

February 20, 2018

Robert Holmes
Director of Mineral Resources
Department of Energy, Mines & Resources
PO Box 2703
Whitehorse, Yukon Y1A 2C6

RE: Main Pit Dump design revision

Dear Mr. Holmes,

The following letter and figures outlines a revision to the Main Pit Dump Design.

1 Summary

The Main Pit Dump (MPD) design has been modified to accommodate a higher than expected release of waste rock from Area 2 open pit mining. The initial MPD design was approved as part of Phase V/VI permitting, outlined in the document “Minto Mine Phase V/VI Expansion - Waste Rock and Overburden Management Plan” (November 2014). Designed capacity was 2.17 Mm³. In 2016 and 2017, revisions were made to the Area 2 Stage 3 pit design, which decreased the Area 2 Stage 3 pit size from the design permitted in Phase V/VI. The MPD capacity was in turn decreased to a capacity of 1.2 Mm³, outlined in the document “Mine Development and Operations Plan – Area 2 Stage 3 Pit Design Change” (July 2017).

This document outlines the proposed design change which will increase the capacity to 1.67 Mm³ to account for the remaining waste rock from the Area 2 Stage 3 pit and ongoing waste release from underground development. This revision represents a 40% increase from the previous design (July 2017), but remains 23% smaller (by volume) than the originally permitted Phase V/VI design.

2 Phase V/VI Design

Figure 1 shows the initial MPD design approved in Phase V/VI permitting. The design was primarily located on the mined out Main Pit dump and south wall buttress. The dump capacity was 2.17 Mm³.

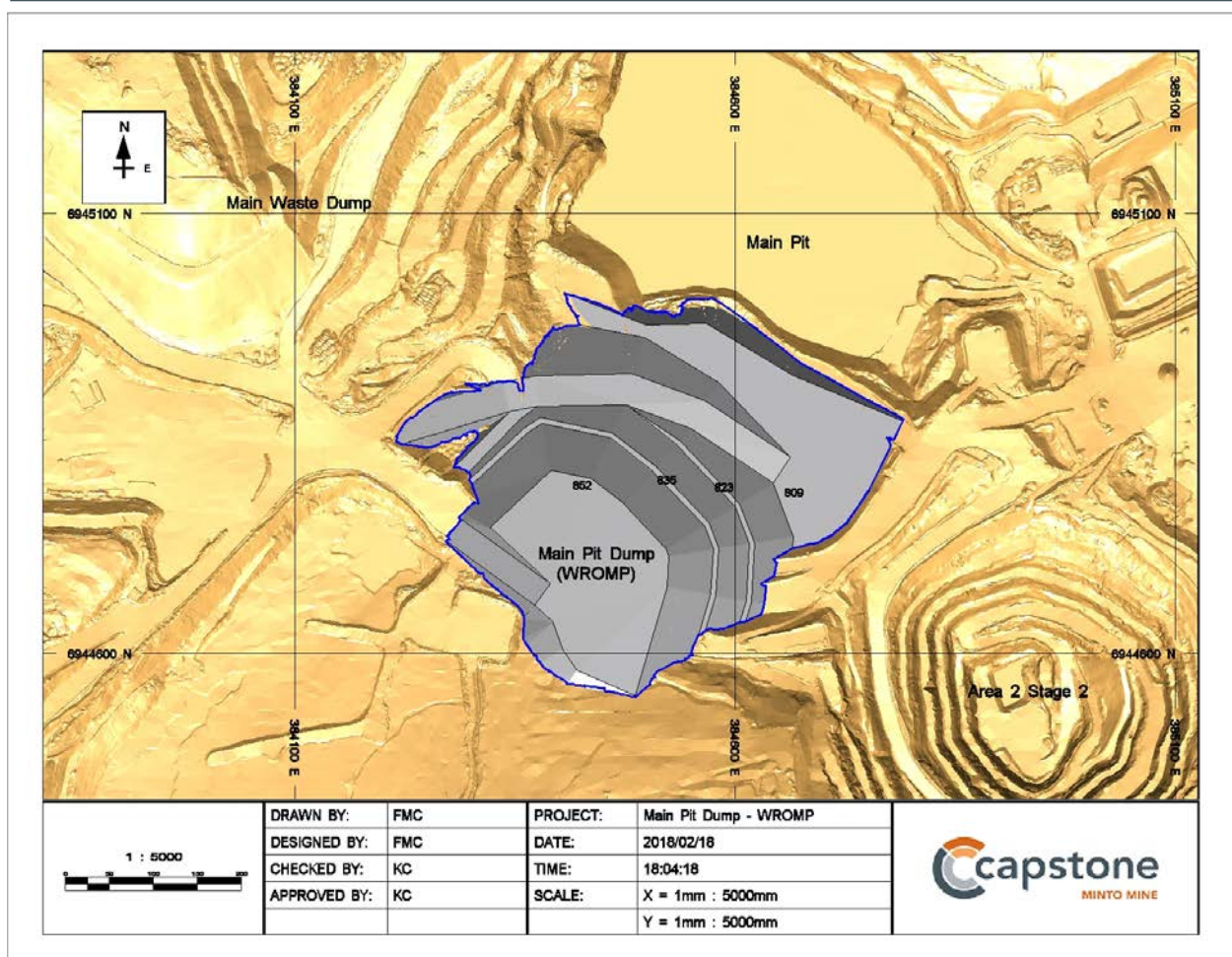


Figure 1: Phase V/VI design

3 2017 Design Revision

In 2016 and 2017, the MPD design was revised, shown in Figure 2, to correspond with the Area 2 Stage 3 pit and Area 2 Stage 3 pit design change. The footprint of the design was modified from the original design to avoid dumping on top of NP:AP<3 material (SAT waste) that had been placed in the Main Pit and south wall buttress. Restricting the dumping of waste material over the SAT waste will allow for future relocation of the material if required. The revised dump capacity was 1.2 Mm³.

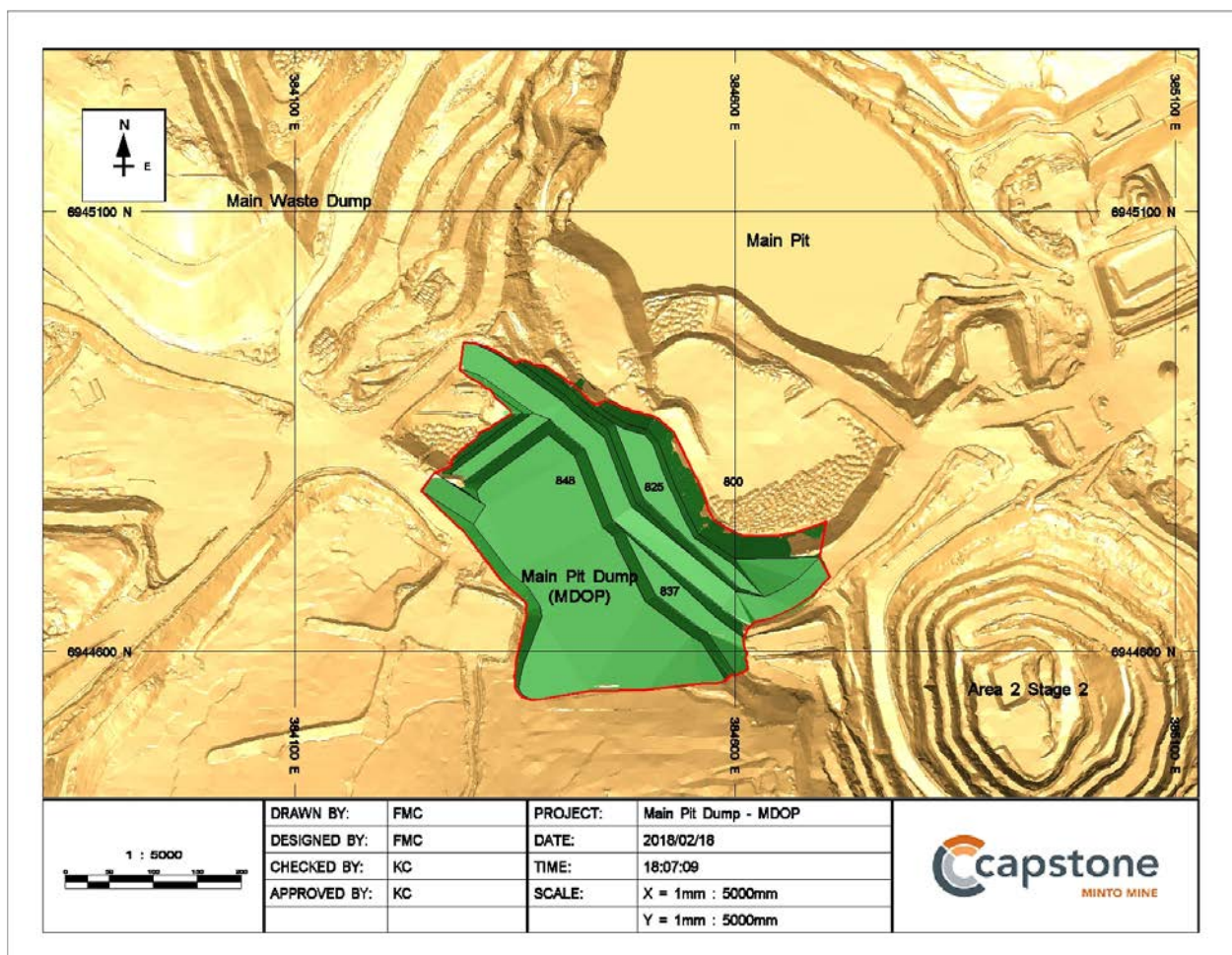


Figure 2: 2017 Revision

4 Proposed Revision

The proposed design, shown in Figure 3 and Appendix A, expands the dump slightly to the south with the objective of avoiding covering any SAT material, while staying within the permitted volume (2.17 Mm³). This results in a total capacity of 1.67 Mm³ and a change to the footprint of 2.77 hectares, shown in Figure 4, relative to the previous design (July 2017). All of the dump design parameters remain the same as the previous designs (Phase V/VI and July 2017). Stability analyses, included in Appendix B, have been updated and show no significant change.

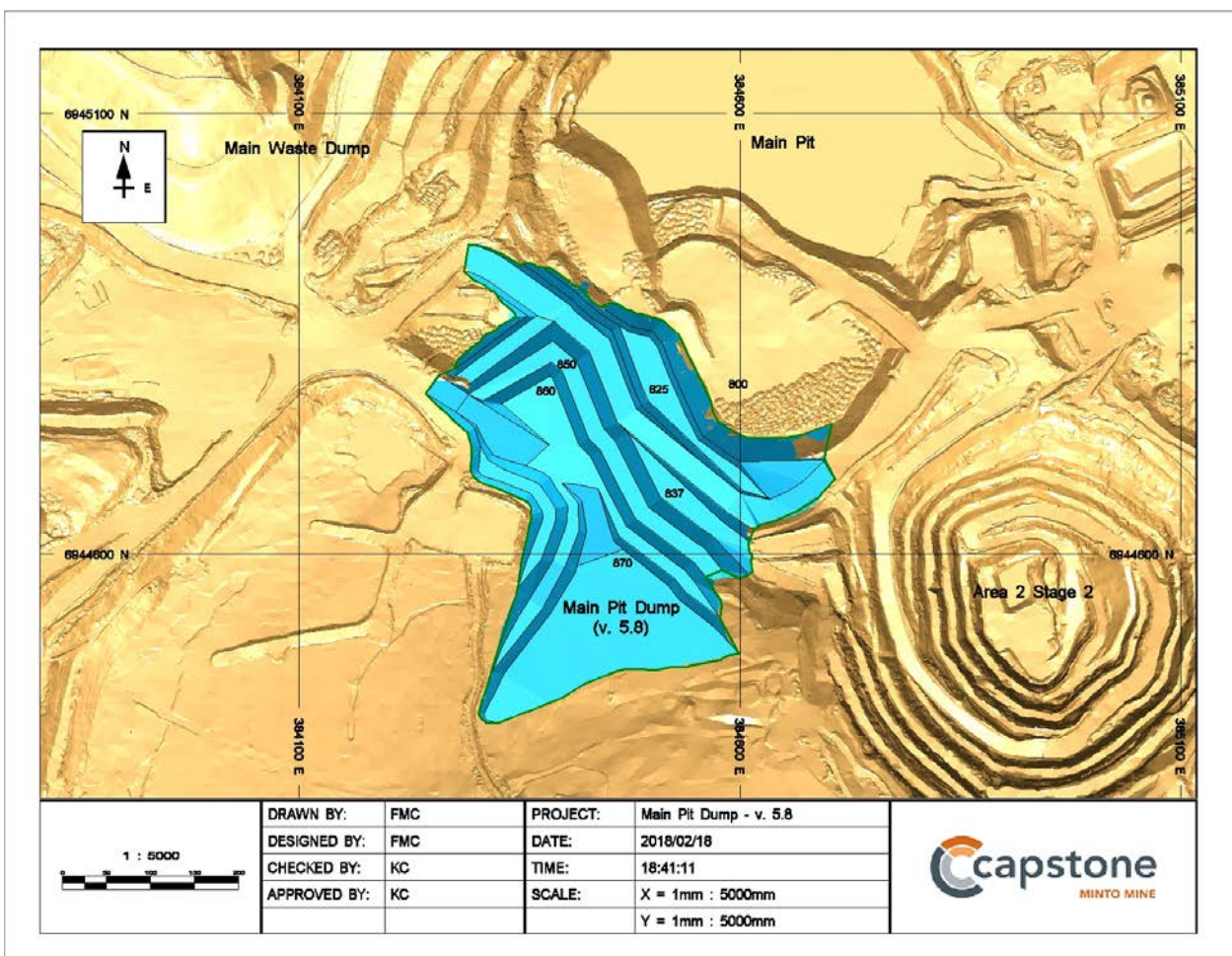


Figure 3: Proposed design revision

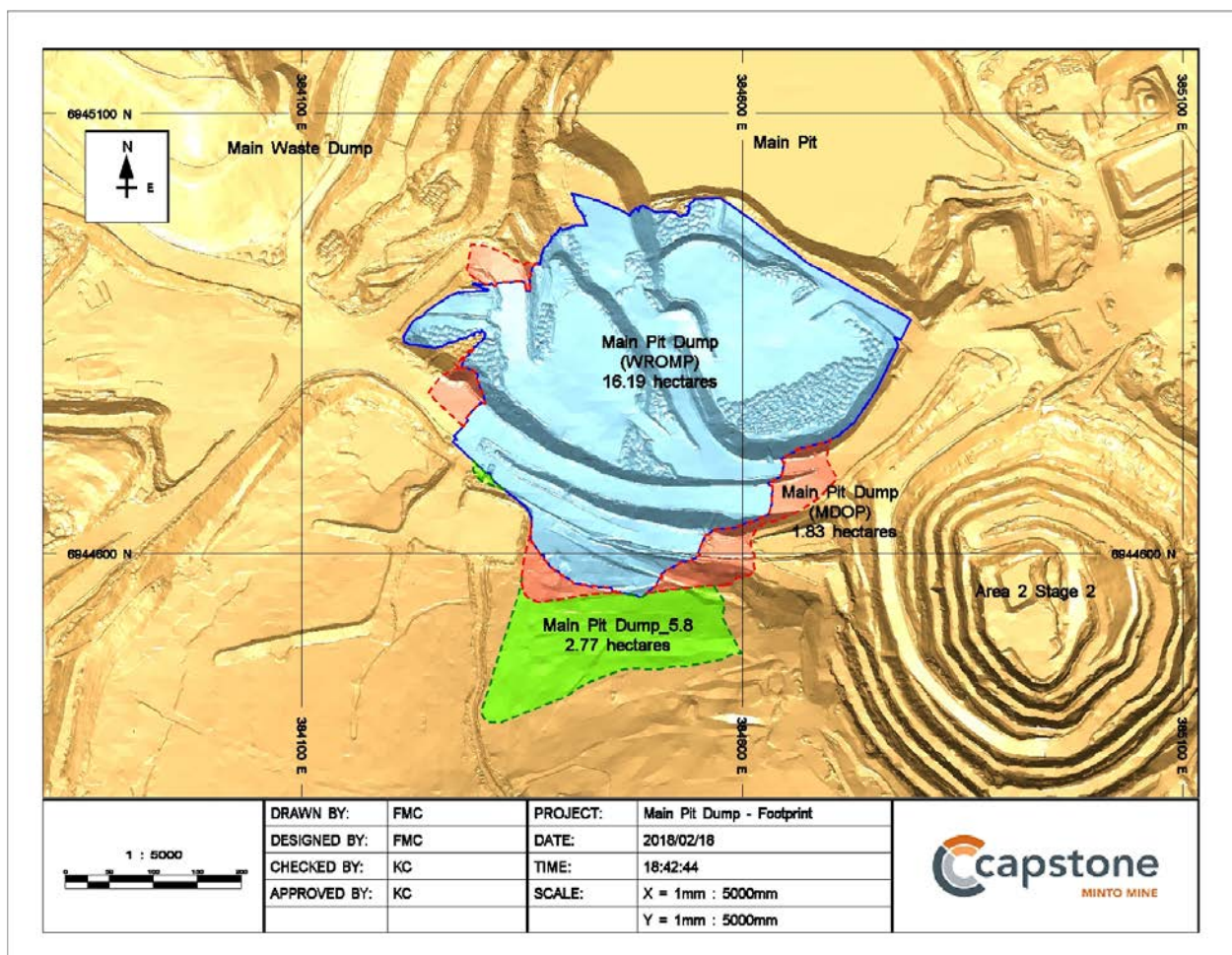


Figure 4: Footprint comparison

If you have any questions regarding this document, please do not hesitate to contact me at kevinc@mintomine.com or 604-759-4651.

Sincerely,

Kevin Cymbalsty, P.Eng., Mine Manager

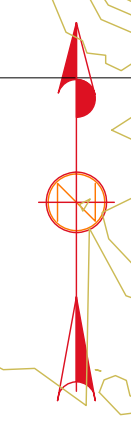
Appendix A – Design Figures

Main Waste Dump

Main Pit

Area 2 Stage 2

Main Pit Dump



B'

A'

A

B

Ramp
30mW
<< +0.1% <<

Ramp
25mW
>> +10.0% >>

Gradient
<< -5.8% <<

Ramp
24mW
>> +10.0% >>

Gradient
<< -1.1% <<

Gradient
<< -2.0% <<

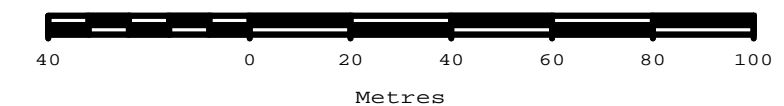
Ramp
20mW
<< 0.0% <<

Ramp
26mW
<< +5.7% <<

Ramp
25mW
<< -10.0% <<

Overpit Slope
1V:3H

Main Pit Dump v5.8



1:1500 20-Feb-2018 FMC

6945000

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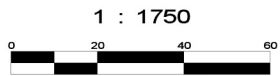
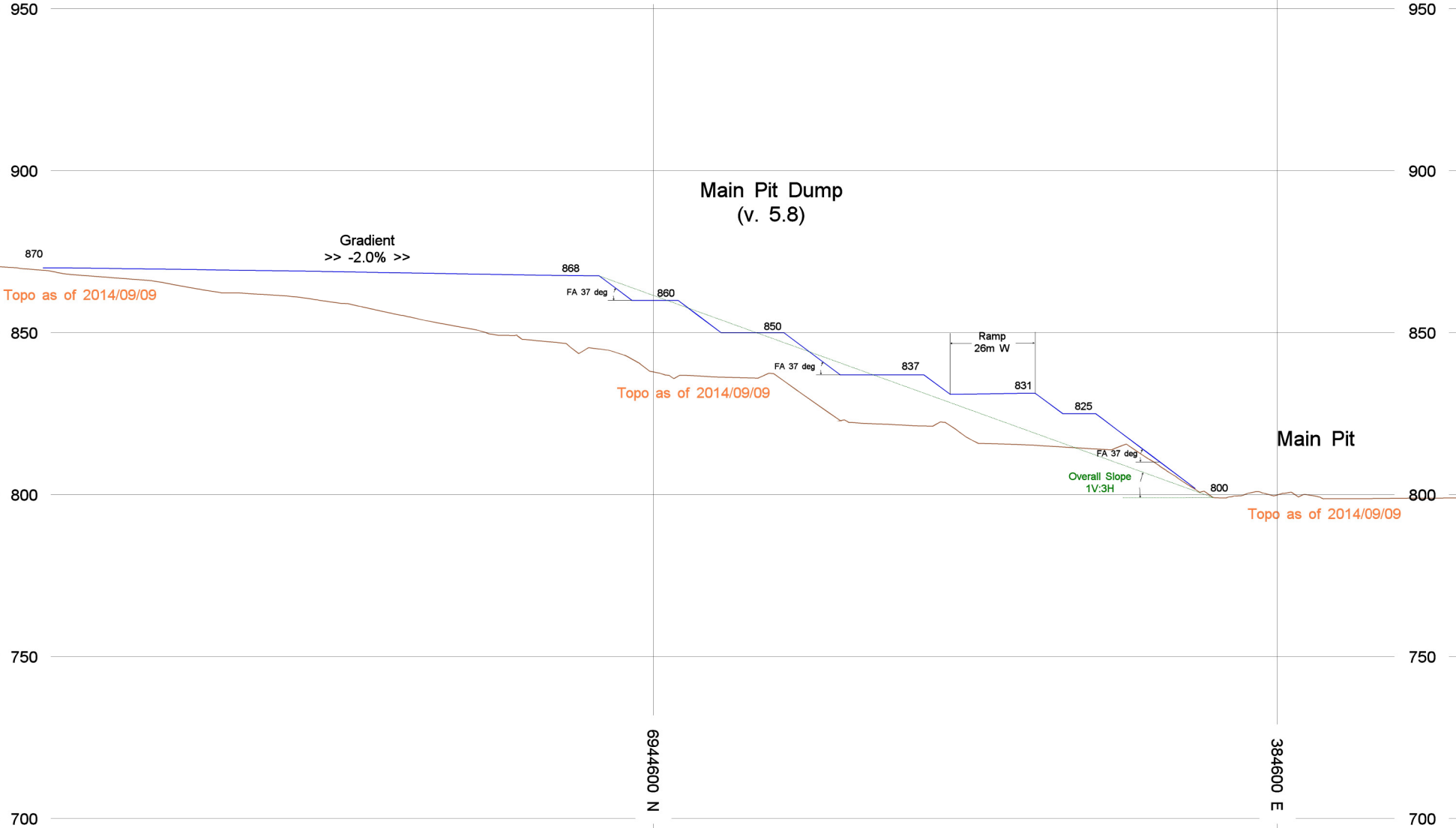
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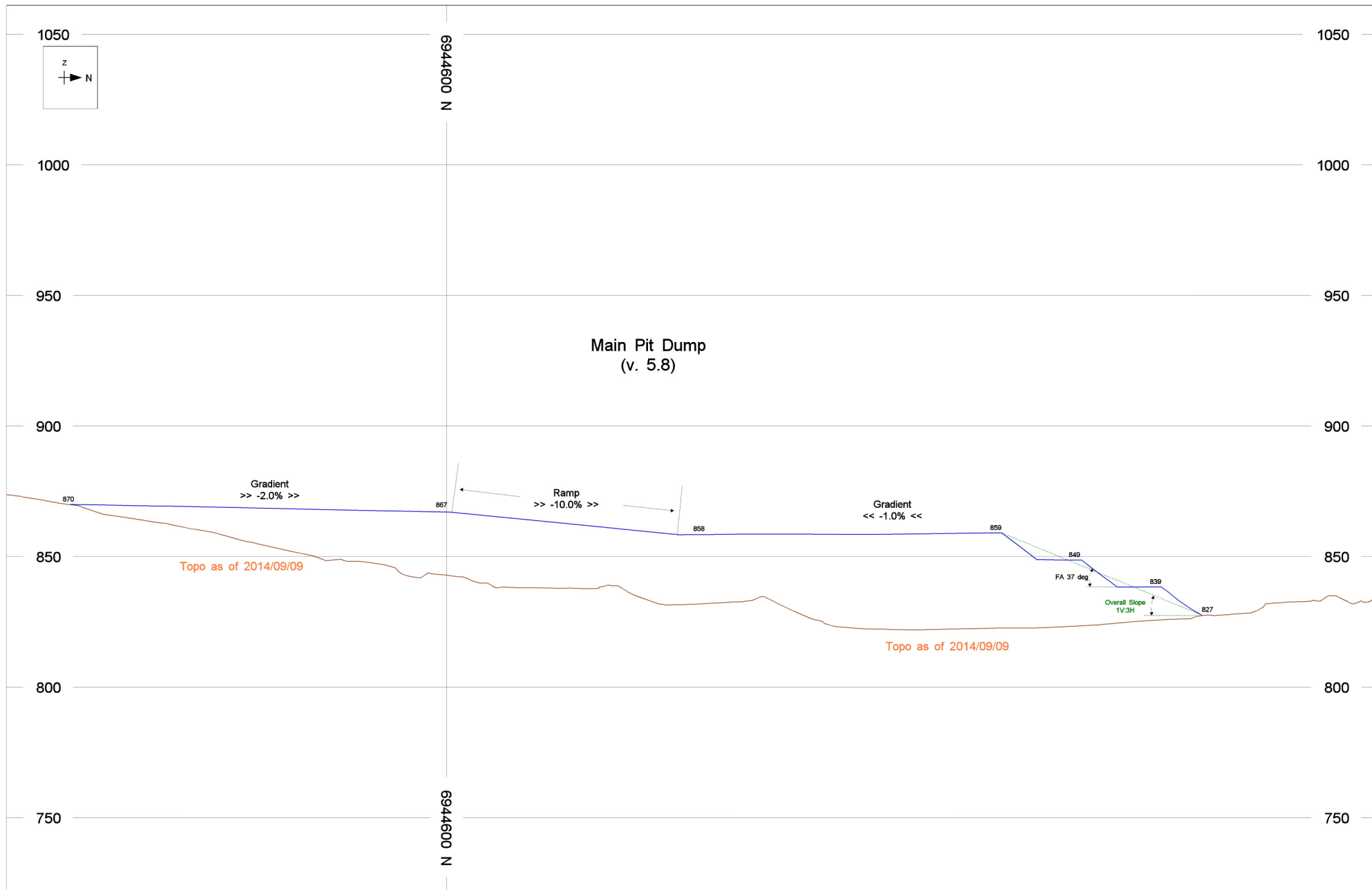
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|--------------|-----|----------|--------------------------------|
| DRAWN BY: | FMC | PROJECT: | Main Pit Dump - Section A - A' |
| DESIGNED BY: | FMC | DATE: | 2018/02/20 |
| CHECKED BY: | KC | TIME: | 10:44:26 |
| APPROVED BY: | KC | SCALE: | X = 1mm : 1750mm |
| | | | Y = 1mm : 1750mm |





| | | | | |
|--|--------------|-----|----------|--------------------------------|
| | DRAWN BY: | FMC | PROJECT: | Main Pit Dump - Section B - B' |
| | DESIGNED BY: | FMC | DATE: | 2018/02/20 |
| | CHECKED BY: | KC | TIME: | 13:14:32 |
| | APPROVED BY: | KC | SCALE: | X = 1mm : 2000mm |
| | | | | Y = 1mm : 2000mm |



Appendix B – Stability Analyses

Memo

| | | | |
|-----------------|---|--------------------|-------------------------|
| To: | Kevin Cymbalsty, Heather Friday | Client: | Minto Explorations Ltd. |
| From: | Peter Mikes, P.Eng. | Project No: | 1CM002.053 |
| Cc: | | Date: | February 20, 2018 |
| Subject: | Main Pit Dump (Revision 5.8) Stability Assessment | | |

This memorandum presents stability analysis results on the latest revision of the Main Pit Dump (MPD) geometry (Revision 5.8) provided by Minto on December 19, 2017. The last MPD geometry analyzed by SRK was Revision 5.6 in July 2017 (SRK 2017). Revision 5.8 was required to increase the MPD storage capacity due to higher volume of waste rock produced during mining of the Area 2 Stage 4 Pit.

Figure 1 provides a plan view of the Revision 5.8 geometry (red lines) compared to the Revision 5.6 geometry (green), as well as the cross-section locations assessed in the Revision 5.6 stability analysis. Revision 5.8 includes an additional 10 m high waste rock lift that expands the dump footprint to the south and increases the ultimate crest elevation to approximately 870 m. As shown in Figure 1, Sections D and G are the two sections that are affected by the change in geometry and were reanalyzed as part of this assessment.

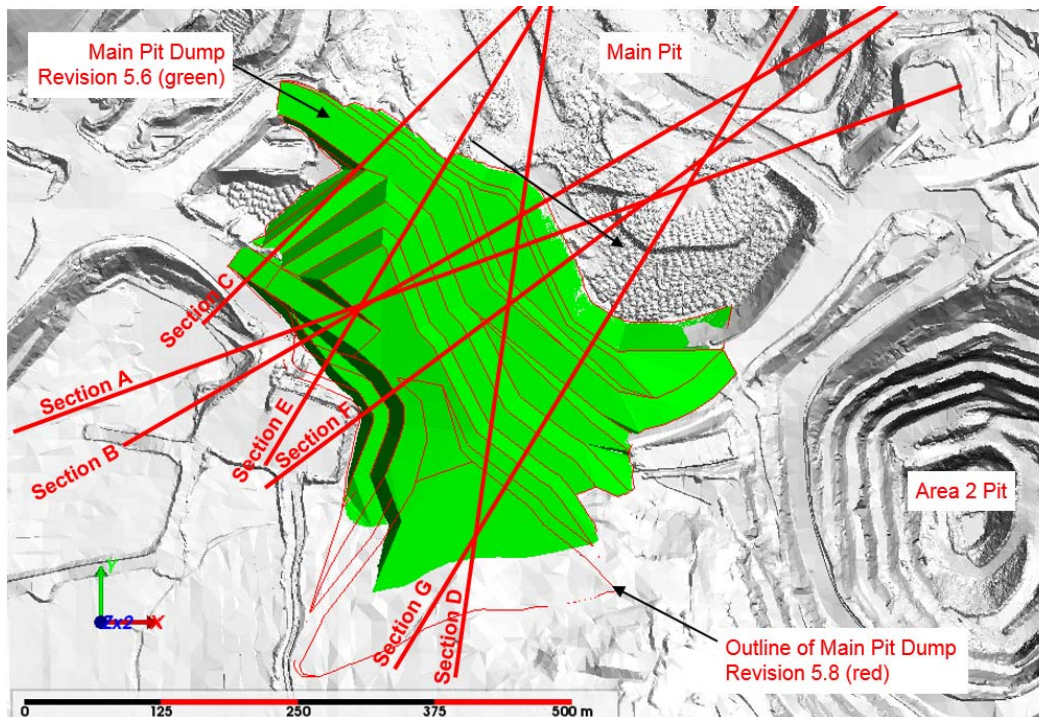


Figure 1: Main Pit Dump Revision 5.8 Plan View

Source: Figures_MPDRev5-8_StabilityAnalysis_rev00.pptx

Stability analysis results are provided in Table 1. Details of the assessment methodology are provided in SRK (2017).

Table 1: Slope Stability Results

| Condition | Description | Target FOS | Calculated Factor of Safety ⁽¹⁾ | | | |
|-----------|---------------------------------|------------|--|---------------------|---------------------|---------------------|
| | | | Revision 5.6 D-D | Revision 5.8 D-D | Revision 5.6 G-G | Revision 5.8 G-G |
| 1 | MPD constructed – Static | 1.1 | 1.5 | 1.5 | 1.3 | 1.3 |
| 2 | MPD constructed – Pseudo-static | 1.0 | 1.2 | 1.2 | 1.2 | 1.2 |

Revision 5.8 FOS values show no significant change compared to Revision 5.6 values and are above minimum requirements under static and pseudo-static loading conditions prior to closure.

References

SRK Consulting (Canada) Inc., 2017. Main Pit Dump (Revision 5.6) Stability Analysis Update. Prepared for Minto Explorations Ltd. SRK project number 1CM002.053. July 24.