BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

GOVERNMENT OF YUKON

GRUM SULPHIDE CELL COVER UPGRADES

AS-BUILT CONSTRUCTION REPORT

FINAL

PROJECT NO:	0533-003	DISTRIBUTION:	
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January 30, 2012
Project No: 0533-003

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Dear Dr. Rainey,

Re: Grum Sulphide Cell Cover Upgrades – As-built Report – Draft

BGC is pleased to provide a final version of our as-built report for the Grum Sulphide Cell Cover Upgrades work undertaken in August, September and October 2011. We trust the enclosed report meets with your requirements and we thank YG for the opportunity to be of service again at Faro Mine.

Yours sincerely,

BGC ENGINEERING INC.
per:

Jeremy Valeriote, P.Eng.
GeoEnvironmental Engineer

Att. Grum Sulphide Cell Cover Upgrades As-Built Construction Report

EXECUTIVE SUMMARY

The Faro Mine is located in the central Yukon, approximately 200 km north-northeast of Whitehorse and 22 km north of the Town of Faro. The Grum Sulphide Cell (GSC) is located within the Grum Waste Rock Dump at the Faro Mine Complex.

As part of early closure activities, in 2010 the Yukon Government (YG) completed the construction of a high-density polyethylene (HDPE)-lined cover over the GSC. The design and construction of the cover system were undertaken by others prior to BGC involvement on the project.

During the spring freshet of 2011, erosion occurred on the cover surface and the resulting sediment and zinc laden discharge into Vangorda Creek was found to be non-compliant (total suspended solids>15 mg/L, zinc>0.5mg/L.

BGC was engaged to review the cover system performance in the 2011 freshet, and provide recommendations for repairs and water management mitigation measures that could be implemented in 2011 to reduce the severity of erosion and reduce the potential for non-compliant discharge to Vangorda Creek during spring 2012 runoff and beyond (to the extent practicable).

Recommendations focused on remedial water and erosion management measures to be completed in 2011, and did not address long-term cover, landform or drainage design requirements. The overall recommendations from BGC were:

- Primary measures: Control erosion of the GSC cover;
- Secondary measures: Increase the capacity of the sediment pond; and
- Tertiary measures: Pump non-compliant water to Vangorda Pit catchment.

BGC supervised construction of the primary and secondary measures by contractor Pelly Construction during the period August 22 to October 4, 2011. This report provides as-built documentation of measures constructed, including:

- Regrading and filling of topographical depressions on the GSC to reduce concentration of surface runoff;
- Modification of GSC benches and bench ditches to increase flow capacity;
- Upgrading of erosion protection in the GSC upper perimeter ditches;
- Excavation of run-on control ditches above and adjacent to the cover;
- Road cross-ditching to direct drainage into perimeter ditches adjacent to the haul road;
- Clean out of sediment deposited in energy dissipation pools to re-establish capacities;
- Construction of a lined sediment and water storage pond downslope of the GSC cover, with emergency spillway;

- Regrading of a waste rock dump depression, downhill from the emergency spillway of the lined sediment pond, to provide a contingency storage area for sediment pond overflow.

The measures implemented in 2011 represent significant mitigation efforts that will reduce the severity of erosion and the potential for release of non-compliant runoff to the receiving environment in Spring 2012.

It should be noted that the pumping system still needs to be installed and commissioned before spring run-off occurs. This is a critical component that must be installed for the overall system to work. In addition, some monitoring of the system response must be undertaken to assess the mitigation measures.

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1.0 INTRODUCTION

The Faro Mine is located in the central Yukon, approximately 200 km north-northeast of Whitehorse or approximately 22 km north of the Town of Faro. The Grum Sulphide Cell (GSC) is located within the Grum Waste Rock Dump at the Faro Mine Complex, as shown on Drawing 1 attached.

1.1. Background

Sulphidic waste rock was preferentially placed in this area of the waste rock dump to form the GSC during mining of the Grum Pit. The Faro Mine is currently in a care and maintenance mode as the closure plan is finalized and implemented. As part of the closure and reclamation (C&R) plan, the GSC was identified as an area for early implementation and in 2010 a very low infiltration cover (as recommended in the latest version of the C&R plan) was placed over the GSC.

In 2010 Pelly Construction (on behalf of Yukon Government (YG))completed the construction of a high-density polyethylene (HDPE)-lined, uncompacted glacial till cover over the GSC. The design objective was for a very low infiltration cover to be placed. A very low infiltration cover is one which reduces infiltration into the underlying material to less than 0.5% of the mean annual precipitation (SRK, 2009[1]). To BGC's knowledge, instrumentation to monitor this objective has not been installed so it is not clear whether the cover has performed as designed with respect to this function. The design and construction of the cover system were undertaken by others prior to BGC involvement on the project.

During the spring freshet of 2011, erosion occurred on the cover surface and the resulting sediment-laden discharge into Vangorda Creek was found to be non-compliant with respect to total suspended solids (TSS > 15 mg/L) and total zinc (Zn > 0.5 mg/L). A list of the potential root causes of the May and June 2011 runoff events that resulted in non-compliant discharge is presented as follows:

- Higher than average snowmelt and rainfall in spring 2011.
- Late construction that did not allow hydroseeding in 2010, leading to reduced cover erosion resistance during the 2011 spring runoff.
- Filling of bench ditches with snow and ice, resulting in reduced flow capacity and flow over the crest of the benches.
- Lack of positive drainage in some locations on the cover, resulting in concentrated surface flows on the cover.
- Inadequate configuration of the transition from the LDP outlet channel to the 600-mm half-culvert, and an undersized half-culvert outlet.

[1] SRK, 2009. Faro Mine Complex. Cover Design for the Grum Sulphide Cell. Draft, September 2009. SRK 1CY001.029.

- Erosion of till from the toe berm, where a topographical low point on the east part of the toe berm concentrated surface flows over the crest and down the toe berm face.
- Some of the till cover material sourced from the south till borrow was found to contain elevated concentrations of zinc greater than Canadian Council of Ministers of the Environment soil quality guidelines.[2]

Detailed information on the events of the Spring 2011 freshet is summarized in the memorandum found in Appendix A and other project documentation.

BGC was engaged to review the GSC cover system performance in the 2011 freshet, and provide recommendations for repairs and water management mitigation measures that could be implemented in 2011, to reduce the severity of erosion and reduce the potential for non-compliant discharge to Vangorda Creek during spring 2012 runoff. Specifically excluded from the work were a forensic investigation of past incidents, and investigation of groundwater or seepage issues. The initial set of mitigation recommendations focused on remedial water and erosion management measures to be completed in the short term, and did not address long-term cover, landform or drainage design requirements; discussion of elevated zinc concentrations in cover material was also excluded. The preliminary recommendations memorandum is included as Appendix A. Three levels of measures were recommended by BGC as follows:

- Primary measures: Control erosion of the GSC cover;
- Secondary measures: Increase the capacity of the downhill sediment pond; and
- Tertiary measures: Pump all surface non-compliant water to Vangorda Pit catchment.

YG selected Pelly to complete construction of the primary measures (erosion control works), based on BGC recommendations in Appendix A.

At the completion of the erosion control measures upgrades, a change order was issued by YG and Pelly was contracted to increase the capacity of the sediment pond (secondary measures). Both scopes of work were completed by Pelly during August, September and October, 2011. The final component of the program, pumping of surface non-compliant water (tertiary measures), was not in the Pelly scope of work and is still outstanding for completion by Denison Environmental Services (DES), the care and maintenance operator for the site.

1.2. Scope of Work

In Phase 1, BGC was asked to provide recommendations for GSC water management measures to be conducted in 2011. These were to reduce the severity of erosion and reduce the potential for sediment- and zinc-laden water discharge into Vangorda Creek during Spring 2012 runoff.

Phase 2 of BGC's work scope constituted detailed design, field supervision and as-built reporting. BGC undertook a hydrotechnical analysis to obtain flow quantities for design of the

[2] Soil Sampling of Grum Sulphide Cell, Environmental Dynamics Inc.,16 June 2011, EDI Job 11-Y-0220

primary, secondary and tertiary water management measures contained in our preliminary recommendations letter dated August 3, 2011. Implementation of these measures was initiated on August 23, 2011, during a BGC site visit and kickoff meeting.

The focus of the cover repairs was to increase the erosion resistance of the cover in time for the 2012 freshet event to prevent a re-occurrence of the events of 2011. The limited time period meant an especially condensed period for design. The design placed a particular emphasis on field fitting during construction (rather than a detailed design phase) to ensure all work was completed prior to the onset of winter. The information presented in this report provides the as-built report for the Phase 2 work scope. An outline of important dates relative to the delivery of this project is presented in Table 1-1.

Table 1-1. Important Date Summary (all 2011)

YG initial contact with BGC	June 24
BGC Phase 1 Work Proposal (for site visit and preliminary recommendations)	June 30
Phase 1 contract awarded by YG	July 8
BGC initial site visit	July 12-13
BGC preliminary recommendations letter (Appendix A of this report)	August 3
BGC Phase 2 Work Program (design, supervision, and as-built reporting)	August 16
Construction initiation by Pelly and site kick-off meeting	August 23
Phase 2 contract awarded	August 24
Whitehorse meeting on revised design criteria for sediment pond (Appendix B)	August 25
BGC Design Memorandum for Cover Repairs	September 8
Completion and demobilization of Pelly from site	October 3
Final site inspection by YG and BGC	October 4

1.3. Context

BGC was engaged by YG to provide recommended repairs to a cover which was designed and constructed by others. Given the short timeline available to complete the work, an increased reliance on field fit design adjustments was required to ensure completion of construction in the available timeframe.

Final water discharge pathways were not fully defined until August 24, 2011 during the kickoff site visit. At that time, YG and BGC decided that the design criteria for the sediment

pond at the base of the GSC cover should be amended to provide surface water retention with capacity for pumping, with sediment removal as a secondary objective (a summary of the discussions is provided in Appendix B). This was a significant design change from the original intent which assumed discharge of all water from the sediment pond to the receiving environment. This design change was implemented because the originally intended discharge point would have mixed potentially compliant GSC surface water with zinc-contaminated seepage in Grum Creek at location V15. Furthermore, the 2011 freshet flows from the GSC overwhelmed Moose Pond (a receptor for Grum Creek and V 15 surface water), which had undermined its ability to accept additional water. This necessitated early implementation, by DES, of a pumping system near the Grum Weir at the confluence of V15 and Grum Creek flows. This pumping system is sized to pump seepage flows to Vangorda Pit, but does not have the capacity to pump storm surface flows, particularly not those from the larger GSC catchment. Note that the work at Moose Pond is provided for context only and is outside of BGC's scope of work and is not discussed further.

To achieve the surface water retention goals, the volume of the sediment pond was maximized within the space available at the toe of the GSC cover. Despite the increased size of the sediment pond, space constraints dictated that the pond constructible in 2011 would not fully store a 10-year, 24-hour runoff design event. To manage that event, and larger events, pumping of the pond to the Vangorda Pit catchment was specified to minimize potential discharge to the receiving environment.

It is expected that the sediment pond will continue to be operated until the final closure plan for the Grum waste rock dump is implemented, despite the original design intent as a temporary measure.

2.0 DESIGN SPECIFICATIONS AND DRAWINGS

The design specifications for the erosion control measures and the construction of the sediment pond and drawings are included in the BGC Grum Sulphide Cover Repairs – Detailed Design Memorandum dated September 8, 2011, which is included as Appendix C. Key elements of the design can be divided into repairs on or adjacent to the GSC cover, and the sediment pond, as noted below. A summary of repairs is presented in Drawing 02.

2.1. GSC Cover Repairs

The following repairs were undertaken to the cover (see Drawing 02 at tached for corresponding item numbering):

1. Bench ditches were modified to increase capacity (original flat benches with 1 m wide and 0.5 m deep ditches, were regraded to have an average depth of 1.1 m, width of 6.2 m and 17% back slope), as shown on Drawing 03, Appendix C.
2. Erosion protection was upgraded in the upper perimeter ditches (erodible phyllite waste rock was replaced with erosion-resistant rip rap) to match that of the lower portions of the perimeter ditches below Bench 3 El. 1258m.
3. Topographical depressions at the top of the dump (El. 1300 m) were regraded and filled with glacial till (mostly silt and sand) to reduce concentration of surface runoff.
4. Run-on control berms and ditches were constructed on the bench above the cover, and along the access road to the east of the cover, to direct external flow away from the GSC cover catchment area and into the Vangorda pit.
5. Sediment deposited in the East Dissipation Pool (EDP), West Dissipation Pool (WDP) and Lower Dissipation Pool (LDP) during 2011 freshet was removed to re-establish pond capacities.
6. A lined storage and sediment pond (sediment pond) was constructed (see Section 2.2 below for details)
7. Shallow cross ditches were excavated in the east perimeter access road to direct drainage into the east perimeter ditch and eastwards into the perimeter ditch along the haul road, particularly adjacent to Bench 4 (El. 1244m).
8. Compaction of clean waste rock driving surfaces with vibratory drum roller.
9. A contingency storage area was regraded on a waste rock dump bench below the GSC cover to accept occasional overflow from the sediment pond.

In addition to the above repairs, the original GSC cover discharge routing from the Grum waste rock dump downstream of the LDP (access road culvert, lined channel and half-culvert flume) were decommissioned.

Additional items on the GSC cover and surrounding area specified by YG and completed in 2011, but not designed or directly supervised by BGC are described below:

- Hydroseeding of cover surfaces with mulch, fertilizer and annual rye grass seed was completed by Pelly as residual cover construction work not completed in 2010.
- Pelly added fill and surface riprap armouring to the toe berm surface to allow lateral drainage to the GSC perimeter ditches, rather than allowing flow over the toe berm crest (supervised by Chilkoot Geological Engineers Ltd.)
- Pelly placed a 1 m thick till cover over an exposed waste rock slope at the crest of the cover, located just below the run-on control berms and surface grading noted as Repair #4 on Drawing 02, Appendix C.
- DES undertook culvert installations and surface grading of the haul road to reduce flow from east of the cover into the sediment pond area.
- DES installed a 900-mm diameter culvert, replacing the existing 230-mm diameter culvert, at the intersection of the quarry access road and the haul road.
- DES cleaned out the ditch along the haul road from the Grum waste rock dump to Vangorda Pit.
- DES installed 100m of trial snowfence upslope of the eastern section of Bench 3 (see Dwg 02).
- Liner testing was undertaken by Pelly and SRK.

2.2. Sediment Pond

The configuration and storage volume of the sediment pond was constrained by both available space and time to construct, with topographical and rip rap quarry access road configuration constraints. Thus, the sediment pond is not designed for retention of a specific runoff event; instead, the combination of storage capacity in the sediment pond and pumping capacity reduces the potential for release of non-compliant GSC cover runoff into the receiving environment. This approach is appropriate for an interim measure (as agreed by YG in a meeting in Whitehorse on Aug. 25, 2011 summarized in Appendix B) until the GSC cover is vegetated and the potential for sediment mobilization reduced.

A summary of sediment pond design considerations is provided below. Some elements were modified during construction as noted in Section 4.3, with as-built storage volumes summarized in Section 4.4.

- The sediment pond has a liner crest elevation of 1191 m and is 126 m long, 34 m wide and 3 to 4 m deep, with 2H:1V internal side slopes.
- Sediment pond construction has a cut of 7500 m^3 and fill of 10,200 m^3 for the pond excavation.
- The total installed liner area is about 4500 m^2.
- The original design water storage volume in the sediment pond below the original spillway invert of 1190 m is about 7,000 m^3 (Appendix C). A subsequent flow routing

attenuation calculation prior to construction allowed the spillway invert to be raised to 1190.4 m to give an additional 1,700 m^3 of storage.

- During the 10-year, 24-hour rain-on-snow event, a conservative estimate of runoff volume from the GSC cover is about 26,000 m^3. Given a storage volume of 8,400 m^3, the sediment pond would spill about 18,000 m^3 in the absence of pumping.
- With a pumping rate of 13,000 m^3/day (540 m^3/h), 5,000 m^3 of spillage could occur during the 10-year, 24-hour runoff event. This overflow would be accommodated in a regraded Contingency Storage Area (CSA) downstream (with an as-built volume of 9,300 m^3, see Section 4.3.3 below) and infiltrated into the waste rock, with surface runoff possible during extreme events. The access road will convey the flow from the sediment pond to the CSA, with occasional maintenance and repairs required.
- Exfiltration from the CSA will occur at the toe of the dump and feed various small tributaries of Vangorda Creek. It is possible that this water may not meet discharge criteria and so this area is to be used on contingency basis only, as agreed at the August 25, 2011 meeting with YG in Whitehorse (Appendix B).
- During the 200-year, 24-hour event (up to 45,000 m^3 total flow and 37,000 m^3 of spillage from the sediment pond without pumping), the CSA may spill onto the lower benches of the waste rock dump, depending on the infiltration capacity of the waste rock.

As-built water management measures are discussed relative to the design in Sections 4.3 and 4.4. Hydrology calculations were presented in the Design Memo in Appendix C.

3.0 CONSTRUCTION ACTIVITIES RECORD

3.1. Construction Schedule

Mobilization of the contractor's equipment began on August 21, 2011. Following cleanup, the contractor demobilized from the site on October 3, 2011.

The contractor worked one 10-hour shift each day throughout the majority of the project. An occasional 2-hour evening shift (with partial crew) was completed during good weather periods when possible, mainly for activities such as grading haul roads, benches, tidying slopes and bor row areas. This shift was not directly observed by BGC, but overnight progress was reviewed the following morning.

There were no severe weather-related delays on this project; there were some delays in liner installation due to precipitation but none that lasted longer than a half-shift. There were some equipment breakdowns, all lasting less than a half-shift.

3.2. Personnel and Equipment

3.2.1. Yukon Government

The general overview and coordination of the project was under the direction of Dr. Dustin Rainey of YG Assessment and Abandoned Mines (AAM) in Whitehorse. Ms. Deborah Pitt also represented YG at several points in the project.

3.2.2. BGC Personnel

BGC personnel were on site as the Owner's Engineer to undertake field design, construction monitoring, Quality Assurance (QA) and daily review of Pelly timesheets. It should be noted that BGC did not administer the Pelly contract; this aspect was handled by YG. BGC construction supervision personnel consisted of Ms. June Atkinson or Mr. Jeremy Valeriote. BGC staff was onsite full-time during the day shift construction activities. Construction monitoring reports were prepared daily by BGC and forwarded by email to BGC and YG representatives daily. These reports are provided in Appendix D including a selection of daily progress photos.

Ms. Atkinson and Mr. Jim Cassie of BGC Engineering arrived on site on August 23, 2011 with Dr. Rainey and spent two days reviewing the design and up grades. Construction monitoring began on August 25, 2011 and was completed on October 2, 2011. A completion inspection was undertaken by Dr. Rainey, Ms. Atkinson and Mr. Cassie on October 3, 2011.

3.2.3. Pelly Personnel and Equipment

Pelly Construction Ltd. (Pelly) provided one shift of equipment operators during this project. The shift worked under the direction of a foreman, Mr. Gunnar Slack, throughout the project. The hours worked by the contractor during day were 7:00 to 17:30. The evening shift was operated on an ad hoc basis with no set hours as previously noted.

Pelly also provided a surveyor, Ms. Caroline Brisebois, on the following dates:

- September 2 and 3, 2011 to stake out the position of the proposed sediment pond,
- September 11, 17, 18 and 19, 2011 to check the sediment pond construction elevations and
- October 2 and 3, 2011 to survey the work for as-built purposes.

The majority of the construction equipment was mobilized to the site during the week of August 23, 2011. The use of the equipment varied throughout the work but typically comprised one CAT 365 excavator, one CAT 335 excavator, two CAT 773B haul trucks, one grader, one packer, one loader and two dozers (a CAT D6 and a CAT D9). All equipment was operated by Pelly personnel.

Daily construction cost reports were prepared by Pelly and reviewed by BGC. These reports recorded time worked by Pelly equipment and personnel and associated costs. The approved progress reports were submitted to Yukon Government for payment.

3.2.4. Superior Plastics Personnel and Equipment

Superior Plastic Solutions Inc. (Superior) provided one shift of liner installers and labourers (5 personnel) during the project. The shift worked under the direction of a foreman, Mr. Fred Rudolph, throughout the project. Superior also provided Quality Control (QC) services for the liner installation. The hours worked by the liner contractor during day were 7:00 to 17:30. The liner team commenced work on site on September 19, 2011 and completed work and left site on September 28, 2011.

3.2.5. Denison Environmental Services

Denison Environmental Services (DES) is the Care and Maintenance Contractor at the Faro Mine Site. DES was involved in some aspects of the work (ditch excavation and culvert replacement) under their existing site contract.

3.3. Materials

Equipment and personnel time were tracked during the project, but clean waste rock and till volumes moved were not because costs were accrued on a time and materials basis, rather than on unit rates. As-built earthworks volumes of approximately 12,300 m3 fill and 7,800m3 cut were within 20% of initial design volumes.

HDPE liner and geotextile amounts installed during sediment pond construction are listed below. Western Tank and Lining supplied the liner and majority of the geotextile, all of which was procured by DES:

- Solmax 60mil HDPE liner - 7 rolls @ 1078 m^2/roll = 7,600 m^2
- Texel 918 12oz (435 g/m^2) non-woven geotextile – 22 rolls @ 350m^2/roll + 12 rolls @ 375m^2/ roll = 12,200 m^2.

3.4. Weather

A summary of the weather conditions was kept by BGC on the daily reports contained in Appendix D.

4.0 AS-BUILT RECORD

4.1. Daily Reports

As noted previously, daily reports were completed by BGC and issued to YG throughout the construction work. Design modifications agreed upon in the field are summarized in Section 4.3.

4.2. Quality Assurance/Quality Control

For this project Construction Quality Control (CQC) and Construction Quality Assurance (CQA) were defined as follows:

Quality Control (CQC): Actions taken by a provider of a service or product (that is the installer or contractor) to determine compliance with the requirements for materials and workmanship as stated in the project's drawings and specifications. For example, in earthwork, this means running compaction/density and grain size tests. For geosynthetics installation, it covers aspects such as trial welds, seam testing and leak detection.

Quality Assurance (CQA): Actions taken by the Owner (or a consultant to the Owner) to provide assurance that a facility is constructed as designed. This includes observation of the QC work, review of QC results, and verification that QC tests are conducted at the specified intervals, all to determine if the contractor and installer are in compliance with the project's drawings and specifications.

The results of the QA and QC are summarized in the following sections.

4.2.1. Pelly QC Activities

The majority of the Pelly's construction activity consisted of excavation and placement of fill and riprap. Monitoring consisted of ensuring that the excavation was performed to the lines and grades indicated on the drawings and to the intent of the upgrade designs and inspection and assessment of subgrade conditions.

Materials placed within the construction consisted of non-woven geotextile, liner, till and rip rap (400 mm). The geotextile used met the project specifications. It was placed in accordance with the manufacturer's specifications and the overlap and heat seaming of adjacent sheets was visually inspected. The gradation of the rip rap was visually inspected, but not tested, at the outset of the project, deemed appropriate, and subsequent loads of riprap were compared to the initial gradation.

4.2.2. Superior QC Activities

Superior undertook the following qualifications and tests:

- Subgrade Inspection and Acceptance Certification
- Wedge Welder Qualification
- Extrusion Welder Qualification
- Seam Pressure Test
- Destructive Test

Their liner installation report is included as Appendix E. In addition, BGC monitored the liner work for any visible defects during installation (poor seams, damage to liner, etc.). Where defects were identified by BGC, these were addressed prior to the liner team leaving site.

4.3. Design Modifications

Modifications to the BGC Phase 1 recommendations (Appendix A) and/or design (Appendix C) are detailed in the following sections.

4.3.1. Regrading of Bench Ditches

Benches 1 to 5 were reconfigured using a grader, selected as the most practical and efficient method to increase flow capacity of the bench ditches and improve lateral drainage on the GSC cover. The original benches were flat with a 1 m x 0.5 m deep channel section excavated at the back of the bench. Benches were regraded for an average depth of 1.1 m, width of 6.2 m, and 17% back slope with no spoil windrow (compared to the 12% back slope and spoil windrow as designed and presented in Appendix C, Drawing 03). BGC measured the regraded benches and found that flow capacity cross-section had been increased by about six times compared to the previous 0.5 m deep by 1 m wide ditches.

4.3.2. Sediment Pond

4.3.2.1. LDP Re-lining

The original design for the new sediment pond was to connect the newly installed 2011 liner to the existing GSC liner at the outlet of the Lower Dissipation Pool (LDP). When uncovered, the existing GSC liner in the LDP was found to be ripped and in places, damaged beyond repair at the proposed tie in location. A decision to modify the design was made in the field, and the tie in location for the sediment pond lined was moved to where the East and West Dissipation Channels join the LDP. At these locations, the liner was exposed and found to be intact.

As a result of this design modification, the existing LDP riprap, geotextile and liner were removed and the original compacted subgrade was exposed, the culvert exit from the LDP was removed, the eastern edge of the LDP was straightened by packing waste rock material, and new geotextile, liner and riprap was placed. It is possible that the liner higher up in the

perimeter ditches may also be damaged but BGC was not able to specifically inspect this aspect. This issue is noted to highlight possible channel leakages in the future.

4.3.2.2. Geotextile Under Liner

After reviewing the substrate condition on the slopes of the sediment pond, Pelly, Superior, BGC and YG agreed that a double layer of geotextile placed under the HDPE liner was appropriate to protect the liner from irregularities in the substrate. In two locations, noted as follows, the geotextile was triple layered along the crest to protect the liner where the substrate was considered to be particularly unsatisfactory:

- The entire length of the eastern edge of the sediment pond.
- The southern edge of the pond where the depth of the sediment pond is 3 m.

4.3.2.3. Centre Berm, Separation Dykes and Access Ramp

The original sediment pond design had a rockfill centre berm in the eastern area of the pond to create an area of the pond for sediment capture and provide access for equipment into the eastern area of the pond to clean out the sediment pond.

The requirement for the center berm was reassessed with YG on site on September 28, 2011. YG indicated that the sediment pond design intent, in the short term, would be to store and contain run-off and that as the water would not be released to the environment (Section 4.3.1), the ability to remove sediment from the inflow water was not essential in the short term. In the long term, modifications to the sediment pond will likely be required to provide a permanent drainage solution and, at this time, appropriate sedimentation measures would be added, if necessary. As a result, the center berm was removed from the scope of work for the sediment pond construction.

One implication of the removal of the center berm is a limitation on the reach of the equipment to place a riprap baffle in the base of the sediment pond at the inlet location. Placed riprap can be seen in daily report photos for September 29 in Appendix D. BGC recommends that turbulent flow in the base of the sediment pond be monitored in the 2012 freshet to assess whether the riprap baffle is adequate to slow inflow and protect the liner in this location. A riprap stockpile was left near this location should more material need to be added to the base of the sediment pond, however an excavator with a longer boom reach (greater than 7 m) will be required for this task.

As a result of center berm removal from the design, the access ramp to the sediment pond and separation dykes were also not constructed, with YG's approval.

4.3.2.4. Spillway Outlet to Haul Road

The sediment pond has an overflow spillway in the southeastern corner, with an invert elevation of 1190.4 m. The spillway is not lined with riprap as specified in the design memo. The spillway was instead constructed at a shallower 4H:1V slope to the riprap quarry access

road bench below. The original design was to construct a spillway channel outlet that would be directed adjacent to the riprap quarry access road and discharge in the CSA. This outlet would comprise a riprap crossing for vehicular traffic and then an unlined ditch to channel water and away from the riprap quarry access road surface.

The flow routing for spillage from the sediment pond was not constructed and was left to flow onto the existing riprap quarry access road surface at YG's request. Excavation and riprap lining of a channel between the sediment pond and the CSA) was not completed (after consultation with YG), as it was determined that the riprap quarry access road requires rehabilitation each spring and maintenance would be done by DES as required after the freshet. Riprap placement on the road berm opposite the spillway was also agreed to be an emergency measure that could be implemented on short notice in combination with expected monitoring of the GSC cover in Spring 2012. This riprap should be readily available and accessible near the spillway prior to Spring 2012 in case it is required.

Riprap material removed from the LDP was added as an uncompacted 1 m toe berm to the 2H:1V sediment pond slope, along the northeast side of the riprap quarry access road to resist erosion at the toe of the sediment pond slope.

4.3.3. Contingency Storage Area

Following the preliminary recommendations identified in the BGC letter of August 3, 2011 and subsequent discussions with YG on site and in Whitehorse on August 23-25, 2011 (Appendix B), the design intent for the sediment pond was modified and the following adjustments to BGC's preliminary recommendations were made:

1. Overflows in excess of the GSC cover sediment pond storage capacity will not be discharged directly into Grum Creek via an outlet channel, in part due to YG approval for DES to implement a stand-alone seepage collection and pumping system for Grum Creek and V15 flow. This decision is also based on the water quality from Grum Creek Weir and the worsening condition of the Moose Pond berm. As part of this work, the original discharge point from the GSC was decommissioned, which included removal of the 600 mm culvert under the quarry access road, rip rap lined channel and 600 mm half-culvert flume towards Grum Creek.
2. Water management from the sediment pond will include a separate pumping system to the Vangorda Pit catchment.
3. The sediment pond will be as large as practical given available space at the toe of the GSC cover, but it will not provide complete containment of all possible run-off events.
4. The construction of the CSA downstream of the sediment pond was added to the Pelly Phase 2 work scope. The CSA, which was constructed from a depression in the lower Grum waste rock dump, was added to the overall storage plan as an emergency measure. Spillage from the sediment pond will flow to the CSA, where it is expected that the water will infiltrate through the waste dump, and may spill in extreme events. It should be noted than the CSA is a temporary, contingency

measure and that given the conservative runoff estimates; the probability of spillage from the CSA is low, especially with sediment pond pumping in operation. However, the consequence of overflow may be significant erosion of the waste rock dump and suspended sediment in the receiving environment. These potential consequences dictate the need for a permanent solution to be integrated into closure measures for the Grum waste rock dump.

4.4. As-built Survey Drawings

As-built survey data was collected by Pelly Construction and provided to BGC by YG on 14 October, 2011. BGC has included this survey data in Drawings 1-3 for this report.

Using the as-built survey data, BGC produced volume-elevation curves for the sediment pond and the CSA. These are included as Figures 1 and 2. Noteworthy is that total as-built storage in each of the sediment pond and CSA below the outlet inverts is 9,000 m3, greater than the 7,000 m3 and minimum 5,000 m3 for the sediment pond and CSA respectively, as estimated in the original design memo (see Section 2.2 or Appendix C).

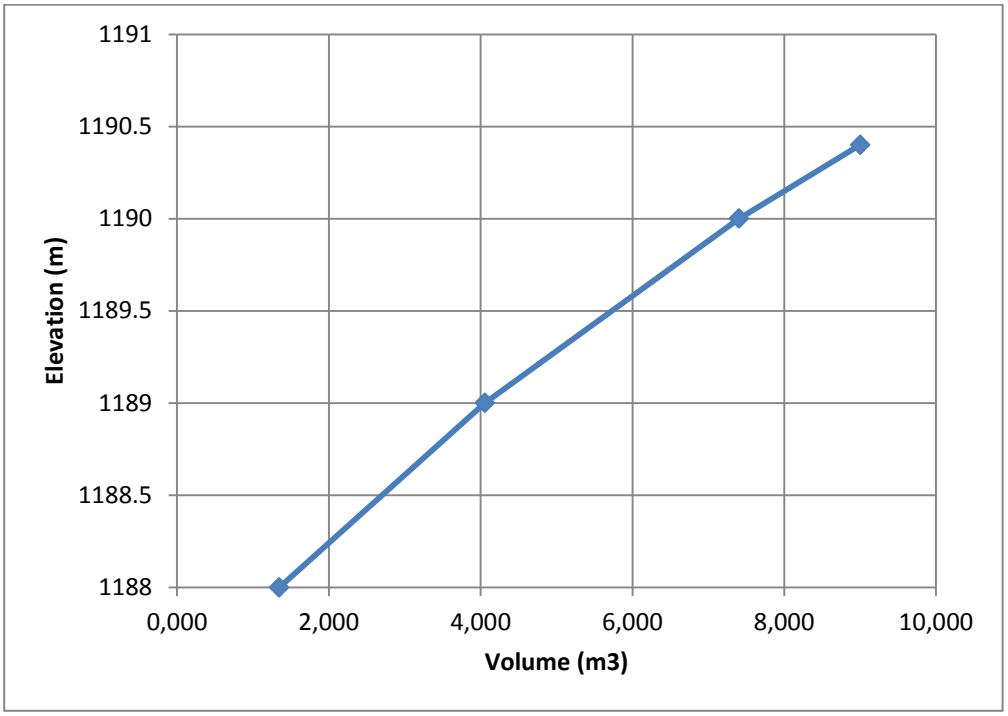


Figure 4-1. Sediment Pond: As-Built Volume Elevation Curve (Spillway Invert 1190.4m)

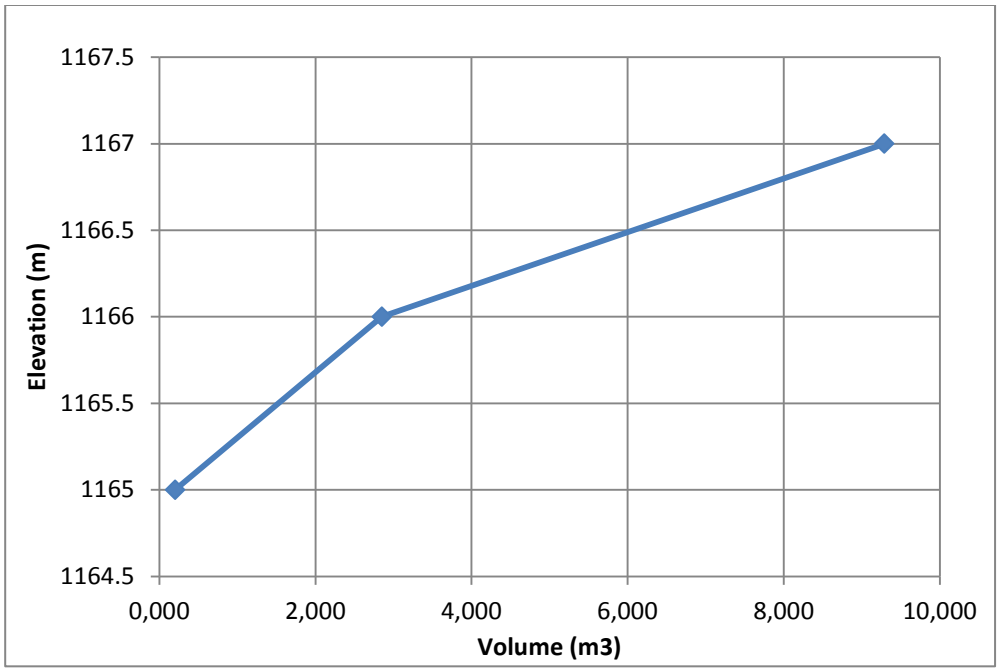


Figure 4-2. Contingency Storage Area: As-Built Volume Elevation Curve (Outlet Invert 1167m)

Given the informal nature of the CSA and its outlet, it is possible that outlet seepage or surface flow could potentially occur at lower elevations than noted herein. Monitoring of the outlet stability and seepage volumes is recommended during any discharge events.

4.5. Direct Costs Summary

Pelly costs for the project were about $749,000, split into two phases of $201,000 and $548,000 each, not including revegetation costs. Daily Pelly costs are indicated in the Daily Reports presented in Appendix D.

BGC's on-site construction monitoring costs were approximately $110,000; .design and reporting costs were an additional $65,000, for a total of $175,000, including disbursements.

5.0 POST-CONSTRUCTION RECOMMENDATIONS

5.1. Additional Installations

5.1.1. Sediment Pond Perimeter Fencing

The outer edge of the newly constructed sediment pond should be protected by a permanent perimeter fence to prevent animals from entering the sediment pond and also provide a safety barrier for on-site activities. BGC understands that DES has installed snowfence for this function, and recommends that performance of the snowfence in achieving the above objectives be monitored.

5.1.2. Snow Fence Trial

A snow fence trial will be undertaken in Winter 2011-2012 to assess whether the installation of snow fences adjacent to the benches will prevent snow build up and improve drainage through the bench ditches during freshet. DES, BGC and YG agreed on location and configuration of a trial involving placement of 400 m of snow fence upslope of Bench 3 (elevation 1258 m) at distances from the bench ditch between 5 and 15m. .However, due to adverse conditions DES was only able to install a 100m section, as shown on Dwg 02. This and future trials should help to assess options for mitigation of snow buildup on the benches, and BGC recommends that more snow fence be installed in time for Winter 2012-2013..

5.1.3. Pump and Pipeline

As part of the design, water management from the sediment pond will include a separate pumping system to the Vangorda Pit catchment. BGC recommended a design pumping rate of 13,000 m3/day (540 m3/hr), communicated to YG in the design memo (Appendix C).

BGC understands that the pump and pipeline design, acquisition and installation will be completed by DES in time for operation during freshet 2012. As of January 6, 2012, a Godwin HL6M skid-mounted diesel pump and 600 m of 8" HDPE pipe had been purchased through DES and delivered to site.

5.1.4. Emergency Riprap Stockpile

Riprap placement on the road berm opposite the spillway was agreed with YG to be an emergency measure that could be implemented on short notice if necessary to prevent erosion in Spring 2012. A stockpile of riprap should be readily available and accessible near the spillway prior to Spring 2012 in case it is required.

5.2. Monitoring

5.2.1. Rainfall-Snowmelt Runoff Relationship

BGC recommends that a weir (or alternate flow measurement device or methodology) be installed in the inlet and outlet channels to the sediment pond, to provide data on the

rainfall/snowmelt-runoff relationship as the GSC cover matures. This should also include measurements of snowpack depth and density and continued collection of nearby site temperature, precipitation and wind data.

5.2.2. Sediment Pond Water Management

A water balance should be established to correlate sediment pond inflow and pumping rates to determine leakage from the sediment pond, if any. Elevation lines on the sediment pond liner surface should be drawn to allow an observational record of pond water elevations as inflow and pumping occur. Temporary elevation lines could be drawn with spray paint prior to freshet, with a staff gauge installed on a long-term basis later in 2012.

As pumping is initiated, records of discharge times and dates should be collected and recorded in order to quantify the total amount of water discharged from the sediment pond. In addition, it is recommended that water quality monitoring be initiated as specified in Section 5.2.3.

It is recommended that water levels in the sediment pond be drawn down between run-off events to provide storage for the next runoff event and to prevent attraction of animals into the lined area. If animals do enter the lined pond, egress is possible at the inlet channel riprap ramp.

If a significant quantity of sediment is deposited in the base of the sediment pond, it should be surveyed prior to its removal. Soil sampling and geochemical analysis of deposited sediment should be undertaken.

5.2.3. Water Quality

BGC recommends that water quality monitoring be adapted to new flow routing from the GSC. This program should include the following points:

- Inflow to the sediment pond;
- Standing water in the sediment pond;
- Outflow from the sediment pond (when applicable);
- Standing water in the CSA;
- Existing, plus mapping and testing of any additional, seeps along the southern toe of the Grum waste rock dump.

It is expected that current monitoring and compliance points will be maintained. DES may also wish to consider additional points to differentiate quality of GSC cover runoff from runoff entering the system from outside the cover via road ditches or other routes.

5.2.4. Riprap Quarry Access Road Condition

As discussed in Section 4.3.2.3, the condition of the riprap quarry access road below the spillway outlet may be compromised as a result of spillway flow. If access is to be maintained

to the waste rock quarry and the west side of the cover during spring freshet, the condition of this road will need to be carefully monitored, and equipment available for repairs as required.

5.2.5. Cover, Channel and Sediment Pond Slope Erosion

Visual inspections for erosion of existing infrastructure should be conducted regularly during freshet and following each significant rainfall event. As part of these inspections, culverts should be inspected to ensure that they are open prior to the freshet.

5.2.6. Geotechnical Stability

Visual geotechnical inspections (for tension cracks, seeps, etc.) should be conducted on the GSC cover, toe berm and waste rock dump slopes on a regular basis. A baseline should be established for this item with a visual inspection and photographic record.

5.2.7. 2012 Freshet Site Visit

Close monitoring of the cover performance during the 2012 freshet is recommended. In particular, snowpack characteristics (thickness, density, layers, presence of ice lenses), performance of regraded cover benches and the performance and capacity of the sediment pond should be observed, with measures taken to prevent erosion or other damage from rain and snowmelt events. BGC recommends that BGC staff (with YG staff) visit the site prior to and during freshet discharge to observe, take measurements and advise on emergency measures (if necessary) regarding the snow cover prior to run-off, the cover performance during run-off, revegetation success, and further repairs, if required.

5.3. Considerations for Long-Term Issues

As noted in the introduction, BGC's focus in 2011 has been to address immediate repairs to the GSC cover and adjacent areas. Longer-term issues have not been considered in the measures implemented to date. BGC recommends careful observation of the cover performance through to Spring 2012 followed by a re-assessment of challenges and priorities.

Longer term issues that need assessment and potentially future repairs include:

- Assessment and possible remediation of metals-contaminated or potentially acid-generating cover material;
- A strategy to move from a pump-and-treat system to direct discharge to the receiving environment, once compliant water quality is confirmed, and re-evaluation of the temporary sediment pond within the context of the final closure plan for the Grum waste rock dump;
- Based on results of bench ditch regrading, consideration of the possible need for increased longitudinal bench gradient;

- Consideration of the "hard" engineering design of the existing GSC cover (fixed slopes and hard berm widths) and the possibility of incorporating or retrofitting using landform design principles.
- Development of a long term re-vegetation and monitoring plan including native species.
- Development of a detailed cover monitoring program including soil moisture retention and infiltration through the GSC cover. The cover was designed to restrict infiltration to 0.5% of mean annual precipitation by the designers, and currently there is no way of measuring against this standard. Cover instrumentation should be installed in addition to cover area water balance monitoring on surface. This will be especially important to understand cover infiltration performance as vegetation cover evolves over the next 5 to 10 years.

Given the number and extent of proposed covers planned for the overall Faro site, it is important to learn all possible lessons and design optimizations from the existing Grum cover as practically possible. These lessons learned will need to feed into the overall site design being formulated in the next few years.

6.0 CLOSURE

The cover and water management systems discussed herein may have longer-term residual risks that need to be evaluated and addressed in future phases; this work has not been completed under this work scope. BGC recommends that YG be prepared to continue to monitor and gather site specific data and operational experience (e.g. snow pack depth and variation, water quantity and quality, revegetation success) to assess the performance of the proposed mitigation measures. In addition, BGC understands that remaining 2011 remediation measures (pump and pipe installation) will be undertaken by DES under YG's supervision, and that YG will ensure these aspects are implemented. The measures implemented in 2011 represent significant mitigation efforts that will reduce the severity of erosion and the potential for non-compliant water releases during Spring 2012 freshet, however the upgraded water management is not designed to handle all possible spring run-off events and some residual risks do remain regarding possible discharge.

We trust the above satisfies your requirements at this time and remain open to any discussion or comments on the measures provided herein. Should you have any questions or comments, please do not hesitate to contact us.

Yours sincerely,

BGC ENGINEERING INC.
per:

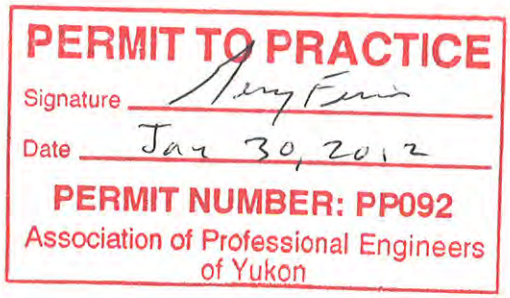
June Pollard, M.Sc., GIT
Engineering Geologist

Jeremy Valeriote, P.Eng.
GeoEnvironmental Engineer

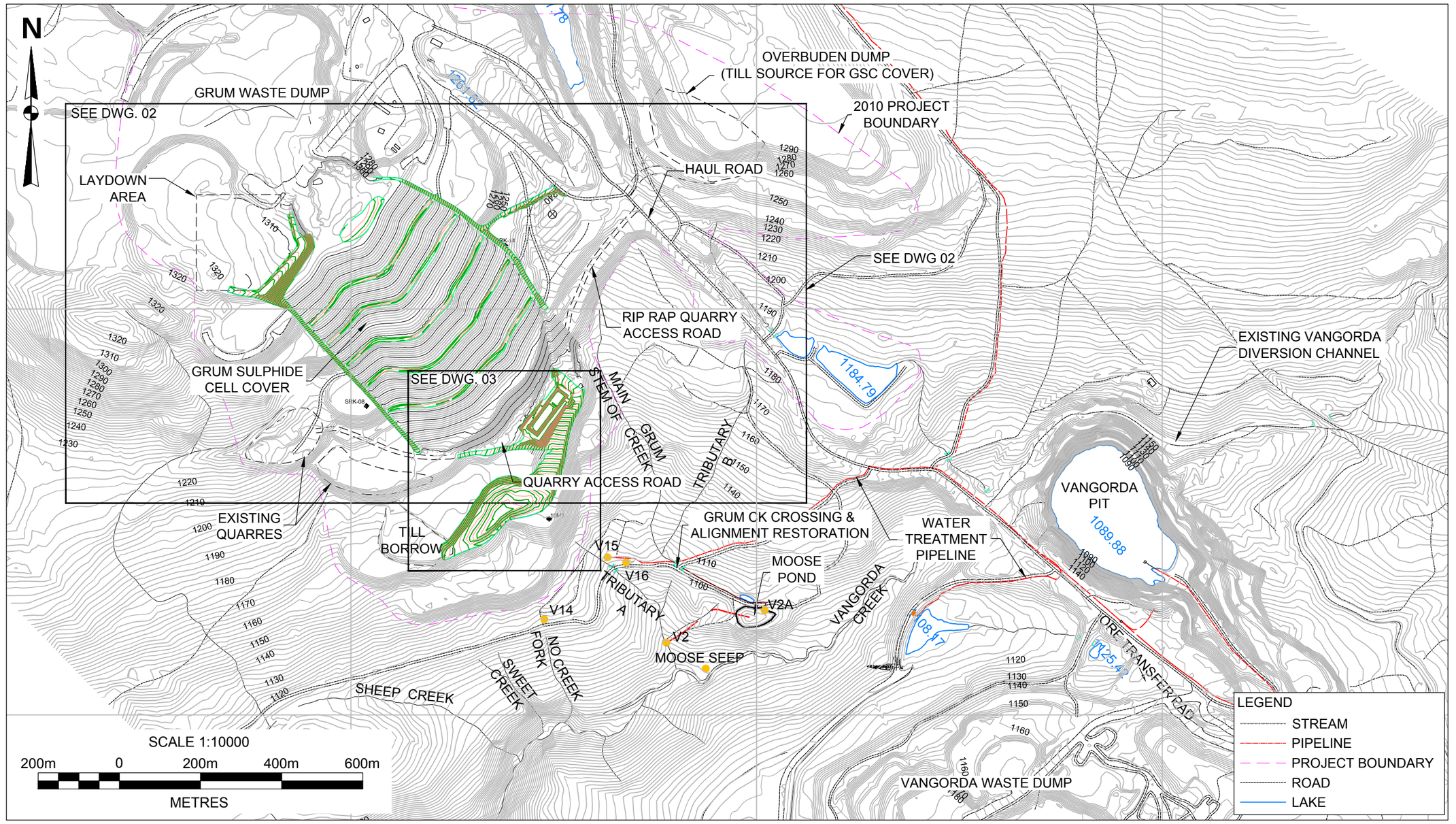
Reviewed by:

James W. Cassie, M.Sc., P.Eng.
Senior Geotechnical Engineer

Gerry Ferris, M.Sc., P.Eng.
Senior Geotechnical Engineer



AS-BUILT DRAWINGS



BASE MAP SOURCE: YUKON ENGINEERING SERVICES (YES) INITIAL SURVEY JUNE 2010, YUKON ENGINEERING SERVICES (YES) GSC SURVEY 22 JUNE 2011, AND PELLY CONSTRUCTION AS-BUILT SURVEY14 OCT 2011.
JUNE 22, 2011 GSC SURVEY & OCT 14, 2011 AS-BUILT (PELLY)

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CLIENT: GOVERNMENT OF YUKON

PROJECT: GRUM SULPHIDE CELL COVER UPGRADES - AS-BUILT CONSTRUCTION REPORT

TITLE: OVERVIEW MAP

PROJECT No.:	DWG No.:	REV.:
0533-003	01	0

DWG TO BE READ WITH BGC REPORT TITLED "GRUM SULPHIDE CELL COVER UPGRADES - AS-BUILT CONSTRUCTION REPORT" DATED JANUARY 2012

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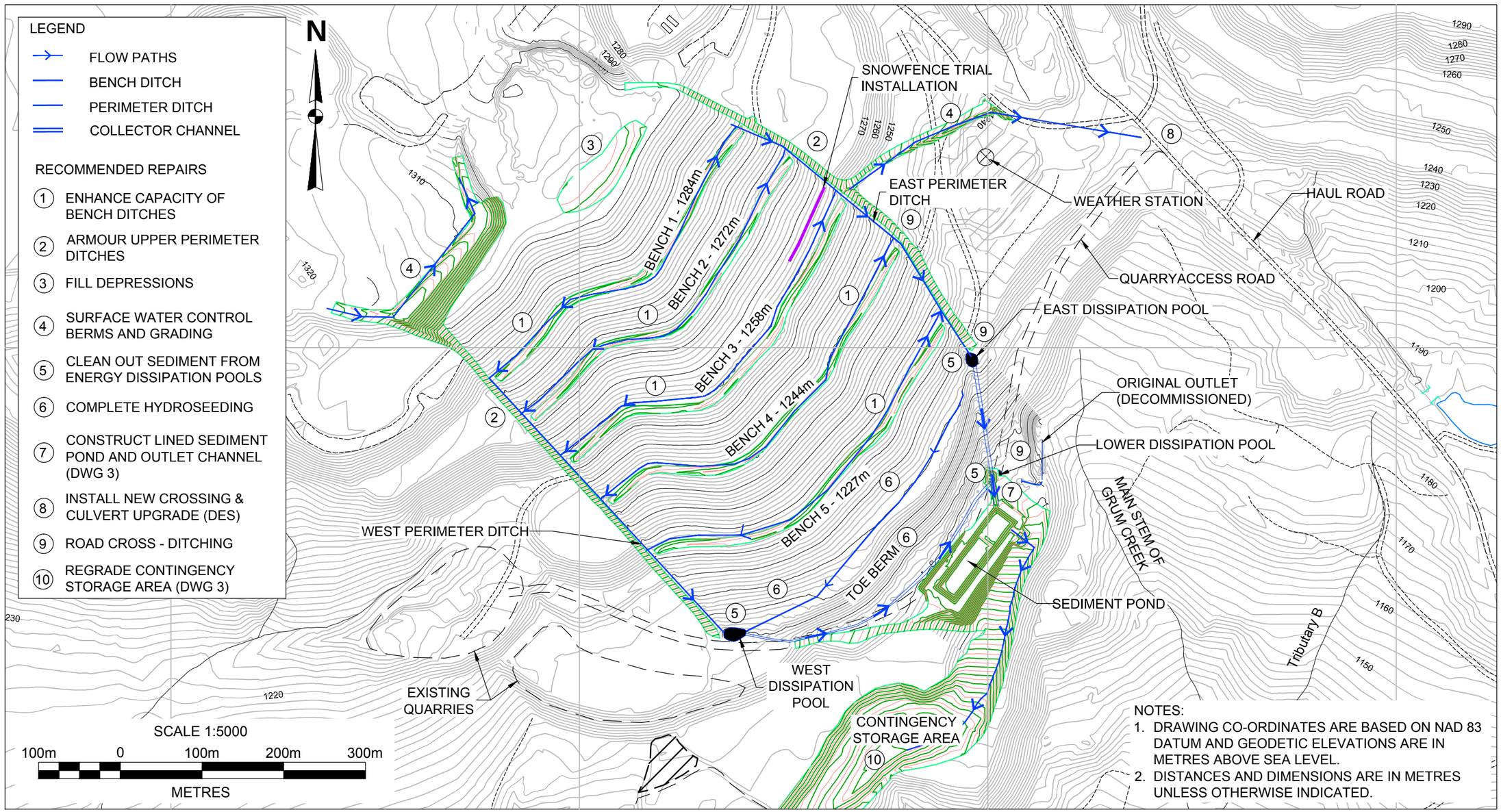

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DESIGNED:	JV
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APPROVED:	JWC

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CLIENT: GOVERNMENT OF YUKON

PROJECT: GRUM SULPHIDE CELL COVER UPGRADES - AS-BUILT CONSTRUCTION REPORT

TITLE: GENERAL COVER UPGRADES

PROJECT No.:	DWG No.:	REV.:
0533-003	02	0

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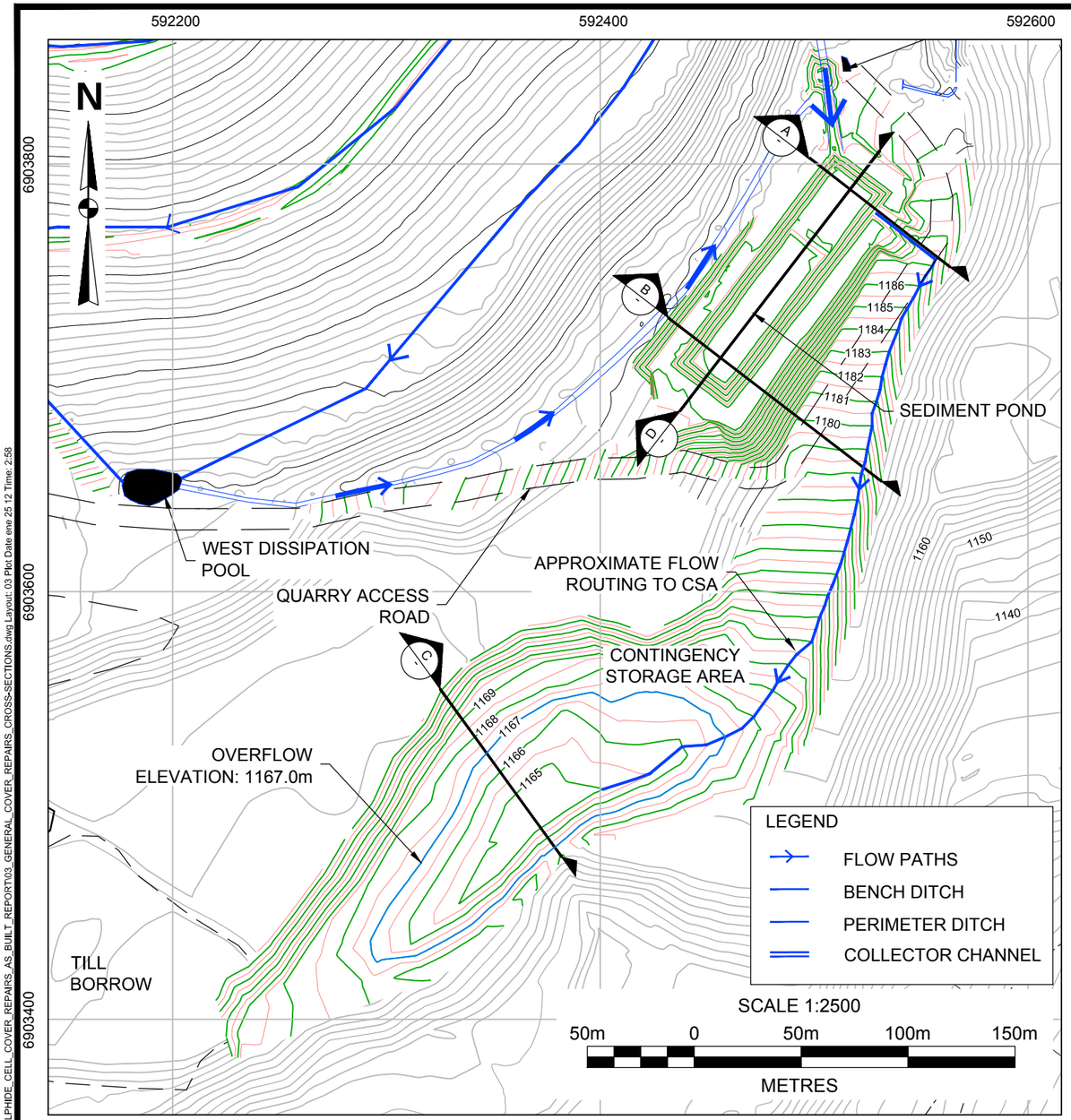

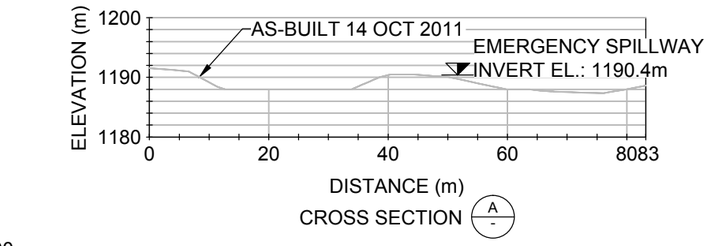

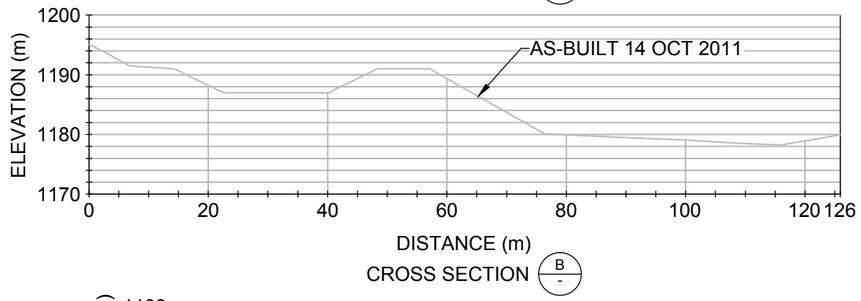

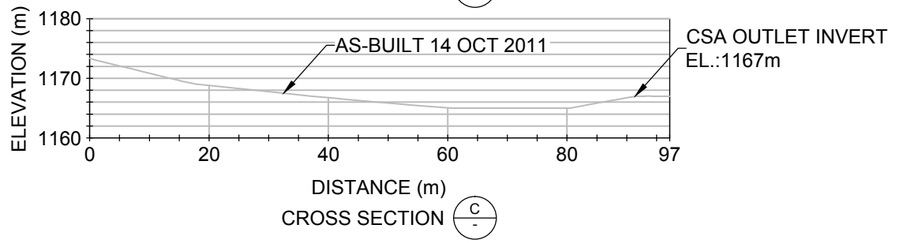

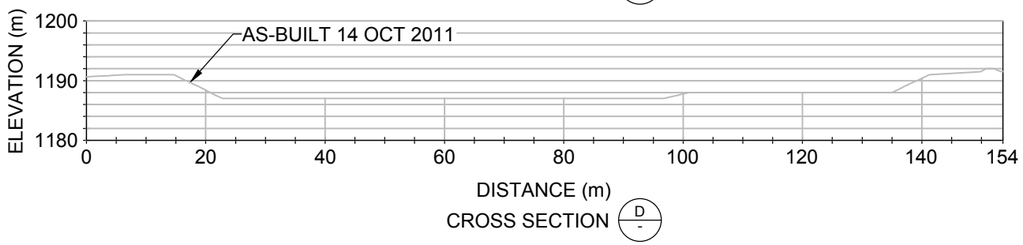

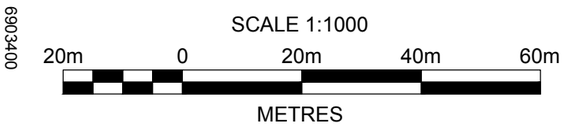

BASE MAP SOURCE: YUKON ENGINEERING SERVICES (YES) INITIAL SURVEY JUNE 2010, YUKON ENGINEERING SERVICES (YES) GSC SURVEY 22 JUNE 2011, AND PELLY CONSTRUCTION AS-BUILT SURVEY14 OCT 2011.

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SCALE: 1:5000
DATE: JAN 2012
DRAWN: COC
DESIGNED: JV
CHECKED: GWF
APPROVED: JWC

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CLIENT: GOVERNMENT OF YUKON

PROJECT: GRUM SULPHIDE CELL COVER UPGRADES - AS-BUILT CONSTRUCTION REPORT

TITLE: SEDIMENT POND AND CONTINGENCY STORAGE AREA PLAN AND SECTIONS

PROJECT No.: 0533-003
DWG No.: 03
REV.: 0

DWG TO BE READ WITH BGC REPORT TITLED "GRUM SULPHIDE CELL COVER UPGRADES - AS-BUILT CONSTRUCTION REPORT" DATED JANUARY 2012

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APPENDIX A
BGC PHASE 1 RECOMMENDATIONS MEMORANDUM

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August 3, 2011
Project no: 0533-003

Dustin Rainey, PhD
Project Manager, Faro Project Management Team
Assessment and Abandoned Mines
Government of Yukon
Energy, Mines and Resources
Box 2703 (K-419)
Whitehorse, Yukon Y1A 2C6

Dear Dustin,

Re: Grum Sulphide Cell Cover Repairs – Preliminary Recommendations - FINAL

BGC is pleased to provide the following preliminary recommendations to address cover erosion and water management issues at the Grum Sulphide Cell (GSC) cover recently constructed at the Faro Mine. These recommendations are based on our site visit of July 12 and 13, 2011, a review of available information, and preliminary assessment of root causes and required mitigation measures.

As described in our Phase 1 Work Program letter, these preliminary recommendations constitute a first phase of work towards short-term cover repairs; Phase 2 would include detailed design for short-term remediation in 2011, and a potential Phase 3 would involve longer-term remediation in 2012, and beyond if required.

1.0 SCOPE OF WORK

For Phase 1, BGC was asked to provide recommendations for GSC water management mitigation measures to be conducted in 2011 to reduce the severity of erosion and reduce the potential for water quality exceedances in Vangorda Creek during spring 2012 runoff. BGC was to review several documents (listed below), perform a site inspection, and provide recommendations in a letter. Specifically excluded from the three phases of work were a forensic investigation of past incidents, and investigation of groundwater or seepage issues. This letter focuses on remedial water and erosion management measures to be completed in the short term, and does not address long-term cover, landform or drainage design requirements.

2.0 BACKGROUND

The GSC is located within the Grum Waste Rock Dump at the Faro Mine Complex, near Faro, Yukon, as shown on Drawing 1 attached. Sulphidic waste rock was placed in this area during mining of the Grum Pit, and the Yukon Government (YG) completed the construction of a high-density polyethylene (HDPE)-lined cover over the GSC in 2010.

The cover and related works were designed by SRK Consulting (Canada) Ltd. (SRK) and constructed by Pelly Construction Ltd. (Pelly) between June and November 2010. This work consisted of waste rock dump resloping, liner deployment and seaming, soil cover placement and surface runoff management. Some sulphidic material outside the cover extents was also relocated and placed under the GSC cover.

In May 2011, it became apparent that the constructed surface water management system at the GSC cover was not adequately managing flows resulting from rapid snowmelt, evidenced by erosion of the cover and runoff collection ditch, and high total suspended solids (TSS) concentrations in runoff downstream of the cover. Runoff was diverted to Moose Pond, where it exceeded both the capacity of the pond and that of the seepage pumping system located at Grum V15. On May 17, the spillway leading to Moose Pond was breached to prevent overtopping of the natural embankment retaining Moose Pond. Runoff from the GSC cover was thus diverted to the adjacent forested area, and eventually into Vangorda Creek. Zinc concentrations at compliance points upstream of Vangorda Creek (V2 and V2A), in and downstream of Vangorda Creek were found to be greater than the effluent quality standards for discharge from the mine. A temporary, unlined sediment pond was built on May 21, downstream of the Lower Energy Dissipation Pool (LDP), to capture further high flows from heavy rainfall.

On June 21, a week of steady rain prompted Denison Environmental Services (DES), the contractor managing the Faro Mine on behalf of YG, to block the culvert conveying flow from the runoff collection ditch downstream of the LDP, and build a diversion berm upstream of the culvert, to divert flow into the new sediment pond. However, on the night of June 21, runoff from heavy rain overwhelmed the culvert leading from the LDP to the sediment pond and washed out the diversion berm, causing some runoff to reach Moose Pond. The culvert between the LDP and the sediment pond was removed on June 22 to reduce restriction on the channel to the sediment pond. At this time, sediment-laden seepage was also observed to be flowing through the downstream embankment of the sediment pond.

3.0 INFORMATION REVIEW

BGC reviewed the following memos and reports documenting the events of May and June 2011, and post-freshet cover conditions:

- Faro Mine Complex: Moose Pond and Associated Water Management Structures – Elevated TSS in Discharge to Vangorda Creek (YG, May 18, 2011).
- Faro Mine Complex – Grum Sulphide Cell Surface Water Management: Elevated TSS and Zinc in Discharge to Vangorda Creek (YG, May 27, 2011).

- June 21-June 23 Moose Pond Stormwater Management (DES, June 23, 2011); and
- Geotechnical Evaluation – Grum Sulphide Cell Cover Erosion Control Measures (Chilkoot, June 6, 2011).

The above documents contain thorough descriptions and photodocumentation of during- and post-freshet GSC cover conditions, so BGC has not replicated those efforts in this report.

BGC also consulted the SRK Grum Sulphide Cell Cover Construction As-built Report (May 2011) for construction background and details. SRK designed for the 100-year rainfall event and used the Rational Method and Manning's equation to predict flow and flow velocity on the cover, and in the runoff collection ditch at the toe of the cover. Bench and perimeter ditches were specified to be 0.5 to 1.2m deep and 2 to 3m wide.

4.0 SITE VISIT OBSERVATIONS

BGC was asked by YG to review and assess water management on the GSC cover, and recommend mitigation measures. Jeremy Valeriote and Elisa Scordo of BGC visited the site on July 12 and 13, 2011. On and around the GSC cover, BGC observed the following:

- A broad depression on the upper bench (El. 1300m) concentrating flow onto the upper cover slope.
- Surface erosion rills (typically less than 10cm deep) on the GSC cover consistent with an unvegetated, uncompacted till cover exposed to freshet runoff;
- Additional catchment areas outside the cover (to the north and northwest, and along the toe berm access road to the east) contributing additional runoff at the toe of the GSC cover.
- Two areas of gullying (each up to 1m deep and several metres wide) on the eastern end of the toe berm, consistent with concentrated runoff down the toe berm slope. Both gullied areas were filled with till and was track-compacted during our site visit on July 13.
- Lower perimeter ditches performing well, with larger sized riprap than the upper perimeter ditches.
- Erosion and undercutting of armouring on upper perimeter ditches (below Benches 1 and 2 at approximate elevations 1284 to 1258m).
- Sediment deposition into bench ditches. Bench ditches shown in Figure 2 were excavated below the bench surface to be 0.5m deep and 2m wide at the bench surface. These were partially filled with sediment and less than 0.5m deep in some locations.
- Sediment deposition in the East, West and Lower Energy Dissipation Pools (EDP, WDP and LDP respectively). Depth was difficult to quantify for the EDP and WDP due to unknown construction depth, but based on a design depth of 2.7m for the LDP, there may be a thickness of up to 1m of sediment deposited in the LDP.
- A temporary, unlined sediment pond accepting runoff from the LDP, with no outlet or emergency spillway.

- A wide channel formerly flowing from the LDP, leading to a damaged and inoperable half-culvert outlet, a deeply eroded waste rock slope below the transition, and resulting debris flow into the forest below.
- Natural streambeds downstream of the intended half-culvert outlet channel, and on the old Grum Creek alignment downstream of the Grum Creek weir.

We understand that YG has commissioned liner testing and detailed survey information to assess constructed till cover thickness and liner integrity, so BGC has not commented on those issues here.

5.0 DISCUSSION

The following short-term issues need to be resolved:

- Potential for further erosion of the cover surface due to filling of bench ditches with snow and ice and resulting overland flow, and concentration of flow in topographical depressions
- Potential for further erosion of upper perimeter ditches due to undersized armouring;
- Potential for overwhelming of channels and ponds with run-on water and sediment from outside the GSC cover surface.
- Potential for uncontrolled loss of sediment and water from the existing sediment pond that is highly permeable, has no outlet or emergency spillway, and may not be sized to ensure sediment removal from surface water prior to entering the receiving environment.
- Over-reliance on Moose Pond for attenuation of flow volumes, TSS and zinc concentrations in Grum Creek and at compliance point V2.

Potential root causes of the May and June 2011 runoff events can be summarized as follows:

- Higher than average snowmelt and rainfall in spring 2011.
- Late construction that did not allow hydroseeding in 2010, leading to reduced cover erosion resistance during the 2011 spring runoff.
- Filling of bench ditches with snow and ice, resulting in reduced flow capacity and flow over the edge of the benches.
- Lack of positive drainage in some locations on the cover, resulting in concentrated surface flows on the cover.
- Inadequate configuration of the transition from the LDP outlet channel to the 600-mm half-culvert, and a likely undersized half-culvert outlet.

6.0 PRELIMINARY RECOMMENDATIONS

Based on our site visit and preliminary design work, BGC recommends the following repairs and improvements during the 2011 construction season, in preparation for the 2012 freshet. Recommended mitigation measures have been divided into primary, secondary and tertiary levels, all of which should be implemented this year. It is possible that some of the measures

may be decommissioned in future years after further monitoring, operational experience and assessment.

6.1. Primary Measures: Erosion Control

The two areas of gullying on the toe berm were backfilled and equipment compacted during the week of July 11, and it is understood that the toe berm crest has been regraded to provide positive drainage to the WDP. In addition, the slope below Bench 5 (El. 1228m) and the toe berm were regraded to eliminate rills where hydroseeding was not completed in early July 2011, and hydroseeding of these remaining areas is being completed today.

At this time, we do not recommend disruption of seeded surfaces to repair minor cover rilling, but cover erosion should be monitored closely in 2012. Recommended repairs or improvements to the GSC cover and contributing area include the following, and are summarized in attached Drawing 2:

- Regrade and fill topographical depressions that concentrate water on the plateau above the cover (El. 1300m).
- Enhance capacity of lateral bench ditches by widening and sidecasting excavated material to form an adjacent downslope berm. This short-term solution may need to be enhanced by longer-term measures such as increasing bench ditch grades, subject to further observations during the 2012 freshet.
- Expect that hand-digging and removal of snow and ice may still be required in Spring 2012 if ditches fill with snowdrift, and further assess long-term closure solutions in 2012.
- Conduct a snowfence installation trial adjacent to bench ditches to encourage accumulation of snow drifts up- or down-hill of the bench ditches.
- Extend channel armouring to the upper perimeter ditches between Benches 1 and 3 (1284m to 1258m) using similar riprap material size (D_{50} = 250mm) as for perimeter ditches between Benches 3 and 5 (1258m to toe berm).
- Excavate run-on control ditches on the bench above the cover, and along the access road to the east of the cover, to direct non-cover flow away from the GSC cover catchment area and into Grum or Vangorda Pits.
- Excavate shallow cross ditches in the east perimeter access road to direct drainage into the east perimeter ditch, particularly adjacent to Bench 4 (El. 1245m).
- Excavate a cross-ditch in the new quarry access road to direct drainage into the LDP or new sediment pond.
- Replace the 230-mm diameter culvert at the east end of the quarry access road (see Repair #8 on Drawing 2) with an armoured channel if the road can be decommissioned, a wide swale as a ford, or a larger culvert (size to be determined from hydrological analysis).
- Clean out sediment deposited in EDP, WDP and LDP to re-establish pond capacities.
- Complete hydroseeding as soon as possible on the lower bench and toe berm.
- Re-evaluate and monitor hydroseeding program for 2012.

6.2. Secondary Measures: Sediment Pond

A hydrological assessment should be completed for design and construction of a lined sediment pond in the available space on the bench below the toe berm. BGC has initiated this work and will revise the sediment pond size based on the results. Drawing 3 shows an approximate new sediment pond footprint to be combined with the LDP and constructed partially within the footprint of the temporary sediment pond, to maximize available space and reduce the height of the embankment retaining the new sediment pond (see Drawing 3).

Based on preliminary hydrology and available space, conceptual design parameters are estimated as follows:

- A new lined sediment pond of approximate dimensions 80m x 25m and about 3m deep, with minimum 2:1 side slopes for liner placement, representing an excavated volume of approximately 4500 m^3 and liner area of about 2200 m^2.
- The pond should be divided into at least two cells by a rockfill (clean, angular and well graded) separation dyke at the midpoint of the pond, with the inlet and outlet at opposite ends of the pond.
- The combination outlet channel and emergency spillway can maintain vehicle access on the existing access road if built as a wide, shallow, well-armoured ford or wet crossing.
- Provision of adequate area adjacent to the sediment pond to allow excavator access for pond clean-out activities.

Drawing 3 presents two alignment options for the spillway outlet channel downstream of the new sediment pond:

- Option A: directly down the existing 25-degree (44%) slope below the existing outlet channel-half culvert transition.
- Option B: existing 12% ramp along the existing half-culvert alignment.

Either option will need to be lined and armoured with rip-rap, with energy dissipation check dams, steps and aprons. At both locations, the existing outlet aprons and flow paths into the forest appear suitable to receive flows and direct them into the existing natural Grum Creek streambed.

6.3. Tertiary Measures: Pumping Of Non-Compliant Water To Vangorda Pit

Two opportunities exist to intercept non-compliant discharge prior to entering the receiving environment, if necessary. It is recommended that precautionary pumping be carried out during the 2012 freshet, prior to the results of water quality analyses becoming available.

1. Pumping of sediment-laden discharge from the new sediment pond:

   BGC collected samples of sediment deposited in the WDP and LDP and submitted them to EBA Engineering in Whitehorse for grain size analysis. Results indicate that about 50% of particles are smaller than 10 microns in diameter and will not typically settle by gravity alone, meaning that it is difficult to ensure that TSS compliance can

be achieved simply via a sediment pond, especially prior to full revegetation. A temporary pump, barge, power supply and pipeline should be installed in time for the 2012 freshet in case pumping is required. A flocculant trial could also be considered during the freshet to gather data to inform longer-term solutions.

2. Pumping of water high in dissolved zinc from V15 seep:

   We understand that the existing pump and pipeline for V15 seepage could be operated, if necessary, to pump zinc-laden discharge to Vangorda Pit for eventual treatment. This separation of non-compliant V15 discharge from Grum Creek discharge would allow the removal of the Grum Creek diversion to Moose Pond downstream of the Grum Creek weir, and reduce the reliance on Moose Pond to attenuate flow, TSS and zinc concentrations in discharge water. Grum Creek flow could be directed into a culvert under the existing access road and into the natural streambed downstream, which was observed to be suitable to accept flow from Grum Creek, including runoff from the GSC cover.

An alternative option to pumping would be to extend the Grum Creek road culvert upstream to near the weir and direct V15 gravity flow over the culvert in a lined channel to continue diverting V15 flow to Moose Pond.

7.0 SUMMARY

BGC recommends that a comprehensive set of mitigation measures including erosion control and water management repairs and enhancements, construction of a lined sediment pond, and pumping stations be implemented in advance of the 2012 freshet. This three-tiered combination of remedial measures in three levels is intended to decrease the likelihood of non-compliant discharge in the short term.

However, there will likely be residual risks in the cover and water management in the long term, so BGC recommends that YG be prepared to continue to monitor and gather site specific data and operational experience (e.g. snow pack depth and variation, water quantity and quality, revegetation success) to assess the performance of the proposed mitigation measures.

This letter provides an outline of suggested measures to allow for initial discussions and construction planning by YG. Supplies and materials may need to be ordered on a short timeline to allow construction activities in August or September. BGC is available to discuss and provide further details as design concepts are elaborated.

BGC suggests that the majority of the noted measures be field fit by a responsible contractor under the full time supervision of BGC. This approach is suggested in that it reduces necessary design/drawing/specifications cycle time, permitting YG to implement mitigation measures before the end of the construction season, subject to the first snowfall and freezing temperatures.

Time is of the essence. It is critical to carry out the remedial measures as quickly as is practical.

7.1. BGC Phase 2 Work Program – Detailed Design and Implementation of 2011 Repairs

BGC will discuss the above letter report with YG and plan to provide a proposal for Phase 2 design services and construction supervision during the week of August 2, 2011

8.0 CLOSURE AND LIMITATIONS

BGC Engineering Inc. (BGC) prepared this document for the account of Yukon Government. The material in it reflects the judgment of BGC staff in light of the information available to BGC at the time of document preparation. Any use which a third party makes of this document or any reliance on decisions to be based on it is the responsibility of such third parties. BGC accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this document.

As a mutual protection to our client, the public, and ourselves, all documents and drawings are submitted for the confidential information of our client for a specific project. Authorization for any use and/or publication of this document or any data, statements, conclusions or abstracts from or regarding our documents and drawings, through any form of print or electronic media, including without limitation, posting or reproduction of same on any website, is reserved pending BGC's written approval. If this document is issued in an electronic format, an original paper copy is on file at BGC and that copy is the primary reference with precedence over any electronic copy of the document, or any extracts from our documents published by others.

The information provided in this letter is focused on assessment of the noted issues and provision of remedial measures intended to prevent future discharge of non-compliant water. This report should not be construed as a detailed forensic review. The proposed remediation measures will be managed and implemented using the field design approach that requires full time engineering input and monitoring. Implementation of the remedial measures without appropriate engineering supervision could create additional problems for the cover and water management system. Monitoring of the remedial measures and cover performance is also required. Lastly, the cover and water management system may have longer-term issues that need to evaluated and addressed in future phases; this work has not been completed under this work scope.

We remain open to any discussion or comments on the measures provided herein.

Yours sincerely,

BGC ENGINEERING INC.
per:

Elisa Scordo, M.Sc., P.Ag.
Water Resources Specialist

Jeremy Valeriote, P.Eng.
GeoEnvironmental Engineer

James W. Cassie, M.Sc., P.Eng. (NT)
Specialist Geotechnical Engineer

Gerry Ferris, M.Sc., P.Eng.
Senior Geotechnical Engineer

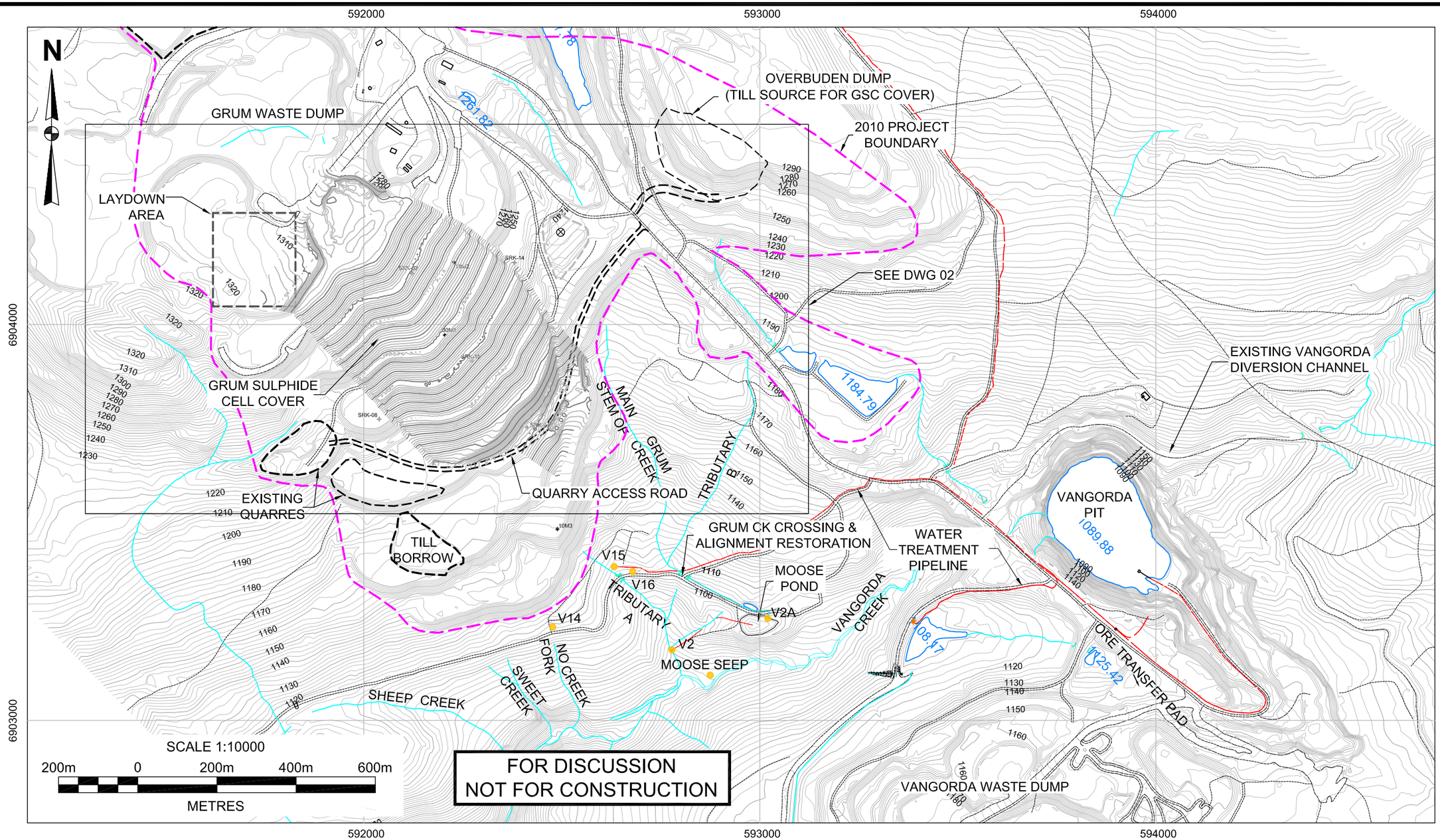
JEV/JWC/GWF

Attachments:

Drawing 1 – Overview Map

Drawing 2 – General Cover Repairs – Conceptual

Drawing 3 – Lined Sediment Pond - Conceptual



BASE MAP SOURCE: YUKON ENGINEERING SERVICES (YES) INITIAL SURVEY JUNE 2010 AND YUKON ENGINEERING SERVICES (YES) GSC SURVEY 22 JUNE 2011.

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DATE:	AUG 2011
DRAWN:	LS
DESIGNED:	JV
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APPROVED:	GWF

PROFESSIONAL SEAL:

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

CLIENT: GOVERNMENT OF YUKON

PROJECT: GRUM SULPHIDE CELL COVER REPAIRS - PRELIMINARY RECOMMENDATIONS

TITLE: OVERVIEW MAP

PROJECT No.:	DWG No.:	REV.:
0533-003	01	A

DWG TO BE READ WITH BGC LETTER REPORT TITLED "GRUM SULPHIDE CELL COVER REPAIRS - PRELIMINARY RECOMMENDATIONS" DATED AUGUST 3, 2011

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LEGEND

- FLOW PATHS
- BENCH DITCH
- PERIMETER DITCH
- COLLECTOR CHANNEL

RECOMMENDED REPAIRS

1. ENHANCE CAPACITY OF BENCH DITCHES
2. ARMOUR UPPER PERIMETER DITCHES
3. FILL DEPRESSIONS
4. EXCAVATE RUN-ON CONTROL DITCHES
5. CLEAN OUT SEDIMENT FROM ENERGY DISSIPATION POOLS
6. COMPLETE HYDROSEEDING AND MONITOR
7. CONSTRUCT LINED SEDIMENT POND AND OUTLET CHANNEL
8. REPLACE 230mm CULVERT OR EXCAVATE CHANNEL
9. ROAD CROSS - DITCHING

N

591500 592000 592500 593000

6904500 6904000

BENCH 1 - 1284m
BENCH 2 - 1272m
BENCH 3 - 1258m
BENCH 4 - 1244m
BENCH 5 - 1227m
TOE BERM
10M2
30M3
EAST PERIMETER DITCH
WEST PERIMETER DITCH
WEATHER STATION
RELOCATED SULPHIDIC DUMP
EAST DISSIPATION POOL
SEE DWG 03
LOWER DISSIPATION POOL
MAIN STEM OF GRUM CREEK
EXISTING SEDIMENT POND
EXISTING QUARRY ACCESS ROAD
Tributary B
WEST DISSIPATION POOL
EXISTING QUARRIES

SCALE 1:5000

100m 0 100m 200m 300m

METRES

FOR DISCUSSION
NOT FOR CONSTRUCTION

BASE MAP SOURCE: YUKON ENGINEERING SERVICES (YES) INITIAL SURVEY JUNE 2010 AND YUKON ENGINEERING SERVICES (YES) GSC SURVEY 22 JUNE 2011.

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SCALE:	1:5000
DATE:	AUG 2011
DRAWN:	LS
DESIGNED:	JV
CHECKED:	GWF
APPROVED:	GWF

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AN APPLIED EARTH SCIENCES COMPANY

CLIENT: GOVERNMENT OF YUKON

PROJECT: GRUM SULPHIDE CELL COVER REPAIRS - PRELIMINARY RECOMMENDATIONS

TITLE: GENERAL COVER REPAIRS - CONCEPTUAL

PROJECT No.:	DWG No.:	REV.:
0533-003	02	A

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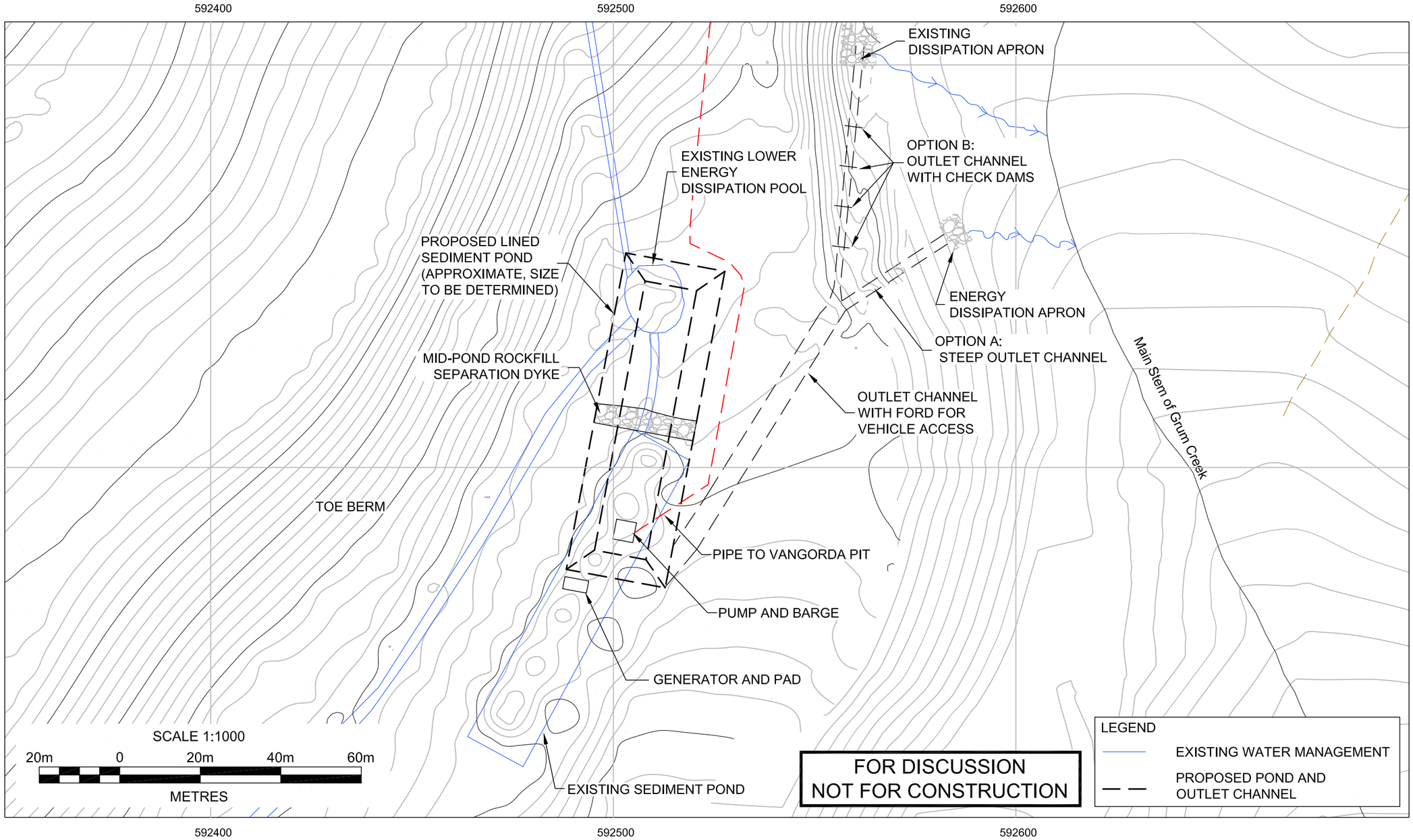

BASE MAP SOURCE: YUKON ENGINEERING SERVICES (YES) INITIAL SURVEY JUNE 2010 AND YUKON ENGINEERING SERVICES (YES) GSC SURVEY 22 JUNE 2011.

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PROJECT: GRUM SULPHIDE CELL COVER REPAIRS - PRELIMINARY RECOMMENDATIONS

TITLE: LINED SEDIMENT POND - CONCEPTUAL

PROJECT No.:	DWG No.:	REV.:
0533-003	03	A

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APPENDIX B
EMAIL MEETING SUMMARY (BGC & YG, WHITEHORSE, AUGUST 25, 2011)

From:	Jim Cassie
To:	Dustin.Rainey@gov.yk.ca; "Deborah.Pitt@gov.yk.ca"; Leslie Gomm P.Eng. (geec@northwestel.net)
Cc:	Jeremy Valeriote; June Atkinson; Gerry Ferris
Subject:	Summary of Discussions/Path Forward on GSC Sediment Pond
Date:	Thursday, August 25, 2011 7:24:05 PM

The four of us met today at the YG office to discuss the recent developments and path forward regarding our work on the design of the sediment pond at the toe of the GSC. The following outlines the decisions and path forward comments:

1. We will NOT discharge any water from the sediment pond down into Grum Creek.
2. We will manage water from the sediment pond by pumping it (into ditch leading to Van Gorda pit likely).
3. We need to make the sediment pond larger, as big as practical given space at the toe.
4. We need to determine if second pond can be designed/built on the east side of the GSC.
5. We will construct the emergency infiltration pond below existing sediment pond.
6. Liner and geotextile order has been sent to DES to get shipped to site – approximately 7000 m2.
7. DES has been notified that V15/GC Weir seepage collection/pumping system has been approved by YG.

Short term action items include

1. Confirm geometry/capacity of larger sediment pond at the toe.
2. Confirm feasibility/geometry/capacity of second sediment pond on east side of cover.
3. Need to understand GSC hydrology relative to proposed ponds and pumping capacity.
4. Need to get pond design to Pelly for costing.
5. Need to notify DES about need for additional pumping requirements, along with pump/piping needs.
6. Identify if possible to design drainage ditch to the west from sediment pond for longer term.

Dustin, Jeremy and I should get on the phone tomorrow to get organized on action items.

Please correct any errors in the summary provided herein.

BGC ENGINEERING INC.

Jim Cassie, M.Sc., P.Eng.
Vice President / Senior Geotechnical Engineer

Relocating offices by August 2, 2011
Calgary, AB
Off. 403-250-5185 X103

Cell 587-894-2664

Skype jim.cassie
jcassie@bgcengineering.ca
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APPENDIX C
BGC DESIGN MEMORANDUM

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY
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Canada V6Z 2A9
Tel: 604.684.5900
Fax: 604.684.5909

September 8, 2011
Project no: 0533-003

Dr. Dustin Rainey, PhD
Project Manager, Faro Project Management Team
Assessment and Abandoned Mines
Government of Yukon
Energy, Mines and Resources
Box 2703 (K-419)
Whitehorse, Yukon Y1A 2C6

Dear Dustin,

Re: Grum Sulphide Cell Cover Repairs – Detailed Design (DRAFT)

BGC is pleased to provide the following design memorandum that addresses water management issues at the Grum Sulphide Cell (GSC) cover, which was recently designed (by SRK) and constructed (by Pelly Construction) at the Faro Mine. The design work is based on preliminary recommendations identified in our letter of August 3, 2011 and subsequent discussions with the Government of Yukon (YG) on site and in Whitehorse on August 23 to 25, 2011. As indicated in our August 3, 2011 letter, the 2011 repairs on the GSC consist of a combination of designed elements and measures to be field fit only. This letter provides details on the designed elements to be undertaken in 2011.

Those discussions yielded the following adjustments to BGC's preliminary recommendations:

1. Overflows in excess of the GSC cover sediment pond storage capacity will not be discharged directly into Grum Creek via a pond outlet channel. This decision is in part due to YG approval for Denison Environmental Services (DES) to implement a stand-alone seepage collection and pumping system for Grum Creek and V15 flow. This decision is also based on the water quality from Grum Creek Weir and the degrading condition of the Moose Pond berm.
2. Water management from the sediment pond will include a separate pumping system to the Vangorda Pit catchment.
3. The sediment pond will be as large as practical given available space at the toe of the GSC cover.

4. A downstream contingency storage area, within a gentle depression in the waste dump, is added to the overall storage plan as an emergency measure. An outlet from the sediment pond will direct water from the sediment pond in a ditch to this contingency storage area, where it is expected that the water will infiltrate through the waste dump.

As described in our August 3 letter, the attached design identifies short-term cover repairs that can be completed in 2011 in time for the Spring 2012 freshet. Additional longer-term repairs are not reviewed in this current design memo.

1.0 SCOPE OF WORK

In Phase 1, BGC was asked to provide recommendations for GSC water management measures to be conducted in 2011 to reduce the severity of erosion and reduce the potential for water quality exceedances in Vangorda Creek during spring 2012 runoff.

Phase 2 of BGC's work scope constitutes detailed design, field supervision and as-built reporting. BGC undertook a hydrotechnical analysis to obtain the necessary flow quantities for design of the primary, secondary and tertiary water management measures contained in our preliminary recommendations letter dated August 3, 2011. Implementation of these measures was initiated on August 23, 2011, during a BGC site visit and kickoff meeting.

These measures are summarized briefly as follows:

- Primary measures: regrading, ditching, armouring and hydro-seeding for cover run-on contribution and erosion control on and adjacent to the GSC cover;
- Secondary measures: construction of a lined sediment pond and emergency outlet channel downstream of the GSC cover; and,
- Tertiary measures: pumping of water from the GSC cover sediment pond water to the Vangorda Pit catchment for eventual treatment.

This memo provides the design basis for the attached drawings to allow construction of primary and secondary measures to commence. For tertiary pumping measures, BGC will provide information to assist with pump, pipe, barge and generator selection and procurement by DES, Pelly Construction and/or YG. We understand that DES will undertake the repair of the area surrounding the existing 230 mm culvert under the GSC access road near the main Vangorda haul road with a larger culvert or channel, along with some surface grading, as noted on Drawing 01. It is important that surface water from these roads to the east do not report to the sediment pond at the toe.

It is important to note that due to the time constraints involved in completing repairs by the end of September 2011, design work has been expedited. Fast-tracking of construction has created an increased reliance on field-fitting and construction monitoring, as has been provided by BGC on site since August 23, 2011.

2.0 DESIGN PARAMETERS

The information used to guide design of the recommended repair measures is described below in terms of design basis and criteria.

2.1. Design Basis

The design hydrologic event was considered to be an intense rainfall event occurring during the late spring on a thin snowpack. Therefore, both rainfall and snowmelt contribute to the design event runoff. The closest climate station to Faro with short duration intensity-duration-frequency (IDF) rainfall data is Carmacks. Carmacks is an Environment Canada (EC) climate station (#2100300) located 150 km east northeast of Faro at an elevation of 524 m. IDF data for this station are available for the period 1964-1984.

While Faro is located in relative proximity to Carmacks, the average elevation at the GSC cover (1250 m) is more than double that of Carmacks. Because of this elevation difference, a correction factor is required to account for orographic influences. Based on total annual rainfall data for Carmacks, Faro airport and the Grum weather station and rainfall intensity isolines[1] published by EC, a correction factor of 1.4 was used to transpose Carmacks IDF data to the GSC cover. Resulting rainfall for durations of 30 minutes and 24 hours and return periods of 10 years and 200 years are shown in Table 1 below. Of note is that 200-year rainfall amounts are based on extrapolation of the Carmacks IDF data, which do not extend beyond a return period of 100 years.

The second runoff component, rainfall-induced snowmelt, was estimated using a simplified empirical energy-balance formula[2]. Potential snowmelt totals were found to be similar to rainfall amounts for 30-minute and 24-hour durations (Table 1). Sunshine-induced snowmelt (i.e. radiation) was estimated to be less than rainfall-induced snowmelt, and hence it was not considered in runoff or peak flow calculations.

Runoff volumes and peak flows from the GSC cover were analysed using the Rational Method with a conservative runoff coefficient of 1.0 and the Bransby-Williams formula to calculate time of concentration. This high runoff coefficient was used due to the liner placed beneath the GSC cover. Open channel flows were estimated using Manning's equation, and the emergency spillway was treated as a broad-crested weir[3] for the purpose of modeling spillway width and depth relative to design discharge.

A summary of hydrologic input and output parameters is provided in Table 1 below. Runoff model outputs are based on a watershed area of 41 ha (catchments C and 2 labelled on Drawing 2) and a time of concentration of 30 minutes. Catchment 1 is assumed to be diverted to Vangorda Pit catchment by run-on controls as previously recommended. Runoff

[1] Environment Canada (1985) Rainfall Frequency Atlas for Canada.
[2] Fitzgibbon J.E. and Dunne T. (1980) Snowmelt Prediction in a Subarctic Drainage Area. Nordic Hydrology 11: 243-254.
[3] Crowe, C. and Robertson, J. (1997) *Engineering Fluid Mechanics 6th Ed.*, page 609-610.

volumes and peak flow estimates summarized in Table 1 are considered to be conservative given the assumed runoff coefficient of one and peak rainfall event coinciding with a thin snowpack. However, a conservative design is justified given the general lack of data for rainfall-runoff relationships at site.

Table 1. Hydrological Design Parameters

Event Return Period	10-year	200-year
Input		
30-minute rainfall	15 mm	29 mm
24-hour rainfall	32 mm	55 mm
30-minute snowmelt (water equivalent)	15 mm	29 mm
24-hour snowmelt (water equivalent)	32 mm	55 mm
30-minute total rain-on-snow	30 mm	58 mm
24-hour total rain-on-snow	64 mm	110 mm
Output		
30-minute peak inflow to sedimentation pond	6.7 m^3/s	13.2 m^3/s
24-hour average inflow to sedimentation pond	0.3 m^3/s	0.5 m^3/s
30-minute peak flow - total volume	12,000 m^3	23,800 m^3
24-hour average flow - total volume	26,300 m^3	45,400 m^3

For comparison, the snowmelt event of May 2011 was estimated by DES to have produced a peak flow of 0.4 m^3/s in the channel flowing into Moose Pond. An estimate of peak runoff for the June 21, 2011 rainfall event documented by DES was not available due to flow overtopping the Grum Creek weir, but precipitation data indicates rainfall of about 20 mm over 20 hours, with a maximum 1-hour rainfall of 5 mm.

2.2. Design Criteria

Based on our site visit, estimated hydrological parameters and subsequent discussions with YG, DES and Pelly Construction, design criteria were established as follows:

- Cover bench ditches are to be modified to increase capacity as much as possible given the bench configuration, as shown on Drawing 03.
- Erosion protection of the upper part of the perimeter ditches will be upgraded to match the erosion protection in the lower portions of the perimeter ditches.
- The configuration and storage volume of the sediment pond was constrained by both the available space and topographical constraints that prevent extensive earthworks in order to allow heavy truck travel on the existing road. Therefore, it is a combination of storage and pumping that governs the protection provided by the sediment pond. The pond is not designed to provide storage for a given return period or storm

duration. This approach is appropriate for an interim measure (as agreed by YG in a meeting in Whitehorse on Aug. 25, 2011) until the GSC cover vegetates and the potential for mobilization of exposed sediment is reduced.

- Sediment pond inlet channel, emergency spillway and outlet channel sized to accommodate the 200-year, 30-minute peak flow, with inlet and outlet separated by a centre berm and rockfill dykes in the sediment pond;
- Sediment pond access to allow clean-out of the riprap-lined inlet cell, by an on-site excavator with a maximum reach of 7 m;
- An access ramp from the centre berm to allow delicate clean-out of the main pond (where liner will be exposed), if necessary;
- Emergency spillway and outlet channel designed to pass the 200-year peak flow (13 m^3/s) into a contingency storage area in the waste rock dump downstream of the pond location (see Drawing 02). With some field fit regrading, this storage area will allow a minimum storage volume of 5000 m^3 and will allow for infiltration, and possibly surface runoff during extreme events, into the Grum dump. Exfiltration will occur at the toe of the dump and feed various small tributaries of Vangorda Creek. This contingency storage was also discussed and agreed at an August 25 meeting with YG in Whitehorse.

2.3. Construction Details

Drawing 01 summarizes recommended repairs from our August 3 letter while Drawing 02 displays the catchment areas. Drawing 03 presents prescriptions for cover channel repairs and run-on control ditches. Drawings 04 and 05 present the detailed sediment pond design.

Two important points should be noted regarding the suggested cover repairs. Firstly, YG has directed Pelly to provide a 1 m thick till cover over some exposed waste rock at the crest of the cover, located just below the crest berms and surface grading noted as Repair #4 on Drawing 01. In addition, DES will be undertaking some culvert installations and surface grading to ensure that water from the roads to the east does not flow downhill into the sediment pond area.

2.3.1. Sediment Pond

The sediment pond as shown on Drawing 3 has a liner crest elevation of 1191 m, and is 126 m long, 34 m wide and 3 to 4 m deep, with 2:1 slopes to allow liner placement. This represents a cut of 7500 m^3 and fill of 10,200 m^3 for the pond excavation, with an additional 2100 m^3 required to construct the centre berm and access ramp once the liner is placed. The total liner area is 4500 m^2 without any allowances for overlap and such.

The water storage volume in the sediment pond below the design spillway invert of 1190.0 m is 6600 m^3. A pending attenuation calculation prior to construction may allow an increase to the spillway invert elevation of up to 0.5 m for an additional 1700 m^3 of storage.

During the 10-year, 24-hour event, the conservative estimated runoff volume from the GSC cover is about 26,200 m^3. Given a storage volume of 6600 m^3, the pond would spill about 20,000 m^3 in the absence of pumping.

With a pumping rate of 13,000 m^3/day (540 m^3/h), there could be 6600 m^3 (or possibly more) of spillage during the 10-year rain-on-snow event. This overflow could be accommodated in the contingency storage area downstream and infiltrated into the waste rock. The contingency storage area would likely spill during the 200-year rain-on-snow event with about 26,000 m^3 of spill from the sediment pond overwhelming the contingency storage capacity. However, the extent to which the contingency storage area may or may not be overwhelmed will depend on the infiltration capacity of the waste rock. A channel conveying flow from the sediment pond to the contingency storage area will be excavated in existing waste rock and be unlined. It is required to be 1 m deep and 4 m wide at the base, with 2:1 side slopes, to convey the 200-year maximum peak flow (13.2 m^3/s) to the contingency storage area.

Drawing 5 presents construction details in relation to the liner anchor trench, subgrade preparation and geotextile placement, rip-rap placement and spillway construction.

3.0 SUMMARY

This letter provides design detail appropriate for construction in parallel with field-fitting and field supervision by BGC. Materials have been ordered on a short timeline to allow construction activities by end of September. BGC will provide an engineer's cost estimate for the remaining tasks not yet quoted by Pelly, under separate cover.

4.0 CLOSURE AND LIMITATIONS

There will likely be residual risks in the cover and water management in the long term, so BGC recommends that YG be prepared to continue to monitor and gather site specific data and operational experience (e.g. snow pack depth and variation, water quantity and quality, revegetation success) to assess the performance of the proposed mitigation measures. In addition, there are some other remediation measures to be undertaken by DES, and we understand that YG will ensure these aspects are implemented.

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The proposed remediation measures will be managed and implemented using the field design approach that requires full time engineering input and monitoring. Implementation of the remedial measures without appropriate engineering supervision could create additional problems for the cover and water management system. Lastly, the cover and water management system may have longer-term issues that need to evaluated and addressed in future phases; this work has not been completed under this work scope. We remain open to any discussion or comments on the measures provided herein.

Yours sincerely,

BGC ENGINEERING INC.
per:

Jeremy Valeriote, P.Eng.
Geoenvironmental Engineer

Gerry Ferris, M.Sc., P.Eng.
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Specialist Geotechnical Engineer

JEV/JWC/HW

Attachments:

Drawing 00 – Index of Drawings

Drawing 01 – General Cover Repairs

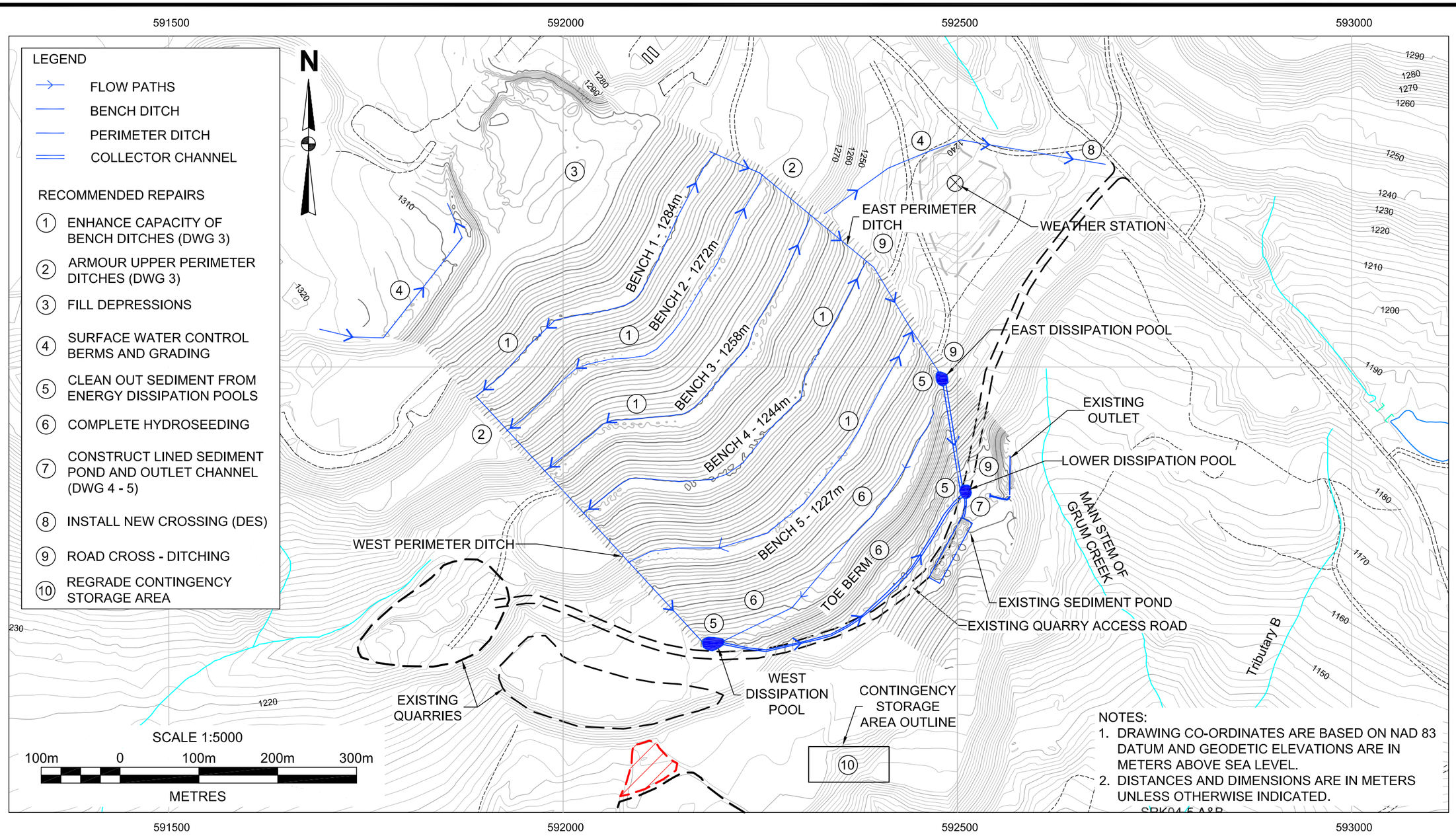
Drawing 02 – Catchment Areas

Drawing 03 – Cover Repairs – Typical Sections

Drawing 04 - Lined Sediment Pond and Outlet Channel

Drawing 05 – Sediment Pond Detail

DRAWINGS



BASE MAP SOURCE: YUKON ENGINEERING SERVICES (YES) INITIAL SURVEY JUNE 2010 AND YUKON ENGINEERING SERVICES (YES) GSC SURVEY 22 JUNE 2011.

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BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

CLIENT: GOVERNMENT OF YUKON

PROJECT: GRUM SULPHIDE CELL COVER REPAIRS - DETAILED DESIGN

TITLE: GENERAL COVER REPAIRS

PROJECT No.:	DWG No.:	REV.:
0533-003	01	A

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592000 593000 594000

6904000

6903000

N

CATCHMENT AREAS	
CATCHMENT	AREA m²
C	349000
1	198000
2	64000
3	299000

GRUM WASTE DUMP

OVERBUDEN DUMP
(TILL SOURCE FOR GSC COVER)

2010 PROJECT
BOUNDARY

LAYDOWN
AREA

GRUM SULPHIDE
CELL COVER

EXISTING
QUARRES

QUARRY
ACCESS ROAD

TILL
BORROW

CONTINGENCY STORAGE AREA
(APPROXIMATE)

MAIN STEM OF GRUM CREEK

TRIBUTARY B

TRIBUTARY A

V15 V16 V14 V2 V2A

MOOSE POND

MOOSE SEEP

SHEEP CREEK

SWEET CREEK

NO CREEK FORK

VANGORDA CREEK

EXISTING VANGORDA
DIVERSION CHANNEL

WATER
TREATMENT
PIPELINE

VANGORDA
PIT

ORE TRANSFER PAD

VANGORDA WASTE DUMP

1184.79 1089.88 1108.17 1125.42

SCALE 1:10000

200m 0 200m 400m 600m

METRES

592000 593000 594000

BASE MAP SOURCE: YUKON ENGINEERING SERVICES (YES) INITIAL SURVEY JUNE 2010 AND YUKON ENGINEERING SERVICES (YES) GSC SURVEY 22 JUNE 2011.

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CLIENT: GOVERNMENT OF YUKON

PROJECT: GRUM SULPHIDE CELL COVER REPAIRS - DETAILED DESIGN

TITLE: CATCHMENT AREAS

PROJECT No.:	DWG No.:	REV.:
0533-003	02	A

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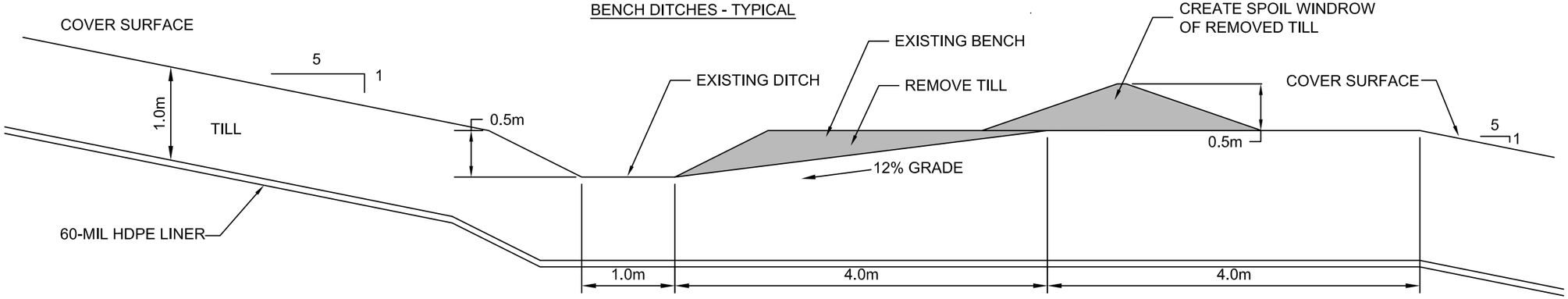
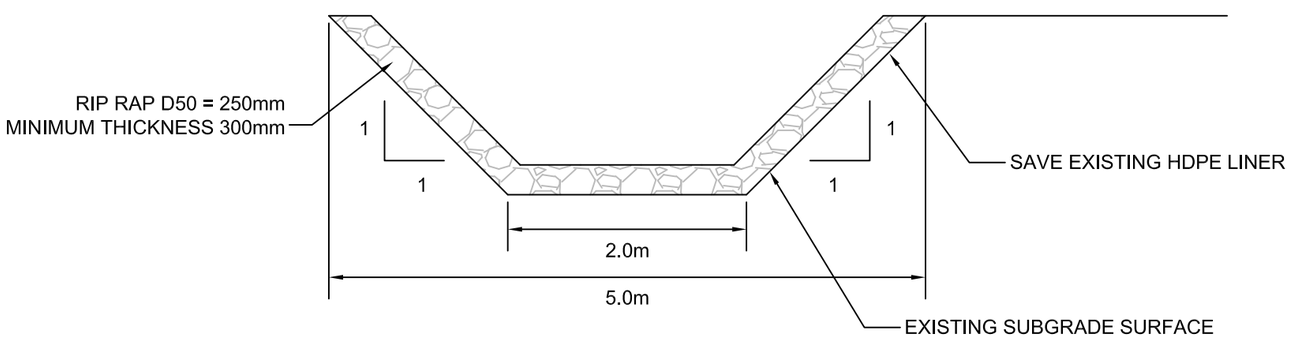
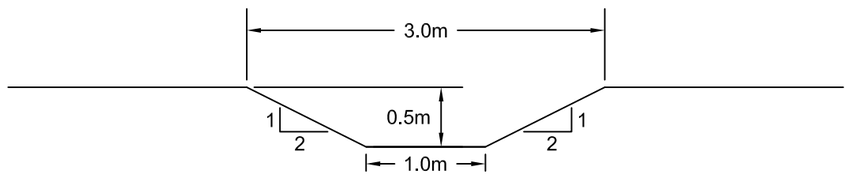
RECOMMENDED REPAIR (1)
BENCH DITCHES - TYPICAL



RECOMMENDED REPAIR (2)
UPPER PERIMETER DITCH-TYPICAL



RECOMMENDED REPAIR (4)
RUN-ON CONTROL DITCH - TYPICAL



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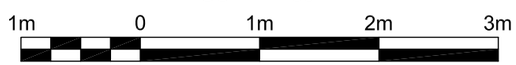

METRES

NOTES:
1. DRAWING CO-ORDINATES ARE BASED ON NAD 83 DATUM AND GEODETIC ELEVATIONS ARE IN METRES ABOVE SEA LEVEL.
2. UPPER PERIMETER DITCH SHALL BE RELINED BY REMOVING EXISTING ROCK ABOVE LINER AND REPLACING WITH RIPRAP D50 = 250mm OF MINIMUM THICKNESS 300mm.
3. TIE THE RIP RAP IN THE UPPER SECTION OF THE PERIMETER DITCH TO THE EXISTING RIP RAP IN THE LOWER PART OF THE DITCH. THE EDGES OF THE BENCH DITCHES WILL BE SLOPED TO DRAIN INTO PERIMETER DITCH.

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BGC ENGINEERING INC.
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CLIENT: GOVERNMENT OF YUKON

PROJECT: GRUM SULPHIDE CELL COVER REPAIRS - DETAILED DESIGN

TITLE: COVER REPAIRS TYPICAL SECTIONS

PROJECT No.:	DWG No.:	REV.:
0533-003	03	A

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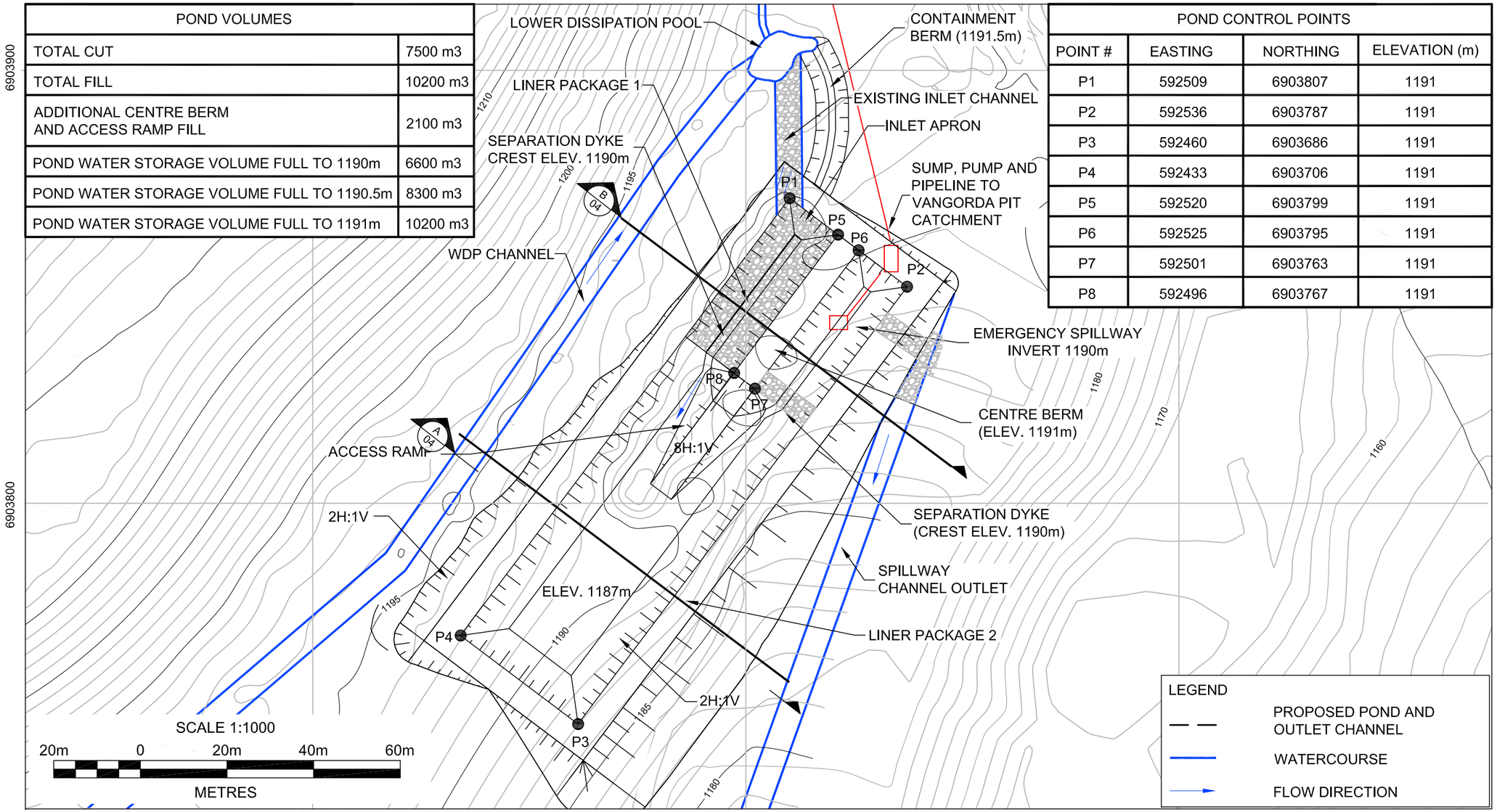
POND VOLUMES	
TOTAL CUT	7500 m3
TOTAL FILL	10200 m3
ADDITIONAL CENTRE BERM AND ACCESS RAMP FILL	2100 m3
POND WATER STORAGE VOLUME FULL TO 1190m	6600 m3
POND WATER STORAGE VOLUME FULL TO 1190.5m	8300 m3
POND WATER STORAGE VOLUME FULL TO 1191m	10200 m3

POND CONTROL POINTS			
POINT #	EASTING	NORTHING	ELEVATION (m)
P1	592509	6903807	1191
P2	592536	6903787	1191
P3	592460	6903686	1191
P4	592433	6903706	1191
P5	592520	6903799	1191
P6	592525	6903795	1191
P7	592501	6903763	1191
P8	592496	6903767	1191



NOTES:

1. BASE MAP SOURCE: YUKON ENGINEERING SERVICES (YES) INITIAL SURVEY JUNE 2010 AND YUKON ENGINEERING SERVICES (YES) GSC SURVEY 22 JUNE 2011.
2. RIPRAP REQUIREMENT FOR INLET APRON, SEPARATION DYKES AND SPILLWAY = APPROX. 1000 CU. M., MAJORITY OF WHICH IS TO BE ROUNDED TO SUBANGULAR COBBLE MATERIAL FOR DIRECT CONTACT WITH GEOTEXTILE - COVERED HDPE LINER.
3. LINER PACKAGE 1 SHALL BE PLACED UNDER BOTH SEPARATION DYKES AND ALSO THE EMERGENCY SPILLWAY.
4. TIE IN BETWEEN LINER PACKAGE 1 AND 2 SHALL BE FIELD FIT NEAR BOTH SEPARATION DYKES AND THE SPILLWAY. THE ELEVATION OF THE HDPE LINER IS THE REFERENCE ELEVATION FOR THE SPILLWAY, WITH RIPRAP DESCRIBED ON DRAWING 05 BEING ABOVE THE INVERT ELEVATION.

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AN APPLIED EARTH SCIENCES COMPANY

CLIENT: GOVERNMENT OF YUKON

PROJECT: GRUM SULPHIDE CELL COVER REPAIRS - DETAILED DESIGN

TITLE: LINED SEDIMENT POND AND OUTLET CHANNEL

PROJECT No.:	DWG No.:	REV.:
0533-003	04	A

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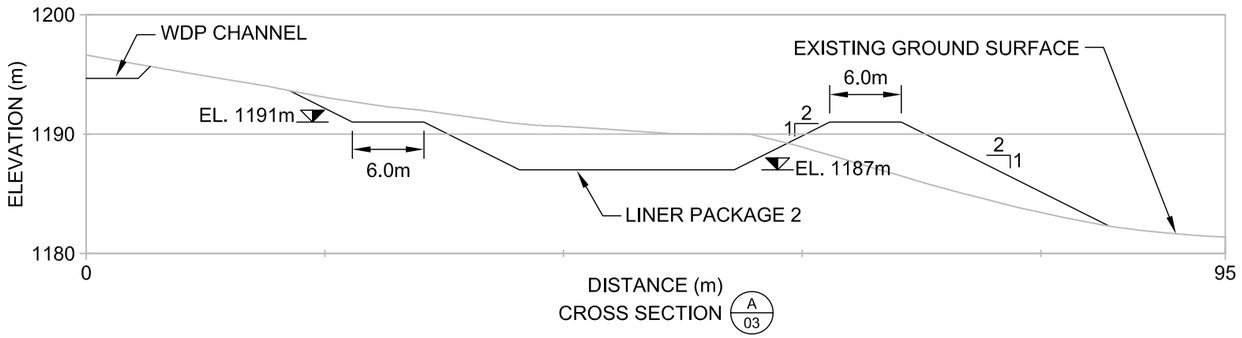

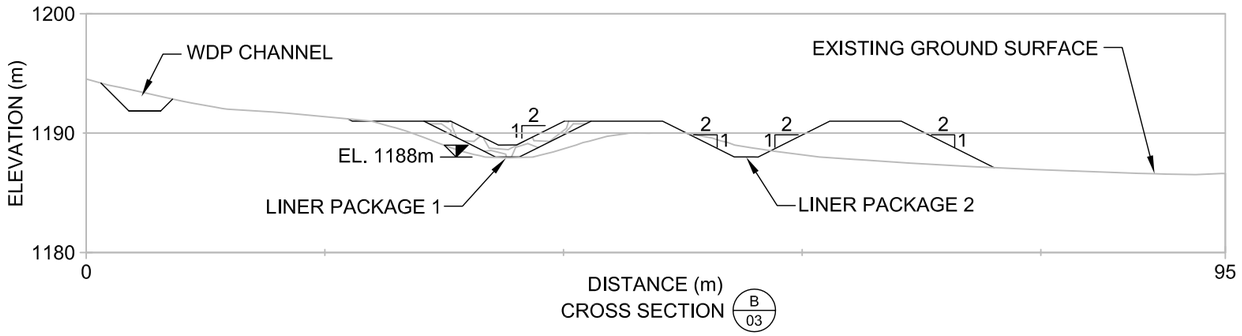

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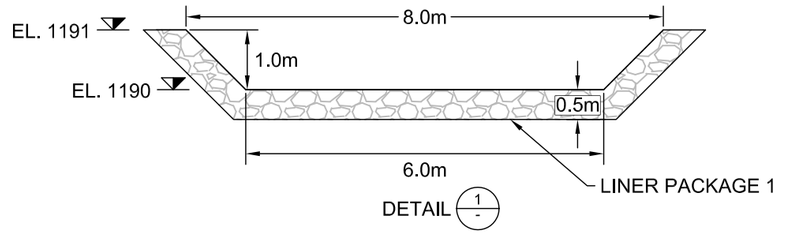

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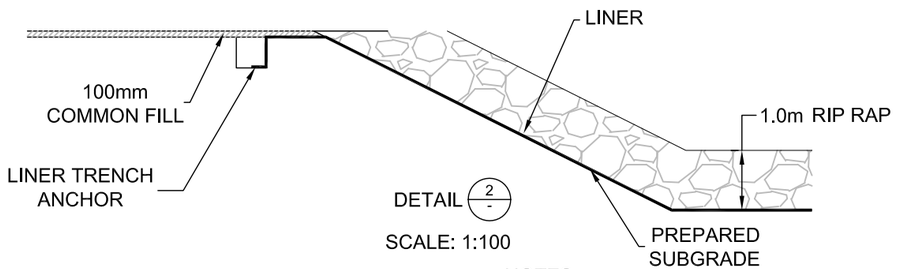
LINER PACKAGE 1



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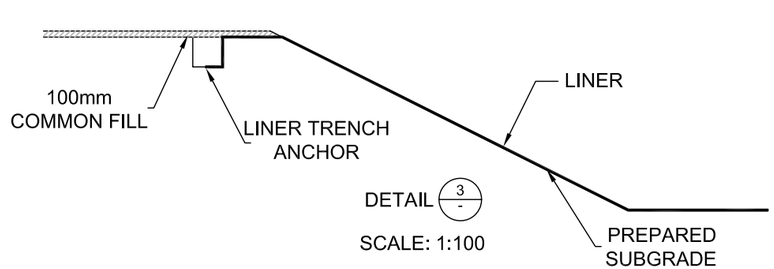
LINER PACKAGE 2



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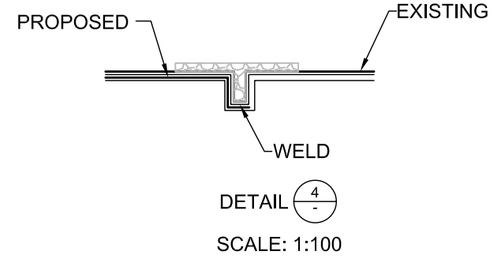
LINER CONNECTION



SCALE: 1:100

SCALE 1:500

10m 0 10m 20m 30m

METRES

NOTES:

1. DRAWING CO-ORDINATES ARE BASED ON NAD 83 DATUM AND GEODETIC ELEVATIONS ARE IN METRES ABOVE SEA LEVEL.
2. DISTANCES AND DIMENSIONS ARE IN METRES UNLESS OTHERWISE INDICATED.
3. EXPOSE EXISTING HDPE LINER LOCATED IN THE BASE OF THE INLET CHANNEL. PREPARE A CHANNEL WHICH SLOPES INTO THE SEDIMENT POND AND WELD EXISTING LINER TO THE LINER FOR THE INLET CHANNEL EXTENSION.
4. LINER PACKAGE 1 CONSISTS OF TEXEL 918, OVERLAIN BY SOLMAX 460 ST - 6012, OVERLAIN BY TEXEL 918, WHERE RIPRAP PLACED ON LINER.
5. LINER PACKAGE 2 CONSISTS OF TEXEL 918 OVERLAIN BY SOLMAX 460 ST - 6012.
6. PREPARATION OF THE SURFACE PRIOR TO PLACEMENT OF THE GEOTEXTILE SHALL INCLUDE COMPACTION OF THE SUBGRADE AND REMOVAL OF ALL SHARP EDGES OR VOIDS. THIS CAN EITHER BE COMPLETED BY EXCAVATION / REMOVAL AND REPLACEMENT WITH MORE SUITABLE MATERIAL OR PADDING USING SAND.
7. LINER ANCHOR TRENCH SHALL BE BACK FILLED USING COMMON FILL. A 100mm LIFT OF COMMON FILL SHALL BE PLACED ON THE OUTSIDE PERIMETER ACCESS ROAD AROUND THE SEDIMENT POND.
8. ROCKFILL SEPARATION DYKE INLET APRON, SEPARATION DYKES AND SPILLWAY TO CONSIST OF RIP RAP WITH D_{50} = 200mm AND MATERIAL FINER THAN 25mm REMOVED.

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REV.	DATE	REVISION NOTES	DRAWN	CHECK	APPR.
A	2011-09-07	ISSUED FOR CLIENT REVIEW	LS	JV	GWF

SCALE:	1:500
DATE:	SEP 2011
DRAWN:	LS
DESIGNED:	JV
CHECKED:	GWF
APPROVED:	JWC

PROFESSIONAL SEAL:

DRAFT

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

CLIENT: GOVERNMENT OF YUKON

PROJECT: GRUM SULPHIDE CELL COVER REPAIRS - DETAILED DESIGN

TITLE: SEDIMENT POND DETAIL

PROJECT No.:	DWG No.:	REV.:
0533-033	05	A

DWG TO BE READ WITH BGC MEMO TITLED "GRUM SULPHIDE CELL COVER REPAIRS - DETAILED DESIGN" DATED SEPTEMBER 2011

X:\Projects\0533 YK-Gov\Workspace\20110822_REPORT_GRUM_SULPHIDE_CELL_COVER_REPAIRS_DETAILED_DESIGN\05_SEDIMENT_POND_DETAIL.dwg Layout: 05 Plot Date Sep 8 11 Time: 10:22 AM

APPENDIX D
BGC FIELD SUPERVISION DAILY REPORTS

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 25/08/2011 (DD MM YY) Shift Day

BGC Project No: 0533-003

Contract Title: GSC Cover Repairs

Weather

Today: Clear | Cloudy | Max Windy | 11 Showers (mm)

Client: Yukon Government

Contractors: Pelly Construction

Highlights

1 Calculated volumes for existing sed pond (3000 m3) and larger sed pond in similar configuration (8000m3). Also looked into area in the east which could potentially collect water from upper half of the dump.

2 Pelly finished up work on the Western perimeter Berm (WPB) re-armor. Two things 1. BGC asked for more rip rap right at the top of the channel at bench 1 - this was addressed immediately by Pelly 2. BGC asked Pelly to leave a small berm (1ft) on the road side of the perimeter ditch to keep road drainage from the waste rock piles going in the perimeter ditch and to define the cover watershed (to be addressed by Pelly once grader arrives).

3 Pelly will also try and lessen the amount of water received by the roads running north south alongside the GSC by blocking off some of the entrances at the end of construction.

4 Excavation of the Eastern Perimeter Ditch was completed.

5 Rip rap haul for Eastern Perimeter Ditch ongoing all day and completed.

6 Grader arrived on site to start bench work tomorrow am.

7 Dozer pushing path in across top of GSC to access area for depression infill.

J. Atkinson — 25/08/2011

Construction Monitor — Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 25/08/2011 (DD MM YY) Shift Day

Daily Activity Summary

Time	Activity	Location	Description of Progress/Activities
745	Arrive on site	GSC	Discuss with GS plan for today and next few days.
800	Safety	GSC	Complete BGC safety documentation and take site photos
830	Inspect riprap	GSC - West Perimeter Ditch	Riprap west perimeter Ditch complete. Riprap is well graded (Max 16 inches, min 1-
930	Sed Pond check	GSC sed pond	Check dimensions of existing pond and area for proposed pond
1030	Depression volume	GSC - Depression	Check potential volume of depression for emergency flow
1100	Check on dozer progress	GSC - top of dump	Dozer pushing road into top area for depression filling
1130	Start daily documentation	GSC - Pelly Office	Start documentation and check Pelly hours for last few days
1200	Sed Pond location	GSC	Scope out alternative pond location at haul road junction
1230	Lunch		
1300	Drainage ditch line check route	GSC	Check out swale drainage above the relocated sulphide dump and GPS waypoints
1330	Photo documentation		Photo from Vangourda dump of work
1400	EPD	GSC	Observing ditch excavation EPD
1430	WPD	GSC	Inspect further riprap placement on WPD
1530	Pelly Office	GSC	Calculate volumes of pond and email to Jim
1600	EPD	GSC	Inspect riprap infill of EPD
1700	Leave site		

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 25/08/2011 (DD MM YY) Shift Day

Construction Monitor Date DD/MM/YY

Pelly Construction: Daily Summary Table

Work complete for the 25th to be sent in tomorrows report when received in the am.

Work to date	Task	Spent	
24/08/2011	2 and 10	13,130.00	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	8,168.75	
22/08/2011	2	9,387.50	
21/08/2011	10 - camp set up	4,000	

		Total	34,686.25	Budget	% complete
Per Task	1			19,500	0
	2		28,136.25	28,660	98%
	3			92,700	0
	4			14,000	0
	5			2,875	0
	6			None	0
	7			None	0
	8			None	0
	9			None	0
	10		6,550	79900	8%

J. Atkinson 25/08/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 25/08/2011 (DD MM YY) Shift Day

Site Photos

Location Top of rip rap extents in WPD

Comment Red line denotes more rip rap requested

Location Top of rip rap extents in WPD Looking west

Comment More rip rap placed. Will revisit once grader puts berm in foreground along ditch crest

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 25/08/2011 (DD MM YY) Shift Day

Site Photos

Location	WPD from just above bench 1	Looking south
Comment	Red line denotes small 1 ft berm requested to send drainage from west down road	

Location	East perimeter Ditch	Looking north
Comment	Excavating waste rock	

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 25/08/2011 (DD MM YY) Shift Day

Site Photos

Location General site view from vangourda dump

Comment north

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 26/08/2011 (DD MM YY) Shift Day

BGC Project No: 0533-003

Weather

Contract Title: GSC Cover Repairs

Today: Clear | [Cloudy] | Windy | Max Showers 8 (mm)

Client: Yukon Government

Contractors: Pelly Construction

Highlights

1 Checking out the eastern area of the GSC. Potential drainage options through here for the GSC cover.

2 Inspected red stain seeps at the base of the waste dump immediately to the east of the GSC.

3 Inspected completed East Perimeter Ditch now fully riprap lined apart from crossings

4 Commenced excavation of ditch for drainage of area east of GSC towards the haul road.

5 Sized up depression below sed pond to understand amount of volume in there (approximately 15,000m3).

6 Grader clearing off roads for till haul and the area at the top of the till placement ramp.

7 Discussed till borrow source with Gunnar and visited borrow pit area to inspect material.

J. Atkinson — 26/08/2011

Construction Monitor — Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 26/08/2011 (DD MM YY) Shift Day

Daily Activity Summary

Time	Activity	Location	Description of Progress/Activities
745	Arrive on site	GSC	Discuss with GS plan for today and next few days.
815	Rip Rap Placement	GSC - East Perimeter Ditch	Observe rip rap placement in lower half of East Perimeter Ditch with excavator and loader. Grader clearing road up to top of GSC.
845	1 m till placement	GSC - Top bench	Walk over area with Gunnar and discuss plan for drainage to the north and till placement on slope.
915	East side drainage	GSC and east side	Consider drainage in this area.
1030	Till borrow	Overburden dump	Inspect till borrow area
1100	Email east side options to BGC	Pelly Office	Await further confirmation
1130	Rip Rap Channel	GSC - East Perimeter Ditch	Inspect completed riprap - looks good chat to GS that crossings need tidy at the end.
1200	Seep in waste dump	Waste dump to east of GSC	Inspect seep bright red colour at WP . Runs for approx 40 m then disppears. Excavator digging ditch along road to block this flow.
1230	Lunch		
1245	Inspect WDP	WDP	Investigate size of WDP
1300	Depression	Bench below GSC	Size this more accuratley with GPS
1400	Check pelly documentation/ start daily report	Pelly Office	
1430	Fuel up	Faro	
1500	Observe site work	GSC	Grading of benches and excavator ditch
1700	Leave site		

J. Atkinson 26/ 08/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 26/08/2011 (DD MM YY) Shift Day

Pelly Construction: Daily Summary Table

Work to date	Task	Spent	
25/08/2011	3 and 2	13,005	(5,025 for 3, 1050 for 10, 6975 for 2)
24/08/2011	2 and 10	13,130.00	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	8,168.75	
22/08/2011	2	9,387.50	
21/08/2011	10 - camp set up	4,000	
	Total	34,686.25	

			Budget	% complete
Per Task	1		19,500	0
	2	35,111.25	28,660	123%
	3	5025	92,700	5.420712
	4		14,000	0
	5		2,875	0
	6		None	0
	7		None	0
	8		None	0
	9		None	0
	10	7,600	79900	10%

J. Atkinson 26/08/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 26/08/2011 (DD MM YY) Shift Day

Site Photos

Location West Perimeter Ditch Looking south

Comment Armour complete

Location Seep to north of proposed number 4 ditch South

Comment Note red staining and colour

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 26/08/2011 (DD MM YY) Shift Day

Site Photos

Location Seep to north of proposed number 4 ditch Looking north

Comment Close up of red seep

Location Waste dump to the east of GSC Looking south

Comment Circular sinkholes at toe of dump

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 26/08/2011 (DD MM YY) Shift Day

Site Photos

Location Bench number 1

Comment Begin grading to enhance capacity of benches Looking east

Location West Perimeter Road

Comment Road windrow to prevent drainage from west into ditch Looking south

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 26/08/2011 (DD MM YY) Shift Day

Location East of GSC

Comment Excavation of number 4 ditch Looking west

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 27/08/2011 (DD MM YY) Shift Day

BGC Project No: 0533-003

Contract Title: GSC Cover Repairs

Weather

Today: Clear | Cloudy | Windy | Max 4 | Showers (mm)

Client: Yukon Government

Contractors: Pelly Construction

Highlights

1. Pelly moving till to top of 1 m cover slope
2. Pelly grading top bench to create more drainage
3. June staked out depression at top to be filled/ regraded. Discussed with Gunnar and he thinks it is in budget. Pelly started creating good access into this area.
4. June had conversation with Jeremy to understand BGC/YG plans for the sed pond.
5. June taking photos and field co-ordinates to send to Jeremy to advance sed pond design.
6. Number 4 road ditch cut-off complete.
7. June and Gunnar discuss sed pond layout and cu/ fill required.
8. June and Gunnar discuss depression at base of GSC. This depression is a result of the till borrow to put over the cover.

J. Atkinson — 27/08/2011

Construction Monitor — Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 27/08/2011 (DD MM YY) Shift Day

Daily Activity Summary

Time	Activity	Location	Description of Progress/Activities
745	Arrive on site	GSC	
800	Inspect bench grading	GSC - Bench #1 at top of WPD	Check bench grading undertaken last night by Pelly. Seem to be achieving good width across entire road. One note will need fix to Perimeter drainage ditch at the end with excavator.
830	Phone call with Jeremy Valeriote	Pelly Office	Discuss site activities and Sed pond design.
930	Observe till haul	Borrow to top of GSC	Two CAT 773B and one excavator working on the haul and dumping at the top of the slope.
1000	Inspect bench grading	GSC - Bench #1	Check bench grading undertaken last night by Pelly. Seem to be achieving good width across entire road. Importantly didn't see any liner damage at that location. Take photos.
1030	Stake and mark out depression infill	GSC - top of dump at 1300	Some filling and some regrading required to infill depression. Plan is to make the area no longer a low with a constant grade towards the south so water does not concentrate.
1230	Lunch		
1300	Document depression	Bench below GSC	Photo and one GPS co-ordinate for Jeremy at low point.
1400	Daily report	Truck	Start daily report.
1430	Gunnar discussion	GSC	Visit and discuss sed pond depression at base and till fill at top
1500	Daily report while watching ongoing operations	Truck	
1600	Sed pond stake out	GSC	
1700	Leave site		

J. Atkinson 27/ 08/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 27/08/2011 (DD MM YY) Shift Day

Pelly Construction: Daily Summary Table

Work to date	Task	Spent	
26/08/2011	1,3, 4 and 10	waiting for amount from Pelly	
25/08/2011	3 and 2	13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	13,130.00	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	8,168.75	
22/08/2011	2	9,387.50	
21/08/2011	10 - camp set up	4,000	

		Total	47,691.25	Budget	% complete
Per Task	1			19,500	0
	2		35,066.25	28,660	122% Complete
	3		5025	92,700	5%
	4			14,000	0
	5			2,875	0
	6			None	0
	7			None	0
	8			None	0
	9			None	0
	10		7,600	79900	10%
		Total	47,691	237,635	20%

J. Atkinson 27/08/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 27/08/2011 (DD MM YY) Shift Day

Site Photos

Location GSC Looking northeast

Comment Till haul to slope at top of GSC

Location GSC top plateau Looking SE

Comment Till haul to slope at top of GSC

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 27/08/2011 (DD MM YY) Shift Day

Site Photos

Location Bench Number 1 Looking west

Comment Note grader angle (new slope) compared to truck in the background

Location Bench number 1 Looking south

Comment Grader working

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

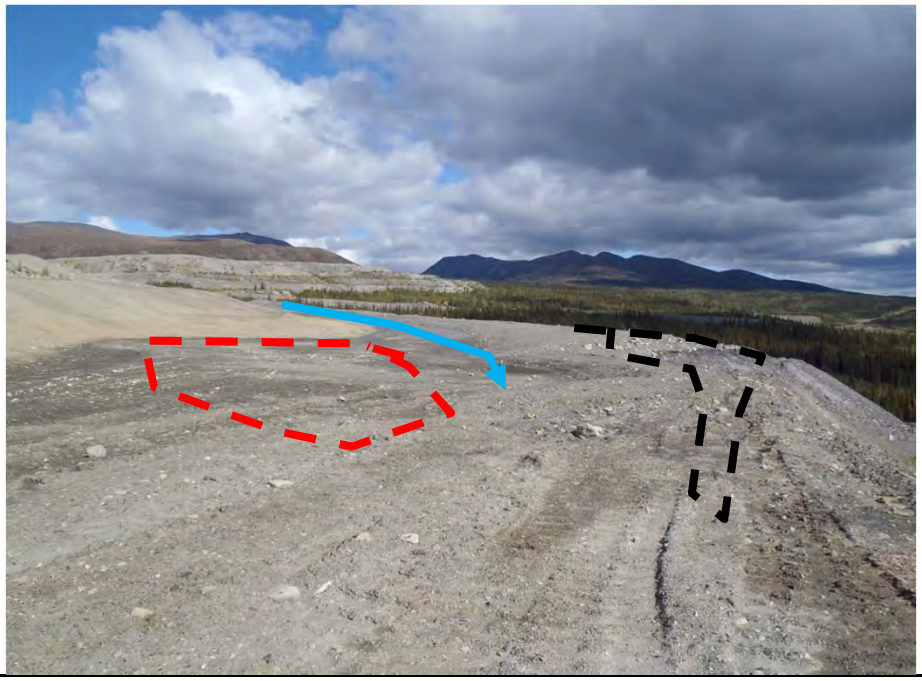
Daily Construction – Progress Report

Date 27/08/2011 (DD MM YY) Shift Day

Site Photos

Location Bench below GSC sed pond Looking west

Comment Note large depression for water to flow into.



Location Bench below GSC sed pond Looking east

Comment Note large depression and haul road in distance (I suggest cut in red area and fill in black to increase space and ensure storage and that flow does not go over crest)

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 27/08/2011 (DD MM YY) Shift Day

Location 1300 bench at depression

Comment Panoramic stitch photo so image is slightly skewed. However does show the flagged area to be infilled. Looking south

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 28/08/2011 (DD MM YY) Shift Day

BGC Project No: 0533-003

Weather

Contract Title: GSC Cover Repairs

Today: Clear | Cloudy | Windy | Showers

Max 6

Client: Yukon Government

Contractors: Pelly Construction

Highlights

1 Pelly moving till to top of 1 m cover slope

2 Pelly grading Bench #2 to create more drainage. Bench #1 is complete.

3 June did some field fitting for the sed pond and volume and staked potential corners for the pond.

4 Discussed potential pond layout with Gunnar who thought it was reasonable.

5 June sent field fit design and field co-ordinates to send to Jeremy for sed pond design

J. Atkinson 28/08/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 28/08/2011 (DD MM YY) Shift Day

Daily Activity Summary

Time	Activity	Location	Description of Progress/Activities
745	Arrive on site	GSC	
800	Observe till haul and regrading	GSC	Bench #1 complete, Bench #2 started. Bench #2 going quicker less rocks in till fill.
900	Sed pond field fit	Sed pond	Calcuate potenital volume, field fit potential corners and stake out, note co-ordinates, show gunnar staking.
1130	Observe bench 2 regrading	GSC	Going well
1200	Lunch		
1230	Sed pond notes and co-ordinates send to jeremy Check Pelly documentation	Pelly Office	
1430	Observe till haul and regrading	GSC	
1500	Daily report	Truck on GSC	Start report while observing site activites
1700	Leave site		

J. Atkinson 28/ 08/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 28/08/2011 (DD MM YY) Shift Day

Pelly Construction: Daily Summary Table

Work to date	Task	Spent	
27/08/11	1,3 and 10	13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	13,130.00	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	8,168.75	
22/08/2011	2	9,387.50	
21/08/2011	10 - camp set up	4,000	

			Budget	% complete	
	Total	71,866.25			
Per Task	1	4180	19,500	21%	
	2	35,066.25	28,660	122%	Complete
	3	16220	92,700	17%	
	4	2100	14,000	15	
	5		2,875	0	
	6		None	0	
	7		None	0	
	8		None	0	
	9		None	0	
	10	14,300	79900	18%	
	Total	71,866	237,635	30%	

J. Atkinson 28/08/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 28/08/2011 (DD MM YY) Shift Day

Site Photos

Location GSC Bench 2 Looking west

Comment Grader increasing capacity of bench

Location GSC sed pond Looking west

Comment Flag for lower SE corner

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 28/08/2011 (DD MM YY) Shift Day

Site Photos

Location GSC top plateau

Comment Till haul stockpiles Looking SE

Location

Comment

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 29/08/11 (DD MM YY) Shift Day

BGC Project No: 0533-003

Contract Title:
GSC Cover Repairs

Weather

Today: Clear

Max 5

Cloudy	Windy	Showers

Client: Yukon Government

Contractors: Pelly Construction

Highlights

1 Pelly moving till to top of 1 m cover slope
2 Pelly grading Bench #3 to create more drainage. Bench #1 and #2 are complete.
3 June discussed sed pond layout with BGC Vancouver.
4 Rain storm in the afternoon, grader used to keep haul roads clear.
5 Pushed 3 feet of till onto slope in middle section with D9 yesterday.

Health and Safety

Bear activity in and around site, no actual sightings at the GSC today - all warned to be on the look-out for bears.
BGC field job site evaluation undertaken by JAA for monitoring work.

J. Atkinson 29/08/11
Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 29/08/11 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly Activities	BGC Activity	Comments
745	GSC	2 x 773B Hauling till to top of GSC, 1 x 360 CAT loading haul trucks, 1x Grader grading bench #3, 1 x Foreman and pickup. Personnel - GS,IL,MN,CT, Aaron	Arrive on site	Plan for the day, Safety documentation
830	GSC		Chat BGC Vancouver on Sed Pond	Chat on field notes sent through over weekend re design
930	GSC		Observe construction work	Inspect benches, Check 1m till placement by D6 yesterday, take photos
1200	Lunch			
1230	GSC	2 x 773B Hauling till to top of GSC, 1 x 360 CAT loading haul trucks, 1x Grader grading bench #3, 1 x Foreman and pickup. Personnel - GS,IL,MN,CT, Aaron	Observe construction work	Observe till haul and start daily report
1500	GSC		Fuel up at Faro site	
1600	GSC	As above but grader moves to clearing roads after rain shower	Observe construction	Observe till haul and start daily report

J. Atkinson 29/08/11

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 29/08/11 (DD MM YY) Shift Day

Pelly Construction: Daily Summary Table

Work to date	Task	Spent	
28/08/11	1,3 and 10	14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	13,130.00	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	8,168.75	
22/08/2011	2	9,387.50	
21/08/2011	10 - camp set up	4,000	

			Budget	% complete	
	Total	86,691.25			
Per Task	1	6055	19,500	31%	
	2	35,066.25	28,660	122%	Complete
	3	25420	92,700	27%	
	4	2100	14,000	15	
	5		2,875	0	
	6		None	0	
	7		None	0	
	8		None	0	
	9		None	0	
	10	18,050	79900	23%	
	Total	86,691	237,635	36%	

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 29/08/11 (DD MM YY) Shift Day

Construction Monitor Date DD/MM/YY

Site Photos

Location GSC Looking SE

Comment Placing till down the upper slope

Location GSC Looking SE

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date	29/08/11 (DD MM YY)	Shift	Day
Comment	Depression staked out for filling		

Site Photos

Location	GSC haul road	Looking east
Comment	Hauling till	

Location	GSC	Looking east
Comment	Completed bench Number 1 grade (apart from perimeter ditch tie in)	

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 29/08/11 (DD MM YY) Shift Day

Site Photos

Location Till borrow source — Looking east

Comment Note different fill materials

Location GSC — Looking east

Comment Ditch number 4

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 30/08/11 (DD MM YY) Shift Day

BGC Project No: 0533-003

Contract Title: GSC Cover Repairs

Weather

Today: Clear | Cloudy | Max 14 | Windy | Showers

Client: Yukon Government

Contractors: Pelly Construction

Highlights

1 Pelly moving till to top of 1 m cover slope

2 Pelly grading Bench #4 to create more drainage. Bench #1, #2 and #3 are complete.

3 D9 has pushed first lift of till down slope all across the 1m till area. Still need to place another lift and then sort our drainage at the top by making sure there is a berm edge.

4 Pelly likely to be finished current scope of work by the 5th September.

Health and Safety

BGC field job site evaluation undertaken by JAA for monitoring work.

J. Atkinson — 30/08/11

Construction Monitor — Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 30/08/11 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly Activities	BGC Activity	Comments
745	GSC	2 x 773B Hauling till to top of GSC, 1 x 360 CAT loading haul trucks, 1x Grader grading bench #4, 1 x Foreman and pickup. Personnel - GS,IL,MN,CT, AS	Arrive on site	Plan for the day, Safety documentation
800	GSC		Observe construction work	Inspect benches, Check 1m till placement by D6 yesterday, observe till haul, take photos
1100	GSC		Paperwork	Start daily report, check Pelly documentation and discuss week forecast with Gunnar
1200	Lunch			
1230	GSC	3 x 773B Hauling till to top of GSC, 1 x 360 CAT loading haul trucks, 1x Grader grading bench #4, 1 x Foreman and pickup. Personnel - GS,IL,MN,CT, AS	Observe construction work	Inspect benches, Check 1m till placement by D6 yesterday, observe till haul, take photos
1600	Leave site and head to whitehorse to swap out truck.			

J. Atkinson 30/08/11

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 30/08/11 (DD MM YY) Shift Day

Pelly Construction: Daily Summary Table

Work to date	Task	Spent	
29/08/11	1,3 and 10	14330	(2280 for task 1, 8600 for task 3, 3450 for task 10)
28/08/11	1,3 and 10	14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	13,130.00	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	8,168.75	
22/08/2011	2	9,387.50	
21/08/2011	10 - camp set up	4,000	

		Total	101,021.25	Budget	% complete
Per Task	1		8335	19,500	43%
	2		35,066.25	28,660	122% Complete
	3		34020	92,700	37%
	4		2100	14,000	15
	5			2,875	0
	6			None	0
	7			None	0
	8			None	0
	9			None	0
	10		21,500	79900	27%
		Total	101,021.25	237,635	43%

J. Atkinson 30/08/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 30/08/11 (DD MM YY) Shift Day

Site Photos

Location GSC Bench number 3

Comment Completed grading Looking west

Location GSC Bench #4 Looking east

Comment Bench in process of grading. Demonstrates fix ups requested at ends

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

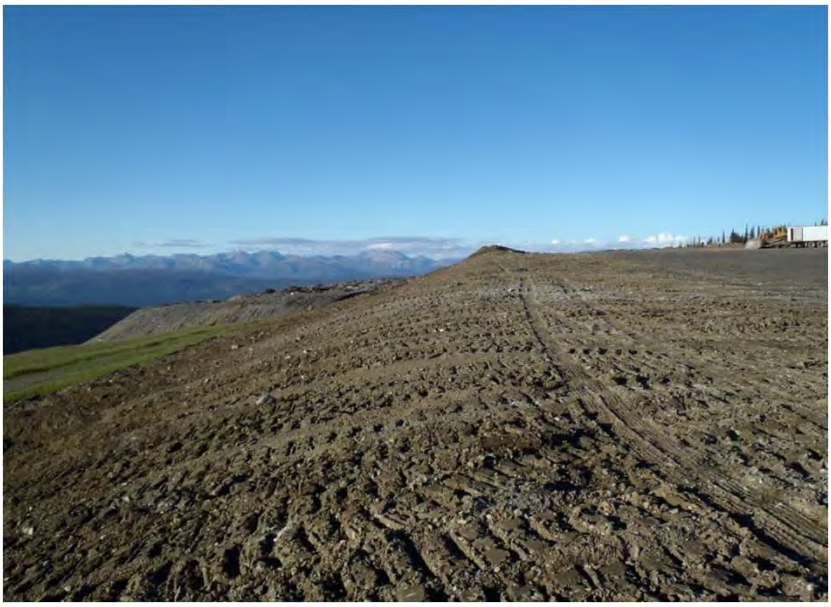
Daily Construction – Progress Report

Date 30/08/11 (DD MM YY) Shift Day

Site Photos

Location GSC top slope Looking east

Comment 1st lift compacted down slope by dozer



1026751

Location GSC top slope Looking west

Comment 1st lift compacted down slope by dozer. Note more material required and berm at top

Site Photos

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 31/08/11 (DD MM YY) Shift Day

BGC Project No: 0533-003

Weather

Contract Title: GSC Cover Repairs

Today: Clear | Cloudy | Windy | Max 11 | Showers

Client: Yukon Government

Contractors: Pelly Construction

Highlights

1. Pelly moving till to top of 1 m cover slope
2. Pelly grading Bench #4 to create more drainage. Bench #1, #2 and #3 are complete.
3. D9 has pushed first lift of till down slope all across the 1m till area. Still need to place another lift and then sort our drainage at the top by making sure there is a berm edge.
4. Pelly (Gunnar) and June discuss sed pond layout and design and send input into design in Vancouver
5. June and Gunnar discuss borrow source for till. For the filling of the depression over the weekend more till will be required from the borrow dumps. Dustin who do we get permission from to use till in various locations from the borrow dump as Pelly may need to excavate beyond their current location. Is it YG or DES?
6. June and Gunnar look into riprap options from the quarry and the till borrow for the sed pond to go directly on the liner.

Health and Safety

BGC field job site evaluation undertaken by JAA for monitoring work.
Watering of haul roads being undertaken by Pelly to keep dust to a minimum

J. Atkinson — 31/08/11

Construction Monitor — Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 31/08/11 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly Activities	BGC Activity	Comments
0700		2 x 773B Hauling till to top of GSC, 1 x 360 CAT loading haul trucks, 1x Grader grading bench #4, 1 x Foreman and pickup. Personnel - GS,IL,MN,CT, AS - From Discussion with GS.	June drives from whitehorse to faro. Arrives at 1230.	
1200	Lunch for site team			
1230	GSC	2 x 773B Hauling till to top of GSC, 1 x 360 CAT loading haul trucks, 1x Grader grading bench #5 and later cleaning roads, 1 x Foreman and pickup. Personnel - GS,IL,MN,CT, AS	Site activities	Discuss sed pond drawing with Gunnar,look at till borrow current location and where it can expand to, consider various riprap sources (the riprap quarry, the rock seperated from the till at the borrow), communicate with BGC vancouver, observe site activities.
1700	Leave site.			

J. Atkinson 31/08/11

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 31/08/11 (DD MM YY) Shift Day

Pelly Construction: Daily Summary Table

Work to date	Task	Spent	
30/08/11	1,3 and 10	15,230	(2,280 for task 1, 9500 for task 3 and 3450 for task 10)
29/08/11	1,3 and 10	14330	(2280 for task 1, 8600 for task 3, 3450 for task 10)
28/08/11	1,3 and 10	14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	13,130.00	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	8,168.75	
22/08/2011	2	9,387.50	
21/08/2011	10 - camp set up	4,000	

			Budget	% complete	
	Total	116,251.25			
Per Task	1	10615	19,500	54%	
	2	35,066.25	28,660	122%	Complete
	3	43520	92,700	47%	
	4	2100	14,000	15	
	5		2,875	0	
	6		None	0	
	7		None	0	
	8		None	0	
	9		None	0	
	10	24,950	79900	31%	
	Total	116,251.25	237,635	49%	

J. Atkinson 31/08/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 31/08/11 (DD MM YY) Shift Day

Site Photos

Location Riprap quarry East

Comment Quarry face (too steep to get down to put something to scale)

Location Riprap quarry

Comment Typical riprap from quarry - angular well graded

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date	31/08/11 (DD MM YY)	Shift	Day

Site Photos

Location	Overburden Dump
Comment	Rounded rock material (apparently there is a stockpile of this. We will go look tomorrow)

Location	
Comment	

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 1/9/2011 (DD MM YY) Shift Day

BGC Project No: 0533-003

Weather

Contract Title: GSC Cover Repairs

Today: Clear | [Cloudy] | Max | Windy | 14 | Showers

Client: Yukon Government

Contractors: Pelly Construction

Highlights

1 Pelly moving till to top of 1 m cover slope and D9 pushing it into place.
2 D9 also creating berm at the top of 1m till slope.
3 Bench regrading is complete apart from removal of access benches.
4 Pelly working on quote for sed pond from draft BGC drawing and list of work items.
5 Still likely to be finished current scope on 5 September.
6 Went to see pit run gravel as potential material for use in sed pond.
7 Need response on till borrow move from report of August 31st from Dustin.

Health and Safety
BGC field job site evaluation undertaken by JAA for monitoring work.

J. Atkinson 1/9/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 1/9/2011 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly Activities	BGC Activity	Comments
745	GSC	2 x 773B Hauling till to top of GSC, 1 x 360 CAT loading haul trucks, 1x D9 pushing till into place on slope, 1 x Foreman and pickup. Personnel - GS,IL,MN,CT, AS	Arrive on site	Plan for the day, Safety documentation
800	GSC		Observe construction work	Observe till sloping work being undertaken to build berm at crest of slope.
1000	GSC		Sed pond	Discuss work items with Gunnar and some answers to queries on design from BGC Vancouver.
1200	Lunch			
1230	GSC	2 x 773B Hauling till to top of GSC, 1 x 360 CAT loading haul trucks, 1x D9 pushing till into place on slope, 1 x Foreman and pickup. Personnel - GS,IL,MN,CT, AS	Observe construction work	Inspect benches, Check 1m till placement by D6 yesterday, observe till haul, take photos. Go to Rose creek gravel pit and observe some of the rounded material available there - will report n 2 september daily report 1600 -discuss design sed pond Pelly construction - final riprap numbers and liner cover
1700	Leave site.			

J. Atkinson 1/9/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 1/9/2011 (DD MM YY) Shift Day

Pelly Construction: Daily Summary Table

Work to date	Task	Spent	
31/08/11	1,3 and 10	14780	(2280 for task 1, 8600 for task 2 and 3900 for task 10)
30/08/11	1,3 and 10	15230	(2,280 for task 1, 9500 for task 3 and 3450 for task 10)
29/08/11	1,3 and 10	14330	(2280 for task 1, 8600 for task 3, 3450 for task 10)
28/08/11	1,3 and 10	14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	13,130	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	8,168.75	
22/08/2011	2	9,387.50	
21/08/2011	10 - camp set up	4,000	

			Budget	% complete	
		Total 131,031.25			
Per Task	1	12895	19,500	66%	
	2	35,066.25	28,660	122%	Complete
	3	59470	92,700	64%	
	4	2100	14,000	15%	
	5		2,875	0	
	6		None	0	
	7		None	0	
	8		None	0	
	9		None	0	
	10	21,500	79900	27%	
		Total 131,031.25	237,635	55%	

J. Atkinson 1/9/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Date 1/9/2011 (DD MM YY) Shift Day

Daily Site Log

Daily Construction – Progress Report

Site Photos

Location GSC top of till slope Looking SE

Comment Dozer pushing berm at top of slope

Location GSC Till slope Looking west

Comment Almost complete

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Date 1/9/2011 (DD MM YY) Shift Day

Daily Site Log

Daily Construction – Progress Report

Site Photos

Location GSC Looking North

Comment Till borrow -Almost out of good material here need response to query on moving the borrow

Location

Comment

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 2/9/2011 (DD MM YY) Shift Day

BGC Project No: 0533-003

Weather

Contract Title:	Today		Max	15
GSC Cover Repairs	Clear	Cloudy	Windy	Showers

Client: Yukon Government Contractors: Pelly Construction

Highlights

1 Pelly finished 1m till cover on the 1st September.

2 Hauling till to the depression area this morning and spreading with the D9.

3 Borrow source - Pelly suggested alternative sources outside the borrow pit, YG communicated NOT to use these sources due to contamination concerns and to stay at the main borrow source, June made sure Pelly had this message from YG.

4 June made regular inspections of the depression till to check the material. Material being placed was consistently two types; the dry light brown till with 2 inch rounded gravel (used for the 1 m till cover on the slope) and a moist darker grey till with 5% two inch to four inch subangular gravel. No material which was only organics or gravel was being placed. Discussed with Charles, the D9 operator, that the materials being placed were suitable as long as he could traffic them but to be vigilant for different materials and to radio if he noticed a change in material or was having issues with trafficking. A visual observation the D9 was having no issues moving over either material with rutting or rolling.

5 June field check of sedimentation pond co-ordinates and communication with Vancouver on design.

6 Caroline (Pelly Surveyor arrived on site at 4pm). Gunnar, June and Caroline discussed the design and June gave Caroline the checked co-ordinates for the pond corners which she staked with June. She also marked the amount of cut/fill at these locations on the stakes.
Caroline was going to return later tonight to stake some of the slope limits for the cut/fill slopes from the sedimentation pond.

Health and Safety

BGC field job site evaluation undertaken by JAA for monitoring work.

Pelly using water truck to reduce dust on the roads.

Fresh signs of bears presence in the lower area of the site. All personnel warned.

J. Atkinson 2/9/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 2/9/2011 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly Activities	BGC Activity	Comments
745	GSC	2 x 773B Hauling till to depression, 1 x 360 CAT loading haul trucks, 1x D9 pushing till, 1 x Foreman and pickup. Personnel - GS,IL,MN,CT, AS	Arrive on site	Plan for the day, Safety documentation
800	GSC		Sort borrow source queries	Send Dustin more detailed query on the borrow from Pelly, receive instruction not to move borrow, discuss with Gunnar.
1030	GSC		Monitor construction work	Inspect depression infill material to check on suitability of till - discuss with Charles operating D9 what to look for - no slop, no black organics, no pure gravel, that he could traffic the material and that what he had presently was fine. Inspect borrow pit in detail with Ivan operating 360 CAT and discuss the material and a few options for finding more material. Have a final check over the 1m till slope.
1200	Lunch			
1230	GSC	2 x 773B Hauling till to depression, 1 x 360 CAT loading haul trucks, 1x D9 pushing till, 1 x Foreman and pickup. Personnel - GS,IL,MN,CT, AS	Monitor construction work	Check Pond volumes, Hand and field check of co-ordinates for the sed pond in prep for surveyor arriving, observe till material being placed in depression.
1600	GSC	As above. Caroline (Pelly Surveyor) on site as well and a water truck operating.	Stake points for sed pond with Caroline	Stake points with Caroline and note cut and fill at corners of pond to send to Jeremy.
1800	Leave site.			

J. Atkinson 2/9/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 2/9/2011 (DD MM YY) Shift Day

Pelly Construction: Daily Summary Table

Work to date	Task	Spent		
1/9/2011	1,3 and 10	$	15,750	(12300 for task 3 and 3450 for task 10)
31/08/11	1,3 and 10	$	14,780	(2280 for task 1, 8600 for task 3 and 3900 for task 10)
30/08/11	1,3 and 10	$	15,230	(2,280 for task 1, 9500 for task 3 and 3450 for task 10)
29/08/11	1,3 and 10	$	14,330	(2280 for task 1, 8600 for task 3, 3450 for task 10)
28/08/11	1,3 and 10	$	14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	$	13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	$	10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	$	13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	$	13,130	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	$	8,169	
22/08/2011	2	$	9,388	
21/08/2011	10 - camp set up	$	4,000	

				Budget	% complete
	Total	$	146,781		
Per Task	1	$	12,895	19,500	66% Complete
	2	$	35,066	28,660	122% Complete
	3	$	71,770	92,700	77%
	4	$	2,100	14,000	15%
	5			2,875	0
	6			None	0
	7			None	0
	8			None	0
	9			None	0
	10	$	24,950	79900	31%
	Total	$	146,781	$ 237,635	62%

J. Atkinson 2/9/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 2/9/2011 (DD MM YY) Shift Day

Site Photos

Location	GSC till cover slope and berm	NE
Comment	Note finished berm to prevent water flow over crest	

Location	GSC till cover slope	E
Comment	Finished 1m till slope	

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

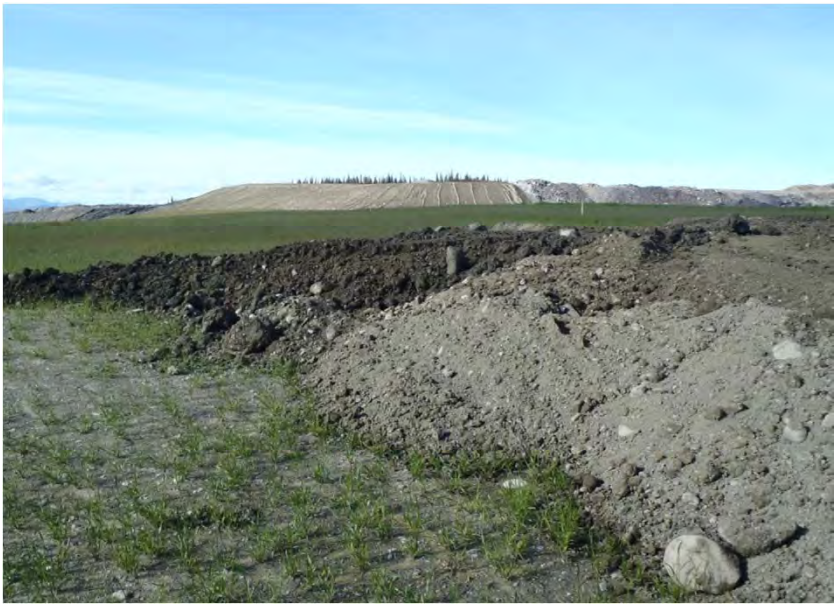
Daily Site Log

Daily Construction – Progress Report

Date 2/9/2011 (DD MM YY) Shift Day

Site Photos

Location	GSC 1300 plateau	E
Comment	Placing till material in the depression	



Location	GSC 1300 plateau	W
Comment	Note two different colours of material - both considered suitable.	

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 3/9/2011 (DD MM YY) Shift Day

BGC Project No: 0533-003

Weather

	Today		Max	14
Contract Title: GSC Cover Repairs	Clear	Cloudy	Windy	Showers

Client: Yukon Government Contractors: Pelly Construction

Highlights

1 Hauling till to the depression area all day and spreading with the D9.

2 Staked out sedimentation pond with Caroline the Pelly Surveyor. Moved the pond 5 m to south to provide more working from for Pelly during construction. Communicated this change to BGC Vancouver to update drawings and volumes.

3 Brown bear on site around the base of the GSC. All Pelly personnel notified and Grum guardhouse radio to DES to inform them.

Health and Safety

BGC field job site evaluation undertaken by JAA for monitoring work.

Brown bear spotted on site near sedimentation pond. No work in area until it left again. All personnel informed by radio.

J. Atkinson 3/9/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 3/9/2011 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly Activities	BGC Activity	Comments
745	GSC	2 x 773B Hauling till to depression, 1 x 360 CAT loading haul trucks, 1x D9 pushing till, 1 x Foreman and pickup1 x Surveyor staking sed pond Personnel - GS,IL,MN,CT, AS, CB 1100 am: Surveyor CB leaves site.	Arrive on site	Plan for the day, Safety documentation
800	GSC		Monitor construction work	Observe till placement and material - still light brown till material
830	GSC		Monitor construction work	Sedimentation pond layout - field fit with Caroline and Gunnar. Move pond 5 m and restake positions. Let BGC Vancouver know field change by email.
1200	Lunch			
1230	GSC	2 x 773B Hauling till to depression, 1 x 360 CAT loading haul trucks, 1x D9 pushing till, 1 x Foreman and pickup. Personnel - GS,IL,MN,CT, AS	Paperwork	Start daily report and check Pelly documentation
1300	GSC		Monitor construction work	Observe till placement and borrow material - still light brown till material, take photos and notes
1700	Leave site.			

J. Atkinson 3/9/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 3/9/2011 (DD MM YY) Shift Day

Pelly Construction: Daily Summary Table

Work to date	Task	Spent		
2/9/2011	3 and 10	$	16,380	(11,700 for task 3 and 4680 for task 10)
1/9/2011	3 and 10	$	15,430	(11,600 for task 3 and 3830 for task 10) - Updated for correction june spotted.
31/08/11	1,3 and 10	$	14,780	(2280 for task 1, 8600 for task 3 and 3900 for task 10)
30/08/11	1,3 and 10	$	15,230	(2,280 for task 1, 9500 for task 3 and 3450 for task 10)
29/08/11	1,3 and 10	$	14,330	(2280 for task 1, 8600 for task 3, 3450 for task 10)
28/08/11	1,3 and 10	$	14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	$	13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	$	10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	$	13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	$	13,130	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	$	8,169	
22/08/2011	2	$	9,388	
21/08/2011	10 - camp set up	$	4,000	
	Total	$	162,841	

				Budget	% complete
Per Task	1	$	12,895	19,500	66% Complete
	2	$	35,066	28,660	122% Complete
	3	$	82,770	92,700	89%
	4	$	2,100	14,000	15%
	5			2,875	0
	6			None	0
	7			None	0
	8			None	0
	9			None	0
	10	$	30,010	79900	38%
	Total	$	162,841	$ 237,635	69%

J. Atkinson 3/9/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 3/9/2011 (DD MM YY) Shift Day

Site Photos

Location GSC 1300 bench Looking west

Comment Till filling depression with D9

Location GSC 1300 bench

Comment Till material

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 3/9/2011 (DD MM YY) Shift Day

Site Photos

Location GSC 1300 bench Looking west

Comment Till filling depression with D9

Location

Comment

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 4/9/2011 (DD MM YY) Shift Day

BGC Project No: 0533-003

Weather

Contract Title: GSC Cover Repairs

Today: Clear | Cloudy | Max 14 | Windy | Showers

Client: Yukon Government

Contractors: Pelly Construction

Highlights

1. Hauling till to the depression area until 1500 hrs. Spreading with the D9 and doing final tidying. Area now good grade to the south.
2. Trench ripped along the top plateau by D9.
3. East Dissipation pond and Lower Dissipation Pond cleaned out. Material is wet sediment and is placed down haul bench from the sedimentation pond.
4. Packer smoothed benches to ensure an even grade towards the former ditch location to ensure there are no gullies or dips where water could collect.
5. Plan to start preparation around the sedimentation pond tommorow and start cut around the edge of the pond to 1191m design elevation. Also will start realignment of quarry access road around the south with D9 dozer. i.e. commence Phase 2 work.

Health and Safety

BGC field job site evaluation undertaken by JAA for monitoring work.
Raining so note to watch for slippery road conditions on and off site.

No visitors or other contractors on site.

J. Atkinson — 4/9/2011

Construction Monitor — Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 4/9/2011 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly Activities	BGC Activity	Comments
745	GSC	2 x 773B Hauling till to depression, 1 x 360 CAT loading haul trucks, 1x D9 pushing till, 1 x Foreman and pickup Personnel - GS,IL,MN,CT, AS.	Arrive on site	Plan for the day, Safety documentation
800	GSC		Monitor construction work	Observe till placement and material - still light brown till material
930	GSC		Paperwork	Start daily report and check Pelly documentation
1200	Lunch			
1230	GSC	As before lunch	Observe Construction and Fill up truck at Faro mine	
1430	GSC	1x360 CAT cleaning borrow area, 1 x D9 tidying depression, 1x Packer packing benches, 1x Foreman and pickup. Personnel:GS,IL,MN, AS,CN	Observe construction and update daily report.	Final check of depression fill - good grade to south. Take photos.
1500	GSC	1x360 CAT cleaning and 1 x 773B cleaning sed pond, 1x D9 tidy depression, 1x Packer working benches, 1x Foreman and pickup. Personnel:GS,IL,MN, AS,CN	Observe construction activities.	Material removed from Lower dissipation pond is wet sloppy sediment. Very little material removed from East Dissipation Pond. Water hose required to wash material into middle of pond to be removed.
1700	Leave site.			

J. Atkinson 4/9/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 4/9/2011 (DD MM YY) Shift Day

Pelly Construction: Daily Summary Table

Work to date	Task	Spent		
3/9/11	2 and 10	$	15,425	($11,600 for task 3 and $3,825 for task 10) (11,700 for task 3 and 4680 for task 10)
2/9/11	3 and 10	$	16,380	
1/9/11	3 and 10	$	15,430	(11,600 for task 3 and 3830 for task 10) - Updated for correction June spotted.
31/08/11	1,3 and 10	$	14,780	(2280 for task 1, 8600 for task 3 and 3900 for task 10)
30/08/11	1,3 and 10	$	15,230	(2,280 for task 1, 9500 for task 3 and 3450 for task 10)
29/08/11	1,3 and 10	$	14,330	(2280 for task 1, 8600 for task 3, 3450 for task 10)
28/08/11	1,3 and 10	$	14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	$	13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	$	10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4
25/08/2011	3 and 2	$	13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	$	13,130	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	$	8,169	
22/08/2011	2	$	9,388	
21/08/2011	10 - camp set up	$	4,000	
	Total	$	178,266	

J. Atkinson 4/9/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Date 4/9/2011 (DD MM YY) Shift Day

Daily Site Log

Daily Construction – Progress Report

Pelly Budget by Task

	Task		Spent	Budget	% Complete	Status
Per Task	1	$	12,895	19,500	66%	Complete
	2	$	35,066	28,660	122%	Complete
	3	$	94,370	92,700	102%	
	4	$	2,100	14,000	15%	
	5			2,875	0	
	6			None	0	
	7			None	0	
	8			None	0	
	9			None	0	
	10	$	33,835	79900	42%	
	Total	$	178,266	$ 237,635	75%	

J. Atkinson 4/9/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 4/9/2011 (DD MM YY) Shift Day

Site Photos

Location GSC 1300 plateau Looking west

Comment Depression infilled with good grade to south

Location GSC 1300 plateau Looking east

Comment Depression infilled with good grade to south

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 4/9/2011 (DD MM YY) Shift Day

Site Photos

Location Borrow pit Looking east

Comment Tidies up slopes to grade

Location East Dissipation Pond Looking south

Comment Excavation of sediment to waiting 773B

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 5/9/2011 (DD MM YY) Shift Day

BGC Project No: 0533-003

Weather

	Today		Max	10
Contract Title:	Clear	Cloudy	Windy	Showers
GSC Cover Repairs				

Client: Yukon Government Contractors: Pelly Construction

Highlights

1 Depression fill complete. June removes stakes.

3 Started Phase 2 work. D9 pushing new rock quarry road around the south of the pond.

4 Started preparation of the northwest edge of the new sedimentation pond with 360 CAT and haul truck. Haul truck taking material down to bench below where material is required to create emergency capacity pond and later to fill area for pond construction.

5 Lower Dissipation pond needs more work on clean up.

Health and Safety

BGC field job site evaluation undertaken by JAA for monitoring work.

No visitors or other contractors on site.

J. Atkinson 5/9/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 5/9/2011 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly Activities	BGC Activity	Comments
745	GSC	1xD9 Dozer pushing new quarry road, 1x 360 CAT preparing pond, 1x773B hauling material, 1x foreman. Personnel: AS,CN,IL,GS.	Arrive on site	Plan for the day, Safety documentation
800	GSC		Monitor construction work	Observe pond works, Inspect depression one last time and remove stakes.
930	GSC		Paperwork	Start daily report and observe construction
1200	Lunch			
1230	GSC	1xD9 Dozer pushing new quarry road, 1x 360 CAT preparing pond, 1x773B hauling material, 1x foreman. Personnel: AS,CN,IL,GS. At 1430 one water truck to keep dust down.	Monitor construction work	Observe pond works.
1730	Leave site.			

J. Atkinson 5/9/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Date 5/9/2011 (DD MM YY) Shift Day

Daily Site Log

Daily Construction – Progress Report

Pelly Construction: Daily Summary Table

Work to date	Task	Spent		
4/9/11	1,3,5, 10 and P2	$	15,695	($620 for Task 1, $10,325 for task 3,$700 for task 5, $3,450 for task 10 and $600 for Phase 2)
3/9/11	3 and 10	$	15,425	($11,600 for task 3 and $3,825 for task 10)
2/9/11	3 and 10	$	16,380	(11,700 for task 3 and 4680 for task 10)
1/9/11	3 and 10	$	15,430	(11,600 for task 3 and 3830 for task 10) - Updated for correction June spotted.
31/08/11	1,3 and 10	$	14,780	(2280 for task 1, 8600 for task 3 and 3900 for task 10)
30/08/11	1,3 and 10	$	15,230	(2,280 for task 1, 9500 for task 3 and 3450 for task 10)
29/08/11	1,3 and 10	$	14,330	(2280 for task 1, 8600 for task 3, 3450 for task 10)
28/08/11	1,3 and 10	$	14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	$	13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	$	10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	$	13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	$	13,130	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	$	8,169	
22/08/2011	2	$	9,388	
21/08/2011	10 - camp set up	$	4,000	
	Total	$	193,961	

J. Atkinson 5/9/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 5/9/2011 (DD MM YY) Shift Day

Pelly Budget by Task

	Task		Spent	Budget	% Complete	Status
Per Task	1	$	13,515	19,500	69%	Complete
	2	$	35,066	28,660	122%	Complete
	3	$	104,695	92,700	113%	
	4	$	2,100	14,000	15%	
	5	$	700	2,875	24.347826	
	6			None	0	
	7			None	0	
	8			None	0	
	9			None	0	
	10	$	37,285	79900	47%	
	Phase 2	$	600			
	Total	$	193,961	$ 237,635	82%	

J. Atkinson 5/9/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 5/9/2011 (DD MM YY) Shift Day

Site Photos

Location Base of GSC Looking NE

Comment D9 Dozer pushing a new quarry access road.

Location As above

Comment As above

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 5/9/2011 (DD MM YY) Shift Day

Site Photos

Location Base of GSC Looking east

Comment Excavating to pond edge elevation of 1191m

Location Base of GSC Looking east

Comment Removal of excavated material

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 5/9/2011 (DD MM YY) Shift Day

Site Photos

Location Bench below GSC Looking southeast

Comment Hauling of material to bench below to create depression volume

Location

Comment

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 6/9/2011 (DD MM YY) Shift Day

BGC Project No: 0533-003

Weather

Today: Clear | Cloudy | Max: Windy | Showers

Contract Title: GSC Cover Repairs

Client: Yukon Government

Contractors: Pelly Construction

Highlights

1 D9 pushing new rock quarry road around the south of the pond.

3 In afternoon large soft spot excavated at base of quarry road push.Removed with 360 CAT and replaced with clean waste rock from clean waste rock dump (6 loads).

4 Continued removal of material from northwest edge of the new sedimentation pond with 360 CAT and haul truck. Haul truck taking material down to bench below where material is required to create emergency capacity pond and later to fill area for pond construction and also to fill area below pond.

5 Fill spec checked with BGC Vancouver and calgary. Waiting confirmationb due to 10% coarse cobbles (>8 inches) in lift.

Health and Safety

BGC field job site evaluation undertaken by JAA for monitoring work.

No visitors or other contractors on site.

J. Atkinson 6/9/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 6/9/2011 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly Activities	BGC Activity	Comments
745	GSC	1xD9 Dozer pushing new quarry road, 1x 360 CAT preparing pond, 1x773B hauling material, 1x foreman. Personnel: AS,CN,IL,GS.	Arrive on site	Plan for the day, Safety documentation
800	GSC		Monitor construction work	Observe pond works and quarry access road push.
1200	Lunch			
1230	GSC	1xD9 Dozer pushing new quarry road, 1x 360 CAT preparing pond and removing soft spot at base of access road, 2x773B hauling clean waste rock material, 1x foreman. Personnel: AS,CN,IL,GS, MN.	Monitor construction work	Observe pond works.
1730	Leave site.			

J. Atkinson 6/9/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Date 6/9/2011 (DD MM YY) Shift Day

Daily Site Log

Daily Construction – Progress Report

Pelly Construction: Daily Summary Table

Work to date	Task	Spent		
5/9/11	P2 and 10	$	13,500	(P2 is 10,050 and task 10 is 3450) ($620 for Task 1, $10,325 for task 3,$700 for task 5, $3,450 for task 10 and $600 for Phase 2)
4/9/11	1,3,5, 10 and P2	$	15,695	
3/9/11	3 and 10	$	15,425	($11,600 for task 3 and $3,825 for task 10)
2/9/11	3 and 10	$	16,380	(11,700 for task 3 and 4680 for task 10)
1/9/11	3 and 10	$	15,430	(11,600 for task 3 and 3830 for task 10) - Updated for correction June spotted.
31/08/11	1,3 and 10	$	14,780	(2280 for task 1, 8600 for task 3 and 3900 for task 10)
30/08/11	1,3 and 10	$	15,230	(2,280 for task 1, 9500 for task 3 and 3450 for task 10)
29/08/11	1,3 and 10	$	14,330	(2280 for task 1, 8600 for task 3, 3450 for task 10)
28/08/11	1,3 and 10	$	14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	$	13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	$	10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	$	13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	$	13,130	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	$	8,169	
22/08/2011	2	$	9,388	
21/08/2011	10 - camp set up	$	4,000	
	Total	$	207,461	

J. Atkinson 6/9/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 6/9/2011 (DD MM YY) Shift Day

Pelly Budget by Task

	Task		Spent	Budget	% Complete	Status
Per Task	1	$	13,515	19,500	69%	Complete
	2	$	35,066	28,660	122%	Complete
	3	$	104,695	92,700	113%	
	4	$	2,100	14,000	15%	
	5	$	700	2,875	24.347826	
	6			None	0	
	7			None	0	
	8			None	0	
	9			None	0	
	10	$	40,735	79900	51%	
	Phase 2	$	10,650			
	Total	$	207,461	$ 237,635	87%	

J. Atkinson 6/9/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 6/9/2011 (DD MM YY) Shift Day

Site Photos

Location Base of GSC Looking north

Comment Dozer pushing new access road

Location Base of GSC Looking south

Comment Excavtion to make room for NW corner of new sed pond

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 6/9/2011 (DD MM YY) Shift Day

Site Photos

Location Base of GSC Looking north

Comment Placing clean waste rock at base of access road where soft spot removed

Location Base of GSC Looking west

Comment Packing fill first lift

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 7/9/2011 (DD MM YY) Shift Day

BGC Project No: 0533-003

Weather

Today: Clear | Cloudy | Windy | Showers

Max: Windy

Contract Title: GSC Cover Repairs

Client: Yukon Government

Contractors: Pelly Construction

Highlights

1. Placing fill around the SE of the sedimentation pond.
2. Remove soft spot excavated at toe of proposed fill material. Removed with 360 CAT and replaced with clean waste rock from clean waste rock dump.
3. Removal of material from southeast edge of the new sedimentation pond with 360 CAT and haul truck. Haul truck taking material down to bench below to fill area for pond construction.
4. Place fill in just over 12 inch lift and pack to a 12 inch lift, add water with water truck, pass 5 times with packer and proof roll with 773B haul truck. Deflections maximum 1-2 cm. No ruts.
5. Jeremy Valeriote (BGC) arrives on site. Tour around items from phase 1 which are complete, observe proof roll, go to borrow areas.
6. Liner (7 rolls 60 mm HDPE solmax) and geotextile (22 rolls) arrives on site and is stockpiled near end of toe berm bench.
7. CAT 360 removes sediment from existing sediment pond and haul truck deposits on bench below pond.
8. June leaves site and heads for Whitehorse.

Health and Safety

BGC field job site evaluation undertaken by JAA for monitoring work.

Liner delivery driver and Jeremy Valeriote (BGC) on site.

J. Atkinson — 7/9/2011

Construction Monitor — Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 7/9/2011 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly Activities	BGC Activity	Comments
745	GSC	1xD9 Dozer placing fill, 1x 360 CAT preparing pond, 1x773B hauling material, 1x foreman, 1 x packer. Personnel: AS,CN,IL,GS.	Arrive on site	Plan for the day, Safety documentation
800	GSC		Monitor construction work	Observe pond works and fill placement.
1200	Lunch			
1230	GSC	1xD9 Dozer placing fill, 1x 360 CAT preparing pond, 1x773B hauling material, 1x foreman, 1 x packer. Personnel: AS,CN,IL,GS.	Monitor construction work	1300 - Liner arrives on site and is unloaded by MN (Pelly) Observe pond works, fill placement and proof roll. JV arrives on site at 1630 - tour site.
1800	Leave site.			

J. Atkinson 7/9/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 7/9/2011 (DD MM YY) Shift Day

Pelly Construction: Daily Summary Table

Work to date	Task	Spent		
6/9/11	1, P2 and 9	$	13,885	(1 is 310, P2 is 10,095 and 10 is 3450)
5/9/11	P2 and 10	$	13,500	(P2 is 10,050 and task 10 is 3450)
4/9/11	1,3,5, 10 and P2	$	15,695	($620 for Task 1, $10,325 for task 3,$700 for task 5, $3,450 for task 10 and $600 for Phase 2)
3/9/11	3 and 10	$	15,425	($11,600 for task 3 and $3,825 for task 10)
2/9/11	3 and 10	$	16,380	(11,700 for task 3 and 4680 for task 10)
1/9/11	3 and 10	$	15,430	(11,600 for task 3 and 3830 for task 10) - Updated for correction June spotted.
31/08/11	1,3 and 10	$	14,780	(2280 for task 1, 8600 for task 3 and 3900 for task 10)
30/08/11	1,3 and 10	$	15,230	(2,280 for task 1, 9500 for task 3 and 3450 for task 10)
29/08/11	1,3 and 10	$	14,330	(2280 for task 1, 8600 for task 3, 3450 for task 10)
28/08/11	1,3 and 10	$	14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	$	13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	$	10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	$	13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	$	13,130	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	$	8,169	
22/08/2011	2	$	9,388	
21/08/2011	10 - camp set up	$	4,000	
	Total	$	221,346	

J. Atkinson 7/9/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 7/9/2011 (DD MM YY) Shift Day

Pelly Budget by Task

	Task		Spent	Budget	% Complete	Status
Per Task	1	$	13,825	19,500	71%	
	2	$	35,066	28,660	122%	Complete
	3	$	104,695	92,700	113%	
	4	$	2,100	14,000	15%	
	5	$	700	2,875	24.347826	
	6			None	0	
	7			None	0	
	8			None	0	
	9			None	0	
	10	$	44,185	79900	55%	
	Phase 2	$	20,745			
	Total	$	221,316	$ 237,635		

J. Atkinson 7/9/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 7/9/2011 (DD MM YY) Shift Day

Site Photos

Location Base of GSC Looking east

Comment Fill Placement area

Location Base of GSC - SW corner of fill for pond Looking north

Comment Removal of soft spot and repack with clean waster rock

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 7/9/2011 (DD MM YY) Shift Day

Site Photos

Location	East of toe berm bench	Looking east
Comment	Liner arrived and stacked.	

Location	East of toe berm bench	Looking east
Comment	Geotextile arrived and stacked.	

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 7/9/2011 (DD MM YY) Shift Day

Site Photos

Location Existing sed pond Looking west

Comment Removal of sediment

Location Fill for new sed pond Looking west

Comment Haul truck ready for proof roll

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 8/9/2011 (DD MM YY) Shift Day

BGC Project No: 0533-003

Weather

Contract Title:	Today		Max	15
GSC Cover Repairs	Clear	Cloudy	Windy	Showers

Client: Yukon Government Contractors: Pelly Construction

Highlights

1 Cutting slope above N edge of pond

2 Filling previously existing sediment pond (12 inch lifts, 5 passes compactor, water applied)

3 Clearing 600mm culvert due to forecasted 5-10mm rain

4

5

6

7

8

Health and Safety

BGC field job site evaluation undertaken by JAA for monitoring work.

Juvenile black bear on toe berm - unconcerned with bear bangers or air horn, eventually left cover area

J. Valeriote 7/9/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 8/9/2011 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly Activities	BGC Activity	Comments
745	GSC	1xD9 Dozer placing fill, 1x 360 CAT preparing pond, 1x773B hauling material, 1x foreman, 1 x packer, 1x water truck. Personnel: AS,CN,IL,GS, CT.	Arrive on site	Plan for the day, Safety documentation
800	GSC		Monitor construction work	Cutting north pond edge, placing acceptable material in old pond as fill, removing some material to Contingency Storage Area (CSA)
1200	Lunch			
1230	GSC	1xD9 Dozer placing fill, 1x 360 CAT preparing pond, 1x foreman, 1 x packer, 1x water truck. Personnel: AS,CN,IL,GS.	Monitor construction work	Filling old pond in lifts where necessary for new cut slope
1800	Leave site.			

Construction Monitor J. Valeriote Date 8-Sep

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 8/9/2011 (DD MM YY) Shift Day

Pelly Construction: Daily Summary Table

Work to date	Task	Spent		
8/9/11	P2-1 (sed pond)	$	14,675	
7/9/11	P2-1 (sed pond)	$	15,230	
6/9/11	1, P2 and 9	$	13,885	(1 is 310, P2 is 10,095 and 10 is 3450)
5/9/11	P2 and 10	$	13,500	(P2 is 10,050 and task 10 is 3450)
				($620 for Task 1, $10,325 for task 3,$700 for task 5, $3,450 for task 10 and $600 for Phase 2)
4/9/11	1,3,5, 10 and P2	$	15,695	
3/9/11	3 and 10	$	15,425	($11,600 for task 3 and $3,825 for task 10)
2/9/11	3 and 10	$	16,380	(11,700 for task 3 and 4680 for task 10)
1/9/11	3 and 10	$	15,430	(11,600 for task 3 and 3830 for task 10) - Updated for correction June spotted.
31/08/11	1,3 and 10	$	14,780	(2280 for task 1, 8600 for task 3 and 3900 for task 10)
30/08/11	1,3 and 10	$	15,230	(2,280 for task 1, 9500 for task 3 and 3450 for task 10)
29/08/11	1,3 and 10	$	14,330	(2280 for task 1, 8600 for task 3, 3450 for task 10)
28/08/11	1,3 and 10	$	14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	$	13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	$	10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	$	13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	$	13,130	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	$	8,169	
22/08/2011	2	$	9,388	
21/08/2011	10 - camp set up	$	4,000	
	Total	$	251,251	

J. Atkinson 7/9/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 8/9/2011 (DD MM YY) Shift Day

Pelly Budget by Task

	Task			Spent		Budget	% Complete	Status
	Bench ditches	1	$	13,825		19,500	71%	
	perim ditches	2	$	35,066		28,660	122%	Complete
	fill depressions	3	$	104,695		92,700	113%	
	run-on ditches	4	$	2,100		14,000	15%	
	cleanout ponds	5	$	700		2,875	24%	
		6			None		0	
		7			None		0	
		8			None		0	
		9			None		0	
	incidental	10	$	44,185		79900	55%	
	Phase 1 subtotal		**$**	**200,571**		**237,635**	**84%**	
Phase 2	Pond Exc	1	$	40,000	$	110,650	**36%**	
	Riprap	2			$	25,470	**0%**	
	Quarry Road	3	$	10,050	$	9,690	**104%**	
	SP Outlet channel	4			$	1,750	**0%**	
	CSA	5			$	25,250	**0%**	
	X-ditch	6			$	9,750	**0%**	
	Grade perim ditch	7		600	$	4,740	**13%**	
	remove bench access	8			$	3,500	**0%**	
		Incidentals			$	234,240	**0%**	
	Phase 2 subtotal		**$**	**50,650**	**$**	**425,040**	**12%**	
		Total	**$**	**251,221**	**$**	**662,675**	**38%**	

J. Valeriote 7/9/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

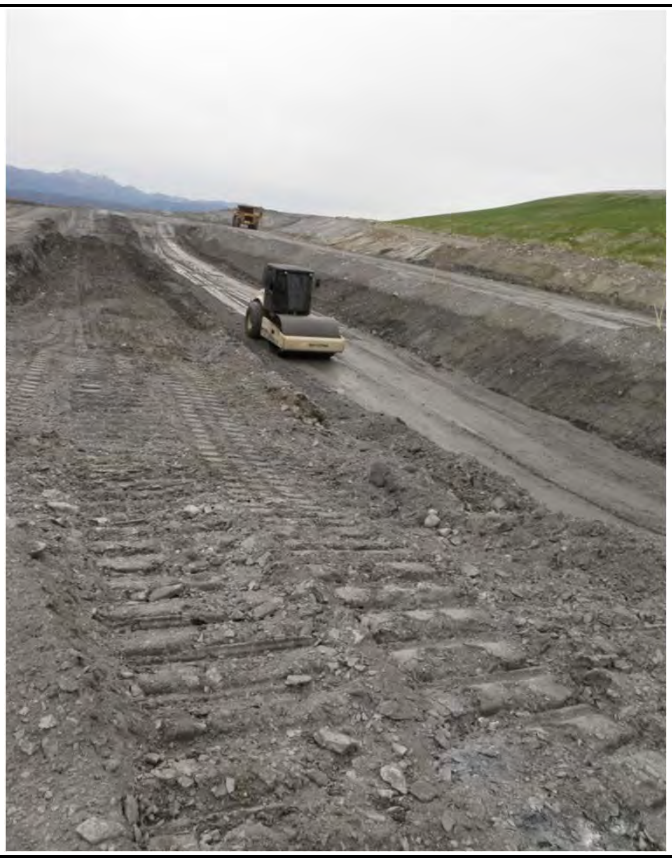
Date 8/9/2011 Shift Day
(DD MM YY)

Daily Site Log

Daily Construction – Progress Report

Site Photos

Sediment Pond Fill Looking east
Water application to 30cm lift



Filling old sediment pond Looking west
Packing 30cm lift in old pond for north slope of new pond

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Date 9/9/2011 (DD MM YY) Shift Day

Daily Site Log

Daily Construction – Progress Report

BGC Project No: 0533-003

Weather

Contract Title:	Today		Max	7
GSC Cover Repairs	Rain	Cloudy	Windy	Showers

Client: Yukon Government Contractors: Pelly Construction

Highlights

1 Cut and Fill Sediment Pond

2 Light rain (wet snow at Pelly camp) most of previous night and today - total ~10mm. Filled low spot in LDP outlet in case of heavier rain.

3 Sent CAD file to Pelly surveyor Caroline for staking tomorrow

4 Reminder to cross-ditch drainge from 2 eastern access roads into LDP prior to demob; will require water sampling in EDP and WDP channels to define cover runoff quality

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Health and Safety

BGC field job site evaluation undertaken by JAA for monitoring work.

J. Valeriote 9/9/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 9/9/2011 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly Activities	BGC Activity	Comments
745	GSC	1xD9 Dozer placing fill, 1x 360 CAT preparing pond, 1x foreman, 1 x packer. Personnel: AS,CN,IL,GS.	Arrive on site	Plan for the day, Safety documentation
800	GSC		Monitor construction work	Cut and fill for sed pond
1200	Lunch			
1230	GSC	1xD9 Dozer placing fill, 1x 360 CAT preparing pond, 1x foreman, 1 x packer. Personnel: AS,CN,IL,GS.	Monitor construction work	Cut and fill for sed pond
1700	Leave site.			

Construction Monitor J. Valeriote Date 9/9/2011

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Date 9/9/2011 (DD MM YY) Shift Day

Daily Site Log

Daily Construction – Progress Report

Pelly Construction: Daily Summary Table

Work to date	Task	Spent		
9/9/11	P2-1 (sed pond)	$	11,985	
8/9/11	P2-1 (sed pond)	$	14,675	
7/9/11	P2-1 (sed pond)	$	15,230	
6/9/11	1, P2 and 9	$	13,885	(1 is 310, P2 is 10,095 and 10 is 3450)
5/9/11	P2 and 10	$	13,500	(P2 is 10,050 and task 10 is 3450)
				($620 for Task 1, $10,325 for task 3,$700 for task 5, $3,450 for task 10 and $600 for Phase 2)
4/9/11	1,3,5, 10 and P2	$	15,695	
3/9/11	3 and 10	$	15,425	($11,600 for task 3 and $3,825 for task 10)
2/9/11	3 and 10	$	16,380	(11,700 for task 3 and 4680 for task 10)
1/9/11	3 and 10	$	15,430	(11,600 for task 3 and 3830 for task 10) - Updated for correction June spotted.
				(2280 for task 1, 8600 for task 3 and 3900 for task 10)
31/08/11	1,3 and 10	$	14,780	
				(2,280 for task 1, 9500 for task 3 and 3450 for task 10)
30/08/11	1,3 and 10	$	15,230	
29/08/11	1,3 and 10	$	14,330	(2280 for task 1, 8600 for task 3, 3450 for task 10)
28/08/11	1,3 and 10	$	14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	$	13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	$	10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	$	13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	$	13,130	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	$	8,169	
22/08/2011	2	$	9,388	
21/08/2011	10 - camp set up	$	4,000	
	Total	$	263,236	

J. Valeriote 9/9/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Date 9/9/2011 (DD MM YY) Shift Day

Daily Site Log

Daily Construction – Progress Report

Pelly Budget by Task

	Task		Spent	Budget	% Complete	Status
	Bench ditches	1	$ 13,825	19,500	71%	Complete
	perim ditches	2	$ 35,066	28,660	122%	Complete
	fill depressions	3	$ 104,695	92,700	113%	Complete
	run-on ditches	4	$ 2,100	14,000	15%	
	cleanout ponds	5	$ 700	2,875	24%	Complete
		6		None	0	
		7		None	0	
		8		None	0	
		9		None	0	
	incidental	10	$ 44,185	79900	55%	
	Phase 1 subtotal		**$ 200,571**	**$ 237,635**	**84%**	
Phase 2	Pond Exc	1	$ 51,985	$ 110,650	**47%**	
	Riprap	2		$ 25,470	**0%**	
	Quarry Road	3	$ 10,050	$ 9,690	**104%**	
	SP Outlet channel	4		$ 1,750	**0%**	
	CSA	5		$ 25,250	**0%**	
	X-ditch	6		$ 9,750	**0%**	
	Grade perim ditch	7	600	$ 4,740	**13%**	
	remove bench access	8		$ 3,500	**0%**	
		Incidentals		$ 234,240	**0%**	
	Phase 2 subtotal		**$ 62,635**	**$ 425,040**	**15%**	
		Total	**$ 263,206**	**$ 662,675**	**40%**	

J. Valeriote 7/9/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Date 9/9/2011 (DD MM YY) Shift Day

Daily Site Log

Daily Construction – Progress Report

Site Photos

Sediment Pond Cut/Fill Looking east

Contingency Storage Area looking south

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 9/9/2011 (DD MM YY) Shift Day

Site Photos

Fill low spot in LDP outlet (with small berm highlighted)

Looking southeast

LDP outlet culvert

Looking north

Flow from access roads - requires cross ditching into LDP at end of project

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 9/9/2011 (DD MM YY) Shift Day

Site Photos

Southern toe of sed pond - oversize material discarded from fill — Looking southwest

Eastern edge of sed pond — looking west
Placing and compacting fill

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Date 10/9/2011 (DD MM YY) Shift Day

Daily Site Log

Daily Construction – Progress Report

BGC Project No: 0533-003

Weather

Contract Title:	Today		Max	10
GSC Cover Repairs	Rain	Sun & Cloud	Windy	Showers

Client: Yukon Government

Contractors: Pelly Construction

Highlights

1 Cut and Fill Sediment Pond

2 Spoil about 500 m3 of till fom sediment pond cut

3 As-built measurements of bench ditches

4 Site visit from Erik Nyland

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Health and Safety

BGC field job site evaluation undertaken by JAA for monitoring work.

J. Valeriote — 10/9/2011

Construction Monitor — Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 10/9/2011 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly Activities	BGC Activity	Comments
745	GSC	1xD9 Dozer placing fill, 1x 360 CAT preparing pond, 1x CAT 773B truck, 1x foreman, 1 x packer. Personnel: CN,IL,GS,MN.	Arrive on site	Plan for the day, Safety documentation
800	GSC		Monitor construction work	Cut and fill for sed pond
1200	Lunch			
1230	GSC	1xD9 Dozer placing fill, 1x 360 CAT preparing pond, 2x CAT 773B truck, 1x foreman, 1 x packer. Personnel: CN,IL,GS,MN,CT.	Monitor construction work	Cut and fill for sed pond - some till material spoiled on lower bench
1700	Leave site.			

Construction Monitor J. Valeriote Date 10/9/2011

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Date 10/9/2011 (DD MM YY) Shift Day

Daily Site Log

Daily Construction – Progress Report

Pelly Construction: Daily Summary Table

Work to date	Task	Spent		
######				
######	P2-1 (sed pond)	$	14,790	
9/9/11	P2-1 (sed pond)	$	11,985	
8/9/11	P2-1 (sed pond)	$	14,675	
7/9/11	P2-1 (sed pond)	$	15,230	
6/9/11	1, P2 and 9	$	13,885	(1 is 310, P2 is 10,095 and 10 is 3450)
5/9/11	P2 and 10	$	13,500	(P2 is 10,050 and task 10 is 3450) ($620 for Task 1, $10,325 for task 3,$700 for task 5, $3,450 for task 10 and $600 for Phase 2)
4/9/11	1,3,5, 10 and P2	$	15,695	
3/9/11	3 and 10	$	15,425	($11,600 for task 3 and $3,825 for task 10)
2/9/11	3 and 10	$	16,380	(11,700 for task 3 and 4680 for task 10)
1/9/11	3 and 10	$	15,430	(11,600 for task 3 and 3830 for task 10) - Updated for correction June spotted. (2280 for task 1, 8600 for task 3 and 3900 for task 10)
31/08/11	1,3 and 10	$	14,780	(2,280 for task 1, 9500 for task 3 and 3450 for task 10)
30/08/11	1,3 and 10	$	15,230	
29/08/11	1,3 and 10	$	14,330	(2280 for task 1, 8600 for task 3, 3450 for task 10)
28/08/11	1,3 and 10	$	14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	$	13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	$	10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	$	13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	$	13,130	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	$	8,169	
22/08/2011	2	$	9,388	
21/08/2011	10 - camp set up	$	4,000	
	Total	**$**	**278,026**	

J. Valeriote 10/9/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Date 10/9/2011 (DD MM YY) Shift Day

Daily Site Log

Daily Construction – Progress Report

Pelly Budget by Task

	Task		Spent	Budget	% Complete	Status
	Bench ditches	1	$ 13,825	19,500	71%	Complete
	perim ditches	2	$ 35,066	28,660	122%	Complete
	fill depressions	3	$ 104,695	92,700	113%	Complete
	run-on ditches	4	$ 2,100	14,000	15%	
	cleanout ponds	5	$ 700	2,875	24%	Complete
		6		None	0	
		7		None	0	
		8		None	0	
		9		None	0	
	incidental	10	$ 44,185	79900	55%	
	Phase 1 subtotal		**$ 200,571**	**$ 237,635**	**84%**	
Phase 2	Pond Exc	1	$ 66,775	$ 110,650	**60%**	incl incidentals
	Riprap	2		$ 25,470	**0%**	
	Quarry Road	3	$ 10,050	$ 9,690	**104%**	incl incidentals
	SP Outlet channel	4		$ 1,750	**0%**	
	CSA	5		$ 25,250	**0%**	
	X-ditch	6		$ 9,750	**0%**	
	Grade perim ditch	7	600	$ 4,740	**13%**	
	remove bench access	8		$ 3,500	**0%**	
	Incidentals			$ 234,240	**0%**	
	Phase 2 subtotal		**$ 77,425**	**$ 425,040**	**18%**	
		Total	**$ 277,996**	**$ 662,675**	**42%**	

J. Valeriote — 10/9/2011

Construction Monitor — Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Date 10/9/2011 (DD MM YY) Shift Day

Daily Site Log

Daily Construction – Progress Report

Site Photos

Sediment Pond Cut/Fill Looking SW

Sed pond looking southwest

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Date 10/9/2011 Shift Day
(DD MM YY)

Daily Site Log

Daily Construction – Progress Report

Site Photos

Sed pond cut slope waste rock/till transition

Looking north

Overview looking south

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 10/9/2011 (DD MM YY) Shift Day

Site Photos

Bench 4 ditch improvements looking east

Bench 2 revegetation looking south

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 11/9/2011 (DD MM YY) Shift Day

BGC Project No: 0533-003

Weather

Contract Title:	Today		Max	12
GSC Cover Repairs	Rain	Sun & Cloud	Windy	Showers

Client: Yukon Government Contractors: Pelly Construction

Highlights

1 Cut and Fill Sediment Pond

2 Spoil 1600 m3 of till from sediment pond cut to lower bench

3 Begin cutting waste rock from northern pond edge to fill southwestern slope - cut till slope for waste rock buttress at SW corner

4 Surveyor (Caroline Brisebois) on site to stake toe, crest and bottom edges of pond

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Health and Safety

BGC field job site evaluation undertaken by JAA for monitoring work.

J. Valeriote 11/9/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 11/9/2011 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly Activities	BGC Activity	Comments
745	GSC	1xD9 Dozer placing fill, 1x 360 CAT preparing pond, 2x CAT 773B truck, 1x foreman, 1 x packer. Personnel: CN,IL,GS,MN,CT,CB.	Arrive on site	Plan for the day, Safety documentation
800	GSC		Monitor construction work	Remove till as waste in sed pond cut
1200	Lunch			
1230	GSC	1xD9 Dozer placing fill, 1x 360 CAT preparing pond, 2x CAT 773B truck, 1x foreman, 1 x packer. Personnel: CN,IL,GS,MN,CT,CB.	Monitor construction work	Remove till as waste in sed pond cut - begin cut and fill of waste rock from north edge to SW corner
1700	Leave site.			

Construction Monitor J. Valeriote Date 11/9/2011

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Date 11/9/2011 (DD MM YY) Shift Day

Daily Site Log

Daily Construction – Progress Report

Pelly Construction: Daily Summary Table

Work to date	Task	Spent		
######	P2-1 (sed pond)	$	16,250	
######	P2-1 (sed pond)	$	14,790	
9/9/11	P2-1 (sed pond)	$	11,985	
8/9/11	P2-1 (sed pond)	$	14,675	
7/9/11	P2-1 (sed pond)	$	15,230	
6/9/11	1, P2 and 9	$	13,885	(1 is 310, P2 is 10,095 and 10 is 3450)
5/9/11	P2 and 10	$	13,500	(P2 is 10,050 and task 10 is 3450) ($620 for Task 1, $10,325 for task 3,$700 for task 5, $3,450 for task 10 and $600 for Phase 2)
4/9/11	1,3,5, 10 and P2	$	15,695	
3/9/11	3 and 10	$	15,425	($11,600 for task 3 and $3,825 for task 10)
2/9/11	3 and 10	$	16,380	(11,700 for task 3 and 4680 for task 10)
1/9/11	3 and 10	$	15,430	(11,600 for task 3 and 3830 for task 10) - Updated for correction June spotted. (2280 for task 1, 8600 for task 3 and 3900 for task 10)
31/08/11	1,3 and 10	$	14,780	(2,280 for task 1, 9500 for task 3 and 3450 for task 10)
30/08/11	1,3 and 10	$	15,230	
29/08/11	1,3 and 10	$	14,330	(2280 for task 1, 8600 for task 3, 3450 for task 10)
28/08/11	1,3 and 10	$	14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	$	13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	$	10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	$	13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	$	13,130	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	$	8,169	
22/08/2011	2	$	9,388	
21/08/2011	10 - camp set up	$	4,000	
	Total	**$**	**294,276**	

J. Valeriote — Construction Monitor

11/9/2011 — Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Date 11/9/2011 (DD MM YY) Shift Day

Daily Site Log

Daily Construction – Progress Report

Pelly Budget by Task

	Task		Spent	Budget	% Complete	Status
	Bench ditches	1	$ 13,825	19,500	71%	Complete
	perim ditches	2	$ 35,066	28,660	122%	Complete
	fill depressions	3	$ 104,695	92,700	113%	Complete
	run-on ditches	4	$ 2,100	14,000	15%	
	cleanout ponds	5	$ 700	2,875	24%	Complete
		6		None	0	
		7		None	0	
		8		None	0	
		9		None	0	
	incidental	10	$ 44,185	79900	55%	
	Phase 1 subtotal		**$ 200,571**	**$ 237,635**	**84%**	
Phase 2	Pond Exc	1	$ 83,025	$ 110,650	**75%**	incl incidentals
	Riprap	2		$ 25,470	**0%**	
	Quarry Road	3	$ 10,050	$ 9,690	**104%**	incl incidentals
	SP Outlet channel	4		$ 1,750	**0%**	
	CSA	5		$ 25,250	**0%**	
	X-ditch	6		$ 9,750	**0%**	
	Grade perim ditch	7	600	$ 4,740	**13%**	
	remove bench access	8		$ 3,500	**0%**	
		Incidentals		$ 234,240	**0%**	
	Phase 2 subtotal		**$ 93,675**	**$ 425,040**	**22%**	
		Total	**$ 294,246**	**$ 662,675**	**44%**	

J. Valeriote — 11/9/2011

Construction Monitor — Date DD/MM/YY

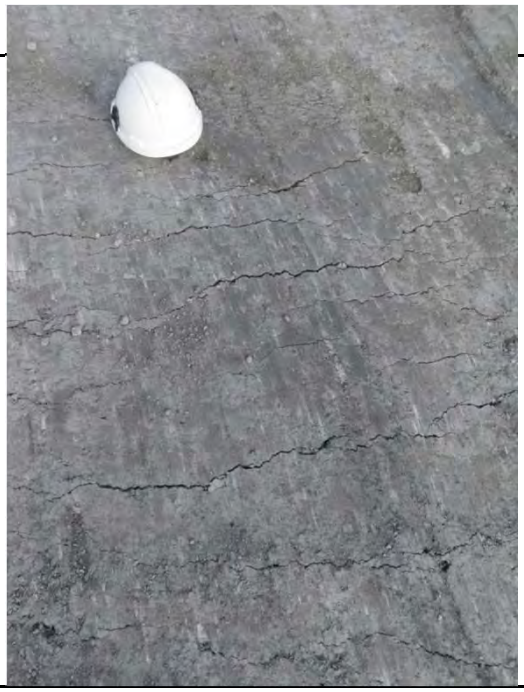
BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Date 11/9/2011 (DD MM YY) Shift Day

Daily Site Log

Daily Construction – Progress Report

Site Photos



Cracking of till in WRD at southwest fill

Tension cracks in till SW corner looking east 11/9/2011

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Date 11/9/2011 Shift Day
(DD MM YY)

Daily Site Log

Daily Construction – Progress Report

Site Photos

Close up of till material

Removal of till for compacted waste rock buttress foundation 11/9/2011

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

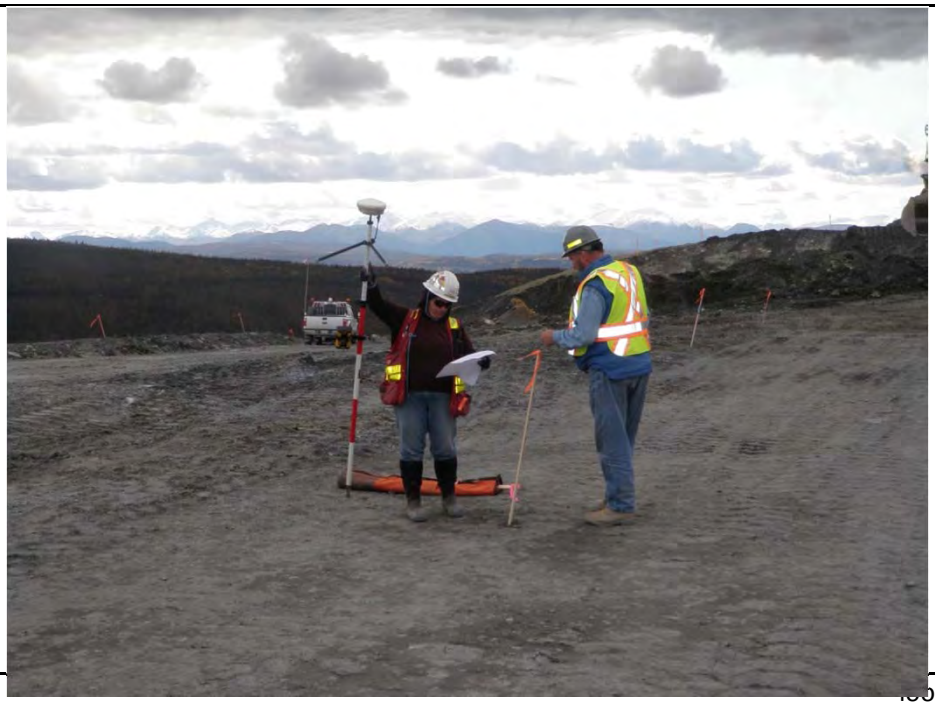
Daily Site Log

Daily Construction – Progress Report

Date 11/9/2011 (DD MM YY) Shift Day

Site Photos

First lift of waste rock at southwest corner looking east



Surveying looking west

11/9/2011

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 12/9/2011 (DD MM YY) Shift Day

BGC Project No: 0533-003

Weather

Contract Title: GSC Cover Repairs

Today: Rain | Sun & Cloud | Max: Windy | 15: Showers

Client: Yukon Government

Contractors: Pelly Construction

Highlights

1 Cut and Fill Sediment Pond

2 Discuss pump, pipe, silt/snow fence with Kristian Autio (DES)

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Health and Safety

BGC field job site evaluation undertaken by JAA for monitoring work.

J. Valeriote
Construction Monitor

Date 12/9/2011 DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 12/9/2011 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly Activities	BGC Activity	Comments
745	GSC		Arrive on site	Plan for the day, Safety documentation
800	GSC	1xD9 Dozer placing fill, 1x 360 CAT preparing pond, 1x CAT 773B truck, 1x foreman, 1 x packer. Personnel: CN,IL,GS,MN,CT.	Monitor construction work	Cut and fill within sed pond - north edge to SW corner
1200	Lunch			
1230	GSC	1xD9 Dozer placing fill, 1x 360 CAT preparing pond, 1x CAT 773B truck, 1x foreman, 1 x packer. Personnel: CN,IL,GS,MN,CT.	Monitor construction work	Cut and fill within sed pond - NW corner to SW corner
1700	Leave site.			

J. Valeriote
Construction Monitor

Date 12/9/2011
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 12/9/2011 Shift Day
(DD MM YY)

Pelly Construction: Daily Summary Table

Work to date	Task	Spent	
12/9/11	P2-1 (sed pond)	$ 14,860	
11/9/11	P2-1 (sed pond)	$ 16,250	
10/9/11	P2-1 (sed pond)	$ 14,790	
9/9/11	P2-1 (sed pond)	$ 11,985	
8/9/11	P2-1 (sed pond)	$ 14,675	
7/9/11	P2-1 (sed pond)	$ 15,230	
6/9/11	1, P2 and 9	$ 13,885	(1 is 310, P2 is 10,095 and 10 is 3450)
5/9/11	P2 and 10	$ 13,500	(P2 is 10,050 and task 10 is 3450)
4/9/11	1,3,5, 10 and P2	$ 15,695	($620 for Task 1, $10,325 for task 3,$700 for task 5, $3,450 for task 10 and $600 for Phase 2)
3/9/11	3 and 10	$ 15,425	($11,600 for task 3 and $3,825 for task 10)
2/9/11	3 and 10	$ 16,380	(11,700 for task 3 and 4680 for task 10)
1/9/11	3 and 10	$ 15,430	(11,600 for task 3 and 3830 for task 10) - Updated for correction June spotted.
31/08/11	1,3 and 10	$ 14,780	(2280 for task 1, 8600 for task 3 and 3900 for task 10)
30/08/11	1,3 and 10	$ 15,230	(2,280 for task 1, 9500 for task 3 and 3450 for task 10)
29/08/11	1,3 and 10	$ 14,330	(2280 for task 1, 8600 for task 3, 3450 for task 10)
28/08/11	1,3 and 10	$ 14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	$ 13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	$ 10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	$ 13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	$ 13,130	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	$ 8,169	
22/08/2011	2	$ 9,388	
21/08/2011	10 - camp set up	$ 4,000	
	Total	**$ 309,136**	

J. Valeriote
Construction Monitor

Date 12/9/2011
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 12/9/2011 Shift Day
(DD MM YY)

Pelly Budget by Task

		Task		Spent	Budget	% Complete	Status
Phase 1	Improve Bench ditches	1		$ 13,825	19,500	71%	Complete
	Armour Upper Perimeter ditches	2		$ 35,066	28,660	122%	Complete
	Fill depressions	3		$ 104,695	92,700	113%	Complete
	Excavate Run-on ditches	4		$ 2,100	14,000	15%	
	Clean out dissipation pools	5		$ 700	2,875	24%	Complete
		6			None	0	
		7			None	0	
		8			None	0	
		9			None	0	
	Incidentals	10		$ 44,185	79900	55%	
	Phase 1 subtotal			**$ 200,571**	**$ 237,635**	**84%**	
Phase 2	Pond Cut and Fill	1		$ 97,885	$ 110,650	**88%**	incl incidentals
	Riprap in pond	2			$ 25,470	**0%**	
	Quarry Road Re-alignment	3		$ 10,050	$ 9,690	**104%**	incl incidentals
	Sed pond Outlet channel	4			$ 1,750	**0%**	
	Regrade CSA	5			$ 25,250	**0%**	
	Road cross-ditching	6			$ 9,750	**0%**	
	Grade Perimeter roads	7		600	$ 4,740	**13%**	
	Remove bench accesses	8			$ 3,500	**0%**	
		Incidentals			$ 234,240	**0%**	
	Phase 2 subtotal			**$ 108,535**	**$ 425,040**	**26%**	
			Total	**$ 309,106**	**$ 662,675**	**47%**	

J. Valeriote
Construction Monitor

Date 12/9/2011
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

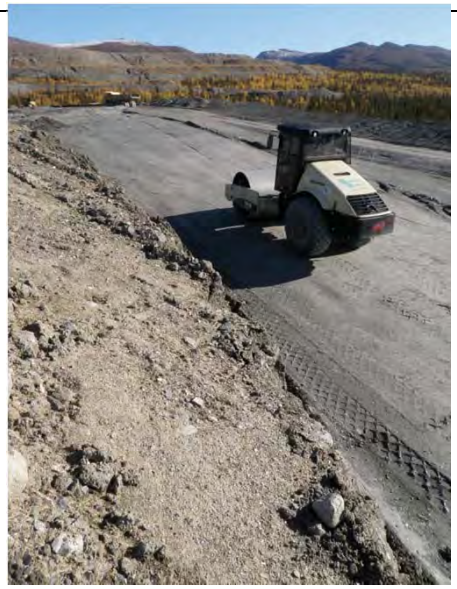
Daily Site Log

Daily Construction – Progress Report

Date 12/9/2011 Shift Day
(DD MM YY)

Site Photos

Cut and fill from east end to SW corner of pond looking west



Packing SW corner looking east

12/9/2011

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 12/9/2011 Shift Day
(DD MM YY)

Site Photos

Overview looking south

CSA outlet - to be regraded and lined with riprap looking south
12/9/2011

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 13/9/2011 (DD MM YY) Shift Day

BGC Project No: 0533-003

Weather

Contract Title: GSC Cover Repairs

Today: Rain | Sun & Cloud | Max: 15 | Windy | Showers

Client: Yukon Government

Contractors: Pelly Construction

Highlights

1 Establish access from clean waste rock borrow into west end of sediment pond excavation

2 Fill Sediment Pond downstream dyke with compacted clean waste rock from borrow (approx. 1100 cu.m)

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Health and Safety

BGC field job site evaluation undertaken by JAA for monitoring work.

J. Valeriote
Construction Monitor

Date 13/9/2011 DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 13/9/2011 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly Activities	BGC Activity	Comments
745	GSC		Arrive on site	Plan for the day, Safety documentation
800	GSC	1xD9 Dozer placing fill, 1x 360 CAT preparing pond, 2x CAT 773B truck, 1x foreman, 1 x packer. Personnel: CN,IL,GS,MN,CT.	Monitor construction work	Fill southern dyke of sed pond with compacted clean waste rock
1200	Lunch			
1230	GSC	1xD9 Dozer placing fill, 1x 360 CAT preparing pond, 2x CAT 773B truck, 1x foreman, 1 x packer. Personnel: CN,IL,GS,MN,CT.	Monitor construction work	Fill southern dyke of sed pond with compacted clean waste rock
1700	Leave site.			

J. Valeriote
Construction Monitor

Date 13/9/2011
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 13/9/2011 (DD MM YY) Shift Day

Pelly Construction: Daily Summary Table

Work to date	Task	Spent	
14/9/2012	P2-1 (sed pond)		
13/9/2012	P2-1 (sed pond)	$ 16,050	
12/9/11	P2-1 (sed pond)	$ 14,860	
11/9/11	P2-1 (sed pond)	$ 16,250	
10/9/11	P2-1 (sed pond)	$ 14,790	
9/9/11	P2-1 (sed pond)	$ 11,985	
8/9/11	P2-1 (sed pond)	$ 14,675	
7/9/11	P2-1 (sed pond)	$ 15,230	
6/9/11	1, P2 and 9	$ 13,885	(1 is 310, P2 is 10,095 and 10 is 3450)
5/9/11	P2 and 10	$ 13,500	(P2 is 10,050 and task 10 is 3450)
4/9/11	1,3,5, 10 and P2	$ 15,695	($620 for Task 1, $10,325 for task 3,$700 for task 5, $3,450 for task 10 and $600 for Phase 2)
3/9/11	3 and 10	$ 15,425	($11,600 for task 3 and $3,825 for task 10)
2/9/11	3 and 10	$ 16,380	(11,700 for task 3 and 4680 for task 10)
1/9/11	3 and 10	$ 15,430	(11,600 for task 3 and 3830 for task 10) - Updated for correction June spotted.
31/08/11	1,3 and 10	$ 14,780	(2280 for task 1, 8600 for task 3 and 3900 for task 10)
30/08/11	1,3 and 10	$ 15,230	(2,280 for task 1, 9500 for task 3 and 3450 for task 10)
29/08/11	1,3 and 10	$ 14,330	(2280 for task 1, 8600 for task 3, 3450 for task 10)
28/08/11	1,3 and 10	$ 14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	$ 13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	$ 10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	$ 13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	$ 13,130	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	$ 8,169	
22/08/2011	2	$ 9,388	
21/08/2011	10 - camp set up	$ 4,000	
	Total	**$ 325,186**	

J. Valeriote
Construction Monitor

Date 13/9/2011
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 13/9/2011 (DD MM YY) Shift Day

Pelly Budget by Task

		Task		Spent	Budget	% Complete	Status
Phase 1	Improve Bench ditches	1		$ 13,825	19,500	71%	Complete
	Armour Upper Perimeter ditches	2		$ 35,066	28,660	122%	Complete
	Fill depressions	3		$ 104,695	92,700	113%	Complete
	Excavate Run-on ditches	4		$ 2,100	14,000	15%	
	Clean out dissipation pools	5		$ 700	2,875	24%	Complete
		6			None	0	
		7			None	0	
		8			None	0	
		9			None	0	
	Incidentals	10		$ 44,185	79900	55%	
	Phase 1 subtotal			**$ 200,571**	**$ 237,635**	**84%**	
Phase 2	Pond Cut and Fill	1		$ 89,785	$ 110,650	**81%**	
	Riprap in pond	2			$ 25,470	**0%**	
	Quarry Road Re-alignment	3		$ 10,050	$ 9,690	**104%**	incl incidentals
	Sed pond Outlet channel	4			$ 1,750	**0%**	
	Regrade CSA	5			$ 25,250	**0%**	
	Road cross-ditching	6			$ 9,750	**0%**	
	Grade Perimeter roads	7		600	$ 4,740	**13%**	
	Remove bench accesses	8			$ 3,500	**0%**	
	Incidentals	9		$ 24,150	$ 234,240	**10%**	7 days R&B, Foreman @ $3450/day
	Phase 2 subtotal			**$ 124,585**	**$ 425,040**	**29%**	
			Total	**$ 325,186**	**$ 662,675**	**49%**	

J. Valeriote
Construction Monitor

Date 13/9/2011
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 13/9/2011 (DD MM YY) Shift Day

Site Photos

Cut and fill from east end to SW corner of pond looking west

overview looking southwest
13/9/2011

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 13/9/2011 (DD MM YY) Shift Day

Site Photos

Filling south pond dyke looking southwest

Clean waste rock borrow adjacent to WDP looking southeast
13/9/2011

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 14/9/2011 (DD MM YY) Shift Day

BGC Project No: 0533-003

Weather

Contract Title: GSC Cover Repairs

Today: Rain | Sun & Cloud | Max: Windy | 15: Showers

Client: Yukon Government

Contractors: Pelly Construction

Highlights

1. Fill Sediment Pond downstream dyke with compacted clean waste rock from borrow (approx. 2200 cu.m): 40-45cm lifts, loaded 773 haul truck trafficking fill surface and minimum 5 passes with vibratory roller, occasional oversize (>400mm) discarded from fill
2. Discussed with Pelly: double-layer geotextile under liner on pond slopes because compactor cannot roll smooth on 2:1 slope (sufficient geotextile on site for this)
3. 4 x 900mm culverts available for haul road crossing of spillway outlfow channel at SW corner of pond (to be discussed Tues Sep 20 with YG/DES)
4. Spillway to be 8m wide with invert at 1190.4m based on flow routing calculation
5.
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8.

Health and Safety

BGC field job site evaluation undertaken by JAA for monitoring work.

J. Valeriote
Construction Monitor

Date 14/9/2011 DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 14/9/2011 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly Activities	BGC Activity	Comments
745	GSC		Arrive on site	Plan for the day, Safety documentation
800	GSC	1xD9 Dozer placing fill, 1x 360 CAT preparing pond, 2x CAT 773B truck, 1x foreman, 1 x packer. Personnel: CN,IL,GS,MN,CT.	Monitor construction work	Fill southern dyke of sed pond with compacted clean waste rock
1200	Lunch			
1230	GSC	1xD9 Dozer placing fill, 1x 360 CAT preparing pond, 2x CAT 773B truck, 1x foreman, 1 x packer. Personnel: CN,IL,GS,MN,CT.	Monitor construction work	Fill southern dyke of sed pond with compacted clean waste rock
1700	Leave site.			

J. Valeriote
Construction Monitor

Date 14/9/2011
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 14/9/2011 (DD MM YY) Shift Day

Pelly Construction: Daily Summary Table

Work to date	Task	Spent		
14/9/11	P2-1 (sed pond)	$	17,600	
13/9/11	P2-1 (sed pond)	$	16,050	
12/9/11	P2-1 (sed pond)	$	14,860	
11/9/11	P2-1 (sed pond)	$	16,250	
10/9/11	P2-1 (sed pond)	$	14,790	
9/9/11	P2-1 (sed pond)	$	11,985	
8/9/11	P2-1 (sed pond)	$	14,675	
7/9/11	P2-1 (sed pond)	$	15,230	
6/9/11	1, P2 and 9	$	13,885	(1 is 310, P2 is 10,095 and 10 is 3450)
5/9/11	P2 and 10	$	13,500	(P2 is 10,050 and task 10 is 3450)
4/9/11	1,3,5, 10 and P2	$	15,695	($620 for Task 1, $10,325 for task 3,$700 for task 5, $3,450 for task 10 and $600 for Phase 2)
3/9/11	3 and 10	$	15,425	($11,600 for task 3 and $3,825 for task 10)
2/9/11	3 and 10	$	16,380	(11,700 for task 3 and 4680 for task 10)
1/9/11	3 and 10	$	15,430	(11,600 for task 3 and 3830 for task 10) - Updated for correction June spotted.
31/08/11	1,3 and 10	$	14,780	(2280 for task 1, 8600 for task 3 and 3900 for task 10)
30/08/11	1,3 and 10	$	15,230	(2,280 for task 1, 9500 for task 3 and 3450 for task 10)
29/08/11	1,3 and 10	$	14,330	(2280 for task 1, 8600 for task 3, 3450 for task 10)
28/08/11	1,3 and 10	$	14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	$	13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	$	10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	$	13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	$	13,130	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	$	8,169	
22/08/2011	2	$	9,388	
21/08/2011	10 - camp set up	$	4,000	
	Total	**$**	**342,786**	

J. Valeriote
Construction Monitor

Date 14/9/2011
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 14/9/2011 (DD MM YY) Shift Day

Pelly Budget by Task

		Task		Spent	Budget	% Complete	Status
Phase 1	Improve Bench ditches	1		$ 13,825	19,500	71%	Complete
	Armour Upper Perimeter ditches	2		$ 35,066	28,660	122%	Complete
	Fill depressions	3		$ 104,695	92,700	113%	Complete
	Excavate Run-on ditches	4		$ 2,100	14,000	15%	
	Clean out dissipation pools	5		$ 700	2,875	24%	Complete
		6			None	0	
		7			None	0	
		8			None	0	
		9			None	0	
	Incidentals	10		$ 44,185	79900	55%	
	Phase 1 subtotal			**$ 200,571**	**$ 237,635**	**84%**	
Phase 2	Pond Cut and Fill	1		$ 103,935	$ 110,650	**94%**	
	Riprap in pond	2			$ 25,470	**0%**	
	Quarry Road Re-alignment	3		$ 10,050	$ 9,690	**104%**	incl incidentals
	Sed pond Outlet channel	4			$ 1,750	**0%**	
	Regrade CSA	5			$ 25,250	**0%**	
	Road cross-ditching	6			$ 9,750	**0%**	
	Grade Perimeter roads	7		600	$ 4,740	**13%**	
	Remove bench accesses	8			$ 3,500	**0%**	
	Incidentals	9		$ 27,600	$ 234,240	**12%**	7 days R&B, Foreman @ $3450/day
	Phase 2 subtotal			**$ 142,185**	**$ 425,040**	**33%**	
			Total	**$ 342,786**	**$ 662,675**	**52%**	

J. Valeriote
Construction Monitor

Date 14/9/2011
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 14/9/2011 (DD MM YY) Shift Day

Site Photos

Filling south dyke from SW corner of pond looking west

overview looking southwest
14/9/2011

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 15/9/2011 (DD MM YY) Shift Day

BGC Project No: 0533-003

Weather

Contract Title: GSC Cover Repairs

Today: Rain | Sun & Cloud | Max: Windy | 15: Showers

Client: Yukon Government

Contractors: Pelly Construction

Highlights

1 Complete fill to 1191m on sediment Pond downstream dyke with compacted clean waste rock from borrow: 40-45cm lifts, loaded 773 haul truck trafficking fill surface and minimum 5 passes with vibratory roller, occasional oversize (>400mm) discarded from fill

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Health and Safety

BGC field job site evaluation undertaken by JAA for monitoring work.

J. Valeriote
Construction Monitor

Date 15/9/2011 DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 15/9/2011 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly Activities	BGC Activity	Comments
745	GSC		Arrive on site	Plan for the day, Safety documentation
800	GSC	1xD9 Dozer placing fill, 1x 360 CAT preparing pond, 2x CAT 773B truck, 1x foreman, 1 x packer. Personnel: CN,IL,GS,MN,CT.	Monitor construction work	Fill southern dyke of sed pond with compacted clean waste rock
1200	Lunch			
1230	GSC	1xD9 Dozer placing fill, 1x 360 CAT preparing pond, 2x CAT 773B truck, 1x foreman, 1 x packer. Personnel: CN,IL,GS,MN,CT.	Travel to Whitehorse	Fill southern dyke of sed pond with compacted clean waste rock
1700				

J. Valeriote
Construction Monitor

Date 15/9/2011
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 15/9/2011 (DD MM YY) Shift Day

Pelly Construction: Daily Summary Table

Work to date	Task	Spent	
15/9/11	P2-1 (sed pond)	$17,310	
14/9/11	P2-1 (sed pond)	$ 17,600	
13/9/11	P2-1 (sed pond)	$ 16,050	
12/9/11	P2-1 (sed pond)	$ 14,860	
11/9/11	P2-1 (sed pond)	$ 16,250	
10/9/11	P2-1 (sed pond)	$ 14,790	
9/9/11	P2-1 (sed pond)	$ 11,985	
8/9/11	P2-1 (sed pond)	$ 14,675	
7/9/11	P2-1 (sed pond)	$ 15,230	
6/9/11	1, P2 and 9	$ 13,885	(1 is 310, P2 is 10,095 and 10 is 3450)
5/9/11	P2 and 10	$ 13,500	(P2 is 10,050 and task 10 is 3450)
4/9/11	1,3,5, 10 and P2	$ 15,695	($620 for Task 1, $10,325 for task 3,$700 for task 5, $3,450 for task 10 and $600 for Phase 2)
3/9/11	3 and 10	$ 15,425	($11,600 for task 3 and $3,825 for task 10)
2/9/11	3 and 10	$ 16,380	(11,700 for task 3 and 4680 for task 10)
1/9/11	3 and 10	$ 15,430	(11,600 for task 3 and 3830 for task 10) - Updated for correction June spotted.
31/08/11	1,3 and 10	$ 14,780	(2280 for task 1, 8600 for task 3 and 3900 for task 10)
30/08/11	1,3 and 10	$ 15,230	(2,280 for task 1, 9500 for task 3 and 3450 for task 10)
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27/08/11	1,3 and 10	$ 13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	$ 10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	$ 13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	$ 13,130	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	$ 8,169	
22/08/2011	2	$ 9,388	
21/08/2011	10 - camp set up	$ 4,000	
	Total	**$360,096**	

J. Valeriote
Construction Monitor

Date 15/9/2011
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 15/9/2011 (DD MM YY) Shift Day

Pelly Budget by Task

		Task		Spent	Budget	% Complete	Status
Phase 1	Improve Bench ditches	1		$ 13,825	19,500	71%	Complete
	Armour Upper Perimeter ditches	2		$ 35,066	28,660	122%	Complete
	Fill depressions	3		$ 104,695	92,700	113%	Complete
	Excavate Run-on ditches	4		$ 2,100	14,000	15%	
	Clean out dissipation pools	5		$ 700	2,875	24%	Complete
		6			None	0	
		7			None	0	
		8			None	0	
		9			None	0	
	Incidentals	10		$ 44,185	79900	55%	
	Phase 1 subtotal			**$ 200,571**	**$ 237,635**	**84%**	
Phase 2	Pond Cut and Fill	1		$ 117,795	$ 110,650	**106%**	
	Riprap in pond	2			$ 25,470	**0%**	
	Quarry Road Re-alignment	3		$ 10,050	$ 9,690	**104%**	incl incidentals
	Sed pond Outlet channel	4			$ 1,750	**0%**	
	Regrade CSA	5			$ 25,250	**0%**	
	Road cross-ditching	6			$ 9,750	**0%**	
	Grade Perimeter roads	7		600	$ 4,740	**13%**	
	Remove bench accesses	8			$ 3,500	**0%**	
	Incidentals	9		$ 31,050	$ 234,240	**13%**	9 days R&B, Foreman @ $3450/day
	Phase 2 subtotal			**$ 159,495**	**$ 425,040**	**38%**	
			Total	**$ 360,096**	**$ 662,675**	**54%**	

J. Valeriote
Construction Monitor

Date 15/9/2011
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 15/9/2011 (DD MM YY) Shift Day

Site Photos

Filling south dyke from SW corner of pond looking west

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 16/9/2011 (DD MM YY) Shift Day

BGC Project No: 0533-003

Weather

Contract Title: GSC Cover Repairs

Today: Rain | Sun & Cloud | Max: Windy | 14: Showers

Client: Yukon Government

Contractors: Pelly Construction

Highlights

1 Arrive on site from Whitehorse at 1230pm.

2 Get up to speed with Gunnar on work done in absence. Completed fill slope to south of pond.

3 2x 360 CAT excavators working excavating pond mainly in western end.

Health and Safety

BGC field job site evaluation undertaken by JAA for monitoring work.

J. Atkinson
Construction Monitor

Date 16/9/2011 DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 16/9/2011 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly Activities	BGC Activity	Comments
745	GSC	2x360 CAT preparing pond,1x foreman. Personnel: CN,IL,GS.	Drive from WH	
800	GSC			
1200	Lunch			
1230	GSC	2x360 CAT preparing pond,1x foreman. Personnel: CN,IL,GS.	Monitor construction work	Get up to speed with work completed while off site for a week, observe fill excavation from pond, inspect amount of likely angular material in pond slopes (TBD although 360 doing nice job of leaving a smooth surface), observe wet area to north of pond which Gunnar attributes to rain not seeps from slopes.
1700	Leave site.			

J. Atkinson
Construction Monitor

Date 16/9/2011
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 16/9/2011 (DD MM YY) Shift Day

Pelly Construction: Daily Summary Table

Work to date	Task	Spent	
15/9/11	P2-1 (sed pond)	$ 17,310	
14/9/11	P2-1 (sed pond)	$ 17,600	
13/9/11	P2-1 (sed pond)	$ 16,050	
12/9/11	P2-1 (sed pond)	$ 14,860	
11/9/11	P2-1 (sed pond)	$ 16,250	
10/9/11	P2-1 (sed pond)	$ 14,790	
9/9/11	P2-1 (sed pond)	$ 11,985	
8/9/11	P2-1 (sed pond)	$ 14,675	
7/9/11	P2-1 (sed pond)	$ 15,230	
6/9/11	1, P2 and 9	$ 13,885	(1 is 310, P2 is 10,095 and 10 is 3450)
5/9/11	P2 and 10	$ 13,500	(P2 is 10,050 and task 10 is 3450)
4/9/11	1,3,5, 10 and P2	$ 15,695	($620 for Task 1, $10,325 for task 3,$700 for task 5, $3,450 for task 10 and $600 for Phase 2)
3/9/11	3 and 10	$ 15,425	($11,600 for task 3 and $3,825 for task 10)
2/9/11	3 and 10	$ 16,380	(11,700 for task 3 and 4680 for task 10)
1/9/11	3 and 10	$ 15,430	(11,600 for task 3 and 3830 for task 10) - Updated for correction June spotted.
31/08/11	1,3 and 10	$ 14,780	(2280 for task 1, 8600 for task 3 and 3900 for task 10)
30/08/11	1,3 and 10	$ 15,230	(2,280 for task 1, 9500 for task 3 and 3450 for task 10)
29/08/11	1,3 and 10	$ 14,330	(2280 for task 1, 8600 for task 3, 3450 for task 10)
28/08/11	1,3 and 10	$ 14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	$ 13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	$ 10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	$ 13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	$ 13,130	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	$ 8,169	
22/08/2011	2	$ 9,388	
21/08/2011	10 - camp set up	$ 4,000	
	Total	**$ 360,096**	

J. Atkinson
Construction Monitor

Date 16/9/2011
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 16/9/2011 (DD MM YY) Shift Day

Pelly Budget by Task

		Task		Spent	Budget	% Complete	Status
Phase 1	Improve Bench ditches	1		$ 13,825	19,500	71%	Complete
	Armour Upper Perimeter ditches	2		$ 35,066	28,660	122%	Complete
	Fill depressions	3		$ 104,695	92,700	113%	Complete
	Excavate Run-on ditches	4		$ 2,100	14,000	15%	
	Clean out dissipation pools	5		$ 700	2,875	24%	Complete
		6			None	0	
		7			None	0	
		8			None	0	
		9			None	0	
	Incidentals	10		$ 44,185	79900	55%	
	Phase 1 subtotal			**$ 200,571**	**$ 237,635**	**84%**	
Phase 2	Pond Cut and Fill	1		$ 121,245	$ 110,650	**110%**	
	Riprap in pond	2			$ 25,470	**0%**	
	Quarry Road Re-alignment	3		$ 10,050	$ 9,690	**104%**	incl incidentals
	Sed pond Outlet channel	4			$ 1,750	**0%**	
	Regrade CSA	5			$ 25,250	**0%**	
	Road cross-ditching	6			$ 9,750	**0%**	
	Grade Perimeter roads	7		600	$ 4,740	**13%**	
	Remove bench accesses	8			$ 3,500	**0%**	
	Incidentals	9		$ 27,600	$ 234,240	**12%**	7 days R&B, Foreman @ $3450/day
	Phase 2 subtotal			**$ 159,495**	**$ 425,040**	**38%**	
			Total	**$ 360,096**	**$ 662,675**	**54%**	

J. Atkinson
Construction Monitor

Date 16/9/2011
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 16/9/2011 (DD MM YY) Shift Day

Site Photos

Location: Bench below Sedimentation pond Looking north
Comments: Completed 2H:1V slope and new haul access road

Location: Sedimentation Pond Looking west
Comments: Excavators removing material from sedimentation pond.

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 16/9/2011 (DD MM YY) Shift Day

Site Photos

Location: Sedimentation Pond Looking west

Comments: Excavator at 3m excavation level

Location: western end of the sedimentation pond Looking SW.

Comments: Gunnar stood at 4 m elevation. Site check on depth for toe of slope.

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 16/9/2011 (DD MM YY) Shift Day

Site Photos

Location: Sedimentation Pond Looking east.

Comments: Northern edge of pond at 2H:1V.

Location: Sedimentation Pond Looking east.

Comments: Southern edge of pond at 2H:1V. Note cleaning with 360 CAT.

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 16/9/2011 (DD MM YY) Shift Day

Site Photos

Location: Sedimentation Pond Looking north

Comment: Southwestern corner to be excavated

Location Sedimentation Pond Southern bank Looking east

Comment: Panoramic shot to show pond excavation, access road and 2H:1V slope to bench below.

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 16/9/2011 (DD MM YY) Shift Day

Site Photos

Location: Northern edge of sedimentation pond. Looking west.

Comments: Wet area on northern side of pond. Assured by Gunnar that this is left over from heavy rain not seep from bank.

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 17/9/2011 (DD MM YY) Shift Day

BGC Project No: 0533-003

Weather

Contract Title: GSC Cover Repairs

Today: Sun & Cloud | Rain | Max: 8 | Windy | Showers

Client: Yukon Government

Contractors: Pelly Construction

Highlights

1. Construction of sedimentation pond: adding fill to crest along southern edge to bring to 1191m el., excavation of base to final grade in west end of pond (4 m deep)
2. Packed west end of pond with packer (3 passes)
3. Caroline (Pelly surveyor) on site to ensure base is correct elevation. Staking crest elevations. Ready to stake inlet and outlet elevations after design work with June and instructions from Jeremy.
4. Pond earthworks to be complete by the end of 18 September. Liner team arrives on site late on 18 sept. Prep work planned on 19 Sept.
5. Chat re fill for intermediate dyke in pond with Gunnar. Need to confirm fill to be used. He was suggesting first lift of rounded material then entire fill to be made from angular riprap material we used for lining perimeter ditches? Said he discussed with JV. This material is available but I am concerned how we would compact?
6. Discussed with GS and agreed that if southern crest was slightly higher than 1191 (approx. 1191.2m el.) this would not be a problem. Discussed no low points re less than 1191.
7. Discussed with GS the liner on the pond crest after it comes out from anchor trench. If the trench is in center of road (to be decided on 18 sept) needs a cover for traffic. He suggests, and I agree, gravel (0.30m min thickness) from till borrow. Rounded good clean material. Would do this as field fit solution unless any objections.
8. Some wet areas on slope in NW corner of pond excavation. No active running seeps. Seems to be just moisture on slope. Observations over 2 days not getting any worse will continue observing.
9. D6 tidied up wet area on northern crest of pond left over from rain. Added small amount of material to fill in puddle and grade.

Health and Safety

BGC field job site evaluation undertaken by JAA for monitoring work.

Visitors on site: Erik Nylan and John (no surname) of DES came for a visit and to check progress.

J. Atkinson
Construction Monitor

Date 17/9/2011 DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 17/9/2011 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly Activities	BGC Activity	Comments
745	GSC	1x360 CAT, 1X33CAT preparing pond, 1x773B hauling material, 1 x foreman. Personnel: CN,IL,GS, MN.	Monitor construction work	Excavation of sed pond and hauling material, adding material to southern crest to achieve 1191m el., CB surveying base.
800	GSC			
1200	Lunch			
1230	GSC	1x360 CAT, 1X33CAT preparing pond, 1x773B hauling material, 1 x foreman. Personnel: CN,IL,GS, MN.	Monitor construction work	Excavation of sed pond and hauling material, using D6 to grade base and remove any cobbles/ boulders, CB surveying base. CB and JAA work out inlet and outlet spillway elevations. Packer does 3 passes of west end of pond.
1745	Leave site.			

J. Atkinson
Construction Monitor

Date 17/9/2011
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 17/9/2011 (DD MM YY) Shift Day

Pelly Construction: Daily Summary Table

Work to date	Task	Spent		
16/9/11	P2-1 (sed pond)	$	14,722	
15/9/11	P2-1 (sed pond)	$	17,310	
14/9/11	P2-1 (sed pond)	$	17,600	
13/9/11	P2-1 (sed pond)	$	16,050	
12/9/11	P2-1 (sed pond)	$	14,860	
11/9/11	P2-1 (sed pond)	$	16,250	
10/9/11	P2-1 (sed pond)	$	14,790	
9/9/11	P2-1 (sed pond)	$	11,985	
8/9/11	P2-1 (sed pond)	$	14,675	
7/9/11	P2-1 (sed pond)	$	15,230	
6/9/11	1, P2 and 9	$	13,885	(1 is 310, P2 is 10,095 and 10 is 3450)
5/9/11	P2 and 10	$	13,500	(P2 is 10,050 and task 10 is 3450)
4/9/11	1,3,5, 10 and P2	$	15,695	($620 for Task 1, $10,325 for task 3,$700 for task 5, $3,450 for task 10 and $600 for Phase 2)
3/9/11	3 and 10	$	15,425	($11,600 for task 3 and $3,825 for task 10)
2/9/11	3 and 10	$	16,380	(11,700 for task 3 and 4680 for task 10)
1/9/11	3 and 10	$	15,430	(11,600 for task 3 and 3830 for task 10) - Updated for correction June spotted.
31/08/11	1,3 and 10	$	14,780	(2280 for task 1, 8600 for task 3 and 3900 for task 10)
30/08/11	1,3 and 10	$	15,230	(2,280 for task 1, 9500 for task 3 and 3450 for task 10)
29/08/11	1,3 and 10	$	14,330	(2280 for task 1, 8600 for task 3, 3450 for task 10)
28/08/11	1,3 and 10	$	14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	$	13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	$	10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	$	13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	$	13,130	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	$	8,169	
22/08/2011	2	$	9,388	
21/08/2011	10 - camp set up	$	4,000	
	Total	**$**	**374,818**	

J. Atkinson
Construction Monitor

Date 17/9/2011
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 17/9/2011 (DD MM YY) Shift Day

Pelly Budget by Task

		Task		Spent	Budget	% Complete	Status
Phase 1	Improve Bench ditches	1		$ 13,825	19,500	71%	Complete
	Armour Upper Perimeter ditches	2		$ 35,066	28,660	122%	Complete
	Fill depressions	3		$ 104,695	92,700	113%	Complete
	Excavate Run-on ditches	4		$ 2,100	14,000	15%	
	Clean out dissipation pools	5		$ 700	2,875	24%	Complete
		6			None	0	
		7			None	0	
		8			None	0	
		9			None	0	
	Incidentals	10		$ 44,185	79900	55%	
	Phase 1 subtotal			**$ 200,571**	**$ 237,635**	**84%**	
Phase 2	Pond Cut and Fill	1		$ 135,967	$ 110,650	**123%**	
	Riprap in pond	2			$ 25,470	**0%**	
	Quarry Road Re-alignment	3		$ 10,050	$ 9,690	**104%**	incl incidentals
	Sed pond Outlet channel	4			$ 1,750	**0%**	
	Regrade CSA	5			$ 25,250	**0%**	
	Road cross-ditching	6			$ 9,750	**0%**	
	Grade Perimeter roads	7		600	$ 4,740	**13%**	
	Remove bench accesses	8			$ 3,500	**0%**	
	Incidentals	9		$ 27,600	$ 234,240	**12%**	7 days R&B, Foreman @ $3450/day
	Phase 2 subtotal			**$ 174,217**	**$ 425,040**	**41%**	
			Total	**$ 374,818**	**$ 662,675**	**57%**	

J. Atkinson
Construction Monitor

Date 17/9/2011
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 17/9/2011 (DD MM YY) Shift Day

Site Photos

Location: Sedimentation pond Looking SW

Comments: Early am equipment working 2 x excavator and 1 x 773B

Location: Sedimentation Pond Looking east

Comments: Excavators removing material from sedimentation pond.

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 17/9/2011 (DD MM YY) Shift Day

Site Photos

Location: Sedimentation Pond Looking SW

Comments: Final level of west end of pond

Location: emergency spillway location Looking South

Comments: green mark is eastern crest of spillway channel. Caroline is stood at 2m 4H:1V drop where channel would meet road.

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 18/9/2011 (DD MM YY) Shift Day

BGC Project No: 0533-003

Weather

Contract Title: GSC Cover Repairs

Today: Rain | Sun & Cloud | Max: Windy | 10: Showers

Client: Yukon Government

Contractors: Pelly Construction

Highlights

1. Construction of sedimentation pond: excavation of base to final grade in east end of pond (3 m deep), packing the base of the pond, filling east end and creation of eastern slope.
2. Some wet areas on slope in NW corner of pond excavation. Observations over 3 days appears to be drying up, slowing down.
3. Caroline (Pelly surveyor) on site to ensure base is correct elevation.
4. One area encountered in west end of pond where waste rock has minor till mixed with it. Difficult to remove and recompact material on top as mixture may go deeper. 3x2m area. Less than 1 inch rut and roll. Discuss with JV that in an area of pond not to be loaded apart from water i.e. no traffic, no structure and JV cjhecks liner specs for allowable deformation. Decision made to leave in place and pack as much as possible. Further packing seems to be achieving less deformation.
5. Sent subgrade pictures to JC and JV. Consider it to be appropriate from photos for one layer geotextile following final hand removal of sharps. Subgrade condition to be discussed with liner team tomorrow am.

Health and Safety

BGC field job site evaluation undertaken by JAA for monitoring work.

Colder day today.

J. Atkinson
Construction Monitor

Date 18/9/2011 DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 18/9/2011 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly Activities	BGC Activity	Comments
745	GSC	1x360 CAT, 1X330CAT preparing pond, 1x773B hauling material, 1 x foreman, 1 x surveyor. Personnel: CN,IL,GS, MN, CB	Monitor construction work	Excavation of east end of sed pond and hauling material, packing west end of pond. CB surveying base.
800	GSC			
1200	Lunch			
1230	GSC	1x360 CAT, 1X330CAT preparing pond, 1 xD6 grading base, 1 x packer packing base of pond, 1 x foreman, 1 x surveyor. Personnel: CN,IL,GS, MN, CB.	Monitor construction work	Excavation of sed pond slopes at east end, using D6 to grade base, CB surveying base, packer packing east end base.
1715	Leave site.			

J. Atkinson
Construction Monitor

Date 18/9/2011
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 18/9/2011 (DD MM YY) Shift Day

Pelly Construction: Daily Summary Table

Work to date	Task	Spent		
17/9/11	P2-1 (sed pond)	$	14,723	
16/9/11	P2-1 (sed pond)	$	10,244	Updated entry wrongly filled under this day this am.
15/9/11	P2-1 (sed pond)	$	17,310	
14/9/11	P2-1 (sed pond)	$	17,600	
13/9/11	P2-1 (sed pond)	$	16,050	
12/9/11	P2-1 (sed pond)	$	14,860	
11/9/11	P2-1 (sed pond)	$	16,250	
10/9/11	P2-1 (sed pond)	$	14,790	
9/9/11	P2-1 (sed pond)	$	11,985	
8/9/11	P2-1 (sed pond)	$	14,675	
7/9/11	P2-1 (sed pond)	$	15,230	
6/9/11	1, P2 and 9	$	13,885	(1 is 310, P2 is 10,095 and 10 is 3450)
5/9/11	P2 and 10	$	13,500	(P2 is 10,050 and task 10 is 3450)
4/9/11	1,3,5, 10 and P2	$	15,695	($620 for Task 1, $10,325 for task 3,$700 for task 5, $3,450 for task 10 and $600 for Phase 2)
3/9/11	3 and 10	$	15,425	($11,600 for task 3 and $3,825 for task 10)
2/9/11	3 and 10	$	16,380	(11,700 for task 3 and 4680 for task 10)
1/9/11	3 and 10	$	15,430	(11,600 for task 3 and 3830 for task 10) - Updated for correction June spotted.
31/08/11	1,3 and 10	$	14,780	(2280 for task 1, 8600 for task 3 and 3900 for task 10)
30/08/11	1,3 and 10	$	15,230	(2,280 for task 1, 9500 for task 3 and 3450 for task 10)
29/08/11	1,3 and 10	$	14,330	(2280 for task 1, 8600 for task 3, 3450 for task 10)
28/08/11	1,3 and 10	$	14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	$	13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	$	10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	$	13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	$	13,130	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	$	8,169	
22/08/2011	2	$	9,388	
21/08/2011	10 - camp set up	$	4,000	
	Total	**$**	**385,063**	

J. Atkinson
Construction Monitor

Date 18/9/2011
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 18/9/2011 (DD MM YY) Shift Day

Pelly Budget by Task

		Task		Spent	Budget	% Complete	Status
Phase 1	Improve Bench ditches	1		$ 13,825	19,500	71%	Complete
	Armour Upper Perimeter ditches	2		$ 35,066	28,660	122%	Complete
	Fill depressions	3		$ 104,695	92,700	113%	Complete
	Excavate Run-on ditches	4		$ 2,100	14,000	15%	
	Clean out dissipation pools	5		$ 700	2,875	24%	Complete
		6			None	0	
		7			None	0	
		8			None	0	
		9			None	0	
	Incidentals	10		$ 44,185	79900	55%	
	Phase 1 subtotal			**$ 200,571**	**$ 237,635**	**84%**	
Phase 2	Pond Cut and Fill	1		$ 146,211	$ 110,650	**132%**	
	Riprap in pond	2			$ 25,470	**0%**	
	Quarry Road Re-alignment	3		$ 10,050	$ 9,690	**104%**	incl incidentals
	Sed pond Outlet channel	4			$ 1,750	**0%**	
	Regrade CSA	5			$ 25,250	**0%**	
	Road cross-ditching	6			$ 9,750	**0%**	
	Grade Perimeter roads	7		600	$ 4,740	**13%**	
	Remove bench accesses	8			$ 3,500	**0%**	
	Incidentals	9		$ 27,600	$ 234,240	**12%**	7 days R&B, Foreman @ $3450/day
	Phase 2 subtotal			**$ 184,461**	**$ 425,040**	**43%**	
			Total	**$ 385,063**	**$ 662,675**	**58%**	

J. Atkinson
Construction Monitor

Date 18/9/2011
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 18/9/2011 (DD MM YY) Shift Day

Site Photos

Location: Sedimentation pond Looking East

Comments: Completed west end of pond. Sloping and packing east end of pond

Location: Sedimentation Pond Looking south

Comments: Packed pond base in west end of pond

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 18/9/2011 (DD MM YY) Shift Day

Site Photos

Location: West end of pond small till area
Comments: 1 inch ruts at till area

Location: West end of pond small till area

Comments: cracking in till area

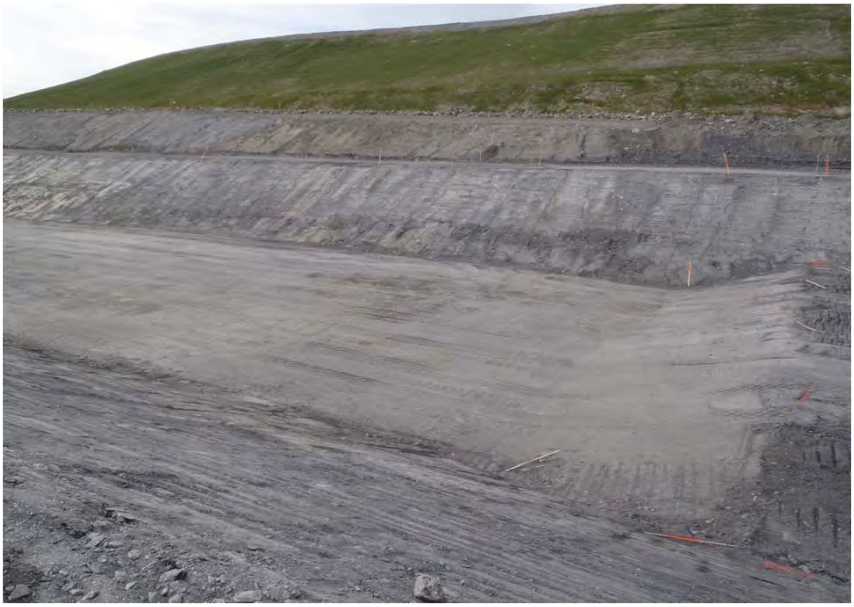
BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 18/9/2011 (DD MM YY) Shift Day

Site Photos



Location: Sedimentation Pond Looking north

Comments: West end of the pond. Area with till marked in red.

Location: Sedimentation Pond Looking northeast

Comments: Eastern end of pond. Final smooth with D6 dozer. 360 doing eastern slope.

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 18/9/2011 (DD MM YY) Shift Day

Site Photos

Location: Sedimentation Pond Looking north

Comment: Eastern end packing down the base. No issues with till. Important as end of pond with structures.

Location Sedimentation Pond Looking north

Comment: Completed western slope

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 18/9/2011 (DD MM YY) Shift Day

Site Photos

Location: Northern edge of sedimentation pond. Looking east

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 19/9/11 (DD MM YY) Shift Day

BGC Project No: 0533-003

Weather

Contract Title: GSC Cover Repairs

Today: Sun & Cloud | Rain | Max 14 | Windy | Showers

Client: Yukon Government

Contractors: Pelly Construction

Highlights

1 Sedimentation pond complete. Pelly team move onto emergency spillway pond after doing some tidying in the area to the east of the pond.

2 Liner team (superior plastics ltd) on site. Morning spent getting orientated. Filling sand bags. Move geotextile and liner down to pond edge. Place sandbags at toe of slope in pond ready. No liner placed today. Start tomorrow am.

3 Caroline (Pelly surveyor) on site doing asbuilt of the pond. Leaves site at lunch time.

4 DES install culvert at haul road access near till borrow and raise access ramp in this area to ensure surface water flows towards vagorda pit. Complete.

Health and Safety

BGC field job site evaluation undertaken by JAA for monitoring work.

New team on site 6 x personnel from superior plastics for liner installation.

Brown bear sighted on site near sed pond. All crews informed.

J. Atkinson
Construction Monitor

Date 19/9/11 DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 19/9/11 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly Activities	BGC Activity	Comments
745	GSC	1x360 CAT, 1XD6, 1 x foreman, 1 x surveyor. Personnel: CN,IL,GS, CB At 10 am swap D6 for D9 to work on depression.	Monitor construction work	Preparation of area to the east of the pond and final fix up of eastern crest. CB surveying pond. At 10 am swap to working on depression area. Liner team - orientation and then discussion on liner QA, anchor trench etc. Filling sand bags
800	GSC			
1200	Lunch			
1230	GSC	1x360 CAT, 1XD9, 1x773B, 1 x foreman. Personnel: CN,IL,GS, MN	Monitor construction work	Cut and fill in depression area. Liner team preparation work.
1730	Leave site.			

J. Atkinson
Construction Monitor

Date 19/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 19/9/11 (DD MM YY) Shift Day

Pelly Construction: Daily Summary Table

Work to date	Task	Spent	
18/9/11	PENDING		PENDING
17/9/11	P2-1 (sed pond)	$ 14,723	
16/9/11	P2-1 (sed pond)	$ 10,244	Updated entry wrongly filled under this day this am.
15/9/11	P2-1 (sed pond)	$ 17,310	
14/9/11	P2-1 (sed pond)	$ 17,600	
13/9/11	P2-1 (sed pond)	$ 16,050	
12/9/11	P2-1 (sed pond)	$ 14,860	
11/9/11	P2-1 (sed pond)	$ 16,250	
10/9/11	P2-1 (sed pond)	$ 14,790	
9/9/11	P2-1 (sed pond)	$ 11,985	
8/9/11	P2-1 (sed pond)	$ 14,675	
7/9/11	P2-1 (sed pond)	$ 15,230	
6/9/11	1, P2 and 9	$ 13,885	(1 is 310, P2 is 10,095 and 10 is 3450)
5/9/11	P2 and 10	$ 13,500	(P2 is 10,050 and task 10 is 3450)
4/9/11	1,3,5, 10 and P2	$ 15,695	($620 for Task 1, $10,325 for task 3,$700 for task 5, $3,450 for task 10 and $600 for Phase 2)
3/9/11	3 and 10	$ 15,425	($11,600 for task 3 and $3,825 for task 10)
2/9/11	3 and 10	$ 16,380	(11,700 for task 3 and 4680 for task 10)
1/9/11	3 and 10	$ 15,430	(11,600 for task 3 and 3830 for task 10) - Updated for correction June spotted.
31/08/11	1,3 and 10	$ 14,780	(2280 for task 1, 8600 for task 3 and 3900 for task 10)
30/08/11	1,3 and 10	$ 15,230	(2,280 for task 1, 9500 for task 3 and 3450 for task 10)
29/08/11	1,3 and 10	$ 14,330	(2280 for task 1, 8600 for task 3, 3450 for task 10)
28/08/11	1,3 and 10	$ 14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	$ 13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	$ 10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	$ 13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	$ 13,130	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	$ 8,169	
22/08/2011	2	$ 9,388	
21/08/2011	10 - camp set up	$ 4,000	
	Total	**$ 385,063**	

J. Atkinson
Construction Monitor

Date 19/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 19/9/11 (DD MM YY) Shift Day

Pelly Budget by Task

		Task		Spent	Budget	% Complete	Status
Phase 1	Improve Bench ditches	1		$ 13,825	19,500	71%	Complete
	Armour Upper Perimeter ditches	2		$ 35,066	28,660	122%	Complete
	Fill depressions	3		$ 104,695	92,700	113%	Complete
	Excavate Run-on ditches	4		$ 2,100	14,000	15%	
	Clean out dissipation pools	5		$ 700	2,875	24%	Complete
		6			None	0	
		7			None	0	
		8			None	0	
		9			None	0	
	Incidentals	10		$ 44,185	79900	55%	
	Phase 1 subtotal			**$ 200,571**	**$ 237,635**	**84%**	
Phase 2	Pond Cut and Fill	1		$ 146,211	$ 110,650	**132%**	
	Riprap in pond	2			$ 25,470	**0%**	
	Quarry Road Re-alignment	3		$ 10,050	$ 9,690	**104%**	incl incidentals
	Sed pond Outlet channel	4			$ 1,750	**0%**	
	Regrade CSA	5			$ 25,250	**0%**	
	Road cross-ditching	6			$ 9,750	**0%**	
	Grade Perimeter roads	7		600	$ 4,740	**13%**	
	Remove bench accesses	8			$ 3,500	**0%**	
	Incidentals	9		$ 27,600	$ 234,240	**12%**	7 days R&B, Foreman @ $3450/day
	Phase 2 subtotal			**$ 184,461**	**$ 425,040**	**43%**	
			Total	**$ 385,063**	**$ 662,675**	**58%**	

J. Atkinson
Construction Monitor

Date 19/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 19/9/11 (DD MM YY) Shift Day

Site Photos

Location: Sedimentation pond Looking south
Comments: Completed east end of pond.

Location: Sedimentation Pond Looking south
Comments: Completed pond earthworks

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 19/9/11 (DD MM YY) Shift Day

Site Photos

Location: Sedimentation pond Looking west

Comments: View from the top of borrow area

Location: Cover and sedimentation pond Looking west

Comments: Size of pond relative to cover. Sorry for the bright sunlight late in the day - wrong angle!

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 19/9/11 (DD MM YY) Shift Day

Site Photos

Location: Haul ramp access point from Vangorda road (near till borrow) Looking north

Comments: Installed 900 mm culverts. Not raised access over top to create watershed divide.

Location: Till borrow area Looking southwest

Comments: View of access road, culvert location from base of till borrow, note raised access

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 20/9/11 (DD MM YY) Shift Day

BGC Project No: 0533-003

Contract Title: GSC Cover Repairs

Weather

Today			Max	10
Rain	Sun & Cloud	Very Windy	Showers	

Client: Yukon Government

Contractors: Pelly Construction

Highlights

1 Pelly team creation of overflow pond. Excavated anchor trench for liner 1 m from northern slope crest last night for liner team.

2 Liner team (superior plastics ltd) on site. Place 1 layer geotextile and liner in 4 m base area. Place 2 layers geotextile on northern slope.

3 DES place riprap around new 900 mm culvert.

Health and Safety

BGC field job site evaluation undertaken by JAA for monitoring work.

New team on site 6 x personnel from superior plastics for liner installation.

Brown bear sighted on site near sed pond. All crews informed.

J. Atkinson
Construction Monitor

Date 20/9/11 DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 20/9/11 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly Activities	Liner team	Comments
700	GSC	1x360 CAT, 1XD6, 1x 773B, 1 x foreman. Personnel: CN,IL,GS, CB	Place Geotextile (1 layer in base 4 m area), place panels 1, 2 and 3 in base and seam with wedge welder.	Pelly team cut and fill in depression area. June taking notes on liner installation and QA (testing of wedge welder and testing on seams)
1200	Lunch			
1230	GSC	1x360 CAT, 1XD9, 1x773B, 1 x foreman. Personnel: CN,IL,GS, MN	Place geotextile (2 layers) on northern slope (4m area) and pin to anchor trench. 5 Personnel.	Cut and fill in depression area. Liner team having difficulty with material due to very high winds. Decide not to place liner in afternoon due to safety concerns and blowing concerns overnight.
1715	Leave site.			

J. Atkinson
Construction Monitor

Date 20/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 20/9/11 (DD MM YY) Shift Day

Pelly Construction: Daily Summary Table

Work to date	Task	Spent		
19/9/11	P2-1, P2-5 and P2-9	$	23,374	(P2-1 is $2,583.5, P2-5 is $5,537.5 and P2-9 is $15,253.75)
18/9/11	P2-1 and P2-9	$	54,797	(P2-1 is $9,060 and P2-9 is $45,737)
17/9/11	P2-1 (sed pond)	$	14,723	(Incidentals (p2-9) is $3,625
16/9/11	P2-1 (sed pond)	$	10,244	(Incidentals (p2-9) is $3,868.75
15/9/11	P2-1 (sed pond)	$	17,310	(Incidentals (p2-9) is $3,450
14/9/11	P2-1 (sed pond)	$	17,600	(Incidentals (p2-9) is $3,450
13/9/11	P2-1 (sed pond)	$	16,050	(Incidentals (p2-9) is $3,450
12/9/11	P2-1 (sed pond)	$	14,860	(Incidentals (p2-9) is $3,450
11/9/11	P2-1 (sed pond)	$	16,250	(Incidentals (p2-9) is $3,450
10/9/11	P2-1 (sed pond)	$	14,790	(Incidentals (p2-9) is $3,986.25
9/9/11	P2-1 (sed pond)	$	11,985	(Incidentals (p2-9) is $3,967.5
8/9/11	P2-1 (sed pond)	$	14,675	(Incidentals (p2-9) is $3,450
7/9/11	P2-1 (sed pond)	$	15,230	(Incidentals (p2-9) is $3,780
6/9/11	1, P2 and 9	$	13,885	(1 is 310, P2 is 10,095 and 10 is 3450)
5/9/11	P2 and 10	$	13,500	(P2 is 10,050 and task 10 is 3450)
4/9/11	1,3,5, 10 and P2	$	15,695	($620 for Task 1, $10,325 for task 3,$700 for task 5, $3,450 for task 10 and $600 for Phase 2)
3/9/11	3 and 10	$	15,425	($11,600 for task 3 and $3,825 for task 10)
2/9/11	3 and 10	$	16,380	(11,700 for task 3 and 4680 for task 10)
1/9/11	3 and 10	$	15,430	(11,600 for task 3 and 3830 for task 10) - Updated for correction June spotted.
31/08/11	1,3 and 10	$	14,780	(2280 for task 1, 8600 for task 3 and 3900 for task 10)
30/08/11	1,3 and 10	$	15,230	(2,280 for task 1, 9500 for task 3 and 3450 for task 10)
29/08/11	1,3 and 10	$	14,330	(2280 for task 1, 8600 for task 3, 3450 for task 10)
28/08/11	1,3 and 10	$	14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	$	13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	$	10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	$	13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	$	13,130	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	$	8,169	
22/08/2011	2	$	9,388	
21/08/2011	10 - camp set up	$	4,000	
	Total	**$**	**463,233**	

J. Atkinson
Construction Monitor

Date 20/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 20/9/11 (DD MM YY) Shift Day

Pelly Budget by Task

		Task		Spent	Budget	% Complete	Status
Phase 1	Improve Bench ditches	1		$ 13,825	19,500	71%	Complete
	Armour Upper Perimeter ditches	2		$ 35,066	28,660	122%	Complete
	Fill depressions	3		$ 104,695	92,700	113%	Complete
	Excavate Run-on ditches	4		$ 2,100	14,000	15%	
	Clean out dissipation pools	5		$ 700	2,875	24%	Complete
		6			None	0	
		7			None	0	
		8			None	0	
		9			None	0	
	Incidentals	10		$ 44,185	79900	55%	
	Phase 1 subtotal			**$ 200,571**	**$ 237,635**	**84%**	
Phase 2	Pond Cut and Fill	1		$ 145,526	$ 110,650	**132%**	
	Riprap in pond	2			$ 25,470	**0%**	
	Quarry Road Re-alignment	3		$ 10,050	$ 9,690	**104%**	incl incidentals
	Sed pond Outlet channel	4			$ 1,750	**0%**	
	Regrade CSA	5		$ 5,538	$ 25,250	**22%**	
	Road cross-ditching	6			$ 9,750	**0%**	
	Grade Perimeter roads	7		600	$ 4,740	**13%**	
	Remove bench accesses	8			$ 3,500	**0%**	
	Incidentals	9		$ 100,918	$ 234,240	**43%**	
	Phase 2 subtotal			**$ 262,632**	**$ 425,040**	**62%**	
			Total	**$ 463,233**	**$ 662,675**	**70%**	

J. Atkinson
Construction Monitor

Date 20/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 20/9/11 (DD MM YY) Shift Day

Site Photos

Location: Sedimentation pond Looking northeast

Comments: 1 layer geotextile in base of pond

Location: Sedimentation Pond Looking southwest

Comments: Panel 1 on left and panel 2 in centre placed

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 20/9/11 (DD MM YY) Shift Day

Site Photos

Location: Sedimentation pond Looking east

Comments: Wedge welder seaming panel 1 and 2

Location: Cover and sedimentation pond Looking east

Comments: Completed panel 1 and 2, seaming panel 2 to 3 on left of photo.

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 20/9/11 (DD MM YY) Shift Day

Site Photos

Location: Sedimentation pond Looking southeast

Comments: Liner placed all over 4 m area. Double geotextile on slope to 4m/ 3m divide.

Location: Sedimentation pond Looking east

Comments: Anchor trench along northern edge of pond. Geotextile is pinned along trench side.

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 20/9/11 (DD MM YY) Shift Day

Site Photos

Location: Sedimentation Pond Looking south

Comment: Overflow area. Placing material at notch to increase capacity.

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 21/9/11 (DD MM YY) Shift Day

BGC Project No: 0533-003

Contract Title: GSC Cover Repairs

Weather

Today			Max	3
	Rain	Sun & Cloud	Very Windy	Showers

Client: Yukon Government

Contractors: Pelly Construction

Highlights

1 Pelly team finish overflow pond. Excavated anchor trench for liner 1 m along western slope crest and southern to the 4/3m divide.

2 Liner team (superior plastics ltd) place liner on northern slope from NW corner to 3/4 m divide. Panels 5 to 15. Roll number 818 and 810.

3 Liner team air pressure test all seams done to date and vacume box test all seams in the base.

4 Liner team take 2 Destructive test samples - one from Panel 1/2 seam (in base pond) and 1 from Panel 9/10 in the slope. Undertake the first test P1/P2 which passes.

5 Note liner team repair one fix to a seam between Panels 14 and 15 due to damage where the plug was accidently pulled on the wedge welder, it stopped and burnt a hole. This patch fix was air pressure tested and passed.

6 A wrinkle seam of 1 foot was installed between panels 3 and 4 (the flat panels at the toe of the northern slope) and the slope panels 5-15. The seam is to accommodate heat changes to the liner (stretch and shrinkage).

7 Starts raining at 1230. Liner team finishes testing and goes on standyby at 1400.

8 Pelly team start on placing a waste rock cover to the quarry haul road in the pm.

9 More geotextile (120z, 12 rolls) ordered by Pelly from a company in whitehorse in the am. Will arrive Saturday.

Health and Safety

BGC field job site evaluation undertaken by JAA for monitoring work.

No work done on the liner in the rain.

J. Atkinson
Construction Monitor

Date 21/9/11 DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 21/9/11 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly Activities	Liner team	Comments
700	GSC	1x360 CAT, 1XD6, 2x 773B, 1 x foreman. Personnel: CN,IL,GS,AN,MN	Place panels 5 to 15 on north slope and seam. Wedge weld wrinkle seam between panels 3 and 4 and slopes. Extrusion weld seams.	Pelly team cut and fill in depression area - complete. June taking notes on liner installation and QA (testing of wedge welder and testing on seams) Correction to yesterdays report: 4 panels in the floor: Panel 1,2,3,4.
1200	Lunch			
1230	GSC	1x360 CAT, 1XD6, 2x 773B, 1 x foreman. Personnel: CN,IL,GS,AN,MN	Air pressure test all seams. Standby at 1400 due to rain.	Pelly team placing waste rock on the new access road (1xD9, 1x360 CAT, 2x773B).
1715	Leave site.			

J. Atkinson
Construction Monitor

Date 21/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 21/9/11 (DD MM YY) Shift Day

Pelly Construction: Daily Summary Table

Work to date	Task	Spent		
20/9/11	P2-1, P2-5 and P2-9	$	25,430	(P2-1 is $1,120, P2-5 is $9,525 and P2-9 is $14,785)
19/9/11	P2-1, P2-5 and P2-9	$	23,374	(P2-1 is $2,583.5, P2-5 is $5,537.5 and P2-9 is $15,253.75)
18/9/11	P2-1 and P2-9	$	54,797	(P2-1 is $9,060 and P2-9 is $45,737)
17/9/11	P2-1 (sed pond)	$	14,723	(Incidentals (p2-9) is $3,625
16/9/11	P2-1 (sed pond)	$	10,244	(Incidentals (p2-9) is $3,868.75
15/9/11	P2-1 (sed pond)	$	17,310	(Incidentals (p2-9) is $3,450
14/9/11	P2-1 (sed pond)	$	17,600	(Incidentals (p2-9) is $3,450
13/9/11	P2-1 (sed pond)	$	16,050	(Incidentals (p2-9) is $3,450
12/9/11	P2-1 (sed pond)	$	14,860	(Incidentals (p2-9) is $3,450
11/9/11	P2-1 (sed pond)	$	16,250	(Incidentals (p2-9) is $3,450
10/9/11	P2-1 (sed pond)	$	14,790	(Incidentals (p2-9) is $3,986.25
9/9/11	P2-1 (sed pond)	$	11,985	(Incidentals (p2-9) is $3,967.5
8/9/11	P2-1 (sed pond)	$	14,675	(Incidentals (p2-9) is $3,450
7/9/11	P2-1 (sed pond)	$	15,230	(Incidentals (p2-9) is $3,780
6/9/11	1, P2 and 9	$	13,885	(1 is 310, P2 is 10,095 and 10 is 3450)
5/9/11	P2 and 10	$	13,500	(P2 is 10,050 and task 10 is 3450)
4/9/11	1,3,5, 10 and P2	$	15,695	($620 for Task 1, $10,325 for task 3,$700 for task 5, $3,450 for task 10 and $600 for Phase 2)
3/9/11	3 and 10	$	15,425	($11,600 for task 3 and $3,825 for task 10)
2/9/11	3 and 10	$	16,380	(11,700 for task 3 and 4680 for task 10)
1/9/11	3 and 10	$	15,430	(11,600 for task 3 and 3830 for task 10) - Updated for correction June spotted.
31/08/11	1,3 and 10	$	14,780	(2280 for task 1, 8600 for task 3 and 3900 for task 10)
30/08/11	1,3 and 10	$	15,230	(2,280 for task 1, 9500 for task 3 and 3450 for task 10)
29/08/11	1,3 and 10	$	14,330	(2280 for task 1, 8600 for task 3, 3450 for task 10)
28/08/11	1,3 and 10	$	14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	$	13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	$	10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	$	13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	$	13,130	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	$	8,169	
22/08/2011	2	$	9,388	
21/08/2011	10 - camp set up	$	4,000	
	Total	**$**	**488,663**	

J. Atkinson
Construction Monitor

Date 21/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 21/9/11 (DD MM YY) Shift Day

Pelly Budget by Task

		Task		Spent	Budget	% Complete	Status
Phase 1	Improve Bench ditches	1		$ 13,825	19,500	71%	Complete
	Armour Upper Perimeter ditches	2		$ 35,066	28,660	122%	Complete
	Fill depressions	3		$ 104,695	92,700	113%	Complete
	Excavate Run-on ditches	4		$ 2,100	14,000	15%	
	Clean out dissipation pools	5		$ 700	2,875	24%	Complete
		6			None	0	
		7			None	0	
		8			None	0	
		9			None	0	
	Incidentals	10		$ 44,185	79900	55%	
	Phase 1 subtotal			**$ 200,571**	**$ 237,635**	**84%**	
Phase 2	Pond Cut and Fill	1		$ 146,646	$ 110,650	**133%**	
	Riprap in pond	2			$ 25,470	**0%**	
	Quarry Road Re-alignment	3		$ 10,050	$ 9,690	**104%**	incl incidentals
	Sed pond Outlet channel	4			$ 1,750	**0%**	
	Regrade CSA	5		$ 15,063	$ 25,250	**60%**	
	Road cross-ditching	6			$ 9,750	**0%**	
	Grade Perimeter roads	7		600	$ 4,740	**13%**	
	Remove bench accesses	8			$ 3,500	**0%**	
	Incidentals	9		$ 115,703	$ 234,240	**49%**	
	Phase 2 subtotal			**$ 288,062**	**$ 425,040**	**68%**	
			Total	**$ 488,663**	**$ 662,675**	**74%**	

J. Atkinson
Construction Monitor

Date 21/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 21/9/11 (DD MM YY) Shift Day

Site Photos

Location: Sedimentation pond Looking north

Comments: Liner placed on northern slope from southwest corner

Location: Sedimentation Pond looking north

Comments: From left to right Panels 5,6,7,8,9 and the edge of 10

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

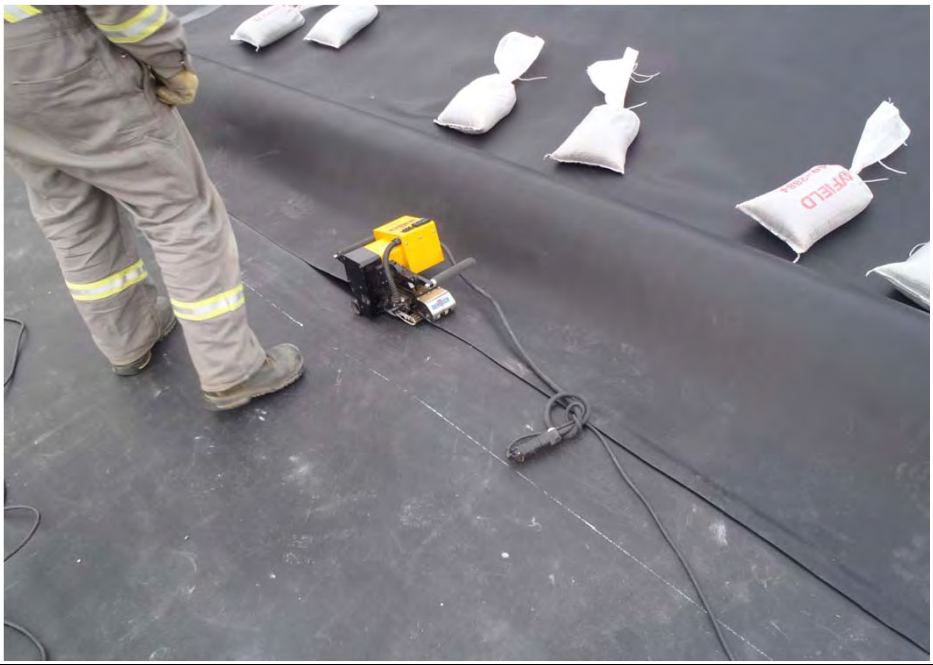
Daily Construction – Progress Report

Date 21/9/11 (DD MM YY) Shift Day

Site Photos

Location: Sedimentation pond Looking north

Comments: North slope from left to right: edge of panel 9,10,11,12,13,14 and 15.



Location: Sedimentation pond

Comment: Adding a 1 foot wrinkle seam at the toe of the slope.

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 21/9/11 (DD MM YY) Shift Day

Site Photos

Location: Sedimentation pond
Comments: Air pressure test in seam. Note time and pressure readings in white pen.

Location: Sedimentation pond Looking east
Comments:Liner trench along northern edge. Liner pinned in trench along right edge. 2 pins per panel.

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 21/9/11 (DD MM YY) Shift Day

Site Photos

Location: Sedimentation Pond Looking west
Comment: Lined area.

Location: Overflow pond Looking west
Comment Pelly adding final finishing touches

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 22/9/11 (DD MM YY) Shift Day

BGC Project No: 0533-003

Contract Title: GSC Cover Repairs

Weather

	Today		Max	4
	Rain	Sun & Cloud from mid morning.	Very Windy	Showers in early morning.

Client: Yukon Government

Contractors: Pelly Construction

Highlights

1 Pelly team excavate drainage trench above 1m till slope. Pack quarry haul road. Regrade west perimeter ditch.

2 Liner team place 2 layers geotextile on remaining slopes in western end of pond (west and south slopes).

3 Liner team (Superior Plastics Ltd) place liner panels 16-36 on southern and western slope and weld; Do wrinkle seams along toe of western and southern slope.

4 Liner team take 2 Destructive test samples - one from southern slope and one for western. Yet to be tested.

5 LDP/sed pond liner connection considered and discussed with JV in context of time and budget remaining. Will expose and tie into LDP liner in existing condition; longer-term repair of LDP liner may be required in 2012.

Health and Safety

BGC field job site evaluation undertaken by JAA for monitoring work.

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 22/9/11 (DD MM YY) Shift Day

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 22/9/11 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly Activities	Liner team	Comments
700	GSC	1x Grader, 1x330CAT, 1 x packer, 1xD9 - IL,CN,AS,GS	Place panels 6 to 36 on south and west slope and seam. Wedge weld wrinkle seam between panels 1,2, and 4 and slopes. No extrusion welding or air pressure testing.	June taking notes on liner installation and QA (testing of wedge welder)
1200	Lunch			
1230	GSC	1x Grader, 1x330CAT, 1 x packer, 1xD9 - IL,CN,AS,GS	As above.	As above.
1745	Leave site.			

J. Atkinson
Construction Monitor

Date 22/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 22/9/11 (DD MM YY) Shift Day

Pelly Construction: Daily Summary Table

Work to date	Task	Spent		
				Pending - few corrections of order of 26 k
20/9/11	P2-1, P2-5 and P2-9	$	25,430	(P2-1 is $1,120, P2-5 is $9,525 and P2-9 is $14,785)
19/9/11	P2-1, P2-5 and P2-9	$	23,374	(P2-1 is $2,583.5, P2-5 is $5,537.5 and P2-9 is $15,253.75)
18/9/11	P2-1 and P2-9	$	54,797	(P2-1 is $9,060 and P2-9 is $45,737)
17/9/11	P2-1 (sed pond)	$	14,723	(Incidentals (p2-9) is $3,625
16/9/11	P2-1 (sed pond)	$	10,244	(Incidentals (p2-9) is $3,868.75
15/9/11	P2-1 (sed pond)	$	17,310	(Incidentals (p2-9) is $3,450
14/9/11	P2-1 (sed pond)	$	17,600	(Incidentals (p2-9) is $3,450
13/9/11	P2-1 (sed pond)	$	16,050	(Incidentals (p2-9) is $3,450
12/9/11	P2-1 (sed pond)	$	14,860	(Incidentals (p2-9) is $3,450
11/9/11	P2-1 (sed pond)	$	16,250	(Incidentals (p2-9) is $3,450
10/9/11	P2-1 (sed pond)	$	14,790	(Incidentals (p2-9) is $3,986.25
9/9/11	P2-1 (sed pond)	$	11,985	(Incidentals (p2-9) is $3,967.5
8/9/11	P2-1 (sed pond)	$	14,675	(Incidentals (p2-9) is $3,450
7/9/11	P2-1 (sed pond)	$	15,230	(Incidentals (p2-9) is $3,780
6/9/11	1, P2 and 9	$	13,885	(1 is 310, P2 is 10,095 and 10 is 3450)
5/9/11	P2 and 10	$	13,500	(P2 is 10,050 and task 10 is 3450)
4/9/11	1,3,5, 10 and P2	$	15,695	($620 for Task 1, $10,325 for task 3,$700 for task 5, $3,450 for task 10 and $600 for Phase 2)
3/9/11	3 and 10	$	15,425	($11,600 for task 3 and $3,825 for task 10)
2/9/11	3 and 10	$	16,380	(11,700 for task 3 and 4680 for task 10)
1/9/11	3 and 10	$	15,430	(11,600 for task 3 and 3830 for task 10) - Updated for correction June spotted.
31/08/11	1,3 and 10	$	14,780	(2280 for task 1, 8600 for task 3 and 3900 for task 10)
30/08/11	1,3 and 10	$	15,230	(2,280 for task 1, 9500 for task 3 and 3450 for task 10)
29/08/11	1,3 and 10	$	14,330	(2280 for task 1, 8600 for task 3, 3450 for task 10)
28/08/11	1,3 and 10	$	14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	$	13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	$	10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	$	13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	$	13,130	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	$	8,169	
22/08/2011	2	$	9,388	
21/08/2011	10 - camp set up	$	4,000	
	Total	**$**	**488,663**	

J. Atkinson
Construction Monitor

Date 22/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 22/9/11 (DD MM YY) Shift Day

Pelly Budget by Task

		Task		Spent	Budget	% Complete	Status
Phase 1	Improve Bench ditches	1		$ 13,825	19,500	71%	Complete
	Armour Upper Perimeter ditches	2		$ 35,066	28,660	122%	Complete
	Fill depressions	3		$ 104,695	92,700	113%	Complete
	Excavate Run-on ditches	4		$ 2,100	14,000	15%	
	Clean out dissipation pools	5		$ 700	2,875	24%	Complete
		6			None	0	
		7			None	0	
		8			None	0	
		9			None	0	
	Incidentals	10		$ 44,185	79900	55%	
	Phase 1 subtotal			**$ 200,571**	**$ 237,635**	**84%**	
Phase 2	Pond Cut and Fill	1		$ 146,646	$ 110,650	**133%**	
	Riprap in pond	2			$ 25,470	**0%**	
	Quarry Road Re-alignment	3		$ 10,050	$ 9,690	**104%**	incl incidentals
	Sed pond Outlet channel	4			$ 1,750	**0%**	
	Regrade CSA	5		$ 15,063	$ 25,250	**60%**	
	Road cross-ditching	6			$ 9,750	**0%**	
	Grade Perimeter roads	7		600	$ 4,740	**13%**	
	Remove bench accesses	8			$ 3,500	**0%**	
	Incidentals	9		$ 115,703	$ 234,240	**49%**	
	Phase 2 subtotal			**$ 288,062**	**$ 425,040**	**68%**	
			Total	**$ 488,663**	**$ 662,675**	**74%**	still to add 26k

J. Atkinson
Construction Monitor

Date 22/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 22/9/11 (DD MM YY) Shift Day

Site Photos

Location: Sedimentation pond Looking south

Comments: Starting to seam panel 16/17 over double layer of geotextile.

Location: Sedimentation Pond looking west

Comments: Pulling panel down the slope. Maximum 3 panels ahead of welding in case of rain.

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 22/9/11 (DD MM YY) Shift Day

Site Photos

Location: Sedimentation pond Looking east

Comments: Install wrinkle seam. Team holding wrinkle in place. One member cleaning the seam with a rag.

Location: Sedimentation pond Looking west

Comment: Progress by the end of the day

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 22/9/11 (DD MM YY) Shift Day

Site Photos

Location: Top of 1 m borrow area Looking east
Comments: Digging drainage ditch

Location: West of Sedimentation pond Southeast
Comments: Completed quarry road

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 22/9/11 (DD MM YY) Shift Day

Site Photos

Location: Sedimentation Pond Looking west
Comment: From borrow area

Location: GSC Looking west
Comment: From borrow area

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 23/9/11 (DD MM YY) Shift Day

BGC Project No: 0533-003

Contract Title: GSC Cover Repairs

Weather

Today: Rain/ snow | Sun & Cloud | Very Windy

Max 6: Showers

Client: Yukon Government

Contractors: Pelly Construction

Highlights

1 Pelly team excavate drainage trench above 1m till slope. Remove crossing points to benches. Backfill liner anchor trench. Pack regraded perimeter ditches.

2 Liner team extrusion weld the T seams in the western end of the pond. Air pressure test and vacuumed box test west end of pond. One failure (panel 32/33 on western slope) which was extrusion seamed again at T and then passed.

3 Liner team place 1 layer of geotextile and liner on base of 3 m area. Wedge weld.

4 Liner team lay geotextile on north and south slopes of 3 m area.

5 Liner team Pelly and JAA discuss spillway detail to be constructed by Pelly re anchor trench 3H:1V slope.

Health and Safety

BGC field job site evaluation undertaken by JAA for monitoring work.

J. Atkinson
Construction Monitor

Date 23/9/11 DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 23/9/11 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly Activities	Liner team	Comments
700	GSC	1x 360CAT, 1x330CAT/ D9, 1 x packer/ 773B-IL,CN,AS,GS	Extrusion weld T intersections on 4 m area. Place geotextile and liner panels 37-40 on 3 m base area. Wedge weld wrinkle seam between panels 1,2, and 3 and 3 m area.	June taking notes on liner installation and QA (testing of wedge welder) Observe Pelly work - completed ditch at tope of 1 m till slope looks good.
1200	Lunch			
1230	GSC	1x 360CAT, 1x330CAT/ D9, 1 x packer/ 773B-IL,CN,AS,GS	Air pressure test 4 m area. All testing and placement in 4m area complete. Place geotextile on north and south slopes of 3 m area.	As above.
1730	Leave site.			

J. Atkinson
Construction Monitor

Date 23/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 23/9/11 (DD MM YY) Shift Day

Pelly Construction: Daily Summary Table

Work to date	Task	Spent		
22/9/11	Phase 2 - 3,5,6,7 &9	$	22,610	Task3 $1,190, T5 $720, T6 $3150, T7 $2365 & T9 $15,185
21/9/11	P2-3,P2-5 and P2-9	$	26,930	Phase3 $5,500, Phase 5 $7305 and Phase 9 $14,125
20/9/11	P2-1, P2-5 and P2-9	$	25,430	(P2-1 is $1,120, P2-5 is $9,525 and P2-9 is $14,785)
19/9/11	P2-1, P2-5 and P2-9	$	23,374	(P2-1 is $2,583.5, P2-5 is $5,537.5 and P2-9 is $15,253.75)
18/9/11	P2-1 and P2-9	$	54,797	(P2-1 is $9,060 and P2-9 is $45,737)
17/9/11	P2-1 (sed pond)	$	14,723	(Incidentals (p2-9) is $3,625
16/9/11	P2-1 (sed pond)	$	10,244	(Incidentals (p2-9) is $3,868.75
15/9/11	P2-1 (sed pond)	$	17,310	(Incidentals (p2-9) is $3,450
14/9/11	P2-1 (sed pond)	$	17,600	(Incidentals (p2-9) is $3,450
13/9/11	P2-1 (sed pond)	$	16,050	(Incidentals (p2-9) is $3,450
12/9/11	P2-1 (sed pond)	$	14,860	(Incidentals (p2-9) is $3,450
11/9/11	P2-1 (sed pond)	$	16,250	(Incidentals (p2-9) is $3,450
10/9/11	P2-1 (sed pond)	$	14,790	(Incidentals (p2-9) is $3,986.25
9/9/11	P2-1 (sed pond)	$	11,985	(Incidentals (p2-9) is $3,967.5
8/9/11	P2-1 (sed pond)	$	14,675	(Incidentals (p2-9) is $3,450
7/9/11	P2-1 (sed pond)	$	15,230	(Incidentals (p2-9) is $3,780
6/9/11	1, P2 and 9	$	13,885	(1 is 310, P2 is 10,095 and 10 is 3450)
5/9/11	P2 and 10	$	13,500	(P2 is 10,050 and task 10 is 3450)
4/9/11	1,3,5, 10 and P2	$	15,695	($620 for Task 1, $10,325 for task 3,$700 for task 5, $3,450 for task 10 and $600 for Phase 2)
3/9/11	3 and 10	$	15,425	($11,600 for task 3 and $3,825 for task 10)
2/9/11	3 and 10	$	16,380	(11,700 for task 3 and 4680 for task 10)
1/9/11	3 and 10	$	15,430	(11,600 for task 3 and 3830 for task 10) - Updated for correction June spotted.
31/08/11	1,3 and 10	$	14,780	(2280 for task 1, 8600 for task 3 and 3900 for task 10)
30/08/11	1,3 and 10	$	15,230	(2,280 for task 1, 9500 for task 3 and 3450 for task 10)
29/08/11	1,3 and 10	$	14,330	(2280 for task 1, 8600 for task 3, 3450 for task 10)
28/08/11	1,3 and 10	$	14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	$	13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	$	10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	$	13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	$	13,130	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	$	8,169	
22/08/2011	2	$	9,388	
21/08/2011	10 - camp set up	$	4,000	
	Total	**$**	**538,203**	

J. Atkinson
Construction Monitor

Date 23/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Date 23/9/11 (DD MM YY) Shift Day

Daily Site Log

Daily Construction – Progress Report

Pelly Budget by Task

		Task		Spent	Budget	% Complete	Status
Phase 1	Improve Bench ditches	1		$ 13,825	19,500	71%	Complete
	Armour Upper Perimeter ditches	2		$ 35,066	28,660	122%	Complete
	Fill depressions	3		$ 104,695	92,700	113%	Complete
	Excavate Run-on ditches	4		$ 2,100	14,000	15%	
	Clean out dissipation pools	5		$ 700	2,875	24%	Complete
		6			None	0	
		7			None	0	
		8			None	0	
		9			None	0	
	Incidentals	10		$ 44,185	79900	55%	
	Phase 1 subtotal			**$ 200,571**	**$ 237,635**	**84%**	
Phase 2	Pond Cut and Fill	1		$ 146,646	$ 110,650	**133%**	
	Riprap in pond	2			$ 25,470	**0%**	
	Quarry Road Re-alignment	3		$ 16,740	$ 9,690	**173%**	incl incidentals
	Sed pond Outlet channel	4			$ 1,750	**0%**	
	Regrade CSA	5		$ 23,088	$ 25,250	**91%**	
	Road cross-ditching	6		3150	$ 9,750	**32%**	
	Grade Perimeter roads	7		2965	$ 4,740	**63%**	
	Remove bench accesses	8			$ 3,500	**0%**	
	Incidentals	9		$ 145,012	$ 234,240	**62%**	
	Phase 2 subtotal			**$ 337,601**	**$ 425,040**	**79%**	
			Total	**$ 538,202**	**$ 662,675**	**81%**	

J. Atkinson
Construction Monitor

Date 23/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 23/9/11 (DD MM YY) Shift Day

Site Photos

Location: Sedimentation pond — Looking west

Comments: Laying liner in 3 m base.

Location: Sedimentation Pond — Looking northwest

Comments: 3 to 4 m wrinkle seam

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 23/9/11 (DD MM YY) Shift Day

Site Photos

Location: Sedimentation pond Looking west

Comments: Laying geotextile on northern slope 3 m area.

Location: Sedimentation pond Looking east

Comment: Laying triple layer of geotextile along 3 m area southern crest due to gravel.

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 23/9/11 (DD MM YY) Shift Day

Site Photos

Location: Sedimentation pond Looking west

Comments: Anchor trench in southwest corner. Backfilling with sand in base and liner edge to cushion liner. Compacting and placing waste rock.

Location: Sedimentation pond Looking southwest

Comments: Anchor trench

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 24/9/11 (DD MM YY) Shift Day

BGC Project No: 0533-003

Contract Title: GSC Cover Repairs

Weather

Today		Max	12
Snow showers	Sun & Cloud	Very Windy	Showers

Client: Yukon Government

Contractors: Pelly Construction

Highlights

1. Pelly team remove crossing points to benches (complete). Dig anchor trench along the east end of the pond.
2. Pelly team placing fill material for spillway. June instructs them to place in lifts and pack to make general fill shape then to excavate spillway ditch. Spillway will be 4 or 5H:1V. Fill placed and anchor trench complete by end of day.
3. Liner team extrusion place double layer geotextile (and 3 layers along crest) on east slope then place liner (Panels 41-45). Seam to 3 m base panels (P48,49 and 50). Extrusion weld and air pressure test.
4. Liner team place liner on northern slope (Panels 46-51). Seam to 3 m base panel with wrinkle (Panel 50). Extrusion weld and air pressure test. Passes.
5. Slow day for liner due to snow layer first thing and ongoing snow showers throughout the day. Intermittent work and lots of drying of seams to be done to ensure dry enough for welding.

Health and Safety

BGC field job site evaluation undertaken by JAA for monitoring work.

J. Atkinson
Construction Monitor

Date 24/9/11 DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 24/9/11 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly Activities	Liner team	Comments
700	GSC	1x 360CAT, 1x330CAT/ D9, 1 x packer, 1x 773B-IL,CN,AS, CT,GS	East slope (no snow and no wet geotextlile) place geotextile and line. Extrusion weld.	June taking notes on liner installation and QA (APT) Ensuring spillway area has compaction and 15 (12 inch when packed) lifts. Inspect removed crossings - look good.
1200	Lunch			
1230	GSC	1x 360CAT, 1x330CAT/ D9, 1 x packer/ 773B-IL,CN,AS,GS	North slope (3 m area). Extrusion weld and patch. Air pressure test.	As above.
1730	Leave site.			

J. Atkinson
Construction Monitor

Date 24/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 24/9/11 (DD MM YY) Shift Day

Pelly Construction: Daily Summary Table

Work to date	Task	Spent	
23/9/11	Phase 2 - 1,5,6,8,9	23,385	Task1 $1,470, T5 $525, T6 $1,350, T8 $3,575 & T9 $16,465
22/9/11	Phase 2 - 3,5,6,7 &9	$ 22,610	Task3 $1,190, T5 $720, T6 $3150, T7 $2365 & T9 $15,185
21/9/11	P2-3,P2-5 and P2-9	$ 26,930	Phase3 $5,500, Phase 5 $7305 and Phase 9 $14,125
20/9/11	P2-1, P2-5 and P2-9	$ 25,430	(P2-1 is $1,120, P2-5 is $9,525 and P2-9 is $14,785)
19/9/11	P2-1, P2-5 and P2-9	$ 23,374	(P2-1 is $2,583.5, P2-5 is $5,537.5 and P2-9 is $15,253.75)
18/9/11	P2-1 and P2-9	$ 54,797	(P2-1 is $9,060 and P2-9 is $45,737)
17/9/11	P2-1 (sed pond)	$ 14,723	(Incidentals (p2-9) is $3,625
16/9/11	P2-1 (sed pond)	$ 10,244	(Incidentals (p2-9) is $3,868.75
15/9/11	P2-1 (sed pond)	$ 17,310	(Incidentals (p2-9) is $3,450
14/9/11	P2-1 (sed pond)	$ 17,600	(Incidentals (p2-9) is $3,450
13/9/11	P2-1 (sed pond)	$ 16,050	(Incidentals (p2-9) is $3,450
12/9/11	P2-1 (sed pond)	$ 14,860	(Incidentals (p2-9) is $3,450
11/9/11	P2-1 (sed pond)	$ 16,250	(Incidentals (p2-9) is $3,450
10/9/11	P2-1 (sed pond)	$ 14,790	(Incidentals (p2-9) is $3,986.25
9/9/11	P2-1 (sed pond)	$ 11,985	(Incidentals (p2-9) is $3,967.5
8/9/11	P2-1 (sed pond)	$ 14,675	(Incidentals (p2-9) is $3,450
7/9/11	P2-1 (sed pond)	$ 15,230	(Incidentals (p2-9) is $3,780
6/9/11	1, P2 and 9	$ 13,885	(1 is 310, P2 is 10,095 and 10 is 3450)
5/9/11	P2 and 10	$ 13,500	(P2 is 10,050 and task 10 is 3450)
4/9/11	1,3,5, 10 and P2	$ 15,695	($620 for Task 1, $10,325 for task 3,$700 for task 5, $3,450 for task 10 and $600 for Phase 2)
3/9/11	3 and 10	$ 15,425	($11,600 for task 3 and $3,825 for task 10)
2/9/11	3 and 10	$ 16,380	(11,700 for task 3 and 4680 for task 10)
1/9/11	3 and 10	$ 15,430	(11,600 for task 3 and 3830 for task 10) - Updated for correction June spotted.
31/08/11	1,3 and 10	$ 14,780	(2280 for task 1, 8600 for task 3 and 3900 for task 10)
30/08/11	1,3 and 10	$ 15,230	(2,280 for task 1, 9500 for task 3 and 3450 for task 10)
29/08/11	1,3 and 10	$ 14,330	(2280 for task 1, 8600 for task 3, 3450 for task 10)
28/08/11	1,3 and 10	$ 14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	$ 13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	$ 10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	$ 13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	$ 13,130	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	$ 8,169	
22/08/2011	2	$ 9,388	
21/08/2011	10 - camp set up	$ 4,000	
	Total	**$ 561,588**	

J. Atkinson
Construction Monitor

Date 24/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 24/9/11 (DD MM YY) Shift Day

Pelly Budget by Task

		Task		Spent	Budget	% Complete	Status
Phase 1	Improve Bench ditches	1		$ 13,825	19,500	71%	Complete
	Armour Upper Perimeter ditches	2		$ 35,066	28,660	122%	Complete
	Fill depressions	3		$ 104,695	92,700	113%	Complete
	Excavate Run-on ditches	4		$ 2,100	14,000	15%	
	Clean out dissipation pools	5		$ 700	2,875	24%	Complete
		6			None	0	
		7			None	0	
		8			None	0	
		9			None	0	
	Incidentals	10		$ 44,185	79900	55%	
	Phase 1 subtotal			**$ 200,571**	**$ 237,635**	**84%**	
Phase 2	Pond Cut and Fill	1		$ 148,116	$ 110,650	**134%**	
	Riprap in pond	2			$ 25,470	**0%**	
	Quarry Road Re-alignment	3		$ 16,740	$ 9,690	**173%**	Complete
	Sed pond Outlet channel	4			$ 1,750	**0%**	
	Regrade CSA	5		$ 23,613	$ 25,250	**94%**	Complete
	Road cross-ditching	6		4500	$ 9,750	**46%**	
	Grade Perimeter roads	7		2965	$ 4,740	**63%**	
	Remove bench accesses	8		3575	$ 3,500	**102%**	Complete
	Incidentals	9		$ 161,477	$ 234,240	**69%**	
	Phase 2 subtotal			**$ 360,986**	**$ 425,040**	**85%**	
			Total	**$ 561,587**	**$ 662,675**	**85%**	

J. Atkinson
Construction Monitor

Date 24/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 24/9/11 (DD MM YY) Shift Day

Site Photos

Location: Sedimentation pond Looking west

Comments: Early am view of the snow dusting the sed pond.

Location: Sedimentation Pond Looking north

Comments: Laying geotextile on the one bit of the pond without snow.

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 24/9/11 (DD MM YY) Shift Day

Site Photos

Location: Sedimentation pond Looking northeast

Comments: Geotextile later in the day when snow warmed off the layer.

Location: Sedimentation pond Looking north

Comment: Panels 46 to 51 along 3m area north slope

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 24/9/11 (DD MM YY) Shift Day

Site Photos

Location: Sedimentation pond Looking east
Comments: East slope (panels 41 to 45)

Location: Sedimentation pond Looking southeast
Comments: Spillway in southeast corner of the pond

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 24/9/11 (DD MM YY) Shift Day

Site Photos

Location: Sedimentation Pond Looking southeast
Comment: Packing lifts of waste rock to create the spillway outflow channel

Location: Bench number 1 - 1284 m Looking northwest
Comment: Crossing removed and riprap placed

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 24/9/11 (DD MM YY) Shift Day

Site Photos

Location: Bench number 2 - 1272 m Looking west

Comments - Bench access removed and riprap placed

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 25/9/11 (DD MM YY) Shift Day

BGC Project No: 0533-003

Contract Title: GSC Cover Repairs

Weather

Today		Max	3
Snow showers	Sun & Cloud	Very Windy	Showers

Client: Yukon Government

Contractors: Pelly Construction

Highlights

1 Pelly team filling anchor trench, exposing liner in LDP, fixing LDP for liner connection, stockpile riprap in quarry.

2 Liner team place geotextile and liner on spillway (Panels 53,54,55 and 56). Place liner along remainder of southern slope and tie into east slope and Panel 16 at 3/4 m pond depth boundary.

3 Liner team Extrusion weld remaining T seams and Air pressure test remaining seams. Whole pond complete and tested apart from inlet corner.

4 Pelly expose liner at LDP. Liner torn and missing sections all the way along. One rip going into the pond i.e. perpendicular to the bank. Lots of water and sludge.

5 Decision made that it would not be possible to tie in new liner at LDP/ new channel boundary as LDP liner too damaged and connection would need to be in center of pond in thigh deep sludge. Plan to cut existing liner at EDP and WDP channel inlets into LDP and rip out liner in LDP but keep pond and reline LDP. Considered by all site team that this would take less time than sludge removal.

6 Pelly expose liner edges at EDP and WDP inlets fully and cut along these lines. Pelly remove liner and geotextile and manage to keep original packed pond slopes.

7 Liner team on standby at 1600 waiting new channel. Then heavy snow decide to finish for day.

Health and Safety

BGC field job site evaluation undertaken by JAA for monitoring work.

J. Atkinson
Construction Monitor

Date 25/9/11 DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 25/9/11 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly Activities	Liner team	Comments
700	GSC	1x 360CAT, 1x330CAT, 1x 773B-IL,CN,AS, GS	Spillway place 1 layer geotextile and liner.	June taking notes on liner installation and QA (APT). Inspecting LDP exposed liner for tie in potential.
1200	Lunch			
1230	GSC	1x 360CAT, 1x330CAT,1 x 773B-IL,CN,AS,GS	South slope (3m area) line. Extrusion weld and patch. Air pressure test all remaining seams. Finish at 1600.	As above. Decision made on LDP at 1230. Snow in the afternoon.
1730	Leave site.			

J. Atkinson
Construction Monitor

Date 25/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 25/9/11 (DD MM YY) Shift Day

Pelly Construction: Daily Summary Table

Work to date	Task	Spent		
24/9/11	Phase 2 - 2,4,8,9	$	23,820	Task2 $4,000, T4 $4,700, T8 $700 & T9 $14,420
23/9/11	Phase 2 - 1,5,6,8,9	$	23,385	Task1 $1,470, T5 $525, T6 $1,350, T8 $3,575 & T9 $16,465
22/9/11	Phase 2 - 3,5,6,7 &9	$	22,610	Task3 $1,190, T5 $720, T6 $3150, T7 $2365 & T9 $15,185
21/9/11	P2-3,P2-5 and P2-9	$	26,930	Phase3 $5,500, Phase 5 $7305 and Phase 9 $14,125
20/9/11	P2-1, P2-5 and P2-9	$	25,430	(P2-1 is $1,120, P2-5 is $9,525 and P2-9 is $14,785)
19/9/11	P2-1, P2-5 and P2-9	$	23,374	(P2-1 is $2,583.5, P2-5 is $5,537.5 and P2-9 is $15,253.75)
18/9/11	P2-1 and P2-9	$	54,797	(P2-1 is $9,060 and P2-9 is $45,737)
17/9/11	P2-1 (sed pond)	$	14,723	(Incidentals (p2-9) is $3,625
16/9/11	P2-1 (sed pond)	$	10,244	(Incidentals (p2-9) is $3,868.75
15/9/11	P2-1 (sed pond)	$	17,310	(Incidentals (p2-9) is $3,450
14/9/11	P2-1 (sed pond)	$	17,600	(Incidentals (p2-9) is $3,450
13/9/11	P2-1 (sed pond)	$	16,050	(Incidentals (p2-9) is $3,450
12/9/11	P2-1 (sed pond)	$	14,860	(Incidentals (p2-9) is $3,450
11/9/11	P2-1 (sed pond)	$	16,250	(Incidentals (p2-9) is $3,450
10/9/11	P2-1 (sed pond)	$	14,790	(Incidentals (p2-9) is $3,986.25
9/9/11	P2-1 (sed pond)	$	11,985	(Incidentals (p2-9) is $3,967.5
8/9/11	P2-1 (sed pond)	$	14,675	(Incidentals (p2-9) is $3,450
7/9/11	P2-1 (sed pond)	$	15,230	(Incidentals (p2-9) is $3,780
6/9/11	1, P2 and 9	$	13,885	(1 is 310, P2 is 10,095 and 10 is 3450)
5/9/11	P2 and 10	$	13,500	(P2 is 10,050 and task 10 is 3450)
4/9/11	1,3,5, 10 and P2	$	15,695	($620 for Task 1, $10,325 for task 3,$700 for task 5, $3,450 for task 10 and $600 for Phase 2)
3/9/11	3 and 10	$	15,425	($11,600 for task 3 and $3,825 for task 10)
2/9/11	3 and 10	$	16,380	(11,700 for task 3 and 4680 for task 10)
1/9/11	3 and 10	$	15,430	(11,600 for task 3 and 3830 for task 10) - Updated for correction June spotted.
31/08/11	1,3 and 10	$	14,780	(2280 for task 1, 8600 for task 3 and 3900 for task 10)
30/08/11	1,3 and 10	$	15,230	(2,280 for task 1, 9500 for task 3 and 3450 for task 10)
29/08/11	1,3 and 10	$	14,330	(2280 for task 1, 8600 for task 3, 3450 for task 10)
28/08/11	1,3 and 10	$	14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	$	13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	$	10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	$	13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	$	13,130	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	$	8,169	
22/08/2011	2	$	9,388	
21/08/2011	10 - camp set up	$	4,000	
	Total	**$**	**585,408**	

J. Atkinson
Construction Monitor

Date 25/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 25/9/11 (DD MM YY) Shift Day

Pelly Budget by Task

		Task		Spent	Budget	% Complete	Status
Phase 1	Improve Bench ditches	1		$ 13,825	19,500	71%	Complete
	Armour Upper Perimeter ditches	2		$ 35,066	28,660	122%	Complete
	Fill depressions	3		$ 104,695	92,700	113%	Complete
	Excavate Run-on ditches	4		$ 2,100	14,000	15%	
	Clean out dissipation pools	5		$ 700	2,875	24%	Complete
		6			None	0	
		7			None	0	
		8			None	0	
		9			None	0	
	Incidentals	10		$ 44,185	79900	55%	
	Phase 1 subtotal			**$ 200,571**	**$ 237,635**	**84%**	
Phase 2	Pond Cut and Fill	1		$ 148,116	$ 110,650	**134%**	
	Riprap in pond	2		$ 4,000	$ 25,470	**16%**	
	Quarry Road Re-alignment	3		$ 16,740	$ 9,690	**173%**	Complete
	Sed pond Outlet channel	4		$ 4,700	$ 1,750	**269%**	
	Regrade CSA	5		$ 23,613	$ 25,250	**94%**	Complete
	Road cross-ditching	6		$ 4,500	$ 9,750	**46%**	
	Grade Perimeter roads	7		$ 2,965	$ 4,740	**63%**	
	Remove bench accesses	8		$ 4,275	$ 3,500	**122%**	Complete
	Incidentals	9		$ 175,897	$ 234,240	**75%**	
	Phase 2 subtotal			**$ 384,806**	**$ 425,040**	**91%**	
			Total	**$ 585,407**	**$ 662,675**	**88%**	

not inc. 47 k from phase 1 contingency

J. Atkinson
Construction Monitor

Date 25/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 25/9/11 (DD MM YY) Shift Day

Site Photos

Location: Sedimentation pond Looking south
Comments: Geotextile on spillway (1 layer)

Location: Sedimentation Pond Looking north
Comments: Lined spillway

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

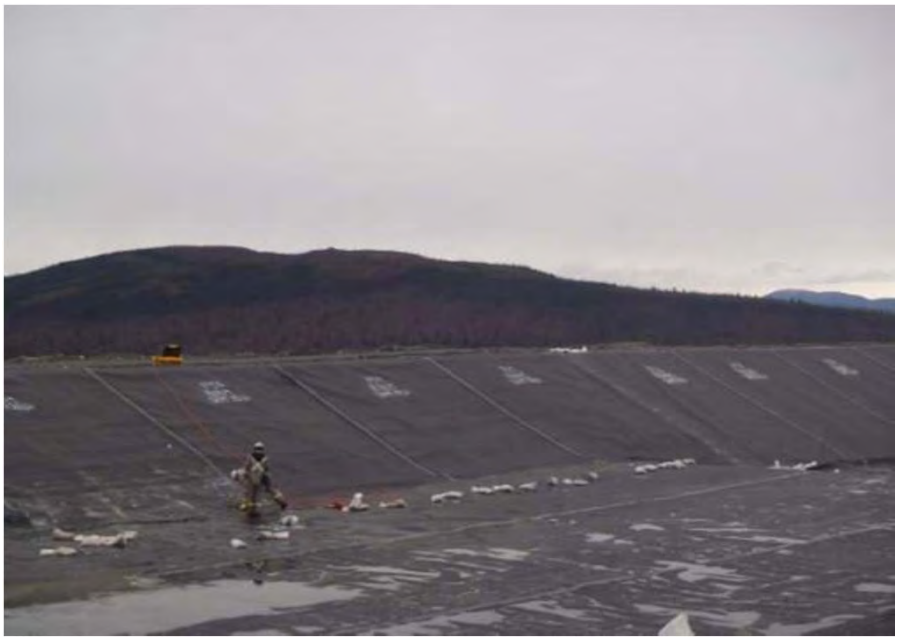
Daily Construction – Progress Report

Date 25/9/11 (DD MM YY) Shift Day

Site Photos

Location: Sedimentation Pond Looking south

Comments: Panels 52,53,54 and 56 and spillway



Location: sedimentation pond Looking south

Comments Panels 57 to60 on south slope (3 m depth area)

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 25/9/11 (DD MM YY) Shift Day

Site Photos

Location: Sedimentation pond Looking southwest

Comments: Lined spillway from sedimentation pond side

Location: LDP Looking south

Slope between proposed channel and WDP. No liner visible apart from at toe.

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 25/9/11 (DD MM YY) Shift Day

Site Photos

Location: LDP Looking south

Comment: Damaged liner and sludge/ water. Stake is proposed tie in location

Location LDP Looking west

Exposing the liner in proposed channel tie in location. Note rips perpendicular to pond.

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 25/9/11 (DD MM YY) Shift Day

Site Photos

Location LDP Looking northeast

Exposing liner at EDP Channel. Found good clean edge to weld new liner to. Also dry. Note no anchor trench.

Location GSC Looking southeast

Comment: Completed sedimentation pond apart from inlet channel and LDP.

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 25/9/11 (DD MM YY) Shift Day

Site Photos

Location LDP Looking north

Exposed slopes for new liner and tie in locations at EDP channel and WDP channel

Location LDP Looking east

Comment: Exposed slopes at new channel tie in location.

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 26/9/11 (DD MM YY) Shift Day

BGC Project No: 0533-003

Contract Title:

GSC Cover Repairs

Weather

Today		Max	12
Snow showers after 1600	Sun & Cloud till 1600	Very Windy	Showers

Client: Yukon Government

Contractors: Pelly Construction

Highlights

1 Pelly team exposing and cleaning out LDP - slop, liner, riprap. Digging inlet channel to pond. Digging anchor trenches. Stockpiling riprap.

2 Pelly team expose culvert (first 3 m) from LDP and remove. Place fill in culvert end of LDP and pack. Moisture is good due to rain/ snow. Shape LDP slopes. By end of day LDP ready for liner and geotextile tomorrow.

3 Liner team place geotextile and liner for inlet channel. Wedge weld and extrusion weld T shape connections. Sedimentation pond completely lined and tested. Only remaining lining is LDP for tomorrow.

4 Liner team on standby at 1600 due to heavy hail and snow. At 1700 decide to wait till tomorrow to do LDP liner.

Health and Safety

BGC field job site evaluation undertaken by JAA for monitoring work.

Snow making roads slippery. Slow and careful going on the site roads and haul roads.

J. Atkinson
Construction Monitor

Date 26/9/11 DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 26/9/11 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly Activities	Liner team	Comments
700	GSC	1x 360CAT, 1x330CAT, 1x 773B-IL,CN,AS, GS	Remove all waste materials from sedimentation pond and dispose. Place geotextile in sed pond. Place geotextile (1 layer) on inlet channel.	Pelly - Clear LDP of liner and riprap. Dig inlet channel. Stockpiling riprap. June taking notes on Pelly work and subbase for geotextile.
1200	Lunch			
1230	GSC	1x 360CAT, 1x330CAT,1 x 773B, 1x Packer- IL, CT,CN,AS,GS	Line and seam inlet channel and test. Pond complete.	Pelly - Finish inlet channel with anchor trench. Expose LDP culvert and remove. Place and pack fill for LDP final slopes. June - getting fuel. Taking notes on Pelly work.
1730	Leave site.			

J. Atkinson
Construction Monitor

Date 26/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 26/9/11 (DD MM YY) Shift Day

Pelly Construction: Daily Summary Table

Work to date	Task	Spent		
25/9/11	Phase 2 - 2,9, Inlet	$	25,730	Task2 $5,750, T9 $16,120 & Inlet $3,860
24/9/11	Phase 2 - 2,4,8,9	$	23,820	Task2 $4,000, T4 $4,700, T8 $700 & T9 $14,420
23/9/11	Phase 2 - 1,5,6,8,9	$	23,385	Task1 $1,470, T5 $525, T6 $1,350, T8 $3,575 & T9 $16,465
22/9/11	Phase 2 - 3,5,6,7 &9	$	22,610	Task3 $1,190, T5 $720, T6 $3150, T7 $2365 & T9 $15,185
21/9/11	P2-3,P2-5 and P2-9	$	26,930	Phase3 $5,500, Phase 5 $7305 and Phase 9 $14,125
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17/9/11	P2-1 (sed pond)	$	14,723	(Incidentals (p2-9) is $3,625
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12/9/11	P2-1 (sed pond)	$	14,860	(Incidentals (p2-9) is $3,450
11/9/11	P2-1 (sed pond)	$	16,250	(Incidentals (p2-9) is $3,450
10/9/11	P2-1 (sed pond)	$	14,790	(Incidentals (p2-9) is $3,986.25
9/9/11	P2-1 (sed pond)	$	11,985	(Incidentals (p2-9) is $3,967.5
8/9/11	P2-1 (sed pond)	$	14,675	(Incidentals (p2-9) is $3,450
7/9/11	P2-1 (sed pond)	$	15,230	(Incidentals (p2-9) is $3,780
6/9/11	1, P2 and 9	$	13,885	(1 is 310, P2 is 10,095 and 10 is 3450)
5/9/11	P2 and 10	$	13,500	(P2 is 10,050 and task 10 is 3450)
4/9/11	1,3,5, 10 and P2	$	15,695	($620 for Task 1, $10,325 for task 3,$700 for task 5, $3,450 for task 10 and $600 for Phase 2)
3/9/11	3 and 10	$	15,425	($11,600 for task 3 and $3,825 for task 10)
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1/9/11	3 and 10	$	15,430	(11,600 for task 3 and 3830 for task 10) - Updated for correction June spotted.
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29/08/11	1,3 and 10	$	14,330	(2280 for task 1, 8600 for task 3, 3450 for task 10)
28/08/11	1,3 and 10	$	14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	$	13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	$	10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	$	13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	$	13,130	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	$	8,169	
22/08/2011	2	$	9,388	
21/08/2011	10 - camp set up	$	4,000	
	Total	**$**	**611,138**	

J. Atkinson
Construction Monitor

Date 26/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 26/9/11 (DD MM YY) Shift Day

Pelly Budget by Task

		Task		Spent	Budget	% Complete	Status
Phase 1	Improve Bench ditches	1		$ 13,825	19,500	71%	Complete
	Armour Upper Perimeter ditches	2		$ 35,066	28,660	122%	Complete
	Fill depressions	3		$ 104,695	92,700	113%	Complete
	Excavate Run-on ditches	4		$ 2,100	14,000	15%	
	Clean out dissipation pools	5		$ 700	2,875	24%	Complete
		6			None	0	
		7			None	0	
		8			None	0	
		9			None	0	
	Incidentals	10		$ 44,185	79900	55%	
	Phase 1 subtotal			**$ 200,571**	**$ 237,635**	**84%**	
Phase 2	Pond Cut and Fill	1		$ 148,116	$ 110,650	**134%**	
	Riprap in pond	2		$ 9,750	$ 25,470	**38%**	
	Quarry Road Re-alignment	3		$ 16,740	$ 9,690	**173%**	Complete
	Sed pond Outlet channel	4		$ 4,700	$ 1,750	**269%**	
	Regrade CSA	5		$ 23,613	$ 25,250	**94%**	Complete
	Road cross-ditching	6		$ 4,500	$ 9,750	**46%**	
	Grade Perimeter roads	7		$ 2,965	$ 4,740	**63%**	
	Remove bench accesses	8		$ 4,275	$ 3,500	**122%**	Complete
	Incidentals	9		$ 192,017	$ 234,240	**82%**	
	Inlet channel			$ 3,860			
	Phase 2 subtotal			**$ 410,536**	**$ 425,040**	**97%**	
			Total	**$ 611,137**	**$ 662,675**	**92%**	

not inc. 47 k from phase 1 contingency

J. Atkinson
Construction Monitor

Date 26/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 26/9/11 (DD MM YY) Shift Day

Site Photos

Location: LDP Looking north

Comments: Excavated pond and culvert from new inlet channel

Location: Sedimentation Pond Looking south

Comments: LDP inlet channel and sedimentation pond

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 26/9/11 (DD MM YY) Shift Day

Site Photos

Location: Sedimentation Pond Looking south

Comments: Lined inlet channel

Location: Sedimentation pond Looking south

Comments: Completed LDP pond ready for liner and geotextile, inlet and sedimentation pond lined and complete

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 27/9/11 (DD MM YY) Shift Day

BGC Project No: 0533-003

Contract Title: GSC Cover Repairs

Weather

Today		Max	4
Snow showers	Sun & Cloud	Very Windy	Showers

Client: Yukon Government

Contractors: Pelly Construction

Highlights

1. Pelly team backfill anchor trench all around pond. Sand and waste rock. Grade and compact with packer.
2. Pelly team grading west perimeter haul road with grader and packer in the afternoon. 330CAT excavating outlet ditch.
3. Liner team place geotextile and liner for LDP. Wedge weld and extrusion weld T shape connections. All ponds and inlet channels completely lined and tested.
4. Place geotextile over the top of existing LDP pond. One more layer required in center of pond.
5. Dustin Rainey on site. One area of liner in north east corner found to be too tight and bouncing off surface. Pile with sandbags and excavate anchor trench to bring wrinkle back into pond. JAA to inspect tomorrow am.

Health and Safety

BGC field job site evaluation undertaken by JAA for monitoring work.

Snow and mud making roads slippery. Slow and careful going on the site roads and haul roads.

J. Atkinson
Construction Monitor

Date 27/9/11 DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 27/9/11 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly Activities	Liner team	Comments
700	GSC	1x330CAT, 1 x grader and 1 packer- IL,CN,AS, GS	Place 1 layer geotextile in the LDP. Place liner in the LDP.	Pelly - Infill anchor trench. Regrade west perimeter road.
1200	Lunch			
1230	GSC	1x330CAT, 1 x grader and 1 packer- IL,CN,AS, GS	Seam liner in LDP. Test and finish QC. Pack up material.	Pelly - Backfill anchor trench. Regrade west perimeter road. Fix up area for outflow ditch. Grade and pack around the sed pond.
1730	Leave site.			

J. Atkinson
Construction Monitor

Date 27/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 27/9/11 (DD MM YY) Shift Day

Pelly Construction: Daily Summary Table

Work to date	Task	Spent		
26/9/11	Phase 2 - 2,7,9, Inlet	$	23,008	Task2 $4,715, T7 $380, T9 $15,037.5 & Inlet $2,875
25/9/11	Phase 2 - 2,9, Inlet	$	25,730	Task2 $5,750, T9 $16,120 & Inlet $3,860
24/9/11	Phase 2 - 2,4,8,9	$	23,820	Task2 $4,000, T4 $4,700, T8 $700 & T9 $14,420
23/9/11	Phase 2 - 1,5,6,8,9	$	23,385	Task1 $1,470, T5 $525, T6 $1,350, T8 $3,575 & T9 $16,465
22/9/11	Phase 2 - 3,5,6,7 &9	$	22,610	Task3 $1,190, T5 $720, T6 $3150, T7 $2365 & T9 $15,185
21/9/11	P2-3,P2-5 and P2-9	$	26,930	Phase3 $5,500, Phase 5 $7305 and Phase 9 $14,125
20/9/11	P2-1, P2-5 and P2-9	$	25,430	(P2-1 is $1,120, P2-5 is $9,525 and P2-9 is $14,785)
19/9/11	P2-1, P2-5 and P2-9	$	23,374	(P2-1 is $2,583.5, P2-5 is $5,537.5 and P2-9 is $15,253.75)
18/9/11	P2-1 and P2-9	$	54,797	(P2-1 is $9,060 and P2-9 is $45,737)
17/9/11	P2-1 (sed pond)	$	14,723	(Incidentals (p2-9) is $3,625
16/9/11	P2-1 (sed pond)	$	10,244	(Incidentals (p2-9) is $3,868.75
15/9/11	P2-1 (sed pond)	$	17,310	(Incidentals (p2-9) is $3,450
14/9/11	P2-1 (sed pond)	$	17,600	(Incidentals (p2-9) is $3,450
13/9/11	P2-1 (sed pond)	$	16,050	(Incidentals (p2-9) is $3,450
12/9/11	P2-1 (sed pond)	$	14,860	(Incidentals (p2-9) is $3,450
11/9/11	P2-1 (sed pond)	$	16,250	(Incidentals (p2-9) is $3,450
10/9/11	P2-1 (sed pond)	$	14,790	(Incidentals (p2-9) is $3,986.25
9/9/11	P2-1 (sed pond)	$	11,985	(Incidentals (p2-9) is $3,967.5
8/9/11	P2-1 (sed pond)	$	14,675	(Incidentals (p2-9) is $3,450
7/9/11	P2-1 (sed pond)	$	15,230	(Incidentals (p2-9) is $3,780
6/9/11	1, P2 and 9	$	13,885	(1 is 310, P2 is 10,095 and 10 is 3450)
5/9/11	P2 and 10	$	13,500	(P2 is 10,050 and task 10 is 3450)
4/9/11	1,3,5, 10 and P2	$	15,695	($620 for Task 1, $10,325 for task 3,$700 for task 5, $3,450 for task 10 and $600 for Phase 2)
3/9/11	3 and 10	$	15,425	($11,600 for task 3 and $3,825 for task 10)
2/9/11	3 and 10	$	16,380	(11,700 for task 3 and 4680 for task 10)
1/9/11	3 and 10	$	15,430	(11,600 for task 3 and 3830 for task 10) - Updated for correction June spotted.
31/08/11	1,3 and 10	$	14,780	(2280 for task 1, 8600 for task 3 and 3900 for task 10)
30/08/11	1,3 and 10	$	15,230	(2,280 for task 1, 9500 for task 3 and 3450 for task 10)
29/08/11	1,3 and 10	$	14,330	(2280 for task 1, 8600 for task 3, 3450 for task 10)
28/08/11	1,3 and 10	$	14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	$	13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	$	10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	$	13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	$	13,130	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	$	8,169	
22/08/2011	2	$	9,388	
21/08/2011	10 - camp set up	$	4,000	
	Total	**$**	**634,146**	

J. Atkinson
Construction Monitor

Date 27/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 27/9/11 (DD MM YY) Shift Day

Pelly Budget by Task

		Task		Spent	Budget	% Complete	Status
Phase 1	Improve Bench ditches	1		$ 13,825	19,500	71%	Complete
	Armour Upper Perimeter ditches	2		$ 35,066	28,660	122%	Complete
	Fill depressions	3		$ 104,695	92,700	113%	Complete
	Excavate Run-on ditches	4		$ 2,100	14,000	15%	
	Clean out dissipation pools	5		$ 700	2,875	24%	Complete
		6			None	0	
		7			None	0	
		8			None	0	
		9			None	0	
	Incidentals	10		$ 44,185	79900	55%	
	Phase 1 subtotal			**$ 200,571**	**$ 237,635**	**84%**	
Phase 2	Pond Cut and Fill	1		$ 148,116	$ 110,650	**134%**	
	Riprap in pond	2		$ 14,465	$ 25,470	**57%**	
	Quarry Road Re-alignment	3		$ 16,740	$ 9,690	**173%**	Complete
	Sed pond Outlet channel	4		$ 4,700	$ 1,750	**269%**	
	Regrade CSA	5		$ 23,613	$ 25,250	**94%**	Complete
	Road cross-ditching	6		$ 4,500	$ 9,750	**46%**	
	Grade Perimeter roads	7		$ 3,345	$ 4,740	**71%**	
	Remove bench accesses	8		$ 4,275	$ 3,500	**122%**	Complete
	Incidentals	9		$ 207,055	$ 234,240	**88%**	
	Inlet channel			$ 6,735			
	Phase 2 subtotal			**$ 433,544**	**$ 425,040**	**102%**	
			Total	**$ 634,145**	**$ 760,000**	**83%**	Total amount revised to inc. contingency

J. Atkinson
Construction Monitor

Date 27/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 27/9/11 (DD MM YY) Shift Day

Site Photos

Location: LDP Looking south

Comments: LDP lined with geotextile and one section of liner at inlet channel

Location: LDP Looking south

Comments: Fully lined ldp pond

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 27/9/11 (DD MM YY) Shift Day

Site Photos

Location: LDP Looking north

Comments: Lined LDP and anchor trench

Location: LDP Looking northeast

Comments: Lined LDP pond and EDP channel in distance.

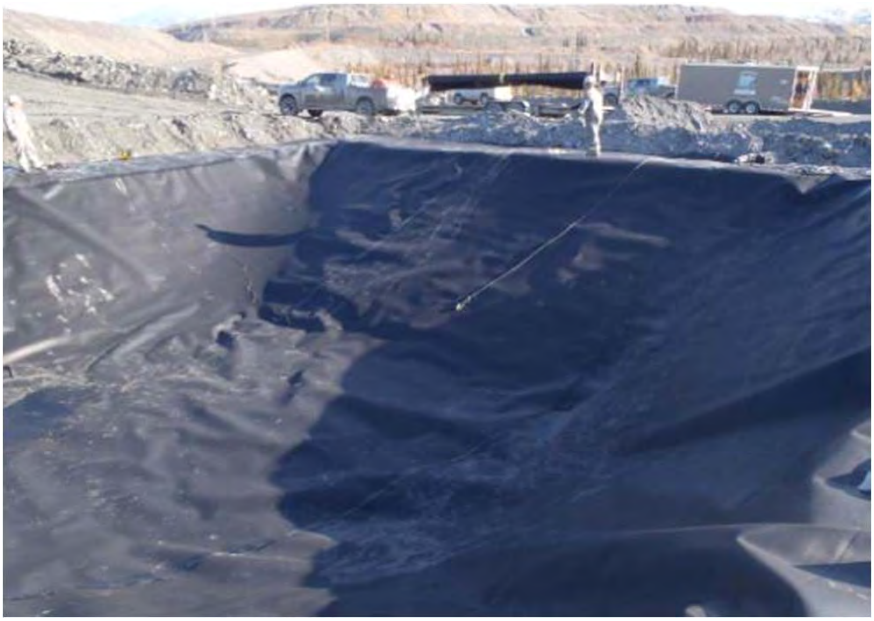
BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

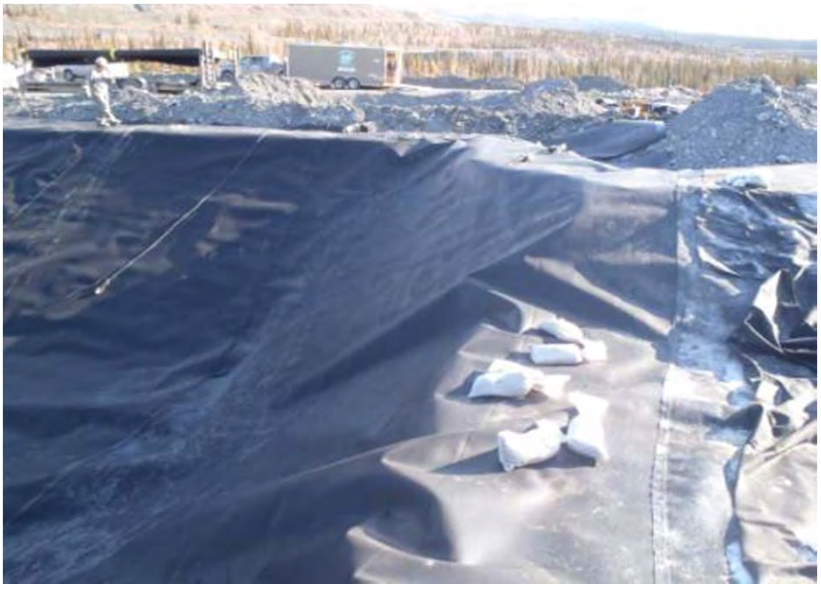
Date 27/9/11 (DD MM YY) Shift Day

Site Photos



Location: LDP Looking west

Comments: Lined pond



Location: LDP Looking east

Comment Lined pond and connection to sedimentation pond inlet channel

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 27/9/11 (DD MM YY) Shift Day

Site Photos

Location: LDP Looking west

Comment: Wedge weld seaming to existing EDP channel.

Location LDP

Extrusion weld to the WDP channel

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 28/9/11 (DD MM YY) Shift Day

BGC Project No: 0533-003

Contract Title: GSC Cover Repairs

Weather

Today		Max	4
Snow showers	Sun & Cloud	Very Windy	Showers

Client: Yukon Government

Contractors: Pelly Construction

Highlights

1 Liner team leave site at 0730 am.

2 Pelly team remove and fill in where road culvert removed, near LDP, with waste rock, grading and packing. Fill in anchor trenches.

3 Pelly team lay one layer of geotextile in LDP to finish this area.

4 Pelly team place sand in northeast corner of the sedimentation pond at 1400. Warmest part of the day and the bouncing in corner of pond has ceased. i.e. liner is against sides of pond. Backfill anchor trench.

5 Dustin Rainey (YG) on site. JAA and Dustin tour site and discuss progress. 4 changes from DR:
a) Center rock berm in pond not required to be as large. Only a baffle for energy and as ramp for animal escape should one get past proposed fence (unlikely).
b) Spillway detail - ditch swale to be dropped and spillway to be left as currently is apart from a riprap baffle at end to dissipate energy. Dustin to discuss this with DES.
c) Pelly to remove half culvert and salvage.
d) Berm to be added to west perimeter road.

6 Pelly place sand (0.50 m) pad in base of LDP and riprap to create access into the pond to place riprap.

Health and Safety

BGC field job site evaluation undertaken by JAA for monitoring work.

Snow and mud making roads slippery. Slow and careful going on the site roads and haul roads.

J. Atkinson
Construction Monitor

Date 28/9/11 DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 28/9/11 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly Activities	Liner team	Comments
700	GSC	1x330CAT, 1 x 365 CAT and 1 packer- IL,CN,AS, GS	Leave site	Pelly - Remove culvert and infill waste rock and pack. Grade area to east of pond away and pack. Haul sand.
1200	Lunch			
1230	GSC	1x330CAT, 1 x 365 CAT and 1 773B/ packer- IL,CN,AS, GS	N/A	Pelly - Place geotextile and weld. Backfill anchor trenches. Fill sand in northeast corner of pond to weigh down liner. Backfill sand and riprap into LDP.
1620	Leave site to make project close conference call with JV and JC.			

J. Atkinson
Construction Monitor

Date 28/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 28/9/11 (DD MM YY) Shift Day

Pelly Construction: Daily Summary Table

Work to date	Task	Spent		
27/9/11	Phase 2 - 7,9, Inlet	$	22,583	Task7 $1,585, T9 $18,107.5 & Inlet $2,890
26/9/11	Phase 2 - 2,7,9, Inlet	$	23,008	Task2 $4,715, T7 $380, T9 $15,037.5 & Inlet $2,875
25/9/11	Phase 2 - 2,9, Inlet	$	25,730	Task2 $5,750, T9 $16,120 & Inlet $3,860
24/9/11	Phase 2 - 2,4,8,9	$	23,820	Task2 $4,000, T4 $4,700, T8 $700 & T9 $14,420
23/9/11	Phase 2 - 1,5,6,8,9	$	23,385	Task1 $1,470, T5 $525, T6 $1,350, T8 $3,575 & T9 $16,465
22/9/11	Phase 2 - 3,5,6,7 &9	$	22,610	Task3 $1,190, T5 $720, T6 $3150, T7 $2365 & T9 $15,185
21/9/11	P2-3,P2-5 and P2-9	$	26,930	Phase3 $5,500, Phase 5 $7305 and Phase 9 $14,125
20/9/11	P2-1, P2-5 and P2-9	$	25,430	(P2-1 is $1,120, P2-5 is $9,525 and P2-9 is $14,785)
19/9/11	P2-1, P2-5 and P2-9	$	23,374	(P2-1 is $2,583.5, P2-5 is $5,537.5 and P2-9 is $15,253.75)
18/9/11	P2-1 and P2-9	$	54,797	(P2-1 is $9,060 and P2-9 is $45,737)
17/9/11	P2-1 (sed pond)	$	14,723	(Incidentals (p2-9) is $3,625
16/9/11	P2-1 (sed pond)	$	10,244	(Incidentals (p2-9) is $3,868.75
15/9/11	P2-1 (sed pond)	$	17,310	(Incidentals (p2-9) is $3,450
14/9/11	P2-1 (sed pond)	$	17,600	(Incidentals (p2-9) is $3,450
13/9/11	P2-1 (sed pond)	$	16,050	(Incidentals (p2-9) is $3,450
12/9/11	P2-1 (sed pond)	$	14,860	(Incidentals (p2-9) is $3,450
11/9/11	P2-1 (sed pond)	$	16,250	(Incidentals (p2-9) is $3,450
10/9/11	P2-1 (sed pond)	$	14,790	(Incidentals (p2-9) is $3,986.25
9/9/11	P2-1 (sed pond)	$	11,985	(Incidentals (p2-9) is $3,967.5
8/9/11	P2-1 (sed pond)	$	14,675	(Incidentals (p2-9) is $3,450
7/9/11	P2-1 (sed pond)	$	15,230	(Incidentals (p2-9) is $3,780
6/9/11	1, P2 and 9	$	13,885	(1 is 310, P2 is 10,095 and 10 is 3450)
5/9/11	P2 and 10	$	13,500	(P2 is 10,050 and task 10 is 3450)
4/9/11	1,3,5, 10 and P2	$	15,695	($620 for Task 1, $10,325 for task 3,$700 for task 5, $3,450 for task 10 and $600 for Phase 2)
3/9/11	3 and 10	$	15,425	($11,600 for task 3 and $3,825 for task 10)
2/9/11	3 and 10	$	16,380	(11,700 for task 3 and 4680 for task 10)
1/9/11	3 and 10	$	15,430	(11,600 for task 3 and 3830 for task 10) - Updated for correction June spotted.
31/08/11	1,3 and 10	$	14,780	(2280 for task 1, 8600 for task 3 and 3900 for task 10)
30/08/11	1,3 and 10	$	15,230	(2,280 for task 1, 9500 for task 3 and 3450 for task 10)
29/08/11	1,3 and 10	$	14,330	(2280 for task 1, 8600 for task 3, 3450 for task 10)
28/08/11	1,3 and 10	$	14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	$	13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	$	10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	$	13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	$	13,130	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	$	8,169	
22/08/2011	2	$	9,388	
21/08/2011	10 - camp set up	$	4,000	
	Total	**$**	**656,728**	

J. Atkinson
Construction Monitor

Date 28/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 28/9/11 (DD MM YY) Shift Day

Pelly Budget by Task

Phase		Task		Spent	Budget	% Complete	Status
	Improve Bench ditches	1		$ 13,825	19,500	71%	Complete
	Armour Upper Perimeter ditches	2		$ 35,066	28,660	122%	Complete
	Fill depressions	3		$ 104,695	92,700	113%	Complete
	Excavate Run-on ditches	4		$ 2,100	14,000	15%	
	Clean out dissipation pools	5		$ 700	2,875	24%	Complete
		6			None	0	
		7			None	0	
		8			None	0	
		9			None	0	
	Incidentals	10		$ 44,185	79900	55%	
	Phase 1 subtotal			**$ 200,571**	**$ 237,635**	**84%**	
Phase 2	Pond Cut and Fill	1		$ 148,116	$ 110,650	**134%**	
	Riprap in pond	2		$ 14,465	$ 25,470	**57%**	
	Quarry Road Re-alignment	3		$ 16,740	$ 9,690	**173%**	Complete
	Sed pond Outlet channel	4		$ 4,700	$ 1,750	**269%**	
	Regrade CSA	5		$ 23,613	$ 25,250	**94%**	Complete
	Road cross-ditching	6		$ 4,500	$ 9,750	**46%**	
	Grade Perimeter roads	7		$ 4,930	$ 4,740	**104%**	
	Remove bench accesses	8		$ 4,275	$ 3,500	**122%**	Complete
	Incidentals	9		$ 225,162	$ 234,240	**96%**	
	Inlet channel			$ 9,625			
	Phase 2 subtotal			**$ 456,126**	**$ 425,040**	**107%**	
			Total	**$ 656,727**	**$ 760,000**	**86%**	Total amount revised to inc. contingency

J. Atkinson
Construction Monitor

Date 28/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 28/9/11 (DD MM YY) Shift Day

Site Photos

Location: East of sedimentation pond Looking south

Comments: Culvert removed and area filled and packed.

Location: LDP Looking south

Comments: LDP with geotextile cover

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 28/9/11 (DD MM YY) Shift Day

Site Photos

Location: LDP Looking south

Comments: LDP with geotextile cover

Location: Sedimentation pond Looking northeast

Comments: Adding sand along crest and in NE corner for adding riprap and increasing liner in NE corner

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Date 28/9/11 (DD MM YY) Shift Day

Daily Site Log

Daily Construction – Progress Report

Site Photos

Location: LDP Looking south

Comments: Placing riprap on sand in base to travel CAT on to.

Location: LDP Looking north

Comments: Placing riprap on sand in base to travel CAT on to.

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 29/9/11 (DD MM YY) Shift Day

BGC Project No: 0533-003

Contract Title: GSC Cover Repairs

Weather

Today		Max	3
Snow showers	Sun & Cloud	Very Windy	Showers

Client: Yukon Government

Contractors: Pelly Construction

Highlights

1. Pelly riprap inlet channel and LDP.
2. Pelly place 2 foot sand into pond at east end of pond and 2 foot rounded material (cobbles and boulders). New wrinkle noted in liner in front of placed fill (1 foot) and cracks in sand placed at crest. Considered that liner may be slipping down slope. No signs of subgrade damage noted - soil bulge at toe, deformation of crest etc.
3. Decision made in field to immediately remove fill from slope. Pelly manage to remove fill and leave 1 ft sand without visible damage to liner. No further increase in wrinkle size or crest cracks in anchor trench sand. Discuss JV/JC. Plan to inspect more tomorrow am.
4. Riprap placed at end of spillway and base of inlet channel.
5. Pelly retrieve liner waste from town of Faro dump.

Health and Safety

BGC field job site evaluation undertaken by JAA for monitoring work.

J. Atkinson
Construction Monitor

Date 29/9/11 DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 29/9/11 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly Equipment	Pelly Activities	Comments
700	GSC	1x330CAT, 1 x 365 CAT and 1 773B-IL,CN,AS, GS, MN, CT	Place riprap in inlet channel and LDP. Place sand and rounded fill at east end of pond. Collect liner material.	
1200	Lunch			
1230	GSC	1x330CAT, 1 x 365 CAT and 1 773B-IL,CN,AS, GS, MN, CT	Remove rounded fill and sand from east end of pond. Place riprap at end of spillway. Fill anchor trench. Place riprap at end of inlet channel.	
1730	Leave site.			

J. Atkinson
Construction Monitor

Date 29/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 29/9/11 (DD MM YY) Shift Day

Pelly Construction: Daily Summary Table

Work to date	Task	Spent		
28/9/11	Phase 2 - 2,6,9	$	13,910	Task 2- $7,795, Task 6- $1,815 and Task 9 $4,300
27/9/11	Phase 2 - 7,9, Inlet	$	22,583	Task7 $1,585, T9 $18,107.5 & Inlet $2,890
26/9/11	Phase 2 - 2,7,9, Inlet	$	23,008	Task2 $4,715, T7 $380, T9 $15,037.5 & Inlet $2,875
25/9/11	Phase 2 - 2,9, Inlet	$	25,730	Task2 $5,750, T9 $16,120 & Inlet $3,860
24/9/11	Phase 2 - 2,4,8,9	$	23,820	Task2 $4,000, T4 $4,700, T8 $700 & T9 $14,420
23/9/11	Phase 2 - 1,5,6,8,9	$	23,385	Task1 $1,470, T5 $525, T6 $1,350, T8 $3,575 & T9 $16,465
22/9/11	Phase 2 - 3,5,6,7 &9	$	22,610	Task3 $1,190, T5 $720, T6 $3150, T7 $2365 & T9 $15,185
21/9/11	P2-3,P2-5 and P2-9	$	26,930	Phase3 $5,500, Phase 5 $7305 and Phase 9 $14,125
20/9/11	P2-1, P2-5 and P2-9	$	25,430	(P2-1 is $1,120, P2-5 is $9,525 and P2-9 is $14,785)
19/9/11	P2-1, P2-5 and P2-9	$	23,374	(P2-1 is $2,583.5, P2-5 is $5,537.5 and P2-9 is $15,253.75)
18/9/11	P2-1 and P2-9	$	54,797	(P2-1 is $9,060 and P2-9 is $45,737)
17/9/11	P2-1 (sed pond)	$	14,723	(Incidentals (p2-9) is $3,625
16/9/11	P2-1 (sed pond)	$	10,244	(Incidentals (p2-9) is $3,868.75
15/9/11	P2-1 (sed pond)	$	17,310	(Incidentals (p2-9) is $3,450
14/9/11	P2-1 (sed pond)	$	17,600	(Incidentals (p2-9) is $3,450
13/9/11	P2-1 (sed pond)	$	16,050	(Incidentals (p2-9) is $3,450
12/9/11	P2-1 (sed pond)	$	14,860	(Incidentals (p2-9) is $3,450
11/9/11	P2-1 (sed pond)	$	16,250	(Incidentals (p2-9) is $3,450
10/9/11	P2-1 (sed pond)	$	14,790	(Incidentals (p2-9) is $3,986.25
9/9/11	P2-1 (sed pond)	$	11,985	(Incidentals (p2-9) is $3,967.5
8/9/11	P2-1 (sed pond)	$	14,675	(Incidentals (p2-9) is $3,450
7/9/11	P2-1 (sed pond)	$	15,230	(Incidentals (p2-9) is $3,780
6/9/11	1, P2 and 9	$	13,885	(1 is 310, P2 is 10,095 and 10 is 3450)
5/9/11	P2 and 10	$	13,500	(P2 is 10,050 and task 10 is 3450)
4/9/11	1,3,5, 10 and P2	$	15,695	($620 for Task 1, $10,325 for task 3,$700 for task 5, $3,450 for task 10 and $600 for Phase 2)
3/9/11	3 and 10	$	15,425	($11,600 for task 3 and $3,825 for task 10)
2/9/11	3 and 10	$	16,380	(11,700 for task 3 and 4680 for task 10)
1/9/11	3 and 10	$	15,430	(11,600 for task 3 and 3830 for task 10) - Updated for correction June spotted.
31/08/11	1,3 and 10	$	14,780	(2280 for task 1, 8600 for task 3 and 3900 for task 10)
30/08/11	1,3 and 10	$	15,230	(2,280 for task 1, 9500 for task 3 and 3450 for task 10)
29/08/11	1,3 and 10	$	14,330	(2280 for task 1, 8600 for task 3, 3450 for task 10)
28/08/11	1,3 and 10	$	14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	$	13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	$	10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	$	13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	$	13,130	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	$	8,169	
22/08/2011	2	$	9,388	
21/08/2011	10 - camp set up	$	4,000	
	Total	**$**	**670,638**	

J. Atkinson
Construction Monitor

Date 29/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 29/9/11 (DD MM YY) Shift Day

Pelly Budget by Task

		Task		Spent	Budget	% Complete	Status
Phase 1	Improve Bench ditches	1		$ 13,825	19,500	71%	Complete
	Armour Upper Perimeter ditches	2		$ 35,066	28,660	122%	Complete
	Fill depressions	3		$ 104,695	92,700	113%	Complete
	Excavate Run-on ditches	4		$ 2,100	14,000	15%	
	Clean out dissipation pools	5		$ 700	2,875	24%	Complete
		6			None	0	
		7			None	0	
		8			None	0	
		9			None	0	
	Incidentals	10		$ 44,185	79900	55%	
	Phase 1 subtotal			**$ 200,571**	**$ 237,635**	**84%**	
Phase 2	Pond Cut and Fill	1		$ 148,116	$ 110,650	**134%**	
	Riprap in pond	2		$ 22,260	$ 25,470	**87%**	
	Quarry Road Re-alignment	3		$ 16,740	$ 9,690	**173%**	Complete
	Sed pond Outlet channel	4		$ 4,700	$ 1,750	**269%**	
	Regrade CSA	5		$ 23,613	$ 25,250	**94%**	Complete
	Road cross-ditching	6		$ 6,315	$ 9,750	**65%**	
	Grade Perimeter roads	7		$ 4,930	$ 4,740	**104%**	
	Remove bench accesses	8		$ 4,275	$ 3,500	**122%**	Complete
	Incidentals	9		$ 229,462	$ 234,240	**98%**	
	Inlet channel			$ 9,625			
	Phase 2 subtotal			**$ 470,036**	**$ 425,040**	**111%**	
			Total	**$ 670,637**	**$ 760,000**	**88%**	Total amount revised to inc. contingency

J. Atkinson
Construction Monitor

Date 29/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 29/9/11 (DD MM YY) Shift Day

Site Photos

Location: LDP and inlet channel Looking south
Comments: Infilled with riprap

Location: Inlet channel Looking north
Comments: Riprap cover

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Date 29/9/11 (DD MM YY) Shift Day

Daily Site Log

Daily Construction – Progress Report

Site Photos

Location: East end of pond. Looking southwest

Comment: Note toe of slope. Liner is flat.

Location: Sedimentation pond Looking south

Comments: Note small cracks in sand overlying liner

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 29/9/11 (DD MM YY) Shift Day

Site Photos

Location: Sed pond Looking south

Comments: Note liner wrinkle forming at toe of fill.

Location: Sed pond Looking south

Comments: Note wrinkle forming at toe of fill

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 29/9/11 (DD MM YY) Shift Day

Site Photos

Location: Sed pond east end Looking west

Comment: Note wrinkle at base of slope.

Location: Sed pond east end Looking west

Comment: Note wrinkle at base of slope.

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Date 29/9/11 (DD MM YY) Shift Day

Daily Site Log

Daily Construction – Progress Report

Site Photos

Location: sedimentation pond Looking east

Comments: Note wrinkles in adjacent panel. No visible damage.

Location: Sedimentation pond Looking north

Comment: Note no visible damage to exposed liner in adjacent panel or on crest.

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 29/9/11 (DD MM YY) Shift Day

Site Photos

Location: Sed pond east end Looking northeast

Comments: Rounded fill and sand material removed to 1 ft of sand.

Location: Sed pond east end Looking northeast

Comments: Rounded fill and sand material removed to 1 ft of sand. Material at base cannot be reached.

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 30/9/11 (DD MM YY) Shift Day

BGC Project No: 0533-003

Contract Title: GSC Cover Repairs

Weather

Today		Max	3
Snow (turning to rain later)	Sun & Cloud	Very Windy	Showers

Client: Yukon Government

Contractors: Pelly Construction

Highlights

1. Pelly regrading base of East Perimeter Road as per JV request, adding 0.50 m berm around LDP, along inlet channel and as a safety berm along east edge of pond (checked with Jon at DES whether this was necessary and he said it was).
2. Hauling clean waste rock to achieve the above. Also add berm halfway up East perimeter road as discussed with DR.
3. June and Gunnar move sand from liner at east end along crest and expose geotextile. Cut geotextile to inspect liner. Can still see liner going into anchor trench. No visible damage - holes and tears.
4. June digs a series of small pits on the slope and confirms geotextile present. Lift geotextile at edges of sand and inspect liner panel - intact, no damage.
5. June splits geotextile at wrinkle at toe of slope and inspects liner. No visible - damage (cracks, holes, splits). Water still ponding on top of liner.

Health and Safety

BGC field job site evaluation undertaken by JAA for monitoring work.

Snow and mud making roads slippery. Slow and careful going on the site roads and haul roads.

J. Atkinson
Construction Monitor

Date 30/9/11 DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 30/9/11 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly equipment	Pelly activities	Comments
700	GSC	1xD6 1 x 365 CAT and 1 773B- IL,CN,AS, GS	Regrade base of EPD road, add 0.50 m berm around east end of pond	June and Gunnar inspects liner for damage at east end of pond. No visible damage found to liner in the inspection - rips, tears, holes
1200	Lunch			
1230	GSC	1x330CAT, 1 x 365 CAT and 1 773B/ packer- IL,CN,AS, GS	Regrade base of EPD road, add 0.50 m berm around east end of pond, tidy waste rock borrow, tidy slopes along haul road.	None
1730	Leave site			

J. Atkinson
Construction Monitor

Date 30/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 30/9/11 (DD MM YY) Shift Day

Pelly Construction: Daily Summary Table

Work to date	Task	Spent		
29/9/11	Phase 2 - 2,6,9	$	12,738	Task 2- $7,850, Task 6- $775 and Task 9 $4,112.5
28/9/11	Phase 2 - 2,6,9	$	13,910	Task 2- $7,795, Task 6- $1,815 and Task 9 $4,300
27/9/11	Phase 2 - 7,9, Inlet	$	22,583	Task7 $1,585, T9 $18,107.5 & Inlet $2,890
26/9/11	Phase 2 - 2,7,9, Inlet	$	23,008	Task2 $4,715, T7 $380, T9 $15,037.5 & Inlet $2,875
25/9/11	Phase 2 - 2,9, Inlet	$	25,730	Task2 $5,750, T9 $16,120 & Inlet $3,860
24/9/11	Phase 2 - 2,4,8,9	$	23,820	Task2 $4,000, T4 $4,700, T8 $700 & T9 $14,420
23/9/11	Phase 2 - 1,5,6,8,9	$	23,385	Task1 $1,470, T5 $525, T6 $1,350, T8 $3,575 & T9 $16,465
22/9/11	Phase 2 - 3,5,6,7 &9	$	22,610	Task3 $1,190, T5 $720, T6 $3150, T7 $2365 & T9 $15,185
21/9/11	P2-3,P2-5 and P2-9	$	26,930	Phase3 $5,500, Phase 5 $7305 and Phase 9 $14,125
20/9/11	P2-1, P2-5 and P2-9	$	25,430	(P2-1 is $1,120, P2-5 is $9,525 and P2-9 is $14,785)
19/9/11	P2-1, P2-5 and P2-9	$	23,374	(P2-1 is $2,583.5, P2-5 is $5,537.5 and P2-9 is $15,253.75)
18/9/11	P2-1 and P2-9	$	54,797	(P2-1 is $9,060 and P2-9 is $45,737)
17/9/11	P2-1 (sed pond)	$	14,723	(Incidentals (p2-9) is $3,625
16/9/11	P2-1 (sed pond)	$	10,244	(Incidentals (p2-9) is $3,868.75
15/9/11	P2-1 (sed pond)	$	17,310	(Incidentals (p2-9) is $3,450
14/9/11	P2-1 (sed pond)	$	17,600	(Incidentals (p2-9) is $3,450
13/9/11	P2-1 (sed pond)	$	16,050	(Incidentals (p2-9) is $3,450
12/9/11	P2-1 (sed pond)	$	14,860	(Incidentals (p2-9) is $3,450
11/9/11	P2-1 (sed pond)	$	16,250	(Incidentals (p2-9) is $3,450
10/9/11	P2-1 (sed pond)	$	14,790	(Incidentals (p2-9) is $3,986.25
9/9/11	P2-1 (sed pond)	$	11,985	(Incidentals (p2-9) is $3,967.5
8/9/11	P2-1 (sed pond)	$	14,675	(Incidentals (p2-9) is $3,450
7/9/11	P2-1 (sed pond)	$	15,230	(Incidentals (p2-9) is $3,780
6/9/11	1, P2 and 9	$	13,885	(1 is 310, P2 is 10,095 and 10 is 3450)
5/9/11	P2 and 10	$	13,500	(P2 is 10,050 and task 10 is 3450)
4/9/11	1,3,5, 10 and P2	$	15,695	($620 for Task 1, $10,325 for task 3,$700 for task 5, $3,450 for task 10 and $600 for Phase 2)
3/9/11	3 and 10	$	15,425	($11,600 for task 3 and $3,825 for task 10)
2/9/11	3 and 10	$	16,380	(11,700 for task 3 and 4680 for task 10)
1/9/11	3 and 10	$	15,430	(11,600 for task 3 and 3830 for task 10) - Updated for correction June spotted.
31/08/11	1,3 and 10	$	14,780	(2280 for task 1, 8600 for task 3 and 3900 for task 10)
30/08/11	1,3 and 10	$	15,230	(2,280 for task 1, 9500 for task 3 and 3450 for task 10)
29/08/11	1,3 and 10	$	14,330	(2280 for task 1, 8600 for task 3, 3450 for task 10)
28/08/11	1,3 and 10	$	14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	$	13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	$	10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	$	13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	$	13,130	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	$	8,169	
22/08/2011	2	$	9,388	
21/08/2011	10 - camp set up	$	4,000	
	Total	**$**	**683,376**	

J. Atkinson
Construction Monitor

Date 30/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 30/9/11 (DD MM YY) Shift Day

Pelly Budget by Task

		Task		Spent	Budget	% Complete	Status
Phase 1	Improve Bench ditches	1		$ 13,825	19,500	71%	Complete
	Armour Upper Perimeter ditches	2		$ 35,066	28,660	122%	Complete
	Fill depressions	3		$ 104,695	92,700	113%	Complete
	Excavate Run-on ditches	4		$ 2,100	14,000	15%	
	Clean out dissipation pools	5		$ 700	2,875	24%	Complete
		6			None	0	
		7			None	0	
		8			None	0	
		9			None	0	
	Incidentals	10		$ 44,185	79900	55%	
	Phase 1 subtotal			**$ 200,571**	**$ 237,635**	**84%**	
Phase 2	Pond Cut and Fill	1		$ 148,116	$ 110,650	**134%**	
	Riprap in pond	2		$ 30,110	$ 25,470	**118%**	
	Quarry Road Re-alignment	3		$ 16,740	$ 9,690	**173%**	Complete
	Sed pond Outlet channel	4		$ 4,700	$ 1,750	**269%**	
	Regrade CSA	5		$ 23,613	$ 25,250	**94%**	Complete
	Road cross-ditching	6		$ 7,090	$ 9,750	**73%**	
	Grade Perimeter roads	7		$ 4,930	$ 4,740	**104%**	
	Remove bench accesses	8		$ 4,275	$ 3,500	**122%**	Complete
	Incidentals	9		$ 233,575	$ 234,240	**100%**	
	Inlet channel			$ 9,625			
	Phase 2 subtotal			**$ 482,774**	**$ 425,040**	**114%**	
			Total	**$ 683,375**	**$ 760,000**	**90%**	Total amount revised to inc. contingency

J. Atkinson
Construction Monitor

Date 30/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 30/9/11 (DD MM YY) Shift Day

Site Photos

Location: Crest of east end of sed pond
Comments: Spot checks exposing liner to check presence and for damage. Liner goes into anchor trench on right of photo.

Location: Slope of east end of sed pond
Comments: Spot checks exposing geotextile to check presence and flat to slope.

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 30/9/11 (DD MM YY) Shift Day

Site Photos

Location: Toe of east end of sed pond
Comments: Spot checks exposing liner to check condition along wrinkle - no apparent damage, note ponded water

Location: Taken from base of east perimeter ditch road at LDP Looking south
Comments: Note cross fall to east side of the road and berm on right.

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 1/10/2011 (DD MM YY) Shift Day

BGC Project No: 0533-003

Contract Title: GSC Cover Repairs

Weather

Today		Max	4
Snow	Sun & Cloud	Very Windy	Showers

Client: Yukon Government

Contractors: Pelly Construction

Highlights

1 Pelly cleaning off sand and geotextile from liner on east end of pond. Liner and seams are intact - no visible damage in quick inspection. Will do more detailed inspection tomorrow.

2 Excavate out anchor trench. Liner is anchored in trench with no visible damage.

3 Pelly also cleaning berms and borrow areas with 365 CAT.

Health and Safety

BGC field job site evaluation undertaken by JAA for monitoring work.

Snow and mud making roads slippery. Slow and careful going on the site roads and haul roads.

J. Atkinson
Construction Monitor

Date 1/10/2011 DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 1/10/2011 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly equipment	Pelly activities	Comments
700	GSC	1x335 CAT, 1 x 365 CAT and 1 773B and hand digging- IL,CN,AS, GS, MN, CT	Expose liner on east slope sed pond and tidy up earthworks around site	None
1200	Lunch			
1230	GSC	1x335 CAT, 1 x 365 CAT and 1 773B and hand digging- IL,CN,AS, GS, MN, CT	Expose liner on east slope sed pond and tidy up earthworks around site	None
1730	Leave site			

J. Atkinson
Construction Monitor

Date 1/10/2011
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 1/10/2011 Shift Day
(DD MM YY)

Pelly Construction: Daily Summary Table

Work to date	Task	Spent	
30/9/11	Pending	Pending	Pending
29/9/11	Phase 2 - 2,6,9	$ 12,738	Task 2- $7,850, Task 6- $775 and Task 9 $4,112.5
28/9/11	Phase 2 - 2,6,9	$ 13,910	Task 2- $7,795, Task 6- $1,815 and Task 9 $4,300
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23/9/11	Phase 2 - 1,5,6,8,9	$ 23,385	Task1 $1,470, T5 $525, T6 $1,350, T8 $3,575 & T9 $16,465
22/9/11	Phase 2 - 3,5,6,7 &9	$ 22,610	Task3 $1,190, T5 $720, T6 $3150, T7 $2365 & T9 $15,185
21/9/11	P2-3,P2-5 and P2-9	$ 26,930	Phase3 $5,500, Phase 5 $7305 and Phase 9 $14,125
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14/9/11	P2-1 (sed pond)	$ 17,600	(Incidentals (p2-9) is $3,450
13/9/11	P2-1 (sed pond)	$ 16,050	(Incidentals (p2-9) is $3,450
12/9/11	P2-1 (sed pond)	$ 14,860	(Incidentals (p2-9) is $3,450
11/9/11	P2-1 (sed pond)	$ 16,250	(Incidentals (p2-9) is $3,450
10/9/11	P2-1 (sed pond)	$ 14,790	(Incidentals (p2-9) is $3,986.25
9/9/11	P2-1 (sed pond)	$ 11,985	(Incidentals (p2-9) is $3,967.5
8/9/11	P2-1 (sed pond)	$ 14,675	(Incidentals (p2-9) is $3,450
7/9/11	P2-1 (sed pond)	$ 15,230	(Incidentals (p2-9) is $3,780
6/9/11	1, P2 and 9	$ 13,885	(1 is 310, P2 is 10,095 and 10 is 3450)
5/9/11	P2 and 10	$ 13,500	(P2 is 10,050 and task 10 is 3450)
4/9/11	1,3,5, 10 and P2	$ 15,695	($620 for Task 1, $10,325 for task 3,$700 for task 5, $3,450 for task 10 and $600 for Phase 2)
3/9/11	3 and 10	$ 15,425	($11,600 for task 3 and $3,825 for task 10)
2/9/11	3 and 10	$ 16,380	(11,700 for task 3 and 4680 for task 10)
1/9/11	3 and 10	$ 15,430	(11,600 for task 3 and 3830 for task 10) - Updated for correction June spotted.
31/08/11	1,3 and 10	$ 14,780	(2280 for task 1, 8600 for task 3 and 3900 for task 10)
30/08/11	1,3 and 10	$ 15,230	(2,280 for task 1, 9500 for task 3 and 3450 for task 10)
29/08/11	1,3 and 10	$ 14,330	(2280 for task 1, 8600 for task 3, 3450 for task 10)
28/08/11	1,3 and 10	$ 14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	$ 13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	$ 10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	$ 13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	$ 13,130	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	$ 8,169	
22/08/2011	2	$ 9,388	
21/08/2011	10 - camp set up	$ 4,000	
	Total	**$ 683,376**	

J. Atkinson
Construction Monitor

Date 1/10/2011
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 1/10/2011 Shift Day
(DD MM YY)

Pelly Budget by Task

		Task		Spent	Budget	% Complete	Status
Phase 1	Improve Bench ditches	1		$ 13,825	19,500	71%	Complete
	Armour Upper Perimeter ditches	2		$ 35,066	28,660	122%	Complete
	Fill depressions	3		$ 104,695	92,700	113%	Complete
	Excavate Run-on ditches	4		$ 2,100	14,000	15%	
	Clean out dissipation pools	5		$ 700	2,875	24%	Complete
		6			None	0	
		7			None	0	
		8			None	0	
		9			None	0	
	Incidentals	10		$ 44,185	79900	55%	
	Phase 1 subtotal			**$ 200,571**	**$ 237,635**	**84%**	
Phase 2	Pond Cut and Fill	1		$ 148,116	$ 110,650	**134%**	
	Riprap in pond	2		$ 30,110	$ 25,470	**118%**	
	Quarry Road Re-alignment	3		$ 16,740	$ 9,690	**173%**	Complete
	Sed pond Outlet channel	4		$ 4,700	$ 1,750	**269%**	
	Regrade CSA	5		$ 23,613	$ 25,250	**94%**	Complete
	Road cross-ditching	6		$ 7,090	$ 9,750	**73%**	
	Grade Perimeter roads	7		$ 4,930	$ 4,740	**104%**	
	Remove bench accesses	8		$ 4,275	$ 3,500	**122%**	Complete
	Incidentals	9		$ 233,575	$ 234,240	**100%**	
	Inlet channel			$ 9,625			
	Phase 2 subtotal			**$ 482,774**	**$ 425,040**	**114%**	
			Total	**$ 683,375**	**$ 760,000**	**90%**	Total amount revised to inc. contingency

J. Atkinson
Construction Monitor

Date 1/10/2011
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 1/10/2011 Shift Day
(DD MM YY)

Site Photos

Location: East end of sed pond — Looking northeast
Comments: Exposed intact liner.

Location: East end of sed pond — Looking north
Comments: Liner slope and toe

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 1/10/2011 Shift Day
(DD MM YY)

Site Photos

Location: East end of sed pond
Comments: Anchor trench - Liner and geotextile intact and in same position as when installed

Location: East end of sed pond Looking south
Comments: Anchor trench and crest of slope. Note wrinkled material is geotextile not liner.

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 2/10/2011 (DD MM YY) Shift Day

BGC Project No: 0533-003

Weather

Contract Title: GSC Cover Repairs

Today: Snow | Sun & Cloud | Very Windy | Max 3 | Showers

Client: Yukon Government

Contractors: Pelly Construction

Highlights

1 Pelly doing final tidy of slopes, haul roads, safety berms etc.

2 Caroline (Pelly surveyor) on site to do as built surveying. Only one day so will pick up what she can. Completed sedimentation pond and area, Contingency storage area, all benches, depression infill, 1 m till slope, new quarry road alignment.

3 Pelly pull half culvert and stockpile by haul road. Stockpile one load of riprap near inlet channel.

Health and Safety

BGC field job site evaluation undertaken by JAA for monitoring work.

Snow and mud making roads slippery. Slow and careful going on the site roads and haul roads.

J. Atkinson
Construction Monitor

Date 2/10/2011 DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 2/10/2011 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly equipment	Pelly activities	Comments
700	GSC	1x335 CAT, 1 x 365 CAT and surveyor- IL,CN,GS, CB	Final tidy around site with excavators, Caroline doing as built survey	None
1200	Lunch			
1230	GSC	1x335 CAT, 1 x 365 CAT, 1x grader and surveyor- IL,CN,GS, CB	Final tidy around site with excavators, Caroline doing as built survey, Pull out half culvert, grade all roads.	None
1730	Leave site			

J. Atkinson
Construction Monitor

Date 2/10/2011
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 2/10/2011 Shift Day
(DD MM YY)

Pelly Construction: Daily Summary Table

Work to date	Task	Spent		
1/10/2011	Task 2 &9	$	11,370	Task 2 $4,737.5 & Task 9 $6,632.5
30/9/11	Task 2&9	$	10,660	Task 2 $4,390 and Task 9 $6,270
29/9/11	Phase 2 - 2,6,9	$	12,738	Task 2- $7,850, Task 6- $775 and Task 9 $4,112.5
28/9/11	Phase 2 - 2,6,9	$	13,910	Task 2- $7,795, Task 6- $1,815 and Task 9 $4,300
27/9/11	Phase 2 - 7,9, Inlet	$	22,583	Task7 $1,585, T9 $18,107.5 & Inlet $2,890
26/9/11	Phase 2 - 2,7,9, Inlet	$	23,008	Task2 $4,715, T7 $380, T9 $15,037.5 & Inlet $2,875
25/9/11	Phase 2 - 2,9, Inlet	$	25,730	Task2 $5,750, T9 $16,120 & Inlet $3,860
24/9/11	Phase 2 - 2,4,8,9	$	23,820	Task2 $4,000, T4 $4,700, T8 $700 & T9 $14,420
23/9/11	Phase 2 - 1,5,6,8,9	$	23,385	Task1 $1,470, T5 $525, T6 $1,350, T8 $3,575 & T9 $16,465
22/9/11	Phase 2 - 3,5,6,7 &9	$	22,610	Task3 $1,190, T5 $720, T6 $3150, T7 $2365 & T9 $15,185
21/9/11	P2-3,P2-5 and P2-9	$	26,930	Phase3 $5,500, Phase 5 $7305 and Phase 9 $14,125
20/9/11	P2-1, P2-5 and P2-9	$	25,430	(P2-1 is $1,120, P2-5 is $9,525 and P2-9 is $14,785)
19/9/11	P2-1, P2-5 and P2-9	$	23,374	(P2-1 is $2,583.5, P2-5 is $5,537.5 and P2-9 is $15,253.75)
18/9/11	P2-1 and P2-9	$	54,797	(P2-1 is $9,060 and P2-9 is $45,737)
17/9/11	P2-1 (sed pond)	$	14,723	(Incidentals (p2-9) is $3,625
16/9/11	P2-1 (sed pond)	$	10,244	(Incidentals (p2-9) is $3,868.75
15/9/11	P2-1 (sed pond)	$	17,310	(Incidentals (p2-9) is $3,450
14/9/11	P2-1 (sed pond)	$	17,600	(Incidentals (p2-9) is $3,450
13/9/11	P2-1 (sed pond)	$	16,050	(Incidentals (p2-9) is $3,450
12/9/11	P2-1 (sed pond)	$	14,860	(Incidentals (p2-9) is $3,450
11/9/11	P2-1 (sed pond)	$	16,250	(Incidentals (p2-9) is $3,450
10/9/11	P2-1 (sed pond)	$	14,790	(Incidentals (p2-9) is $3,986.25
9/9/11	P2-1 (sed pond)	$	11,985	(Incidentals (p2-9) is $3,967.5
8/9/11	P2-1 (sed pond)	$	14,675	(Incidentals (p2-9) is $3,450
7/9/11	P2-1 (sed pond)	$	15,230	(Incidentals (p2-9) is $3,780
6/9/11	1, P2 and 9	$	13,885	(1 is 310, P2 is 10,095 and 10 is 3450)
5/9/11	P2 and 10	$	13,500	(P2 is 10,050 and task 10 is 3450)
4/9/11	1,3,5, 10 and P2	$	15,695	($620 for Task 1, $10,325 for task 3,$700 for task 5, $3,450 for task 10 and $600 for Phase 2)
3/9/11	3 and 10	$	15,425	($11,600 for task 3 and $3,825 for task 10)
2/9/11	3 and 10	$	16,380	(11,700 for task 3 and 4680 for task 10)
1/9/11	3 and 10	$	15,430	(11,600 for task 3 and 3830 for task 10) - Updated for correction June spotted.
31/08/11	1,3 and 10	$	14,780	(2280 for task 1, 8600 for task 3 and 3900 for task 10)
30/08/11	1,3 and 10	$	15,230	(2,280 for task 1, 9500 for task 3 and 3450 for task 10)
29/08/11	1,3 and 10	$	14,330	(2280 for task 1, 8600 for task 3, 3450 for task 10)
28/08/11	1,3 and 10	$	14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	$	13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	$	10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	$	13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	$	13,130	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	$	8,169	
22/08/2011	2	$	9,388	
21/08/2011	10 - camp set up	$	4,000	
	Total	**$**	**705,406**	

J. Atkinson
Construction Monitor

Date 2/10/2011
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 2/10/2011 Shift Day
(DD MM YY)

Pelly Budget by Task

		Task		Spent	Budget	% Complete	Status
Phase 1	Improve Bench ditches	1		$ 13,825	19,500	71%	Complete
	Armour Upper Perimeter ditches	2		$ 35,066	28,660	122%	Complete
	Fill depressions	3		$ 104,695	92,700	113%	Complete
	Excavate Run-on ditches	4		$ 2,100	14,000	15%	
	Clean out dissipation pools	5		$ 700	2,875	24%	Complete
		6			None	0	
		7			None	0	
		8			None	0	
		9			None	0	
	Incidentals	10		$ 44,185	79900	55%	
	Phase 1 subtotal			**$ 200,571**	**$ 237,635**	**84%**	
Phase 2	Pond Cut and Fill	1		$ 148,116	$ 110,650	**134%**	
	Riprap in pond	2		$ 39,238	$ 25,470	**154%**	
	Quarry Road Re-alignment	3		$ 16,740	$ 9,690	**173%**	Complete
	Sed pond Outlet channel	4		$ 4,700	$ 1,750	**269%**	
	Regrade CSA	5		$ 23,613	$ 25,250	**94%**	Complete
	Road cross-ditching	6		$ 7,090	$ 9,750	**73%**	
	Grade Perimeter roads	7		$ 4,930	$ 4,740	**104%**	
	Remove bench accesses	8		$ 4,275	$ 3,500	**122%**	Complete
	Incidentals	9		$ 246,477	$ 234,240	**105%**	
	Inlet channel			$ 9,625			
	Phase 2 subtotal			**$ 504,804**	**$ 425,040**	**119%**	
			Total	**$ 705,405**	**$ 760,000**	**93%**	Total amount revised to inc. contingency

J. Atkinson
Construction Monitor

Date 2/10/2011
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 2/10/2011 Shift Day
(DD MM YY)

Site Photos

Location: LDP and haul road Looking south
Comments: Berm around LDP and haul road finished

Location: Old outlet location Looking northeast
Comments: Half culvert removed and ramp smoothed off

APPENDIX E
LINER QA/QC DOCUMENTATION

CERTIFICATE OF ANALYSIS - SUMMARY

Texel, a division of ADS inc.
485 Des Erables, St-Elzear, Quebec, Canada, G0S 2J0
Tel: (418) 387-5910 Fax: (418) 387-4326 www.texel.qc.ca

Customer: Texel Inc.
Item code: FIN02534
Description: 918 03.50M PP WH 100M
Customer item:

PPS#: 27119
PO#: CP-1332
Lot #: 32221
Prod. date: August 2, 2011

	Specifications					Results Summary					
Caractéristique	**Unit**	**Method**	**Target**	**Min**	**Max**	**Average**	**Min**	**Max**	**Std dev**	**Cp**	**Cpk**
Elongation Instron - CD (Geo 4"x6")	%	ONGC 148.1 No7.3	90	70	110	86	79	95	3.75	N/A	N/A
Elongation Instron - MD (Geo 4"x6")	%	ONGC 148.1 No7.3	90	70	110	76	72	84	2.87	N/A	N/A
Thickness Geo - Mean (diam - 56.4mm)	mm	ASTM-D5199	N/A	3.50	N/A	3.91	3.70	4.00	0.14	N/A	N/A
FOS	µm	ONGC 148.1 No.10	N/A	40	110	65	65	65	0.00	N/A	N/A
Width	m	ASTM D461.9	3.50	3.47	3.53	3.50	3.50	3.50	0.00	N/A	N/A
Length	m	ASTM D461.8	100	100	101	100	100	100	0.00	N/A	N/A
Permeability	cm/s	ONGC 148.1 No.4	N/A	0.19	N/A	0.47	0.47	0.47	0.00	N/A	N/A
Permittivity	s-1	ONGC 148.1 No.4	N/A	0.41	N/A	1.10	1.10	1.10	0.00	N/A	N/A
Tear Strength - Moy CD (trapez)	N	ONGC 4.2 No.12.2	N/A	600	N/A	831	725	959	65.74	N/A	N/A
Tear Strength - Moy MD (trapez)	N	ONGC 4.2 No.12.2	N/A	600	N/A	735	643	876	56.75	N/A	N/A
Burst Strength - Mean (Mullen)	kPa	ONGC 4.2 No.11.1	N/A	3500	N/A	4030	3615	4300	175.57	N/A	N/A
Strength at Break - Mean CD (Geo - 4"x6")	N	ONGC 148.1 No7.3	N/A	1450	N/A	1553	1452	1776	91.9	N/A	N/A
Strength at Break - Mean MD (Geo - 4"x6")	N	ONGC 148.1 No7.3	N/A	1450	N/A	1577	1459	1758	76.77	N/A	N/A

Date issued: August 31, 2011
Issued by: Alain Dulac, Quality Assurance Service

Note:

CERTIFICATE OF ANALYSIS - SUMMARY

Texel, a division of ADS inc.
485 Des Erables, St-Elzear, Quebec, Canada, G0S 2J0
Tel: (418) 387-5910 Fax: (418) 387-4326 www.texel.qc.ca

Customer: Texel Inc.
Item code: FIN02534
Description: 918 03.50M PP WH 100M
Customer item:

PPS#: 27119
PO#: CP-1332
Lot #: 30897
Prod. date: May 26, 2011

	Specifications					Results Summary					
Caractéristique	**Unit**	**Method**	**Target**	**Min**	**Max**	**Average**	**Min**	**Max**	**Std dev**	**Cp**	**Cpk**
Elongation Instron - CD (Geo 4"x6")	%	ONGC 148.1 No7.3	90	70	110	86	84	89	2.23	N/A	N/A
Elongation Instron - MD (Geo 4"x6")	%	ONGC 148.1 No7.3	90	70	110	78	75	82	3.54	N/A	N/A
Thickness Geo - Mean (diam - 56.4mm)	mm	ASTM-D5199	N/A	3.50	N/A	4.08	3.65	4.30	0.38	N/A	N/A
FOS	µm	ONGC 148.1 No.10	N/A	40	110	65	65	65	0.00	N/A	N/A
Width	m	ASTM D461.9	3.50	3.47	3.53	3.50	3.50	3.50	0.00	N/A	N/A
Length	m	ASTM D461.8	100	100	101	100	100	100	0.00	N/A	N/A
Permeability	cm/s	ONGC 148.1 No.4	N/A	0.19	N/A	0.47	0.47	0.47	0.00	N/A	N/A
Permittivity	s-1	ONGC 148.1 No.4	N/A	0.41	N/A	1.10	1.10	1.10	0.00	N/A	N/A
Tear Strength - Moy CD (trapez)	N	ONGC 4.2 No.12.2	N/A	600	N/A	866	814	928	57.98	N/A	N/A
Tear Strength - Moy MD (trapez)	N	ONGC 4.2 No.12.2	N/A	600	N/A	804	742	883	71.72	N/A	N/A
Burst Strength - Mean (Mullen)	kPa	ONGC 4.2 No.11.1	N/A	3500	N/A	3982	3915	4015	57.74	N/A	N/A
Strength at Break - Mean CD (Geo - 4"x6")	N	ONGC 148.1 No7.3	N/A	1450	N/A	1558	1540	1589	27.19	N/A	N/A
Strength at Break - Mean MD (Geo - 4"x6")	N	ONGC 148.1 No7.3	N/A	1450	N/A	1490	1464	1529	34.06	N/A	N/A

Date issued: August 31, 2011
Issued by: Alain Dulac, Quality Assurance Service

Note:

PACKING SLIP

Number 209568_1

Date 30-Aug-2011

Sold To

WESTERN TANK AND LINING LTD.
12180 VICKERS WAY
RICHMOND BC
CANADA V6V 1H9

Tel. : (604) 241-9487

Contact : CLINT POWELL

Ship To

WESTERN TANK C/O DENISON ENV. SERVICES
**GRUM GATE*
SEE ALSO MAP ATTACHED
CALL 48 HRS PRIOR TO DELIVERY
FARO YT
CANADA *

Tel. : (867) 334-3711
Fax :
Contact : JON BRONSON

Customer Reference	Solmax order	Project Name	Freight Mode
PO# FP074	104484	Faro Mine-YT	FLATB

Part	Roll Number	Container	Dimensions		Surface Quantity	U/M	Weight (LBS)	Weight (KG)
			Width	Length				
SOLMAX 460ST-6012	1-91952	N/A	6.800	158.500	1,077.800	SQMT	3,732	1,693
SOLMAX 460ST-6012	1-92809	N/A	6.800	158.500	1,077.800	SQMT	3,694	1,676
SOLMAX 460ST-6012	1-92810	N/A	6.800	158.500	1,077.800	SQMT	3,704	1,680
SOLMAX 460ST-6012	1-92818	N/A	6.800	158.500	1,077.800	SQMT	3,716	1,686
SOLMAX 460ST-6012	1-92819	N/A	6.800	158.500	1,077.800	SQMT	3,710	1,683
SOLMAX 460ST-6012	1-92820	N/A	6.800	158.500	1,077.800	SQMT	3,704	1,680
SOLMAX 460ST-6012	1-92821	N/A	6.800	158.500	1,077.800	SQMT	3,708	1,682
		Total Part Code:	7	Pieces	7,544.60	SQMT	25,968	11,780
					Total Net Weight:		25,457	11,549

2801 BOUL. MARIE-VICTORIN Varennes
Quebec CANADA J3X1P7 Tel : 4509291234 • www.solmax.com

Certifications :
ISO 9001, 14001

PACKING SLIP

Number 209568_1

Date 30-Aug-2011

Sold To

WESTERN TANK AND LINING LTD.
12180 VICKERS WAY
RICHMOND BC
CANADA V6V 1H9

Tel. : (604) 241-9487

Contact : CLINT POWELL

Ship To

WESTERN TANK C/O DENISON ENV. SERVICES
**GRUM GATE*
SEE ALSO MAP ATTACHED
CALL 48 HRS PRIOR TO DELIVERY
FARO YT
CANADA *

Tel. : (867) 334-3711
Fax :
Contact : JON BRONSON

Customer Reference	Solmax order	Project Name	Freight Mode
PO# FP074	104484	Faro Mine-YT	FLATB

Part	Roll Number	Container	Dimensions		Surface Quantity	U/M	Weight (LBS)	Weight (KG)
			Width	Length				

NOTICE: Every roll must be individually unloaded with two (2) slings to prevent any risk of injury to the operator or equipment.

每卷必须有两（2）根吊索单独卸载，以防止对于操作工人或设备的任何潜在的伤害。

Dimensions May Vary +/- 1%

Pieces	Weight (LBS)	Weight (KG)
7	Gr : 25,968	Gr.: 11,780
	Net: 25,457	Net: 11,549

2801 BOUL. MARIE-VICTORIN Varennes
Quebec CANADA J3X1P7 Tel : 4509291234 • www.solmax.com

Certifications :
ISO 9001, 14001

Texel®

A DIVISION OF ADS INC.

1300, 2e Rue - Parc Industriel
Sainte-Marie, Qc
G6E 1G8
CANADA
Fax : (418) 387-4326
Phone :(418) 387-5910

PACKING LIST - Original -

Pick Slip Number - 27119

Page :	1/2
Date :	08/31/11
Order number :	SO - 82270
Customer order :	CP-1332
Shipped by :	CUEILLETTE PAR CLIENT
Delivery terms :	F.O.B. Plant - Collect
Blanket order no :	-
Customer service representative :	NADEAU JACYNTHE
Tracking number :	
Truck number :	0

R5542530A_PPSSTELZ2_1523520_PRINT_PD810_PROD_fsosa_tx

Ship To:

16698
WESTERN TANK & LINING LTD.
12180 VICKERS WAY
RICHMOND BC V6V 1H9
, ,
CANADA
Phone : 604 241-9487
Fax : 604 241-9485
ATT: ANDREW SANDERSON

ATTENTION EXPÉDITION: **MATERIEL DÉJA RAMASSÉ À VARENNES

Product code / Client's item	Description	Serial #	Customer QtyShipped	Customer OrderedQty	Stocking Qty Shipped	Stocking Weight
FIN02534	918 03.50M PP WH 100M	**22**	**7,700.000 M2**		**2,200.000 LM**	**3,304.500 KG**
	WF - 30897	L21702291	350.000 M2		100.000 LM	163.000 KG
	WO - 32221	L31701321	350.000 M2		100.000 LM	145.000 KG
	WO - 32221	L31701361	350.000 M2		100.000 LM	146.500 KG
	WO - 32221	L31701391	350.000 M2		100.000 LM	146.000 KG
	WO - 32221	L31701481	350.000 M2		100.000 LM	142.000 KG
	WO - 32221	L31702001	350.000 M2		100.000 LM	157.000 KG
	WO - 32221	L31702011	350.000 M2		100.000 LM	157.500 KG
	WO - 32221	L31702081	350.000 M2		100.000 LM	155.000 KG
	WO - 32221	L31702151	350.000 M2		100.000 LM	150.000 KG
	WO - 32221	L31702261	350.000 M2		100.000 LM	153.000 KG
	WO - 32221	L31702301	350.000 M2		100.000 LM	149.500 KG
	WO - 32221	L31702311	350.000 M2		100.000 LM	155.000 KG
	WO - 32221	L31702321	350.000 M2		100.000 LM	151.500 KG
	WO - 32221	L31702331	350.000 M2		100.000 LM	150.000 KG
	WO - 32221	L31702361	350.000 M2		100.000 LM	152.000 KG
	WO - 32221	L31702391	350.000 M2		100.000 LM	152.000 KG
	WO - 32221	L31702411	350.000 M2		100.000 LM	152.500 KG
	WO - 32221	L31702421	350.000 M2		100.000 LM	151.500 KG
	WO - 32221	L31702581	350.000 M2		100.000 LM	143.000 KG
	WO - 32221	L31702631	350.000 M2		100.000 LM	144.000 KG
	WO - 32221	L31702651	350.000 M2		100.000 LM	146.000 KG
	WO - 32221	L31702691	350.000 M2		100.000 LM	142.500 KG
	Total Line	**22**				

Stocking	Skid	Pkg.	Lenght	Width	Height
	0	22	0	0	0

Texel®

A DIVISION OF AGS INC.

1300, 2e Rue - Parc Industriel
Sainte-Marie, Qc
G6E 1G8
CANADA
Fax : (418) 387-4326
Phone :(418) 387-5910

PACKING LIST - Original -

Pick Slip Number - 27119

Page :	2/2
Date :	08/31/11
Order number :	SO - 82270
Customer order :	CP-1332
Shipped by :	CUEILLETTE PAR CLIENT
Delivery terms :	F.O.B. Plant - Collect
Blanket order no :	-
Customer service representative :	NADEAU JACYNTHE
Tracking number :	
Truck number :	0

R5542530A_PPSSTELZ2_1523520_PRINT_PD810_PROD_fsosa_tx

Ship To:

16698
WESTERN TANK & LINING LTD.
12180 VICKERS WAY
RICHMOND BC V6V 1H9
, ,
CANADA
Phone : 604 241-9487
Fax : 604 241-9485
ATT: ANDREW SANDERSON

Total	22	3,304.500	KG
		7,284.770	LB

Shipped from warehouse : Texel

Shipper : Texel inc.
Per : CLA1BAR
Date : 08/31/11

Carrier : _____
Per : _____
Date : _____

Short form of the bill of lading and issued at shipper's request
The shipper and the heavy vehicle operator hereby specifically agree that the minimum conditions under Schedules 1 and 2 of the Regulation respecting the requirements for bills of lading (O.C. 1198 October 20, 1999) apply to the conditions evidenced by this short form of lading.

2801, Boul. Marie-Victorin
Varennes, Quebec, Canada, J3X 1P7
Tel.: 1-450-929-1234
Tel.: 1-800-571-3904
Fax: 1-450-929-2547

List of Geomembrane Rolls

MF-CQ-01
Rev. 05/ 21 mars 2006

Solmax ACCEPTED Quality Department

Project Name : FARO MINE, YT

Project Number : PO# FP074

Reference Number : 104484

Invoice Number : 209568

Roll Number	*Product Code*	*Resin Lot Number*	*Manufactured Date*	*SP-NCTL* ASTM D5397 (hr) Specification	Result	Roll Tested
1-91952	SOLMAX 460ST-6012	C110130L04	17-avr-11	>400	500	1-91919
1-92809	SOLMAX 460ST-6012	C110203L02	31-mai-11	>400	500	1-92749
1-92810	SOLMAX 460ST-6012	C110203L02	31-mai-11	>400	500	1-92749
1-92818	SOLMAX 460ST-6012	C110203L02	01-juin-11	>400	500	1-92749
1-92819	SOLMAX 460ST-6012	C110203L02	01-juin-11	>400	500	1-92749
1-92820	SOLMAX 460ST-6012	C110203L02	01-juin-11	>400	500	1-92749
1-92821	SOLMAX 460ST-6012	C110203L02	01-juin-11	>400	500	1-92749

Quantity (rolls) : **7**

Resin Certification

Resin Lot	*Melt index* *ASTM D1238* *g/10min*	*Density* *ASTM D1505* *g/cc*	*OIT* *ASTM D3895* *min*	*HP-OIT* *ASTM D5885* *min*
C110130L04	0.162	0.937	120	N/A
C110203L02	0.139	0.937	120	N/A

INEOS
Olefins & Polymers USA
A Division of INEOS USA LLC

CERTIFICATE OF ANALYSIS

Selling Company:
INEOS Olefins & Polymers USA
A Division of INEOS USA LLC
2600 South Shore Blvd. Suite 500
LEAGUE CITY, Texas 77573
United States

Ship To:
SOLMAX INTERNATIONAL
2801 BOULEVARD MARIE VICTORIN
VARENNES QC J3X 1P7
CANADA
Contact: COA
Fax:
Sold To:
SOLMAX INTERNATIONAL

Delivery Doc Number/Item:	89142466/000010
Print Date / Time:	02/07/2011/08:10:05
Sales Order Number/Date:	5196417/ 01/11/2011
Customer PO Number/Date:	106850-0/
Shipment Date:	02/07/2011
Place of Dispatch:	2566 LaPorte TX-Battleground
Mode of Transport:	0007 Rail w/o rtnbol
Transport/Vehicle Number:	ELTX004088
Net Weight:	186,199.999 LB

Product Description: G36-10-150 PE PELLETS - BULK
Batch Number: C110130L04

Characteristic	Method	Result	Unit	Specifications Min	Specifications Max
MI 2.16 (1X)	ASTM D 1238	0.1620	g/10mn		
MI 21.6 (HLMI)	ASTM D 1238	13.30	g/10mn	10.50	14.50
DENSITY (NATURAL)	ASTM D4883-03	0.9374	G/CM3	0.9360	0.9390

Chantal Gagnon 2011.02.21 09:31:45 -05'00'

APPROVED BY: Quality Assurance Manager.
This certifies that the INEOS Polyethylene meets our specifications for the grade.

THIS REPORT CANNOT BE COPIED OR REPRODUCED EXCEPT IN FULL WITHOUT THE WRITTEN APPROVAL OF INEOS. RESULTS APPLY ONLY TO THE ITEMS TESTED. THIS DOCUMENT CONTAINS INFORMATION THAT MAY BE CONFIDENTIAL AND IS INTENDED ONLY FOR THE USE OF THE ADDRESSEE. USE OF THIS INFORMATION BY ANYONE ELSE IS STRICTLY PROHIBITED. IF YOU HAVE RECEIVED THIS IN ERROR, PLEASE NOTIFY US BY PHONE AT 1-800-527-5419.

INEOS
Olefins & Polymers USA
A Division of INEOS USA LLC

CERTIFICATE OF ANALYSIS

Selling Company:
INEOS Olefins & Polymers USA
A Division of INEOS USA LLC
2600 South Shore Blvd. Suite 500
LEAGUE CITY, Texas 77573
United States

Ship To:
SOLMAX INTERNATIONAL
2801 BOULEVARD MARIE VICTORIN
VARENNES QC J3X 1P7
CANADA
Contact: COA
Fax:
Sold To:
SOLMAX INTERNATIONAL

Delivery Doc Number/Item:	89142470/000010
Print Date / Time:	02/07/2011/08:15:05
Sales Order Number/Date:	5196421/ 01/11/2011
Customer PO Number/Date:	106850-0/
Shipment Date:	02/07/2011
Place of Dispatch:	2566 LaPorte TX-Battleground
Mode of Transport:	0007 Rail w/o rtnbol
Transport/Vehicle Number:	ELTX002059
Net Weight:	187,350.001 LB

Product Description: G36-10-150 PE PELLETS - BULK
Batch Number: C110203L02

Characteristic	Method	Result	Unit	Specifications Min	Specifications Max
MI 2.16 (1X)	ASTM D 1238	0.1390	g/10mn		
MI 21.6 (HLMI)	ASTM D 1238	12.90	g/10mn	10.50	14.50
DENSITY (NATURAL)	ASTM D4883-03	0.9370	G/CM3	0.9360	0.9390

Chantal Gagnon 2011.02.21 09:37:20 -05'00'

APPROVED BY: Quality Assurance Manager.
This certifies that the INEOS Polyethylene meets our specifications for the grade.

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SOLMAX INTERNATIONAL
2801, Boul. Marie-Victorin
Varennes, Quebec, Canada, J3X 1P7
Tel.: 1-450-929-1234
Tel.: 1-800-571-3904
Fax: 1-450-929-2547

Manufacturing Quality Control Test Results - Rolls

MF-CQ-11
Rev. 04/ 10-12-04

Solmax ACCEPTED Chantal Gagnon Quality Department

Project Name : FARO MINE, YT
Project Number : PO# FP074
Ref. Number : 104484 ***Invoice Number :*** 209568

Product : Solmax 460ST-6012

Properties		Thickness ave / min.	Geomembrane Density	Carbon Black Content	Carbon Black Dispersion	Yield Strength	Yield Elong.	Break Strength	Break Elong.	Tear Resistance	Puncture Resistance	Dimension. Stability	Asperity Height in / out
Unit		mm	g/cc	%	Cat. 1 and Cat. 2	kN/m	%	kN/m	%	N	N	%	mm
Test Method		D5994	D1505/D792	D4218	D5596	D6693 Résistance tension (D 638, Type IV)				D1004	D4833	D1204	ASTM D-7466
Frequency		Each roll	1/2 ro	1/2 ro	1/6 ro	1/2 ro				1/6 ro	1/6 ro	1/6 ro	Each Roll
Specification		1.50 / 1.35	> 0.94	>2.5 / <3.0	Cat. 1 / Cat. 2	23	13	23	200	200	534	± 2	0.38
1-91952	MD	1.50 / 1.44	0.945	2.5	10 /10 Views	27.4	17.6	37.8	596	230	642	-0.48	0.45 /
	XD					28.7	15.1	33.8	577	221		0.04	
1-92809	MD	1.55 / 1.48	0.946	2.8	10 /10 Views	26.5	19.5	37.3	597	227	653	-0.49	0.43 /
	XD					28.5	16.6	34.1	576	216		0.09	
1-92810	MD	1.55 / 1.50	0.946	2.7	10 /10 Views	26.2	19.6	37.4	586	227	653	-0.49	0.43 /
	XD					28.6	16.1	31.5	522	216		0.09	
1-92818	MD	1.55 / 1.48	0.946	2.8	10 /10 Views	27.1	18.4	35.9	567	224	645	-0.31	0.45 /
	XD					28.2	15.9	35.2	584	214		-0.04	
1-92819	MD	1.53 / 1.49	0.946	2.8	10 /10 Views	27.1	18.4	35.9	567	224	645	-0.31	0.46 /
	XD					28.2	15.9	35.2	584	214		-0.04	
1-92820	MD	1.51 / 1.46	0.946	2.8	10 /10 Views	26.5	19.0	34.8	549	230	657	-0.35	0.44 /
	XD					28.5	16.2	31.9	459	220		0.00	
1-92821	MD	1.51 / 1.48	0.946	2.8	10 /10 Views	26.5	19.0	34.9	549	230	657	-0.35	0.45 /
	XD					28.5	16.2	31.9	459	220		0.00	

39 Deer Ridge Dr
St Albert, Alberta
T8N 5X6
Phone: 780-908-8692
Fax: 780-651-0772
Email: superiorplastic@shaw.ca

INSURING CONTINUAL PROTECTION FOR OUR ENVIRONMENT'S FUTURE

SUB-GRADE ACCEPTANCE

PROJECT:	FARO Run Off Pond	**LOCATION:**	Faro, YK
PROJECT #:	05-2011-047	**CONTRACTOR:**	Pelly Construction
OWNER:	Faro Mine / Yukon Government	**QA/QC:**	Fred Rudolph
ENGINEER:		**DATE:**	September 19,2011

This document certifies that on September 19,2011 , the project superintendant, Fred Rudolph ,for SUPERIOR PLASTIC SOLUTIONS INC has inspected the surface of the sub-grade and has found that it meets the installation of the geomembrane and geosynthetics as per engineer specifications.

SUPERIOR PLASTIC SOLUTIONS INC accepts only the surface of the sub-grade and holds no responsibility of the structural strength of the containment system used on this project. Any and all failure causing damage to the geomembranes and geosynthetics being installed on this project will be repaired or replaced at the General contractors or Owners expense.

SUPERIOR PLASTIC SOLUTIONS INC will only accept Sub-grade on a daily installation and will not be held accountable for any damages to Sub-grade out side our control.

Area Being Accepted:
IN ACCORDANCE WITH PANEL PLACEMENT LOG - PANEL 1 THRU PANEL 70.
THIS INCLUDES ONE LARGE COLLECTION POND, I NEW DRAINAGE SWALE THAT COMES FROM A SMALLER SEDIMENT COLLECTION POND, ONE OVER FLOW SWALE, AND SMALL POND WHICH TIE'S INTO TWO EXISITING SWALES.

SUPERIOR PLASTIC SOLUTIONS INC	**GENERAL CONTRACTOR, OWNER REPRESENTITIVE**
SEPT 20 2011	
DATE	**DATE**

SUPERIOR PLASTIC SOLUTIONS INC

39 Deer Ridge Dr
St Albert, Alberta
T8N 5X6
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Email: superiorplastic@shaw.ca

INSURING CONTINUAL PROTECTION FOR OUR ENVIRONMENT'S FUTURE

CERTIFICATE OF COMPLETION

PROJECT:	FARO Run Off Pond	**LOCATION:**	Faro, YK
PROJECT #:	05-2011-047	**CONTRACTOR:**	Pelly Construction
OWNER:	Faro Mine / Yukon Government	**QA/QC:**	Fred Rudolph
ENGINEER:		**DATE:**	

This document certifies that on SEPTEMBER 27,2011 , the project superintendant, FRED RUDOLPH ,for SUPERIOR PLASTIC SOLUTIONS INC has inspected the surface of the Liner and has found that it meets the installation of the geomembrane and geosynthetics as per engineer specifications.

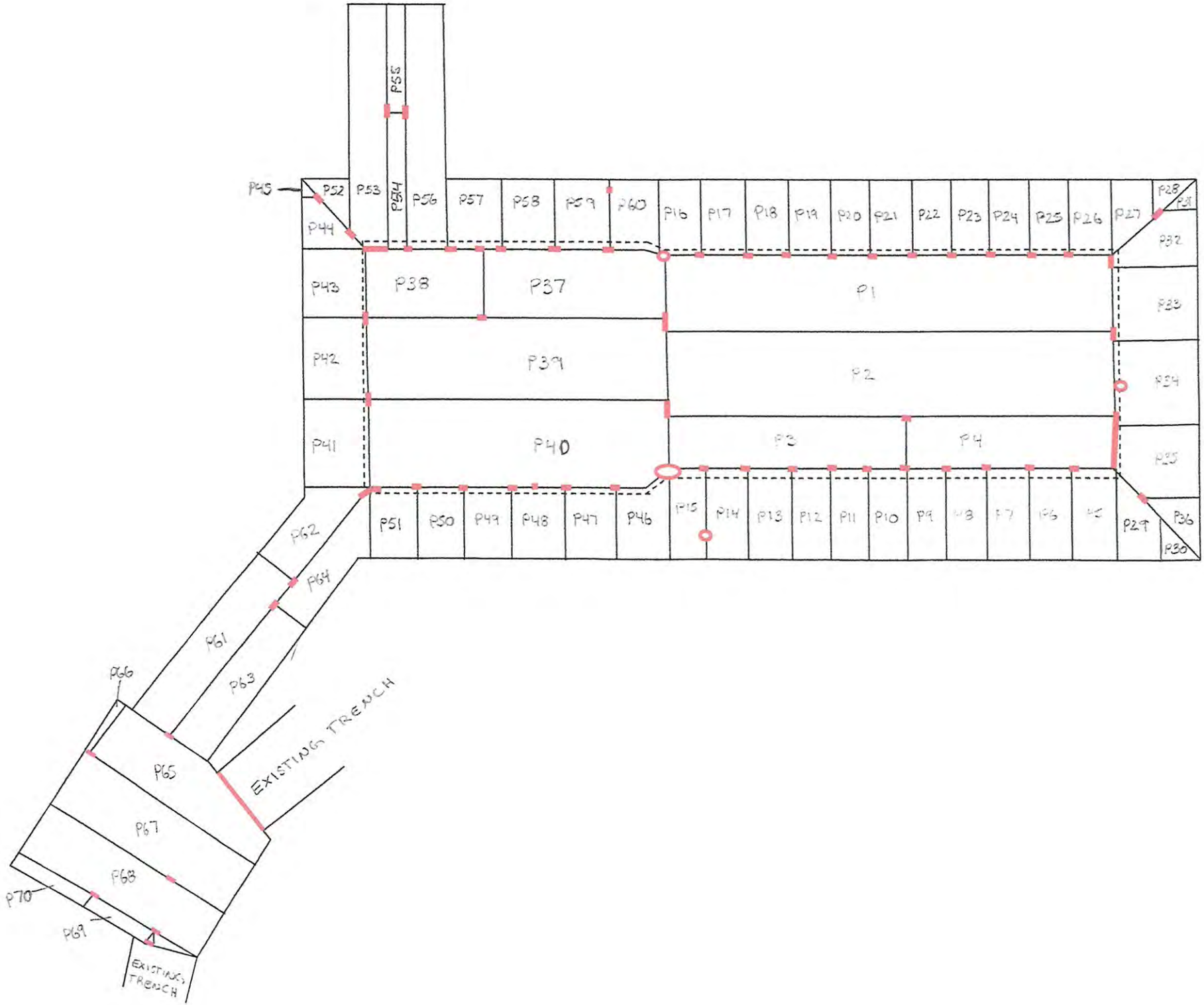
Area Being Accepted:

INSTALLATION OF 12450 M/SQ 12 OZ + NON WOVEN GEOTEXTILE.
INSTALLATION OF 8100 M/SQ 60 MIL HDPE SINGLE SIDED TEXTURED LINER
COMPLETION OF TWO (2) PONDS
COMPLETION OF TWO DRAINAGE SWALES.
ATTACHMENT OF NEW LINER TO EXISTING LINER.
ALL QC DOCUMENT COMPLETED AND INSTALLED AS PER IAGI SPECIFICATIONS.

SUPERIOR PLASTIC SOLUTIONS INC — **GENERAL CONTRACTOR, OWNER REPRESENTITIVE**

SEPT 28/2011 — **DATE**

DATE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EXISTING TRENCH

SUPERIOR PLASTIC SOLUTIONS INC

39 Deer Ridge Dr
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INSURING CONTINUAL PROTECTION FOR OUR ENVIRONMENT'S FUTURE

PANEL PLACEMENT LOG

PROJECT: FARO Run Off Pond
LOCATION: Faro, YK
PROJECT #: 05-2011-047
CONTRACTOR: Pelly Construction
OWNER: Faro Mine / Yukon Government
QA/QC: Fred Rudolph
ENGINEER:

PANEL #	TYPE OF MATERIAL	ROLL NUMBER	LENGTH	WIDTH	AREA	INSTALLATION DATE
1	60 MIL HDPE TEXT	821	256	22.5	5760	SEPTEMBER 20,2011
2	60 MIL HDPE TEXT	821	256	22.5	5760	SEPTEMBER 20,2011
3	60 MIL HDPE TEXT	818	128	11	1408	SEPTEMBER 20,2011
4	60 MIL HDPE TEXT	818	128	11	1408	SEPTEMBER 20,2011
5	60 MIL HDPE TEXT	818	51	22.5	1147.5	SEPTEMBER 21,2011
6	60 MIL HDPE TEXT	818	51	22.5	1147.5	SEPTEMBER 21,2011
7	60 MIL HDPE TEXT	818	51	22.5	1147.5	SEPTEMBER 21,2011
8	60 MIL HDPE TEXT	818	51	22.5	1147.5	SEPTEMBER 21,2011
9	60 MIL HDPE TEXT	818	51	22.5	1147.5	SEPTEMBER 21,2011
10	60 MIL HDPE TEXT	818	51	22.5	1147.5	SEPTEMBER 21,2011
11	60 MIL HDPE TEXT	818	51	22.5	1147.5	SEPTEMBER 21,2011
12	60 MIL HDPE TEXT	818	51	22.5	1147.5	SEPTEMBER 21,2011
13	60 MIL HDPE TEXT	810	51	22.5	1147.5	SEPTEMBER 21,2011
14	60 MIL HDPE TEXT	810	51	22.5	1147.5	SEPTEMBER 21,2011
15	60 MIL HDPE TEXT	810	51	22.5	1147.5	SEPTEMBER 21,2011
16	60 MIL HDPE TEXT	810	49	22.5	1102.5	SEPTEMBER 22,2011
17	60 MIL HDPE TEXT	810	49	22.5	1102.5	SEPTEMBER 22,2011
18	60 MIL HDPE TEXT	810	49	22.5	1102.5	SEPTEMBER 22,2011
19	60 MIL HDPE TEXT	810	49	22.5	1102.5	SEPTEMBER 22,2011
20	60 MIL HDPE TEXT	810	49	22.5	1102.5	SEPTEMBER 22,2011
21	60 MIL HDPE TEXT	810	49	22.5	1102.5	SEPTEMBER 22,2011
22	60 MIL HDPE TEXT	810	49	22.5	1102.5	SEPTEMBER 22,2011
23	60 MIL HDPE TEXT	820	49	22.5	1102.5	SEPTEMBER 22,2011
24	60 MIL HDPE TEXT	820	49	22.5	1102.5	SEPTEMBER 22,2011
25	60 MIL HDPE TEXT	820	49	22.5	1102.5	SEPTEMBER 22,2011
26	60 MIL HDPE TEXT	820	49	22.5	1102.5	SEPTEMBER 22,2011
27	60 MIL HDPE TEXT	820	40	22.5	900	SEPTEMBER 22,2011
28	60 MIL HDPE TEXT	820	19	22.5	427.5	SEPTEMBER 22,2011
29	60 MIL HDPE TEXT	820	42	22.5	945	SEPTEMBER 22,2011
30	60 MIL HDPE TEXT	820	21	2.5	52.5	SEPTEMBER 22,2011
				TOTAL	41411	SQ/FT
					3849	SQ/M

SUPERIOR PLASTIC SOLUTIONS INC

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St Albert, Alberta
T8N 5X6
Phone: 780-908-8692
Fax: 780-651-0772
Email: superiorplastic@shaw.ca

INSURING CONTINUAL PROTECTION FOR OUR ENVIRONMENT'S FUTURE

PANEL PLACEMENT LOG

PROJECT: FARO Run Off Pond
LOCATION: Faro, YK
PROJECT #: 05-2011-047
CONTRACTOR: Pelly Construction
OWNER: Faro Mine / Yukon Government
QA/QC: Fred Rudolph
ENGINEER:

PANEL #	TYPE OF MATERIAL	ROLL NUMBER	LENGTH	WIDTH	AREA	INSTALLATION DATE
31	60 MIL HDPE TEXT	821	16	22.5	360	SEPTEMBER 22,2011
32	60 MIL HDPE TEXT	821	49	22.5	1102.5	SEPTEMBER 22,2011
33	60 MIL HDPE TEXT	818	54	22.5	1215	SEPTEMBER 22,2011
34	60 MIL HDPE TEXT	818	54	22.5	1215	SEPTEMBER 22,2011
35	60 MIL HDPE TEXT	818	54	22.5	1215	SEPTEMBER 22,2011
36	60 MIL HDPE TEXT	818	54	22.5	1215	SEPTEMBER 22,2011
37	60 MIL HDPE TEXT	818	59	22.5	1327.5	SEPTEMBER 23,2011
38	60 MIL HDPE TEXT	818	76	22.5	1710	SEPTEMBER 23,2011
39	60 MIL HDPE TEXT	818	135	22.5	3037.5	SEPTEMBER 23,2011
40	60 MIL HDPE TEXT	818	135	22.5	3037.5	SEPTEMBER 23,2011
41	60 MIL HDPE TEXT	818	44	22.5	990	SEPTEMBER 24,2011
42	60 MIL HDPE TEXT	818	44	22.5	990	SEPTEMBER 24,2011
43	60 MIL HDPE TEXT	810	44	22.5	990	SEPTEMBER 24,2011
44	60 MIL HDPE TEXT	810	31	22.5	697.5	SEPTEMBER 24,2011
45	60 MIL HDPE TEXT	810	14	22.5	315	SEPTEMBER 24,2011
46	60 MIL HDPE TEXT	810	53	22.5	1192.5	SEPTEMBER 24,2011
47	60 MIL HDPE TEXT	810	45	22.5	1012.5	SEPTEMBER 24,2011
48	60 MIL HDPE TEXT	810	45	22.5	1012.5	SEPTEMBER 24,2011
49	60 MIL HDPE TEXT	810	45	22.5	1012.5	SEPTEMBER 24,2011
50	60 MIL HDPE TEXT	810	45	22.5	1012.5	SEPTEMBER 24,2011
51	60 MIL HDPE TEXT	810	45	22.5	1012.5	SEPTEMBER 24,2011
52	60 MIL HDPE TEXT	809	22	22.5	495	SEPTEMBER 25,2011
53	60 MIL HDPE TEXT	809	112	22.5	2520	SEPTEMBER 25,2011
54	60 MIL HDPE TEXT	809	56	11	616	SEPTEMBER 25,2011
55	60 MIL HDPE TEXT	809	56	11	616	SEPTEMBER 25,2011
56	60 MIL HDPE TEXT	809	112	22.5	2520	SEPTEMBER 25,2011
57	60 MIL HDPE TEXT	819	44	22.5	990	SEPTEMBER 25,2011
58	60 MIL HDPE TEXT	819	44	22.5	990	SEPTEMBER 25,2011
59	60 MIL HDPE TEXT	819	44	22.5	990	SEPTEMBER 25,2011
60	60 MIL HDPE TEXT	819	44	22.5	990	SEPTEMBER 25,2011
				TOTAL	36400	SQ/FT
					3383	SQ/M

SUPERIOR PLASTIC SOLUTIONS INC

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T8N 5X6
Phone: 780-908-8692
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INSURING CONTINUAL PROTECTION FOR OUR ENVIRONMENT'S FUTURE

PANEL PLACEMENT LOG

PROJECT: FARO Run Off Pond
LOCATION: Faro, YK
PROJECT #: 05-2011-047
CONTRACTOR: Pelly Construction
OWNER: Faro Mine / Yukon Government
QA/QC: Fred Rudolph
ENGINEER:

PANEL #	TYPE OF MATERIAL	ROLL NUMBER	LENGTH	WIDTH	AREA	INSTALLATION DATE
61	60 MIL HDPE TEXT	108153025	69	22.5	1552.5	SEPTEMBER 26,2011
61	60 MIL HDPE TEXT	108153063	47	22.5	1057.5	SEPTEMBER 26,2011
62	60 MIL HDPE TEXT	108153103	57	22.5	1282.5	SEPTEMBER 26,2011
64	60 MIL HDPE TEXT	108153033	59	22.5	1327.5	SEPTEMBER 26,2011
65	60 MIL HDPE TEXT	819	74	22.5	1665	SEPTEMBER 27,2011
66	60 MIL HDPE TEXT	819	8	22.5	180	SEPTEMBER 27,2011
67	60 MIL HDPE TEXT	819	78	22.5	1755	SEPTEMBER 27,2011
68	60 MIL HDPE TEXT	819	78	22.5	1755	SEPTEMBER 27,2011
69	60 MIL HDPE TEXT	819	22	7	154	SEPTEMBER 27,2011
70	60 MIL HDPE TEXT	819	22	7	154	SEPTEMBER 27,2011
					10883	SQ/FT
					1011	SQ/M

SUPERIOR PLASTIC SOLUTIONS INC

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Email: superiorplastic@shaw.ca

INSURING CONTINUAL PROTECTION FOR OUR ENVIRONMENT'S FUTURE

WEDGE WELDER QUALIFICATION

PROJECT: FARO Run Off Pond
PROJECT #: 05-2011-047
OWNER: Faro Mine / Yukon Government
ENGINEER:

LOCATION: Faro, YK
CONTRACTOR: Pelly Construction
QA/QC: Fred Rudolph
DATE: September 20,2011

SAMPLE #	AMBIENT TEMP	SHEET TEMP	UNIT #	TECHNICIAN	TEMP	SPEED	MATERIALS USED
	0 C	0 C	DT19	FR	750	500	60 MIL HDPE TEXTURE

PEEL

COUPON	TYPE OF BREAK	STRENGTH		TYPE OF BREAK	STRENGTH	COMMENTS
1	FTB	136		FTB	141	PASS
2	FTB	142		FTB	151	PASS
3	FTB	130		FTB	151	PASS
4	FTB	132		FTB	146	PASS
5	FTB	142		FTB	154	PASS

SHEAR

COUPON	ELONGATION	STRENGTH	COMMENTS
1	200%	207	PASS
2	200%	210	PASS

PASS/FAIL PASS
Q.C. FRED RUDOLPH
Q.C REP

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INSURING CONTINUAL PROTECTION FOR OUR ENVIRONMENT'S FUTURE

WEDGE WELDER QUALIFICATION

PROJECT: FARO Run Off Pond
PROJECT #: 05-2011-047
OWNER: Faro Mine / Yukon Government
ENGINEER:

LOCATION: Faro, YK
CONTRACTOR: Pelly Construction
QA/QC: Fred Rudolph
DATE: September 21,2011

SAMPLE #	AMBIENT TEMP	SHEET TEMP	UNIT #	TECHNICIAN	TEMP	SPEED	MATERIALS USED
	1 C	1 C	DT19	FR	750	500	60 MIL HDPE TEXTURE

PEEL

COUPON	TYPE OF BREAK	STRENGTH		TYPE OF BREAK	STRENGTH	COMMENTS
1	FTB	127		FTB	131	PASS
2	FTB	137		FTB	130	PASS
3	FTB	145		FTB	139	PASS
4	FTB	132		FTB	135	PASS
5	FTB	154		FTB	148	PASS

SHEAR

COUPON	ELONGATION	STRENGTH	COMMENTS
1	200%	198	PASS
2	200%	192	PASS

PASS/FAIL PASS
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WEDGE WELDER QUALIFICATION

PROJECT: FARO Run Off Pond
PROJECT #: 05-2011-047
OWNER: Faro Mine / Yukon Government
ENGINEER:

LOCATION: Faro, YK
CONTRACTOR: Pelly Construction
QA/QC: Fred Rudolph
DATE: September 22,2011

SAMPLE #	AMBIENT TEMP	SHEET TEMP	UNIT #	TECHNICIAN	TEMP	SPEED	MATERIALS USED
	-1	-1	DT19	FR	750	500	60 MIL HDPE TEXTURE

PEEL

COUPON	TYPE OF BREAK	STRENGTH		TYPE OF BREAK	STRENGTH	COMMENTS
1	FTB	133		FTB	125	PASS
2	FTB	146		FTB	153	PASS
3	FTB	152		FTB	155	PASS
4	FTB	146		FTB	153	PASS
5	FTB	149		FTB	141	PASS

SHEAR

COUPON	ELONGATION	STRENGTH	COMMENTS
1	200%	214	PASS
2	200%	204	PASS

PASS/FAIL PASS
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WEDGE WELDER QUALIFICATION

PROJECT: FARO Run Off Pond
PROJECT #: 05-2011-047
OWNER: Faro Mine / Yukon Government
ENGINEER:

LOCATION: Faro, YK
CONTRACTOR: Pelly Construction
QA/QC: Fred Rudolph
DATE: September 23,2011

SAMPLE #	AMBIENT TEMP	SHEET TEMP	UNIT #	TECHNICIAN	TEMP	SPEED	MATERIALS USED
	-2	-2	DT19	FR	750	500	60 MIL HDPE TEXTURE

PEEL

COUPON	TYPE OF BREAK	STRENGTH		TYPE OF BREAK	STRENGTH	COMMENTS
1	FTB	151		FTB	138	PASS
2	FTB	131		FTB	141	PASS
3	FTB	140		FTB	148	PASS
4	FTB	141		FTB	150	PASS
5	FTB	146		FTB	136	PASS

SHEAR

COUPON	ELONGATION	STRENGTH	COMMENTS
1	200%	194	PASS
2	200%	197	PASS

PASS/FAIL PASS
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WEDGE WELDER QUALIFICATION

PROJECT: FARO Run Off Pond
PROJECT #: 05-2011-047
OWNER: Faro Mine / Yukon Government
ENGINEER:

LOCATION: Faro, YK
CONTRACTOR: Pelly Construction
QA/QC: Fred Rudolph
DATE: September 24,2011

SAMPLE #	AMBIENT TEMP	SHEET TEMP	UNIT #	TECHNICIAN	TEMP	SPEED	MATERIALS USED
	-3	-3	DT19	FR	750	500	60 MIL HDPE TEXTURE

PEEL

COUPON	TYPE OF BREAK	STRENGTH		TYPE OF BREAK	STRENGTH	COMMENTS
1	FTB	148		FTB	148	PASS
2	FTB	138		FTB	125	PASS
3	FTB	142		FTB	134	PASS
4	FTB	134		FTB	149	PASS
5	FTB	146		FTB	138	PASS

SHEAR

COUPON	ELONGATION	STRENGTH	COMMENTS
1	200%	190	PASS
2	200%	195	PASS

PASS/FAIL PASS
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WEDGE WELDER QUALIFICATION

PROJECT: FARO Run Off Pond
PROJECT #: 05-2011-047
OWNER: Faro Mine / Yukon Government
ENGINEER:

LOCATION: Faro, YK
CONTRACTOR: Pelly Construction
QA/QC: Fred Rudolph
DATE: September 25,2011

SAMPLE #	AMBIENT TEMP	SHEET TEMP	UNIT #	TECHNICIAN	TEMP	SPEED	MATERIALS USED
	0	0	DT19	FR	750	500	60 MIL HDPE TEXTURE

PEEL

COUPON	TYPE OF BREAK	STRENGTH		TYPE OF BREAK	STRENGTH	COMMENTS
1	FTB	123		FTB	127	PASS
2	FTB	117		FTB	129	PASS
3	FTB	127		FTB	133	PASS
4	FTB	123		FTB	137	PASS
5	FTB	143		FTB	138	PASS

SHEAR

COUPON	ELONGATION	STRENGTH	COMMENTS
1	200%	201	PASS
2	200%	200	PASS

PASS/FAIL PASS
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WEDGE WELDER QUALIFICATION

PROJECT: FARO Run Off Pond
PROJECT #: 05-2011-047
OWNER: Faro Mine / Yukon Government
ENGINEER:

LOCATION: Faro, YK
CONTRACTOR: Pelly Construction
QA/QC: Fred Rudolph
DATE: September 26,2011

SAMPLE #	AMBIENT TEMP	SHEET TEMP	UNIT #	TECHNICIAN	TEMP	SPEED	MATERIALS USED
	-4	-4	DT19	FR	750	500	60 MIL HDPE TEXTURE

PEEL

COUPON	TYPE OF BREAK	STRENGTH		TYPE OF BREAK	STRENGTH	COMMENTS
1	FTB	158		FTB	145	PASS
2	FTB	139		FTB	138	PASS
3	FTB	141		FTB	151	PASS
4	FTB	151		FTB	141	PASS
5	FTB	162		FTB	134	PASS

SHEAR

COUPON	ELONGATION	STRENGTH	COMMENTS
1	200%	198	PASS
2	200%	205	PASS

PASS/FAIL PASS
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WEDGE WELDER QUALIFICATION

PROJECT: FARO Run Off Pond
PROJECT #: 05-2011-047
OWNER: Faro Mine / Yukon Government
ENGINEER:

LOCATION: Faro, YK
CONTRACTOR: Pelly Construction
QA/QC: Fred Rudolph
DATE: September 27,2011

SAMPLE #	AMBIENT TEMP	SHEET TEMP	UNIT #	TECHNICIAN	TEMP	SPEED	MATERIALS USED
	-3	-3	DT19	FR	750	500	60 MIL HDPE TEXTURE

PEEL

COUPON	TYPE OF BREAK	STRENGTH		TYPE OF BREAK	STRENGTH	COMMENTS
1	FTB	134		FTB	136	PASS
2	FTB	131		FTB	137	PASS
3	FTB	135		FTB	145	PASS
4	FTB	135		FTB	136	PASS
5	FTB	131		FTB	122	PASS

SHEAR

COUPON	ELONGATION	STRENGTH	COMMENTS
1	200%	199	PASS
2	200%	191	PASS

PASS/FAIL PASS
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INSURING CONTINUAL PROTECTION FOR OUR ENVIRONMENT'S FUTURE

EXTRUSION WELDER QUALIFICATION

PROJECT: FARO Run Off Pond
PROJECT #: 05-2011-047
OWNER: Faro Mine / Yukon Government
ENGINEER:

LOCATION: Faro, YK
CONTRACTOR: Pelly Construction
QA/QC: Fred Rudolph
DATE: September 21,2011

SAMPLE #	AMBIENT TEMP	SHEET TEMP	UNIT #	TECHNICIAN	BARREL TEMP	PRE HEAT	MATERIALS USED
	4	4	DT 26	JM	470 F	475 F	60 MIL HDPE TEXTURED

PEEL

COUPON	TYPE OF BREAK	STRENGTH	COMMENTS
1	FTB	101	PASS
2	FTB	95	PASS
3	FTB	116	PASS
4	FTB	106	PASS
5	FTB	100	PASS

SHEAR

COUPON	ELONGATION	STRENGTH	COMMENTS
1	200%	161	PASS
2	200%	172	PASS

PASS/FAIL PASS
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EXTRUSION WELDER QUALIFICATION

PROJECT: FARO Run Off Pond
PROJECT #: 05-2011-047
OWNER: Faro Mine / Yukon Government
ENGINEER:

LOCATION: Faro, YK
CONTRACTOR: Pelly Construction
QA/QC: Fred Rudolph
DATE: September 23,2011

SAMPLE #	AMBIENT TEMP	SHEET TEMP	UNIT #	TECHNICIAN	BARREL TEMP	PRE HEAT	MATERIALS USED
	1	1	DT 26	JM	490 F	500 F	60 MIL HDPE TEXTURED

PEEL

COUPON	TYPE OF BREAK	STRENGTH	COMMENTS
1	FTB	141	PASS
2	FTB	146	PASS
3	FTB	154	PASS
4	FTB	168	PASS
5	FTB	163	PASS

SHEAR

COUPON	ELONGATION	STRENGTH	COMMENTS
1	200%	178	PASS
2	200%	192	PASS

PASS/FAIL PASS
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EXTRUSION WELDER QUALIFICATION

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PROJECT #: 05-2011-047
OWNER: Faro Mine / Yukon Government
ENGINEER:

LOCATION: Faro, YK
CONTRACTOR: Pelly Construction
QA/QC: Fred Rudolph
DATE: September 23,2011

SAMPLE #	AMBIENT TEMP	SHEET TEMP	UNIT #	TECHNICIAN	BARREL TEMP	PRE HEAT	MATERIALS USED
	3	3	DT 26	JM	490 F	500 F	60 MIL HDPE TEXTURED

PEEL

COUPON	TYPE OF BREAK	STRENGTH	COMMENTS
1	FTB	126	PASS
2	FTB	123	PASS
3	FTB	126	PASS
4	FTB	117	PASS
5	FTB	105	PASS

SHEAR

COUPON	ELONGATION	STRENGTH	COMMENTS
1	200%	189	PASS
2	200%	206	PASS

PASS/FAIL PASS
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EXTRUSION WELDER QUALIFICATION

PROJECT: FARO Run Off Pond
PROJECT #: 05-2011-047
OWNER: Faro Mine / Yukon Government
ENGINEER:

LOCATION: Faro, YK
CONTRACTOR: Pelly Construction
QA/QC: Fred Rudolph
DATE: September 24,2011

SAMPLE #	AMBIENT TEMP	SHEET TEMP	UNIT #	TECHNICIAN	BARREL TEMP	PRE HEAT	MATERIALS USED
	-1	-1	DT 26	JM	490 F	500 F	60 MIL HDPE TEXTURED

PEEL

COUPON	TYPE OF BREAK	STRENGTH	COMMENTS
1	FTB	106	PASS
2	FTB	126	PASS
3	FTB	130	PASS
4	FTB	132	PASS
5	FTB	120	PASS

SHEAR

COUPON	ELONGATION	STRENGTH	COMMENTS
1	200%	193	PASS
2	200%	196	PASS

PASS/FAIL PASS
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Q.C REP

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EXTRUSION WELDER QUALIFICATION

PROJECT: FARO Run Off Pond
PROJECT #: 05-2011-047
OWNER: Faro Mine / Yukon Government
ENGINEER:

LOCATION: Faro, YK
CONTRACTOR: Pelly Construction
QA/QC: Fred Rudolph
DATE: September 25,2011

SAMPLE #	AMBIENT TEMP	SHEET TEMP	UNIT #	TECHNICIAN	BARREL TEMP	PRE HEAT	MATERIALS USED
	-1	-1	DT 26	JM	490 F	500 F	60 MIL HDPE TEXTURED

PEEL

COUPON	TYPE OF BREAK	STRENGTH	COMMENTS
1	FTB	106	PASS
2	FTB	116	PASS
3	FTB	123	PASS
4	FTB	139	PASS
5	FTB	127	PASS

SHEAR

COUPON	ELONGATION	STRENGTH	COMMENTS
1	200%	196	PASS
2	200%	197	PASS

PASS/FAIL PASS
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EXTRUSION WELDER QUALIFICATION

PROJECT: FARO Run Off Pond
PROJECT #: 05-2011-047
OWNER: Faro Mine / Yukon Government
ENGINEER:

LOCATION: Faro, YK
CONTRACTOR: Pelly Construction
QA/QC: Fred Rudolph
DATE: September 26,2011

SAMPLE #	AMBIENT TEMP	SHEET TEMP	UNIT #	TECHNICIAN	BARREL TEMP	PRE HEAT	MATERIALS USED
	-4	-4	DT 26	JM	490 F	500 F	60 MIL HDPE TEXTURED

PEEL

COUPON	TYPE OF BREAK	STRENGTH	COMMENTS
1	FTB	124	PASS
2	FTB	132	PASS
3	FTB	115	PASS
4	FTB	118	PASS
5	FTB	138	PASS

SHEAR

COUPON	ELONGATION	STRENGTH	COMMENTS
1	200%	178	PASS
2	200%	184	PASS

PASS/FAIL PASS
Q.C. FRED RUDOLPH
Q.C REP

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EXTRUSION WELDER QUALIFICATION

PROJECT: FARO Run Off Pond
PROJECT #: 05-2011-047
OWNER: Faro Mine / Yukon Government
ENGINEER:

LOCATION: Faro, YK
CONTRACTOR: Pelly Construction
QA/QC: Fred Rudolph
DATE: September 27,2011

SAMPLE #	AMBIENT TEMP	SHEET TEMP	UNIT #	TECHNICIAN	BARREL TEMP	PRE HEAT	MATERIALS USED
	-3	-3	DT 26	JM	490 F	500 F	60 MIL HDPE TEXTURED

PEEL

COUPON	TYPE OF BREAK	STRENGTH	COMMENTS
1	FTB	125	PASS
2	FTB	118	PASS
3	FTB	126	PASS
4	FTB	126	PASS
5	FTB	125	PASS

SHEAR

COUPON	ELONGATION	STRENGTH	COMMENTS
1	200%	184	PASS
2	200%	192	PASS

PASS/FAIL PASS
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Q.C REP

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INSURING CONTINUAL PROTECTION FOR OUR ENVIRONMENT'S FUTURE

SEAM PRESSURE TEST LOG

PROJECT: FARO Run Off Pond
LOCATION: Faro, YK
PROJECT #: 05-2011-047
CONTRACTOR: Pelly Construction
OWNER: Faro Mine / Yukon Government
QA/QC: Fred Rudolph
ENGINEER:
DATE: 2011

						PRESSURE		TIME		
SEAM #	WELD DATE	TECH	TEST DATE	TEST TYPE	TECH	START	END	START	FINISH	COMMENT
P1/P2	Sep-20	FR	Sep-22	ATP	FR	48	48	1:45	1:50	
P2/P3	Sep-20	FR	Sep-22	ATP	FR	50	49	1:28	1:33	
P2/P4	Sep-20	FR	Sep-22	ATP	FR	55	52	1:40	1:45	
P3/P4	Sep-20	FR	Sep-22	ATP	FR	46	46	1:38	1:43	CROSS SEAM
P5/P6	Sep-21	FR	Sep-22	ATP	FR	50	49	1:18	1:23	
P6/P7	Sep-21	FR	Sep-22	ATP	FR	52	52	1:17	1:22	
P7/P8	Sep-21	FR	Sep-22	ATP	FR	56	56	1:16	1:21	
P8/P9	Sep-21	FR	Sep-22	ATP	FR	56	55	1:15	1:20	
P9/P10	Sep-21	FR	Sep-22	ATP	FR	58	57	1:12	1:17	
P10/P11	Sep-21	FR	Sep-22	ATP	FR	52	51	1:09	1:14	
P11/P12	Sep-21	FR	Sep-22	ATP	FR	56	55	1:06	1:11	
P12/P13	Sep-21	FR	Sep-22	ATP	FR	49	48	1:07	1:12	
P13/P14	Sep-21	FR	Sep-22	ATP	FR	52	50	1:06	1:11	
P14/P15	Sep-21	FR	Sep-22	ATP	FR	44	44	1:04	1:09	ANCHOR TRENCH TO R1
P14/P15	Sep-21	FR	Sep-22	ATP	FR	43	43	2:44	2:49	R1 TO TIE IN SEAM
P4/P5	Sep-21	FR	Sep-22	ATP	FR	40	40	1:21	1:26	TIE IN SEAM 1
P4/P6	Sep-21	FR	Sep-22	ATP	FR	49	48	1:22	1:27	TIE IN SEAM 1
P4/P7	Sep-21	FR	Sep-22	ATP	FR	48	48	1:23	1:28	TIE IN SEAM 1
P4/P8	Sep-21	FR	Sep-22	ATP	FR	51	51	1:41	1:46	TIE IN SEAM 1
P4/P9	Sep-21	FR	Sep-22	ATP	FR	43	41	1:42	1:47	TIE IN SEAM 1
P4/P10	Sep-21	FR	Sep-22	ATP	FR	49	46	1:37	1:42	TIE IN SEAM 1
P3/P11	Sep-21	FR	Sep-22	ATP	FR	43	41	1:40	1:45	TIE IN SEAM 1
P3/P12	Sep-21	FR	Sep-22	ATP	FR	48	48	12:56	1:01	TIE IN SEAM 1
P3/P13	Sep-21	FR	Sep-22	ATP	FR	57	56	12:58	1:03	TIE IN SEAM 1
P3/P14	Sep-21	FR	Sep-22	ATP	FR	49	48	12:54	12:59	TIE IN SEAM 1
P3/P15	Sep-21	FR	Sep-22	ATP	FR	51	51	12:54	12:59	TIE IN SEAM 1
P16/P17	Sep-22	FR	Sep-23	ATP	FR	54	53	1:22	1:27	
P17/P18	Sep-22	FR	Sep-23	ATP	FR	48	47	1:23	1:28	
P18/P19	Sep-22	FR	Sep-23	ATP	FR	51	51	1:23	1:23	
P19/P20	Sep-22	FR	Sep-23	ATP	FR	49	48	1:23	1:28	

PASS/FAIL _____
Q.C. _____
Q.C REP _____

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INSURING CONTINUAL PROTECTION FOR OUR ENVIRONMENT'S FUTURE

SEAM PRESSURE TEST LOG

PROJECT: FARO Run Off Pond
PROJECT #: 05-2011-047
OWNER: Faro Mine / Yukon Government
ENGINEER:

LOCATION: Faro, YK
CONTRACTOR: Pelly Construction
QA/QC: Fred Rudolph
DATE: 2011

						PRESSURE		TIME		
SEAM #	WELD DATE	TECH	TEST DATE	TEST TYPE	TECH	START	END	START	FINISH	COMMENT
P20/P21	Sep-22	FR	Sep-23	ATP	FR	46	46	1:30	1:35	
P21/P22	Sep-22	FR	Sep-23	ATP	FR	51	51	1:30	1:35	
P22/P23	Sep-22	FR	Sep-23	ATP	FR	50	48	1:31	1:36	
P23/P24	Sep-22	FR	Sep-23	ATP	FR	51	51	1:31	1:36	
P24/P25	Sep-22	FR	Sep-23	ATP	FR	49	49	1:38	1:43	
P25/P26	Sep-22	FR	Sep-23	ATP	FR	53	53	1:38	1:43	
P26/P27	Sep-22	FR	Sep-23	ATP	FR	53	53	1:39	1:44	
P27/P28	Sep-22	FR	Sep-23	ATP	FR	55	54	1:39	1:44	
P5/P29	Sep-22	FR	Sep-23	ATP	FR	52	50	2:03	2:08	
P29/P30	Sep-22	FR	Sep-23	ATP	FR	46	46	1:56	2:01	
P31/P32	Sep-22	FR	Sep-23	ATP	FR	48	48	1:47	1:52	
P32/P33	Sep-22	FR	Sep-23	ATP	FR	46	46	2:21	2:26	
P33/P34	Sep-22	FR	Sep-23	ATP	FR	51	50	1:46	1:51	
P34/P35	Sep-22	FR	Sep-23	ATP	FR	53	51	1:56	2:01	
P35/P36	Sep-22	FR	Sep-23	ATP	FR	52	51	1:56	2:01	
P1/P16	Sep-22	FR	Sep-23	ATP	FR	52	52	2:38	2:43	TIE IN SEAM 2
P1/P17	Sep-22	FR	Sep-23	ATP	FR	46	45	2:39	2:44	TIE IN SEAM 2
P1/P18	Sep-22	FR	Sep-23	ATP	FR	47	46	2:35	2:40	TIE IN SEAM 2
P1/P19	Sep-22	FR	Sep-23	ATP	FR	40	40	2:34	2:39	TIE IN SEAM 2
P1/P20	Sep-22	FR	Sep-23	ATP	FR	55	55	2:33	2:38	TIE IN SEAM 2
P1/P21	Sep-22	FR	Sep-23	ATP	FR	54	52	2:34	2:39	TIE IN SEAM 2
P1/P22	Sep-22	FR	Sep-23	ATP	FR	55	53	2:29	2:34	TIE IN SEAM 2
P1/P23	Sep-22	FR	Sep-23	ATP	FR	46	46	2:30	2:35	TIE IN SEAM 2
P1/P24	Sep-22	FR	Sep-23	ATP	FR	49	48	2:28	2:33	TIE IN SEAM 2
P1/P25	Sep-22	FR	Sep-23	ATP	FR	49	47	2:27	2:32	TIE IN SEAM 2
P1/P26	Sep-22	FR	Sep-23	ATP	FR	45	44	2:22	2:27	TIE IN SEAM 2
P28/P31	Sep-22	FR	Sep-23	ATP	FR	48	47	1:48	1:53	TIE IN SEAM 3
P27/P32	Sep-22	FR	Sep-23	ATP	FR	50	49	2:21	2:26	TIE IN SEAM 3
P1/P33	Sep-22	FR	Sep-23	ATP	FR	56	54	2:20	2:25	TIE IN SEAM 3
P2/P34	Sep-22	FR	Sep-23	ATP	FR	51	51	2:15	2:20	TIE IN SEAM 3

PASS/FAIL _____
Q.C. _____
Q.C REP _____

SUPERIOR PLASTIC SOLUTIONS INC

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INSURING CONTINUAL PROTECTION FOR OUR ENVIRONMENT'S FUTURE

SEAM PRESSURE TEST LOG

PROJECT: FARO Run Off Pond
PROJECT #: 05-2011-047
OWNER: Faro Mine / Yukon Government
ENGINEER:

LOCATION: Faro, YK
CONTRACTOR: Pelly Construction
QA/QC: Fred Rudolph
DATE: 2011

						PRESSURE		TIME		
SEAM #	WELD DATE	TECH	TEST DATE	TEST TYPE	TECH	START	END	START	FINISH	COMMENT
P4/P35	Sep-22	FR	Sep-23	VTP	CM	EXTRUSION WELDED				TIE IN SEAM 3
P29/P35	Sep-22	FR	Sep-23	ATP	FR	56	53	2:12	2:17	TIE IN SEAM 3
P29/P36	Sep-22	FR	Sep-23	ATP	FR	41	40	2:15	2:20	TIE IN SEAM 3
P30/P36	Sep-22	FR	Sep-23	ATP	FR	60	56	1:56	2:01	TIE IN SEAM 3
P37/P38	Sep-23	FR	Sep-25	ATP	FR	58	58	1:54	1:59	CROSS SEAM
P37/P39	Sep-23	FR	Sep-23	ATP	FR	51	51	2:40	2:45	
P38/P39	Sep-23	FR	Sep-23	ATP	FR	53	52	2:41	2:46	
P39/P40	Sep-23	FR	Sep-23	ATP	FR	57	56	2:43	2:48	
P37/P1	Sep-23	FR	Sep-25	ATP	FR	48	48	1:58	2:03	TIE IN SEAM 4
P39/P2	Sep-23	FR	Sep-23	ATP	FR	46	45	2:40	2:45	TIE IN SEAM 4
P40/P3	Sep-23	FR	Sep-23	ATP	FR	42	42	3:32	3:37	TIE IN SEAM 4
P41/P42	Sep-24	FR	Sep-24	ATP	FR	50	49	4:09	4:14	
P42/P43	Sep-24	FR	Sep-24	ATP	FR	52	50	4:10	4:15	
P43/P44	Sep-24	FR	Sep-25	ATP	FR	56	54	2:22	2:27	
P44/P45	Sep-24	FR	Sep-24	ATP	FR	49	48	4:12	4:17	
P38/P43	Sep-24	FR	Sep-25	ATP	FR	52	52	1:25	1:30	TIE IN SEAM 5
P39/P42	Sep-24	FR	Sep-24	ATP	FR	55	54	4:15	4:20	TIE IN SEAM 5
P40/P41	Sep-24	FR	Sep-26	ATP	FR	53	53	3:35	4:00	TIE IN SEAM 5
P15/P46	Sep-24	FR	Sep-24	ATP	FR	46	46	3:07	3:12	
P46/P47	Sep-24	FR	Sep-24	ATP	FR	51	50	3:07	3:12	
P47/P48	Sep-24	FR	Sep-24	ATP	FR	47	46	3:07	3:12	
P48/P49	Sep-24	FR	Sep-24	ATP	FR	54	54	3:07	3:12	
P49/P50	Sep-24	FR	Sep-24	ATP	FR	52	52	3:14	3:19	
P50/P51	Sep-24	FR	Sep-24	ATP	FR	50	49	3:14	3:19	
P40/P46	Sep-24	FR	Sep-24	ATP	FR	42	42	3:24	3:29	TIE IN SEAM 6
P40/P47	Sep-24	FR	Sep-24	ATP	FR	54	53	3:23	3:28	TIE IN SEAM 6
P40/P48	Sep-24	FR	Sep-24	ATP	FR	53	51	3:23	3:28	TIE IN SEAM 6
P40/P49	Sep-24	FR	Sep-24	ATP	FR	50	48	3:15	3:20	TIE IN SEAM 6
P40/P50	Sep-24	FR	Sep-24	ATP	FR	52	51	3:15	3:20	TIE IN SEAM 6
P40/P51	Sep-24	FR	Sep-26	ATP	FR	53	51	4:01	4:06	TIE IN SEAM 6

PASS/FAIL _____
Q.C. _____
Q.C REP _____

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INSURING CONTINUAL PROTECTION FOR OUR ENVIRONMENT'S FUTURE

SEAM PRESSURE TEST LOG

PROJECT: FARO Run Off Pond
PROJECT #: 05-2011-047
OWNER: Faro Mine / Yukon Government
ENGINEER:

LOCATION: Faro, YK
CONTRACTOR: Pelly Construction
QA/QC: Fred Rudolph
DATE: 2011

						PRESSURE		TIME		
SEAM #	WELD DATE	TECH	TEST DATE	TEST TYPE	TECH	START	END	START	FINISH	COMMENT
P52/P53	Sep-25	FR	Sep-25	ATP	FR	48	47	1:17	1:22	
P53/P54	Sep-25	FR	Sep-25	ATP	FR	51	50	1:11	1:16	
P53/P55	Sep-25	FR	Sep-25	ATP	FR	51	50	1:11	1:16	
P54/P55	Sep-25	FR	Sep-25	ATP	FR	46	46	1:16	1:21	CROSS SEAM
P54/P56	Sep-25	FR	Sep-25	ATP	FR	57	57	1:11	1:16	
P55/P56	Sep-25	FR	Sep-25	ATP	FR	51	49	1:11	1:16	
P56/P57	Sep-25	FR	Sep-25	ATP	FR	55	53	1:19	1:24	
P57/P58	Sep-25	FR	Sep-25	ATP	FR	56	54	2:12	2:17	
P58/P59	Sep-25	FR	Sep-25	ATP	FR	51	49	2:06	2:11	
P59/P60	Sep-25	FR	Sep-25	ATP	FR	49	48	2:06	2:11	
P60/P16	Sep-25	FR	Sep-25	ATP	FR	52	52	2:06	2:11	
P60/P37	Sep-25	FR	Sep-25	ATP	FR	51	50	1:52	1:57	TIE IN SEAM 7
P59/P37	Sep-25	FR	Sep-25	ATP	FR	43	41	1:52	1:57	TIE IN SEAM 7
P58/P37	Sep-25	FR	Sep-25	ATP	FR	55	53	1:45	1:50	TIE IN SEAM 7
P57/P37	Sep-25	FR	Sep-25	ATP	FR	50	50	1:45	1:50	TIE IN SEAM 7
P56/P38	Sep-25	FR	Sep-25	ATP	FR	50	47	1:35	1:40	TIE IN SEAM 7
P54/P38	Sep-25	FR	Sep-25	ATP	FR	57	55	1:26	1:31	TIE IN SEAM 7
P53/P38	Sep-25	FR	Sep-25	VTP	CM	EXTRUSION WELDED				TIE IN SEAM 7
P44/P53	Sep-25	FR	Sep-25	ATP	FR	43	41	1:23	1:28	TIE IN SEAM 7
P44/P52	Sep-25	FR	Sep-25	ATP	FR	47	46	2:22	2:27	TIE IN SEAM 7
P45/P52	Sep-25	FR	Sep-25	ATP	FR	51	51	1:17	1:22	TIE IN SEAM 7
P61/P62	Sep-26	FR	Sep-26	ATP	FR	53	52	3:47	3:52	
P63/P64	Sep-26	FR	Sep-26	ATP	FR	45	44	3:47	3:52	
P41/P62	Sep-26	FR	Sep-26	ATP	FR	43	41	4:01	4:06	
P51/P64	Sep-26	FR	Sep-26	ATP	FR	53	51	3:54	3:59	
P61/P63	Sep-26	FR	Sep-26	ATP	FR	43	41	3:47	3:52	
P61/P64	Sep-26	FR	Sep-26	ATP	FR	53	51	3:47	3:52	
P62/P64	Sep-26	FR	Sep-26	ATP	FR	48	47	4:01	4:06	
P61/P65	Sep-27	FR	Sep-27	ATP	FR	52	49	1:17	1:22	TIE INTO NEW TRENCH
P63/P65	Sep-27	FR	Sep-27	ATP	FR	52	49	1:17	1:22	TIE INTO NEW TRENCH

PASS/FAIL _____
Q.C. _____
Q.C REP _____

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INSURING CONTINUAL PROTECTION FOR OUR ENVIRONMENT'S FUTURE

SEAM PRESSURE TEST LOG

PROJECT: FARO Run Off Pond
PROJECT #: 05-2011-047
OWNER: Faro Mine / Yukon Government
ENGINEER:

LOCATION: Faro, YK
CONTRACTOR: Pelly Construction
QA/QC: Fred Rudolph
DATE: 2011

						PRESSURE		TIME		
SEAM #	WELD DATE	TECH	TEST DATE	TEST TYPE	TECH	START	END	START	FINISH	COMMENT
P65/P66	Sep-27	FR	Sep-27	ATP	FR	50	48	1:11	1:16	
P65/P67	Sep-27	FR	Sep-27	ATP	FR	44	42	12:57	1:02	CROSS SEAM
P67/P69	Sep-27	FR	Sep-27	ATP	FR	48	44	1:31	1:36	
P68/P69	Sep-27	FR	Sep-27	ATP	FR	52	51	1:05	1:10	
P68/P70	Sep-27	FR	Sep-27	ATP	FR	50	49	1:05	1:10	
P69/P70	Sep-27	FR	Sep-27	ATP	FR	45	45	1:05	1:10	
P68/EXT	Sep-27	FR	Sep-27	ATP	FR	48	45	12:57	1:02	TIE TO EXISTING TRENCH
P68/EXT	Sep-27	FR	Sep-27	ATP	FR	52	48	12:57	1:02	TIE TO EXISTING TRENCH

PASS/FAIL _____
Q.C. _____
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INSURING CONTINUAL PROTECTION FOR OUR ENVIRONMENT'S FUTURE

DEFECT AND REPAIR LOG

PROJECT: FARO Run Off Pond
PROJECT #: 05-2011-047
OWNER: Faro Mine / Yukon Government
ENGINEER:

LOCATION: Faro, YK
CONTRACTOR: Pelly Construction
QA/QC: Fred Rudolph
DATE: 2011

REPAIR #	TYPE	SIZE	REPAIR DATE	TECH	TEST TYPE	TEST DATE	TECH	PASS/FAIL	LOCATION
1	BEAD	16"	Sep-21	JM	VTP	Sep-21	CM	PASS	P2/P3/P4
2	BEAD	16"	Sep-21	JM	VTP	Sep-21	CM	PASS	P15/P14/P3
3	PATCH	1' ROUND	Sep-21	JM	VTP	Sep-21	CM	PASS	P14/P15-17'FROM AT
4	BEAD	16"	Sep-21	JM	VTP	Sep-21	CM	PASS	P14/P13/P3
5	BEAD	16"	Sep-21	JM	VTP	Sep-21	CM	PASS	P13/P12/P3
6	BEAD	16"	Sep-21	JM	VTP	Sep-21	CM	PASS	P12/P11/P3
7	BEAD	16"	Sep-21	JM	VTP	Sep-21	CM	PASS	P11/P10/P3
8	BEAD	16"	Sep-21	JM	VTP	Sep-21	CM	PASS	P10/P9/P3/P4
9	BEAD	16"	Sep-21	JM	VTP	Sep-21	CM	PASS	P9/P8/P4
10	BEAD	16"	Sep-21	JM	VTP	Sep-21	CM	PASS	P8/P7/P4
11	BEAD	16"	Sep-21	JM	VTP	Sep-21	CM	PASS	P7/P6/P4
12	BEAD	16"	Sep-21	JM	VTP	Sep-21	CM	PASS	P6/P5/P4
13	BEAD	16"	Sep-23	JM	VTP	Sep-23	CM	PASS	P16/P17/P1
14	BEAD	16"	Sep-23	JM	VTP	Sep-23	CM	PASS	P17/P18/P1
15	BEAD	16"	Sep-23	JM	VTP	Sep-23	CM	PASS	P18/P19/P1
16	BEAD	16"	Sep-23	JM	VTP	Sep-23	CM	PASS	P19/P20/P1
17	BEAD	16"	Sep-23	JM	VTP	Sep-23	CM	PASS	P20/P21/P1
18	BEAD	16"	Sep-23	JM	VTP	Sep-23	CM	PASS	P21/P22/P1
19	BEAD	16"	Sep-23	JM	VTP	Sep-23	CM	PASS	P22/P23/P1
20	BEAD	16"	Sep-23	JM	VTP	Sep-23	CM	PASS	P23/P24/P1
21	BEAD	16"	Sep-23	JM	VTP	Sep-23	CM	PASS	P24/P25/P1
22	BEAD	16"	Sep-23	JM	VTP	Sep-23	CM	PASS	P25/P26/P1
23	BEAD	16"	Sep-23	JM	VTP	Sep-23	CM	PASS	P26/P27/P32/P1
24	BEAD	16"	Sep-23	JM	VTP	Sep-23	CM	PASS	P27/P28/P31/P32

PASS/FAIL _____
Q.C. _____
Q.C REP _____

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INSURING CONTINUAL PROTECTION FOR OUR ENVIRONMENT'S FUTURE

DEFECT AND REPAIR LOG

PROJECT: FARO Run Off Pond
PROJECT #: 05-2011-047
OWNER: Faro Mine / Yukon Government
ENGINEER:

LOCATION: Faro, YK
CONTRACTOR: Pelly Construction
QA/QC: Fred Rudolph
DATE: 2011

REPAIR #	TYPE	SIZE	REPAIR DATE	TECH	TEST TYPE	TEST DATE	TECH	PASS/FAIL	LOCATION
25	BEAD	32"	Sep-23	JM	VTP	Sep-23	CM	PASS	P1/P2/P33/P34
26	PATCH	1' ROUND	Sep-23	JM	VTP	Sep-23	CM	PASS	P34 @ TIE IN SEAM
27	BEAD	13'	Sep-23	JM	VTP	Sep-23	CM	PASS	P4/P35/P5/P29
28	BEAD	16"	Sep-23	JM	VTP	Sep-23	CM	PASS	P29/P35/P36
29	BEAD	16"	Sep-23	JM	VTP	Sep-23	CM	PASS	P36/P29/P30
30	BEAD	32"	Sep-24	JM	VTP	Sep-24	CM	PASS	P1/P2/P37/P39
31	BEAD	32"	Sep-24	JM	VTP	Sep-24	CM	PASS	P2/P3/P39/P41
32	BEAD	16"	Sep-24	JM	VTP	Sep-24	CM	PASS	P37/P38/P39
33	BEAD	16"	Sep-24	JM	VTP	Sep-24	CM	PASS	P40/P41/P39/P42
34	BEAD	16"	Sep-24	JM	VTP	Sep-24	CM	PASS	P39/P42/P43/P38
35	BEAD	16"	Sep-24	JM	VTP	Sep-24	CM	PASS	P51/P50/P40
36	BEAD	16"	Sep-24	JM	VTP	Sep-24	CM	PASS	P50/P49/P40
37	BEAD	16"	Sep-24	JM	VTP	Sep-24	CM	PASS	P49/P48/P40
38	BEAD	16"	Sep-24	JM	VTP	Sep-24	CM	PASS	P48/P47/P40
39	BEAD	16"	Sep-24	JM	VTP	Sep-24	CM	PASS	P47/P46/P40
40	PATCH	2' X 7'	Sep-24	JM	VTP	Sep-24	CM	PASS	P46/P15/P40/P3
41	BEAD	10"	Sep-24	JM	VTP	Sep-24	CM	PASS	P40/P48
42	BEAD	16"	Sep-25	JM	VTP	Sep-25	CM	PASS	P44/P45/P52
43	BEAD	16"	Sep-25	JM	VTP	Sep-25	CM	PASS	P44/P52/P53
44	BEAD	40"	Sep-25	JM	VTP	Sep-25	CM	PASS	P53/P43/P38/P54
45	BEAD	16"	Sep-25	JM	VTP	Sep-25	CM	PASS	P53/P54/P55
46	BEAD	16"	Sep-25	JM	VTP	Sep-25	CM	PASS	P54/P55/P56
47	BEAD	16"	Sep-25	JM	VTP	Sep-25	CM	PASS	P56/P57/P38
48	BEAD	16"	Sep-25	JM	VTP	Sep-25	CM	PASS	P57/P38/P37

PASS/FAIL _____
Q.C. _____
Q.C REP _____

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INSURING CONTINUAL PROTECTION FOR OUR ENVIRONMENT'S FUTURE

DEFECT AND REPAIR LOG

PROJECT: FARO Run Off Pond
PROJECT #: 05-2011-047
OWNER: Faro Mine / Yukon Government
ENGINEER:

LOCATION: Faro, YK
CONTRACTOR: Pelly Construction
QA/QC: Fred Rudolph
DATE: 2011

REPAIR #	TYPE	SIZE	REPAIR DATE	TECH	TEST TYPE	TEST DATE	TECH	PASS/FAIL	LOCATION
49	BEAD	16"	Sep-25	JM	VTP	Sep-25	CM	PASS	P57/P58/P37
50	PATCH	16"	Sep-25	JM	VTP	Sep-25	CM	PASS	P58/P59/P37
51	BEAD	13'	Sep-25	JM	VTP	Sep-25	CM	PASS	P59/P60/P37
52	BEAD	16"	Sep-25	JM	VTP	Sep-25	CM	PASS	P59/P60 - 5' FROM AT
53	PATCH	2' ROUND	Sep-25	JM	VTP	Sep-25	CM	PASS	P60/P16/P37/P1
54	BEAD	48"	Sep-26	JM	VTP	Sep-26	CM	PASS	P51/P41/P40/P62/P64
55	BEAD	36"	Sep-26	JM	VTP	Sep-26	CM	PASS	P62/P61/P64
56	BEAD	16"	Sep-26	JM	VTP	Sep-26	CM	PASS	P64/P63/P62
57	BEAD	16"	Sep-27	JM	VTP	Sep-27	CM	PASS	P61/P63/P65
58	BEAD	16"	Sep-27	JM	VTP	Sep-27	CM	PASS	P65/P66/P67
59	BEAD	23'	Sep-27	JM	VTP	Sep-27	CM	PASS	P65-SWALE
60	BEAD	24"	Sep-27	JM	VTP	Sep-27	CM	PASS	P67/P68- 17'FROM AT
61	BEAD	16"	Sep-27	JM	VTP	Sep-27	CM	PASS	P68/P69/P70
62	BEAD	16"	Sep-27	JM	VTP	Sep-27	CM	PASS	P69 - SWALE
63	BEAD	16"	Sep-27	JM	VTP	Sep-27	CM	PASS	P69 SWALE

PASS/FAIL _____
Q.C. _____
Q.C REP _____

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INSURING CONTINUAL PROTECTION FOR OUR ENVIRONMENT'S FUTURE

DESTRUCTIVE TEST LOG

PROJECT: FARO Run Off Pond
PROJECT #: 05-2011-047
OWNER: Faro Mine / Yukon Government
ENGINEER:

LOCATION: Faro, YK
CONTRACTOR: Pelly Construction
QA/QC: Fred Rudolph
DATE: 2011

PEEL

DT #	COUPON 1		COUPON 1		COUPON 1		COUPON 1		COUPON 1		LOCATION
1	131	123	116	132	123	126	143	125	126	126	SEAM P1/P2
2	141	134	137	126	126	128	138	135	135	127	SEAM P22/P23
3	127	135	122	127	125	135	121	120	140	121	SEAM P33/P34
4	123	127	132	145	134	133	123	127	134	135	SEAM P39/P40
5	119	129	132	123	141	144	127	113	133	123	SEAM P47/P48
6	112	118	119	121	134	122	120	121	127	123	SEAM P54/P56
7	139	123	134	143	135	134	139	133	133	126	SEAM P61/P63

SHEAR

DT #	COUPON 1	COUPON 1	COUPON 1	COUPON 1	COUPON 1	LOCATION
1	191	180	183	180	190	SEAM P1/P2
2	207	203	205	199	201	SEAM P22/P23
3	202	214	211	213	211	SEAM P33/P34
4	201	211	189	203	200	SEAM P39/P40
5	189	202	177	179	190	SEAM P47/P48
6	198	190	211	208	199	SEAM P54/P56
7	187	189	203	205	208	SEAM P61/P63

PASS/FAIL PASS
Q.C. FRED RUDOLPH
Q.C REP

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

GOVERNMENT OF YUKON

GRUM SULPHIDE CELL COVER UPGRADES

AS-BUILT CONSTRUCTION REPORT

FINAL

PROJECT NO:	0533-003	DISTRIBUTION:	
DATE:	January 30, 2012	YG:	2 copies
		BGC:	2 copies

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January 30, 2012
Project No: 0533-003

Dustin Rainey, Ph.D.
Project Manager, Faro Project Management Team,
Assessment and Abandoned Mines,
Government of Yukon,
Energy, Mines and Resources,
Box 2703 (K-419),
Whitehorse, Yukon Y1A 2C6

Dear Dr. Rainey,

Re: Grum Sulphide Cell Cover Upgrades – As-built Report – Draft

BGC is pleased to provide a final version of our as-built report for the Grum Sulphide Cell Cover Upgrades work undertaken in August, September and October 2011. We trust the enclosed report meets with your requirements and we thank YG for the opportunity to be of service again at Faro Mine.

Yours sincerely,

BGC ENGINEERING INC.
per:

Jeremy Valeriote, P.Eng.
GeoEnvironmental Engineer

Att. Grum Sulphide Cell Cover Upgrades As-Built Construction Report

EXECUTIVE SUMMARY

The Faro Mine is located in the central Yukon, approximately 200 km north-northeast of Whitehorse and 22 km north of the Town of Faro. The Grum Sulphide Cell (GSC) is located within the Grum Waste Rock Dump at the Faro Mine Complex.

As part of early closure activities, in 2010 the Yukon Government (YG) completed the construction of a high-density polyethylene (HDPE)-lined cover over the GSC. The design and construction of the cover system were undertaken by others prior to BGC involvement on the project.

During the spring freshet of 2011, erosion occurred on the cover surface and the resulting sediment and zinc laden discharge into Vangorda Creek was found to be non-compliant (total suspended solids>15 mg/L, zinc>0.5mg/L.

BGC was engaged to review the cover system performance in the 2011 freshet, and provide recommendations for repairs and water management mitigation measures that could be implemented in 2011 to reduce the severity of erosion and reduce the potential for non-compliant discharge to Vangorda Creek during spring 2012 runoff and beyond (to the extent practicable).

Recommendations focused on remedial water and erosion management measures to be completed in 2011, and did not address long-term cover, landform or drainage design requirements. The overall recommendations from BGC were:

- Primary measures: Control erosion of the GSC cover;
- Secondary measures: Increase the capacity of the sediment pond; and
- Tertiary measures: Pump non-compliant water to Vangorda Pit catchment.

BGC supervised construction of the primary and secondary measures by contractor Pelly Construction during the period August 22 to October 4, 2011. This report provides as-built documentation of measures constructed, including:

- Regrading and filling of topographical depressions on the GSC to reduce concentration of surface runoff;
- Modification of GSC benches and bench ditches to increase flow capacity;
- Upgrading of erosion protection in the GSC upper perimeter ditches;
- Excavation of run-on control ditches above and adjacent to the cover;
- Road cross-ditching to direct drainage into perimeter ditches adjacent to the haul road;
- Clean out of sediment deposited in energy dissipation pools to re-establish capacities;
- Construction of a lined sediment and water storage pond downslope of the GSC cover, with emergency spillway;

- Regrading of a waste rock dump depression, downhill from the emergency spillway of the lined sediment pond, to provide a contingency storage area for sediment pond overflow.

The measures implemented in 2011 represent significant mitigation efforts that will reduce the severity of erosion and the potential for release of non-compliant runoff to the receiving environment in Spring 2012.

It should be noted that the pumping system still needs to be installed and commissioned before spring run-off occurs. This is a critical component that must be installed for the overall system to work. In addition, some monitoring of the system response must be undertaken to assess the mitigation measures.

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1.0 INTRODUCTION

The Faro Mine is located in the central Yukon, approximately 200 km north-northeast of Whitehorse or approximately 22 km north of the Town of Faro. The Grum Sulphide Cell (GSC) is located within the Grum Waste Rock Dump at the Faro Mine Complex, as shown on Drawing 1 attached.

1.1. Background

Sulphidic waste rock was preferentially placed in this area of the waste rock dump to form the GSC during mining of the Grum Pit. The Faro Mine is currently in a care and maintenance mode as the closure plan is finalized and implemented. As part of the closure and reclamation (C&R) plan, the GSC was identified as an area for early implementation and in 2010 a very low infiltration cover (as recommended in the latest version of the C&R plan) was placed over the GSC.

In 2010 Pelly Construction (on behalf of Yukon Government (YG))completed the construction of a high-density polyethylene (HDPE)-lined, uncompacted glacial till cover over the GSC. The design objective was for a very low infiltration cover to be placed. A very low infiltration cover is one which reduces infiltration into the underlying material to less than 0.5% of the mean annual precipitation (SRK, 2009[1]). To BGC's knowledge, instrumentation to monitor this objective has not been installed so it is not clear whether the cover has performed as designed with respect to this function. The design and construction of the cover system were undertaken by others prior to BGC involvement on the project.

During the spring freshet of 2011, erosion occurred on the cover surface and the resulting sediment-laden discharge into Vangorda Creek was found to be non-compliant with respect to total suspended solids (TSS > 15 mg/L) and total zinc (Zn > 0.5 mg/L). A list of the potential root causes of the May and June 2011 runoff events that resulted in non-compliant discharge is presented as follows:

- Higher than average snowmelt and rainfall in spring 2011.
- Late construction that did not allow hydroseeding in 2010, leading to reduced cover erosion resistance during the 2011 spring runoff.
- Filling of bench ditches with snow and ice, resulting in reduced flow capacity and flow over the crest of the benches.
- Lack of positive drainage in some locations on the cover, resulting in concentrated surface flows on the cover.
- Inadequate configuration of the transition from the LDP outlet channel to the 600-mm half-culvert, and an undersized half-culvert outlet.

[1] SRK, 2009. Faro Mine Complex. Cover Design for the Grum Sulphide Cell. Draft, September 2009. SRK 1CY001.029.

- Erosion of till from the toe berm, where a topographical low point on the east part of the toe berm concentrated surface flows over the crest and down the toe berm face.
- Some of the till cover material sourced from the south till borrow was found to contain elevated concentrations of zinc greater than Canadian Council of Ministers of the Environment soil quality guidelines.[2]

Detailed information on the events of the Spring 2011 freshet is summarized in the memorandum found in Appendix A and other project documentation.

BGC was engaged to review the GSC cover system performance in the 2011 freshet, and provide recommendations for repairs and water management mitigation measures that could be implemented in 2011, to reduce the severity of erosion and reduce the potential for non-compliant discharge to Vangorda Creek during spring 2012 runoff. Specifically excluded from the work were a forensic investigation of past incidents, and investigation of groundwater or seepage issues. The initial set of mitigation recommendations focused on remedial water and erosion management measures to be completed in the short term, and did not address long-term cover, landform or drainage design requirements; discussion of elevated zinc concentrations in cover material was also excluded. The preliminary recommendations memorandum is included as Appendix A. Three levels of measures were recommended by BGC as follows:

- Primary measures: Control erosion of the GSC cover;
- Secondary measures: Increase the capacity of the downhill sediment pond; and
- Tertiary measures: Pump all surface non-compliant water to Vangorda Pit catchment.

YG selected Pelly to complete construction of the primary measures (erosion control works), based on BGC recommendations in Appendix A.

At the completion of the erosion control measures upgrades, a change order was issued by YG and Pelly was contracted to increase the capacity of the sediment pond (secondary measures). Both scopes of work were completed by Pelly during August, September and October, 2011. The final component of the program, pumping of surface non-compliant water (tertiary measures), was not in the Pelly scope of work and is still outstanding for completion by Denison Environmental Services (DES), the care and maintenance operator for the site.

1.2. Scope of Work

In Phase 1, BGC was asked to provide recommendations for GSC water management measures to be conducted in 2011. These were to reduce the severity of erosion and reduce the potential for sediment- and zinc-laden water discharge into Vangorda Creek during Spring 2012 runoff.

Phase 2 of BGC's work scope constituted detailed design, field supervision and as-built reporting. BGC undertook a hydrotechnical analysis to obtain flow quantities for design of the

[2] Soil Sampling of Grum Sulphide Cell, Environmental Dynamics Inc.,16 June 2011, EDI Job 11-Y-0220

primary, secondary and tertiary water management measures contained in our preliminary recommendations letter dated August 3, 2011. Implementation of these measures was initiated on August 23, 2011, during a BGC site visit and kickoff meeting.

The focus of the cover repairs was to increase the erosion resistance of the cover in time for the 2012 freshet event to prevent a re-occurrence of the events of 2011. The limited time period meant an especially condensed period for design. The design placed a particular emphasis on field fitting during construction (rather than a detailed design phase) to ensure all work was completed prior to the onset of winter. The information presented in this report provides the as-built report for the Phase 2 work scope. An outline of important dates relative to the delivery of this project is presented in Table 1-1.

Table 1-1. Important Date Summary (all 2011)

YG initial contact with BGC	June 24
BGC Phase 1 Work Proposal (for site visit and preliminary recommendations)	June 30
Phase 1 contract awarded by YG	July 8
BGC initial site visit	July 12-13
BGC preliminary recommendations letter (Appendix A of this report)	August 3
BGC Phase 2 Work Program (design, supervision, and as-built reporting)	August 16
Construction initiation by Pelly and site kick-off meeting	August 23
Phase 2 contract awarded	August 24
Whitehorse meeting on revised design criteria for sediment pond (Appendix B)	August 25
BGC Design Memorandum for Cover Repairs	September 8
Completion and demobilization of Pelly from site	October 3
Final site inspection by YG and BGC	October 4

1.3. Context

BGC was engaged by YG to provide recommended repairs to a cover which was designed and constructed by others. Given the short timeline available to complete the work, an increased reliance on field fit design adjustments was required to ensure completion of construction in the available timeframe.

Final water discharge pathways were not fully defined until August 24, 2011 during the kickoff site visit. At that time, YG and BGC decided that the design criteria for the sediment

pond at the base of the GSC cover should be amended to provide surface water retention with capacity for pumping, with sediment removal as a secondary objective (a summary of the discussions is provided in Appendix B). This was a significant design change from the original intent which assumed discharge of all water from the sediment pond to the receiving environment. This design change was implemented because the originally intended discharge point would have mixed potentially compliant GSC surface water with zinc-contaminated seepage in Grum Creek at location V15. Furthermore, the 2011 freshet flows from the GSC overwhelmed Moose Pond (a receptor for Grum Creek and V 15 surface water), which had undermined its ability to accept additional water. This necessitated early implementation, by DES, of a pumping system near the Grum Weir at the confluence of V15 and Grum Creek flows. This pumping system is sized to pump seepage flows to Vangorda Pit, but does not have the capacity to pump storm surface flows, particularly not those from the larger GSC catchment. Note that the work at Moose Pond is provided for context only and is outside of BGC's scope of work and is not discussed further.

To achieve the surface water retention goals, the volume of the sediment pond was maximized within the space available at the toe of the GSC cover. Despite the increased size of the sediment pond, space constraints dictated that the pond constructible in 2011 would not fully store a 10-year, 24-hour runoff design event. To manage that event, and larger events, pumping of the pond to the Vangorda Pit catchment was specified to minimize potential discharge to the receiving environment.

It is expected that the sediment pond will continue to be operated until the final closure plan for the Grum waste rock dump is implemented, despite the original design intent as a temporary measure.

2.0 DESIGN SPECIFICATIONS AND DRAWINGS

The design specifications for the erosion control measures and the construction of the sediment pond and drawings are included in the BGC Grum Sulphide Cover Repairs – Detailed Design Memorandum dated September 8, 2011, which is included as Appendix C. Key elements of the design can be divided into repairs on or adjacent to the GSC cover, and the sediment pond, as noted below. A summary of repairs is presented in Drawing 02.

2.1. GSC Cover Repairs

The following repairs were undertaken to the cover (see Drawing 02 at tached for corresponding item numbering):

1. Bench ditches were modified to increase capacity (original flat benches with 1 m wide and 0.5 m deep ditches, were regraded to have an average depth of 1.1 m, width of 6.2 m and 17% back slope), as shown on Drawing 03, Appendix C.
2. Erosion protection was upgraded in the upper perimeter ditches (erodible phyllite waste rock was replaced with erosion-resistant rip rap) to match that of the lower portions of the perimeter ditches below Bench 3 El. 1258m.
3. Topographical depressions at the top of the dump (El. 1300 m) were regraded and filled with glacial till (mostly silt and sand) to reduce concentration of surface runoff.
4. Run-on control berms and ditches were constructed on the bench above the cover, and along the access road to the east of the cover, to direct external flow away from the GSC cover catchment area and into the Vangorda pit.
5. Sediment deposited in the East Dissipation Pool (EDP), West Dissipation Pool (WDP) and Lower Dissipation Pool (LDP) during 2011 freshet was removed to re-establish pond capacities.
6. A lined storage and sediment pond (sediment pond) was constructed (see Section 2.2 below for details)
7. Shallow cross ditches were excavated in the east perimeter access road to direct drainage into the east perimeter ditch and eastwards into the perimeter ditch along the haul road, particularly adjacent to Bench 4 (El. 1244m).
8. Compaction of clean waste rock driving surfaces with vibratory drum roller.
9. A contingency storage area was regraded on a waste rock dump bench below the GSC cover to accept occasional overflow from the sediment pond.

In addition to the above repairs, the original GSC cover discharge routing from the Grum waste rock dump downstream of the LDP (access road culvert, lined channel and half-culvert flume) were decommissioned.

Additional items on the GSC cover and surrounding area specified by YG and completed in 2011, but not designed or directly supervised by BGC are described below:

- Hydroseeding of cover surfaces with mulch, fertilizer and annual rye grass seed was completed by Pelly as residual cover construction work not completed in 2010.
- Pelly added fill and surface riprap armouring to the toe berm surface to allow lateral drainage to the GSC perimeter ditches, rather than allowing flow over the toe berm crest (supervised by Chilkoot Geological Engineers Ltd.)
- Pelly placed a 1 m thick till cover over an exposed waste rock slope at the crest of the cover, located just below the run-on control berms and surface grading noted as Repair #4 on Drawing 02, Appendix C.
- DES undertook culvert installations and surface grading of the haul road to reduce flow from east of the cover into the sediment pond area.
- DES installed a 900-mm diameter culvert, replacing the existing 230-mm diameter culvert, at the intersection of the quarry access road and the haul road.
- DES cleaned out the ditch along the haul road from the Grum waste rock dump to Vangorda Pit.
- DES installed 100m of trial snowfence upslope of the eastern section of Bench 3 (see Dwg 02).
- Liner testing was undertaken by Pelly and SRK.

2.2. Sediment Pond

The configuration and storage volume of the sediment pond was constrained by both available space and time to construct, with topographical and rip rap quarry access road configuration constraints. Thus, the sediment pond is not designed for retention of a specific runoff event; instead, the combination of storage capacity in the sediment pond and pumping capacity reduces the potential for release of non-compliant GSC cover runoff into the receiving environment. This approach is appropriate for an interim measure (as agreed by YG in a meeting in Whitehorse on Aug. 25, 2011 summarized in Appendix B) until the GSC cover is vegetated and the potential for sediment mobilization reduced.

A summary of sediment pond design considerations is provided below. Some elements were modified during construction as noted in Section 4.3, with as-built storage volumes summarized in Section 4.4.

- The sediment pond has a liner crest elevation of 1191 m and is 126 m long, 34 m wide and 3 to 4 m deep, with 2H:1V internal side slopes.
- Sediment pond construction has a cut of 7500 m^3 and fill of 10,200 m^3 for the pond excavation.
- The total installed liner area is about 4500 m^2.
- The original design water storage volume in the sediment pond below the original spillway invert of 1190 m is about 7,000 m^3 (Appendix C). A subsequent flow routing

attenuation calculation prior to construction allowed the spillway invert to be raised to 1190.4 m to give an additional 1,700 m^3 of storage.

- During the 10-year, 24-hour rain-on-snow event, a conservative estimate of runoff volume from the GSC cover is about 26,000 m^3. Given a storage volume of 8,400 m^3, the sediment pond would spill about 18,000 m^3 in the absence of pumping.
- With a pumping rate of 13,000 m^3/day (540 m^3/h), 5,000 m^3 of spillage could occur during the 10-year, 24-hour runoff event. This overflow would be accommodated in a regraded Contingency Storage Area (CSA) downstream (with an as-built volume of 9,300 m^3, see Section 4.3.3 below) and infiltrated into the waste rock, with surface runoff possible during extreme events. The access road will convey the flow from the sediment pond to the CSA, with occasional maintenance and repairs required.
- Exfiltration from the CSA will occur at the toe of the dump and feed various small tributaries of Vangorda Creek. It is possible that this water may not meet discharge criteria and so this area is to be used on contingency basis only, as agreed at the August 25, 2011 meeting with YG in Whitehorse (Appendix B).
- During the 200-year, 24-hour event (up to 45,000 m^3 total flow and 37,000 m^3 of spillage from the sediment pond without pumping), the CSA may spill onto the lower benches of the waste rock dump, depending on the infiltration capacity of the waste rock.

As-built water management measures are discussed relative to the design in Sections 4.3 and 4.4. Hydrology calculations were presented in the Design Memo in Appendix C.

3.0 CONSTRUCTION ACTIVITIES RECORD

3.1. Construction Schedule

Mobilization of the contractor's equipment began on August 21, 2011. Following cleanup, the contractor demobilized from the site on October 3, 2011.

The contractor worked one 10-hour shift each day throughout the majority of the project. An occasional 2-hour evening shift (with partial crew) was completed during good weather periods when possible, mainly for activities such as grading haul roads, benches, tidying slopes and bor row areas. This shift was not directly observed by BGC, but overnight progress was reviewed the following morning.

There were no severe weather-related delays on this project; there were some delays in liner installation due to precipitation but none that lasted longer than a half-shift. There were some equipment breakdowns, all lasting less than a half-shift.

3.2. Personnel and Equipment

3.2.1. Yukon Government

The general overview and coordination of the project was under the direction of Dr. Dustin Rainey of YG Assessment and Abandoned Mines (AAM) in Whitehorse. Ms. Deborah Pitt also represented YG at several points in the project.

3.2.2. BGC Personnel

BGC personnel were on site as the Owner's Engineer to undertake field design, construction monitoring, Quality Assurance (QA) and daily review of Pelly timesheets. It should be noted that BGC did not administer the Pelly contract; this aspect was handled by YG. BGC construction supervision personnel consisted of Ms. June Atkinson or Mr. Jeremy Valeriote. BGC staff was onsite full-time during the day shift construction activities. Construction monitoring reports were prepared daily by BGC and forwarded by email to BGC and YG representatives daily. These reports are provided in Appendix D including a selection of daily progress photos.

Ms. Atkinson and Mr. Jim Cassie of BGC Engineering arrived on site on August 23, 2011 with Dr. Rainey and spent two days reviewing the design and up grades. Construction monitoring began on August 25, 2011 and was completed on October 2, 2011. A completion inspection was undertaken by Dr. Rainey, Ms. Atkinson and Mr. Cassie on October 3, 2011.

3.2.3. Pelly Personnel and Equipment

Pelly Construction Ltd. (Pelly) provided one shift of equipment operators during this project. The shift worked under the direction of a foreman, Mr. Gunnar Slack, throughout the project. The hours worked by the contractor during day were 7:00 to 17:30. The evening shift was operated on an ad hoc basis with no set hours as previously noted.

Pelly also provided a surveyor, Ms. Caroline Brisebois, on the following dates:

- September 2 and 3, 2011 to stake out the position of the proposed sediment pond,
- September 11, 17, 18 and 19, 2011 to check the sediment pond construction elevations and
- October 2 and 3, 2011 to survey the work for as-built purposes.

The majority of the construction equipment was mobilized to the site during the week of August 23, 2011. The use of the equipment varied throughout the work but typically comprised one CAT 365 excavator, one CAT 335 excavator, two CAT 773B haul trucks, one grader, one packer, one loader and two dozers (a CAT D6 and a CAT D9). All equipment was operated by Pelly personnel.

Daily construction cost reports were prepared by Pelly and reviewed by BGC. These reports recorded time worked by Pelly equipment and personnel and associated costs. The approved progress reports were submitted to Yukon Government for payment.

3.2.4. Superior Plastics Personnel and Equipment

Superior Plastic Solutions Inc. (Superior) provided one shift of liner installers and labourers (5 personnel) during the project. The shift worked under the direction of a foreman, Mr. Fred Rudolph, throughout the project. Superior also provided Quality Control (QC) services for the liner installation. The hours worked by the liner contractor during day were 7:00 to 17:30. The liner team commenced work on site on September 19, 2011 and completed work and left site on September 28, 2011.

3.2.5. Denison Environmental Services

Denison Environmental Services (DES) is the Care and Maintenance Contractor at the Faro Mine Site. DES was involved in some aspects of the work (ditch excavation and culvert replacement) under their existing site contract.

3.3. Materials

Equipment and personnel time were tracked during the project, but clean waste rock and till volumes moved were not because costs were accrued on a time and materials basis, rather than on unit rates. As-built earthworks volumes of approximately 12,300 m3 fill and 7,800m3 cut were within 20% of initial design volumes.

HDPE liner and geotextile amounts installed during sediment pond construction are listed below. Western Tank and Lining supplied the liner and majority of the geotextile, all of which was procured by DES:

- Solmax 60mil HDPE liner - 7 rolls @ 1078 m^2/roll = 7,600 m^2
- Texel 918 12oz (435 g/m^2) non-woven geotextile – 22 rolls @ 350m^2/roll + 12 rolls @ 375m^2/ roll = 12,200 m^2.

3.4. Weather

A summary of the weather conditions was kept by BGC on the daily reports contained in Appendix D.

4.0 AS-BUILT RECORD

4.1. Daily Reports

As noted previously, daily reports were completed by BGC and issued to YG throughout the construction work. Design modifications agreed upon in the field are summarized in Section 4.3.

4.2. Quality Assurance/Quality Control

For this project Construction Quality Control (CQC) and Construction Quality Assurance (CQA) were defined as follows:

Quality Control (CQC): Actions taken by a provider of a service or product (that is the installer or contractor) to determine compliance with the requirements for materials and workmanship as stated in the project's drawings and specifications. For example, in earthwork, this means running compaction/density and grain size tests. For geosynthetics installation, it covers aspects such as trial welds, seam testing and leak detection.

Quality Assurance (CQA): Actions taken by the Owner (or a consultant to the Owner) to provide assurance that a facility is constructed as designed. This includes observation of the QC work, review of QC results, and verification that QC tests are conducted at the specified intervals, all to determine if the contractor and installer are in compliance with the project's drawings and specifications.

The results of the QA and QC are summarized in the following sections.

4.2.1. Pelly QC Activities

The majority of the Pelly's construction activity consisted of excavation and placement of fill and riprap. Monitoring consisted of ensuring that the excavation was performed to the lines and grades indicated on the drawings and to the intent of the upgrade designs and inspection and assessment of subgrade conditions.

Materials placed within the construction consisted of non-woven geotextile, liner, till and rip rap (400 mm). The geotextile used met the project specifications. It was placed in accordance with the manufacturer's specifications and the overlap and heat seaming of adjacent sheets was visually inspected. The gradation of the rip rap was visually inspected, but not tested, at the outset of the project, deemed appropriate, and subsequent loads of riprap were compared to the initial gradation.

4.2.2. Superior QC Activities

Superior undertook the following qualifications and tests:

- Subgrade Inspection and Acceptance Certification
- Wedge Welder Qualification
- Extrusion Welder Qualification
- Seam Pressure Test
- Destructive Test

Their liner installation report is included as Appendix E. In addition, BGC monitored the liner work for any visible defects during installation (poor seams, damage to liner, etc.). Where defects were identified by BGC, these were addressed prior to the liner team leaving site.

4.3. Design Modifications

Modifications to the BGC Phase 1 recommendations (Appendix A) and/or design (Appendix C) are detailed in the following sections.

4.3.1. Regrading of Bench Ditches

Benches 1 to 5 were reconfigured using a grader, selected as the most practical and efficient method to increase flow capacity of the bench ditches and improve lateral drainage on the GSC cover. The original benches were flat with a 1 m x 0.5 m deep channel section excavated at the back of the bench. Benches were regraded for an average depth of 1.1 m, width of 6.2 m, and 17% back slope with no spoil windrow (compared to the 12% back slope and spoil windrow as designed and presented in Appendix C, Drawing 03). BGC measured the regraded benches and found that flow capacity cross-section had been increased by about six times compared to the previous 0.5 m deep by 1 m wide ditches.

4.3.2. Sediment Pond

4.3.2.1. LDP Re-lining

The original design for the new sediment pond was to connect the newly installed 2011 liner to the existing GSC liner at the outlet of the Lower Dissipation Pool (LDP). When uncovered, the existing GSC liner in the LDP was found to be ripped and in places, damaged beyond repair at the proposed tie in location. A decision to modify the design was made in the field, and the tie in location for the sediment pond lined was moved to where the East and West Dissipation Channels join the LDP. At these locations, the liner was exposed and found to be intact.

As a result of this design modification, the existing LDP riprap, geotextile and liner were removed and the original compacted subgrade was exposed, the culvert exit from the LDP was removed, the eastern edge of the LDP was straightened by packing waste rock material, and new geotextile, liner and riprap was placed. It is possible that the liner higher up in the

perimeter ditches may also be damaged but BGC was not able to specifically inspect this aspect. This issue is noted to highlight possible channel leakages in the future.

4.3.2.2. Geotextile Under Liner

After reviewing the substrate condition on the slopes of the sediment pond, Pelly, Superior, BGC and YG agreed that a double layer of geotextile placed under the HDPE liner was appropriate to protect the liner from irregularities in the substrate. In two locations, noted as follows, the geotextile was triple layered along the crest to protect the liner where the substrate was considered to be particularly unsatisfactory:

- The entire length of the eastern edge of the sediment pond.
- The southern edge of the pond where the depth of the sediment pond is 3 m.

4.3.2.3. Centre Berm, Separation Dykes and Access Ramp

The original sediment pond design had a rockfill centre berm in the eastern area of the pond to create an area of the pond for sediment capture and provide access for equipment into the eastern area of the pond to clean out the sediment pond.

The requirement for the center berm was reassessed with YG on site on September 28, 2011. YG indicated that the sediment pond design intent, in the short term, would be to store and contain run-off and that as the water would not be released to the environment (Section 4.3.1), the ability to remove sediment from the inflow water was not essential in the short term. In the long term, modifications to the sediment pond will likely be required to provide a permanent drainage solution and, at this time, appropriate sedimentation measures would be added, if necessary. As a result, the center berm was removed from the scope of work for the sediment pond construction.

One implication of the removal of the center berm is a limitation on the reach of the equipment to place a riprap baffle in the base of the sediment pond at the inlet location. Placed riprap can be seen in daily report photos for September 29 in Appendix D. BGC recommends that turbulent flow in the base of the sediment pond be monitored in the 2012 freshet to assess whether the riprap baffle is adequate to slow inflow and protect the liner in this location. A riprap stockpile was left near this location should more material need to be added to the base of the sediment pond, however an excavator with a longer boom reach (greater than 7 m) will be required for this task.

As a result of center berm removal from the design, the access ramp to the sediment pond and separation dykes were also not constructed, with YG's approval.

4.3.2.4. Spillway Outlet to Haul Road

The sediment pond has an overflow spillway in the southeastern corner, with an invert elevation of 1190.4 m. The spillway is not lined with riprap as specified in the design memo. The spillway was instead constructed at a shallower 4H:1V slope to the riprap quarry access

road bench below. The original design was to construct a spillway channel outlet that would be directed adjacent to the riprap quarry access road and discharge in the CSA. This outlet would comprise a riprap crossing for vehicular traffic and then an unlined ditch to channel water and away from the riprap quarry access road surface.

The flow routing for spillage from the sediment pond was not constructed and was left to flow onto the existing riprap quarry access road surface at YG's request. Excavation and riprap lining of a channel between the sediment pond and the CSA) was not completed (after consultation with YG), as it was determined that the riprap quarry access road requires rehabilitation each spring and maintenance would be done by DES as required after the freshet. Riprap placement on the road berm opposite the spillway was also agreed to be an emergency measure that could be implemented on short notice in combination with expected monitoring of the GSC cover in Spring 2012. This riprap should be readily available and accessible near the spillway prior to Spring 2012 in case it is required.

Riprap material removed from the LDP was added as an uncompacted 1 m toe berm to the 2H:1V sediment pond slope, along the northeast side of the riprap quarry access road to resist erosion at the toe of the sediment pond slope.

4.3.3. Contingency Storage Area

Following the preliminary recommendations identified in the BGC letter of August 3, 2011 and subsequent discussions with YG on site and in Whitehorse on August 23-25, 2011 (Appendix B), the design intent for the sediment pond was modified and the following adjustments to BGC's preliminary recommendations were made:

1. Overflows in excess of the GSC cover sediment pond storage capacity will not be discharged directly into Grum Creek via an outlet channel, in part due to YG approval for DES to implement a stand-alone seepage collection and pumping system for Grum Creek and V15 flow. This decision is also based on the water quality from Grum Creek Weir and the worsening condition of the Moose Pond berm. As part of this work, the original discharge point from the GSC was decommissioned, which included removal of the 600 mm culvert under the quarry access road, rip rap lined channel and 600 mm half-culvert flume towards Grum Creek.
2. Water management from the sediment pond will include a separate pumping system to the Vangorda Pit catchment.
3. The sediment pond will be as large as practical given available space at the toe of the GSC cover, but it will not provide complete containment of all possible run-off events.
4. The construction of the CSA downstream of the sediment pond was added to the Pelly Phase 2 work scope. The CSA, which was constructed from a depression in the lower Grum waste rock dump, was added to the overall storage plan as an emergency measure. Spillage from the sediment pond will flow to the CSA, where it is expected that the water will infiltrate through the waste dump, and may spill in extreme events. It should be noted than the CSA is a temporary, contingency

measure and that given the conservative runoff estimates; the probability of spillage from the CSA is low, especially with sediment pond pumping in operation. However, the consequence of overflow may be significant erosion of the waste rock dump and suspended sediment in the receiving environment. These potential consequences dictate the need for a permanent solution to be integrated into closure measures for the Grum waste rock dump.

4.4. As-built Survey Drawings

As-built survey data was collected by Pelly Construction and provided to BGC by YG on 14 October, 2011. BGC has included this survey data in Drawings 1-3 for this report.

Using the as-built survey data, BGC produced volume-elevation curves for the sediment pond and the CSA. These are included as Figures 1 and 2. Noteworthy is that total as-built storage in each of the sediment pond and CSA below the outlet inverts is 9,000 m3, greater than the 7,000 m3 and minimum 5,000 m3 for the sediment pond and CSA respectively, as estimated in the original design memo (see Section 2.2 or Appendix C).

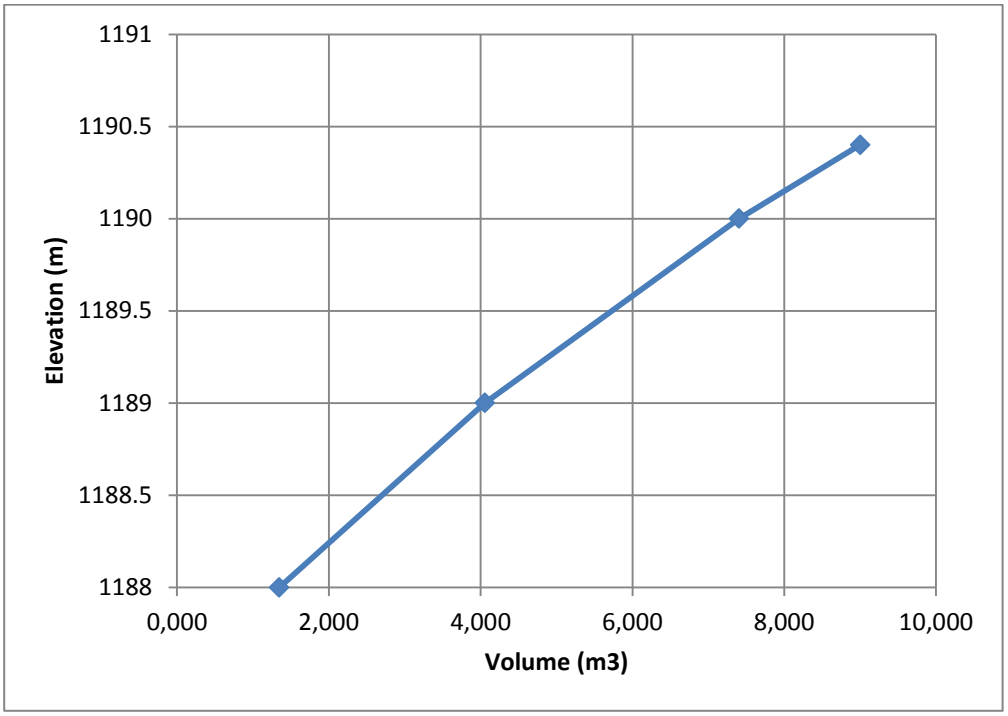


Figure 4-1. Sediment Pond: As-Built Volume Elevation Curve (Spillway Invert 1190.4m)

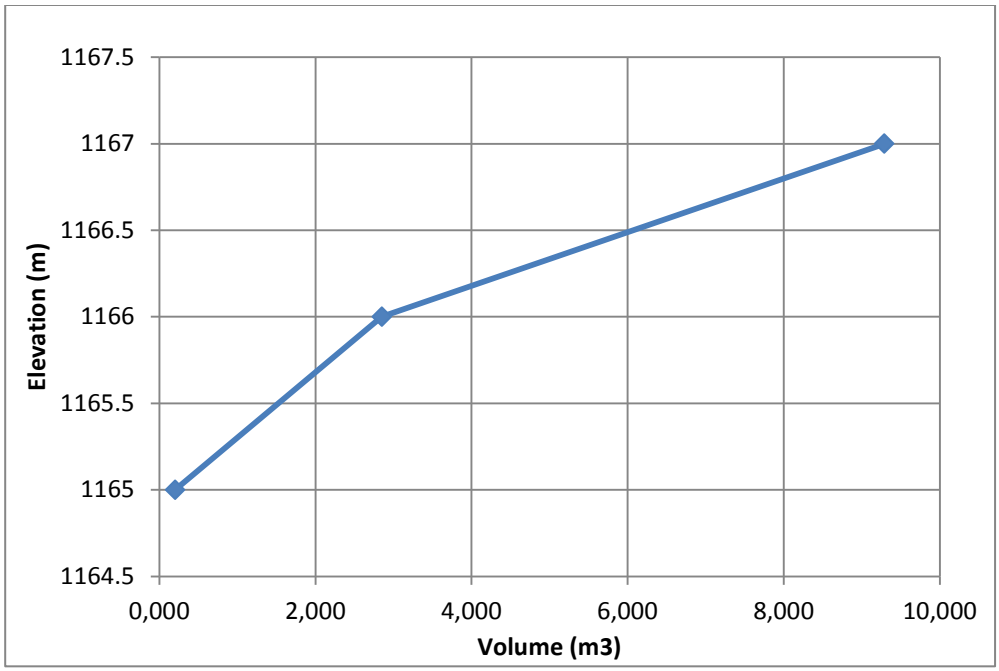


Figure 4-2. Contingency Storage Area: As-Built Volume Elevation Curve (Outlet Invert 1167m)

Given the informal nature of the CSA and its outlet, it is possible that outlet seepage or surface flow could potentially occur at lower elevations than noted herein. Monitoring of the outlet stability and seepage volumes is recommended during any discharge events.

4.5. Direct Costs Summary

Pelly costs for the project were about $749,000, split into two phases of $201,000 and $548,000 each, not including revegetation costs. Daily Pelly costs are indicated in the Daily Reports presented in Appendix D.

BGC's on-site construction monitoring costs were approximately $110,000; .design and reporting costs were an additional $65,000, for a total of $175,000, including disbursements.

5.0 POST-CONSTRUCTION RECOMMENDATIONS

5.1. Additional Installations

5.1.1. Sediment Pond Perimeter Fencing

The outer edge of the newly constructed sediment pond should be protected by a permanent perimeter fence to prevent animals from entering the sediment pond and also provide a safety barrier for on-site activities. BGC understands that DES has installed snowfence for this function, and recommends that performance of the snowfence in achieving the above objectives be monitored.

5.1.2. Snow Fence Trial

A snow fence trial will be undertaken in Winter 2011-2012 to assess whether the installation of snow fences adjacent to the benches will prevent snow build up and improve drainage through the bench ditches during freshet. DES, BGC and YG agreed on location and configuration of a trial involving placement of 400 m of snow fence upslope of Bench 3 (elevation 1258 m) at distances from the bench ditch between 5 and 15m. .However, due to adverse conditions DES was only able to install a 100m section, as shown on Dwg 02. This and future trials should help to assess options for mitigation of snow buildup on the benches, and BGC recommends that more snow fence be installed in time for Winter 2012-2013..

5.1.3. Pump and Pipeline

As part of the design, water management from the sediment pond will include a separate pumping system to the Vangorda Pit catchment. BGC recommended a design pumping rate of 13,000 m3/day (540 m3/hr), communicated to YG in the design memo (Appendix C).

BGC understands that the pump and pipeline design, acquisition and installation will be completed by DES in time for operation during freshet 2012. As of January 6, 2012, a Godwin HL6M skid-mounted diesel pump and 600 m of 8" HDPE pipe had been purchased through DES and delivered to site.

5.1.4. Emergency Riprap Stockpile

Riprap placement on the road berm opposite the spillway was agreed with YG to be an emergency measure that could be implemented on short notice if necessary to prevent erosion in Spring 2012. A stockpile of riprap should be readily available and accessible near the spillway prior to Spring 2012 in case it is required.

5.2. Monitoring

5.2.1. Rainfall-Snowmelt Runoff Relationship

BGC recommends that a weir (or alternate flow measurement device or methodology) be installed in the inlet and outlet channels to the sediment pond, to provide data on the

rainfall/snowmelt-runoff relationship as the GSC cover matures. This should also include measurements of snowpack depth and density and continued collection of nearby site temperature, precipitation and wind data.

5.2.2. Sediment Pond Water Management

A water balance should be established to correlate sediment pond inflow and pumping rates to determine leakage from the sediment pond, if any. Elevation lines on the sediment pond liner surface should be drawn to allow an observational record of pond water elevations as inflow and pumping occur. Temporary elevation lines could be drawn with spray paint prior to freshet, with a staff gauge installed on a long-term basis later in 2012.

As pumping is initiated, records of discharge times and dates should be collected and recorded in order to quantify the total amount of water discharged from the sediment pond. In addition, it is recommended that water quality monitoring be initiated as specified in Section 5.2.3.

It is recommended that water levels in the sediment pond be drawn down between run-off events to provide storage for the next runoff event and to prevent attraction of animals into the lined area. If animals do enter the lined pond, egress is possible at the inlet channel riprap ramp.

If a significant quantity of sediment is deposited in the base of the sediment pond, it should be surveyed prior to its removal. Soil sampling and geochemical analysis of deposited sediment should be undertaken.

5.2.3. Water Quality

BGC recommends that water quality monitoring be adapted to new flow routing from the GSC. This program should include the following points:

- Inflow to the sediment pond;
- Standing water in the sediment pond;
- Outflow from the sediment pond (when applicable);
- Standing water in the CSA;
- Existing, plus mapping and testing of any additional, seeps along the southern toe of the Grum waste rock dump.

It is expected that current monitoring and compliance points will be maintained. DES may also wish to consider additional points to differentiate quality of GSC cover runoff from runoff entering the system from outside the cover via road ditches or other routes.

5.2.4. Riprap Quarry Access Road Condition

As discussed in Section 4.3.2.3, the condition of the riprap quarry access road below the spillway outlet may be compromised as a result of spillway flow. If access is to be maintained

to the waste rock quarry and the west side of the cover during spring freshet, the condition of this road will need to be carefully monitored, and equipment available for repairs as required.

5.2.5. Cover, Channel and Sediment Pond Slope Erosion

Visual inspections for erosion of existing infrastructure should be conducted regularly during freshet and following each significant rainfall event. As part of these inspections, culverts should be inspected to ensure that they are open prior to the freshet.

5.2.6. Geotechnical Stability

Visual geotechnical inspections (for tension cracks, seeps, etc.) should be conducted on the GSC cover, toe berm and waste rock dump slopes on a regular basis. A baseline should be established for this item with a visual inspection and photographic record.

5.2.7. 2012 Freshet Site Visit

Close monitoring of the cover performance during the 2012 freshet is recommended. In particular, snowpack characteristics (thickness, density, layers, presence of ice lenses), performance of regraded cover benches and the performance and capacity of the sediment pond should be observed, with measures taken to prevent erosion or other damage from rain and snowmelt events. BGC recommends that BGC staff (with YG staff) visit the site prior to and during freshet discharge to observe, take measurements and advise on emergency measures (if necessary) regarding the snow cover prior to run-off, the cover performance during run-off, revegetation success, and further repairs, if required.

5.3. Considerations for Long-Term Issues

As noted in the introduction, BGC's focus in 2011 has been to address immediate repairs to the GSC cover and adjacent areas. Longer-term issues have not been considered in the measures implemented to date. BGC recommends careful observation of the cover performance through to Spring 2012 followed by a re-assessment of challenges and priorities.

Longer term issues that need assessment and potentially future repairs include:

- Assessment and possible remediation of metals-contaminated or potentially acid-generating cover material;
- A strategy to move from a pump-and-treat system to direct discharge to the receiving environment, once compliant water quality is confirmed, and re-evaluation of the temporary sediment pond within the context of the final closure plan for the Grum waste rock dump;
- Based on results of bench ditch regrading, consideration of the possible need for increased longitudinal bench gradient;

- Consideration of the "hard" engineering design of the existing GSC cover (fixed slopes and hard berm widths) and the possibility of incorporating or retrofitting using landform design principles.
- Development of a long term re-vegetation and monitoring plan including native species.
- Development of a detailed cover monitoring program including soil moisture retention and infiltration through the GSC cover. The cover was designed to restrict infiltration to 0.5% of mean annual precipitation by the designers, and currently there is no way of measuring against this standard. Cover instrumentation should be installed in addition to cover area water balance monitoring on surface. This will be especially important to understand cover infiltration performance as vegetation cover evolves over the next 5 to 10 years.

Given the number and extent of proposed covers planned for the overall Faro site, it is important to learn all possible lessons and design optimizations from the existing Grum cover as practically possible. These lessons learned will need to feed into the overall site design being formulated in the next few years.

6.0 CLOSURE

The cover and water management systems discussed herein may have longer-term residual risks that need to be evaluated and addressed in future phases; this work has not been completed under this work scope. BGC recommends that YG be prepared to continue to monitor and gather site specific data and operational experience (e.g. snow pack depth and variation, water quantity and quality, revegetation success) to assess the performance of the proposed mitigation measures. In addition, BGC understands that remaining 2011 remediation measures (pump and pipe installation) will be undertaken by DES under YG's supervision, and that YG will ensure these aspects are implemented. The measures implemented in 2011 represent significant mitigation efforts that will reduce the severity of erosion and the potential for non-compliant water releases during Spring 2012 freshet, however the upgraded water management is not designed to handle all possible spring run-off events and some residual risks do remain regarding possible discharge.

We trust the above satisfies your requirements at this time and remain open to any discussion or comments on the measures provided herein. Should you have any questions or comments, please do not hesitate to contact us.

Yours sincerely,

BGC ENGINEERING INC.
per:

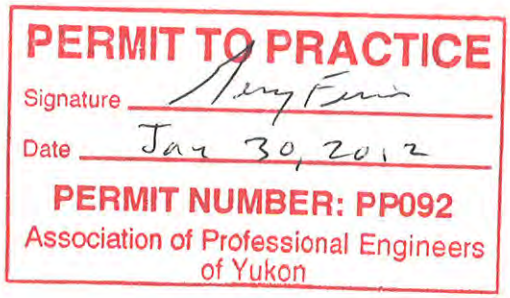
June Pollard, M.Sc., GIT
Engineering Geologist

Jeremy Valeriote, P.Eng.
GeoEnvironmental Engineer

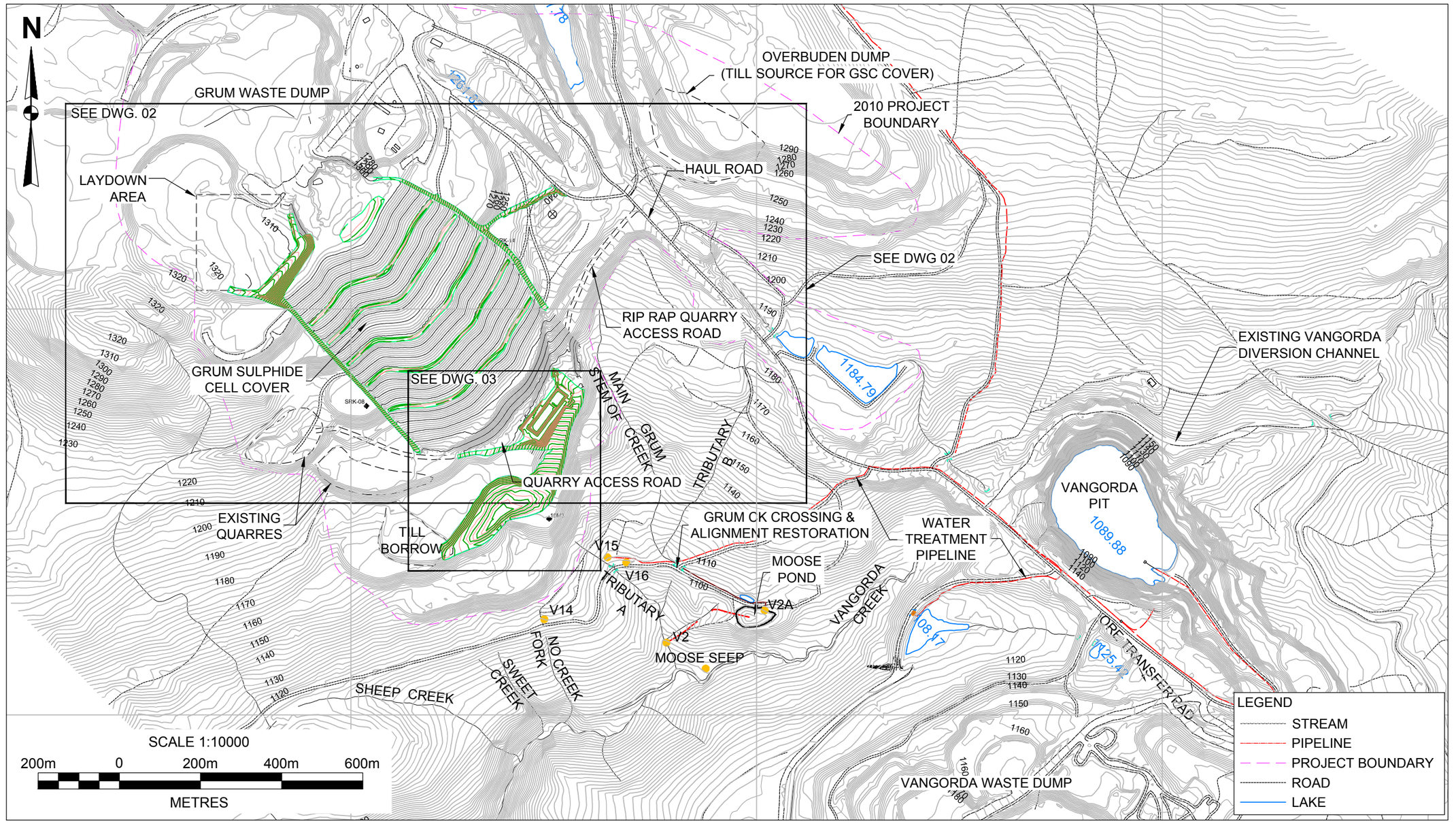
Reviewed by:

James W. Cassie, M.Sc., P.Eng.
Senior Geotechnical Engineer

Gerry Ferris, M.Sc., P.Eng.
Senior Geotechnical Engineer



AS-BUILT DRAWINGS



BASE MAP SOURCE: YUKON ENGINEERING SERVICES (YES) INITIAL SURVEY JUNE 2010, YUKON ENGINEERING SERVICES (YES) GSC SURVEY 22 JUNE 2011, AND PELLY CONSTRUCTION AS-BUILT SURVEY14 OCT 2011.
JUNE 22, 2011 GSC SURVEY & OCT 14, 2011 AS-BUILT (PELLY)

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CLIENT: GOVERNMENT OF YUKON

PROJECT: GRUM SULPHIDE CELL COVER UPGRADES - AS-BUILT CONSTRUCTION REPORT

TITLE: OVERVIEW MAP

PROJECT No.:	DWG No.:	REV.:
0533-003	01	0

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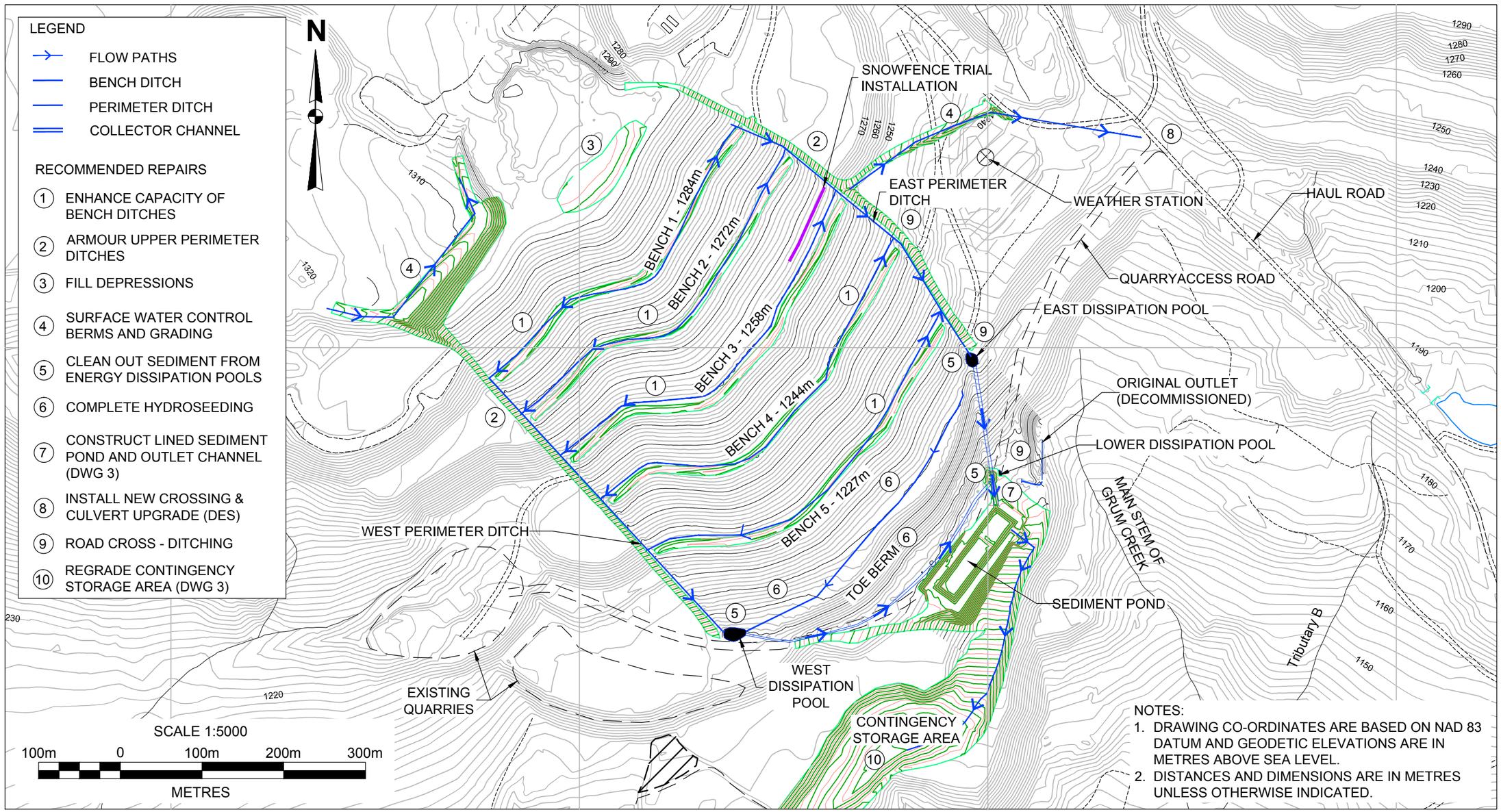

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PROJECT: GRUM SULPHIDE CELL COVER UPGRADES - AS-BUILT CONSTRUCTION REPORT

TITLE: GENERAL COVER UPGRADES

PROJECT No.:	DWG No.:	REV.:
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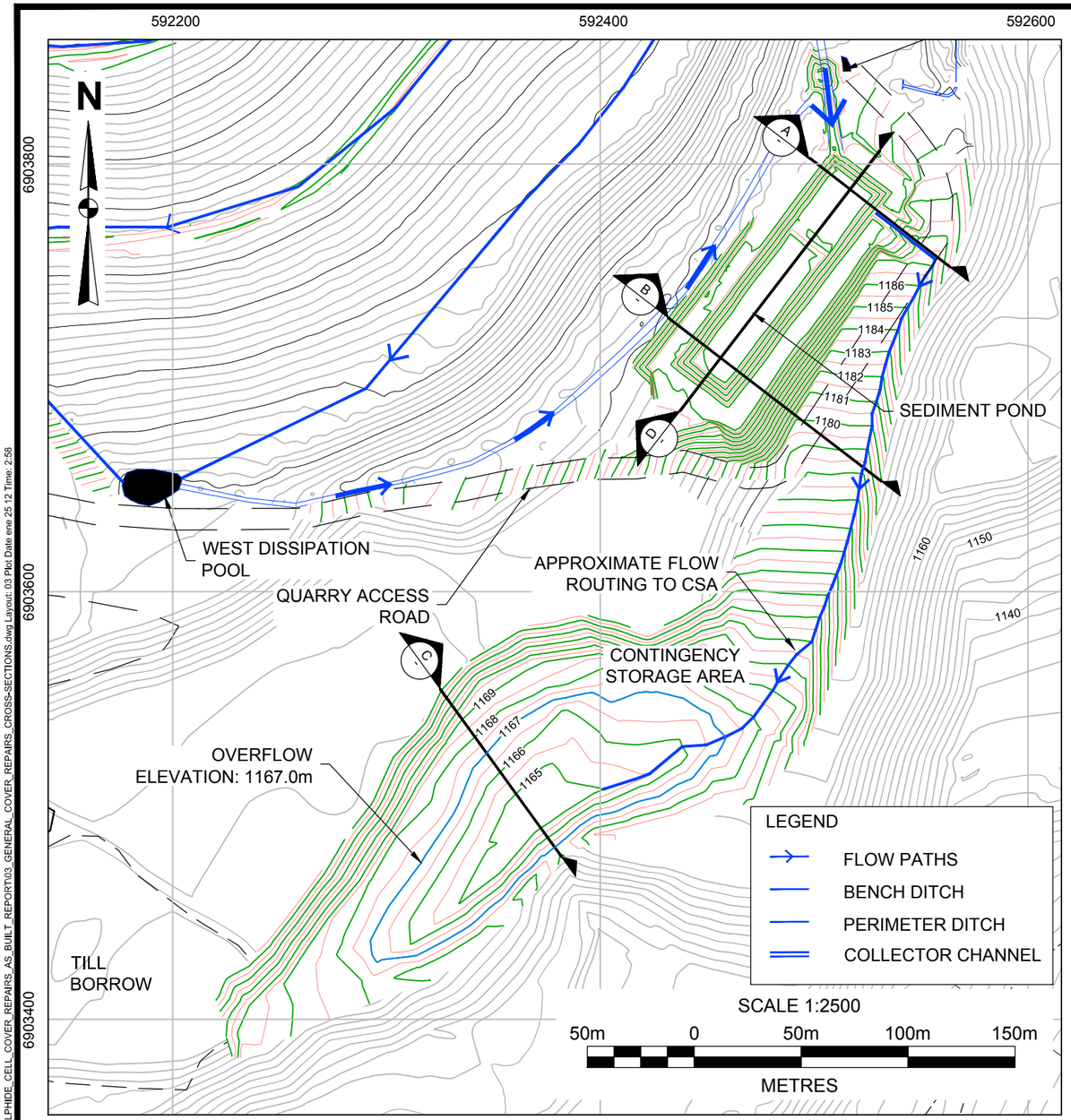

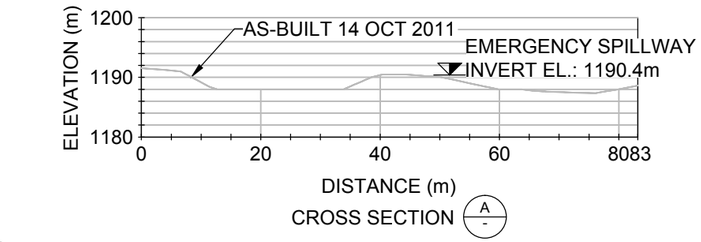

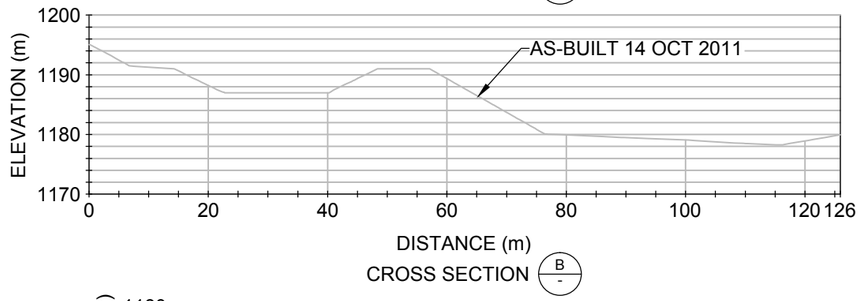

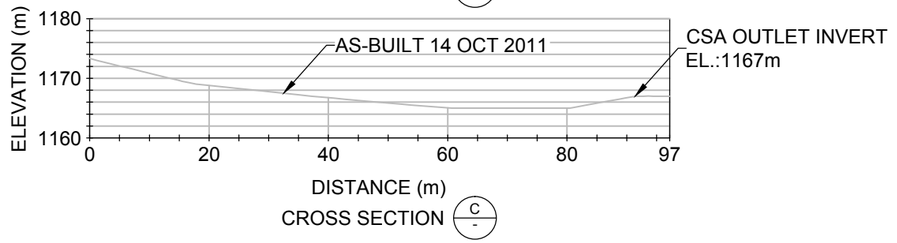

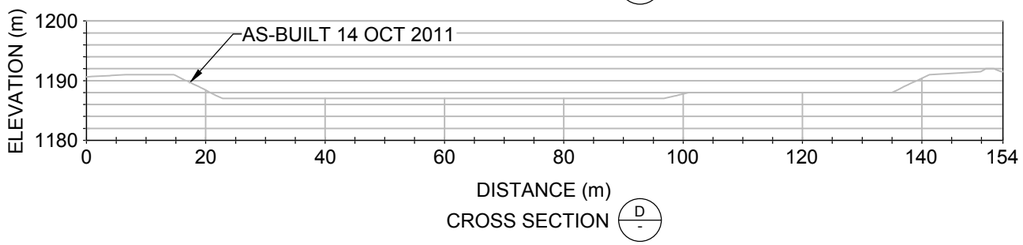

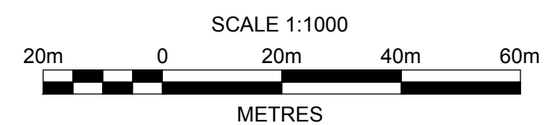

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DESIGNED: JV
CHECKED: GWF
APPROVED: JWC

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CLIENT: GOVERNMENT OF YUKON

PROJECT: GRUM SULPHIDE CELL COVER UPGRADES - AS-BUILT CONSTRUCTION REPORT

TITLE: SEDIMENT POND AND CONTINGENCY STORAGE AREA PLAN AND SECTIONS

PROJECT No.: 0533-003
DWG No.: 03
REV.: 0

DWG TO BE READ WITH BGC REPORT TITLED "GRUM SULPHIDE CELL COVER UPGRADES - AS-BUILT CONSTRUCTION REPORT" DATED JANUARY 2012

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APPENDIX A
BGC PHASE 1 RECOMMENDATIONS MEMORANDUM

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August 3, 2011
Project no: 0533-003

Dustin Rainey, PhD
Project Manager, Faro Project Management Team
Assessment and Abandoned Mines
Government of Yukon
Energy, Mines and Resources
Box 2703 (K-419)
Whitehorse, Yukon Y1A 2C6

Dear Dustin,

Re: Grum Sulphide Cell Cover Repairs – Preliminary Recommendations - FINAL

BGC is pleased to provide the following preliminary recommendations to address cover erosion and water management issues at the Grum Sulphide Cell (GSC) cover recently constructed at the Faro Mine. These recommendations are based on our site visit of July 12 and 13, 2011, a review of available information, and preliminary assessment of root causes and required mitigation measures.

As described in our Phase 1 Work Program letter, these preliminary recommendations constitute a first phase of work towards short-term cover repairs; Phase 2 would include detailed design for short-term remediation in 2011, and a potential Phase 3 would involve longer-term remediation in 2012, and beyond if required.

1.0 SCOPE OF WORK

For Phase 1, BGC was asked to provide recommendations for GSC water management mitigation measures to be conducted in 2011 to reduce the severity of erosion and reduce the potential for water quality exceedances in Vangorda Creek during spring 2012 runoff. BGC was to review several documents (listed below), perform a site inspection, and provide recommendations in a letter. Specifically excluded from the three phases of work were a forensic investigation of past incidents, and investigation of groundwater or seepage issues. This letter focuses on remedial water and erosion management measures to be completed in the short term, and does not address long-term cover, landform or drainage design requirements.

2.0 BACKGROUND

The GSC is located within the Grum Waste Rock Dump at the Faro Mine Complex, near Faro, Yukon, as shown on Drawing 1 attached. Sulphidic waste rock was placed in this area during mining of the Grum Pit, and the Yukon Government (YG) completed the construction of a high-density polyethylene (HDPE)-lined cover over the GSC in 2010.

The cover and related works were designed by SRK Consulting (Canada) Ltd. (SRK) and constructed by Pelly Construction Ltd. (Pelly) between June and November 2010. This work consisted of waste rock dump resloping, liner deployment and seaming, soil cover placement and surface runoff management. Some sulphidic material outside the cover extents was also relocated and placed under the GSC cover.

In May 2011, it became apparent that the constructed surface water management system at the GSC cover was not adequately managing flows resulting from rapid snowmelt, evidenced by erosion of the cover and runoff collection ditch, and high total suspended solids (TSS) concentrations in runoff downstream of the cover. Runoff was diverted to Moose Pond, where it exceeded both the capacity of the pond and that of the seepage pumping system located at Grum V15. On May 17, the spillway leading to Moose Pond was breached to prevent overtopping of the natural embankment retaining Moose Pond. Runoff from the GSC cover was thus diverted to the adjacent forested area, and eventually into Vangorda Creek. Zinc concentrations at compliance points upstream of Vangorda Creek (V2 and V2A), in and downstream of Vangorda Creek were found to be greater than the effluent quality standards for discharge from the mine. A temporary, unlined sediment pond was built on May 21, downstream of the Lower Energy Dissipation Pool (LDP), to capture further high flows from heavy rainfall.

On June 21, a week of steady rain prompted Denison Environmental Services (DES), the contractor managing the Faro Mine on behalf of YG, to block the culvert conveying flow from the runoff collection ditch downstream of the LDP, and build a diversion berm upstream of the culvert, to divert flow into the new sediment pond. However, on the night of June 21, runoff from heavy rain overwhelmed the culvert leading from the LDP to the sediment pond and washed out the diversion berm, causing some runoff to reach Moose Pond. The culvert between the LDP and the sediment pond was removed on June 22 to reduce restriction on the channel to the sediment pond. At this time, sediment-laden seepage was also observed to be flowing through the downstream embankment of the sediment pond.

3.0 INFORMATION REVIEW

BGC reviewed the following memos and reports documenting the events of May and June 2011, and post-freshet cover conditions:

- Faro Mine Complex: Moose Pond and Associated Water Management Structures – Elevated TSS in Discharge to Vangorda Creek (YG, May 18, 2011).
- Faro Mine Complex – Grum Sulphide Cell Surface Water Management: Elevated TSS and Zinc in Discharge to Vangorda Creek (YG, May 27, 2011).

- June 21-June 23 Moose Pond Stormwater Management (DES, June 23, 2011); and
- Geotechnical Evaluation – Grum Sulphide Cell Cover Erosion Control Measures (Chilkoot, June 6, 2011).

The above documents contain thorough descriptions and photodocumentation of during- and post-freshet GSC cover conditions, so BGC has not replicated those efforts in this report.

BGC also consulted the SRK Grum Sulphide Cell Cover Construction As-built Report (May 2011) for construction background and details. SRK designed for the 100-year rainfall event and used the Rational Method and Manning's equation to predict flow and flow velocity on the cover, and in the runoff collection ditch at the toe of the cover. Bench and perimeter ditches were specified to be 0.5 to 1.2m deep and 2 to 3m wide.

4.0 SITE VISIT OBSERVATIONS

BGC was asked by YG to review and assess water management on the GSC cover, and recommend mitigation measures. Jeremy Valeriote and Elisa Scordo of BGC visited the site on July 12 and 13, 2011. On and around the GSC cover, BGC observed the following:

- A broad depression on the upper bench (El. 1300m) concentrating flow onto the upper cover slope.
- Surface erosion rills (typically less than 10cm deep) on the GSC cover consistent with an unvegetated, uncompacted till cover exposed to freshet runoff;
- Additional catchment areas outside the cover (to the north and northwest, and along the toe berm access road to the east) contributing additional runoff at the toe of the GSC cover.
- Two areas of gullying (each up to 1m deep and several metres wide) on the eastern end of the toe berm, consistent with concentrated runoff down the toe berm slope. Both gullied areas were filled with till and was track-compacted during our site visit on July 13.
- Lower perimeter ditches performing well, with larger sized riprap than the upper perimeter ditches.
- Erosion and undercutting of armouring on upper perimeter ditches (below Benches 1 and 2 at approximate elevations 1284 to 1258m).
- Sediment deposition into bench ditches. Bench ditches shown in Figure 2 were excavated below the bench surface to be 0.5m deep and 2m wide at the bench surface. These were partially filled with sediment and less than 0.5m deep in some locations.
- Sediment deposition in the East, West and Lower Energy Dissipation Pools (EDP, WDP and LDP respectively). Depth was difficult to quantify for the EDP and WDP due to unknown construction depth, but based on a design depth of 2.7m for the LDP, there may be a thickness of up to 1m of sediment deposited in the LDP.
- A temporary, unlined sediment pond accepting runoff from the LDP, with no outlet or emergency spillway.

- A wide channel formerly flowing from the LDP, leading to a damaged and inoperable half-culvert outlet, a deeply eroded waste rock slope below the transition, and resulting debris flow into the forest below.
- Natural streambeds downstream of the intended half-culvert outlet channel, and on the old Grum Creek alignment downstream of the Grum Creek weir.

We understand that YG has commissioned liner testing and detailed survey information to assess constructed till cover thickness and liner integrity, so BGC has not commented on those issues here.

5.0 DISCUSSION

The following short-term issues need to be resolved:

- Potential for further erosion of the cover surface due to filling of bench ditches with snow and ice and resulting overland flow, and concentration of flow in topographical depressions
- Potential for further erosion of upper perimeter ditches due to undersized armouring;
- Potential for overwhelming of channels and ponds with run-on water and sediment from outside the GSC cover surface.
- Potential for uncontrolled loss of sediment and water from the existing sediment pond that is highly permeable, has no outlet or emergency spillway, and may not be sized to ensure sediment removal from surface water prior to entering the receiving environment.
- Over-reliance on Moose Pond for attenuation of flow volumes, TSS and zinc concentrations in Grum Creek and at compliance point V2.

Potential root causes of the May and June 2011 runoff events can be summarized as follows:

- Higher than average snowmelt and rainfall in spring 2011.
- Late construction that did not allow hydroseeding in 2010, leading to reduced cover erosion resistance during the 2011 spring runoff.
- Filling of bench ditches with snow and ice, resulting in reduced flow capacity and flow over the edge of the benches.
- Lack of positive drainage in some locations on the cover, resulting in concentrated surface flows on the cover.
- Inadequate configuration of the transition from the LDP outlet channel to the 600-mm half-culvert, and a likely undersized half-culvert outlet.

6.0 PRELIMINARY RECOMMENDATIONS

Based on our site visit and preliminary design work, BGC recommends the following repairs and improvements during the 2011 construction season, in preparation for the 2012 freshet. Recommended mitigation measures have been divided into primary, secondary and tertiary levels, all of which should be implemented this year. It is possible that some of the measures

may be decommissioned in future years after further monitoring, operational experience and assessment.

6.1. Primary Measures: Erosion Control

The two areas of gullying on the toe berm were backfilled and equipment compacted during the week of July 11, and it is understood that the toe berm crest has been regraded to provide positive drainage to the WDP. In addition, the slope below Bench 5 (El. 1228m) and the toe berm were regraded to eliminate rills where hydroseeding was not completed in early July 2011, and hydroseeding of these remaining areas is being completed today.

At this time, we do not recommend disruption of seeded surfaces to repair minor cover rilling, but cover erosion should be monitored closely in 2012. Recommended repairs or improvements to the GSC cover and contributing area include the following, and are summarized in attached Drawing 2:

- Regrade and fill topographical depressions that concentrate water on the plateau above the cover (El. 1300m).
- Enhance capacity of lateral bench ditches by widening and sidecasting excavated material to form an adjacent downslope berm. This short-term solution may need to be enhanced by longer-term measures such as increasing bench ditch grades, subject to further observations during the 2012 freshet.
- Expect that hand-digging and removal of snow and ice may still be required in Spring 2012 if ditches fill with snowdrift, and further assess long-term closure solutions in 2012.
- Conduct a snowfence installation trial adjacent to bench ditches to encourage accumulation of snow drifts up- or down-hill of the bench ditches.
- Extend channel armouring to the upper perimeter ditches between Benches 1 and 3 (1284m to 1258m) using similar riprap material size (D_{50} = 250mm) as for perimeter ditches between Benches 3 and 5 (1258m to toe berm).
- Excavate run-on control ditches on the bench above the cover, and along the access road to the east of the cover, to direct non-cover flow away from the GSC cover catchment area and into Grum or Vangorda Pits.
- Excavate shallow cross ditches in the east perimeter access road to direct drainage into the east perimeter ditch, particularly adjacent to Bench 4 (El. 1245m).
- Excavate a cross-ditch in the new quarry access road to direct drainage into the LDP or new sediment pond.
- Replace the 230-mm diameter culvert at the east end of the quarry access road (see Repair #8 on Drawing 2) with an armoured channel if the road can be decommissioned, a wide swale as a ford, or a larger culvert (size to be determined from hydrological analysis).
- Clean out sediment deposited in EDP, WDP and LDP to re-establish pond capacities.
- Complete hydroseeding as soon as possible on the lower bench and toe berm.
- Re-evaluate and monitor hydroseeding program for 2012.

6.2. Secondary Measures: Sediment Pond

A hydrological assessment should be completed for design and construction of a lined sediment pond in the available space on the bench below the toe berm. BGC has initiated this work and will revise the sediment pond size based on the results. Drawing 3 shows an approximate new sediment pond footprint to be combined with the LDP and constructed partially within the footprint of the temporary sediment pond, to maximize available space and reduce the height of the embankment retaining the new sediment pond (see Drawing 3).

Based on preliminary hydrology and available space, conceptual design parameters are estimated as follows:

- A new lined sediment pond of approximate dimensions 80m x 25m and about 3m deep, with minimum 2:1 side slopes for liner placement, representing an excavated volume of approximately 4500 m^3 and liner area of about 2200 m^2.
- The pond should be divided into at least two cells by a rockfill (clean, angular and well graded) separation dyke at the midpoint of the pond, with the inlet and outlet at opposite ends of the pond.
- The combination outlet channel and emergency spillway can maintain vehicle access on the existing access road if built as a wide, shallow, well-armoured ford or wet crossing.
- Provision of adequate area adjacent to the sediment pond to allow excavator access for pond clean-out activities.

Drawing 3 presents two alignment options for the spillway outlet channel downstream of the new sediment pond:

- Option A: directly down the existing 25-degree (44%) slope below the existing outlet channel-half culvert transition.
- Option B: existing 12% ramp along the existing half-culvert alignment.

Either option will need to be lined and armoured with rip-rap, with energy dissipation check dams, steps and aprons. At both locations, the existing outlet aprons and flow paths into the forest appear suitable to receive flows and direct them into the existing natural Grum Creek streambed.

6.3. Tertiary Measures: Pumping Of Non-Compliant Water To Vangorda Pit

Two opportunities exist to intercept non-compliant discharge prior to entering the receiving environment, if necessary. It is recommended that precautionary pumping be carried out during the 2012 freshet, prior to the results of water quality analyses becoming available.

1. Pumping of sediment-laden discharge from the new sediment pond:

   BGC collected samples of sediment deposited in the WDP and LDP and submitted them to EBA Engineering in Whitehorse for grain size analysis. Results indicate that about 50% of particles are smaller than 10 microns in diameter and will not typically settle by gravity alone, meaning that it is difficult to ensure that TSS compliance can

be achieved simply via a sediment pond, especially prior to full revegetation. A temporary pump, barge, power supply and pipeline should be installed in time for the 2012 freshet in case pumping is required. A flocculant trial could also be considered during the freshet to gather data to inform longer-term solutions.

2. Pumping of water high in dissolved zinc from V15 seep:

   We understand that the existing pump and pipeline for V15 seepage could be operated, if necessary, to pump zinc-laden discharge to Vangorda Pit for eventual treatment. This separation of non-compliant V15 discharge from Grum Creek discharge would allow the removal of the Grum Creek diversion to Moose Pond downstream of the Grum Creek weir, and reduce the reliance on Moose Pond to attenuate flow, TSS and zinc concentrations in discharge water. Grum Creek flow could be directed into a culvert under the existing access road and into the natural streambed downstream, which was observed to be suitable to accept flow from Grum Creek, including runoff from the GSC cover.

An alternative option to pumping would be to extend the Grum Creek road culvert upstream to near the weir and direct V15 gravity flow over the culvert in a lined channel to continue diverting V15 flow to Moose Pond.

7.0 SUMMARY

BGC recommends that a comprehensive set of mitigation measures including erosion control and water management repairs and enhancements, construction of a lined sediment pond, and pumping stations be implemented in advance of the 2012 freshet. This three-tiered combination of remedial measures in three levels is intended to decrease the likelihood of non-compliant discharge in the short term.

However, there will likely be residual risks in the cover and water management in the long term, so BGC recommends that YG be prepared to continue to monitor and gather site specific data and operational experience (e.g. snow pack depth and variation, water quantity and quality, revegetation success) to assess the performance of the proposed mitigation measures.

This letter provides an outline of suggested measures to allow for initial discussions and construction planning by YG. Supplies and materials may need to be ordered on a short timeline to allow construction activities in August or September. BGC is available to discuss and provide further details as design concepts are elaborated.

BGC suggests that the majority of the noted measures be field fit by a responsible contractor under the full time supervision of BGC. This approach is suggested in that it reduces necessary design/drawing/specifications cycle time, permitting YG to implement mitigation measures before the end of the construction season, subject to the first snowfall and freezing temperatures.

Time is of the essence. It is critical to carry out the remedial measures as quickly as is practical.

7.1. BGC Phase 2 Work Program – Detailed Design and Implementation of 2011 Repairs

BGC will discuss the above letter report with YG and plan to provide a proposal for Phase 2 design services and construction supervision during the week of August 2, 2011

8.0 CLOSURE AND LIMITATIONS

BGC Engineering Inc. (BGC) prepared this document for the account of Yukon Government. The material in it reflects the judgment of BGC staff in light of the information available to BGC at the time of document preparation. Any use which a third party makes of this document or any reliance on decisions to be based on it is the responsibility of such third parties. BGC accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this document.

As a mutual protection to our client, the public, and ourselves, all documents and drawings are submitted for the confidential information of our client for a specific project. Authorization for any use and/or publication of this document or any data, statements, conclusions or abstracts from or regarding our documents and drawings, through any form of print or electronic media, including without limitation, posting or reproduction of same on any website, is reserved pending BGC's written approval. If this document is issued in an electronic format, an original paper copy is on file at BGC and that copy is the primary reference with precedence over any electronic copy of the document, or any extracts from our documents published by others.

The information provided in this letter is focused on assessment of the noted issues and provision of remedial measures intended to prevent future discharge of non-compliant water. This report should not be construed as a detailed forensic review. The proposed remediation measures will be managed and implemented using the field design approach that requires full time engineering input and monitoring. Implementation of the remedial measures without appropriate engineering supervision could create additional problems for the cover and water management system. Monitoring of the remedial measures and cover performance is also required. Lastly, the cover and water management system may have longer-term issues that need to evaluated and addressed in future phases; this work has not been completed under this work scope.

We remain open to any discussion or comments on the measures provided herein.

Yours sincerely,

BGC ENGINEERING INC.
per:

Elisa Scordo, M.Sc., P.Ag.
Water Resources Specialist

Jeremy Valeriote, P.Eng.
GeoEnvironmental Engineer

James W. Cassie, M.Sc., P.Eng. (NT)
Specialist Geotechnical Engineer

Gerry Ferris, M.Sc., P.Eng.
Senior Geotechnical Engineer

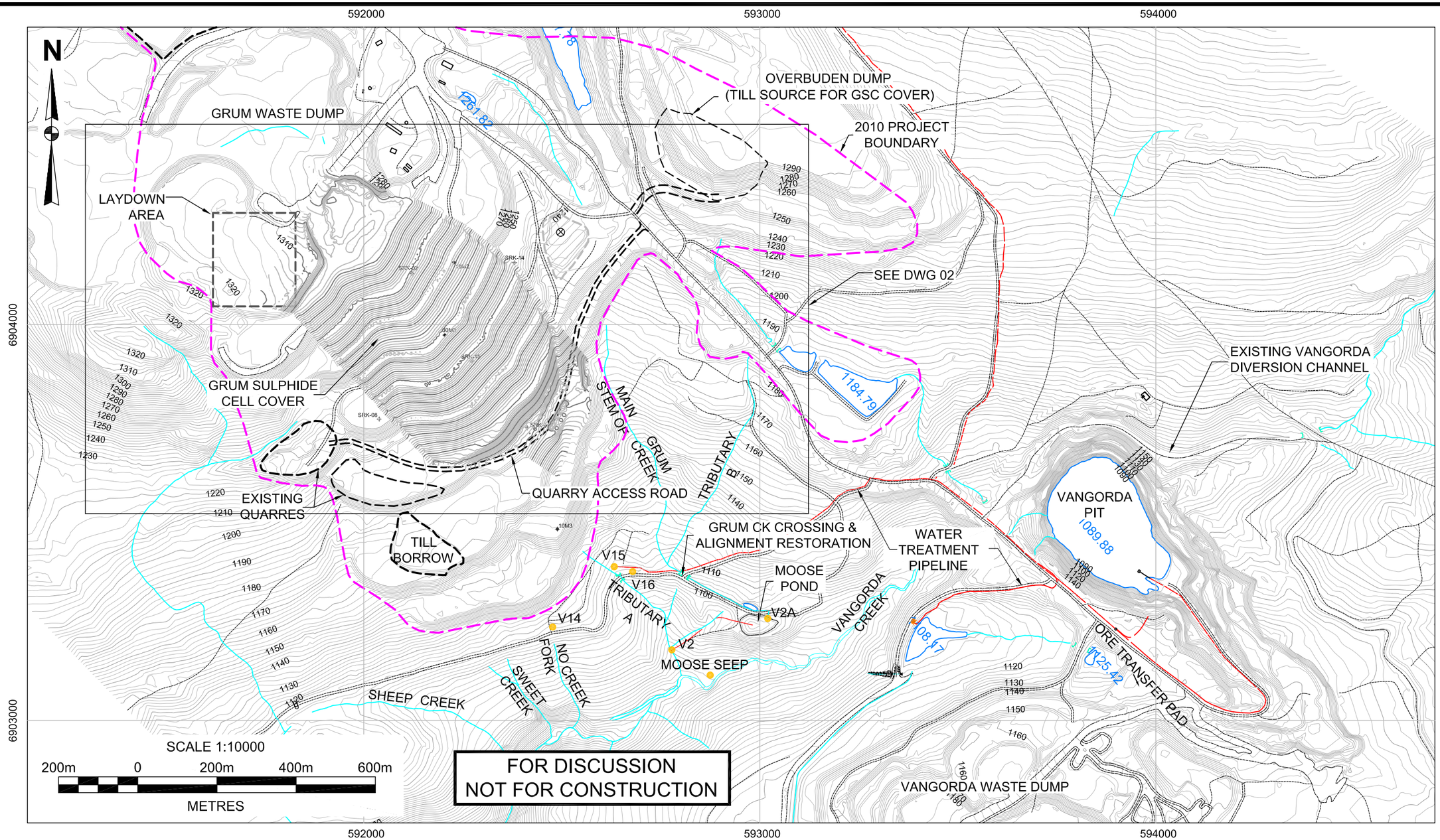
JEV/JWC/GWF

Attachments:

Drawing 1 – Overview Map

Drawing 2 – General Cover Repairs – Conceptual

Drawing 3 – Lined Sediment Pond - Conceptual



BASE MAP SOURCE: YUKON ENGINEERING SERVICES (YES) INITIAL SURVEY JUNE 2010 AND YUKON ENGINEERING SERVICES (YES) GSC SURVEY 22 JUNE 2011.

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DATE:	AUG 2011
DRAWN:	LS
DESIGNED:	JV
CHECKED:	GWF
APPROVED:	GWF

PROFESSIONAL SEAL:

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

CLIENT: GOVERNMENT OF YUKON

PROJECT: GRUM SULPHIDE CELL COVER REPAIRS - PRELIMINARY RECOMMENDATIONS

TITLE: OVERVIEW MAP

PROJECT No.:	DWG No.:	REV.:
0533-003	01	A

DWG TO BE READ WITH BGC LETTER REPORT TITLED "GRUM SULPHIDE CELL COVER REPAIRS - PRELIMINARY RECOMMENDATIONS" DATED AUGUST 3, 2011

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LEGEND

- FLOW PATHS
- BENCH DITCH
- PERIMETER DITCH
- COLLECTOR CHANNEL

RECOMMENDED REPAIRS

1. ENHANCE CAPACITY OF BENCH DITCHES
2. ARMOUR UPPER PERIMETER DITCHES
3. FILL DEPRESSIONS
4. EXCAVATE RUN-ON CONTROL DITCHES
5. CLEAN OUT SEDIMENT FROM ENERGY DISSIPATION POOLS
6. COMPLETE HYDROSEEDING AND MONITOR
7. CONSTRUCT LINED SEDIMENT POND AND OUTLET CHANNEL
8. REPLACE 230mm CULVERT OR EXCAVATE CHANNEL
9. ROAD CROSS - DITCHING

N

591500 592000 592500 593000

6904500 6904000

BENCH 1 - 1284m
BENCH 2 - 1272m
BENCH 3 - 1258m
BENCH 4 - 1244m
BENCH 5 - 1227m
TOE BERM
10M2
30M3
EAST PERIMETER DITCH
WEST PERIMETER DITCH
WEATHER STATION
RELOCATED SULPHIDIC DUMP
EAST DISSIPATION POOL
SEE DWG 03
LOWER DISSIPATION POOL
MAIN STEM OF GRUM CREEK
EXISTING SEDIMENT POND
EXISTING QUARRY ACCESS ROAD
Tributary B
WEST DISSIPATION POOL
EXISTING QUARRIES

SCALE 1:5000

100m 0 100m 200m 300m

METRES

FOR DISCUSSION
NOT FOR CONSTRUCTION

BASE MAP SOURCE: YUKON ENGINEERING SERVICES (YES) INITIAL SURVEY JUNE 2010 AND YUKON ENGINEERING SERVICES (YES) GSC SURVEY 22 JUNE 2011.

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DATE:	AUG 2011
DRAWN:	LS
DESIGNED:	JV
CHECKED:	GWF
APPROVED:	GWF

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BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

CLIENT: GOVERNMENT OF YUKON

PROJECT: GRUM SULPHIDE CELL COVER REPAIRS - PRELIMINARY RECOMMENDATIONS

TITLE: GENERAL COVER REPAIRS - CONCEPTUAL

PROJECT No.:	DWG No.:	REV.:
0533-003	02	A

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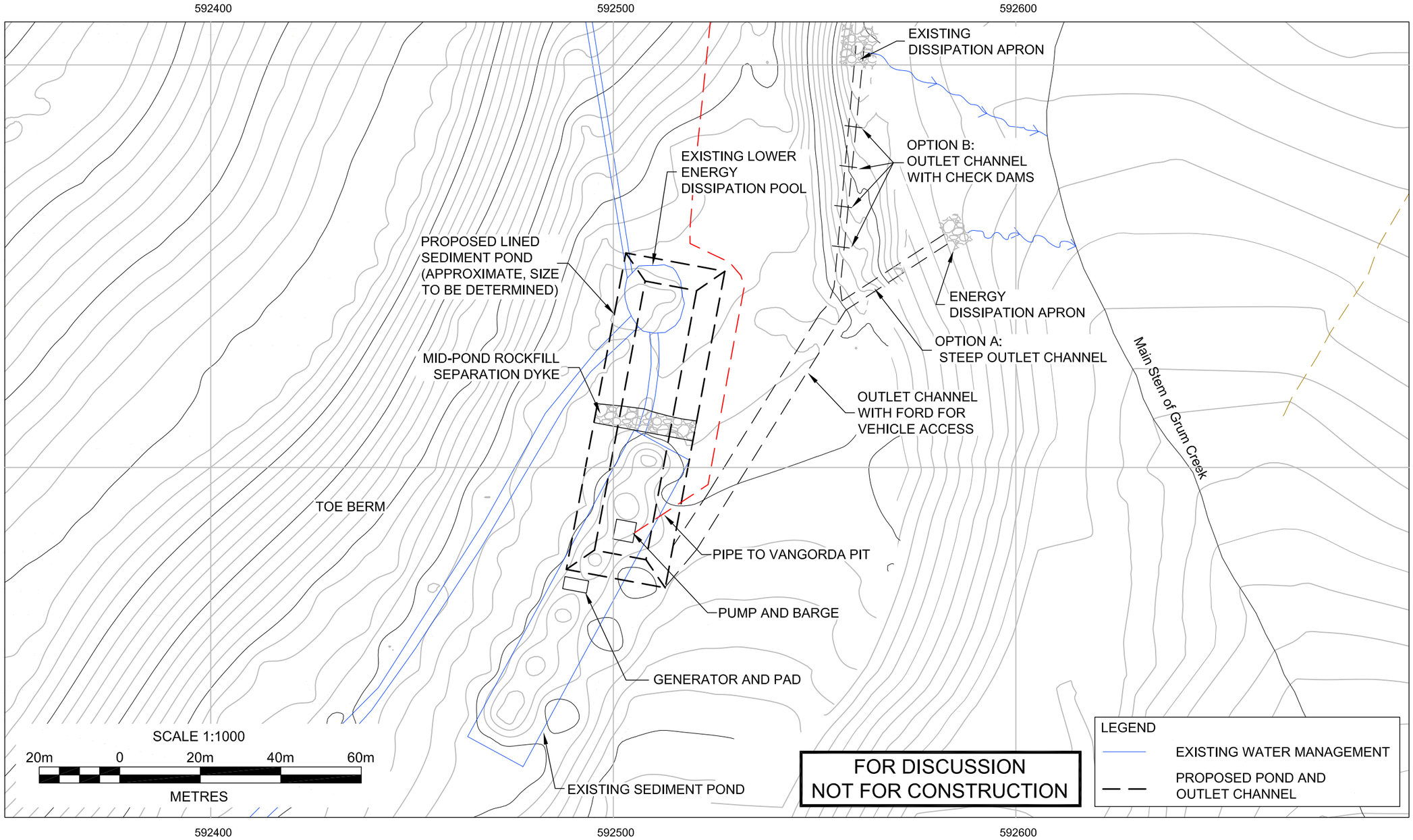

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APPROVED:	GWF

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CLIENT: GOVERNMENT OF YUKON

PROJECT: GRUM SULPHIDE CELL COVER REPAIRS - PRELIMINARY RECOMMENDATIONS

TITLE: LINED SEDIMENT POND - CONCEPTUAL

PROJECT No.:	DWG No.:	REV.:
0533-003	03	A

DWG TO BE READ WITH BGC LETTER REPORT TITLED "GRUM SULPHIDE CELL COVER REPAIRS - PRELIMINARY RECOMMENDATIONS" DATED AUGUST 3, 2011

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APPENDIX B
EMAIL MEETING SUMMARY (BGC & YG, WHITEHORSE, AUGUST 25, 2011)

From:	Jim Cassie
To:	Dustin.Rainey@gov.yk.ca; "Deborah.Pitt@gov.yk.ca"; Leslie Gomm P.Eng. (geec@northwestel.net)
Cc:	Jeremy Valeriote; June Atkinson; Gerry Ferris
Subject:	Summary of Discussions/Path Forward on GSC Sediment Pond
Date:	Thursday, August 25, 2011 7:24:05 PM

The four of us met today at the YG office to discuss the recent developments and path forward regarding our work on the design of the sediment pond at the toe of the GSC. The following outlines the decisions and path forward comments:

1. We will NOT discharge any water from the sediment pond down into Grum Creek.
2. We will manage water from the sediment pond by pumping it (into ditch leading to Van Gorda pit likely).
3. We need to make the sediment pond larger, as big as practical given space at the toe.
4. We need to determine if second pond can be designed/built on the east side of the GSC.
5. We will construct the emergency infiltration pond below existing sediment pond.
6. Liner and geotextile order has been sent to DES to get shipped to site – approximately 7000 m2.
7. DES has been notified that V15/GC Weir seepage collection/pumping system has been approved by YG.

Short term action items include

1. Confirm geometry/capacity of larger sediment pond at the toe.
2. Confirm feasibility/geometry/capacity of second sediment pond on east side of cover.
3. Need to understand GSC hydrology relative to proposed ponds and pumping capacity.
4. Need to get pond design to Pelly for costing.
5. Need to notify DES about need for additional pumping requirements, along with pump/piping needs.
6. Identify if possible to design drainage ditch to the west from sediment pond for longer term.

Dustin, Jeremy and I should get on the phone tomorrow to get organized on action items.

Please correct any errors in the summary provided herein.

BGC ENGINEERING INC.

Jim Cassie, M.Sc., P.Eng.
Vice President / Senior Geotechnical Engineer

Relocating offices by August 2, 2011
Calgary, AB
Off. 403-250-5185 X103

Cell 587-894-2664

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APPENDIX C
BGC DESIGN MEMORANDUM

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Tel: 604.684.5900
Fax: 604.684.5909

September 8, 2011
Project no: 0533-003

Dr. Dustin Rainey, PhD
Project Manager, Faro Project Management Team
Assessment and Abandoned Mines
Government of Yukon
Energy, Mines and Resources
Box 2703 (K-419)
Whitehorse, Yukon Y1A 2C6

Dear Dustin,

Re: Grum Sulphide Cell Cover Repairs – Detailed Design (DRAFT)

BGC is pleased to provide the following design memorandum that addresses water management issues at the Grum Sulphide Cell (GSC) cover, which was recently designed (by SRK) and constructed (by Pelly Construction) at the Faro Mine. The design work is based on preliminary recommendations identified in our letter of August 3, 2011 and subsequent discussions with the Government of Yukon (YG) on site and in Whitehorse on August 23 to 25, 2011. As indicated in our August 3, 2011 letter, the 2011 repairs on the GSC consist of a combination of designed elements and measures to be field fit only. This letter provides details on the designed elements to be undertaken in 2011.

Those discussions yielded the following adjustments to BGC's preliminary recommendations:

1. Overflows in excess of the GSC cover sediment pond storage capacity will not be discharged directly into Grum Creek via a pond outlet channel. This decision is in part due to YG approval for Denison Environmental Services (DES) to implement a stand-alone seepage collection and pumping system for Grum Creek and V15 flow. This decision is also based on the water quality from Grum Creek Weir and the degrading condition of the Moose Pond berm.
2. Water management from the sediment pond will include a separate pumping system to the Vangorda Pit catchment.
3. The sediment pond will be as large as practical given available space at the toe of the GSC cover.

4. A downstream contingency storage area, within a gentle depression in the waste dump, is added to the overall storage plan as an emergency measure. An outlet from the sediment pond will direct water from the sediment pond in a ditch to this contingency storage area, where it is expected that the water will infiltrate through the waste dump.

As described in our August 3 letter, the attached design identifies short-term cover repairs that can be completed in 2011 in time for the Spring 2012 freshet. Additional longer-term repairs are not reviewed in this current design memo.

1.0 SCOPE OF WORK

In Phase 1, BGC was asked to provide recommendations for GSC water management measures to be conducted in 2011 to reduce the severity of erosion and reduce the potential for water quality exceedances in Vangorda Creek during spring 2012 runoff.

Phase 2 of BGC's work scope constitutes detailed design, field supervision and as-built reporting. BGC undertook a hydrotechnical analysis to obtain the necessary flow quantities for design of the primary, secondary and tertiary water management measures contained in our preliminary recommendations letter dated August 3, 2011. Implementation of these measures was initiated on August 23, 2011, during a BGC site visit and kickoff meeting.

These measures are summarized briefly as follows:

- Primary measures: regrading, ditching, armouring and hydro-seeding for cover run-on contribution and erosion control on and adjacent to the GSC cover;
- Secondary measures: construction of a lined sediment pond and emergency outlet channel downstream of the GSC cover; and,
- Tertiary measures: pumping of water from the GSC cover sediment pond water to the Vangorda Pit catchment for eventual treatment.

This memo provides the design basis for the attached drawings to allow construction of primary and secondary measures to commence. For tertiary pumping measures, BGC will provide information to assist with pump, pipe, barge and generator selection and procurement by DES, Pelly Construction and/or YG. We understand that DES will undertake the repair of the area surrounding the existing 230 mm culvert under the GSC access road near the main Vangorda haul road with a larger culvert or channel, along with some surface grading, as noted on Drawing 01. It is important that surface water from these roads to the east do not report to the sediment pond at the toe.

It is important to note that due to the time constraints involved in completing repairs by the end of September 2011, design work has been expedited. Fast-tracking of construction has created an increased reliance on field-fitting and construction monitoring, as has been provided by BGC on site since August 23, 2011.

2.0 DESIGN PARAMETERS

The information used to guide design of the recommended repair measures is described below in terms of design basis and criteria.

2.1. Design Basis

The design hydrologic event was considered to be an intense rainfall event occurring during the late spring on a thin snowpack. Therefore, both rainfall and snowmelt contribute to the design event runoff. The closest climate station to Faro with short duration intensity-duration-frequency (IDF) rainfall data is Carmacks. Carmacks is an Environment Canada (EC) climate station (#2100300) located 150 km east northeast of Faro at an elevation of 524 m. IDF data for this station are available for the period 1964-1984.

While Faro is located in relative proximity to Carmacks, the average elevation at the GSC cover (1250 m) is more than double that of Carmacks. Because of this elevation difference, a correction factor is required to account for orographic influences. Based on total annual rainfall data for Carmacks, Faro airport and the Grum weather station and rainfall intensity isolines[1] published by EC, a correction factor of 1.4 was used to transpose Carmacks IDF data to the GSC cover. Resulting rainfall for durations of 30 minutes and 24 hours and return periods of 10 years and 200 years are shown in Table 1 below. Of note is that 200-year rainfall amounts are based on extrapolation of the Carmacks IDF data, which do not extend beyond a return period of 100 years.

The second runoff component, rainfall-induced snowmelt, was estimated using a simplified empirical energy-balance formula[2]. Potential snowmelt totals were found to be similar to rainfall amounts for 30-minute and 24-hour durations (Table 1). Sunshine-induced snowmelt (i.e. radiation) was estimated to be less than rainfall-induced snowmelt, and hence it was not considered in runoff or peak flow calculations.

Runoff volumes and peak flows from the GSC cover were analysed using the Rational Method with a conservative runoff coefficient of 1.0 and the Bransby-Williams formula to calculate time of concentration. This high runoff coefficient was used due to the liner placed beneath the GSC cover. Open channel flows were estimated using Manning's equation, and the emergency spillway was treated as a broad-crested weir[3] for the purpose of modeling spillway width and depth relative to design discharge.

A summary of hydrologic input and output parameters is provided in Table 1 below. Runoff model outputs are based on a watershed area of 41 ha (catchments C and 2 labelled on Drawing 2) and a time of concentration of 30 minutes. Catchment 1 is assumed to be diverted to Vangorda Pit catchment by run-on controls as previously recommended. Runoff

[1] Environment Canada (1985) Rainfall Frequency Atlas for Canada.
[2] Fitzgibbon J.E. and Dunne T. (1980) Snowmelt Prediction in a Subarctic Drainage Area. Nordic Hydrology 11: 243-254.
[3] Crowe, C. and Robertson, J. (1997) *Engineering Fluid Mechanics 6th Ed.*, page 609-610.

volumes and peak flow estimates summarized in Table 1 are considered to be conservative given the assumed runoff coefficient of one and peak rainfall event coinciding with a thin snowpack. However, a conservative design is justified given the general lack of data for rainfall-runoff relationships at site.

Table 1. Hydrological Design Parameters

Event Return Period	10-year	200-year
Input		
30-minute rainfall	15 mm	29 mm
24-hour rainfall	32 mm	55 mm
30-minute snowmelt (water equivalent)	15 mm	29 mm
24-hour snowmelt (water equivalent)	32 mm	55 mm
30-minute total rain-on-snow	30 mm	58 mm
24-hour total rain-on-snow	64 mm	110 mm
Output		
30-minute peak inflow to sedimentation pond	6.7 m^3/s	13.2 m^3/s
24-hour average inflow to sedimentation pond	0.3 m^3/s	0.5 m^3/s
30-minute peak flow - total volume	12,000 m^3	23,800 m^3
24-hour average flow - total volume	26,300 m^3	45,400 m^3

For comparison, the snowmelt event of May 2011 was estimated by DES to have produced a peak flow of 0.4 m^3/s in the channel flowing into Moose Pond. An estimate of peak runoff for the June 21, 2011 rainfall event documented by DES was not available due to flow overtopping the Grum Creek weir, but precipitation data indicates rainfall of about 20 mm over 20 hours, with a maximum 1-hour rainfall of 5 mm.

2.2. Design Criteria

Based on our site visit, estimated hydrological parameters and subsequent discussions with YG, DES and Pelly Construction, design criteria were established as follows:

- Cover bench ditches are to be modified to increase capacity as much as possible given the bench configuration, as shown on Drawing 03.
- Erosion protection of the upper part of the perimeter ditches will be upgraded to match the erosion protection in the lower portions of the perimeter ditches.
- The configuration and storage volume of the sediment pond was constrained by both the available space and topographical constraints that prevent extensive earthworks in order to allow heavy truck travel on the existing road. Therefore, it is a combination of storage and pumping that governs the protection provided by the sediment pond. The pond is not designed to provide storage for a given return period or storm

duration. This approach is appropriate for an interim measure (as agreed by YG in a meeting in Whitehorse on Aug. 25, 2011) until the GSC cover vegetates and the potential for mobilization of exposed sediment is reduced.

- Sediment pond inlet channel, emergency spillway and outlet channel sized to accommodate the 200-year, 30-minute peak flow, with inlet and outlet separated by a centre berm and rockfill dykes in the sediment pond;
- Sediment pond access to allow clean-out of the riprap-lined inlet cell, by an on-site excavator with a maximum reach of 7 m;
- An access ramp from the centre berm to allow delicate clean-out of the main pond (where liner will be exposed), if necessary;
- Emergency spillway and outlet channel designed to pass the 200-year peak flow (13 m^3/s) into a contingency storage area in the waste rock dump downstream of the pond location (see Drawing 02). With some field fit regrading, this storage area will allow a minimum storage volume of 5000 m^3 and will allow for infiltration, and possibly surface runoff during extreme events, into the Grum dump. Exfiltration will occur at the toe of the dump and feed various small tributaries of Vangorda Creek. This contingency storage was also discussed and agreed at an August 25 meeting with YG in Whitehorse.

2.3. Construction Details

Drawing 01 summarizes recommended repairs from our August 3 letter while Drawing 02 displays the catchment areas. Drawing 03 presents prescriptions for cover channel repairs and run-on control ditches. Drawings 04 and 05 present the detailed sediment pond design.

Two important points should be noted regarding the suggested cover repairs. Firstly, YG has directed Pelly to provide a 1 m thick till cover over some exposed waste rock at the crest of the cover, located just below the crest berms and surface grading noted as Repair #4 on Drawing 01. In addition, DES will be undertaking some culvert installations and surface grading to ensure that water from the roads to the east does not flow downhill into the sediment pond area.

2.3.1. Sediment Pond

The sediment pond as shown on Drawing 3 has a liner crest elevation of 1191 m, and is 126 m long, 34 m wide and 3 to 4 m deep, with 2:1 slopes to allow liner placement. This represents a cut of 7500 m^3 and fill of 10,200 m^3 for the pond excavation, with an additional 2100 m^3 required to construct the centre berm and access ramp once the liner is placed. The total liner area is 4500 m^2 without any allowances for overlap and such.

The water storage volume in the sediment pond below the design spillway invert of 1190.0 m is 6600 m^3. A pending attenuation calculation prior to construction may allow an increase to the spillway invert elevation of up to 0.5 m for an additional 1700 m^3 of storage.

During the 10-year, 24-hour event, the conservative estimated runoff volume from the GSC cover is about 26,200 m^3. Given a storage volume of 6600 m^3, the pond would spill about 20,000 m^3 in the absence of pumping.

With a pumping rate of 13,000 m^3/day (540 m^3/h), there could be 6600 m^3 (or possibly more) of spillage during the 10-year rain-on-snow event. This overflow could be accommodated in the contingency storage area downstream and infiltrated into the waste rock. The contingency storage area would likely spill during the 200-year rain-on-snow event with about 26,000 m^3 of spill from the sediment pond overwhelming the contingency storage capacity. However, the extent to which the contingency storage area may or may not be overwhelmed will depend on the infiltration capacity of the waste rock. A channel conveying flow from the sediment pond to the contingency storage area will be excavated in existing waste rock and be unlined. It is required to be 1 m deep and 4 m wide at the base, with 2:1 side slopes, to convey the 200-year maximum peak flow (13.2 m^3/s) to the contingency storage area.

Drawing 5 presents construction details in relation to the liner anchor trench, subgrade preparation and geotextile placement, rip-rap placement and spillway construction.

3.0 SUMMARY

This letter provides design detail appropriate for construction in parallel with field-fitting and field supervision by BGC. Materials have been ordered on a short timeline to allow construction activities by end of September. BGC will provide an engineer's cost estimate for the remaining tasks not yet quoted by Pelly, under separate cover.

4.0 CLOSURE AND LIMITATIONS

There will likely be residual risks in the cover and water management in the long term, so BGC recommends that YG be prepared to continue to monitor and gather site specific data and operational experience (e.g. snow pack depth and variation, water quantity and quality, revegetation success) to assess the performance of the proposed mitigation measures. In addition, there are some other remediation measures to be undertaken by DES, and we understand that YG will ensure these aspects are implemented.

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The proposed remediation measures will be managed and implemented using the field design approach that requires full time engineering input and monitoring. Implementation of the remedial measures without appropriate engineering supervision could create additional problems for the cover and water management system. Lastly, the cover and water management system may have longer-term issues that need to evaluated and addressed in future phases; this work has not been completed under this work scope. We remain open to any discussion or comments on the measures provided herein.

Yours sincerely,

BGC ENGINEERING INC.
per:

Jeremy Valeriote, P.Eng.
Geoenvironmental Engineer

Gerry Ferris, M.Sc., P.Eng.
Geotechnical Engineer

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James W. Cassie, M.Sc., P.Eng. (NT).
Specialist Geotechnical Engineer

JEV/JWC/HW

Attachments:

Drawing 00 – Index of Drawings

Drawing 01 – General Cover Repairs

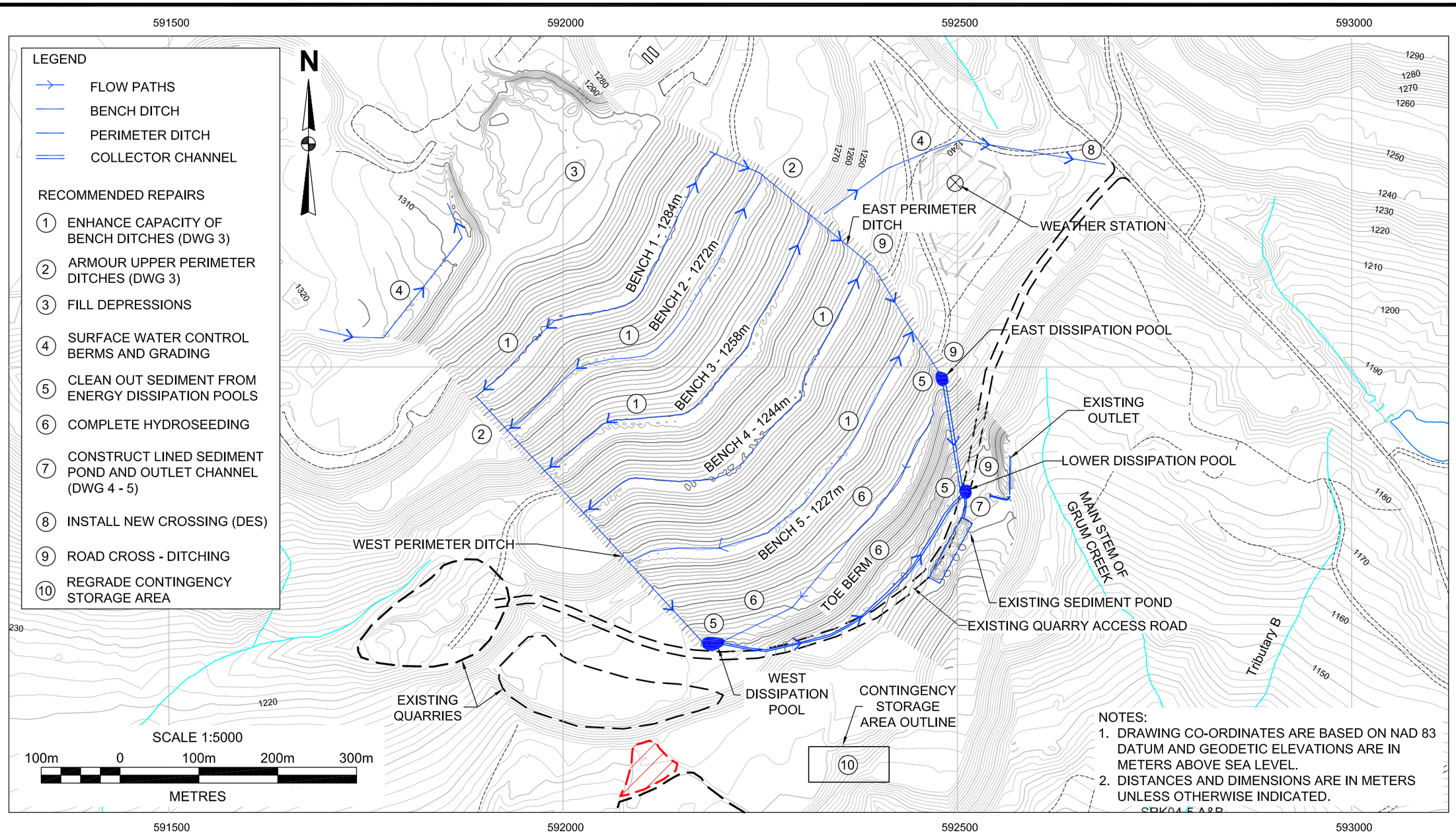
Drawing 02 – Catchment Areas

Drawing 03 – Cover Repairs – Typical Sections

Drawing 04 - Lined Sediment Pond and Outlet Channel

Drawing 05 – Sediment Pond Detail

DRAWINGS



BASE MAP SOURCE: YUKON ENGINEERING SERVICES (YES) INITIAL SURVEY JUNE 2010 AND YUKON ENGINEERING SERVICES (YES) GSC SURVEY 22 JUNE 2011.

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BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

CLIENT: GOVERNMENT OF YUKON

PROJECT: GRUM SULPHIDE CELL COVER REPAIRS - DETAILED DESIGN

TITLE: GENERAL COVER REPAIRS

PROJECT No.:	DWG No.:	REV.:
0533-003	01	A

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592000 593000 594000

6904000

6903000

N

CATCHMENT AREAS	
CATCHMENT	AREA m²
C	349000
1	198000
2	64000
3	299000

GRUM WASTE DUMP

OVERBUDEN DUMP
(TILL SOURCE FOR GSC COVER)

2010 PROJECT
BOUNDARY

LAYDOWN
AREA

GRUM SULPHIDE
CELL COVER

EXISTING
QUARRES

QUARRY
ACCESS ROAD

TILL
BORROW

CONTINGENCY STORAGE AREA
(APPROXIMATE)

MAIN STEM OF GRUM CREEK

TRIBUTARY B

TRIBUTARY A

V15 V16 V14 V2 V2A

MOOSE POND

MOOSE SEEP

SHEEP CREEK

SWEET CREEK

NO CREEK FORK

VANGORDA CREEK

EXISTING VANGORDA
DIVERSION CHANNEL

WATER
TREATMENT
PIPELINE

VANGORDA
PIT

ORE TRANSFER PAD

VANGORDA WASTE DUMP

1184.79 1089.88 1108.17 1125.42

SCALE 1:10000

200m 0 200m 400m 600m

METRES

592000 593000 594000

BASE MAP SOURCE: YUKON ENGINEERING SERVICES (YES) INITIAL SURVEY JUNE 2010 AND YUKON ENGINEERING SERVICES (YES) GSC SURVEY 22 JUNE 2011.

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CLIENT: GOVERNMENT OF YUKON

PROJECT: GRUM SULPHIDE CELL COVER REPAIRS - DETAILED DESIGN

TITLE: CATCHMENT AREAS

PROJECT No.:	DWG No.:	REV.:
0533-003	02	A

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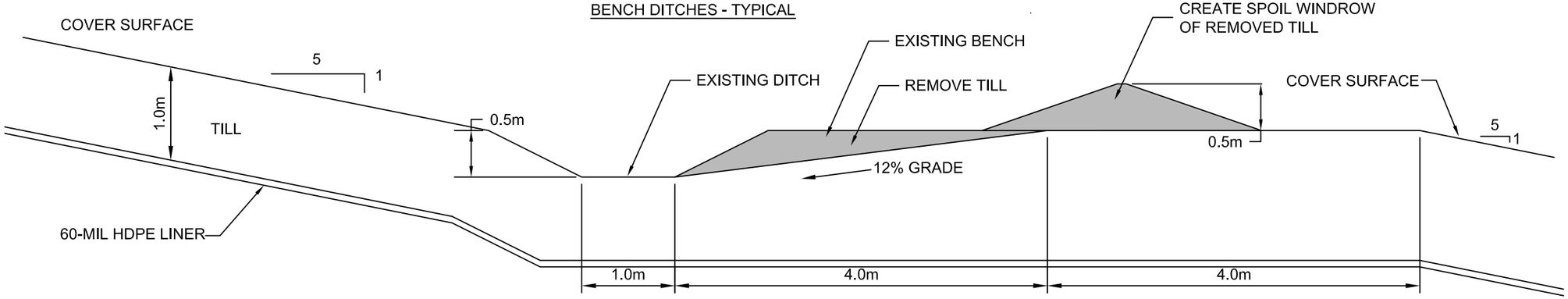
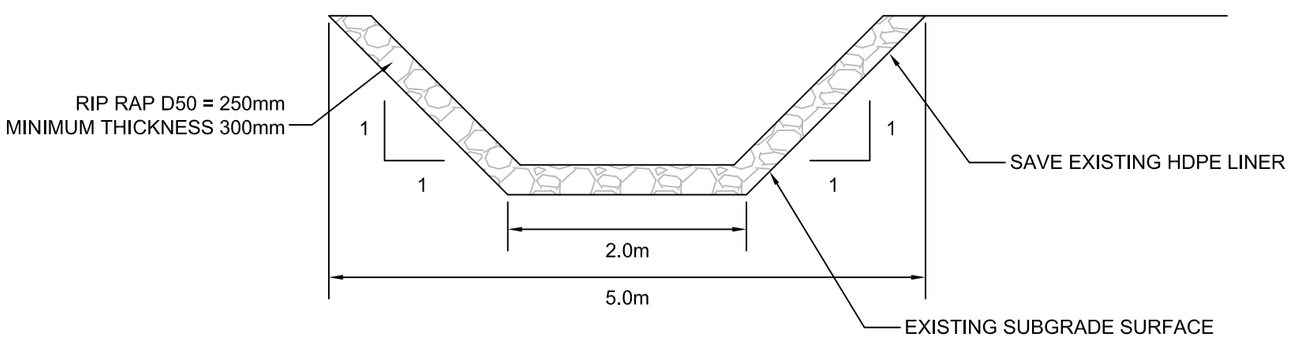
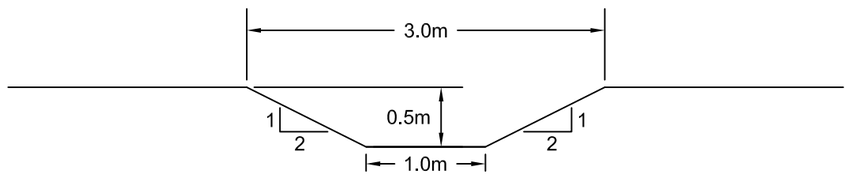
RECOMMENDED REPAIR (1)
BENCH DITCHES - TYPICAL



RECOMMENDED REPAIR (2)
UPPER PERIMETER DITCH-TYPICAL



RECOMMENDED REPAIR (4)
RUN-ON CONTROL DITCH - TYPICAL



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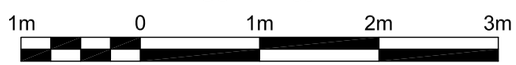

METRES

NOTES:
1. DRAWING CO-ORDINATES ARE BASED ON NAD 83 DATUM AND GEODETIC ELEVATIONS ARE IN METRES ABOVE SEA LEVEL.
2. UPPER PERIMETER DITCH SHALL BE RELINED BY REMOVING EXISTING ROCK ABOVE LINER AND REPLACING WITH RIPRAP D50 = 250mm OF MINIMUM THICKNESS 300mm.
3. TIE THE RIP RAP IN THE UPPER SECTION OF THE PERIMETER DITCH TO THE EXISTING RIP RAP IN THE LOWER PART OF THE DITCH. THE EDGES OF THE BENCH DITCHES WILL BE SLOPED TO DRAIN INTO PERIMETER DITCH.

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CLIENT: GOVERNMENT OF YUKON

PROJECT: GRUM SULPHIDE CELL COVER REPAIRS - DETAILED DESIGN

TITLE: COVER REPAIRS TYPICAL SECTIONS

PROJECT No.:	DWG No.:	REV.:
0533-003	03	A

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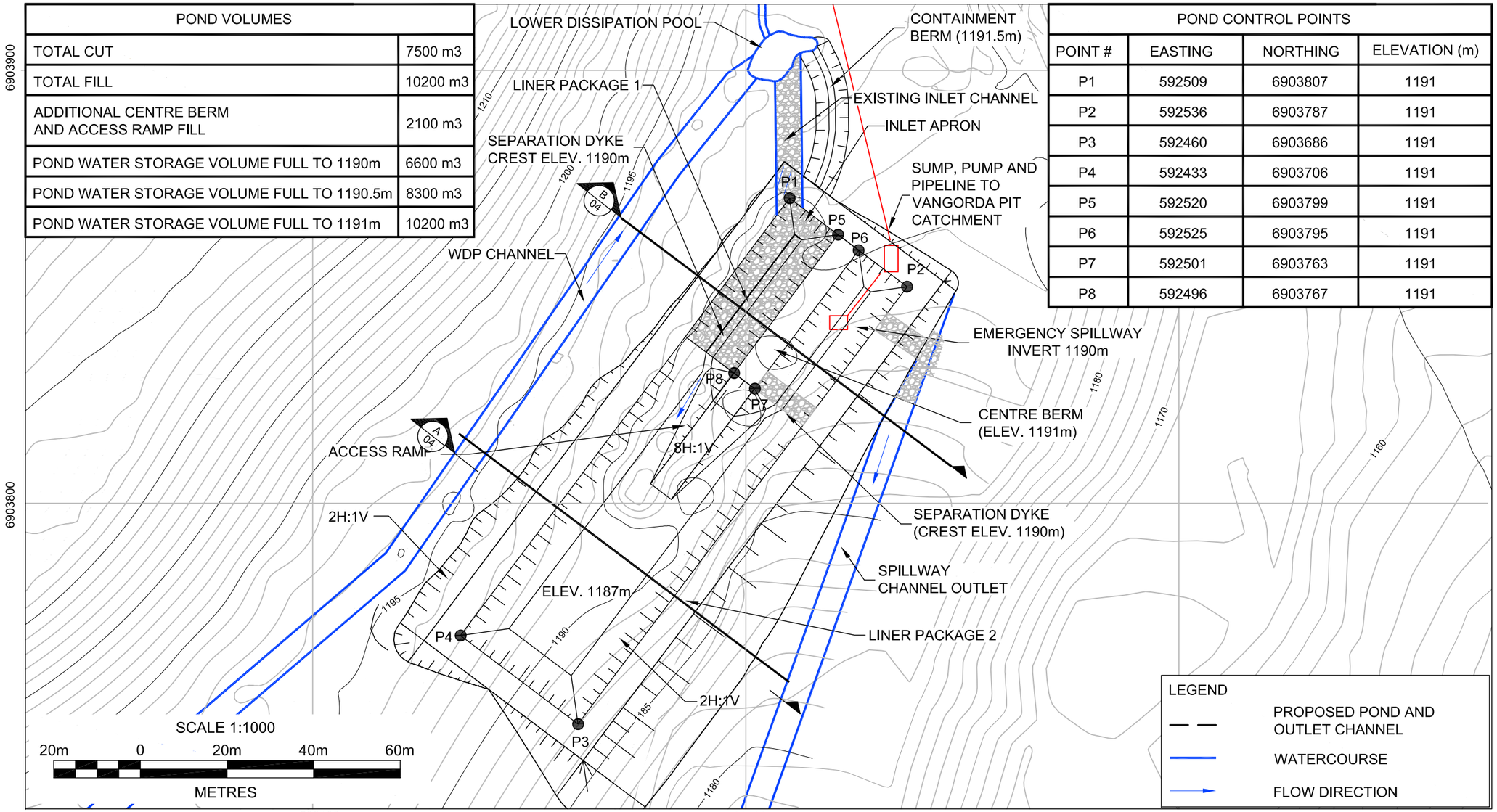
POND VOLUMES	
TOTAL CUT	7500 m3
TOTAL FILL	10200 m3
ADDITIONAL CENTRE BERM AND ACCESS RAMP FILL	2100 m3
POND WATER STORAGE VOLUME FULL TO 1190m	6600 m3
POND WATER STORAGE VOLUME FULL TO 1190.5m	8300 m3
POND WATER STORAGE VOLUME FULL TO 1191m	10200 m3

POND CONTROL POINTS			
POINT #	EASTING	NORTHING	ELEVATION (m)
P1	592509	6903807	1191
P2	592536	6903787	1191
P3	592460	6903686	1191
P4	592433	6903706	1191
P5	592520	6903799	1191
P6	592525	6903795	1191
P7	592501	6903763	1191
P8	592496	6903767	1191



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1. BASE MAP SOURCE: YUKON ENGINEERING SERVICES (YES) INITIAL SURVEY JUNE 2010 AND YUKON ENGINEERING SERVICES (YES) GSC SURVEY 22 JUNE 2011.
2. RIPRAP REQUIREMENT FOR INLET APRON, SEPARATION DYKES AND SPILLWAY = APPROX. 1000 CU. M., MAJORITY OF WHICH IS TO BE ROUNDED TO SUBANGULAR COBBLE MATERIAL FOR DIRECT CONTACT WITH GEOTEXTILE - COVERED HDPE LINER.
3. LINER PACKAGE 1 SHALL BE PLACED UNDER BOTH SEPARATION DYKES AND ALSO THE EMERGENCY SPILLWAY.
4. TIE IN BETWEEN LINER PACKAGE 1 AND 2 SHALL BE FIELD FIT NEAR BOTH SEPARATION DYKES AND THE SPILLWAY. THE ELEVATION OF THE HDPE LINER IS THE REFERENCE ELEVATION FOR THE SPILLWAY, WITH RIPRAP DESCRIBED ON DRAWING 05 BEING ABOVE THE INVERT ELEVATION.

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CLIENT: GOVERNMENT OF YUKON

PROJECT: GRUM SULPHIDE CELL COVER REPAIRS - DETAILED DESIGN

TITLE: LINED SEDIMENT POND AND OUTLET CHANNEL

PROJECT No.:	DWG No.:	REV.:
0533-003	04	A

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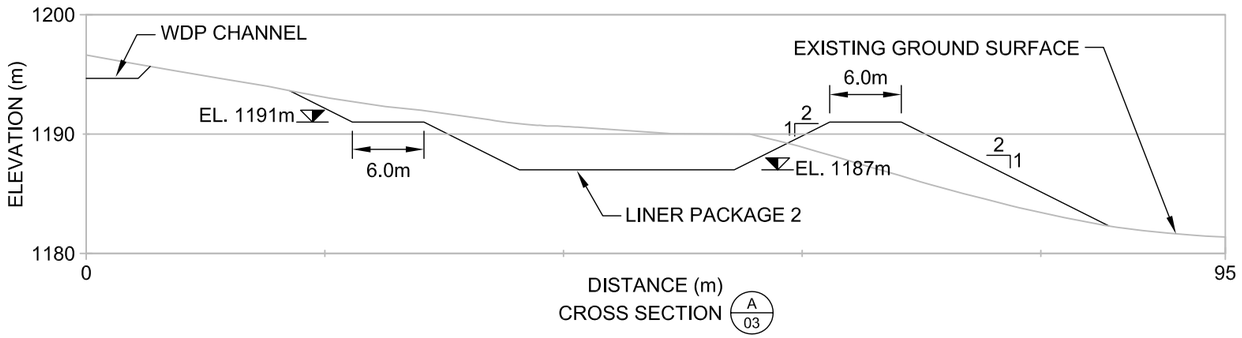
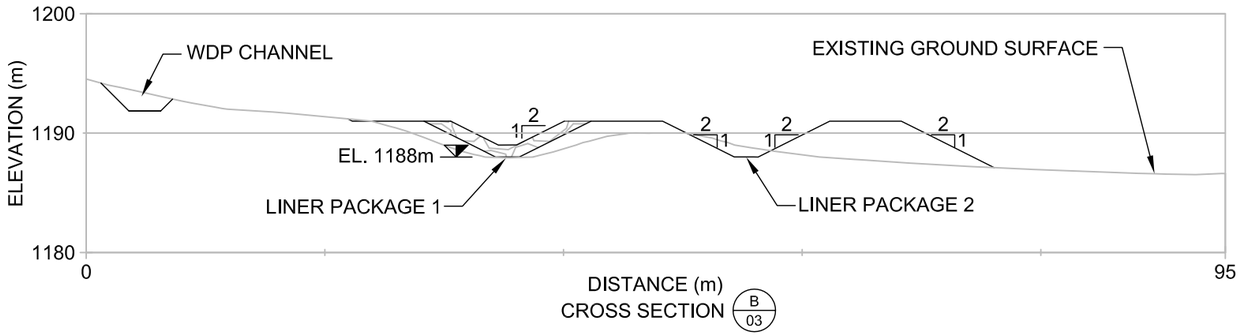
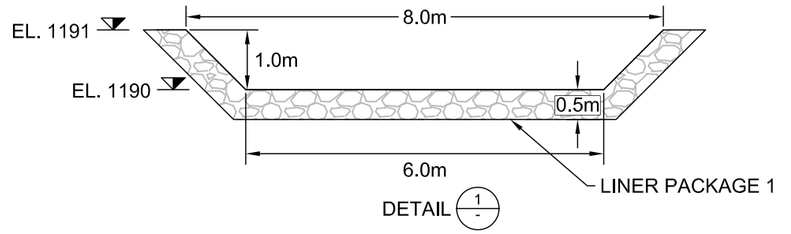




SPILLWAY SECTION



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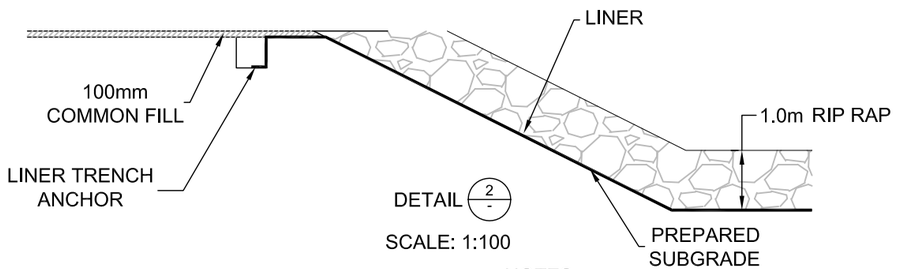
LINER PACKAGE 1



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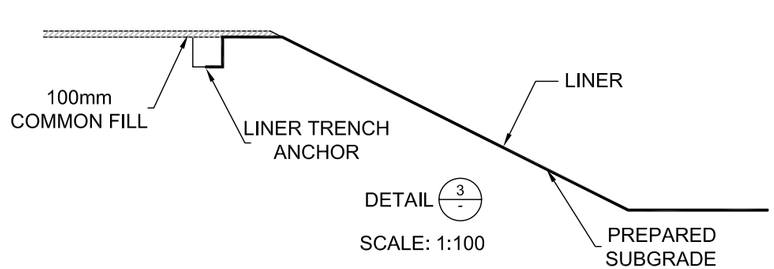
LINER PACKAGE 2



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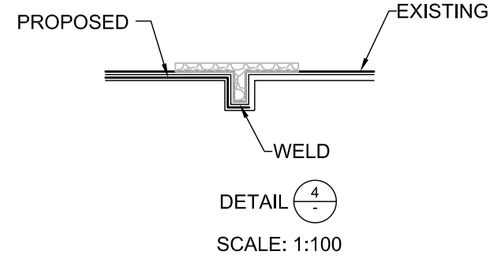
LINER CONNECTION



SCALE: 1:100

SCALE 1:500

10m 0 10m 20m 30m

METRES

NOTES:

1. DRAWING CO-ORDINATES ARE BASED ON NAD 83 DATUM AND GEODETIC ELEVATIONS ARE IN METRES ABOVE SEA LEVEL.
2. DISTANCES AND DIMENSIONS ARE IN METRES UNLESS OTHERWISE INDICATED.
3. EXPOSE EXISTING HDPE LINER LOCATED IN THE BASE OF THE INLET CHANNEL. PREPARE A CHANNEL WHICH SLOPES INTO THE SEDIMENT POND AND WELD EXISTING LINER TO THE LINER FOR THE INLET CHANNEL EXTENSION.
4. LINER PACKAGE 1 CONSISTS OF TEXEL 918, OVERLAIN BY SOLMAX 460 ST - 6012, OVERLAIN BY TEXEL 918, WHERE RIPRAP PLACED ON LINER.
5. LINER PACKAGE 2 CONSISTS OF TEXEL 918 OVERLAIN BY SOLMAX 460 ST - 6012.
6. PREPARATION OF THE SURFACE PRIOR TO PLACEMENT OF THE GEOTEXTILE SHALL INCLUDE COMPACTION OF THE SUBGRADE AND REMOVAL OF ALL SHARP EDGES OR VOIDS. THIS CAN EITHER BE COMPLETED BY EXCAVATION / REMOVAL AND REPLACEMENT WITH MORE SUITABLE MATERIAL OR PADDING USING SAND.
7. LINER ANCHOR TRENCH SHALL BE BACK FILLED USING COMMON FILL. A 100mm LIFT OF COMMON FILL SHALL BE PLACED ON THE OUTSIDE PERIMETER ACCESS ROAD AROUND THE SEDIMENT POND.
8. ROCKFILL SEPARATION DYKE INLET APRON, SEPARATION DYKES AND SPILLWAY TO CONSIST OF RIP RAP WITH D_{50} = 200mm AND MATERIAL FINER THAN 25mm REMOVED.

AS A MUTUAL PROTECTION TO OUR CLIENT, THE PUBLIC, AND OURSELVES, ALL REPORTS AND DRAWINGS ARE SUBMITTED FOR THE CONFIDENTIAL INFORMATION OF OUR CLIENT FOR A SPECIFIC PROJECT. AUTHORIZATION FOR ANY USE AND/OR PUBLICATION OF THIS REPORT OR ANY DATA, STATEMENTS, CONCLUSIONS OR ABSTRACTS FROM OR REGARDING OUR REPORTS AND DRAWINGS, THROUGH ANY FORM OF PRINT OR ELECTRONIC MEDIA, INCLUDING WITHOUT LIMITATION, POSTING OR REPRODUCTION OF SAME ON ANY WEBSITE, IS RESERVED PENDING BGC'S WRITTEN APPROVAL. IF THIS REPORT IS ISSUED IN AN ELECTRONIC FORMAT, AN ORIGINAL PAPER COPY IS ON FILE AT BGC ENGINEERING INC. AND THAT COPY IS THE PRIMARY REFERENCE WITH PRECEDENCE OVER ANY ELECTRONIC COPY OF THE DOCUMENT, OR ANY EXTRACTS FROM OUR DOCUMENTS PUBLISHED BY OTHERS.

REV.	DATE	REVISION NOTES	DRAWN	CHECK	APPR.
A	2011-09-07	ISSUED FOR CLIENT REVIEW	LS	JV	GWF

SCALE:	1:500
DATE:	SEP 2011
DRAWN:	LS
DESIGNED:	JV
CHECKED:	GWF
APPROVED:	JWC

PROFESSIONAL SEAL:

DRAFT

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

CLIENT: GOVERNMENT OF YUKON

PROJECT: GRUM SULPHIDE CELL COVER REPAIRS - DETAILED DESIGN

TITLE: SEDIMENT POND DETAIL

PROJECT No.:	DWG No.:	REV.:
0533-033	05	A

DWG TO BE READ WITH BGC MEMO TITLED "GRUM SULPHIDE CELL COVER REPAIRS - DETAILED DESIGN" DATED SEPTEMBER 2011

X:\Projects\0533 YK-Gov\Workspace\20110822_REPORT_GRUM_SULPHIDE_CELL_COVER_REPAIRS_DETAILED_DESIGN\05_SEDIMENT_POND_DETAIL.dwg Layout: 05 Plot Date Sep 8 11 Time: 10:22 AM

APPENDIX D
BGC FIELD SUPERVISION DAILY REPORTS

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 25/08/2011 (DD MM YY) Shift Day

BGC Project No: 0533-003

Contract Title: GSC Cover Repairs

Weather

Today: Clear | Cloudy | Windy | Max 11 | Showers (mm)

Client: Yukon Government

Contractors: Pelly Construction

Highlights

1 Calculated volumes for existing sed pond (3000 m3) and larger sed pond in similar configuration (8000m3). Also looked into area in the east which could potentially collect water from upper half of the dump.

2 Pelly finished up work on the Western perimeter Berm (WPB) re-armor. Two things 1. BGC asked for more rip rap right at the top of the channel at bench 1 - this was addressed immediately by Pelly 2. BGC asked Pelly to leave a small berm (1ft) on the road side of the perimeter ditch to keep road drainage from the waste rock piles going in the perimeter ditch and to define the cover watershed (to be addressed by Pelly once grader arrives).

3 Pelly will also try and lessen the amount of water received by the roads running north south alongside the GSC by blocking off some of the entrances at the end of construction.

4 Excavation of the Eastern Perimeter Ditch was completed.

5 Rip rap haul for Eastern Perimeter Ditch ongoing all day and completed.

6 Grader arrived on site to start bench work tomorrow am.

7 Dozer pushing path in across top of GSC to access area for depression infill.

J. Atkinson — 25/08/2011

Construction Monitor — Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 25/08/2011 (DD MM YY) Shift Day

Daily Activity Summary

Time	Activity	Location	Description of Progress/Activities
745	Arrive on site	GSC	Discuss with GS plan for today and next few days.
800	Safety	GSC	Complete BGC safety documentation and take site photos
830	Inspect riprap	GSC - West Perimeter Ditch	Riprap west perimeter Ditch complete. Riprap is well graded (Max 16 inches, min 1-
930	Sed Pond check	GSC sed pond	Check dimensions of existing pond and area for proposed pond
1030	Depression volume	GSC - Depression	Check potential volume of depression for emergency flow
1100	Check on dozer progress	GSC - top of dump	Dozer pushing road into top area for depression filling
1130	Start daily documentation	GSC - Pelly Office	Start documentation and check Pelly hours for last few days
1200	Sed Pond location	GSC	Scope out alternative pond location at haul road junction
1230	Lunch		
1300	Drainage ditch line check route	GSC	Check out swale drainage above the relocated sulphide dump and GPS waypoints
1330	Photo documentation		Photo from Vangourda dump of work
1400	EPD	GSC	Observing ditch excavation EPD
1430	WPD	GSC	Inspect further riprap placement on WPD
1530	Pelly Office	GSC	Calculate volumes of pond and email to Jim
1600	EPD	GSC	Inspect riprap infill of EPD
1700	Leave site		

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 25/08/2011 (DD MM YY) Shift Day

Construction Monitor Date DD/MM/YY

Pelly Construction: Daily Summary Table

Work complete for the 25th to be sent in tomorrows report when received in the am.

Work to date	Task	Spent	
24/08/2011	2 and 10	13,130.00	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	8,168.75	
22/08/2011	2	9,387.50	
21/08/2011	10 - camp set up	4,000	

		Total	34,686.25	Budget	% complete
Per Task	1			19,500	0
	2		28,136.25	28,660	98%
	3			92,700	0
	4			14,000	0
	5			2,875	0
	6			None	0
	7			None	0
	8			None	0
	9			None	0
	10		6,550	79900	8%

J. Atkinson 25/08/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 25/08/2011 (DD MM YY) Shift Day

Site Photos

Location Top of rip rap extents in WPD

Comment Red line denotes more rip rap requested

Location Top of rip rap extents in WPD Looking west

Comment More rip rap placed. Will revisit once grader puts berm in foreground along ditch crest

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 25/08/2011 (DD MM YY) Shift Day

Site Photos

Location	WPD from just above bench 1	Looking south
Comment	Red line denotes small 1 ft berm requested to send drainage from west down road	

Location	East perimeter Ditch	Looking north
Comment	Excavating waste rock	

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 25/08/2011 (DD MM YY) Shift Day

Site Photos

Location General site view from vangourda dump

Comment north

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 26/08/2011 (DD MM YY) Shift Day

BGC Project No: 0533-003

Weather

Contract Title: GSC Cover Repairs

Today: Clear | [Cloudy] | Windy | Max Showers 8 (mm)

Client: Yukon Government

Contractors: Pelly Construction

Highlights

1 Checking out the eastern area of the GSC. Potential drainage options through here for the GSC cover.

2 Inspected red stain seeps at the base of the waste dump immediately to the east of the GSC.

3 Inspected completed East Perimeter Ditch now fully riprap lined apart from crossings

4 Commenced excavation of ditch for drainage of area east of GSC towards the haul road.

5 Sized up depression below sed pond to understand amount of volume in there (approximately 15,000m3).

6 Grader clearing off roads for till haul and the area at the top of the till placement ramp.

7 Discussed till borrow source with Gunnar and visited borrow pit area to inspect material.

J. Atkinson — 26/08/2011

Construction Monitor — Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 26/08/2011 (DD MM YY) Shift Day

Daily Activity Summary

Time	Activity	Location	Description of Progress/Activities
745	Arrive on site	GSC	Discuss with GS plan for today and next few days.
815	Rip Rap Placement	GSC - East Perimeter Ditch	Observe rip rap placement in lower half of East Perimeter Ditch with excavator and loader. Grader clearing road up to top of GSC.
845	1 m till placement	GSC - Top bench	Walk over area with Gunnar and discuss plan for drainage to the north and till placement on slope.
915	East side drainage	GSC and east side	Consider drainage in this area.
1030	Till borrow	Overburden dump	Inspect till borrow area
1100	Email east side options to BGC	Pelly Office	Await further confirmation
1130	Rip Rap Channel	GSC - East Perimeter Ditch	Inspect completed riprap - looks good chat to GS that crossings need tidy at the end.
1200	Seep in waste dump	Waste dump to east of GSC	Inspect seep bright red colour at WP . Runs for approx 40 m then disppears. Excavator digging ditch along road to block this flow.
1230	Lunch		
1245	Inspect WDP	WDP	Investigate size of WDP
1300	Depression	Bench below GSC	Size this more accuratley with GPS
1400	Check pelly documentation/ start daily report	Pelly Office	
1430	Fuel up	Faro	
1500	Observe site work	GSC	Grading of benches and excavator ditch
1700	Leave site		

J. Atkinson 26/ 08/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 26/08/2011 (DD MM YY) Shift Day

Pelly Construction: Daily Summary Table

Work to date	Task	Spent	
25/08/2011	3 and 2	13,005	(5,025 for 3, 1050 for 10, 6975 for 2)
24/08/2011	2 and 10	13,130.00	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	8,168.75	
22/08/2011	2	9,387.50	
21/08/2011	10 - camp set up	4,000	
	Total	34,686.25	

			Budget	% complete
Per Task	1		19,500	0
	2	35,111.25	28,660	123%
	3	5025	92,700	5.420712
	4		14,000	0
	5		2,875	0
	6		None	0
	7		None	0
	8		None	0
	9		None	0
	10	7,600	79900	10%

J. Atkinson 26/08/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 26/08/2011 (DD MM YY) Shift Day

Site Photos

Location West Perimeter Ditch Looking south

Comment Armour complete

Location Seep to north of proposed number 4 ditch South

Comment Note red staining and colour

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 26/08/2011 (DD MM YY) Shift Day

Site Photos

Location Seep to north of proposed number 4 ditch Looking north

Comment Close up of red seep

Location Waste dump to the east of GSC Looking south

Comment Circular sinkholes at toe of dump

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 26/08/2011 (DD MM YY) Shift Day

Site Photos

Location Bench number 1

Comment Begin grading to enhance capacity of benches Looking east

Location West Perimeter Road

Comment Road windrow to prevent drainage from west into ditch Looking south

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date	26/08/2011 (DD MM YY)	Shift	Day

Location	East of GSC	
Comment	Excavation of number 4 ditch	Looking west

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 27/08/2011 (DD MM YY) Shift Day

BGC Project No: 0533-003

Weather

Contract Title: GSC Cover Repairs

Today: Clear | Cloudy | Max Windy | 4 Showers (mm)

Client: Yukon Government

Contractors: Pelly Construction

Highlights

1. Pelly moving till to top of 1 m cover slope
2. Pelly grading top bench to create more drainage
3. June staked out depression at top to be filled/ regraded. Discussed with Gunnar and he thinks it is in budget. Pelly started creating good access into this area.
4. June had conversation with Jeremy to understand BGC/YG plans for the sed pond.
5. June taking photos and field co-ordinates to send to Jeremy to advance sed pond design.
6. Number 4 road ditch cut-off complete.
7. June and Gunnar discuss sed pond layout and cu/ fill required.
8. June and Gunnar discuss depression at base of GSC. This depression is a result of the till borrow to put over the cover.

J. Atkinson — 27/08/2011

Construction Monitor — Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 27/08/2011 (DD MM YY) Shift Day

Daily Activity Summary

Time	Activity	Location	Description of Progress/Activities
745	Arrive on site	GSC	
800	Inspect bench grading	GSC - Bench #1 at top of WPD	Check bench grading undertaken last night by Pelly. Seem to be achieving good width across entire road. One note will need fix to Perimeter drainage ditch at the end with excavator.
830	Phone call with Jeremy Valeriote	Pelly Office	Discuss site activities and Sed pond design.
930	Observe till haul	Borrow to top of GSC	Two CAT 773B and one excavator working on the haul and dumping at the top of the slope.
1000	Inspect bench grading	GSC - Bench #1	Check bench grading undertaken last night by Pelly. Seem to be achieving good width across entire road. Importantly didn't see any liner damage at that location. Take photos.
1030	Stake and mark out depression infill	GSC - top of dump at 1300	Some filling and some regrading required to infill depression. Plan is to make the area no longer a low with a constant grade towards the south so water does not concentrate.
1230	Lunch		
1300	Document depression	Bench below GSC	Photo and one GPS co-ordinate for Jeremy at low point.
1400	Daily report	Truck	Start daily report.
1430	Gunnar discussion	GSC	Visit and discuss sed pond depression at base and till fill at top
1500	Daily report while watching ongoing operations	Truck	
1600	Sed pond stake out	GSC	
1700	Leave site		

J. Atkinson 27/ 08/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 27/08/2011 (DD MM YY) Shift Day

Pelly Construction: Daily Summary Table

Work to date	Task	Spent	
26/08/2011	1,3, 4 and 10	waiting for amount from Pelly	
25/08/2011	3 and 2	13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	13,130.00	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	8,168.75	
22/08/2011	2	9,387.50	
21/08/2011	10 - camp set up	4,000	

		Total	47,691.25	Budget	% complete
Per Task	1			19,500	0
	2		35,066.25	28,660	122% Complete
	3		5025	92,700	5%
	4			14,000	0
	5			2,875	0
	6			None	0
	7			None	0
	8			None	0
	9			None	0
	10		7,600	79900	10%
		Total	47,691	237,635	20%

J. Atkinson 27/08/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 27/08/2011 (DD MM YY) Shift Day

Site Photos

Location GSC Looking northeast

Comment Till haul to slope at top of GSC

Location GSC top plateau Looking SE

Comment Till haul to slope at top of GSC

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 27/08/2011 (DD MM YY) Shift Day

Site Photos

Location Bench Number 1 Looking west

Comment Note grader angle (new slope) compared to truck in the background

Location Bench number 1 Looking south

Comment Grader working

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

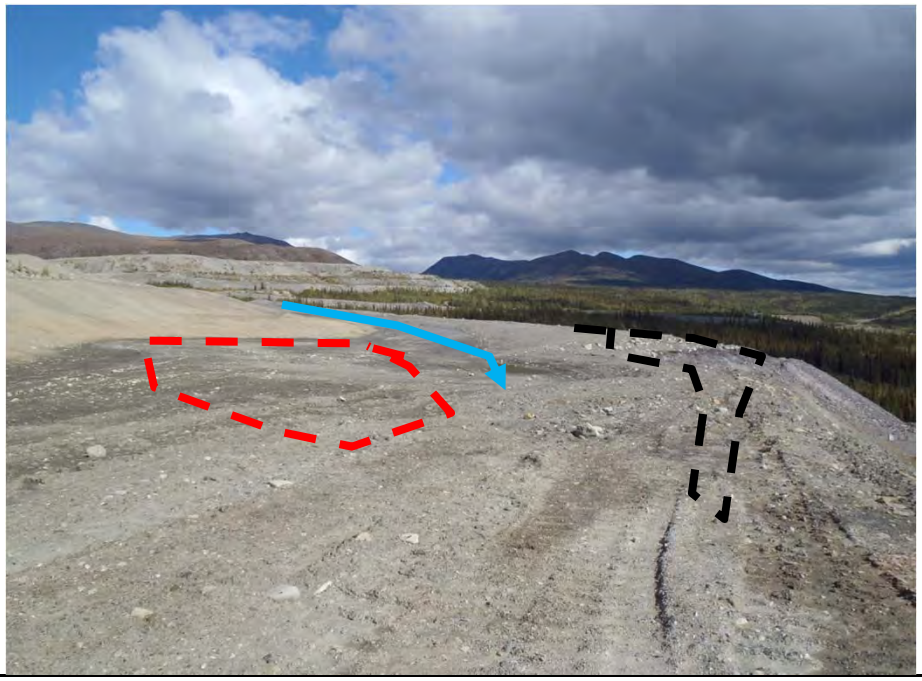
Daily Construction – Progress Report

Date 27/08/2011 (DD MM YY) Shift Day

Site Photos

Location Bench below GSC sed pond Looking west

Comment Note large depression for water to flow into.



Location Bench below GSC sed pond Looking east

Comment Note large depression and haul road in distance (I suggest cut in red area and fill in black to increase space and ensure storage and that flow does not go over crest)

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 27/08/2011 (DD MM YY) Shift Day

Location 1300 bench at depression

Comment Panoramic stitch photo so image is slightly skewed. However does show the flagged area to be infilled. Looking south

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 28/08/2011 (DD MM YY) Shift Day

BGC Project No: 0533-003

Weather

Contract Title: GSC Cover Repairs

Today: Clear | Cloudy | Windy | Showers

Max 6

Client: Yukon Government

Contractors: Pelly Construction

Highlights

1 Pelly moving till to top of 1 m cover slope

2 Pelly grading Bench #2 to create more drainage. Bench #1 is complete.

3 June did some field fitting for the sed pond and volume and staked potential corners for the pond.

4 Discussed potential pond layout with Gunnar who thought it was reasonable.

5 June sent field fit design and field co-ordinates to send to Jeremy for sed pond design

J. Atkinson 28/08/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 28/08/2011 (DD MM YY) Shift Day

Daily Activity Summary

Time	Activity	Location	Description of Progress/Activities
745	Arrive on site	GSC	
800	Observe till haul and regrading	GSC	Bench #1 complete, Bench #2 started. Bench #2 going quicker less rocks in till fill.
900	Sed pond field fit	Sed pond	Calcuate potenital volume, field fit potential corners and stake out, note co-ordinates, show gunnar staking.
1130	Observe bench 2 regrading	GSC	Going well
1200	Lunch		
1230	Sed pond notes and co-ordinates send to jeremy Check Pelly documentation	Pelly Office	
1430	Observe till haul and regrading	GSC	
1500	Daily report	Truck on GSC	Start report while observing site activites
1700	Leave site		

J. Atkinson 28/ 08/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 28/08/2011 (DD MM YY) Shift Day

Pelly Construction: Daily Summary Table

Work to date	Task	Spent	
27/08/11	1,3 and 10	13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	13,130.00	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	8,168.75	
22/08/2011	2	9,387.50	
21/08/2011	10 - camp set up	4,000	

			Budget	% complete	
	Total	71,866.25			
Per Task	1	4180	19,500	21%	
	2	35,066.25	28,660	122%	Complete
	3	16220	92,700	17%	
	4	2100	14,000	15	
	5		2,875	0	
	6		None	0	
	7		None	0	
	8		None	0	
	9		None	0	
	10	14,300	79900	18%	
	Total	71,866	237,635	30%	

J. Atkinson 28/08/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 28/08/2011 (DD MM YY) Shift Day

Site Photos

Location GSC Bench 2 Looking west

Comment Grader increasing capacity of bench

Location GSC sed pond Looking west

Comment Flag for lower SE corner

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 28/08/2011 (DD MM YY) Shift Day

Site Photos

Location GSC top plateau

Comment Till haul stockpiles Looking SE

Location

Comment

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 29/08/11 (DD MM YY) Shift Day

BGC Project No: 0533-003

Contract Title:
GSC Cover Repairs

Weather

Today: Clear

Cloudy	Windy	Showers

Max 5

Client: Yukon Government

Contractors: Pelly Construction

Highlights

1 Pelly moving till to top of 1 m cover slope
2 Pelly grading Bench #3 to create more drainage. Bench #1 and #2 are complete.
3 June discussed sed pond layout with BGC Vancouver.
4 Rain storm in the afternoon, grader used to keep haul roads clear.
5 Pushed 3 feet of till onto slope in middle section with D9 yesterday.

Health and Safety

Bear activity in and around site, no actual sightings at the GSC today - all warned to be on the look-out for bears.
BGC field job site evaluation undertaken by JAA for monitoring work.

J. Atkinson 29/08/11
Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 29/08/11 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly Activities	BGC Activity	Comments
745	GSC	2 x 773B Hauling till to top of GSC, 1 x 360 CAT loading haul trucks, 1x Grader grading bench #3, 1 x Foreman and pickup. Personnel - GS,IL,MN,CT, Aaron	Arrive on site	Plan for the day, Safety documentation
830	GSC		Chat BGC Vancouver on Sed Pond	Chat on field notes sent through over weekend re design
930	GSC		Observe construction work	Inspect benches, Check 1m till placement by D6 yesterday, take photos
1200	Lunch			
1230	GSC	2 x 773B Hauling till to top of GSC, 1 x 360 CAT loading haul trucks, 1x Grader grading bench #3, 1 x Foreman and pickup. Personnel - GS,IL,MN,CT, Aaron	Observe construction work	Observe till haul and start daily report
1500	GSC		Fuel up at Faro site	
1600	GSC	As above but grader moves to clearing roads after rain shower	Observe construction	Observe till haul and start daily report

J. Atkinson 29/08/11

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 29/08/11 (DD MM YY) Shift Day

Pelly Construction: Daily Summary Table

Work to date	Task	Spent	
28/08/11	1,3 and 10	14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	13,130.00	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	8,168.75	
22/08/2011	2	9,387.50	
21/08/2011	10 - camp set up	4,000	

			Budget	% complete	
	Total	86,691.25			
Per Task	1	6055	19,500	31%	
	2	35,066.25	28,660	122%	Complete
	3	25420	92,700	27%	
	4	2100	14,000	15	
	5		2,875	0	
	6		None	0	
	7		None	0	
	8		None	0	
	9		None	0	
	10	18,050	79900	23%	
	Total	86,691	237,635	36%	

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 29/08/11 (DD MM YY) Shift Day

Construction Monitor Date DD/MM/YY

Site Photos

Location GSC Looking SE

Comment Placing till down the upper slope

Location GSC Looking SE

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date	29/08/11 (DD MM YY)	Shift	Day
Comment	Depression staked out for filling		

Site Photos

Location	GSC haul road	Looking east
Comment	Hauling till	

Location	GSC	Looking east
Comment	Completed bench Number 1 grade (apart from perimeter ditch tie in)	

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 29/08/11 (DD MM YY) Shift Day

Site Photos

Location Till borrow source — Looking east

Comment Note different fill materials

Location GSC — Looking east

Comment Ditch number 4

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 30/08/11 (DD MM YY) Shift Day

BGC Project No: 0533-003

Weather

Contract Title: GSC Cover Repairs

Today: Clear | Cloudy | Max | Windy | 14 | Showers

Client: Yukon Government

Contractors: Pelly Construction

Highlights

1 Pelly moving till to top of 1 m cover slope

2 Pelly grading Bench #4 to create more drainage. Bench #1, #2 and #3 are complete.

3 D9 has pushed first lift of till down slope all across the 1m till area. Still need to place another lift and then sort our drainage at the top by making sure there is a berm edge.

4 Pelly likely to be finished current scope of work by the 5th September.

Health and Safety

BGC field job site evaluation undertaken by JAA for monitoring work.

J. Atkinson — 30/08/11

Construction Monitor — Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 30/08/11 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly Activities	BGC Activity	Comments
745	GSC	2 x 773B Hauling till to top of GSC, 1 x 360 CAT loading haul trucks, 1x Grader grading bench #4, 1 x Foreman and pickup. Personnel - GS,IL,MN,CT, AS	Arrive on site	Plan for the day, Safety documentation
800	GSC		Observe construction work	Inspect benches, Check 1m till placement by D6 yesterday, observe till haul, take photos
1100	GSC		Paperwork	Start daily report, check Pelly documentation and discuss week forecast with Gunnar
1200	Lunch			
1230	GSC	3 x 773B Hauling till to top of GSC, 1 x 360 CAT loading haul trucks, 1x Grader grading bench #4, 1 x Foreman and pickup. Personnel - GS,IL,MN,CT, AS	Observe construction work	Inspect benches, Check 1m till placement by D6 yesterday, observe till haul, take photos
1600	Leave site and head to whitehorse to swap out truck.			

J. Atkinson 30/08/11

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 30/08/11 (DD MM YY) Shift Day

Pelly Construction: Daily Summary Table

Work to date	Task	Spent	
29/08/11	1,3 and 10	14330	(2280 for task 1, 8600 for task 3, 3450 for task 10)
28/08/11	1,3 and 10	14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	13,130.00	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	8,168.75	
22/08/2011	2	9,387.50	
21/08/2011	10 - camp set up	4,000	

		Total	101,021.25	Budget	% complete
Per Task	1		8335	19,500	43%
	2		35,066.25	28,660	122% Complete
	3		34020	92,700	37%
	4		2100	14,000	15
	5			2,875	0
	6			None	0
	7			None	0
	8			None	0
	9			None	0
	10		21,500	79900	27%
		Total	101,021.25	237,635	43%

J. Atkinson 30/08/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 30/08/11 (DD MM YY) Shift Day

Site Photos

Location GSC Bench number 3

Comment Completed grading Looking west

Location GSC Bench #4 Looking east

Comment Bench in process of grading. Demonstrates fix ups requested at ends

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

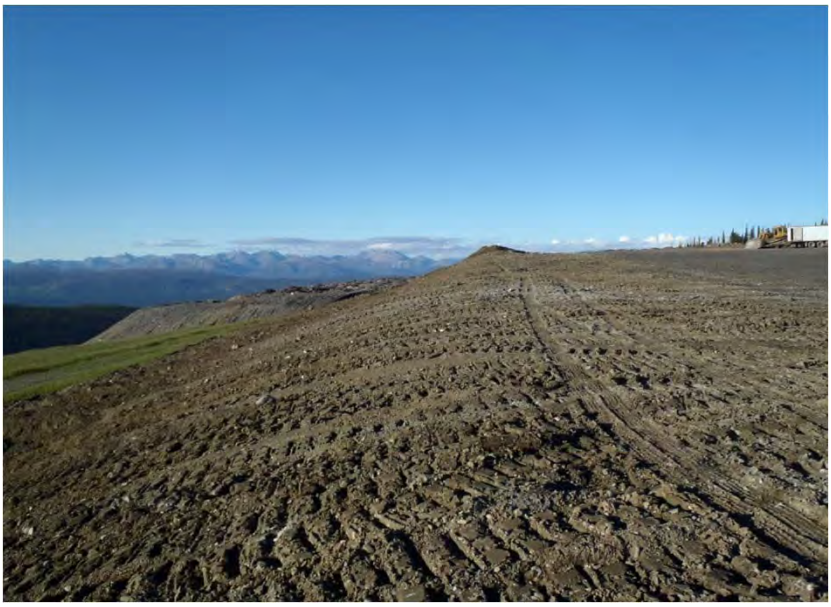
Daily Construction – Progress Report

Date 30/08/11 (DD MM YY) Shift Day

Site Photos

Location GSC top slope Looking east

Comment 1st lift compacted down slope by dozer



1026751

Location GSC top slope Looking west

Comment 1st lift compacted down slope by dozer. Note more material required and berm at top

Site Photos

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 31/08/11 (DD MM YY) Shift Day

BGC Project No: 0533-003

Weather

Contract Title: GSC Cover Repairs

Today: Clear | Cloudy | Windy | Max 11 | Showers

Client: Yukon Government

Contractors: Pelly Construction

Highlights

1 Pelly moving till to top of 1 m cover slope

2 Pelly grading Bench #4 to create more drainage. Bench #1, #2 and #3 are complete.

3 D9 has pushed first lift of till down slope all across the 1m till area. Still need to place another lift and then sort our drainage at the top by making sure there is a berm edge.

4 Pelly (Gunnar) and June discuss sed pond layout and design and send input into design in Vancouver

5 June and Gunnar discuss borrow source for till. For the filling of the depression over the weekend more till will be required from the borrow dumps. Dustin who do we get permission from to use till in various locations from the borrow dump as Pelly may need to excavate beyond their current location. Is it YG or DES?

6 June and Gunnar look into riprap options from the quarry and the till borrow for the sed pond to go directly on the liner.

Health and Safety

BGC field job site evaluation undertaken by JAA for monitoring work.
Watering of haul roads being undertaken by Pelly to keep dust to a minimum

J. Atkinson 31/08/11

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 31/08/11 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly Activities	BGC Activity	Comments
0700		2 x 773B Hauling till to top of GSC, 1 x 360 CAT loading haul trucks, 1x Grader grading bench #4, 1 x Foreman and pickup. Personnel - GS,IL,MN,CT, AS - From Discussion with GS.	June drives from whitehorse to faro. Arrives at 1230.	
1200	Lunch for site team			
1230	GSC	2 x 773B Hauling till to top of GSC, 1 x 360 CAT loading haul trucks, 1x Grader grading bench #5 and later cleaning roads, 1 x Foreman and pickup. Personnel - GS,IL,MN,CT, AS	Site activities	Discuss sed pond drawing with Gunnar,look at till borrow current location and where it can expand to, consider various riprap sources (the riprap quarry, the rock seperated from the till at the borrow), communicate with BGC vancouver, observe site activities.
1700	Leave site.			

J. Atkinson 31/08/11

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 31/08/11 (DD MM YY) Shift Day

Pelly Construction: Daily Summary Table

Work to date	Task	Spent	
30/08/11	1,3 and 10	15,230	(2,280 for task 1, 9500 for task 3 and 3450 for task 10)
29/08/11	1,3 and 10	14330	(2280 for task 1, 8600 for task 3, 3450 for task 10)
28/08/11	1,3 and 10	14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	13,130.00	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	8,168.75	
22/08/2011	2	9,387.50	
21/08/2011	10 - camp set up	4,000	

			Budget	% complete	
	Total	116,251.25			
Per Task	1	10615	19,500	54%	
	2	35,066.25	28,660	122%	Complete
	3	43520	92,700	47%	
	4	2100	14,000	15	
	5		2,875	0	
	6		None	0	
	7		None	0	
	8		None	0	
	9		None	0	
	10	24,950	79900	31%	
	Total	116,251.25	237,635	49%	

J. Atkinson 31/08/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 31/08/11 (DD MM YY) Shift Day

Site Photos

Location	Riprap quarry	East
Comment	Quarry face (too steep to get down to put something to scale)	

Location	Riprap quarry
Comment	Typical riprap from quarry - angular well graded

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date	31/08/11 (DD MM YY)	Shift	Day

Site Photos

Location	Overburden Dump
Comment	Rounded rock material (apparently there is a stockpile of this. We will go look tomorrow)

Location	
Comment	

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 1/9/2011 (DD MM YY) Shift Day

BGC Project No: 0533-003

Weather

Contract Title: GSC Cover Repairs

Today: Clear | Cloudy | Max | Windy | 14 | Showers

Client: Yukon Government

Contractors: Pelly Construction

Highlights

1 Pelly moving till to top of 1 m cover slope and D9 pushing it into place.
2 D9 also creating berm at the top of 1m till slope.
3 Bench regrading is complete apart from removal of access benches.
4 Pelly working on quote for sed pond from draft BGC drawing and list of work items.
5 Still likely to be finished current scope on 5 September.
6 Went to see pit run gravel as potential material for use in sed pond.
7 Need response on till borrow move from report of August 31st from Dustin.

Health and Safety
BGC field job site evaluation undertaken by JAA for monitoring work.

J. Atkinson 1/9/2011
Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 1/9/2011 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly Activities	BGC Activity	Comments
745	GSC	2 x 773B Hauling till to top of GSC, 1 x 360 CAT loading haul trucks, 1x D9 pushing till into place on slope, 1 x Foreman and pickup. Personnel - GS,IL,MN,CT, AS	Arrive on site	Plan for the day, Safety documentation
800	GSC		Observe construction work	Observe till sloping work being undertaken to build berm at crest of slope.
1000	GSC		Sed pond	Discuss work items with Gunnar and some answers to queries on design from BGC Vancouver.
1200	Lunch			
1230	GSC	2 x 773B Hauling till to top of GSC, 1 x 360 CAT loading haul trucks, 1x D9 pushing till into place on slope, 1 x Foreman and pickup. Personnel - GS,IL,MN,CT, AS	Observe construction work	Inspect benches, Check 1m till placement by D6 yesterday, observe till haul, take photos. Go to Rose creek gravel pit and observe some of the rounded material available there - will report n 2 september daily report 1600 -discuss design sed pond Pelly construction - final riprap numbers and liner cover
1700	Leave site.			

J. Atkinson 1/9/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 1/9/2011 (DD MM YY) Shift Day

Pelly Construction: Daily Summary Table

Work to date	Task	Spent	
31/08/11	1,3 and 10	14780	(2280 for task 1, 8600 for task 2 and 3900 for task 10)
30/08/11	1,3 and 10	15230	(2,280 for task 1, 9500 for task 3 and 3450 for task 10)
29/08/11	1,3 and 10	14330	(2280 for task 1, 8600 for task 3, 3450 for task 10)
28/08/11	1,3 and 10	14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	13,130	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	8,168.75	
22/08/2011	2	9,387.50	
21/08/2011	10 - camp set up	4,000	

			Budget	% complete	
		Total 131,031.25			
Per Task	1	12895	19,500	66%	
	2	35,066.25	28,660	122%	Complete
	3	59470	92,700	64%	
	4	2100	14,000	15%	
	5		2,875	0	
	6		None	0	
	7		None	0	
	8		None	0	
	9		None	0	
	10	21,500	79900	27%	
		Total 131,031.25	237,635	55%	

J. Atkinson 1/9/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Date 1/9/2011 (DD MM YY) Shift Day

Daily Site Log

Daily Construction – Progress Report

Site Photos

Location GSC top of till slope Looking SE

Comment Dozer pushing berm at top of slope

Location GSC Till slope Looking west

Comment Almost complete

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Date 1/9/2011 (DD MM YY) Shift Day

Daily Site Log

Daily Construction – Progress Report

Site Photos

Location GSC Looking North

Comment Till borrow -Almost out of good material here need response to query on moving the borrow

Location

Comment

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 2/9/2011 (DD MM YY) Shift Day

BGC Project No: 0533-003

Weather

Contract Title:	Today		Max	15
GSC Cover Repairs	Clear	Cloudy	Windy	Showers

Client: Yukon Government Contractors: Pelly Construction

Highlights

1 Pelly finished 1m till cover on the 1st September.

2 Hauling till to the depression area this morning and spreading with the D9.

3 Borrow source - Pelly suggested alternative sources outside the borrow pit, YG communicated NOT to use these sources due to contamination concerns and to stay at the main borrow source, June made sure Pelly had this message from YG.

4 June made regular inspections of the depression till to check the material. Material being placed was consistently two types; the dry light brown till with 2 inch rounded gravel (used for the 1 m till cover on the slope) and a moist darker grey till with 5% two inch to four inch subangular gravel. No material which was only organics or gravel was being placed. Discussed with Charles, the D9 operator, that the materials being placed were suitable as long as he could traffic them but to be vigilant for different materials and to radio if he noticed a change in material or was having issues with trafficking. A visual observation the D9 was having no issues moving over either material with rutting or rolling.

5 June field check of sedimentation pond co-ordinates and communication with Vancouver on design.

6 Caroline (Pelly Surveyor arrived on site at 4pm). Gunnar, June and Caroline discussed the design and June gave Caroline the checked co-ordinates for the pond corners which she staked with June. She also marked the amount of cut/fill at these locations on the stakes.
Caroline was going to return later tonight to stake some of the slope limits for the cut/fill slopes from the sedimentation pond.

Health and Safety
BGC field job site evaluation undertaken by JAA for monitoring work.
Pelly using water truck to reduce dust on the roads.
Fresh signs of bears presence in the lower area of the site. All personnel warned.

J. Atkinson 2/9/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 2/9/2011 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly Activities	BGC Activity	Comments
745	GSC	2 x 773B Hauling till to depression, 1 x 360 CAT loading haul trucks, 1x D9 pushing till, 1 x Foreman and pickup. Personnel - GS,IL,MN,CT, AS	Arrive on site	Plan for the day, Safety documentation
800	GSC		Sort borrow source queries	Send Dustin more detailed query on the borrow from Pelly, receive instruction not to move borrow, discuss with Gunnar.
1030	GSC		Monitor construction work	Inspect depression infill material to check on suitability of till - discuss with Charles operating D9 what to look for - no slop, no black organics, no pure gravel, that he could traffic the material and that what he had presently was fine. Inspect borrow pit in detail with Ivan operating 360 CAT and discuss the material and a few options for finding more material. Have a final check over the 1m till slope.
1200	Lunch			
1230	GSC	2 x 773B Hauling till to depression, 1 x 360 CAT loading haul trucks, 1x D9 pushing till, 1 x Foreman and pickup. Personnel - GS,IL,MN,CT, AS	Monitor construction work	Check Pond volumes, Hand and field check of co-ordinates for the sed pond in prep for surveyor arriving, observe till material being placed in depression.
1600	GSC	As above. Caroline (Pelly Surveyor) on site as well and a water truck operating.	Stake points for sed pond with Caroline	Stake points with Caroline and note cut and fill at corners of pond to send to Jeremy.
1800	Leave site.			

J. Atkinson 2/9/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 2/9/2011 (DD MM YY) Shift Day

Pelly Construction: Daily Summary Table

Work to date	Task	Spent		
1/9/2011	1,3 and 10	$	15,750	(12300 for task 3 and 3450 for task 10)
31/08/11	1,3 and 10	$	14,780	(2280 for task 1, 8600 for task 3 and 3900 for task 10)
30/08/11	1,3 and 10	$	15,230	(2,280 for task 1, 9500 for task 3 and 3450 for task 10)
29/08/11	1,3 and 10	$	14,330	(2280 for task 1, 8600 for task 3, 3450 for task 10)
28/08/11	1,3 and 10	$	14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	$	13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	$	10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	$	13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	$	13,130	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	$	8,169	
22/08/2011	2	$	9,388	
21/08/2011	10 - camp set up	$	4,000	

				Budget	% complete
	Total	$	146,781		
Per Task	1	$	12,895	19,500	66% Complete
	2	$	35,066	28,660	122% Complete
	3	$	71,770	92,700	77%
	4	$	2,100	14,000	15%
	5			2,875	0
	6			None	0
	7			None	0
	8			None	0
	9			None	0
	10	$	24,950	79900	31%
	Total	$	146,781	$ 237,635	62%

J. Atkinson 2/9/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 2/9/2011 (DD MM YY) Shift Day

Site Photos

Location	GSC till cover slope and berm	NE
Comment	Note finished berm to prevent water flow over crest	

Location	GSC till cover slope	E
Comment	Finished 1m till slope	

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

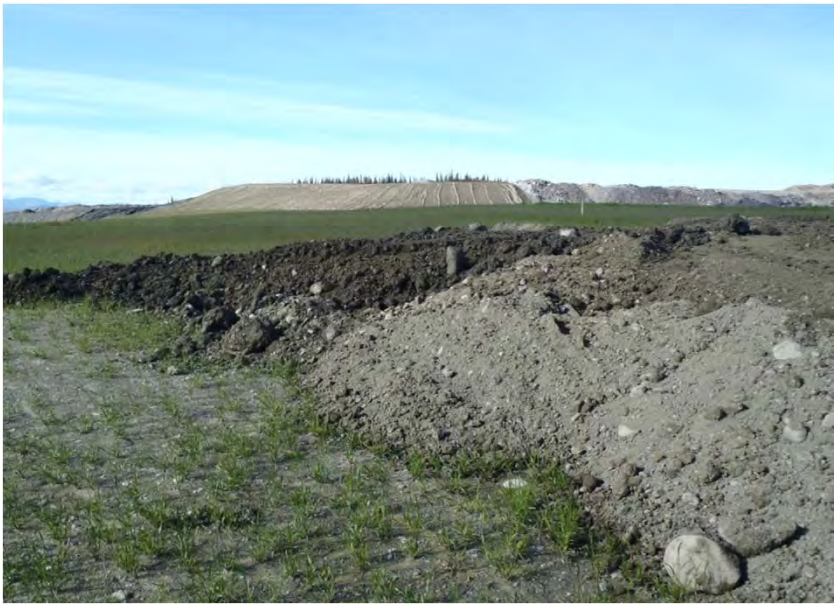
Date 2/9/2011 (DD MM YY) Shift Day

Daily Site Log

Daily Construction – Progress Report

Site Photos

Location	GSC 1300 plateau	E
Comment	Placing till material in the depression	



Location	GSC 1300 plateau	W
Comment	Note two different colours of material - both considered suitable.	

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 3/9/2011 (DD MM YY) Shift Day

BGC Project No: 0533-003

Weather

	Today		Max	14
Contract Title:	Clear	Cloudy	Windy	Showers
GSC Cover Repairs				

Client: Yukon Government Contractors: Pelly Construction

Highlights

1 Hauling till to the depression area all day and spreading with the D9.

2 Staked out sedimentation pond with Caroline the Pelly Surveyor. Moved the pond 5 m to south to provide more working from for Pelly during construction. Communicated this change to BGC Vancouver to update drawings and volumes.

3 Brown bear on site around the base of the GSC. All Pelly personnel notified and Grum guardhouse radio to DES to inform them.

Health and Safety

BGC field job site evaluation undertaken by JAA for monitoring work.

Brown bear spotted on site near sedimentation pond. No work in area until it left again. All personnel informed by radio.

J. Atkinson 3/9/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 3/9/2011 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly Activities	BGC Activity	Comments
745	GSC	2 x 773B Hauling till to depression, 1 x 360 CAT loading haul trucks, 1x D9 pushing till, 1 x Foreman and pickup1 x Surveyor staking sed pond Personnel - GS,IL,MN,CT, AS, CB 1100 am: Surveyor CB leaves site.	Arrive on site	Plan for the day, Safety documentation
800	GSC		Monitor construction work	Observe till placement and material - still light brown till material
830	GSC		Monitor construction work	Sedimentation pond layout - field fit with Caroline and Gunnar. Move pond 5 m and restake positions. Let BGC Vancouver know field change by email.
1200	Lunch			
1230	GSC	2 x 773B Hauling till to depression, 1 x 360 CAT loading haul trucks, 1x D9 pushing till, 1 x Foreman and pickup. Personnel - GS,IL,MN,CT, AS	Paperwork	Start daily report and check Pelly documentation
1300	GSC		Monitor construction work	Observe till placement and borrow material - still light brown till material, take photos and notes
1700	Leave site.			

J. Atkinson 3/9/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 3/9/2011 (DD MM YY) Shift Day

Pelly Construction: Daily Summary Table

Work to date	Task	Spent		
2/9/2011	3 and 10	$	16,380	(11,700 for task 3 and 4680 for task 10)
1/9/2011	3 and 10	$	15,430	(11,600 for task 3 and 3830 for task 10) - Updated for correction june spotted.
31/08/11	1,3 and 10	$	14,780	(2280 for task 1, 8600 for task 3 and 3900 for task 10)
30/08/11	1,3 and 10	$	15,230	(2,280 for task 1, 9500 for task 3 and 3450 for task 10)
29/08/11	1,3 and 10	$	14,330	(2280 for task 1, 8600 for task 3, 3450 for task 10)
28/08/11	1,3 and 10	$	14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	$	13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	$	10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	$	13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	$	13,130	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	$	8,169	
22/08/2011	2	$	9,388	
21/08/2011	10 - camp set up	$	4,000	
	Total	$	162,841	

				Budget	% complete
Per Task	1	$	12,895	19,500	66% Complete
	2	$	35,066	28,660	122% Complete
	3	$	82,770	92,700	89%
	4	$	2,100	14,000	15%
	5			2,875	0
	6			None	0
	7			None	0
	8			None	0
	9			None	0
	10	$	30,010	79900	38%
	Total	$	162,841	$ 237,635	69%

J. Atkinson 3/9/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 3/9/2011 (DD MM YY) Shift Day

Site Photos

Location GSC 1300 bench Looking west

Comment Till filling depression with D9

Location GSC 1300 bench

Comment Till material

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 3/9/2011 (DD MM YY) Shift Day

Site Photos

Location GSC 1300 bench Looking west

Comment Till filling depression with D9

Location

Comment

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 4/9/2011 (DD MM YY) Shift Day

BGC Project No: 0533-003

Weather

Contract Title:	Today		Max	14	
GSC Cover Repairs	Clear	Cloudy	Windy	Showers	

Client: Yukon Government Contractors: Pelly Construction

Highlights

1. Hauling till to the depression area until 1500 hrs. Spreading with the D9 and doing final tidying. Area now good grade to the south.
2. Trench ripped along the top plateau by D9.
3. East Dissipation pond and Lower Dissipation Pond cleaned out. Material is wet sediment and is placed down haul bench from the sedimentation pond.
4. Packer smoothed benches to ensure an even grade towards the former ditch location to ensure there are no gullies or dips where water could collect.
5. Plan to start preparation around the sedimentation pond tommorow and start cut around the edge of the pond to 1191m design elevation. Also will start realignment of quarry access road around the south with D9 dozer. i.e. commence Phase 2 work.

Health and Safety

BGC field job site evaluation undertaken by JAA for monitoring work.
Raining so note to watch for slippery road conditions on and off site.

No visitors or other contractors on site.

J. Atkinson 4/9/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 4/9/2011 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly Activities	BGC Activity	Comments
745	GSC	2 x 773B Hauling till to depression, 1 x 360 CAT loading haul trucks, 1x D9 pushing till, 1 x Foreman and pickup Personnel - GS,IL,MN,CT, AS.	Arrive on site	Plan for the day, Safety documentation
800	GSC		Monitor construction work	Observe till placement and material - still light brown till material
930	GSC		Paperwork	Start daily report and check Pelly documentation
1200	Lunch			
1230	GSC	As before lunch	Observe Construction and Fill up truck at Faro mine	
1430	GSC	1x360 CAT cleaning borrow area, 1 x D9 tidying depression, 1x Packer packing benches, 1x Foreman and pickup. Personnel:GS,IL,MN, AS,CN	Observe construction and update daily report.	Final check of depression fill - good grade to south. Take photos.
1500	GSC	1x360 CAT cleaning and 1 x 773B cleaning sed pond, 1x D9 tidy depression, 1x Packer working benches, 1x Foreman and pickup. Personnel:GS,IL,MN, AS,CN	Observe construction activities.	Material removed from Lower dissipation pond is wet sloppy sediment. Very little material removed from East Dissipation Pond. Water hose required to wash material into middle of pond to be removed.
1700	Leave site.			

J. Atkinson 4/9/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Date 4/9/2011 (DD MM YY) Shift Day

Daily Site Log

Daily Construction – Progress Report

Pelly Construction: Daily Summary Table

Work to date	Task	Spent		
3/9/11	2 and 10	$	15,425	($11,600 for task 3 and $3,825 for task 10) (11,700 for task 3 and 4680 for task 10)
2/9/11	3 and 10	$	16,380	
1/9/11	3 and 10	$	15,430	(11,600 for task 3 and 3830 for task 10) - Updated for correction June spotted.
31/08/11	1,3 and 10	$	14,780	(2280 for task 1, 8600 for task 3 and 3900 for task 10)
30/08/11	1,3 and 10	$	15,230	(2,280 for task 1, 9500 for task 3 and 3450 for task 10)
29/08/11	1,3 and 10	$	14,330	(2280 for task 1, 8600 for task 3, 3450 for task 10)
28/08/11	1,3 and 10	$	14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	$	13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	$	10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4
25/08/2011	3 and 2	$	13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	$	13,130	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	$	8,169	
22/08/2011	2	$	9,388	
21/08/2011	10 - camp set up	$	4,000	
	Total	$	178,266	

J. Atkinson 4/9/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Date 4/9/2011 (DD MM YY) Shift Day

Daily Site Log

Daily Construction – Progress Report

Pelly Budget by Task

	Task		Spent	Budget	% Complete	Status
Per Task	1	$	12,895	19,500	66%	Complete
	2	$	35,066	28,660	122%	Complete
	3	$	94,370	92,700	102%	
	4	$	2,100	14,000	15%	
	5			2,875	0	
	6			None	0	
	7			None	0	
	8			None	0	
	9			None	0	
	10	$	33,835	79900	42%	
	Total	$	178,266	$ 237,635	75%	

J. Atkinson 4/9/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 4/9/2011 (DD MM YY) Shift Day

Site Photos

Location GSC 1300 plateau Looking west

Comment Depression infilled with good grade to south

Location GSC 1300 plateau Looking east

Comment Depression infilled with good grade to south

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 4/9/2011 (DD MM YY) Shift Day

Site Photos

Location Borrow pit Looking east

Comment Tidies up slopes to grade

Location East Dissipation Pond Looking south

Comment Excavation of sediment to waiting 773B

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 5/9/2011 (DD MM YY) Shift Day

BGC Project No: 0533-003

Weather

	Today		Max	10
Contract Title:	Clear	Cloudy	Windy	Showers
GSC Cover Repairs				

Client: Yukon Government Contractors: Pelly Construction

Highlights

1 Depression fill complete. June removes stakes.

3 Started Phase 2 work. D9 pushing new rock quarry road around the south of the pond.

4 Started preparation of the northwest edge of the new sedimentation pond with 360 CAT and haul truck. Haul truck taking material down to bench below where material is required to create emergency capacity pond and later to fill area for pond construction.

5 Lower Dissipation pond needs more work on clean up.

Health and Safety

BGC field job site evaluation undertaken by JAA for monitoring work.

No visitors or other contractors on site.

J. Atkinson 5/9/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 5/9/2011 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly Activities	BGC Activity	Comments
745	GSC	1xD9 Dozer pushing new quarry road, 1x 360 CAT preparing pond, 1x773B hauling material, 1x foreman. Personnel: AS,CN,IL,GS.	Arrive on site	Plan for the day, Safety documentation
800	GSC		Monitor construction work	Observe pond works, Inspect depression one last time and remove stakes.
930	GSC		Paperwork	Start daily report and observe construction
1200	Lunch			
1230	GSC	1xD9 Dozer pushing new quarry road, 1x 360 CAT preparing pond, 1x773B hauling material, 1x foreman. Personnel: AS,CN,IL,GS. At 1430 one water truck to keep dust down.	Monitor construction work	Observe pond works.
1730	Leave site.			

J. Atkinson 5/9/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Date 5/9/2011 (DD MM YY) Shift Day

Daily Site Log

Daily Construction – Progress Report

Pelly Construction: Daily Summary Table

Work to date	Task	Spent		
4/9/11	1,3,5, 10 and P2	$	15,695	($620 for Task 1, $10,325 for task 3,$700 for task 5, $3,450 for task 10 and $600 for Phase 2)
3/9/11	3 and 10	$	15,425	($11,600 for task 3 and $3,825 for task 10)
2/9/11	3 and 10	$	16,380	(11,700 for task 3 and 4680 for task 10)
1/9/11	3 and 10	$	15,430	(11,600 for task 3 and 3830 for task 10) - Updated for correction June spotted.
31/08/11	1,3 and 10	$	14,780	(2280 for task 1, 8600 for task 3 and 3900 for task 10)
30/08/11	1,3 and 10	$	15,230	(2,280 for task 1, 9500 for task 3 and 3450 for task 10)
29/08/11	1,3 and 10	$	14,330	(2280 for task 1, 8600 for task 3, 3450 for task 10)
28/08/11	1,3 and 10	$	14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	$	13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	$	10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	$	13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	$	13,130	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	$	8,169	
22/08/2011	2	$	9,388	
21/08/2011	10 - camp set up	$	4,000	
	Total	$	193,961	

J. Atkinson 5/9/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 5/9/2011 (DD MM YY) Shift Day

Pelly Budget by Task

	Task		Spent	Budget	% Complete	Status
Per Task	1	$	13,515	19,500	69%	Complete
	2	$	35,066	28,660	122%	Complete
	3	$	104,695	92,700	113%	
	4	$	2,100	14,000	15%	
	5	$	700	2,875	24.347826	
	6			None	0	
	7			None	0	
	8			None	0	
	9			None	0	
	10	$	37,285	79900	47%	
	Phase 2	$	600			
	Total	$	193,961	$ 237,635	82%	

J. Atkinson 5/9/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 5/9/2011 (DD MM YY) Shift Day

Site Photos

Location Base of GSC Looking NE

Comment D9 Dozer pushing a new quarry access road.

Location As above

Comment As above

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 5/9/2011 (DD MM YY) Shift Day

Site Photos

Location	Base of GSC	Looking east
Comment	Excavating to pond edge elevation of 1191m	

Location	Base of GSC	Looking east
Comment	Removal of excavated material	

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 5/9/2011 (DD MM YY) Shift Day

Site Photos

Location Bench below GSC Looking southeast

Comment Hauling of material to bench below to create depression volume

Location

Comment

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 6/9/2011 (DD MM YY) Shift Day

BGC Project No: 0533-003

Weather

Today: Clear | Cloudy | Max: Windy | Showers

Contract Title: GSC Cover Repairs

Client: Yukon Government

Contractors: Pelly Construction

Highlights

1 D9 pushing new rock quarry road around the south of the pond.

3 In afternoon large soft spot excavated at base of quarry road push.Removed with 360 CAT and replaced with clean waste rock from clean waste rock dump (6 loads).

4 Continued removal of material from northwest edge of the new sedimentation pond with 360 CAT and haul truck. Haul truck taking material down to bench below where material is required to create emergency capacity pond and later to fill area for pond construction and also to fill area below pond.

5 Fill spec checked with BGC Vancouver and calgary. Waiting confirmationb due to 10% coarse cobbles (>8 inches) in lift.

Health and Safety

BGC field job site evaluation undertaken by JAA for monitoring work.

No visitors or other contractors on site.

J. Atkinson 6/9/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 6/9/2011 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly Activities	BGC Activity	Comments
745	GSC	1xD9 Dozer pushing new quarry road, 1x 360 CAT preparing pond, 1x773B hauling material, 1x foreman. Personnel: AS,CN,IL,GS.	Arrive on site	Plan for the day, Safety documentation
800	GSC		Monitor construction work	Observe pond works and quarry access road push.
1200	Lunch			
1230	GSC	1xD9 Dozer pushing new quarry road, 1x 360 CAT preparing pond and removing soft spot at base of access road, 2x773B hauling clean waste rock material, 1x foreman. Personnel: AS,CN,IL,GS, MN.	Monitor construction work	Observe pond works.
1730	Leave site.			

J. Atkinson 6/9/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 6/9/2011 (DD MM YY) Shift Day

Pelly Construction: Daily Summary Table

Work to date	Task	Spent		
5/9/11	P2 and 10	$	13,500	(P2 is 10,050 and task 10 is 3450) ($620 for Task 1, $10,325 for task 3,$700 for task 5, $3,450 for task 10 and $600 for Phase 2)
4/9/11	1,3,5, 10 and P2	$	15,695	
3/9/11	3 and 10	$	15,425	($11,600 for task 3 and $3,825 for task 10)
2/9/11	3 and 10	$	16,380	(11,700 for task 3 and 4680 for task 10)
1/9/11	3 and 10	$	15,430	(11,600 for task 3 and 3830 for task 10) - Updated for correction June spotted.
31/08/11	1,3 and 10	$	14,780	(2280 for task 1, 8600 for task 3 and 3900 for task 10)
30/08/11	1,3 and 10	$	15,230	(2,280 for task 1, 9500 for task 3 and 3450 for task 10)
29/08/11	1,3 and 10	$	14,330	(2280 for task 1, 8600 for task 3, 3450 for task 10)
28/08/11	1,3 and 10	$	14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	$	13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	$	10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	$	13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	$	13,130	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	$	8,169	
22/08/2011	2	$	9,388	
21/08/2011	10 - camp set up	$	4,000	
	Total	$	207,461	

J. Atkinson 6/9/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 6/9/2011 (DD MM YY) Shift Day

Pelly Budget by Task

	Task		Spent	Budget	% Complete	Status
Per Task	1	$	13,515	19,500	69%	Complete
	2	$	35,066	28,660	122%	Complete
	3	$	104,695	92,700	113%	
	4	$	2,100	14,000	15%	
	5	$	700	2,875	24.347826	
	6			None	0	
	7			None	0	
	8			None	0	
	9			None	0	
	10	$	40,735	79900	51%	
	Phase 2	$	10,650			
	Total	$	207,461	$ 237,635	87%	

J. Atkinson 6/9/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 6/9/2011 (DD MM YY) Shift Day

Site Photos

Location Base of GSC Looking north

Comment Dozer pushing new access road

Location Base of GSC Looking south

Comment Excavtion to make room for NW corner of new sed pond

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 6/9/2011 (DD MM YY) Shift Day

Site Photos

Location Base of GSC Looking north

Comment Placing clean waste rock at base of access road where soft spot removed

Location Base of GSC Looking west

Comment Packing fill first lift

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 7/9/2011 (DD MM YY) Shift Day

BGC Project No: 0533-003

Weather

Today: Clear | Cloudy | Windy | Showers

Max: Windy

Contract Title: GSC Cover Repairs

Client: Yukon Government

Contractors: Pelly Construction

Highlights

1. Placing fill around the SE of the sedimentation pond.
2. Remove soft spot excavated at toe of proposed fill material. Removed with 360 CAT and replaced with clean waste rock from clean waste rock dump.
3. Removal of material from southeast edge of the new sedimentation pond with 360 CAT and haul truck. Haul truck taking material down to bench below to fill area for pond construction.
4. Place fill in just over 12 inch lift and pack to a 12 inch lift, add water with water truck, pass 5 times with packer and proof roll with 773B haul truck. Deflections maximum 1-2 cm. No ruts.
5. Jeremy Valeriote (BGC) arrives on site. Tour around items from phase 1 which are complete, observe proof roll, go to borrow areas.
6. Liner (7 rolls 60 mm HDPE solmax) and geotextile (22 rolls) arrives on site and is stockpiled near end of toe berm bench.
7. CAT 360 removes sediment from existing sediment pond and haul truck deposits on bench below pond.
8. June leaves site and heads for Whitehorse.

Health and Safety

BGC field job site evaluation undertaken by JAA for monitoring work.

Liner delivery driver and Jeremy Valeriote (BGC) on site.

J. Atkinson — 7/9/2011

Construction Monitor — Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 7/9/2011 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly Activities	BGC Activity	Comments
745	GSC	1xD9 Dozer placing fill, 1x 360 CAT preparing pond, 1x773B hauling material, 1x foreman, 1 x packer. Personnel: AS,CN,IL,GS.	Arrive on site	Plan for the day, Safety documentation
800	GSC		Monitor construction work	Observe pond works and fill placement.
1200	Lunch			
1230	GSC	1xD9 Dozer placing fill, 1x 360 CAT preparing pond, 1x773B hauling material, 1x foreman, 1 x packer. Personnel: AS,CN,IL,GS.	Monitor construction work	1300 - Liner arrives on site and is unloaded by MN (Pelly) Observe pond works, fill placement and proof roll. JV arrives on site at 1630 - tour site.
1800	Leave site.			

J. Atkinson 7/9/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Date 7/9/2011 (DD MM YY) Shift Day

Daily Site Log

Daily Construction – Progress Report

Pelly Construction: Daily Summary Table

Work to date	Task	Spent		
6/9/11	1, P2 and 9	$	13,885	(1 is 310, P2 is 10,095 and 10 is 3450)
5/9/11	P2 and 10	$	13,500	(P2 is 10,050 and task 10 is 3450)
4/9/11	1,3,5, 10 and P2	$	15,695	($620 for Task 1, $10,325 for task 3,$700 for task 5, $3,450 for task 10 and $600 for Phase 2)
3/9/11	3 and 10	$	15,425	($11,600 for task 3 and $3,825 for task 10)
2/9/11	3 and 10	$	16,380	(11,700 for task 3 and 4680 for task 10)
1/9/11	3 and 10	$	15,430	(11,600 for task 3 and 3830 for task 10) - Updated for correction June spotted.
31/08/11	1,3 and 10	$	14,780	(2280 for task 1, 8600 for task 3 and 3900 for task 10)
30/08/11	1,3 and 10	$	15,230	(2,280 for task 1, 9500 for task 3 and 3450 for task 10)
29/08/11	1,3 and 10	$	14,330	(2280 for task 1, 8600 for task 3, 3450 for task 10)
28/08/11	1,3 and 10	$	14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	$	13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	$	10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	$	13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	$	13,130	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	$	8,169	
22/08/2011	2	$	9,388	
21/08/2011	10 - camp set up	$	4,000	
	Total	$	221,346	

J. Atkinson 7/9/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 7/9/2011 (DD MM YY) Shift Day

Pelly Budget by Task

	Task		Spent	Budget	% Complete	Status
Per Task	1	$	13,825	19,500	71%	
	2	$	35,066	28,660	122%	Complete
	3	$	104,695	92,700	113%	
	4	$	2,100	14,000	15%	
	5	$	700	2,875	24.347826	
	6			None	0	
	7			None	0	
	8			None	0	
	9			None	0	
	10	$	44,185	79900	55%	
	Phase 2	$	20,745			
	Total	$	221,316	$ 237,635		

J. Atkinson 7/9/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 7/9/2011 (DD MM YY) Shift Day

Site Photos

Location Base of GSC Looking east

Comment Fill Placement area

Location Base of GSC - SW corner of fill for pond Looking north

Comment Removal of soft spot and repack with clean waster rock

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 7/9/2011 (DD MM YY) Shift Day

Site Photos

Location	East of toe berm bench	Looking east
Comment	Liner arrived and stacked.	

Location	East of toe berm bench	Looking east
Comment	Geotextile arrived and stacked.	

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 7/9/2011 (DD MM YY) Shift Day

Site Photos

Location Existing sed pond Looking west

Comment Removal of sediment

Location Fill for new sed pond Looking west

Comment Haul truck ready for proof roll

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 8/9/2011 (DD MM YY) Shift Day

BGC Project No: 0533-003

Weather

Contract Title:	Today		Max	15
GSC Cover Repairs	Clear	Cloudy	Windy	Showers

Client: Yukon Government Contractors: Pelly Construction

Highlights

1 Cutting slope above N edge of pond

2 Filling previously existing sediment pond (12 inch lifts, 5 passes compactor, water applied)

3 Clearing 600mm culvert due to forecasted 5-10mm rain

4

5

6

7

8

Health and Safety

BGC field job site evaluation undertaken by JAA for monitoring work.

Juvenile black bear on toe berm - unconcerned with bear bangers or air horn, eventually left cover area

J. Valeriote 7/9/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 8/9/2011 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly Activities	BGC Activity	Comments
745	GSC	1xD9 Dozer placing fill, 1x 360 CAT preparing pond, 1x773B hauling material, 1x foreman, 1 x packer, 1x water truck. Personnel: AS,CN,IL,GS, CT.	Arrive on site	Plan for the day, Safety documentation
800	GSC		Monitor construction work	Cutting north pond edge, placing acceptable material in old pond as fill, removing some material to Contingency Storage Area (CSA)
1200	Lunch			
1230	GSC	1xD9 Dozer placing fill, 1x 360 CAT preparing pond, 1x foreman, 1 x packer, 1x water truck. Personnel: AS,CN,IL,GS.	Monitor construction work	Filling old pond in lifts where necessary for new cut slope
1800	Leave site.			

Construction Monitor J. Valeriote Date 8-Sep

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 8/9/2011 (DD MM YY) Shift Day

Pelly Construction: Daily Summary Table

Work to date	Task	Spent		
8/9/11	P2-1 (sed pond)	$	14,675	
7/9/11	P2-1 (sed pond)	$	15,230	
6/9/11	1, P2 and 9	$	13,885	(1 is 310, P2 is 10,095 and 10 is 3450)
5/9/11	P2 and 10	$	13,500	(P2 is 10,050 and task 10 is 3450) ($620 for Task 1, $10,325 for task 3,$700 for task 5, $3,450 for task 10 and $600 for Phase 2)
4/9/11	1,3,5, 10 and P2	$	15,695	
3/9/11	3 and 10	$	15,425	($11,600 for task 3 and $3,825 for task 10)
2/9/11	3 and 10	$	16,380	(11,700 for task 3 and 4680 for task 10)
1/9/11	3 and 10	$	15,430	(11,600 for task 3 and 3830 for task 10) - Updated for correction June spotted.
31/08/11	1,3 and 10	$	14,780	(2280 for task 1, 8600 for task 3 and 3900 for task 10)
30/08/11	1,3 and 10	$	15,230	(2,280 for task 1, 9500 for task 3 and 3450 for task 10)
29/08/11	1,3 and 10	$	14,330	(2280 for task 1, 8600 for task 3, 3450 for task 10)
28/08/11	1,3 and 10	$	14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	$	13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	$	10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	$	13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	$	13,130	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	$	8,169	
22/08/2011	2	$	9,388	
21/08/2011	10 - camp set up	$	4,000	
	Total	$	251,251	

J. Atkinson 7/9/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 8/9/2011 (DD MM YY) Shift Day

Pelly Budget by Task

	Task			Spent		Budget	% Complete	Status
	Bench ditches	1	$	13,825		19,500	71%	
	perim ditches	2	$	35,066		28,660	122%	Complete
	fill depressions	3	$	104,695		92,700	113%	
	run-on ditches	4	$	2,100		14,000	15%	
	cleanout ponds	5	$	700		2,875	24%	
		6			None		0	
		7			None		0	
		8			None		0	
		9			None		0	
	incidental	10	$	44,185		79900	55%	
	Phase 1 subtotal		**$**	**200,571**		**237,635**	**84%**	
Phase 2	Pond Exc	1	$	40,000	$	110,650	**36%**	
	Riprap	2			$	25,470	**0%**	
	Quarry Road	3	$	10,050	$	9,690	**104%**	
	SP Outlet channel	4			$	1,750	**0%**	
	CSA	5			$	25,250	**0%**	
	X-ditch	6			$	9,750	**0%**	
	Grade perim ditch	7		600	$	4,740	**13%**	
	remove bench access	8			$	3,500	**0%**	
		Incidentals			$	234,240	**0%**	
	Phase 2 subtotal		**$**	**50,650**	**$**	**425,040**	**12%**	
		Total	**$**	**251,221**	**$**	**662,675**	**38%**	

J. Valeriote 7/9/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Date 8/9/2011 (DD MM YY) Shift Day

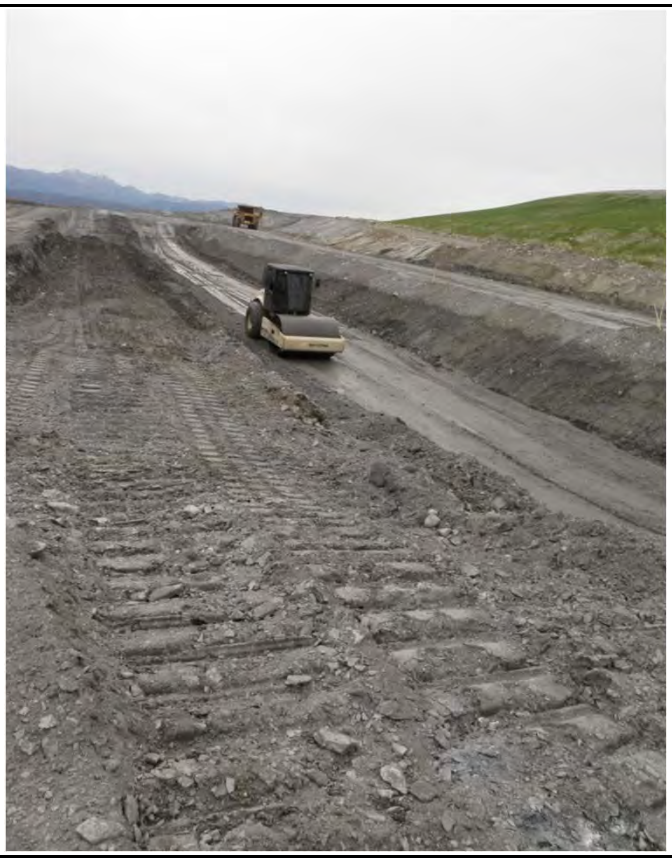
Daily Site Log

Daily Construction – Progress Report

Site Photos

Sediment Pond Fill — Looking east

Water application to 30cm lift



Filling old sediment pond — Looking west

Packing 30cm lift in old pond for north slope of new pond

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Date 9/9/2011 (DD MM YY) Shift Day

Daily Site Log

Daily Construction – Progress Report

BGC Project No: 0533-003

Weather

Contract Title:	Today		Max	7
GSC Cover Repairs	Rain	Cloudy	Windy	Showers

Client: Yukon Government Contractors: Pelly Construction

Highlights

1 Cut and Fill Sediment Pond

2 Light rain (wet snow at Pelly camp) most of previous night and today - total ~10mm. Filled low spot in LDP outlet in case of heavier rain.

3 Sent CAD file to Pelly surveyor Caroline for staking tomorrow

4 Reminder to cross-ditch drainge from 2 eastern access roads into LDP prior to demob; will require water sampling in EDP and WDP channels to define cover runoff quality

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Health and Safety

BGC field job site evaluation undertaken by JAA for monitoring work.

J. Valeriote 9/9/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 9/9/2011 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly Activities	BGC Activity	Comments
745	GSC	1xD9 Dozer placing fill, 1x 360 CAT preparing pond, 1x foreman, 1 x packer. Personnel: AS,CN,IL,GS.	Arrive on site	Plan for the day, Safety documentation
800	GSC		Monitor construction work	Cut and fill for sed pond
1200	Lunch			
1230	GSC	1xD9 Dozer placing fill, 1x 360 CAT preparing pond, 1x foreman, 1 x packer. Personnel: AS,CN,IL,GS.	Monitor construction work	Cut and fill for sed pond
1700	Leave site.			

Construction Monitor J. Valeriote Date 9/9/2011

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Date 9/9/2011 (DD MM YY) Shift Day

Daily Site Log

Daily Construction – Progress Report

Pelly Construction: Daily Summary Table

Work to date	Task	Spent		
9/9/11	P2-1 (sed pond)	$	11,985	
8/9/11	P2-1 (sed pond)	$	14,675	
7/9/11	P2-1 (sed pond)	$	15,230	
6/9/11	1, P2 and 9	$	13,885	(1 is 310, P2 is 10,095 and 10 is 3450)
5/9/11	P2 and 10	$	13,500	(P2 is 10,050 and task 10 is 3450) ($620 for Task 1, $10,325 for task 3,$700 for task 5, $3,450 for task 10 and $600 for Phase 2)
4/9/11	1,3,5, 10 and P2	$	15,695	
3/9/11	3 and 10	$	15,425	($11,600 for task 3 and $3,825 for task 10)
2/9/11	3 and 10	$	16,380	(11,700 for task 3 and 4680 for task 10)
1/9/11	3 and 10	$	15,430	(11,600 for task 3 and 3830 for task 10) - Updated for correction June spotted. (2280 for task 1, 8600 for task 3 and 3900 for task 10)
31/08/11	1,3 and 10	$	14,780	(2,280 for task 1, 9500 for task 3 and 3450 for task 10)
30/08/11	1,3 and 10	$	15,230	
29/08/11	1,3 and 10	$	14,330	(2280 for task 1, 8600 for task 3, 3450 for task 10)
28/08/11	1,3 and 10	$	14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	$	13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	$	10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	$	13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	$	13,130	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	$	8,169	
22/08/2011	2	$	9,388	
21/08/2011	10 - camp set up	$	4,000	
	Total	$	263,236	

J. Valeriote 9/9/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Date 9/9/2011 (DD MM YY) Shift Day

Daily Site Log

Daily Construction – Progress Report

Pelly Budget by Task

	Task		Spent	Budget	% Complete	Status
	Bench ditches	1	$ 13,825	19,500	71%	Complete
	perim ditches	2	$ 35,066	28,660	122%	Complete
	fill depressions	3	$ 104,695	92,700	113%	Complete
	run-on ditches	4	$ 2,100	14,000	15%	
	cleanout ponds	5	$ 700	2,875	24%	Complete
		6		None	0	
		7		None	0	
		8		None	0	
		9		None	0	
	incidental	10	$ 44,185	79900	55%	
	Phase 1 subtotal		**$ 200,571**	**$ 237,635**	**84%**	
Phase 2	Pond Exc	1	$ 51,985	$ 110,650	**47%**	
	Riprap	2		$ 25,470	**0%**	
	Quarry Road	3	$ 10,050	$ 9,690	**104%**	
	SP Outlet channel	4		$ 1,750	**0%**	
	CSA	5		$ 25,250	**0%**	
	X-ditch	6		$ 9,750	**0%**	
	Grade perim ditch	7	600	$ 4,740	**13%**	
	remove bench access	8		$ 3,500	**0%**	
	Incidentals			$ 234,240	**0%**	
	Phase 2 subtotal		**$ 62,635**	**$ 425,040**	**15%**	
		Total	**$ 263,206**	**$ 662,675**	**40%**	

J. Valeriote 7/9/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Date 9/9/2011 (DD MM YY) Shift Day

Daily Site Log

Daily Construction – Progress Report

Site Photos

Sediment Pond Cut/Fill Looking east

Contingency Storage Area looking south

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 9/9/2011 (DD MM YY) Shift Day

Site Photos

Fill low spot in LDP outlet (with small berm highlighted)

Looking southeast

LDP outlet culvert

Looking north

Flow from access roads - requires cross ditching into LDP at end of project

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Date 9/9/2011 Shift Day
(DD MM YY)

Daily Site Log

Daily Construction – Progress Report

Site Photos

Southern toe of sed pond - oversize material discarded from fill — Looking southwest

Eastern edge of sed pond — looking west
Placing and compacting fill

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Date 10/9/2011 (DD MM YY) Shift Day

Daily Site Log

Daily Construction – Progress Report

BGC Project No: 0533-003

Weather

Contract Title:	Today		Max	10
GSC Cover Repairs	Rain	Sun & Cloud	Windy	Showers

Client: Yukon Government

Contractors: Pelly Construction

Highlights

1 Cut and Fill Sediment Pond

2 Spoil about 500 m3 of till fom sediment pond cut

3 As-built measurements of bench ditches

4 Site visit from Erik Nyland

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Health and Safety

BGC field job site evaluation undertaken by JAA for monitoring work.

J. Valeriote — 10/9/2011

Construction Monitor — Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 10/9/2011 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly Activities	BGC Activity	Comments
745	GSC	1xD9 Dozer placing fill, 1x 360 CAT preparing pond, 1x CAT 773B truck, 1x foreman, 1 x packer. Personnel: CN,IL,GS,MN.	Arrive on site	Plan for the day, Safety documentation
800	GSC		Monitor construction work	Cut and fill for sed pond
1200	Lunch			
1230	GSC	1xD9 Dozer placing fill, 1x 360 CAT preparing pond, 2x CAT 773B truck, 1x foreman, 1 x packer. Personnel: CN,IL,GS,MN,CT.	Monitor construction work	Cut and fill for sed pond - some till material spoiled on lower bench
1700	Leave site.			

Construction Monitor J. Valeriote Date 10/9/2011

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Date 10/9/2011 (DD MM YY) Shift Day

Daily Site Log

Daily Construction – Progress Report

Pelly Construction: Daily Summary Table

Work to date	Task	Spent		
######				
######	P2-1 (sed pond)	$	14,790	
9/9/11	P2-1 (sed pond)	$	11,985	
8/9/11	P2-1 (sed pond)	$	14,675	
7/9/11	P2-1 (sed pond)	$	15,230	
6/9/11	1, P2 and 9	$	13,885	(1 is 310, P2 is 10,095 and 10 is 3450)
5/9/11	P2 and 10	$	13,500	(P2 is 10,050 and task 10 is 3450) ($620 for Task 1, $10,325 for task 3,$700 for task 5, $3,450 for task 10 and $600 for Phase 2)
4/9/11	1,3,5, 10 and P2	$	15,695	
3/9/11	3 and 10	$	15,425	($11,600 for task 3 and $3,825 for task 10)
2/9/11	3 and 10	$	16,380	(11,700 for task 3 and 4680 for task 10)
1/9/11	3 and 10	$	15,430	(11,600 for task 3 and 3830 for task 10) - Updated for correction June spotted. (2280 for task 1, 8600 for task 3 and 3900 for task 10)
31/08/11	1,3 and 10	$	14,780	(2,280 for task 1, 9500 for task 3 and 3450 for task 10)
30/08/11	1,3 and 10	$	15,230	
29/08/11	1,3 and 10	$	14,330	(2280 for task 1, 8600 for task 3, 3450 for task 10)
28/08/11	1,3 and 10	$	14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	$	13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	$	10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	$	13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	$	13,130	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	$	8,169	
22/08/2011	2	$	9,388	
21/08/2011	10 - camp set up	$	4,000	
	Total	**$**	**278,026**	

J. Valeriote — 10/9/2011

Construction Monitor — Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Date 10/9/2011 (DD MM YY) Shift Day

Daily Site Log

Daily Construction – Progress Report

Pelly Budget by Task

	Task		Spent	Budget	% Complete	Status
	Bench ditches	1	$ 13,825	19,500	71%	Complete
	perim ditches	2	$ 35,066	28,660	122%	Complete
	fill depressions	3	$ 104,695	92,700	113%	Complete
	run-on ditches	4	$ 2,100	14,000	15%	
	cleanout ponds	5	$ 700	2,875	24%	Complete
		6		None	0	
		7		None	0	
		8		None	0	
		9		None	0	
	incidental	10	$ 44,185	79900	55%	
	Phase 1 subtotal		**$ 200,571**	**$ 237,635**	**84%**	
Phase 2	Pond Exc	1	$ 66,775	$ 110,650	**60%**	incl incidentals
	Riprap	2		$ 25,470	**0%**	
	Quarry Road	3	$ 10,050	$ 9,690	**104%**	incl incidentals
	SP Outlet channel	4		$ 1,750	**0%**	
	CSA	5		$ 25,250	**0%**	
	X-ditch	6		$ 9,750	**0%**	
	Grade perim ditch	7	600	$ 4,740	**13%**	
	remove bench access	8		$ 3,500	**0%**	
	Incidentals			$ 234,240	**0%**	
	Phase 2 subtotal		**$ 77,425**	**$ 425,040**	**18%**	
		Total	**$ 277,996**	**$ 662,675**	**42%**	

J. Valeriote — Construction Monitor

10/9/2011 — Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Date 10/9/2011 (DD MM YY) Shift Day

Daily Site Log

Daily Construction – Progress Report

Site Photos

Sediment Pond Cut/Fill Looking SW

Sed pond looking southwest

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Date 10/9/2011 Shift Day
(DD MM YY)

Daily Site Log

Daily Construction – Progress Report

Site Photos

Sed pond cut slope waste rock/till transition

Looking north

Overview looking south

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 10/9/2011 (DD MM YY) Shift Day

Site Photos

Bench 4 ditch improvements looking east

Bench 2 revegetation looking south

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 11/9/2011 (DD MM YY) Shift Day

BGC Project No: 0533-003

Weather

Contract Title:	Today		Max	12
GSC Cover Repairs	Rain	Sun & Cloud	Windy	Showers

Client: Yukon Government Contractors: Pelly Construction

Highlights

1 Cut and Fill Sediment Pond

2 Spoil 1600 m3 of till from sediment pond cut to lower bench

3 Begin cutting waste rock from northern pond edge to fill southwestern slope - cut till slope for waste rock buttress at SW corner

4 Surveyor (Caroline Brisebois) on site to stake toe, crest and bottom edges of pond

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Health and Safety

BGC field job site evaluation undertaken by JAA for monitoring work.

J. Valeriote 11/9/2011

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 11/9/2011 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly Activities	BGC Activity	Comments
745	GSC	1xD9 Dozer placing fill, 1x 360 CAT preparing pond, 2x CAT 773B truck, 1x foreman, 1 x packer. Personnel: CN,IL,GS,MN,CT,CB.	Arrive on site	Plan for the day, Safety documentation
800	GSC		Monitor construction work	Remove till as waste in sed pond cut
1200	Lunch			
1230	GSC	1xD9 Dozer placing fill, 1x 360 CAT preparing pond, 2x CAT 773B truck, 1x foreman, 1 x packer. Personnel: CN,IL,GS,MN,CT,CB.	Monitor construction work	Remove till as waste in sed pond cut - begin cut and fill of waste rock from north edge to SW corner
1700	Leave site.			

Construction Monitor J. Valeriote Date 11/9/2011

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Date 11/9/2011 (DD MM YY) Shift Day

Daily Site Log

Daily Construction – Progress Report

Pelly Construction: Daily Summary Table

Work to date	Task	Spent		
######	P2-1 (sed pond)	$	16,250	
######	P2-1 (sed pond)	$	14,790	
9/9/11	P2-1 (sed pond)	$	11,985	
8/9/11	P2-1 (sed pond)	$	14,675	
7/9/11	P2-1 (sed pond)	$	15,230	
6/9/11	1, P2 and 9	$	13,885	(1 is 310, P2 is 10,095 and 10 is 3450)
5/9/11	P2 and 10	$	13,500	(P2 is 10,050 and task 10 is 3450) ($620 for Task 1, $10,325 for task 3,$700 for task 5, $3,450 for task 10 and $600 for Phase 2)
4/9/11	1,3,5, 10 and P2	$	15,695	
3/9/11	3 and 10	$	15,425	($11,600 for task 3 and $3,825 for task 10)
2/9/11	3 and 10	$	16,380	(11,700 for task 3 and 4680 for task 10)
1/9/11	3 and 10	$	15,430	(11,600 for task 3 and 3830 for task 10) - Updated for correction June spotted. (2280 for task 1, 8600 for task 3 and 3900 for task 10)
31/08/11	1,3 and 10	$	14,780	(2,280 for task 1, 9500 for task 3 and 3450 for task 10)
30/08/11	1,3 and 10	$	15,230	
29/08/11	1,3 and 10	$	14,330	(2280 for task 1, 8600 for task 3, 3450 for task 10)
28/08/11	1,3 and 10	$	14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	$	13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	$	10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	$	13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	$	13,130	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	$	8,169	
22/08/2011	2	$	9,388	
21/08/2011	10 - camp set up	$	4,000	
	Total	**$**	**294,276**	

J. Valeriote — Construction Monitor

11/9/2011 — Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Date 11/9/2011 (DD MM YY) Shift Day

Daily Site Log

Daily Construction – Progress Report

Pelly Budget by Task

	Task		Spent	Budget	% Complete	Status
	Bench ditches	1	$ 13,825	19,500	71%	Complete
	perim ditches	2	$ 35,066	28,660	122%	Complete
	fill depressions	3	$ 104,695	92,700	113%	Complete
	run-on ditches	4	$ 2,100	14,000	15%	
	cleanout ponds	5	$ 700	2,875	24%	Complete
		6		None	0	
		7		None	0	
		8		None	0	
		9		None	0	
	incidental	10	$ 44,185	79900	55%	
	Phase 1 subtotal		**$ 200,571**	**$ 237,635**	**84%**	
Phase 2	Pond Exc	1	$ 83,025	$ 110,650	**75%**	incl incidentals
	Riprap	2		$ 25,470	**0%**	
	Quarry Road	3	$ 10,050	$ 9,690	**104%**	incl incidentals
	SP Outlet channel	4		$ 1,750	**0%**	
	CSA	5		$ 25,250	**0%**	
	X-ditch	6		$ 9,750	**0%**	
	Grade perim ditch	7	600	$ 4,740	**13%**	
	remove bench access	8		$ 3,500	**0%**	
	Incidentals			$ 234,240	**0%**	
	Phase 2 subtotal		**$ 93,675**	**$ 425,040**	**22%**	
		Total	**$ 294,246**	**$ 662,675**	**44%**	

J. Valeriote — 11/9/2011

Construction Monitor — Date DD/MM/YY

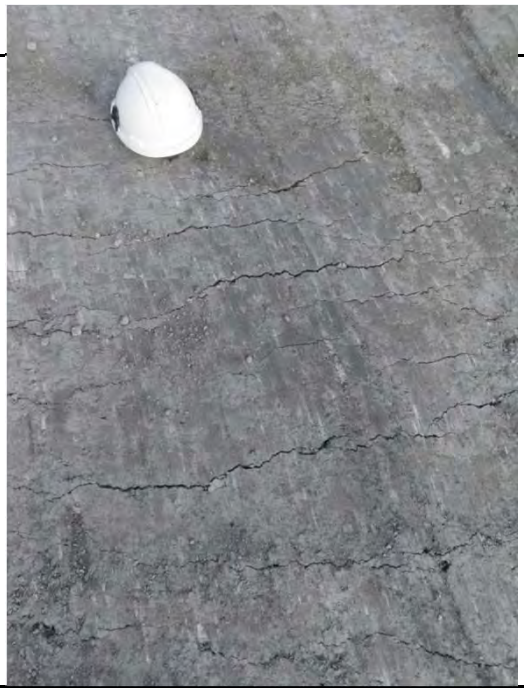
BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Date 11/9/2011 (DD MM YY) Shift Day

Daily Site Log

Daily Construction – Progress Report

Site Photos



Cracking of till in WRD at southwest fill

Tension cracks in till SW corner looking east 11/9/2011

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Date 11/9/2011 Shift Day
(DD MM YY)

Daily Site Log

Daily Construction – Progress Report

Site Photos

Close up of till material

Removal of till for compacted waste rock buttress foundation 11/9/2011

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

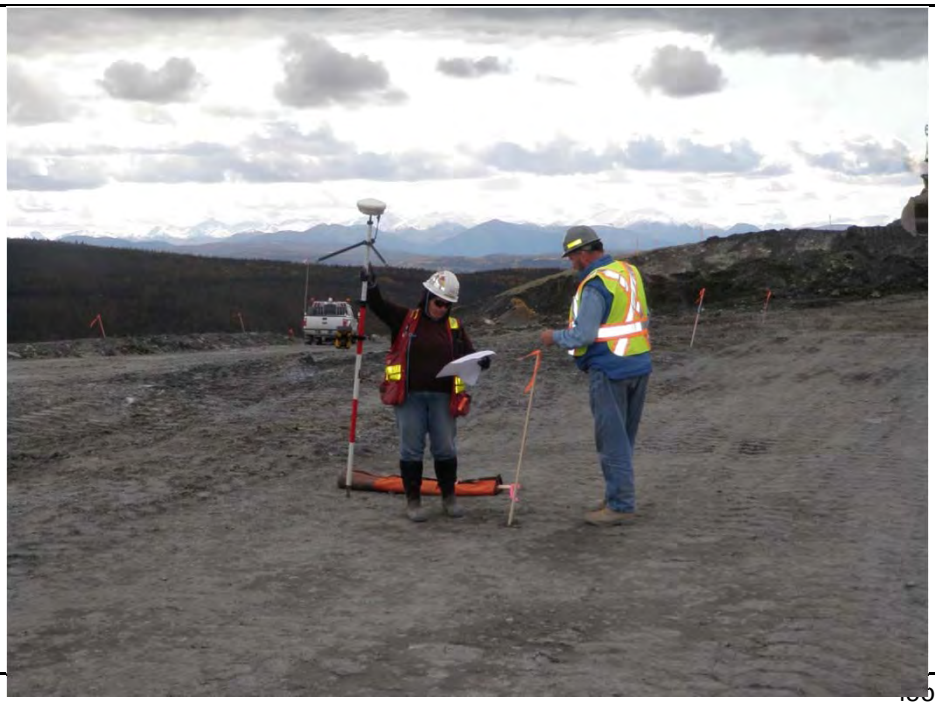
Daily Site Log

Daily Construction – Progress Report

Date 11/9/2011 (DD MM YY) Shift Day

Site Photos

First lift of waste rock at southwest corner looking east



Surveying looking west

11/9/2011

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 12/9/2011 Shift Day
(DD MM YY)

BGC Project No: 0533-003

Weather

Contract Title: Today Max 15
GSC Cover Repairs Rain Sun & Cloud Windy Showers

Client: Yukon Government Contractors: Pelly Construction

Highlights

1 Cut and Fill Sediment Pond

2 Discuss pump, pipe, silt/snow fence with Kristian Autio (DES)

3

4

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Health and Safety

BGC field job site evaluation undertaken by JAA for monitoring work.

J. Valeriote 12/9/2011
Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 12/9/2011 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly Activities	BGC Activity	Comments
745	GSC		Arrive on site	Plan for the day, Safety documentation
800	GSC	1xD9 Dozer placing fill, 1x 360 CAT preparing pond, 1x CAT 773B truck, 1x foreman, 1 x packer. Personnel: CN,IL,GS,MN,CT.	Monitor construction work	Cut and fill within sed pond - north edge to SW corner
1200	Lunch			
1230	GSC	1xD9 Dozer placing fill, 1x 360 CAT preparing pond, 1x CAT 773B truck, 1x foreman, 1 x packer. Personnel: CN,IL,GS,MN,CT.	Monitor construction work	Cut and fill within sed pond - NW corner to SW corner
1700	Leave site.			

J. Valeriote
Construction Monitor

Date 12/9/2011
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 12/9/2011 Shift Day
(DD MM YY)

Pelly Construction: Daily Summary Table

Work to date	Task	Spent	
12/9/11	P2-1 (sed pond)	$ 14,860	
11/9/11	P2-1 (sed pond)	$ 16,250	
10/9/11	P2-1 (sed pond)	$ 14,790	
9/9/11	P2-1 (sed pond)	$ 11,985	
8/9/11	P2-1 (sed pond)	$ 14,675	
7/9/11	P2-1 (sed pond)	$ 15,230	
6/9/11	1, P2 and 9	$ 13,885	(1 is 310, P2 is 10,095 and 10 is 3450)
5/9/11	P2 and 10	$ 13,500	(P2 is 10,050 and task 10 is 3450)
4/9/11	1,3,5, 10 and P2	$ 15,695	($620 for Task 1, $10,325 for task 3,$700 for task 5, $3,450 for task 10 and $600 for Phase 2)
3/9/11	3 and 10	$ 15,425	($11,600 for task 3 and $3,825 for task 10)
2/9/11	3 and 10	$ 16,380	(11,700 for task 3 and 4680 for task 10)
1/9/11	3 and 10	$ 15,430	(11,600 for task 3 and 3830 for task 10) - Updated for correction June spotted.
31/08/11	1,3 and 10	$ 14,780	(2280 for task 1, 8600 for task 3 and 3900 for task 10)
30/08/11	1,3 and 10	$ 15,230	(2,280 for task 1, 9500 for task 3 and 3450 for task 10)
29/08/11	1,3 and 10	$ 14,330	(2280 for task 1, 8600 for task 3, 3450 for task 10)
28/08/11	1,3 and 10	$ 14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	$ 13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	$ 10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	$ 13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	$ 13,130	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	$ 8,169	
22/08/2011	2	$ 9,388	
21/08/2011	10 - camp set up	$ 4,000	
	Total	**$ 309,136**	

J. Valeriote
Construction Monitor

Date 12/9/2011
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 12/9/2011 Shift Day
(DD MM YY)

Pelly Budget by Task

		Task		Spent	Budget	% Complete	Status
Phase 1	Improve Bench ditches	1		$ 13,825	19,500	71%	Complete
	Armour Upper Perimeter ditches	2		$ 35,066	28,660	122%	Complete
	Fill depressions	3		$ 104,695	92,700	113%	Complete
	Excavate Run-on ditches	4		$ 2,100	14,000	15%	
	Clean out dissipation pools	5		$ 700	2,875	24%	Complete
		6			None	0	
		7			None	0	
		8			None	0	
		9			None	0	
	Incidentals	10		$ 44,185	79900	55%	
	Phase 1 subtotal			**$ 200,571**	**$ 237,635**	**84%**	
Phase 2	Pond Cut and Fill	1		$ 97,885	$ 110,650	**88%**	incl incidentals
	Riprap in pond	2			$ 25,470	**0%**	
	Quarry Road Re-alignment	3		$ 10,050	$ 9,690	**104%**	incl incidentals
	Sed pond Outlet channel	4			$ 1,750	**0%**	
	Regrade CSA	5			$ 25,250	**0%**	
	Road cross-ditching	6			$ 9,750	**0%**	
	Grade Perimeter roads	7		600	$ 4,740	**13%**	
	Remove bench accesses	8			$ 3,500	**0%**	
		Incidentals			$ 234,240	**0%**	
	Phase 2 subtotal			**$ 108,535**	**$ 425,040**	**26%**	
			Total	**$ 309,106**	**$ 662,675**	**47%**	

J. Valeriote
Construction Monitor

Date 12/9/2011
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

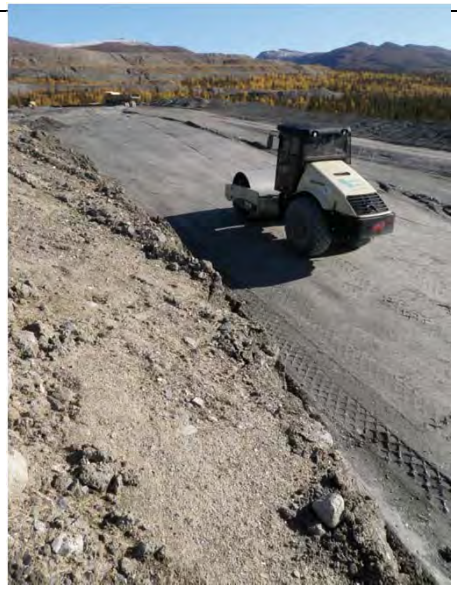
Daily Site Log

Daily Construction – Progress Report

Date 12/9/2011 Shift Day
(DD MM YY)

Site Photos

Cut and fill from east end to SW corner of pond looking west



Packing SW corner looking east

12/9/2011

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 12/9/2011 Shift Day
(DD MM YY)

Site Photos

Overview looking south

CSA outlet - to be regraded and lined with riprap looking south
12/9/2011

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 13/9/2011 (DD MM YY) Shift Day

BGC Project No: 0533-003

Weather

Contract Title: GSC Cover Repairs

Today: Rain | Sun & Cloud | Max: 15 | Windy | Showers

Client: Yukon Government

Contractors: Pelly Construction

Highlights

1 Establish access from clean waste rock borrow into west end of sediment pond excavation

2 Fill Sediment Pond downstream dyke with compacted clean waste rock from borrow (approx. 1100 cu.m)

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Health and Safety

BGC field job site evaluation undertaken by JAA for monitoring work.

J. Valeriote
Construction Monitor

Date 13/9/2011 DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 13/9/2011 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly Activities	BGC Activity	Comments
745	GSC		Arrive on site	Plan for the day, Safety documentation
800	GSC	1xD9 Dozer placing fill, 1x 360 CAT preparing pond, 2x CAT 773B truck, 1x foreman, 1 x packer. Personnel: CN,IL,GS,MN,CT.	Monitor construction work	Fill southern dyke of sed pond with compacted clean waste rock
1200	Lunch			
1230	GSC	1xD9 Dozer placing fill, 1x 360 CAT preparing pond, 2x CAT 773B truck, 1x foreman, 1 x packer. Personnel: CN,IL,GS,MN,CT.	Monitor construction work	Fill southern dyke of sed pond with compacted clean waste rock
1700	Leave site.			

J. Valeriote
Construction Monitor

Date 13/9/2011
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 13/9/2011 (DD MM YY) Shift Day

Pelly Construction: Daily Summary Table

Work to date	Task	Spent	
14/9/2012	P2-1 (sed pond)		
13/9/2012	P2-1 (sed pond)	$ 16,050	
12/9/11	P2-1 (sed pond)	$ 14,860	
11/9/11	P2-1 (sed pond)	$ 16,250	
10/9/11	P2-1 (sed pond)	$ 14,790	
9/9/11	P2-1 (sed pond)	$ 11,985	
8/9/11	P2-1 (sed pond)	$ 14,675	
7/9/11	P2-1 (sed pond)	$ 15,230	
6/9/11	1, P2 and 9	$ 13,885	(1 is 310, P2 is 10,095 and 10 is 3450)
5/9/11	P2 and 10	$ 13,500	(P2 is 10,050 and task 10 is 3450)
4/9/11	1,3,5, 10 and P2	$ 15,695	($620 for Task 1, $10,325 for task 3,$700 for task 5, $3,450 for task 10 and $600 for Phase 2)
3/9/11	3 and 10	$ 15,425	($11,600 for task 3 and $3,825 for task 10)
2/9/11	3 and 10	$ 16,380	(11,700 for task 3 and 4680 for task 10)
1/9/11	3 and 10	$ 15,430	(11,600 for task 3 and 3830 for task 10) - Updated for correction June spotted.
31/08/11	1,3 and 10	$ 14,780	(2280 for task 1, 8600 for task 3 and 3900 for task 10)
30/08/11	1,3 and 10	$ 15,230	(2,280 for task 1, 9500 for task 3 and 3450 for task 10)
29/08/11	1,3 and 10	$ 14,330	(2280 for task 1, 8600 for task 3, 3450 for task 10)
28/08/11	1,3 and 10	$ 14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	$ 13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	$ 10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	$ 13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	$ 13,130	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	$ 8,169	
22/08/2011	2	$ 9,388	
21/08/2011	10 - camp set up	$ 4,000	
	Total	**$ 325,186**	

J. Valeriote
Construction Monitor

Date 13/9/2011
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 13/9/2011 (DD MM YY) Shift Day

Pelly Budget by Task

		Task		Spent	Budget	% Complete	Status
Phase 1	Improve Bench ditches	1		$ 13,825	19,500	71%	Complete
	Armour Upper Perimeter ditches	2		$ 35,066	28,660	122%	Complete
	Fill depressions	3		$ 104,695	92,700	113%	Complete
	Excavate Run-on ditches	4		$ 2,100	14,000	15%	
	Clean out dissipation pools	5		$ 700	2,875	24%	Complete
		6			None	0	
		7			None	0	
		8			None	0	
		9			None	0	
	Incidentals	10		$ 44,185	79900	55%	
	Phase 1 subtotal			**$ 200,571**	**$ 237,635**	**84%**	
Phase 2	Pond Cut and Fill	1		$ 89,785	$ 110,650	**81%**	
	Riprap in pond	2			$ 25,470	**0%**	
	Quarry Road Re-alignment	3		$ 10,050	$ 9,690	**104%**	incl incidentals
	Sed pond Outlet channel	4			$ 1,750	**0%**	
	Regrade CSA	5			$ 25,250	**0%**	
	Road cross-ditching	6			$ 9,750	**0%**	
	Grade Perimeter roads	7		600	$ 4,740	**13%**	
	Remove bench accesses	8			$ 3,500	**0%**	
	Incidentals	9		$ 24,150	$ 234,240	**10%**	7 days R&B, Foreman @ $3450/day
	Phase 2 subtotal			**$ 124,585**	**$ 425,040**	**29%**	
			Total	**$ 325,186**	**$ 662,675**	**49%**	

J. Valeriote
Construction Monitor

Date 13/9/2011
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 13/9/2011 (DD MM YY) Shift Day

Site Photos

Cut and fill from east end to SW corner of pond looking west

overview looking southwest
13/9/2011

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 13/9/2011 (DD MM YY) Shift Day

Site Photos

Filling south pond dyke looking southwest

Clean waste rock borrow adjacent to WDP looking southeast
13/9/2011

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 14/9/2011 (DD MM YY) Shift Day

BGC Project No: 0533-003

Weather

Contract Title: GSC Cover Repairs

Today: Rain | Sun & Cloud | Max: Windy | 15: Showers

Client: Yukon Government

Contractors: Pelly Construction

Highlights

1 Fill Sediment Pond downstream dyke with compacted clean waste rock from borrow (approx. 2200 cu.m): 40-45cm lifts, loaded 773 haul truck trafficking fill surface and minimum 5 passes with vibratory roller, occasional oversize (>400mm) discarded from fill

2 Discussed with Pelly: double-layer geotextile under liner on pond slopes because compactor cannot roll smooth on 2:1 slope (sufficient geotextile on site for this)

3 4 x 900mm culverts available for haul road crossing of spillway outlfow channel at SW corner of pond (to be discussed Tues Sep 20 with YG/DES)

4 Spillway to be 8m wide with invert at 1190.4m based on flow routing calculation

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Health and Safety

BGC field job site evaluation undertaken by JAA for monitoring work.

J. Valeriote
Construction Monitor

Date 14/9/2011 DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 14/9/2011 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly Activities	BGC Activity	Comments
745	GSC		Arrive on site	Plan for the day, Safety documentation
800	GSC	1xD9 Dozer placing fill, 1x 360 CAT preparing pond, 2x CAT 773B truck, 1x foreman, 1 x packer. Personnel: CN,IL,GS,MN,CT.	Monitor construction work	Fill southern dyke of sed pond with compacted clean waste rock
1200	Lunch			
1230	GSC	1xD9 Dozer placing fill, 1x 360 CAT preparing pond, 2x CAT 773B truck, 1x foreman, 1 x packer. Personnel: CN,IL,GS,MN,CT.	Monitor construction work	Fill southern dyke of sed pond with compacted clean waste rock
1700	Leave site.			

J. Valeriote
Construction Monitor

Date 14/9/2011
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 14/9/2011 (DD MM YY) Shift Day

Pelly Construction: Daily Summary Table

Work to date	Task	Spent		
14/9/11	P2-1 (sed pond)	$	17,600	
13/9/11	P2-1 (sed pond)	$	16,050	
12/9/11	P2-1 (sed pond)	$	14,860	
11/9/11	P2-1 (sed pond)	$	16,250	
10/9/11	P2-1 (sed pond)	$	14,790	
9/9/11	P2-1 (sed pond)	$	11,985	
8/9/11	P2-1 (sed pond)	$	14,675	
7/9/11	P2-1 (sed pond)	$	15,230	
6/9/11	1, P2 and 9	$	13,885	(1 is 310, P2 is 10,095 and 10 is 3450)
5/9/11	P2 and 10	$	13,500	(P2 is 10,050 and task 10 is 3450)
4/9/11	1,3,5, 10 and P2	$	15,695	($620 for Task 1, $10,325 for task 3,$700 for task 5, $3,450 for task 10 and $600 for Phase 2)
3/9/11	3 and 10	$	15,425	($11,600 for task 3 and $3,825 for task 10)
2/9/11	3 and 10	$	16,380	(11,700 for task 3 and 4680 for task 10)
1/9/11	3 and 10	$	15,430	(11,600 for task 3 and 3830 for task 10) - Updated for correction June spotted.
31/08/11	1,3 and 10	$	14,780	(2280 for task 1, 8600 for task 3 and 3900 for task 10)
30/08/11	1,3 and 10	$	15,230	(2,280 for task 1, 9500 for task 3 and 3450 for task 10)
29/08/11	1,3 and 10	$	14,330	(2280 for task 1, 8600 for task 3, 3450 for task 10)
28/08/11	1,3 and 10	$	14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	$	13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	$	10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	$	13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	$	13,130	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	$	8,169	
22/08/2011	2	$	9,388	
21/08/2011	10 - camp set up	$	4,000	
	Total	**$**	**342,786**	

J. Valeriote
Construction Monitor

Date 14/9/2011
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 14/9/2011 (DD MM YY) Shift Day

Pelly Budget by Task

		Task		Spent	Budget	% Complete	Status
Phase 1	Improve Bench ditches	1		$ 13,825	19,500	71%	Complete
	Armour Upper Perimeter ditches	2		$ 35,066	28,660	122%	Complete
	Fill depressions	3		$ 104,695	92,700	113%	Complete
	Excavate Run-on ditches	4		$ 2,100	14,000	15%	
	Clean out dissipation pools	5		$ 700	2,875	24%	Complete
		6			None	0	
		7			None	0	
		8			None	0	
		9			None	0	
	Incidentals	10		$ 44,185	79900	55%	
	Phase 1 subtotal			**$ 200,571**	**$ 237,635**	**84%**	
Phase 2	Pond Cut and Fill	1		$ 103,935	$ 110,650	**94%**	
	Riprap in pond	2			$ 25,470	**0%**	
	Quarry Road Re-alignment	3		$ 10,050	$ 9,690	**104%**	incl incidentals
	Sed pond Outlet channel	4			$ 1,750	**0%**	
	Regrade CSA	5			$ 25,250	**0%**	
	Road cross-ditching	6			$ 9,750	**0%**	
	Grade Perimeter roads	7		600	$ 4,740	**13%**	
	Remove bench accesses	8			$ 3,500	**0%**	
	Incidentals	9		$ 27,600	$ 234,240	**12%**	7 days R&B, Foreman @ $3450/day
	Phase 2 subtotal			**$ 142,185**	**$ 425,040**	**33%**	
			Total	**$ 342,786**	**$ 662,675**	**52%**	

J. Valeriote
Construction Monitor

Date 14/9/2011
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 14/9/2011 (DD MM YY) Shift Day

Site Photos

Filling south dyke from SW corner of pond looking west

overview looking southwest
14/9/2011

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 15/9/2011 (DD MM YY) Shift Day

BGC Project No: 0533-003

Weather

Contract Title: GSC Cover Repairs

Today: Rain | Sun & Cloud | Max: Windy | 15: Showers

Client: Yukon Government

Contractors: Pelly Construction

Highlights

1 Complete fill to 1191m on sediment Pond downstream dyke with compacted clean waste rock from borrow: 40-45cm lifts, loaded 773 haul truck trafficking fill surface and minimum 5 passes with vibratory roller, occasional oversize (>400mm) discarded from fill

2

3

4

5

6

7

8

Health and Safety

BGC field job site evaluation undertaken by JAA for monitoring work.

J. Valeriote
Construction Monitor

Date 15/9/2011 DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 15/9/2011 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly Activities	BGC Activity	Comments
745	GSC		Arrive on site	Plan for the day, Safety documentation
800	GSC	1xD9 Dozer placing fill, 1x 360 CAT preparing pond, 2x CAT 773B truck, 1x foreman, 1 x packer. Personnel: CN,IL,GS,MN,CT.	Monitor construction work	Fill southern dyke of sed pond with compacted clean waste rock
1200	Lunch			
1230	GSC	1xD9 Dozer placing fill, 1x 360 CAT preparing pond, 2x CAT 773B truck, 1x foreman, 1 x packer. Personnel: CN,IL,GS,MN,CT.	Travel to Whitehorse	Fill southern dyke of sed pond with compacted clean waste rock
1700				

J. Valeriote
Construction Monitor

Date 15/9/2011
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 15/9/2011 (DD MM YY) Shift Day

Pelly Construction: Daily Summary Table

Work to date	Task	Spent	
15/9/11	P2-1 (sed pond)	$17,310	
14/9/11	P2-1 (sed pond)	$ 17,600	
13/9/11	P2-1 (sed pond)	$ 16,050	
12/9/11	P2-1 (sed pond)	$ 14,860	
11/9/11	P2-1 (sed pond)	$ 16,250	
10/9/11	P2-1 (sed pond)	$ 14,790	
9/9/11	P2-1 (sed pond)	$ 11,985	
8/9/11	P2-1 (sed pond)	$ 14,675	
7/9/11	P2-1 (sed pond)	$ 15,230	
6/9/11	1, P2 and 9	$ 13,885	(1 is 310, P2 is 10,095 and 10 is 3450)
5/9/11	P2 and 10	$ 13,500	(P2 is 10,050 and task 10 is 3450)
4/9/11	1,3,5, 10 and P2	$ 15,695	($620 for Task 1, $10,325 for task 3,$700 for task 5, $3,450 for task 10 and $600 for Phase 2)
3/9/11	3 and 10	$ 15,425	($11,600 for task 3 and $3,825 for task 10)
2/9/11	3 and 10	$ 16,380	(11,700 for task 3 and 4680 for task 10)
1/9/11	3 and 10	$ 15,430	(11,600 for task 3 and 3830 for task 10) - Updated for correction June spotted.
31/08/11	1,3 and 10	$ 14,780	(2280 for task 1, 8600 for task 3 and 3900 for task 10)
30/08/11	1,3 and 10	$ 15,230	(2,280 for task 1, 9500 for task 3 and 3450 for task 10)
29/08/11	1,3 and 10	$ 14,330	(2280 for task 1, 8600 for task 3, 3450 for task 10)
28/08/11	1,3 and 10	$ 14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	$ 13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	$ 10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	$ 13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	$ 13,130	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	$ 8,169	
22/08/2011	2	$ 9,388	
21/08/2011	10 - camp set up	$ 4,000	
	Total	**$360,096**	

J. Valeriote
Construction Monitor

Date 15/9/2011
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 15/9/2011 (DD MM YY) Shift Day

Pelly Budget by Task

		Task		Spent	Budget	% Complete	Status
Phase 1	Improve Bench ditches	1		$ 13,825	19,500	71%	Complete
	Armour Upper Perimeter ditches	2		$ 35,066	28,660	122%	Complete
	Fill depressions	3		$ 104,695	92,700	113%	Complete
	Excavate Run-on ditches	4		$ 2,100	14,000	15%	
	Clean out dissipation pools	5		$ 700	2,875	24%	Complete
		6			None	0	
		7			None	0	
		8			None	0	
		9			None	0	
	Incidentals	10		$ 44,185	79900	55%	
	Phase 1 subtotal			**$ 200,571**	**$ 237,635**	**84%**	
Phase 2	Pond Cut and Fill	1		$ 117,795	$ 110,650	**106%**	
	Riprap in pond	2			$ 25,470	**0%**	
	Quarry Road Re-alignment	3		$ 10,050	$ 9,690	**104%**	incl incidentals
	Sed pond Outlet channel	4			$ 1,750	**0%**	
	Regrade CSA	5			$ 25,250	**0%**	
	Road cross-ditching	6			$ 9,750	**0%**	
	Grade Perimeter roads	7		600	$ 4,740	**13%**	
	Remove bench accesses	8			$ 3,500	**0%**	
	Incidentals	9		$ 31,050	$ 234,240	**13%**	9 days R&B, Foreman @ $3450/day
	Phase 2 subtotal			**$ 159,495**	**$ 425,040**	**38%**	
			Total	**$ 360,096**	**$ 662,675**	**54%**	

J. Valeriote
Construction Monitor

Date 15/9/2011
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 15/9/2011 (DD MM YY) Shift Day

Site Photos

Filling south dyke from SW corner of pond looking west

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 16/9/2011 (DD MM YY) Shift Day

BGC Project No: 0533-003

Weather

Contract Title:	Today		Max	14
GSC Cover Repairs	Rain	Sun & Cloud	Windy	Showers

Client: Yukon Government

Contractors: Pelly Construction

Highlights

1 Arrive on site from Whitehorse at 1230pm.

2 Get up to speed with Gunnar on work done in absence. Completed fill slope to south of pond.

3 2x 360 CAT excavators working excavating pond mainly in western end.

Health and Safety

BGC field job site evaluation undertaken by JAA for monitoring work.

J. Atkinson
Construction Monitor

Date 16/9/2011 DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 16/9/2011 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly Activities	BGC Activity	Comments
745	GSC	2x360 CAT preparing pond,1x foreman. Personnel: CN,IL,GS.	Drive from WH	
800	GSC			
1200	Lunch			
1230	GSC	2x360 CAT preparing pond,1x foreman. Personnel: CN,IL,GS.	Monitor construction work	Get up to speed with work completed while off site for a week, observe fill excavation from pond, inspect amount of likely angular material in pond slopes (TBD although 360 doing nice job of leaving a smooth surface), observe wet area to north of pond which Gunnar attributes to rain not seeps from slopes.
1700	Leave site.			

J. Atkinson
Construction Monitor

Date 16/9/2011
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 16/9/2011 (DD MM YY) Shift Day

Pelly Construction: Daily Summary Table

Work to date	Task	Spent	
15/9/11	P2-1 (sed pond)	$ 17,310	
14/9/11	P2-1 (sed pond)	$ 17,600	
13/9/11	P2-1 (sed pond)	$ 16,050	
12/9/11	P2-1 (sed pond)	$ 14,860	
11/9/11	P2-1 (sed pond)	$ 16,250	
10/9/11	P2-1 (sed pond)	$ 14,790	
9/9/11	P2-1 (sed pond)	$ 11,985	
8/9/11	P2-1 (sed pond)	$ 14,675	
7/9/11	P2-1 (sed pond)	$ 15,230	
6/9/11	1, P2 and 9	$ 13,885	(1 is 310, P2 is 10,095 and 10 is 3450)
5/9/11	P2 and 10	$ 13,500	(P2 is 10,050 and task 10 is 3450)
4/9/11	1,3,5, 10 and P2	$ 15,695	($620 for Task 1, $10,325 for task 3,$700 for task 5, $3,450 for task 10 and $600 for Phase 2)
3/9/11	3 and 10	$ 15,425	($11,600 for task 3 and $3,825 for task 10)
2/9/11	3 and 10	$ 16,380	(11,700 for task 3 and 4680 for task 10)
1/9/11	3 and 10	$ 15,430	(11,600 for task 3 and 3830 for task 10) - Updated for correction June spotted.
31/08/11	1,3 and 10	$ 14,780	(2280 for task 1, 8600 for task 3 and 3900 for task 10)
30/08/11	1,3 and 10	$ 15,230	(2,280 for task 1, 9500 for task 3 and 3450 for task 10)
29/08/11	1,3 and 10	$ 14,330	(2280 for task 1, 8600 for task 3, 3450 for task 10)
28/08/11	1,3 and 10	$ 14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	$ 13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	$ 10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	$ 13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	$ 13,130	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	$ 8,169	
22/08/2011	2	$ 9,388	
21/08/2011	10 - camp set up	$ 4,000	
	Total	**$ 360,096**	

J. Atkinson
Construction Monitor

Date 16/9/2011
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 16/9/2011 (DD MM YY) Shift Day

Pelly Budget by Task

		Task		Spent	Budget	% Complete	Status
Phase 1	Improve Bench ditches	1		$ 13,825	19,500	71%	Complete
	Armour Upper Perimeter ditches	2		$ 35,066	28,660	122%	Complete
	Fill depressions	3		$ 104,695	92,700	113%	Complete
	Excavate Run-on ditches	4		$ 2,100	14,000	15%	
	Clean out dissipation pools	5		$ 700	2,875	24%	Complete
		6			None	0	
		7			None	0	
		8			None	0	
		9			None	0	
	Incidentals	10		$ 44,185	79900	55%	
	Phase 1 subtotal			**$ 200,571**	**$ 237,635**	**84%**	
Phase 2	Pond Cut and Fill	1		$ 121,245	$ 110,650	**110%**	
	Riprap in pond	2			$ 25,470	**0%**	
	Quarry Road Re-alignment	3		$ 10,050	$ 9,690	**104%**	incl incidentals
	Sed pond Outlet channel	4			$ 1,750	**0%**	
	Regrade CSA	5			$ 25,250	**0%**	
	Road cross-ditching	6			$ 9,750	**0%**	
	Grade Perimeter roads	7		600	$ 4,740	**13%**	
	Remove bench accesses	8			$ 3,500	**0%**	
	Incidentals	9		$ 27,600	$ 234,240	**12%**	7 days R&B, Foreman @ $3450/day
	Phase 2 subtotal			**$ 159,495**	**$ 425,040**	**38%**	
			Total	**$ 360,096**	**$ 662,675**	**54%**	

J. Atkinson
Construction Monitor

Date 16/9/2011
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 16/9/2011 (DD MM YY) Shift Day

Site Photos

Location: Bench below Sedimentation pond Looking north
Comments: Completed 2H:1V slope and new haul access road

Location: Sedimentation Pond Looking west
Comments: Excavators removing material from sedimentation pond.

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 16/9/2011 (DD MM YY) Shift Day

Site Photos

Location: Sedimentation Pond Looking west

Comments: Excavator at 3m excavation level

Location: western end of the sedimentation pond Looking SW.

Comments: Gunnar stood at 4 m elevation. Site check on depth for toe of slope.

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 16/9/2011 (DD MM YY) Shift Day

Site Photos

Location: Sedimentation Pond Looking east.
Comments: Northern edge of pond at 2H:1V.

Location: Sedimentation Pond Looking east.
Comments: Southern edge of pond at 2H:1V. Note cleaning with 360 CAT.

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 16/9/2011 (DD MM YY) Shift Day

Site Photos

Location: Sedimentation Pond Looking north

Comment: Southwestern corner to be excavated

Location Sedimentation Pond Southern bank Looking east

Comment: Panoramic shot to show pond excavation, access road and 2H:1V slope to bench below.

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 16/9/2011 (DD MM YY) Shift Day

Site Photos

Location: Northern edge of sedimentation pond. Looking west.

Comments: Wet area on northern side of pond. Assured by Gunnar that this is left over from heavy rain not seep from bank.

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 17/9/2011 (DD MM YY) Shift Day

BGC Project No: 0533-003

Weather

Contract Title: GSC Cover Repairs

Today: Sun & Cloud | Rain | Max 8 | Windy | Showers

Client: Yukon Government

Contractors: Pelly Construction

Highlights

1. Construction of sedimentation pond: adding fill to crest along southern edge to bring to 1191m el., excavation of base to final grade in west end of pond (4 m deep)
2. Packed west end of pond with packer (3 passes)
3. Caroline (Pelly surveyor) on site to ensure base is correct elevation. Staking crest elevations. Ready to stake inlet and outlet elevations after design work with June and instructions from Jeremy.
4. Pond earthworks to be complete by the end of 18 September. Liner team arrives on site late on 18 sept. Prep work planned on 19 Sept.
5. Chat re fill for intermediate dyke in pond with Gunnar. Need to confirm fill to be used. He was suggesting first lift of rounded material then entire fill to be made from angular riprap material we used for lining perimeter ditches? Said he discussed with JV. This material is available but I am concerned how we would compact?
6. Discussed with GS and agreed that if southern crest was slightly higher than 1191 (approx. 1191.2m el.) this would not be a problem. Discussed no low points re less than 1191.
7. Discussed with GS the liner on the pond crest after it comes out from anchor trench. If the trench is in center of road (to be decided on 18 sept) needs a cover for traffic. He suggests, and I agree, gravel (0.30m min thickness) from till borrow. Rounded good clean material. Would do this as field fit solution unless any objections.
8. Some wet areas on slope in NW corner of pond excavation. No active running seeps. Seems to be just moisture on slope. Observations over 2 days not getting any worse will continue observing.
9. D6 tidied up wet area on northern crest of pond left over from rain. Added small amount of material to fill in puddle and grade.

Health and Safety

BGC field job site evaluation undertaken by JAA for monitoring work.

Visitors on site: Erik Nylan and John (no surname) of DES came for a visit and to check progress.

J. Atkinson
Construction Monitor

Date 17/9/2011 DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 17/9/2011 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly Activities	BGC Activity	Comments
745	GSC	1x360 CAT, 1X33CAT preparing pond, 1x773B hauling material, 1 x foreman. Personnel: CN,IL,GS, MN.	Monitor construction work	Excavation of sed pond and hauling material, adding material to southern crest to achieve 1191m el., CB surveying base.
800	GSC			
1200	Lunch			
1230	GSC	1x360 CAT, 1X33CAT preparing pond, 1x773B hauling material, 1 x foreman. Personnel: CN,IL,GS, MN.	Monitor construction work	Excavation of sed pond and hauling material, using D6 to grade base and remove any cobbles/ boulders, CB surveying base. CB and JAA work out inlet and outlet spillway elevations. Packer does 3 passes of west end of pond.
1745	Leave site.			

J. Atkinson
Construction Monitor

Date 17/9/2011
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 17/9/2011 (DD MM YY) Shift Day

Pelly Construction: Daily Summary Table

Work to date	Task	Spent		
16/9/11	P2-1 (sed pond)	$	14,722	
15/9/11	P2-1 (sed pond)	$	17,310	
14/9/11	P2-1 (sed pond)	$	17,600	
13/9/11	P2-1 (sed pond)	$	16,050	
12/9/11	P2-1 (sed pond)	$	14,860	
11/9/11	P2-1 (sed pond)	$	16,250	
10/9/11	P2-1 (sed pond)	$	14,790	
9/9/11	P2-1 (sed pond)	$	11,985	
8/9/11	P2-1 (sed pond)	$	14,675	
7/9/11	P2-1 (sed pond)	$	15,230	
6/9/11	1, P2 and 9	$	13,885	(1 is 310, P2 is 10,095 and 10 is 3450)
5/9/11	P2 and 10	$	13,500	(P2 is 10,050 and task 10 is 3450)
4/9/11	1,3,5, 10 and P2	$	15,695	($620 for Task 1, $10,325 for task 3,$700 for task 5, $3,450 for task 10 and $600 for Phase 2)
3/9/11	3 and 10	$	15,425	($11,600 for task 3 and $3,825 for task 10)
2/9/11	3 and 10	$	16,380	(11,700 for task 3 and 4680 for task 10)
1/9/11	3 and 10	$	15,430	(11,600 for task 3 and 3830 for task 10) - Updated for correction June spotted.
31/08/11	1,3 and 10	$	14,780	(2280 for task 1, 8600 for task 3 and 3900 for task 10)
30/08/11	1,3 and 10	$	15,230	(2,280 for task 1, 9500 for task 3 and 3450 for task 10)
29/08/11	1,3 and 10	$	14,330	(2280 for task 1, 8600 for task 3, 3450 for task 10)
28/08/11	1,3 and 10	$	14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	$	13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	$	10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	$	13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	$	13,130	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	$	8,169	
22/08/2011	2	$	9,388	
21/08/2011	10 - camp set up	$	4,000	
	Total	**$**	**374,818**	

J. Atkinson
Construction Monitor

Date 17/9/2011
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 17/9/2011 (DD MM YY) Shift Day

Pelly Budget by Task

		Task		Spent	Budget	% Complete	Status
Phase 1	Improve Bench ditches	1		$ 13,825	19,500	71%	Complete
	Armour Upper Perimeter ditches	2		$ 35,066	28,660	122%	Complete
	Fill depressions	3		$ 104,695	92,700	113%	Complete
	Excavate Run-on ditches	4		$ 2,100	14,000	15%	
	Clean out dissipation pools	5		$ 700	2,875	24%	Complete
		6			None	0	
		7			None	0	
		8			None	0	
		9			None	0	
	Incidentals	10		$ 44,185	79900	55%	
	Phase 1 subtotal			**$ 200,571**	**$ 237,635**	**84%**	
Phase 2	Pond Cut and Fill	1		$ 135,967	$ 110,650	**123%**	
	Riprap in pond	2			$ 25,470	**0%**	
	Quarry Road Re-alignment	3		$ 10,050	$ 9,690	**104%**	incl incidentals
	Sed pond Outlet channel	4			$ 1,750	**0%**	
	Regrade CSA	5			$ 25,250	**0%**	
	Road cross-ditching	6			$ 9,750	**0%**	
	Grade Perimeter roads	7		600	$ 4,740	**13%**	
	Remove bench accesses	8			$ 3,500	**0%**	
	Incidentals	9		$ 27,600	$ 234,240	**12%**	7 days R&B, Foreman @ $3450/day
	Phase 2 subtotal			**$ 174,217**	**$ 425,040**	**41%**	
			Total	**$ 374,818**	**$ 662,675**	**57%**	

J. Atkinson
Construction Monitor

Date 17/9/2011
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 17/9/2011 (DD MM YY) Shift Day

Site Photos

Location: Sedimentation pond Looking SW

Comments: Early am equipment working 2 x excavator and 1 x 773B

Location: Sedimentation Pond Looking east

Comments: Excavators removing material from sedimentation pond.

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 17/9/2011 (DD MM YY) Shift Day

Site Photos

Location: Sedimentation Pond Looking SW

Comments: Final level of west end of pond

Location: emergency spillway location Looking South

Comments: green mark is eastern crest of spillway channel. Caroline is stood at 2m 4H:1V drop where channel would meet road.

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 18/9/2011 (DD MM YY) Shift Day

BGC Project No: 0533-003

Weather

Contract Title: GSC Cover Repairs

Today: Rain | Sun & Cloud | Max: Windy | 10: Showers

Client: Yukon Government

Contractors: Pelly Construction

Highlights

1. Construction of sedimentation pond: excavation of base to final grade in east end of pond (3 m deep), packing the base of the pond, filling east end and creation of eastern slope.
2. Some wet areas on slope in NW corner of pond excavation. Observations over 3 days appears to be drying up, slowing down.
3. Caroline (Pelly surveyor) on site to ensure base is correct elevation.
4. One area encountered in west end of pond where waste rock has minor till mixed with it. Difficult to remove and recompact material on top as mixture may go deeper. 3x2m area. Less than 1 inch rut and roll. Discuss with JV that in an area of pond not to be loaded apart from water i.e. no traffic, no structure and JV cjhecks liner specs for allowable deformation. Decision made to leave in place and pack as much as possible. Further packing seems to be achieving less deformation.
5. Sent subgrade pictures to JC and JV. Consider it to be appropriate from photos for one layer geotextile following final hand removal of sharps. Subgrade condition to be discussed with liner team tomorrow am.

Health and Safety

BGC field job site evaluation undertaken by JAA for monitoring work.

Colder day today.

J. Atkinson
Construction Monitor

Date 18/9/2011 DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 18/9/2011 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly Activities	BGC Activity	Comments
745	GSC	1x360 CAT, 1X330CAT preparing pond, 1x773B hauling material, 1 x foreman, 1 x surveyor. Personnel: CN,IL,GS, MN, CB	Monitor construction work	Excavation of east end of sed pond and hauling material, packing west end of pond. CB surveying base.
800	GSC			
1200	Lunch			
1230	GSC	1x360 CAT, 1X330CAT preparing pond, 1 xD6 grading base, 1 x packer packing base of pond, 1 x foreman, 1 x surveyor. Personnel: CN,IL,GS, MN, CB.	Monitor construction work	Excavation of sed pond slopes at east end, using D6 to grade base, CB surveying base, packer packing east end base.
1715	Leave site.			

J. Atkinson
Construction Monitor

Date 18/9/2011
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 18/9/2011 (DD MM YY) Shift Day

Pelly Construction: Daily Summary Table

Work to date	Task	Spent		
17/9/11	P2-1 (sed pond)	$	14,723	
16/9/11	P2-1 (sed pond)	$	10,244	Updated entry wrongly filled under this day this am.
15/9/11	P2-1 (sed pond)	$	17,310	
14/9/11	P2-1 (sed pond)	$	17,600	
13/9/11	P2-1 (sed pond)	$	16,050	
12/9/11	P2-1 (sed pond)	$	14,860	
11/9/11	P2-1 (sed pond)	$	16,250	
10/9/11	P2-1 (sed pond)	$	14,790	
9/9/11	P2-1 (sed pond)	$	11,985	
8/9/11	P2-1 (sed pond)	$	14,675	
7/9/11	P2-1 (sed pond)	$	15,230	
6/9/11	1, P2 and 9	$	13,885	(1 is 310, P2 is 10,095 and 10 is 3450)
5/9/11	P2 and 10	$	13,500	(P2 is 10,050 and task 10 is 3450)
4/9/11	1,3,5, 10 and P2	$	15,695	($620 for Task 1, $10,325 for task 3,$700 for task 5, $3,450 for task 10 and $600 for Phase 2)
3/9/11	3 and 10	$	15,425	($11,600 for task 3 and $3,825 for task 10)
2/9/11	3 and 10	$	16,380	(11,700 for task 3 and 4680 for task 10)
1/9/11	3 and 10	$	15,430	(11,600 for task 3 and 3830 for task 10) - Updated for correction June spotted.
31/08/11	1,3 and 10	$	14,780	(2280 for task 1, 8600 for task 3 and 3900 for task 10)
30/08/11	1,3 and 10	$	15,230	(2,280 for task 1, 9500 for task 3 and 3450 for task 10)
29/08/11	1,3 and 10	$	14,330	(2280 for task 1, 8600 for task 3, 3450 for task 10)
28/08/11	1,3 and 10	$	14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	$	13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	$	10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	$	13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	$	13,130	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	$	8,169	
22/08/2011	2	$	9,388	
21/08/2011	10 - camp set up	$	4,000	
	Total	**$**	**385,063**	

J. Atkinson
Construction Monitor

Date 18/9/2011
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 18/9/2011 (DD MM YY) Shift Day

Pelly Budget by Task

		Task		Spent	Budget	% Complete	Status
Phase 1	Improve Bench ditches	1		$ 13,825	19,500	71%	Complete
	Armour Upper Perimeter ditches	2		$ 35,066	28,660	122%	Complete
	Fill depressions	3		$ 104,695	92,700	113%	Complete
	Excavate Run-on ditches	4		$ 2,100	14,000	15%	
	Clean out dissipation pools	5		$ 700	2,875	24%	Complete
		6			None	0	
		7			None	0	
		8			None	0	
		9			None	0	
	Incidentals	10		$ 44,185	79900	55%	
	Phase 1 subtotal			**$ 200,571**	**$ 237,635**	**84%**	
Phase 2	Pond Cut and Fill	1		$ 146,211	$ 110,650	**132%**	
	Riprap in pond	2			$ 25,470	**0%**	
	Quarry Road Re-alignment	3		$ 10,050	$ 9,690	**104%**	incl incidentals
	Sed pond Outlet channel	4			$ 1,750	**0%**	
	Regrade CSA	5			$ 25,250	**0%**	
	Road cross-ditching	6			$ 9,750	**0%**	
	Grade Perimeter roads	7		600	$ 4,740	**13%**	
	Remove bench accesses	8			$ 3,500	**0%**	
	Incidentals	9		$ 27,600	$ 234,240	**12%**	7 days R&B, Foreman @ $3450/day
	Phase 2 subtotal			**$ 184,461**	**$ 425,040**	**43%**	
			Total	**$ 385,063**	**$ 662,675**	**58%**	

J. Atkinson
Construction Monitor

Date 18/9/2011
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 18/9/2011 (DD MM YY) Shift Day

Site Photos

Location: Sedimentation pond Looking East

Comments: Completed west end of pond. Sloping and packing east end of pond

Location: Sedimentation Pond Looking south

Comments: Packed pond base in west end of pond

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 18/9/2011 (DD MM YY) Shift Day

Site Photos

Location: West end of pond small till area
Comments: 1 inch ruts at till area

Location: West end of pond small till area

Comments: cracking in till area

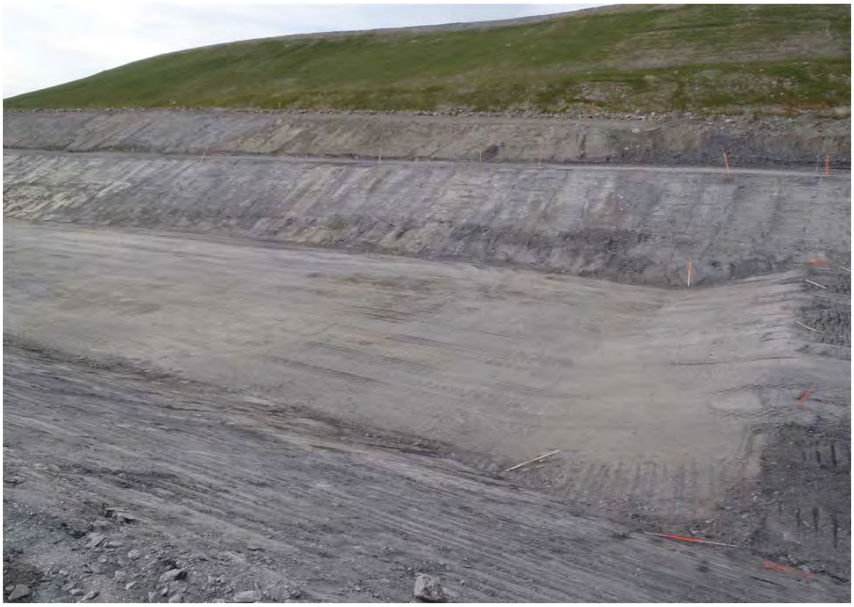
BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 18/9/2011 (DD MM YY) Shift Day

Site Photos



Location: Sedimentation Pond Looking north

Comments: West end of the pond. Area with till marked in red.

Location: Sedimentation Pond Looking northeast

Comments: Eastern end of pond. Final smooth with D6 dozer. 360 doing eastern slope.

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 18/9/2011 (DD MM YY) Shift Day

Site Photos

Location: Sedimentation Pond Looking north

Comment: Eastern end packing down the base. No issues with till. Important as end of pond with structures.

Location Sedimentation Pond Looking north

Comment: Completed western slope

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 18/9/2011 (DD MM YY) Shift Day

Site Photos

Location: Northern edge of sedimentation pond. Looking east

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 19/9/11 (DD MM YY) Shift Day

BGC Project No: 0533-003

Weather

Contract Title: GSC Cover Repairs

Today: Sun & Cloud | Rain | Max 14 | Windy | Showers

Client: Yukon Government

Contractors: Pelly Construction

Highlights

1 Sedimentation pond complete. Pelly team move onto emergency spillway pond after doing some tidying in the area to the east of the pond.

2 Liner team (superior plastics ltd) on site. Morning spent getting orientated. Filling sand bags. Move geotextile and liner down to pond edge. Place sandbags at toe of slope in pond ready. No liner placed today. Start tomorrow am.

3 Caroline (Pelly surveyor) on site doing asbuilt of the pond. Leaves site at lunch time.

4 DES install culvert at haul road access near till borrow and raise access ramp in this area to ensure surface water flows towards vagorda pit. Complete.

Health and Safety

BGC field job site evaluation undertaken by JAA for monitoring work.

New team on site 6 x personnel from superior plastics for liner installation.

Brown bear sighted on site near sed pond. All crews informed.

J. Atkinson
Construction Monitor

Date 19/9/11 DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 19/9/11 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly Activities	BGC Activity	Comments
745	GSC	1x360 CAT, 1XD6, 1 x foreman, 1 x surveyor. Personnel: CN,IL,GS, CB At 10 am swap D6 for D9 to work on depression.	Monitor construction work	Preparation of area to the east of the pond and final fix up of eastern crest. CB surveying pond. At 10 am swap to working on depression area. Liner team - orientation and then discussion on liner QA, anchor trench etc. Filling sand bags
800	GSC			
1200	Lunch			
1230	GSC	1x360 CAT, 1XD9, 1x773B, 1 x foreman. Personnel: CN,IL,GS, MN	Monitor construction work	Cut and fill in depression area. Liner team preparation work.
1730	Leave site.			

J. Atkinson
Construction Monitor

Date 19/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 19/9/11 (DD MM YY) Shift Day

Pelly Construction: Daily Summary Table

Work to date	Task	Spent		
18/9/11	PENDING			PENDING
17/9/11	P2-1 (sed pond)	$	14,723	
16/9/11	P2-1 (sed pond)	$	10,244	Updated entry wrongly filled under this day this am.
15/9/11	P2-1 (sed pond)	$	17,310	
14/9/11	P2-1 (sed pond)	$	17,600	
13/9/11	P2-1 (sed pond)	$	16,050	
12/9/11	P2-1 (sed pond)	$	14,860	
11/9/11	P2-1 (sed pond)	$	16,250	
10/9/11	P2-1 (sed pond)	$	14,790	
9/9/11	P2-1 (sed pond)	$	11,985	
8/9/11	P2-1 (sed pond)	$	14,675	
7/9/11	P2-1 (sed pond)	$	15,230	
6/9/11	1, P2 and 9	$	13,885	(1 is 310, P2 is 10,095 and 10 is 3450)
5/9/11	P2 and 10	$	13,500	(P2 is 10,050 and task 10 is 3450)
4/9/11	1,3,5, 10 and P2	$	15,695	($620 for Task 1, $10,325 for task 3,$700 for task 5, $3,450 for task 10 and $600 for Phase 2)
3/9/11	3 and 10	$	15,425	($11,600 for task 3 and $3,825 for task 10)
2/9/11	3 and 10	$	16,380	(11,700 for task 3 and 4680 for task 10)
1/9/11	3 and 10	$	15,430	(11,600 for task 3 and 3830 for task 10) - Updated for correction June spotted.
31/08/11	1,3 and 10	$	14,780	(2280 for task 1, 8600 for task 3 and 3900 for task 10)
30/08/11	1,3 and 10	$	15,230	(2,280 for task 1, 9500 for task 3 and 3450 for task 10)
29/08/11	1,3 and 10	$	14,330	(2280 for task 1, 8600 for task 3, 3450 for task 10)
28/08/11	1,3 and 10	$	14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	$	13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	$	10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	$	13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	$	13,130	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	$	8,169	
22/08/2011	2	$	9,388	
21/08/2011	10 - camp set up	$	4,000	
	Total	**$**	**385,063**	

J. Atkinson
Construction Monitor

Date 19/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 19/9/11 (DD MM YY) Shift Day

Pelly Budget by Task

		Task		Spent	Budget	% Complete	Status
Phase 1	Improve Bench ditches	1		$ 13,825	19,500	71%	Complete
	Armour Upper Perimeter ditches	2		$ 35,066	28,660	122%	Complete
	Fill depressions	3		$ 104,695	92,700	113%	Complete
	Excavate Run-on ditches	4		$ 2,100	14,000	15%	
	Clean out dissipation pools	5		$ 700	2,875	24%	Complete
		6			None	0	
		7			None	0	
		8			None	0	
		9			None	0	
	Incidentals	10		$ 44,185	79900	55%	
	Phase 1 subtotal			**$ 200,571**	**$ 237,635**	**84%**	
Phase 2	Pond Cut and Fill	1		$ 146,211	$ 110,650	**132%**	
	Riprap in pond	2			$ 25,470	**0%**	
	Quarry Road Re-alignment	3		$ 10,050	$ 9,690	**104%**	incl incidentals
	Sed pond Outlet channel	4			$ 1,750	**0%**	
	Regrade CSA	5			$ 25,250	**0%**	
	Road cross-ditching	6			$ 9,750	**0%**	
	Grade Perimeter roads	7		600	$ 4,740	**13%**	
	Remove bench accesses	8			$ 3,500	**0%**	
	Incidentals	9		$ 27,600	$ 234,240	**12%**	7 days R&B, Foreman @ $3450/day
	Phase 2 subtotal			**$ 184,461**	**$ 425,040**	**43%**	
			Total	**$ 385,063**	**$ 662,675**	**58%**	

J. Atkinson
Construction Monitor

Date 19/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 19/9/11 (DD MM YY) Shift Day

Site Photos

Location: Sedimentation pond Looking south
Comments: Completed east end of pond.

Location: Sedimentation Pond Looking south
Comments: Completed pond earthworks

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 19/9/11 (DD MM YY) Shift Day

Site Photos

Location: Sedimentation pond Looking west

Comments: View from the top of borrow area

Location: Cover and sedimentation pond Looking west

Comments: Size of pond relative to cover. Sorry for the bright sunlight late in the day - wrong angle!

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 19/9/11 (DD MM YY) Shift Day

Site Photos

Location: Haul ramp access point from Vangorda road (near till borrow) Looking north

Comments: Installed 900 mm culverts. Not raised access over top to create watershed divide.

Location: Till borrow area Looking southwest

Comments: View of access road, culvert location from base of till borrow, note raised access

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 20/9/11 (DD MM YY) Shift Day

BGC Project No: 0533-003

Contract Title: GSC Cover Repairs

Weather

Today			Max	10
Rain	Sun & Cloud	Very Windy	Showers	

Client: Yukon Government

Contractors: Pelly Construction

Highlights

1 Pelly team creation of overflow pond. Excavated anchor trench for liner 1 m from northern slope crest last night for liner team.

2 Liner team (superior plastics ltd) on site. Place 1 layer geotextile and liner in 4 m base area. Place 2 layers geotextile on northern slope.

3 DES place riprap around new 900 mm culvert.

Health and Safety

BGC field job site evaluation undertaken by JAA for monitoring work.

New team on site 6 x personnel from superior plastics for liner installation.

Brown bear sighted on site near sed pond. All crews informed.

J. Atkinson
Construction Monitor

Date 20/9/11 DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 20/9/11 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly Activities	Liner team	Comments
700	GSC	1x360 CAT, 1XD6, 1x 773B, 1 x foreman. Personnel: CN,IL,GS, CB	Place Geotextile (1 layer in base 4 m area), place panels 1, 2 and 3 in base and seam with wedge welder.	Pelly team cut and fill in depression area. June taking notes on liner installation and QA (testing of wedge welder and testing on seams)
1200	Lunch			
1230	GSC	1x360 CAT, 1XD9, 1x773B, 1 x foreman. Personnel: CN,IL,GS, MN	Place geotextile (2 layers) on northern slope (4m area) and pin to anchor trench. 5 Personnel.	Cut and fill in depression area. Liner team having difficulty with material due to very high winds. Decide not to place liner in afternoon due to safety concerns and blowing concerns overnight.
1715	Leave site.			

J. Atkinson
Construction Monitor

Date 20/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 20/9/11 (DD MM YY) Shift Day

Pelly Construction: Daily Summary Table

Work to date	Task	Spent		
19/9/11	P2-1, P2-5 and P2-9	$	23,374	(P2-1 is $2,583.5, P2-5 is $5,537.5 and P2-9 is $15,253.75)
18/9/11	P2-1 and P2-9	$	54,797	(P2-1 is $9,060 and P2-9 is $45,737)
17/9/11	P2-1 (sed pond)	$	14,723	(Incidentals (p2-9) is $3,625
16/9/11	P2-1 (sed pond)	$	10,244	(Incidentals (p2-9) is $3,868.75
15/9/11	P2-1 (sed pond)	$	17,310	(Incidentals (p2-9) is $3,450
14/9/11	P2-1 (sed pond)	$	17,600	(Incidentals (p2-9) is $3,450
13/9/11	P2-1 (sed pond)	$	16,050	(Incidentals (p2-9) is $3,450
12/9/11	P2-1 (sed pond)	$	14,860	(Incidentals (p2-9) is $3,450
11/9/11	P2-1 (sed pond)	$	16,250	(Incidentals (p2-9) is $3,450
10/9/11	P2-1 (sed pond)	$	14,790	(Incidentals (p2-9) is $3,986.25
9/9/11	P2-1 (sed pond)	$	11,985	(Incidentals (p2-9) is $3,967.5
8/9/11	P2-1 (sed pond)	$	14,675	(Incidentals (p2-9) is $3,450
7/9/11	P2-1 (sed pond)	$	15,230	(Incidentals (p2-9) is $3,780
6/9/11	1, P2 and 9	$	13,885	(1 is 310, P2 is 10,095 and 10 is 3450)
5/9/11	P2 and 10	$	13,500	(P2 is 10,050 and task 10 is 3450)
4/9/11	1,3,5, 10 and P2	$	15,695	($620 for Task 1, $10,325 for task 3,$700 for task 5, $3,450 for task 10 and $600 for Phase 2)
3/9/11	3 and 10	$	15,425	($11,600 for task 3 and $3,825 for task 10)
2/9/11	3 and 10	$	16,380	(11,700 for task 3 and 4680 for task 10)
1/9/11	3 and 10	$	15,430	(11,600 for task 3 and 3830 for task 10) - Updated for correction June spotted.
31/08/11	1,3 and 10	$	14,780	(2280 for task 1, 8600 for task 3 and 3900 for task 10)
30/08/11	1,3 and 10	$	15,230	(2,280 for task 1, 9500 for task 3 and 3450 for task 10)
29/08/11	1,3 and 10	$	14,330	(2280 for task 1, 8600 for task 3, 3450 for task 10)
28/08/11	1,3 and 10	$	14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	$	13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	$	10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	$	13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	$	13,130	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	$	8,169	
22/08/2011	2	$	9,388	
21/08/2011	10 - camp set up	$	4,000	
	Total	**$**	**463,233**	

J. Atkinson
Construction Monitor

Date 20/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 20/9/11 (DD MM YY) Shift Day

Pelly Budget by Task

		Task		Spent	Budget	% Complete	Status
Phase 1	Improve Bench ditches	1		$ 13,825	19,500	71%	Complete
	Armour Upper Perimeter ditches	2		$ 35,066	28,660	122%	Complete
	Fill depressions	3		$ 104,695	92,700	113%	Complete
	Excavate Run-on ditches	4		$ 2,100	14,000	15%	
	Clean out dissipation pools	5		$ 700	2,875	24%	Complete
		6			None	0	
		7			None	0	
		8			None	0	
		9			None	0	
	Incidentals	10		$ 44,185	79900	55%	
	Phase 1 subtotal			**$ 200,571**	**$ 237,635**	**84%**	
Phase 2	Pond Cut and Fill	1		$ 145,526	$ 110,650	**132%**	
	Riprap in pond	2			$ 25,470	**0%**	
	Quarry Road Re-alignment	3		$ 10,050	$ 9,690	**104%**	incl incidentals
	Sed pond Outlet channel	4			$ 1,750	**0%**	
	Regrade CSA	5		$ 5,538	$ 25,250	**22%**	
	Road cross-ditching	6			$ 9,750	**0%**	
	Grade Perimeter roads	7		600	$ 4,740	**13%**	
	Remove bench accesses	8			$ 3,500	**0%**	
	Incidentals	9		$ 100,918	$ 234,240	**43%**	
	Phase 2 subtotal			**$ 262,632**	**$ 425,040**	**62%**	
			Total	**$ 463,233**	**$ 662,675**	**70%**	

J. Atkinson
Construction Monitor

Date 20/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 20/9/11 (DD MM YY) Shift Day

Site Photos

Location: Sedimentation pond Looking northeast

Comments: 1 layer geotextile in base of pond

Location: Sedimentation Pond Looking southwest

Comments: Panel 1 on left and panel 2 in centre placed

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 20/9/11 (DD MM YY) Shift Day

Site Photos

Location: Sedimentation pond Looking east

Comments: Wedge welder seaming panel 1 and 2

Location: Cover and sedimentation pond Looking east

Comments: Completed panel 1 and 2, seaming panel 2 to 3 on left of photo.

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 20/9/11 (DD MM YY) Shift Day

Site Photos

Location: Sedimentation pond Looking southeast

Comments: Liner placed all over 4 m area. Double geotextile on slope to 4m/ 3m divide.

Location: Sedimentation pond Looking east

Comments: Anchor trench along northern edge of pond. Geotextile is pinned along trench side.

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 20/9/11 (DD MM YY) Shift Day

Site Photos

Location: Sedimentation Pond Looking south

Comment: Overflow area. Placing material at notch to increase capacity.

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 21/9/11 (DD MM YY) Shift Day

BGC Project No: 0533-003

Contract Title: GSC Cover Repairs

Weather

Today			Max	3
	Rain	Sun & Cloud	Very Windy	Showers

Client: Yukon Government

Contractors: Pelly Construction

Highlights

1 Pelly team finish overflow pond. Excavated anchor trench for liner 1 m along western slope crest and southern to the 4/3m divide.

2 Liner team (superior plastics ltd) place liner on northern slope from NW corner to 3/4 m divide. Panels 5 to 15. Roll number 818 and 810.

3 Liner team air pressure test all seams done to date and vacume box test all seams in the base.

4 Liner team take 2 Destructive test samples - one from Panel 1/2 seam (in base pond) and 1 from Panel 9/10 in the slope. Undertake the first test P1/P2 which passes.

5 Note liner team repair one fix to a seam between Panels 14 and 15 due to damage where the plug was accidently pulled on the wedge welder, it stopped and burnt a hole. This patch fix was air pressure tested and passed.

6 A wrinkle seam of 1 foot was installed between panels 3 and 4 (the flat panels at the toe of the northern slope) and the slope panels 5-15. The seam is to accommodate heat changes to the liner (stretch and shrinkage).

7 Starts raining at 1230. Liner team finishes testing and goes on standyby at 1400.

8 Pelly team start on placing a waste rock cover to the quarry haul road in the pm.

9 More geotextile (120z, 12 rolls) ordered by Pelly from a company in whitehorse in the am. Will arrive Saturday.

Health and Safety

BGC field job site evaluation undertaken by JAA for monitoring work.

No work done on the liner in the rain.

J. Atkinson
Construction Monitor

Date 21/9/11 DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 21/9/11 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly Activities	Liner team	Comments
700	GSC	1x360 CAT, 1XD6, 2x 773B, 1 x foreman. Personnel: CN,IL,GS,AN,MN	Place panels 5 to 15 on north slope and seam. Wedge weld wrinkle seam between panels 3 and 4 and slopes. Extrusion weld seams.	Pelly team cut and fill in depression area - complete. June taking notes on liner installation and QA (testing of wedge welder and testing on seams) Correction to yesterdays report: 4 panels in the floor: Panel 1,2,3,4.
1200	Lunch			
1230	GSC	1x360 CAT, 1XD6, 2x 773B, 1 x foreman. Personnel: CN,IL,GS,AN,MN	Air pressure test all seams. Standby at 1400 due to rain.	Pelly team placing waste rock on the new access road (1xD9, 1x360 CAT, 2x773B).
1715	Leave site.			

J. Atkinson
Construction Monitor

Date 21/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 21/9/11 (DD MM YY) Shift Day

Pelly Construction: Daily Summary Table

Work to date	Task	Spent		
20/9/11	P2-1, P2-5 and P2-9	$	25,430	(P2-1 is $1,120, P2-5 is $9,525 and P2-9 is $14,785)
19/9/11	P2-1, P2-5 and P2-9	$	23,374	(P2-1 is $2,583.5, P2-5 is $5,537.5 and P2-9 is $15,253.75)
18/9/11	P2-1 and P2-9	$	54,797	(P2-1 is $9,060 and P2-9 is $45,737)
17/9/11	P2-1 (sed pond)	$	14,723	(Incidentals (p2-9) is $3,625
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14/9/11	P2-1 (sed pond)	$	17,600	(Incidentals (p2-9) is $3,450
13/9/11	P2-1 (sed pond)	$	16,050	(Incidentals (p2-9) is $3,450
12/9/11	P2-1 (sed pond)	$	14,860	(Incidentals (p2-9) is $3,450
11/9/11	P2-1 (sed pond)	$	16,250	(Incidentals (p2-9) is $3,450
10/9/11	P2-1 (sed pond)	$	14,790	(Incidentals (p2-9) is $3,986.25
9/9/11	P2-1 (sed pond)	$	11,985	(Incidentals (p2-9) is $3,967.5
8/9/11	P2-1 (sed pond)	$	14,675	(Incidentals (p2-9) is $3,450
7/9/11	P2-1 (sed pond)	$	15,230	(Incidentals (p2-9) is $3,780
6/9/11	1, P2 and 9	$	13,885	(1 is 310, P2 is 10,095 and 10 is 3450)
5/9/11	P2 and 10	$	13,500	(P2 is 10,050 and task 10 is 3450)
4/9/11	1,3,5, 10 and P2	$	15,695	($620 for Task 1, $10,325 for task 3,$700 for task 5, $3,450 for task 10 and $600 for Phase 2)
3/9/11	3 and 10	$	15,425	($11,600 for task 3 and $3,825 for task 10)
2/9/11	3 and 10	$	16,380	(11,700 for task 3 and 4680 for task 10)
1/9/11	3 and 10	$	15,430	(11,600 for task 3 and 3830 for task 10) - Updated for correction June spotted.
31/08/11	1,3 and 10	$	14,780	(2280 for task 1, 8600 for task 3 and 3900 for task 10)
30/08/11	1,3 and 10	$	15,230	(2,280 for task 1, 9500 for task 3 and 3450 for task 10)
29/08/11	1,3 and 10	$	14,330	(2280 for task 1, 8600 for task 3, 3450 for task 10)
28/08/11	1,3 and 10	$	14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	$	13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	$	10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	$	13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	$	13,130	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	$	8,169	
22/08/2011	2	$	9,388	
21/08/2011	10 - camp set up	$	4,000	
	Total	**$**	**488,663**	

J. Atkinson
Construction Monitor

Date 21/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 21/9/11 (DD MM YY) Shift Day

Pelly Budget by Task

		Task		Spent	Budget	% Complete	Status
Phase 1	Improve Bench ditches	1		$ 13,825	19,500	71%	Complete
	Armour Upper Perimeter ditches	2		$ 35,066	28,660	122%	Complete
	Fill depressions	3		$ 104,695	92,700	113%	Complete
	Excavate Run-on ditches	4		$ 2,100	14,000	15%	
	Clean out dissipation pools	5		$ 700	2,875	24%	Complete
		6			None	0	
		7			None	0	
		8			None	0	
		9			None	0	
	Incidentals	10		$ 44,185	79900	55%	
	Phase 1 subtotal			**$ 200,571**	**$ 237,635**	**84%**	
Phase 2	Pond Cut and Fill	1		$ 146,646	$ 110,650	**133%**	
	Riprap in pond	2			$ 25,470	**0%**	
	Quarry Road Re-alignment	3		$ 10,050	$ 9,690	**104%**	incl incidentals
	Sed pond Outlet channel	4			$ 1,750	**0%**	
	Regrade CSA	5		$ 15,063	$ 25,250	**60%**	
	Road cross-ditching	6			$ 9,750	**0%**	
	Grade Perimeter roads	7		600	$ 4,740	**13%**	
	Remove bench accesses	8			$ 3,500	**0%**	
	Incidentals	9		$ 115,703	$ 234,240	**49%**	
	Phase 2 subtotal			**$ 288,062**	**$ 425,040**	**68%**	
			Total	**$ 488,663**	**$ 662,675**	**74%**	

J. Atkinson
Construction Monitor

Date 21/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 21/9/11 (DD MM YY) Shift Day

Site Photos

Location: Sedimentation pond Looking north

Comments: Liner placed on northern slope from southwest corner

Location: Sedimentation Pond looking north

Comments: From left to right Panels 5,6,7,8,9 and the edge of 10

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

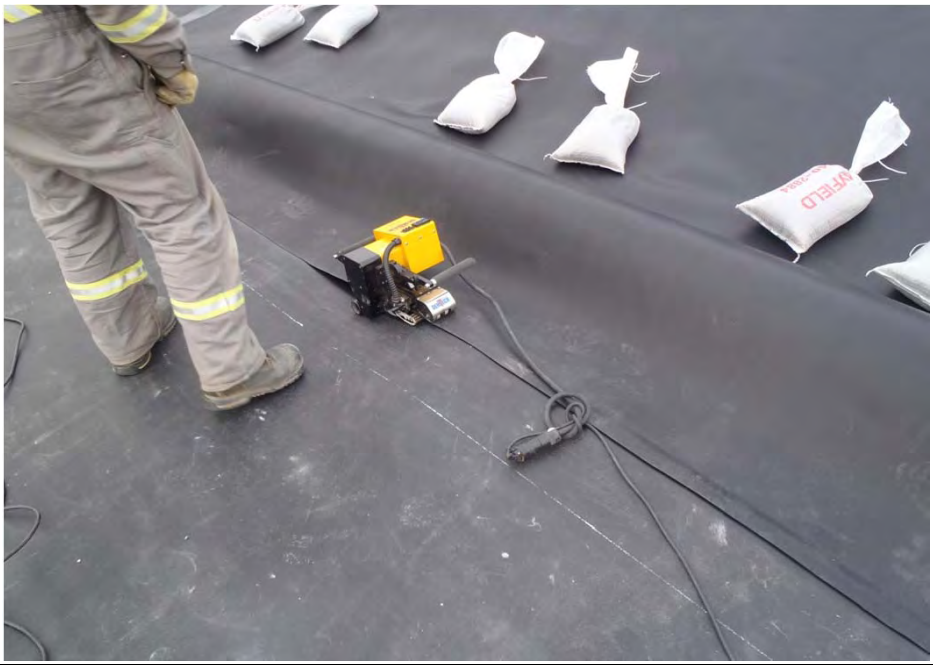
Date 21/9/11 Shift Day
(DD MM YY)

Daily Site Log

Daily Construction – Progress Report

Site Photos

Location: Sedimentation pond Looking north
Comments: North slope from left to right: edge of panel 9,10,11,12,13,14 and 15.



Location: Sedimentation pond

Comment: Adding a 1 foot wrinkle seam at the toe of the slope.

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 21/9/11 (DD MM YY) Shift Day

Site Photos

Location: Sedimentation pond
Comments: Air pressure test in seam. Note time and pressure readings in white pen.

Location: Sedimentation pond Looking east
Comments:Liner trench along northern edge. Liner pinned in trench along right edge. 2 pins per panel.

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 21/9/11 (DD MM YY) Shift Day

Site Photos

Location: Sedimentation Pond Looking west
Comment: Lined area.

Location: Overflow pond Looking west
Comment Pelly adding final finishing touches

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 22/9/11 (DD MM YY) Shift Day

BGC Project No: 0533-003

Contract Title: GSC Cover Repairs

Weather

	Today		Max	4
	Rain	Sun & Cloud from mid morning.	Very Windy	Showers in early morning.

Client: Yukon Government

Contractors: Pelly Construction

Highlights

1 Pelly team excavate drainage trench above 1m till slope. Pack quarry haul road. Regrade west perimeter ditch.

2 Liner team place 2 layers geotextile on remaining slopes in western end of pond (west and south slopes).

3 Liner team (Superior Plastics Ltd) place liner panels 16-36 on southern and western slope and weld; Do wrinkle seams along toe of western and southern slope.

4 Liner team take 2 Destructive test samples - one from southern slope and one for western. Yet to be tested.

5 LDP/sed pond liner connection considered and discussed with JV in context of time and budget remaining. Will expose and tie into LDP liner in existing condition; longer-term repair of LDP liner may be required in 2012.

Health and Safety

BGC field job site evaluation undertaken by JAA for monitoring work.

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 22/9/11 (DD MM YY) Shift Day

Construction Monitor Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 22/9/11 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly Activities	Liner team	Comments
700	GSC	1x Grader, 1x330CAT, 1 x packer, 1xD9 - IL,CN,AS,GS	Place panels 6 to 36 on south and west slope and seam. Wedge weld wrinkle seam between panels 1,2, and 4 and slopes. No extrusion welding or air pressure testing.	June taking notes on liner installation and QA (testing of wedge welder)
1200	Lunch			
1230	GSC	1x Grader, 1x330CAT, 1 x packer, 1xD9 - IL,CN,AS,GS	As above.	As above.
1745	Leave site.			

J. Atkinson
Construction Monitor

Date 22/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 22/9/11 (DD MM YY) Shift Day

Pelly Construction: Daily Summary Table

Work to date	Task	Spent		
				Pending - few corrections of order of 26 k
20/9/11	P2-1, P2-5 and P2-9	$	25,430	(P2-1 is $1,120, P2-5 is $9,525 and P2-9 is $14,785)
19/9/11	P2-1, P2-5 and P2-9	$	23,374	(P2-1 is $2,583.5, P2-5 is $5,537.5 and P2-9 is $15,253.75)
18/9/11	P2-1 and P2-9	$	54,797	(P2-1 is $9,060 and P2-9 is $45,737)
17/9/11	P2-1 (sed pond)	$	14,723	(Incidentals (p2-9) is $3,625
16/9/11	P2-1 (sed pond)	$	10,244	(Incidentals (p2-9) is $3,868.75
15/9/11	P2-1 (sed pond)	$	17,310	(Incidentals (p2-9) is $3,450
14/9/11	P2-1 (sed pond)	$	17,600	(Incidentals (p2-9) is $3,450
13/9/11	P2-1 (sed pond)	$	16,050	(Incidentals (p2-9) is $3,450
12/9/11	P2-1 (sed pond)	$	14,860	(Incidentals (p2-9) is $3,450
11/9/11	P2-1 (sed pond)	$	16,250	(Incidentals (p2-9) is $3,450
10/9/11	P2-1 (sed pond)	$	14,790	(Incidentals (p2-9) is $3,986.25
9/9/11	P2-1 (sed pond)	$	11,985	(Incidentals (p2-9) is $3,967.5
8/9/11	P2-1 (sed pond)	$	14,675	(Incidentals (p2-9) is $3,450
7/9/11	P2-1 (sed pond)	$	15,230	(Incidentals (p2-9) is $3,780
6/9/11	1, P2 and 9	$	13,885	(1 is 310, P2 is 10,095 and 10 is 3450)
5/9/11	P2 and 10	$	13,500	(P2 is 10,050 and task 10 is 3450)
4/9/11	1,3,5, 10 and P2	$	15,695	($620 for Task 1, $10,325 for task 3,$700 for task 5, $3,450 for task 10 and $600 for Phase 2)
3/9/11	3 and 10	$	15,425	($11,600 for task 3 and $3,825 for task 10)
2/9/11	3 and 10	$	16,380	(11,700 for task 3 and 4680 for task 10)
1/9/11	3 and 10	$	15,430	(11,600 for task 3 and 3830 for task 10) - Updated for correction June spotted.
31/08/11	1,3 and 10	$	14,780	(2280 for task 1, 8600 for task 3 and 3900 for task 10)
30/08/11	1,3 and 10	$	15,230	(2,280 for task 1, 9500 for task 3 and 3450 for task 10)
29/08/11	1,3 and 10	$	14,330	(2280 for task 1, 8600 for task 3, 3450 for task 10)
28/08/11	1,3 and 10	$	14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	$	13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	$	10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	$	13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	$	13,130	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	$	8,169	
22/08/2011	2	$	9,388	
21/08/2011	10 - camp set up	$	4,000	
	Total	**$**	**488,663**	

J. Atkinson
Construction Monitor

Date 22/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 22/9/11 (DD MM YY) Shift Day

Pelly Budget by Task

		Task		Spent	Budget	% Complete	Status
Phase 1	Improve Bench ditches	1		$ 13,825	19,500	71%	Complete
	Armour Upper Perimeter ditches	2		$ 35,066	28,660	122%	Complete
	Fill depressions	3		$ 104,695	92,700	113%	Complete
	Excavate Run-on ditches	4		$ 2,100	14,000	15%	
	Clean out dissipation pools	5		$ 700	2,875	24%	Complete
		6			None	0	
		7			None	0	
		8			None	0	
		9			None	0	
	Incidentals	10		$ 44,185	79900	55%	
	Phase 1 subtotal			**$ 200,571**	**$ 237,635**	**84%**	
Phase 2	Pond Cut and Fill	1		$ 146,646	$ 110,650	**133%**	
	Riprap in pond	2			$ 25,470	**0%**	
	Quarry Road Re-alignment	3		$ 10,050	$ 9,690	**104%**	incl incidentals
	Sed pond Outlet channel	4			$ 1,750	**0%**	
	Regrade CSA	5		$ 15,063	$ 25,250	**60%**	
	Road cross-ditching	6			$ 9,750	**0%**	
	Grade Perimeter roads	7		600	$ 4,740	**13%**	
	Remove bench accesses	8			$ 3,500	**0%**	
	Incidentals	9		$ 115,703	$ 234,240	**49%**	
	Phase 2 subtotal			**$ 288,062**	**$ 425,040**	**68%**	
			Total	**$ 488,663**	**$ 662,675**	**74%**	still to add 26k

J. Atkinson
Construction Monitor

Date 22/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 22/9/11 (DD MM YY) Shift Day

Site Photos

Location: Sedimentation pond Looking south

Comments: Starting to seam panel 16/17 over double layer of geotextile.

Location: Sedimentation Pond looking west

Comments: Pulling panel down the slope. Maximum 3 panels ahead of welding in case of rain.

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 22/9/11 (DD MM YY) Shift Day

Site Photos

Location: Sedimentation pond Looking east

Comments: Install wrinkle seam. Team holding wrinkle in place. One member cleaning the seam with a rag.

Location: Sedimentation pond Looking west

Comment: Progress by the end of the day

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 22/9/11 (DD MM YY) Shift Day

Site Photos

Location: Top of 1 m borrow area Looking east
Comments: Digging drainage ditch

Location: West of Sedimentation pond Southeast
Comments: Completed quarry road

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 22/9/11 (DD MM YY) Shift Day

Site Photos

Location: Sedimentation Pond Looking west
Comment: From borrow area

Location: GSC Looking west
Comment: From borrow area

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 23/9/11 (DD MM YY) Shift Day

BGC Project No: 0533-003

Contract Title: GSC Cover Repairs

Weather

Today: Rain/ snow | Sun & Cloud | Very Windy

Max 6: Showers

Client: Yukon Government

Contractors: Pelly Construction

Highlights

1 Pelly team excavate drainage trench above 1m till slope. Remove crossing points to benches. Backfill liner anchor trench. Pack regraded perimeter ditches.

2 Liner team extrusion weld the T seams in the western end of the pond. Air pressure test and vacuumed box test west end of pond. One failure (panel 32/33 on western slope) which was extrusion seamed again at T and then passed.

3 Liner team place 1 layer of geotextile and liner on base of 3 m area. Wedge weld.

4 Liner team lay geotextile on north and south slopes of 3 m area.

5 Liner team Pelly and JAA discuss spillway detail to be constructed by Pelly re anchor trench 3H:1V slope.

Health and Safety

BGC field job site evaluation undertaken by JAA for monitoring work.

J. Atkinson
Construction Monitor

Date 23/9/11 DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 23/9/11 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly Activities	Liner team	Comments
700	GSC	1x 360CAT, 1x330CAT/ D9, 1 x packer/ 773B-IL,CN,AS,GS	Extrusion weld T intersections on 4 m area. Place geotextile and liner panels 37-40 on 3 m base area. Wedge weld wrinkle seam between panels 1,2, and 3 and 3 m area.	June taking notes on liner installation and QA (testing of wedge welder) Observe Pelly work - completed ditch at tope of 1 m till slope looks good.
1200	Lunch			
1230	GSC	1x 360CAT, 1x330CAT/ D9, 1 x packer/ 773B-IL,CN,AS,GS	Air pressure test 4 m area. All testing and placement in 4m area complete. Place geotextile on north and south slopes of 3 m area.	As above.
1730	Leave site.			

J. Atkinson
Construction Monitor

Date 23/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 23/9/11 (DD MM YY) Shift Day

Pelly Construction: Daily Summary Table

Work to date	Task	Spent		
22/9/11	Phase 2 - 3,5,6,7 &9	$	22,610	Task3 $1,190, T5 $720, T6 $3150, T7 $2365 & T9 $15,185
21/9/11	P2-3,P2-5 and P2-9	$	26,930	Phase3 $5,500, Phase 5 $7305 and Phase 9 $14,125
20/9/11	P2-1, P2-5 and P2-9	$	25,430	(P2-1 is $1,120, P2-5 is $9,525 and P2-9 is $14,785)
19/9/11	P2-1, P2-5 and P2-9	$	23,374	(P2-1 is $2,583.5, P2-5 is $5,537.5 and P2-9 is $15,253.75)
18/9/11	P2-1 and P2-9	$	54,797	(P2-1 is $9,060 and P2-9 is $45,737)
17/9/11	P2-1 (sed pond)	$	14,723	(Incidentals (p2-9) is $3,625
16/9/11	P2-1 (sed pond)	$	10,244	(Incidentals (p2-9) is $3,868.75
15/9/11	P2-1 (sed pond)	$	17,310	(Incidentals (p2-9) is $3,450
14/9/11	P2-1 (sed pond)	$	17,600	(Incidentals (p2-9) is $3,450
13/9/11	P2-1 (sed pond)	$	16,050	(Incidentals (p2-9) is $3,450
12/9/11	P2-1 (sed pond)	$	14,860	(Incidentals (p2-9) is $3,450
11/9/11	P2-1 (sed pond)	$	16,250	(Incidentals (p2-9) is $3,450
10/9/11	P2-1 (sed pond)	$	14,790	(Incidentals (p2-9) is $3,986.25
9/9/11	P2-1 (sed pond)	$	11,985	(Incidentals (p2-9) is $3,967.5
8/9/11	P2-1 (sed pond)	$	14,675	(Incidentals (p2-9) is $3,450
7/9/11	P2-1 (sed pond)	$	15,230	(Incidentals (p2-9) is $3,780
6/9/11	1, P2 and 9	$	13,885	(1 is 310, P2 is 10,095 and 10 is 3450)
5/9/11	P2 and 10	$	13,500	(P2 is 10,050 and task 10 is 3450)
4/9/11	1,3,5, 10 and P2	$	15,695	($620 for Task 1, $10,325 for task 3,$700 for task 5, $3,450 for task 10 and $600 for Phase 2)
3/9/11	3 and 10	$	15,425	($11,600 for task 3 and $3,825 for task 10)
2/9/11	3 and 10	$	16,380	(11,700 for task 3 and 4680 for task 10)
1/9/11	3 and 10	$	15,430	(11,600 for task 3 and 3830 for task 10) - Updated for correction June spotted.
31/08/11	1,3 and 10	$	14,780	(2280 for task 1, 8600 for task 3 and 3900 for task 10)
30/08/11	1,3 and 10	$	15,230	(2,280 for task 1, 9500 for task 3 and 3450 for task 10)
29/08/11	1,3 and 10	$	14,330	(2280 for task 1, 8600 for task 3, 3450 for task 10)
28/08/11	1,3 and 10	$	14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	$	13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	$	10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	$	13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	$	13,130	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	$	8,169	
22/08/2011	2	$	9,388	
21/08/2011	10 - camp set up	$	4,000	
	Total	**$**	**538,203**	

J. Atkinson
Construction Monitor

Date 23/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 23/9/11 (DD MM YY) Shift Day

Pelly Budget by Task

		Task		Spent	Budget	% Complete	Status
Phase 1	Improve Bench ditches	1		$ 13,825	19,500	71%	Complete
	Armour Upper Perimeter ditches	2		$ 35,066	28,660	122%	Complete
	Fill depressions	3		$ 104,695	92,700	113%	Complete
	Excavate Run-on ditches	4		$ 2,100	14,000	15%	
	Clean out dissipation pools	5		$ 700	2,875	24%	Complete
		6			None	0	
		7			None	0	
		8			None	0	
		9			None	0	
	Incidentals	10		$ 44,185	79900	55%	
	Phase 1 subtotal			**$ 200,571**	**$ 237,635**	**84%**	
Phase 2	Pond Cut and Fill	1		$ 146,646	$ 110,650	**133%**	
	Riprap in pond	2			$ 25,470	**0%**	
	Quarry Road Re-alignment	3		$ 16,740	$ 9,690	**173%**	incl incidentals
	Sed pond Outlet channel	4			$ 1,750	**0%**	
	Regrade CSA	5		$ 23,088	$ 25,250	**91%**	
	Road cross-ditching	6		3150	$ 9,750	**32%**	
	Grade Perimeter roads	7		2965	$ 4,740	**63%**	
	Remove bench accesses	8			$ 3,500	**0%**	
	Incidentals	9		$ 145,012	$ 234,240	**62%**	
	Phase 2 subtotal			**$ 337,601**	**$ 425,040**	**79%**	
			Total	**$ 538,202**	**$ 662,675**	**81%**	

J. Atkinson
Construction Monitor

Date 23/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 23/9/11 (DD MM YY) Shift Day

Site Photos

Location: Sedimentation pond
Looking west
Comments: Laying liner in 3 m base.

Location: Sedimentation Pond
Looking northwest
Comments: 3 to 4 m wrinkle seam

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 23/9/11 (DD MM YY) Shift Day

Site Photos

Location: Sedimentation pond Looking west

Comments: Laying geotextile on northern slope 3 m area.

Location: Sedimentation pond Looking east

Comment: Laying triple layer of geotextile along 3 m area southern crest due to gravel.

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 23/9/11 (DD MM YY) Shift Day

Site Photos

Location: Sedimentation pond Looking west

Comments: Anchor trench in southwest corner. Backfilling with sand in base and liner edge to cushion liner. Compacting and placing waste rock.

Location: Sedimentation pond Looking southwest

Comments: Anchor trench

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 24/9/11 (DD MM YY) Shift Day

BGC Project No: 0533-003

Contract Title: GSC Cover Repairs

Weather

Today		Max	12
Snow showers	Sun & Cloud	Very Windy	Showers

Client: Yukon Government

Contractors: Pelly Construction

Highlights

1. Pelly team remove crossing points to benches (complete). Dig anchor trench along the east end of the pond.
2. Pelly team placing fill material for spillway. June instructs them to place in lifts and pack to make general fill shape then to excavate spillway ditch. Spillway will be 4 or 5H:1V. Fill placed and anchor trench complete by end of day.
3. Liner team extrusion place double layer geotextile (and 3 layers along crest) on east slope then place liner (Panels 41-45). Seam to 3 m base panels (P48,49 and 50). Extrusion weld and air pressure test.
4. Liner team place liner on northern slope (Panels 46-51). Seam to 3 m base panel with wrinkle (Panel 50). Extrusion weld and air pressure test. Passes.
5. Slow day for liner due to snow layer first thing and ongoing snow showers throughout the day. Intermittent work and lots of drying of seams to be done to ensure dry enough for welding.

Health and Safety

BGC field job site evaluation undertaken by JAA for monitoring work.

J. Atkinson
Construction Monitor

Date 24/9/11 DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 24/9/11 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly Activities	Liner team	Comments
700	GSC	1x 360CAT, 1x330CAT/ D9, 1 x packer, 1x 773B-IL,CN,AS, CT,GS	East slope (no snow and no wet geotextlile) place geotextile and line. Extrusion weld.	June taking notes on liner installation and QA (APT) Ensuring spillway area has compaction and 15 (12 inch when packed) lifts. Inspect removed crossings - look good.
1200	Lunch			
1230	GSC	1x 360CAT, 1x330CAT/ D9, 1 x packer/ 773B-IL,CN,AS,GS	North slope (3 m area). Extrusion weld and patch. Air pressure test.	As above.
1730	Leave site.			

J. Atkinson
Construction Monitor

Date 24/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 24/9/11 (DD MM YY) Shift Day

Pelly Construction: Daily Summary Table

Work to date	Task	Spent		
23/9/11	Phase 2 - 1,5,6,8,9		23,385	Task1 $1,470, T5 $525, T6 $1,350, T8 $3,575 & T9 $16,465
22/9/11	Phase 2 - 3,5,6,7 &9	$	22,610	Task3 $1,190, T5 $720, T6 $3150, T7 $2365 & T9 $15,185
21/9/11	P2-3,P2-5 and P2-9	$	26,930	Phase3 $5,500, Phase 5 $7305 and Phase 9 $14,125
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1/9/11	3 and 10	$	15,430	(11,600 for task 3 and 3830 for task 10) - Updated for correction June spotted.
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29/08/11	1,3 and 10	$	14,330	(2280 for task 1, 8600 for task 3, 3450 for task 10)
28/08/11	1,3 and 10	$	14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	$	13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	$	10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	$	13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	$	13,130	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	$	8,169	
22/08/2011	2	$	9,388	
21/08/2011	10 - camp set up	$	4,000	
	Total	**$**	**561,588**	

J. Atkinson
Construction Monitor

Date 24/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 24/9/11 (DD MM YY) Shift Day

Pelly Budget by Task

		Task		Spent	Budget	% Complete	Status
Phase 1	Improve Bench ditches	1		$ 13,825	19,500	71%	Complete
	Armour Upper Perimeter ditches	2		$ 35,066	28,660	122%	Complete
	Fill depressions	3		$ 104,695	92,700	113%	Complete
	Excavate Run-on ditches	4		$ 2,100	14,000	15%	
	Clean out dissipation pools	5		$ 700	2,875	24%	Complete
		6			None	0	
		7			None	0	
		8			None	0	
		9			None	0	
	Incidentals	10		$ 44,185	79900	55%	
	Phase 1 subtotal			**$ 200,571**	**$ 237,635**	**84%**	
Phase 2	Pond Cut and Fill	1		$ 148,116	$ 110,650	**134%**	
	Riprap in pond	2			$ 25,470	**0%**	
	Quarry Road Re-alignment	3		$ 16,740	$ 9,690	**173%**	Complete
	Sed pond Outlet channel	4			$ 1,750	**0%**	
	Regrade CSA	5		$ 23,613	$ 25,250	**94%**	Complete
	Road cross-ditching	6		4500	$ 9,750	**46%**	
	Grade Perimeter roads	7		2965	$ 4,740	**63%**	
	Remove bench accesses	8		3575	$ 3,500	**102%**	Complete
	Incidentals	9		$ 161,477	$ 234,240	**69%**	
	Phase 2 subtotal			**$ 360,986**	**$ 425,040**	**85%**	
			Total	**$ 561,587**	**$ 662,675**	**85%**	

J. Atkinson
Construction Monitor

Date 24/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 24/9/11 (DD MM YY) Shift Day

Site Photos

Location: Sedimentation pond Looking west

Comments: Early am view of the snow dusting the sed pond.

Location: Sedimentation Pond Looking north

Comments: Laying geotextile on the one bit of the pond without snow.

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Date 24/9/11 (DD MM YY) Shift Day

Daily Site Log

Daily Construction – Progress Report

Site Photos

Location: Sedimentation pond Looking northeast

Comments: Geotextile later in the day when snow warmed off the layer.

Location: Sedimentation pond Looking north

Comment: Panels 46 to 51 along 3m area north slope

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 24/9/11 (DD MM YY) Shift Day

Site Photos

Location: Sedimentation pond — Looking east

Comments: East slope (panels 41 to 45)

Location: Sedimentation pond — Looking southeast

Comments: Spillway in southeast corner of the pond

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 24/9/11 (DD MM YY) Shift Day

Site Photos

Location: Sedimentation Pond Looking southeast
Comment: Packing lifts of waste rock to create the spillway outflow channel

Location: Bench number 1 - 1284 m Looking northwest
Comment: Crossing removed and riprap placed

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 24/9/11 (DD MM YY) Shift Day

Site Photos

Location: Bench number 2 - 1272 m Looking west

Comments - Bench access removed and riprap placed

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 25/9/11 (DD MM YY) Shift Day

BGC Project No: 0533-003

Contract Title: GSC Cover Repairs

Weather

Today		Max	3
Snow showers	Sun & Cloud	Very Windy	Showers

Client: Yukon Government

Contractors: Pelly Construction

Highlights

1 Pelly team filling anchor trench, exposing liner in LDP, fixing LDP for liner connection, stockpile riprap in quarry.

2 Liner team place geotextile and liner on spillway (Panels 53,54,55 and 56). Place liner along remainder of southern slope and tie into east slope and Panel 16 at 3/4 m pond depth boundary.

3 Liner team Extrusion weld remaining T seams and Air pressure test remaining seams. Whole pond complete and tested apart from inlet corner.

4 Pelly expose liner at LDP. Liner torn and missing sections all the way along. One rip going into the pond i.e. perpendicular to the bank. Lots of water and sludge.

5 Decision made that it would not be possible to tie in new liner at LDP/ new channel boundary as LDP liner too damaged and connection would need to be in center of pond in thigh deep sludge. Plan to cut existing liner at EDP and WDP channel inlets into LDP and rip out liner in LDP but keep pond and reline LDP. Considered by all site team that this would take less time than sludge removal.

6 Pelly expose liner edges at EDP and WDP inlets fully and cut along these lines. Pelly remove liner and geotextile and manage to keep original packed pond slopes.

7 Liner team on standby at 1600 waiting new channel. Then heavy snow decide to finish for day.

Health and Safety

BGC field job site evaluation undertaken by JAA for monitoring work.

J. Atkinson
Construction Monitor

Date 25/9/11 DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 25/9/11 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly Activities	Liner team	Comments
700	GSC	1x 360CAT, 1x330CAT, 1x 773B-IL,CN,AS, GS	Spillway place 1 layer geotextile and liner.	June taking notes on liner installation and QA (APT). Inspecting LDP exposed liner for tie in potential.
1200	Lunch			
1230	GSC	1x 360CAT, 1x330CAT,1 x 773B-IL,CN,AS,GS	South slope (3m area) line. Extrusion weld and patch. Air pressure test all remaining seams. Finish at 1600.	As above. Decision made on LDP at 1230. Snow in the afternoon.
1730	Leave site.			

J. Atkinson
Construction Monitor

Date 25/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 25/9/11 (DD MM YY) Shift Day

Pelly Construction: Daily Summary Table

Work to date	Task	Spent		
24/9/11	Phase 2 - 2,4,8,9	$	23,820	Task2 $4,000, T4 $4,700, T8 $700 & T9 $14,420
23/9/11	Phase 2 - 1,5,6,8,9	$	23,385	Task1 $1,470, T5 $525, T6 $1,350, T8 $3,575 & T9 $16,465
22/9/11	Phase 2 - 3,5,6,7 &9	$	22,610	Task3 $1,190, T5 $720, T6 $3150, T7 $2365 & T9 $15,185
21/9/11	P2-3,P2-5 and P2-9	$	26,930	Phase3 $5,500, Phase 5 $7305 and Phase 9 $14,125
20/9/11	P2-1, P2-5 and P2-9	$	25,430	(P2-1 is $1,120, P2-5 is $9,525 and P2-9 is $14,785)
19/9/11	P2-1, P2-5 and P2-9	$	23,374	(P2-1 is $2,583.5, P2-5 is $5,537.5 and P2-9 is $15,253.75)
18/9/11	P2-1 and P2-9	$	54,797	(P2-1 is $9,060 and P2-9 is $45,737)
17/9/11	P2-1 (sed pond)	$	14,723	(Incidentals (p2-9) is $3,625
16/9/11	P2-1 (sed pond)	$	10,244	(Incidentals (p2-9) is $3,868.75
15/9/11	P2-1 (sed pond)	$	17,310	(Incidentals (p2-9) is $3,450
14/9/11	P2-1 (sed pond)	$	17,600	(Incidentals (p2-9) is $3,450
13/9/11	P2-1 (sed pond)	$	16,050	(Incidentals (p2-9) is $3,450
12/9/11	P2-1 (sed pond)	$	14,860	(Incidentals (p2-9) is $3,450
11/9/11	P2-1 (sed pond)	$	16,250	(Incidentals (p2-9) is $3,450
10/9/11	P2-1 (sed pond)	$	14,790	(Incidentals (p2-9) is $3,986.25
9/9/11	P2-1 (sed pond)	$	11,985	(Incidentals (p2-9) is $3,967.5
8/9/11	P2-1 (sed pond)	$	14,675	(Incidentals (p2-9) is $3,450
7/9/11	P2-1 (sed pond)	$	15,230	(Incidentals (p2-9) is $3,780
6/9/11	1, P2 and 9	$	13,885	(1 is 310, P2 is 10,095 and 10 is 3450)
5/9/11	P2 and 10	$	13,500	(P2 is 10,050 and task 10 is 3450)
4/9/11	1,3,5, 10 and P2	$	15,695	($620 for Task 1, $10,325 for task 3,$700 for task 5, $3,450 for task 10 and $600 for Phase 2)
3/9/11	3 and 10	$	15,425	($11,600 for task 3 and $3,825 for task 10)
2/9/11	3 and 10	$	16,380	(11,700 for task 3 and 4680 for task 10)
1/9/11	3 and 10	$	15,430	(11,600 for task 3 and 3830 for task 10) - Updated for correction June spotted.
31/08/11	1,3 and 10	$	14,780	(2280 for task 1, 8600 for task 3 and 3900 for task 10)
30/08/11	1,3 and 10	$	15,230	(2,280 for task 1, 9500 for task 3 and 3450 for task 10)
29/08/11	1,3 and 10	$	14,330	(2280 for task 1, 8600 for task 3, 3450 for task 10)
28/08/11	1,3 and 10	$	14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	$	13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	$	10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	$	13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	$	13,130	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	$	8,169	
22/08/2011	2	$	9,388	
21/08/2011	10 - camp set up	$	4,000	
	Total	**$**	**585,408**	

J. Atkinson
Construction Monitor

Date 25/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Date 25/9/11 (DD MM YY) Shift Day

Daily Site Log

Daily Construction – Progress Report

Pelly Budget by Task

		Task		Spent	Budget	% Complete	Status
Phase 1	Improve Bench ditches	1		$ 13,825	19,500	71%	Complete
	Armour Upper Perimeter ditches	2		$ 35,066	28,660	122%	Complete
	Fill depressions	3		$ 104,695	92,700	113%	Complete
	Excavate Run-on ditches	4		$ 2,100	14,000	15%	
	Clean out dissipation pools	5		$ 700	2,875	24%	Complete
		6			None	0	
		7			None	0	
		8			None	0	
		9			None	0	
	Incidentals	10		$ 44,185	79900	55%	
	Phase 1 subtotal			**$ 200,571**	**$ 237,635**	**84%**	
Phase 2	Pond Cut and Fill	1		$ 148,116	$ 110,650	**134%**	
	Riprap in pond	2		$ 4,000	$ 25,470	**16%**	
	Quarry Road Re-alignment	3		$ 16,740	$ 9,690	**173%**	Complete
	Sed pond Outlet channel	4		$ 4,700	$ 1,750	**269%**	
	Regrade CSA	5		$ 23,613	$ 25,250	**94%**	Complete
	Road cross-ditching	6		$ 4,500	$ 9,750	**46%**	
	Grade Perimeter roads	7		$ 2,965	$ 4,740	**63%**	
	Remove bench accesses	8		$ 4,275	$ 3,500	**122%**	Complete
	Incidentals	9		$ 175,897	$ 234,240	**75%**	
	Phase 2 subtotal			**$ 384,806**	**$ 425,040**	**91%**	
			Total	**$ 585,407**	**$ 662,675**	**88%**	

not inc. 47 k from phase 1 contingency

J. Atkinson
Construction Monitor

Date 25/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 25/9/11 (DD MM YY) Shift Day

Site Photos

Location: Sedimentation pond — Looking south

Comments: Geotextile on spillway (1 layer)

Location: Sedimentation Pond — Looking north

Comments: Lined spillway

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

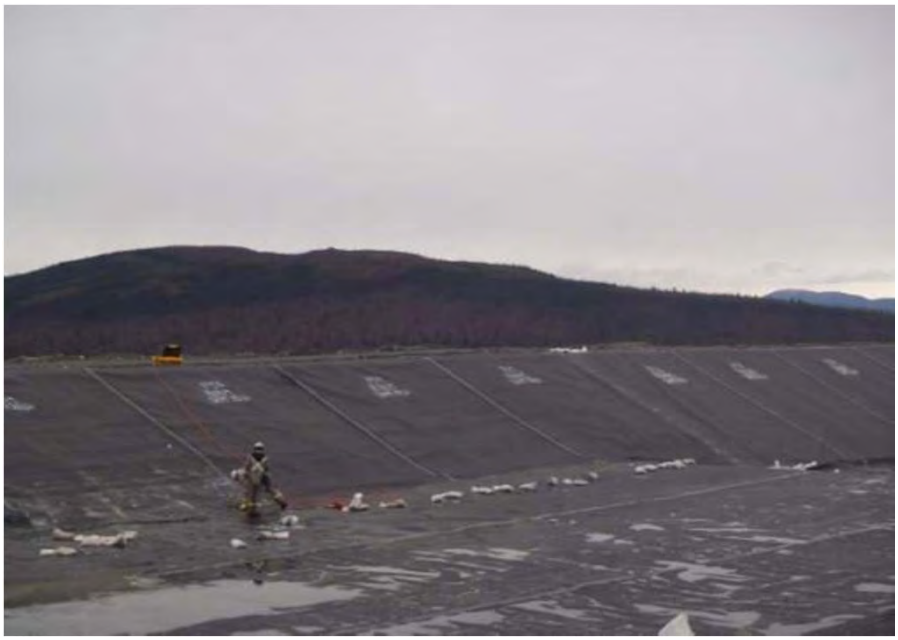
Daily Construction – Progress Report

Date 25/9/11 (DD MM YY) Shift Day

Site Photos

Location: Sedimentation Pond Looking south

Comments: Panels 52,53,54 and 56 and spillway



Location: sedimentation pond Looking south

Comments Panels 57 to60 on south slope (3 m depth area)

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 25/9/11 (DD MM YY) Shift Day

Site Photos

Location: Sedimentation pond Looking southwest

Comments: Lined spillway from sedimentation pond side

Location: LDP Looking south

Slope between proposed channel and WDP. No liner visible apart from at toe.

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 25/9/11 (DD MM YY) Shift Day

Site Photos

Location: LDP Looking south

Comment: Damaged liner and sludge/ water. Stake is proposed tie in location

Location LDP Looking west

Exposing the liner in proposed channel tie in location. Note rips perpendicular to pond.

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 25/9/11 (DD MM YY) Shift Day

Site Photos

Location LDP Looking northeast

Exposing liner at EDP Channel. Found good clean edge to weld new liner to. Also dry. Note no anchor trench.

Location GSC Looking southeast

Comment: Completed sedimentation pond apart from inlet channel and LDP.

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 25/9/11 (DD MM YY) Shift Day

Site Photos

Location LDP Looking north

Exposed slopes for new liner and tie in locations at EDP channel and WDP channel

Location LDP Looking east

Comment: Exposed slopes at new channel tie in location.

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 26/9/11 (DD MM YY) Shift Day

BGC Project No: 0533-003

Contract Title:

GSC Cover Repairs

Weather

Today		Max	12
Snow showers after 1600	Sun & Cloud till 1600	Very Windy	Showers

Client: Yukon Government

Contractors: Pelly Construction

Highlights

1 Pelly team exposing and cleaning out LDP - slop, liner, riprap. Digging inlet channel to pond. Digging anchor trenches. Stockpiling riprap.

2 Pelly team expose culvert (first 3 m) from LDP and remove. Place fill in culvert end of LDP and pack. Moisture is good due to rain/ snow. Shape LDP slopes. By end of day LDP ready for liner and geotextile tomorrow.

3 Liner team place geotextile and liner for inlet channel. Wedge weld and extrusion weld T shape connections. Sedimentation pond completely lined and tested. Only remaining lining is LDP for tomorrow.

4 Liner team on standby at 1600 due to heavy hail and snow. At 1700 decide to wait till tomorrow to do LDP liner.

Health and Safety

BGC field job site evaluation undertaken by JAA for monitoring work.

Snow making roads slippery. Slow and careful going on the site roads and haul roads.

J. Atkinson
Construction Monitor

Date 26/9/11 DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 26/9/11 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly Activities	Liner team	Comments
700	GSC	1x 360CAT, 1x330CAT, 1x 773B-IL,CN,AS, GS	Remove all waste materials from sedimentation pond and dispose. Place geotextile in sed pond. Place geotextile (1 layer) on inlet channel.	Pelly - Clear LDP of liner and riprap. Dig inlet channel. Stockpiling riprap. June taking notes on Pelly work and subbase for geotextile.
1200	Lunch			
1230	GSC	1x 360CAT, 1x330CAT,1 x 773B, 1x Packer- IL, CT,CN,AS,GS	Line and seam inlet channel and test. Pond complete.	Pelly - Finish inlet channel with anchor trench. Expose LDP culvert and remove. Place and pack fill for LDP final slopes. June - getting fuel. Taking notes on Pelly work.
1730	Leave site.			

J. Atkinson
Construction Monitor

Date 26/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 26/9/11 (DD MM YY) Shift Day

Pelly Construction: Daily Summary Table

Work to date	Task	Spent		
25/9/11	Phase 2 - 2,9, Inlet	$	25,730	Task2 $5,750, T9 $16,120 & Inlet $3,860
24/9/11	Phase 2 - 2,4,8,9	$	23,820	Task2 $4,000, T4 $4,700, T8 $700 & T9 $14,420
23/9/11	Phase 2 - 1,5,6,8,9	$	23,385	Task1 $1,470, T5 $525, T6 $1,350, T8 $3,575 & T9 $16,465
22/9/11	Phase 2 - 3,5,6,7 &9	$	22,610	Task3 $1,190, T5 $720, T6 $3150, T7 $2365 & T9 $15,185
21/9/11	P2-3,P2-5 and P2-9	$	26,930	Phase3 $5,500, Phase 5 $7305 and Phase 9 $14,125
20/9/11	P2-1, P2-5 and P2-9	$	25,430	(P2-1 is $1,120, P2-5 is $9,525 and P2-9 is $14,785)
19/9/11	P2-1, P2-5 and P2-9	$	23,374	(P2-1 is $2,583.5, P2-5 is $5,537.5 and P2-9 is $15,253.75)
18/9/11	P2-1 and P2-9	$	54,797	(P2-1 is $9,060 and P2-9 is $45,737)
17/9/11	P2-1 (sed pond)	$	14,723	(Incidentals (p2-9) is $3,625
16/9/11	P2-1 (sed pond)	$	10,244	(Incidentals (p2-9) is $3,868.75
15/9/11	P2-1 (sed pond)	$	17,310	(Incidentals (p2-9) is $3,450
14/9/11	P2-1 (sed pond)	$	17,600	(Incidentals (p2-9) is $3,450
13/9/11	P2-1 (sed pond)	$	16,050	(Incidentals (p2-9) is $3,450
12/9/11	P2-1 (sed pond)	$	14,860	(Incidentals (p2-9) is $3,450
11/9/11	P2-1 (sed pond)	$	16,250	(Incidentals (p2-9) is $3,450
10/9/11	P2-1 (sed pond)	$	14,790	(Incidentals (p2-9) is $3,986.25
9/9/11	P2-1 (sed pond)	$	11,985	(Incidentals (p2-9) is $3,967.5
8/9/11	P2-1 (sed pond)	$	14,675	(Incidentals (p2-9) is $3,450
7/9/11	P2-1 (sed pond)	$	15,230	(Incidentals (p2-9) is $3,780
6/9/11	1, P2 and 9	$	13,885	(1 is 310, P2 is 10,095 and 10 is 3450)
5/9/11	P2 and 10	$	13,500	(P2 is 10,050 and task 10 is 3450)
4/9/11	1,3,5, 10 and P2	$	15,695	($620 for Task 1, $10,325 for task 3,$700 for task 5, $3,450 for task 10 and $600 for Phase 2)
3/9/11	3 and 10	$	15,425	($11,600 for task 3 and $3,825 for task 10)
2/9/11	3 and 10	$	16,380	(11,700 for task 3 and 4680 for task 10)
1/9/11	3 and 10	$	15,430	(11,600 for task 3 and 3830 for task 10) - Updated for correction June spotted.
31/08/11	1,3 and 10	$	14,780	(2280 for task 1, 8600 for task 3 and 3900 for task 10)
30/08/11	1,3 and 10	$	15,230	(2,280 for task 1, 9500 for task 3 and 3450 for task 10)
29/08/11	1,3 and 10	$	14,330	(2280 for task 1, 8600 for task 3, 3450 for task 10)
28/08/11	1,3 and 10	$	14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	$	13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	$	10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	$	13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	$	13,130	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	$	8,169	
22/08/2011	2	$	9,388	
21/08/2011	10 - camp set up	$	4,000	
	Total	**$**	**611,138**	

J. Atkinson
Construction Monitor

Date 26/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 26/9/11 (DD MM YY) Shift Day

Pelly Budget by Task

		Task		Spent	Budget	% Complete	Status
Phase 1	Improve Bench ditches	1		$ 13,825	19,500	71%	Complete
	Armour Upper Perimeter ditches	2		$ 35,066	28,660	122%	Complete
	Fill depressions	3		$ 104,695	92,700	113%	Complete
	Excavate Run-on ditches	4		$ 2,100	14,000	15%	
	Clean out dissipation pools	5		$ 700	2,875	24%	Complete
		6			None	0	
		7			None	0	
		8			None	0	
		9			None	0	
	Incidentals	10		$ 44,185	79900	55%	
	Phase 1 subtotal			**$ 200,571**	**$ 237,635**	**84%**	
Phase 2	Pond Cut and Fill	1		$ 148,116	$ 110,650	**134%**	
	Riprap in pond	2		$ 9,750	$ 25,470	**38%**	
	Quarry Road Re-alignment	3		$ 16,740	$ 9,690	**173%**	Complete
	Sed pond Outlet channel	4		$ 4,700	$ 1,750	**269%**	
	Regrade CSA	5		$ 23,613	$ 25,250	**94%**	Complete
	Road cross-ditching	6		$ 4,500	$ 9,750	**46%**	
	Grade Perimeter roads	7		$ 2,965	$ 4,740	**63%**	
	Remove bench accesses	8		$ 4,275	$ 3,500	**122%**	Complete
	Incidentals	9		$ 192,017	$ 234,240	**82%**	
	Inlet channel			$ 3,860			
	Phase 2 subtotal			**$ 410,536**	**$ 425,040**	**97%**	
			Total	**$ 611,137**	**$ 662,675**	**92%**	

not inc. 47 k from phase 1 contingency

J. Atkinson
Construction Monitor

Date 26/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 26/9/11 (DD MM YY) Shift Day

Site Photos

Location: LDP Looking north

Comments: Excavated pond and culvert from new inlet channel

Location: Sedimentation Pond Looking south

Comments: LDP inlet channel and sedimentation pond

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 26/9/11 (DD MM YY) Shift Day

Site Photos

Location: Sedimentation Pond Looking south

Comments: Lined inlet channel

Location: Sedimentation pond Looking south

Comments: Completed LDP pond ready for liner and geotextile, inlet and sedimentation pond lined and complete

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 27/9/11 (DD MM YY) Shift Day

BGC Project No: 0533-003

Contract Title: GSC Cover Repairs

Weather

Today		Max	4
Snow showers	Sun & Cloud	Very Windy	Showers

Client: Yukon Government

Contractors: Pelly Construction

Highlights

1. Pelly team backfill anchor trench all around pond. Sand and waste rock. Grade and compact with packer.
2. Pelly team grading west perimeter haul road with grader and packer in the afternoon. 330CAT excavating outlet ditch.
3. Liner team place geotextile and liner for LDP. Wedge weld and extrusion weld T shape connections. All ponds and inlet channels completely lined and tested.
4. Place geotextile over the top of existing LDP pond. One more layer required in center of pond.
5. Dustin Rainey on site. One area of liner in north east corner found to be too tight and bouncing off surface. Pile with sandbags and excavate anchor trench to bring wrinkle back into pond. JAA to inspect tomorrow am.

Health and Safety

BGC field job site evaluation undertaken by JAA for monitoring work.

Snow and mud making roads slippery. Slow and careful going on the site roads and haul roads.

J. Atkinson
Construction Monitor

Date 27/9/11 DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 27/9/11 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly Activities	Liner team	Comments
700	GSC	1x330CAT, 1 x grader and 1 packer- IL,CN,AS, GS	Place 1 layer geotextile in the LDP. Place liner in the LDP.	Pelly - Infill anchor trench. Regrade west perimeter road.
1200	Lunch			
1230	GSC	1x330CAT, 1 x grader and 1 packer- IL,CN,AS, GS	Seam liner in LDP. Test and finish QC. Pack up material.	Pelly - Backfill anchor trench. Regrade west perimeter road. Fix up area for outflow ditch. Grade and pack around the sed pond.
1730	Leave site.			

J. Atkinson
Construction Monitor

Date 27/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 27/9/11 (DD MM YY) Shift Day

Pelly Construction: Daily Summary Table

Work to date	Task	Spent		
26/9/11	Phase 2 - 2,7,9, Inlet	$	23,008	Task2 $4,715, T7 $380, T9 $15,037.5 & Inlet $2,875
25/9/11	Phase 2 - 2,9, Inlet	$	25,730	Task2 $5,750, T9 $16,120 & Inlet $3,860
24/9/11	Phase 2 - 2,4,8,9	$	23,820	Task2 $4,000, T4 $4,700, T8 $700 & T9 $14,420
23/9/11	Phase 2 - 1,5,6,8,9	$	23,385	Task1 $1,470, T5 $525, T6 $1,350, T8 $3,575 & T9 $16,465
22/9/11	Phase 2 - 3,5,6,7 &9	$	22,610	Task3 $1,190, T5 $720, T6 $3150, T7 $2365 & T9 $15,185
21/9/11	P2-3,P2-5 and P2-9	$	26,930	Phase3 $5,500, Phase 5 $7305 and Phase 9 $14,125
20/9/11	P2-1, P2-5 and P2-9	$	25,430	(P2-1 is $1,120, P2-5 is $9,525 and P2-9 is $14,785)
19/9/11	P2-1, P2-5 and P2-9	$	23,374	(P2-1 is $2,583.5, P2-5 is $5,537.5 and P2-9 is $15,253.75)
18/9/11	P2-1 and P2-9	$	54,797	(P2-1 is $9,060 and P2-9 is $45,737)
17/9/11	P2-1 (sed pond)	$	14,723	(Incidentals (p2-9) is $3,625
16/9/11	P2-1 (sed pond)	$	10,244	(Incidentals (p2-9) is $3,868.75
15/9/11	P2-1 (sed pond)	$	17,310	(Incidentals (p2-9) is $3,450
14/9/11	P2-1 (sed pond)	$	17,600	(Incidentals (p2-9) is $3,450
13/9/11	P2-1 (sed pond)	$	16,050	(Incidentals (p2-9) is $3,450
12/9/11	P2-1 (sed pond)	$	14,860	(Incidentals (p2-9) is $3,450
11/9/11	P2-1 (sed pond)	$	16,250	(Incidentals (p2-9) is $3,450
10/9/11	P2-1 (sed pond)	$	14,790	(Incidentals (p2-9) is $3,986.25
9/9/11	P2-1 (sed pond)	$	11,985	(Incidentals (p2-9) is $3,967.5
8/9/11	P2-1 (sed pond)	$	14,675	(Incidentals (p2-9) is $3,450
7/9/11	P2-1 (sed pond)	$	15,230	(Incidentals (p2-9) is $3,780
6/9/11	1, P2 and 9	$	13,885	(1 is 310, P2 is 10,095 and 10 is 3450)
5/9/11	P2 and 10	$	13,500	(P2 is 10,050 and task 10 is 3450)
4/9/11	1,3,5, 10 and P2	$	15,695	($620 for Task 1, $10,325 for task 3,$700 for task 5, $3,450 for task 10 and $600 for Phase 2)
3/9/11	3 and 10	$	15,425	($11,600 for task 3 and $3,825 for task 10)
2/9/11	3 and 10	$	16,380	(11,700 for task 3 and 4680 for task 10)
1/9/11	3 and 10	$	15,430	(11,600 for task 3 and 3830 for task 10) - Updated for correction June spotted.
31/08/11	1,3 and 10	$	14,780	(2280 for task 1, 8600 for task 3 and 3900 for task 10)
30/08/11	1,3 and 10	$	15,230	(2,280 for task 1, 9500 for task 3 and 3450 for task 10)
29/08/11	1,3 and 10	$	14,330	(2280 for task 1, 8600 for task 3, 3450 for task 10)
28/08/11	1,3 and 10	$	14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	$	13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	$	10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	$	13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	$	13,130	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	$	8,169	
22/08/2011	2	$	9,388	
21/08/2011	10 - camp set up	$	4,000	
	Total	**$**	**634,146**	

J. Atkinson
Construction Monitor

Date 27/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Date 27/9/11 (DD MM YY) Shift Day

Daily Site Log

Daily Construction – Progress Report

Pelly Budget by Task

		Task		Spent	Budget	% Complete	Status
Phase 1	Improve Bench ditches	1		$ 13,825	19,500	71%	Complete
	Armour Upper Perimeter ditches	2		$ 35,066	28,660	122%	Complete
	Fill depressions	3		$ 104,695	92,700	113%	Complete
	Excavate Run-on ditches	4		$ 2,100	14,000	15%	
	Clean out dissipation pools	5		$ 700	2,875	24%	Complete
		6			None	0	
		7			None	0	
		8			None	0	
		9			None	0	
	Incidentals	10		$ 44,185	79900	55%	
	Phase 1 subtotal			**$ 200,571**	**$ 237,635**	**84%**	
Phase 2	Pond Cut and Fill	1		$ 148,116	$ 110,650	**134%**	
	Riprap in pond	2		$ 14,465	$ 25,470	**57%**	
	Quarry Road Re-alignment	3		$ 16,740	$ 9,690	**173%**	Complete
	Sed pond Outlet channel	4		$ 4,700	$ 1,750	**269%**	
	Regrade CSA	5		$ 23,613	$ 25,250	**94%**	Complete
	Road cross-ditching	6		$ 4,500	$ 9,750	**46%**	
	Grade Perimeter roads	7		$ 3,345	$ 4,740	**71%**	
	Remove bench accesses	8		$ 4,275	$ 3,500	**122%**	Complete
	Incidentals	9		$ 207,055	$ 234,240	**88%**	
	Inlet channel			$ 6,735			
	Phase 2 subtotal			**$ 433,544**	**$ 425,040**	**102%**	
			Total	**$ 634,145**	**$ 760,000**	**83%**	Total amount revised to inc. contingency

J. Atkinson
Construction Monitor

Date 27/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 27/9/11 (DD MM YY) Shift Day

Site Photos

Location: LDP Looking south

Comments: LDP lined with geotextile and one section of liner at inlet channel

Location: LDP Looking south

Comments: Fully lined ldp pond

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 27/9/11 (DD MM YY) Shift Day

Site Photos

Location: LDP Looking north

Comments: Lined LDP and anchor trench

Location: LDP Looking northeast

Comments: Lined LDP pond and EDP channel in distance.

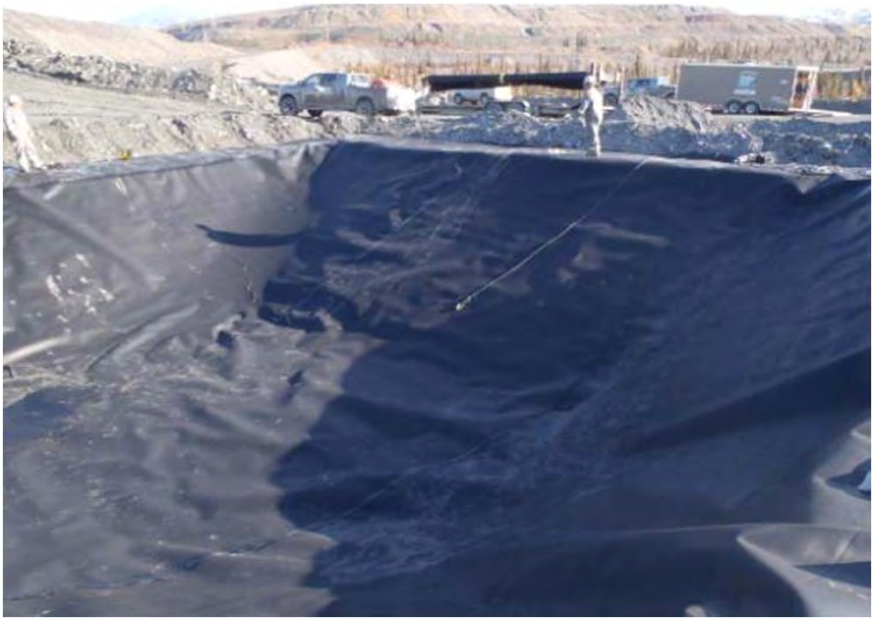
BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

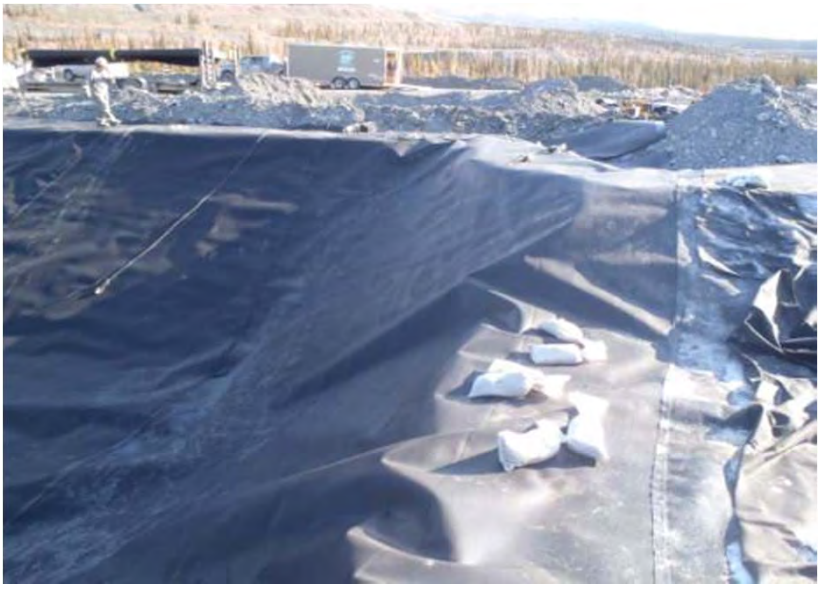
Date 27/9/11 (DD MM YY) Shift Day

Site Photos



Location: LDP Looking west

Comments: Lined pond



Location: LDP Looking east

Comment Lined pond and connection to sedimentation pond inlet channel

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 27/9/11 (DD MM YY) Shift Day

Site Photos

Location: LDP Looking west

Comment: Wedge weld seaming to existing EDP channel.

Location LDP

Extrusion weld to the WDP channel

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 28/9/11 (DD MM YY) Shift Day

BGC Project No: 0533-003

Contract Title: GSC Cover Repairs

Weather

Today		Max	4
Snow showers	Sun & Cloud	Very Windy	Showers

Client: Yukon Government

Contractors: Pelly Construction

Highlights

1 Liner team leave site at 0730 am.

2 Pelly team remove and fill in where road culvert removed, near LDP, with waste rock, grading and packing. Fill in anchor trenches.

3 Pelly team lay one layer of geotextile in LDP to finish this area.

4 Pelly team place sand in northeast corner of the sedimentation pond at 1400. Warmest part of the day and the bouncing in corner of pond has ceased. i.e. liner is against sides of pond. Backfill anchor trench.

5 Dustin Rainey (YG) on site. JAA and Dustin tour site and discuss progress. 4 changes from DR:
a) Center rock berm in pond not required to be as large. Only a baffle for energy and as ramp for animal escape should one get past proposed fence (unlikely).
b) Spillway detail - ditch swale to be dropped and spillway to be left as currently is apart from a riprap baffle at end to dissipate energy. Dustin to discuss this with DES.
c) Pelly to remove half culvert and salvage.
d) Berm to be added to west perimeter road.

6 Pelly place sand (0.50 m) pad in base of LDP and riprap to create access into the pond to place riprap.

Health and Safety

BGC field job site evaluation undertaken by JAA for monitoring work.

Snow and mud making roads slippery. Slow and careful going on the site roads and haul roads.

J. Atkinson
Construction Monitor

Date 28/9/11 DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 28/9/11 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly Activities	Liner team	Comments
700	GSC	1x330CAT, 1 x 365 CAT and 1 packer- IL,CN,AS, GS	Leave site	Pelly - Remove culvert and infill waste rock and pack. Grade area to east of pond away and pack. Haul sand.
1200	Lunch			
1230	GSC	1x330CAT, 1 x 365 CAT and 1 773B/ packer- IL,CN,AS, GS	N/A	Pelly - Place geotextile and weld. Backfill anchor trenches. Fill sand in northeast corner of pond to weigh down liner. Backfill sand and riprap into LDP.
1620	Leave site to make project close conference call with JV and JC.			

J. Atkinson
Construction Monitor

Date 28/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 28/9/11 (DD MM YY) Shift Day

Pelly Construction: Daily Summary Table

Work to date	Task	Spent		
27/9/11	Phase 2 - 7,9, Inlet	$	22,583	Task7 $1,585, T9 $18,107.5 & Inlet $2,890
26/9/11	Phase 2 - 2,7,9, Inlet	$	23,008	Task2 $4,715, T7 $380, T9 $15,037.5 & Inlet $2,875
25/9/11	Phase 2 - 2,9, Inlet	$	25,730	Task2 $5,750, T9 $16,120 & Inlet $3,860
24/9/11	Phase 2 - 2,4,8,9	$	23,820	Task2 $4,000, T4 $4,700, T8 $700 & T9 $14,420
23/9/11	Phase 2 - 1,5,6,8,9	$	23,385	Task1 $1,470, T5 $525, T6 $1,350, T8 $3,575 & T9 $16,465
22/9/11	Phase 2 - 3,5,6,7 &9	$	22,610	Task3 $1,190, T5 $720, T6 $3150, T7 $2365 & T9 $15,185
21/9/11	P2-3,P2-5 and P2-9	$	26,930	Phase3 $5,500, Phase 5 $7305 and Phase 9 $14,125
20/9/11	P2-1, P2-5 and P2-9	$	25,430	(P2-1 is $1,120, P2-5 is $9,525 and P2-9 is $14,785)
19/9/11	P2-1, P2-5 and P2-9	$	23,374	(P2-1 is $2,583.5, P2-5 is $5,537.5 and P2-9 is $15,253.75)
18/9/11	P2-1 and P2-9	$	54,797	(P2-1 is $9,060 and P2-9 is $45,737)
17/9/11	P2-1 (sed pond)	$	14,723	(Incidentals (p2-9) is $3,625
16/9/11	P2-1 (sed pond)	$	10,244	(Incidentals (p2-9) is $3,868.75
15/9/11	P2-1 (sed pond)	$	17,310	(Incidentals (p2-9) is $3,450
14/9/11	P2-1 (sed pond)	$	17,600	(Incidentals (p2-9) is $3,450
13/9/11	P2-1 (sed pond)	$	16,050	(Incidentals (p2-9) is $3,450
12/9/11	P2-1 (sed pond)	$	14,860	(Incidentals (p2-9) is $3,450
11/9/11	P2-1 (sed pond)	$	16,250	(Incidentals (p2-9) is $3,450
10/9/11	P2-1 (sed pond)	$	14,790	(Incidentals (p2-9) is $3,986.25
9/9/11	P2-1 (sed pond)	$	11,985	(Incidentals (p2-9) is $3,967.5
8/9/11	P2-1 (sed pond)	$	14,675	(Incidentals (p2-9) is $3,450
7/9/11	P2-1 (sed pond)	$	15,230	(Incidentals (p2-9) is $3,780
6/9/11	1, P2 and 9	$	13,885	(1 is 310, P2 is 10,095 and 10 is 3450)
5/9/11	P2 and 10	$	13,500	(P2 is 10,050 and task 10 is 3450)
4/9/11	1,3,5, 10 and P2	$	15,695	($620 for Task 1, $10,325 for task 3,$700 for task 5, $3,450 for task 10 and $600 for Phase 2)
3/9/11	3 and 10	$	15,425	($11,600 for task 3 and $3,825 for task 10)
2/9/11	3 and 10	$	16,380	(11,700 for task 3 and 4680 for task 10)
1/9/11	3 and 10	$	15,430	(11,600 for task 3 and 3830 for task 10) - Updated for correction June spotted.
31/08/11	1,3 and 10	$	14,780	(2280 for task 1, 8600 for task 3 and 3900 for task 10)
30/08/11	1,3 and 10	$	15,230	(2,280 for task 1, 9500 for task 3 and 3450 for task 10)
29/08/11	1,3 and 10	$	14,330	(2280 for task 1, 8600 for task 3, 3450 for task 10)
28/08/11	1,3 and 10	$	14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	$	13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	$	10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	$	13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	$	13,130	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	$	8,169	
22/08/2011	2	$	9,388	
21/08/2011	10 - camp set up	$	4,000	
	Total	**$**	**656,728**	

J. Atkinson
Construction Monitor

Date 28/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 28/9/11 (DD MM YY) Shift Day

Pelly Budget by Task

		Task		Spent	Budget	% Complete	Status
Phase 1	Improve Bench ditches	1		$ 13,825	19,500	71%	Complete
	Armour Upper Perimeter ditches	2		$ 35,066	28,660	122%	Complete
	Fill depressions	3		$ 104,695	92,700	113%	Complete
	Excavate Run-on ditches	4		$ 2,100	14,000	15%	
	Clean out dissipation pools	5		$ 700	2,875	24%	Complete
		6			None	0	
		7			None	0	
		8			None	0	
		9			None	0	
	Incidentals	10		$ 44,185	79900	55%	
	Phase 1 subtotal			**$ 200,571**	**$ 237,635**	**84%**	
Phase 2	Pond Cut and Fill	1		$ 148,116	$ 110,650	**134%**	
	Riprap in pond	2		$ 14,465	$ 25,470	**57%**	
	Quarry Road Re-alignment	3		$ 16,740	$ 9,690	**173%**	Complete
	Sed pond Outlet channel	4		$ 4,700	$ 1,750	**269%**	
	Regrade CSA	5		$ 23,613	$ 25,250	**94%**	Complete
	Road cross-ditching	6		$ 4,500	$ 9,750	**46%**	
	Grade Perimeter roads	7		$ 4,930	$ 4,740	**104%**	
	Remove bench accesses	8		$ 4,275	$ 3,500	**122%**	Complete
	Incidentals	9		$ 225,162	$ 234,240	**96%**	
	Inlet channel			$ 9,625			
	Phase 2 subtotal			**$ 456,126**	**$ 425,040**	**107%**	
			Total	**$ 656,727**	**$ 760,000**	**86%**	Total amount revised to inc. contingency

J. Atkinson
Construction Monitor

Date 28/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 28/9/11 (DD MM YY) Shift Day

Site Photos

Location: East of sedimentation pond Looking south

Comments: Culvert removed and area filled and packed.

Location: LDP Looking south

Comments: LDP with geotextile cover

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 28/9/11 (DD MM YY) Shift Day

Site Photos

Location: LDP Looking south

Comments: LDP with geotextile cover

Location: Sedimentation pond Looking northeast

Comments: Adding sand along crest and in NE corner for adding riprap and increasing liner in NE corner

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Date 28/9/11 (DD MM YY) Shift Day

Daily Site Log

Daily Construction – Progress Report

Site Photos

Location: LDP Looking south

Comments: Placing riprap on sand in base to travel CAT on to.

Location: LDP Looking north

Comments: Placing riprap on sand in base to travel CAT on to.

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 29/9/11 (DD MM YY) Shift Day

BGC Project No: 0533-003

Weather

Contract Title: Today Max 3

GSC Cover Repairs | Snow showers | Sun & Cloud | Very Windy | Showers

Client: Yukon Government Contractors: Pelly Construction

Highlights

1. Pelly riprap inlet channel and LDP.
2. Pelly place 2 foot sand into pond at east end of pond and 2 foot rounded material (cobbles and boulders). New wrinkle noted in liner in front of placed fill (1 foot) and cracks in sand placed at crest. Considered that liner may be slipping down slope. No signs of subgrade damage noted - soil bulge at toe, deformation of crest etc.
3. Decision made in field to immediately remove fill from slope. Pelly manage to remove fill and leave 1 ft sand without visible damage to liner. No further increase in wrinkle size or crest cracks in anchor trench sand. Discuss JV/JC. Plan to inspect more tomorrow am.
4. Riprap placed at end of spillway and base of inlet channel.
5. Pelly retrieve liner waste from town of Faro dump.

Health and Safety

BGC field job site evaluation undertaken by JAA for monitoring work.

J. Atkinson
Construction Monitor

Date 29/9/11 DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 29/9/11 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly Equipment	Pelly Activities	Comments
700	GSC	1x330CAT, 1 x 365 CAT and 1 773B-IL,CN,AS, GS, MN, CT	Place riprap in inlet channel and LDP. Place sand and rounded fill at east end of pond. Collect liner material.	
1200	Lunch			
1230	GSC	1x330CAT, 1 x 365 CAT and 1 773B-IL,CN,AS, GS, MN, CT	Remove rounded fill and sand from east end of pond. Place riprap at end of spillway. Fill anchor trench. Place riprap at end of inlet channel.	
1730	Leave site.			

J. Atkinson
Construction Monitor

Date 29/9/11
DD/MM/YY

BGC ENGINEERING INC.
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Daily Site Log

Daily Construction – Progress Report

Date 29/9/11 (DD MM YY) Shift Day

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21/9/11	P2-3,P2-5 and P2-9	$	26,930	Phase3 $5,500, Phase 5 $7305 and Phase 9 $14,125
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15/9/11	P2-1 (sed pond)	$	17,310	(Incidentals (p2-9) is $3,450
14/9/11	P2-1 (sed pond)	$	17,600	(Incidentals (p2-9) is $3,450
13/9/11	P2-1 (sed pond)	$	16,050	(Incidentals (p2-9) is $3,450
12/9/11	P2-1 (sed pond)	$	14,860	(Incidentals (p2-9) is $3,450
11/9/11	P2-1 (sed pond)	$	16,250	(Incidentals (p2-9) is $3,450
10/9/11	P2-1 (sed pond)	$	14,790	(Incidentals (p2-9) is $3,986.25
9/9/11	P2-1 (sed pond)	$	11,985	(Incidentals (p2-9) is $3,967.5
8/9/11	P2-1 (sed pond)	$	14,675	(Incidentals (p2-9) is $3,450
7/9/11	P2-1 (sed pond)	$	15,230	(Incidentals (p2-9) is $3,780
6/9/11	1, P2 and 9	$	13,885	(1 is 310, P2 is 10,095 and 10 is 3450)
5/9/11	P2 and 10	$	13,500	(P2 is 10,050 and task 10 is 3450)
4/9/11	1,3,5, 10 and P2	$	15,695	($620 for Task 1, $10,325 for task 3,$700 for task 5, $3,450 for task 10 and $600 for Phase 2)
3/9/11	3 and 10	$	15,425	($11,600 for task 3 and $3,825 for task 10)
2/9/11	3 and 10	$	16,380	(11,700 for task 3 and 4680 for task 10)
1/9/11	3 and 10	$	15,430	(11,600 for task 3 and 3830 for task 10) - Updated for correction June spotted.
31/08/11	1,3 and 10	$	14,780	(2280 for task 1, 8600 for task 3 and 3900 for task 10)
30/08/11	1,3 and 10	$	15,230	(2,280 for task 1, 9500 for task 3 and 3450 for task 10)
29/08/11	1,3 and 10	$	14,330	(2280 for task 1, 8600 for task 3, 3450 for task 10)
28/08/11	1,3 and 10	$	14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	$	13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	$	10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	$	13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	$	13,130	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	$	8,169	
22/08/2011	2	$	9,388	
21/08/2011	10 - camp set up	$	4,000	
	Total	**$**	**670,638**	

J. Atkinson
Construction Monitor

Date 29/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 29/9/11 (DD MM YY) Shift Day

Pelly Budget by Task

		Task		Spent	Budget	% Complete	Status
Phase 1	Improve Bench ditches	1		$ 13,825	19,500	71%	Complete
	Armour Upper Perimeter ditches	2		$ 35,066	28,660	122%	Complete
	Fill depressions	3		$ 104,695	92,700	113%	Complete
	Excavate Run-on ditches	4		$ 2,100	14,000	15%	
	Clean out dissipation pools	5		$ 700	2,875	24%	Complete
		6			None	0	
		7			None	0	
		8			None	0	
		9			None	0	
	Incidentals	10		$ 44,185	79900	55%	
	Phase 1 subtotal			**$ 200,571**	**$ 237,635**	**84%**	
Phase 2	Pond Cut and Fill	1		$ 148,116	$ 110,650	**134%**	
	Riprap in pond	2		$ 22,260	$ 25,470	**87%**	
	Quarry Road Re-alignment	3		$ 16,740	$ 9,690	**173%**	Complete
	Sed pond Outlet channel	4		$ 4,700	$ 1,750	**269%**	
	Regrade CSA	5		$ 23,613	$ 25,250	**94%**	Complete
	Road cross-ditching	6		$ 6,315	$ 9,750	**65%**	
	Grade Perimeter roads	7		$ 4,930	$ 4,740	**104%**	
	Remove bench accesses	8		$ 4,275	$ 3,500	**122%**	Complete
	Incidentals	9		$ 229,462	$ 234,240	**98%**	
	Inlet channel			$ 9,625			
	Phase 2 subtotal			**$ 470,036**	**$ 425,040**	**111%**	
			Total	**$ 670,637**	**$ 760,000**	**88%**	Total amount revised to inc. contingency

J. Atkinson
Construction Monitor

Date 29/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 29/9/11 (DD MM YY) Shift Day

Site Photos

Location: LDP and inlet channel Looking south
Comments: Infilled with riprap

Location: Inlet channel Looking north
Comments: Riprap cover

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Date 29/9/11 (DD MM YY) Shift Day

Daily Site Log

Daily Construction – Progress Report

Site Photos

Location: East end of pond. Looking southwest

Comment: Note toe of slope. Liner is flat.

Location: Sedimentation pond Looking south

Comments: Note small cracks in sand overlying liner

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 29/9/11 (DD MM YY) Shift Day

Site Photos

Location: Sed pond Looking south

Comments: Note liner wrinkle forming at toe of fill.

Location: Sed pond Looking south

Comments: Note wrinkle forming at toe of fill

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 29/9/11 (DD MM YY) Shift Day

Site Photos

Location: Sed pond east end Looking west

Comment: Note wrinkle at base of slope.

Location: Sed pond east end Looking west

Comment: Note wrinkle at base of slope.

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Date 29/9/11 (DD MM YY) Shift Day

Daily Site Log

Daily Construction – Progress Report

Site Photos

Location: sedimentation pond Looking east

Comments: Note wrinkles in adjacent panel. No visible damage.

Location: Sedimentation pond Looking north

Comment: Note no visible damage to exposed liner in adjacent panel or on crest.

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 29/9/11 (DD MM YY) Shift Day

Site Photos

Location: Sed pond east end Looking northeast

Comments: Rounded fill and sand material removed to 1 ft of sand.

Location: Sed pond east end Looking northeast

Comments: Rounded fill and sand material removed to 1 ft of sand. Material at base cannot be reached.

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 30/9/11 (DD MM YY) Shift Day

BGC Project No: 0533-003

Weather

Contract Title:	Today		Max	3
GSC Cover Repairs	Snow (turning to rain later)	Sun & Cloud	Very Windy	Showers

Client: Yukon Government Contractors: Pelly Construction

Highlights

1. Pelly regrading base of East Perimeter Road as per JV request, adding 0.50 m berm around LDP, along inlet channel and as a safety berm along east edge of pond (checked with Jon at DES whether this was necessary and he said it was).
2. Hauling clean waste rock to achieve the above. Also add berm halfway up East perimeter road as discussed with DR.
3. June and Gunnar move sand from liner at east end along crest and expose geotextile. Cut geotextile to inspect liner. Can still see liner going into anchor trench. No visible damage - holes and tears.
4. June digs a series of small pits on the slope and confirms geotextile present. Lift geotextile at edges of sand and inspect liner panel - intact, no damage.
5. June splits geotextile at wrinkle at toe of slope and inspects liner. No visible - damage (cracks, holes, splits). Water still ponding on top of liner.

Health and Safety

BGC field job site evaluation undertaken by JAA for monitoring work.

Snow and mud making roads slippery. Slow and careful going on the site roads and haul roads.

J. Atkinson
Construction Monitor

Date 30/9/11 DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 30/9/11 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly equipment	Pelly activities	Comments
700	GSC	1xD6 1 x 365 CAT and 1 773B- IL,CN,AS, GS	Regrade base of EPD road, add 0.50 m berm around east end of pond	June and Gunnar inspects liner for damage at east end of pond. No visible damage found to liner in the inspection - rips, tears, holes
1200	Lunch			
1230	GSC	1x330CAT, 1 x 365 CAT and 1 773B/ packer- IL,CN,AS, GS	Regrade base of EPD road, add 0.50 m berm around east end of pond, tidy waste rock borrow, tidy slopes along haul road.	None
1730	Leave site			

J. Atkinson
Construction Monitor

Date 30/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 30/9/11 (DD MM YY) Shift Day

Pelly Construction: Daily Summary Table

Work to date	Task	Spent		
29/9/11	Phase 2 - 2,6,9	$	12,738	Task 2- $7,850, Task 6- $775 and Task 9 $4,112.5
28/9/11	Phase 2 - 2,6,9	$	13,910	Task 2- $7,795, Task 6- $1,815 and Task 9 $4,300
27/9/11	Phase 2 - 7,9, Inlet	$	22,583	Task7 $1,585, T9 $18,107.5 & Inlet $2,890
26/9/11	Phase 2 - 2,7,9, Inlet	$	23,008	Task2 $4,715, T7 $380, T9 $15,037.5 & Inlet $2,875
25/9/11	Phase 2 - 2,9, Inlet	$	25,730	Task2 $5,750, T9 $16,120 & Inlet $3,860
24/9/11	Phase 2 - 2,4,8,9	$	23,820	Task2 $4,000, T4 $4,700, T8 $700 & T9 $14,420
23/9/11	Phase 2 - 1,5,6,8,9	$	23,385	Task1 $1,470, T5 $525, T6 $1,350, T8 $3,575 & T9 $16,465
22/9/11	Phase 2 - 3,5,6,7 &9	$	22,610	Task3 $1,190, T5 $720, T6 $3150, T7 $2365 & T9 $15,185
21/9/11	P2-3,P2-5 and P2-9	$	26,930	Phase3 $5,500, Phase 5 $7305 and Phase 9 $14,125
20/9/11	P2-1, P2-5 and P2-9	$	25,430	(P2-1 is $1,120, P2-5 is $9,525 and P2-9 is $14,785)
19/9/11	P2-1, P2-5 and P2-9	$	23,374	(P2-1 is $2,583.5, P2-5 is $5,537.5 and P2-9 is $15,253.75)
18/9/11	P2-1 and P2-9	$	54,797	(P2-1 is $9,060 and P2-9 is $45,737)
17/9/11	P2-1 (sed pond)	$	14,723	(Incidentals (p2-9) is $3,625
16/9/11	P2-1 (sed pond)	$	10,244	(Incidentals (p2-9) is $3,868.75
15/9/11	P2-1 (sed pond)	$	17,310	(Incidentals (p2-9) is $3,450
14/9/11	P2-1 (sed pond)	$	17,600	(Incidentals (p2-9) is $3,450
13/9/11	P2-1 (sed pond)	$	16,050	(Incidentals (p2-9) is $3,450
12/9/11	P2-1 (sed pond)	$	14,860	(Incidentals (p2-9) is $3,450
11/9/11	P2-1 (sed pond)	$	16,250	(Incidentals (p2-9) is $3,450
10/9/11	P2-1 (sed pond)	$	14,790	(Incidentals (p2-9) is $3,986.25
9/9/11	P2-1 (sed pond)	$	11,985	(Incidentals (p2-9) is $3,967.5
8/9/11	P2-1 (sed pond)	$	14,675	(Incidentals (p2-9) is $3,450
7/9/11	P2-1 (sed pond)	$	15,230	(Incidentals (p2-9) is $3,780
6/9/11	1, P2 and 9	$	13,885	(1 is 310, P2 is 10,095 and 10 is 3450)
5/9/11	P2 and 10	$	13,500	(P2 is 10,050 and task 10 is 3450)
4/9/11	1,3,5, 10 and P2	$	15,695	($620 for Task 1, $10,325 for task 3,$700 for task 5, $3,450 for task 10 and $600 for Phase 2)
3/9/11	3 and 10	$	15,425	($11,600 for task 3 and $3,825 for task 10)
2/9/11	3 and 10	$	16,380	(11,700 for task 3 and 4680 for task 10)
1/9/11	3 and 10	$	15,430	(11,600 for task 3 and 3830 for task 10) - Updated for correction June spotted.
31/08/11	1,3 and 10	$	14,780	(2280 for task 1, 8600 for task 3 and 3900 for task 10)
30/08/11	1,3 and 10	$	15,230	(2,280 for task 1, 9500 for task 3 and 3450 for task 10)
29/08/11	1,3 and 10	$	14,330	(2280 for task 1, 8600 for task 3, 3450 for task 10)
28/08/11	1,3 and 10	$	14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	$	13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	$	10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	$	13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	$	13,130	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	$	8,169	
22/08/2011	2	$	9,388	
21/08/2011	10 - camp set up	$	4,000	
	Total	**$**	**683,376**	

J. Atkinson
Construction Monitor

Date 30/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 30/9/11 (DD MM YY) Shift Day

Pelly Budget by Task

		Task		Spent	Budget	% Complete	Status
Phase 1	Improve Bench ditches	1		$ 13,825	19,500	71%	Complete
	Armour Upper Perimeter ditches	2		$ 35,066	28,660	122%	Complete
	Fill depressions	3		$ 104,695	92,700	113%	Complete
	Excavate Run-on ditches	4		$ 2,100	14,000	15%	
	Clean out dissipation pools	5		$ 700	2,875	24%	Complete
		6			None	0	
		7			None	0	
		8			None	0	
		9			None	0	
	Incidentals	10		$ 44,185	79900	55%	
	Phase 1 subtotal			**$ 200,571**	**$ 237,635**	**84%**	
Phase 2	Pond Cut and Fill	1		$ 148,116	$ 110,650	**134%**	
	Riprap in pond	2		$ 30,110	$ 25,470	**118%**	
	Quarry Road Re-alignment	3		$ 16,740	$ 9,690	**173%**	Complete
	Sed pond Outlet channel	4		$ 4,700	$ 1,750	**269%**	
	Regrade CSA	5		$ 23,613	$ 25,250	**94%**	Complete
	Road cross-ditching	6		$ 7,090	$ 9,750	**73%**	
	Grade Perimeter roads	7		$ 4,930	$ 4,740	**104%**	
	Remove bench accesses	8		$ 4,275	$ 3,500	**122%**	Complete
	Incidentals	9		$ 233,575	$ 234,240	**100%**	
	Inlet channel			$ 9,625			
	Phase 2 subtotal			**$ 482,774**	**$ 425,040**	**114%**	
			Total	**$ 683,375**	**$ 760,000**	**90%**	Total amount revised to inc. contingency

J. Atkinson
Construction Monitor

Date 30/9/11
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 30/9/11 (DD MM YY) Shift Day

Site Photos

Location: Crest of east end of sed pond
Comments: Spot checks exposing liner to check presence and for damage. Liner goes into anchor trench on right of photo.

Location: Slope of east end of sed pond
Comments: Spot checks exposing geotextile to check presence and flat to slope.

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 30/9/11 (DD MM YY) Shift Day

Site Photos

Location: Toe of east end of sed pond
Comments: Spot checks exposing liner to check condition along wrinkle - no apparent damage, note ponded water

Location: Taken from base of east perimeter ditch road at LDP Looking south
Comments: Note cross fall to east side of the road and berm on right.

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 1/10/2011 (DD MM YY) Shift Day

BGC Project No: 0533-003

Contract Title: GSC Cover Repairs

Weather

Today		Max	4
Snow	Sun & Cloud	Very Windy	Showers

Client: Yukon Government

Contractors: Pelly Construction

Highlights

1 Pelly cleaning off sand and geotextile from liner on east end of pond. Liner and seams are intact - no visible damage in quick inspection. Will do more detailed inspection tomorrow.

2 Excavate out anchor trench. Liner is anchored in trench with no visible damage.

3 Pelly also cleaning berms and borrow areas with 365 CAT.

Health and Safety

BGC field job site evaluation undertaken by JAA for monitoring work.

Snow and mud making roads slippery. Slow and careful going on the site roads and haul roads.

J. Atkinson
Construction Monitor

1/10/2011
Date DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 1/10/2011 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly equipment	Pelly activities	Comments
700	GSC	1x335 CAT, 1 x 365 CAT and 1 773B and hand digging- IL,CN,AS, GS, MN, CT	Expose liner on east slope sed pond and tidy up earthworks around site	None
1200	Lunch			
1230	GSC	1x335 CAT, 1 x 365 CAT and 1 773B and hand digging- IL,CN,AS, GS, MN, CT	Expose liner on east slope sed pond and tidy up earthworks around site	None
1730	Leave site			

J. Atkinson
Construction Monitor

Date 1/10/2011
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 1/10/2011 Shift Day
(DD MM YY)

Pelly Construction: Daily Summary Table

Work to date	Task	Spent	
30/9/11	Pending	Pending	Pending
29/9/11	Phase 2 - 2,6,9	$ 12,738	Task 2- $7,850, Task 6- $775 and Task 9 $4,112.5
28/9/11	Phase 2 - 2,6,9	$ 13,910	Task 2- $7,795, Task 6- $1,815 and Task 9 $4,300
27/9/11	Phase 2 - 7,9, Inlet	$ 22,583	Task7 $1,585, T9 $18,107.5 & Inlet $2,890
26/9/11	Phase 2 - 2,7,9, Inlet	$ 23,008	Task2 $4,715, T7 $380, T9 $15,037.5 & Inlet $2,875
25/9/11	Phase 2 - 2,9, Inlet	$ 25,730	Task2 $5,750, T9 $16,120 & Inlet $3,860
24/9/11	Phase 2 - 2,4,8,9	$ 23,820	Task2 $4,000, T4 $4,700, T8 $700 & T9 $14,420
23/9/11	Phase 2 - 1,5,6,8,9	$ 23,385	Task1 $1,470, T5 $525, T6 $1,350, T8 $3,575 & T9 $16,465
22/9/11	Phase 2 - 3,5,6,7 &9	$ 22,610	Task3 $1,190, T5 $720, T6 $3150, T7 $2365 & T9 $15,185
21/9/11	P2-3,P2-5 and P2-9	$ 26,930	Phase3 $5,500, Phase 5 $7305 and Phase 9 $14,125
20/9/11	P2-1, P2-5 and P2-9	$ 25,430	(P2-1 is $1,120, P2-5 is $9,525 and P2-9 is $14,785)
19/9/11	P2-1, P2-5 and P2-9	$ 23,374	(P2-1 is $2,583.5, P2-5 is $5,537.5 and P2-9 is $15,253.75)
18/9/11	P2-1 and P2-9	$ 54,797	(P2-1 is $9,060 and P2-9 is $45,737)
17/9/11	P2-1 (sed pond)	$ 14,723	(Incidentals (p2-9) is $3,625
16/9/11	P2-1 (sed pond)	$ 10,244	(Incidentals (p2-9) is $3,868.75
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10/9/11	P2-1 (sed pond)	$ 14,790	(Incidentals (p2-9) is $3,986.25
9/9/11	P2-1 (sed pond)	$ 11,985	(Incidentals (p2-9) is $3,967.5
8/9/11	P2-1 (sed pond)	$ 14,675	(Incidentals (p2-9) is $3,450
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4/9/11	1,3,5, 10 and P2	$ 15,695	($620 for Task 1, $10,325 for task 3,$700 for task 5, $3,450 for task 10 and $600 for Phase 2)
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27/08/11	1,3 and 10	$ 13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	$ 10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	$ 13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	$ 13,130	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	$ 8,169	
22/08/2011	2	$ 9,388	
21/08/2011	10 - camp set up	$ 4,000	
	Total	**$ 683,376**	

J. Atkinson
Construction Monitor

Date 1/10/2011
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 1/10/2011 Shift Day
(DD MM YY)

Pelly Budget by Task

		Task		Spent	Budget	% Complete	Status
Phase 1	Improve Bench ditches	1		$ 13,825	19,500	71%	Complete
	Armour Upper Perimeter ditches	2		$ 35,066	28,660	122%	Complete
	Fill depressions	3		$ 104,695	92,700	113%	Complete
	Excavate Run-on ditches	4		$ 2,100	14,000	15%	
	Clean out dissipation pools	5		$ 700	2,875	24%	Complete
		6			None	0	
		7			None	0	
		8			None	0	
		9			None	0	
	Incidentals	10		$ 44,185	79900	55%	
	Phase 1 subtotal			**$ 200,571**	**$ 237,635**	**84%**	
Phase 2	Pond Cut and Fill	1		$ 148,116	$ 110,650	**134%**	
	Riprap in pond	2		$ 30,110	$ 25,470	**118%**	
	Quarry Road Re-alignment	3		$ 16,740	$ 9,690	**173%**	Complete
	Sed pond Outlet channel	4		$ 4,700	$ 1,750	**269%**	
	Regrade CSA	5		$ 23,613	$ 25,250	**94%**	Complete
	Road cross-ditching	6		$ 7,090	$ 9,750	**73%**	
	Grade Perimeter roads	7		$ 4,930	$ 4,740	**104%**	
	Remove bench accesses	8		$ 4,275	$ 3,500	**122%**	Complete
	Incidentals	9		$ 233,575	$ 234,240	**100%**	
	Inlet channel			$ 9,625			
	Phase 2 subtotal			**$ 482,774**	**$ 425,040**	**114%**	
			Total	**$ 683,375**	**$ 760,000**	**90%**	Total amount revised to inc. contingency

J. Atkinson
Construction Monitor

Date 1/10/2011
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 1/10/2011 Shift Day
(DD MM YY)

Site Photos

Location: East end of sed pond — Looking northeast
Comments: Exposed intact liner.

Location: East end of sed pond — Looking north
Comments: Liner slope and toe

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 1/10/2011 Shift Day
(DD MM YY)

Site Photos

Location: East end of sed pond
Comments: Anchor trench - Liner and geotextile intact and in same position as when installed

Location: East end of sed pond Looking south
Comments: Anchor trench and crest of slope. Note wrinkled material is geotextile not liner.

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 2/10/2011 (DD MM YY) Shift Day

BGC Project No: 0533-003

Weather

Contract Title:	Today		Max	3
GSC Cover Repairs	Snow	Sun & Cloud	Very Windy	Showers

Client: Yukon Government

Contractors: Pelly Construction

Highlights

1 Pelly doing final tidy of slopes, haul roads, safety berms etc.

2 Caroline (Pelly surveyor) on site to do as built surveying. Only one day so will pick up what she can. Completed sedimentation pond and area, Contingency storage area, all benches, depression infill, 1 m till slope, new quarry road alignment.

3 Pelly pull half culvert and stockpile by haul road. Stockpile one load of riprap near inlet channel.

Health and Safety

BGC field job site evaluation undertaken by JAA for monitoring work.

Snow and mud making roads slippery. Slow and careful going on the site roads and haul roads.

J. Atkinson
Construction Monitor

Date 2/10/2011 DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 2/10/2011 (DD MM YY) Shift Day

Daily Activity Summary

Time	Location	Pelly equipment	Pelly activities	Comments
700	GSC	1x335 CAT, 1 x 365 CAT and surveyor- IL,CN,GS, CB	Final tidy around site with excavators, Caroline doing as built survey	None
1200	Lunch			
1230	GSC	1x335 CAT, 1 x 365 CAT, 1x grader and surveyor- IL,CN,GS, CB	Final tidy around site with excavators, Caroline doing as built survey, Pull out half culvert, grade all roads.	None
1730	Leave site			

J. Atkinson
Construction Monitor

Date 2/10/2011
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 2/10/2011 Shift Day
(DD MM YY)

Pelly Construction: Daily Summary Table

Work to date	Task	Spent		
1/10/2011	Task 2 &9	$	11,370	Task 2 $4,737.5 & Task 9 $6,632.5
30/9/11	Task 2&9	$	10,660	Task 2 $4,390 and Task 9 $6,270
29/9/11	Phase 2 - 2,6,9	$	12,738	Task 2- $7,850, Task 6- $775 and Task 9 $4,112.5
28/9/11	Phase 2 - 2,6,9	$	13,910	Task 2- $7,795, Task 6- $1,815 and Task 9 $4,300
27/9/11	Phase 2 - 7,9, Inlet	$	22,583	Task7 $1,585, T9 $18,107.5 & Inlet $2,890
26/9/11	Phase 2 - 2,7,9, Inlet	$	23,008	Task2 $4,715, T7 $380, T9 $15,037.5 & Inlet $2,875
25/9/11	Phase 2 - 2,9, Inlet	$	25,730	Task2 $5,750, T9 $16,120 & Inlet $3,860
24/9/11	Phase 2 - 2,4,8,9	$	23,820	Task2 $4,000, T4 $4,700, T8 $700 & T9 $14,420
23/9/11	Phase 2 - 1,5,6,8,9	$	23,385	Task1 $1,470, T5 $525, T6 $1,350, T8 $3,575 & T9 $16,465
22/9/11	Phase 2 - 3,5,6,7 &9	$	22,610	Task3 $1,190, T5 $720, T6 $3150, T7 $2365 & T9 $15,185
21/9/11	P2-3,P2-5 and P2-9	$	26,930	Phase3 $5,500, Phase 5 $7305 and Phase 9 $14,125
20/9/11	P2-1, P2-5 and P2-9	$	25,430	(P2-1 is $1,120, P2-5 is $9,525 and P2-9 is $14,785)
19/9/11	P2-1, P2-5 and P2-9	$	23,374	(P2-1 is $2,583.5, P2-5 is $5,537.5 and P2-9 is $15,253.75)
18/9/11	P2-1 and P2-9	$	54,797	(P2-1 is $9,060 and P2-9 is $45,737)
17/9/11	P2-1 (sed pond)	$	14,723	(Incidentals (p2-9) is $3,625
16/9/11	P2-1 (sed pond)	$	10,244	(Incidentals (p2-9) is $3,868.75
15/9/11	P2-1 (sed pond)	$	17,310	(Incidentals (p2-9) is $3,450
14/9/11	P2-1 (sed pond)	$	17,600	(Incidentals (p2-9) is $3,450
13/9/11	P2-1 (sed pond)	$	16,050	(Incidentals (p2-9) is $3,450
12/9/11	P2-1 (sed pond)	$	14,860	(Incidentals (p2-9) is $3,450
11/9/11	P2-1 (sed pond)	$	16,250	(Incidentals (p2-9) is $3,450
10/9/11	P2-1 (sed pond)	$	14,790	(Incidentals (p2-9) is $3,986.25
9/9/11	P2-1 (sed pond)	$	11,985	(Incidentals (p2-9) is $3,967.5
8/9/11	P2-1 (sed pond)	$	14,675	(Incidentals (p2-9) is $3,450
7/9/11	P2-1 (sed pond)	$	15,230	(Incidentals (p2-9) is $3,780
6/9/11	1, P2 and 9	$	13,885	(1 is 310, P2 is 10,095 and 10 is 3450)
5/9/11	P2 and 10	$	13,500	(P2 is 10,050 and task 10 is 3450)
4/9/11	1,3,5, 10 and P2	$	15,695	($620 for Task 1, $10,325 for task 3,$700 for task 5, $3,450 for task 10 and $600 for Phase 2)
3/9/11	3 and 10	$	15,425	($11,600 for task 3 and $3,825 for task 10)
2/9/11	3 and 10	$	16,380	(11,700 for task 3 and 4680 for task 10)
1/9/11	3 and 10	$	15,430	(11,600 for task 3 and 3830 for task 10) - Updated for correction June spotted.
31/08/11	1,3 and 10	$	14,780	(2280 for task 1, 8600 for task 3 and 3900 for task 10)
30/08/11	1,3 and 10	$	15,230	(2,280 for task 1, 9500 for task 3 and 3450 for task 10)
29/08/11	1,3 and 10	$	14,330	(2280 for task 1, 8600 for task 3, 3450 for task 10)
28/08/11	1,3 and 10	$	14,825	(1875 for task 1, 9200 for task 3, 3750 for task 10)
27/08/11	1,3 and 10	$	13,525	(1,900 for 1, 8375 for 3 and 3250 for 10)
26/08/2011	1,3, 4 and 10	$	10,650	(2,280 for task 1, $2,820 for task 3, $2,100 for 4 and 3450 for 10)
25/08/2011	3 and 2	$	13,005	(5,025 for 3, 1050 for 10, 6930 for 2)
24/08/2011	2 and 10	$	13,130	(2550 for task 10 and 10580 for task 2)
23/08/2011	2	$	8,169	
22/08/2011	2	$	9,388	
21/08/2011	10 - camp set up	$	4,000	
	Total	**$**	**705,406**	

J. Atkinson
Construction Monitor

Date 2/10/2011
DD/MM/YY

BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 2/10/2011 Shift Day
(DD MM YY)

Pelly Budget by Task

		Task		Spent	Budget	% Complete	Status
Phase 1	Improve Bench ditches	1		$ 13,825	19,500	71%	Complete
	Armour Upper Perimeter ditches	2		$ 35,066	28,660	122%	Complete
	Fill depressions	3		$ 104,695	92,700	113%	Complete
	Excavate Run-on ditches	4		$ 2,100	14,000	15%	
	Clean out dissipation pools	5		$ 700	2,875	24%	Complete
		6			None	0	
		7			None	0	
		8			None	0	
		9			None	0	
	Incidentals	10		$ 44,185	79900	55%	
	Phase 1 subtotal			**$ 200,571**	**$ 237,635**	**84%**	
Phase 2	Pond Cut and Fill	1		$ 148,116	$ 110,650	**134%**	
	Riprap in pond	2		$ 39,238	$ 25,470	**154%**	
	Quarry Road Re-alignment	3		$ 16,740	$ 9,690	**173%**	Complete
	Sed pond Outlet channel	4		$ 4,700	$ 1,750	**269%**	
	Regrade CSA	5		$ 23,613	$ 25,250	**94%**	Complete
	Road cross-ditching	6		$ 7,090	$ 9,750	**73%**	
	Grade Perimeter roads	7		$ 4,930	$ 4,740	**104%**	
	Remove bench accesses	8		$ 4,275	$ 3,500	**122%**	Complete
	Incidentals	9		$ 246,477	$ 234,240	**105%**	
	Inlet channel			$ 9,625			
	Phase 2 subtotal			**$ 504,804**	**$ 425,040**	**119%**	
			Total	**$ 705,405**	**$ 760,000**	**93%**	Total amount revised to inc. contingency

J. Atkinson
Construction Monitor

Date 2/10/2011
DD/MM/YY

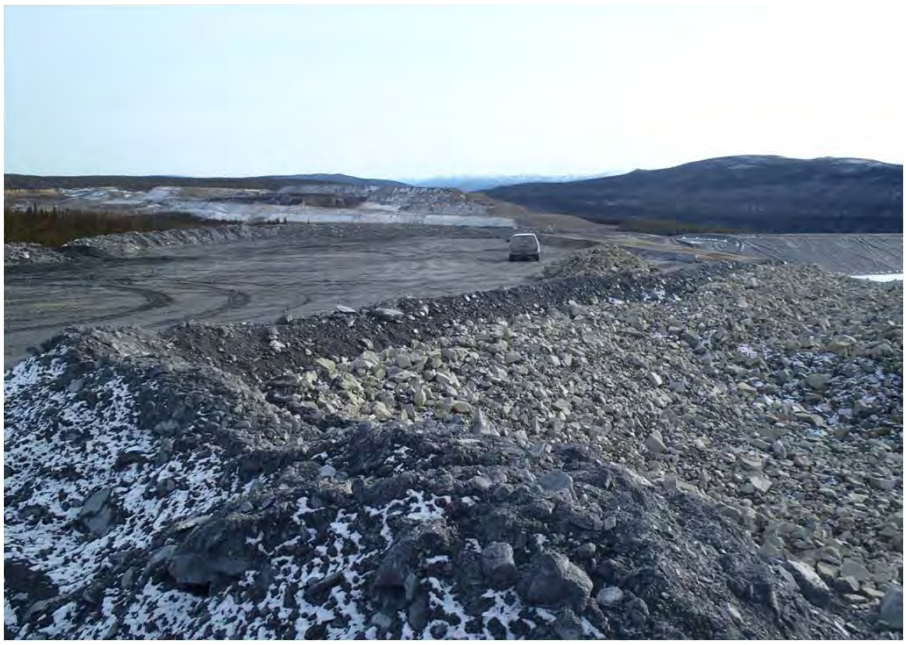
BGC ENGINEERING INC.
AN APPLIED EARTH SCIENCES COMPANY

Daily Site Log

Daily Construction – Progress Report

Date 2/10/2011 Shift Day
(DD MM YY)

Site Photos



Location: LDP and haul road Looking south
Comments: Berm around LDP and haul road finished

Location: Old outlet location Looking northeast
Comments: Half culvert removed and ramp smoothed off

APPENDIX E
LINER QA/QC DOCUMENTATION

CERTIFICATE OF ANALYSIS - SUMMARY

Texel, a division of ADS inc.
485 Des Erables, St-Elzear, Quebec, Canada, G0S 2J0
Tel: (418) 387-5910 Fax: (418) 387-4326 www.texel.qc.ca

Customer: Texel Inc.
Item code: FIN02534
Description: 918 03.50M PP WH 100M
Customer item:

PPS#: 27119
PO#: CP-1332
Lot #: 32221
Prod. date: August 2, 2011

	Specifications					Results Summary					
Caractéristique	**Unit**	**Method**	**Target**	**Min**	**Max**	**Average**	**Min**	**Max**	**Std dev**	**Cp**	**Cpk**
Elongation Instron - CD (Geo 4"x6")	%	ONGC 148.1 No7.3	90	70	110	86	79	95	3.75	N/A	N/A
Elongation Instron - MD (Geo 4"x6")	%	ONGC 148.1 No7.3	90	70	110	76	72	84	2.87	N/A	N/A
Thickness Geo - Mean (diam - 56.4mm)	mm	ASTM-D5199	N/A	3.50	N/A	3.91	3.70	4.00	0.14	N/A	N/A
FOS	µm	ONGC 148.1 No.10	N/A	40	110	65	65	65	0.00	N/A	N/A
Width	m	ASTM D461.9	3.50	3.47	3.53	3.50	3.50	3.50	0.00	N/A	N/A
Length	m	ASTM D461.8	100	100	101	100	100	100	0.00	N/A	N/A
Permeability	cm/s	ONGC 148.1 No.4	N/A	0.19	N/A	0.47	0.47	0.47	0.00	N/A	N/A
Permittivity	s-1	ONGC 148.1 No.4	N/A	0.41	N/A	1.10	1.10	1.10	0.00	N/A	N/A
Tear Strength - Moy CD (trapez)	N	ONGC 4.2 No.12.2	N/A	600	N/A	831	725	959	65.74	N/A	N/A
Tear Strength - Moy MD (trapez)	N	ONGC 4.2 No.12.2	N/A	600	N/A	735	643	876	56.75	N/A	N/A
Burst Strength - Mean (Mullen)	kPa	ONGC 4.2 No.11.1	N/A	3500	N/A	4030	3615	4300	175.57	N/A	N/A
Strength at Break - Mean CD (Geo - 4"x6")	N	ONGC 148.1 No7.3	N/A	1450	N/A	1553	1452	1776	91.9	N/A	N/A
Strength at Break - Mean MD (Geo - 4"x6")	N	ONGC 148.1 No7.3	N/A	1450	N/A	1577	1459	1758	76.77	N/A	N/A

Date issued: August 31, 2011
Issued by: Alain Dulac, Quality Assurance Service

Note:

CERTIFICATE OF ANALYSIS - SUMMARY

Texel, a division of ADS inc.
485 Des Erables, St-Elzear, Quebec, Canada, G0S 2J0
Tel: (418) 387-5910 Fax: (418) 387-4326 www.texel.qc.ca

Customer: Texel Inc.
Item code: FIN02534
Description: 918 03.50M PP WH 100M
Customer item:

PPS#: 27119
PO#: CP-1332
Lot #: 30897
Prod. date: May 26, 2011

	Specifications					Results Summary					
Caractéristique	**Unit**	**Method**	**Target**	**Min**	**Max**	**Average**	**Min**	**Max**	**Std dev**	**Cp**	**Cpk**
Elongation Instron - CD (Geo 4"x6")	%	ONGC 148.1 No7.3	90	70	110	86	84	89	2.23	N/A	N/A
Elongation Instron - MD (Geo 4"x6")	%	ONGC 148.1 No7.3	90	70	110	78	75	82	3.54	N/A	N/A
Thickness Geo - Mean (diam - 56.4mm)	mm	ASTM-D5199	N/A	3.50	N/A	4.08	3.65	4.30	0.38	N/A	N/A
FOS	µm	ONGC 148.1 No.10	N/A	40	110	65	65	65	0.00	N/A	N/A
Width	m	ASTM D461.9	3.50	3.47	3.53	3.50	3.50	3.50	0.00	N/A	N/A
Length	m	ASTM D461.8	100	100	101	100	100	100	0.00	N/A	N/A
Permeability	cm/s	ONGC 148.1 No.4	N/A	0.19	N/A	0.47	0.47	0.47	0.00	N/A	N/A
Permittivity	s-1	ONGC 148.1 No.4	N/A	0.41	N/A	1.10	1.10	1.10	0.00	N/A	N/A
Tear Strength - Moy CD (trapez)	N	ONGC 4.2 No.12.2	N/A	600	N/A	866	814	928	57.98	N/A	N/A
Tear Strength - Moy MD (trapez)	N	ONGC 4.2 No.12.2	N/A	600	N/A	804	742	883	71.72	N/A	N/A
Burst Strength - Mean (Mullen)	kPa	ONGC 4.2 No.11.1	N/A	3500	N/A	3982	3915	4015	57.74	N/A	N/A
Strength at Break - Mean CD (Geo - 4"x6")	N	ONGC 148.1 No7.3	N/A	1450	N/A	1558	1540	1589	27.19	N/A	N/A
Strength at Break - Mean MD (Geo - 4"x6")	N	ONGC 148.1 No7.3	N/A	1450	N/A	1490	1464	1529	34.06	N/A	N/A

Date issued: August 31, 2011
Issued by: Alain Dulac, Quality Assurance Service

Note:

PACKING SLIP

Number 209568_1

Date 30-Aug-2011

Sold To

WESTERN TANK AND LINING LTD.
12180 VICKERS WAY
RICHMOND BC
CANADA V6V 1H9

Tel. : (604) 241-9487

Contact : CLINT POWELL

Ship To

WESTERN TANK C/O DENISON ENV. SERVICES
**GRUM GATE*
SEE ALSO MAP ATTACHED
CALL 48 HRS PRIOR TO DELIVERY
FARO YT
CANADA *

Tel. : (867) 334-3711
Fax :
Contact : JON BRONSON

Customer Reference	Solmax order	Project Name	Freight Mode
PO# FP074	104484	Faro Mine-YT	FLATB

Part	Roll Number	Container	Dimensions		Surface Quantity	U/M	Weight (LBS)	Weight (KG)
			Width	Length				
SOLMAX 460ST-6012	1-91952	N/A	6.800	158.500	1,077.800	SQMT	3,732	1,693
SOLMAX 460ST-6012	1-92809	N/A	6.800	158.500	1,077.800	SQMT	3,694	1,676
SOLMAX 460ST-6012	1-92810	N/A	6.800	158.500	1,077.800	SQMT	3,704	1,680
SOLMAX 460ST-6012	1-92818	N/A	6.800	158.500	1,077.800	SQMT	3,716	1,686
SOLMAX 460ST-6012	1-92819	N/A	6.800	158.500	1,077.800	SQMT	3,710	1,683
SOLMAX 460ST-6012	1-92820	N/A	6.800	158.500	1,077.800	SQMT	3,704	1,680
SOLMAX 460ST-6012	1-92821	N/A	6.800	158.500	1,077.800	SQMT	3,708	1,682
		Total Part Code:	7	Pieces	7,544.60	SQMT	25,968	11,780
					Total Net Weight:		25,457	11,549

2801 BOUL. MARIE-VICTORIN Varennes
Quebec CANADA J3X1P7 Tel : 4509291234 • www.solmax.com

Certifications :
ISO 9001, 14001

PACKING SLIP

Number 209568_1

Date 30-Aug-2011

Sold To

WESTERN TANK AND LINING LTD.
12180 VICKERS WAY
RICHMOND BC
CANADA V6V 1H9

Tel. : (604) 241-9487

Contact : CLINT POWELL

Ship To

WESTERN TANK C/O DENISON ENV. SERVICES
**GRUM GATE*
SEE ALSO MAP ATTACHED
CALL 48 HRS PRIOR TO DELIVERY
FARO YT
CANADA *

Tel. : (867) 334-3711
Fax :
Contact : JON BRONSON

Customer Reference	Solmax order	Project Name	Freight Mode
PO# FP074	104484	Faro Mine-YT	FLATB

Part	Roll Number	Container	Dimensions		Surface Quantity	U/M	Weight (LBS)	Weight (KG)
			Width	Length				

NOTICE: Every roll must be individually unloaded with two (2) slings to prevent any risk of injury to the operator or equipment.

每卷必须有两（2）根吊索单独卸载，以防止对于操作工人或设备的任何潜在的伤害。

Dimensions May Vary +/- 1%

Pieces	Weight (LBS)	Weight (KG)
7	Gr : 25,968	Gr.: 11,780
	Net: 25,457	Net: 11,549

2801 BOUL. MARIE-VICTORIN Varennes
Quebec CANADA J3X1P7 Tel : 4509291234 • www.solmax.com

Certifications :
ISO 9001, 14001

Texel®

A DIVISION OF ADS INC.

1300, 2e Rue - Parc Industriel
Sainte-Marie, Qc
G6E 1G8
CANADA
Fax : (418) 387-4326
Phone :(418) 387-5910

PACKING LIST - Original -

Pick Slip Number - 27119

Page :	1/2
Date :	08/31/11
Order number :	SO - 82270
Customer order :	CP-1332
Shipped by :	CUEILLETTE PAR CLIENT
Delivery terms :	F.O.B. Plant - Collect
Blanket order no :	-
Customer service representative :	NADEAU JACYNTHE
Tracking number :	
Truck number :	0

R5542530A_PPSSTELZ2_1523520_PRINT_PD810_PROD_fsosa_tx

Ship To:

16698
WESTERN TANK & LINING LTD.
12180 VICKERS WAY
RICHMOND BC V6V 1H9
, ,
CANADA
Phone : 604 241-9487
Fax : 604 241-9485
ATT: ANDREW SANDERSON

ATTENTION EXPÉDITION: **MATERIEL DÉJA RAMASSÉ À VARENNES

Product code / Client's item	Description	Serial #	Customer QtyShipped	Customer OrderedQty	Stocking Qty Shipped	Stocking Weight
FIN02534	918 03.50M PP WH 100M	**22**	**7,700.000 M2**		**2,200.000 LM**	**3,304.500 KG**
	WF - 30897	L21702291	350.000 M2		100.000 LM	163.000 KG
	WO - 32221	L31701321	350.000 M2		100.000 LM	145.000 KG
	WO - 32221	L31701361	350.000 M2		100.000 LM	146.500 KG
	WO - 32221	L31701391	350.000 M2		100.000 LM	146.000 KG
	WO - 32221	L31701481	350.000 M2		100.000 LM	142.000 KG
	WO - 32221	L31702001	350.000 M2		100.000 LM	157.000 KG
	WO - 32221	L31702011	350.000 M2		100.000 LM	157.500 KG
	WO - 32221	L31702081	350.000 M2		100.000 LM	155.000 KG
	WO - 32221	L31702151	350.000 M2		100.000 LM	150.000 KG
	WO - 32221	L31702261	350.000 M2		100.000 LM	153.000 KG
	WO - 32221	L31702301	350.000 M2		100.000 LM	149.500 KG
	WO - 32221	L31702311	350.000 M2		100.000 LM	155.000 KG
	WO - 32221	L31702321	350.000 M2		100.000 LM	151.500 KG
	WO - 32221	L31702331	350.000 M2		100.000 LM	150.000 KG
	WO - 32221	L31702361	350.000 M2		100.000 LM	152.000 KG
	WO - 32221	L31702391	350.000 M2		100.000 LM	152.000 KG
	WO - 32221	L31702411	350.000 M2		100.000 LM	152.500 KG
	WO - 32221	L31702421	350.000 M2		100.000 LM	151.500 KG
	WO - 32221	L31702581	350.000 M2		100.000 LM	143.000 KG
	WO - 32221	L31702631	350.000 M2		100.000 LM	144.000 KG
	WO - 32221	L31702651	350.000 M2		100.000 LM	146.000 KG
	WO - 32221	L31702691	350.000 M2		100.000 LM	142.500 KG
	Total Line	**22**				

Stocking	Skid	Pkg.	Lenght	Width	Height
	0	22	0	0	0

Texel®

A DIVISION OF AGS INC.

1300, 2e Rue - Parc Industriel
Sainte-Marie, Qc
G6E 1G8
CANADA
Fax : (418) 387-4326
Phone :(418) 387-5910

PACKING LIST - Original -

Pick Slip Number - 27119

Page :	2/2
Date :	08/31/11
Order number :	SO - 82270
Customer order :	CP-1332
Shipped by :	CUEILLETTE PAR CLIENT
Delivery terms :	F.O.B. Plant - Collect
Blanket order no :	-
Customer service representative :	NADEAU JACYNTHE
Tracking number :	
Truck number :	0

R5542530A_PPSSTELZ2_1523520_PRINT_PD810_PROD_fsosa_tx

Ship To:

16698
WESTERN TANK & LINING LTD.
12180 VICKERS WAY
RICHMOND BC V6V 1H9
, ,
CANADA
Phone : 604 241-9487
Fax : 604 241-9485
ATT: ANDREW SANDERSON

Total	22	3,304.500	KG
		7,284.770	LB

Shipped from warehouse : Texel

Shipper : Texel inc.
Per : CLA1BAR
Date : 08/31/11

Carrier : _____
Per : _____
Date : _____

Short form of the bill of lading and issued at shipper's request
The shipper and the heavy vehicle operator hereby specifically agree that the minimum conditions under Schedules 1 and 2 of the Regulation respecting the requirements for bills of lading (O.C. 1198 October 20, 1999) apply to the conditions evidenced by this short form of lading.

2801, Boul. Marie-Victorin
Varennes, Quebec, Canada, J3X 1P7
Tel.: 1-450-929-1234
Tel.: 1-800-571-3904
Fax: 1-450-929-2547

List of Geomembrane Rolls

Solmax ACCEPTED Quality Department

Project Name : FARO MINE, YT
Project Number : PO# FP074
Reference Number : 104484
Invoice Number : 209568

Roll Number	Product Code	Resin Lot Number	Manufactured Date	SP-NCTL ASTM D5397 (hr) Specification	Result	Roll Tested
1-91952	SOLMAX 460ST-6012	C110130L04	17-avr-11	>400	500	1-91919
1-92809	SOLMAX 460ST-6012	C110203L02	31-mai-11	>400	500	1-92749
1-92810	SOLMAX 460ST-6012	C110203L02	31-mai-11	>400	500	1-92749
1-92818	SOLMAX 460ST-6012	C110203L02	01-juin-11	>400	500	1-92749
1-92819	SOLMAX 460ST-6012	C110203L02	01-juin-11	>400	500	1-92749
1-92820	SOLMAX 460ST-6012	C110203L02	01-juin-11	>400	500	1-92749
1-92821	SOLMAX 460ST-6012	C110203L02	01-juin-11	>400	500	1-92749

Quantity (rolls) : **7**

Resin Certification

Resin Lot	Melt index ASTM D1238 g/10min	Density ASTM D1505 g/cc	OIT ASTM D3895 min	HP-OIT ASTM D5885 min
C110130L04	0.162	0.937	120	N/A
C110203L02	0.139	0.937	120	N/A

INEOS
Olefins & Polymers USA
A Division of INEOS USA LLC

CERTIFICATE OF ANALYSIS

Selling Company:
INEOS Olefins & Polymers USA
A Division of INEOS USA LLC
2600 South Shore Blvd. Suite 500
LEAGUE CITY, Texas 77573
United States

Ship To:
SOLMAX INTERNATIONAL
2801 BOULEVARD MARIE VICTORIN
VARENNES QC J3X 1P7
CANADA
Contact: COA
Fax:
Sold To:
SOLMAX INTERNATIONAL

Delivery Doc Number/Item:	89142466/000010
Print Date / Time:	02/07/2011/08:10:05
Sales Order Number/Date:	5196417/ 01/11/2011
Customer PO Number/Date:	106850-0/
Shipment Date:	02/07/2011
Place of Dispatch:	2566 LaPorte TX-Battleground
Mode of Transport:	0007 Rail w/o rtnbol
Transport/Vehicle Number:	ELTX004088
Net Weight:	186,199.999 LB

Product Description: G36-10-150 PE PELLETS - BULK
Batch Number: C110130L04

Characteristic	Method	Result	Unit	Specifications Min	Specifications Max
MI 2.16 (1X)	ASTM D 1238	0.1620	g/10mn		
MI 21.6 (HLMI)	ASTM D 1238	13.30	g/10mn	10.50	14.50
DENSITY (NATURAL)	ASTM D4883-03	0.9374	G/CM3	0.9360	0.9390

Chantal Gagnon 2011.02.21 09:31:45 -05'00'

APPROVED BY: Quality Assurance Manager.
This certifies that the INEOS Polyethylene meets our specifications for the grade.

THIS REPORT CANNOT BE COPIED OR REPRODUCED EXCEPT IN FULL WITHOUT THE WRITTEN APPROVAL OF INEOS. RESULTS APPLY ONLY TO THE ITEMS TESTED. THIS DOCUMENT CONTAINS INFORMATION THAT MAY BE CONFIDENTIAL AND IS INTENDED ONLY FOR THE USE OF THE ADDRESSEE. USE OF THIS INFORMATION BY ANYONE ELSE IS STRICTLY PROHIBITED. IF YOU HAVE RECEIVED THIS IN ERROR, PLEASE NOTIFY US BY PHONE AT 1-800-527-5419.

INEOS
Olefins & Polymers USA
A Division of INEOS USA LLC

CERTIFICATE OF ANALYSIS

Selling Company:
INEOS Olefins & Polymers USA
A Division of INEOS USA LLC
2600 South Shore Blvd. Suite 500
LEAGUE CITY, Texas 77573
United States

Ship To:
SOLMAX INTERNATIONAL
2801 BOULEVARD MARIE VICTORIN
VARENNES QC J3X 1P7
CANADA
Contact: COA
Fax:
Sold To:
SOLMAX INTERNATIONAL

Delivery Doc Number/Item:	89142470/000010
Print Date / Time:	02/07/2011/08:15:05
Sales Order Number/Date:	5196421/ 01/11/2011
Customer PO Number/Date:	106850-0/
Shipment Date:	02/07/2011
Place of Dispatch:	2566 LaPorte TX-Battleground
Mode of Transport:	0007 Rail w/o rtnbol
Transport/Vehicle Number:	ELTX002059
Net Weight:	187,350.001 LB

Product Description: G36-10-150 PE PELLETS - BULK
Batch Number: C110203L02

Characteristic	Method	Result	Unit	Specifications Min	Specifications Max
MI 2.16 (1X)	ASTM D 1238	0.1390	g/10mn		
MI 21.6 (HLMI)	ASTM D 1238	12.90	g/10mn	10.50	14.50
DENSITY (NATURAL)	ASTM D4883-03	0.9370	G/CM3	0.9360	0.9390

Chantal Gagnon 2011.02.21 09:37:20 -05'00'

APPROVED BY: Quality Assurance Manager.
This certifies that the INEOS Polyethylene meets our specifications for the grade.

THIS REPORT CANNOT BE COPIED OR REPRODUCED EXCEPT IN FULL WITHOUT THE WRITTEN APPROVAL OF INEOS. RESULTS APPLY ONLY TO THE ITEMS TESTED. THIS DOCUMENT CONTAINS INFORMATION THAT MAY BE CONFIDENTIAL AND IS INTENDED ONLY FOR THE USE OF THE ADDRESSEE. USE OF THIS INFORMATION BY ANYONE ELSE IS STRICTLY PROHIBITED. IF YOU HAVE RECEIVED THIS IN ERROR, PLEASE NOTIFY US BY PHONE AT 1-800-527-5419.

SOLMAX INTERNATIONAL
2801, Boul. Marie-Victorin
Varennes, Quebec, Canada, J3X 1P7
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Tel.: 1-800-571-3904
Fax: 1-450-929-2547

Manufacturing Quality Control Test Results - Rolls

MF-CQ-11
Rev. 04/ 10-12-04

Solmax ACCEPTED Chantal Gagnon Quality Department

Project Name : FARO MINE, YT
Project Number : PO# FP074
Ref. Number : 104484 ***Invoice Number :*** 209568

Product : Solmax 460ST-6012

Properties		**Thickness ave / min.**	**Geomembrane Density**	**Carbon Black Content**	**Carbon Black Dispersion**	**Yield**		**Break**		**Tear Resistance**	**Puncture Resistance**	**Dimension. Stability**	**Asperity Height in / out**
						Strength	**Elong.**	**Strength**	**Elong.**				
Unit		mm	g/cc	%	Cat. 1 and Cat. 2	kN/m	%	kN/m	%	N	N	%	mm
Test Method		D5994	D1505/D792	D4218	D5596	D6693 Résistance tension (D 638, Type IV)				D1004	D4833	D1204	ASTM D-7466
Frequency		Each roll	1/2 ro	1/2 ro	1/6 ro	1/2 ro				1/6 ro	1/6 ro	1/6 ro	Each Roll
Specification		1.50 / 1.35	> 0.94	>2.5 / <3.0	Cat. 1 / Cat. 2	23	13	23	200	200	534	± 2	0.38
1-91952	MD	1.50 / 1.44	0.945	2.5	10 /10 Views	27.4	17.6	37.8	596	230	642	-0.48	0.45 /
	XD					28.7	15.1	33.8	577	221		0.04	
1-92809	MD	1.55 / 1.48	0.946	2.8	10 /10 Views	26.5	19.5	37.3	597	227	653	-0.49	0.43 /
	XD					28.5	16.6	34.1	576	216		0.09	
1-92810	MD	1.55 / 1.50	0.946	2.7	10 /10 Views	26.2	19.6	37.4	586	227	653	-0.49	0.43 /
	XD					28.6	16.1	31.5	522	216		0.09	
1-92818	MD	1.55 / 1.48	0.946	2.8	10 /10 Views	27.1	18.4	35.9	567	224	645	-0.31	0.45 /
	XD					28.2	15.9	35.2	584	214		-0.04	
1-92819	MD	1.53 / 1.49	0.946	2.8	10 /10 Views	27.1	18.4	35.9	567	224	645	-0.31	0.46 /
	XD					28.2	15.9	35.2	584	214		-0.04	
1-92820	MD	1.51 / 1.46	0.946	2.8	10 /10 Views	26.5	19.0	34.8	549	230	657	-0.35	0.44 /
	XD					28.5	16.2	31.9	459	220		0.00	
1-92821	MD	1.51 / 1.48	0.946	2.8	10 /10 Views	26.5	19.0	34.9	549	230	657	-0.35	0.45 /
	XD					28.5	16.2	31.9	459	220		0.00	

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Email: superiorplastic@shaw.ca

INSURING CONTINUAL PROTECTION FOR OUR ENVIRONMENT'S FUTURE

SUB-GRADE ACCEPTANCE

PROJECT:	FARO Run Off Pond	**LOCATION:**	Faro, YK
PROJECT #:	05-2011-047	**CONTRACTOR:**	Pelly Construction
OWNER:	Faro Mine / Yukon Government	**QA/QC:**	Fred Rudolph
ENGINEER:		**DATE:**	September 19,2011

This document certifies that on September 19,2011 , the project superintendant, Fred Rudolph ,for SUPERIOR PLASTIC SOLUTIONS INC has inspected the surface of the sub-grade and has found that it meets the installation of the geomembrane and geosynthetics as per engineer specifications.

SUPERIOR PLASTIC SOLUTIONS INC accepts only the surface of the sub-grade and holds no responsibility of the structural strength of the containment system used on this project. Any and all failure causing damage to the geomembranes and geosynthetics being installed on this project will be repaired or replaced at the General contractors or Owners expense.

SUPERIOR PLASTIC SOLUTIONS INC will only accept Sub-grade on a daily installation and will not be held accountable for any damages to Sub-grade out side our control.

Area Being Accepted:
IN ACCORDANCE WITH PANEL PLACEMENT LOG - PANEL 1 THRU PANEL 70.
THIS INCLUDES ONE LARGE COLLECTION POND, I NEW DRAINAGE SWALE THAT COMES FROM A SMALLER SEDIMENT COLLECTION POND, ONE OVER FLOW SWALE, AND SMALL POND WHICH TIE'S INTO TWO EXISITING SWALES.

SUPERIOR PLASTIC SOLUTIONS INC	**GENERAL CONTRACTOR, OWNER REPRESENTITIVE**
SEPT 20 2011	
DATE	**DATE**

SUPERIOR PLASTIC SOLUTIONS INC

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INSURING CONTINUAL PROTECTION FOR OUR ENVIRONMENT'S FUTURE

CERTIFICATE OF COMPLETION

PROJECT:	FARO Run Off Pond	**LOCATION:**	Faro, YK
PROJECT #:	05-2011-047	**CONTRACTOR:**	Pelly Construction
OWNER:	Faro Mine / Yukon Government	**QA/QC:**	Fred Rudolph
ENGINEER:		**DATE:**	

This document certifies that on SEPTEMBER 27,2011 , the project superintendant, FRED RUDOLPH ,for SUPERIOR PLASTIC SOLUTIONS INC has inspected the surface of the Liner and has found that it meets the installation of the geomembrane and geosynthetics as per engineer specifications.

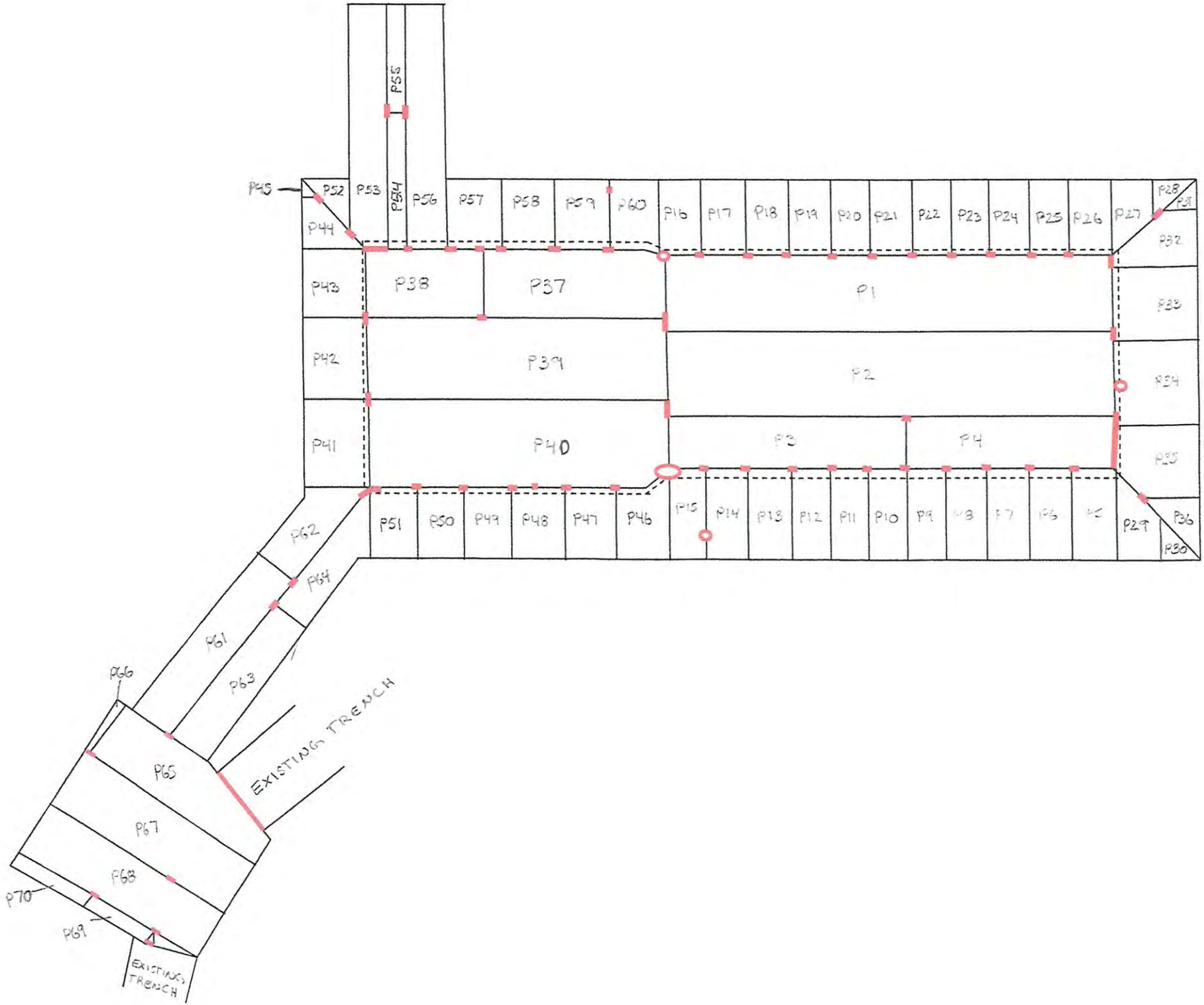
Area Being Accepted:

INSTALLATION OF 12450 M/SQ 12 OZ + NON WOVEN GEOTEXTILE.
INSTALLATION OF 8100 M/SQ 60 MIL HDPE SINGLE SIDED TEXTURED LINER
COMPLETION OF TWO (2) PONDS
COMPLETION OF TWO DRAINAGE SWALES.
ATTACHMENT OF NEW LINER TO EXISTING LINER.
ALL QC DOCUMENT COMPLETED AND INSTALLED AS PER IAGI SPECIFICATIONS.

SUPERIOR PLASTIC SOLUTIONS INC — **GENERAL CONTRACTOR, OWNER REPRESENTITIVE**

SEPT 28/2011 — **DATE**

DATE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EXISTING TRENCH

SUPERIOR PLASTIC SOLUTIONS INC

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INSURING CONTINUAL PROTECTION FOR OUR ENVIRONMENT'S FUTURE

PANEL PLACEMENT LOG

PROJECT: FARO Run Off Pond
LOCATION: Faro, YK
PROJECT #: 05-2011-047
CONTRACTOR: Pelly Construction
OWNER: Faro Mine / Yukon Government
QA/QC: Fred Rudolph
ENGINEER:

PANEL #	TYPE OF MATERIAL	ROLL NUMBER	LENGTH	WIDTH	AREA	INSTALLATION DATE
1	60 MIL HDPE TEXT	821	256	22.5	5760	SEPTEMBER 20,2011
2	60 MIL HDPE TEXT	821	256	22.5	5760	SEPTEMBER 20,2011
3	60 MIL HDPE TEXT	818	128	11	1408	SEPTEMBER 20,2011
4	60 MIL HDPE TEXT	818	128	11	1408	SEPTEMBER 20,2011
5	60 MIL HDPE TEXT	818	51	22.5	1147.5	SEPTEMBER 21,2011
6	60 MIL HDPE TEXT	818	51	22.5	1147.5	SEPTEMBER 21,2011
7	60 MIL HDPE TEXT	818	51	22.5	1147.5	SEPTEMBER 21,2011
8	60 MIL HDPE TEXT	818	51	22.5	1147.5	SEPTEMBER 21,2011
9	60 MIL HDPE TEXT	818	51	22.5	1147.5	SEPTEMBER 21,2011
10	60 MIL HDPE TEXT	818	51	22.5	1147.5	SEPTEMBER 21,2011
11	60 MIL HDPE TEXT	818	51	22.5	1147.5	SEPTEMBER 21,2011
12	60 MIL HDPE TEXT	818	51	22.5	1147.5	SEPTEMBER 21,2011
13	60 MIL HDPE TEXT	810	51	22.5	1147.5	SEPTEMBER 21,2011
14	60 MIL HDPE TEXT	810	51	22.5	1147.5	SEPTEMBER 21,2011
15	60 MIL HDPE TEXT	810	51	22.5	1147.5	SEPTEMBER 21,2011
16	60 MIL HDPE TEXT	810	49	22.5	1102.5	SEPTEMBER 22,2011
17	60 MIL HDPE TEXT	810	49	22.5	1102.5	SEPTEMBER 22,2011
18	60 MIL HDPE TEXT	810	49	22.5	1102.5	SEPTEMBER 22,2011
19	60 MIL HDPE TEXT	810	49	22.5	1102.5	SEPTEMBER 22,2011
20	60 MIL HDPE TEXT	810	49	22.5	1102.5	SEPTEMBER 22,2011
21	60 MIL HDPE TEXT	810	49	22.5	1102.5	SEPTEMBER 22,2011
22	60 MIL HDPE TEXT	810	49	22.5	1102.5	SEPTEMBER 22,2011
23	60 MIL HDPE TEXT	820	49	22.5	1102.5	SEPTEMBER 22,2011
24	60 MIL HDPE TEXT	820	49	22.5	1102.5	SEPTEMBER 22,2011
25	60 MIL HDPE TEXT	820	49	22.5	1102.5	SEPTEMBER 22,2011
26	60 MIL HDPE TEXT	820	49	22.5	1102.5	SEPTEMBER 22,2011
27	60 MIL HDPE TEXT	820	40	22.5	900	SEPTEMBER 22,2011
28	60 MIL HDPE TEXT	820	19	22.5	427.5	SEPTEMBER 22,2011
29	60 MIL HDPE TEXT	820	42	22.5	945	SEPTEMBER 22,2011
30	60 MIL HDPE TEXT	820	21	2.5	52.5	SEPTEMBER 22,2011
				TOTAL	41411	SQ/FT
					3849	SQ/M

SUPERIOR PLASTIC SOLUTIONS INC

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INSURING CONTINUAL PROTECTION FOR OUR ENVIRONMENT'S FUTURE

PANEL PLACEMENT LOG

PROJECT: FARO Run Off Pond
LOCATION: Faro, YK
PROJECT #: 05-2011-047
CONTRACTOR: Pelly Construction
OWNER: Faro Mine / Yukon Government
QA/QC: Fred Rudolph
ENGINEER:

PANEL #	TYPE OF MATERIAL	ROLL NUMBER	LENGTH	WIDTH	AREA	INSTALLATION DATE
31	60 MIL HDPE TEXT	821	16	22.5	360	SEPTEMBER 22,2011
32	60 MIL HDPE TEXT	821	49	22.5	1102.5	SEPTEMBER 22,2011
33	60 MIL HDPE TEXT	818	54	22.5	1215	SEPTEMBER 22,2011
34	60 MIL HDPE TEXT	818	54	22.5	1215	SEPTEMBER 22,2011
35	60 MIL HDPE TEXT	818	54	22.5	1215	SEPTEMBER 22,2011
36	60 MIL HDPE TEXT	818	54	22.5	1215	SEPTEMBER 22,2011
37	60 MIL HDPE TEXT	818	59	22.5	1327.5	SEPTEMBER 23,2011
38	60 MIL HDPE TEXT	818	76	22.5	1710	SEPTEMBER 23,2011
39	60 MIL HDPE TEXT	818	135	22.5	3037.5	SEPTEMBER 23,2011
40	60 MIL HDPE TEXT	818	135	22.5	3037.5	SEPTEMBER 23,2011
41	60 MIL HDPE TEXT	818	44	22.5	990	SEPTEMBER 24,2011
42	60 MIL HDPE TEXT	818	44	22.5	990	SEPTEMBER 24,2011
43	60 MIL HDPE TEXT	810	44	22.5	990	SEPTEMBER 24,2011
44	60 MIL HDPE TEXT	810	31	22.5	697.5	SEPTEMBER 24,2011
45	60 MIL HDPE TEXT	810	14	22.5	315	SEPTEMBER 24,2011
46	60 MIL HDPE TEXT	810	53	22.5	1192.5	SEPTEMBER 24,2011
47	60 MIL HDPE TEXT	810	45	22.5	1012.5	SEPTEMBER 24,2011
48	60 MIL HDPE TEXT	810	45	22.5	1012.5	SEPTEMBER 24,2011
49	60 MIL HDPE TEXT	810	45	22.5	1012.5	SEPTEMBER 24,2011
50	60 MIL HDPE TEXT	810	45	22.5	1012.5	SEPTEMBER 24,2011
51	60 MIL HDPE TEXT	810	45	22.5	1012.5	SEPTEMBER 24,2011
52	60 MIL HDPE TEXT	809	22	22.5	495	SEPTEMBER 25,2011
53	60 MIL HDPE TEXT	809	112	22.5	2520	SEPTEMBER 25,2011
54	60 MIL HDPE TEXT	809	56	11	616	SEPTEMBER 25,2011
55	60 MIL HDPE TEXT	809	56	11	616	SEPTEMBER 25,2011
56	60 MIL HDPE TEXT	809	112	22.5	2520	SEPTEMBER 25,2011
57	60 MIL HDPE TEXT	819	44	22.5	990	SEPTEMBER 25,2011
58	60 MIL HDPE TEXT	819	44	22.5	990	SEPTEMBER 25,2011
59	60 MIL HDPE TEXT	819	44	22.5	990	SEPTEMBER 25,2011
60	60 MIL HDPE TEXT	819	44	22.5	990	SEPTEMBER 25,2011
				TOTAL	36400	SQ/FT
					3383	SQ/M

SUPERIOR PLASTIC SOLUTIONS INC

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INSURING CONTINUAL PROTECTION FOR OUR ENVIRONMENT'S FUTURE

PANEL PLACEMENT LOG

PROJECT: FARO Run Off Pond
LOCATION: Faro, YK
PROJECT #: 05-2011-047
CONTRACTOR: Pelly Construction
OWNER: Faro Mine / Yukon Government
QA/QC: Fred Rudolph
ENGINEER:

PANEL #	TYPE OF MATERIAL	ROLL NUMBER	LENGTH	WIDTH	AREA	INSTALLATION DATE
61	60 MIL HDPE TEXT	108153025	69	22.5	1552.5	SEPTEMBER 26,2011
61	60 MIL HDPE TEXT	108153063	47	22.5	1057.5	SEPTEMBER 26,2011
62	60 MIL HDPE TEXT	108153103	57	22.5	1282.5	SEPTEMBER 26,2011
64	60 MIL HDPE TEXT	108153033	59	22.5	1327.5	SEPTEMBER 26,2011
65	60 MIL HDPE TEXT	819	74	22.5	1665	SEPTEMBER 27,2011
66	60 MIL HDPE TEXT	819	8	22.5	180	SEPTEMBER 27,2011
67	60 MIL HDPE TEXT	819	78	22.5	1755	SEPTEMBER 27,2011
68	60 MIL HDPE TEXT	819	78	22.5	1755	SEPTEMBER 27,2011
69	60 MIL HDPE TEXT	819	22	7	154	SEPTEMBER 27,2011
70	60 MIL HDPE TEXT	819	22	7	154	SEPTEMBER 27,2011
					10883	SQ/FT
					1011	SQ/M

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INSURING CONTINUAL PROTECTION FOR OUR ENVIRONMENT'S FUTURE

WEDGE WELDER QUALIFICATION

PROJECT: FARO Run Off Pond
PROJECT #: 05-2011-047
OWNER: Faro Mine / Yukon Government
ENGINEER:

LOCATION: Faro, YK
CONTRACTOR: Pelly Construction
QA/QC: Fred Rudolph
DATE: September 20,2011

SAMPLE #	AMBIENT TEMP	SHEET TEMP	UNIT #	TECHNICIAN	TEMP	SPEED	MATERIALS USED
	0 C	0 C	DT19	FR	750	500	60 MIL HDPE TEXTURE

PEEL

COUPON	TYPE OF BREAK	STRENGTH		TYPE OF BREAK	STRENGTH	COMMENTS
1	FTB	136		FTB	141	PASS
2	FTB	142		FTB	151	PASS
3	FTB	130		FTB	151	PASS
4	FTB	132		FTB	146	PASS
5	FTB	142		FTB	154	PASS

SHEAR

COUPON	ELONGATION	STRENGTH	COMMENTS
1	200%	207	PASS
2	200%	210	PASS

PASS/FAIL PASS
Q.C. FRED RUDOLPH
Q.C REP

SUPERIOR PLASTIC SOLUTIONS INC

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T8N 5X6
Phone: 780-908-8692
Fax: 780-651-0772
Email: superiorplastic@shaw.ca

INSURING CONTINUAL PROTECTION FOR OUR ENVIRONMENT'S FUTURE

WEDGE WELDER QUALIFICATION

PROJECT: FARO Run Off Pond
PROJECT #: 05-2011-047
OWNER: Faro Mine / Yukon Government
ENGINEER:

LOCATION: Faro, YK
CONTRACTOR: Pelly Construction
QA/QC: Fred Rudolph
DATE: September 21,2011

SAMPLE #	AMBIENT TEMP	SHEET TEMP	UNIT #	TECHNICIAN	TEMP	SPEED	MATERIALS USED
	1 C	1 C	DT19	FR	750	500	60 MIL HDPE TEXTURE

PEEL

COUPON	TYPE OF BREAK	STRENGTH		TYPE OF BREAK	STRENGTH	COMMENTS
1	FTB	127		FTB	131	PASS
2	FTB	137		FTB	130	PASS
3	FTB	145		FTB	139	PASS
4	FTB	132		FTB	135	PASS
5	FTB	154		FTB	148	PASS

SHEAR

COUPON	ELONGATION	STRENGTH	COMMENTS
1	200%	198	PASS
2	200%	192	PASS

PASS/FAIL PASS
Q.C. FRED RUDOLPH
Q.C REP

SUPERIOR PLASTIC SOLUTIONS INC

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INSURING CONTINUAL PROTECTION FOR OUR ENVIRONMENT'S FUTURE

WEDGE WELDER QUALIFICATION

PROJECT: FARO Run Off Pond
PROJECT #: 05-2011-047
OWNER: Faro Mine / Yukon Government
ENGINEER:

LOCATION: Faro, YK
CONTRACTOR: Pelly Construction
QA/QC: Fred Rudolph
DATE: September 22,2011

SAMPLE #	AMBIENT TEMP	SHEET TEMP	UNIT #	TECHNICIAN	TEMP	SPEED	MATERIALS USED
	-1	-1	DT19	FR	750	500	60 MIL HDPE TEXTURE

PEEL

COUPON	TYPE OF BREAK	STRENGTH		TYPE OF BREAK	STRENGTH	COMMENTS
1	FTB	133		FTB	125	PASS
2	FTB	146		FTB	153	PASS
3	FTB	152		FTB	155	PASS
4	FTB	146		FTB	153	PASS
5	FTB	149		FTB	141	PASS

SHEAR

COUPON	ELONGATION	STRENGTH	COMMENTS
1	200%	214	PASS
2	200%	204	PASS

PASS/FAIL PASS
Q.C. FRED RUDOLPH
Q.C REP

SUPERIOR PLASTIC SOLUTIONS INC

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INSURING CONTINUAL PROTECTION FOR OUR ENVIRONMENT'S FUTURE

WEDGE WELDER QUALIFICATION

PROJECT: FARO Run Off Pond
PROJECT #: 05-2011-047
OWNER: Faro Mine / Yukon Government
ENGINEER:

LOCATION: Faro, YK
CONTRACTOR: Pelly Construction
QA/QC: Fred Rudolph
DATE: September 23,2011

SAMPLE #	AMBIENT TEMP	SHEET TEMP	UNIT #	TECHNICIAN	TEMP	SPEED	MATERIALS USED
	-2	-2	DT19	FR	750	500	60 MIL HDPE TEXTURE

PEEL

COUPON	TYPE OF BREAK	STRENGTH		TYPE OF BREAK	STRENGTH	COMMENTS
1	FTB	151		FTB	138	PASS
2	FTB	131		FTB	141	PASS
3	FTB	140		FTB	148	PASS
4	FTB	141		FTB	150	PASS
5	FTB	146		FTB	136	PASS

SHEAR

COUPON	ELONGATION	STRENGTH	COMMENTS
1	200%	194	PASS
2	200%	197	PASS

PASS/FAIL PASS
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WEDGE WELDER QUALIFICATION

PROJECT: FARO Run Off Pond
PROJECT #: 05-2011-047
OWNER: Faro Mine / Yukon Government
ENGINEER:

LOCATION: Faro, YK
CONTRACTOR: Pelly Construction
QA/QC: Fred Rudolph
DATE: September 24,2011

SAMPLE #	AMBIENT TEMP	SHEET TEMP	UNIT #	TECHNICIAN	TEMP	SPEED	MATERIALS USED
	-3	-3	DT19	FR	750	500	60 MIL HDPE TEXTURE

PEEL

COUPON	TYPE OF BREAK	STRENGTH		TYPE OF BREAK	STRENGTH	COMMENTS
1	FTB	148		FTB	148	PASS
2	FTB	138		FTB	125	PASS
3	FTB	142		FTB	134	PASS
4	FTB	134		FTB	149	PASS
5	FTB	146		FTB	138	PASS

SHEAR

COUPON	ELONGATION	STRENGTH	COMMENTS
1	200%	190	PASS
2	200%	195	PASS

PASS/FAIL PASS
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WEDGE WELDER QUALIFICATION

PROJECT: FARO Run Off Pond
PROJECT #: 05-2011-047
OWNER: Faro Mine / Yukon Government
ENGINEER:

LOCATION: Faro, YK
CONTRACTOR: Pelly Construction
QA/QC: Fred Rudolph
DATE: September 25,2011

SAMPLE #	AMBIENT TEMP	SHEET TEMP	UNIT #	TECHNICIAN	TEMP	SPEED	MATERIALS USED
	0	0	DT19	FR	750	500	60 MIL HDPE TEXTURE

PEEL

COUPON	TYPE OF BREAK	STRENGTH		TYPE OF BREAK	STRENGTH	COMMENTS
1	FTB	123		FTB	127	PASS
2	FTB	117		FTB	129	PASS
3	FTB	127		FTB	133	PASS
4	FTB	123		FTB	137	PASS
5	FTB	143		FTB	138	PASS

SHEAR

COUPON	ELONGATION	STRENGTH	COMMENTS
1	200%	201	PASS
2	200%	200	PASS

PASS/FAIL PASS
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WEDGE WELDER QUALIFICATION

PROJECT: FARO Run Off Pond
PROJECT #: 05-2011-047
OWNER: Faro Mine / Yukon Government
ENGINEER:

LOCATION: Faro, YK
CONTRACTOR: Pelly Construction
QA/QC: Fred Rudolph
DATE: September 26,2011

SAMPLE #	AMBIENT TEMP	SHEET TEMP	UNIT #	TECHNICIAN	TEMP	SPEED	MATERIALS USED
	-4	-4	DT19	FR	750	500	60 MIL HDPE TEXTURE

PEEL

COUPON	TYPE OF BREAK	STRENGTH		TYPE OF BREAK	STRENGTH	COMMENTS
1	FTB	158		FTB	145	PASS
2	FTB	139		FTB	138	PASS
3	FTB	141		FTB	151	PASS
4	FTB	151		FTB	141	PASS
5	FTB	162		FTB	134	PASS

SHEAR

COUPON	ELONGATION	STRENGTH	COMMENTS
1	200%	198	PASS
2	200%	205	PASS

PASS/FAIL PASS
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WEDGE WELDER QUALIFICATION

PROJECT: FARO Run Off Pond
PROJECT #: 05-2011-047
OWNER: Faro Mine / Yukon Government
ENGINEER:

LOCATION: Faro, YK
CONTRACTOR: Pelly Construction
QA/QC: Fred Rudolph
DATE: September 27,2011

SAMPLE #	AMBIENT TEMP	SHEET TEMP	UNIT #	TECHNICIAN	TEMP	SPEED	MATERIALS USED
	-3	-3	DT19	FR	750	500	60 MIL HDPE TEXTURE

PEEL

COUPON	TYPE OF BREAK	STRENGTH		TYPE OF BREAK	STRENGTH	COMMENTS
1	FTB	134		FTB	136	PASS
2	FTB	131		FTB	137	PASS
3	FTB	135		FTB	145	PASS
4	FTB	135		FTB	136	PASS
5	FTB	131		FTB	122	PASS

SHEAR

COUPON	ELONGATION	STRENGTH	COMMENTS
1	200%	199	PASS
2	200%	191	PASS

PASS/FAIL PASS
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INSURING CONTINUAL PROTECTION FOR OUR ENVIRONMENT'S FUTURE

EXTRUSION WELDER QUALIFICATION

PROJECT: FARO Run Off Pond
PROJECT #: 05-2011-047
OWNER: Faro Mine / Yukon Government
ENGINEER:

LOCATION: Faro, YK
CONTRACTOR: Pelly Construction
QA/QC: Fred Rudolph
DATE: September 21,2011

SAMPLE #	AMBIENT TEMP	SHEET TEMP	UNIT #	TECHNICIAN	BARREL TEMP	PRE HEAT	MATERIALS USED
	4	4	DT 26	JM	470 F	475 F	60 MIL HDPE TEXTURED

PEEL

COUPON	TYPE OF BREAK	STRENGTH	COMMENTS
1	FTB	101	PASS
2	FTB	95	PASS
3	FTB	116	PASS
4	FTB	106	PASS
5	FTB	100	PASS

SHEAR

COUPON	ELONGATION	STRENGTH	COMMENTS
1	200%	161	PASS
2	200%	172	PASS

PASS/FAIL PASS
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INSURING CONTINUAL PROTECTION FOR OUR ENVIRONMENT'S FUTURE

EXTRUSION WELDER QUALIFICATION

PROJECT: FARO Run Off Pond
PROJECT #: 05-2011-047
OWNER: Faro Mine / Yukon Government
ENGINEER:

LOCATION: Faro, YK
CONTRACTOR: Pelly Construction
QA/QC: Fred Rudolph
DATE: September 23,2011

SAMPLE #	AMBIENT TEMP	SHEET TEMP	UNIT #	TECHNICIAN	BARREL TEMP	PRE HEAT	MATERIALS USED
	1	1	DT 26	JM	490 F	500 F	60 MIL HDPE TEXTURED

PEEL

COUPON	TYPE OF BREAK	STRENGTH	COMMENTS
1	FTB	141	PASS
2	FTB	146	PASS
3	FTB	154	PASS
4	FTB	168	PASS
5	FTB	163	PASS

SHEAR

COUPON	ELONGATION	STRENGTH	COMMENTS
1	200%	178	PASS
2	200%	192	PASS

PASS/FAIL PASS
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EXTRUSION WELDER QUALIFICATION

PROJECT: FARO Run Off Pond
PROJECT #: 05-2011-047
OWNER: Faro Mine / Yukon Government
ENGINEER:

LOCATION: Faro, YK
CONTRACTOR: Pelly Construction
QA/QC: Fred Rudolph
DATE: September 23,2011

SAMPLE #	AMBIENT TEMP	SHEET TEMP	UNIT #	TECHNICIAN	BARREL TEMP	PRE HEAT	MATERIALS USED
	3	3	DT 26	JM	490 F	500 F	60 MIL HDPE TEXTURED

PEEL

COUPON	TYPE OF BREAK	STRENGTH	COMMENTS
1	FTB	126	PASS
2	FTB	123	PASS
3	FTB	126	PASS
4	FTB	117	PASS
5	FTB	105	PASS

SHEAR

COUPON	ELONGATION	STRENGTH	COMMENTS
1	200%	189	PASS
2	200%	206	PASS

PASS/FAIL PASS
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EXTRUSION WELDER QUALIFICATION

PROJECT: FARO Run Off Pond
PROJECT #: 05-2011-047
OWNER: Faro Mine / Yukon Government
ENGINEER:

LOCATION: Faro, YK
CONTRACTOR: Pelly Construction
QA/QC: Fred Rudolph
DATE: September 24,2011

SAMPLE #	AMBIENT TEMP	SHEET TEMP	UNIT #	TECHNICIAN	BARREL TEMP	PRE HEAT	MATERIALS USED
	-1	-1	DT 26	JM	490 F	500 F	60 MIL HDPE TEXTURED

PEEL

COUPON	TYPE OF BREAK	STRENGTH	COMMENTS
1	FTB	106	PASS
2	FTB	126	PASS
3	FTB	130	PASS
4	FTB	132	PASS
5	FTB	120	PASS

SHEAR

COUPON	ELONGATION	STRENGTH	COMMENTS
1	200%	193	PASS
2	200%	196	PASS

PASS/FAIL PASS
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EXTRUSION WELDER QUALIFICATION

PROJECT: FARO Run Off Pond
PROJECT #: 05-2011-047
OWNER: Faro Mine / Yukon Government
ENGINEER:

LOCATION: Faro, YK
CONTRACTOR: Pelly Construction
QA/QC: Fred Rudolph
DATE: September 25,2011

SAMPLE #	AMBIENT TEMP	SHEET TEMP	UNIT #	TECHNICIAN	BARREL TEMP	PRE HEAT	MATERIALS USED
	-1	-1	DT 26	JM	490 F	500 F	60 MIL HDPE TEXTURED

PEEL

COUPON	TYPE OF BREAK	STRENGTH	COMMENTS
1	FTB	106	PASS
2	FTB	116	PASS
3	FTB	123	PASS
4	FTB	139	PASS
5	FTB	127	PASS

SHEAR

COUPON	ELONGATION	STRENGTH	COMMENTS
1	200%	196	PASS
2	200%	197	PASS

PASS/FAIL PASS
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EXTRUSION WELDER QUALIFICATION

PROJECT: FARO Run Off Pond
PROJECT #: 05-2011-047
OWNER: Faro Mine / Yukon Government
ENGINEER:

LOCATION: Faro, YK
CONTRACTOR: Pelly Construction
QA/QC: Fred Rudolph
DATE: September 26,2011

SAMPLE #	AMBIENT TEMP	SHEET TEMP	UNIT #	TECHNICIAN	BARREL TEMP	PRE HEAT	MATERIALS USED
	-4	-4	DT 26	JM	490 F	500 F	60 MIL HDPE TEXTURED

PEEL

COUPON	TYPE OF BREAK	STRENGTH	COMMENTS
1	FTB	124	PASS
2	FTB	132	PASS
3	FTB	115	PASS
4	FTB	118	PASS
5	FTB	138	PASS

SHEAR

COUPON	ELONGATION	STRENGTH	COMMENTS
1	200%	178	PASS
2	200%	184	PASS

PASS/FAIL PASS
Q.C. FRED RUDOLPH
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INSURING CONTINUAL PROTECTION FOR OUR ENVIRONMENT'S FUTURE

EXTRUSION WELDER QUALIFICATION

PROJECT: FARO Run Off Pond
PROJECT #: 05-2011-047
OWNER: Faro Mine / Yukon Government
ENGINEER:

LOCATION: Faro, YK
CONTRACTOR: Pelly Construction
QA/QC: Fred Rudolph
DATE: September 27,2011

SAMPLE #	AMBIENT TEMP	SHEET TEMP	UNIT #	TECHNICIAN	BARREL TEMP	PRE HEAT	MATERIALS USED
	-3	-3	DT 26	JM	490 F	500 F	60 MIL HDPE TEXTURED

PEEL

COUPON	TYPE OF BREAK	STRENGTH	COMMENTS
1	FTB	125	PASS
2	FTB	118	PASS
3	FTB	126	PASS
4	FTB	126	PASS
5	FTB	125	PASS

SHEAR

COUPON	ELONGATION	STRENGTH	COMMENTS
1	200%	184	PASS
2	200%	192	PASS

PASS/FAIL PASS
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Q.C REP

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INSURING CONTINUAL PROTECTION FOR OUR ENVIRONMENT'S FUTURE

SEAM PRESSURE TEST LOG

PROJECT: FARO Run Off Pond
LOCATION: Faro, YK
PROJECT #: 05-2011-047
CONTRACTOR: Pelly Construction
OWNER: Faro Mine / Yukon Government
QA/QC: Fred Rudolph
ENGINEER:
DATE: 2011

						PRESSURE		TIME		
SEAM #	WELD DATE	TECH	TEST DATE	TEST TYPE	TECH	START	END	START	FINISH	COMMENT
P1/P2	Sep-20	FR	Sep-22	ATP	FR	48	48	1:45	1:50	
P2/P3	Sep-20	FR	Sep-22	ATP	FR	50	49	1:28	1:33	
P2/P4	Sep-20	FR	Sep-22	ATP	FR	55	52	1:40	1:45	
P3/P4	Sep-20	FR	Sep-22	ATP	FR	46	46	1:38	1:43	CROSS SEAM
P5/P6	Sep-21	FR	Sep-22	ATP	FR	50	49	1:18	1:23	
P6/P7	Sep-21	FR	Sep-22	ATP	FR	52	52	1:17	1:22	
P7/P8	Sep-21	FR	Sep-22	ATP	FR	56	56	1:16	1:21	
P8/P9	Sep-21	FR	Sep-22	ATP	FR	56	55	1:15	1:20	
P9/P10	Sep-21	FR	Sep-22	ATP	FR	58	57	1:12	1:17	
P10/P11	Sep-21	FR	Sep-22	ATP	FR	52	51	1:09	1:14	
P11/P12	Sep-21	FR	Sep-22	ATP	FR	56	55	1:06	1:11	
P12/P13	Sep-21	FR	Sep-22	ATP	FR	49	48	1:07	1:12	
P13/P14	Sep-21	FR	Sep-22	ATP	FR	52	50	1:06	1:11	
P14/P15	Sep-21	FR	Sep-22	ATP	FR	44	44	1:04	1:09	ANCHOR TRENCH TO R1
P14/P15	Sep-21	FR	Sep-22	ATP	FR	43	43	2:44	2:49	R1 TO TIE IN SEAM
P4/P5	Sep-21	FR	Sep-22	ATP	FR	40	40	1:21	1:26	TIE IN SEAM 1
P4/P6	Sep-21	FR	Sep-22	ATP	FR	49	48	1:22	1:27	TIE IN SEAM 1
P4/P7	Sep-21	FR	Sep-22	ATP	FR	48	48	1:23	1:28	TIE IN SEAM 1
P4/P8	Sep-21	FR	Sep-22	ATP	FR	51	51	1:41	1:46	TIE IN SEAM 1
P4/P9	Sep-21	FR	Sep-22	ATP	FR	43	41	1:42	1:47	TIE IN SEAM 1
P4/P10	Sep-21	FR	Sep-22	ATP	FR	49	46	1:37	1:42	TIE IN SEAM 1
P3/P11	Sep-21	FR	Sep-22	ATP	FR	43	41	1:40	1:45	TIE IN SEAM 1
P3/P12	Sep-21	FR	Sep-22	ATP	FR	48	48	12:56	1:01	TIE IN SEAM 1
P3/P13	Sep-21	FR	Sep-22	ATP	FR	57	56	12:58	1:03	TIE IN SEAM 1
P3/P14	Sep-21	FR	Sep-22	ATP	FR	49	48	12:54	12:59	TIE IN SEAM 1
P3/P15	Sep-21	FR	Sep-22	ATP	FR	51	51	12:54	12:59	TIE IN SEAM 1
P16/P17	Sep-22	FR	Sep-23	ATP	FR	54	53	1:22	1:27	
P17/P18	Sep-22	FR	Sep-23	ATP	FR	48	47	1:23	1:28	
P18/P19	Sep-22	FR	Sep-23	ATP	FR	51	51	1:23	1:23	
P19/P20	Sep-22	FR	Sep-23	ATP	FR	49	48	1:23	1:28	

PASS/FAIL _____
Q.C. _____
Q.C REP _____

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INSURING CONTINUAL PROTECTION FOR OUR ENVIRONMENT'S FUTURE

SEAM PRESSURE TEST LOG

PROJECT: FARO Run Off Pond
PROJECT #: 05-2011-047
OWNER: Faro Mine / Yukon Government
ENGINEER:

LOCATION: Faro, YK
CONTRACTOR: Pelly Construction
QA/QC: Fred Rudolph
DATE: 2011

						PRESSURE		TIME		
SEAM #	WELD DATE	TECH	TEST DATE	TEST TYPE	TECH	START	END	START	FINISH	COMMENT
P20/P21	Sep-22	FR	Sep-23	ATP	FR	46	46	1:30	1:35	
P21/P22	Sep-22	FR	Sep-23	ATP	FR	51	51	1:30	1:35	
P22/P23	Sep-22	FR	Sep-23	ATP	FR	50	48	1:31	1:36	
P23/P24	Sep-22	FR	Sep-23	ATP	FR	51	51	1:31	1:36	
P24/P25	Sep-22	FR	Sep-23	ATP	FR	49	49	1:38	1:43	
P25/P26	Sep-22	FR	Sep-23	ATP	FR	53	53	1:38	1:43	
P26/P27	Sep-22	FR	Sep-23	ATP	FR	53	53	1:39	1:44	
P27/P28	Sep-22	FR	Sep-23	ATP	FR	55	54	1:39	1:44	
P5/P29	Sep-22	FR	Sep-23	ATP	FR	52	50	2:03	2:08	
P29/P30	Sep-22	FR	Sep-23	ATP	FR	46	46	1:56	2:01	
P31/P32	Sep-22	FR	Sep-23	ATP	FR	48	48	1:47	1:52	
P32/P33	Sep-22	FR	Sep-23	ATP	FR	46	46	2:21	2:26	
P33/P34	Sep-22	FR	Sep-23	ATP	FR	51	50	1:46	1:51	
P34/P35	Sep-22	FR	Sep-23	ATP	FR	53	51	1:56	2:01	
P35/P36	Sep-22	FR	Sep-23	ATP	FR	52	51	1:56	2:01	
P1/P16	Sep-22	FR	Sep-23	ATP	FR	52	52	2:38	2:43	TIE IN SEAM 2
P1/P17	Sep-22	FR	Sep-23	ATP	FR	46	45	2:39	2:44	TIE IN SEAM 2
P1/P18	Sep-22	FR	Sep-23	ATP	FR	47	46	2:35	2:40	TIE IN SEAM 2
P1/P19	Sep-22	FR	Sep-23	ATP	FR	40	40	2:34	2:39	TIE IN SEAM 2
P1/P20	Sep-22	FR	Sep-23	ATP	FR	55	55	2:33	2:38	TIE IN SEAM 2
P1/P21	Sep-22	FR	Sep-23	ATP	FR	54	52	2:34	2:39	TIE IN SEAM 2
P1/P22	Sep-22	FR	Sep-23	ATP	FR	55	53	2:29	2:34	TIE IN SEAM 2
P1/P23	Sep-22	FR	Sep-23	ATP	FR	46	46	2:30	2:35	TIE IN SEAM 2
P1/P24	Sep-22	FR	Sep-23	ATP	FR	49	48	2:28	2:33	TIE IN SEAM 2
P1/P25	Sep-22	FR	Sep-23	ATP	FR	49	47	2:27	2:32	TIE IN SEAM 2
P1/P26	Sep-22	FR	Sep-23	ATP	FR	45	44	2:22	2:27	TIE IN SEAM 2
P28/P31	Sep-22	FR	Sep-23	ATP	FR	48	47	1:48	1:53	TIE IN SEAM 3
P27/P32	Sep-22	FR	Sep-23	ATP	FR	50	49	2:21	2:26	TIE IN SEAM 3
P1/P33	Sep-22	FR	Sep-23	ATP	FR	56	54	2:20	2:25	TIE IN SEAM 3
P2/P34	Sep-22	FR	Sep-23	ATP	FR	51	51	2:15	2:20	TIE IN SEAM 3

PASS/FAIL _____
Q.C. _____
Q.C REP _____

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INSURING CONTINUAL PROTECTION FOR OUR ENVIRONMENT'S FUTURE

SEAM PRESSURE TEST LOG

PROJECT: FARO Run Off Pond
PROJECT #: 05-2011-047
OWNER: Faro Mine / Yukon Government
ENGINEER:

LOCATION: Faro, YK
CONTRACTOR: Pelly Construction
QA/QC: Fred Rudolph
DATE: 2011

						PRESSURE		TIME		
SEAM #	WELD DATE	TECH	TEST DATE	TEST TYPE	TECH	START	END	START	FINISH	COMMENT
P4/P35	Sep-22	FR	Sep-23	VTP	CM	EXTRUSION WELDED				TIE IN SEAM 3
P29/P35	Sep-22	FR	Sep-23	ATP	FR	56	53	2:12	2:17	TIE IN SEAM 3
P29/P36	Sep-22	FR	Sep-23	ATP	FR	41	40	2:15	2:20	TIE IN SEAM 3
P30/P36	Sep-22	FR	Sep-23	ATP	FR	60	56	1:56	2:01	TIE IN SEAM 3
P37/P38	Sep-23	FR	Sep-25	ATP	FR	58	58	1:54	1:59	CROSS SEAM
P37/P39	Sep-23	FR	Sep-23	ATP	FR	51	51	2:40	2:45	
P38/P39	Sep-23	FR	Sep-23	ATP	FR	53	52	2:41	2:46	
P39/P40	Sep-23	FR	Sep-23	ATP	FR	57	56	2:43	2:48	
P37/P1	Sep-23	FR	Sep-25	ATP	FR	48	48	1:58	2:03	TIE IN SEAM 4
P39/P2	Sep-23	FR	Sep-23	ATP	FR	46	45	2:40	2:45	TIE IN SEAM 4
P40/P3	Sep-23	FR	Sep-23	ATP	FR	42	42	3:32	3:37	TIE IN SEAM 4
P41/P42	Sep-24	FR	Sep-24	ATP	FR	50	49	4:09	4:14	
P42/P43	Sep-24	FR	Sep-24	ATP	FR	52	50	4:10	4:15	
P43/P44	Sep-24	FR	Sep-25	ATP	FR	56	54	2:22	2:27	
P44/P45	Sep-24	FR	Sep-24	ATP	FR	49	48	4:12	4:17	
P38/P43	Sep-24	FR	Sep-25	ATP	FR	52	52	1:25	1:30	TIE IN SEAM 5
P39/P42	Sep-24	FR	Sep-24	ATP	FR	55	54	4:15	4:20	TIE IN SEAM 5
P40/P41	Sep-24	FR	Sep-26	ATP	FR	53	53	3:35	4:00	TIE IN SEAM 5
P15/P46	Sep-24	FR	Sep-24	ATP	FR	46	46	3:07	3:12	
P46/P47	Sep-24	FR	Sep-24	ATP	FR	51	50	3:07	3:12	
P47/P48	Sep-24	FR	Sep-24	ATP	FR	47	46	3:07	3:12	
P48/P49	Sep-24	FR	Sep-24	ATP	FR	54	54	3:07	3:12	
P49/P50	Sep-24	FR	Sep-24	ATP	FR	52	52	3:14	3:19	
P50/P51	Sep-24	FR	Sep-24	ATP	FR	50	49	3:14	3:19	
P40/P46	Sep-24	FR	Sep-24	ATP	FR	42	42	3:24	3:29	TIE IN SEAM 6
P40/P47	Sep-24	FR	Sep-24	ATP	FR	54	53	3:23	3:28	TIE IN SEAM 6
P40/P48	Sep-24	FR	Sep-24	ATP	FR	53	51	3:23	3:28	TIE IN SEAM 6
P40/P49	Sep-24	FR	Sep-24	ATP	FR	50	48	3:15	3:20	TIE IN SEAM 6
P40/P50	Sep-24	FR	Sep-24	ATP	FR	52	51	3:15	3:20	TIE IN SEAM 6
P40/P51	Sep-24	FR	Sep-26	ATP	FR	53	51	4:01	4:06	TIE IN SEAM 6

PASS/FAIL _____
Q.C. _____
Q.C REP _____

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INSURING CONTINUAL PROTECTION FOR OUR ENVIRONMENT'S FUTURE

SEAM PRESSURE TEST LOG

PROJECT: FARO Run Off Pond
PROJECT #: 05-2011-047
OWNER: Faro Mine / Yukon Government
ENGINEER:

LOCATION: Faro, YK
CONTRACTOR: Pelly Construction
QA/QC: Fred Rudolph
DATE: 2011

						PRESSURE		TIME		
SEAM #	WELD DATE	TECH	TEST DATE	TEST TYPE	TECH	START	END	START	FINISH	COMMENT
P52/P53	Sep-25	FR	Sep-25	ATP	FR	48	47	1:17	1:22	
P53/P54	Sep-25	FR	Sep-25	ATP	FR	51	50	1:11	1:16	
P53/P55	Sep-25	FR	Sep-25	ATP	FR	51	50	1:11	1:16	
P54/P55	Sep-25	FR	Sep-25	ATP	FR	46	46	1:16	1:21	CROSS SEAM
P54/P56	Sep-25	FR	Sep-25	ATP	FR	57	57	1:11	1:16	
P55/P56	Sep-25	FR	Sep-25	ATP	FR	51	49	1:11	1:16	
P56/P57	Sep-25	FR	Sep-25	ATP	FR	55	53	1:19	1:24	
P57/P58	Sep-25	FR	Sep-25	ATP	FR	56	54	2:12	2:17	
P58/P59	Sep-25	FR	Sep-25	ATP	FR	51	49	2:06	2:11	
P59/P60	Sep-25	FR	Sep-25	ATP	FR	49	48	2:06	2:11	
P60/P16	Sep-25	FR	Sep-25	ATP	FR	52	52	2:06	2:11	
P60/P37	Sep-25	FR	Sep-25	ATP	FR	51	50	1:52	1:57	TIE IN SEAM 7
P59/P37	Sep-25	FR	Sep-25	ATP	FR	43	41	1:52	1:57	TIE IN SEAM 7
P58/P37	Sep-25	FR	Sep-25	ATP	FR	55	53	1:45	1:50	TIE IN SEAM 7
P57/P37	Sep-25	FR	Sep-25	ATP	FR	50	50	1:45	1:50	TIE IN SEAM 7
P56/P38	Sep-25	FR	Sep-25	ATP	FR	50	47	1:35	1:40	TIE IN SEAM 7
P54/P38	Sep-25	FR	Sep-25	ATP	FR	57	55	1:26	1:31	TIE IN SEAM 7
P53/P38	Sep-25	FR	Sep-25	VTP	CM	EXTRUSION WELDED				TIE IN SEAM 7
P44/P53	Sep-25	FR	Sep-25	ATP	FR	43	41	1:23	1:28	TIE IN SEAM 7
P44/P52	Sep-25	FR	Sep-25	ATP	FR	47	46	2:22	2:27	TIE IN SEAM 7
P45/P52	Sep-25	FR	Sep-25	ATP	FR	51	51	1:17	1:22	TIE IN SEAM 7
P61/P62	Sep-26	FR	Sep-26	ATP	FR	53	52	3:47	3:52	
P63/P64	Sep-26	FR	Sep-26	ATP	FR	45	44	3:47	3:52	
P41/P62	Sep-26	FR	Sep-26	ATP	FR	43	41	4:01	4:06	
P51/P64	Sep-26	FR	Sep-26	ATP	FR	53	51	3:54	3:59	
P61/P63	Sep-26	FR	Sep-26	ATP	FR	43	41	3:47	3:52	
P61/P64	Sep-26	FR	Sep-26	ATP	FR	53	51	3:47	3:52	
P62/P64	Sep-26	FR	Sep-26	ATP	FR	48	47	4:01	4:06	
P61/P65	Sep-27	FR	Sep-27	ATP	FR	52	49	1:17	1:22	TIE INTO NEW TRENCH
P63/P65	Sep-27	FR	Sep-27	ATP	FR	52	49	1:17	1:22	TIE INTO NEW TRENCH

PASS/FAIL _____
Q.C. _____
Q.C REP _____

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INSURING CONTINUAL PROTECTION FOR OUR ENVIRONMENT'S FUTURE

SEAM PRESSURE TEST LOG

PROJECT: FARO Run Off Pond
PROJECT #: 05-2011-047
OWNER: Faro Mine / Yukon Government
ENGINEER:

LOCATION: Faro, YK
CONTRACTOR: Pelly Construction
QA/QC: Fred Rudolph
DATE: 2011

						PRESSURE		TIME		
SEAM #	WELD DATE	TECH	TEST DATE	TEST TYPE	TECH	START	END	START	FINISH	COMMENT
P65/P66	Sep-27	FR	Sep-27	ATP	FR	50	48	1:11	1:16	
P65/P67	Sep-27	FR	Sep-27	ATP	FR	44	42	12:57	1:02	CROSS SEAM
P67/P69	Sep-27	FR	Sep-27	ATP	FR	48	44	1:31	1:36	
P68/P69	Sep-27	FR	Sep-27	ATP	FR	52	51	1:05	1:10	
P68/P70	Sep-27	FR	Sep-27	ATP	FR	50	49	1:05	1:10	
P69/P70	Sep-27	FR	Sep-27	ATP	FR	45	45	1:05	1:10	
P68/EXT	Sep-27	FR	Sep-27	ATP	FR	48	45	12:57	1:02	TIE TO EXISTING TRENCH
P68/EXT	Sep-27	FR	Sep-27	ATP	FR	52	48	12:57	1:02	TIE TO EXISTING TRENCH

PASS/FAIL _____
Q.C. _____
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INSURING CONTINUAL PROTECTION FOR OUR ENVIRONMENT'S FUTURE

DEFECT AND REPAIR LOG

PROJECT: FARO Run Off Pond
PROJECT #: 05-2011-047
OWNER: Faro Mine / Yukon Government
ENGINEER:

LOCATION: Faro, YK
CONTRACTOR: Pelly Construction
QA/QC: Fred Rudolph
DATE: 2011

REPAIR #	TYPE	SIZE	REPAIR DATE	TECH	TEST TYPE	TEST DATE	TECH	PASS/FAIL	LOCATION
1	BEAD	16"	Sep-21	JM	VTP	Sep-21	CM	PASS	P2/P3/P4
2	BEAD	16"	Sep-21	JM	VTP	Sep-21	CM	PASS	P15/P14/P3
3	PATCH	1' ROUND	Sep-21	JM	VTP	Sep-21	CM	PASS	P14/P15-17'FROM AT
4	BEAD	16"	Sep-21	JM	VTP	Sep-21	CM	PASS	P14/P13/P3
5	BEAD	16"	Sep-21	JM	VTP	Sep-21	CM	PASS	P13/P12/P3
6	BEAD	16"	Sep-21	JM	VTP	Sep-21	CM	PASS	P12/P11/P3
7	BEAD	16"	Sep-21	JM	VTP	Sep-21	CM	PASS	P11/P10/P3
8	BEAD	16"	Sep-21	JM	VTP	Sep-21	CM	PASS	P10/P9/P3/P4
9	BEAD	16"	Sep-21	JM	VTP	Sep-21	CM	PASS	P9/P8/P4
10	BEAD	16"	Sep-21	JM	VTP	Sep-21	CM	PASS	P8/P7/P4
11	BEAD	16"	Sep-21	JM	VTP	Sep-21	CM	PASS	P7/P6/P4
12	BEAD	16"	Sep-21	JM	VTP	Sep-21	CM	PASS	P6/P5/P4
13	BEAD	16"	Sep-23	JM	VTP	Sep-23	CM	PASS	P16/P17/P1
14	BEAD	16"	Sep-23	JM	VTP	Sep-23	CM	PASS	P17/P18/P1
15	BEAD	16"	Sep-23	JM	VTP	Sep-23	CM	PASS	P18/P19/P1
16	BEAD	16"	Sep-23	JM	VTP	Sep-23	CM	PASS	P19/P20/P1
17	BEAD	16"	Sep-23	JM	VTP	Sep-23	CM	PASS	P20/P21/P1
18	BEAD	16"	Sep-23	JM	VTP	Sep-23	CM	PASS	P21/P22/P1
19	BEAD	16"	Sep-23	JM	VTP	Sep-23	CM	PASS	P22/P23/P1
20	BEAD	16"	Sep-23	JM	VTP	Sep-23	CM	PASS	P23/P24/P1
21	BEAD	16"	Sep-23	JM	VTP	Sep-23	CM	PASS	P24/P25/P1
22	BEAD	16"	Sep-23	JM	VTP	Sep-23	CM	PASS	P25/P26/P1
23	BEAD	16"	Sep-23	JM	VTP	Sep-23	CM	PASS	P26/P27/P32/P1
24	BEAD	16"	Sep-23	JM	VTP	Sep-23	CM	PASS	P27/P28/P31/P32

PASS/FAIL _____
Q.C. _____
Q.C REP _____

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INSURING CONTINUAL PROTECTION FOR OUR ENVIRONMENT'S FUTURE

DEFECT AND REPAIR LOG

PROJECT: FARO Run Off Pond
PROJECT #: 05-2011-047
OWNER: Faro Mine / Yukon Government
ENGINEER:

LOCATION: Faro, YK
CONTRACTOR: Pelly Construction
QA/QC: Fred Rudolph
DATE: 2011

REPAIR #	TYPE	SIZE	REPAIR DATE	TECH	TEST TYPE	TEST DATE	TECH	PASS/FAIL	LOCATION
25	BEAD	32"	Sep-23	JM	VTP	Sep-23	CM	PASS	P1/P2/P33/P34
26	PATCH	1' ROUND	Sep-23	JM	VTP	Sep-23	CM	PASS	P34 @ TIE IN SEAM
27	BEAD	13'	Sep-23	JM	VTP	Sep-23	CM	PASS	P4/P35/P5/P29
28	BEAD	16"	Sep-23	JM	VTP	Sep-23	CM	PASS	P29/P35/P36
29	BEAD	16"	Sep-23	JM	VTP	Sep-23	CM	PASS	P36/P29/P30
30	BEAD	32"	Sep-24	JM	VTP	Sep-24	CM	PASS	P1/P2/P37/P39
31	BEAD	32"	Sep-24	JM	VTP	Sep-24	CM	PASS	P2/P3/P39/P41
32	BEAD	16"	Sep-24	JM	VTP	Sep-24	CM	PASS	P37/P38/P39
33	BEAD	16"	Sep-24	JM	VTP	Sep-24	CM	PASS	P40/P41/P39/P42
34	BEAD	16"	Sep-24	JM	VTP	Sep-24	CM	PASS	P39/P42/P43/P38
35	BEAD	16"	Sep-24	JM	VTP	Sep-24	CM	PASS	P51/P50/P40
36	BEAD	16"	Sep-24	JM	VTP	Sep-24	CM	PASS	P50/P49/P40
37	BEAD	16"	Sep-24	JM	VTP	Sep-24	CM	PASS	P49/P48/P40
38	BEAD	16"	Sep-24	JM	VTP	Sep-24	CM	PASS	P48/P47/P40
39	BEAD	16"	Sep-24	JM	VTP	Sep-24	CM	PASS	P47/P46/P40
40	PATCH	2' X 7'	Sep-24	JM	VTP	Sep-24	CM	PASS	P46/P15/P40/P3
41	BEAD	10"	Sep-24	JM	VTP	Sep-24	CM	PASS	P40/P48
42	BEAD	16"	Sep-25	JM	VTP	Sep-25	CM	PASS	P44/P45/P52
43	BEAD	16"	Sep-25	JM	VTP	Sep-25	CM	PASS	P44/P52/P53
44	BEAD	40"	Sep-25	JM	VTP	Sep-25	CM	PASS	P53/P43/P38/P54
45	BEAD	16"	Sep-25	JM	VTP	Sep-25	CM	PASS	P53/P54/P55
46	BEAD	16"	Sep-25	JM	VTP	Sep-25	CM	PASS	P54/P55/P56
47	BEAD	16"	Sep-25	JM	VTP	Sep-25	CM	PASS	P56/P57/P38
48	BEAD	16"	Sep-25	JM	VTP	Sep-25	CM	PASS	P57/P38/P37

PASS/FAIL _____
Q.C. _____
Q.C REP _____

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INSURING CONTINUAL PROTECTION FOR OUR ENVIRONMENT'S FUTURE

DEFECT AND REPAIR LOG

PROJECT: FARO Run Off Pond
PROJECT #: 05-2011-047
OWNER: Faro Mine / Yukon Government
ENGINEER:

LOCATION: Faro, YK
CONTRACTOR: Pelly Construction
QA/QC: Fred Rudolph
DATE: 2011

REPAIR #	TYPE	SIZE	REPAIR DATE	TECH	TEST TYPE	TEST DATE	TECH	PASS/FAIL	LOCATION
49	BEAD	16"	Sep-25	JM	VTP	Sep-25	CM	PASS	P57/P58/P37
50	PATCH	16"	Sep-25	JM	VTP	Sep-25	CM	PASS	P58/P59/P37
51	BEAD	13'	Sep-25	JM	VTP	Sep-25	CM	PASS	P59/P60/P37
52	BEAD	16"	Sep-25	JM	VTP	Sep-25	CM	PASS	P59/P60 - 5' FROM AT
53	PATCH	2' ROUND	Sep-25	JM	VTP	Sep-25	CM	PASS	P60/P16/P37/P1
54	BEAD	48"	Sep-26	JM	VTP	Sep-26	CM	PASS	P51/P41/P40/P62/P64
55	BEAD	36"	Sep-26	JM	VTP	Sep-26	CM	PASS	P62/P61/P64
56	BEAD	16"	Sep-26	JM	VTP	Sep-26	CM	PASS	P64/P63/P62
57	BEAD	16"	Sep-27	JM	VTP	Sep-27	CM	PASS	P61/P63/P65
58	BEAD	16"	Sep-27	JM	VTP	Sep-27	CM	PASS	P65/P66/P67
59	BEAD	23'	Sep-27	JM	VTP	Sep-27	CM	PASS	P65-SWALE
60	BEAD	24"	Sep-27	JM	VTP	Sep-27	CM	PASS	P67/P68- 17'FROM AT
61	BEAD	16"	Sep-27	JM	VTP	Sep-27	CM	PASS	P68/P69/P70
62	BEAD	16"	Sep-27	JM	VTP	Sep-27	CM	PASS	P69 - SWALE
63	BEAD	16"	Sep-27	JM	VTP	Sep-27	CM	PASS	P69 SWALE

PASS/FAIL _____
Q.C. _____
Q.C REP _____

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INSURING CONTINUAL PROTECTION FOR OUR ENVIRONMENT'S FUTURE

DESTRUCTIVE TEST LOG

PROJECT: FARO Run Off Pond
PROJECT #: 05-2011-047
OWNER: Faro Mine / Yukon Government
ENGINEER:

LOCATION: Faro, YK
CONTRACTOR: Pelly Construction
QA/QC: Fred Rudolph
DATE: 2011

PEEL

DT #	COUPON 1		COUPON 1		COUPON 1		COUPON 1		COUPON 1		LOCATION
1	131	123	116	132	123	126	143	125	126	126	SEAM P1/P2
2	141	134	137	126	126	128	138	135	135	127	SEAM P22/P23
3	127	135	122	127	125	135	121	120	140	121	SEAM P33/P34
4	123	127	132	145	134	133	123	127	134	135	SEAM P39/P40
5	119	129	132	123	141	144	127	113	133	123	SEAM P47/P48
6	112	118	119	121	134	122	120	121	127	123	SEAM P54/P56
7	139	123	134	143	135	134	139	133	133	126	SEAM P61/P63

SHEAR

DT #	COUPON 1	COUPON 1	COUPON 1	COUPON 1	COUPON 1	LOCATION
1	191	180	183	180	190	SEAM P1/P2
2	207	203	205	199	201	SEAM P22/P23
3	202	214	211	213	211	SEAM P33/P34
4	201	211	189	203	200	SEAM P39/P40
5	189	202	177	179	190	SEAM P47/P48
6	198	190	211	208	199	SEAM P54/P56
7	187	189	203	205	208	SEAM P61/P63

PASS/FAIL PASS
Q.C. FRED RUDOLPH
Q.C REP