

Mine Development and Operations Plan v1

February 2012

#### MINTO EXPLORATIONS LTD.

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## 1. Background

This document serves as the Mine Development and Operations Plan for the surface mining component of Minto Mine's Phase IV development. *Phase IV* refers to the mining activities assessed under the *YESAB Designated Office Evaluation Report – Minto Mine Phase IV Expansion – Project Assessment 2010-0198*, dated February 18, 2011.

Phase IV also includes an underground component; however, due to delays in the procurement of suitable mining equipment and the construction of the required infrastructure, Minto Explorations Ltd. (MintoEx) has not yet commenced the operation of the underground mine; it is therefore not yet possible to describe the underground portion of Phase IV in the level of detail required for the MDOP.

# 2. Phase IV Open Pits

Phase IV will mine two open pits – Area 2 and Area 118. Area 2 is split into Stages 1 and 2, the latter being a pushback of the west wall created by Stage 1 and a deepening of the pit. Figure 1 illustrates the location of the two pits and their final design configurations, while Figure 2 and Figure 3 illustrate, in plan and section view respectively, the staging of the Area 2 pit.

#### 2.1 Material Release and Ore Reserves

Expected release from these two pits, based on Minto's most current resource model, is presented below in Table 1. A more detailed breakdown of reserves for each pit, including ore tonnages and grades, is presented below in Table 2.

The grades in Table 2 are reported on an undiluted basis, and do not include a provision for ore losses, as Minto does not currently have a reliable characterization of these factors for the Phase IV pits. The cutoff grades used in reporting these reserves may change if costs related to processing partially oxidized (POX) ore increase; this would result in minor changes the reserves reported here.

	BCM Ore	BCM Waste	BCM Overburden	BCM Total
Area 2 - Stage 1	673,000	3,392,000	724,000	6,579,000
Area 2 - Stage 2	671,000	3,514,000	1,014,000	5,316,000
Area 118	185,000	655,000	139,000	979,000
Total	1,529,000	7,561,000	1,877,000	12,873,000

Table 1: Material releases from the Phase IV open pits.

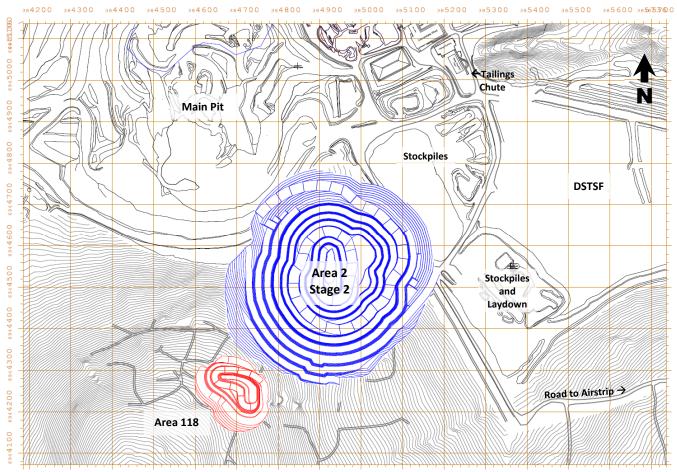


Figure 1: Site plan showing Area 2 (blue) and Area 118 (red) pits.

	Waste + Ovb (t)	Ore (t) *	Cu %	Au g/t	Ag g/t
Area 2 - Stage 1	10,995,000	1,837,000	1.30	0.48	4.73
Area 2 - Stage 2	12,080,000	1,821,000	1.30	0.45	4.00
Area 118	2,117,000	495,000	1.16	0.09	1.60
Total	25,192,000	4,153,000	1.28	0.42	4.03

<sup>\*</sup> A cutoff grade of 0.56% for both sulfide ore and partially oxidized ore is used in calculating the above reserves.

Table 2: Reserves mined in the Phase IV open pits.

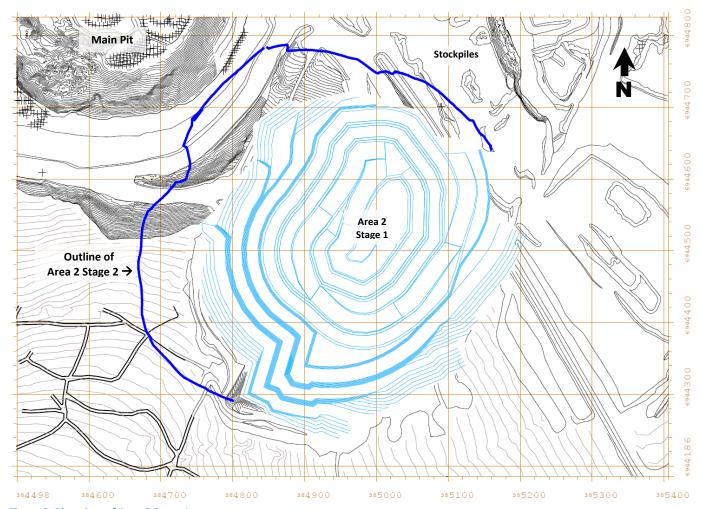


Figure 2: Plan view of Area 2 Stage 1.

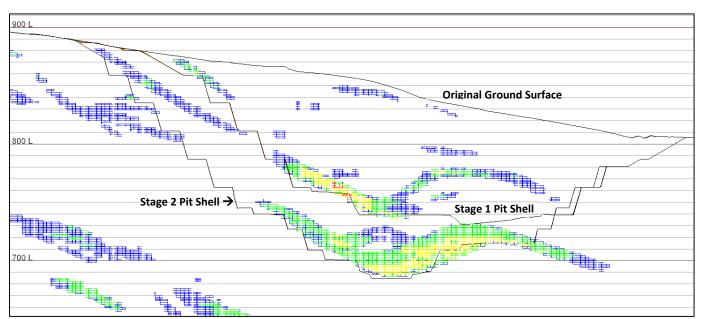


Figure 3: Section view through Area 2 pit, looking northwest, showing staging and ore zones.

#### 2.2 Material Release Schedule

Stage 1 of Area 2 will be mined first, followed by Stage 2 and Area 118 in parallel. As Area 118 pit is a small near-surface deposit, mining it in parallel with Stage 2 will allow for shared access roads.

The pit designs presented in this plan are based on those created by SRK for the Phase IV pre-feasibility study. Area 2 will be mined in two stages, the first being a small pit that releases ore in 2Q-2012 and the second being a pushback of the southwest wall and a deepening of the pit. Stage 1 is entirely contained within the footprint of Stage 2, and does not see mining to final highwall over most of its circumference. Given this, MintoEx has not optimized the alignment and geometry of this highwall, relying instead on a pre-feasibility design prepared by SRK. The final Stage 2 highwall design will likely be modified before mining commences in October of 2012, particularly to combine Area 2 and Area 118 while optimizing the strip ratio of the latter. Minto's design modifications will remain within the geotechnical parameters established by SRK's study, and the final designs will be presented to EMR in an updated version of this report before mining commences.

Minto has determined that a mining rate of 12,800 BCM/day is sufficient to ensure reliable feed to the mill without prematurely milling low-grade stockpiles and thereby compromising the project's economics. An updated schedule of start and completion dates for pits in the Phase IV mine plan, based on Minto's progress as of January 1, 2012, is presented in Table 3, below.

Pit / Stage	Start Date	Completion Date	
Area 2 Stage 1	April 15, 2011	October 2012	
Area 2 Stage 2	October 2012	March 2014	
Area 118	October 2012	March 2013	

Table 3: Start and completion dates for Phase IV open pits.

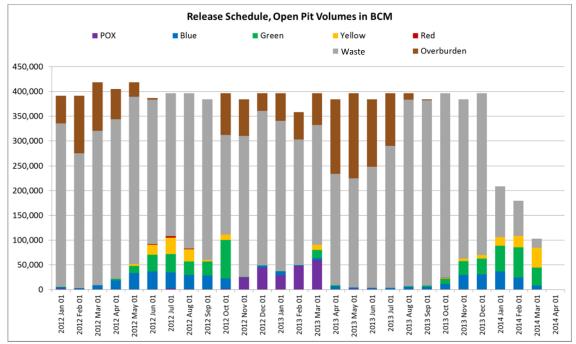


Figure 4: Release schedule for Phase IV open pits, by month, showing material types.

A month-by-month schedule of the mine's material release, broken down by material type, is presented in Figure 4.

The schedule shown above mines benches one at a time, in sequence, until the last three benches of Area 2 Stage 1 are reached, at which time one excavator moves to start stripping the Stage 2 highwall / Area 118.

### 2.3 Wall Design and Overburden Stability

The overburden in Area 2 is not expected to cause stability issues such as those seen in the south wall of the Main pit. Area 2 is overlain by a relatively thin layer of overburden that follows the contour of the original ground surface, reaching a maximum depth of approximately 30m along the northeast edge of the pit. The contact dips into the northeast wall, giving the overburden layer an inherent stability against large-scale movement.

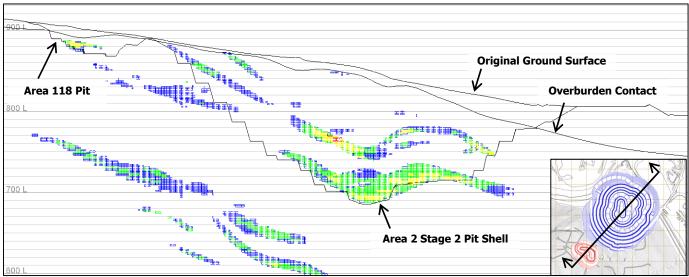


Figure 5: Section view through Area 2 and Area 118 pits, looking northwest, showing overburden contact, original ground, and ore zones.

Small-scale circular failures are still possible, though the 30° slope angle is designed to minimize the probability of their occurrence. SRK has modeled the east / northeast wall of the pit in their geotechnical evaluation of Phase V, dated December 2009, and found it to have a mean factor of safety of 2.50 and a probability of failure of 0.67%. Further detail on wall stability can be found in the aforementioned report, which is attached as Appendix A.

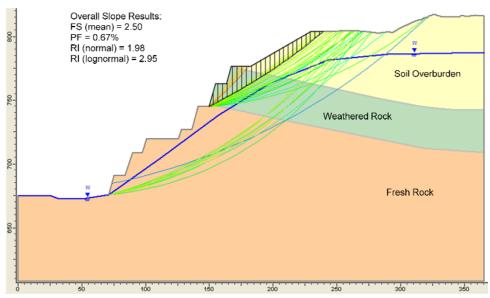


Figure 6: Critical section through northeast / east wall of Area 2 (SRK 2009).

The east wall of Area 2 also analyzed and yielded a factor of safety of 2.10 with a probability of failure of 2.88%.

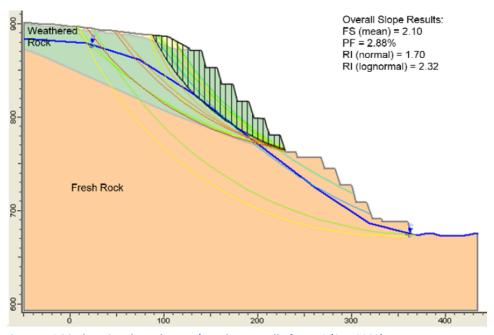


Figure 7: Critical section through west / southwest wall of Area 2 (SRK 2009).

The wall is designed to an interramp angle of 47°, which is achieved by double-benching to a 24 m high face laid back at 16° from vertical, and establishing a 15.5 m catch bench. This configuration, along with the blasting practices used to achieve the final wall, is shown in Figure 10.

## 2.4 Ground Movement Monitoring

The use of GPS hubs is well established at Minto: there are currently 27 active hubs monitoring movement on the Dry Stack Tailings Storage Facility, Southwest Dump, Main pit south wall, and Area 2 highwall.

A GPS hub is typically comprised of a steel pole placed and cemented into a 5" drill hole, protruding from the ground by approximately 1.5m. A plate with a screw thread is welded to this pole. At regular intervals ranging from twice daily in the case of very active movement, such as that seen during the mining of the Main pit's Stage 5 pushback in the winter of 2011, to weekly or even monthly, a mine technician will attach a GPS survey instrument to the hub and take a reading for three minutes, which will provide accuracy to within approximately 1cm.

Minto also makes use of prisms, which are read using a total station attached to a fixed pole. An automated routine that takes readings off each prism is programmed into the total station; however, the instrument setup must be performed by a surveyor and the data downloaded manually. Minto does not currently have automated realtime prism monitoring.

GPS hubs are used in preference to prisms due to the tendency of the latter to become obscured by frost or snow during the winter months.

Data from this instrumentation is typically plotted on displacement vs. time graphs, such as the one below, and analyzed for both immediate increases in movements and changes in long-term trends.

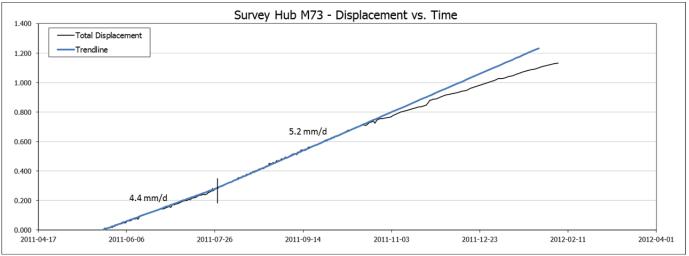


Figure 8: Typical plot of survey hub results, showing total displacement in relation to a trendline.

The monitoring plan for Area 2 consists of survey hubs installed around the pit perimeter. Four have been installed thus far, and are read every two weeks. To date they have displayed no movement distinguishable from noise; data from one of the hubs is displayed below.

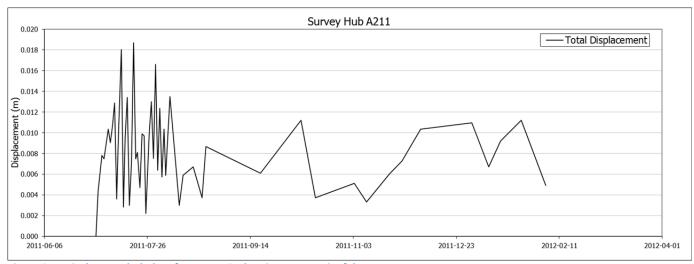


Figure 9: Typical survey hub data from Area 2, showing no meaningful movement.

As the pit advances, survey hubs will be installed on catch benches to which safe access can be maintained.

Minto also uses inclinometers to monitor ground movement, particularly in overburden. They are useful mainly in determining the depth at which movement is occurring, which can be compared to geological features on core logs from the drilling of the hole. Inclinometers are not expected to be necessary in Area 2; they will be installed only if significant surface movement is detected in the overburden at the east edge of the pit, or if otherwise deemed necessary by Minto's geotechnical consultants.

## 2.5 Blasting and Wall Control

Blasting practices have been carried over from the Main pit largely unchanged.

For production blasts, the mine uses mini-prill ANFO with a bulk density of 1050 kg/m<sup>3</sup> as its default product; it is used wherever ground conditions are dry or holes can be dewatered and lined. Failing that, a 70/30 emulsion/prill is used. The decision to switch to an emulsion blend is at the blaster's discretion in the field.

The mine continues to use 12m benches, drilled with 9 7/8" blastholes, in waste and overburden. Patterns are currently 7.0m equilateral and use 5.0m stemming and 1.0m subgrade, resulting in a theoretical powder factor of 0.82 kg/BCM. Grid spacing is varied in response to digging conditions from previous blasts in similar rock.

Wall control consists of buffer- and trim- blasting techniques: where possible, wall blasts are 4-6 rows deep and the timing is delayed slightly to provide better relief and thereby reduce backbreak. The row of holes closest to the wall is drilled using a smaller 6 3/4" diameter bit size.

In addition, Minto will continue to use pre-shearing in the Area 2 pit. This is a technique in which closely-spaced small-diameter holes, drilled at an angle that follows the final contour of the wall, are loaded with decoupled charges (that is, a charge of small diameter than the hole into which it is placed). All holes are fired simultaneously, encouraging the formation of a fracture plane between them. A 40mm diameter packaged watergel product is used, and all holes in a pre-shear blast fire simultaneously.

A diagram of typical double-bench drill layout and loading configuration is presented below in Figure 10.

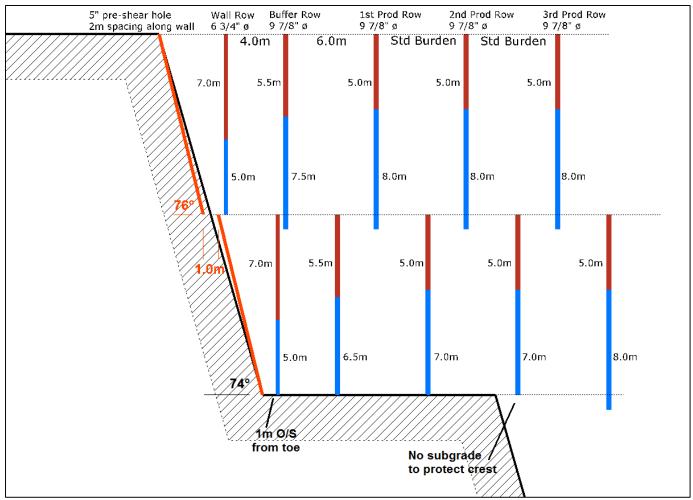


Figure 10: Typical double-bench drilling and loading.

For greater selectivity, the mine uses 6.0m benches in ore. These are drilled using a smaller 6 3/4" hole size and a correspondingly tighter grid spacing.

Dyno Nobel will continue to supply the mine with explosives loading services "to the hole," while the blasters-incharge are currently personnel employed by Pelly Construction.

Explosives management and storage is further detailed in the Explosives Management Plan.

#### 2.6 Services

The open-pit mine does not make use of electric power for heavy equipment operation. The small bench sizes and rapid vertical advance rates necessitated by the high strip ratio of Minto's pits would make the siting of electrical infrastructure and the handling of cable difficult; however, the installation of electrical infrastructure for the underground mine may present an opportunity to electrify the Area 2 pit at minimal cost. MintoEx may undertake a tradeoff study examining this option.

Some pumping equipment is electric; it is powered by portable trailer-mounted diesel generators. Connection of this equipment is handled by electricians from the mill maintenance department.

The open pit mine operates an extensive network of ditches and pipelines for dewatering; these are used in accordance with the conditions of the mine's Water Use License (QZ96-006).

Diesel-powered light plants are used to provide illumination both at working faces in the pit, and at dumps.

Communication is via VHF radio, with all mine equipment on a common channel. A site-wide emergency channel is available.

#### 2.7 Haul Roads

Haul roads at Minto are typically designed to accommodate Cat 777D haul trucks in a dual lane configuration. Road widths are based on the requirements of Yukon WCB regulation 15.43(1)(a): they are three times the width of the truck, measured between the mirrors.

Berms are designed to be 75% of the trucks' tire height, as per Yukon WCB regulation 15.43(1)(b). Berms are constructed with 45° side slopes.

Allowance is made for a ditch on one side of the road, one meter wide.

These factors yield the following road design characteristics:

Truck width	6.05 m
Road surface width	18.3 m
Tire height	2.70 m
Berm height	2.0 m
Berm width	4.1 m
Ditch width	1.0 m
Total road width, against highwall (one berm, one ditch)	23.4 m
Total road width, two berms, one ditch	26.5 m

Design grade is 10-12%, with a maximum grade of 15%. Grade limits are applied to the inside corner of a turn.

A speed limit of 50 km/h is in effect on mine roads. Minto also has a light-vehicle training and sign-off program intended to insure that personnel are familiarized with the mine site prior to driving. All personnel are required to announce their departure and destination points prior to traveling on mine roads; an exception is made for pit supervision and mine technical services staff whose jobs involve frequent pit access, giving them familiarity with day-to-day operations. Finally, all personnel and all types of vehicles are required to announce their presence at certain call points, which are marked with roadside signs: these are typically busy intersections or areas with limited visibility.

# 3. Waste Rock Handling Procedures

Minto has prepared a *Waste Rock and Overburden Management Plan,* which was reviewed and approved by EMR on October 26, 2011. Under the plan, Minto classifies its waste rock as described in Table 4.

Grade Bin	Description			
Zero-grade Waste	Originally defined as waste grading less than 0.005% copper, to be used for the construction of the Mill Valley Fill dump. The definition has since been refined to one based on an on-site assay of 0.01% Cu or less.			
Low-grade Waste	Waste below 0.10%Cu: not of significant concern at closure.			
Mid-grade Waste	Waste from 0.10% - 0.36%Cu: copper leaching is a potential concern at closure: material must be handled separately, but has poor prospects for future milling.			
High-grade Waste	The same disposal requirements apply as do for mid-grade waste, but there is a chance that, if mill throughput or metal prices increase substantially, this material will prove economic.			

Table 4: Waste rock classification scheme for Phase IV.

## 3.1 Waste Rock Disposal Scheme

The Stage 1 Waste Management Plan submitted to EMR in support of its temporary permit stipulated that all waste rock grading more than 0.10% copper would be disposed of within the footprint of the main pit in what was termed the "Grade Bin Disposal Area (GBDA)."

The GBDA essentially covered the wide flat bench left at the 810m elevation above the south wall of the Main pit. This location was selected for its proximity to the pit, which would ensure that runoff water would report directly into it. A secondary benefit to the location was that it would have been relatively easy to eventually deposit the grade-bin waste into the flooded Main pit.

Shortly after this plan was created, it was obsoleted by the failure of the Main pit's south wall, which forced Minto to abandon the concept of the GBDA. The sloughing has seen a large portion of the bench lost; the footprint upon which the GBDA would have rested has been substantially reduced in size.

The sloughing is merely symptomatic of a larger creep failure extending several hundred meters back from the wall, necessitating the construction of a large buttress to stabilize it in the long term. This buttress has reduced the volume available in the main pit such that sub-aqueous disposal of waste rock is no longer feasible. The buttress is described in further detail in Section 3.5.

Instead of sub-aqueous disposal, mid- and high-grade waste rock types (formerly called "grade bin waste") will be disposed of in dedicated areas of the Southwest Dump. By placing this material in contiguous and well-defined areas of the dump, it can be dealt with practically at closure. Mid- and high-grade waste rock will not be placed directly upon original ground: pads of low-grade waste will be constructed so that contact with water running underneath the dump is minimized.

At closure, the mid-grade waste will be placed underneath a cover system that limits infiltration to a degree sufficient to ensure that post-closure water quality requirements are met, or it will be rehandled and disposed of within the flooded footprint of the Area 2 pit.

High-grade waste will be disposed of in the same manner, except that, if metal prices and plant operating costs permit, a portion of it may be milled.

A combination of these three options will be employed, the ratio between them being determined by the prevailing economic conditions at closure.

## 3.2 Field Classification Protocol for Ore and Waste - Open Pit Operations

Classification of material into one of the four types of ore or waste is based on blasthole assays. The following is a detailed description of the process.

- 1. Drill cuttings from every blasthole are sampled and sent to the assay laboratory prior to blasting;
- 2. A representative sample of the cuttings is assayed using atomic absorption (AA) to determine the metal content. The assay laboratory, under the supervision of the chief assayer, has the ability to conduct copper, soluble copper, and silver assays;
- 3. The assay results are sent to the geology department for interpretation;
- 4. The geology department plots the results spatially, then draws polygons enclosing holes with similar assay results to identify regions of similar average grade;
- 5. After blasting, the aforementioned polygons are laid out in the field by the mine surveyor working with the production geologist in order to inform mine operations of where the materials within a polygon are to be taken;
- 6. Field layout is done using stakes and flags of various predefined colors;
- 7. Ore and waste are loaded out and dispatched to the appropriate locations based on the aforementioned flags; and
- 8. These locations are communicated to foremen and operators by the production geologist.

The protocol by which waste rock is sampled and dispatched is further detailed in the *Waste Rock and Overburden Management Plan*. The sampling procedure described above applies only to waste rock from the surface mining operation; the underground mine will develop separate procedures, as the collection of drill cuttings is not typically viable with wet drilling techniques.

## 3.3 Off-site Sampling Protocol for Zero-Grade Waste

The specification for zero-grade waste in the *Preliminary Phase IV Waste Management Plan* submitted as part of the *Phase IV Project Proposal* was 0.005% Cu. This specification was carried forward into the *Stage 1 Waste Management Plan* submitted to EMR as part of Minto's application for an amended Quartz Mining License.

The detection limit of Minto's assay lab is 0.01%: this is not sufficient to characterize material to the specification defined in the aforementioned plans.

The Waste Rock and Overburden Management Plan, which supersedes the previous plans and was approved by EMR on October 26, 2011, clarified that zero-grade waste would be defined using the lower detection limit of the site's assay capability, as it is not practical to dispatch material based on off-site assays.

Eighteen samples representing 146,000 BCM of waste rock placed using this criterion in May of 2011 were all found, by an external lab, to grade less than 0.040% copper, averaging 0.011%.

Minto has since resumed construction of the Mill Valley Fill using its on-site assay laboratory's zero-grade specification, and has continued to send samples off-site for analysis. Due to the turn-around time for off-site samples, the results of these analyses cannot be used to direct the dispatching and placement of material; rather, they are used to characterize and understand the material being placed into the MVF to better address stakeholder concerns.

The sampling protocol can be summarized as follows:

- 1. A region of zero-grade waste is identified using on-site blasthole assays.
- 2. 15% of the holes in each region are randomly selected for sampling.
- 3. The assay lab's sample rejects for those holes are retrieved and combined into composites, with maximum five holes being represented in each composite.
- 4. These composites are split, with half being stored on site and half being sent out to an external laboratory for assay.

## 3.4 Dump Designs

Mid- and high-grade waste will be stored in expansions of the Southwest Dump. These expansions raise its height from 910 to 920m elevation at the south end, well away from the zone impacted by the south wall failure. Low-grade waste will continue to report to the portions of the Southwest Dump that have not yet reached their target elevation as per the approved design from 2008.

For a detailed treatment of the dump designs, including analyses of their geotechnical stability, please see the *Waste Rock and Overburden Management Plan*.

### 3.5 Main Pit Buttress Design and Construction

The need for a buttress to support the south wall of the Main pit was understood before mining of the Stage 5 pushback commenced. After completing the mining of Stage 3 in March of 2010, a small (approx. 210,000 m³) buttress was dumped in up to the 766m elevation to prevent movement of the overburden layer; this is shown in Figure 11. This interim measure, having successfully stabilized the Stage 3 wall, was removed in the course of Stage 5 mining.

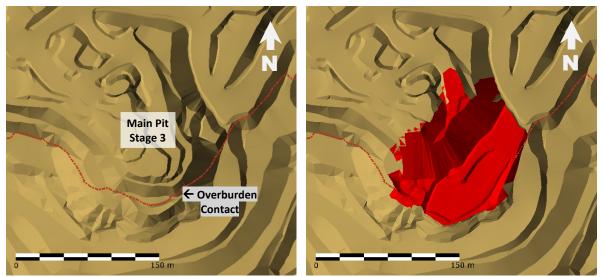


Figure 11: Completed Stage 3 pushback of the Main pit (left) and temporary buttress constructed to stabilize overburden contact (right).

The original intention was for the final Stage 5 highwall to be supported by an 850,000 m<sup>3</sup> buttress, which would have formed a blanket of approximately 40m thickness, preventing localized failure of the overburden layer. The original design concept for this buttress is illustrated in Figure 12.

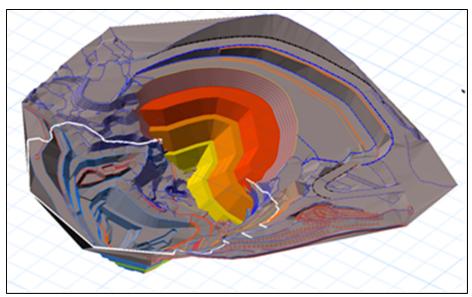


Figure 12: Original buttress concept, to be built after completion of the Main pit.

Monitoring via inclinometers and survey hubs during the mining of Stage 5 in the winter of 2011 suggested a larger-scale translational failure. Analysis showed that the bulk of a 50m-thick silty / sandy overburden layer was sliding into the pit along a thin layer of ice-rich permafrost clay. After several months of accelerating movement, this translational failure resulted in a substantial piece of the slope sliding into the pit in late April 2011, bounded at the back by a large tension crack. This created an over-steepened overburden face that underwent a progressive failure, sloughing continuously throughout the summer of 2011 until winter conditions halted further degradation of the slope. The arrival of winter also saw a reduction in the movement rate, but not a cessation of movement.

Thus, the ongoing large-scale movement necessitated a new analysis of the data, which EBA performed in July of 2011. This showed that a 2.5 Mm<sup>3</sup> buttress with a 4:1 front face slope, constructed out of compacted rock fill, was necessary in order to stabilize the slope.

Construction is currently proceeding, with approximately 1.33 Mm<sup>3</sup> remaining to be placed as of February 1, 2012.

The buttress is being constructed in lifts measuring 2m in thickness, which are compacted with four passes of a vibratory smooth-drum compactor. In EBA's estimation, this will be sufficient to raise the friction angle of the rock fill to 40 degrees, thereby giving the final design a factor of safety of 1.3 against further movement.

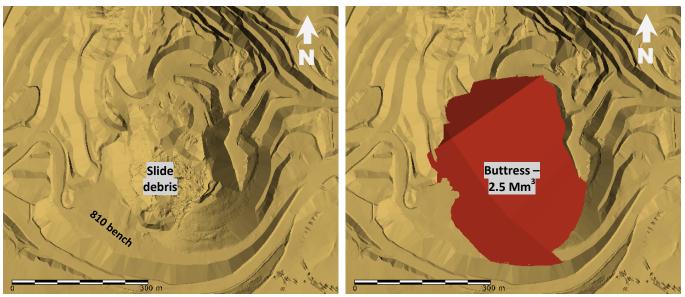


Figure 13: Post-failure survey of the Main pit (left) and final buttress design for the south wall of the Main pit (right).

# 4. Ore Handling Procedures

Phase IV ore will continue be handled as Main Pit ore was: it will be classified, based on copper grade, into the material types presented below in Table 5.

Material Type	Copper Grade Range
Blue Ore	0.54 – 1.00% Cu
Green Ore	1.00 – 2.00% Cu
Yellow Ore	2.00 – 4.00% Cu
Red Ore	>4.00% Cu
Partially Oxidized Ore	>1.00% Cu

Table 5: Classification of ore by copper grade.

## 4.1 Stockpiles

The footprint of the Area 2 pit will take out a portion of what is presently the Green Ore Stockpile; however, no new stockpiles are currently planned. Stockpile inventory will be drawn down substantially before Area 2 releases ore; therefore, ore storage needs should be met by stockpiles falling within the current footprint.

# 5. Tailings Deposition

Tailings are currently filtered and deposited into Minto's Dry-Stack Tailings Storage Facility (DSTSF).

The DSTSF is being constructed to a design from EBA titled *Geotechnical Report: Dry Stacked Tailings Storage Facility*, dated January 5, 2007, which was approved by EMR on April 17, 2007.

A section from the design document is shown in Figure 14.

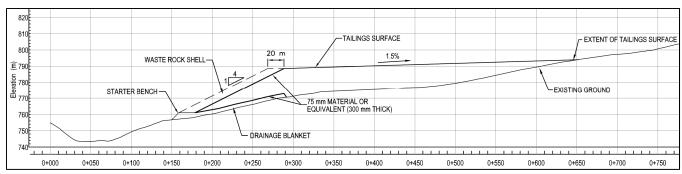


Figure 14: Section view through the DSTSF (EBA 2007).

The facility is constructed on a hillside overlooking Minto Creek. It is comprised of the tailings themselves, forming the majority of the volume, and a rockfill berm on the front face, shown on the Figure 15 in blue. The tailings are intended to be self-supporting: the front face is meant only to serve an erosion control function. To this end, the berm is constructed using an 'upstream' methodology: it is 20m wide throughout and rests partially upon tailings.

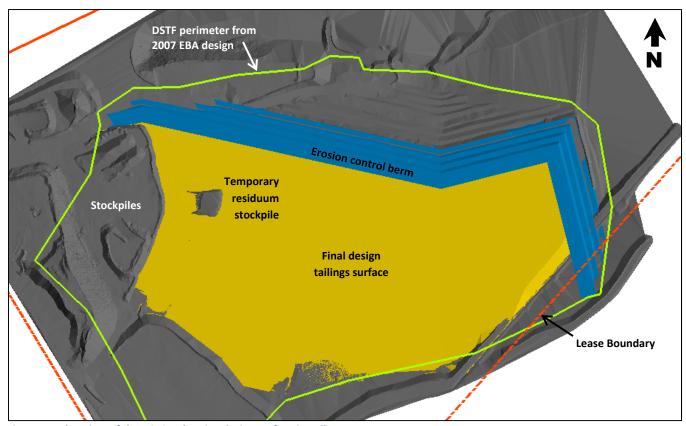


Figure 15: Plan view of the DSTSF, showing design surface in yellow.

As of the 2011 year-end survey, 754,000 m<sup>3</sup> of volume remains until the design surface is reached. The facility is permitted to store 5.9 million tonnes of tailings. EBA's October 2010 testing campaign showed an average dry density of 1715 kg/m<sup>3</sup> over 51 samples; using this density, the DSTF will hold an additional 1.29 million tonnes of tailings before reaching its design limit.

Phase IV contains, within its scope, a change in the tailings disposal methodology from dry-stacking to the direct placement of slurry tailings into the Main and Area 2 pits. The plans for this are described in detail in Minto's Tailings Management Plan, submitted to EMR for review on January 20, 2012.

The commencement of slurry tailings deposition is contingent upon the receipt of all necessary permits. In the interim, MintoEx intends to continue the use of the DSTSF, including the deposition of tailings created by the milling of Phase IV ore sources.

At current milling rates, the DSTSF will reach its design capacity in December of 2012. Should the permits for slurry deposition not be in place by that time, MintoEx will prepare a design for an expanded tailings stack and seek the necessary approvals to operate it.

## 5.1 DSTSF Stability

The DSTSF is currently moving north into the Minto Creek Valley. This is a creep-type failure, understood to be moving along a layer of ice-rich clay similar to the one responsible for the south wall movement in the Main pit. A detailed description, from a report prepared by EBA in September 2010 and titled *DSTSF Foundation Movement Monitoring Update*, is quoted below:

The deep deposits of ice-rich permafrost clay and clay till encountered in the south slope, of the Minto Creek valley and exposed in the Area 1 Pit were not expected nor were they predictable from the drilling that was conducted. These warm permafrost clay deposits extend eastward below the south valley wall and underlie the core of the DSTSF. Boreholes drilled in this area at various stages of mine planning in 1996 encountered mostly granular soils that are a weathering product of the upland country rock. Although these granular soils were in a permafrost condition, they were judged to not pose any particular hazard to the stability of the proposed tailings stack. Data obtained from the 2010 instrumentation program has shown that a substantial clay layer is present below the granular soils at depths below original ground in the order of 35 m (DSI4) and the clay seams extend to depths in the order of 60 m below original ground before bedrock is encountered. Drilling and sampling of the deep permafrost clay deposit identified layers of ice up to 1 metre thick (DSI4 at 53 m, April 2010). These deep clays with warm segregated ground ice have been clearly identified in all the slope indicator data as the zone where movements are now occurring.

The movement rate of the stack has thus far been characterized by long periods of constant-rate movement. On two occasions – January and October of 2011 – the movement rate has increased significantly. Data from a survey hub located at the center of the erosion control berm, shown in Figure 16, shows this. Also notable is the total displacement, which measures 3.191 m as of the last reading shown in the graph (February 4, 2012).

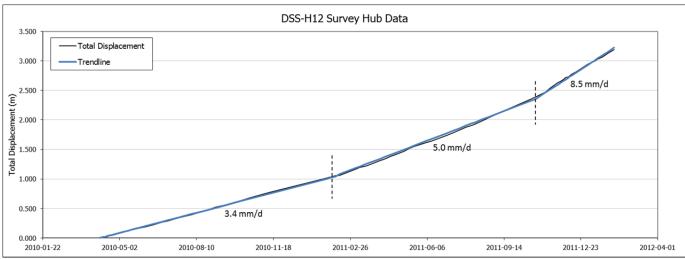


Figure 16: Monitoring data from survey hub DSS-H12, located at the center of the erosion control berm.

EBA has characterized the failure and designed a dump that will buttress it by filling in the valley. The construction of this dump, known as the Mill Valley Fill (MVF), is currently proceeding, with a drainage blanket of coarse zero-grade rock approximately 3/4 complete, and the toe key excavation and water sampling sumps complete.

# 6. Mill Operations

Minto is currently permitted to process ore at a rate of 3,600 tonnes per day, averaged over each calendar year. Ore is processed via a conventional crushing / grinding / flotation process, with tailings dewatered to the specifications necessary for dry-stacking through a bank of filter presses.

When the approvals necessary for slurry tailings deposition are obtained, the filter presses will be shut down and possibly decommissioned.

The milling of Phase IV ore sources will not require any significant changes to the process. The milling of partially oxidized ore may require continued optimization of the reagent scheme; however, this work is already underway in order to facilitate the processing of similar ore stockpiled from the Main pit.

#### 7. Conclusion

As MintoEx continues to refine its approach to implementing the Phase IV Expansion, additional detail will be added around the areas described in this plan. Prior to the commencement of underground mining, this plan will be amended to include details of that operation.