	BOVE				ΔΡ	PROVED	BV.	
						QA		QC.	
· ·									
ADDDOVED DO			N.	SIGNAT	WRE			ATE	
APPROVED BY:		RESENTATIVE	Mangy	5/			2013	-02-1	6
		RESENTATIVE	melis	a 20	Dongto	N).	2013	-02-	15
	OWNER	REPRESENTATIVE	Mayork	ungel	1	7	2013-	05-12	X



CERTIFICATE OF ACCEPTANCE OF FOUNDATION CONDITION - VAULT DIKE

Acceptance No.:	FND-V	D- (D	Date:	19/02/13
This Certificate of Acceptance incl	udes the following items, re	viewed and accepted by	y the undersigned:	
1) Foundation and Key Trench Pre	eparation and Excavation C	hecklist (from SNC);		
2) Sketch of the approximate acce	pted area, incl. Station and	Offset (according to Va	ult Dike Stations);	
3) Photo of the accepted area, at t	he moment of the acceptan	ce;		
4) Any other relevant documentation	on complementary to this a	pproval.		
The area has been inspected and	accepted by autorised pers	sonnel representing Qua	ality Control (QC) Pr	ogram, Quality
Assurance (QA) Program and the	Owner Representative.			
Topography of the approved found	ation surface has been sur	veyed for documentation	n and as-built purpo	ses, as
confirmed by the undersigned surv	eyor.			
The area is accepted as per the fou	undation conditions at the ti	me of the inspection and	d the condition of the	e foundation is
required to be maintained prior to a	nd during fill placement.			
er.			\ \ \ \	
Owner Representative	Name:	Charite Jehn	1/2 Co.	N. ar-1813
	Position: AE	2) menul -M	F M	1.0
QC Representative	Name:	BIEN ZILLI	Fillet	the GC REP
	Position: INS	PEC-SOL-	U	1
QA Engineer	Name:	larie-Pier	Lachance &	liard K
	Position: SN	- QAr	ef.	
Surveyor	Name:	α 1		
	Position: FGI	- Clark	Thou	- Den
NOTES: 1. Original signed certificate from the approved area must be saw area must be saved in appropriate to	ed in appropriate location a	as required by the Owner	ocumentation recorder Representative. 3	ds. 2. Survey files . Photos of approved



PROJECT:	Construction	on of Vault Dike							
PROJECT #:	G11614 DATE: 19/02/13								
DOCUMENT #:	201302	AER	1						
		20130219-01 CLIENT: AEM (YYYYMMDD-01)							
APPROBATION FO	or: 🗹	Foundation Appro	val (Footprint)					
		Foundation Appro	val (Key Tren	ch)					
		Fill Placement ()					
		Other							
LOCATION			PREVIOUS A	PPROVATIONS					
FROM STATION:	200		FROM:	185					
TO:	318		то:	200					
ELEVATION:	VARIES	1	1		*				
ELEVATION.	LD VAINES	m							
				VERIFIC	CATIONS MA	ADE BY:	8		
RESPECT TO THE	SPECIFICATI	ONS ACCORDING TO:		QA	QC		N/A		
				YN	Υ	N			
 Quotes and 	lines respe	cted							
2. Free of Ice	/ Snow / Wa	ter			u				
3. Gradation (visual)								
4. Placement	(in regards t	o segregations, lift thi	ickness)		I N/A				
5. Compaction	1				- N/A				
6. Foundation	on Bedrock			yes					
7. As built sur	vey complete	ed							
8									
9									
DETAILS (REFER	TO NUMBER A	ABOVE)			ΔPP	ROVED	RV.		
TTEW					QA	KOVED	QC		
			1	SIGNATURE		<u>D</u>	DATE		
APPROVED BY:	QA RE	PRESENTATIVE		2 A	2	19/02	2/13		
	QC RE	EPRESENTATIVE	Ax	Ill not		19/0:	2/13		
	OWNE	R REPRESENTATIVE	The state of the s	X		WILL	(5/1/3		

3

CERTIFICATE OF ACCEPTANCE OF FOUNDATION CONDITION - VAULT DIKE

Acceptance No.:		FND-VD-	11	Date:	20-02-13
This Certificate of Acceptance	e includes the following	ng items, reviewe	ed and accepte	d by the undersigne	ed:
1) Foundation and Key Trend	ch Preparation and Ex	cavation Checkl	ist (from SNC);		
2) Sketch of the approximate	accepted area, incl.	Station and Offse	et (according to	Vault Dike Stations	;);
3) Photo of the accepted are	a, at the moment of th	ne acceptance;			
4) Any other relevant docum	entation complementa	ary to this approv	al.		
The area has been inspected	and accepted by au	torised personne	el representing	Quality Control (QC	e) Program, Quality
Assurance (QA) Program ar	nd the Owner Represe	entative.			
Topography of the approved	foundation surface ha	as been surveyed	d for document	ation and as-built pu	urposes, as
confirmed by the undersigned	d surveyor.				
The area is accepted as per t	he foundation condition	ons at the time of	f the inspection	and the condition o	of the foundation is
required to be maintained prio	or to and during fill pla	cement.			
Owner Representative	Name:	Χ.	\		/
	Position:	AEM-	Order 1	78	2101-10-10
QC Representative	Name:	ENB	1EN 210	The state of the s	Ulge REP.GC
	Position:	INSPEC		- Comment	U MIGE
QA Engineer	Name:	Ma	rie Pie	Lacha	nce-Ricard U
	Position:	SNC-	QA,	res	, 0
Gurveyor	Name:		√	()	()
	Position:	FGL-		1 -11	



PROJECT:	Constr	uctio	n of Vault Dike			à .		
PROJECT #:					DATE:	10/0	V \ W	211
DOCUMENT #:					CLIENT:	ANT	1	W. J.
	(YYYYN	MDD-	-01)			130		
APPROBATION FO	OR:		Foundation Approv	val (Footprint)				
			Foundation Approv	val (Key Tren	ch)			
		V	Fill Placement (0-1000	mm)			
			Other					
LOCATION				PREVIOUS A	PPROVATIONS			
FROM STATION:	20	20		FROM:	185			
TO:	3:	18	}	то:	200			
ELEVATION:	☑ VAF	RIES						
			m					
=			-					;a
RESPECT TO THE	SPECIEIO	CATIO	NS ACCORDING TO:		<u>VERIFI</u> QA	CATIONS M QC	ADE BY:	N/A
KEGI EGI 10 IIIE	Or Lon N	<u>JAIIO</u>	NO ACCONDING TO.		YN	Y	N	IV/A
1. Quotes and	lines re	spect	ted					
2. Free of Ice	/ Snow /	Wate	er			Ø		
3. Gradation (visual)				d , 0			
4. Placement	(in regar	ds to	segregations, lift thi	ckness)				
5. Compaction	1				d o	g		
6. Foundation	on Bedr	ock			DNK O			
7. As built sur	vey com	plete	d					
8					o NB o			ď
9								
DETAILS (REFER		ED A	BOVE)					-
ITEM	TO NOME	LIVA	<u>BOVL)</u>			API	PROVED	BY:
						QA		QC
				white a second s		- 📙		
				Λ	OLONATURE	_ ⊔	_	□
APPROVED BY:	0.4	\ DEF			SIGNATURE			AD LOC
ALL ROVED BY.	-		PRESENTATIVE PRESENTATIVE	\rightarrow	~~		20/0	02/13
	/		R REPRESENTATIVE	118	1/2///	,	<u>U </u>	11. Val.
	, 3,	- .		All	2 July			

DOWNSTREAM SP02 BLASTLIMIT 092+0 Vakfill (0+1000m) Sketch by (Initial): -KEY TRENCH (Offset): 000 WORKING -PLATFORM LIMIT Date: 20-62-13 To Station: Figure 1 - Approximate approved foundation area (Offset): Approved Area Station: 000+0

CERTIFICATE OF ACCEPTANCE OF FOUNDATION CONDITION - VAULT DIKE

Acceptance No.:	Ĺ	FND-VD- 2 Date: 2 -02-13
This Certificate of Acceptance	ce includes the followin	ing items, reviewed and accepted by the undersigned:
1) Foundation and Key Tren	ch Preparation and Ex	xcavation Checklist (from SNC);
2) Sketch of the approximate	e accepted area, incl. S	Station and Offset (according to Vault Dike Stations);
3) Photo of the accepted are	a, at the moment of th	ne acceptance;
4) Any other relevant docum	entation complementa	ary to this approval.
The area has been inspected	and accepted by au	ntorised personnel representing Quality Control (QC) Program, Quality
Assurance (QA) Program ar	d the Owner Represe	entative.
Topography of the approved	foundation surface ha	as been surveyed for documentation and as-built purposes, as
confirmed by the undersigned	l surveyor.	
The area is accepted as per t	he foundation conditio	ons at the time of the inspection and the condition of the foundation is
required to be maintained price	or to and during fill plac	cement.
Owner Representative	Name:	tatice Caman May
QC Representative	Position:	AEM-Gearch Eng
night	Name:	Maxime W gamy toll
QA Engineer	Position: Name:	INSPEC-SOL- QC representator
,	Position:	suc Qualca Cachance
Surveyor	Name:	SHO QB-YES
night	Position:	Farcal Parfour Pascal John
NOTES: 1. Original signed cert		- Surveyor



Sustainable Mine Development Global Mining & Metallurgy 360, St-Jacques Street Montreal (Quebec) Canada H2Y 1P5

Telephone: (514) 393-1000 Fax: (514) 390-2765 www.snclavalin.com

PROJECT:	Construction	of Vault Dike						
PROJECT #:	611614				DATE:	21-	02-1	3
DOCUMENT #:	2013022	1-01			CLIENT:	AE	M	
	(YYYYMMDD-0	01)						
APPROBATION FO	or:	Foundation Approv	/al (Footprint)					
		Foundation Approv	/al (Key Tren	ch)				
		Fill Placement (0-200)				
		Other						
LOCATION			PREVIOUS A	PPROVA	<u> </u>		1000	
FROM STATION:	200)	FROM:	18	35			
TO:	320	D	то:	20	Oc			
ELEVATION:	VARIES							
		m						
						CATIONS N	MADE BY:	LAUZA
RESPECT TO THE	SPECIFICATION	NS ACCORDING TO:		QA Y	N /	QC Y	N	N/A
1. Quotes and	lines respecte	ed		Ċ	<u> </u>	XV		
	/ Snow / Wate					Ø		
3. Gradation (visual)			V				
		segregations, lift thi	ckness)		П	[X]		
5. Compaction			500,000 Backson •					
6. Foundation					_/	-	_	
7. As built sur	vey completed	I						⊠
8	090							
•								
DETAILS (DEEED	TO NUMBER AS	20VE)						
DETAILS (REFER	TO NOWIDER AD	NOVE)				AP	PROVED	BY:
				N	A	QA	1	QC
					1			
					ii'			
			1			. ⊔		
ADDEOL/22 200				SIGNA	TURE		•	DATE
APPROVED BY:		RESENTATIVE	4	-	0-1,		21-1	
	QC REP	RESENTATIVE	IN AM	mu	40/10		-22	02-13

OWNER REPRESENTATIVE

Approved Area

Station:

To Station:

(Offset):

Figure 1 - Approximate approved foundation area

Date:

Sketch by (Initial):

09940

DOWNSTREAM

-KEY TRENCH

BLASTLIMIT

000 10 [.

SP02

0+200mm on slafe

WORKING --PLATFORM LIMIT

CERTIFICATE OF ACCEPTANCE OF FOUNDATION CONDITION - VAULT DIKE

Acceptance No.:		FND-VD-	13	Date:	21-02-13
This Certificate of Acceptance	includes the followin	g items, reviewed a	and accepted by t	the undersigned:	
1) Foundation and Key Trench	Preparation and Exc	cavation Checklist ((from SNC);		
2) Sketch of the approximate a	ccepted area, incl. S	station and Offset (a	according to Vaul	t Dike Stations);	
3) Photo of the accepted area,	at the moment of the	e acceptance;			
4) Any other relevant document	tation complementar	y to this approval.			
The area has been inspected a	nd accepted by auto	orised personnel re	presenting Qualit	ty Control (QC) P	rogram, Quality
Assurance (QA) Program and	the Owner Represer	ntative.			
Topography of the approved for	undation surface has	s been surveyed for	r documentation a	and as-built purpo	ses, as
confirmed by the undersigned s	urveyor.				
				-	
The area is accepted as per the			inspection and t	the condition of th	e foundation is
required to be maintained prior t	o and during fill plac	ement.			
Owner Representative	Name:	Patrice AEM- GO	Cagnan dad Eng	1 Dec	Py-
QC Representative	Name:	FABIL	EN 7.4	A State	10 518
	Position:	INSPEC-SC)L- 00	REP	
QA Engineer	Name:	Marie 1	Pier Lack	ronce-Ric	ard l
	Position:	SNC-	DA re	8.	
Surveyor	Name:			, ,	1
	Position:	FGL-	laule	Trem.	der
NOTES: 1 Original signed certific	cate must be given t	to the Owner Bear	oontotive for de-		



Sustainable Mine Development Global Mining & Metallurgy 360, St-Jacques Street Montreal (Quebec) Canada H2Y 1P5

Telephone: (514) 393-1000 Fax: (514) 390-2765 www.snclavalin.com

PROJECT: Con	struction of Vault Dike					
PROJECT #:	1614		DATE:	21-0	2-13	>
DOCUMENT #:	136221-01		CLIENT:	KEN	1	
	(YMMDD-01)		and the second s			
APPROBATION FOR:	☐ Foundation Approv	/al (Footprint))			
	Foundation Approv	/al (Key Tren	ch)			
	Fill Placement (7	lann)			
	Other					
LOCATION		PREVIOUS A	PPROVATIONS			
FROM STATION:	1+200	FROM:	G+ 185			
то:	1+270	TO:	ot 200			
ELEVATION:	VARIES					
	m					
	 					
DECDECT TO THE ODEO	NEIGATIONS ASSOCIATIONS TO			CATIONS MA	ADE BY:	NI/A
RESPECT TO THE SPEC	CIFICATIONS ACCORDING TO:		QA Y , N	QC Y	N	N/A
Quotes and lines	respected		0 0			П
2. Free of Ice / Snov		9				
3. Gradation (visual)					
	gards to segregations, lift thi	ckness)				
5. Compaction						
6. Foundation on Be	edrock		2000			0
7. As built survey co	ompleted					ď
8						
9						6
DETAIL O (DEFED TO MIL	IMPER AROUE)					
DETAILS (REFER TO NU	WIBER ABOVE)			APP	ROVED	BY:
				QA		QC
	<u></u>					
		——A	0.01.1	- "	_	
ADDROVED DV	OA DEDDEGENTATIVE		SIGNATURE		210	ATE S
APPROVED BY:	QA REPRESENTATIVE QC REPRESENTATIVE		Honas		000	2-10
	WO LIFTLOCK IN TALLACE	1	1 100		2 11 -1	22-1

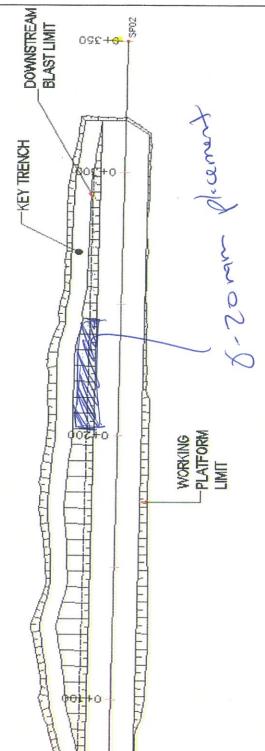
OWNER REPRESENTATIVE

Approved Area

Zoo (Offset): Station: (

To Station:

(Offset):



000+0-

SPOT

Figure 1 - Approximate approved foundation area

Date: 21/02/

Sketch by (Initial):

CERTIFICATE OF ACCEPTANCE OF FOUNDATION CONDITION - VAULT DIKE

Acceptance No.:		FND-VD- 4 Date: 22-02-13
This Certificate of Acceptance	e includes the followin	ng items, reviewed and accepted by the undersigned:
1) Foundation and Key Trend	ch Preparation and Ex	cavation Checklist (from SNC);
2) Sketch of the approximate	accepted area, incl. S	Station and Offset (according to Vault Dike Stations);
3) Photo of the accepted area		
4) Any other relevant docume	entation complementa	ry to this approval.
The area has been inspected Assurance (QA) Program an		orised personnel representing Quality Control (QC) Program, Quality
Topography of the approved f		s been surveyed for documentation and as-built purposes, as
The area is accepted as per th	ne foundation conditio	ns at the time of the inspection and the condition of the foundation is
required to be maintained prio	r to and during fill plac	ement.
Owner Representative	Name:	PATRICE GAGNON & GAGNON AND GAY
QC Representative	Name:	axing Cata Inhana
	Position:	INSPEC-SOL-
QA Engineer	Name:	Marie-Pier Lachance
	Position:	SNC- QA Yel,
Surveyor	Name:	
	Position:	FGL- Claude Preudy
NOTES: 1 Original signed cert	ificate must be given	to the Owner Penrocentative for decumentation was also as a Committee



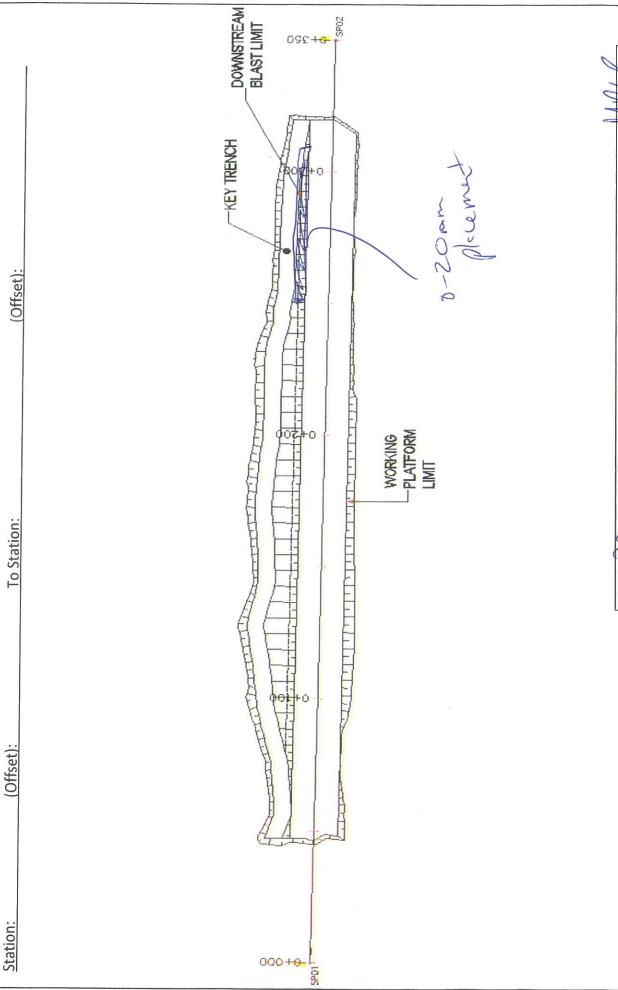
Sustainable Mine Development Global Mining & Metallurgy 360, St-Jacques Street Montreal (Quebec) Canada H2Y 1P5

Telephone: (514) 393-1000 Fax: (514) 390-2765 www.snclavalin.com

PROJECT:	Construction of Vault Dike							
PROJECT #:	611614			DATE:	2210	2/13		
DOCUMENT #: 20136222 0) CLIENT: ABM								
	(YYYYMMDD-01)							
APPROBATION FOR:								
	Foundation Approv	al (Key Tren	ch)					
	Fill Placement (3-20mm)					
	Other		_					
LOCATION	A Company of the Comp	PREVIOUS A	PPROVAT	TONS				
FROM STATION:	1+ 270	FROM:	6	120	6			
TO:	0+,320	TO:	6	+2-	70			
ELEVATION:	VARIES							
	m							
					e:	<u> </u>		
				-	ATIONS M	ADE BY:		
RESPECT TO THE	SPECIFICATIONS ACCORDING TO:		QA Y	N ₋	QC Y	· NI	N/A	
1. Quotes and	lines respected					N		
	Snow / Water							
3. Gradation (v	risual)		Image: section of the content of the con					
	in regards to segregations, lift thi	ckness)	to		7			
5. Compaction		•				9		
6. Foundation	on Bedrock		5 , 5/		2			
7. As built surv	vey completed			2				
8	-							
9.								
			L					
ITEM	FO NUMBER ABOVE)				APF	ROVED	BY:	
					QA		QC	
· · · · · · · · · · · · · · · · · · ·								
			SIGNA	TURE			ATE	
APPROVED BY:	QA REPRESENTATIVE	A,	4	Dal		7	12-13	
	QC REPRESENTATIVE	N/ Da	MM.	LIZA		77-	07-1	

OWNER REPRESENTATIVE

Approved Area



Date: 22015 Figure 1 - Approximate approved foundation area

Sketch by (Initial):

CERTIFICATE OF ACCEPTANCE OF FOUNDATION CONDITION - VAULT DIKE

		FND-VD-	Date:	23 0213
This Certificate of Acceptant	ce includes the followin	ng items, reviewed and accepted	by the undersig	ined:
1) Foundation and Key Tren	ch Preparation and Ex	cavation Checklist (from SNC);		
2) Sketch of the approximate	e accepted area, incl. S	Station and Offset (according to	Vault Dike Statio	ons);
3) Photo of the accepted are	ea, at the moment of the	ne acceptance;		
4) Any other relevant docum	entation complementa	ary to this approval.		
The area has been inspected	d and accepted by aut	torised personnel representing (Quality Control (0	QC) Program, Quality
Assurance (QA) Program a	nd the Owner Represe	entative.		
Topography of the approved	foundation surface ha	as been surveyed for documenta	tion and as-built	purposes, as
confirmed by the undersigne				
confirmed by the undersigne	d surveyor.	ons at the time of the inspection		n of the foundation is
confirmed by the undersigne	d surveyor. the foundation condition	ons at the time of the inspection		n of the foundation is
confirmed by the undersigne	d surveyor. the foundation condition	ons at the time of the inspection		n of the foundation is
confirmed by the undersigne The area is accepted as per required to be maintained pri	d surveyor. the foundation conditio	ons at the time of the inspection cement.	and the condition	n of the foundation is
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confirmed by the undersigne The area is accepted as per required to be maintained pri Owner Representative	d surveyor. the foundation condition to and during fill place Name: Position:	ons at the time of the inspection	and the condition	on of the foundation is
confirmed by the undersigne The area is accepted as per required to be maintained pri	the foundation condition or to and during fill place. Name: Position: Name:	ons at the time of the inspection cement. Aprice Cagn AEM- Gested E	and the condition	NOT THERE
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confirmed by the undersigne The area is accepted as per required to be maintained pri Owner Representative QC Representative	the foundation condition or to and during fill place. Name: Position: Name: Position: Name:	ons at the time of the inspection cement. Advice Cagn AEM- Glotech E INSPEC-SOL- Havie Viv L	and the condition	NOT THERE

APPROBATION FORM

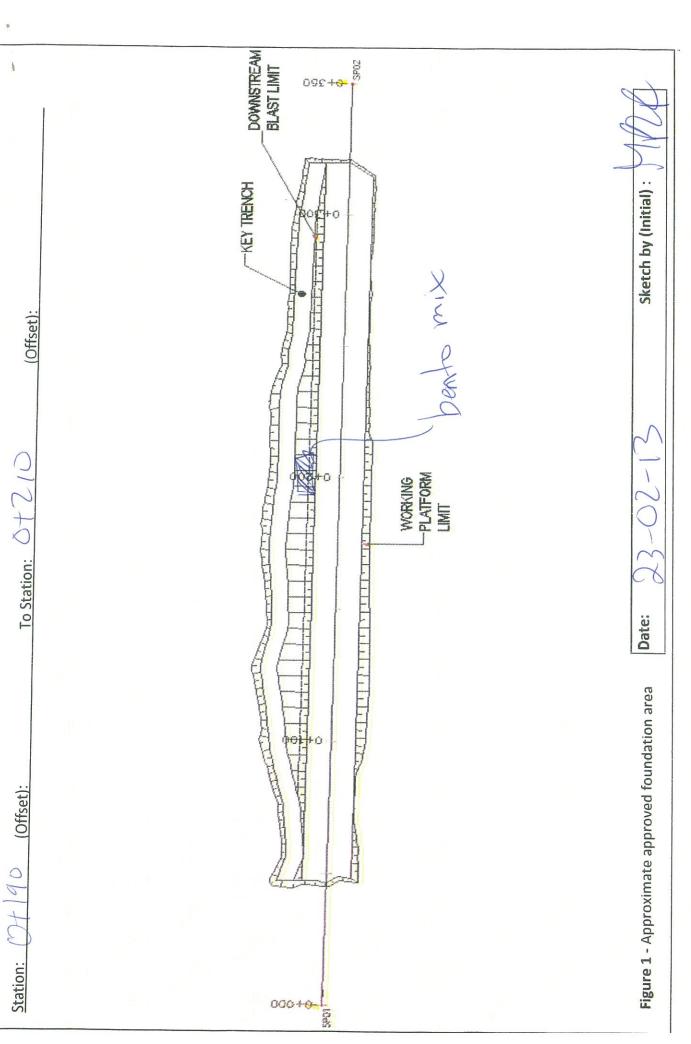


Sustainable Mine Development Global Mining & Metallurgy 360, St-Jacques Street Montreal (Quebec) Canada H2Y 1P5

Telephone: (514) 393-1000 Fax: (514) 390-2765 www.snclavalin.com

PROJECT:	Construction of Vault Dike					
PROJECT #:	61/614		DATE:	23-0	12-13	3
DOCUMENT #:	20130223-0		CLIENT:	ABI	1	
	(YYYYMMDD-01)					
APPROBATION F	OR: Foundation Approv	val (Footprint)				
	Foundation Approv	val (Key Trend	ch)			
	Fill Placement (ento-mi)	<u>≠</u>)			
	Other		_			
LOCATION		PREVIOUS AF	PPROVATIONS			
FROM STATION:	190	FROM:				
TO:	210	то:				
ELEVATION:	VARIES					
	m					
DESDECT TO THE	SPECIFICATIONS ACCORDING TO:	71	<u>VERIF</u> QA	ICATIONS M QC	ADE BY:	N/A
KESPECT TO THE	SPECIFICATIONS ACCORDING TO.	<u> </u>	Y / N	Y	N	IN/A
1. Quotes and	l lines respected					
2. Free of Ice	/ Snow / Water				П	
3. Gradation (visual)				П	
	(in regards to segregations, lift thi	ckness)				
5. Compaction						
6. Foundation	on Bedrock					
7. As built sur	vey completed		пп			দ
8.						
9.						
DETAILS (REFER	TO NUMBER ABOVE)					
ITEM				APF	PROVED	BY:
				QA		QC
				_		
				- 님		
		1	SIGNATURE		г	DATE
APPROVED BY:	QA REPRESENTATIVE	ner L	SIGNATORE		13	17-13
	QC REPRESENTATIVE NO.				4)	X
	OWNER REPRESENTATIVE		1			

Approved Area



CERTIFICATE OF ACCEPTANCE OF FOUNDATION CONDITION - VAULT DIKE

Position: SNC- QAVEP.	Acceptance No.:		FND-VD- 6 Date: 23-02-13
1) Foundation and Key Trench Preparation and Excavation Checklist (from SNC): 2) Sketch of the approximate accepted area, incl. Station and Offset (according to Vault Dike Stations): 3) Photo of the accepted area, at the moment of the acceptance; 4) Any other relevant documentation complementary to this approval. The area has been inspected and accepted by autorised personnel representing Quality Control (QC) Program, Quality Assurance (QA) Program and the Owner Representative. Topography of the approved foundation surface has been surveyed for documentation and as-built purposes, as confirmed by the undersigned surveyor. The area is accepted as per the foundation conditions at the time of the inspection and the condition of the foundation is required to be maintained prior to and during fill placement. Owner Representative Name: Position: AEM Garpel Tay OA Engineer Name: Position: SNC- QAMPE C. Surveyor Name:			night
2) Sketch of the approximate accepted area, incl. Station and Offset (according to Vault Dike Stations); 3) Photo of the accepted area, at the moment of the acceptance; 4) Any other relevant documentation complementary to this approval. The area has been inspected and accepted by autorised personnel representing Quality Control (QC) Program, Quality Assurance (QA) Program and the Owner Representative. Topography of the approved foundation surface has been surveyed for documentation and as-built purposes, as confirmed by the undersigned surveyor. The area is accepted as per the foundation conditions at the time of the inspection and the condition of the foundation is required to be maintained prior to and during fill placement. Owner Representative Name: Position: AEM: Gagran AE	This Certificate of Acceptar	nce includes the followi	ng items, reviewed and accepted by the undersigned:
2) Sketch of the approximate accepted area, incl. Station and Offset (according to Vault Dike Stations): 3) Photo of the accepted area, at the moment of the acceptance; 4) Any other relevant documentation complementary to this approval. The area has been inspected and accepted by autorised personnel representing Quality Control (QC) Program, Quality Assurance (QA) Program and the Owner Representative. Topography of the approved foundation surface has been surveyed for documentation and as-built purposes, as confirmed by the undersigned surveyor. The area is accepted as per the foundation conditions at the time of the inspection and the condition of the foundation is required to be maintained prior to and during fill placement. Owner Representative Name: Position: AEM Gatella TAR AEM Gatella TAR ALM G	1) Foundation and Key Trea	nch Preparation and Ex	
A) Any other relevant documentation complementary to this approval. The area has been inspected and accepted by autorised personnel representing Quality Control (QC) Program, Quality Assurance (QA) Program and the Owner Representative. Topography of the approved foundation surface has been surveyed for documentation and as-built purposes, as confirmed by the undersigned surveyor. The area is accepted as per the foundation conditions at the time of the inspection and the condition of the foundation is required to be maintained prior to and during fill placement. Owner Representative Name: Position: Name: Position: Name: Position: Name: Name: Position: Name:	2) Sketch of the approximat	te accepted area, incl.	
The area has been inspected and accepted by autorised personnel representing Quality Control (QC) Program, Quality Assurance (QA) Program and the Owner Representative. Topography of the approved foundation surface has been surveyed for documentation and as-built purposes, as confirmed by the undersigned surveyor. The area is accepted as per the foundation conditions at the time of the inspection and the condition of the foundation is required to be maintained prior to and during fill placement. Owner Representative Name: Position: AEM-Gulgel Top- Position: INSPEC-SOL- QA Engineer Name: Position: Name: Position: SNC- QAM-QL SNC- SUrveyor Name:	3) Photo of the accepted are	ea, at the moment of th	ne acceptance;
Assurance (QA) Program and the Owner Representative. Topography of the approved foundation surface has been surveyed for documentation and as-built purposes, as confirmed by the undersigned surveyor. The area is accepted as per the foundation conditions at the time of the inspection and the condition of the foundation is required to be maintained prior to and during fill placement. Owner Representative Name: Position: Position: Name: Position: Name: Position: Name: Position: Name: Position: Name: Position: SNC- Name:	4) Any other relevant docum	nentation complementa	ıry to this approval.
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Confirmed by the undersigned surveyor. The area is accepted as per the foundation conditions at the time of the inspection and the condition of the foundation is required to be maintained prior to and during fill placement. Owner Representative Name: Position: Position: Name: Position: Name: Position: SNC- Name: Name:	Assurance (QA) Program a	nd the Owner Represe	antative.
The area is accepted as per the foundation conditions at the time of the inspection and the condition of the foundation is required to be maintained prior to and during fill placement. Owner Representative Name: Position: AEM- Getech Tog AEM- Getech Tog Name: Position: INSPEC-SOL- QA Engineer Name: Position: SNC- Name: Surveyor Name:	Topography of the approved	foundation surface ha	is been surveyed for documentation and as-built purposes, as
Owner Representative Name: Position: AEM- Claded Eng QC Representative Name: Position: INSPEC-SOL- QA Engineer Name: Position: Surveyor Name: N	confirmed by the undersigne	d surveyor.	
Owner Representative Name: Position: AEM- Cested try QC Representative Name: Position: INSPEC-SOL- QA Engineer Name: Position: Surveyor Name: N	The area is accepted as per	the foundation condition	ons at the time of the inspection and the condition of the foundation is
Position: AEM- Gested ing QC Representative Name: Position: INSPEC-SOL- QA Engineer Name: Position: Surveyor Name: Name: Name: Position: Name: Name: Position: Name:	required to be maintained pri	or to and during fill plac	cement.
Position: AEM- Gested ing QC Representative Name: Position: INSPEC-SOL- QA Engineer Name: Position: Surveyor Name: Name: Name: Position: Name: Name: Position: Name: Name: Name: Position: Name:			
QC Representative Name: Position: INSPEC-SOL- QA Engineer Name: Position: Surveyor Name:	Owner Representative		tatrie Cognar 100 Cg
Position: INSPEC-SOL- QA Engineer Name: Position: SNC- Surveyor Name:	OC Penresentativo		AEM Gestech Forg
QA Engineer Name: Position: SNC- QC REP Authorize Position: SNC- Name:	QO Nepresentative		
Surveyor Name:	QA Engineer		Mindelle
		Position:	snc- Qarel.
Position: FGL- Caulot Mer II	Surveyor	Name:	
		Position:	FGL- Carlor Man In

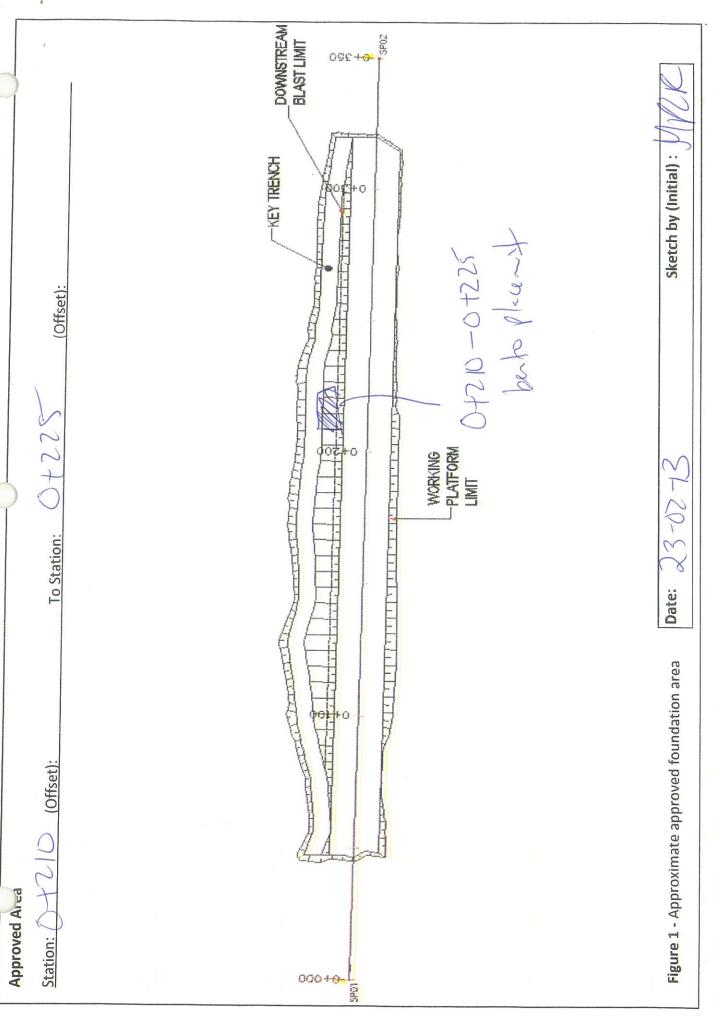


Sustainable Mine Development Global Mining & Metallurgy 380, St-Jacques Street Montreal (Quebec) Canada H2Y 1P5

APPROBATION FORM

Telephone: (514) 393-1000 Fax: (514) 390-2765 www.snclavalin.com

PROJECT:	Construction of Vault Dike						
PROJECT #:	611614			DATE:	23-	-07-1	3 nih
DOCUMENT #:	20130723-01		С	LIENT:	AF	evi	
	(YYYYMMDD-D1)				,		
APPROBATION FO							
	☐ Foundation Appro	0					
	Fill Placement (bento 1	h(X)				
	Other						
LOCATION		PREVIOUS A	PPROVATI	ONS			
FROM STATION:	0+210	FROM:					
TO:	0+225	то:					
ELEVATION:	VARIES						
8	m						
				VERIFIC	ATIONS N	IADE BY:	
RESPECT TO THE	SPECIFICATIONS ACCORDING TO:		QA		QC		N/A
			Y	И	Y	N	
	lines respected						
	/ Snow / Water				图		
 Gradation (
	(in regards to segregations, lift thi	ckness)			\square		
Compaction							
Foundation	on Bedrock						
As built sun	vey completed			ğ		\square	
8							
9							
DETAILS (REFER	TO NUMBER ABOVE)						
ITEM					200	PROVED	
Name of the same o					QA		QC
(Principles and American							
			SIGNATI	URE		D	ATE
APPROVED BY:	QA REPRESENTATIVE	h		_		23-	02-13
	QC REPRESENTATIVE	fall	11-18	10		13-0	2-13
	OWNER REDRECENTATIVE	8					



CERTIFICATE OF ACCEPTANCE OF FOUNDATION CONDITION - VAULT DIKE

Acceptance No.:		FND-VD-	17	Date:	24-02	-13
This Certificate of Acceptance	ce includes the follow	ing items, reviewed	l and accepted by	y the undersigne	ed:	
1) Foundation and Key Trend	ch Preparation and E	xcavation Checklis				
2) Sketch of the approximate	accepted area, incl.	Station and Offset		ult Dike Stations		
3) Photo of the accepted are	a, at the moment of the	he acceptance;		or or arrested the second seco		
4) Any other relevant docume	entation complementa	ary to this approval				
The area has been inspected	and accepted by au	utorised personnel	representing Qua	ality Control (QC		
Assurance (QA) Program an	d the Owner Represe	entative.				
Topography of the approved t	foundation surface ha	as been surveyed f	or documentation	and as-built pu	rposes, as	
confirmed by the undersigned	surveyor.					
The area is accepted as per the	ne foundation condition	ons at the time of the	ne inspection and	I the condition o	f the foundation is	
required to be maintained prio	r to and during fill pla	cement.				
		The state of the s				
Owner Representative	Name:	Petro	Con	B	6	
	Position:	AEM- GO	to la Fra	CON	9 g	
QC Representative	Name:		aren er	Il M	1/2200	
	Position:	INSPEC-S	OL- C.C.	Joseph	I Dell	
QA Engineer	Name:	Marie	· Pie la	have	U	
	Position:	SNC-	ZAR	EP		
Surveyor	Name:			1		
	Position:	FGL-	lande	The		

24-02-1



Sustainable Mine Development Global Mining & Metallurgy 360, St-Jacques Street Montreal (Quebec) Canada H2Y 1P5

QC REPRESENTATIVE

OWNER REPRESENTATIVE

Telephone: (514) 393-1000 Fax: (514) 390-2765 www.snclavalin.com

PROJECT:	Construction of Vault Dike					
PROJECT #:	611614		DATE:	24-0	72-13	
DOCUMENT #:	20130224-01		CLIENT:	AE	M	
	(YYYYMMDD-01)					
APPROBATION FO	OR:	/al (Footprint))			
	Foundation Approv	val (Key Tren	ch)			
	Fill Placement (pento mi	×)			
	Other					
LOCATION		PREVIOUS A	PPROVATIONS			
FROM STATION:	0+225	FROM:				
то:	0+255	то:				
ELEVATION:	VARIES					
ELLVATION.	m					
			<u>VERIFI</u>	CATIONS MA	ADE BY:	
RESPECT TO THE	SPECIFICATIONS ACCORDING TO:		QA	QC		N/A
1 Quotos and	lines respected		Y N	Y	N	
	lines respected					
	/ Snow / Water					
3. Gradation (
	(in regards to segregations, lift thi	ckness)				
5. Compaction						
6. Foundation	on Bedrock		0/3/			1
7. As built sur	vey completed				A STATE OF THE PARTY OF THE PAR	
8						
9						
DETAILS (REFER	TO NUMBER ABOVE)					
ITEM	10 NOMBERTABOVE)			APP	ROVED	BY:
				QA		QC
				_		
				_ ⊔		
			SIGNATURE		<u>D</u>	ATE
APPROVED BY:	QA REPRESENTATIVE				24	101-1

Approved Area

122+C Station:

To Station:

(Offset):

01

Print 19/02/2013 - 7 AM

nerto mix WORKING --PLATFORM LIMIT

DOWNSTREAM BLAST LIMIT

-KEY TRENCH

09£+0

18

000+0-

Date:

Sketch by (Initial):

Figure 1 - Approximate approved foundation area

CERTIFICATE OF ACCEPTANCE OF FOUNDATION CONDITION - VAULT DIKE

Acceptance No.:		FND-VD-	Date:	24-02	-13
					night
This Certificate of Acceptar	nce includes the followin	g items, reviewed and accepte	ed by the undersig	ned:	**************************************
1) Foundation and Key Tre	nch Preparation and Ex	cavation Checklist (from SNC)			
2) Sketch of the approximat	te accepted area, incl. S	Station and Offset (according to	Vault Dike Statio	ons);	
3) Photo of the accepted are	ea, at the moment of the	e acceptance;		The second section of the second section is also as the second section of the second section of the second section sec	
4) Any other relevant docum	nentation complementar	ry to this approval.			
The area has been inspecte	ed and accepted by aut	orised personnel representing	Quality Control (C	QC) Program, Quality	
Assurance (QA) Program a	nd the Owner Represe	ntative.			
Topography of the approved	foundation surface has	been surveyed for documenta	ation and as-built	purposes, as	
confirmed by the undersigne					
The area is accepted as per	the foundation condition	ns at the time of the inspection	and the condition	of the foundation is	
required to be maintained pri	or to and during fill plac	ement.			
		^			
Owner Representative	Name:	Patrice Game	n lat	(Far	
	Position:	AEM- GATEST	Ew .		
QC Representative	Name:	FABIEN Z	Vi 4	see to	5
	Position:	INSPEC-SOL-	REP		,
QA Engineer	Name:	Marie Vie	Lachard	e li	
	Position:	SNC- OA	RER		
Surveyor	Name:		<u></u> 1	1	
	Position:	FGL- Caer	outh	cenble	
NOTES: 1. Original signed cel from the approved area must	rtificate must be given t be saved in appropriate	o the Owner Representative for location as required by the O	or documentation wner Representa	records. 2. Survey file	s oved

area must be saved in appropriate location as required by the Owner Representative.



Sustainable Mine Development Global Mining & Metallurgy 360, St-Jacques Street Montreal (Quebec) Canada H2Y 1P5

Telephone: (514) 393-1000 Fax: (514) 390-2765 www.snclavalin.com

PROJECT:	Construction of Vault Dike				
PROJECT #:			DATE:		
DOCUMENT #:			CLIENT:	24-02	-13
	(YYYYMMDD-01)			nigh	Y -
APPROBATION FO	or:	al (Footprint)).	O	
	Foundation Approv	al (Key Tren	ch)		
	Fill Placement (pento mi	<u>×)</u>		9
	Other				
LOCATION		PREVIOUS A	PPROVATIONS		
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ELEVATION:	☑ VARIES				
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RESPECT TO THE	SPECIFICATIONS ACCORDING TO:		QA Y / N	QC Y	N/A
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	/ Snow / Water				
3. Gradation (visual)			_	
	(in regards to segregations, lift thi	ckness)			
5. Compaction		•			
6. Foundation	on Bedrock		$\sqrt{/}$	V/	
7. As built sur	vey completed				
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9					
ITEM	TO NUMBER ABOVE)			APPR	OVED BY:
				QA	QC
				_ 🗆	
4 DDD 61/77 T1/			SIGNATURE		DATE
APPROVED BY:	QA REPRESENTATIVE			0	11-01-

QC REPRESENTATIVE

OWNER REPRESENTATIVE

CERTIFICATE OF ACCEPTANCE OF FOUNDATION CONDITION - VAULT DIKE

Acceptance No.:		FND-VD- 9 Date: 29-02-13
This Certificate of Acceptan	ce includes the following	ng items, reviewed and accepted by the undersigned:
1) Foundation and Key Tren	nch Preparation and Ex	cavation Checklist (from SNC);
2) Sketch of the approximat	e accepted area, incl.	Station and Offset (according to Vault Dike Stations);
3) Photo of the accepted are	ea, at the moment of th	e acceptance;
4) Any other relevant docum	entation complementa	ry to this approval.
The area has been inspected	d and accepted by au	torised personnel representing Quality Control (QC) Program, Quality
Assurance (QA) Program at	nd the Owner Represe	ntative.
Topography of the approved	foundation surface ha	s been surveyed for documentation and as-built purposes, as
confirmed by the undersigned	d surveyor.	
The area is accepted as per	the foundation condition	ons at the time of the inspection and the condition of the foundation is
required to be maintained prior	or to and during fill place	ement.
Owner Representative	Name:	
	Position:	Rebecca Cameron Relier Com AEM- Owner rep, geotech eng
QC Representative	Name:	FABIEN ZILLI Sellelle
	Position:	INSPEC-SOL- COL DEP
QA Engineer	Name:	Harrie lie Lachance
	Position:	SNC- QA-REP
Surveyor	Name:	
	Position:	FGL- Caula fra de

28-02-13



Sustainable Mine Development Global Mining & Metallurgy 360, St-Jacques Street Montreal (Quebec) Canada H2Y 1P5

Telephone: (514) 393-1000 Fax: (514) 390-2765 www.snclavalin.com

PROJECT:	Construction of Vault Dike						
PROJECT#:	611614			DATE:	24-0	12-13	
DOCUMENT #:	20130724-01		CLIENT:	AEM			
	(YYYYMMDD-01)			:			
APPROBATION FO	or:	val (Footprint)					
	Foundation Approv	val (Key Trend	ch)				
	Fill Placement (enhomx)				
	Other						
LOCATION		PREVIOUS A	PROVAT	<u> </u>			
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TO:	01320	TO:					
ELEVATION:	VARIES						
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6. Foundation	on Bedrock		V				
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APPROVED BY:	QA REPRESENTATIVE		~	/		24	02-13
	QC REPRESENTATIVE	20	1/2	10	2	24-	-02-1

OWNER REPRESENTATIVE

Station: (

(Offset):

To Station: (

(Offset):

DOWNSTREAM BLAST LIMIT

-KEY TRENCH

09£18

000+0↓

WORKING -- PLATFORM LIMIT

Figure 1 - Approximate approved foundation area

Date: 174

Sketch by (Initial):

CERTIFICATE OF ACCEPTANCE OF FOUNDATION CONDITION - VAULT DIKE

Acceptance No.:		FND-VD- Q(Dat	te:	25-0	2-13
This Certificate of Acceptan	ice includes the followin	ng items, reviewed and a	accepted by the und	dersigned:		
1) Foundation and Key Tren	nch Preparation and Ex	cavation Checklist (from	ı SNC);			
2) Sketch of the approximate	e accepted area, incl. S	Station and Offset (acco	rding to Vault Dike S	Stations);		
3) Photo of the accepted are	ea, at the moment of th	e acceptance;			-	
4) Any other relevant docum	nentation complementa	ry to this approval.				
The area has been inspected	d and accepted by aut	torised personnel repres	enting Quality Cont	trol (QC) Pro	ogram, Quality	
Assurance (QA) Program a	nd the Owner Represe	ntative.				
Topography of the approved confirmed by the undersigne		s been surveyed for doo	umentation and as-	-built purpos	es, as	
The area is accepted as per	the foundation condition	ons at the time of the ins	pection and the con	dition of the	foundation is	
required to be maintained price	or to and during fill plac	cement.				
Owner Representative	Name:	Rebecca AEM- Owne	Corneron 1	Melres ex enos	- C-	
QC Representative	Name:	FABIEN	12111	200	1121	2
	Position:	INSPEC-SOL-	Oc b	Be	1 /	Marine a consistence
QA Engineer	Name:	Mariel	er lacha	nce	<u></u>	
	Position:	SNC-	A-re	P	<i>J</i>	
Surveyor	Name:		_11	1	1	
	Position:	FGL-	abo 16	we -	flee	
NOTES: 1. Original signed cer	rtificate must be given	to the Owner Represen	tative for document	ation record	c 2 Survey files)



Sustainable Mine Development Global Mining & Metallurgy 360, St-Jacques Street Montreal (Quebec) Canada H2Y 1P5

Telephone: (514) 393-1000 Fax: (514) 390-2765 www.snclavalin.com

PROJECT:	Constructio	n of Vault Dike						
PROJECT #:	611614				DATE:	25	-07-V	3
DOCUMENT #:	201302	25-01			CLIENT:	A	SM	
	(YYYYMMDD	- ula						
APPROBATION F	OR:	Foundation Approv	al (Footprint)					
	\Box_{I}	Foundation Approv	al (Key Tren	ch)				
		Fill Placement (bento-r	nix)				
		Other						
LOCATION			PREVIOUS AI	PPROVA	TIONS			
FROM STATION:	ot 32	0	FROM:					
TO:	End of	East Abutment	то:					
ELEVATION:	VARIES	,						
		m						
		_						
						ATIONS N	IADE BY:	
RESPECT TO THE	SPECIFICATION	ONS ACCORDING TO:		QA Y /	N	QC	N	N/A
1. Quotes and	d lines respec	ted		iν				
	/ Snow / Wat					9		
 Gradation (61						
	E	accurations lift thi	ol(mooo)	Ø		9		
	71 77	segregations, lift thi	ckness)					
5. Compaction								
	on Bedrock			V/				
7. As built sur	vey complete	d		V				
8								
9								
DETAILS (REFER	TO NUMBER A	BOVE)	,					
ITEM	TO NOMBER A	BOVE				AP	PROVED	BY:
						QA		QC
			Λ	-11-5				
				SIGNA	TURE			OATE
APPROVED BY:	QA REI	PRESENTATIVE	1				200	2-15
	QC REI	PRESENTATIVE	1	1//	1	7	05	22-1

OWNER REPRESENTATIVE

Approved Ated

Station: Of 32

(Offset):

Ind of East Rhyment (Offset): To Station:

WORKING --PLATFORM LIMIT

DOWNSTREAM BLAST LIMIT

KEY TRENCE

000+0-

SPOIL

0999

bento-my

Sketch by (Initial):

Date:

Figure 1 - Approximate approved foundation area

CERTIFICATE OF ACCEPTANCE OF FOUNDATION CONDITION - VAULT DIKE

Acceptance No.:		FND-VD- 2\ Date: 2013-03-06
This Certificate of Acceptar	nce includes the followin	ng items, reviewed and accepted by the undersigned:
1) Foundation and Key Tre	nch Preparation and Exc	cavation Checklist (from SNC);
2) Sketch of the approximation	te accepted area, incl. S	Station and Offset (according to Vault Dike Stations);
3) Photo of the accepted an		
4) Any other relevant docum	nentation complementary	y to this approval.
The area has been inspecte Assurance (QA) Program a		orised personnel representing Quality Control (QC) Program, Quality
confirmed by the undersigne	d surveyor. the foundation condition	been surveyed for documentation and as-built purposes, as
required to be maintained pride	or to and during fill place	ement.
Owner Representative	Name:	AEM- CHICK BY
QC Representative	Name:	Mélissa Sopointe Desbiens
	Position:	INSPEC-SOL- VILLAGO TOP TO BELLIA
QA Engineer	Name:	1-FRANIOIS ST-LANGENT
	Position:	SNC- Winner SI
Surveyor	Name:	Roberit Cloup TRE
	Position:	· FGL- Pole Clas



Telephone: (514) 393-1000 Fax: (514) 390-2765 www.snclavalin.com APPROBATION FORM

N/A
П
BY:
QC
ATE
13-07

Approved Area

DOWNSTREAM SP02 Place and compaction of fine filter amended with bontonite , -KEY TRENCH NAMED . **BLAST LIMIT** 092+6 Samples Fine filter amended with bentonite, (Offset): WORKING -PLATFORM To Station: ○+208 LIMI (Offset) 0+180 Station: 000+0

Figure 1 - Approximate approved Foundation

CERTIFICATE OF ACCEPTANCE OF FOUNDATION CONDITION - VAULT DIKE

Acceptance No.:		FND-VD- 22	Date:	2013-03-08
This Certificate of Acceptanc	e includes the followin	ng items, reviewed and accepte	d by the undersigned	d:
		cavation Checklist (from SNC);		
Photo of the accepted area			Vault Dike Stations)	;
4) Any other relevant docume	entation complemental	ry to this approval.		
		orised personnel representing (Quality Control (QC)	Program, Quality
Assurance (QA) Program and	d the Owner Represe	ntative.		
Topography of the approved for confirmed by the undersigned		s been surveyed for documenta	ition and as-built pur	poses, as
The area is accepted as per the required to be maintained prior		ns at the time of the inspection	and the condition of	the foundation is
		ement.		
Owner Representative	Name: Position:	AEM- MINEY RE)	
QC Representative	Name:	Helissa la	apointe	Desbiens
QA Engineer	Name:	ST-LAURENT	J-FRANCE	Japointe Dobin
Surveyor	Position: Name:	By CLOU	SILATTRE	
	Position:	FGL-	2000	



Sustainable Mine Development Global Mining & Metallurgy 360, St-Jacques Street Montreal (Quebec) Canada H2Y 1P5

APPROBATION FORM

Telephone: (514) 393-1000 Fax: (514) 390-2765 www.snclavalin.com

PROJECT:	Constructio	n of Vault Dike						***************************************	
PROJECT #:	611614				DATE:	2013-	.02-0	195	-
DOCUMENT #:	20130	308-01			CLIENT:		AEN		
	(YYYYMMDD	-01)					ALI	1	
APPROBATION F	or:	Foundation Appro-							
		Foundation Approv							_
		Fill Placement (5-20m	m+)	Bendo	1-1-	10		_
		Other				niv	•		_
LOCATION	•		PREVIOUS A	PPROV	ATIONS				7
FROM STATION:	0+50g	•	FROM:						
TO:	0+2	52	TO:			N. Control of the Con			
ELEVATION:	3 VARIES								
		m							
				1					-
RESPECT TO THE	SPECIFICATIO	NS ACCORDING TO:		Q,		CATIONS I			
				Y	N	Y	N	N/A	-
 Quotes and 	lines respecte	ed		Ø		i i			
2. Free of Ice /	Snow / Wate	r		X					
Gradation (v	risual)			XI					
4. Placement (in regards to	segregations, lift thic	ckness)	团					
Compaction			,	A					
6. Foundation	on Bedrock			-10		J		×	
As built surv	ey completed			Ø		П		~	
8									
9									
DETAILS (REFER T	O NUMBER AR	OVE	ı						J
ITEM						API	PROVED	BY:	
<u> </u>						QA		QC	
				ciont	TIPE)	0			
APPROVED BY:	OA REDE	RESENTATIVE	Nac	SIGNA	HURE		7955	ATE 2	ali
		RESENTATIVE	(Illino)	5 7/10	-			-03-	_
		REPRESENTATIVE	Molu	a yo	pouro	Jossin	201	3-03-	08
				0					

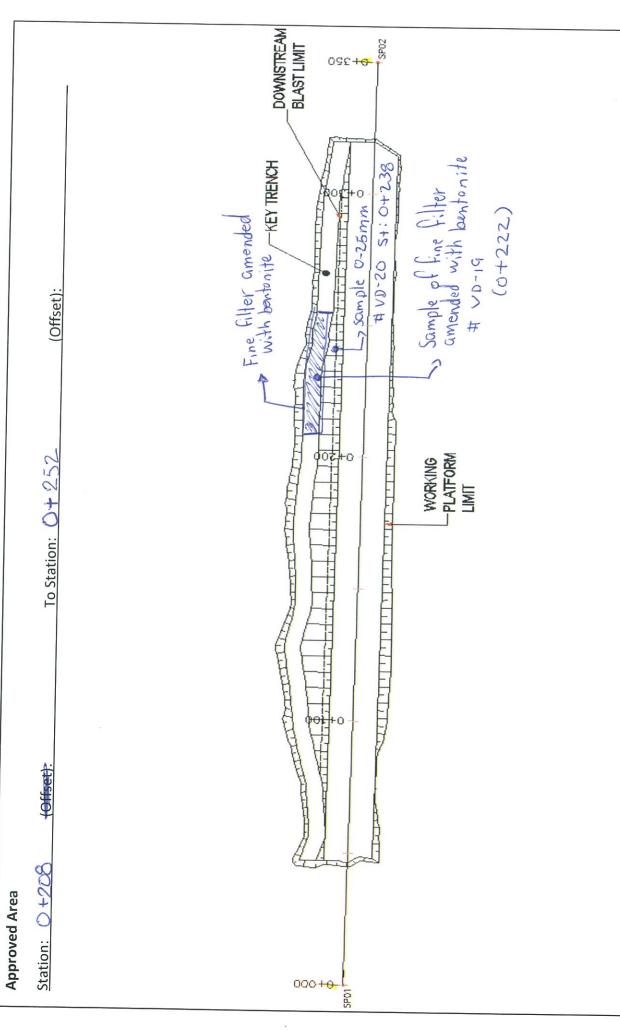


Figure 1 - Approximate approved foundation area

Date: 2013-03-08

Sketch by (Initial):

Cill

CERTIFICATE OF ACCEPTANCE OF FOUNDATION CONDITION - VAULT DIKE

Acceptance No.:	FND-	vd- 23	Date:	2013-03-09
This Certificate of Acceptance inclu	udes the following items, r	eviewed and ac	cepted by the undersigned	d:
1) Foundation and Key Trench Pre	paration and Excavation (Checklist (from S	SNC);	
2) Sketch of the approximate accept	pted area, incl. Station an	d Offset (accord	ling to Vault Dike Stations);
3) Photo of the accepted area, at the	ne moment of the accepta	nce;		
4) Any other relevant documentation	on complementary to this	approval.		
The area has been inspected and a	accepted by autorised pe	rsonnel represe	nting Quality Control (QC)	Program, Quality
Assurance (QA) Program and the	Owner Representative.			
Topography of the approved foundation	ation surface has been su	rveyed for docu	mentation and as-built pu	rposes, as
confirmed by the undersigned surve	eyor.			
The area is accepted as per the fou	undation conditions at the	time of the insp	ection and the condition of	f the foundation is
required to be maintained prior to a	nd during fill placement.			
Owner Representative	Name:	Jak	(XC)	
	Position: A	EM- Owne	r Rob.	
QC Representative	Name:	Mélis	sa lapointe	Desbieno
	Position:	ISPEC-SOL-	011 1	pointe Bull
QA Engineer	Name:	1- FRAN	ivis Steppe	ENI
	Position: S	NC- Fram	2015 54	Secretary and district and the secretary and the
Surveyor	Name:	Robe-	it clou	ATRE _
	Position: F	GL- D	oles c	25



Sustainable Mine Development Global Mining & Metallurgy 380, St-Jacques Street Montreal (Quebec) Canada H2Y 1P5

APPROBATION FORM

Telephone: (514) 393-1000 Fax: (514) 390-2765 www.snclavalin.com

PROJECT:	Construction	n of Vault Dike						
PROJECT #:					DATE:	2013-	03-0	G
DOCUMENT #:					CLIENT:	2010	AFN	1
	(YYYYMMDD	-01)					/1/-	
APPROBATION FO	OR:	Foundation Appro	val (Footprint)				
		Foundation Appro	val (Key Tren					
		Fill Placement (Subliner slope)	0-20	mm	+ Ben	20
		Other						
LOCATION			PREVIOUS A	PPROVA	TIONS			
FROM STATION:	254		FROM:					
TO:	303		то:	0				
ELEVATION:	VARIES					-		
		m						
		-						
						CATIONS N	MADE BY:	
RESPECT TO THE	SPECIFICATIO	ONS ACCORDING TO:		QA	77/	QC		N/A
(`1. Quotes and	lines respect	tod		Y	N	Y	N	
2. Free of Ice /				Z -				
3. Gradation (v		51		7				
1		segregations, lift thi	cknoce)	3				
5. Compaction		segregations, int till	CNI (CSS)	_				
6. Foundation				7				
 ✓. As built surv 		-	ă.	-	_		_	图
8. Slope is smoo		() () () () ()	-	X				
9.	Hrand Hat V	W do v w do	- 1	X				
5.								
DETAILS (REFER T	O NUMBER A	BOVE)						
ITEM						AP	PROVED	BY:
						QA		QC
				SIGNA	TUBE			ATE
APPROVED BY:	OA RED	RESENTATIVE	Kromm		JURE			3-09
		RESENTATIVE	M. I.	300	n., t	Dal		
		REPRESENTATIVE	THUMA	701	10mg	Jum.	13-03	5-09

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Approved Area

0+254 Station:

To Station: 0+303

(Offset):

with bentonite

000+0-

DOWNSTREAM

-KEY TRENCH

BLASTLIMIT

SP02

0

035+0

WORKING —PLATFORM LIMIT

- 2 compactions tests

Sketch by (Initial):

Date: 2013-03-09 Figure 1 - Approximate approved liner area

FOUNDATION AND KEY TRENCH PREPARATION AND ACCEPTATION

CERTIFICATE OF ACCEPTANCE OF FOUNDATION CONDITION - VAULT DIKE

Acceptance No.:		FND-VD- 24	Date:	2013-03-10
This Certificate of Acceptance	ce includes the followin	ng items, reviewed and accep	ated by the undersigne	d:
1) Foundation and Key Trend	ch Preparation and Exc	cavation Checklist (from SNO	D);	
2) Sketch of the approximate	accepted area, incl. S	Station and Offset (according	to Vault Dike Stations);
3) Photo of the accepted are	a, at the moment of the	e acceptance;		
4) Any other relevant docume	entation complementar	ry to this approval.		
The area has been inspected	and accepted by auto	orised personnel representin	g Quality Control (QC) Program, Quality
Assurance (QA) Program ar	nd the Owner Represer	ntative.		
Topography of the approved	foundation surface has	s been surveyed for docume	ntation and as-built pu	rposes, as
confirmed by the undersigned	d surveyor.			
The area is accepted as per t	the foundation condition	ns at the time of the inspection	on and the condition o	f the foundation is
required to be maintained prior	or to and during fill plac	cement.		
		<i>A</i>		
Owner Representative	Name:	500		
	Position:	AEM- OWNER	Rop.	
QC Representative	Name:	Mélissa lar	pointe Des	biens
	Position:	INSPEC-SOL-	Dělyn Sap	mildad struct
QA Engineer	Name:	J-FRANCOI	is 5,1-6	AGRENT
	Position:	SNC- France	sist.	
Surveyor	Name:	4	, ,	
	Position:	FGL-		



Sustainable Mine Development Global Mining & Metallurgy 380, St-Jacques Street Montreal (Quebec) Canada H2Y 1P5

APPROBATION FORM

PROJECT:	Construction	on of Vault Dike						
PROJECT #:	611614				DATE:	13-0	3-10	
DOCUMENT #:	2013031	0-01			CLIENT:	AE		
	(YYYYMMDD						1,1	
APPROBATION F	OR:	Foundation Appro	val (Footprint)				
		Foundation Appro	val (Key Tren	ch)				
		Fill Placement (Subliner slope)	0-20	mm	+ B	en Jon to
		Other						
LOCATION	•		PREVIOUS A	PPROVA	TIONS			
FROM STATION:	303		FROM:					
то:	322		то:					
ELEVATION:	X VARIES		1					
		m						
DEADEAT						CATIONS I		
RESPECT TO THE	SPECIFICATIO	ONS ACCORDING TO:		Q.A Y		QC		N/A
Quotes and	lines respect	ted			И	Y	N	
	Snow / Wate			1	_			
3. Gradation (v		51		Ø				
	-	segregations, lift thi	oknogo)	Ø.				
5. Compaction		segregations, int till	CKITESS)	Ø				
6. Foundation				X				
				_	_	_	_	X
7. As built surv		u .		X				
8. Slope is smoo	oth and Hat							
9								
DETAILS (REFER 1	O NUMBER A	BOVE)						
ITEM						AP	PROVED	BY:
						QA		QC
						. 📮		
	101			cicus	TUDE		_	
APPROVED BY:	OA BED	RESENTATIVE	Kan	SIGNA	III -		4.00	ATE
		RESENTATIVE	Charling	2 7/3	2	77	13-03	-14
		REPRESENTATIVE	-alls mas	v Zo	hg MMG	Ov.	15-08	- 10

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Approved Area

Station: 0+303

To Station: 0+323

(Offset):

WORKING PLATFORM LIMIT

Fine Filter Amended W with bentonite (0+303+0 0+323)

DOWNSTREAM

-KEY TRENCH

BLAST LIMIT

SP02

055+0

THE TAXABLE PARTY OF THE PARTY OF TAXABLE PARTY OF THE PARTY OF TAXABLE PA

000+0

SPO1

Sketch by (Initial):

Figure 1 - Approximate approved subliner slope area $\frac{1}{2013}$ - $\frac{1}{3013}$ - $\frac{1}{3013}$ - $\frac{1}{3013}$

CERTIFICATE OF ACCEPTANCE OF LINER CONDITION - VAULT DIKE

Acceptance No.:		LINER-VD-	Date:	2013-03-05
This Certificate of Acceptance	e includes the following	g items, reviewed and accepted	by the undersigne	d:
1) Foundation and Key Trenc	h Preparation and Exc	cavation Checklist (from SNC);		
2) Sketch of the approximate	accepted area, incl. S	tation and Offset (according to \	/ault Dike Stations);
3) Photo of the accepted area	a, at the moment of the	e acceptance;		
4) Any other relevant docume	entation complementar	y to this approval.		
The area has been inspected	and accepted by auto	prised personnel representing Q	uality Control (QC) Program, Quality
Assurance (QA) Program, Lir	ner Quality Control (Te	exel) and the Owner Representa	itive.	
Topography of the approved li	ner surface has been	surveyed for documentation and	d as-built purposes	s, as
confirmed by the undersigned	surveyor.			
The area is accepted as per th	ne liner conditions at th	ne time of the inspection and the	condition of the lir	ner is
required to be maintained prior				
Owner Representative	Name:	for For)	
	Position:	AEM- OWNER R		
QC Representative	Name:	INSPEC-SOL- Meli	ssa Labo	inte Desbiens
Liner Quality Control Rep	Name:	TEXEL- ADD	royal from	m texel
QA Engineer	Name:	St LAUREN	T J-FR	Amois
	Position:	SNC- Memuji	SIL	
Surveyor	Name:	R, Clou	ATR	E
	Position:	FGL- 120	50	



Sustainable Mine Development Global Mining & Metallurgy 380, St-Jacques Street Montreal (Quebec) Canada H2Y 1P5

APPROBATION FORM

Telephone: (514) 393-1000 Fax: (514) 390-2765 www.snclavalin.com

PROJECT:	Constructio	n of Vault Dike						TOTAL ACTION AND ADDRESS OF THE SECOND
PROJECT #:	611614				DATE:	2013	-03-1	05
DOCUMENT #:	2013 03				CLIENT:	AEM	1	
	(YYYYMMDD	-01)						
APPROBATION FO	DR:	Foundation Appro	val (Footprint)				
		Foundation Appro	val (Key Tren	ich)				
		Fill Placement ()				
		Other Liner						
LOCATION			PREVIOUS A	PPROVA	TIONS			
FROM STATION:	120		FROM:					
то:	160		то:			The second secon		
ELEVATION:	N VARIES			***************************************				
		m						
					100000000000000000000000000000000000000	CATIONS N	MADE BY:	
RESPECT TO THE	SPECIFICATIO	NS ACCORDING TO:		Q.A		QC		N/A
Quotes and	lines respect	red		Y 23.	И	Y	И	
	cracks or rips							
3. Liner is smoo		<u>D</u> +						
4. Welding done		waves of bumps)		XI				3 .
5. As built surve						_		
6. Patches done				B				
7. Liner QC tests				X				
9.	: 1							
	v v							
DETAILS (REFER T	O NUMBER A	BOVE)						
ITEM							PROVED	
						QA		QC
						ō		
3			~	SIGNA	TURE		D.	ATE
APPROVED BY:	QA REP	RESENTATIVE	(Iromoic	51	0			03.05
	QC REP	RESENTATIVE	Melina	Solo	nte 1	drum	2013	03-75
	OWNER	REPRESENTATIVE	7	0//	-	- Coming		
	LINER QC	REPRESENTATIVE						
1.11					1 1		11	

It the bottom Mope line was placed during the morning under the other crew supervision. So it is not possible for me to approve it.

04160

To Station:

0+170

Station:

Approved Area

DOWNSTREAM BLASTLIMIT 092+6 -KEY TRENCH St: 0+120 to 0+160) (Offset): · Geomembrane horizontal * Bottom The was installed under the other WORKING order supervision. 000+0-SP01

Figure 1 - Approximate approved liner area

Date: 20/3-03-05

Sketch by (Initial):

CERTIFICATE OF ACCEPTANCE OF LINER CONDITION - VAULT DIKE

Acceptance No.:		LINER-VD- 02	Date:	2013-03-06
This Certificate of Acceptance	e includes the followin	ng items, reviewed and accepted	by the undersigne	ed:
1) Foundation and Key Trench	h Preparation and Ex	cavation Checklist (from SNC);		
2) Sketch of the approximate	accepted area, incl. S	Station and Offset (according to V	ault Dike Stations	;);
3) Photo of the accepted area	, at the moment of the	e acceptance;		
4) Any other relevant docume	ntation complementar	ry to this approval.		
The area has been inspected	and accepted by aut	torised personnel representing Qu	uality Control (QC) Program, Quality
Assurance (QA) Program, Lin	ner Quality Control (To	exel) and the Owner Representa	tive.	
Topography of the approved li	ner surface has been	surveyed for documentation and	d as-built purposes	s, as
confirmed by the undersigned	surveyor.			
The area is accepted as per th	ne liner conditions at t	he time of the inspection and the	condition of the li	ner is
required to be maintained prior	to and during fill plac	cement.		
		J		
Owner Representative	Name:	LANGETE)	
	Position:	AEM-		
QC Representative	Name:	INSPEC-SOL-	ssa lapo	inte Desbiens
Liner Quality Control Rep	Name:	TEXEL- See And	. (ntexel
QA Engineer	Name:	J-Physiai St	- LAWREN	1
	Position:	SNC- Mamin 5th		•
Surveyor	Name:	Ricia	1 TADE	7
	Position:	FGL-	M/11/	
		00		



Sustainable Mine Development Global Mining & Metallurgy 380, St-Jacques Street Montreal (Quebec) Canada H2Y 1P5

APPROBATION FORM

PROJECT: Construction	n of Vault Dike					
PROJECT #: (1/6/4)			DATE:	20 3-	03-00	0
DOCUMENT#: 2013 03 01	6-01		CLIENT:	AE		
(YYYYMMDD	-01)					
APPROBATION FOR:	Foundation Approval (Foot	tprint)				
	Foundation Approval (Key	Trench)				
	Fill Placement ()	93			
100	Other Liner					
LOCATION	PREVIO	US APPROV	ATIONS			
FROM STATION: 160	FR	OM:				
то: 2/4		то:				_ =
ELEVATION: A VARIES		***************************************				
	m					
	-, (Citi					
			VERIFI	CATIONS I	MADE BY:	
RESPECT TO THE SPECIFICATION	ONS ACCORDING TO:	Q		QC		N/A
Quotes and lines respect	tod	Y	И	Y	И	
	led					
Tree tree er delte er rips		Ä				
- India to difficulti and flat (file	o waves or bumps)					23
4. Welding done properly		Ø				
5. As built survey completed		>				
6. Patches done?		X		1001700		
7. Liner QC tests done?		X				
8.						
9						
DETAILS (REFER TO NUMBER AS	BOVE)					
ITEM //	0 11 0	0 1		AP	PROVED	BY:
3 Not possible +	o respect that specifi	alm be	cause	QA		QC
line is nationally	bump and lines	redding i	\$			
not perfect				. 님		
	Are seemed and seemed	2121	TUDE		_	
APPROVED BY: OA REP	RESENTATIVE MA		TURE		S	ATE 7
	RESENTATIVE ///	moj Str	17	1	2013-0	
			. T. 1 10	- I - I AdaA	1111111	4/16 4/11
OWNER	REPRESENTATIVE	To to	me 120	stiem	2013	03-06

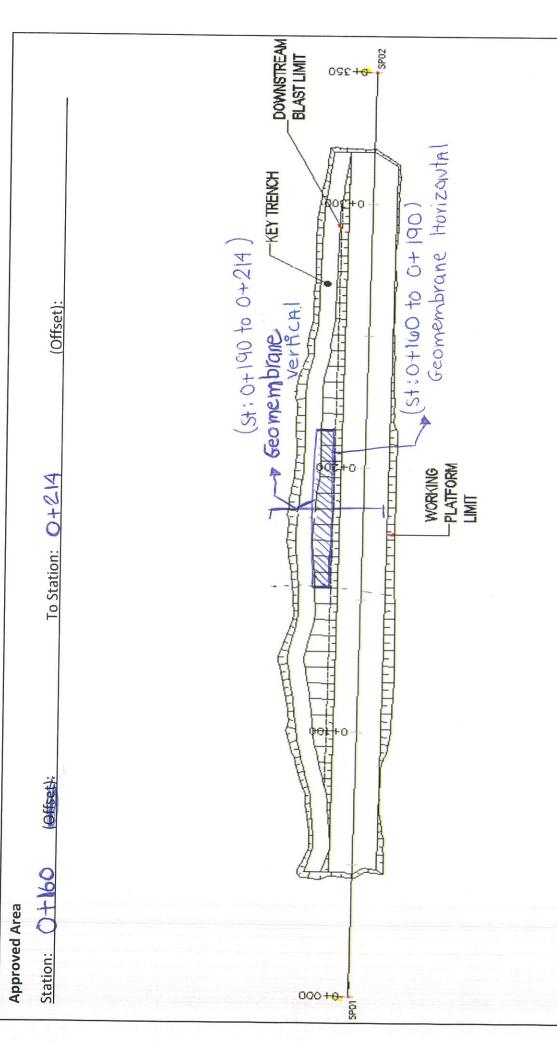


Figure 1 - Approximate approved liner area

Date: 2013-03-04

Sketch by (Initial):

CERTIFICATE OF ACCEPTANCE OF LINER CONDITION - VAULT DIKE

Acceptance No.:		LINER-VD- 03	Date:	2013-03-07
This Certificate of Acceptance i	ncludes the followin	ig items, reviewed and accepted b	by the undersigne	ed:
1) Foundation and Key Trench	Preparation and Exc	cavation Checklist (from SNC);		
2) Sketch of the approximate ac	ccepted area, incl. S	Station and Offset (according to Va	ault Dike Stations	s);
3) Photo of the accepted area, a	at the moment of the	e acceptance;		
4) Any other relevant document	ation complementar	ry to this approval.		
		orised personnel representing Qu		c) Program, Quality
Assurance (QA) Program, Line	r Quality Control (Te	exel) and the Owner Representati	ive.	
Topography of the approved line	er surface has been	surveyed for documentation and	as-built purpose	s, as
confirmed by the undersigned so	urveyor.			
The area is accepted as per the	liner conditions at the	he time of the inspection and the	condition of the li	iner is
required to be maintained prior to	o and during fill plac	cement.		
Owner Representative	Name:	AEM-OLION R		
QC Representative	Name:	INSPEC-SOL-		
Liner Quality Control Rep	Name:	TEXEL- SE ADDI	ssa lap	pointe Desbiens
QA Engineer	Name:	FRAMON SH	AUDENT	M (exe)
	Position:	SNC- Francos	SHS	2
Surveyor	Name:	R	VATB	E
	Position:	FGL- Pre	20	s ce



Sustainable Mine Development Global Mining & Metallurgy 380, St-Jacques Street Montreal (Quebec) Canada H2Y 1P5

APPROBATION FORM

PROJECT:	Cons	structio	on of Vault Dike						
PROJECT #:	611	6141	The second secon		***************************************	DATE:	2012	5-03-	-07
DOCUMENT #:	2013	030	7-01			CLIENT:	Δ	FIL	· ·
	(YYY	YMMDD	1-01)						
APPROBATION F	OR:		Foundation Appro	val (Footprint)				
			Foundation Appro	val (Key Tren	ich)				
			Fill Placement ()				
		200	Other Liner						
LOCATION				PREVIOUS A	PPROV	ATIONS			
FROM STATION:	214	/		FROM:					
TO:	23	7		TO:					
ELEVATION:	T v	ARIES							-
ELEVATION.	70 v	ARIES	m						
			- ***						
			VERIFICA		CATIONS	ATIONS MADE BY:			
RESPECT TO THE	RESPECT TO THE SPECIFICATIONS ACCORDING TO:				Q.		QC	:	N/A
Quotes and	linos r	oonoot	la d		Y	И	Y	И	
			led		XP.				
		2.50			X				
			waves or bumps)						∠
 Welding done As built surve 					Ø				
6. Patches done		Jieted			M				
		_			DX1				
7. Liner QC test				15	Ø				
9									
DETAILS (REFER T	ONUM	BER AE	BOVE)						
ITEM		1 1					AP	PROVED	BY:
3. As	Yes	Jevda	y.				QA		QC
			V						
					SIGN,A	TURE		n	ATE
APPROVED BY:	Q	A REP	RESENTATIVE	Francis	Sil				03-07
	Q	C REP	RESENTATIVE	Vielian	a fo	Rente T	Joshiw		03-07
	0	WNER	REPRESENTATIVE	A NOVE	P) vvvu j	Je July	2013-	-02-07
	LII	NER QC	REPRESENTATIVE	The state of the s	7				

Approved Area

DOWNSTREAM SP02 BLASTLIMIT 092+0 (st: 0+214 to 0+237. Seomembrang-KEY TRENCH (Offset): WORKING -PLATFORM LIMIT 000+0 To Station: 0+237 0+714 Station: 000+0-SPO1

Figure 1 - Approximate approved liner area

Sketch by (Initial):

Date: 2013 - 03 - 07

CERTIFICATE OF ACCEPTANCE OF LINER CONDITION - VAULT DIKE

LINER-VD- 04

Acceptance No.:	3	LINER-VD- 04	Date:	2013-03-08
This Certificate of Acceptanc	e includes the followin	g items, reviewed and accepte	ed by the undersigne	d:
1) Foundation and Key Trend	ch Preparation and Exc	cavation Checklist (from SNC);	;	
2) Sketch of the approximate	accepted area, incl. S	tation and Offset (according to	Vault Dike Stations);
3) Photo of the accepted area	a, at the moment of the	e acceptance;	8	
4) Any other relevant docume	entation complementar	y to this approval.		9.8
The area has been inspected	and accepted by auto	orised personnel representing	Quality Control (QC) Program, Quality
Assurance (QA) Program, Li	ner Quality Control (Te	exel) and the Owner Represen	itative.	
Topography of the approved I	iner surface has been	surveyed for documentation a	and as-built purposes	s, as
confirmed by the undersigned	surveyor.			
The area is accepted as per the	he liner conditions at the	he time of the inspection and th	ne condition of the li	ner is
required to be maintained prio	r to and during fill plac	ement.		
		Á		
Owner Representative	Name:	500	of)	
	Position:	AEM- OWNER		
QC Representative	Name:	INSPEC-SOL-	lissa long	inte Desbiens
Liner Quality Control Rep	Name:	TEXEL- SOP AO	porava l fran	utexel
QA Engineer	Name:	J-Francois	St-LAVA	AFAV)
	Position:	SNC- WAMUSIN	SILS	
Surveyor	Name:	R. Chay	ATRE	
	Position:	FGL- TLoC	2 6	



Sustainable Mine Development Global Mining & Metallurgy 380, St-Jacques Street Montreal (Quebec) Canada H2Y 1P5

APPROBATION FORM

PROJECT:	Constructio	n of Vault Dike						***************************************	
PROJECT #:	6/16/4				DATE:	2013-1	03-08		-
DOCUMENT #:	201303	09-01			CLIENT:	AE	The state of the s		-
	(YYYYMMDD	-01)							
APPROBATION FO	DR:	Foundation Appro		•					
		Foundation Appro	val (Key Tren	ch)		0			-
		Fill Placement ()					-
	2.45	Other Liner							-
LOCATION			PREVIOUS A	PPROVA	ATIONS				1
FROM STATION:	237	-	FROM:						
TO:	258		TO:						
ELEVATION:	N VARIES								
		m							
		_							
						CATIONS N			
RESPECT TO THE	SPECIFICATIO	INS ACCORDING TO:		Q/ Y	A N	QC Y	N	N/A	-
1. Quotes and	lines respect	ted		B		<u> </u>			
2. Liner has no	-			A					
		waves or bumps)						Z	
4. Welding done		, , , , , , , , , , , , , , , , , , , ,		X					
5. As built surve				Ø					
6. Patches done	?			43	X				
7. Liner QC test	s done?			Ά.		П		П	
9.									
DETAILS (REFER T	O NUMBER A	BOVE)				4.0	DROVED	DV.	
						QA	PROVED	QC	
			N	/	TURE	2		ATE	
APPROVED BY:		RESENTATIVE	Jum	27 51				-03-0	29
		RESENTATIVE	Helm	a &	Span	de D.	2013	.03-0	8
		REPRESENTATIVE	-1-1					-	*

Approved Area

DOWNSTREAM BLASTLIMIT 092+6 (St:0+237 to 0+258) -KEY TRENCH Fix Geomembrane (Offset): THE THE PERSON OF THE PERSON O To Station: 0+258WORKING -PLATFORM 101-0 Station: 000+0

Figure 1 - Approximate approved liner area

Date: 2013-03-08

Sketch by (Initial):

シェック 多様・200万年 - 種

CERTIFICATE OF ACCEPTANCE OF LINER CONDITION - VAULT DIKE

Acceptance No.:		LINER-VD-	Date:	2013-03	-09
This Certificate of Acceptance	e includes the followin	g items, reviewed and accepted	d by the undersigne	d:	
Foundation and Key Trenc	h Preparation and Exc	cavation Checklist (from SNC);			
		Station and Offset (according to);	
3) Photo of the accepted area					
4) Any other relevant docume					
The area has been inspected	and accepted by aut	orised personnel representing (Quality Control (QC) Program, Quality	
Assurance (QA) Program, Lir	ner Quality Control (Te	exel) and the Owner Represent	tative.		
Topography of the approved li	iner surface has been	surveyed for documentation an	nd as-built purposes	s, as	
confirmed by the undersigned	surveyor.				
The area is accepted as per th	ne liner conditions at t	he time of the inspection and th	ne condition of the li	ner is	
required to be maintained prior	r to and during fill plac	ement.	-		
Owner Representative	Name:	ENOVANT			
	Position:	AEM- Whey Re))))		
QC Representative	Name:	INSPEC-SOL- ME	lissa lac	pointe P	
Liner Quality Control Rep	Name:	TEXEL-	or lot		
QA Engineer	Name:	1 FRANÇIS	StUAUR	ENT	
	Position:	SNC- Mamy	SH		
Surveyor	Name:	1 R	CLOWA	TITE	
	Position:	FGL- The	250	45	



Sustainable Mine Development Global Mining & Metallurgy 380, St-Jacques Street Montreal (Quebec) Canada H2Y 1P5

APPROBATION FORM

PROJECT:	Constructio	n of Vault Dike						
PROJECT #:	611614				DATE:	2013-	-03-0	9
DOCUMENT #:	201303	09-01			CLIENT:		AEM	
	(YYYYMMDD	-01)						
APPROBATION FO	OR:	Foundation Appro	oval (Footprint)				
		Foundation Appro	oval (Key Tren	ich)				
		Fill Placement ()				
	A. Sain	Other Liner						
LOCATION			PREVIOUS A	PPROVA	ATIONS			
FROM STATION:	260		FROM:					
то:	312		то:			-10		
ELEVATION:	VARIES							
	7	m						
9								
			VERIFICATIONS MADE BY:					
RESPECT TO THE	SPECIFICATIO	INS ACCORDING TO:		Q/ Y		QC		N/A
Quotes and	lines respect	ted			И	Y	N	
2. Liner has no	•			⊠				
	((5))	o waves or bumps)						Ż
4. Welding done		,		Z)				
5. As built surve	20 12 20			ZI				
6. Patches done					_		0	-
7. Liner QC test	s done?			[N]				
8. Slope is	smooth	3 Flat	1.0	Ø				
9.								
DETAILS (REFER 1	TO NUMBER A	BOVE)				4.0	DDOVED	DV.
						QA	PROVED	QC

			N.	SIGNA	TURE		D.	ATE 17-09
APPROVED BY:		RESENTATIVE	Name	417	7			
		RESENTATIVE	Melis	5a 1	apont	KLV	13-03	- 04
		REPRESENTATIVE					-	
	LINER Q	C REPRESENTATIVE						

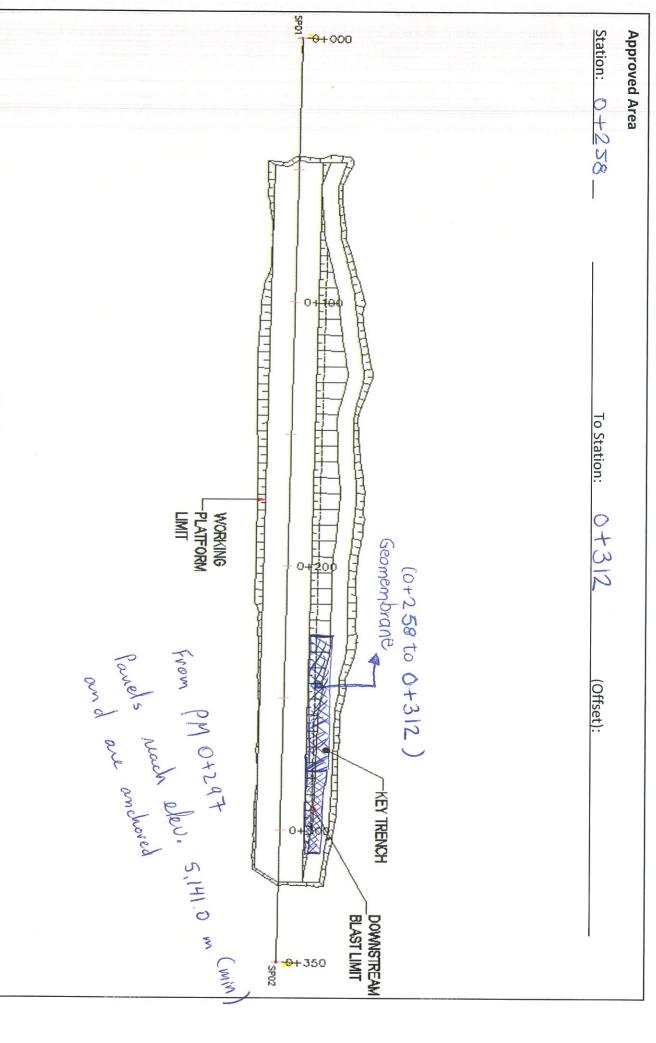


Figure 1 - Approximate approved liner area

Date:

2013-03-09

Sketch by (Initial):

CERTIFICATE OF ACCEPTANCE OF LINER CONDITION - VAULT DIKE

Acceptance No.:		LINER-VD- 2013-03-10
This Certificate of Acceptance	e includes the followin	ng items, reviewed and accepted by the undersigned:
1) Foundation and Key Trenc	h Preparation and Exc	xcavation Checklist (from SNC);
2) Sketch of the approximate	accepted area, incl. S	Station and Offset (according to Vault Dike Stations);
3) Photo of the accepted area	a, at the moment of the	ne acceptance;
4) Any other relevant docume	ntation complementar	ary to this approval.
The area has been inspected	and accepted by auto	utorised personnel representing Quality Control (QC) Program, Quality
Assurance (QA) Program, Lir	ner Quality Control (Te	Texel) and the Owner Representative.
Topography of the approved li	iner surface has been	n surveyed for documentation and as-built purposes, as
confirmed by the undersigned	surveyor.	
The area is accepted as per th	he liner conditions at tl	the time of the inspection and the condition of the liner is
required to be maintained prior	r to and during fill plac	icement.
Owner Representative	Name:	(16)697)
owner representative		
owner representative	Position:	AEM- Whet Rep
	Position:	NIGING
QC Representative		- Wid rep
QC Representative iner Quality Control Rep	Name:	INSPEC-SOL- Mélissa lapointe Desbieno
QC Representative iner Quality Control Rep	Name:	INSPEC-SOL- Mélissa lapointe Desbiens TEXEL-
QC Representative Liner Quality Control Rep QA Engineer Surveyor	Name: Name:	INSPEC-SOL- Mélissa lapointe Desbiens TEXEL- 1-FRANCIS STLAMENT



Sustainable Mine Development Global Mining & Metallurgy 360, St-Jacques Street Montreal (Quebec) Canada H2Y 1P5

APPROBATION FORM

PROJECT:	Construction	n of Vault Dike							
PROJECT #:	611614				DATE:	2013-	03-10		-
DOCUMENT #:	2013 03	2013 03/0-0							=
	(YYYYMMDD	-01)				AEM			
APPROBATION F	OR:	Foundation Appro	val (Footprin	t)					
		Foundation Appro	val (Key Trer	nch)					-
		Fill Placement ()					-
		Other Liner							-
LOCATION	•		PREVIOUS A	PPROVA	ATIONS				1
FROM STATION:	0+73	to 113	FROM:						
} ₹∂ :	312 to	321	то:						
ELEVATION:	☑ VARIES								
		m							
					VERIEI	CATIONS N	MADE BY:		-
RESPECT TO THE	SPECIFICATIO	NS ACCORDING TO:		Q/		QC		N/A	
				Y	И	Y	И		1
 Quotes and 	lines respect	ted							
Liner has no				3					
Liner is smooth	oth and flat (no	waves or bumps)						×	
4. Welding don				Y					
5. As built surve	ey completed			X					
Patches done	?			Ø					
Liner QC test	s done?			X					
8									
9									
DETAILS (REFER 1	TO NUMBER A	BOVE)			'				•
ITEM						AP	PROVED	BY:	
						QA		QC	
			,	SIGNA	TURE	7]		ATE	
APPROVED BY:	QA REP	RESENTATIVE	Vrama	SIGNA	4	/		<u>-03</u> -	10
		RESENTATIVE	11/1/	15/1	A D	مارم			-
		REPRESENTATIVE	Justin	Ocho	mo D	Bung	2013	.03-10	
		REPRESENTATIVE							

Sketch by (Initial)

Figure 1 - Approximate approved liner area

Print 09/03/2013 1:55 PM

X:\Vault Dike\13- Foundation Approval\LINER-VD-0X_template 2013.xls

CERTIFICATE OF ACCEPTANCE OF LINER CONDITION - VAULT DIKE

Acceptance No.:		LINER-VD- 07	Date:	2013-03-12
This Certificate of Acceptance	e includes the following	g items, reviewed and accepted	hy the undersigned	
	o molados the following	g items, reviewed and accepted	by the undersigned	
1) Foundation and Key Trend	ch Preparation and Exc	cavation Checklist (from SNC);		
2) Sketch of the approximate	accepted area, incl. S	tation and Offset (according to	Vault Dike Stations);	
3) Photo of the accepted area	a, at the moment of the	acceptance;		
4) Any other relevant docume	entation complementar	y to this approval.		
The area has been inspected	and accepted by auto	prised personnel representing C	Quality Control (QC)	Program, Quality
		exel) and the Owner Representa		
Topography of the approved I		surveyed for documentation ar	nd as-built purposes,	as
The area is accepted as per the	he liner conditions at th	ne time of the inspection and the	e condition of the line	er is
required to be maintained prio	r to and during fill place	ement.		
Owner Representative	Name:	. \	N (
	Position:	AEM-	Jan.	0
QC Representative	Name:	INSPEC-SOL- VEL	esc lamin	ate Desbieno
Liner Quality Control Rep	Name:	TEXEL-	sou lapoir	The Despiero
QA Engineer	Name:	J.F. Ranoi	Slan	10
	Position:	SNC- Vin	2	-
Surveyor	Name:	1		
	Position:	FGL-		
NOTEC 4 O				



Sustainable Mine Development Global Mining & Metallurgy 360, St-Jacques Street Montreal (Quebec) Canada H2Y 1P5

APPROBATION FORM

PROJECT #: 4/1-4/4 DOCUMENT #: 4/1-31/2 # CHA 031/2 # CHENT: 4/1-31/2 # CHENT: 4/1-3	PROJECT:	Construction of Vault Dike							
APPROVED BY: QA 031) # CLIENT: QEM CHENT: QEM CHENT	PROJECT #:	611614 DATE: 2013-03-12)	
APPROBATION FOR: Foundation Approval (Footprint)	DOCUMENT #:								
Foundation Approval (Key Trench) Fill Placement (Other Liner Other Liner									
Fill Placement (Other Liner Other Liner	APPROBATION FO	or:							
Other Liner Cocation			Foundation Approv	val (Key Tren	ich)				
PREVIOUS APPROVATIONS FROM: TO: Comparison			Fill Placement ()				
FROM STATION: 46 to 73 FROM: 1			Other Liner						
RESPECT TO THE SPECIFICATIONS ACCORDING TO: 1. Quotes and lines respected 2. Liner has no cracks or rips 3. Liner is smooth and flat (no waves or bumps) 4. Welding done properly 5. As built survey completed 6. Patches done? 7. Liner QC tests done? 8	LOCATION			PREVIOUS A	PPROVA	TIONS			
ELEVATION: VARIES M RESPECT TO THE SPECIFICATIONS ACCORDING TO: 1. Quotes and lines respected 2. Liner has no cracks or rips 3. Liner is smooth and flat (no waves or bumps) 4. Welding done properly 5. As built survey completed 6. Patches done? 7. Liner QC tests done? 8	FROM STATION:	40 1	0 '73	FROM:					
RESPECT TO THE SPECIFICATIONS ACCORDING TO: QA QC N/A 1. Quotes and lines respected 2. Liner has no cracks or rips 3. Liner is smooth and flat (no waves or bumps) 4. Welding done properly 5. As built survey completed 6. Patches done? 7. Liner QC tests done? 8. 9.	3 ==	//3 to	191	то:					
RESPECT TO THE SPECIFICATIONS ACCORDING TO: QA QC N/A 1. Quotes and lines respected 2. Liner has no cracks or rips 3. Liner is smooth and flat (no waves or bumps) 4. Welding done properly 5. As built survey completed 6. Patches done? 7. Liner QC tests done? 8. 9.	ELEVATION:	VARIES							
APPROVED BY: QA QC N/A QC N/A 1. Quotes and lines respected 2. Liner has no cracks or rips 3. Liner is smooth and flat (no waves or bumps) 4. Welding done properly 5. As built survey completed 6. Patches done? 7. Liner QC tests done? 8.		**	m						
APPROVED BY: QA QC N/A QC N/A 1. Quotes and lines respected 2. Liner has no cracks or rips 3. Liner is smooth and flat (no waves or bumps) 4. Welding done properly 5. As built survey completed 6. Patches done? 7. Liner QC tests done? 8.			-						
1. Quotes and lines respected 2. Liner has no cracks or rips 3. Liner is smooth and flat (no waves or bumps) 4. Welding done properly 5. As built survey completed 6. Patches done? 7. Liner QC tests done? 8						VERIFI	CATIONS N	MADE BY:	
1. Quotes and lines respected 2. Liner has no cracks or rips 3. Liner is smooth and flat (no waves or bumps) 4. Welding done properly 5. As built survey completed 6. Patches done? 7. Liner QC tests done? 8	RESPECT TO THE	SPECIFICATIO	ONS ACCORDING TO:						N/A
2. Liner has no cracks or rips 3. Liner is smooth and flat (no waves or bumps) 4. Welding done properly 5. As built survey completed 6. Patches done? 7. Liner QC tests done? 8	1 Ouotes and	lines respect	tod		_	_	_		_
3. Liner is smooth and flat (no waves or bumps) 4. Welding done properly 5. As built survey completed 6. Patches done? 7. Liner QC tests done? 8			ied			_		_	_
4. Welding done properly 5. As built survey completed 6. Patches done? 7. Liner QC tests done? 8						_		_	_
5. As built survey completed 6. Patches done? 7. Liner QC tests done? 8			waves or bumps)		_	_		_	
6. Patches done? 7. Liner QC tests done? 8						_		_	_
7. Liner QC tests done? 8					1 Section 1				
8		537.5				_	_	_	_
DETAILS (REFER TO NUMBER ABOVE) ITEM APPROVED BY: QA QC QA QC QA QC APPROVED BY: QA REPRESENTATIVE QC REPRESENTATIVE QC REPRESENTATIVE OWNER REPRESENTATIVE OWNER REPRESENTATIVE	- 22					_		_	
DETAILS (REFER TO NUMBER ABOVE) ITEM APPROVED BY: QA QC QA QC APPROVED BY: QA REPRESENTATIVE QC REPRESENTATIVE OWNER REPRESENTATIVE OWNER REPRESENTATIVE						_		_	_
APPROVED BY: QA QC QA QA QC QA QA QC QA	9.								
APPROVED BY: QA QC QA QA QC QA QA QC QA	DETAILS (REFER 1	TO NUMBER AL	BOVE)						
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APPROVED BY: QA REPRESENTATIVE QC REPRESENTATIVE OWNER REPRESENTATIVE OWNER REPRESENTATIVE OWNER REPRESENTATIVE							QA		QC
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APPROVED BY: QA REPRESENTATIVE QC REPRESENTATIVE OWNER REPRESENTATIVE OWNER REPRESENTATIVE					SIGNA	TURE		D	ATE
OWNER REPRESENTATIVE OWNER REPRESENTATIVE AUGUST Appendi Doob com 2013-03-12	APPROVED BY:	QA REP	RESENTATIVE	Kran.	5 54		2	95.1	-
OWNER REPRESENTATIVE				Valuation	Han	unto Di	nhimm	2 15	
LINER QC REPRESENTATIVE		OWNER	REPRESENTATIVE	THEMADO	July	VIW ON	7		V
		LINER Q	REPRESENTATIVE		end	1/			

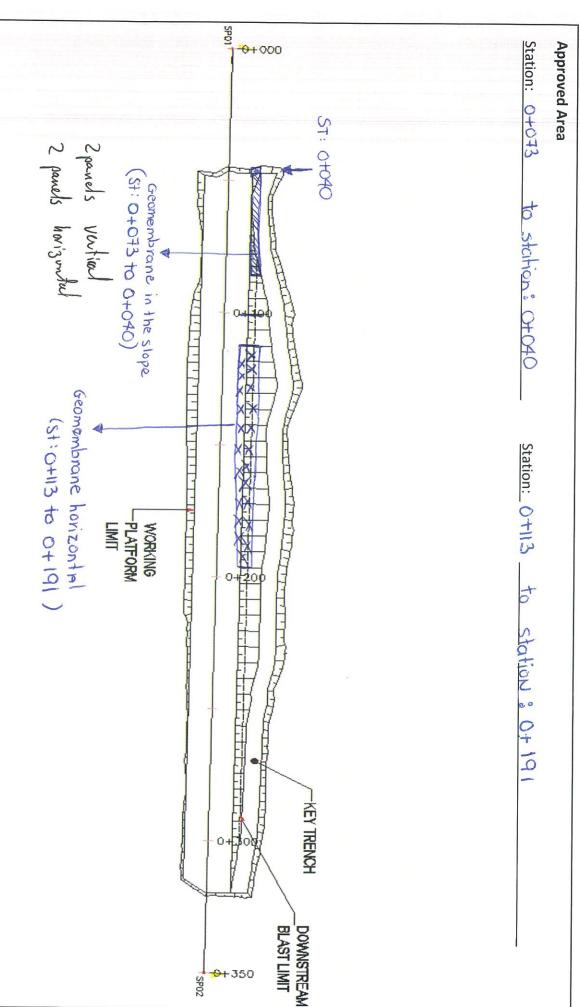


Figure 1 - Approximate approved liner area

Date:

2013-03

Sketch by (Initial):

arce

1.1/2

CERTIFICATE OF ACCEPTANCE OF LINER CONDITION - VAULT DIKE

Acceptance No.:		LINER-VD- 08	Date:	2013-03-13
This Contificate of Association				
This Certificate of Acceptance	e includes the followin	g items, reviewed and accepted	d by the undersign	ned:
1) Foundation and Key Trenc	h Preparation and Exc	cavation Checklist (from SNC);		
2) Sketch of the approximate	accepted area, incl. S	Station and Offset (according to	Vault Dike Station	ns);
3) Photo of the accepted area	a, at the moment of the	e acceptance;	1900	
4) Any other relevant docume	entation complementar	ry to this approval.		
The area has been inspected	and accepted by aut	orised personnel representing	Quality Control (Q	C) Program, Quality
Assurance (QA) Program, Lir	ner Quality Control (To	exel) and the Owner Represent	tative.	
Topography of the approved li	iner surface has been	surveyed for documentation a	nd as-built purpos	ses, as
confirmed by the undersigned	surveyor.			
The area is accepted as per the	ne liner conditions at t	the time of the inspection and the	ne condition of the	liner is
required to be maintained prior	r to and during fill plac	cement.		
Owner Representative	Name:	11:	\wedge /	
	Position:	AEM-	14	
QC Representative	Name:	INSPEC-SOL-	tisso 1	apointe Destrew
iner Quality Control Rep	Name:	TEXEL-	man of	alonia society
QA Engineer	Name:	1FSHLAUR	ENT	
	Position:	SNC- Williams	1	
		M J		
Surveyor	Name:	1		



Sustainable Mine Development Global Mining & Metallurgy 380, St-Jacques Street Montreal (Quebec) Canada H2Y 1P5

APPROBATION FORM

PROJECT :	Consti	ructio	n of Vault Dike		*****************	***************************************	***************************************		
PROJECT #:	61/61		or real Diffe			DATE:	2013-	-03-	13
DOCUMENT #:	20/3		3.0/			CLIENT:	2010	1Fm	
	(YYYYN				_			45111	
APPROBATION FO	OR:		Foundation Appro	val (Footprint)				
			Foundation Appro					•	
			Fill Placement ()				
			Other Liner						
LOCATION	•			PREVIOUS A	PPROVA	TIÓNS			
FROM STATION:	191			FROM:					
TO:	748	,		то:					
	-/0								
ELEVATION:	X VAF	RIES							
			m -						
						VERIFI	CATIONS N	ADE BY	:
RESPECT TO THE	SPECIFIC	CATIO	NS ACCORDING TO:		Q	na a la	QC		N/A
_			**		Υ	И	Y	И	
 Quotes and 			ted						
2. Liner has no					N				
			waves or bumps)						Ø
4. Welding done	50	100			X				
5. As built surve		eted			凶				
6. Patches done	2?				M				
Liner QC test					X				
8									
9									
DETAILS (REFER 1	TO NUMB	FR AF	ROVE						
TEM							API	PROVED	BY:
							QA		QC
							. :		
					SIGNA	TURE		_	ATE
APPROVED BY:	0.4	REP	RESENTATIVE	Van	SH	URE			
			RESENTATIVE	Jamos) Ja	and.	Donkar		3-03- 3-03
			REPRESENTATIVE	recos	O	MONU	DYSUM.	<u> </u>	5-05
			PEDDESENITATIVE			1			

Jevama?.

Geomembrane horizontal

(St: 0+191 to 0+298)KEY TRENCH

BLAST LIMIT DOWNSTREAM

9+350

Figure 1 - Approximate approved foundation area

Date: 2013-07-13

Sketch by (Initial):

Print 2/9/2013 7:06 AM

(Offset):

APPENDIX E3. Geomembrane

AGNICO-EAGLE, MEADOWBANK VAULT DIKE ANICO-EAGLE MINE LIMITED Baker Lake, Nunavut Texel Geosol Project No. C12259

QUALITY CONTROL FINAL REPORT BY TEXEL GEOSOL INC.

Prepared for:

AGNICO-EAGLE MINE LIMITED

By:



April, 2013

AGNICO-EAGLE, MEADOWBANK VAULT DIKE AGNICO-EAGLE MINE LIMITED Baker Lake, Nunavut Texel Geosol Project No. C12259

QUALITY CONTROL FINAL REPORT BY TEXEL GEOSOL INC.

Prepared for:

AGNICO-EAGLE MINE LIMITED

MEADOWBANK DIVISION

10 200, route de Preissac

Rouyn-Noranda, Québec

J0Y 1C0

By:

TEXEL GEOSOL INC. 2954 Laurier Boul., Bur 790 Québec, Québec G1V 4T2

April, 2013

TABLE OF CONTENTS

1.	INTRODUCTION
2.	HUMAN RESOURCES
3.	GEOMEMBRANE INSTALLATION
3.1	DESCRIPTION OF THE WORK
3.2	
3.3	QUALITY CONTROLS.
	3.3.1. On-site geomembrane installation 3.3.1.1 On-site non-destructive testing 3.3.1.2 On-site destructive tests
	3.3.1.1 On-site non-destructive testing
	3.3.1.2 On-site destructive tests
3.4	REPAIR PROCEDURES
3.5	5. RECORD DRAWING
4.	CERTIFICATION

LIST OF APPENDICES

• APPENDIX I -	Qualit	y control test r	esults obtained	on site by	/ Texel (Geosol I	Inc
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• APPENDIX II - Field Memos and Communications

• APPENDIX III - Record drawing

LIST OF FIGURES

Figure 1 – Bituminous Geomembrane Weld	
FIGURE 2 - SHEAR TEST	

1. INTRODUCTION

The following report was prepared by Texel Geosol, for Agnico-Eagle Mine Limited.

This report contains a description as well as a certification of all work conducted by Texel Geosol, installer of the bituminous geomembrane. It also contains the record drawing of the geomembrane. All installation work conducted on the bituminous geomembrane took place between 26-February-2013 and 13-March-2013.

2. HUMAN RESOURCES

The following list identifies the key personnel involved with the physical realization of this project

TEXEL GEOSOL INC. (Geosynthetic Installer)

- Mr. François Thivierge, Construction Manager
- Mr. Jacques St-Gelais, Operation Manager
- Mr. Daniel Brousseau, Project Manager
- Mr. Lucien Perry, Site Foreman and QC inspector

AGNICO-EAGLE MINE LIMITED (General Contractor)

- Mr. Thomas Lépine, Geotechnical Engineer
- Mme. Erika Voyer. Geotechnical Engineer

SNC LAVALLIN (Quality Assurance)

- Mr. Jean-François St-Laurent, Site Inspector

3. GEOMEMBRANE INSTALLATION

This section includes a description of the work and the installation procedures used during the deployment of the bituminous geomembrane. Also, the manufacturing quality control and construction quality control procedures are detailed in this section

3.1. Description of the work

The scope of the installation was to completly cover a Vault dike with a bituminous geomembrane liner. Texel Geosol supplied and installed approximately 2826.9 sq.m. of bituminous geomembrane Coletanche (ES2 – ES3) and Teranap. All the installation, seaming and repair procedures were conducted according to the project plans and specifications, and manufacturer's recommendations.

3.2. Installation Procedures

The bituminous geomembrane rolls were deployed and installed by Texel Geosol as prescribed in the specifications. Panels were placed to minimize seams across the side slope and the tie-in seams. The panels were overlapped about 200 mm, allowing adequate welding and leaving enough material to perform shear tests on seam samples (see section 3.3.1.2 for a description of these tests).

All seams between panels were made using a manual fusion process, the fusion being obtained using a propane torch and a roll pressure of 15 kg.

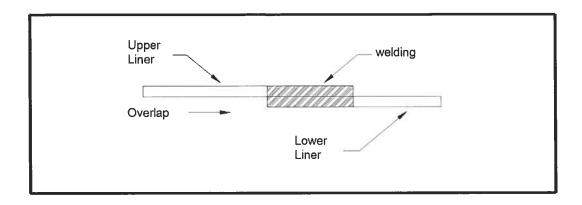


Figure 1 – Bituminous Geomembrane Weld

3.3. Quality controls

3.3.1.On-site geomembrane installation

All site welds were visually inspected and finalized by heating the ends of the overlap to create a concave angle. Also all seams have been tested with an air lance to detect any suspect area to be repaired. Also, a statistical control of seam was complete by Ultrasonic testing.

For each weld, the quality controller recorded the following information: date and dimensions of welds and the names of welders, the location of non-destructive testing and the values obtained in shear. All results of these tests are also presented in Appendix I.

3.3.1.1 On-site non-destructive testing

The seams were verified at the critical spot by non-destructive methods. These methods include the air lance test and the Ultrasonic test. Any seam that failed one of these tests was rebuilt or repaired until a satisfactory result was obtained. All the results of these tests are included in Appendix I of this report.

a) Air lance Testing

This test consists in check the sealing and quality of the weld. With an air lance of a jet of air is fed to the edge of the weld. If the weld is continuous and free of defects (air bubbles, dirt) the air will not detach the membrane. In the case of a defect, the air jet will detach the membrane. If there are any leaks, they will be located and repaired. All seams (100 % in length) was verify by the air lance method.

b) Ultrasonic test (ultrasounds)

In random spot check (150m of seam) Ultrasonic test was used. This test consist in emitting ultrasonic pulse on the surface of the upper geomembrane. The echoes of entry and exit will be detected when the welding is correctly carried out, and when it has a continuity of matter, and thus of acoustic impedance. If a defect prevents this continuity of the weld an intermediate echo will be detected. It will appear on the ecograph screen. The operator scan the geomembrane with a transducer to identify weakness areas. The surfaces must be wet for a good signal.

3.3.1.2 On-site destructive tests

Finally, a destructive testing program was applied, where seam samples taken from the installed geomembrane were tested for shear strength on a calibrated, portable tensiometer. On each sample, one shear tests were performed. All the results from these tests are included in Appendix I of this report.

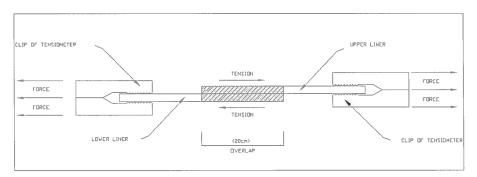


Figure 2 - Shear Test

3.4. Repair Procedures

All materials were visually inspected for blemishes, punctures and other defects or damages that may have occurred during transport or panel placement. Any defect or damage was repaired as per the procedures described in this section.

Demobilization was not authorized until Texel Geosol, Agnico-Eagle Mine Limited and SNC-Lavallin completed a last visual inspection of the installation work. Any defect revealed by any step of the Quality Control Program was repaired and verified according to the prescribed procedures:

- All punctures, holes, tears, etc., were repaired with manual process fusion patches;
- Any seam revealed as defective by the CQC or CQA Programs was entirely rebuilt through a fusion and seaming process.

All repairs were visually inspected and verified by a non-destructive testing method, as described in section 3.3.1.2.

3.5. Record Drawing

The record drawing of the geomembrane installation, showing all panels, panel identification, pipe penetrations, repairs and destructive test locations, is included in Appendix III of this report.

4. CERTIFICATION

Texel Geosol certifies having installed all geosynthetic materials according to the project plans and specifications provided by the consultant SNC-Lavallin recommendation, for Agnico-Eagle Mine Limited. All installation work conducted by Texel Geosol meets or exceeds the standards of the geosynthetic industry.

Daniel Brousseau, Eng., Project administrator

TEXEL GEOSOL INC.

Date

(mm-dd-yy)

APPENDIX I

QUALITY CONTROL PROCEDURES CONDUCTED ON SITE BY TEXEL GEOSOL INC.



Seaming Procedures Procédures de Soudures

Project Name / Nom de Projet: Agnico-Eagle, Meadowbank, Vault dike

QC Inspector / Inspecteur CQ:

Lucien Perry

Project No. / No. de Projet:

C-12259

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g / Essai Non-Destructif	Testing Details/Location Détails de l'essai/Localisation	Full seam	Full seam	Full seam	Full seam	Full seam	Full seam	Full seam	Full seam	Full seam	Full seam	Full seam	Full seam	Full seam
Testing	Essai Destructif Destrutive test				X									
Non-Destructive Testing	Inspection visuelle Visual inspection	×	X	×	X	X	X	X	X	X	X	X	X	X
n-Dest	Air Lance Lance à air	X	X	×	X	Х	X	X	×	X	Х	X	×	X
N _o	Ultrasons				X									
	этіТ Неиге													
	Test Date Date de l'essai (vy\bb\mm)	03-13-13	03-04-13	03-05-13	03-05-13	03-05-13	03-05-13	03-06-13	03-06-13	03-06-13	03-06-13	03-06-13	03-07-13	03-07-13
sə.	Technician-Welder Soudeur	L.P	L.P	L.P	L.P	L.P	L.P	L.P	L.P	L.P	L.P	L.P	L.P	L.P
le Soudur	Trial Test No. No. Calibration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Seaming Procedures / Procédures de Soudures	Seam Length Longueur Soudure (m)	2,5	26,5	4	39,5	4	3,5	7,83	7,83	7	6,4	6,5	6,5	6,5
dures / P	Time of Seaming Heure de Soudure	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ning Proce	Date of Seaming Date de Soudure (mm/dd/yy)	03-03-13	03-04-13	03-05-13	03-05-13	03-05-13	03-05-13	03-06-13	03-06-13	03-06-13	03-06-13	03-06-13	03-07-13	03-07-13
Sear	Seam No. No. de Soudure	1-2	1-3	3-4	2-4	3-5	1-5	5-6	2-9	7-8	6-8	9-10	10-11	11-12





Procédures de Soudures Seaming Procedures

Project Name / Nom de Projet:

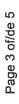
QC Inspector / Inspecteur CQ:

Lucien Perry

Project No. / No. de Projet:

Agnico-Eagle, Meadowbank, Vault dike C-12259

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	Approved (Yes/No) Approved (Oui/Non)	¥	╁	Y	Y	>	Y	٨	Y	X	\	\	Y	>
g / Essai Non-Destructif	Testing Details/Location Détails de l'essai/Localisation	Full seam	Full seam	Full seam	Full seam	Full seam	Full seam	Full seam	Full seam	Full seam				
Testin	Essai Destructif Destrutive test	X												
Non-Destructive Testing	Inspection visuelle Visual inspection	×	×	×	×	X	X	X	X	×	X	×	×	×
n-Dest	Air Lance Lance à air	X	X	×	X	X	X	Х	X	X	Х	Х	X	X
No	Ultrasons	×		Х										
	Time Heure													
	Test Date Date de l'essai (vy\bb\mm)	03-07-13	03-07-13	03-07-13	03-08-13	03-08-13	03-08-13	03-08-13	03-09-13	03-09-13	03-09-13	03-09-13	03-09-13	03-09-13
es	Technician-Welder Soudeur	L.P	L.P	L.P	L.P	L.P	L.P	L.P	L.P	L.P	L.P	L.P	L.P	L.P
le Soudur	Trial Test No. No. Calibration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Seaming Procedures / Procédures de Soudures	Seam Length Longueur Soudure (m)	6,5	6,5	6,5	8,9	8,9	8,9	6,5	5,3	5,3	4,5	4,5	4,5	4,5
dures / P	Time of Seaming Heure de Soudure	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ning Proce	Date of Seaming Date de Soudure (mm/dd/yy)	03-07-13	03-07-13	03-07-13	03-08-13	03-08-13	03-08-13	03-08-13	03-09-13	03-09-13	03-09-13	03-09-13	03-09-13	03-09-13
Sean	Seam No. No. de Soudure	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	21-22	22-23	23-24	24-25	25-26





Procédures de Soudures Seaming Procedures

Project Name / Nom de Projet: Agnico-Eagle, Meadowbank, Vault dike

Lucien Perry

Project No. / No. de Projet:

C-12259

QC Inspector / Inspecteur CQ:

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	Approved (Yes/No) Approuvé (Oui/Non)	>	⊁	╁	>	>	>	⊀	>	>	>	>	}	>
Non-Destructive Testing / Essai Non-Destructif	Testing Details/Location Détails de l'essai/Localisation	Full seam	Full seam	Full seam	Full seam	Full seam	Full seam	Full seam	Full seam	Full seam	Full seam	Full seam	Full seam	Full seam
Testin	Essai Destructif Destrutive test	Х							X					×
ructive	Inspection visuelle Visual inspection	X	X	X	Х	X	X	X	X	X	X	X	X	×
n-Dest	Air Lance Lance à air	Х	Х	×	Х	Х	Х	×	×	×	X	X	×	×
No	Ultrasons											X		
	Time Heure													
	Test Date Date de l'essai (vy\bb\mm)	03-09-13	03-09-13	03-09-13	03-10-13	03-10-13	03-10-13	03-10-13	03-10-13	03-10-13	03-10-13	03-10-13	03-10-13	03-10-13
es	Technician-Welder Soudeur	L.P	L.P	L.P	L.P	L.P	L.P	L.P	L.P	L.P	L.P	L.P	L.P	L.P
le Soudur	Trial Test No. No. Calibration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Seaming Procedures / Procédures de Soudures	Seam Length Longueur Soudure (m)	4,5	7,9	7,9	7,9	7,5	4,8	4,8	8,2	10	7,6	9,6	9,6	9,2
dures / P	Time of Seaming Heure de Soudure	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ning Proce	Date of Seaming Date de Soudure (mm/dd/yy)	03-09-13	03-09-13	03-09-13	03-10-13	03-10-13	03-10-13	03-10-13	03-10-13	03-10-13	03-10-13	03-10-13	03-10-13	03-10-13
Sear	Seam No. No. de Soudure	26-27	27-28	28-29	29-30	30-31	2-32	4-32	32-33	33-34	34-35	35-36	36-37	37-38



Seaming Procedures Procédures de Soudures

Project Name / Nom de Projet: Agnico-Eagle, Meadowbank, Vault dike

QC Inspector / Inspecteur CQ:

Lucien Perry

opect Name / Nom de Projet:

Project No. / No. de Projet:

C-12259

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	Approved (Yes/No)	>	ᢣ	>	>	>	>	>	Y	>	>-	>	>	>
Non-Destructive Testing / Essai Non-Destructif	Testing Details/Location Détails de l'essai/Localisation	Full seam	Full seam	Full seam	Full seam	Full seam	Full seam	Full seam	Full seam	Full seam	Full seam	Full seam	Full seam	Full seam
Testing	Essai Destructif Destrutive test													
ructive	Inspection visuelle Visual inspection	X	X	×	X	X	X	X	×	X	×	X	X	×
n-Dest	Air Lance Lance à air	X	X	×	Х	×	×	×	×	×	×	X	X	×
N	snosratIU		×											
	Тіте Неите			:										
	Test Date Date de l'essai (vy\bd/mm)	03-10-13	03-10-13	03-10-13	03-12-13	03-12-13	03-12-13	03-12-13	03-12-13	03-12-13	03-12-13	03-12-13	03-12-13	03-12-13
96	Technician-Welder Soudeur	L.P	L.P	L.P	L.P	L.P	L.P	L.P	L.P	L.P	L.P	L.P	L.P	L.P
Soudiir	Trial Test No. No. Calibration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Decondures / Drocedures de Condures	Seam Length Longueur Soudure (m)	7,8	7,8	6,1	5,8	5,2	5,2	6	8,2	5	5	5	4,1	5
Juros / D	Time of Seaming Heure de Soudure	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Drogov	Date of Seaming Date de Soudure (mm/dd/yy)	03-10-13	03-10-13	03-10-13	03-12-13	03-12-13	03-12-13	03-12-13	03-12-13	03-12-13	03-12-13	03-12-13	03-12-13	03-12-13
County	Seam No. No. de Soudure	38-39	39-40	40-41	41-42	42-43	43-44	44-45	45-46	33-349	34-47	32-47	4-47	47-48



Seaming Procedures Procédures de Soudures

Nom de Projet: Agnico-Eagle, Meadowbank, Vault dike

QC Inspector / Inspecteur CQ:

Lucien Perry

Project Name / Nom de Projet: Agnico-E Project No. / No. de Projet:

C-12259

	Approved (Yes/No) Approuvé (Oui/Non)	Y	Y
Non-Destructive Testing / Essai Non-Destructif	Testing Details/Location Détails de l'essai/Localisation	Full seam	Full seam
Festing	Essai Destructif Destrutive test		
ructive 7	ellausiv noitsegenI Visual inspection	×	×
n-Dest	Аіт Сапсе Сапсе à аіт	×	×
No	Ultrasons		
	Тіте Непте		
	Test Date Date de l'essai (mm/dd/yy)	03-12-13	03-12-13
res	Technician-Welder Soudeur	L.P	L.P
de Soudu	Trial Test No. No. Calibration	N/A	N/A
rocédures	Seam Length Longueur Soudure (m)	26	35
dures / P	Time of Seaming Heure de Soudure	N/A	N/A
Seaming Procedures / Procédures de Soudures	Date of Seaming Date de Soudure (mm/dd/yy)	03-12-13	03-12-13
Sea	Seam No. No. de Soudure	3-48	4-48



Destructive Testing Essai Destructif

Project Name / Nom de Projet: Murdochville-Xstrata Project No. / No. de Projet:

Q-11195

QC Inspector / Inspecteur CQ: Eric Bourdages

Destructive Test No. No. Essai Destructif	Seam No. No. de Soudure	Date (mm/dd/yy)	Sample Location Localisation de l'échantillon	Peel Resistance Résistance Pelage (ppi)	Peel Type of Break Type de Brisure	Peel Resistance Résistance Pelage (ppi)	Peel Type of Break Type de Brisure	Shear Resistance Résist, Cisaillement (ppi)	Shear Type of Break Type de Brisure	Date Repaired Date Réparée (mm/dd/yy)	Date Repair Verified Date Réparée Vérifiée (mm/dd/yy)	Lab. Testing (P/F) Lab. Indép. (A/R)	Tensiometer No. No. Tensiomètre
DT-1	2-4	03-05-13	At 1m of SEOS	N/A	N/A	N/A	N/A	310	BRK	03-05-13	03-05-13	N/A	Leister-1
DT-2	12-13	03-07-13	At 1m of SEOS	N/A	N/A	N/A	N/A	336	BRK	03-07-13	03-07-13	N/A	Leister-1
DT-3	26-27	03-09-13	At 1m of SEOS	N/A	N/A	N/A	N/A	274	BRK	03-09-13	03-09-13	N/A	Leister-1
DT-4	32-33	03-10-13	At 1m of SEOS	N/A	N/A	N/A	N/A	405	BRK	03-10-13	03-11-13	N/A	Leister-1
DT-5	37-38	03-10-13	At 1m of SEOS	N/A	N/A	N/A	N/A	310	BRK	03-10-13	03-11-13	N/A	Leister-1
DT-6	6-48	03-13-13	At 1m of int. 6-7-48	N/A	N/A	N/A	N/A	238	BRK	03-13-13	03-13-13	N/A	Leister-1
DT-7	49-50	03-13-13	At 3.5m of int. 23-49-50	N/A	N/A	N/A	N/A	294	BRK	03-13-13	03-13-13	N/A	Leister-1
DT-8	6-49	03-13-13	At 1m of int. 6-48-49	N/A	N/A	N/A	N/A	250	BRK	03-13-13	03-13-13	N/A	Leister-1
UL-1	2-4	03-05-13	At 11m of 3-4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	TUL-01
UL-2	2-4	03-05-13	At 31m of 3-4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	TUL-01
UL-3	12-13	03-07-13	At 3m of South	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	TUL-01
UL-4	14-15	03-08-13	At 2m of South	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	TUL-01
UL-5	14-15	03-08-13	At 4m of South	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	TUL-01
UL-6	35-36	03-10-13	At 5m of South	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	TUL-01
UL-7	39-40	03-10-13	At 3m of South	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	TUL-01
UL-8	39-40	03-10-13	At 4.5m of South	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	TUL-01



Repair Report Rapport de Réparation

Project Name / Nom de Projet:

Project No. / No. de Projet:

QC Inspector / Inspecteur CQ:

Eric Bourdages

		& Dimer et Dimer								
Repair No. No. Réparation	Patch Empiècement	Extrusion Weld or Bead Soudure Extrusion	Pipe Boot Manchon d'étanchéité	On Panel No. Sur Panneau No.	On Seam No. Sur Soudure No.	Intersection of Panels Intersection des Panneaux	Sample Location Localisation de l'échantillon	Date Repaired Date Réparée (mm/dd/yy)	Date Repair Verified Date Réparée Vérifiée (mm/dd/yy)	Approved (Yes/No) Approuvé (Oui/Non)
R-1	P3			1			At 1m of 3-4 and 1.5m of 1-3	03-03-13	03-04-13	Y
R-2	Р3			1			At 3m of 3-4 and 1.5m of 1-3	03-03-13	03-04-13	Y
R-3	Р3			1			At 5m of 3-4 and 1.5m 0f 1-3	03-03-13	03-04-13	Y
R-4	P2			1			At 7m of 1-2 and 1.5m of 1-3	03-03-13	03-04-13	Y
R-5	P1			3			At 3m of 1-3 and 1.8m 3-5	03-04-13	03-04-13	Y
R-6	Pl			3			At 3m of 1-3 and 3.9m of 3-5	03-04-13	03-04-13	Y
R-7	P1			3			At 3m de 1-3 and 5.7m of 3-5	03-04-13	03-04-13	Y
R-8	P1			3			At 3m of 1-3 and 7.9m of 3-5	03-04-13	03-04-13	Y
R-9	P1			3			At 3m of 1-3 and 9.7m of 3-5	03-04-13	03-04-13	Y
R-10	P1			3			At 3m of 1-3 and 11.8m of 3-5	03-04-13	03-04-13	Y
R-11	P1			3			At 3m of 1-3 and 13.7m of 3-5	03-04-13	03-04-13	Y
R-12	P1			3			At 3m of 1-3 and 15.4m of 3-5	03-04-13	03-04-13	Y
R-13	P1			3			At 3m of 1-3 and 17.3m of 3-5	03-04-13	03-04-13	Y
R-14	P1			3			At 3m of 1-3 and 18.9m of 3-5	03-04-13	03-04-13	Y
R-15	P1					2-3-4	and 10.7m of 3-3	03-04-13	03-04-13	Y
R-16	P1	-		4			At 1.8m of 3-4 and 1m of 2-4	03-05-13	03-05-13	Y
R-17	P1			4			At 3.4m of 3-4	03-05-13	03-05-13	Y
R-18	P1			4			and 1m of 2-4 At 5.1m of 3-4	03-05-13	03-05-13	Y
R-19	P1			4	-		and 1m of 2-4 At 6.5m of 3-4	03-05-13	03-05-13	Y
R-20	P1				2-4		and 1m 2-4 At 9m of int. 2-3-4	03-05-13	03-05-13	Y
R-21	P1			5			At 1m of South	03-05-13	03-05-13	Y
R-22	P1			5			and 0.5m of of 3-5 At 4.5m of South	03-05-13	03-05-13	Y
122	<u> </u>						and 0.5m of 3-5		1	l



Repair Report Rapport de Réparation

Project Name / Nom de Projet:	Murdochville-Xstrata
Project No. / No. de Projet:	Q-11195
OC Inspector / Inspecteur CO:	Eric Bourdages

		& Dimer et Dimer					on of Repair de la Réparation			
Repair No. No. Réparation	Patch Empiècement	Extrusion Weld or Bead Soudure Extrusion	Pipe Boot Manchon d'étanchéité	On Panel No. Sur Panneau No.	On Seam No. Sur Soudure No.	Intersection of Panels Intersection des Panneaux	Sample Location Localisation de l'échantillon	Date Repaired Date Réparée (mm/dd/yy)	Date Repair Verified Date Réparée Vérifiée (mm/dd/yy)	Approved (Yes/No) Approuvé (Oui/Non)
R-23	P1			5			At 5.4m of South and 0.5m of 3-5	03-05-13	03-05-13	Y
R-24	P1			5			At 7.1m od South and 0.5m of 3-5	03-05-13	03-05-13	Y
R-25	P1			6			At 1.6m of South and 0.5m of 5-6	03-05-13	03-05-13	Y
R-26	P1			6			At 1.6m South and 0.5m of 5-6	03-05-13	03-05-13	Y
R-27	P1			28			At 1m of 28-29 and 0.8m of South	03-09-13	03-09-13	Y
R-28	P1			28			At 1m of 28-29 and 3.9m of South	03-09-13	03-09-13	Y
R-29	P1			28			At 1m of 28-29 and 4.7m of of South	03-09-13	03-09-13	Y
R-30	P1			28			At 0.8m of 27-28 and 0.8m of South	03-09-13	03-09-13	Y
R-31	P1			28			At 0.8m of 27-28 and 2.7m of South	03-10-13	03-10-13	Y
R-32	P1			28			At 1m of 27-28 and 5m of South	03-10-13	03-10-13	Y
R-33	Pi			32			At 1m of South and 0.5m of 32-33	03-10-13	03-10-13	Y
R-34	P1			39			At 1m of 39-40 and 0.5m of South	03-10-13	03-10-13	Y
R-35	P1			39			At 1.5m of South and 2.5m of 39-40	03-10-13	03-10-13	Y
R-36	P1			39			At 2.5m of 39-40	03-10-13	03-10-13	Y
R-37	P1			39			and 3m of South At 1.5m of 39-40 and 3.5m of South	03-10-13	03-10-13	Y

CHARTE/CHART: Empiècement/Patch (P1 0.3m à/to 0.6m; P2 0.6m à/to 1m; P3 over 1m et plus), Extrusion (E), Embout/Pipe Boot (B), Cap strip (CS), Doublure/Reinforcement (DB) et/and Reconstruction

APPENDIX II

FIELD MEMOS AND COMMUNICATIONS



CERTIFICAT D'ACCEPTATION DES ASSISES SUBGRADE ACCEPTATION CERTIFICATE

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CERTIFICAT D'ACCEPTATION PROVISOIRE

PROVISIONAL ACCEPTATION **CERTIFICATE**

Nom du projet / Project name : <u>\(\(\AULT-DiKE</u>\)

N° du projet / C12259

Endroit / Location : ASNICO-FAGLE

% dos travaux exécutés / MEADOWBANK

% des travaux exécutés / % of completion :_____

MATÉRIAU / MATERIAL	QUANTITÉ / QUANTITY	DESCRIPTION /DESCRIPTION							
COLETANCHE ES 3	859 m ²	R1 A P-13							
COLETANCHE ESZ	859 m ²	P-14-P-15							
CROQUIS / SKETCH	148	<u> </u>							
		I I I I I I I I I I I I I I I I I I I							
Je, soussigné, représentant dûment autorisé de (Client):									
contract guarantees.									
Nom / Name Signatu	ure / Signature Titre	Date / Date							
Cartificat accontó par la représentant de Toyol C	Charal / Cartificate accepted by T	À							

Entrepreneur / Contractor (JAUNE / YELLOW) (BLANCHE / WHITE)

Propriétaire / Owner (ROSE / PINK)

Ingénieur / Engineer (OR / GOLD)

Nom en lettres moulées / Name in square letters

Texel Geosol



CERTIFICAT D'ACCEPTATION DES ASSISES

	SUBGRADE ACCEPTATION CERTIFICATE
	Nom du projet / Project name : VAULT DIKE
	N° du projet / Project #:
	Endroit/Location: Agrico FAGLE - MEADOWBANK
	CROQUIS / SKETCH ACCEPTATION PARTIELLE / PARTIAL ACCEPTATION
	ACCEPTATION PARTIELLE / PARTIAL ACCEPTATION ACCEPTATION COMPLÈTE / COMPLETE ACCEPTATION
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	REMARQUES / COMMENTS:
	Je, soussigné et représentant officiel de Texel Géosol, accepte et juge adéquat la préparation de la surface des assises telles que localisée au croquis ci-dessus. / I, the Texel Geosol's official representative, find acceptable for deployment the surface conditions of the area described above.
	Nom / Name Signature Titre / Title Date / Date
	LUCIEN PERRY Juan / CONTROLEUR QUALITÉ 11MORS 2013
	Nom en lettres moulées / Name in square letters
	Luci Sty
J	Texel Gensol Entrepreneur / Contractor Proprietaire / Owner Ingénieur / Engineer (DAUNE / YELLOW) (ROSE / PINK) (OR / GOLD)
	11/16/2019
	QCM1-F02 Certificat d'acceptation des assises / Subgrade acceptation certificate, Révision 03



CERTIFICAT D'ACCEPTATION PROVISOIRE

PROVISIONAL ACCEPTATION CERTIFICATE

Nom du projet / VAVLT DIKE

N° du projet / C12259 Project #:

Endroit / Location: A9vico - EASLE

MEADOWBANK

% des travaux exécutés / % of completion :____

MATÉRIAU / MATERIAL	QUANTITÉ / QUANTITY	DESCRIPTION /DESCRIPTION
E53	576.77 m2	P-28 A P-41
ESZ	324.12 m2	P-16 A P-27
E5 L	3 CTell m	1-10/1/201
\$3		
CROQUIS / SKETCH		
SKOGOLO / OKETON		
		N >
	1416 A P-1411	
Je, soussigné, représentant dûment autorisé d		, accepte, par la présente, les
travaux décrits ci-haut et confirme, qu'au meille du contrat et qu'il n'y a pas de dommage a	eur de ma connaissance, ces travaux apparent aux matériaux utilisés. Le	ont été complétés selon les spécifications, termes et conditions e site a été nettoyé de tous les déchets à la satisfaction de
l'entrepreneur. Texel Géosoi s'engage à répar garanties du contrat. / I, the undersigned, duiy	er tout dommage provenant de matér	iaux défectueux ou d'installation défectueuse en accord avec les
take over and accept the work described abo	ve from the date hereof and confirm	to the best of my knowledge the work has been completed in
Interference within or without the surrounding	works. Scrap and offcuts have been	is no apparent damage to the plastic lining nor any unacceptable removed and the works left in a clean and tidy condition to the
contractors satisfaction. Texel Geosol underti- contract guarantees.	akes to rectify any damage resulting	from defective materials or workmanship within compliance of
Nom / Name Signatu	re / Signature Titre	e / Title Date / Date
Certificat accepté par le représentant de Texel G	éosol. / Certificate accepted by Texel	Geosol representative.
	. , , , , , , , , , , , , , , , , , , ,	/

Propriétaire / Owner (ROSE / PINK)

Ingénieur / Engineer (OR / GOLD)

QCM1-F03 Certificat d'acceptation provisoire / Provisional acceptation certificate, Révision 03

Entrepreneur / Contractor (JAUNE / YELLOW)

Texel Geosoi (BLANCHE / WHITE)



CERTIFICAT D'ACCEPTATION DES ASSISES SUBGRADE ACCEPTATION CERTIFICATE

Nom du projet / Project name : VAULT - DIKE MEADOWBANK

N° du projet / Project #: C12259
Endroit/Location: Agrico FAGLE MEADOWBANK
CROQUIS / SKETCH ACCEPTATION PARTIELLE / PARTIAL ACCEPTATION ACCEPTATION COMPLÈTE / COMPLETE ACCEPTATION
P-42 A P-50
REMARQUES / COMMENTS :
Je, soussigné et représentant officiel de Texel Géosol, accepte et juge adéquat la préparation de la surface des assises telles que localisée au croquis ci-dessus. / I, the Texel Geosol's official representative, find acceptable for deployment the surface conditions of the area described above.
Nom/Name Signature Signature Titre/Title Date/Date LUCIEN PERS Signature Flows CONTROLLINE Date/Date Date/Date Date/Date LUCIEN Date/Date D
Nom en lettres moulées / Name in square letters Contractor Propriétaire / Owner Ingénieur / Entrepreneur / Contractor Propriétaire / Owner Ingénieur / Engineer OR / GOLD)
QCM1-F02 Certificat d'acceptation des assises / Subgrade acceptation certificate, Révision 03



CERTIFICAT D'ACCEPTATION **PROVISOIRE**

PROVISIONAL ACCEPTATION CERTIFICATE

Nom du projet / Project name : WAULT - DIKE

N° du projet / C127 59

Endroit / Location : ADNICO - EASLE MEADOWBANK

% des travaux exécutés / 100% % of completion :___

MATÉRIAU / MATERIAL **QUANTITÉ / QUANTITY DESCRIPTION /DESCRIPTION** COLETANCHE 1002.02 m2 P-42AP-50 **CROQUIS / SKETCH** Je, soussigné, représentant dûment autorisé de (Client) : ________, accepte, par la présente, les travaux décrits ci-haut et confirme, qu'au meilleur de ma connaissance, ces travaux ontjété complétés seion les spécifications, termes et conditions du contrat et qu'il n'y a pas de dommage apparent aux matériaux utilisés. Le site a été nettoyé de tous les déchets à la satisfaction de accordance with specifications and the terms and conditions of the contract. There is no apparent damage to the plastic lining nor any unacceptable interference within or without the surrounding works. Scrap and offcuts have been removed and the works left in a clean and tidy condition to the contractors satisfaction. Texel Geosol undertakes to rectify any damage resulting from defective materials or workmanship within compliance of contract guarantees. Nomy Name Titre / Title Signature //Signature Dwnon Certificat accepté par le représentant de Texel Géosol. Certificate accepted by Texel Geosol representative. Nom en lettres moulées / Name in square letters LUCIEN PERRY

Propriétaire / Gwner (ROSE / PINK)

QCM1-F03 Certificat d'acceptation provisoire / Provisional acceptation certificate, Révision 03

Entrepreneur / Contractor (JAUNE / YELLOW)

Texel Geosol

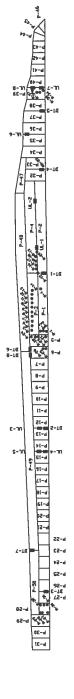
(BLANCHE / WHITE)

APPENDIX III

RECORD DRAWING







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Légende / Legend	Manchen tuyeu/Pipe best	Explorement/Patch	Destructive and Ultrasons	Souture Extrustor/Extruston Veld	Pennesu No.Penst No.	-30474 Routeau No./Roll No.	
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Emplecement/Patch
Destructive and Utrasons
Souther Extrusion/Extrusion Veld
Pennesu Na/Penel No.
1-30474 Routeau No./Roll No.

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