

AGNICO EAGLE MINES LIMITED - MEADOWBANK COMPLEX  
REPORT NUMBER: 61

# CONSTRUCTION SUMMARY REPORT

## EMULSION PLANT PAD

AUGUST 15, 2022







# CONSTRUCTION SUMMARY REPORT EMULSION PLANT PAD

AGNICO EAGLE MINES LIMITED -  
MEADOWBANK COMPLEX

PROJECT NO.: 201-11560-02  
CLIENT REF:61  
DATE: AUGUST 15, 2022

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3 PRINCIPALE STREET NORTH  
AMOS, QC, CANADA J9T 2K5

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WSP.COM



August 15, 2022

AGNICO EAGLE MINES LIMITED - MEADOWBANK COMPLEX  
93, Arseneault Street, Suite 314  
Val-d'Or, Quebec, Canada  
J9P 0E9

**Attention: Bruno Roy, P. Eng.**

Dear Sir:

**Subject: Construction Summary Report - Emulsion Plant Pad**  
**Client ref.: 61**

The following report presents the construction summary of the emulsion plant pad built at the Meadowbank complex.

Yours sincerely,

Stephan Dupuis, P. Eng.  
Project Manager

WSP ref.: 201-11560-02

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3 PRINCIPALE STREET NORTH  
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# SIGNATURES

PREPARED BY



Samuel Proteau-Gervais, P. Eng., MASc  
(OIQ #5082019)

Date

APPROVED<sup>1</sup> BY *(must be reviewed for technical accuracy prior to approval)*

Stephan Dupuis, P. Eng. (NAPEG #L3152  
OIQ #139669)  
Project Manager

Date

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# CONTRIBUTORS

## CLIENT

Civil Resident Engineer	Isaac Charbonneau Beaulieu
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Construction Engineer	Bruno Roy
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## WSP

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Project Manager	Stephan Dupuis
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Technician	Benoit Collin
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Technician	Gabriel Normand
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# 1 MANDATE AND CONTEXT

WSP was mandated by Agnico Eagle Mines (AEM) Limited – Meadowbank Complex to provide “For Construction” drawings for the general earthworks of their new emulsion plant. More precisely, the drawings are focused on the construction of the emulsion plant’s pad. WSP was also mandated to provide a construction summary report.

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## 1.1 DISCLAIMER

WSP did not monitor the construction of the emulsion plant pad and the available information was provided by the AEM construction team. Therefore, as-built drawings are replaced by as-surveyed drawings and WSP can not be held responsible for the conformity of the earthworks.

## 2 CONSTRUCTION SUMMARY

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### 2.1 FINAL DESIGN AND CONSTRUCTION DRAWINGS

Appendix A presents the final design and construction drawings regarding the general earthworks of the new emulsion plant pad. The pad's structure consists of:

**Table 2.1 Proposed Pad Structure**

Layer	Thickness (mm)	Material (mm)	Compaction
3	200	0 - 20	98 % modified Proctor test <sup>1</sup>
2	100 to 200	0 - 125	4 round trips of D8 bulldozer
1	Variable	0 - 600	4 round trips of D8 bulldozer

<sup>1</sup>The compaction was not monitored by a nuclear density gauge

Under the tanks and material loading building, a specific containment grading is required and a membrane is installed on top of layer 3 to prevent material migration.

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### 2.2 CONSTRUCTION ACTIVITIES' SUMMARY

As reported by the AEM construction team, the following earthworks activities were undertaken:

1. KCG (general contractor) begins earthworks on August 8, 2021.

2. FC Liners (subcontractor) installs a geomembrane (liner), provided by Dyno, from October 2, 2021 to October 12, 2021 (Figure 1).



**Figure 1: FC Liners – Membrane**

3. ABF Construction (contractor) welds the membrane on October 12, 2021.

4. KCG ends earthworks on October 13, 2021 (Figure 2).



**Figure 2: KGC – Earthworks**

5. KCG remains available until the plant is commissioned to ensure that no modifications are required. The emulsion plant is commissioned on May 6, 2022.

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## 2.3 AS-SURVEYED DRAWINGS

Appendix B presents the as-surveyed drawings of the new emulsion plant pad.

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## 2.4 FIELD DECISIONS DEVIATING FROM THE ORIGINAL PLANS

Since the earthworks were very straightforward, AEM assures that the original plan was fully respected. The only deviation was for the compaction monitoring of the top layer since no nuclear density gauge was available. Most likely, the compaction was obtained but could not be monitored.

---

## 2.5 MITIGATION MEASURES DURING CONSTRUCTION

The location of the plant is nowhere near any body of water, so AEM assures that no sediments were released from the construction area. AEM also assures that no blasting was required for the construction of the emulsion plant pad. Finally, the construction took place during late summer and fall. AEM assures that this time of the year and high humidity allowed for a proper dust emission control.

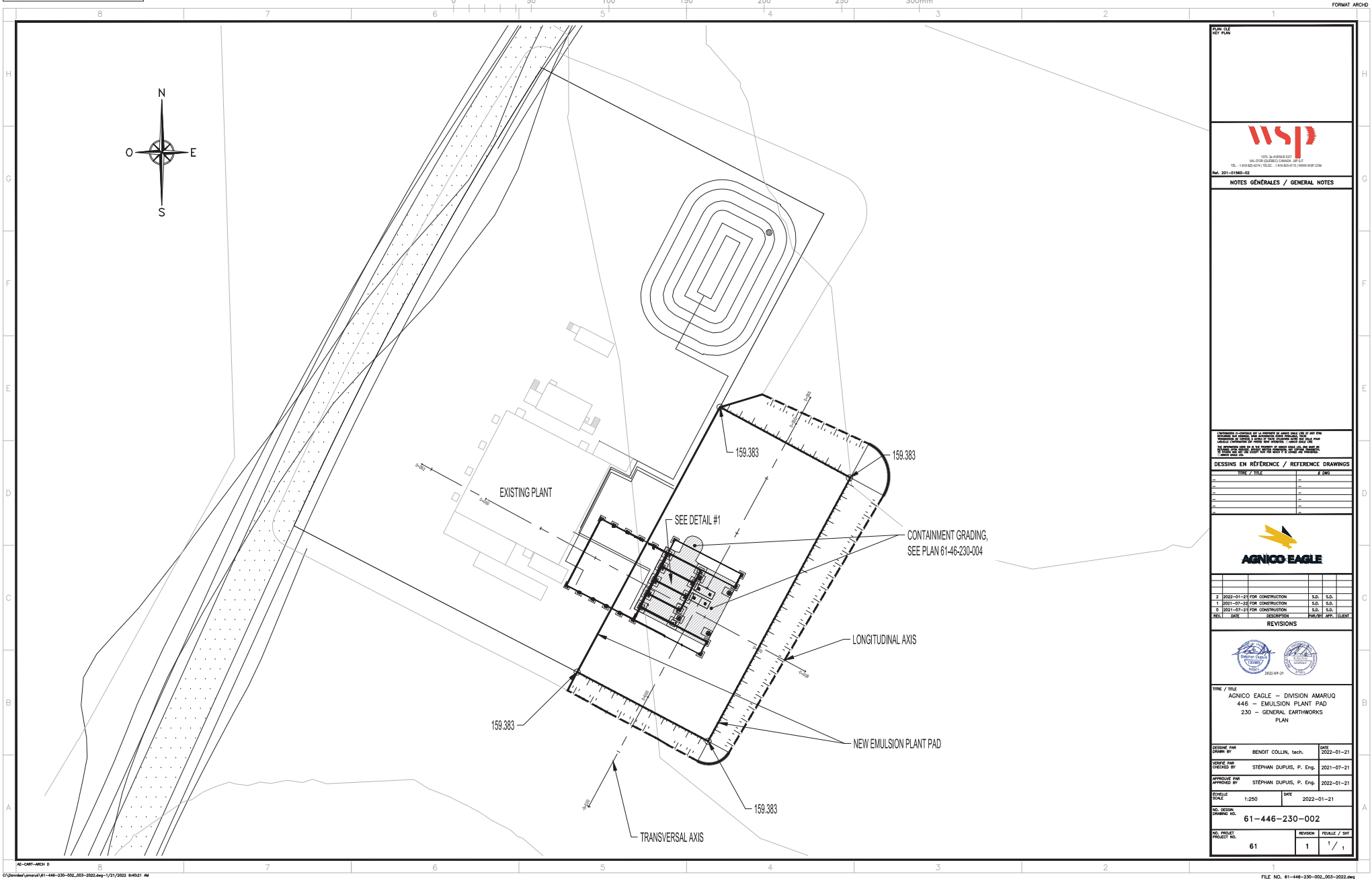
### 3 CONCLUSION

WSP provided to AEM “For Construction” drawings for the general earthworks of their new emulsion plant. Earthworks were completed between August and October 2021 by KCG (contractor), FC Liners (subcontractor) and ABF Construction (contractor).

In this report, the final design and construction drawings are presented, a summary of the construction activities is provided and the as-surveyed drawings are shown. Briefly, the earthworks began on August 8, 2021 and ended on October 13, 2021. The emulsion plant was commissioned on May 6, 2022.

# APPENDIX

## A FOR CONSTRUCTION DRAWINGS



PLAN / CDE  
NOT PLAN

**WSP**  
100, 36 AVENUE EST.  
VAL D'OR (QUEBEC) CANADA J9P 5P7  
TEL : (418) 852-4211 (TÉL.ÉC. : 1-877-425-4715) WWW.WSP.CAN  
Fax: 202-0790-02

NOTES GÉNÉRALES / GENERAL NOTES

DESIGNING EN REFERENCE / REFERENCE DRAWINGS

NO.	DATE	REVISION	PROJ.	APP.	DATE
1	2021-07-21	FOR CONSTRUCTION	S.D.	S.D.	
2	2022-01-21	FOR CONSTRUCTION	S.D.	S.D.	

REVISIONS

2022-01-21

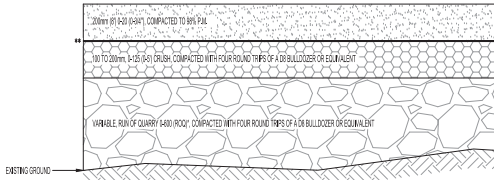
AGNICO EAGLE - DIVISION AMARUQ  
446 - EMULSION PLANT PAD  
230 - GENERAL EARTHWORKS  
PLAN

DESIGNED BY: BENOT COLLIN, tech. DATE: 2022-01-21  
CHECKED BY: STEPHAN DUPUIS, P. Eng. 2021-07-21  
APPROVED BY: STEPHAN DUPUIS, P. Eng. 2022-01-21

SCALE: 1:250 DATE: 2022-01-21  
DRAWING NO.: 61-446-230-002  
SHEET NO.: 61 REVISION: 1 FEUILLE / SHEET: 1 / 1

GEOTECHNICAL NOTE :

- WE DO NOT HAVE THE GEOTECHNICAL ANALYSIS OF THE EXISTING GROUND UNDER THE GRANULAR FONDATION, DEPENDING OF THE GROUND COMPOSITION AND THE INFLUENCE OF THE PERMAFROST A SETTLEMENT MIGHT OCCURE IN THE UPCOMING YEARS. EVERY BUILDINGS AND EQUIPMENT INSTALLATIONS MUST BE BUILT IN A WAY THAT A LEVELING WOULD BE POSSIBLE IN THAT CASE, THE EQUIPMENT SUPPLIER SHOULD ALSO BE INFORM OF THAT SITUATION.
- AEM, NEEDS TO DO AN ANNUAL SURVEY OT THE GROUND LEVEL TO MAKE SURE THAT ANY SETTLEMENT IS CORRECTED.
- AFTER FIVE YEARS, A NEW ANALYSIS OF THE GROUND STRUCTURE WILL BE REQUIRED

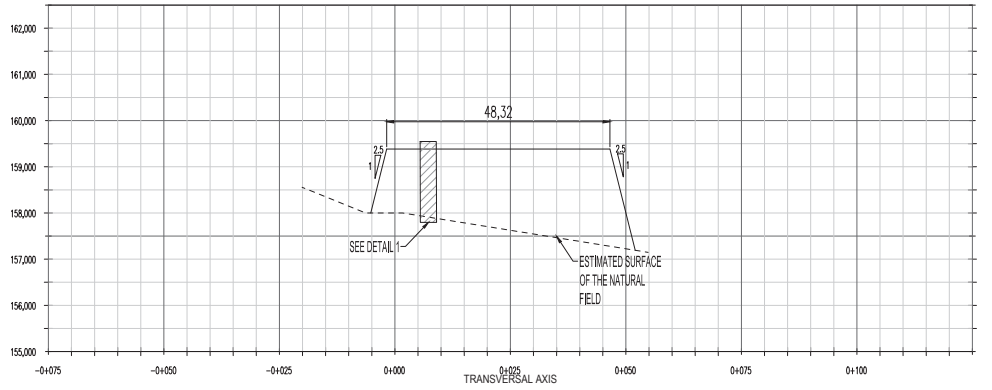
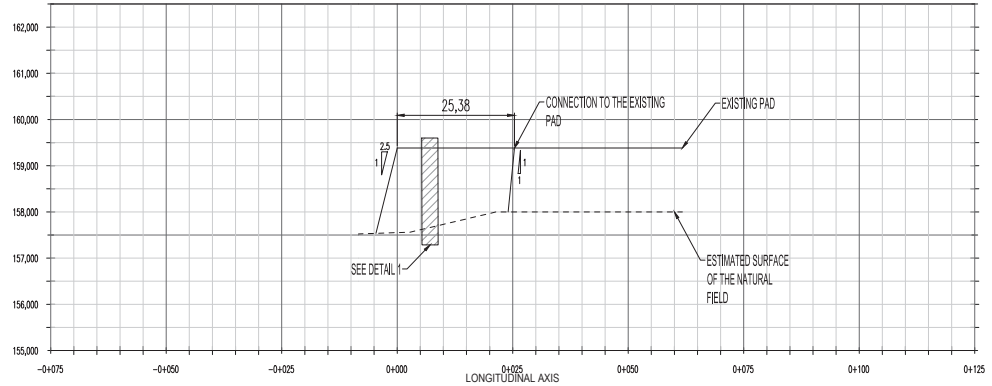


NOTE:  
THE BLOCKS OF STONE SHALL NOT EXCEED 1m IN THEIR LARGEST DIMENSION. THE MATERIALS MUST BE INSTALLED AND SPREAD IN UNIFORM LAYERS WITH A MAXIMUM THICKNESS OF 1.5m ON THE FULL WIDTH REQUIRED BY THE THEORETICAL SLOPE OF THE EMBANKMENT EXCEPT FOR THE LAST 3m UNDER THE SUBBASE WHERE THE MAXIMUM LAYER THICKNESS SHALL BE 1m.

\* UNDER THE BUILDINGS, A MEMBRANE NEED TO BE INSTALLED BETWEEN THE FIRST TWO LAYERS TO PREVENT MATERIAL MIGRATION.

DETAIL  
NO SCALE

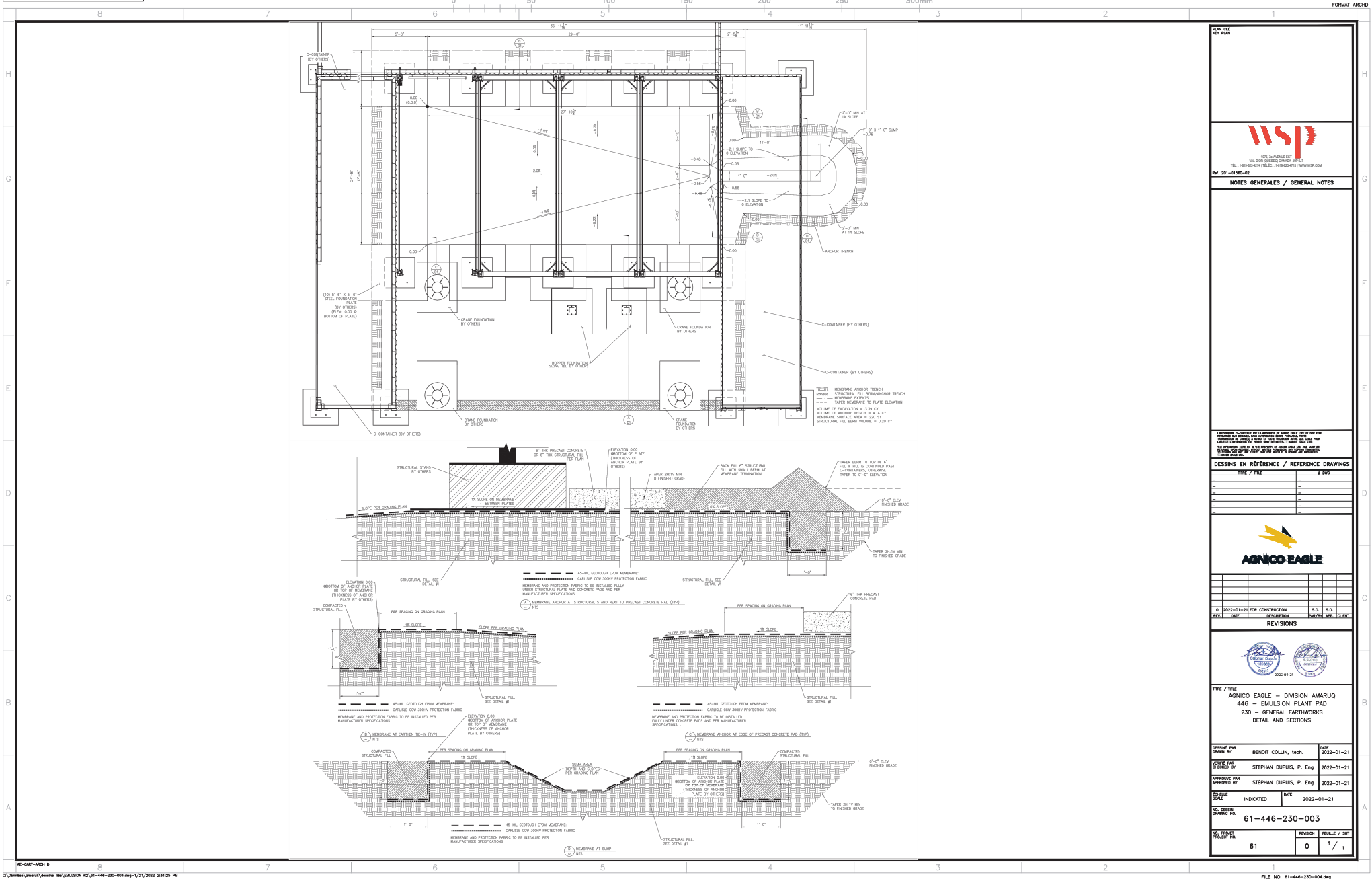
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EMULSION PLANT PAD SIDE VIEWS  
SCALE : 1:500

<p>WSP</p> <p>100, 36 AVENUE EST. VAL D'OR (QUEBEC) CANADA J9P 5P7 TEL : (418) 852-6211 (TOLL FREE) : (1-877-425-4715) WWW.WSP.COM</p> <p>Ref: 2021-02-002-03</p>																									
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<p>DESIGNING EM REFERENCE / REFERENCE DRAWINGS</p> <table border="1"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>BY</th> <th>CHK</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>2022-01-21</td> <td>FOR CONSTRUCTION</td> <td>S.B.</td> </tr> <tr> <td>2</td> <td>2022-01-21</td> <td>FOR CONSTRUCTION</td> <td>S.B.</td> </tr> <tr> <td>3</td> <td>2022-01-21</td> <td>FOR CONSTRUCTION</td> <td>S.B.</td> </tr> <tr> <td>4</td> <td>2022-01-21</td> <td>FOR CONSTRUCTION</td> <td>S.B.</td> </tr> <tr> <td>5</td> <td>2022-01-21</td> <td>FOR CONSTRUCTION</td> <td>S.B.</td> </tr> </tbody> </table>		NO.	DATE	BY	CHK	1	2022-01-21	FOR CONSTRUCTION	S.B.	2	2022-01-21	FOR CONSTRUCTION	S.B.	3	2022-01-21	FOR CONSTRUCTION	S.B.	4	2022-01-21	FOR CONSTRUCTION	S.B.	5	2022-01-21	FOR CONSTRUCTION	S.B.
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<p>DESIGNED BY</p> <p>BENOIT COLLIN, tech.</p>	<p>DATE</p> <p>2022-01-21</p>																								
<p>CHECKED BY</p> <p>STÉPHAN DUPUIS, P. Eng</p>	<p>DATE</p> <p>2022-01-21</p>																								
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PLAN DATE  
NOT PLAN

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Fax: 514-432-4242

NOTES GÉNÉRALES / GENERAL NOTES

DESIGNS EN RÉFÉRENCE / REFERENCE DRAWINGS

NO.	DATE	REV.
1	2022-01-21	0

REVISIONS

NO.	DATE	REV.	DESCRIPTION	APP.	DATE
1	2022-01-21	0			

TIME / TITLE  
AGNICO EAGLE - DIVISION AMARUQ  
446 - EMULSION PLANT PAD  
230 - GENERAL EARTHWORKS  
DETAIL AND SECTIONS

DESIGNED BY: BENOT COLLIN, tech. DATE: 2022-01-21  
CHECKED BY: STEPHAN DUPUIS, P. Eng. 2022-01-21  
APPROVED BY: STEPHAN DUPUIS, P. Eng. 2022-01-21

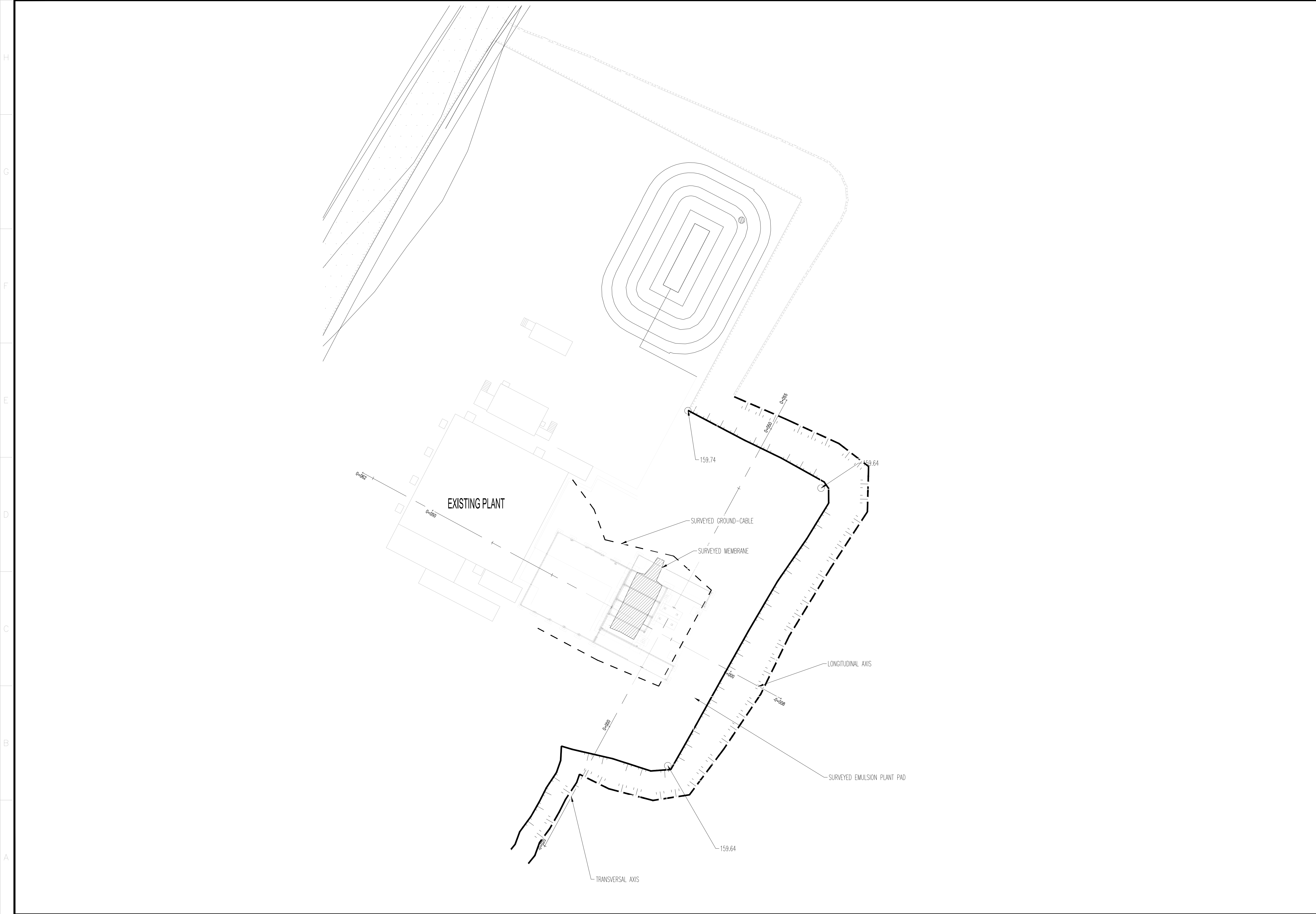
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61-446-230-003


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REVISION: 0  
PELLE: 1 / 1

# APPENDIX

## **B** AS-SURVEYED DRAWINGS



PLAN / CLF  
KEY PLAN




1075, 3e AVENUE EST  
VAL-D'OR (QUÉBEC) CANADA J9P 6J7  
TEL. : 1-819-825-6274 / TÉLÉC. : 1-819-825-4715 / WWW.WSP.COM  
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REV.	DATE	DESCRIPTION	PAR/EN	APP.	CLIENT
2	2022-06-13	AS SURVEYED	S.D.	S.D.	
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0	2021-07-21	FOR CONSTRUCTION	S.D.	S.D.	

REVISIONS

TITRE / TITLE	DATE
AGNICO EAGLE - DIVISION AMARUQ 446 - EMULSION PLANT PAD 230 - GENERAL EARTHWORKS PLAN	2022-06-13

DRAWN BY	DATE
BENOIT COLLIN, tech.	2022-06-13

CHECKED BY	DATE
STÉPHAN DUPUIS, P. Eng.	2022-06-13

APPROVED BY	DATE
STÉPHAN DUPUIS, P. Eng.	2022-06-13

SCALE	DATE
1:250	2022-06-13

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