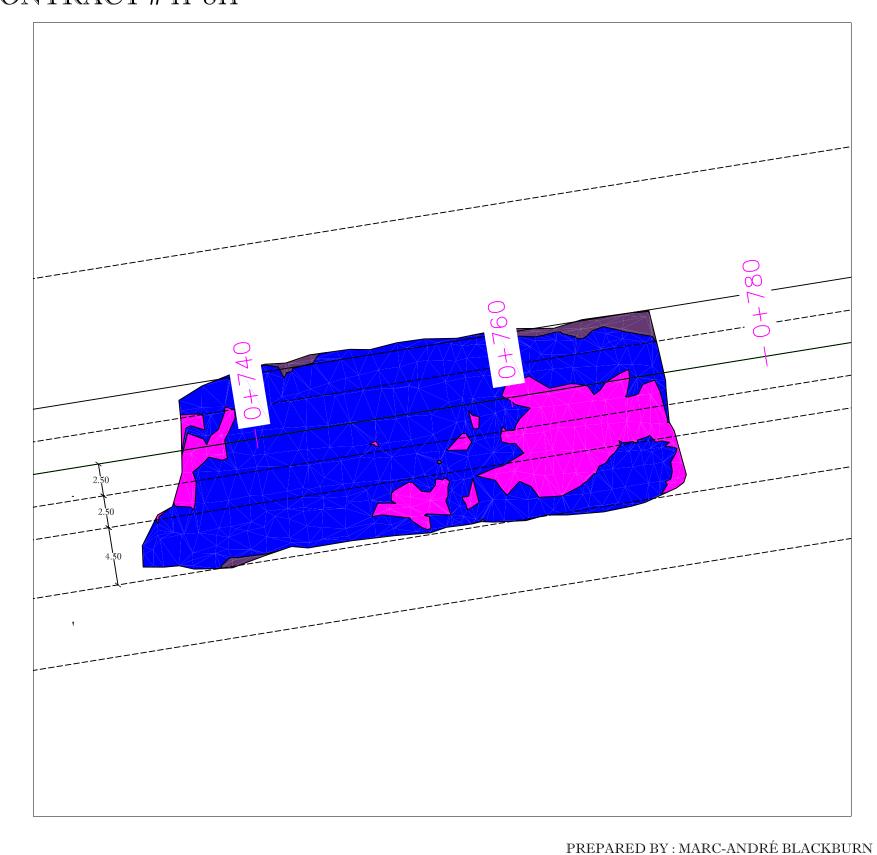
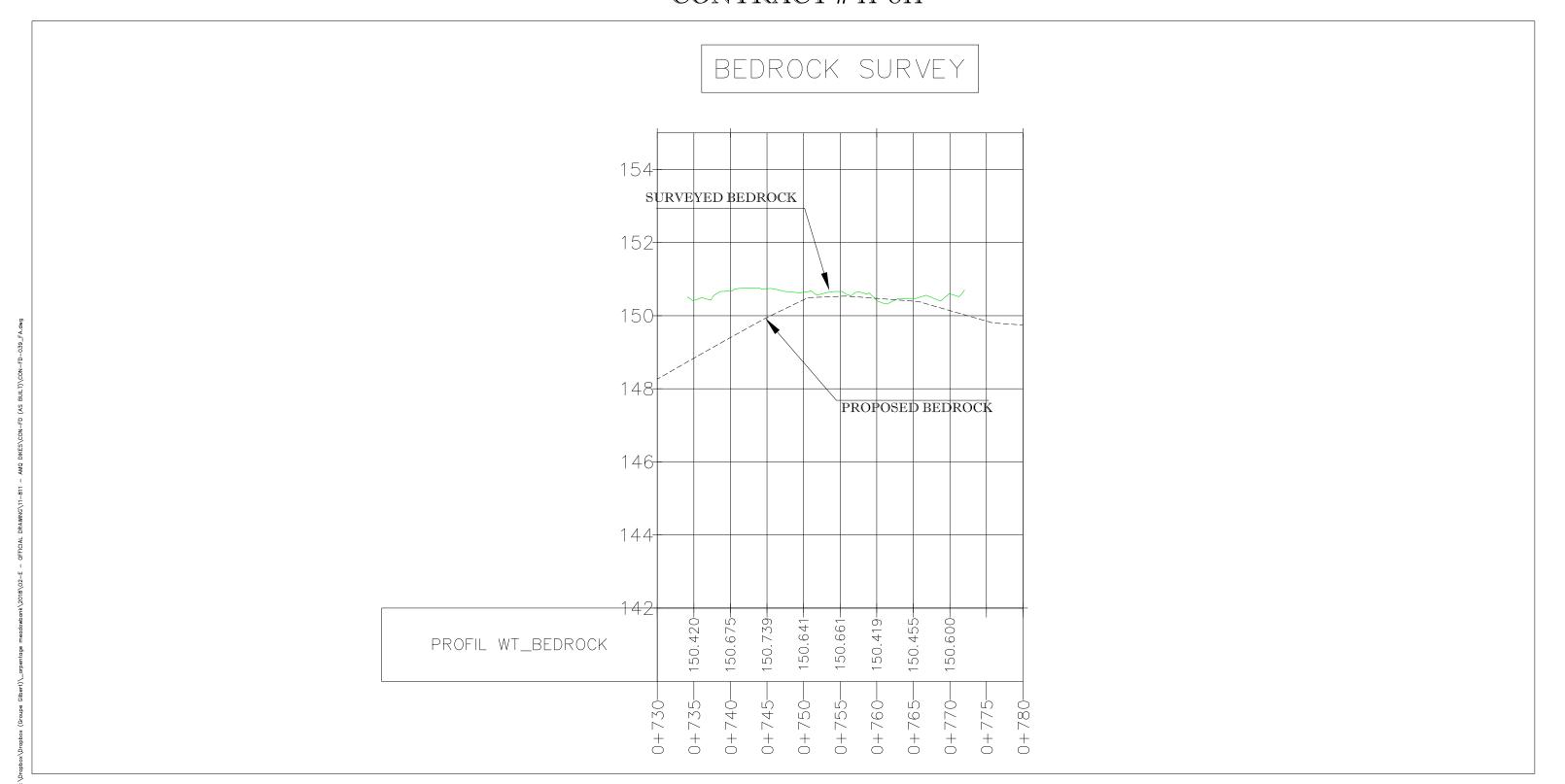
|        | Elev              | ations Table      |        |       |
|--------|-------------------|-------------------|--------|-------|
| Number | Minimum Elevation | Maximum Elevation | Area   | Color |
| 1      | 143.00            | 143.50            | 0.00   |       |
| 2      | 143.50            | 144.00            | 13.07  |       |
| 3      | 144.00            | 144.50            | 33.80  |       |
| 4      | 144.50            | 145.00            | 32.96  |       |
| 5      | 145.00            | 145.50            | 23.02  |       |
| 6      | 145.50            | 146.00            | 17.15  |       |
| 7      | 146.00            | 146.50            | 32.42  |       |
| 8      | 146.50            | 147.00            | 59.31  |       |
| 9      | 147.00            | 147.50            | 79.02  |       |
| 10     | 147.50            | 148.00            | 111.96 |       |
| 11     | 148.00            | 148.50            | 81.81  |       |
| 12     | 148.50            | 149.00            | 60.86  |       |
| 13     | 149.00            | 149.50            | 64.91  |       |
| 14     | 149.50            | 150.00            | 211.36 |       |
| 15     | 150.00            | 150.50            | 237.84 |       |
| 16     | 150.50            | 151.00            | 525.94 |       |
| 17     | 151.00            | 151.50            | 471.13 |       |
| 18     | 151.50            | 152.00            | 546.99 |       |
| 19     | 152.00            | 152.50            | 231.75 |       |
| 20     | 152.50            | 153.00            | 6.75   |       |





DATE: 16-08-2018 CON-FD-039\_FA

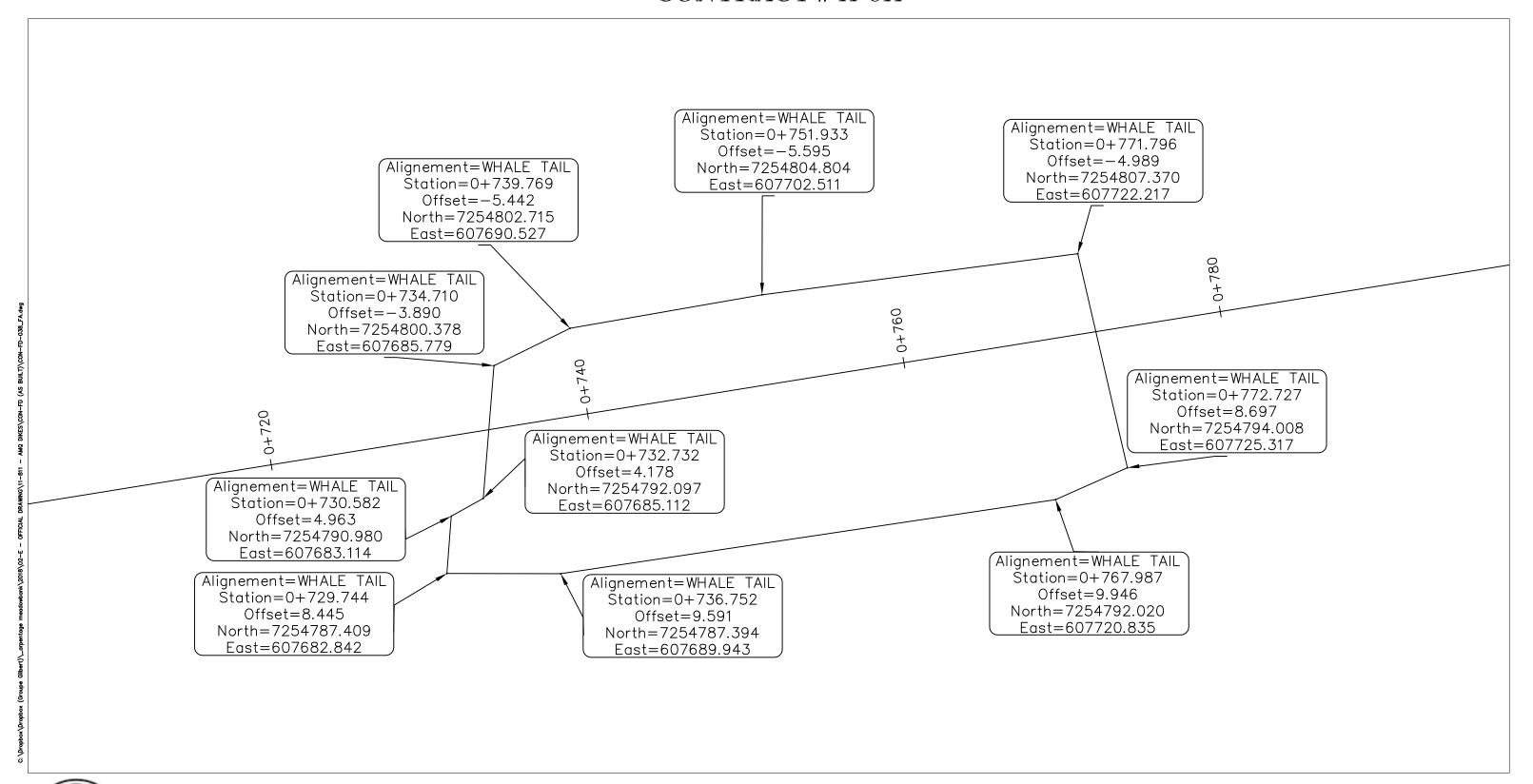




PREPARED BY : MARC-ANDRÉ BLACKBURN DATE : 18-08-2018

DATE : 18-08-2018 CON-FD-039\_FA

#### FND-WT-014 WHALE TAIL DIKE CONSTRUCTION CONTRACT # 11-811





PREPARED BY : MARC-ANDRÉ BLACKBURN DATE : 16-08-2018

CON-FD-038-FA

Sketch showing approximate extent of the foundation approved in the east abutment. Points A and B are approximate locations in this picture corresponding to the coordinates given on page 5 of this approval form.

**A:** Station 0 + 739.769, Offset = -5.442, North = 7254802.715, East = 607690.527

**B:** Station 0 + 772.727, Offset = 8.697, North = 7254794.008, East = 607725.317





Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

Telephone: (514) 393-8000 Fax: (514) 390-2765 www.snclavalin.com

| PROJECT:     | W/20      | Cantrache           |                    |             |          |
|--------------|-----------|---------------------|--------------------|-------------|----------|
| PROJECT #:   | 659       |                     |                    |             |          |
| DOCUMENT #:  |           | B17-02-0            | 1                  | DATE:       | 11/00    |
|              | (YYYYMMDE | )-DS/NS-01) DS/NS = | Day/Night shift    | (24 hour c  | 17:50 pm |
| APPROVAL FOR |           | Foundation appr     | oval (footprint)   |             |          |
|              | 4         | Foundation appre    | oval (key trench)  |             |          |
|              |           | Fill placement: _   |                    |             |          |
|              |           | CB cutoff wall ap   |                    |             |          |
|              |           | Other:              |                    |             |          |
| LOCATION     |           |                     | PREVIOUS APPROVAL  |             |          |
| Station      | 435 to    | 01117-              | PREVIOUS APPROVALS | <del></del> |          |
| Inclination: | 739 (0    | 07475               | Station:           | 0+415       | 0 01435  |
| ELEVATION    |           |                     | Details:           |             |          |
|              | varies    | m                   |                    |             |          |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS: (Add additional items if needed)  | 7   | /ERIFI | CATION | IS DOI | NE BY:  |
|---|-----|--------|--------|--------|---------|
| (Find additional items if needed)   | QA  |        | QC     | :      | N/A     |
| <ol> <li>Lines and grades</li> <li>Free of ice/snow/water</li> <li>Cleaning of trench and/or pile bottom</li> </ol> | Y / | N      | Y      | N      |         |
| 4. Gradation (visual)   | ~   |        | V      |        |         |
| <ul><li>5. Placement (lift thickness, segregation, etc.)</li><li>6. Compaction</li></ul>                            |     |        |        |        | -       |
| 7. Foundation on bedrock  |     |        |        |        | ~       |
| Key-in depth into bedrock     Water quality   |     |        |        |        | <u></u> |
| Water quality     CB slurry viscosity and density   |     |        |        |        | ~       |
| Elevation of CB Piles   |     |        | -      |        |         |
| Primary piles strength (Minimum of 50 kPa UCS)     Keying between primary and secondary                             |     |        |        |        |         |
| 3. Keying between primary and secondary  4. Cracks on top of cutoff wall  |     |        |        |        |         |

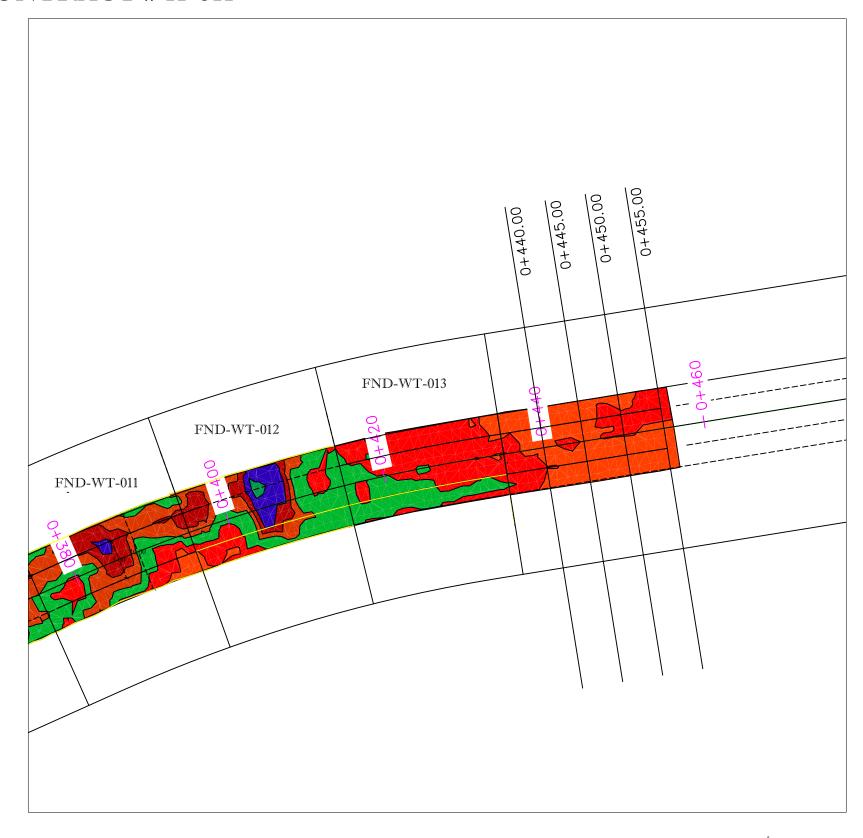
the said was a second

|  | 11 5 -         |   |    |   |    |   |
|--|----------------|---|----|---|----|---|
|  |                |   | QA |   | QC |   |
|  |                | Y | N  | Υ | N  |   |
| 15. CB mix/slurry tested (UCS, permeability, and | pinhole tests) |   |    |   |    | ~ |
| 16. As built survey completed                    |                |   |    |   |    |   |
| 17.  |                |   |    |   |    |   |
| 18.  |                |   |    |   |    |   |
| 19.  |                |   |    |   |    |   |
| 20.  |                |   |    |   |    |   |
| 21.  |                |   |    |   |    |   |
| 22.  |                |   |    |   |    |   |
| 23.  | or y a         |   | •  | 1 |    |   |
| 24.  |                |   |    |   |    |   |
| 25.  |                |   |    |   |    |   |
|  |                |   |    |   |    |   |

| DETAILS |                                       | <u>A</u> | PPRO' | VED BY | <u>':</u> |
|---------|---------------------------------------|----------|-------|--------|-----------|
| DETAILS | list shave for itom #\                | QA       | QA    |        |           |
|         | list above for item #)                | Y        | N     | Υ      | N         |
| ITEM    |                                       | -        |       |        |           |
|         | Clean Bedrook, free from mad and      | 1        |       | V      |           |
|         | cobbles. Seems to be fractured.       |          |       |        |           |
|         | Fiel spots check has been done with   |          |       |        |           |
|         | an executor at different stations and |          |       | -      |           |
|         | every thing is OK.                    | -        |       |        |           |
|         |                                       | _        | -     | -      |           |
| 7       | The measurements of the bed lake      |          |       |        |           |
|         | did on the boat are ritten next       |          |       |        |           |
|         | to the drawings of the contractor     |          |       | -      |           |
|         | for a better comparagion.             |          |       |        |           |

| APPROVED BY:                        | NAME<br>A       | SIGNATURE     | DATE AURITHOUSE |
|-------------------------------------|-----------------|---------------|-----------------|
| QA REPRESENTATIVE                   | Tezero Azmat    | the form      | 2018-08-17      |
| QC REPRESENTATIVE                   | Waxine Ca       | 10 10 10      | 2018-08-17      |
| OWNER'S REPRESENTATIVE              | Vier-Eric McDan | dd July       | 27012-08-17     |
| KCG REPRESENTATIVE                  | SERGE LALAN     | cette Je Vitt | Page 2/2        |
| Approval form - Revised on 04/07/20 | 18              | 100           | r ago E/E       |

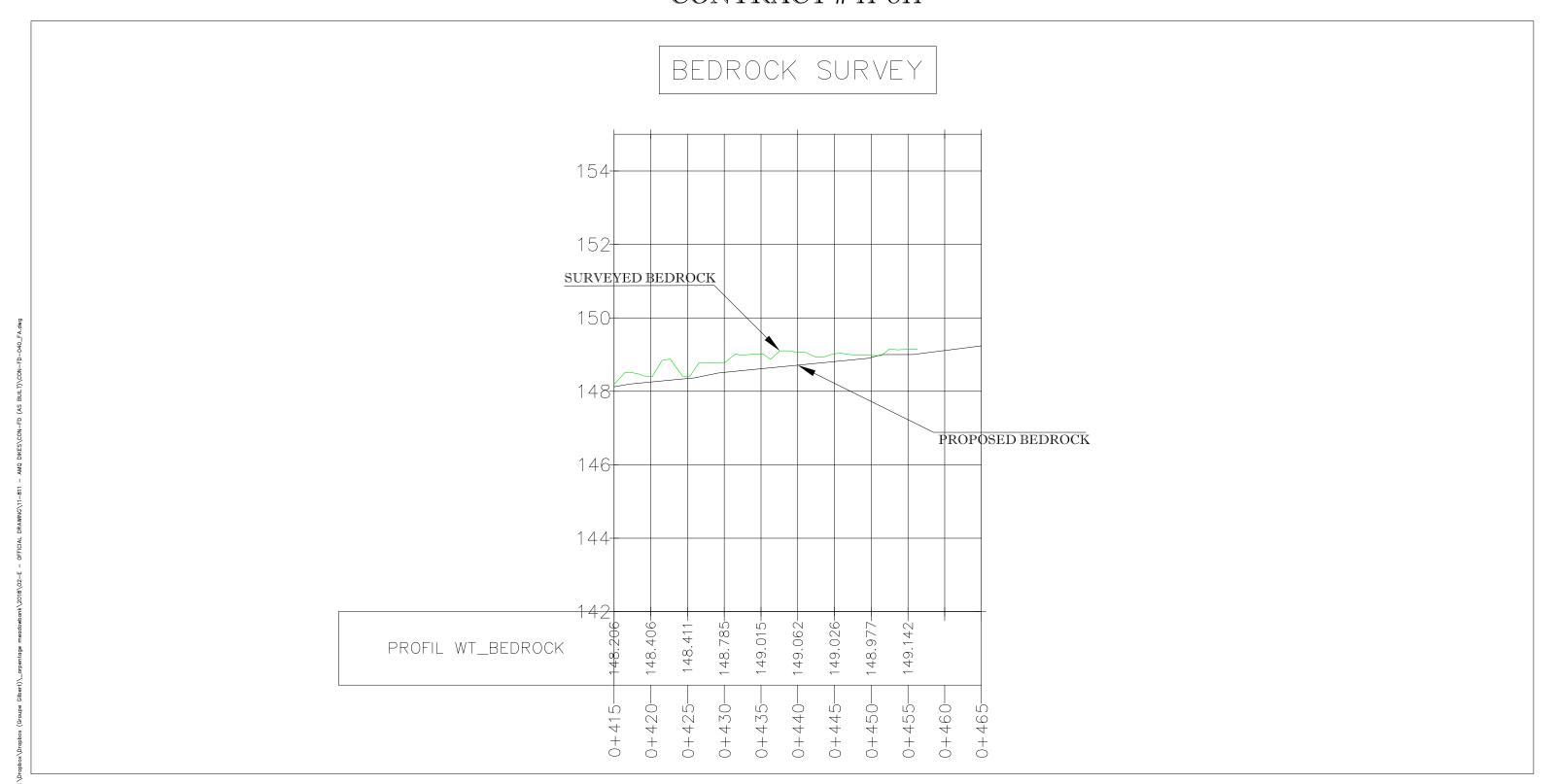
|        | Elev              | ations Table      |        |       |
|--------|-------------------|-------------------|--------|-------|
| Number | Minimum Elevation | Maximum Elevation | Area   | Color |
| 1      | 143.00            | 143.50            | 0.00   |       |
| 2      | 143.50            | 144.00            | 13.07  |       |
| 3      | 144.00            | 144.50            | 33.80  |       |
| 4      | 144.50            | 145.00            | 32.96  |       |
| 5      | 145.00            | 145.50            | 23.02  |       |
| 6      | 145.50            | 146.00            | 17.15  |       |
| 7      | 146.00            | 146.50            | 32.42  |       |
| 8      | 146.50            | 147.00            | 59.31  |       |
| 9      | 147.00            | 147.50            | 79.02  |       |
| 10     | 147.50            | 148.00            | 111.96 |       |
| 11     | 148.00            | 148.50            | 81.81  |       |
| 12     | 148.50            | 149.00            | 60.86  |       |
| 13     | 149.00            | 149.50            | 64.91  |       |
| 14     | 149.50            | 150.00            | 211.36 |       |
| 15     | 150.00            | 150.50            | 237.84 |       |
| 16     | 150.50            | 151.00            | 525.94 |       |
| 17     | 151.00            | 151.50            | 471.13 |       |
| 18     | 151.50            | 152.00            | 546.99 |       |
| 19     | 152.00            | 152.50            | 231.75 |       |
| 20     | 152.50            | 153.00            | 6.75   |       |





PREPARED BY : MARC-ANDRÉ BLACKBURN

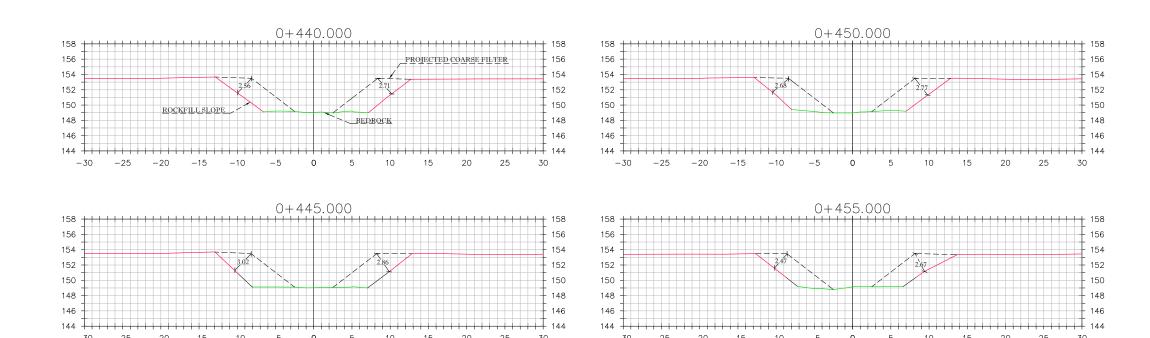
DATE: 16-08-2018 CON-FD-040\_FA





PREPARED BY : MARC-ANDRÉ BLACKBURN DATE : 16-08-2018

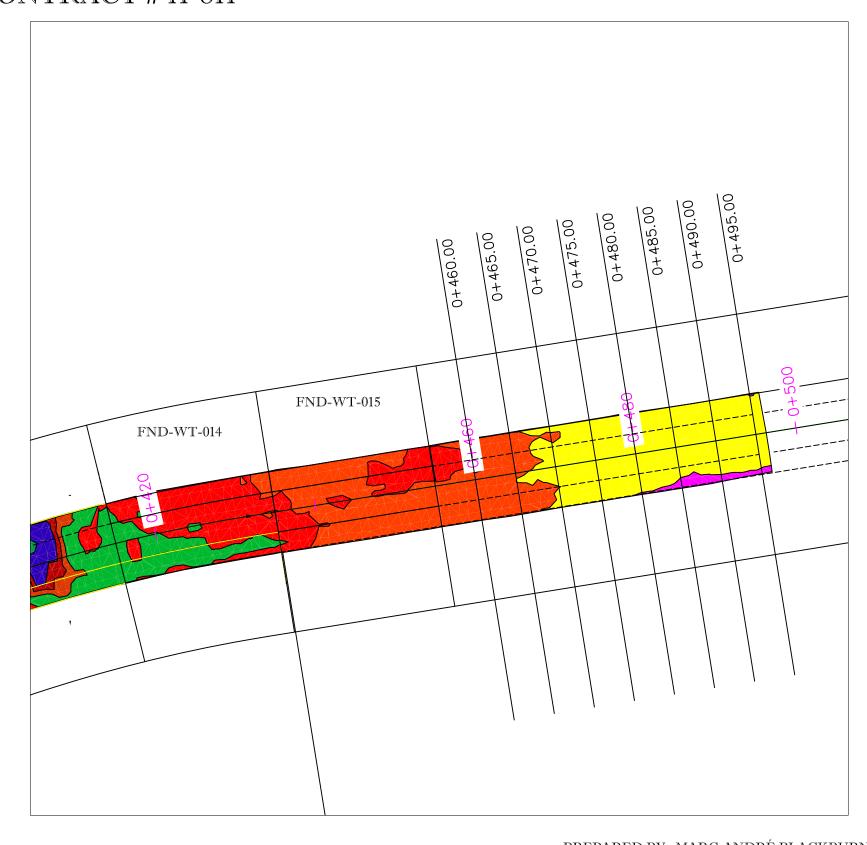
DATE: 16-08-2018 CON-FD-040\_FA





DATE: 16-08-2018 CON-FD-040\_FA

|        | Elev              | ations Table      |        |       |
|--------|-------------------|-------------------|--------|-------|
| Number | Minimum Elevation | Maximum Elevation | Area   | Color |
| 1      | 143.00            | 143.50            | 0.00   |       |
| 2      | 143.50            | 144.00            | 13.07  |       |
| 3      | 144.00            | 144.50            | 33.80  |       |
| 4      | 144.50            | 145.00            | 32.96  |       |
| 5      | 145.00            | 145.50            | 23.02  |       |
| 6      | 145.50            | 146.00            | 17.15  |       |
| 7      | 146.00            | 146.50            | 32.42  |       |
| 8      | 146.50            | 147.00            | 59.31  |       |
| 9      | 147.00            | 147.50            | 79.02  |       |
| 10     | 147.50            | 148.00            | 111.96 |       |
| 11     | 148.00            | 148.50            | 81.81  |       |
| 12     | 148.50            | 149.00            | 60.86  |       |
| 13     | 149.00            | 149.50            | 64.91  |       |
| 14     | 149.50            | 150.00            | 211.36 |       |
| 15     | 150.00            | 150.50            | 237.84 |       |
| 16     | 150.50            | 151.00            | 525.94 |       |
| 17     | 151.00            | 151.50            | 471.13 |       |
| 18     | 151.50            | 152.00            | 546.99 |       |
| 19     | 152.00            | 152.50            | 231.75 |       |
| 20     | 152.50            | 153.00            | 6.75   |       |





PREPARED BY : MARC-ANDRÉ BLACKBURN DATE : 17-08-2018

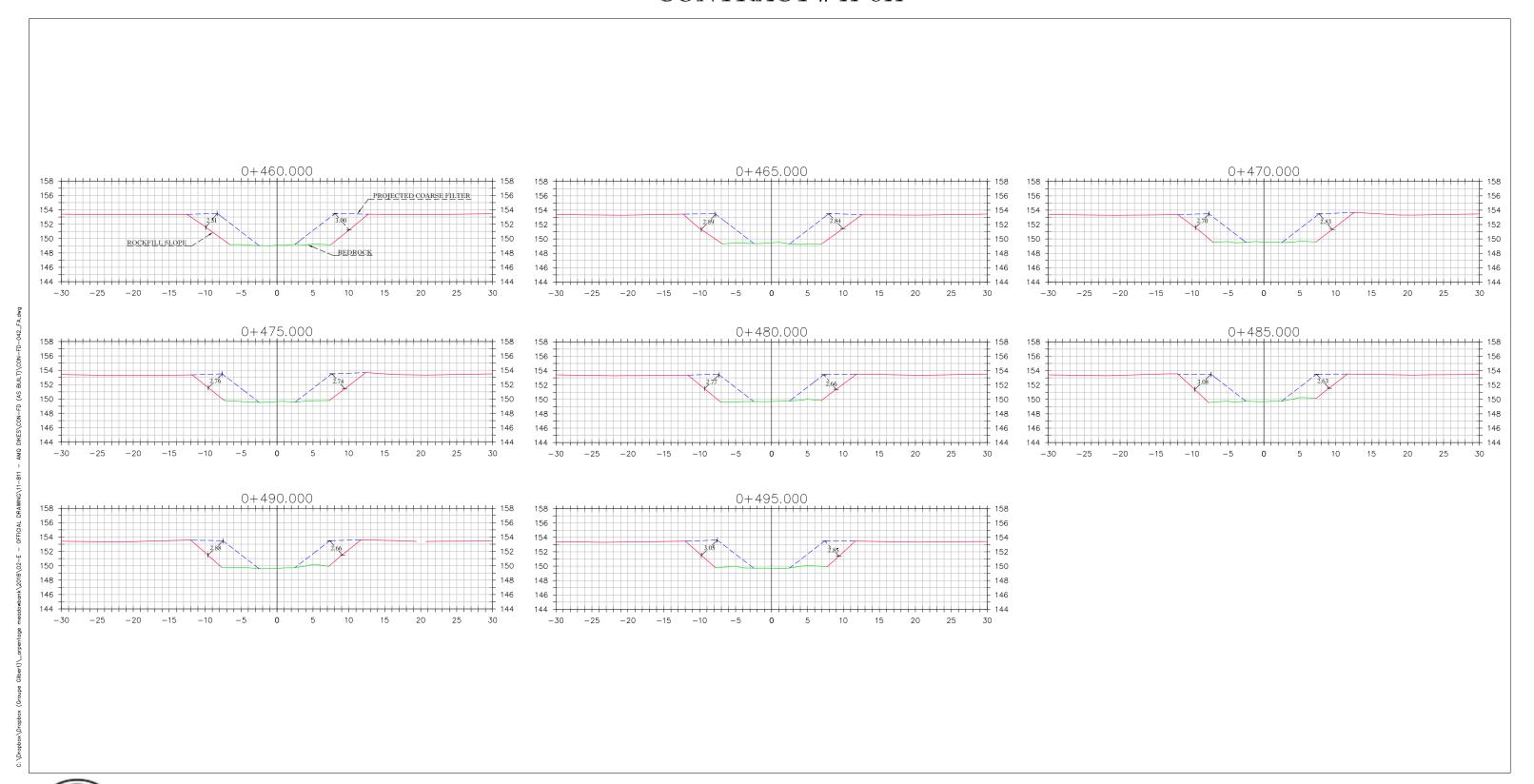
DATE : 17-08-2018 CON-FD-042\_FA





PREPARED BY : MARC-ANDRÉ BLACKBURN DATE : 17-08-2018

DATE: 17-08-2018 CON-FD-042\_FA





PREPARED BY : MARC-ANDRÉ BLACKBURN DATE : 17-08-2018 CON-FD-042\_FA

#### APPROVAL FORM



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

Telephone: (514) 393-8000 Fax: (514) 390-2765 www.snclavalin.com

| PROJECT:      | Construction                           |               |
|---------------|--|---------------|
| PROJECT #:    | 2200                                   |               |
| DOCUMENT 4.   | DADIO D                                | 8/05 181 July |
| (YYYYM)       | MDD-DS/NS-01) DS/NS DS/MS DS/MS-1-1-15 | 25            |
| 74            | (24 hour clc                           | ck)           |
| APPROVAL FOR: | Foundation approval (footprint)        |               |
| ¥             | Foundation approval (key trench)       |               |
|               | Fill placement:                        |               |
|               | CB cutoff wall approval                |               |
|               | Other:                                 |               |
| LOCATION      |  |               |
| LOCATION      | PREVIOUS APPROVALS                     |               |
| Station 0 + 4 | 75 to 0+495 Station: 01/301            |               |
| Inclination:  | 07435 1                                | o otests      |
| ELEVATION     | Details:                               |               |
| : varies      | m                                      |               |
|               |  |               |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS: (Add additional items if needed) | VERIFICATIONS DONE BY: |      |    |   |     |  |
|--|------------------------|------|----|---|-----|--|
| (Fire additional items if needed)  | QA                     | ·    | QC |   | N/A |  |
| Lines and grades   | Y                      | N    | Υ  | N |     |  |
| 2. Free of ice/snow/water  | 1                      |      |    |   |     |  |
| Cleaning of trench and/or pile bottom                                      |                        | 1 65 | V  |   |     |  |
| 4. Gradation (visual)  | V                      |      |    |   |     |  |
| 5. Placement (lift thickness, segregation, etc.)                           |                        | -/-  | 7  |   | -   |  |
| 6. Compaction  | ×'.                    |      |    |   | L   |  |
| 7. Foundation on bedrock   |                        | -    |    |   | _   |  |
| 8. Key-in depth into bedrock   |                        |      |    |   | V   |  |
| 9. Water quality   |                        |      | ,  |   | _   |  |
| CB slurry viscosity and density  |                        |      |    |   | ~   |  |
| Elevation of CB Piles  | ,                      | ,    |    |   |     |  |
| Primary piles strength (Minimum of 50 kPa UCS)                             |                        |      |    |   | ~   |  |
| Keying between primary and secondary                                       |                        |      |    |   | /   |  |
| 4. Cracks on top of cutoff wall  |                        |      |    |   |     |  |

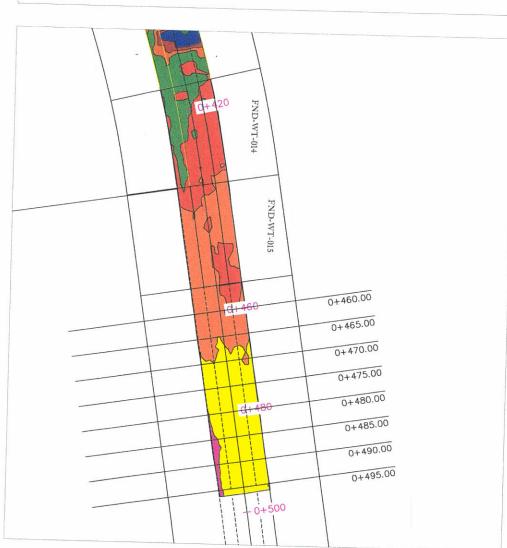
|   |    |    |    |   | NI/A |
|---|----|----|----|---|------|
|   | QA | 14 | QC |   | N/A  |
|   | Y  | N  | Υ  | N |      |
| 15. CB mix/slurry tested (UCS, permeability, and pinhole tests) |    |    |    |   | -    |
| 16. As built survey completed                                   |    |    |    |   |      |
| 17.   |    |    | ,  |   |      |
| 18.   |    |    |    |   |      |
| 19.   |    |    |    |   |      |
| 20.   |    |    |    |   |      |
| 21.   |    |    |    |   |      |
| 22.   |    |    |    |   |      |
| 23.   |    |    |    |   |      |
| 24.   |    |    |    |   |      |
| 25.   |    |    |    |   |      |

| DETAILS |   | <u>A</u> | PPRO\ | VED BY | <u>′:</u> |
|---------|---|----------|-------|--------|-----------|
|         | list shove for item #)                  | QA       |       | QC     |           |
|         | list above for item #)                  | Υ        | N     | Υ      | N         |
| ITEM    |   |          |       |        |           |
|         | Clean bedrock, free of ice, and and     |          |       | V      |           |
|         | cobbles. Seems to be fractured, but     |          |       |        |           |
|         | less than the section before (0+455+6   |          |       |        |           |
|         | 0+475). Field spots check has been      |          |       |        |           |
|         | done at differents stations and every   |          |       |        | $\vdash$  |
|         | things is ok.                           |          |       |        |           |
|         |   |          |       | -      | $\vdash$  |
|         | See the boat measurements wither        |          |       |        | -         |
|         | on the contractor drawings for          |          |       |        |           |
|         | comparasions with their own bathy metry |          |       |        |           |

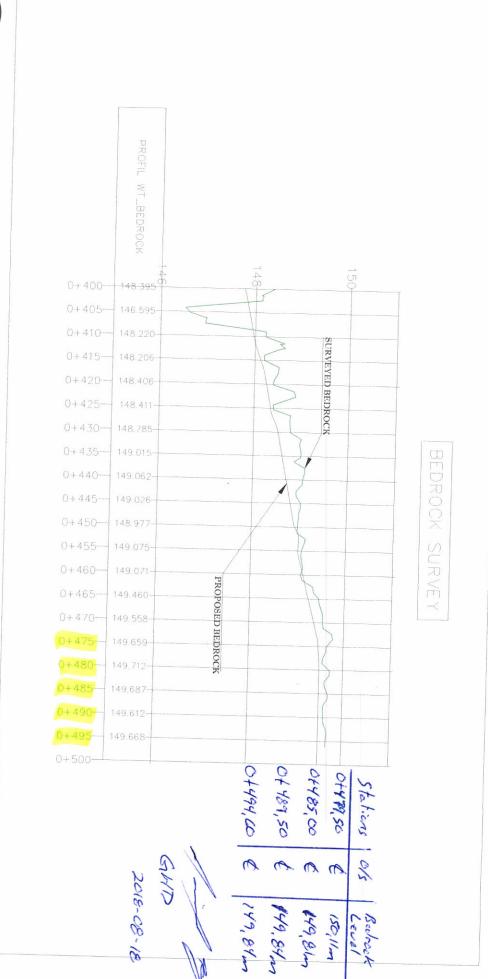
| APPROVED BY:           | NAME   | 1        | SIGNATURE  | DATE . 18/2018 |
|------------------------|--------|----------|------------|----------------|
| QA REPRESENTATIVE      | TEZERA | AZMATCH  | - frequent | 20/8·08·(8     |
| QC REPRESENTATIVE      | Maxim  | e Cota   | 14/100     | 2018-08-18     |
| OWNER'S REPRESENTATIVE | AUDREY | BLODERIL | ace B      | 2018/08/18     |
| - 1107/0010            |        | * *      | (,         | Page 2/2       |

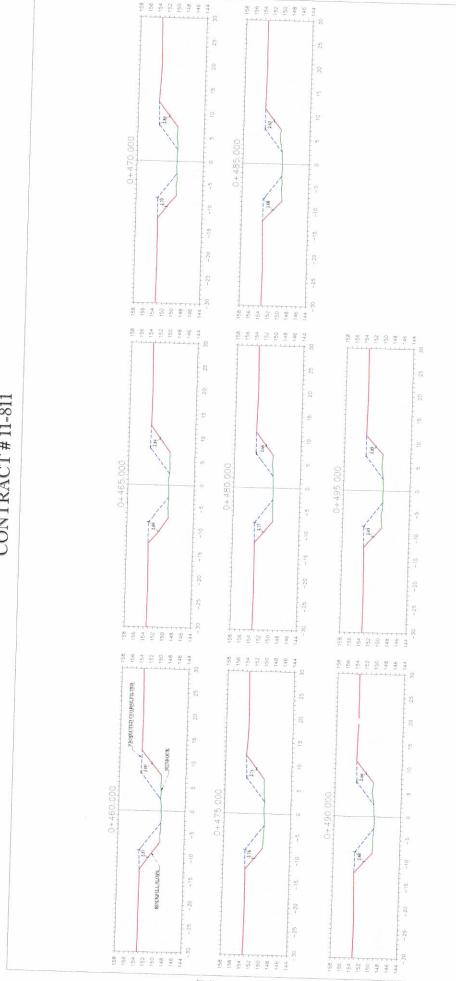


| Elevations Table  evation Maximum Elevation  143.50  144.00  144.50  145.50  146.00  147.00  148.00  148.50  | 12<br>13<br>14<br>14<br>15<br>15<br>16<br>17<br>17       |                                      |                                      |                            |                  |        |        |        |        | ======================================= | 10     | 9      | 000    | 7      | 6      | C      | 4      | u      | 2      | -      | Number Minin      |      |
|--|--|--------------------------------------|--------------------------------------|----------------------------|------------------|--------|--------|--------|--------|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------------------|------|
| Table       m Elevation       43.50       1       44.00       1       44.50       3       45.50       2       45.50       2       45.50       3       45.50       3       45.50       3       45.50       3       47.00       5       47.50       7       48.00       11       8.50       81       9.00       62 | 149.50<br>150.00<br>150.50<br>151.00<br>151.50<br>152.00 | 149.50<br>150.00<br>150.50<br>151.00 | 149.50<br>150.00<br>150.50<br>151.00 | 149.50<br>150.00<br>150.50 | 149.50<br>150.00 | 149.50 |        | 149.00 | 148.50 | 148.00                                  | 147.50 | 147.00 | 146.50 | 146.00 | 145.50 | 145.00 | 144.50 | 144.00 | 143.50 | 143.00 | -                 | Elev |
| Area 0.00 13.07 33.80 32.96 23.02 17.15 17.15 32.42 59.31 79.02 1111.96 81.81 60.86 64.91 211.36 237.84 525.94 471.13  | 152.50   |                                      | 152.00                               | 151.50                     | 151.00           | 150.50 | 150.00 | 149.50 | 149.00 | 148.50                                  | 148.00 | 147.50 | 147.00 | 146.50 | 146.00 | 145.50 | 145.00 | 144.50 | 144.00 | 143.50 | Maximum Elevation |      |
|  |  | 231.75                               | 546.99                               | 471.13                     | 525.94           | 237.84 | 211.36 | 64.91  | 60.86  | 81.81                                   | 111.96 | 79.02  | 59.31  | 32.42  | 17.15  | 23.02  | 32.96  | 33.80  | 13.07  | 0.00   | Area              |      |











#### APPROVAL FORM



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

Telephone: (514) 393-8000 Fax: (514) 390-2765 www.snclavalin.com

| PROJECT:  PROJECT #:  6 \$ 3 0 9  DOCUMENT #:  20 18 0 8 18 - 12 - 02  (YYYYMMDD-DS/NS-01) DS/NS = 0 | DATE: August 18                                      | . ७८<br>१ ७८ |
|--|--|--------------|
| APPROVAL FOR:  Foundation appro  Fill placement:   | oval (footprint) oval (key trench)                   |              |
| ☐ CB cutoff wall app ☐ Other:  |  | _            |
| Station  O +495 to 0+515  Inclination:  ELEVATION  : varies  | PREVIOUS APPROVALS  Station: 0+4+5 to 0+4+  Details: | 2.5          |
| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:  (Add additional items if needed)                          | VERIFICATIONS DONE BY                                | <u>':</u>    |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:          |        | VERIFI | CATION | IS DO | NE BY:  |
|--|--------|--------|--------|-------|---------|
| (Add additional items if needed)                   | Q      | A      | QC     |       | N/A     |
| Lines and grades                                   | Υ      | N      | Υ      | N     |         |
| Free of ice/snow/water                             | L      |        |        |       |         |
|  | -      | ,      | 1      |       |         |
| 3. Cleaning of trench and/or pile bottom           |        |        | -      | Ti -  |         |
| Gradation (visual)                                 | -      |        |        |       |         |
| 5. Placement (lift thickness, segregation, etc.)   | e de e |        | 1 1 1  |       | <u></u> |
| 6. Compaction                                      | 3 - 4  |        | 4 4    |       | ~       |
| 7. Foundation on bedrock                           | -      | 17 1   | 2 5 7  |       | ~       |
| 8. Key-in depth into bedrock                       |        |        |        |       | _       |
| 9. Water quality                                   |        | ,-n-1  |        |       | /       |
| 10. CB slurry viscosity and density                |        |        |        |       | _       |
| 11. Elevation of CB Piles                          |        | 1      |        |       | /       |
| 12. Primary piles strength (Minimum of 50 kPa UCS) | +      |        |        |       | _       |
| 3. Keying between primary and secondary            |        | _      |        |       | /       |
| 4. Cracks on top of cutoff wall                    | -      |        |        |       | /       |

|  | and the second       |   | 6   |       |      |   |         |
|--|----------------------|---|-----|-------|------|---|---------|
| in a way out                                 |                      |   | QA  | · · · | QC   |   | N/A     |
| H RESE                                       | - 1                  |   | Υ   | vN.   | Υ    | N |         |
| 15. CB mix/slurry tested (UCS, permeability, | , and pinhole tests) |   |     |       |      |   | <u></u> |
| 16. As built survey completed                |                      |   |     |       |      |   | /       |
| 17.  |                      |   | 20  |       |      |   |         |
| 18.  |                      |   |     |       |      |   |         |
| 19.  |                      |   |     |       |      |   |         |
| 20.  |                      |   |     |       |      |   |         |
| 21.  |                      |   |     |       |      |   |         |
| 22.  | A 4                  |   | . , | 1     |      |   |         |
| 23.  |                      | * |     | 3 1   | i    |   |         |
| 24.  |                      |   |     |       |      |   |         |
| 25.  | *                    |   |     |       | 1 21 |   |         |

| DETAILS |                                     | <u>A</u> | PPRO\ | /ED BY | <u>:</u> |
|---------|-------------------------------------|----------|-------|--------|----------|
| DETAILS | ist above for item #)               | QA       |       | QC     |          |
| ITEM    | ist above for item #/               | Υ        | N     | Υ      | N        |
| TILIN   | Clear bedrock, free of mud, ice     | V        |       | /      |          |
|         | and cabbles. Seems to be fractured. |          |       |        |          |
|         |                                     |          |       |        |          |
| £       | Fields check spot has been done     |          |       |        |          |
| -       | withe a excavator after the final   |          |       |        |          |
|         | dean of with a excavator.           |          |       |        |          |
|         |                                     |          |       |        |          |
|         | Bathymetry on a boat has been done  |          |       |        |          |
|         | as a double sheck. See de reasults  | -        |       |        |          |
|         | ritten next to contractor drawing   |          |       |        |          |

| APPROVED BY:           | NAME             |     |
|------------------------|------------------|-----|
| QA REPRESENTATIVE      | Jezera Azma      |     |
| QC REPRESENTATIVE      | Pier-Eric TuDano | te  |
| OWNER'S REPRESENTATIVE | Pier-Eric Molano | 101 |

SERGE LA LANCOTTE

SIGNATURE

DATE

Aveust 18, 2018

2018-08-18

2018-08-18

2018-08-18

Page 2/2

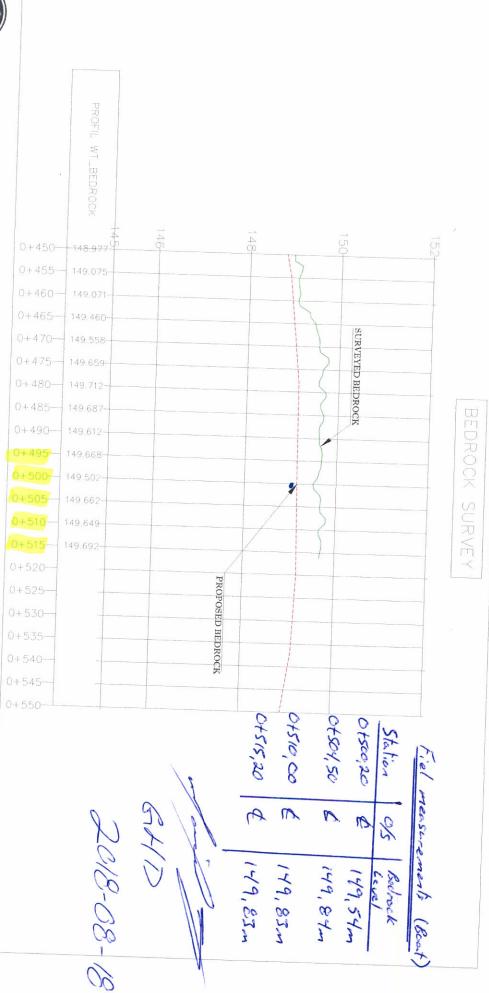
Approval form – Revised on 04/07/2018

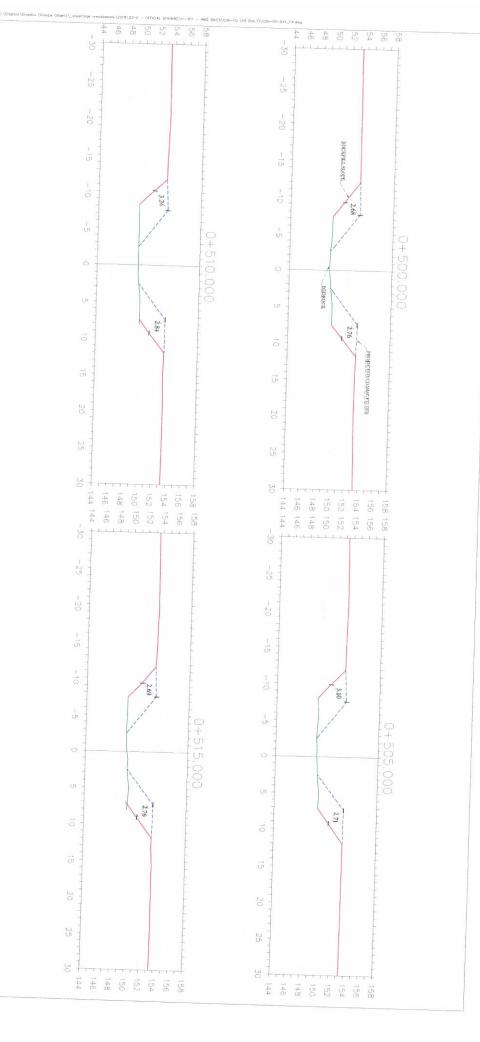


# FOUNDATION APPROVAL - WHALE TAIL CONTRACT # 11-811 FND-WT-017

| FND-WT-016  FND-WT-016  FND-WT-016  FND-WT-016   | Maximum Elevation     Area     Color       143.50     0.00     143.50     143.50       144.00     13.07     144.50     13.80       144.50     33.80     145.50     23.02       145.50     23.02     145.50     23.02       146.00     17.15     146.50     17.15       147.50     79.02     148.50     119.66       148.50     81.81     149.50     60.86       149.50     64.91     150.50     237.84       150.50     237.84     151.50     471.13       152.50     231.75     153.00     6.75 |        | 19     | 18     | 17     | 16     | ē      | 15     | 4      |      | 13     | 12     | ======================================= | 10     | 9      | 00     | 7      | 6      | CII    | 4      | w      | 2      |        | Number            |        |
|--|--|--------|--------|--------|--------|--------|--------|--------|--------|------|--------|--------|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------------------|--------|
| Maximum Elevation Area Color 143.50 0.00 13.07 144.50 33.80 145.50 23.02 146.50 32.42 147.50 59.31 147.50 59.31 119.6 119.50 64.91 150.50 237.84 151.50 471.13 152.50 231.75 153.00 6.75   | ditions Table       Moximum Elevation     Area     Color       143.50     0.00     144.00       144.00     13.07     144.00       144.50     33.80     145.50       145.50     23.02     145.50       146.50     32.42     147.00       147.50     79.02     147.50       148.00     111.96     147.50       149.50     64.91     147.50       149.50     64.91     147.50       150.50     237.84     151.50       151.50     471.13     151.50       152.50     231.75     152.50              | 152.50 | 152.00 | 151.50 | 151.00 | 150.50 | 150.00 | 150.00 | 149.50 |      | 149.00 | 148.50 | 148.00                                  | 147.50 | 147.00 | 146.50 | 146.00 | 145.50 | 145.00 | 144.50 | 144.00 | 143.50 | 143.00 | Minimum Elevation | Elev   |
| Area Color 0.00 13.07 33.80 32.96 23.02 217.15 32.42 27.02 27.02 27.02 27.02 27.03 27.04 27.05 27.04 27.05 27.04 27.05 27.05 27.05 27.05 27.05 27.05 27.05 27.05 27.05 27.05 27.05 27.05 27.05 27.06 2 | Area Color  Area Color  Area Color  13.07  13.07  13.07  32.96  32.96  32.42  23.02  23.02  44.1.13  23.84  24.1.35  25.55  25.56  26.49  27.56  27.56  27.56  27.56  27.56  | 153.00 | 152.50 | 152.00 | 151.50 | 151.00 | 150.50 |        | 150.00 |      | 149.50 | 149.00 | 148.50                                  | 148.00 | 147.50 | 147.00 | 146.50 | 146.00 | 145.50 | 145.00 | 144.50 | 144.00 | 143.50 | Maximum Elevation | ations |
| FND-WT-016   | Cd+460 FND-WT-916  | 6.75   | 231.75 | 546.99 | 471.13 | 525.94 | 237.84 |        | 211.36 | 04.8 | 64 91  | 60.86  | 81.81                                   | 111.96 | 79.02  | 59.31  | 32.42  | 17.15  | 23.02  | 32.96  | 33.80  | 13.07  | 0.00   |                   |        |
| FND-WT-016   | FND-WT-016   |        |        |        |        |        |        |        |        |      |        |        |   |        |        |        |        |        |        |        |        |        |        | Color             |        |
|  | 0+505.00<br>0+510.00<br>0+515.00   |        |        | 1      |        |        |        | 1      | 4      | 1    |        |        |   | ID-W   | \      |        |        |        |        |        |        |        |        |                   |        |







#### APPROVAL FORM



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

Telephone: (514) 393-8000 Fax: (514) 390-2765 www.snclavalin.com

| PROJECT:        | WTO G       | ONSTAUCTION           |                   |          |                   |
|-----------------|-------------|-----------------------|-------------------|----------|-------------------|
| PROJECT #:      | 658309      |                       |                   | DATE:    | 200 00 10         |
| DOCUMENT #:     | 50180819    | - NS-OI               |                   | TIME:    | 7:22<br>308-08-19 |
|                 | (YYYYMMDD   | )-DS/NS-01) DS/NS = [ | Day/Night shift   |          | (24 hour clock)   |
| APPROVAL FOR:   | $\boxtimes$ | Foundation appro      | oval (footprint)  |          |                   |
|                 |             | Foundation appro      | oval (key trench) |          |                   |
|                 |             | Fill placement:       |                   |          |                   |
|                 |             | CB cutoff wall app    | oroval            |          |                   |
|                 |             | Other:                |                   |          |                   |
| LOCATION        |             |                       |                   |          |                   |
| Ct-ti-          |             |                       | PREVIOUS APPROVAL | <u>s</u> |                   |
| 10.000 DEST. C. | 772 TO      | 0+790                 | Station:          | 0+7      | 39 TO 0+792       |
| Inclination:    |             |                       | Details:          | - 1      | 0 0 4 7 7 3       |
| ELEVATION : 🗵 🗸 | /aries      | m                     |                   |          |                   |
|                 |             |                       |                   |          |                   |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:                               | 1 2    | /ERIFI | CATION | IS DOI | NE BY:    |
|---|--------|--------|--------|--------|-----------|
| (Add additional items if needed)  | QA     | ١      | QC     | :      | N/A       |
| Lines and grades  | Y      | N      | Υ      | N      |           |
| - Grades  | $\int$ |        | 1      |        |           |
| 2. Free of ice/snow/water   | ./     | *,     | 1      |        |           |
| 3. Cleaning of trench and/or pile bottom                                | V      |        | V      |        | /         |
| 4. Gradation (visual)   |        |        |        |        |           |
| 5. Placement (lift thickness, segregation, etc.)                        |        |        |        |        |           |
| 6. Compaction   |        |        |        |        |           |
| 7. Foundation on bedrock  |        |        |        |        |           |
| 8. Key-in depth into bedrock  |        |        |        |        | J         |
| 9. Water quality  |        |        |        |        | Ų.        |
| 10. CB slurry viscosity and density                                     | -      |        |        |        | <u>\</u>  |
| Elevation of CB Piles   |        |        |        |        | J         |
| 2. Primary piles strength (Minimum of 50 kPa UCS)                       |        |        |        |        | J,        |
| Keying between primary and secondary      Cracks on top of cutoff well. | -      |        |        |        | J         |
| Cracks on top of cutoff wall  |        |        |        |        | $\sqrt{}$ |

|   | QA |    | QC |   | N/A      |
|---|----|----|----|---|----------|
|   | Υ. | ·N | Υ  | N |          |
| 15. CB mix/slurry tested (UCS, permeability, and pinhole tests) |    |    |    |   | <b>\</b> |
| 16. As built survey completed                                   | 1  |    | /  |   |          |
| 17.   |    |    |    |   |          |
| 18.   |    |    |    |   |          |
| 19.   |    |    |    |   |          |
| 20.   |    |    |    |   |          |
| 21.   |    |    |    |   |          |
| 22.   |    |    |    |   |          |
| 23. 7   |    |    |    |   |          |
| 24.   |    |    |    |   |          |
| 25.   |    |    | *  |   |          |

| DETAILS |                                    | <u>A</u>  | PPRO\ | /ED BY | <u>:</u> |
|---------|------------------------------------|-----------|-------|--------|----------|
|         | b list above for item #)           | QA        |       | QC     |          |
| ITEM    | ) III (                            | Y         | N     | Υ      | N        |
| Э       | NO ICE-BIGH MATERIAL LEFT IN PLACE | $\sqrt{}$ |       | /      |          |
|         | (FOUNDATION FLOOR).                |           |       |        |          |
|         |                                    |           |       |        |          |
|         |                                    |           |       |        |          |
|         |                                    |           |       |        |          |
|         |                                    |           |       |        |          |
|         |                                    |           |       |        |          |
|         |                                    |           |       |        |          |
|         |                                    |           |       |        |          |
|         |                                    |           |       |        |          |
|         |                                    |           |       |        |          |

| <b>APPROVED</b> | BY: |
|-----------------|-----|
|-----------------|-----|

QA REPRESENTATIVE

OWNER'S REPRESENTATIVE

Contractor REP.

NAME

MATHIGU JEZEQUEL

Fier En McDendd

SIGNATURE

DATE

908-08-19

2018-08-19

2018-08-19

2018-08-19

#### APPROVAL FORM



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

Telephone: (514) 393-8000 Fax: (514) 390-2765 www.snclavalin.com

| PROJECT:       | WTD O     | sonstructions   | n N                                   |          |                  |       |
|----------------|-----------|---|---------------------------------------|----------|------------------|-------|
| PROJECT #:     |           | 309   |                                       | DATE:    | 1 - 10           | a les |
| DOCUMENT #:    |           | -20- 6180   | 12                                    | TIME:    | AUS. 19,         | 20 18 |
|                | (YYYYMMDD | -DS/NS-01) DS/NS = [  | Day/Night shift                       |          | (24 hour clock)  |       |
| APPROVAL FOR : |           | Foundation approfundation approfundation approful Fill placement:CB cutoff wall apport of ther: | oval (footprint)<br>oval (key trench) |          | (Z-Friodi Glock) |       |
| LOCATION       |           |   |                                       |          |                  |       |
| Charle         |           |   | PREVIOUS APPROVALS                    | <u> </u> |                  |       |
| Inclination:   | 515 10    | 0+555   | Station:                              | 0+       | 495 to 0+        | ×15   |
|                |           |   | Details:                              | 24       |                  |       |
| ELEVATION :    | varies    | m   | -                                     |          |                  | _     |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:         | VERIFICATIONS DONE I     |   |    |   |     |  |
|---|--------------------------|---|----|---|-----|--|
| (Add additional items if needed)                  | QA                       |   | QC |   | N/A |  |
| Lines and grades                                  | Υ                        | N | Υ  | N |     |  |
| 2. Free of ice/snow/water                         | ~                        |   |    |   |     |  |
| Cleaning of trench and/or pile bottom             |                          |   |    |   |     |  |
| Gradation (visual)                                |                          |   |    |   |     |  |
| 5. Placement (lift thickness, segregation, etc.)  |                          |   |    |   | 4   |  |
| 6. Compaction                                     |                          |   |    |   |     |  |
| 7. Foundation on bedrock                          |                          |   |    |   |     |  |
| B. Key-in depth into bedrock                      |                          |   |    |   |     |  |
| 9. Water quality                                  |                          |   |    |   |     |  |
| CB slurry viscosity and density                   |                          |   |    |   |     |  |
| Elevation of CB Piles                             |                          |   |    |   | _   |  |
| 2. Primary piles strength (Minimum of 50 kPa UCS) |                          |   |    |   |     |  |
| Keying between primary and secondary              | k                        |   |    |   |     |  |
| Cracks on top of cutoff wall                      | e _ t = c <sub>e</sub> c |   |    |   |     |  |

|                |                | P              |                |               |  |
|----------------|----------------|----------------|----------------|---------------|--|
|                | QA             | ,              | QC             |               | N/A  |
|                | . Y            | N              | Υ              | N             |  |
| oinhole tests) |                |                |                |               | V  |
|                |                |                |                |               | ~  |
|                |                |                |                |               |  |
|                |                |                |                |               |  |
|                |                |                |                |               |  |
|                |                |                |                |               |  |
|                |                |                |                |               |  |
|                |                |                |                |               |  |
|                | 1              | 4              |                |               |  |
|                |                |                |                |               |  |
|                |                |                |                |               |  |
|                | oinhole tests) | pinhole tests) | pinhole tests) | inhole tests) | inhole tests)  QA QC Y N Y N  Oinhole tests) |

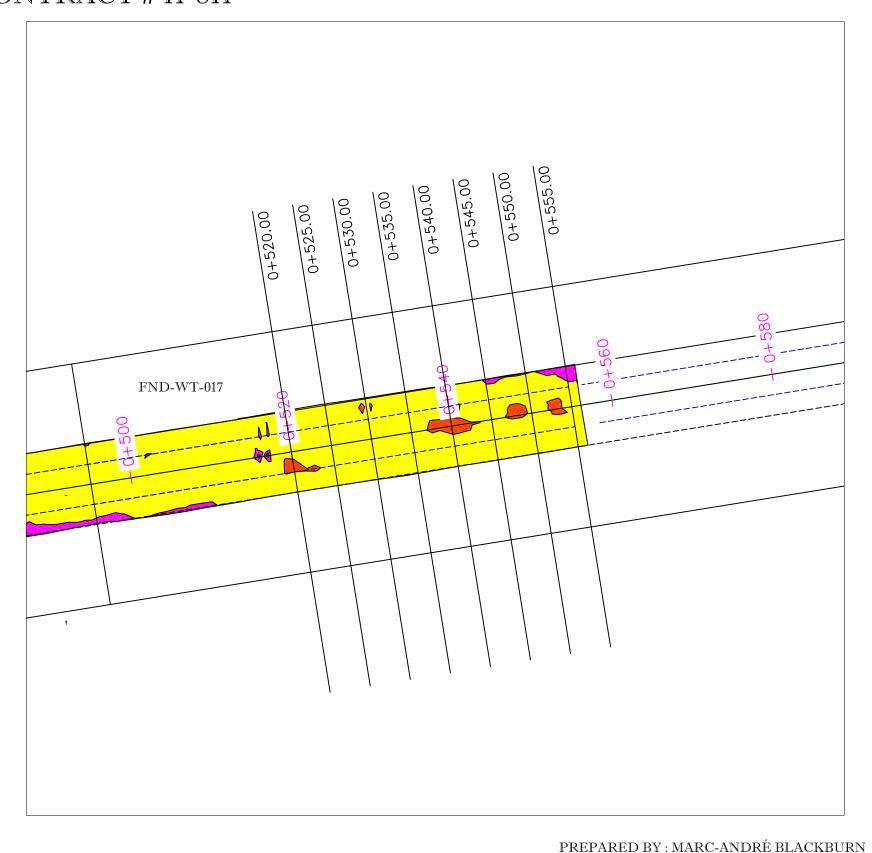
| <b>DETAILS</b> |  | <u>Al</u> | PPRO | VED BY | <u>:</u> |
|----------------|--|-----------|------|--------|----------|
| (Refer to      | list above for item #)                       | QA        |      | QC     |          |
| ITEM           |  | Υ         | N    | Υ      | N        |
| Daniel Person  | Clear bedrock, free of med, ice and cobbles. | /         |      |        |          |
|                | Field check spots has been done to prove it  |           |      |        |          |
|                | at differents stations                       |           |      |        |          |
|                | It seems to be fractured rock.               |           |      |        |          |
|                | ·  |           |      |        |          |
|                | Bathymetry double duck has been done         |           |      |        |          |
|                | with the GPS executor instead of the         |           |      |        |          |
|                | boat due to the strang wind See with         | -         |      |        |          |
|                | the drawings of the contractor.              | -         | ř    |        |          |
|                |  |           |      |        |          |

| APPROVED BY:           | <u>NAME</u>      | SIGNATURE          | DATE<br>V 10 a 15        |
|------------------------|------------------|--------------------|--------------------------|
| QA REPRESENTATIVE      | Jezera Azmado    | - Thrown           | Aug. 19, 20 18           |
| QC REPRESENTATIVE      | Maxime Cote      | 7710.00            | 2018-08-17<br>LMV -01-18 |
| OWNER'S REPRESENTATIVE |                  | June Cul My source | 2018/08/19               |
| COONST. REP            | AVDREY BILDISTAL | aurpe              | 2018/03/1                |

Approval form - Revised on 04/07/2018

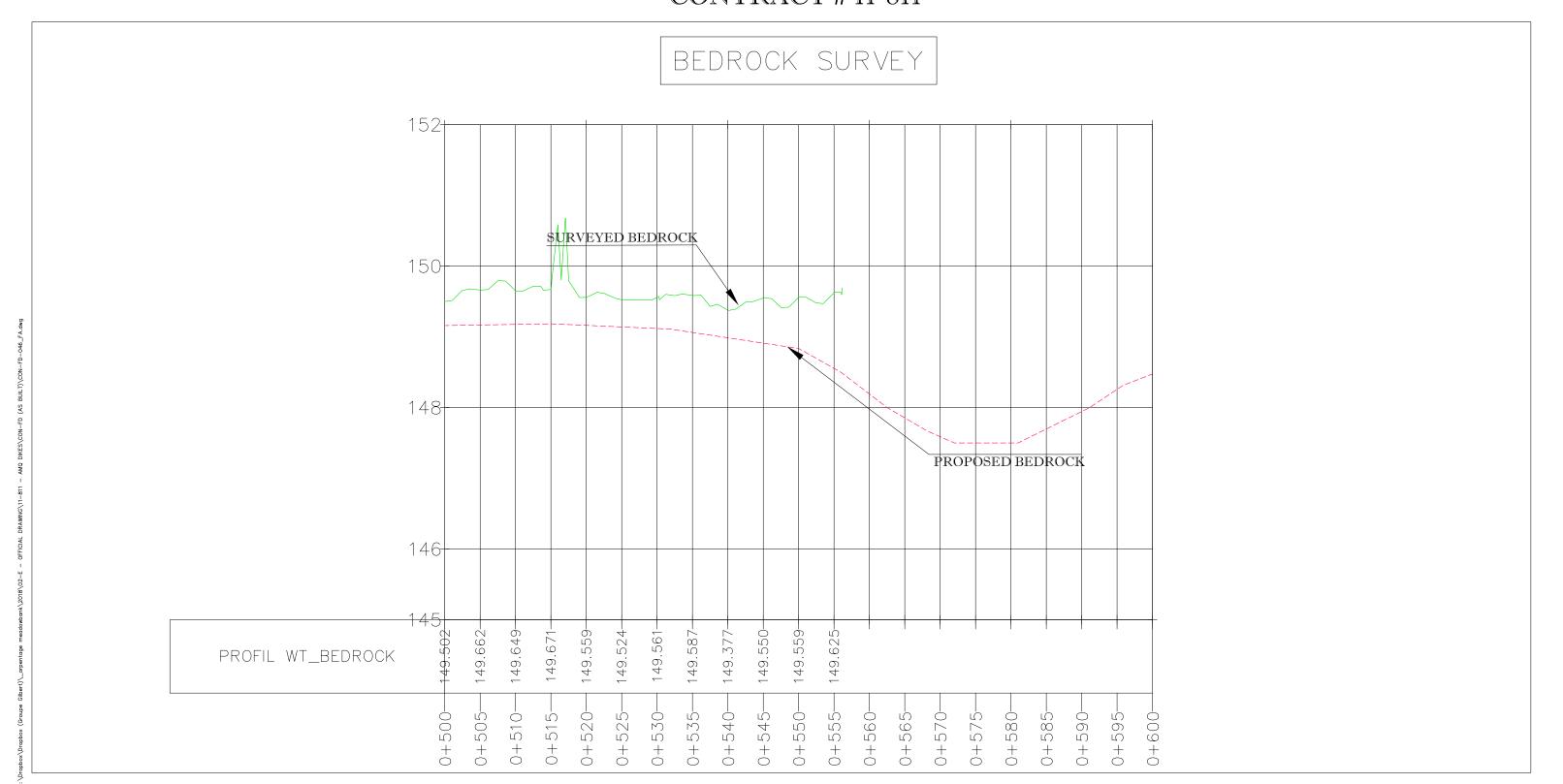
Page 2/2

| Elevations Table |  |        |        |  |  |  |  |
|------------------|--|--------|--------|--|--|--|--|
| Number           | ber Minimum Elevation Maximum Elevation Area C |        |        |  |  |  |  |
| 1                | 143.00   | 143.50 | 0.00   |  |  |  |  |
| 2                | 143.50   | 144.00 | 13.07  |  |  |  |  |
| 3                | 144.00   | 144.50 | 33.80  |  |  |  |  |
| 4                | 144.50   | 145.00 | 32.96  |  |  |  |  |
| 5                | 145.00   | 145.50 | 23.02  |  |  |  |  |
| 6                | 145.50   | 146.00 | 17.15  |  |  |  |  |
| 7                | 146.00   | 146.50 | 32.42  |  |  |  |  |
| 8                | 146.50   | 147.00 | 59.31  |  |  |  |  |
| 9                | 147.00   | 147.50 | 79.02  |  |  |  |  |
| 10               | 147.50   | 148.00 | 111.96 |  |  |  |  |
| 11               | 148.00   | 148.50 | 81.81  |  |  |  |  |
| 12               | 148.50   | 149.00 | 60.86  |  |  |  |  |
| 13               | 149.00   | 149.50 | 64.91  |  |  |  |  |
| 14               | 149.50   | 150.00 | 211.36 |  |  |  |  |
| 15               | 150.00   | 150.50 | 237.84 |  |  |  |  |
| 16               | 150.50   | 151.00 | 525.94 |  |  |  |  |
| 17               | 151.00   | 151.50 | 471.13 |  |  |  |  |
| 18               | 151.50   | 152.00 | 546.99 |  |  |  |  |
| 19               | 152.00   | 152.50 | 231.75 |  |  |  |  |
| 20               | 152.50   | 153.00 | 6.75   |  |  |  |  |





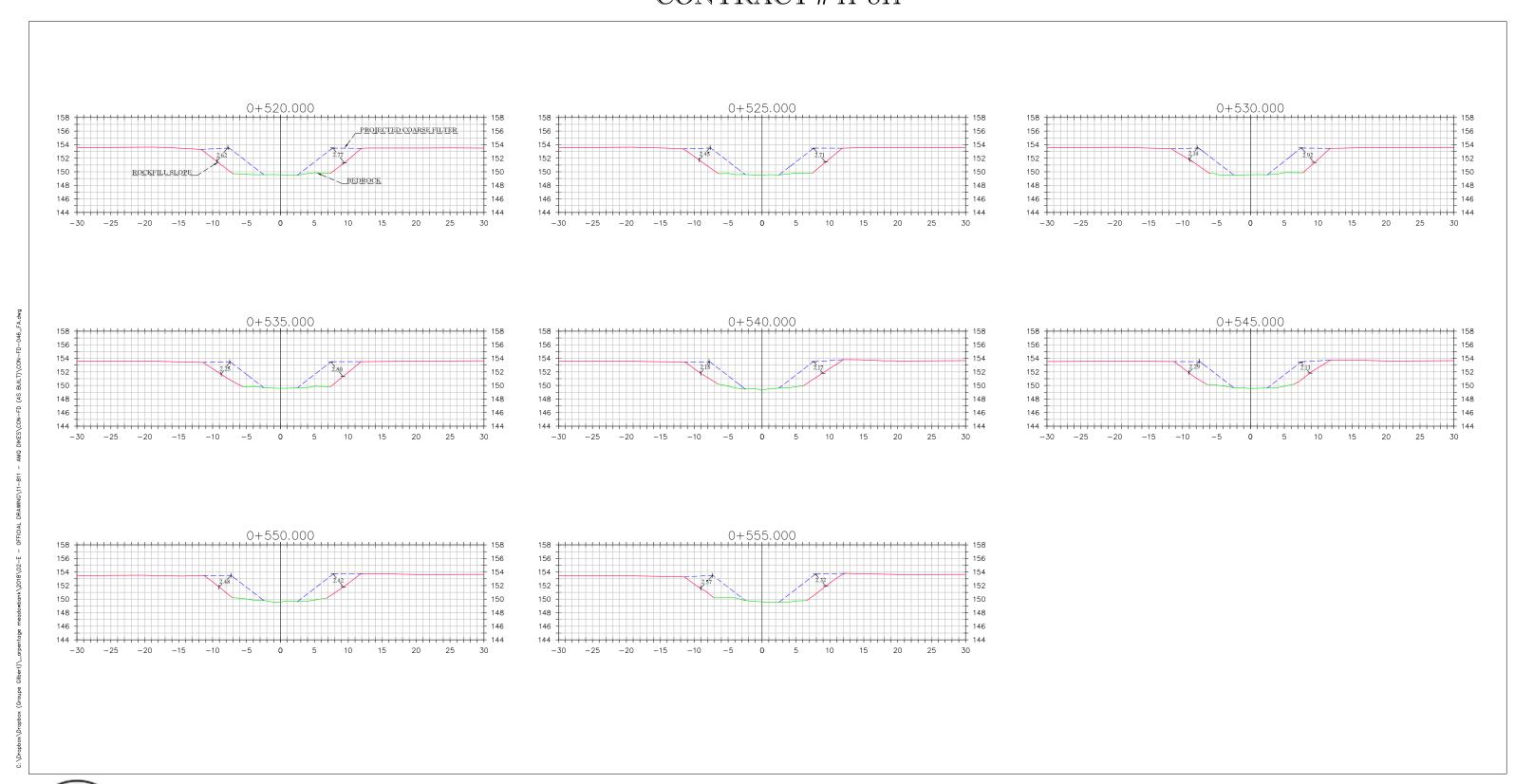
DATE: 19-08-2018 CON-FD-046\_FA





PREPARED BY : MARC-ANDRÉ BLACKBURN DATE : 19-08-2018

DATE: 19-08-2018 CON-FD-046\_FA

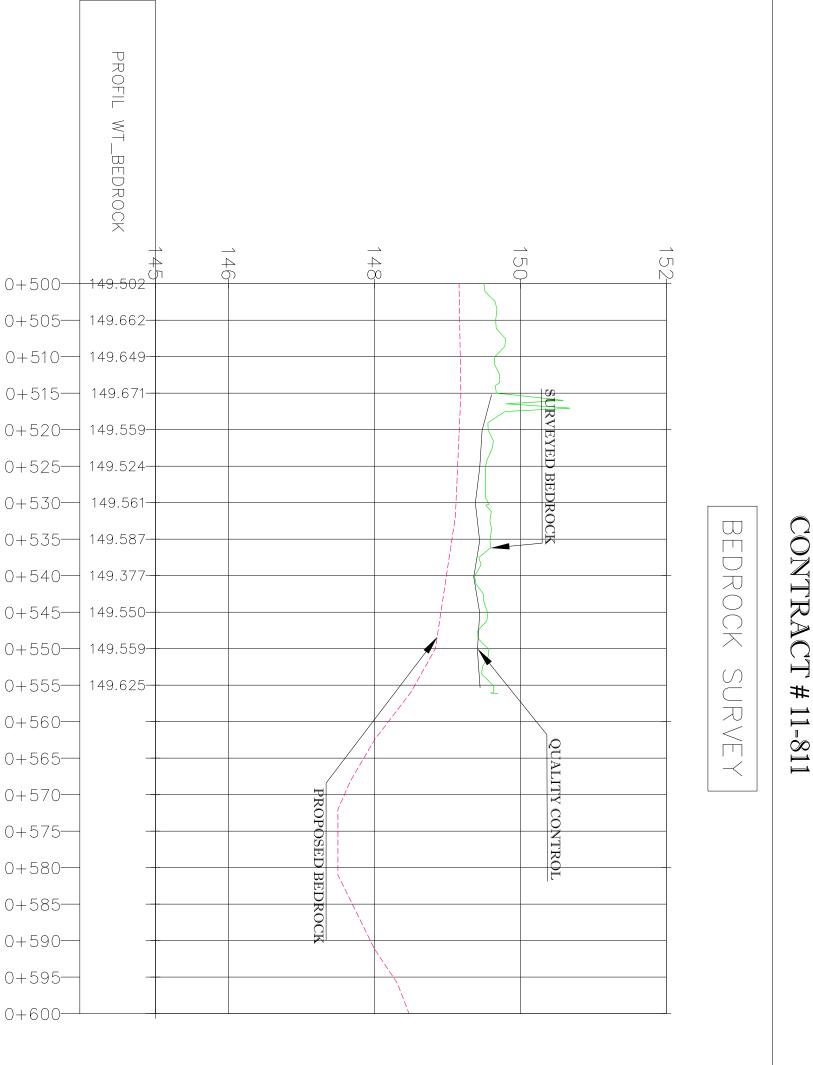




PREPARED BY : MARC-ANDRÉ BLACKBURN DATE : 19-08-2018

CON-FD-046\_FA





#### **APPROVAL FORM**



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

Telephone: (514) 393-8000 Fax: (514) 390-2765 www.snclavalin.com

| PROJECT:                 | \NTO (m        | NSTMUCTION                         |                    |       |                 |
|--------------------------|----------------|------------------------------------|--------------------|-------|-----------------|
| PROJECT #:               | 658 309        | o sor actorio no                   |                    | DATE. | 2 / 12          |
| DOCUMENT #:              | 20180830       | AIC (O)                            |                    | DATE: | 0010-08-00      |
|                          |                | - 705 - 01<br>-DS/NS-01) DS/NS = [ | N/AP 14 176        | TIME: |                 |
|                          | (11111VIIVIIDD | -D3/N3-01) D3/N3 = L               | Day/Night shift    |       | (24 hour clock) |
| APPROVAL FOR:            | $\square$      | Foundation appro                   | val (footprint)    |       |                 |
|                          | ~              | Foundation appro                   | •                  |       |                 |
|                          |                | Fill placement:                    |                    |       |                 |
|                          |                | CB cutoff wall app                 |                    |       |                 |
|                          |                | Other:                             |                    |       |                 |
|                          |                |                                    |                    |       |                 |
| LOCATION                 |                |                                    | PREVIOUS APPROVALS | <br>S |                 |
| Station                  | +790 +         | 640.0                              | _                  | - Tal |                 |
| Inclination: $6+790+808$ |                |                                    |                    | 0+77  | 70 O+790        |
| ELEVATION _              |                |                                    | Details:           |       |                 |
| : 🛛 🔻                    | varies from 1  | 29.7 to 123.2 m                    |                    |       |                 |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:          | VERIFICATIONS DONE E |     |              |  |  |  |
|--|----------------------|-----|--------------|--|--|--|
| (Add additional items if needed)                   | QA                   | QC  | N/A          |  |  |  |
|  | YN                   | Y N |              |  |  |  |
| Lines and grades                                   |                      | 1   |              |  |  |  |
| 2. Free of ice/snow/water                          | 1                    | /   |              |  |  |  |
| 3. Cleaning of trench and/or pile bettom           | 1                    | \ / |              |  |  |  |
| 4. Gradation (visual)                              | V                    |     | -            |  |  |  |
| 5. Placement (lift thickness, segregation, etc.)   |                      | 1   | V            |  |  |  |
| 6. Compaction                                      |                      | _   | V            |  |  |  |
| 7. Foundation on bedrock                           |                      |     | $\checkmark$ |  |  |  |
| Key-in depth into bedrock                          |                      |     | /            |  |  |  |
| 9. Water quality                                   |                      |     | /            |  |  |  |
| 10. CB slurry viscosity and density                |                      |     | V            |  |  |  |
| 11. Elevation of CB Piles                          |                      |     | /            |  |  |  |
|  |                      |     | /            |  |  |  |
| 12. Primary piles strength (Minimum of 50 kPa UCS) |                      |     | V            |  |  |  |
| 13. Keying between primary and secondary           |                      |     | V            |  |  |  |
| 14. Cracks on top of cutoff wall                   |                      |     | 1            |  |  |  |

| į.  | QA |   | QC        |   | N/A      |
|---|----|---|-----------|---|----------|
|   | Υ  | N | Υ         | N |          |
| 15. CB mix/slurry tested (UCS, permeability, and pinhole tests) |    |   |           |   | <b>V</b> |
| 16. As built survey completed                                   |    |   | $\sqrt{}$ |   |          |
| 17.   | A. |   |           |   |          |
| 18.   |    |   |           |   |          |
| 19.   |    |   |           |   |          |
| 20.   |    |   |           |   |          |
| 21.   |    |   |           |   |          |
| 22.   |    |   |           |   |          |
| 23.   |    |   |           |   |          |
| 24.   |    |   |           |   |          |
| 25.   |    |   |           |   |          |

| DETAILS |                                    | <u>A</u> | PPRO\ | /ED BY   | <u>':</u> |
|---------|------------------------------------|----------|-------|----------|-----------|
|         | list above for item #)             | QA       |       | QC       |           |
| ITEM    | ,                                  | Υ        | N     | Υ        | N         |
| 3       | FOUNDATION ON PROZEN SOIL, PREE OF | J        |       | <b>/</b> |           |
|         | EXCESS ICE AND WATER PONDING       |          |       |          |           |
|         |                                    |          |       |          |           |
|         |                                    |          |       |          | 1         |
|         |                                    |          |       |          |           |
|         |                                    |          |       |          |           |
|         |                                    |          |       |          |           |
|         |                                    |          |       |          |           |
|         |                                    |          |       |          |           |
|         |                                    |          |       |          |           |

APPROVED BY:

QA REPRESENTATIVE

QC REPRESENTATIVE

OWNER'S REPRESENTATIVE

(ON STR. REP

Approval form – Revised on 04/07/2018

<u>NAME</u>

MATHEU SEZEOUEL
DENS J. CONTEMBE
PIEN-GIL / NUMBER
AVOREY BILDEAU

ATURE /

2 2

DATE

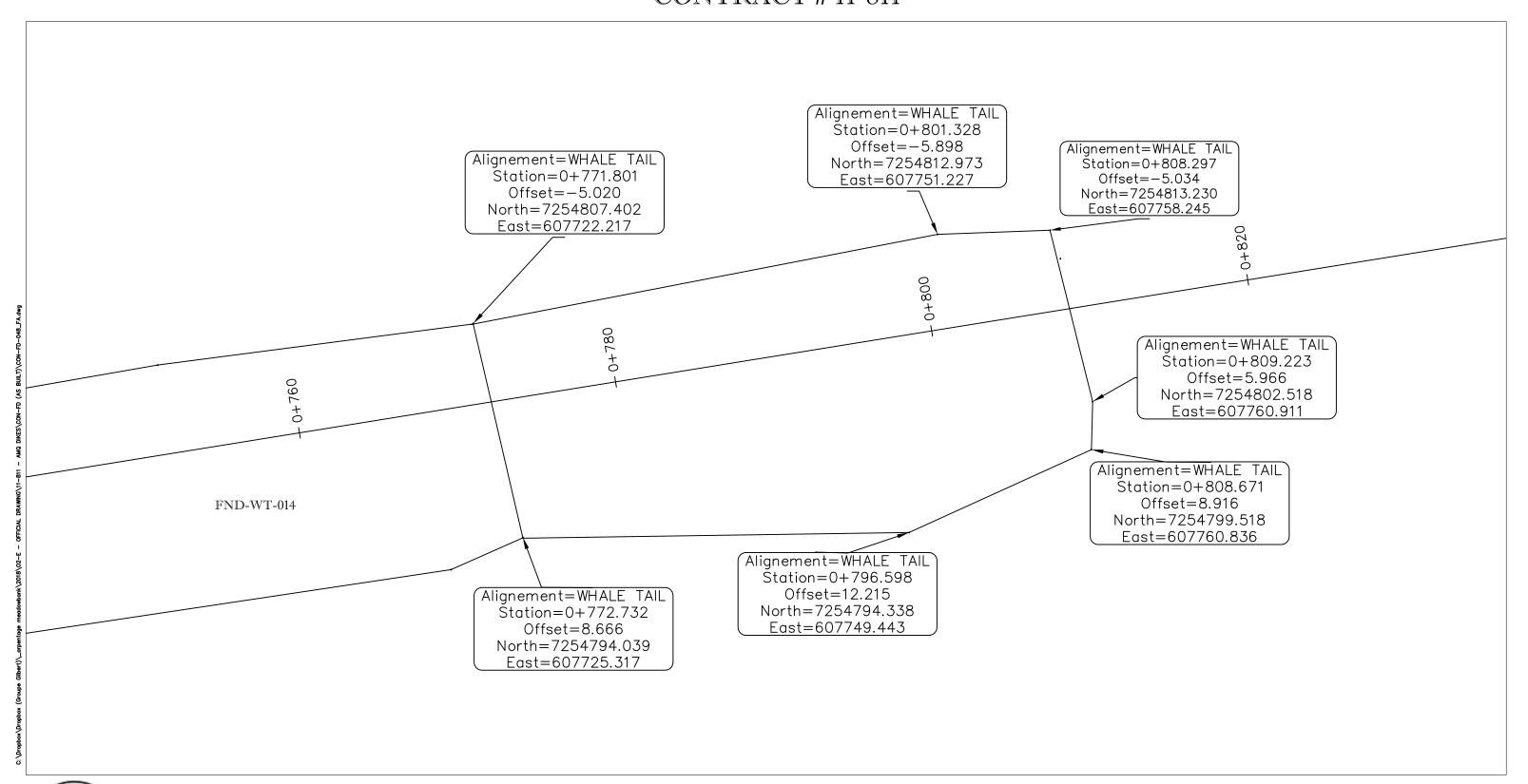
2018-08-90

2018-03-DC

2018/08/20

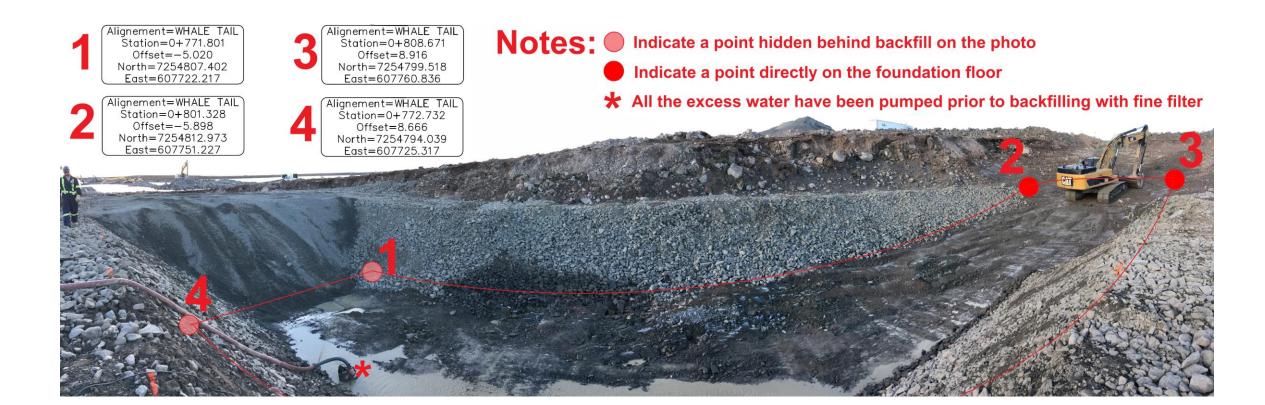
Page 2/2

#### FND-WT-020 WHALE TAIL DIKE CONSTRUCTION CONTRACT # 11-811





PREPARED BY : MARC-ANDRÉ BLACKBURN DATE : 20-08-2018 CON-FD-038-FA



#### APPROVAL FORM



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

Telephone: (514) 393-8000 Fax: (514) 390-2765 www.snclavalin.com

| PROJECT:                      | MED               | Constru   | A Long                               |                | 9                        |
|-------------------------------|-------------------|---|--------------------------------------|----------------|--------------------------|
| PROJECT #:                    | 65 831            |   | CACONI                               | DATE           | 1                        |
| DOCUMENT #:                   | 20180             | 820-05-0<br>DS/NS-01) DS/NS = I                 | Day/Night shift                      | DATE:<br>TIME: | August 20, 2018<br>15:45 |
| APPROVAL FOR :                | <u> </u>          | Foundation appro                                | oval (footprint)                     |                | (24 hour clock)          |
|                               |                   | Fill placement:<br>CB cutoff wall app<br>Other: |                                      |                |                          |
| LOCATION Station Inclination: | -555 <del> </del> | 0+545   | PREVIOUS APPROVALS Station: Details: |                | 522+6 of 213             |
|                               | aries             | m   |                                      |                |                          |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:          |     | VERIFI | CATIO | NS DO | NE BY: |
|--|-----|--------|-------|-------|--------|
| (Add additional items if needed)                   | Q   | 4      | QC    |       | N/A    |
| 4 1:   | Υ   | N      | Υ     | N     |        |
| Lines and grades                                   | 1   |        |       |       |        |
| 2. Free of ice/snow/water                          | 1   | -      | ,     |       |        |
| 3. Cleaning of trench and/or pile bottom           | -   |        |       |       |        |
| 4. Gradation (visual)                              |     |        |       |       |        |
|  |     |        |       |       | 1 -    |
| the trickness, segregation, etc.)                  |     | N 40 1 | ,     |       |        |
| 6. Compaction                                      | No. | 9      |       | 4     |        |
| 7. Foundation on bedrock                           |     |        |       |       | 1      |
| 8. Key-in depth into bedrock                       |     |        |       |       | 1      |
| 9. Water quality                                   | 3   |        |       |       | _      |
| 10. CB slurry viscosity and density                |     |        | 36    |       | -      |
|  |     |        | -     |       | ~      |
| 11. Elevation of CB Piles                          |     |        |       |       |        |
| 12. Primary piles strength (Minimum of 50 kPa UCS) |     | -      |       | -     |        |
| 3. Keying between primary and secondary            |     |        |       |       | 1      |
| 4. Cracks on top of cutoff wall                    |     |        |       |       | 6      |
| or top of cutoff wall                              |     |        |       |       | -      |

|             |            | 7.                    | QA                    |                       | QC                            |                                   | N/A                                 |
|-------------|------------|-----------------------|-----------------------|-----------------------|-------------------------------|-----------------------------------|-------------------------------------|
| ,           |            |                       | Υ.                    | N                     | Y                             | N                                 |                                     |
| y, and pinh | ole tests) |                       |                       |                       |                               |                                   | V                                   |
|             |            |                       | •                     |                       |                               |                                   | /                                   |
|             |            |                       |                       |                       |                               |                                   |                                     |
|             |            |                       |                       |                       |                               |                                   |                                     |
|             |            |                       |                       |                       |                               |                                   |                                     |
|             |            |                       |                       |                       |                               |                                   |                                     |
|             |            |                       |                       |                       |                               |                                   |                                     |
|             |            |                       |                       |                       |                               |                                   |                                     |
|             | wa.        |                       | -                     | *                     |                               |                                   |                                     |
|             |            |                       |                       |                       |                               |                                   |                                     |
|             |            |                       |                       |                       |                               |                                   |                                     |
|             | ,          | /, and pinhole tests) | v, and pinhole tests) | Y, and pinhole tests) | QA Y N  V, and pinhole tests) | QA QC Y N Y  , and pinhole tests) | QA QC Y N Y N  , and pinhole tests) |

| DETAILS .   | A  | <u>':</u> |       |   |
|---|----|-----------|-------|---|
| (Refer to list above for item #)  | QA |           | QC    |   |
|   | Υ  | N         | Υ     | N |
| Clear bedrock, free from ice and mud.  Seems to be a low fractured area.  Verify with an excavator at different stations  This section has been verify with a |    |           | ✓<br> |   |
| special attention because it was into a permatrost area.  See the double check of the bedrock level on the contractor drawing.                                |    |           |       |   |

| - | - | -            | _ | -   |   | _ |    | B | v |   |
|---|---|--------------|---|-----|---|---|----|---|---|---|
| Λ | P | $\mathbf{r}$ | × | ( ) | v | - | ., | В | T | - |

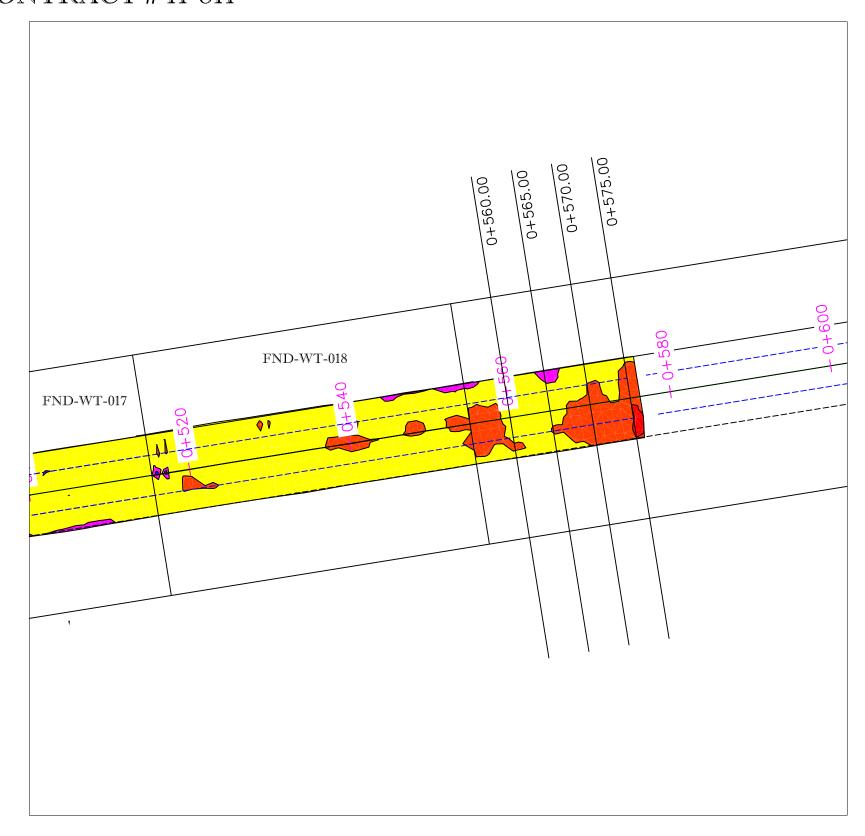
QA REPRESENTATIVE QC REPRESENTATIVE OWNER'S REPRESENTATIVE CONSTR. REP.

DATE

20/08/2018 Page 2/2

Approval form – Revised on 04/07/2018

|        | Elev              | ations Table      |        |       |
|--------|-------------------|-------------------|--------|-------|
| Number | Minimum Elevation | Maximum Elevation | Area   | Color |
| 1      | 143.00            | 143.50            | 0.00   |       |
| 2      | 143.50            | 144.00            | 13.07  |       |
| 3      | 144.00            | 144.50            | 33.80  |       |
| 4      | 144.50            | 145.00            | 32.96  |       |
| 5      | 145.00            | 145.50            | 23.02  |       |
| 6      | 145.50            | 146.00            | 17.15  |       |
| 7      | 146.00            | 146.50            | 32.42  |       |
| 8      | 146.50            | 147.00            | 59.31  |       |
| 9      | 147.00            | 147.50            | 79.02  |       |
| 10     | 147.50            | 148.00            | 111.96 |       |
| 11     | 148.00            | 148.50            | 81.81  |       |
| 12     | 148.50            | 149.00            | 60.86  |       |
| 13     | 149.00            | 149.50            | 64.91  |       |
| 14     | 149.50            | 150.00            | 211.36 |       |
| 15     | 150.00            | 150.50            | 237.84 |       |
| 16     | 150.50            | 151.00            | 525.94 |       |
| 17     | 151.00            | 151.50            | 471.13 |       |
| 18     | 151.50            | 152.00            | 546.99 |       |
| 19     | 152.00            | 152.50            | 231.75 |       |
| 20     | 152.50            | 153.00            | 6.75   |       |





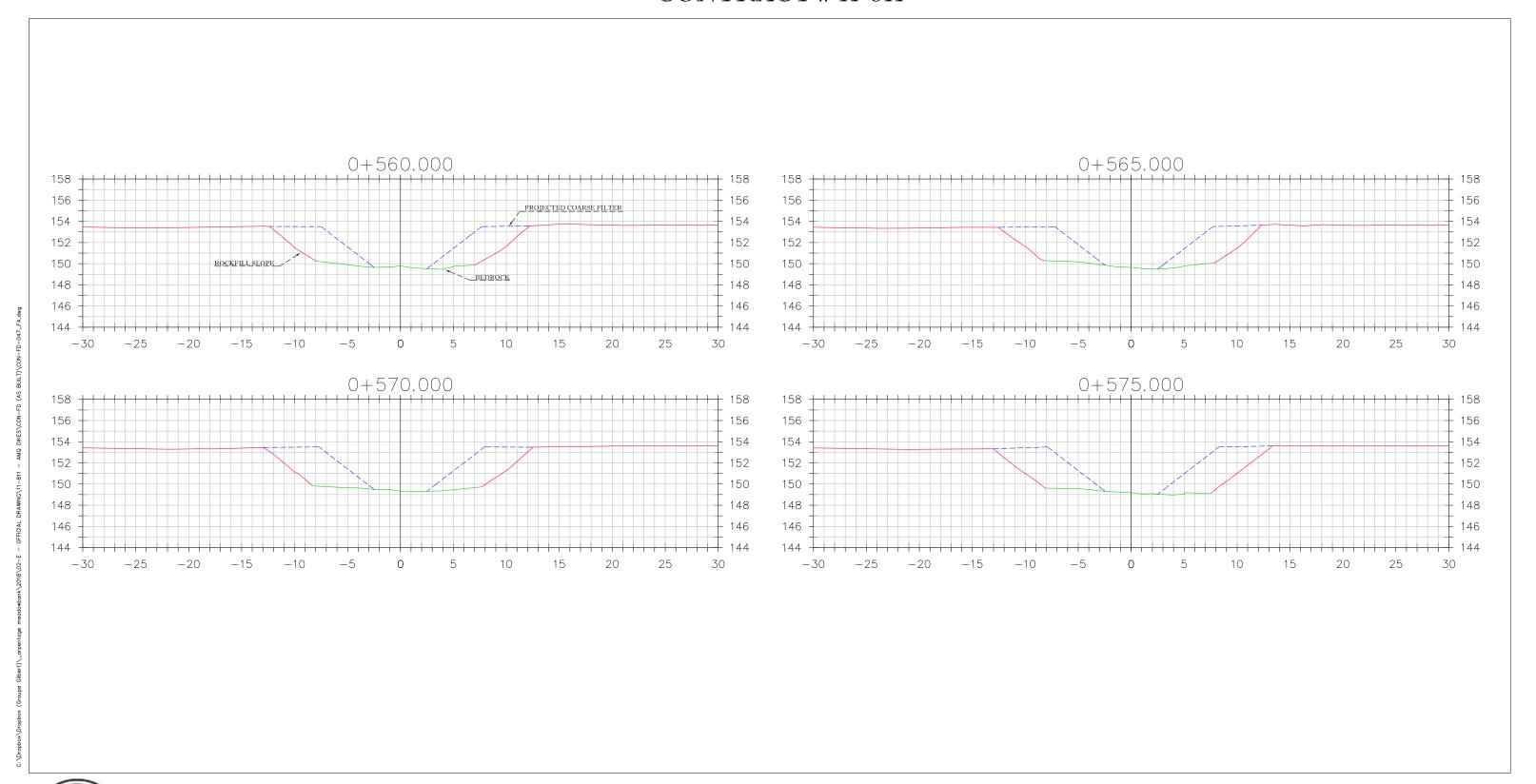
PREPARED BY : MARC-ANDRÉ BLACKBURN DATE : 20-08-2018

CON-FD-047\_FA



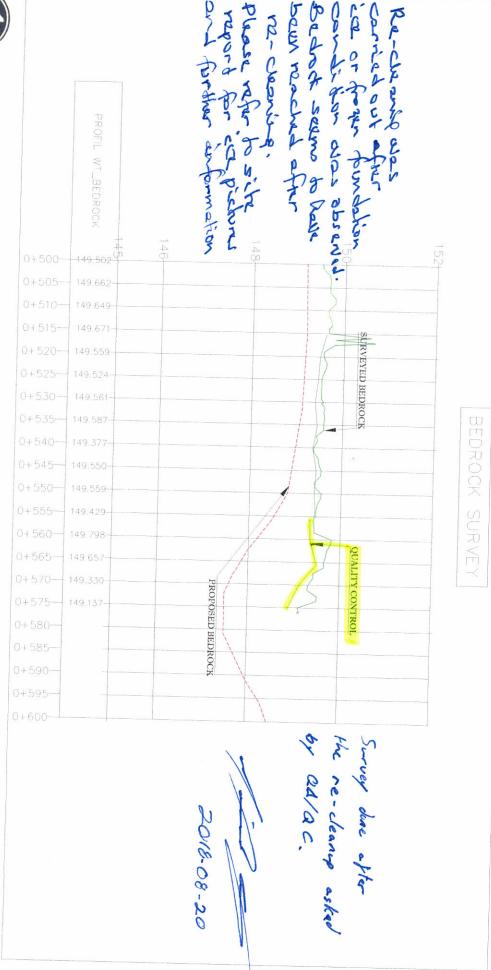


PREPARED BY : MARC-ANDRÉ BLACKBURN DATE : 20-08-2018 CON-FD-047\_FA









#### **APPROVAL FORM**



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

| DATE                |
|---------------------|
| DATE: Aug. 20, 2018 |
| TIME: 18:00         |
| (24 hour clock)     |
|                     |
|                     |
|                     |
|                     |
|                     |
|                     |
| <u>_S</u>           |
| 0+555 6 0+575       |
| 04222 10 04242      |
|                     |
|                     |
|                     |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:         | 7  | /ERIFIC | CATION         | NS DOI | NE BY: |
|---|----|---------|----------------|--------|--------|
| (Add additional items if needed)                  | QA | ١.      | QC             | ;      | N/A    |
| 1. Lines and grades                               | Υ  | N       | Υ              | N      |        |
| and grades  | 10 |         |                |        |        |
| 2. Free of ice/snow/water                         | 1  |         | V.             |        |        |
| 3. Cleaning of trench and/or pile bottom          | -  |         | -              | 2 -    |        |
| 4. Gradation (visual)                             |    |         | ~              |        |        |
| 5. Placement (lift thickness, segregation, etc.)  |    |         | W <sub>2</sub> | -4     | -      |
| 6. Compaction                                     |    |         |                |        | ~      |
| 7. Foundation on bedrock                          |    |         |                |        | -      |
| 3. Key-in depth into bedrock                      |    |         |                |        | 1      |
| . Water quality                                   |    |         |                |        | _      |
| CB slurry viscosity and density                   |    |         |                |        |        |
| Elevation of CB Piles                             |    |         |                |        | L      |
| 2. Primary piles strength (Minimum of 50 kPa UCS) |    |         |                |        | ~      |
| 3. Keying between primary and secondary           |    |         |                |        | L      |
| 4. Cracks on top of cutoff wall                   |    |         |                | _      | ممل    |

| QA |     | QC        |   | N/A |
|----|-----|-----------|---|-----|
| Υ  | , N | Υ         | N |     |
|    |     |           |   | V   |
|    |     |           |   |     |
|    |     |           |   |     |
|    |     |           |   |     |
|    |     |           |   |     |
|    |     |           |   |     |
|    |     |           |   |     |
|    |     |           |   |     |
|    |     |           |   |     |
|    |     |           |   |     |
|    |     |           |   |     |
|    |     | QA<br>Y N |   |     |

| DETAILS.  |       | AF | PPRO\ | /ED BY | : |
|---|-------|----|-------|--------|---|
| (Refer to list above for item #)                |       | QA |       | QC     |   |
| ITEM  | 1     | 1  | N     | Υ      | N |
| Clear bedrock, free of ice and and.             | L     |    |       | /      |   |
| Spots check done with an excavator at           |       |    |       |        |   |
| different stations. Point seems to be much from | thred |    |       |        |   |
| A special care has been take because            |       | _  |       |        |   |
| this section was into a permatrost area         | ۹.    |    |       |        |   |
|   |       |    |       |        |   |
| See the contractor drawlings to see             |       |    |       |        |   |
| the QC survey.                                  |       |    |       |        |   |
| ,   |       |    |       |        |   |
|   |       |    |       |        |   |

| AP | PRO | OVE | D. | BY | : |
|----|-----|-----|----|----|---|
|    |     |     |    |    |   |

QA REPRESENTATIVE

QC REPRESENTATIVE

OWNER'S REPRESENTATIVE

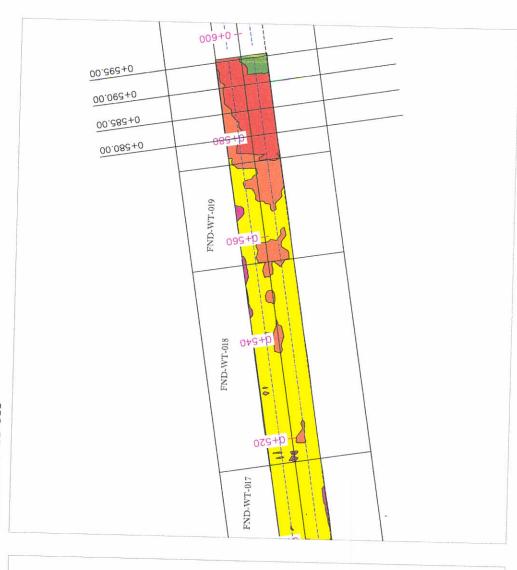
Contractor's 11

SIGNATURE

Page 2/2

Approval form - Revised on 04/07/2018

|                  | Area Color        |        | 70     | 30     | 96     | 02     | 2      | .2     |        | 2      | 96     |        | 9      |        | 99     | 84     | 94     | 3      | 6      | 2      |        |
|------------------|-------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|                  | Ar                | 0.00   | 13.07  | 33.80  | 32.96  | 23.02  | 17.15  | 32.42  | 59.31  | 79.02  | 111.96 | 81.81  | 60.86  | 64.91  | 211.36 | 237.84 | 525.94 | 471.13 | 546.99 | 231.75 | 6.75   |
| Elevations Table | Maximum Elevation | 143.50 | 144.00 | 144.50 | 145.00 | 145.50 | 146.00 | 146.50 | 147.00 | 147.50 | 148.00 | 148.50 | 149.00 | 149.50 | 150.00 | 150.50 | 151.00 | 151.50 | 152.00 | 152.50 | 153.00 |
| Eleve            | Minimum Elevation | 143.00 | 143.50 | 144.00 | 144.50 | 145.00 | 145.50 | 146.00 | 146.50 | 147.00 | 147.50 | 148.00 | 148.50 | 149.00 | 149.50 | 150.00 | 150.50 | 151.00 | 151.50 | 152.00 | 152.50 |
|                  | Number            | -      | 2      | 2      | 4      | 2      | 9      | 7      | 00     | 6      | 10     | 11     | 12     | 13     | 41     | 15     | 16     | 17     | 18     | 19     | 20     |



PREPARED BY: MARC-ANDRÉ BLACKBURN DATE : 20-08-2018 CON-FD-080\_FA



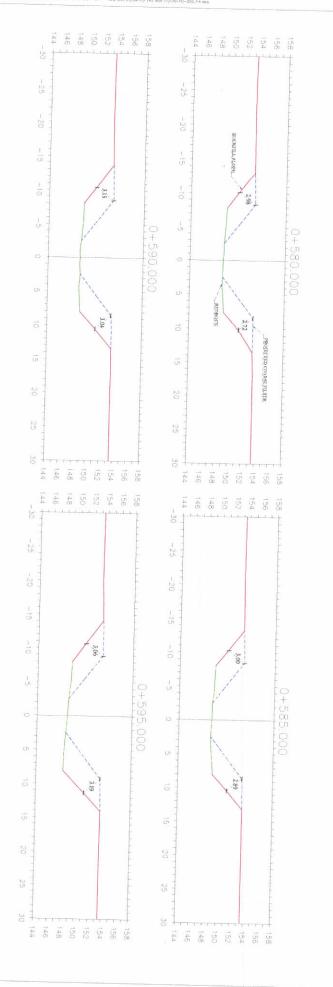
051-002/(Table 34) GT+002/EDRIG DAX - 118-11/00/WEADLY - 3-50/RIG/(M-10-05) (AS BASZ/CON-TD-050

# FOUNDATION APPROVAL - WHALE TAIL CONTRACT # 11-811

|                | Stations of sectors (180nt)  stations of sectors elec-  otses, 80 & 149, 12m  otses, 80 & 149, 03m  otses, 80 & 149, 63m  otses, 80 & 148, 73m  otses, 20 & 148, 73m   |  |        |
|----------------|--|--|--------|
| BEDROCK SURVEY | QUALITY CONTROL. PROPOSED BEDROCK  | -98+'84<br>-962'84<br>-968'84<br>-968'84<br>-296'84<br>-296'84<br>-296'641<br>-625'641<br>-625'641 |        |
| BEDROC         | STRVEYED BEDROCK   | 299.641<br>  |        |
|                | Re-clearif also canted out of the sented of the search of the serve of the search of t | PROFIL WT_BEDROCK  | -005+0 |







#### **APPROVAL FORM**



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

| PROJECT:     | WTO CON          | STRUCTION              |                    |       |                 |
|--------------|------------------|------------------------|--------------------|-------|-----------------|
| PROJECT #:   | 658309           | Je voo non             |                    | DATE: | €6-80-810€      |
| DOCUMENT #:  | 30180833-        | NS-01                  |                    | TIME: | 4:15            |
|              | (YYYYMMDD        | -DS/NS-01) $DS/NS = D$ | ay/Night shift     |       | (24 hour clock) |
| APPROVAL FOR | : <sup>1</sup> 🗵 | Foundation appro       | 5585 15 25         |       |                 |
|              |                  | Fill placement:        |                    |       |                 |
|              |                  | CB cutoff wall app     | roval              |       |                 |
|              |                  | Other:                 |                    |       |                 |
|              |                  |                        |                    |       |                 |
| LOCATION     |                  |                        | PREVIOUS APPROVALS |       |                 |
| Station      | 767+1            | 0 0+739                | Station:           | 0+5   | 790 to 0+808    |
| Inclination: | •                |                        | Details:           |       | to 04808        |
| ELEVATION :  | varies           | <u>≈120.9</u> m        |                    | LREAD |                 |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:          | <u>\</u> | /ERIFIC  | FICATIONS DONE BY: |   |     |  |
|--|----------|----------|--------------------|---|-----|--|
| (Add additional items if needed)                   | QA       | <b>V</b> | QC                 |   | N/A |  |
|  | Y        | N        | Υ                  | N |     |  |
| Lines and grades                                   | 1        |          | <b>/</b>           |   |     |  |
| 2. Free of ice/snow/water                          | 1        |          | /                  |   |     |  |
| 3. Cleaning of trench and/or pile bottom           | J        |          | /                  |   |     |  |
| 4. Gradation (visual)                              |          |          |                    |   | 1   |  |
| 5. Placement (lift thickness, segregation, etc.)   |          |          |                    |   | /_  |  |
| 6. Compaction                                      |          |          |                    |   |     |  |
| 7. Foundation on bedrock                           | J        |          |                    |   |     |  |
| Key-in depth into bedrock                          |          |          |                    |   |     |  |
| 9. Water quality                                   |          |          |                    |   |     |  |
| 10. CB slurry viscosity and density                |          |          |                    |   | /   |  |
| 11. Elevation of CB Piles                          |          |          | -                  |   | - V |  |
| 12. Primary piles strength (Minimum of 50 kPa UCS) |          |          |                    |   | V,  |  |
| 13. Keying between primary and secondary           |          |          |                    |   |     |  |
| 14. Cracks on top of cutoff wall                   |          |          |                    |   | 7   |  |

|   | QA |   | QC |   | N/A       |
|---|----|---|----|---|-----------|
|   | Υ  | N | Υ  | N | ,         |
| 15. CB mix/slurry tested (UCS, permeability, and pinhole tests) |    |   |    |   | $\sqrt{}$ |
| 16. As built survey completed                                   |    |   | /  |   |           |
| 17.   |    |   |    |   |           |
| 18.   |    |   |    |   |           |
| 19.   |    |   |    |   |           |
| 20.   |    |   |    |   |           |
| 21.   |    |   |    |   |           |
| 22.   |    |   |    |   |           |
| 23.   |    |   |    |   |           |
| 24.   |    |   |    |   |           |
| 25.   |    |   |    |   |           |

| DETAILS          |                |         |                     |         |     | A  | PPRO\ | /ED BY | <u>:</u> |
|------------------|----------------|---------|---------------------|---------|-----|----|-------|--------|----------|
| (Refer to list a | above for iten | n #)    |                     |         |     | QA |       | QC     |          |
| ITEM             |                |         |                     |         |     | Υ  | N     | Υ      | N        |
| 9 For            | MNDATION       | FREE OF | ICE-RICH MATERIAL/E | XCESS W | TER | J, |       | /      |          |
| 7 F0             | MOSTION        | SITS ON | FRACTURED BEDROCK   |         |     | V  |       |        |          |
|                  |                |         |                     |         |     |    |       |        |          |
|                  |                |         |                     |         |     |    |       |        |          |
|                  |                |         |                     |         |     |    |       |        |          |
|                  |                |         |                     |         |     |    |       |        |          |
|                  |                |         |                     |         |     |    |       |        |          |
|                  |                |         |                     |         |     |    |       |        |          |
|                  |                |         |                     |         |     |    |       |        |          |
|                  |                |         |                     |         |     |    |       |        |          |

APPROVED BY:

QA REPRESENTATIVE
QC REPRESENTATIVE
OWNER'S REPRESENTATIVE

NAME

MATHEU SEZEQUEL
Dans J. Carlosses
Patrice Capus

GNATURE

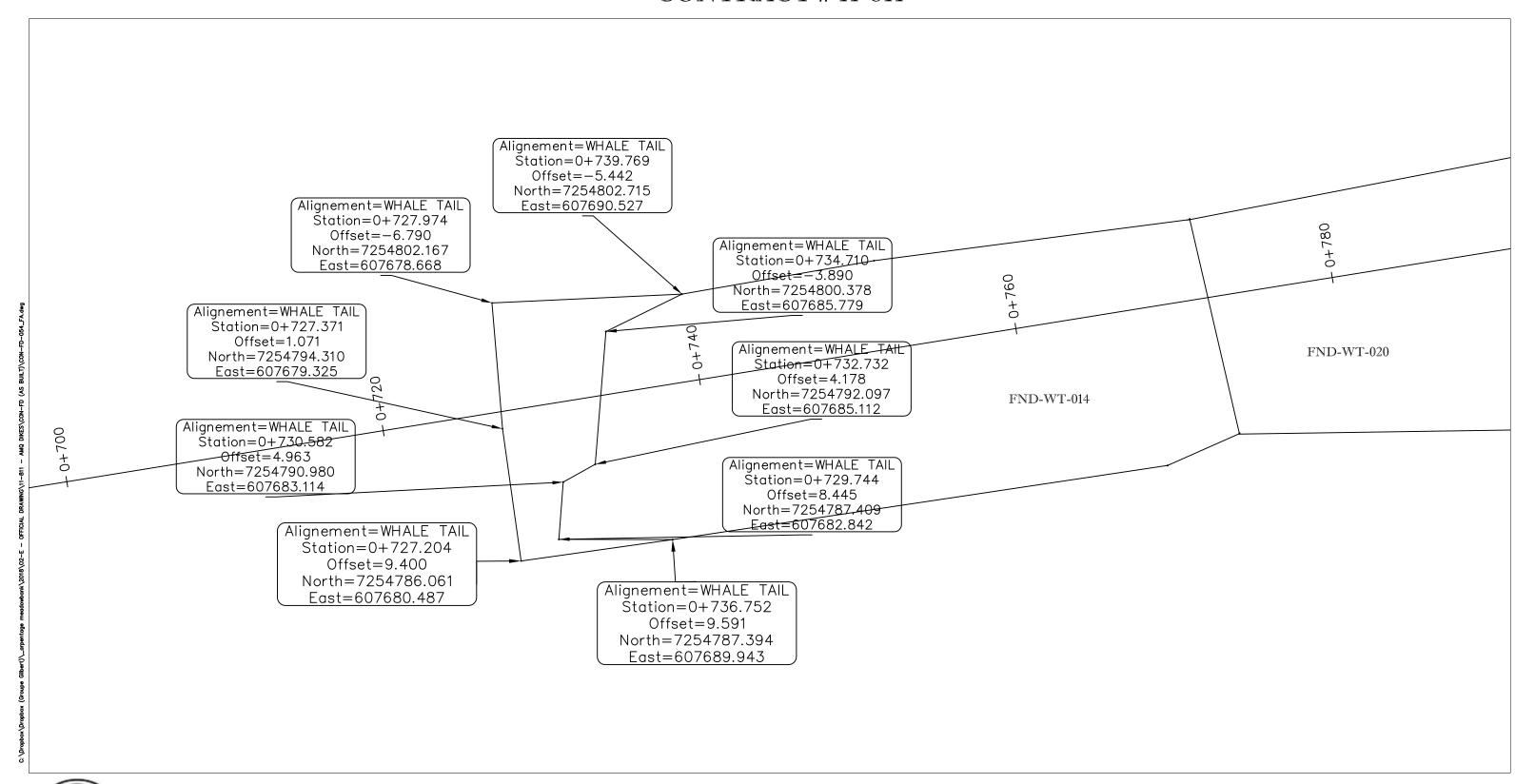
DATE

9018-08-27

9017-01-89

Jonamur) >

#### FND-WT-024 WHALE TAIL DIKE CONSTRUCTION CONTRACT # 11-811





PREPARED BY : MARC-ANDRÉ BLACKBURN DATE : 23-08-2018

CON-FD-054-FA





Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

| PROJECT:  PROJECT:  DOCUMENT#:  CS 8309  CYYYYMMDD-DS/NS-01) DS/NS = D  APPROVAL FOR:  Foundation appro Foundation appro Fill placement:  CB cutoff wall appro Other: | DATE: August 22, 2018  Day/Night shift  Day/Night shift  Day/Night shift  Day/Night shift  Day/Night shift  (24 hour clock) |
|---|---|
| LOCATION Station Inclination:  ELEVATION : varies m   | PREVIOUS APPROVALS  Station: 0+5+5 to 0+595  Details:   |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:                 |        | VERIFICATIONS DO |     |   |          |  |
|---|--------|------------------|-----|---|----------|--|
| (Add additional items if needed)                          | QA     | ١                | QC  | ; | N/A      |  |
| Lines and grades  | Υ      | N                | Υ   | N |          |  |
|   | ~      |                  | ./  |   |          |  |
| 2. Free of ice/snow/water                                 |        |                  |     |   |          |  |
| <ol> <li>Cleaning of trench and/or pile bottom</li> </ol> | 1 1    | <b>+-</b> •      | -   |   | <i>j</i> |  |
| 4. Gradation (visual)                                     | -      | J. L.,           | /   |   |          |  |
| 5. Placement (lift thickness, segregation, etc.)          | 414    | A                | 1.7 |   | -        |  |
| 6. Compaction   |        |                  |     |   |          |  |
| 7. Foundation on bedrock                                  |        |                  |     | 4 | ー        |  |
| 8. Key-in depth into bedrock                              |        |                  |     |   |          |  |
| 9. Water quality  |        |                  |     |   |          |  |
| 10. CB slurry viscosity and density                       |        |                  |     |   |          |  |
| 11. Elevation of CB Piles                                 |        |                  |     |   |          |  |
| 12. Primary piles strength (Minimum of 50 kPa UCS)        |        |                  |     |   | ~        |  |
| 13. Keying between primary and secondary                  |        |                  |     |   |          |  |
| 14. Crooks on target with the                             | 100 mg |                  |     |   | /        |  |
| 14. Cracks on top of cutoff wall                          |        |                  |     |   |          |  |

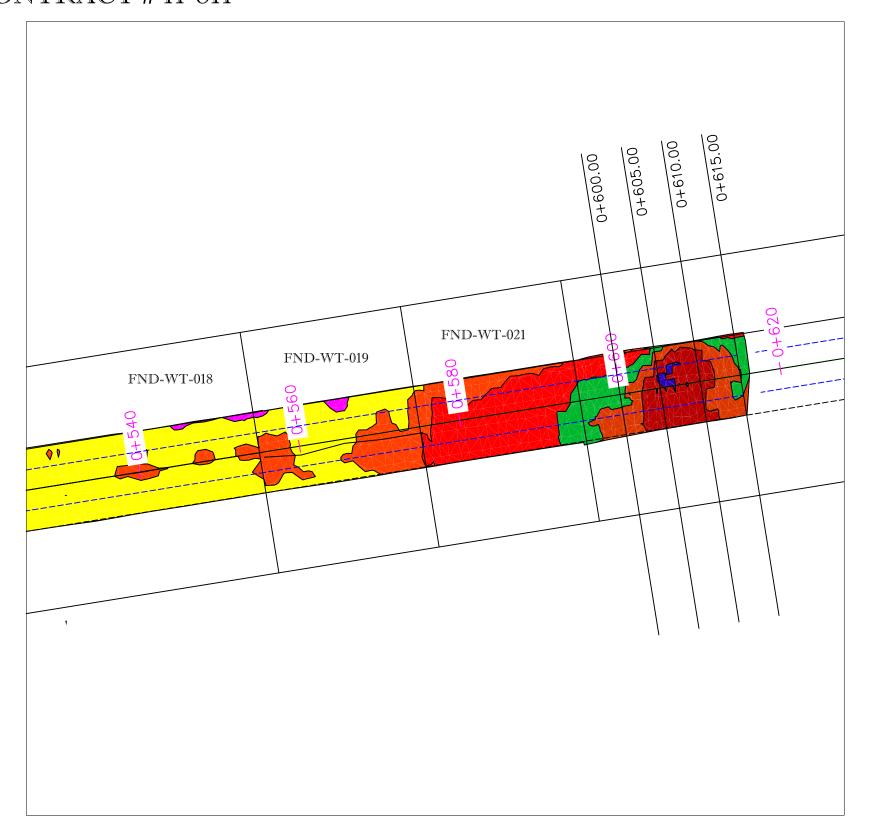
|   | the second of the second              |     |          |    |   |     |
|---|---------------------------------------|-----|----------|----|---|-----|
| to the second stage of                      | 4, 13                                 | Q   | <b>A</b> | QC | ; | N/A |
| 15 OD mints                                 | 3.1-                                  | Υ , | N        | Y  | N |     |
| 15. CB mix/slurry tested (UCS, permeab      | ility, and pinhole tests)             |     | 1        | W. |   | 1   |
| <ol><li>As built survey completed</li></ol> |                                       |     | -        |    |   |     |
| 17.   |                                       |     |          |    |   |     |
| 18.   | {                                     |     |          |    |   |     |
| 19.   |                                       |     |          |    |   |     |
| 20.   | 7                                     |     |          |    |   |     |
| 21.   |                                       |     |          |    |   |     |
| 22.   |                                       |     |          |    |   |     |
| 3,  | 34.77                                 | *3  | 4        |    |   |     |
| 4.  | , , , , , , , , , , , , , , , , , , , |     |          | -  | _ |     |
| 5.  |                                       |     |          |    |   |     |
|   |                                       |     |          | -  |   |     |

| DETAILS (Refer to list above for item #)                            |   | APPR | OVED B | Υ: |
|---|---|------|--------|----|
| ITEM  | ( | PΑ   | Q      | 0  |
| 21  | Υ | N    | Υ      | N  |
| Clear bedrock, free of ice and mud.                                 |   |      |        | -  |
| It seems to be freetined rock.                                      |   |      |        |    |
| It seems to be freatured rock.  Field spot shock has been done with | 4 | +    |        |    |
| as executed at different stations.                                  |   |      |        |    |
|   |   |      |        |    |
| See the QC double check on the contractor drawing.                  |   |      |        |    |
| contractor drawing.   |   |      |        |    |
|   |   |      |        |    |
|   |   |      |        |    |
|   |   |      |        |    |

| APPROVED BY:                          | NAME                | SIGNATURE . | DATE                     |
|---------------------------------------|---------------------|-------------|--------------------------|
| QA REPRESENTATIVE                     | ezera Azmath        | Springer    | Aux. 12, 20 18           |
| QC REPRESENTATIVE                     | Maxime Cote         |             |                          |
| OWNER'S REPRESENTATIVE                | tatrice Come        | 8           | 3018-08-22<br>3018-09-99 |
| Contractors Rep.                      | Jonathan Audit-Copy | 1=          | 2018-08-30               |
| Approval form - Revised on 04/07/2010 | 1000                | -0          | 0.00                     |

Approval form - Revised on 04/07/2018

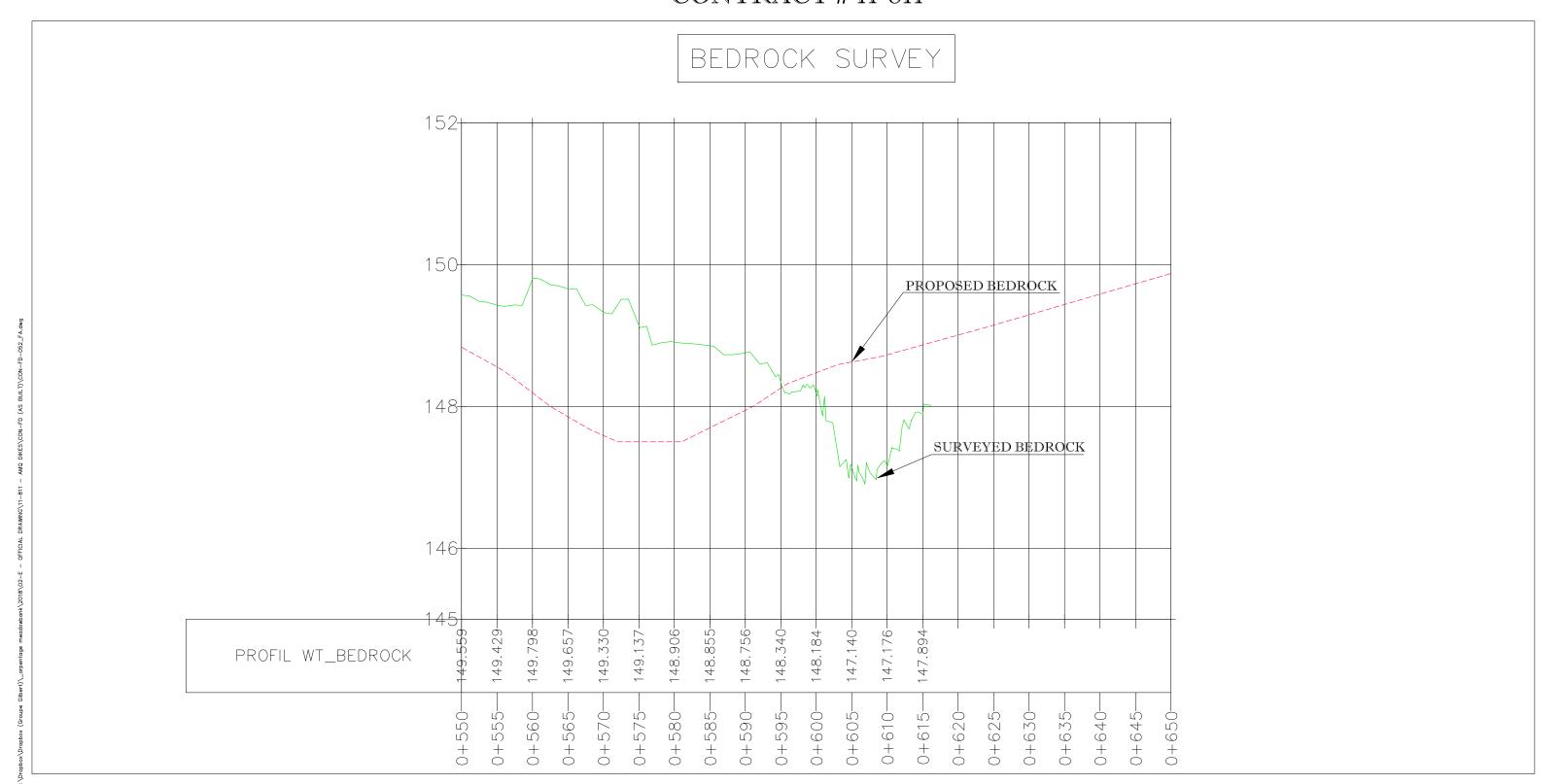
|        | Elevations Table  |                   |        |       |  |  |  |
|--------|-------------------|-------------------|--------|-------|--|--|--|
| Number | Minimum Elevation | Maximum Elevation | Area   | Color |  |  |  |
| 1      | 143.00            | 143.50            | 0.00   |       |  |  |  |
| 2      | 143.50            | 144.00            | 13.07  |       |  |  |  |
| 3      | 144.00            | 144.50            | 33.80  |       |  |  |  |
| 4      | 144.50            | 145.00            | 32.96  |       |  |  |  |
| 5      | 145.00            | 145.50            | 23.02  |       |  |  |  |
| 6      | 145.50            | 146.00            | 17.15  |       |  |  |  |
| 7      | 146.00            | 146.50            | 32.42  |       |  |  |  |
| 8      | 146.50            | 147.00            | 59.31  |       |  |  |  |
| 9      | 147.00            | 147.50            | 79.02  |       |  |  |  |
| 10     | 147.50            | 148.00            | 111.96 |       |  |  |  |
| 11     | 148.00            | 148.50            | 81.81  |       |  |  |  |
| 12     | 148.50            | 149.00            | 60.86  |       |  |  |  |
| 13     | 149.00            | 149.50            | 64.91  |       |  |  |  |
| 14     | 149.50            | 150.00            | 211.36 |       |  |  |  |
| 15     | 150.00            | 150.50            | 237.84 |       |  |  |  |
| 16     | 150.50            | 151.00            | 525.94 |       |  |  |  |
| 17     | 151.00            | 151.50            | 471.13 |       |  |  |  |
| 18     | 151.50            | 152.00            | 546.99 |       |  |  |  |
| 19     | 152.00            | 152.50            | 231.75 |       |  |  |  |
| 20     | 152.50            | 153.00            | 6.75   |       |  |  |  |





PREPARED BY: MARC-ANDRÉ BLACKBURN

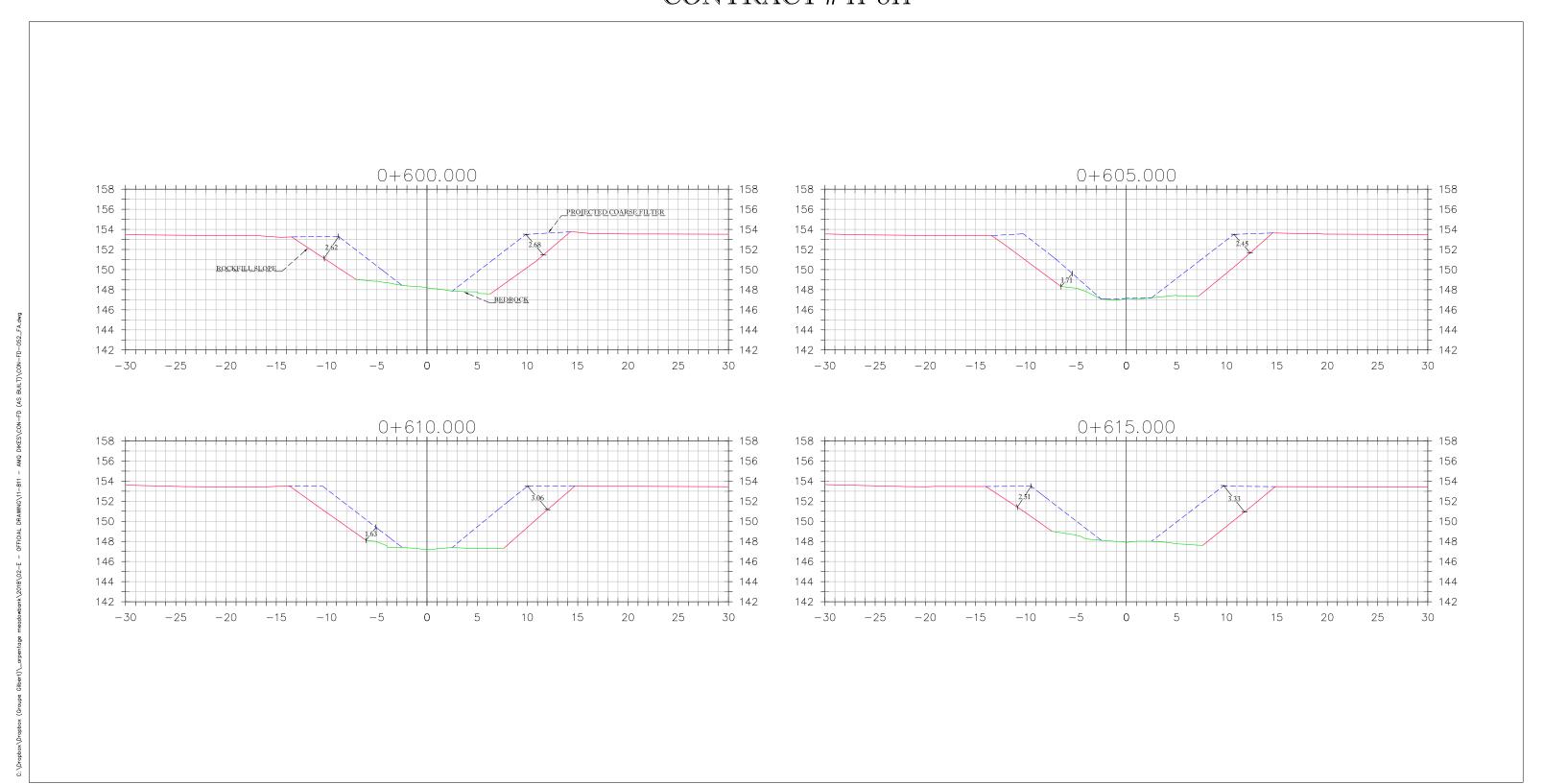
DATE : 22-08-2018 CON-FD-052\_FA





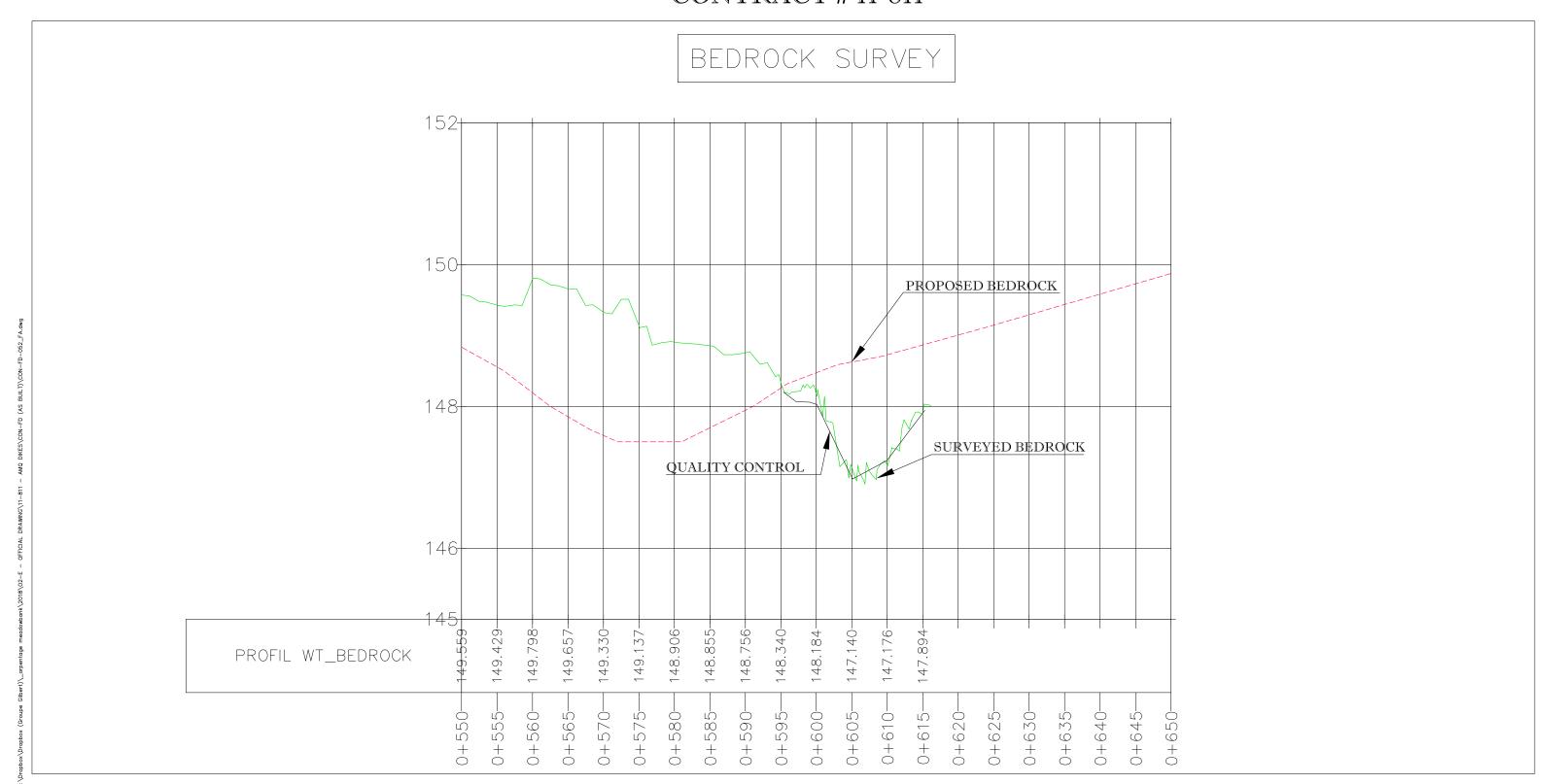
PREPARED BY : MARC-ANDRÉ BLACKBURN DATE : 22-08-2018

CON-FD-052\_FA





PREPARED BY : MARC-ANDRÉ BLACKBURN DATE : 22-08-2018 CON-FD-052\_FA





PREPARED BY : MARC-ANDRÉ BLACKBURN DATE : 22-08-2018

DATE : 22-08-2018 CON-FD-052\_FA



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

| PROJECT:     | O arw      | eitzatura  | ~                 |          |                 |       |
|--------------|------------|--|-------------------|----------|-----------------|-------|
| PROJECT #:   | 6.583      | 80   |                   | DATE:    | Aug. 22         | 8105  |
| DOCUMENT #:  | 201808     | 22-DS-08   | 3                 | TIME:    | 12:00           |       |
|              | (YYYYMMDD- | DS/NS-01) DS/NS = D  | ay/Night shift    |          | (24 hour clock) |       |
| APPROVAL FOR |            | Foundation approfoundation approfill placement: CB cutoff wall approfther: | val (key trench)  |          |                 |       |
| LOCATION     |            |  | PREVIOUS APPROVAL | <u>s</u> |                 |       |
| Station      | +615 to    | 0+635  | Station:          | 0+       | ses to          | 0+615 |
| Inclination: |            |  | Details:          |          |                 |       |
| ELEVATION :  | varies     | m  |                   |          |                 |       |
|              |            | <del></del>  |                   |          |                 |       |

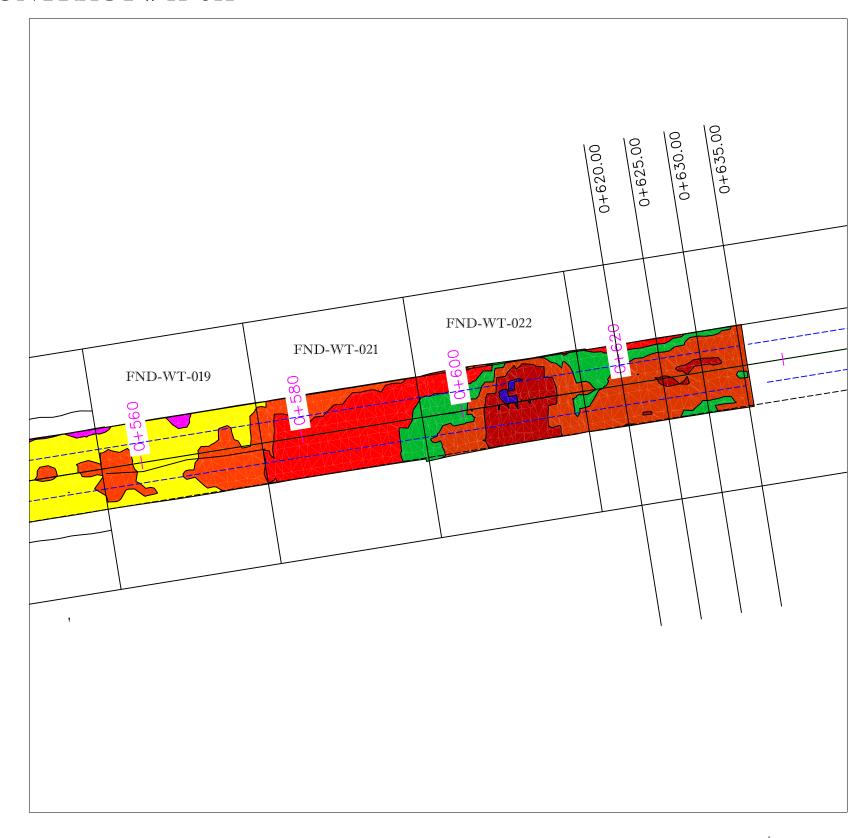
| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:                 |     | VERIFICATIONS DONE BY: |    |   |         |  |  |
|---|-----|------------------------|----|---|---------|--|--|
| (Add additional items if needed)                          | QA  |                        | QC |   | N/A     |  |  |
|   | Υ   | N                      | Υ  | N |         |  |  |
| 1. Lines and grades                                       | 1   |                        |    |   |         |  |  |
| 2. Free of ice/snow/water                                 | V   |                        | ./ |   |         |  |  |
| <ol> <li>Cleaning of trench and/or pile bettom</li> </ol> |     |                        | /  | • |         |  |  |
| 4. Gradation (visual)                                     |     |                        |    |   | 1       |  |  |
| 5. Placement (lift thickness, segregation, etc.)          |     |                        |    |   | <u></u> |  |  |
| 6. Compaction   |     |                        |    |   | -       |  |  |
| 7. Foundation on bedrock                                  |     |                        |    |   | _       |  |  |
| Key-in depth into bedrock                                 |     |                        |    |   |         |  |  |
| 9. Water quality  |     |                        |    |   |         |  |  |
| 10. CB slurry viscosity and density                       |     |                        |    |   |         |  |  |
| 11. Elevation of CB Piles                                 |     |                        |    |   |         |  |  |
| 12. Primary piles strength (Minimum of 50 kPa UCS)        |     |                        |    |   |         |  |  |
| 13. Keying between primary and secondary                  | ,   |                        |    |   |         |  |  |
| 14. Cracks on top of cutoff wall                          | - / |                        |    |   |         |  |  |
|   |     |                        |    |   | 1       |  |  |

|  | · · · · · · · · · · · · · · · · · · · |          |     |       | The same of the sa |   |         |  |
|--|---------------------------------------|----------|-----|-------|--|---|---------|--|
| the state of the s |                                       | 1        | QA  |       | QC   |   | N/A     |  |
|  | Alberta 🛬                             | Acres de | Υ : | N     | Υ  | N |         |  |
| 15. CB mix/slurry tested (UCS, permeability, and   |                                       |          |     |       |  |   | <u></u> |  |
| 16. As built survey completed  | 9                                     |          |     |       |  |   | ~       |  |
| 17.  |                                       |          | 4.  |       |  |   |         |  |
| 18.  |                                       |          |     |       |  |   |         |  |
| 19.  |                                       |          |     |       |  |   |         |  |
| 20.  |                                       |          |     |       |  |   |         |  |
| 21.  |                                       |          |     |       |  |   |         |  |
| 22.  |                                       |          |     |       |  |   |         |  |
| 23.  | *                                     | 4        |     | . , 1 |  |   |         |  |
| 24.  |                                       |          |     |       |  |   |         |  |
| 25.  |                                       |          |     |       |  |   |         |  |
|  |                                       |          |     |       | -  |   |         |  |

| <b>DETAILS</b> |   | <u>A</u> | PPRO\ | /ED BY | <u>:</u> |
|----------------|---|----------|-------|--------|----------|
| (Refer to      | ist above for item #)                   | QA       |       | QC     |          |
| ITEM           |   | Y        | N     | Υ      | N        |
| 3              | Clear bedrack, free of med and ice.     | <u></u>  |       | V      |          |
|                | Seems to be fractured rock.             |          |       |        |          |
|                | A lot of field spot check has been done |          |       |        |          |
|                | with an executar at differente stations |          |       |        |          |
|                | and every thing was good.               |          |       |        |          |
|                |   |          |       |        |          |
| - 4            | ac boat survey has been done and        |          |       |        |          |
|                | every thing match.                      |          |       |        |          |
|                |   |          |       |        |          |
|                |   |          |       |        |          |

| APPROVED BY:                  | <u>NAME</u>               | SIGNATURE | DATE          |
|-------------------------------|---------------------------|-----------|---------------|
| QA REPRESENTATIVE             | Tezora Azmata             | Julioth   | Aug. 22, 2018 |
| QC REPRESENTATIVE             | Maxime Colo               |           | 2018-CE-22    |
| OWNER'S REPRESENTA            | ATIVE YETTICE Gagner      | 10/12     | 9018-00-99    |
| Contractors                   | Rep. Jonathan Audet-Cross | 100       | Jo18-08-93    |
| Approval form – Revised on 04 | 1/07/2018                 | 0         | Page 2/2      |

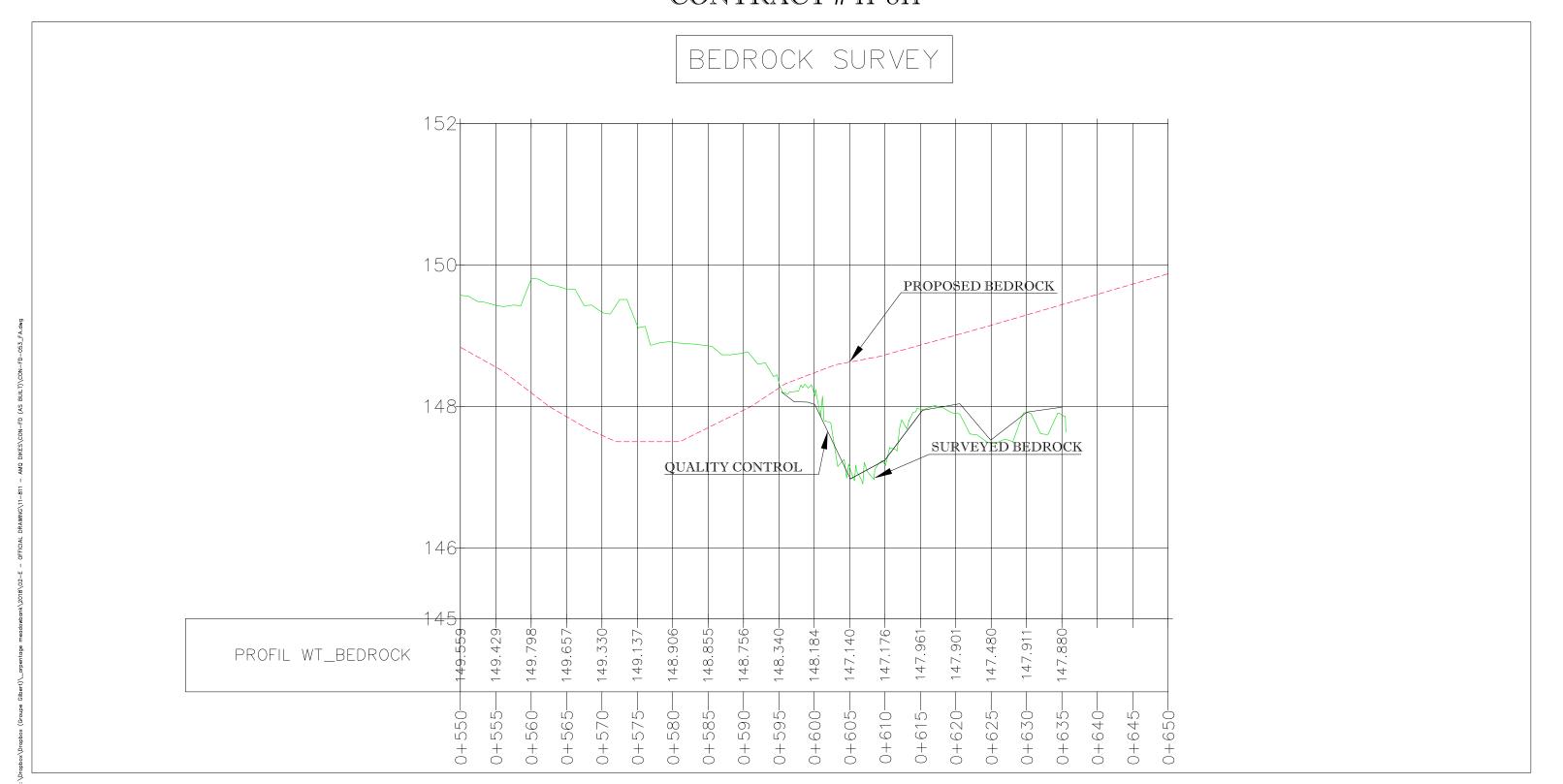
|        | Elev                                     | ations Table |        |  |  |  |  |
|--------|--|--------------|--------|--|--|--|--|
| Number | Minimum Elevation Maximum Elevation Area |              |        |  |  |  |  |
| 1      | 143.00                                   | 143.50       | 0.00   |  |  |  |  |
| 2      | 143.50                                   | 144.00       | 13.07  |  |  |  |  |
| 3      | 144.00                                   | 144.50       | 33.80  |  |  |  |  |
| 4      | 144.50                                   | 145.00       | 32.96  |  |  |  |  |
| 5      | 145.00                                   | 145.50       | 23.02  |  |  |  |  |
| 6      | 145.50                                   | 146.00       | 17.15  |  |  |  |  |
| 7      | 146.00                                   | 146.50       | 32.42  |  |  |  |  |
| 8      | 146.50                                   | 147.00       | 59.31  |  |  |  |  |
| 9      | 147.00                                   | 147.50       | 79.02  |  |  |  |  |
| 10     | 147.50                                   | 148.00       | 111.96 |  |  |  |  |
| 11     | 148.00                                   | 148.50       | 81.81  |  |  |  |  |
| 12     | 148.50                                   | 149.00       | 60.86  |  |  |  |  |
| 13     | 149.00                                   | 149.50       | 64.91  |  |  |  |  |
| 14     | 149.50                                   | 150.00       | 211.36 |  |  |  |  |
| 15     | 150.00                                   | 150.50       | 237.84 |  |  |  |  |
| 16     | 150.50                                   | 151.00       | 525.94 |  |  |  |  |
| 17     | 151.00                                   | 151.50       | 471.13 |  |  |  |  |
| 18     | 151.50                                   | 152.00       | 546.99 |  |  |  |  |
| 19     | 152.00                                   | 152.50       | 231.75 |  |  |  |  |
| 20     | 152.50                                   | 153.00       | 6.75   |  |  |  |  |





PREPARED BY : MARC-ANDRÉ BLACKBURN

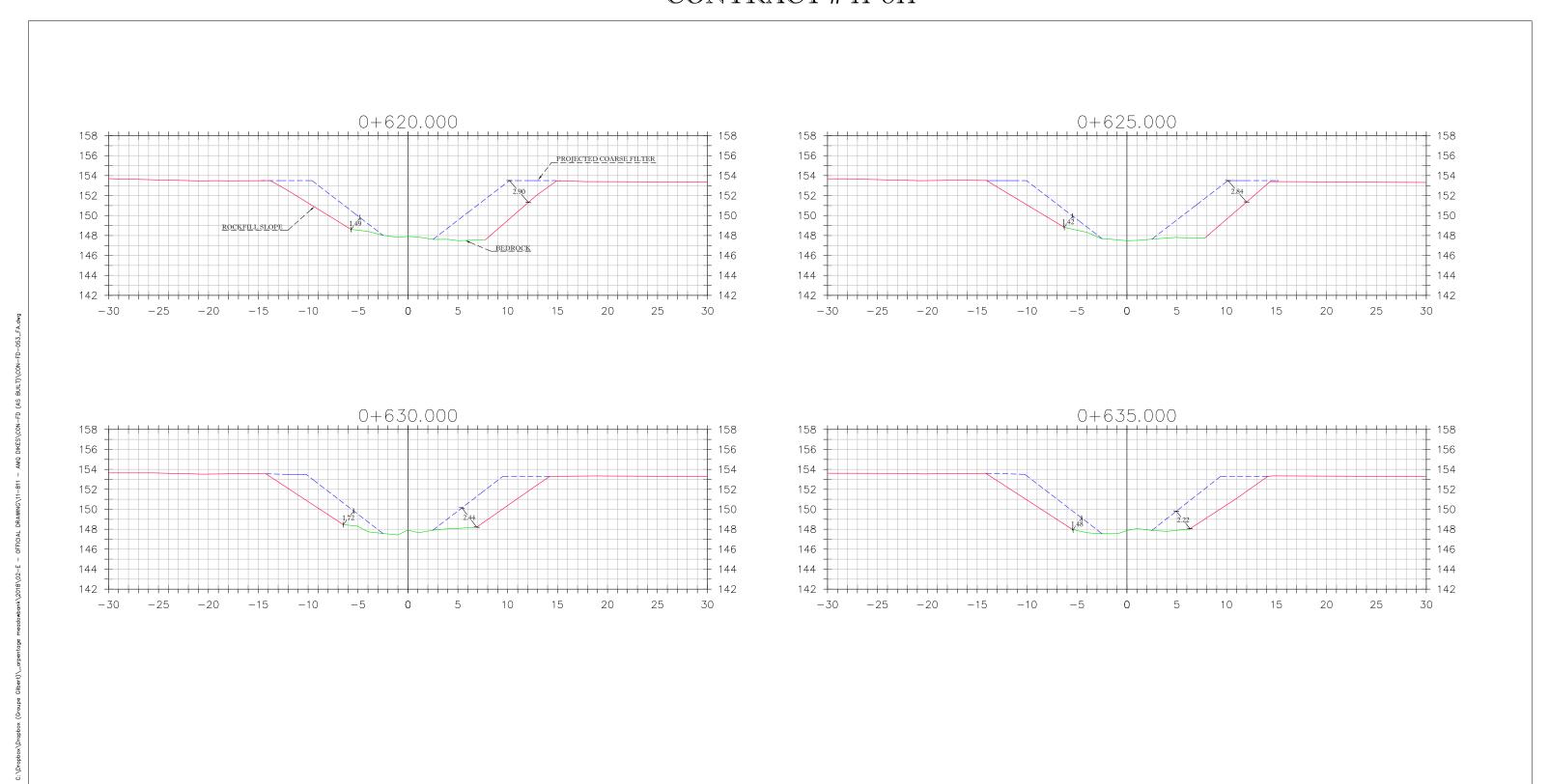
DATE : 23-08-2018 CON-FD-053\_FA





PREPARED BY : MARC-ANDRÉ BLACKBURN DATE : 23-08-2018

DATE: 23-08-2018 CON-FD-053\_FA







Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

| PROJECT:       | arw.   | Constrocti  | don               |          |            |        |         |
|----------------|--------|---|-------------------|----------|------------|--------|---------|
| PROJECT #:     | 658.   |   |                   | DATE:    | Aug        | fee    | 23,2018 |
| DOCUMENT #:    |        | 823-205-0   |                   | TIME:    |            | (CC)   |         |
|                |        | D-DS/NS-01) DS/NS = D   |                   |          | (24 hour c | clock) |         |
| APPROVAL FOR : |        | Foundation appro Foundation appro Fill placement: CB cutoff wall app Other: | val (key trench)  |          |            |        |         |
|                |        |   |                   |          |            |        | ,       |
| LOCATION       |        |   | PREVIOUS APPROVAL | <u>s</u> |            |        |         |
| Station        | 635    | 22240 0   | Station:          | 6        | 1615 ·     | to 7   | +635    |
| Inclination:   |        |   | Details:          |          |            |        |         |
| ELEVATION :    | varies | m   |                   |          |            |        |         |

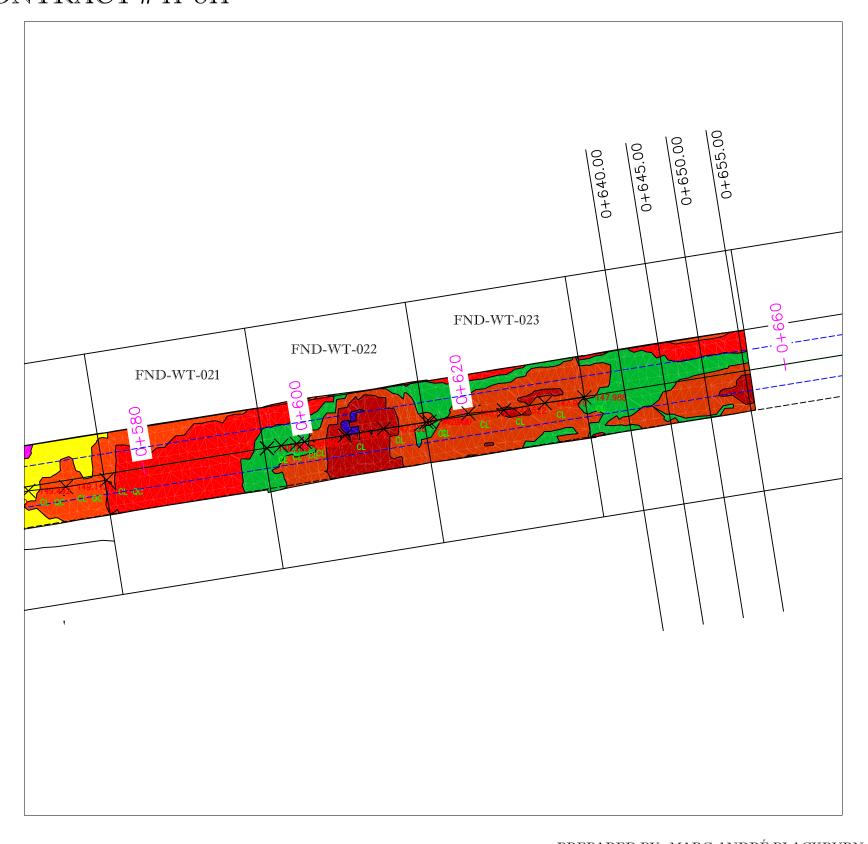
| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:          |      | VERIFICATIONS DONE BY: |    |   |     |  |
|--|------|------------------------|----|---|-----|--|
| (Add additional items if needed)                   | QA   |                        | QC |   | N/A |  |
|  | Υ    | N                      | Υ  | N |     |  |
| Lines and grades                                   | 1    |                        | /  |   | 2   |  |
| 2. Free of ice/snow/water                          | V    |                        | ~  |   |     |  |
| 3. Cleaning of trench and/or pile bottom           | 1/   |                        | 1/ |   |     |  |
| 4. Gradation (visual)                              |      |                        |    |   |     |  |
| 5. Placement (lift thickness, segregation, etc.)   |      |                        |    |   |     |  |
| 6. Compaction                                      |      |                        |    |   |     |  |
| 7. Foundation on bedrock                           |      |                        |    |   | /   |  |
| Key-in depth into bedrock                          |      |                        | -  |   | /   |  |
| 9. Water quality                                   |      |                        |    |   |     |  |
| 10. CB slurry viscosity and density                |      |                        |    |   |     |  |
| 11. Elevation of CB Piles                          |      |                        |    |   |     |  |
| 12. Primary piles strength (Minimum of 50 kPa UCS) |      | -                      |    |   |     |  |
| 13. Keying between primary and secondary           | 7.5  |                        |    |   |     |  |
| 14. Cracks on top of cutoff wall                   | i de |                        |    |   | /   |  |

| describ.  |                         |                         | 1.0                     |                         |                         |  |
|---|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|--|
| 7. *  | QA                      | · .                     | QC                      |                         | N/A                     |  |
| 1 12 12 12 12 12 12 12 12 12 12 12 12 12                          | Υ.                      | - N                     | Υ                       | N                       |                         |  |
| ity, and pinhole tests)   |                         |                         |                         |                         | し                       |  |
|   |                         |                         |                         |                         | _                       |  |
|   |                         |                         |                         |                         |                         |  |
|   |                         |                         |                         |                         |                         |  |
|   |                         |                         |                         |                         |                         |  |
| Observe al Course of Scandidana and India specificants limited as |                         |                         |                         |                         |                         |  |
|   |                         |                         |                         |                         |                         |  |
|   |                         |                         |                         |                         |                         |  |
| * 1 * 1 * 1   | * 1                     |                         | -/                      |                         |                         |  |
|   |                         |                         |                         |                         |                         |  |
|   |                         |                         |                         |                         |                         |  |
|   | ity, and pinhole tests) |  |

| <b>DETAILS</b> |   | APPROVED BY: |    | <u>′:</u> |       |  |  |
|----------------|---|--------------|----|-----------|-------|--|--|
| (Refer to      | list above for item #)                      | QA           | QA |           | QA QC |  |  |
| ITEM           |   | Υ            | N  | Υ         | N     |  |  |
| 3              | Clear bedrock, free of ice and mudo seems   | /            |    | V         |       |  |  |
|                | to be fractured rock.                       |              |    |           |       |  |  |
|                | A let of field gots check has been done     |              |    |           |       |  |  |
|                | with an excavater at different stations and |              |    |           |       |  |  |
| ee*;           | it is all good.                             |              |    |           |       |  |  |
|                | 7   |              |    |           |       |  |  |
| -3             | QC Boat survey results natched with         |              |    |           |       |  |  |
|                | the bathymetry.                             |              |    |           |       |  |  |
|                |   |              |    |           |       |  |  |
|                |   |              |    |           |       |  |  |

| APPROVED BY:                  | <u>NAME</u>          | SIGNATURE | <u>DATE</u>   |
|-------------------------------|----------------------|-----------|---------------|
| QA REPRESENTATIVE             | Jezen Azmata         | antrain)  | Aug. 23, 2018 |
| QC REPRESENTATIVE             | Maxime Coto          |           | 2018-08-23    |
| OWNER'S REPRESENTA            | ATIVE Patrice Cognan | Car Car   | 0018-08-23    |
| Contractor's                  | Jonathan A.C.        | 1         | Pai 8-08-23   |
| Approval form - Revised on 04 | /07/2018             |           | Page 2/2      |

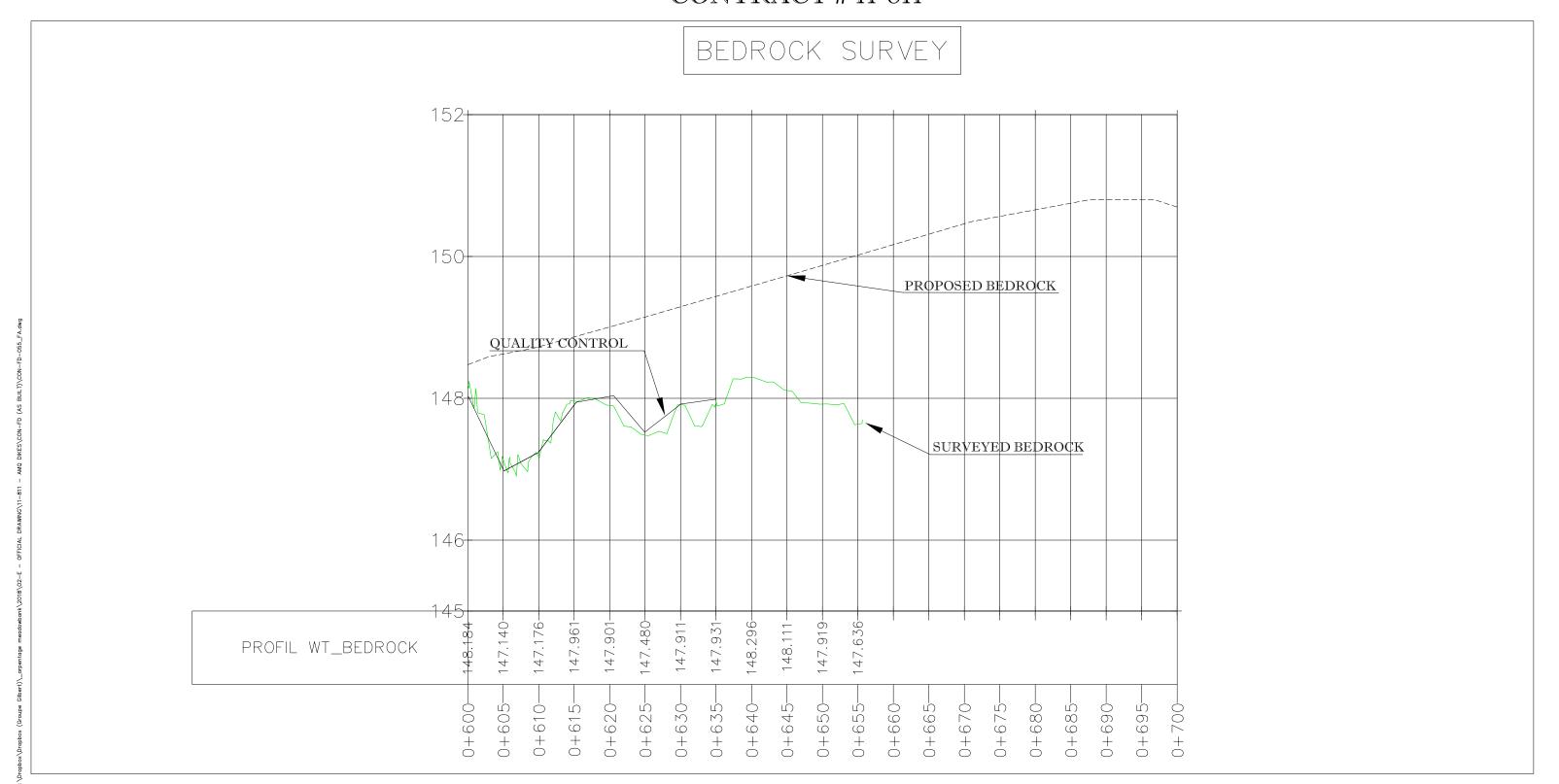
|        | Elev              | ations Table      |        |       |
|--------|-------------------|-------------------|--------|-------|
| Number | Minimum Elevation | Maximum Elevation | Area   | Color |
| 1      | 143.00            | 143.50            | 0.00   |       |
| 2      | 143.50            | 144.00            | 13.07  |       |
| 3      | 144.00            | 144.50            | 33.80  |       |
| 4      | 144.50            | 145.00            | 32.96  |       |
| 5      | 145.00            | 145.50            | 23.02  |       |
| 6      | 145.50            | 146.00            | 17.15  |       |
| 7      | 146.00            | 146.50            | 32.42  |       |
| 8      | 146.50            | 147.00            | 59.31  |       |
| 9      | 147.00            | 147.50            | 79.02  |       |
| 10     | 147.50            | 148.00            | 111.96 |       |
| 11     | 148.00            | 148.50            | 81.81  |       |
| 12     | 148.50            | 149.00            | 60.86  |       |
| 13     | 149.00            | 149.50            | 64.91  |       |
| 14     | 149.50            | 150.00            | 211.36 |       |
| 15     | 150.00            | 150.50            | 237.84 |       |
| 16     | 150.50            | 151.00            | 525.94 |       |
| 17     | 151.00            | 151.50            | 471.13 |       |
| 18     | 151.50            | 152.00            | 546.99 |       |
| 19     | 152.00            | 152.50            | 231.75 |       |
| 20     | 152.50            | 153.00            | 6.75   |       |





PREPARED BY : MARC-ANDRÉ BLACKBURN DATE : 23-08-2018

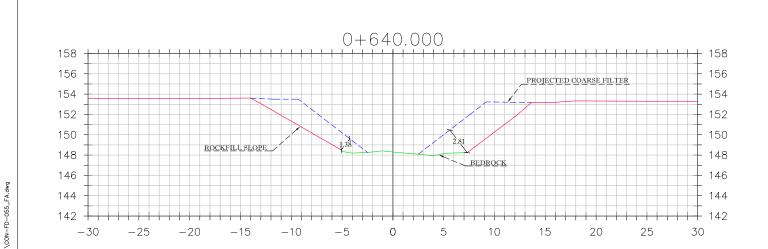
CON-FD-055\_FA

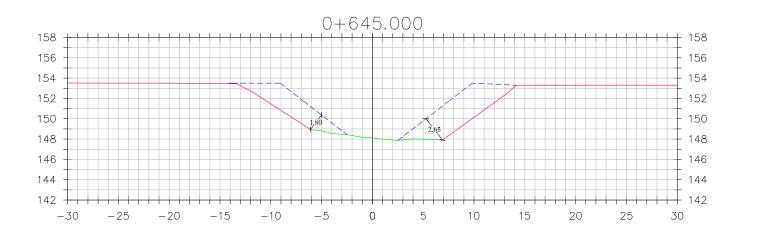


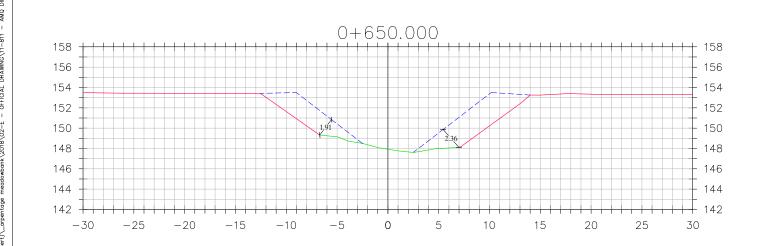


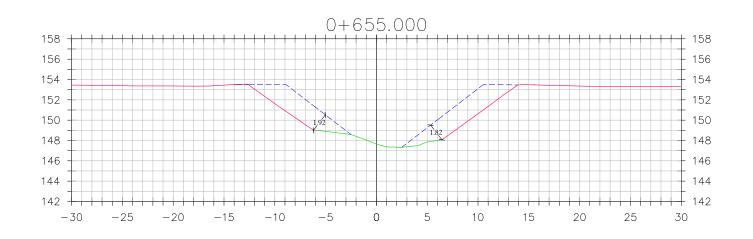
PREPARED BY : MARC-ANDRÉ BLACKBURN DATE : 23-08-2018

DATE: 23-08-2018 CON-FD-055\_FA











#### **APPROVAL FORM**



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

| PROJECT:       | WTO Construction                            |                     |
|----------------|---|---------------------|
| PROJECT #:     | 658309                                      | DATE: Aug. 23, 2018 |
| DOCUMENT #:    | 20180823-05-02                              | TIME: 14:40         |
|                | (YYYYMMDD-DS/NS-01) DS/NS = Day/Night shift | (24 hour clock)     |
| APPROVAL FOR : | Tourisation approval (lootpilit)            |                     |
|                | Foundation approval (key trench)            |                     |
|                | Fill placement:                             |                     |
|                | CB cutoff wall approval                     |                     |
|                | Other:                                      |                     |
|                |   |                     |
| LOCATION       | PREVIOUS APPROV                             | ALS                 |
| Station        | 1-65-5 to 0 1-67-5 Station                  | 12940 of 25 9 +0 "  |
| Inclination:   | Details                                     |                     |
| ELEVATION :    | varies m                                    |                     |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:          | <u>v</u> | ERIFI | CATION | IS DOI | NE BY: |
|--|----------|-------|--------|--------|--------|
| (Add additional items if needed)                   |          |       | QC     |        | N/A    |
|  | Υ        | N     | Υ      | N      |        |
| Lines and grades                                   | ~        |       | ./     |        |        |
| 2. Free of ice/snow/water                          | V        |       | /      |        |        |
| 3. Cleaning of trench and/or pile bottom           | /        |       |        |        |        |
| 4. Gradation (visual)                              |          |       |        |        | 1 /    |
| 5. Placement (lift thickness, segregation, etc.)   |          |       |        |        |        |
| 6. Compaction                                      |          |       |        |        |        |
| 7. Foundation on bedrock                           |          |       |        |        |        |
| 8. Key-in depth into bedrock                       |          |       |        |        |        |
| 9. Water quality                                   |          |       |        |        | _      |
| 10. CB slurry viscosity and density                |          |       |        |        |        |
| 11. Elevation of CB Piles                          |          |       |        |        |        |
| 12. Primary piles strength (Minimum of 50 kPa UCS) |          |       |        |        |        |
| 13. Keying between primary and secondary           |          |       |        |        |        |
| 14. Cracks on top of cutoff wall                   |          |       |        |        |        |

|      |                            | and the control of th |                           |                           |                           |  |
|------|----------------------------|--|---------------------------|---------------------------|---------------------------|--|
| 2 1  | QA                         | , ,  | QC                        |                           | N/A                       |  |
|      | + Y*                       | ·N   | Υ                         | N                         |                           |  |
|      |                            |  |                           |                           |                           |  |
|      |                            |  |                           |                           |                           |  |
|      |                            |  |                           |                           |                           |  |
|      |                            |  |                           |                           |                           |  |
|      |                            |  |                           |                           |                           |  |
|      |                            |  |                           |                           |                           |  |
|      |                            |  |                           |                           |                           |  |
|      |                            |  |                           |                           |                           |  |
| 41 4 |                            | . , :  | į ·                       |                           |                           |  |
|      |                            |  |                           |                           |                           |  |
|      |                            |  | *                         |                           |                           |  |
|      | sility, and pinhole tests) | vility, and pinhole tests)   | ility, and pinhole tests) | ility, and pinhole tests) | ility, and pinhole tests) |  |

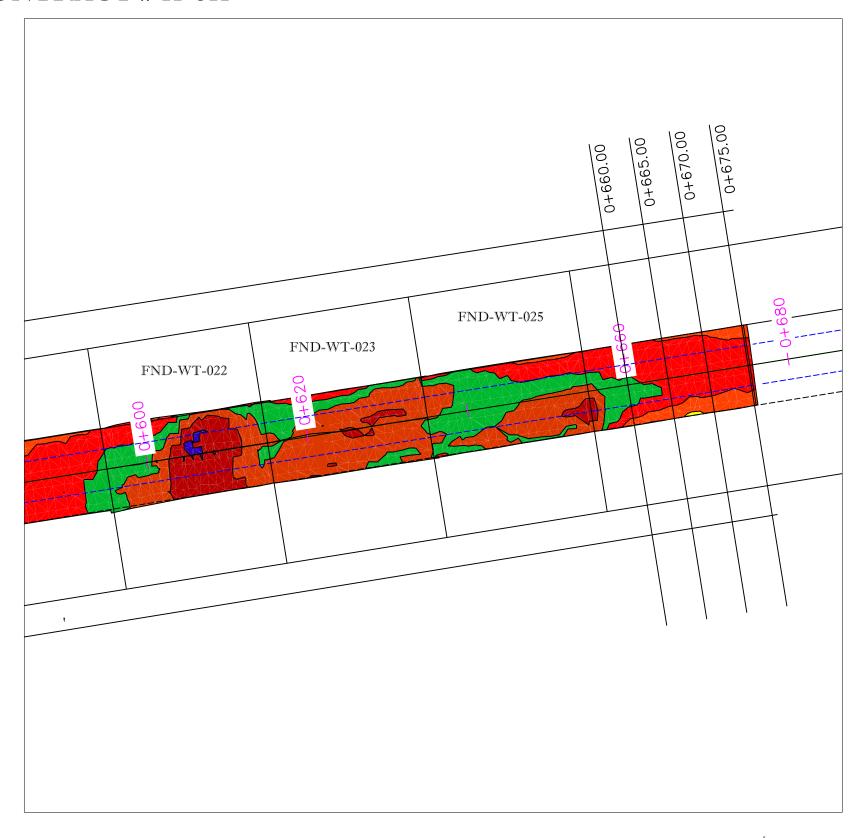
| <b>DETAILS</b> |   | APPROVED BY: |   | <u>':</u> |   |
|----------------|---|--------------|---|-----------|---|
| (Refer to      | list above for item #)                    | QA QC        |   | QC        |   |
| ITEM           |   | Υ            | N | Υ         | N |
| 3              | Clear bedrack, free of ice and mud. Seems | V            |   | V         |   |
|                | to be an fractured bedrock.               |              |   |           |   |
|                | A let of spots check has been done with   |              |   |           |   |
|                | an excavator.                             |              |   |           |   |
|                | QC boot survey matched with the           |              |   |           |   |
| 27             | bathymetry of the contractor.             |              |   |           |   |
| ==             |   |              |   |           |   |
|                |   |              |   |           |   |
| -              |   |              |   |           |   |
|                | A   |              |   |           |   |

| APPROVED BY:           | NAME           | SIGNATURE    | DATE ADE. 23, 208. |
|------------------------|----------------|--------------|--------------------|
| QA REPRESENTATIVE      | Jozem Azmaha   | The state of | 10g. 25, 20 b.     |
| QC REPRESENTATIVE      | Laxime Cote    | 1            | 18-08-23           |
| OWNER'S REPRESENTATIVE | tatrice Capp   |              | da) 05-24          |
| - autrentice R         | Jonathan 12.C. | 1100         | 90.4.00            |

Approval form - Revised on 04/07/2018

Page 2/2

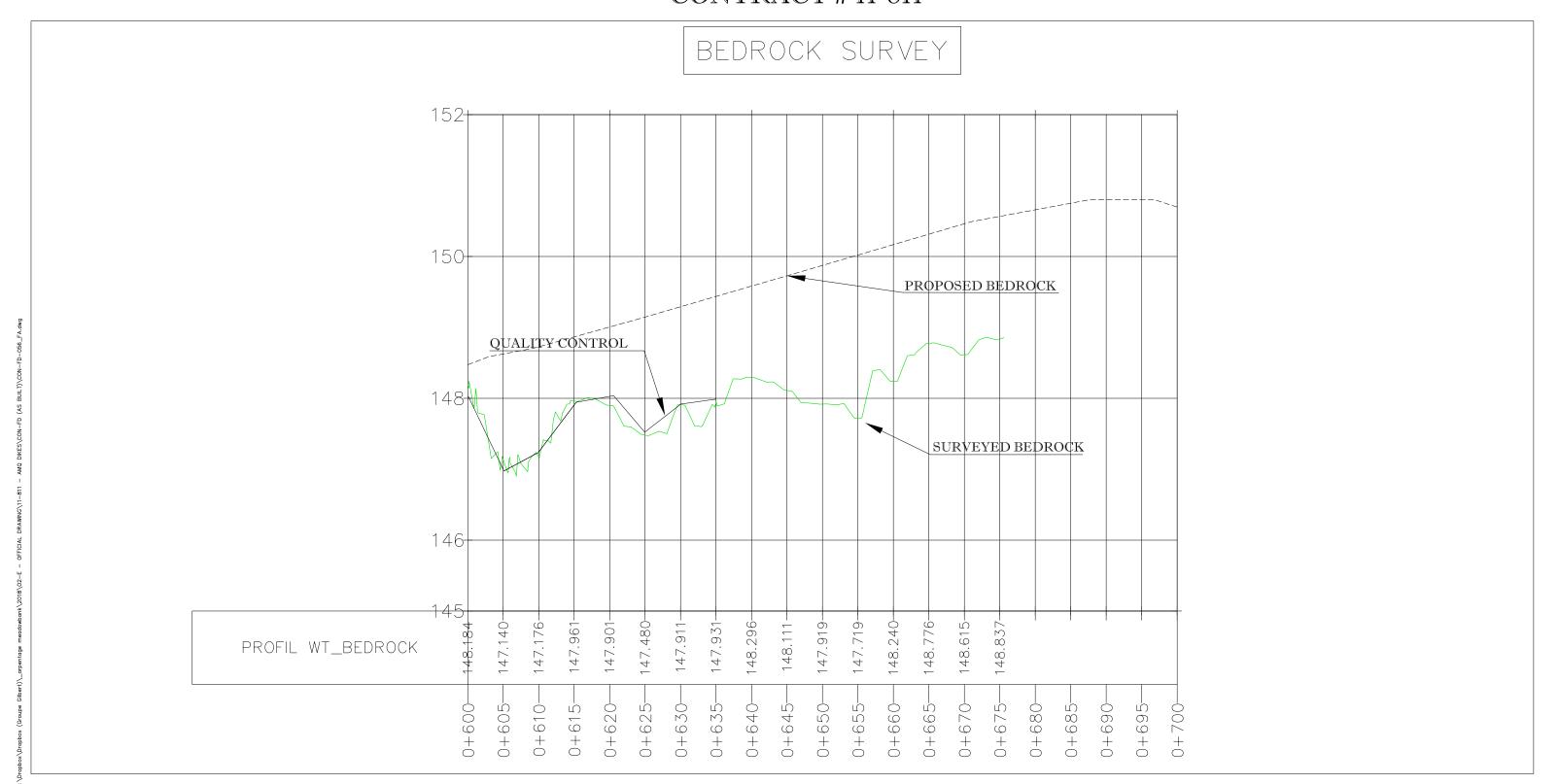
|        | Elev              | ations Table      |        |       |
|--------|-------------------|-------------------|--------|-------|
| Number | Minimum Elevation | Maximum Elevation | Area   | Color |
| 1      | 143.00            | 143.50            | 0.00   |       |
| 2      | 143.50            | 144.00            | 13.07  |       |
| 3      | 144.00            | 144.50            | 33.80  |       |
| 4      | 144.50            | 145.00            | 32.96  |       |
| 5      | 145.00            | 145.50            | 23.02  |       |
| 6      | 145.50            | 146.00            | 17.15  |       |
| 7      | 146.00            | 146.50            | 32.42  |       |
| 8      | 146.50            | 147.00            | 59.31  |       |
| 9      | 147.00            | 147.50            | 79.02  |       |
| 10     | 147.50            | 148.00            | 111.96 |       |
| 11     | 148.00            | 148.50            | 81.81  |       |
| 12     | 148.50            | 149.00            | 60.86  |       |
| 13     | 149.00            | 149.50            | 64.91  |       |
| 14     | 149.50            | 150.00            | 211.36 |       |
| 15     | 150.00            | 150.50            | 237.84 |       |
| 16     | 150.50            | 151.00            | 525.94 |       |
| 17     | 151.00            | 151.50            | 471.13 |       |
| 18     | 151.50            | 152.00            | 546.99 |       |
| 19     | 152.00            | 152.50            | 231.75 |       |
| 20     | 152.50            | 153.00            | 6.75   |       |





PREPARED BY : MARC-ANDRÉ BLACKBURN

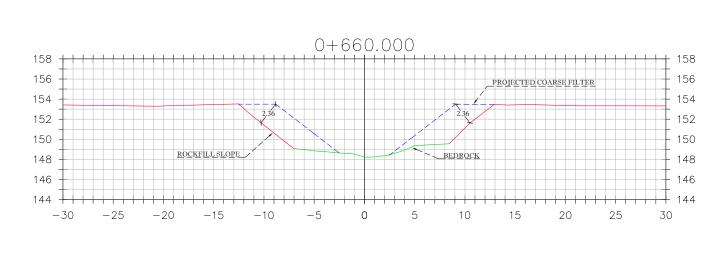
DATE: 23-08-2018 CON-FD-056\_FA

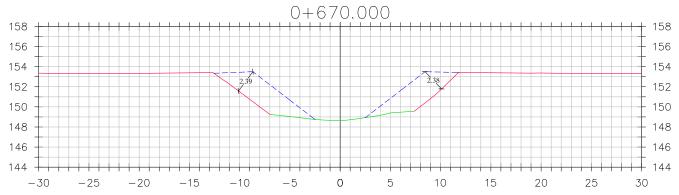


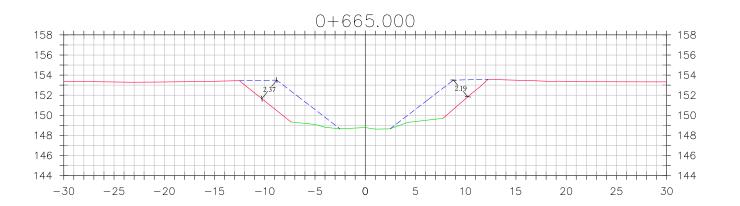


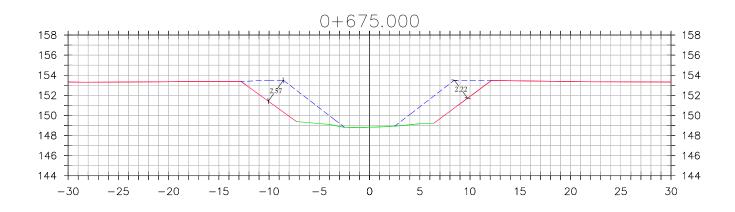
PREPARED BY : MARC-ANDRÉ BLACKBURN DATE : 23-08-2018

DATE : 23-08-2018 CON-FD-056\_FA











#### **APPROVAL FORM**



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

| PROJECT: WTD Constru      | etian                                      |
|---------------------------|--|
| PROJECT #: 658309         | DATE: Aug. 24, 2018                        |
| DOCUMENT#: 2018 08 24 - 8 | 11:10                                      |
| (YYYYMMDD-DS/NS-01) DS/   |  |
| Foundation                | approval (footprint) approval (key trench) |
| ☐ Fill placeme            |  |
| ☐ CB cutoff wa            | all approval                               |
| Other:                    |  |
|                           |  |
| LOCATION                  | PREVIOUS APPROVALS                         |
| station 0+67s to 0+to     | Station: 6+655 + 0+645                     |
| Inclination:              | Details:                                   |
| ELEVATION : varies        | _ m  |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:          |    | VERIFICATIONS DONE BY: |      |    |     |  |  |
|--|----|------------------------|------|----|-----|--|--|
| dd additional items if needed)                     |    | QA                     |      | QC |     |  |  |
|  | Υ  | N                      | Υ    | N  |     |  |  |
| Lines and grades                                   | ~  |                        | /    |    |     |  |  |
| 2. Free of ice/snow/water                          | 1  |                        |      |    |     |  |  |
| 3. Cleaning of trench and/or pile bottom           | -  |                        | /    |    |     |  |  |
| 4. Gradation (visual)                              |    |                        |      | -  | . / |  |  |
| 5. Placement (lift thickness, segregation, etc.)   |    | * **                   |      | ,  | /   |  |  |
| 6. Compaction                                      |    |                        |      |    |     |  |  |
| 7. Foundation on bedrock                           |    |                        |      |    |     |  |  |
| 8. Key-in depth into bedrock                       |    |                        |      |    |     |  |  |
| 9. Water quality                                   | 10 | 1 61.                  | 1 79 |    | ./  |  |  |
| 10. CB slurry viscosity and density                |    |                        |      |    |     |  |  |
| 11. Elevation of CB Piles                          |    |                        |      |    |     |  |  |
| 12. Primary piles strength (Minimum of 50 kPa UCS) |    |                        |      |    |     |  |  |
| 13. Keying between primary and secondary           |    |                        |      |    |     |  |  |
| 14. Cracks on top of cutoff wall                   |    |                        |      |    |     |  |  |

|   | the said and a said of the |      |     |    |   |     |
|---|----------------------------|------|-----|----|---|-----|
| to grade a gradu                            | 2. 3                       | _ QA |     | QC |   | N/A |
| 78 1 18 18                                  | 100000                     | Y.   | N   | Υ  | N |     |
| 15. CB mix/slurry tested (UCS, permeability | , and pinhole tests)       |      |     |    |   |     |
| 16. As built survey completed               |                            |      |     |    |   | /   |
| 17.   |                            |      |     |    |   |     |
| 18.   |                            |      |     |    |   |     |
| 19.   | 9                          |      |     |    |   |     |
| 20.   |                            |      |     |    |   |     |
| 21.   |                            |      |     |    |   |     |
| 22.   |                            |      |     |    |   |     |
| 23.   |                            | ***  | 1 1 |    |   |     |
| 24.   |                            |      |     |    |   |     |
| 25.   |                            |      |     |    |   |     |
|   |                            |      |     |    |   |     |

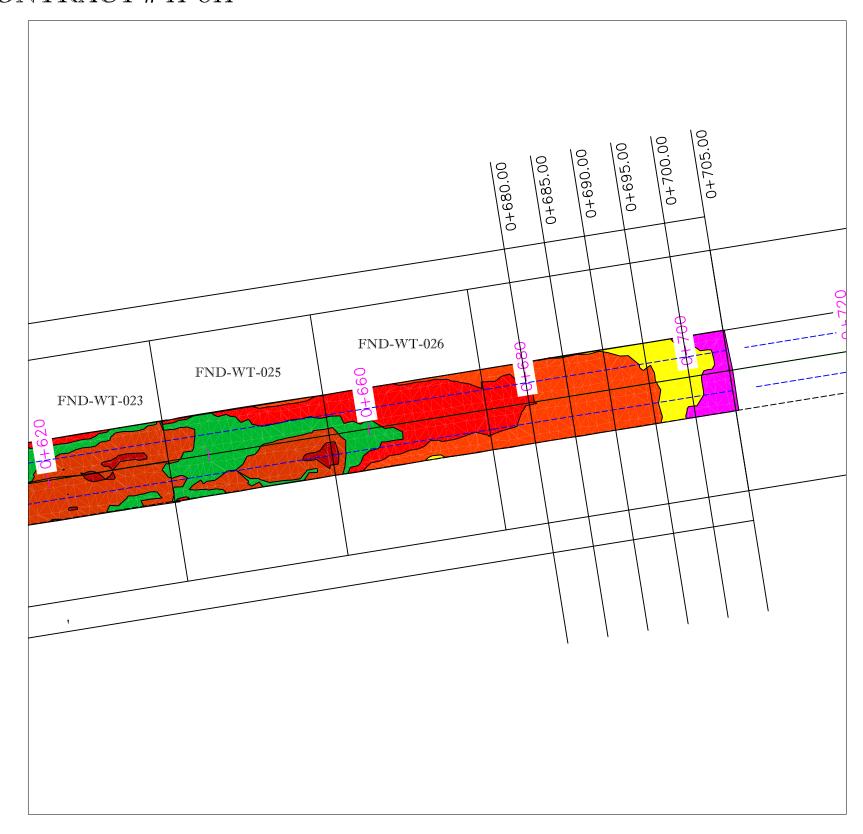
| <b>DETAILS</b> |   | <u>A</u> | PPRO | VED BY | <u>:</u> |
|----------------|---|----------|------|--------|----------|
| (Refer to      | list above for item #)                        | QA       |      | QC     |          |
| ITEM           |   | Υ        | N    | Υ      | N        |
| 3              | Clear badrack, free of ice and mud. Seems     | V        |      | /      |          |
|                | to be fractised rock.                         |          |      |        |          |
|                | A lat of field has been done with an          |          |      |        |          |
|                | excellator at different stations, every thing |          |      |        |          |
|                | is good                                       |          |      |        |          |
| -              | ~   |          |      |        |          |
| =1             | QC survey match with the                      |          |      |        |          |
|                | QC survey match with the                      |          |      |        |          |
|                |   |          |      |        |          |
|                |   |          |      |        |          |

| APPROVED BY:                 | NAME               | SIGNATURE | DATE          |
|------------------------------|--------------------|-----------|---------------|
| QA REPRESENTATIVE            | Tezera Azmath      | (hoper)   | Aug. 29,20 18 |
| QC REPRESENTATIVE            | Maxine Coto        |           | 18-08-24      |
| OWNER'S REPRESENTAT          | IVE Patrice Gagner | 19/18     | 2018-08-24.   |
| paraval form Pavisad on 04/0 | ON147-1447 7. C    |           | Page 2/2      |

Approval form - Revised on 04/07/2018

### FND-WT-027 FOUNDATION APPROVAL - WHALE TAIL CONTRACT # 11-811

| Elevations Table |                   |                   |        |       |  |  |  |  |
|------------------|-------------------|-------------------|--------|-------|--|--|--|--|
| Number           | Minimum Elevation | Maximum Elevation | Area   | Color |  |  |  |  |
| 1                | 143.00            | 143.50            | 0.00   |       |  |  |  |  |
| 2                | 143.50            | 144.00            | 13.07  |       |  |  |  |  |
| 3                | 144.00            | 144.50            | 33.80  |       |  |  |  |  |
| 4                | 144.50            | 145.00            | 32.96  |       |  |  |  |  |
| 5                | 145.00            | 145.50            | 23.02  |       |  |  |  |  |
| 6                | 145.50            | 146.00            | 17.15  |       |  |  |  |  |
| 7                | 146.00            | 146.50            | 32.42  |       |  |  |  |  |
| 8                | 146.50            | 147.00            | 59.31  |       |  |  |  |  |
| 9                | 147.00            | 147.50            | 79.02  |       |  |  |  |  |
| 10               | 147.50            | 148.00            | 111.96 |       |  |  |  |  |
| 11               | 148.00            | 148.50            | 81.81  |       |  |  |  |  |
| 12               | 148.50            | 149.00            | 60.86  |       |  |  |  |  |
| 13               | 149.00            | 149.50            | 64.91  |       |  |  |  |  |
| 14               | 149.50            | 150.00            | 211.36 |       |  |  |  |  |
| 15               | 150.00            | 150.50            | 237.84 |       |  |  |  |  |
| 16               | 150.50            | 151.00            | 525.94 |       |  |  |  |  |
| 17               | 151.00            | 151.50            | 471.13 |       |  |  |  |  |
| 18               | 151.50            | 152.00            | 546.99 |       |  |  |  |  |
| 19               | 152.00            | 152.50            | 231.75 |       |  |  |  |  |
| 20               | 152.50            | 153.00            | 6.75   |       |  |  |  |  |





PREPARED BY : MARC-ANDRÉ BLACKBURN

DATE: 24-08-2018 CON-FD-058\_FA

# FND-WT-027 FOUNDATION APPROVAL - WHALE TAIL CONTRACT # 11-811

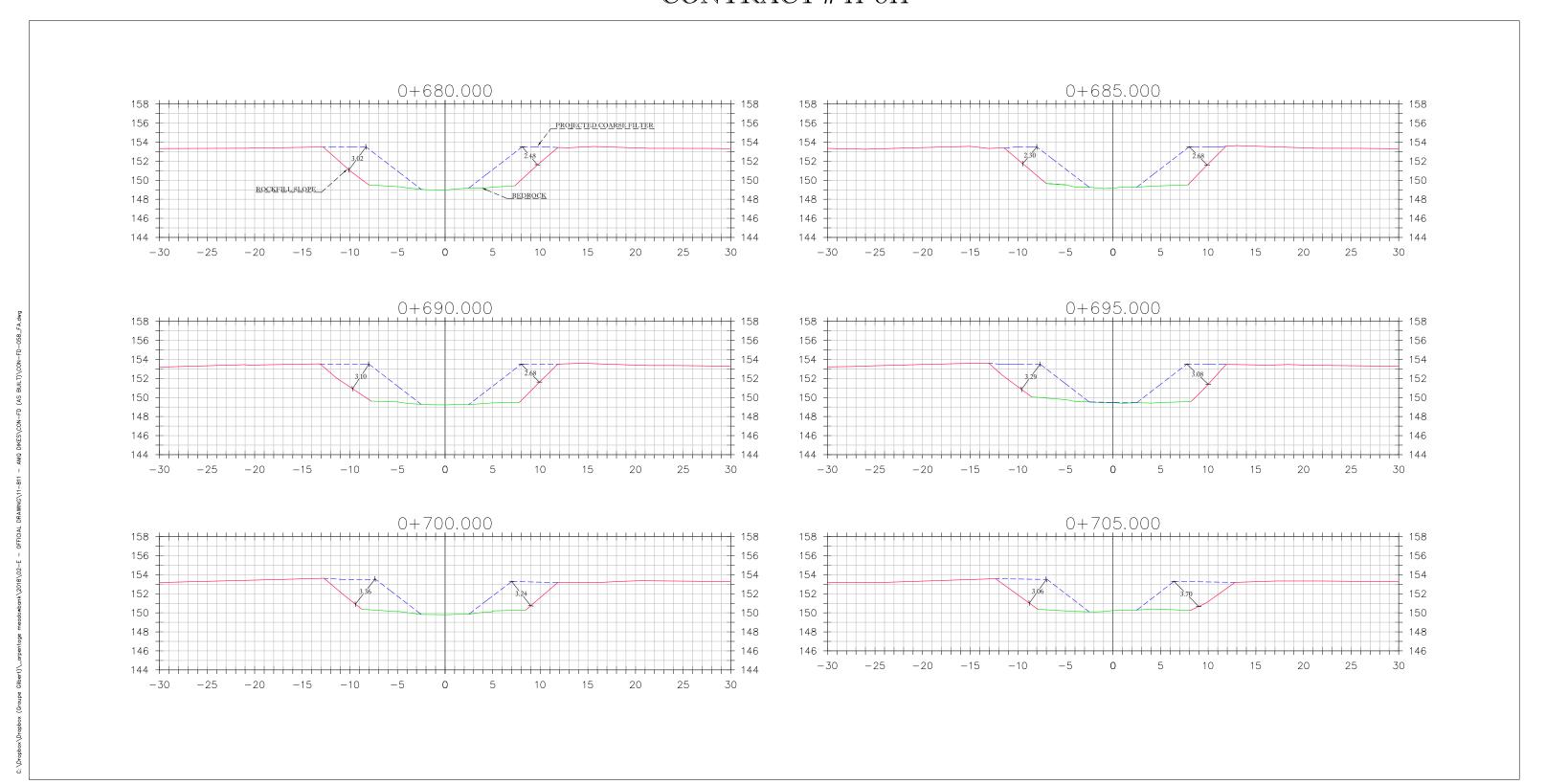




PREPARED BY : MARC-ANDRÉ BLACKBURN DATE : 24-08-2018

CON-FD-058\_FA

# FND-WT-027 FOUNDATION APPROVAL - WHALE TAIL CONTRACT # 11-811





PREPARED BY : MARC-ANDRÉ BLACKBURN DATE : 24-08-2018 CON-FD-057\_FA



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

| PROJECT:      | GTW    | Constr               | chion             |          |                |        |
|---------------|--------|----------------------|-------------------|----------|----------------|--------|
| PROJECT #:    | 6583   | 209                  | 1                 | DATE:    | Aug . 2        | 5,2018 |
| DOCUMENT #:   | 20180  | 825 -DS              | -04               | TIME:    |                | 30     |
|               |        | -DS/NS-01) DS/NS = [ |                   | (        | 24 hour clock) |        |
| APPROVAL FOR: |        | Foundation appro     |                   |          |                |        |
|               | П      | Fill placement:      |                   |          |                |        |
|               |        | -                    |                   |          |                |        |
|               |        | CB cutoff wall app   | orovai            |          |                |        |
|               |        | Other:               |                   |          |                |        |
|               |        |                      |                   |          |                |        |
| LOCATION      |        |                      | PREVIOUS APPROVAL | <u>s</u> |                |        |
| Station 04    | tos to | 0+ +27               | Station:          | 0+6      | 15 to          | 0+705  |
| Inclination:  |        |                      | Details:          |          | 1-10           | 0 1 11 |
| ELEVATION :   | varies | m                    |                   |          |                |        |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:          |     |    | VERIFICATIONS DONE BY: |    |   |     |  |  |  |  |
|--|-----|----|------------------------|----|---|-----|--|--|--|--|
| (Add additional items if needed)                   |     | QA |                        | QC |   | N/A |  |  |  |  |
|  |     | Υ  | N                      | Υ  | N |     |  |  |  |  |
| Lines and grades                                   |     | ~  |                        | 1/ |   |     |  |  |  |  |
| 2. Free of ice/snow/water                          | -   | ~  |                        | /  |   |     |  |  |  |  |
| 3. Cleaning of trench and/or pile bottom           |     | ~  |                        | ./ |   |     |  |  |  |  |
| 4. Gradation (visual)                              |     |    |                        |    |   | 1   |  |  |  |  |
| 5. Placement (lift thickness, segregation, etc.)   |     |    |                        |    |   | -   |  |  |  |  |
| 6. Compaction                                      |     |    |                        |    |   |     |  |  |  |  |
| 7. Foundation on bedrock                           | 8 1 |    |                        |    |   |     |  |  |  |  |
| Key-in depth into bedrock                          |     | 3  |                        |    |   |     |  |  |  |  |
| 9. Water quality                                   |     |    |                        |    |   |     |  |  |  |  |
| 10. CB slurry viscosity and density                |     |    |                        |    |   |     |  |  |  |  |
| 11. Elevation of CB Piles                          |     |    |                        |    |   |     |  |  |  |  |
| 12. Primary piles strength (Minimum of 50 kPa UCS) |     |    |                        |    |   | /   |  |  |  |  |
| 13. Keying between primary and secondary           | £.  |    |                        |    |   |     |  |  |  |  |
| 14. Cracks on top of cutoff wall                   | 4 4 |    |                        |    |   |     |  |  |  |  |

|                                       |                             | 100          | 4 4      |      |   |     |
|---------------------------------------|-----------------------------|--------------|----------|------|---|-----|
| The state of the state of             |                             | Q            | <b>A</b> | QC   |   | N/A |
|                                       | the same of the same        | . <b>Y</b> . | N        | Υ    | N |     |
| 15. CB mix/slurry tested (UCS, permea | ability, and pinhole tests) |              |          |      |   |     |
| 16. As built survey completed         |                             |              |          |      |   |     |
| 17.                                   |                             | *            |          |      |   |     |
| 18.                                   |                             |              |          |      |   |     |
| 19.                                   |                             |              |          |      |   |     |
| 20.                                   |                             |              |          |      |   |     |
| 21.                                   |                             |              |          |      |   |     |
| 22.                                   | 3                           |              |          |      |   |     |
| 23.                                   | 1.415 x 3                   | 3            |          | ÿ -c |   |     |
| 24.                                   |                             |              |          |      |   |     |
| 25.                                   |                             |              |          |      |   |     |

| <b>DETAILS</b> |   | <u>A</u> | PPRO\ | VED BY | <u>:</u> |    |  |
|----------------|---|----------|-------|--------|----------|----|--|
| (Refer to      | list above for item #)                  | QA C     |       | QA     |          | QC |  |
| ITEM           |   | Υ        | N     | Y      | N        |    |  |
| 3              | Clean bedrock, free of and and ice.     | V        |       | V      |          |    |  |
|                | seems to be fractured & let of field    |          |       |        |          |    |  |
|                | spots check has been done with an       |          |       |        |          |    |  |
| i iii          | excapator at different stations         |          |       |        |          |    |  |
|                |   |          |       |        |          |    |  |
|                | QC boot survey has been done and it     |          |       |        |          |    |  |
| -              | matched with the contractor bathymetry. |          |       |        |          |    |  |
| )*             |   |          |       |        |          |    |  |
|                |   |          |       |        |          |    |  |
|                |   |          |       |        |          |    |  |

QA REPRESENTATIVE

QC REPRESENTATIVE

OWNER'S REPRESENTATIVE

Contractor's Rep. Approval form - Revised on 04/07/2018 NAME

DAMIEN GAGNON

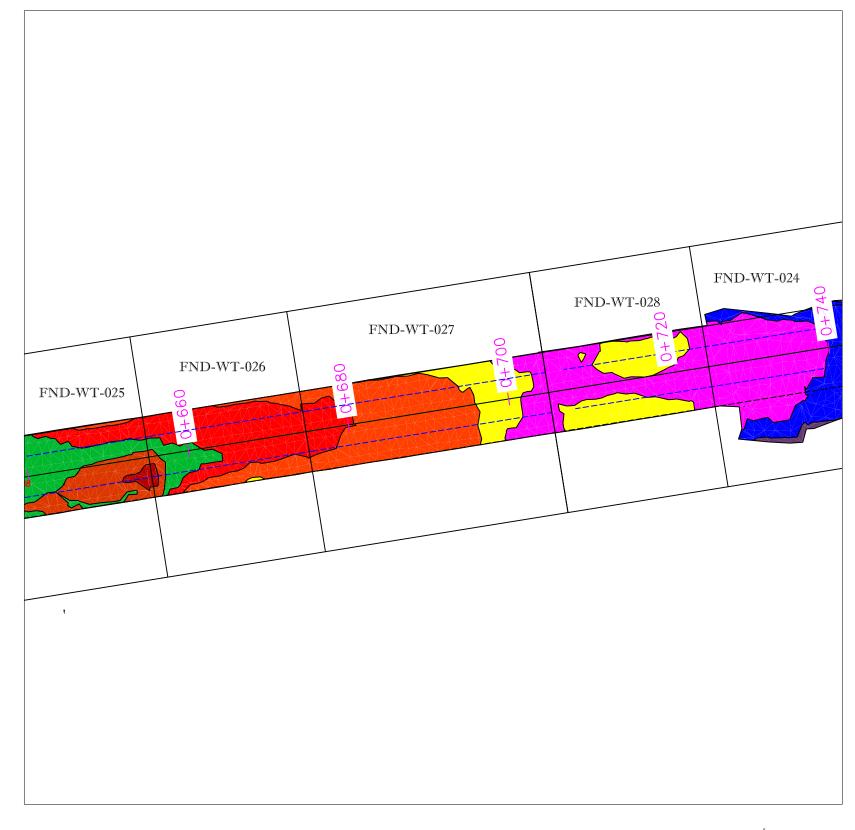
SIGNATURE

DATE

2018-08-26

# FND-WT-028 FOUNDATION APPROVAL - WHALE TAIL CONTRACT # 11-811

|        | Elev                                     | ations Table |        |  |  |  |  |  |
|--------|--|--------------|--------|--|--|--|--|--|
| Number | Minimum Elevation Maximum Elevation Area |              |        |  |  |  |  |  |
| 1      | 143.00                                   | 143.50       | 0.00   |  |  |  |  |  |
| 2      | 143.50                                   | 144.00       | 13.07  |  |  |  |  |  |
| 3      | 144.00                                   | 144.50       | 33.80  |  |  |  |  |  |
| 4      | 144.50                                   | 145.00       | 32.96  |  |  |  |  |  |
| 5      | 145.00                                   | 145.50       | 23.02  |  |  |  |  |  |
| 6      | 145.50                                   | 146.00       | 17.15  |  |  |  |  |  |
| 7      | 146.00                                   | 146.50       | 32.42  |  |  |  |  |  |
| 8      | 146.50                                   | 147.00       | 59.31  |  |  |  |  |  |
| 9      | 147.00                                   | 147.50       | 79.02  |  |  |  |  |  |
| 10     | 147.50                                   | 148.00       | 111.96 |  |  |  |  |  |
| 11     | 148.00                                   | 148.50       | 81.81  |  |  |  |  |  |
| 12     | 148.50                                   | 149.00       | 60.86  |  |  |  |  |  |
| 13     | 149.00                                   | 149.50       | 64.91  |  |  |  |  |  |
| 14     | 149.50                                   | 150.00       | 211.36 |  |  |  |  |  |
| 15     | 150.00                                   | 150.50       | 237.84 |  |  |  |  |  |
| 16     | 150.50                                   | 151.00       | 525.94 |  |  |  |  |  |
| 17     | 151.00                                   | 151.50       | 471.13 |  |  |  |  |  |
| 18     | 151.50                                   | 152.00       | 546.99 |  |  |  |  |  |
| 19     | 152.00                                   | 152.50       | 231.75 |  |  |  |  |  |
| 20     | 152.50                                   | 153.00       | 6.75   |  |  |  |  |  |





PREPARED BY : MARC-ANDRÉ BLACKBURN

DATE : 25-08-2018 CON-FD-060\_FA

# FND-WT-028 FOUNDATION APPROVAL - WHALE TAIL CONTRACT # 11-811





PREPARED BY : MARC-ANDRÉ BLACKBURN DATE : 25-08-2018

DATE : 25-08-2018 CON-FD-060\_FA

## **Appendix H-2**

### **Rockfill Placement**

| As-Built Report of Whal | As-Built Report of Whale Tail Dike |                  |  |  |
|-------------------------|------------------------------------|------------------|--|--|
| 2020-06-05              | 658309-0000-56ER-0001              | Technical Report |  |  |



Telephone: (514) 393-8000 Fax: (514) 390-2765 www.snclavalin.com

| PROJECT:       | Menas  | a for marked        | list start  | Dite                |
|----------------|--|---------------------|---|---------------------|
| PROJECT #:     | (80)   |                     |   | 8 05 , 85 WUE :3TAD |
| DOCUMENT #:    | 201803   | 28-25-0             | ı   | TIME:               |
| -              | THE RESIDENCE OF THE PARTY OF T | DS/NS-01) DS/NS = D | THE RESIDENCE THE PARTY OF THE | (24 hour clock)     |
| APPROVAL FOR : |  | Foundation appro    | val (footprint)   |                     |
|                |  | Foundation appro    | val (key trench)  |                     |
|                | 40   | Fill placement:     | Rockful pl  | roement             |
|                |  | CB cutoff wall app  |   |                     |
|                |  | Other:              |   | - 10                |
|                |  |                     |   |                     |
| LOCATION       |  |                     | PREVIOUS APPROVA  | <u>ALS</u>          |
| Station ~ D    | + too to   | 0+650               | Station   | ı:                  |
| Inclination:   |  |                     | Details   | :                   |
| ELEVATION :    | varies   | 153.5 m             |   | 25                  |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:            | VERIFICATIONS DONE BY: |       |        |       |     |  |  |  |
|--|------------------------|-------|--------|-------|-----|--|--|--|
| Add additional items if needed)                      | QA                     |       | QC     | :     | N/A |  |  |  |
| V.   | Y                      | N     | Y      | N     |     |  |  |  |
| 1. Lines and grades (Refer to make below) - New bear | ~                      | whet. | V      | A.    | 1   |  |  |  |
| 2. Free of ice/snow/water                            | 1                      | 4     | /      |       |     |  |  |  |
| Cleaning of trench and/or pile bottom                |                        | 7/    |        | ,     | _   |  |  |  |
| 4. Gradation (visual)                                | ~                      | 7     | 1      |       |     |  |  |  |
| 5. Placement (lift thickness, segregation, etc.)     | -                      |       | /      |       |     |  |  |  |
| 6. Compaction  | 1                      | 1     | /      |       |     |  |  |  |
| 7. Foundation on bedrock                             |                        |       | -      |       | _   |  |  |  |
| 8. Key-in depth into bedrock                         |                        |       |        |       | _   |  |  |  |
| 9. Water quality                                     |                        |       |        |       | _   |  |  |  |
| 10. CB slurry viscosity and density                  |                        |       |        |       | _   |  |  |  |
| 11. Elevation of CB Piles                            |                        |       |        |       | _   |  |  |  |
| 12. Primary piles strength (Minimum of 50 kPa UCS)   |                        |       |        | 1204  | -   |  |  |  |
| 13. Keying between primary and secondary             |                        |       | MALK   | Ne de | _   |  |  |  |
| 14. Cracks on top of cutoff wall                     |                        |       | Par Ji |       | _   |  |  |  |

Approval form - Revised on 04/07/2018 document has it as 154m. Page 1/2

| 11 as 35 parts  | QA   |       | QC   | QC |        |
|---|------|-------|------|----|--------|
| 10.20- 84   | Y    | N     | Y    | N  |        |
| 15. CB mix/slurry tested (UCS, permeability, and pinhole tests) |      | MARI  |      |    | -      |
| 16. As built survey completed                                   | D    | 10    | Jan. |    | -      |
| 17.   | n    |       |      |    |        |
| 18. transmoto with to 19  | M.   |       |      |    |        |
| 19.   | 1    |       |      |    |        |
| 20.   | - 67 |       |      |    |        |
| 21.   |      |       |      |    |        |
| 22.   |      |       |      |    | 111100 |
| 23.   | of   | 50)   | 104  |    |        |
| 24.   |      |       |      |    |        |
| 25.   |      | Leans |      |    |        |

| DETAILS   | ECINGRAL ARECURE CONTROL OF THE CONT | A  | PPRO            | VED BY | <u>':</u> |
|-----------|--|----|-----------------|--------|-----------|
| (Refer to | o list above for item #)   | QA | g in the little | QC     |           |
| ITEM      |  | Υ  | N               | Υ      | N         |
| 1         | *2 Note that the lines of the plat forms   | /  |                 | 1      |           |
| 1250      | Cextent of no at full placement) have  |    |                 |        |           |
| -         | intentionally (to improve dorking) been  |    |                 |        |           |
| 10 10 10  | impled towards the centertine of the dike  |    |                 |        |           |
|           | The fers placed outside durign extent  |    |                 |        |           |
| 1116      | will taker on be excessated out.   |    |                 |        |           |
| +         |  |    |                 |        |           |
| -         | AND SECOND CONTRACTOR OF THE PROPERTY OF THE P |    |                 |        |           |
|           |  |    |                 |        |           |
|           | Visite in the control of the control |    |                 |        |           |

QA REPRESENTATIVE

QC REPRESENTATIVE

OWNER'S REPRESENTATIVE

Maxime Cote Palice Games

Page 2/2



| PROJECT : PROJECT #:  | CONSTRUCT           | on of Whale  | TALL OIKE                           | DATE:                           | 2018-07-29 |  |
|-----------------------|---------------------|--|-------------------------------------|---------------------------------|------------|--|
| DOCUMENT #:           | P6F08106            | -NS-Ol<br>-DS/NS-01) DS/NS = D                             | TIME:                               | <b>5</b> :00<br>(24 hour clock) |            |  |
| APPROVAL FOR          |                     | oval (footprint) oval (key trench)  ROCKFILL PLATFO proval | ey trench)                          |                                 |            |  |
| Station (Inclination: | )+650 <del>10</del> | 0+600<br>_IS3.S_m  | PREVIOUS APPROVAL Station: Details: | <u>.s</u>                       |            |  |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:          | VERIFICATIONS DONE BY: |    |          |     |          |  |  |
|--|------------------------|----|----------|-----|----------|--|--|
| (Add additional items if needed)                   | QA                     | Q  | N/A      |     |          |  |  |
|  | Y                      | N  | Υ        | N   |          |  |  |
| Lines and grades                                   | <b>V</b>               | 11 | <b>V</b> |     |          |  |  |
| 2. Free of ice/snow/water                          | <b>V</b>               |    | <b>V</b> |     |          |  |  |
| 3. Cleaning of trench and/or pile bottom           |                        |    |          |     | 1        |  |  |
| 4. Gradation (visual)                              | 1                      |    | 1        |     |          |  |  |
| 5. Placement (lift thickness, segregation, etc.)   |                        |    | 1        |     |          |  |  |
| 6. Compaction                                      |                        |    | <b>V</b> |     |          |  |  |
| 7. Foundation on bedrock                           |                        |    | 1        |     | 1        |  |  |
| 8. Key-in depth into bedrock                       |                        |    | M        |     | 1        |  |  |
| 9. Water quality                                   |                        |    |          |     | 1        |  |  |
| 10. CB slurry viscosity and density                |                        |    |          |     | <b>V</b> |  |  |
| 11. Elevation of CB Piles                          |                        |    |          |     | 1        |  |  |
| 12. Primary piles strength (Minimum of 50 kPa UCS) |                        |    |          |     | ~        |  |  |
| 13. Keying between primary and secondary           |                        |    |          | LA. | 1        |  |  |
| 14. Cracks on top of cutoff wall                   |                        |    |          |     | 1        |  |  |

| PE-80-8100  | QA   |     | QC  |   | N/A |
|---|------|-----|-----|---|-----|
| 00.2  | Y    | N   | Υ   | N |     |
| 15. CB mix/slurry tested (UCS, permeability, and pinhole tests) |      |     |     |   | V   |
| 16. As built survey completed                                   |      |     |     |   | 1   |
| 17.   |      |     |     |   |     |
| 18. AMERICANA AND AND AND AND AND AND AND AND AND               | - 02 |     |     |   |     |
| 19.   |      |     |     |   |     |
| 20.   |      |     |     |   |     |
| 21.   |      |     |     |   |     |
| 22.   |      |     |     |   |     |
| 23.   | (0)  | QX. | 5+0 |   |     |
| 24.   |      |     | -   |   |     |
| 25.   | p.F. |     |     |   |     |

| DETAILS |                                  |           |                   | APPRO |   | OVED BY: |  |
|---------|----------------------------------|-----------|-------------------|-------|---|----------|--|
|         | ist shows for i                  | em #)     |                   | QA    |   | QC       |  |
| ITEM    | (Refer to list above for item #) |           | Y                 | N     | Υ | N        |  |
|         | V                                |           |                   |       |   |          |  |
|         | N.                               | V         | - Hilliam Charles |       |   |          |  |
| 1       |                                  |           |                   |       |   |          |  |
|         | 1                                | Venetaria |                   |       |   |          |  |
|         | V                                |           |                   |       |   |          |  |
|         | N. V.                            |           |                   |       |   |          |  |
| V       | Married Land                     |           |                   |       |   |          |  |
| 1       |                                  |           |                   | 1 1 1 |   |          |  |
| V       |                                  |           |                   |       |   |          |  |
| N.      |                                  |           |                   |       |   |          |  |

QA REPRESENTATIVE QC REPRESENTATIVE OWNER'S REPRESENTATIVE

MATHIEU SÉZÉQUEL MALL JOSEPH DE LA SIGNATURE D

DATE

2018-07-29

2018-07-29 9010-07-29



| PROJECT:      | what    | x dais Di             | ce construction                         |           |
|---------------|---------|-----------------------|---|-----------|
| PROJECT #:    | 10      |                       |   | 4 29,2018 |
| DOCUMENT #:   | 201807  | 10-24-62              |   | 7:00      |
| ****          |         | )-DS/NS-01) DS/NS = [ |   |           |
| APPROVAL FOR: |         | Foundation appro      | oval (footprint)                        |           |
|               |         | Foundation appro      |   |           |
|               | Ø       | Fill placement:       | Rockfill placement                      | Dt .      |
|               |         | CB cutoff wall ap     | • |           |
|               |         | Other:                |   | .08       |
| LOCATION      |         |                       | T                                       | 18        |
| 01-11-        |         |                       | PREVIOUS APPROVALS                      |           |
| Station       | -600 to | 0+560                 | Station:                                |           |
| Inclination:  |         |                       | Details:                                |           |
| ELEVATION :   | varies  | 153.5m m              |   |           |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:  | VERIFICATIONS DONE BY: |          |   |     |          |  |  |
|--|------------------------|----------|---|-----|----------|--|--|
| (Add additional items if needed)   | QA                     |          |   | N/A |          |  |  |
| TY BUY LE  | Y                      | N        | Y | N   | NET      |  |  |
| 1. Lines and grades (Refer h nates on pretions approval  | -                      |          | / | 1   | N        |  |  |
| 2. Free of ice/snow/water  | -                      | HE PANER |   | 0   | Marine . |  |  |
| 3. Cleaning of trench and/or pile bottom   |                        | 100      |   | 7   |          |  |  |
| 4. Gradation (visual)  | 1                      | -        | - |     |          |  |  |
| 5. Placement (lift thickness, segregation, etc.)   |                        | 65.00    | - |     |          |  |  |
| 6. Compaction  |                        |          |   |     |          |  |  |
| 7. Foundation on bedrock   |                        | 7.       |   |     |          |  |  |
| 8. Key-in depth into bedrock   |                        |          |   |     | -        |  |  |
| 9. Water quality   |                        |          |   |     | _        |  |  |
| 10. CB slurry viscosity and density  |                        |          |   |     | -        |  |  |
| 11. Elevation of CB Piles  |                        |          |   |     | _        |  |  |
| 12. Primary piles strength (Minimum of 50 kPa UCS)   |                        |          |   |     | -        |  |  |
| 13. Keying between primary and secondary   |                        |          |   |     | -        |  |  |
| 14. Cracks on top of cutoff wall   |                        | 1,00     |   |     | -        |  |  |
| TO LOCAL CONTRACTOR OF THE PARTY OF THE PART |                        |          |   |     | -        |  |  |

| you es plut mo                                   |                       | QA              | 4     | QC     | ;     | N/A   |
|--|-----------------------|-----------------|-------|--------|-------|-------|
| on the   | 10-24-6               | Y               | N     | Y      | N     | 1400  |
| 15. CB mix/slurry tested (UCS, permeability, and | d pinhole tests)      | No. of the last |       |        |       | _     |
| 16. As built survey completed                    | Formation days of     |                 |       | 1 8105 | CAVI  | S TOL |
| 17.  | Sundan holding        |                 |       |        |       |       |
| 18. harmaly reflecte                             | g                     | TE              |       |        |       |       |
| 19.  | CB-cutoff was nightly |                 |       |        |       |       |
| 20.  | Charles               |                 |       |        |       |       |
| 21.  |                       |                 |       |        |       |       |
| 22.  |                       |                 |       |        | HE EL |       |
| 23.  | 09.540                | or              | 000   | 10     |       |       |
| 24.  |                       |                 |       |        |       |       |
| 25.  | 1535 m                |                 | pohja |        |       |       |

| DETAILS   | ETAILS   |       | PPRO     | OVED BY: |   |  |
|-----------|--|-------|----------|----------|---|--|
| (Refer to | list above for item #)   | QA Q  |          |          |   |  |
| ITEM      |  | Υ     | N        | Y        | N |  |
| 4         | *1 seems to hove considerable fine                                   |       | E E      | /        |   |  |
|           | *1 seems to have considerable fine (nailsourd on visual observation) |       |          |          |   |  |
| -         | - Recommended to check. Note: This                                   |       | Series . |          |   |  |
|           | zr for the rock fill.  | 11111 |          |          |   |  |
|           |  |       |          |          |   |  |
|           |  |       | A ST     |          |   |  |
| *         |  | 484   |          |          |   |  |
| -         |  |       |          | 101      |   |  |
|           |  |       |          |          |   |  |
|           |  |       |          |          |   |  |

QA REPRESENTATIVE

QC REPRESENTATIVE

OWNER'S REPRESENTATIVE

Maxime Cote

Dotice Garan

SIGNATURE

DATE
JUH.

4 2 9/20 B

8018/07/29



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

| PROJECT:       | CONSTRUC | TION OF WHALE  | TAU DIKE        | ======================================= |                 |
|----------------|----------|--|-----------------|---|-----------------|
| PROJECT #:     |          | _  |                 | DATE:                                   | 2018-07-30      |
| DOCUMENT #:    | 301807   | -NS-01   |                 | TIME:                                   | 4:50            |
|                | (YYYYMMD | D-DS/NS-01) DS/NS = $[$  | Day/Night shift |   | (24 hour clock) |
| APPROVAL FOR : |          | Foundation appropriate Foundation appropriate Fill placement: CB cutoff wall appropriate Char: | Nockelle        | h)<br>PLAT PORMS                        |                 |
| LOCATION       |          |  | PREVIOUS AP     | PROVALS                                 |                 |
| Station O-     | +560 to  | 0+495  |                 | Station:                                |                 |
| Inclination:   | -        |  |                 | Details:                                |                 |
| ELEVATION :    | varies   | _153.5 m   |                 | -                                       |                 |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:          | 7        | <b>VERIFICATIONS DONE BY</b> |    |      |     |  |  |  |
|--|----------|------------------------------|----|------|-----|--|--|--|
| (Add additional items if needed)                   |          | QA                           |    |      | N/A |  |  |  |
|  | Υ        | N                            | Υ  | Y N  |     |  |  |  |
| Lines and grades                                   | <b>V</b> |                              | 1  |      |     |  |  |  |
| 2. Free of ice/snow/water                          | J        |                              | 1  |      |     |  |  |  |
| 3. Cleaning of trench and/or pile bottom           |          |                              |    |      | _   |  |  |  |
| 4. Gradation (visual)                              | 1        |                              | V  |      | -/  |  |  |  |
| 5. Placement (lift thickness, segregation, etc.)   | 1        |                              | ./ | A 12 |     |  |  |  |
| 6. Compaction                                      |          |                              | V  |      |     |  |  |  |
| 7. Foundation on bedrock                           |          |                              |    |      |     |  |  |  |
| Key-in depth into bedrock                          |          |                              |    |      | _   |  |  |  |
| 9. Water quality                                   |          |                              |    |      |     |  |  |  |
| 10. CB slurry viscosity and density                |          |                              |    |      |     |  |  |  |
| 11. Elevation of CB Piles                          |          |                              |    |      | _   |  |  |  |
| 12. Primary piles strength (Minimum of 50 kPa UCS) |          |                              |    |      |     |  |  |  |
| 13. Keying between primary and secondary           |          |                              |    |      |     |  |  |  |
| 14. Cracks on top of cutoff wall                   |          |                              |    |      |     |  |  |  |

|   | Q | 4 | QC | ; | N/A |
|---|---|---|----|---|-----|
|   | Y | N | Υ  | N |     |
| 15. CB mix/slurry tested (UCS, permeability, and pinhole tests) |   |   |    |   | _   |
| 16. As built survey completed                                   |   |   |    |   | -   |
| 17.   |   |   |    |   |     |
| 18.   |   |   |    |   |     |
| 19.   |   |   |    |   |     |
| 20.   |   |   |    |   |     |
| 21.   |   |   |    |   |     |
| 22.   |   |   |    |   |     |
| 23.   |   |   |    |   |     |
| 24.   |   |   |    |   |     |
| 25.   |   |   |    |   | /   |

| DETAIL   | <u>s</u>   | A  | PPRO | OVED BY: |   |  |
|----------|--|----|------|----------|---|--|
| (Refer t | o list above for item #)                             | QA |      | QC       | ; |  |
| ITEM     |  | Y  | N    | Y        | N |  |
| 1        | UPSTREAM LIMIT OF SOUTH PLATFORM IS = 1.0 m TOD WIOC | ./ |      | /        |   |  |
| N        | AT STATION 0+505, BUT LINES ARE GENERALLY RESPECTED. | V  |      |          |   |  |
| Н        | GRADATION IS SOMEWHAT UNEVEN DETWEEN TRUCKS AND      | 1  |      | /        |   |  |
| 11       | A BIT FINE GRADED BUT STILL ACCEPTABLE               |    |      |          |   |  |
|          |  |    |      |          |   |  |
|          |  |    |      |          |   |  |
| 8        |  |    |      |          |   |  |
|          |  |    |      |          |   |  |
|          |  |    |      |          |   |  |
| 3.0      |  |    |      |          |   |  |

QA REPRESENTATIVE
QC REPRESENTATIVE
OWNER'S REPRESENTATIVE

NAME

MATHIEU SEZEQUEL
Dens Jagues Carlos

IGNATURE

Mulu finnel

DATE

JOIR-07-30

2018-07-30



| PROJECT:     | Whale      | Tail Oike           | Commation          |                 |
|--------------|------------|---------------------|--------------------|-----------------|
| PROJECT #:   |            |                     | DATI               | 8105,0E HUL :3  |
| DOCUMENT #:  | 201807     | 10-22-01            | TIME               |                 |
|              | (YYYYMMDD- | DS/NS-01) DS/NS = D | ay/Night shift     | (24 hour clock) |
| APPROVAL FO  | OR:        | Foundation appro    | val (footprint)    |                 |
|              |            | Foundation appro    |                    |                 |
|              |            | Fill placement:     | Rock fil planceme  | nt              |
|              |            | CB cutoff wall app  |                    |                 |
|              | 40         | Other: Rock         | Di sportegion      |                 |
| LOCATION     |            |                     | PREVIOUS APPROVALS | Internal S      |
| Station      | 0+495      | to 0 + 445          | Station:           |                 |
| Inclination: |            |                     | Details:           |                 |
| ELEVATION :  | ☐ varies   | 153.5 m             |                    | Ac le           |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:          | VERIFICATIONS DONE BY |       |      |    |      |  |  |  |  |
|--|-----------------------|-------|------|----|------|--|--|--|--|
| (Add additional items if needed)                   | QA                    |       |      | QC |      |  |  |  |  |
|  | Y                     | N     | Y N  |    | limb |  |  |  |  |
| 1. Lines and grades                                | -                     | . 10  |      |    | 167  |  |  |  |  |
| 2. Free of ice/snow/water                          | V                     |       | 31.0 | 8  | 7    |  |  |  |  |
| 3. Cleaning of trench and/or pile bottom           |                       | el de |      |    |      |  |  |  |  |
| 4. Gradation (visual) **                           | ~                     |       |      |    |      |  |  |  |  |
| 5. Placement (lift thickness, segregation, etc.)   | ~                     |       |      |    |      |  |  |  |  |
| 6. Compaction                                      | 1                     |       |      |    |      |  |  |  |  |
| 7. Foundation on bedrock                           |                       |       |      |    |      |  |  |  |  |
| 8. Key-in depth into bedrock                       |                       |       |      |    |      |  |  |  |  |
| 9. Water quality                                   |                       |       |      |    |      |  |  |  |  |
| 10. CB slurry viscosity and density                |                       |       |      |    | _    |  |  |  |  |
| 11. Elevation of CB Piles                          |                       |       |      |    |      |  |  |  |  |
| 12. Primary piles strength (Minimum of 50 kPa UCS) |                       |       |      |    | _    |  |  |  |  |
| 13. Keying between primary and secondary           |                       |       |      |    |      |  |  |  |  |
| 14. Cracks on top of cutoff wall                   |                       |       |      |    |      |  |  |  |  |

| Eras Los. Water   | QA     |         | QC   |      | N/A  |
|---|--------|---------|------|------|------|
| 10-20-01  | Y      | N       | Y    | N    | 1900 |
| 15. CB mix/slurry tested (UCS, permeability, and pinhole tests) |        |         |      |      | _    |
| 16. As built survey completed                                   | B      |         | - 60 | LAYE | _    |
|   | nda.   |         |      |      |      |
| 18. Arensenda White   | * E    |         |      |      |      |
| 19.   |        |         |      |      |      |
| 20.   | 73     | ,       |      |      |      |
| 21.   |        |         |      |      |      |
| 22.   |        |         |      |      |      |
| 23.   | , G. ( | 7 1     | 10   |      | -    |
| 24.   |        |         |      |      |      |
| 25.   |        | Will st |      |      |      |

| DETAILS   |  | APPROVED BY: |       |        |   |  |  |
|-----------|--|--------------|-------|--------|---|--|--|
| (Refer to | list above for item #)   | QA           | 1     | QC     |   |  |  |
| ITEM      |  | Υ            | N     | Υ      | N |  |  |
| x         | * - Pockfir stockpie seems to have   | ~            |       |        |   |  |  |
|           | considerable fine grained. It is good to check its implication. Recommended  |              |       | 9 4    |   |  |  |
| -         | to check its implication. Recommended  |              |       |        | 1 |  |  |
|           |  |              |       |        |   |  |  |
|           |  |              |       |        |   |  |  |
|           |  |              |       |        |   |  |  |
|           |  | TO MELL      |       |        |   |  |  |
| ***       | A CONTRACTOR OF THE PARTY OF TH | 24.0         | 11111 | 71-17  |   |  |  |
|           |  |              |       |        |   |  |  |
| -         | The state of the s |              |       | GT 201 |   |  |  |
|           |  |              |       |        |   |  |  |

QA REPRESENTATIVE QC REPRESENTATIVE OWNER'S REPRESENTATIVE



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

Telephone: (514) 393-8000 Fax: (514) 390-2765 www.snclavalin.com

| DOCUMENT #: 2016.0920 - NS - 01 (YYYYMMDD-DS/NS-01) DS/NS = Day/Night shift  APPROVAL FOR:  |
|---|
| APPROVAL FOR:    Foundation approval (footprint)   Foundation approval (key trench)   |
| APPROVAL FOR:    Foundation approval (footprint)     Foundation approval (key trench)     Foundation approval (key trench)     Fill placement:  |
| Foundation approval (key trench)  Fill placement:   |
| Fill placement:   |
| CB cutoff wall approval  Other:    Details:   Compliance with technical specifications:   Compliance with technical specifications   Compliance |
| Other:  |
| LOCATION Station O+445 O+465 Inclination: ELEVATION:    Varies  |
| Station O+UUS to O+UUS Inclination: ELEVATION:  Varies  COMPLIANCE WITH TECHNICAL SPECIFICATIONS: (Add additional items if needed)  Lines and grades  Free of ice/snow/water  Cleaning of trench and/or pile bottom  Gradation (visual)  Periffications Done By: QA QC N/A  Y N Y N  Cleaning of trench and/or pile bottom  Gradation (visual)  Placement (lift thickness, segregation, etc.)   |
| Station O+UUS to O+UOS Inclination: ELEVATION:  Varies  COMPLIANCE WITH TECHNICAL SPECIFICATIONS: (Add additional items if needed)  Lines and grades  Free of ice/snow/water  Cleaning of trench and/or pile bottom  Gradation (visual)  Periffications Done By: QA QC N/A  Y N Y N  Cleaning of trench and/or pile bottom  Gradation (visual)  Placement (lift thickness, segregation, etc.)   |
| Inclination:  ELEVATION  :  |
| ELEVATION: Varies   |
| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:  (Add additional items if needed)  1. Lines and grades 2. Free of ice/snow/water 3. Cleaning of trench and/or pile bottom 4. Gradation (visual) 5. Placement (lift thickness, segregation, etc.) 6. Compaction  |
| (Add additional items if needed)  QA QC N/A  Y N Y N  1. Lines and grades  2. Free of ice/snow/water  3. Cleaning of trench and/or pile bottom  4. Gradation (visual)  5. Placement (lift thickness, segregation, etc.)   |
| (Add additional items if needed)  QA QC N/A Y N Y N  1. Lines and grades  2. Free of ice/snow/water 3. Cleaning of trench and/or pile bottom 4. Gradation (visual)  5. Placement (lift thickness, segregation, etc.)  6. Compaction   |
| 1. Lines and grades  2. Free of ice/snow/water  3. Cleaning of trench and/or pile bottom  4. Gradation (visual)  5. Placement (lift thickness, segregation, etc.)   |
| 2. Free of ice/snow/water  3. Cleaning of trench and/or pile bottom  4. Gradation (visual)  5. Placement (lift thickness, segregation, etc.)  |
| 3. Cleaning of trench and/or pile bottom  4. Gradation (visual)  5. Placement (lift thickness, segregation, etc.)   |
| <ul> <li>4. Gradation (visual)</li> <li>5. Placement (lift thickness, segregation, etc.)</li> <li>6. Compaction</li> </ul>  |
| <ul> <li>5. Placement (lift thickness, segregation, etc.)</li> <li>6. Compaction</li> </ul>   |
| 6. Compaction   |
| 6. Compaction   |
|   |
| 7. Foundation on bedrock  |
| 8. Key-in depth into bedrock  |
| 9. Water quality  |
| 10. CB slurry viscosity and density   |
| 11. Elevation of CB Piles   |
| 12. Primary piles strength (Minimum of 50 kPa UCS)  |

14. Cracks on top of cutoff wall

13. Keying between primary and secondary

A/N

OC

AD

OWNER'S REPRESENTATIVE OC REPRESENTATIVE **QA REPRESENTATIVE** 

: ХВ ОЗКОВВА:

<u>aman</u>

| 18-60-8100 | 11/2/ | my min  | Nr.     |
|------------|-------|---------|---------|
| DATE OF 31 |       | BRUTAND | /<br>เร |
| 3140       |       |         | 10.00   |
|            |       |         |         |
|            |       |         |         |
|            |       |         |         |

|    |        |      |          | \ \tag{\tag{\tag{\tag{\tag{\tag{\tag{     |               |
|----|--------|------|----------|---|---------------|
|    |        |      |          |   |               |
|    |        |      |          | BEEN BEEN BY WELL AS FINER MATERIAL       |               |
|    | 1      |      | <b>/</b> | THE SOME CENTRARY & O+ HLT                | h             |
|    |        |      |          | ATO MI = 21 MANATAA HTLOG TO BWJ MAJATZAU | T             |
| N  | ٨      | N    | ٨        | ,   | Mat           |
|    | ОC     | 3    | AD       | list above for item #)                    | (Refer to     |
| Ξ, | NED BA | ррво | A        |   | <b>SZIAT3</b> |

| 52°  |   |     |   |   |
|--|---|-----|---|---|
| .42  |   |     |   |   |
| 23.  |   | 1   |   |   |
| 55.  |   |     |   |   |
| . 1.2  |   |     |   |   |
| .00  |   |     |   |   |
| .6   |   |     |   |   |
| .8   |   |     |   |   |
| ۲.   |   |     |   |   |
| 6. As built survey completed                                   |   |     |   | _ |
| 5. CB mix/slurry tested (UCS, permeability, and pinhole tests) |   |     |   | _ |
| Ya   | 2 | NI. | M |   |



Telephone: (514) 393-8000 Fax: (514) 390-2765 www.snclavalin.com

| PROJECT: Whale Tail Dike (   | DATE: 2            | 10-810      | -31    |
|--|--------------------|-------------|--------|
| DOCUMENT#: 20180731-05-01  | TIME:              |             |        |
| (YYYYMMDD-DS/NS-01) DS/NS = Day/N  | ight shift (24)    | nour clock) |        |
| APPROVAL FOR:  | (footprint)        |             |        |
| Foundation approval  |                    | 1 - 3       |        |
|  | octobil placement  | 22.00.      |        |
| CR cutoff wall approx  | al N               | 1           |        |
| Community of the control of the cont | absorbation of t   | ine fict    | 40     |
| ears.  | few stockpok       |             | 19     |
|  | REVIOUS APPROVALS  |             |        |
| Station 0+405 to 0+384   | Station:           |             |        |
| Inclination:   | Details:           |             | 119    |
| ELEVATION : varies   153.5 m   |                    |             | 88     |
| · B vanes  |                    |             |        |
|  | Later Constitution | 414111      |        |
| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:  | VERIF              | ICATIONS DO | NE BY: |
| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:  (Add additional items if needed)  | VERIF<br>QA        | QC          | NE BY: |
| (Add additional items if needed)   |                    |             |        |
| (Add additional items if needed)   | QA                 | QC          |        |
| (Add additional items if needed)  1. Lines and grades  2. Free of ice/snow/water   | QA                 | QC          |        |
| (Add additional items if needed)  1. Lines and grades  | QA                 | QC          |        |
| (Add additional items if needed)  1. Lines and grades  2. Free of ice/snow/water   | QA<br>Y N          | QC          |        |
| (Add additional items if needed)  1. Lines and grades  2. Free of ice/snow/water  3. Cleaning of trench and/or pile bottom   | QA<br>Y N          | QC          |        |
| (Add additional items if needed)  1. Lines and grades  2. Free of ice/snow/water  3. Cleaning of trench and/or pile bottom  4. Gradation (visual) — Rock for plant   | QA<br>Y N          | QC          |        |
| (Add additional items if needed)  1. Lines and grades  2. Free of ice/snow/water  3. Cleaning of trench and/or pile bottom  4. Gradation (visual) — Rocic for placement (lift thickness, segregation, etc.)  | QA Y N             | QC          |        |
| <ol> <li>(Add additional items if needed)</li> <li>Lines and grades</li> <li>Free of ice/snow/water</li> <li>Cleaning of trench and/or pile bottom</li> <li>Gradation (visual) - Rock for placement (lift thickness, segregation, etc.)</li> <li>Compaction</li> </ol>   | QA Y N             | QC          |        |
| (Add additional items if needed)  1. Lines and grades  2. Free of ice/snow/water  3. Cleaning of trench and/or pile bottom  4. Gradation (visual) — Rock for placement (lift thickness, segregation, etc.)  5. Placement (lift thickness, segregation, etc.)  6. Compaction  7. Foundation on bedrock  | QA Y N             | QC          |        |
| (Add additional items if needed)  1. Lines and grades  2. Free of ice/snow/water  3. Cleaning of trench and/or pile bottom  4. Gradation (visual) — Rock for placement (lift thickness, segregation, etc.)  5. Placement (lift thickness, segregation, etc.)  6. Compaction  7. Foundation on bedrock  8. Key-in depth into bedrock  | QA Y N             | QC          |        |

14. Cracks on top of cutoff wall

12. Primary piles strength (Minimum of 50 kPa UCS)

13. Keying between primary and secondary

| E- fo- 8105 mas  | QA   |      | QC  | ; | N/A   |  |
|--|------|------|-----|---|-------|--|
| 10-20-1  | Y    | N    | Y   | N |       |  |
| 5. CB mix/slurry tested (UCS, permeability, and pinhole tests)   |      |      |     |   | -     |  |
| 16. As built survey completed  | П    |      |     |   | _     |  |
| 17. Fine filter stockpile (gradation) 18. Coarse filter stockpile (virual gradation)   | ~    |      |     |   |       |  |
| 18. CORTE Filter Stockpik (virual gradafon   | 1    |      |     |   |       |  |
| 19.  |      |      |     |   |       |  |
| 20. with the state of the contract of the cont | 1156 |      |     |   |       |  |
| 21.  |      |      |     |   |       |  |
| 22.  |      | 1 17 |     |   | 12.22 |  |
| 23.  | 0,5  | 140  | 77  | 3 |       |  |
| 24.  |      |      |     |   |       |  |
| 25.  |      | 1    | Ja. |   |       |  |

| <u>PETAILS</u>   |                      | PPRO | OVED BY: |   |  |
|--|----------------------|------|----------|---|--|
| (Refer to list above for item #)   | QA                   | QA   |          |   |  |
| ITEM   | Y                    | N    | Y        | N |  |
| dyngapanan wailung is braidon 24 4   | M forms) ~           |      |          |   |  |
| 18 seems to have considerable fire for   | radium V             |      |          |   |  |
| - inspect to be checked through to   | 4                    |      |          |   |  |
| testing added in the   |                      |      |          |   |  |
|  |                      |      |          |   |  |
|  |                      |      |          |   |  |
| • 444  | BAL 24-876           |      |          |   |  |
|  | Mark to the state of | -    |          |   |  |
|  |                      |      |          |   |  |
| The state of the s | TO THE PARTY OF      |      |          |   |  |

QA REPRESENTATIVE

OC REPRESENTATIVE

OWNER'S REPRESENTATIVE

NAME Tezera Azmata

PATRICE GAGNON

SIGNATURE

for to the

18 Cq

DATE

Juy 31,2018

July 30 8019



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

| PROJECT:     | CONSTR  | Muran   | OF       | WHALE        | TAIL DI        | NE       |          |            |  |
|--------------|---|---|----------|--------------|----------------|----------|----------|------------|--|
| PROJECT #:   | 1 4   |   |          |              |                |          | DATE:    | 2018-08-01 |  |
| DOCUMENT #:  | 90180931 - NS-09  |   |          |              |                |          |          | 2:30       |  |
|              |   | (YYYYMMDD-DS/NS-01) DS/NS = Day/Night shift (24 hour clock) |          |              |                |          |          |            |  |
| APPROVAL FOR | 1:  | □ F   | oundat   | tion appro   | val (footprint | t)       |          |            |  |
|              |   | □ F   | ounda    | tion appro   | val (key tren  | nch)     |          |            |  |
|              |   | ⊠ F   | ill plac | ement:       | ROCK PILL      | PLACEME  | NT       |            |  |
|              |   |   | B cuto   | off wall app | oroval         |          |          |            |  |
|              |   |   | ther: _  |              |                |          |          | , MA       |  |
| LOCATION     |   |   |          |              | PREVIOUS       | APPROVAL | <u>s</u> |            |  |
|              | 0+384   | to 0  | 1370     |              |                | Station: |          |            |  |
| Inclination: | THE RESERVE TO SERVE THE PARTY OF THE PARTY |   | 390      |              |                | Details: |          |            |  |
| ELEVATION :  | ☐ varies  |   | _15      | 35 m         |                |          |          |            |  |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:          | VERIFICATIONS DONE BY: |   |         |      |         |  |  |  |
|--|------------------------|---|---------|------|---------|--|--|--|
| (Add additional items if needed)                   | QA                     |   | QC      |      | N/A     |  |  |  |
| (Add additional norms is research)                 | Υ                      | N | Υ       | N    |         |  |  |  |
| 1. Lines and grades                                | <b>V</b>               |   | V       |      |         |  |  |  |
| 2. Free of ice/snow/water                          | 1                      |   | V       |      |         |  |  |  |
| 3. Cleaning of trench and/or pile bottom           |                        |   |         |      | -       |  |  |  |
| 4. Gradation (visual)                              | 1                      |   | 1       |      |         |  |  |  |
| 5. Placement (lift thickness, segregation, etc.)   | 1                      |   | V       |      |         |  |  |  |
| 6. Compaction                                      |                        |   |         |      |         |  |  |  |
| 7. Foundation on bedrock                           |                        |   |         |      | -       |  |  |  |
| 8. Key-in depth into bedrock                       |                        |   |         |      | -       |  |  |  |
| 9. Water quality                                   |                        |   |         |      | -       |  |  |  |
| 10. CB slurry viscosity and density                |                        |   |         |      | _       |  |  |  |
| 11. Elevation of CB Piles                          |                        |   |         |      | -       |  |  |  |
| 12. Primary piles strength (Minimum of 50 kPa UCS) |                        |   |         | 9 11 | NI RTA  |  |  |  |
| 13. Keying between primary and secondary           |                        |   | 8 - 8 7 | 900  | -       |  |  |  |
| 14. Cracks on top of cutoff wall                   |                        |   | ni tan  | 1    | 1919.30 |  |  |  |

| 10-80-310-6 TTAG  |           | QA | 2   | QC | PART I | N/A |
|---|-----------|----|-----|----|--------|-----|
|   | 60-214    | Y  | N   | Y  | N      | 100 |
| 15. CB mix/slurry tested (UCS, permeability, and pinhole test | ts)       |    |     |    |        | ,   |
| 16. As built survey completed                                 | Tourday   |    |     |    |        | 197 |
| 17. yelenga yani kumunya nob                                  | dra de la | 17 |     |    |        |     |
| 18. PAGENEUT PAGENEUT   | bate II.9 | 凤  |     |    |        |     |
| 19. https://doi.org/10.100/100/100/100/100/100/100/100/100/   |           | T  |     |    |        |     |
| 20.   | TE 110    |    |     |    |        |     |
| 21.   |           |    |     |    |        |     |
| 22.   |           |    | 6.  |    |        |     |
| 23.   | 04870     | dh | 14  | 40 |        |     |
| 24.   | 100 5-7   | 0  | 0.0 |    |        |     |
| 25.   | 2         |    |     |    |        |     |

| ITEM TO A TO | TOPPOST N      | APPROVED E |        |     |   |  |  |  |  |
|--|----------------|------------|--------|-----|---|--|--|--|--|
| (Refer to list above for item #)           |                | QA         |        | QC  |   |  |  |  |  |
| ITEM                                       |                | Υ          | N      | Υ   | N |  |  |  |  |
|  | tent in        | 0 5        | n jiri | 4   |   |  |  |  |  |
| 100  |                |            | lo es  | G9  |   |  |  |  |  |
| - 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1    |                |            |        | 4   |   |  |  |  |  |
|  | 100-10         |            |        | -   |   |  |  |  |  |
|  |                |            |        |     |   |  |  |  |  |
|  |                |            |        |     |   |  |  |  |  |
| -1-1-1                                     | ALL CONTRACTOR | PINE       |        |     |   |  |  |  |  |
|  |                | (III)      |        | 100 |   |  |  |  |  |
|  |                | 145        | 770    |     |   |  |  |  |  |
|  | Interview      |            |        | P   |   |  |  |  |  |

| APPROVED BY:           | NAME                   | SIGNATURE          | DATE       |
|------------------------|------------------------|--------------------|------------|
| QA REPRESENTATIVE      | MATHEN SEZERVEL        | Mach Sayed         | 2018-08-01 |
| QC REPRESENTATIVE      | Cedrick Filler trouble | y Edger Vill Sully | 2018-07-31 |
| OWNER'S REPRESENTATIVE |                        |                    |            |



| PROJECT #: DOCUMENT #: | 2018   | 10 21. | NS-01             |                   | DATE:<br>TIME: | 2019 04 01   |
|------------------------|--|--------|-------------------|-------------------|----------------|--|
|                        | A Company of the Comp | 2000   | DS/NS-01) DS/NS = | Day/Night shift   | EDI O          | (24 hour clock)  |
| APPROVAL FO            | OR:  |        | Foundation appr   | oval (footprint)  |                |  |
|                        |  |        | Foundation appr   | oval (key trench) |                |  |
|                        |  | ×      | Fill placement:   | ROCKPILL PLATFORM | as             | Sheet St.  |
|                        |  |        | CB cutoff wall ap | proval            |                |  |
|                        |  |        | Other:            |                   |                | 0.   |
| LOCATION               | PRE 1 2 10   |        | Paterio           | PREVIOUS APPROVA  | LS             | AND DESCRIPTION OF THE PARTY OF |
| Station                | 0+370  | to     | 0+340             | Station           | :              |  |
| Inclination:           |  |        |                   | Details           | :              |  |
| ELEVATION :            | ☐ varies   |        | 153.5 m           |                   | THE L          |  |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:          | VERIFICATIONS DONE BY: |   |                    |                    |      |  |  |  |  |
|--|------------------------|---|--------------------|--------------------|------|--|--|--|--|
| (Add additional items if needed)                   | QA Q                   |   |                    |                    | N/A  |  |  |  |  |
|  | Υ                      | N | Υ                  | N                  | ria, |  |  |  |  |
| 1. Lines and grades                                | 1                      |   | V                  |                    |      |  |  |  |  |
| 2. Free of ice/snow/water                          | 1                      |   | V                  |                    |      |  |  |  |  |
| 3. Cleaning of trench and/or pile bottom           |                        |   | V                  |                    | _    |  |  |  |  |
| 4. Gradation (visual)                              | 13                     | 1 |                    | V                  |      |  |  |  |  |
| 5. Placement (lift thickness, segregation, etc.)   | 1                      |   | V                  |                    |      |  |  |  |  |
| 6. Compaction                                      |                        |   |                    |                    |      |  |  |  |  |
| 7. Foundation on bedrock                           |                        |   |                    |                    | _    |  |  |  |  |
| 8. Key-in depth into bedrock                       |                        |   |                    |                    | _    |  |  |  |  |
| 9. Water quality                                   |                        |   |                    |                    | -    |  |  |  |  |
| 10. CB slurry viscosity and density                |                        |   |                    |                    | _    |  |  |  |  |
| 11. Elevation of CB Piles                          |                        |   |                    |                    | _    |  |  |  |  |
| 12. Primary piles strength (Minimum of 50 kPa UCS) |                        |   |                    | 100                | -    |  |  |  |  |
| 13. Keying between primary and secondary           |                        |   | The same           | THE REAL PROPERTY. | -    |  |  |  |  |
| 14. Cracks on top of cutoff wall                   |                        |   | NATE OF THE PARTY. | 10000              | -    |  |  |  |  |

QA QC N/A Y Υ N 15. CB mix/slurry tested (UCS, permeability, and pinhole tests) 16. As built survey completed 17. 18. 19. 20. 21. 22. 23. 24. 25.

| DETAILS   | ARBITACKS OF THE PROPERTY.   | A     | PPROV | ED BY | <u>':</u> |
|-----------|--|-------|-------|-------|-----------|
| (Refer to | list above for item #)   | QA    |       | QC    |           |
| ITEM      |  | Υ     | N     | Υ     | N         |
| *4        | The gradation has too much<br>Fine particles   | mele. | 1     |       | V         |
| 700       | Fine particles   |       |       |       |           |
| -         |  |       |       |       |           |
|           |  |       |       |       |           |
| -         | The state of the s |       |       |       |           |
| 7         | The state of the s | Dall  |       |       |           |
| To alle   |  |       |       |       |           |
|           |  |       |       | 100   |           |

| APPROVED BY:           | NAME                     | SIGNATURE       | DATE         |
|------------------------|--------------------------|-----------------|--------------|
| QA REPRESENTATIVE      | MATHIEU JEZEQUEL         | Marke Sayed     | 2018-08-01   |
| QC REPRESENTATIVE      | Redrick Fillon Treatilay | Calung Will Ful | \$ 2018-07-3 |
| OWNER'S REPRESENTATIVE |                          |                 |              |



Telephone: (514) 393-8000 Fax: (514) 390-2765 www.snclavalin.com

| PROJECT:                       | Whale Tail Dike C                        | uns truction      |          | 7.2   | 25.0      |   |     |
|--------------------------------|--|-------------------|----------|-------|-----------|---|-----|
| PROJECT #:                     | 710 505                                  |                   |          |       | 18-0      |   | 02  |
| DOCUMENT #:                    | 2018 0802 - NS-0                         |                   | TIME:    | _     | 5L o      |   |     |
|                                | (YYYYMMDD-DS/NS-01) DS/NS = D            | Day/Night shift   |          | (241) | JG1 01001 |   |     |
| APPROVAL FOR:                  | ☐ Foundation appro                       | oval (footprint)  |          |       |           |   |     |
|                                | ☐ Foundation appro                       | oval (key trench) |          |       |           |   |     |
|                                | Fill placement:                          | Rock Fill 71      | i Le m   | en    | t         |   |     |
|                                | ☐ CB cutoff wall app                     | oroval            |          |       |           |   |     |
|                                | Other:                                   |                   |          |       |           |   |     |
| LOCATION                       | QA chavso                                | PREVIOUS APPROVAL | <u>s</u> |       |           |   | 71  |
| Station 0+                     | 320 - 0+ 295 (DS) CE                     | Station:          |          |       |           |   |     |
| Inclination: 0+2               | 0+295 2 0+367 (NS) 0+269 - CSIEN Details |                   |          |       |           |   |     |
| ELEVATION :                    | varies   53,5 m                          |                   |          |       |           |   |     |
| (Add additional iter           | ns if needed)                            |                   | QA       | 8     | QC        |   | N/A |
| // V. V.                       |  |                   | Υ        | N     | Y         | N |     |
| 1. Lines and gr                |  |                   |          |       | V         |   |     |
| 2. Free of ice/s               |  |                   | -        |       | V         |   |     |
|                                | rench and/or pile bottom                 |                   |          |       |           |   | -   |
| Gradation (vi                  |  |                   | /        |       | V         |   |     |
|                                | ift thickness, segregation, etc.)        |                   | 1        |       | V         |   |     |
| 6. Compaction                  |  |                   | 1        |       | 1         |   |     |
| <ol><li>Foundation o</li></ol> |  | Bar Bar Bar       |          |       |           |   | -   |
| 8. Key-in depth                | into bedrock                             |                   |          |       |           |   | -   |
| Water quality                  |  |                   |          |       |           |   | -   |
| 10. CB slurry viso             | cosity and density                       |                   |          |       |           |   | -   |
| 11. Elevation of C             | CB Piles                                 |                   |          |       |           |   | -   |
| 2. Primary piles               | strength (Minimum of 50 kPa              | UCS)              |          |       |           |   |     |

14. Cracks on top of cutoff wall

13. Keying between primary and secondary

|   | QA   | QA |   | QA |     |  | N/A |
|---|------|----|---|----|-----|--|-----|
|   | Y    | N  | Υ | N  |     |  |     |
| 15. CB mix/slurry tested (UCS, permeability, and pinhole tests) |      |    |   |    | -   |  |     |
| 16. As built survey completed                                   |      |    |   |    | -   |  |     |
| 17. Fine Filter stockfile Visual Goodation                      | V    |    | V |    |     |  |     |
| 18.   | 3.35 |    |   |    |     |  |     |
| 19.   |      |    |   |    |     |  |     |
| 20.   |      |    |   |    |     |  |     |
| 21.   |      |    |   |    | 100 |  |     |
| 22.   |      |    |   |    |     |  |     |
| 23.   |      |    |   |    |     |  |     |
| 24.   | +    |    |   |    |     |  |     |
| 25.   |      |    |   |    |     |  |     |

| DETAILS                          |  | <u>A</u> | PPROV | /ED BY | : |
|----------------------------------|--|----------|-------|--------|---|
| (Refer to list above for item #) |  | QA       |       | QC     |   |
| ITEM                             |  | Υ        | N     | Υ      | N |
|                                  |  |          |       |        |   |
|                                  | AND THE STATE OF   |          |       |        |   |
|                                  | 1 1 1 1 1 1 1  |          |       |        |   |
|                                  |  |          |       |        |   |
|                                  |  |          | F H   |        |   |
|                                  |  |          |       |        |   |
|                                  |  |          |       |        |   |
|                                  |  |          |       |        |   |
|                                  | THE  |          |       |        |   |
|                                  | PARTIE AND A STATE OF THE PARTIES AND ADDRESS OF |          |       |        |   |

QA REPRESENTATIVE
QC REPRESENTATIVE
OWNER'S REPRESENTATIVE

NAME

Jonathan Leblanc Lederck Filler T. Hoteice Engran SIGNATURE

Ja Han Lablance

DATE

2018-08-02 2018-08-02 2018-08-08



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

| PROJECT:     | WIC  | ) C   | nstruction                             |                   |          |                 |
|--------------|--|-------|--|-------------------|----------|-----------------|
| PROJECT #:   | 7108   | 305   |  |                   | DATE:    | 02-08-2018      |
| DOCUMENT #:  | JECT #: 710805  UMENT #: 20180802 - DS - 0(  (YYYYMMDD-DS/NS-01) DS/NS = Day/Night shift  ROVAL FOR: Foundation approval (footprint)  Foundation approval (key trench)  Fill placement: ROCK-6   ) P  CB cutoff wall approval  Other: PREVIOUS APP  Sation: PREVIOUS APP | 7     |  | 7:00              |          |                 |
|              | (YYYYN   | MMDD- | DS/NS-01) DS/NS = D                    | ay/Night shift    |          | (24 hour clock) |
| APPROVAL FO  | R:   | _     | Foundation appropriate Fill placement: | val (key trench)  | тел-     | <del>}</del>    |
| LOCATION     |  |       |  | PREVIOUS APPROVAL | <u>s</u> |                 |
| Station      | 0+257  | 10    | 0+228                                  | Station:          |          |                 |
| Inclination: |  |       |  | Details:          |          |                 |
| ELEVATION :  | ☐ varies   |       | 153.5 m                                |                   |          |                 |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:          | VERIFICATIONS DONE BY: |   |    |   |     |  |  |  |  |
|--|------------------------|---|----|---|-----|--|--|--|--|
| (Add additional items if needed)                   | QA                     |   | QC |   | N/A |  |  |  |  |
|  | Y                      | N | Υ  | N |     |  |  |  |  |
| 1. Lines and grades                                | V                      |   | 1  |   |     |  |  |  |  |
| 2. Free of ice/snow/water                          | V                      |   | V  |   |     |  |  |  |  |
| 3. Cleaning of trench and/or pile bottom           | V                      |   | 1  |   |     |  |  |  |  |
| 4. Gradation (visual)                              | V                      |   | 1  |   |     |  |  |  |  |
| 5. Placement (lift thickness, segregation, etc.)   | V                      |   | 1  |   |     |  |  |  |  |
| 6. Compaction                                      |                        |   |    |   | V   |  |  |  |  |
| 7. Foundation on bedrock                           |                        |   |    |   | ~   |  |  |  |  |
| 8. Key-in depth into bedrock                       |                        |   |    |   | V   |  |  |  |  |
| 9. Water quality                                   |                        |   |    |   | -   |  |  |  |  |
| 10. CB slurry viscosity and density                |                        |   |    |   | V   |  |  |  |  |
| 11. Elevation of CB Piles                          |                        |   |    |   | ~   |  |  |  |  |
| 12. Primary piles strength (Minimum of 50 kPa UCS) |                        |   |    |   | ~   |  |  |  |  |
| 13. Keying between primary and secondary           |                        |   |    |   | V   |  |  |  |  |
| 14. Cracks on top of cutoff wall                   |                        |   |    |   | 1   |  |  |  |  |

| QA | QA QC |  | N/A |   |  |
|----|-------|--|-----|---|--|
| Υ  | N     | Υ  | N   |   |  |
|    |       |  |     | / |  |
|    |       |  |     | ~ |  |
|    |       |  |     |   |  |
|    |       |  |     |   |  |
|    |       |  |     |   |  |
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|    |       |  |     |   |  |
|    |       |  |     |   |  |
|    |       |  |     |   |  |
|    |       |  |     |   |  |
|    |       |  |     |   |  |
|    |       | Comment of the Commen |     |   |  |

| <b>DETAILS</b> |                        |    | APPR |    |   | <u>':</u> |
|----------------|------------------------|----|------|----|---|-----------|
|                | list above for item #) | QA |      | QC |   |           |
| ITEM           | *1                     | 1  | 1    | N  | Υ | N         |
| 5              | ROCKFII placement      | V  | /    |    | V |           |
|                |                        |    | -    |    |   |           |
|                |                        |    |      |    |   |           |
|                |                        |    |      |    |   |           |
|                |                        |    |      |    |   |           |
|                |                        |    | -    |    |   |           |
|                |                        |    | +    |    |   |           |
|                |                        |    | 7    |    |   |           |

QA REPRESENTATIVE
QC REPRESENTATIVE
OWNER'S REPRESENTATIVE

NAME

Angle Arbeitze Melina Guay Patrice Cognan SIGNATURE

Angla Suef

DATE

02/08/2018 02/08/2018 03/08/2018



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

| PROJECT:       | WID          | Construction  | ×                           |        |                       |
|----------------|--------------|---|-----------------------------|--------|-----------------------|
| PROJECT #:     |              | 658309  |                             | DATE:  | 2018-08-03            |
| DOCUMENT #:    | 20180        | 803- NS-01  |                             | TIME:  | 5:00                  |
|                |              | DS/NS-01) $DS/NS = Da$  | ay/Night shift              | _      | (24 hour clock)       |
| APPROVAL FOR : | _<br>⊠<br>□  | Foundation approx Foundation approx Fill placement: CB cutoff wall app Other: | val (key trench)  Rock Fill | places | ne nt                 |
| LOCATION       |              | *   | PREVIOUS APPROV             | ALS    |                       |
| Station        | +228 +       | 0+200 noeth<br>0+195 south  | Statio                      | n:     |                       |
| Inclination:   |              |   | Detail                      | ls:    | J= 5                  |
| ELEVATION :    | varies       | 153.5 m   |                             |        |                       |
| COMPLIANCE WIT | TH TECHNICAL | SPECIFICATIONS:   |                             | V      | ERIFICATIONS DONE BY: |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:          | VERIF | ICATIONS DO | NE BY: |  |
|--|-------|-------------|--------|--|
| (Add additional items if needed)                   | QA    | QC          | N/A    |  |
|  | YN    | Y N         |        |  |
| Lines and grades                                   | /     |             |        |  |
| 2. Free of ice/snow/water                          | /     | V           |        |  |
| Cleaning of trench and/or pile bottom              | ~     | 1           |        |  |
| 4. Gradation (visual)                              | V     | V           |        |  |
| 5. Placement (lift thickness, segregation, etc.)   | /     | 1,          |        |  |
| 6. Compaction                                      |       |             |        |  |
| 7. Foundation on bedrock                           |       |             |        |  |
| 8. Key-in depth into bedrock                       |       |             |        |  |
| 9. Water quality                                   |       |             |        |  |
| 10. CB slurry viscosity and density                |       |             |        |  |
| 11. Elevation of CB Piles                          |       |             |        |  |
| 12. Primary piles strength (Minimum of 50 kPa UCS) |       |             | _      |  |
| 13. Keying between primary and secondary           |       |             | _      |  |
| 14. Cracks on top of cutoff wall                   |       |             |        |  |
|  | 1     |             | -      |  |

|  |                | QA | 4 | QC | ; | N/A |
|--|----------------|----|---|----|---|-----|
|  |                | Υ  | N | Υ  | N |     |
| 15. CB mix/slurry tested (UCS, permeability, and |                |    |   |    |   |     |
| 16. As built survey completed                    |                |    |   |    |   |     |
| 17.  |                |    |   |    |   |     |
| 18.  | <u> </u>       |    |   |    |   |     |
| 19.  |                |    |   |    |   |     |
| 20.  |                |    |   |    |   |     |
| 21.  |                |    |   |    |   |     |
| 22.  |                |    |   |    |   |     |
| 23.  | 79 E.F. 7 E.F. |    |   |    |   |     |
| 24.  |                |    |   |    |   |     |
| 25.  |                |    |   |    |   |     |

| DETAILS             |               |    | A | PPRO | VED BY | <u>/:</u> |
|---------------------|---------------|----|---|------|--------|-----------|
| (Refer to list abov | e for item #) | QA |   | QC   |        |           |
| ITEM                |               |    | Y | N    | Υ      | N         |
|                     |               |    |   |      |        |           |
|                     |               |    |   |      |        |           |
|                     |               |    |   |      |        |           |
|                     |               |    |   |      |        |           |
|                     |               |    |   |      |        |           |
|                     |               |    |   |      |        |           |
|                     |               |    |   |      |        |           |
|                     |               |    |   |      |        |           |
|                     | -             |    |   |      |        |           |
|                     |               |    |   |      |        |           |

| QA REPRESEN | NTATIVE |
|-------------|---------|

QC REPRESENTATIVE

APPROVED BY:

OWNER'S REPRESENTATIVE

ME SIGNATURE

Edrick Filler Transley &

URE DATE

2018-08-03

80K8-08-03



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

| PROJECT:                   | WTO CON                                   | STAUCTION  |  |       |                         |
|----------------------------|---|--|--|-------|-------------------------|
| PROJECT #:                 | 628309                                    |  |  | DATE: | 2010 - 44 - 5           |
| DOCUMENT #:                | 20180817 -<br>(YYYYMMDD                   | NS-03<br>NS-01) DS/NS =  |  | TIME: | 3:95<br>(24 hour clock) |
| APPROVAL FOR               |   | Foundation approval (footprint) Foundation approval (key trench) Fill placement: |  |       |                         |
| Station O- Inclination: 15 | 57REAM (Son-<br>+736 70<br>+: V<br>varies |  | PREVIOUS APPROVALS  Station:  Details: |       |                         |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:               |     | VERIFICATIONS DONE BY: |    |   |          |  |  |  |
|---|-----|------------------------|----|---|----------|--|--|--|
| (Add additional items if needed)                        |     | A                      | QC |   | N/A      |  |  |  |
| Lines and grades  | Y   | N                      | Υ  | N |          |  |  |  |
| and grades  | /   |                        | .1 |   |          |  |  |  |
| 2. Free of ice/snow/water                               | 1./ |                        | V  |   |          |  |  |  |
| <ol><li>Cleaning of trench and/or pile bottom</li></ol> |     |                        | V  |   | ,        |  |  |  |
| 4. Gradation (visual)                                   |     |                        |    |   | √        |  |  |  |
| 5. Placement (lift thickness, segregation, etc.)        |     |                        | V, |   |          |  |  |  |
| 6. Compaction   | ✓   |                        | V. |   | ,        |  |  |  |
| 7. Foundation on bedrock                                |     |                        |    |   | 1        |  |  |  |
| Key-in depth into bedrock                               |     |                        |    |   |          |  |  |  |
| 9. Water quality  |     |                        |    |   | <b>√</b> |  |  |  |
| 0. CB slurry viscosity and density                      |     |                        |    |   |          |  |  |  |
| Elevation of CB Piles                                   |     |                        |    |   | <u> </u> |  |  |  |
| Primary piles strength (Minimum of 50 kPa UCS)          |     |                        |    |   | V        |  |  |  |
| Keying between primary and secondary                    |     |                        |    |   |          |  |  |  |
| 4. Cracks on top of cutoff wall                         |     |                        |    |   | 1        |  |  |  |

|   | QA |   | QA QC |      | N/A |
|---|----|---|-------|------|-----|
|   | Y  | N | Υ     | N    |     |
| 15. CB mix/slurry tested (UCS, permeability, and pinhole tests) |    |   |       |      | J   |
| 16. As built survey completed                                   |    |   |       |      | V   |
| 17.   |    |   |       |      |     |
| 18.   |    |   |       | lo . |     |
| 19.   |    |   |       |      |     |
| 20.   |    |   |       |      |     |
| 21.   |    |   |       |      |     |
| 22.   |    |   |       | -    |     |
| 23.   |    |   |       |      |     |
| 24.   |    |   | (4)   |      |     |
| 25.   |    |   |       |      |     |

| DETAILS              |  | A  | PPRO | VED BY | <u>':</u> |
|----------------------|--|----|------|--------|-----------|
| DETAILS<br>(Refer to | list above for item #)                           | QA |      | QC     |           |
| ITEM                 |  | Υ  | N    | Υ      | N         |
| 4                    | VISUAL INSPECTION: MEETS THE SPECS (NO OVERSIZED | 1  |      |        |           |
|                      | BOULDERS, NO EXCESS FINES CONTENT)               |    |      |        |           |
|                      |  |    |      |        |           |
|                      |  |    |      |        |           |
|                      |  |    |      |        |           |
|                      |  |    |      |        |           |
|                      |  |    |      |        |           |
|                      |  |    |      |        |           |

QA REPRESENTATIVE
QC REPRESENTATIVE
OWNER'S REPRESENTATIVE

NAME

MATHEU JEZEQUEL Denis J. Condon be Dien Evit Hullman SIGNATURE

DATE

2018-08-17

7018-08-14



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

| PROJECT:      | 1.50      | Constructi           |                 |        |                 |
|---------------|-----------|----------------------|-----------------|--------|-----------------|
| PROJECT #:    |           | 309                  | on              | DATE.  |                 |
| DOCUMENT #:   |           |                      |                 | DATE:  | 2018-08-19      |
|               | (YYYYMMDD | -DS/NS-01) DS/NS = [ | Out/Night abiff | TIME:  | 45:45           |
|               | (         | DO/NO-01/ DO/NO = L  | Jay/Night Shift |        | (24 hour clock) |
| APPROVAL FOR: |           | Foundation appro     | val (footprint) |        |                 |
|               |           | Foundation appro     | 40 150 150      |        |                 |
|               | <b></b> ✓ | Fill placement:      | ROCKFILL        | Place  | ment            |
|               |           | CB cutoff wall app   |                 |        |                 |
|               |           | Other:               |                 |        |                 |
|               |           |                      |                 |        |                 |
| LOCATION      | 1/0       | rth side             | PREVIOUS APPROV | ALS    |                 |
| Station       | 0+140 -   | to 0+240             | Statio          | n: -   |                 |
| Inclination:  | Cu ul     | 10 01210             | Detail          | -      |                 |
| ELEVATION     | SH: 1V    |                      | Detail          | s.<br> |                 |
|               | varies    | 155,0 m              |                 |        |                 |

| Y        | N | Y        | N | N/A |
|----------|---|----------|---|-----|
| 1        | N | Y /      | N |     |
| <i>J</i> |   | /        |   |     |
| J        |   | /        |   |     |
| <i>\</i> |   | <b>V</b> |   | l   |
| <b>V</b> |   |          |   |     |
| V        |   | -        |   |     |
|          |   | /        |   |     |
| V        |   | <b>V</b> |   |     |
|          |   |          |   | _   |
|          |   |          |   |     |
|          |   |          |   | 1   |
|          |   |          |   | V   |
|          |   | -        |   | V   |
|          |   |          |   | ~   |
|          |   |          |   | /   |
|          |   |          |   | V   |
|          | J |          |   |     |

|   | QA |   | QA QC |   | N/A |
|---|----|---|-------|---|-----|
|   | Υ  | N | Υ     | N |     |
| 15. CB mix/slurry tested (UCS, permeability, and pinhole tests) |    |   |       |   | V   |
| 16. As built survey completed                                   |    |   | 8     |   | /   |
| 17.   |    |   |       |   |     |
| 18.   |    |   |       |   |     |
| 19.   |    |   |       |   |     |
| 20.   |    |   |       |   |     |
| 21.   |    |   |       |   |     |
| 22.   | 38 |   |       |   |     |
| 23.   |    |   |       |   |     |
| 24.   |    |   |       |   |     |
| 25.   |    |   |       |   |     |

| DETAILS .      |   | APPROV    |   |    | /ED BY: |  |
|----------------|---|-----------|---|----|---------|--|
|                | list above for item #)                  |           |   | QC |         |  |
| ITEM           | y list above its item wy                | Y         | N | Υ  | N       |  |
| 4              | GRADATION LOOKS LIKE IT MEETS THE SPETS | $\sqrt{}$ |   | /  |         |  |
| 1              |   |           |   |    |         |  |
|                |   |           |   |    |         |  |
|                |   |           |   |    |         |  |
| ,              |   |           |   |    |         |  |
| Y <sub>1</sub> |   |           |   |    |         |  |
| 1              |   |           |   |    |         |  |

| APPROVED | BY: |
|----------|-----|
|----------|-----|

QA REPRESENTATIVE

QC REPRESENTATIVE

OWNER'S REPRESENTATIVE

NAME

MATHIEU JEZEQUEZ

Per-Ge Milmald

IGNATURE

DATE

2018-08-19

2013-08-19

2018-08-19



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

| PROJECT:      | MITO          | (onstruction                        |                    |   |   |
|---------------|---------------|-------------------------------------|--------------------|---|---|
| PROJECT #:    | 658           | Construction                        | 0                  |   |   |
| DOCUMENT #:   |               |                                     |                    | DATE: 2018-08-19  |   |
|               | (YYYYMMDD     | 80819- N5-<br>D-DS/NS-01) DS/NS = I | Day/Night shift    | TIME: \$\frac{1}{2} \cdot 50 \\ (24 \text{ hour clock}) | - |
| APPROVAL FOR: |               | Foundation appro                    | oval (footprint)   |   |   |
|               |               | Foundation appro                    |                    |   |   |
|               | $\mathbf{V}'$ | Fill placement:                     | Rockfill pl        | acement   |   |
|               |               | CB cutoff wall app                  |                    |   |   |
|               |               | Other:                              |                    |   |   |
| LOCATION      |               |                                     |                    |   |   |
| LOCATION      |               |                                     | PREVIOUS APPROVALS |   |   |
| Station       | +768          | to 0+785                            | Station:           | 0+736 to 0+768  |   |
| Inclination:  | TH: IV        |                                     | Details:           | U+736 TO 0+768  | - |
| ELEVATION     | varies        | <u>155,0</u> m                      | -                  | 0   | - |
|               |               |                                     |                    |   |   |

| 7. Foundation on bedrock  8. Key-in depth into bedrock  9. Water quality  10. CB slurry viscosity and density | VERIFICATIONS DONE |   |          |   |          |  |
|---|--------------------|---|----------|---|----------|--|
|   | QA                 |   | QC       |   | N/A      |  |
| 1 Lines and grades  | Υ                  | N | Υ        | N |          |  |
|   |                    |   | 1        |   |          |  |
|   | 1                  |   | 1        |   |          |  |
| <ol><li>Cleaning of trench and/or pile bottom</li></ol>   | U                  |   |          |   |          |  |
| 4. Gradation (visual)   |                    |   |          |   | /        |  |
| 5. Placement (lift thickness, segregation, etc.)  | 9                  |   | <b>V</b> |   |          |  |
|   | V                  |   |          |   |          |  |
| 7. Foundation on bedrock  |                    |   | J.C.     |   | 1        |  |
| 8. Key-in depth into bedrock  |                    |   |          |   | /        |  |
| 9. Water quality  |                    |   |          |   | <b>V</b> |  |
| 10. CB slurry viscosity and density   |                    |   |          |   | V        |  |
| 11. Elevation of CB Piles   |                    |   |          |   | <b>V</b> |  |
| 12. Primary piles strength (Minimum of 50 kPa UCS)  |                    |   |          |   | V        |  |
| 13. Keying between primary and secondary  |                    |   |          |   | V        |  |
| 4. Cracks on top of cutoff wall   |                    |   |          |   | V        |  |
|   |                    |   |          |   | V        |  |

|   |   | QA  |   | QC |   |
|---|---|-----|---|----|---|
| 8   | Y | N   | Υ | N  |   |
| 15. CB mix/slurry tested (UCS, permeability, and pinhole tests) |   |     |   |    | / |
| 16. As built survey completed                                   |   |     |   |    | / |
| 17.   |   |     |   |    |   |
| 18.   |   |     |   |    |   |
| 19.   |   |     |   |    |   |
| 20.   |   |     |   |    |   |
| 21.   |   | , i |   |    |   |
| 22.   |   |     |   |    |   |
| 23  |   |     |   |    |   |
| 24.   |   |     |   |    |   |
| 25.   |   |     |   |    |   |

| DETAILS                          |  | A  | PPRO | OVED BY: |   |  |
|----------------------------------|--|----|------|----------|---|--|
| (Refer to list above for item #) |  | QA |      | QC       |   |  |
| ITEM                             |  | Υ  | N    | Υ        | N |  |
| AL                               |  | J  |      | /        |   |  |
|                                  |  |    |      |          |   |  |
|                                  |  |    |      |          |   |  |
|                                  |  |    |      |          |   |  |
|                                  |  |    |      |          |   |  |
|                                  |  |    |      |          |   |  |
|                                  |  |    |      |          |   |  |

QA REPRESENTATIVE
QC REPRESENTATIVE
OWNER'S REPRESENTATIVE

NAME

Mormen Stereauer Denis J. Coulomber Ren air Midual JRE / / DA

2018-08-19

2018 08-15



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

| PROJECT :<br>PROJECT #: | WTD 001                       | USTRUCTION   |                                      |                |                      |
|-------------------------|-------------------------------|--|--------------------------------------|----------------|----------------------|
| DOCUMENT #:             | 96180891-                     | - NS - 04<br>-DS/NS-01) DS/NS = I  | Day/Night shift                      | DATE:<br>TIME: | 9019-00-01           |
| APPROVAL FOR:           |                               | Foundation appropriate Foundation appropriate Fill placement:CB cutoff wall appointed. | oval (key trench)                    |                | ,                    |
| Inclination:            | 970 to 0<br>5 H:  V<br>varies | 0+300, Sauth Side<br>157.0 m   | PREVIOUS APPROVALS Station: Details: |                |                      |
| COMPLIANCE WITH         | H TECHNICAL                   | SPECIFICATIONS:  |                                      | VE             | RIFICATIONS DONE BY: |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:          | VERIFICATIONS DONE B |    |   |   |           |  |  |
|--|----------------------|----|---|---|-----------|--|--|
| (Add additional items if needed)                   | QA                   | QC |   |   | N/A       |  |  |
|  | Y                    | N  | Υ | N |           |  |  |
| Lines and grades                                   |                      |    | 1 |   |           |  |  |
| <ol><li>Free of ice/snow/water</li></ol>           | 1                    |    | , | - |           |  |  |
| 3. Cleaning of trench and/or pile bottom           |                      |    |   |   |           |  |  |
| 4. Gradation (visual)                              |                      |    |   |   | $\sqrt{}$ |  |  |
|  | J.                   |    | / |   |           |  |  |
| (int trickriess, segregation, etc.)                |                      |    | 1 |   |           |  |  |
| 6. Compaction                                      | /                    |    | - |   | -         |  |  |
| 7. Foundation on bedrock                           | V                    |    |   |   |           |  |  |
| Key-in depth into bedrock                          |                      |    |   |   | J_        |  |  |
| 9. Water quality                                   |                      |    |   |   | V_        |  |  |
| 10. CB slurry viscosity and density                |                      |    |   |   | ν,        |  |  |
| 11. Elevation of CB Piles                          |                      |    |   |   | J,        |  |  |
| 12. Primary piles strength (Minimum of 50 kPa UCS) |                      |    |   |   | $\sqrt{}$ |  |  |
| 13. Keying between primary and secondary           |                      |    |   |   | J,        |  |  |
| 14. Cracks on top of cutoff wall                   |                      |    |   |   | $\sqrt{}$ |  |  |
| Tradition top of cutoff wall                       |                      |    |   |   | V         |  |  |

|   | QA |   | QC |   | N/A |
|---|----|---|----|---|-----|
|   | Y  | N | Υ  | N |     |
| 15. CB mix/slurry tested (UCS, permeability, and pinhole tests) |    |   |    |   | J   |
| 16. As built survey completed                                   |    |   |    |   | V   |
| 17.   |    |   |    |   |     |
| 18.   |    |   |    |   |     |
| 19.   |    |   |    |   |     |
| 20.   |    |   |    |   |     |
| 21.   |    |   |    |   |     |
| 22.   |    |   |    |   |     |
| 23.   |    |   |    |   |     |
| 24.   |    |   |    |   |     |
| 25.   |    |   |    |   |     |

| DETAILS (Refer to list above for item #) |   | <u>A</u> | APPROVED |    | <u>:</u> |
|--|---|----------|----------|----|----------|
|  |   | QA       |          | QC |          |
| ITEM                                     | s list above for item my                  | Y        | N        | Υ  | N        |
| 6  | LARGELY EXLEEDS SOFCIFICATIONS            |          |          | V  |          |
|  | (4+ PASSES OF DE BULLODZER AND HAULING OF |          |          |    |          |
|  | LOADED 100-TON TRUCKS ON ROLK FILL)       |          |          |    |          |
|  |   |          |          |    |          |
|  |   |          |          |    |          |
| - E                                      |   |          |          |    |          |
|  |   |          |          |    |          |
|  |   |          |          |    |          |
|  |   |          |          |    |          |
|  |   |          |          |    |          |

QA REPRESENTATIVE
QC REPRESENTATIVE
OWNER'S REPRESENTATIVE

NAME

MATHEU SEZECULEL

SIGNATURE

DATE

7018-08-71

2018-08-2

8018-08-21



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

| PROJECT: W41        | Construction  |
|---------------------|---|
| PROJECT#:           | 58309 DATE: Avg. 21,2018                              |
|                     | 10821-DJ-08- TIME: 13:00                              |
|                     | MDD-DS/NS-01) DS/NS = Day/Night shift (24 hour clock) |
| APPROVAL FOR:       | Foundation approval (footprint)                       |
|                     | Foundation approval (key trench)                      |
| L                   | Fill placement: Rodefill                              |
|                     | ☐ CB cutoff wall approval                             |
|                     | ☐ Other:  |
|                     |   |
| LOCATION            | PREVIOUS APPROVALS                                    |
| Station 0+241       | to 0+300 Station: 0+140 to 0+240                      |
| Inclination:        | Worth side, dls) Details:                             |
| ELEVATION :  varies |   |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:          |     | VERIFICATIONS DONE BY: |    |     |  |  |  |  |  |
|--|-----|------------------------|----|-----|--|--|--|--|--|
| (Add additional items if needed)                   |     |                        | QC | N/A |  |  |  |  |  |
|  | Υ   | N                      | ΥI | V   |  |  |  |  |  |
| 1. Lines and grades                                | ~   |                        | 1  |     |  |  |  |  |  |
| 2. Free of ice/snow/water                          | V   |                        | 1  |     |  |  |  |  |  |
| 3. Cleaning of trench and/or pile bottom           | ~   |                        | ./ |     |  |  |  |  |  |
| 4. Gradation (visual)                              | V   |                        | ./ |     |  |  |  |  |  |
| 5. Placement (lift thickness, segregation, etc.)   | ~   |                        | /  |     |  |  |  |  |  |
| 6. Compaction                                      |     |                        | 1/ |     |  |  |  |  |  |
| 7. Foundation on bedrock                           |     |                        |    | 1 - |  |  |  |  |  |
| Key-in depth into bedrock                          |     |                        |    |     |  |  |  |  |  |
| 9. Water quality                                   |     |                        |    |     |  |  |  |  |  |
| 10. CB slurry viscosity and density                |     |                        |    |     |  |  |  |  |  |
| 11. Elevation of CB Piles                          |     |                        |    |     |  |  |  |  |  |
| 12. Primary piles strength (Minimum of 50 kPa UCS) |     |                        |    |     |  |  |  |  |  |
| 13. Keying between primary and secondary           | , , |                        |    |     |  |  |  |  |  |
| 14. Cracks on top of cutoff wall                   |     |                        |    |     |  |  |  |  |  |

| , etc.                | QA .                  |                       | QC                    |                                    | N/A                                  |
|-----------------------|-----------------------|-----------------------|-----------------------|------------------------------------|--------------------------------------|
|                       | <b>Y</b> ,            | Ņ                     | Υ                     | N                                  |                                      |
| y, and pinhole tests) |                       |                       |                       |                                    | レ                                    |
|                       |                       |                       |                       |                                    |                                      |
|                       |                       |                       |                       |                                    |                                      |
|                       |                       |                       |                       |                                    |                                      |
|                       |                       |                       |                       |                                    |                                      |
|                       |                       |                       |                       |                                    |                                      |
|                       |                       |                       |                       |                                    |                                      |
|                       |                       |                       |                       |                                    |                                      |
|                       |                       | -                     |                       |                                    |                                      |
|                       | 1                     |                       |                       |                                    |                                      |
|                       |                       |                       |                       |                                    |                                      |
|                       | y, and pinhole tests) | y, and pinhole tests) | y, and pinhole tests) | QA QC Y N Y  y, and pinhole tests) | QA QC Y N Y N  y, and pinhole tests) |

| <u>DETAILS</u>                   |   |         |           | VED BY: |  |  |
|----------------------------------|---|---------|-----------|---------|--|--|
| (Refer to list above for item #) |   |         | QC        |         |  |  |
|                                  | Y | N       | Y         | N       |  |  |
|                                  |   |         |           |         |  |  |
|                                  |   |         |           |         |  |  |
|                                  |   |         |           |         |  |  |
|                                  |   |         |           |         |  |  |
|                                  |   |         |           |         |  |  |
|                                  |   |         |           |         |  |  |
|                                  |   |         |           |         |  |  |
|                                  | 7 |         |           |         |  |  |
|                                  |   |         |           |         |  |  |
|                                  |   |         |           |         |  |  |
|                                  |   | QA<br>Y | QA<br>Y N | Y N Y   |  |  |

| APPROVED BY:           | NAME          | SIGNATURE |
|------------------------|---------------|-----------|
| QA REPRESENTATIVE      | Tezera Azmahl | furt      |
| QC REPRESENTATIVE      | Maxime Cate   | 1         |
| OWNER'S REPRESENTATIVE | latice Cagna  | 10 Ce     |

Aug. 21, 201 2018-08-21 dog-08-89



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

| PROJECT:       | MAU       | Construction       | `                 |           |                 |
|----------------|-----------|--------------------|-------------------|-----------|-----------------|
| PROJECT #:     | 6583      |                    | (VD               | DATE:     | Ave. 21, 2018   |
| DOCUMENT #:    |           | 0-20-15            | A C               | TIME:     | 13:20           |
|                | (YYYYMMDD | -DS/NS-01) DS/NS = | Day/Night shift   |           | (24 hour clock) |
| APPROVAL FOR : |           | Foundation appr    | oval (footprint)  |           |                 |
|                |           | Foundation appre   | oval (key trench) |           |                 |
|                | M         | Fill placement: _  | Rockful           |           |                 |
|                |           | CB cutoff wall ap  | proval            |           |                 |
|                |           | Other:             |                   |           |                 |
|                |           |                    |                   |           |                 |
| LOCATION       |           |                    | PREVIOUS APPROVAL | <u>.s</u> |                 |
| Station        | 1235      | to 0+285           | Station:          |           |                 |
| Inclination:   | is orthsi | (21b, shi          | Details:          | -         |                 |
| ELEVATION :    | varies    | _1 <b>5</b> }_m    |                   |           |                 |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:          | <u>v</u> | ERIFI | CATION | S DO | NE BY: |
|--|----------|-------|--------|------|--------|
| (Add additional items if needed)                   | QA       |       | QC     |      | N/A    |
|  | Y        | N     | Y      | N    |        |
| Lines and grades                                   | L        | •     | ./     |      |        |
| 2. Free of ice/snow/water                          | 1        |       |        |      |        |
| 3. Cleaning of trench and/or pile bottom           | V        |       |        |      |        |
| 4. Gradation (visual)                              | ~        |       |        |      |        |
| 5. Placement (lift thickness, segregation, etc.)   | -        |       |        |      |        |
| 6. Compaction                                      |          | ,     |        |      |        |
| 7. Foundation on bedrock                           |          |       |        |      |        |
| Key-in depth into bedrock                          |          |       |        |      | レ      |
| 9. Water quality                                   |          |       |        |      |        |
| 10. CB slurry viscosity and density                |          |       |        |      |        |
| 11. Elevation of CB Piles                          |          |       |        |      |        |
| 12. Primary piles strength (Minimum of 50 kPa UCS) |          |       |        |      | -      |
| 13. Keying between primary and secondary           |          |       |        |      | ~      |
| 14. Cracks on top of cutoff wall                   |          |       |        |      |        |

|         | Total Section     | 0.2                      |        |                          |                         |                         |                         |
|---------|-------------------|--------------------------|--------|--------------------------|-------------------------|-------------------------|-------------------------|
| 1907 19 |                   | 7 7                      | QA     | l n                      | QC                      |                         | N/A                     |
| 1 4     | , 1               | 4                        | ; Y .: | N                        | Y                       | N                       |                         |
|         |                   |                          |        |                          |                         |                         | レ                       |
|         |                   |                          |        |                          |                         |                         | ~                       |
|         |                   |                          |        |                          |                         |                         |                         |
|         |                   |                          |        |                          |                         |                         |                         |
|         |                   |                          |        |                          |                         |                         |                         |
|         |                   |                          |        |                          |                         |                         |                         |
| 1 × 3   |                   |                          |        |                          |                         |                         |                         |
|         |                   |                          |        |                          |                         |                         |                         |
|         |                   |                          | 1.     | V* 1                     |                         |                         |                         |
|         | All P             |                          |        |                          |                         |                         |                         |
|         | F                 |                          |        |                          |                         | 11                      |                         |
|         | lity, and pinhole | lity, and pinhole tests) |        | lity, and pinhole tests) | Ity, and pinhole tests) | Ity, and pinhole tests) | Ity, and pinhole tests) |

| <u>DETAILS</u>    |                                 |    | <u>A</u> | PPRO | OVED BY: |   |  |
|-------------------|---------------------------------|----|----------|------|----------|---|--|
| (Refer to list ab | Refer to list above for item #) |    | QA       |      | QC       |   |  |
| ITEM              |                                 |    | Υ        | N    | Υ        | N |  |
|                   | *                               |    |          |      |          |   |  |
|                   | 8                               |    |          |      |          |   |  |
|                   | A.                              | ** | - 1      |      |          |   |  |
|                   | h                               | а  |          |      |          |   |  |
|                   | ,                               |    |          |      |          |   |  |
|                   |                                 |    |          |      |          |   |  |
|                   |                                 |    |          |      |          |   |  |
|                   |                                 |    |          |      |          |   |  |
|                   |                                 |    |          |      |          |   |  |
|                   |                                 |    |          |      |          |   |  |

| APPROVED BY:           | NAME   | L. <u>SI</u> | GNATURE   | DATE           |
|------------------------|--------|--------------|-----------|----------------|
| QA REPRESENTATIVE      | Jezera | Azmatel      | proposed) | Aug . 21, 20 K |
| QC REPRESENTATIVE      | Maxime | Côte =       | P         | 2018-08-21     |
| OWNER'S REPRESENTATIVE | Milice | Caynon -     | 190       | JOH - 08 - 74  |



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

| PROJECT:       | MAD       | Construct   | Na                |           |                 |
|----------------|-----------|---|-------------------|-----------|-----------------|
| PROJECT #:     | 658       | 309   | 11.               | DATE:     | Aug. 21, 2018   |
| DOCUMENT #:    |           | -20-45  | 110               | TIME:     |                 |
|                | (YYYYMMDD | -DS/NS-01) DS/NS = D  | Day/Night shift   |           | (24 hour clock) |
| APPROVAL FOR : |           | Foundation appropriate Foundation appropriate Fill placement: CB cutoff wall appropriate Other: | wal (key trench)  |           |                 |
| LOCATION       |           |   | DDE/#0/10 4DDD0// |           |                 |
|                |           |   | PREVIOUS APPROVAL | <u>.S</u> |                 |
| Station        | H40       | 10,0+320  | Station:          |           |                 |
| Inclination:   | CZOUH     | (210, sbiz  | Details:          |           |                 |
| ELEVATION :    | varies    | 122 m   |                   |           |                 |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:          | <u>v</u> | VERIFICATIONS DONE BY: |         |   |     |  |  |  |
|--|----------|------------------------|---------|---|-----|--|--|--|
| (Add additional items if needed)                   | QA       |                        | QC      |   | N/A |  |  |  |
|  | Y        | N                      | Υ       | N |     |  |  |  |
| 1. Lines and grades                                | V        |                        | し       |   |     |  |  |  |
| 2. Free of ice/snow/water                          | -        |                        | ~       |   |     |  |  |  |
| 3. Cleaning of trench and/or pile bottom           | ~        |                        | <u></u> |   |     |  |  |  |
| 4. Gradation (visual)                              | L        |                        | V       |   |     |  |  |  |
| 5. Placement (lift thickness, segregation, etc.)   | -        |                        | ~       |   |     |  |  |  |
| 6. Compaction                                      | ~        |                        | Ü       |   |     |  |  |  |
| 7. Foundation on bedrock                           |          |                        |         |   | し   |  |  |  |
| Key-in depth into bedrock                          |          |                        |         |   |     |  |  |  |
| 9. Water quality                                   |          |                        |         |   | _   |  |  |  |
| 10. CB slurry viscosity and density                |          |                        |         |   | -   |  |  |  |
| 11. Elevation of CB Piles                          |          |                        |         |   |     |  |  |  |
| 12. Primary piles strength (Minimum of 50 kPa UCS) |          |                        |         |   |     |  |  |  |
| 13. Keying between primary and secondary           |          |                        |         |   |     |  |  |  |
| 14. Cracks on top of cutoff wall                   |          |                        |         |   |     |  |  |  |

|  | 150                                      | + 3 . W     | # S P T |     |     |    |   |     |
|--|--|-------------|---------|-----|-----|----|---|-----|
| 1. 1                                   | 9 8 7 8                                  |             |         | ·QA |     | QC |   | N/A |
|  |  | 24.         | 1       | Y   | N   | Υ  | N |     |
| 15. CB mix/slurry tested (UCS, permeal | oility, and pinh                         | nole tests) |         |     |     | 5  |   | 1/  |
| 16. As built survey completed          |  |             | ,       |     |     | V  |   | ~   |
| 17.                                    |  |             |         |     |     |    |   |     |
| 18.                                    | e e al                                   |             | 4.      |     |     |    |   |     |
| 19.                                    |  |             |         |     |     |    |   |     |
| 20.                                    |  |             |         |     |     |    |   |     |
| 21.                                    |  |             |         |     |     |    |   |     |
| 22.                                    | 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1 |             |         |     |     |    |   |     |
| 23.                                    |  | 11.74       | 1 0     |     | 2 1 | -3 |   |     |
| 24.                                    |  | ***         | 5       |     |     |    |   |     |
| 25.                                    |  | 7.8.2       | 1       |     |     |    |   |     |

| DETAILS     |                              |   | APPROVED |   |    |   |  |
|-------------|------------------------------|---|----------|---|----|---|--|
| (Refer to I | er to list above for item #) |   | QA       |   | QC |   |  |
| ITEM        |                              |   | Υ        | N | Υ  | N |  |
|             | N                            |   |          |   |    |   |  |
|             |                              |   |          |   |    |   |  |
|             | *                            | * |          |   |    |   |  |
|             |                              |   |          |   |    |   |  |
|             | 8                            |   |          |   |    |   |  |
|             |                              |   |          |   |    |   |  |
|             | 18.0                         |   |          |   |    |   |  |
|             |                              |   |          |   |    |   |  |
|             |                              |   |          |   |    |   |  |
| *           |                              |   |          |   |    |   |  |

| APPROVED BY:       | <u>NAME</u>       | SIGNATURE | DATE          |
|--------------------|-------------------|-----------|---------------|
| QA REPRESENTATIVE  | Jezura Azmsta     | Junton 1  | Aug. 21, 2018 |
| QC REPRESENTATIVE  | MOB Bernand       | All and   | 21-08-208     |
| OWNER'S REPRESENTA | TIVE Bluce Gagnan | 1601 (8)  | 1018-08-99    |



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

| PROJECT:      | WTD cons            | melian                  |                 |
|---------------|---------------------|-------------------------|-----------------|
| PROJECT #:    | 658309              | ·V                      | DATE: 21, 2018  |
| DOCUMENT #:   | 2018 08 21 -1       |                         | TIME: 14:30     |
|               | (YYYYMMDD-DS/NS-01) | OS/NS = Day/Night shift | (24 hour clock) |
| APPROVAL FOR: | _                   | on approval (footprint) |                 |
|               | ☐ Foundation        | n approval (key trench) |                 |
|               | Fill placer         | nent: Rockfil           |                 |
|               | ☐ CB cutoff         | wall approval           |                 |
|               | Other:              |                         |                 |
|               |                     |                         |                 |
| LOCATION      |                     | PREVIOUS APPROVA        | <u>LS</u>       |
| Station       | +140 to 0+          | Station                 |                 |
| Inclination:  | Southside, U        | Details:                |                 |
| ELEVATION :   | varies              | <b>m</b>                |                 |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:          |    | VERIFICATIONS D |    |   |     |  |  |  |
|--|----|-----------------|----|---|-----|--|--|--|
| (Add additional items if needed)                   | QA |                 | QC |   | N/A |  |  |  |
|  | Υ  | N               | Υ  | N |     |  |  |  |
| Lines and grades                                   | 4  |                 | U  |   |     |  |  |  |
| 2. Free of ice/snow/water                          | ~  |                 | U  |   |     |  |  |  |
| 3. Cleaning of trench and/or pile bottom           | ~  |                 | V  |   |     |  |  |  |
| 4. Gradation (visual)                              | _  |                 | 1  |   |     |  |  |  |
| 5. Placement (lift thickness, segregation, etc.)   | -  |                 | V  |   |     |  |  |  |
| 6. Compaction                                      |    |                 | U  |   |     |  |  |  |
| 7. Foundation on bedrock                           |    | ***             |    |   |     |  |  |  |
| Key-in depth into bedrock                          |    |                 |    |   |     |  |  |  |
| 9. Water quality                                   |    |                 |    |   |     |  |  |  |
| 10. CB slurry viscosity and density                |    |                 |    |   |     |  |  |  |
| 11. Elevation of CB Piles                          |    |                 |    |   | -   |  |  |  |
| 12. Primary piles strength (Minimum of 50 kPa UCS) |    |                 |    |   |     |  |  |  |
| 13. Keying between primary and secondary           |    |                 |    |   | -   |  |  |  |
| 14. Cracks on top of cutoff wall                   |    |                 |    |   |     |  |  |  |

|                         | get the state of        | 4 4 5 1                          |                                  |                                  |  |  |
|-------------------------|-------------------------|----------------------------------|----------------------------------|----------------------------------|--|--|
|                         |                         | QA                               |                                  | QC                               |  | N/A  |
| 12.                     |                         | . Y .                            | ,N                               | Υ                                | N  |  |
| permeability, and pinho | ole tests)              |                                  |                                  | U                                |  | 4  |
|                         |                         |                                  |                                  | 1                                |  | ~  |
|                         |                         |                                  |                                  |                                  |  |  |
| Inc. 1                  | 34                      | 15                               |                                  |                                  |  |  |
|                         |                         |                                  |                                  |                                  |  |  |
|                         |                         |                                  |                                  |                                  |  |  |
|                         |                         |                                  |                                  |                                  |  |  |
|                         |                         |                                  |                                  |                                  |  |  |
|                         | 7-12-3                  | 1                                |                                  | 1                                |  |  |
|                         |                         | 41                               |                                  |                                  |  |  |
|                         | -) -:                   |                                  |                                  |                                  |  |  |
|                         | permeability, and pinho | permeability, and pinhole tests)  QA Y N Y  OC Y N Y  OC | Permeability, and pinhole tests)  QA  Y  N  N  N |

| <u>DETAILS</u>   |  |    | APPROVED BY: |       |    |   |
|--|--|----|--------------|-------|----|---|
| (Refer to list above for item #)   |  |    | QA           |       | QC |   |
| ITEM   |  |    | Y            | N     | Υ  | N |
| THE STATE OF THE S |  |    |              |       |    |   |
|  |  |    |              |       |    |   |
|  |  | 7. | 547          |       |    |   |
|  |  |    |              | 11.31 |    |   |
| 7  |  |    |              |       |    |   |
|  |  |    |              |       |    |   |
| N  | All the second s |    |              |       |    |   |
|  |  |    |              |       |    |   |
|  |  |    |              |       |    |   |
| •  |  |    |              |       |    |   |

| APPROVED BY:           | NAME            | SIGNATURE  | DATE         |
|------------------------|-----------------|------------|--------------|
| QA REPRESENTATIVE      | Jezera Azmata   | de septemb | Aug. 21,7    |
| QC REPRESENTATIVE      | Mokemand        | Miser      | 2 -08-20     |
| OWNER'S REPRESENTATIVE | tatrice (vagram | 10) Cy     | DOINE 02, 30 |



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

| PROJECT:     | WTD GO    | VSTRUCTION            |                   |          |          |         |
|--------------|-----------|-----------------------|-------------------|----------|----------|---------|
| PROJECT #:   | 678309    | 03 MULUON             |                   | DATE.    |          |         |
| DOCUMENT #:  | 3018 0837 | -NS-M2                |                   |          | 9018-6   | 98-39   |
|              |           | D-DS/NS-01) DS/NS = [ | Day/Night shift   | TIME:    | 7.03     |         |
|              |           | 200000                | Day/Night Shift   |          | (24 hour | clock)  |
| APPROVAL FOR | : 🗆       | Foundation appro      | val (footprint)   |          |          |         |
|              |           | Foundation appro      |                   |          |          |         |
|              |           | Fill placement:       | LOCKFILL          |          |          |         |
|              |           | CB cutoff wall app    | proval            |          |          |         |
|              |           | Other:                |                   |          |          |         |
| 1001-0-1     |           |                       |                   |          |          |         |
| LOCATION     |           |                       | PREVIOUS APPROVAL | <u>s</u> |          |         |
| Station      | OT F6F+   | 0+739                 | Station:          | 0+29     | n        | 0+808   |
| Inclination: | H: \V     |                       | Details:          | 0171     | U TO     | 4 , 000 |
| ELEVATION -  |           | 152 F                 |                   |          |          |         |
| : U          | varies    | _153.5 m              |                   |          |          |         |
|              |           |                       |                   |          |          |         |

|  | 7  | /ERIFI | CATION | IS DOI | NE BY:   |
|--|----|--------|--------|--------|----------|
| 2. Free of ice/snow/water 3. Cleaning of trench and/or pile bottom 4. Gradation (visual) 5. Placement (lift thickness, segregation, etc.) 6. Compaction 7. Foundation on bedrock 7. Key-in depth into bedrock 8. Water quality 9. CB slurry viscosity and density 1. Elevation of CB Piles | QA |        | QC     | N/A    |          |
|  | Y  | N      | Υ      | N      |          |
| Lines and grades   | J  |        | /      |        |          |
| 2. Free of ice/snow/water  |    |        | /      | -      |          |
| 3. Cleaning of trench and/or pile bottom   | V  |        |        |        | 1        |
|  |    |        |        |        | J        |
| 5. Placement (lift thickness, segregation, etc.)   | V  |        |        | -      |          |
| -  | J  |        | V      |        | ,        |
| 7. Foundation on bedrock   |    |        |        |        | <u> </u> |
| 8. Key-in depth into bedrock   |    |        |        |        | J        |
| 9. Water quality   |    |        |        |        | J,       |
| 10. CB slurry viscosity and density  |    |        |        |        | J        |
| 11. Elevation of CB Piles  |    |        |        |        | V,       |
| 12. Primary piles strength (Minimum of 50 kPa UCS)   |    |        |        |        | V,       |
| 13. Keying between primary and secondary   |    |        |        |        | J,       |
| 14. Cracks on top of cutoff wall   |    |        |        |        | J,       |
|  |    | - 1    |        |        |          |

|   | QA      |  | QC |  | N/A |
|---|---------|--|----|--|-----|
|   | Y N Y N |  |    |  |     |
| 15. CB mix/slurry tested (UCS, permeability, and pinhole tests) |         |  |    |  | J   |
| 16. As built survey completed                                   | J       |  | /  |  |     |
| 17.   |         |  |    |  |     |
| 18.   |         |  |    |  |     |
| 19.   |         |  |    |  |     |
| 20.   |         |  |    |  |     |
| 21.   |         |  |    |  |     |
| 22.   |         |  |    |  |     |
| 23.   |         |  |    |  |     |
| 24.   |         |  |    |  |     |
| 25.   |         |  |    |  |     |

|                                      | A  | APPRO |    |   |  |  |
|--------------------------------------|----|-------|----|---|--|--|
| Refer to list above for item #)  TEM | QA |       | QC |   |  |  |
|                                      | Y  | N     | Y  | N |  |  |
| ALL                                  | J  |       | /  |   |  |  |
|                                      |    |       |    |   |  |  |
|                                      |    |       |    |   |  |  |
|                                      |    |       |    |   |  |  |
|                                      |    |       |    |   |  |  |
|                                      |    |       |    |   |  |  |
|                                      |    |       |    |   |  |  |
|                                      |    |       |    |   |  |  |
|                                      |    |       |    |   |  |  |

QA REPRESENTATIVE
QC REPRESENTATIVE
OWNER'S REPRESENTATIVE

NAME

MATHIEU JE ZEQUEL

Hrico Cogna

SIGNATURE

DATE

2018-08-99

2018-08-21

8014-06-22



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

| PROJECT: PROJECT#: DOCUMENT#: | 90808 99<br>MAD CONS                          | -N3-05 |   | DATE: | 0019 09 09      |
|-------------------------------|---|--------|---|-------|-----------------|
| APPROVAL FOR                  |   |        | proval (footprint) proval (key trench) Rockfice |       | (24 hour clock) |
| Station O                     | IPSTAEAM SID<br>+385 To<br>1.5H: IV<br>varies |        | PREVIOUS APPROVAL Station: Details:             |       |                 |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:          | <u>\</u> | ERIFIC | CATION | IS DO | NE BY:    |
|--|----------|--------|--------|-------|-----------|
| (Add additional items if needed)                   | QA       |        | QC     | :     | N/A       |
|  | Y        | N      | Υ      | N     |           |
| Lines and grades                                   |          |        | 1      |       |           |
| Free of ice/snow/water                             |          |        | 1      |       |           |
| 3. Cleaning of trench and/or pile bottom           | V        |        | V      |       | /         |
| Gradation (visual)                                 | /        |        | 1      |       | <i>\</i>  |
| 5. Placement (lift thickness, segregation, etc.)   | V        |        | 1      |       |           |
| 6. Compaction                                      | V        |        | -      |       | /         |
| 7. Foundation on bedrock                           |          |        |        |       | J         |
| 8. Key-in depth into bedrock                       |          |        |        |       | $\sqrt{}$ |
| 9. Water quality                                   |          |        |        |       | V         |
| 10. CB slurry viscosity and density                |          |        |        |       | -V/       |
| 11. Elevation of CB Piles                          |          |        |        |       | <u>J</u>  |
| 12. Primary piles strength (Minimum of 50 kPa UCS) |          |        |        |       | J_        |
| 13. Keying between primary and secondary           |          |        |        |       | J_        |
| 4. Cracks on top of cutoff wall                    |          |        |        |       | J         |

|   | QA |   | QC |   | N/A |
|---|----|---|----|---|-----|
|   | Y  | N | Υ  | N |     |
| 15. CB mix/slurry tested (UCS, permeability, and pinhole tests) |    |   |    |   | V   |
| 16. As built survey completed                                   |    |   |    |   |     |
| 17.   |    |   |    |   |     |
| 18.   |    |   |    |   |     |
| 19.   |    |   |    |   |     |
| 20.   |    |   |    |   |     |
| 21.   |    |   |    |   |     |
| 22.   |    |   |    |   |     |
| 23.   |    |   |    |   |     |
| 24.   |    |   |    |   |     |
| 25.   |    |   |    |   |     |

| DETAILS                          | APPR |    |   | <u>/:</u> |
|----------------------------------|------|----|---|-----------|
| (Refer to list above for item #) | QA   | QA |   |           |
| ITEM                             | Y    | N  | Υ | N         |
| ALC                              | J    |    | / |           |
| Prop.                            |      |    |   |           |
|                                  |      |    |   |           |
|                                  |      |    |   |           |
|                                  |      |    |   |           |
|                                  |      |    |   |           |
|                                  |      |    |   |           |
|                                  |      |    |   |           |
|                                  |      |    |   |           |
|                                  |      |    |   |           |

QA REPRESENTATIVE
QC REPRESENTATIVE
OWNER'S REPRESENTATIVE

NAME

MATHIEU SEZEQUEL

2 Gagnan Sent

DATE

<del>508-03-99</del>

mis-08.

3018-08-22



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

| PROJECT:      | 11/10     | Constract               | Ship               |            |                  |
|---------------|-----------|-------------------------|--------------------|------------|------------------|
| PROJECT #:    | W 1-11    |                         | an                 |            |                  |
|               |           | 2088                    |                    | DATE:      | Aug. 22, 2018    |
| DOCUMENT #:   | 20180     | 822-02-04               | +                  | TIME:      | 17:30            |
|               | (YYYYMMDE | O-DS/NS-01) DS/NS = $D$ | Day/Night shift    | ī          | 24 hour clock)   |
|               |           |                         | , ,                | (          | e i flodi clock) |
| APPROVAL FOR: |           | Foundation appro        | val (footprint)    |            |                  |
|               |           | Foundation appro        | ·                  |            |                  |
|               | 4         | Fill placement:         | Pock fill          |            |                  |
|               |           | CB cutoff wall app      | proval             |            |                  |
|               |           | Other:                  |                    |            |                  |
|               | 200       |                         |                    |            |                  |
| LOCATION      |           |                         | PREVIOUS APPROVALS | 3          |                  |
| Station       | . (       |                         |                    | <b>4</b> % |                  |
| 0.            | +450      | 10 01-510               | Station:           |            |                  |
| Inclination:  | (da       | nueur                   | Details:           |            |                  |
| ELEVATION     |           |                         |                    |            |                  |
| : U           | varies    | 155 m                   |                    |            |                  |
|               |           |                         |                    |            |                  |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:                 |     | VERIFICATIONS D |   |    |   |      |  |  |
|---|-----|-----------------|---|----|---|------|--|--|
| (Add additional items if needed)                          |     | QA              |   | QC | 1 | N/A  |  |  |
|   |     | Υ               | N | Υ  | N |      |  |  |
| Lines and grades  |     | 1               |   | _  |   |      |  |  |
| 2. Free of ice/snow/water                                 |     |                 |   | 1  |   |      |  |  |
| <ol> <li>Cleaning of trench and/or pile bottom</li> </ol> | 1   |                 |   |    |   |      |  |  |
| 4. Gradation (visual)                                     |     |                 |   |    |   |      |  |  |
| 5. Placement (lift thickness, segregation, etc.)          | 1   |                 |   |    |   |      |  |  |
| 6. Compaction   |     | -               |   |    |   | 2132 |  |  |
| 7. Foundation on bedrock                                  |     |                 |   | ~  |   |      |  |  |
| 8. Key-in depth into bedrock                              |     |                 |   |    | 4 |      |  |  |
| 9. Water quality  |     | +               |   |    |   | レ    |  |  |
| 10. CB slurry viscosity and density                       | .03 | -               |   |    |   |      |  |  |
| 11. Elevation of CB Piles                                 |     | _               |   |    |   |      |  |  |
| 12. Primary piles strength (Minimum of 50 kPa UCS)        |     |                 |   |    |   |      |  |  |
| 13. Keying between primary and secondary                  |     | -               | _ |    |   |      |  |  |
| 14. Cracks on top of cutoff wall                          |     | _               |   |    |   |      |  |  |

|   | to the state of the state of the |     | -4  |    |   |     |
|---|----------------------------------|-----|-----|----|---|-----|
|   |                                  | Q   | A   | QC |   | N/A |
|   |                                  | - Y | , N | Υ  | N |     |
| 15. CB mix/slurry tested (UCS, permeabili |                                  |     |     |    |   | レ   |
| 16. As built survey completed             |                                  |     |     |    |   | -   |
| 17.                                       |                                  |     |     |    |   |     |
| 18.                                       | * , 3 L                          |     |     |    |   |     |
| 19.                                       |                                  |     |     |    |   |     |
| 20.                                       |                                  |     |     |    |   |     |
| 21.                                       |                                  |     |     |    |   |     |
| 22.                                       |                                  |     |     |    | - |     |
| 23.                                       |                                  | 5   | - 1 |    |   |     |
| 24.                                       |                                  |     |     |    |   |     |
| 25.                                       |                                  |     |     |    |   |     |

|         |                 |         | <u>A</u> | PPRO' | VED BY | <u>/:</u> |
|---------|-----------------|---------|----------|-------|--------|-----------|
| DETAILS | ove for item #) |         | QA       |       | QC     |           |
| ITEM    | ove to item #)  |         | Υ        | N     | Υ      | N         |
| IEW     |                 |         |          |       |        |           |
|         | *               |         |          |       | -      |           |
|         | -               |         |          |       |        |           |
|         |                 | 199.000 |          |       |        |           |
|         | •               |         |          | -     | -      | -         |
|         | *               |         |          |       |        | _         |
|         | 4               |         |          |       |        |           |
|         |                 |         |          |       |        |           |
|         |                 |         |          |       |        |           |
|         | 8               |         |          |       | -      | +         |
|         |                 |         |          |       |        |           |
|         |                 |         |          |       |        |           |
|         |                 |         |          |       |        |           |
|         |                 |         |          |       |        |           |

| APPROVED BY: NAME SIGNATURE                |                     |
|--|---------------------|
| DA REPRESENTATIVE TOZON AZMAL              | tres / 100. 22, 015 |
| OC REPRESENTATIVE Maxime cote              | 18-08-22            |
| OWNER'S REPRESENTATIVE Patrice Cogno Miles | 2018-09-33          |

Page 2/2



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

| PROJECT:      | appe   | Constractor            | ^                  |       |                |
|---------------|--------|------------------------|--------------------|-------|----------------|
| PROJECT #:    | 45     | 9309                   |                    | DATE: |                |
| DOCUMENT #:   |        | 08 22 - AS-1           | ^(                 | 5     | AUR . 22, 2018 |
| ¥             |        | DD-DS/NS-01) $DS/NS=D$ |                    | TIME: | 17:30          |
|               | (      | /D-D3/N3-01) D3/N3 = L | ay/Night shift     | (     | 24 hour clock) |
| APPROVAL FOR: |        | Foundation appro       | val (footprint)    |       |                |
|               |        | Foundation appro       | val (key trench)   |       |                |
|               | 4      | Fill placement:        | Rodefull           |       |                |
|               |        | CB cutoff wall app     | proval             |       | •              |
|               |        | Other:                 |                    |       |                |
|               |        |                        |                    |       |                |
| LOCATION      |        |                        | PREVIOUS APPROVALS | S     |                |
| Station       | +415   | to attle               | Station:           | _     |                |
| Inclination:  | CUO    | 10000                  |                    |       |                |
|               | 4-1    | -4.2000)               | Details:           |       |                |
| ELEVATION :   | varies | 157 m                  |                    |       |                |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:          | 7  | /ERIFI | RIFICATIONS DONE B |   |     |  |  |
|--|----|--------|--------------------|---|-----|--|--|
| (Add additional items if needed)                   | QA |        | QC                 |   | N/A |  |  |
|  | Υ  | N      | Υ                  | N |     |  |  |
| Lines and grades                                   | 1  |        |                    |   |     |  |  |
| 2. Free of ice/snow/water                          | -  |        | V                  |   |     |  |  |
| 3. Cleaning of trench and/or pile bottom           | -  |        | V                  |   |     |  |  |
| 4. Gradation (visual)                              |    |        |                    |   |     |  |  |
| 5. Placement (lift thickness, segregation, etc.)   |    |        |                    |   |     |  |  |
| 6. Compaction                                      |    |        |                    |   |     |  |  |
| 7. Foundation on bedrock                           |    |        |                    |   |     |  |  |
| Key-in depth into bedrock                          |    |        |                    |   | _   |  |  |
| 9. Water quality                                   |    |        |                    |   |     |  |  |
| 10. CB slurry viscosity and density                |    |        |                    |   |     |  |  |
| 11. Elevation of CB Piles                          |    |        |                    |   | /   |  |  |
|  |    |        |                    |   | V   |  |  |
| 12. Primary piles strength (Minimum of 50 kPa UCS) |    |        |                    |   |     |  |  |
| 13. Keying between primary and secondary           |    |        |                    |   | -   |  |  |
| 14. Cracks on top of cutoff wall                   |    |        |                    |   |     |  |  |

|                                |                        | 100       |      | - 1        | ж.<br>4 |    |   |     |
|--------------------------------|------------------------|-----------|------|------------|---------|----|---|-----|
| * F * * P * 7 *                |                        |           | 6    | QA         |         | QC |   | N/A |
|                                |                        |           | 9070 | <b>Y</b> : | .N      | Y  | N |     |
| 15. CB mix/slurry tested (UCS, | permeability, and pinh | ole tests | )    |            |         |    |   | 1   |
| 16. As built survey completed  |                        |           |      |            |         |    |   | ~   |
| 17.                            |                        |           |      |            |         |    |   |     |
| 18.                            | 1212 1                 |           |      | :="        |         |    |   |     |
| 19.                            |                        |           |      |            |         |    |   |     |
| 20.                            |                        |           |      |            |         |    |   |     |
| 21.                            |                        |           |      |            |         |    |   |     |
| 22.                            |                        |           | *    |            |         |    |   |     |
| 23.                            |                        | 2 2       |      |            |         |    |   |     |
| 24.                            |                        |           | **   |            | ,       |    |   |     |
| 25.                            |                        | - 1       | * 4  |            |         |    |   |     |

| DETAILS |                      |   | <u>A</u> | PPRO | VED BY: |   |  |
|---------|----------------------|---|----------|------|---------|---|--|
|         | st above for item #) |   | QA       |      | QC      |   |  |
| ITEM    |                      |   | Υ        | N    | Υ       | N |  |
|         |                      |   |          |      |         |   |  |
|         |                      |   |          |      |         |   |  |
|         | S 1 2                | 5 | *        |      |         |   |  |
|         | ^                    |   |          |      |         |   |  |
|         | 8                    |   |          |      |         |   |  |
|         |                      |   |          |      |         |   |  |
|         |                      |   |          |      |         |   |  |
|         |                      |   |          |      |         |   |  |
|         |                      |   |          |      |         |   |  |
|         |                      |   |          |      |         |   |  |

APPROVED BY:

QA REPRESENTATIVE

QC REPRESENTATIVE

OWNER'S REPRESENTATIVE

ME

Jaxime Cole Tolo

TURE DA

Aug. 22, 108

808-08-99



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

| DOCUMENT #: 90(80)  | CONSTRUCTION<br>BO9<br>1823-NS-O4<br>MDD-DS/NS-01) DS/NS = D                   | TIME             | = \(\frac{\text{-08-93}}{(24 \text{ hour clock})}\) |
|---|--|------------------|---|
| -   | Foundation approx Foundation approx Fill placement:  CB cutoff wall app Other: | val (key trench) |   |
| LOCATION Station O+395 70 Inclination: ELEVATION : □ varies |  | Details:         | 115 70 0 + 450<br>REAM                              |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:          | VERIFICATIONS DONE BY |          |    |   |     |  |  |  |
|--|-----------------------|----------|----|---|-----|--|--|--|
| (Add additional items if needed)                   | QA                    | <b>\</b> | QC |   | N/A |  |  |  |
|  | Y                     | N        | Υ  | N |     |  |  |  |
| 1. Lines and grades                                | J                     |          | /  |   |     |  |  |  |
| 2. Free of ice/snow/water                          | 1                     | (8)      |    |   |     |  |  |  |
| 3. Cleaning of trench and/or pile bottom           |                       |          |    |   | 1   |  |  |  |
| 4. Gradation (visual)                              | 1                     |          | /  |   |     |  |  |  |
| 5. Placement (lift thickness, segregation, etc.)   | 1                     |          | 1  |   |     |  |  |  |
| 6. Compaction                                      | J                     |          | /  |   |     |  |  |  |
| 7. Foundation on bedrock                           |                       |          |    |   |     |  |  |  |
| Key-in depth into bedrock                          |                       |          |    |   | 1   |  |  |  |
| 9. Water quality                                   |                       |          |    |   |     |  |  |  |
| 10. CB slurry viscosity and density                |                       |          |    |   | J   |  |  |  |
| 11. Elevation of CB Piles                          |                       |          |    |   | Ĭ   |  |  |  |
| 12. Primary piles strength (Minimum of 50 kPa UCS) |                       |          |    |   | 2/  |  |  |  |
| 13. Keying between primary and secondary           |                       |          |    |   | 7   |  |  |  |
| 14. Cracks on top of cutoff wall                   |                       |          |    |   |     |  |  |  |

|   | QA | QA  |   |   | N/A |  |
|---|----|-----|---|---|-----|--|
|   | Y  | N   | Υ | N |     |  |
| 15. CB mix/slurry tested (UCS, permeability, and pinhole tests) |    |     |   |   | 1   |  |
| 16. As built survey completed                                   |    |     |   |   |     |  |
| 17.   |    |     |   |   |     |  |
| 18.   |    |     |   |   |     |  |
| 19.   |    |     |   |   |     |  |
| 20.   |    |     |   |   |     |  |
| 21.   |    |     |   |   |     |  |
| 22.   |    |     |   |   |     |  |
| 23.   |    | 121 |   |   |     |  |
| 24.   |    |     | 2 |   |     |  |
| 25.   |    |     |   |   |     |  |

| DETAILS              |               | <u>A</u> | PPRO | VED BY: |   |  |
|----------------------|---------------|----------|------|---------|---|--|
| (Refer to list above | e for item #) | <br>QA   |      | QC      |   |  |
| ITEM                 |               | Υ,       | N    | Υ       | N |  |
| ALL                  |               | <b>V</b> |      | /       |   |  |
|                      |               |          |      |         |   |  |
|                      |               |          |      |         |   |  |
|                      |               |          |      |         |   |  |
|                      |               |          |      |         |   |  |
|                      |               |          |      |         |   |  |
|                      |               |          |      |         |   |  |
|                      |               |          |      |         |   |  |

QA REPRESENTATIVE QC REPRESENTATIVE OWNER'S REPRESENTATIVE NAME

DATE



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

| PROJECT: PROJECT#: DOCUMENT#: | 00 07 W<br>POE828 | NSTAULTION                           |               | DATE:        | 0010 00 03      |
|-------------------------------|-------------------|--------------------------------------|---------------|--------------|-----------------|
| APPROVAL FOR:                 | (YYYYMMDD-        | DS/NS-01) DS/NS = D Foundation appro |               |              | (24 hour clock) |
|                               |                   | Foundation appro                     |               |              |                 |
|                               |                   | Fill placement: 1                    | OCKFILL       |              |                 |
|                               |                   | CB cutoff wall app                   | oroval        |              |                 |
|                               |                   | Other:                               |               |              |                 |
| LOCATION                      | 12                |                                      | PREVIOUS APPR | ROVALS       |                 |
| Station                       | )+420 TO          | 0+450, DOWNST                        | REAM SI       | ation: _ O+1 | 150 TO 0+510    |
| Inclination:                  | 1.5H:1V           |                                      | 2000 000 000  | etails:      | VSTREAM         |
| ELEVATION :                   | varies            | _122 m                               |               |              |                 |
|                               |                   |                                      |               |              |                 |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:          | VERIFICATIONS DONI |   |    |   |         |  |  |
|--|--------------------|---|----|---|---------|--|--|
| (Add additional items if needed)                   | QA                 |   | QC |   | N/A     |  |  |
|  | Υ                  | N | Υ  | N |         |  |  |
| 1. Lines and grades                                | J                  |   | /  |   |         |  |  |
| 2. Free of ice/snow/water                          | J                  |   | 1  |   |         |  |  |
| 3. Cleaning of trench and/or pile bottom           |                    |   |    |   | 5       |  |  |
| 4. Gradation (visual)                              | 1./                |   | /  |   |         |  |  |
| 5. Placement (lift thickness, segregation, etc.)   |                    |   | 1/ |   |         |  |  |
| 6. Compaction                                      | V                  |   |    |   |         |  |  |
| 7. Foundation on bedrock                           | V                  |   |    |   | <i></i> |  |  |
| 8. Key-in depth into bedrock                       |                    |   |    |   | /       |  |  |
| 9. Water quality                                   |                    |   |    |   | 1/      |  |  |
| 10. CB slurry viscosity and density                |                    |   |    |   |         |  |  |
| 11. Elevation of CB Piles                          |                    |   |    |   | 1       |  |  |
| 12. Primary piles strength (Minimum of 50 kPa UCS) |                    |   |    |   | 1       |  |  |
| 13. Keying between primary and secondary           |                    |   |    |   | 1       |  |  |
| 14. Cracks on top of cutoff wall                   |                    |   |    |   |         |  |  |
|  |                    |   |    |   | V       |  |  |

|   | QA |   | QA QC |   | N/A |
|---|----|---|-------|---|-----|
|   | Y  | N | Υ     | N |     |
| 15. CB mix/slurry tested (UCS, permeability, and pinhole tests) |    |   |       |   | 1   |
| 16. As built survey completed                                   |    |   |       |   | J   |
| 17.   |    |   |       |   |     |
| 18.   |    |   |       |   |     |
| 19.   |    |   |       |   |     |
| 20.   |    |   |       |   |     |
| 21.   |    |   |       |   |     |
| 22.   |    |   |       |   |     |
| 23.   |    |   |       |   |     |
| 24.   |    |   |       |   |     |
| 25.   |    |   |       |   |     |

| DETAILS                          | APPR  |   |   | <u>/:</u> |
|----------------------------------|-------|---|---|-----------|
| (Refer to list above for item #) | QA    |   |   | :         |
| ITEM                             | Y     | N | Υ | N         |
| Au                               | 1     |   |   |           |
|                                  | <br>- |   |   |           |
|                                  |       |   |   |           |
|                                  |       |   |   |           |
|                                  |       |   |   |           |
|                                  |       |   |   |           |
|                                  |       |   |   |           |
|                                  |       |   |   |           |

QA REPRESENTATIVE
QC REPRESENTATIVE
OWNER'S REPRESENTATIVE

NAME

MATHEU SÉZÉQUEL
DENS J. CONTONTO

GNATURE /

DATE

3018-08-33

2018-06.91



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

| PROJECT: PROJECT#: DOCUMENT#: | 658309<br>20180825 | STRUCTION<br>- NS - 09<br>-DS/NS-01) DS/NS = D   | Pay/Night shift                     | DATE:<br>TIME: | 9010 00 W |
|-------------------------------|--------------------|--|-------------------------------------|----------------|-----------|
| APPROVAL FOR                  | :                  | Foundation appropriate Foundation appropriate Fill placement: A CB cutoff wall appropriate CB cutoff wall appropriate Fill placement appropriate Fill placem | val (key trench)<br>๕๙คน            | -              |           |
| Inclination:                  |                    | 1997, YOSTREAM<br>TING <u>NATURIAL</u> GAOUND  | PREVIOUS APPROVAL Station: Details: | 5              |           |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:          | VERIFICATIONS DONE I |    |    |     |    |  |  |
|--|----------------------|----|----|-----|----|--|--|
| (Add additional items if needed)                   | QA                   | ١. | QC | N/A |    |  |  |
|  | Υ                    | N  | Υ  | N   |    |  |  |
| Lines and grades                                   | $\int$               |    | /  |     |    |  |  |
| 2. Free of ice/snow/water                          | 1                    |    | /  |     |    |  |  |
| 3. Cleaning of trench and/or pile bottom           |                      |    |    |     | 1  |  |  |
| 4. Gradation (visual)                              | 1                    |    | 1  |     | V  |  |  |
| 5. Placement (lift thickness, segregation, etc.)   | 1                    |    | 1  |     |    |  |  |
| 6. Compaction                                      | 1                    |    | 1  |     |    |  |  |
| 7. Foundation on bedrock                           |                      |    |    |     | ./ |  |  |
| Key-in depth into bedrock                          |                      |    |    |     | /  |  |  |
| 9. Water quality                                   |                      |    |    |     |    |  |  |
| 10. CB slurry viscosity and density                |                      |    |    |     | 1  |  |  |
| 11. Elevation of CB Piles                          |                      |    |    |     | -4 |  |  |
| 12. Primary piles strength (Minimum of 50 kPa UCS) |                      |    |    |     | 1  |  |  |
| 13. Keying between primary and secondary           |                      |    |    |     |    |  |  |
| 14. Cracks on top of cutoff wall                   |                      | ** |    |     | J  |  |  |

|   | QA | QA QC |   | QA QC | QA QC | N/A |
|---|----|-------|---|-------|-------|-----|
|   | Y  | N     | Υ | N     |       |     |
| 15. CB mix/slurry tested (UCS, permeability, and pinhole tests) |    |       |   |       |       |     |
| 16. As built survey completed                                   |    |       |   |       |       |     |
| 17.   |    |       |   |       |       |     |
| 18.   |    |       |   |       |       |     |
| 19.   |    |       |   |       |       |     |
| 20.   |    |       |   |       |       |     |
| 21.   |    |       |   |       |       |     |
| 22.   |    |       |   |       |       |     |
| 23.   |    |       |   |       |       |     |
| 24.   |    |       |   |       |       |     |
| 25.   |    |       |   |       |       |     |

| DETAILS                          | <u>A</u>  | PPRO | VED BY | <u>/:</u> |
|----------------------------------|-----------|------|--------|-----------|
| (Refer to list above for item #) | QA        | is.  | QC     |           |
| ITEM                             | Υ         | N    | Υ      | N         |
| ALL                              | $\sqrt{}$ |      | /      |           |
|                                  |           |      |        |           |
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|                                  |           |      |        |           |
|                                  |           |      |        |           |

QA REPRESENTATIVE
QC REPRESENTATIVE
OWNER'S REPRESENTATIVE

NAME

Mariney Sezerouse Desir J. Condonda Patrice Cagno GIGNATURE

DATE DOIX

2015-03-25



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

| PROJECT :<br>PROJECT #: | 6283   | Constration   | h                  | DATE:     | क्र <i>ा</i> ड्ड | 25,2018 |
|-------------------------|--|---|--------------------|-----------|------------------|---------|
| DOCUMENT #:             |  | 0825-04-  | 1                  |           |                  | 2010    |
| •                       | The state of the s | -DS/NS-01) DS/NS = D  | 17                 |           | r clock)         |         |
|                         | <b>A</b>   | Delite oil Delite - B   | ay/rugin Simt      | (24 1100  | ii clock)        |         |
| APPROVAL FOR:           |  | Foundation appro-   | val (footprint)    |           |                  |         |
|                         |  | Foundation appro-   |                    |           |                  |         |
|                         |  | Fill placement:   |                    | Munaan L  | 6-2              | 4       |
|                         |  | Fili placement:   | LOCKBII DAY        | CALMENT - | Cons             | 12PD9WE |
|                         |  | CB cutoff wall app  | roval CL           | branos    | - periode        | Ar zigh |
|                         |  | Other:  |                    |           |                  |         |
|                         | 90 <del>-90</del> 73   | The special state of the state |                    |           |                  | -       |
| LOCATION                |  |   | PREVIOUS APPROVALS | 3         |                  |         |
| Station                 | 1 to   | to 0+835  | Station:           |           | 1 4 1            | 1       |
| Inclination:            | 7474   | streen)   | -                  | 0+7440    | 1004             | 494     |
| memation:               | COP.   | 38.00   | Details:           |           |                  |         |
| ELEVATION :             | varies   | 127 m   |                    |           |                  |         |
|                         |  |   |                    |           |                  |         |
| COMPLIANCE WIT          | H TECHNICAL  | SPECIFICATIONS:   | Г                  | VEDIE     | <b>TIONS T T</b> |         |
| SEAR EIGHTOL WIT        | LOTHICAL   | OF LOIFICATIONS:  |                    | VERIFICA  | TIONS DO         | NE BY:  |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:                 | VERIFICATIONS DONE E |   |    |   |   |  |  |
|---|----------------------|---|----|---|---|--|--|
| (Add additional items if needed)                          | QA                   |   | QC |   |   |  |  |
|   | Υ                    | N | Υ  | N |   |  |  |
| Lines and grades  | -                    |   | /  |   |   |  |  |
| 2. Free of ice/snow/water                                 | レ                    |   |    |   |   |  |  |
| <ol> <li>Cleaning of trench and/or pile bottom</li> </ol> | -                    |   | /  | - |   |  |  |
| 4. Gradation (visual)                                     | ~                    |   | 1  |   |   |  |  |
| 5. Placement (lift thickness, segregation, etc.)          | سا                   |   | /  |   |   |  |  |
| 6. Compaction   | 1                    |   |    |   |   |  |  |
| 7. Foundation on bedrock                                  |                      |   |    |   |   |  |  |
| 8. Key-in depth into bedrock                              |                      |   |    |   |   |  |  |
| 9. Water quality  |                      |   |    |   | _ |  |  |
| 10. CB slurry viscosity and density                       |                      |   |    |   |   |  |  |
| 11. Elevation of CB Piles                                 |                      |   |    |   | _ |  |  |
| 12. Primary piles strength (Minimum of 50 kPa UCS)        |                      |   |    |   |   |  |  |
| 13. Keying between primary and secondary                  |                      |   |    |   | _ |  |  |
| 14. Cracks on top of cutoff wall                          | 9.5                  |   |    |   |   |  |  |

| of the second second   |                   |         |                          |             |                                  |
|--|-------------------|---------|--------------------------|-------------|----------------------------------|
|  | QA                | N 1     | QC                       |             | N/A                              |
|  | Y                 | , N     | Υ                        | N           |                                  |
| nd pinhole tests)  |                   |         |                          |             | レ                                |
|  |                   |         |                          |             | ~                                |
|  |                   |         |                          |             |                                  |
| f - f  |                   |         |                          |             |                                  |
|  |                   |         |                          |             |                                  |
|  |                   |         |                          |             |                                  |
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| the same of the sa | 1 %               | 17      | (p)                      |             |                                  |
|  | ,                 |         |                          |             |                                  |
|  |                   |         |                          |             |                                  |
|  | nd pinhole tests) | QA<br>Y | QA Y N nd pinhole tests) | QA QC Y N Y | QA QC Y N Y N  nd pinhole tests) |

| <u>DETAILS</u>                   |     | <u> </u> | PPRO | VED BY | <u>/:</u> |
|----------------------------------|-----|----------|------|--------|-----------|
| (Refer to list above for item #) |     | QA       | ١    | QC     | ř         |
| ITEM                             |     | Υ        | N    | Υ      | N         |
|                                  |     |          |      |        |           |
| *                                |     |          |      |        |           |
|                                  | No. |          |      |        |           |
|                                  |     |          |      |        |           |
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| (5)                              |     |          |      |        |           |
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NAME

DATE

QA REPRESENTATIVE

QC REPRESENTATIVE

leave Homes

12

OWNER'S REPRESENTATIVE



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

| PROJECT:     | WTO     | CON   | STAULTIO    | N        |                    |             |                 |
|--------------|---------|-------|-------------|----------|--------------------|-------------|-----------------|
| PROJECT #:   | 6283    | 309   |             |          |                    | DATE:       | 9018-08-96      |
| DOCUMENT #:  | 3018    | 9680  | -NS-04      |          | *                  | TIME:       | H:50            |
|              | (YYYYI  | MMDD- | DS/NS-01) D | S/NS = D | ay/Night shift     |             | (24 hour clock) |
| APPROVAL FOR | :       |       |             | n appro  |                    |             |                 |
| LOCATION     |         |       |             |          | PREVIOUS APPROVALS | <u> </u>    |                 |
| Station      | + 555   | 70    | O+696.      | SOUTH    | Station:           | <del></del> |                 |
| Inclination: | 5 H: LV |       | ,           | 3706     | Details:           |             |                 |
| ELEVATION :  | varies  |       | 157.0       | m        |                    |             |                 |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:          | <u>v</u> | VERIFICATION |    |   |     |  |  |
|--|----------|--------------|----|---|-----|--|--|
| (Add additional items if needed)                   | QA       |              | QC |   | N/A |  |  |
|  | Y        | N            | Y  | N |     |  |  |
| Lines and grades                                   | J        |              | /  |   |     |  |  |
| 2. Free of ice/snow/water                          | J        |              | /  |   |     |  |  |
| 3. Cleaning of trench and/or pile bottom           |          |              |    |   | 1   |  |  |
| 4. Gradation (visual)                              | <b>J</b> |              |    |   |     |  |  |
| 5. Placement (lift thickness, segregation, etc.)   | J        |              | /  |   |     |  |  |
| 6. Compaction                                      | ✓        |              |    |   |     |  |  |
| 7. Foundation on bedrock                           |          |              |    |   | ./  |  |  |
| Key-in depth into bedrock                          |          |              |    |   | 7   |  |  |
| 9. Water quality                                   |          |              |    |   | 1   |  |  |
| 10. CB slurry viscosity and density                |          |              |    |   | ./  |  |  |
| 11. Elevation of CB Piles                          |          |              |    |   |     |  |  |
| 12. Primary piles strength (Minimum of 50 kPa UCS) |          |              |    |   | ./  |  |  |
| 13. Keying between primary and secondary           |          |              |    |   |     |  |  |
| 14. Cracks on top of cutoff wall                   | and s    |              |    |   | ./  |  |  |

|      | QA         |         | QC        |                   | N/A                 |
|------|------------|---------|-----------|-------------------|---------------------|
| N    | , <b>Y</b> | N       | Υ         | N                 |                     |
| sts) |            |         |           |                   | J                   |
|      |            |         |           |                   | V                   |
|      |            |         |           |                   |                     |
|      | Α          |         |           |                   |                     |
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| g e  |            |         |           |                   |                     |
|      |            | 2 1     |           |                   |                     |
| mi u |            |         |           |                   |                     |
|      | ests)      | QA<br>Y | QA<br>Y N | QA QC Y N Y ests) | QA QC Y N Y N ests) |

| DETAILS  | <u>s</u>                      | Al | PRO | VED BY | <u>:</u> |
|----------|-------------------------------|----|-----|--------|----------|
| (Refer t | o list above for item #)      | QA |     | QC     |          |
| ITEM     |                               | Y  | N   | Y      | N        |
| 1        | fer to list above for item #) | 1  |     | /      |          |
|          |                               |    |     |        |          |
|          |                               |    |     |        |          |
|          |                               |    |     |        |          |
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|          |                               |    |     |        |          |

QA REPRESENTATIVE
QC REPRESENTATIVE
OWNER'S REPRESENTATIVE

NAME

MATHEU Sézéaux Jans). Coulonse Hatrice Cagnan SIGNATURE

Maller Joyal

DATE

96-80-8106

2018-08-26 M16-08-86



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

| PROJECT : PROJECT #: DOCUMENT #: | 9018089<br>628304                      | and the same of th | d .   | DATE:<br>TIME: | <b>2018 - 08 - 26</b> (24 hour clock) |
|----------------------------------|--|--|---|----------------|---------------------------------------|
| APPROVAL FOR                     | ************************************** | Foundation appropriate Foundation appropriate Fill placement:l CB cutoff wall appropriate CB cutoff    | oval (footprint) oval (key trench) Rockfill |                | (E+ Hour Glock)                       |
| Inclination: 1.5                 | + 508 To 5H:IV varies                  |  | PREVIOUS APPROVALS Station: Details:        |                |                                       |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:          | 7  | /ERIFI | CATION | IS DOI | NE BY:     |
|--|----|--------|--------|--------|------------|
| (Add additional items if needed)                   | QA |        | QC     |        | N/A        |
|  | Υ  | N      | Υ      | N      |            |
| Lines and grades                                   | J  |        | 1      |        |            |
| 2. Free of ice/snow/water                          | 1  |        | 1      |        |            |
| 3. Cleaning of trench and/or pile bottom           | V  |        |        |        | 1          |
| 4. Gradation (visual)                              | J  |        | /      |        | V          |
| 5. Placement (lift thickness, segregation, etc.)   | 1  |        | /      |        |            |
| 6. Compaction                                      | 1  |        | 1      |        |            |
| 7. Foundation on bedrock                           |    |        |        |        | ./         |
| Key-in depth into bedrock                          |    |        |        |        | 7          |
| 9. Water quality                                   |    |        |        |        | /          |
| 10. CB slurry viscosity and density                |    |        |        |        | /          |
| 11. Elevation of CB Piles                          |    |        |        |        | V/         |
| 12. Primary piles strength (Minimum of 50 kPa UCS) |    |        |        |        |            |
| 13. Keying between primary and secondary           |    |        |        |        |            |
| 14. Cracks on top of cutoff wall                   |    |        |        |        | $-\sqrt{}$ |

|   |         |                | QA |   | QC |   |  |  |
|---|---------|----------------|----|---|----|---|--|--|
|   | 256 2 6 | Y              | Ņ  | Υ | N  |   |  |  |
| 15. CB mix/slurry tested (UCS, permeability, and pinhole to | ests)   |                |    |   |    | J |  |  |
| 16. As built survey completed                               |         |                |    |   |    | 1 |  |  |
| 17.   |         |                |    |   |    |   |  |  |
| 18.   |         | +-             |    |   |    |   |  |  |
| 19.   |         |                |    |   |    |   |  |  |
| 20.   |         |                |    |   |    |   |  |  |
| 21.   |         |                |    |   |    |   |  |  |
| 22.   |         |                |    |   |    |   |  |  |
| 23.   |         | H <sub>a</sub> |    |   |    |   |  |  |
| 24.   |         |                |    |   |    |   |  |  |
| 25.   | 2       |                |    |   |    |   |  |  |

| DETAILS   | 3                                  |   | APPRO | OVED BY | <u>/:</u> |
|-----------|------------------------------------|---|-------|---------|-----------|
| (Refer to | o list above for item #)           | ( | QΑ    | QC      |           |
| ITEM      |                                    | Y | N     | Υ       | N         |
| 1         | TO BE CONFIRMED BY AS-BUILT SURVEY | J |       | /       |           |
|           |                                    |   |       |         |           |
|           |                                    |   |       |         |           |
|           |                                    |   |       |         |           |
|           |                                    |   |       |         |           |
|           |                                    |   |       |         |           |
|           |                                    |   |       |         |           |

QA REPRESENTATIVE
QC REPRESENTATIVE
OWNER'S REPRESENTATIVE

NAME

Patrice Cropper

IGNATURE

CLL

DATE

96-80-8106

8018-08-26



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

| Constitution and American Section 2015           |               |              |        |        |
|--|---------------|--------------|--------|--------|
| PROJECT: WTD Construction                        |               |              |        |        |
| PROJECT #: 658309                                | DATE:         | Aus          | . 26   | Blasy  |
| DOCUMENT#: 20180826 -DJ - 06                     | TIME:         | 1214         | 5      |        |
| (YYYYMMDD-DS/NS-01) DS/NS = Day/Night            | shift         | (24 hour cle | ock)   |        |
| APPROVAL FOR:   Foundation approval (foo         | tprint)       |              |        |        |
| Foundation approval (key                         | trench)       |              |        |        |
| Fill placement: _ Kock                           | - fri         |              |        |        |
| CB cutoff wall approval                          |               |              |        |        |
| ☐ Other:   |               |              |        |        |
|  |               |              |        |        |
| <u>LOCATION</u> <u>PREVIO</u>                    | OUS APPROVALS |              |        |        |
| Station 0+625 and 0+583                          | Station: 0 1  | 802          | to 1   | 14583  |
| Inclination: D. Chownstreen                      | Details:      |              |        |        |
| ELEVATION  | -             |              |        |        |
| : 🗆 varies 153 m                                 |               |              |        |        |
|  |               |              |        |        |
| <b>COMPLIANCE WITH TECHNICAL SPECIFICATIONS:</b> | VI            | RIFICATIO    | NS DOI | NE BY: |
| (Add additional items if needed)                 | QA            | Q            | С      | N/A    |
|  | Υ             | N Y          | N      |        |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:                 | V   | ERIFI | CATION | S DO | NE BY: |
|---|-----|-------|--------|------|--------|
| (Add additional items if needed)                          | QA  |       | QC     |      | N/A    |
|   | Υ   | N     | Υ      | N    |        |
| Lines and grades  | 1   |       |        |      |        |
| 2. Free of ice/snow/water                                 | -   |       | -      |      |        |
| <ol> <li>Cleaning of trench and/or pile bottom</li> </ol> |     |       | ~      |      |        |
| Gradation (visual)  |     |       | V      |      |        |
| 5. Placement (lift thickness, segregation, etc.)          | ~   |       | -      |      |        |
| 6. Compaction   |     |       | /      |      |        |
| 7. Foundation on bedrock                                  |     |       |        |      | 1/     |
| Key-in depth into bedrock                                 |     |       |        |      |        |
| 9. Water quality  |     |       |        |      |        |
| 10. CB slurry viscosity and density                       |     |       |        |      | V      |
| 11. Elevation of CB Piles                                 |     |       |        |      |        |
| 12. Primary piles strength (Minimum of 50 kPa UCS)        |     |       |        |      |        |
| 13. Keying between primary and secondary                  | £., |       |        |      |        |
| 14. Cracks on top of cutoff wall                          | 1   |       |        |      |        |
|   | 1 1 | 1     | - 1    |      |        |

|                                   | A La S W Lucio S              | 146  | 100   |           |    |   |     |
|-----------------------------------|-------------------------------|------|-------|-----------|----|---|-----|
| han and the                       |                               | 1. 3 | QA    | w 70      | QC |   | N/A |
| 41.44                             |                               | f    | *Y <, | ·N        | Υ  | N |     |
| 15. CB mix/slurry tested (UCS, pe | rmeability, and pinhole tests | s)   |       |           |    |   | _   |
| 16. As built survey completed     |                               | N.   |       |           |    |   | /   |
| 17.                               |                               |      |       |           |    |   |     |
| 18.                               | 1 Marie 11                    |      | 11    |           |    |   |     |
| 19.                               |                               |      |       |           |    |   |     |
| 20.                               |                               |      |       |           |    |   |     |
| 21.                               |                               |      |       |           |    |   |     |
| 22.                               |                               |      |       |           |    |   |     |
| 23.                               | Con and a                     |      |       | • + 2     | 7  |   |     |
| 24.                               | 6 7                           |      | 7 - 2 | 10 May 10 |    |   |     |
| 25.                               |                               | * 1  |       |           |    |   |     |

| DETAILS             |               | <u>A</u> | PPRO | VED BY | <b>Y</b> : |  |
|---------------------|---------------|----------|------|--------|------------|--|
| (Refer to list abov | e for item #) | QA       |      | QC     | QC         |  |
| ITEM                |               | Υ        | N    | Υ      | N          |  |
|                     | 2             |          |      |        |            |  |
|                     | ж _           |          |      |        |            |  |
|                     |               | 4        |      |        |            |  |
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NAME

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DATE

QA REPRESENTATIVE

QC REPRESENTATIVE

Patrice Cours

18-08-

OWNER'S REPRESENTATIVE



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

Telephone: (514) 393-8000 Fax: (514) 390-2765 www.snclavalin.com

| PROJECT:  | WTD COM                     | ISTRUCTION         |   |          |       |            |      |              |  |  |  |
|---|-----------------------------|--------------------|---|----------|-------|------------|------|--------------|--|--|--|
| PROJECT #:  | 628309                      |                    |   | DATE:    | 20    | 18-0       | 8-2° | 7            |  |  |  |
| DOCUMENT #:   | 2018 08 27                  |                    |   | TIME:    | 5:3   | 32         |      |              |  |  |  |
|   | (YYYYMMDD-                  | DS/NS-01) DS/NS =  | Day/Night shift                         |          |       | our cloc   | k)   |              |  |  |  |
| APPROVAL FOR :  |                             | Foundation appr    | oval (footprint)                        |          |       |            |      |              |  |  |  |
|   |                             | Foundation appr    | oval (key trench)                       |          |       |            |      |              |  |  |  |
|   |                             | Fill placement: _  | ROCKFILL                                |          |       |            |      |              |  |  |  |
|   |                             | CB cutoff wall ap  |   |          |       |            |      |              |  |  |  |
|   |                             |                    | • ************************************* |          |       |            |      |              |  |  |  |
|   |                             | The second parties |   |          |       |            |      |              |  |  |  |
| LOCATION  |                             |                    | PREVIOUS APPROVAL                       | <u>s</u> |       |            |      |              |  |  |  |
| Station ()  | + 625 to                    | 0+ 700             | Station:                                | ()+5     | 83 +  | o 0        | +623 | -            |  |  |  |
| Inclination:  |                             | 7.00               | Details:                                | 0.0      | ו כם  | 0 0        | -000 |              |  |  |  |
| ELEVATION :   |                             |                    |   |          |       |            |      |              |  |  |  |
|   |                             |                    | -1                                      |          |       |            |      |              |  |  |  |
| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:   |                             |                    | VE                                      | RIFIC    | ATION | S DONE BY: |      |              |  |  |  |
| (Add additional items if needed)  |                             | QA                 |   | QC       |       | N/A        |      |              |  |  |  |
|   |                             |                    |   | Υ        | N     | Υ          | N    |              |  |  |  |
| 1. Lines and gr   | rades                       |                    |   | 1        |       | 1          |      |              |  |  |  |
| 2. Free of ice/s  | now/water                   |                    |   | J        |       | /          |      | •            |  |  |  |
| 3. Cleaning of  | trench and/or               | pile bottom        |   |          |       |            |      | ./           |  |  |  |
| 4. Gradation (v   | isual)                      |                    |   | J        |       | /          |      |              |  |  |  |
| 5. Placement (I   | ift thickness,              | segregation, etc.) |   | 1        |       | 1          |      |              |  |  |  |
| 6. Compaction   |                             |                    |   | V /      |       | -          |      |              |  |  |  |
| 7. Foundation of  |                             |                    |   | . /      |       |            |      |              |  |  |  |
| 7. Touridation  | on bedrock                  | <del>11 </del>     |   | V        |       |            |      | 1            |  |  |  |
|   | on bedrock<br>into bedrock  |                    |   | V        |       |            |      | <i>J</i>     |  |  |  |
|   | into bedrock                |                    |   | V        |       |            |      | J            |  |  |  |
| 8. Key-in depth   | into bedrock                |                    |   | V        |       |            |      | J            |  |  |  |
| Key-in depth     Water quality  | into bedrock  cosity and de |                    |   | V        |       |            |      | <i>J J J</i> |  |  |  |
| <ul><li>8. Key-in depth</li><li>9. Water quality</li><li>10. CB slurry vis</li><li>11. Elevation of</li></ul> | into bedrock  cosity and de |                    | UCS)                                    | V        |       |            |      | J<br>J<br>J  |  |  |  |

14. Cracks on top of cutoff wall

| o the second of |         | QA  | 1 a | QC |   | N/A |  |  |  |  |
|---|---------|-----|-----|----|---|-----|--|--|--|--|
|   | ** .* % | Y   | · N | Υ  | N |     |  |  |  |  |
| 15. CB mix/slurry tested (UCS, permeability, and pinhole test   |         |     |     |    |   | 1   |  |  |  |  |
| 16. As built survey completed   |         |     |     |    |   | J   |  |  |  |  |
| 17.   | U.      |     |     |    |   |     |  |  |  |  |
| 18.   |         |     |     |    |   |     |  |  |  |  |
| 19.   |         |     |     |    |   |     |  |  |  |  |
| 20.   |         |     |     |    |   |     |  |  |  |  |
| 21.   |         |     |     |    |   |     |  |  |  |  |
| 22.   |         |     |     |    |   |     |  |  |  |  |
| 23.   |         | 111 |     |    |   |     |  |  |  |  |
| 24.   |         |     |     |    |   |     |  |  |  |  |
| 25.   |         |     |     |    |   |     |  |  |  |  |

| DETAILS                          | ľ | APPROVE   |   |    |   |  |  |
|----------------------------------|---|-----------|---|----|---|--|--|
| (Refer to list above for item #) |   | QA        |   | QC |   |  |  |
| ITEM                             |   | Υ         | N | Υ  | N |  |  |
| ALL                              |   | $\sqrt{}$ |   | /  |   |  |  |
|                                  |   |           |   |    |   |  |  |
|                                  |   |           |   |    |   |  |  |
|                                  |   |           |   |    |   |  |  |
|                                  |   |           |   |    |   |  |  |
|                                  |   |           |   |    |   |  |  |
|                                  |   |           |   |    |   |  |  |
|                                  |   |           |   |    |   |  |  |

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2018-03-27

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Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

| PROJECT: WTO CONSTRUCTION                        |                   |           | V     |             |       |               |
|--|-------------------|-----------|-------|-------------|-------|---------------|
| PROJECT #: 658309                                |                   | DATE:     | 90    | 18-08       | -27   |               |
| DOCUMENT #: 20180827 - NS-05                     |                   | TIME:     |       | 95          |       |               |
| (YYYYMMDD-DS/NS-01) DS/NS = [                    | Day/Night shift   |           | 3     | our cloc    | k)    |               |
| APPROVAL FOR:                                    |                   |           |       |             |       |               |
|  | _                 |           |       |             |       |               |
|  |                   |           |       |             |       |               |
| ☐ CB cutoff wall app                             | oroval            |           |       |             |       |               |
| ☐ Other:   |                   |           |       |             |       | <del></del> ) |
| LOCATION   | PREVIOUS APPROVAL | s         |       |             |       | -             |
| Station 0+756 70 0+797                           | Station:          |           | a-0   | Λ           | .00   | _             |
| Inclination: EAST ABUTMENT                       | Details:          | 0+1       | 97 -  | <b>co</b> 0 | 703   | )             |
| ELEVATION  | - Details.        |           |       |             |       |               |
| :  varies  |                   |           |       |             |       |               |
|  |                   |           |       |             |       |               |
| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:        |                   | VE        | RIFIC | ATION       | S DOI | NE BY:        |
| (Add additional items if needed)                 |                   | QA        |       | QC          |       | N/A           |
|  |                   | Υ         | N     | Υ           | N     |               |
| Lines and grades                                 |                   | $\sqrt{}$ |       | 1           |       |               |
| 2. Free of ice/snow/water                        |                   | $\sqrt{}$ |       | 1           |       |               |
| 3. Cleaning of trench and/or pile bottom         |                   |           |       |             |       | ./            |
| 4. Gradation (visual)                            |                   | 1         |       | 1           |       | V             |
| 5. Placement (lift thickness, segregation, etc.) |                   | 7         |       | 7           |       |               |
| 6. Compaction                                    |                   | /         |       |             |       |               |
| 7. Foundation on bedrock                         |                   | V         |       | _           |       | 7             |
| 8. Key-in depth into bedrock                     |                   |           |       |             |       | <i>J</i>      |
| 9. Water quality                                 |                   |           |       |             |       | /             |
| 10. CB slurry viscosity and density              | *                 |           |       |             |       | ./            |
| 11. Elevation of CB Piles                        |                   |           |       |             |       |               |
| 12. Primary piles strength (Minimum of 50 kPa l  | JCS)              |           |       |             |       | 7             |
| 13. Keying between primary and secondary         |                   |           |       |             |       |               |
| <ol><li>Cracks on top of cutoff wall</li></ol>   |                   |           |       |             |       | ./            |

| No. 20 Mag P  |     |    |   |   |     |  |
|---|-----|----|---|---|-----|--|
|   |     | QA |   |   | N/A |  |
|   | Y   | N  | Υ | N |     |  |
| 15. CB mix/slurry tested (UCS, permeability, and pinhole tests) |     |    |   |   | V   |  |
| 16. As built survey completed                                   |     |    |   |   | 1   |  |
| 17.   |     |    |   |   |     |  |
| 18.   |     |    |   |   |     |  |
| 19.   |     |    |   |   |     |  |
| 20.   |     |    |   |   |     |  |
| 21.   |     |    |   |   |     |  |
| 22.   |     |    |   |   |     |  |
| 23.   | e d |    | 9 |   |     |  |
| 24.   |     | f  |   |   |     |  |
| 25.   |     |    |   |   |     |  |

| DETAILS                          |             | APPR |   |    | OVED BY: |  |  |  |
|----------------------------------|-------------|------|---|----|----------|--|--|--|
| (Refer to list above for item #) | QA          |      |   | QC |          |  |  |  |
| ITEM                             |             | Y    | N | Y  | N        |  |  |  |
| AL                               |             |      |   | /  |          |  |  |  |
|                                  | <del></del> |      |   |    |          |  |  |  |
|                                  |             |      |   |    |          |  |  |  |
|                                  |             |      |   |    |          |  |  |  |
|                                  |             |      |   |    |          |  |  |  |
|                                  |             |      |   |    |          |  |  |  |
|                                  |             |      |   |    |          |  |  |  |
|                                  |             |      |   |    |          |  |  |  |

QA REPRESENTATIVE
QC REPRESENTATIVE
OWNER'S REPRESENTATIVE

NAME

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Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

| PROJECT:       | MAD       | constructi              | .or               |          |                 |
|----------------|-----------|-------------------------|-------------------|----------|-----------------|
| PROJECT #:     | 658       | 309                     |                   | DATE:    | Ave 22, 2018    |
| DOCUMENT #:    | 20180     | 0-20-758                | 3                 | TIME:    | 17:25           |
|                | (YYYYMMDI | D-DS/NS-01) DS/NS = $D$ | ay/Night shift    |          | (24 hour clock) |
| APPROVAL FOR : |           | Foundation appro        |                   |          |                 |
|                |           | Foundation appro        | val (key trench)  |          |                 |
|                | J         | Fill placement:         | Rockfill          |          |                 |
|                |           | CB cutoff wall app      | oroval            |          | _               |
|                |           | Other:                  |                   |          |                 |
|                |           |                         |                   |          |                 |
| LOCATION       |           |                         | PREVIOUS APPROVAL | <u>S</u> |                 |
| Station 6      | t too t   | 0 0+455                 | Station:          |          |                 |
| Inclination:   | cda       | muzturam)               | Details:          |          |                 |
| ELEVATION :    | varies    | 1 <b>22</b> m           |                   |          |                 |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:               | 2     | CATION | ATIONS DONE BY |   |     |
|---|-------|--------|----------------|---|-----|
| (Add additional items if needed)                        | QA    |        | QC             |   | N/A |
|   | Υ     | N      | Υ              | N |     |
| Lines and grades  | _     |        | V              |   |     |
| 2. Free of ice/snow/water                               | ~     |        | V              |   |     |
| <ol><li>Cleaning of trench and/or pile bottom</li></ol> |       |        | V              |   |     |
| 4. Gradation (visual)                                   | /     |        | 1/             |   |     |
| 5. Placement (lift thickness, segregation, etc.)        | /     |        | 1/             |   |     |
| 6. Compaction   |       | /      | J              | - |     |
| 7. Foundation on bedrock                                |       |        |                |   |     |
| 8. Key-in depth into bedrock                            |       |        |                |   |     |
| 9. Water quality  |       |        |                |   |     |
| 10. CB slurry viscosity and density                     |       |        |                |   | /   |
| 11. Elevation of CB Piles                               |       |        |                | - |     |
| 12. Primary piles strength (Minimum of 50 kPa UCS)      |       |        |                |   |     |
| 13. Keying between primary and secondary                | 8.,   |        |                |   |     |
| 14. Cracks on top of cutoff wall                        | 6-7 y |        |                |   |     |

|  |  |     | 20 36 11 |    |   |     |
|--|--|-----|----------|----|---|-----|
| The same of the sa | Z. 12.   | QA  | · e      | QC |   | N/A |
|  | 1. The second of | Y   | N        | Υ  | N |     |
| 15. CB mix/slurry tested (UCS, perme   | ability, and pinhole tests)  |     |          |    |   | _   |
| 16. As built survey completed  |  |     |          |    |   |     |
| 17.  |  |     |          |    |   |     |
| 18.  | 4-12 mil   |     |          |    |   |     |
| 19.  |  |     |          |    |   |     |
| 20.  |  |     |          |    |   |     |
| 21.  |  |     |          |    |   |     |
| 22.  |  |     |          |    |   |     |
| 23.  | 7. 3. 7  | 1 1 |          | 1  |   |     |
| 24.  |  |     |          |    |   |     |
| 25.  |  |     |          |    |   |     |

| <u>DETAILS</u>                  | APP |   |    | ROVED BY: |  |  |  |
|---------------------------------|-----|---|----|-----------|--|--|--|
| Refer to list above for item #) | QA  |   | QC |           |  |  |  |
| ITEM                            | Y   | N | Υ  | N         |  |  |  |
|                                 |     |   |    |           |  |  |  |
|                                 |     |   |    |           |  |  |  |
|                                 |     |   |    |           |  |  |  |
|                                 |     |   |    |           |  |  |  |
|                                 |     |   |    |           |  |  |  |
|                                 |     |   |    |           |  |  |  |
|                                 |     |   |    |           |  |  |  |
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|                                 |     |   |    |           |  |  |  |
|                                 |     |   |    |           |  |  |  |

QA REPRESENTATIVE
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Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

| PROJECT:      | UTD       | Construction           |                   |          |                 |
|---------------|-----------|------------------------|-------------------|----------|-----------------|
| PROJECT #:    | 658       | 209                    |                   | DATE:    | due . 24, 2018  |
| DOCUMENT #:   | 201808    | 59 - DE - OF           | -                 | TIME:    | 17:25           |
|               | (YYYYMMDD | -DS/NS-01) $DS/NS = D$ | ay/Night shift    |          | (24 hour clock) |
| APPROVAL FOR: |           | Foundation appro       | val (footprint)   |          |                 |
|               |           | Foundation appro       | val (key trench)  |          |                 |
|               | 9         | Fill placement:        | Rockfill          |          |                 |
|               |           | CB cutoff wall app     | proval            |          |                 |
|               |           | Other:                 |                   |          |                 |
|               |           |                        |                   |          |                 |
| LOCATION      |           |                        | PREVIOUS APPROVAL | <u>s</u> |                 |
| Station 0 +   | -634 h    | 44940                  | Station:          |          |                 |
| Inclination:  | CUPSO     | mean)                  | Details:          |          |                 |
| ELEVATION :   | varies    | 122 m                  |                   |          |                 |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:          |   |   | VERIFICATIONS DON |     |  |  |  |  |  |  |
|--|---|---|-------------------|-----|--|--|--|--|--|--|
| (Add additional items if needed)                   |   |   | QC                | N/A |  |  |  |  |  |  |
|  | Y | N | Y                 | N   |  |  |  |  |  |  |
| Lines and grades                                   | ~ |   | ()                |     |  |  |  |  |  |  |
| 2. Free of ice/snow/water                          | ~ |   | V                 |     |  |  |  |  |  |  |
| 3. Cleaning of trench and/or pile bottom           | ~ |   | 1                 |     |  |  |  |  |  |  |
| 4. Gradation (visual)                              |   |   | V                 |     |  |  |  |  |  |  |
| 5. Placement (lift thickness, segregation, etc.)   |   |   | V                 |     |  |  |  |  |  |  |
| 6. Compaction                                      |   |   | 1/                |     |  |  |  |  |  |  |
| 7. Foundation on bedrock                           |   |   |                   |     |  |  |  |  |  |  |
| 8. Key-in depth into bedrock                       |   |   |                   |     |  |  |  |  |  |  |
| 9. Water quality                                   |   |   |                   |     |  |  |  |  |  |  |
| 10. CB slurry viscosity and density                |   |   |                   |     |  |  |  |  |  |  |
| 11. Elevation of CB Piles                          |   |   |                   |     |  |  |  |  |  |  |
| 12. Primary piles strength (Minimum of 50 kPa UCS) |   |   |                   |     |  |  |  |  |  |  |
| 13. Keying between primary and secondary           |   |   |                   |     |  |  |  |  |  |  |
| 14. Cracks on top of cutoff wall                   |   |   |                   |     |  |  |  |  |  |  |

|                                  | The state of the s |              |   |    |   |     |
|----------------------------------|--|--------------|---|----|---|-----|
| The second of                    | , ·  | · QA         |   | QC | 9 | N/A |
|                                  | -1-1- 21-4   | <b>Y</b> , 3 | N | Y  | N |     |
| 15. CB mix/slurry tested (UCS, p | permeability, and pinhole tests)   |              |   |    |   | ~   |
| 16. As built survey completed    |  |              |   |    |   | _   |
| 17.                              |  |              |   |    |   |     |
| 18.                              | contracts and  |              |   |    |   |     |
| 19.                              |  |              |   |    |   |     |
| 20.                              |  |              |   |    |   |     |
| 21.                              |  |              |   |    |   |     |
| 22.                              |  |              |   |    |   |     |
| 23.                              | 8. J. S. J.  | 100          | 3 | 1  |   |     |
| 24.                              |  | *            |   |    |   |     |
| 25.                              |  |              |   |    |   |     |

| DETAILS                          | Δ  | PPRO | OVED BY: |   |  |
|----------------------------------|----|------|----------|---|--|
| (Refer to list above for item #) | QA |      | QC       |   |  |
| ITEM                             | Υ  | N    | Υ        | N |  |
| 1                                |    |      |          |   |  |
| 14/                              |    |      |          |   |  |
| 14                               |    |      |          |   |  |
|                                  |    |      |          |   |  |
|                                  |    |      |          |   |  |
|                                  |    |      |          |   |  |
| 4                                |    |      |          |   |  |
|                                  |    |      |          |   |  |
|                                  |    |      |          |   |  |
|                                  |    |      |          |   |  |

QA REPRESENTATIVE
QC REPRESENTATIVE
OWNER'S REPRESENTATIVE

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Aug. 24, 2018 2015-09-28



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

| PROJECT:       | Mad         | construc              | Lobon             |          |                 |
|----------------|-------------|-----------------------|-------------------|----------|-----------------|
| PROJECT #:     | 6583        | 09                    |                   | DATE:    | Aug. 27, 2018   |
| DOCUMENT #:    |             | 24-4580               |                   | TIME:    | 13: 40          |
|                | (YYYYMMDD-I | DS/NS-01) $DS/NS = D$ | ay/Night shift    |          | (24 hour clock) |
| APPROVAL FOR : |             | Foundation appro      | val (footprint)   |          |                 |
|                |             | Foundation appro      | val (key trench)  |          |                 |
|                | 9           | Fill placement:       | Rockfill          |          |                 |
|                |             | CB cutoff wall app    | oroval            |          |                 |
| 3              |             | Other:                |                   |          |                 |
|                |             |                       |                   |          |                 |
| LOCATION       |             |                       | PREVIOUS APPROVAL | <u>s</u> |                 |
| Station 0 +    | - 340 to    | 0 0+360               | Station:          |          |                 |
| Inclination:   | Celou       | inspressor)           | Details:          |          |                 |
| ELEVATION :    | varies ~    | 154.5 m               |                   |          |                 |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:          |    | <b>VERIFICATIONS DONE BY:</b> |             |   |         |  |  |
|--|----|-------------------------------|-------------|---|---------|--|--|
| (Add additional items if needed)                   | QA |                               | QC          | ; | N/A     |  |  |
|  | Υ  | N                             | Y           | N |         |  |  |
| Lines and grades                                   | ~  |                               | V           |   |         |  |  |
| 2. Free of ice/snow/water                          | V  |                               | V           |   |         |  |  |
| 3. Cleaning of trench and/or pile bottom           | ~  |                               | V           |   |         |  |  |
| Gradation (visual)                                 | 1  |                               | V           |   |         |  |  |
| 5. Placement (lift thickness, segregation, etc.)   | -  |                               | 5.          |   |         |  |  |
| 6. Compaction                                      |    |                               | \ \ \ \ \ \ |   |         |  |  |
| 7. Foundation on bedrock                           |    |                               | V           |   |         |  |  |
| 8. Key-in depth into bedrock                       |    |                               |             |   | <u></u> |  |  |
| 9. Water quality                                   |    |                               |             |   |         |  |  |
| 10. CB slurry viscosity and density                |    |                               |             |   |         |  |  |
| 11. Elevation of CB Piles                          |    |                               | - 3         |   |         |  |  |
| 12. Primary piles strength (Minimum of 50 kPa UCS) |    |                               |             |   |         |  |  |
| 13. Keying between primary and secondary           |    |                               |             |   | /       |  |  |
| 14. Cracks on top of cutoff wall                   |    |                               |             |   | -       |  |  |

| at the first part of the first         | 7 B                            |                                |                                |                                |                                |
|--|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| ,a E                                   | QA                             |                                | QC                             |                                | N/A                            |
|  | Y                              | N                              | Υ                              | N                              |                                |
| rmeability, and pinhole tests)         |                                |                                |                                |                                |                                |
|  |                                |                                |                                |                                | /                              |
|  |                                |                                |                                |                                |                                |
| 101 1 1 1                              |                                |                                |                                |                                |                                |
|  |                                |                                |                                |                                |                                |
|  |                                |                                |                                |                                |                                |
|  |                                |                                |                                |                                |                                |
|  |                                |                                |                                | Û                              |                                |
| 14.4                                   |                                |                                | - N                            |                                |                                |
|  | 1,001                          |                                |                                |                                |                                |
| ************************************** | 1.                             |                                |                                |                                |                                |
|  | rmeability, and pinhole tests) |

| DETAILS                          |      |      | A  | VED BY | <u>3Y:</u> |   |
|----------------------------------|------|------|----|--------|------------|---|
| (Refer to list above for item #) |      | QA   |    |        | ;          |   |
| ITEM                             |      |      | Υ  | N      | Υ          | N |
|                                  | A I  |      |    |        |            |   |
|                                  |      |      |    |        |            |   |
|                                  | * ~* | ,/61 | 12 |        |            |   |
|                                  | * 1  |      |    |        |            |   |
|                                  |      |      |    |        |            |   |
|                                  | 9    |      |    |        |            |   |
| +                                |      |      |    |        |            |   |
|                                  |      |      |    |        |            |   |
|                                  |      |      |    |        |            |   |
|                                  |      |      |    |        |            |   |

QA REPRESENTATIVE QC REPRESENTATIVE OWNER'S REPRESENTATIVE NAME



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

| PROJECT:       | MAD C    | bountano  | ion               |          |                 |
|----------------|----------|---|-------------------|----------|-----------------|
| PROJECT #:     | 6583     |   |                   | DATE:    | Aug. 27, 2018   |
| DOCUMENT #:    |          | 7-Du-Of   |                   | TIME:    | 17:40           |
|                |          | /NS-01) DS/NS = Day   |                   |          | (24 hour clock) |
| APPROVAL FOR : | ☐ Fi     | oundation approva<br>oundation approva<br>Il placement:<br>B cutoff wall appro<br>ther: | al (key trench)   |          |                 |
| LOCATION       |          |   | PREVIOUS APPROVAL | s        |                 |
| Cantinu        | +320 to  | 0+355   | Station:          | <u>~</u> |                 |
| Inclination:   | CUP      |   | Details:          |          |                 |
| ELEVATION      |          |   | Details.          |          |                 |
| : D            | varies ~ | 154.5 m   |                   |          |                 |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:          |    | <b>VERIFICATIONS DONE BY:</b> |    |   |     |  |  |
|--|----|-------------------------------|----|---|-----|--|--|
| (Add additional items if needed)                   | QA |                               | QC | : | N/A |  |  |
|  | Y  | N                             | Υ  | N |     |  |  |
| Lines and grades                                   |    |                               | V  |   |     |  |  |
| 2. Free of ice/snow/water                          | V  |                               | V  |   |     |  |  |
| 3. Cleaning of trench and/or pile bottom           |    |                               | 1/ |   |     |  |  |
| 4. Gradation (visual)                              | ~  |                               | 1  |   |     |  |  |
| 5. Placement (lift thickness, segregation, etc.)   | _  |                               | (1 |   |     |  |  |
| 6. Compaction                                      | V  |                               | 1  |   |     |  |  |
| 7. Foundation on bedrock                           |    |                               | V  |   |     |  |  |
| 8. Key-in depth into bedrock                       |    |                               |    |   |     |  |  |
| 9. Water quality                                   |    |                               |    |   |     |  |  |
| 10. CB slurry viscosity and density                |    |                               |    |   |     |  |  |
| 11. Elevation of CB Piles                          |    |                               |    |   |     |  |  |
| 12. Primary piles strength (Minimum of 50 kPa UCS) |    |                               |    |   |     |  |  |
| 13. Keying between primary and secondary           |    |                               |    |   | ~   |  |  |
| 14. Cracks on top of cutoff wall                   | ь  | T                             |    |   |     |  |  |

|   |         |      | L" 14    |       |   |     |
|---|---------|------|----------|-------|---|-----|
|   |         | ≥ QA | <b>1</b> | QC    |   | N/A |
|   |         | Y    | N        | Y     | N |     |
| 15. CB mix/slurry tested (UCS, permeabi |         |      |          |       |   | ~   |
| 16. As built survey completed           |         |      |          |       |   |     |
| 17.                                     |         |      |          |       |   |     |
| 18.                                     | A       |      |          |       |   |     |
| 19.                                     | ,       |      |          |       |   |     |
| 20.                                     |         |      |          |       |   |     |
| 21.                                     |         |      |          |       |   |     |
| 22.                                     |         |      |          |       |   |     |
| 23.                                     | ******* |      | -        | 4. 1. |   |     |
| 24.                                     |         | a a  |          |       |   |     |
| 25.                                     | 7. a 1. |      |          |       |   |     |

| <u>DETAILS</u>                   |  | AI |   |    |   |  |
|----------------------------------|--|----|---|----|---|--|
| (Refer to list above for item #) |  | QA |   | QC |   |  |
| ITEM                             | And the second of the second o | Υ  | N | Υ  | N |  |
|                                  | 8  |    |   |    |   |  |
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QA REPRESENTATIVE
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OWNER'S REPRESENTATIVE

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DATE

Aug. 27 2018

Page 2/2



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

| PROJECT#: 658  DOCUMENT#: 9018              | (ONSTRUCTION<br>309<br>0828 - NS - OL<br>(MMDD-DS/NS-01) DS/NS = | ТІМІ                                      | E: 2018-08-38<br>E: 5:00<br>(24 hour clock) |
|---|--|---|---|
| APPROVAL FOR:                               | roval (footprint) roval (key trench) <b>RockFill</b> oproval     |   |   |
| Station O+355 Inclination: ELEVATION varies | TO 0+385, MM7H 510€<br>~154.5 m                                  | PREVIOUS APPROVALS  Station: 0+  Details: | 320 70 0+355                                |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:          |     | VERIFICATIONS DONE BY: |    |   |     |  |  |
|--|-----|------------------------|----|---|-----|--|--|
| (Add additional items if needed)                   | Q.A | A                      | QC |   | N/A |  |  |
|  | Y   | N                      | Υ  | N |     |  |  |
| Lines and grades                                   | J   |                        | 1/ |   |     |  |  |
| 2. Free of ice/snow/water                          | 1   |                        | V  |   |     |  |  |
| 3. Cleaning of trench and/or pile bottom           |     |                        |    |   | ./  |  |  |
| 4. Gradation (visual)                              | J   |                        | /  |   |     |  |  |
| 5. Placement (lift thickness, segregation, etc.)   | J   |                        | 1/ |   |     |  |  |
| 6. Compaction                                      | 1   |                        | V  |   |     |  |  |
| 7. Foundation on bedrock                           |     |                        |    |   | ./  |  |  |
| Key-in depth into bedrock                          | +   |                        |    |   | /   |  |  |
| 9. Water quality                                   |     |                        |    |   | /   |  |  |
| 10. CB slurry viscosity and density                |     |                        |    |   | /   |  |  |
| 11. Elevation of CB Piles                          |     |                        |    |   | /   |  |  |
| 12. Primary piles strength (Minimum of 50 kPa UCS) |     |                        |    |   |     |  |  |
| 13. Keying between primary and secondary           |     |                        |    |   |     |  |  |
| 14. Cracks on top of cutoff wall                   |     |                        |    |   | 1   |  |  |

|           |       | 600   |                    |                   |                     |
|-----------|-------|-------|--------------------|-------------------|---------------------|
|           |       | QA    |                    | QC                |                     |
|           | Y     | N.    | Υ                  | N                 |                     |
| ests)     |       |       |                    |                   | 1                   |
|           |       |       |                    |                   | 1                   |
|           |       |       |                    |                   |                     |
|           |       |       |                    |                   |                     |
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|           |       |       |                    |                   | 1                   |
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| w = = = = |       |       |                    |                   |                     |
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| 41.4      |       |       |                    |                   |                     |
|           | ests) | ests) | QA<br>Y N<br>ests) | QA QC Y N Y ests) | QA QC Y N Y N ests) |

| <u>A</u> | APPROVED I |    |   |  |  |
|----------|------------|----|---|--|--|
| QA       | QA         |    |   |  |  |
| Y        | N          | Υ  | N |  |  |
|          |            |    |   |  |  |
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|          |            |    |   |  |  |
|          |            |    |   |  |  |
|          | QA         | QA |   |  |  |

QA REPRESENTATIVE QC REPRESENTATIVE OWNER'S REPRESENTATIVE NAME



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

| PROJECT#: 658                                   | Canstruction   | 0010-00 04 |
|---|--|------------|
| APPROVAL FOR:                                   | Foundation approval (footprint)  Foundation approval (key trench)  Fill placement: RockFice  CB cutoff wall approval  Other: |            |
| Station O+483 1 Inclination: ELEVATION : varies | PREVIOUS APPROVALS Station:  Details:  |            |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:          | 7     | /ERIFI | CATION | S DOI | NE BY:   |
|--|-------|--------|--------|-------|----------|
| (Add additional items if needed)                   | QA    |        | QC     |       | N/A      |
|  | Υ     | N      | Υ      | N     |          |
| Lines and grades                                   | J     |        | U      |       |          |
| 2. Free of ice/snow/water                          | J     |        | U      |       |          |
| 3. Cleaning of trench and/or pile bottom           |       |        | U      |       | 1        |
| 4. Gradation (visual)                              | V     |        | V      |       |          |
| 5. Placement (lift thickness, segregation, etc.)   | \ \ \ |        | V      | ***   |          |
| 6. Compaction                                      |       |        | 1      |       |          |
| 7. Foundation on bedrock                           | - 0   |        |        |       | .1       |
| 8. Key-in depth into bedrock                       |       |        |        |       | V /      |
| 9. Water quality                                   |       |        |        | _     | 1        |
| 10. CB slurry viscosity and density                |       |        |        | -     | /        |
| 11. Elevation of CB Piles                          |       |        |        |       | <u>\</u> |
| 12. Primary piles strength (Minimum of 50 kPa UCS) |       |        |        |       | 7        |
| 13. Keying between primary and secondary           |       |        |        |       | V/       |
| 14. Cracks on top of cutoff wall                   |       |        |        |       | <i>\</i> |

| a a a   | QA  | g = | QC | N/A |   |
|---|-----|-----|----|-----|---|
|   | Y   | N   | Υ  | N   |   |
| 15. CB mix/slurry tested (UCS, permeability, and pinhole tests) |     |     | ~  |     | J |
| 16. As built survey completed                                   |     |     | V  |     | 5 |
| 17.   |     |     |    |     |   |
| 18.   | 176 |     |    |     |   |
| 19.   |     |     |    |     |   |
| 20.   |     |     |    |     |   |
| 21.   |     |     |    |     |   |
| 22.   |     |     |    |     |   |
| 23.   |     |     |    |     |   |
| 24.   |     |     |    |     |   |
| 25.   |     |     |    |     |   |

| <u>DETAILS</u>                   | APP |   |    | <u>/:</u> |
|----------------------------------|-----|---|----|-----------|
| (Refer to list above for item #) | QA  |   | QC |           |
| ITEM                             | Υ   | N | Υ  | N         |
|                                  |     |   |    |           |
|                                  |     |   |    |           |
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QA REPRESENTATIVE
QC REPRESENTATIVE
OWNER'S REPRESENTATIVE

NAME

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DATE

2018-08-29

2018-08-29



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

| PROJECT: PROJECT#: DOCUMENT#:             | 9018089<br>928390    | 1- NS - OQ<br>D-DS/NS-01) DS/NS = D                       |  | DATE:<br>TIME: | 9918-08-04            |
|---|----------------------|---|--|----------------|-----------------------|
| APPROVAL FOR                              | :                    | Foundation appro-<br>Foundation appro-<br>Fill placement: | val (key trench)                       |                |                       |
| LOCATION Station Inclination: ELEVATION : | )+677 то<br>I varies | 0+736, SOUTH SIDE   | PREVIOUS APPROVALS  Station:  Details: |                |                       |
| COMPLIANCE WI                             | TH TECHNICA          | L SPECIFICATIONS:   |  | VE             | FRIFICATIONS DONE BY: |

| VERIFICATIONS DONE BY |                   |                 |                            |                              |  |  |
|-----------------------|-------------------|-----------------|----------------------------|------------------------------|--|--|
| QA                    |                   | QC              | N/A                        |                              |  |  |
| Y                     | N                 | Y               | N                          |                              |  |  |
| J                     |                   |                 |                            |                              |  |  |
| J                     |                   | V               |                            |                              |  |  |
|                       |                   |                 |                            | ./                           |  |  |
| J                     |                   | U               |                            | •                            |  |  |
| 1                     |                   | V               |                            |                              |  |  |
|                       |                   | V               |                            |                              |  |  |
|                       |                   |                 |                            | ./                           |  |  |
|                       |                   |                 |                            | 1                            |  |  |
|                       |                   |                 |                            | ./                           |  |  |
|                       |                   |                 |                            | J                            |  |  |
|                       |                   |                 |                            | 7                            |  |  |
|                       |                   |                 |                            | ./                           |  |  |
|                       |                   |                 |                            | /                            |  |  |
|                       |                   |                 |                            | ./                           |  |  |
|                       | QA<br>Y<br>J<br>J | QA Y N  J  J  J | QA QC Y N Y  J U  J U  J V | QA QC Y N Y N  J U  J U  J V |  |  |

| ,  | (          |     |     |    |   |          |
|--|------------|-----|-----|----|---|----------|
|  |            | QA  |     | QC |   | N/A      |
|  | 1 0 10 , 8 | Y   | - N | Υ  | N |          |
| 15. CB mix/slurry tested (UCS, permeability, and pinhole t |            |     |     | 0  |   | 1        |
| 16. As built survey completed                              |            |     |     | V  |   | <b>V</b> |
| 17.  |            |     |     |    |   |          |
| 18.  |            |     |     |    |   |          |
| 19.  |            |     |     |    |   |          |
| 20.  |            |     |     |    |   |          |
| 21.  |            |     |     |    |   |          |
| 22.  |            |     |     |    |   |          |
| 23.  | 7          | 150 |     |    |   |          |
| 24.  |            |     |     |    |   |          |
| 25.  | Tak Uga    |     |     |    |   |          |

|    |   | PROVED BY: |   |  |  |
|----|---|------------|---|--|--|
| QA |   |            |   |  |  |
| Y  | N | Υ          | N |  |  |
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QA REPRESENTATIVE
QC REPRESENTATIVE
OWNER'S REPRESENTATIVE

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DATE

2018-08-39



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

| PROJECT: PROJECT#: DOCUMENT#:     | 9018089<br>680810e | <b>9-NS-03</b><br>D-DS/NS-01) DS/NS = D  |                                      | DATE:<br>TIME: | <u>3018 - 08 - 39</u><br>3:00<br>(24 hour clock) |
|-----------------------------------|--------------------|--|--------------------------------------|----------------|--|
| APPROVAL FOR :                    |                    | Foundation appro Foundation appro Fill placement: <u>R</u> CB cutoff wall app Other: | val (key trench)                     |                |  |
| Station (Inclination: ELEVATION : | )+785 70<br>varies | 0+815, S647H S10€<br>  | PREVIOUS APPROVALS Station: Details: | <u>1</u>       |  |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:          | VERIFICATIONS DONE BY |    |    |   |     |  |  |  |
|--|-----------------------|----|----|---|-----|--|--|--|
| (Add additional items if needed)                   | QA                    |    | QC |   | N/A |  |  |  |
|  | Υ                     | N  | Υ  | N |     |  |  |  |
| Lines and grades                                   | J                     |    | V  |   |     |  |  |  |
| 2. Free of ice/snow/water                          | 1                     |    | U  |   |     |  |  |  |
| 3. Cleaning of trench and/or pile bottom           |                       |    |    |   | 1   |  |  |  |
| 4. Gradation (visual)                              | J                     |    | V  |   |     |  |  |  |
| 5. Placement (lift thickness, segregation, etc.)   | ./                    |    | V  |   |     |  |  |  |
| 6. Compaction                                      | V                     |    | V  |   |     |  |  |  |
| 7. Foundation on bedrock                           | V                     |    |    |   | ./  |  |  |  |
| 8. Key-in depth into bedrock                       |                       |    |    |   | ./  |  |  |  |
| 9. Water quality                                   |                       |    |    |   | /   |  |  |  |
| 10. CB slurry viscosity and density                |                       |    |    |   |     |  |  |  |
| 11. Elevation of CB Piles                          |                       | 34 |    |   | ./  |  |  |  |
| 12. Primary piles strength (Minimum of 50 kPa UCS) |                       |    |    |   | /   |  |  |  |
| 13. Keying between primary and secondary           |                       |    |    |   | /   |  |  |  |
| 14. Cracks on top of cutoff wall                   |                       |    |    |   | ./  |  |  |  |

| 1   |         |    |   |    |   |     |  |  |  |
|---|---------|----|---|----|---|-----|--|--|--|
|   | =       | QA |   | QC |   | N/A |  |  |  |
|   |         | Υ  | N | Υ  | N |     |  |  |  |
| 15. CB mix/slurry tested (UCS, permeability, and pinhole te | sts)    |    |   | U  |   | J   |  |  |  |
| 16. As built survey completed                               |         |    |   | V  |   | J   |  |  |  |
| 17.   |         |    |   |    |   |     |  |  |  |
| 18.   |         |    |   |    |   |     |  |  |  |
| 19.   |         |    |   |    |   |     |  |  |  |
| 20.   |         |    |   |    |   |     |  |  |  |
| 21.   |         |    |   |    |   |     |  |  |  |
| 22.   |         |    |   |    |   |     |  |  |  |
| 23.   |         |    |   |    |   |     |  |  |  |
| 24.   | 7210.30 |    |   |    |   |     |  |  |  |
| 25.   |         |    |   |    |   |     |  |  |  |
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| DETAILS                          |  | A | PPRO | VED BY | <u>/:</u> |
|----------------------------------|--|---|------|--------|-----------|
| (Refer to list above for item #) |  |   | QC   |        |           |
| ITEM                             |  | Y | N    | Y      | N         |
|                                  |  |   |      |        |           |
|                                  |  |   |      |        |           |
|                                  |  |   |      |        |           |
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QA REPRESENTATIVE QC REPRESENTATIVE OWNER'S REPRESENTATIVE

DATE



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

| PROJECT: W              | 70 (0     | NSTRUCTION            |                   |          |              |          |       |
|-------------------------|-----------|-----------------------|-------------------|----------|--------------|----------|-------|
| DDO ICOT #.             | 58309     |                       |                   | DATE:    | 2018-0       | ) X - 29 | ů.    |
| DOCUMENT #              |           | -NS-04                |                   | TIME:    | 3:00         | 0 0 1    |       |
| (Y)                     | YYMMDD    | )-DS/NS-01) DS/NS = D | ay/Night shift    |          | (24 hour clo | ck)      |       |
| APPROVAL FOR :          |           | Foundation appro-     | val (footprint)   |          |              |          |       |
|                         |           | Foundation appro-     |                   |          |              |          |       |
|                         | ×         | Fill placement: R     |                   |          |              |          |       |
|                         |           | CB cutoff wall app    |                   |          |              |          |       |
|                         |           | Other:                |                   |          |              |          |       |
|                         |           |                       |                   |          |              |          |       |
| LOCATION                |           |                       | PREVIOUS APPROVAL | <u>s</u> |              |          |       |
| Station 0+300           | το Ο      | +340, NORTH SIDE      | Station:          |          |              |          |       |
| Inclination:            |           |                       | Details:          |          |              |          |       |
| ELEVATION :  varie      | es        | -154.5 m              |                   |          |              |          |       |
|                         |           |                       |                   |          |              |          |       |
| COMPLIANCE WITH TE      | CHNICAL   | SPECIFICATIONS:       |                   | VE       | RIFICATION   | IS DON   | E BY: |
| (Add additional items i | f needed) |                       |                   | QA       | QC           | : [      | N/A   |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:          | 7 | VERIFICATIONS DONE BY: |    |    |     |  |  |  |
|--|---|------------------------|----|----|-----|--|--|--|
| (Add additional items if needed)                   |   | QA                     |    | QC |     |  |  |  |
|  | Υ | N                      | Υ  | N  |     |  |  |  |
| Lines and grades                                   | J |                        | (/ |    |     |  |  |  |
| 2. Free of ice/snow/water                          | J |                        | 1  |    |     |  |  |  |
| 3. Cleaning of trench and/or pile bottom           |   |                        |    |    | ./  |  |  |  |
| 4. Gradation (visual)                              | J |                        | V  |    | V   |  |  |  |
| 5. Placement (lift thickness, segregation, etc.)   | V |                        | ~  |    |     |  |  |  |
| 6. Compaction                                      | 1 |                        | V  |    |     |  |  |  |
| 7. Foundation on bedrock                           |   |                        | 0  |    | . / |  |  |  |
| Key-in depth into bedrock                          |   |                        |    |    | /   |  |  |  |
| 9. Water quality                                   |   |                        |    |    | /   |  |  |  |
| 10. CB slurry viscosity and density                |   |                        |    |    | 7   |  |  |  |
| 11. Elevation of CB Piles                          |   |                        |    |    | 1   |  |  |  |
| 12. Primary piles strength (Minimum of 50 kPa UCS) | - |                        |    |    | ./  |  |  |  |
| 13. Keying between primary and secondary           |   |                        |    |    | /   |  |  |  |
| 14. Cracks on top of cutoff wall                   |   |                        |    |    | V / |  |  |  |

| , v   | QA |   | QC |   | N/A      |
|---|----|---|----|---|----------|
|   | Υ  | N | Υ  | N |          |
| 15. CB mix/slurry tested (UCS, permeability, and pinhole tests) |    |   | 0  |   | J        |
| 16. As built survey completed                                   |    |   | V  |   | <b>V</b> |
| 17.   |    |   |    |   |          |
| 18.   | N. |   |    |   |          |
| 19.   |    |   |    |   |          |
| 20.   |    |   |    |   |          |
| 21.   |    |   |    |   |          |
| 22.   |    |   |    |   |          |
| 23.   |    |   |    |   |          |
| 24.   |    |   |    |   |          |
| 25.   |    |   |    |   |          |

| <u>DETAILS</u>                   |  | APPROV |   | VED BY: |   |   |
|----------------------------------|--|--------|---|---------|---|---|
| (Refer to list above for item #) |  | Q      |   | QA      |   |   |
| ITEM                             |  |        | Y | N       | Y | N |
|                                  |  |        |   |         |   |   |
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QA REPRESENTATIVE
QC REPRESENTATIVE
OWNER'S REPRESENTATIVE

NAME

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DATE

2018-08-39

2018-8-29



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

| PROJECT: WTO CONSTRUCTION  |                        |
|--|------------------------|
| PROJECT#: 658 309  | DATE: 3018-08-39       |
| DOCUMENT #: 20180839 - NS - 05   | TIME: 2.500            |
| (YYYYMMDD-DS/NS-01) DS/NS = D  |                        |
| APPROVAL FOR:  Foundation appropriate in a property of the pro |                        |
| 🗵 Fill placement: <u>R</u>   | ROCKFILL               |
| ☐ CB cutoff wall app   |                        |
| Other:   |                        |
| LOCATION   | PREVIOUS APPROVALS     |
| Station 0+360 to 0+430, WORTH SIDE   | Station:               |
| Inclination:   | Details:               |
| ELEVATION : varies ~155.0 m  | -                      |
| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:  | VERIFICATIONS DONE BY: |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:          |   | VERIFICATIONS DON |    |     |   |  |  |
|--|---|-------------------|----|-----|---|--|--|
| (Add additional items if needed)                   |   |                   | QC | N/A |   |  |  |
|  | Y | N                 | Υ  | N   |   |  |  |
| Lines and grades                                   | J |                   | V  |     |   |  |  |
| 2. Free of ice/snow/water                          | 5 |                   | ~  |     |   |  |  |
| 3. Cleaning of trench and/or pile bottom           |   | 14                |    |     | 1 |  |  |
| Gradation (visual)                                 | J |                   | V  |     |   |  |  |
| 5. Placement (lift thickness, segregation, etc.)   | J |                   | V  |     |   |  |  |
| 6. Compaction                                      | 1 |                   |    |     |   |  |  |
| 7. Foundation on bedrock                           |   |                   |    |     | 1 |  |  |
| 8. Key-in depth into bedrock                       |   |                   |    |     | J |  |  |
| 9. Water quality                                   |   |                   |    |     | 1 |  |  |
| 10. CB slurry viscosity and density                |   |                   |    |     | 1 |  |  |
| 11. Elevation of CB Piles                          |   |                   |    |     | J |  |  |
| 12. Primary piles strength (Minimum of 50 kPa UCS) |   |                   |    |     | J |  |  |
| 13. Keying between primary and secondary           |   | *                 |    |     | J |  |  |
| 14. Cracks on top of cutoff wall                   |   |                   |    |     | J |  |  |

|   |                           |   | 1   | QC |   | N/A |  |
|---|---------------------------|---|-----|----|---|-----|--|
|   | = 3,                      | Y | · N | Υ  | N |     |  |
| 15. CB mix/slurry tested (UCS, permeabi | ility, and pinhole tests) |   |     | 0  |   | J   |  |
| 16. As built survey completed           |                           |   |     | V  |   | /   |  |
| 17.                                     |                           |   |     |    |   |     |  |
| 18.                                     |                           |   |     |    |   |     |  |
| 19.                                     |                           |   |     |    |   |     |  |
| 20.                                     |                           |   |     |    |   |     |  |
| 21.                                     |                           |   |     |    |   |     |  |
| 22.                                     |                           |   |     |    |   |     |  |
| 23.                                     | : 15. °                   |   |     |    |   |     |  |
| 24.                                     |                           |   |     |    |   |     |  |
| 25.                                     | ( *                       |   |     |    | - |     |  |

| DETAILS   | ETAILS   |          | PPRO | ROVED BY: |   |  |
|-----------|--|----------|------|-----------|---|--|
| (Refer to | o list above for item #)                         | QA Q     |      | QC        | С |  |
| ITEM      |  | Y        | N    | Y         | N |  |
| 1         | BETWEEN~0+360 TO 0+390, ROCKFILL CREST ELEVATION | <b>V</b> |      | <b>V</b>  |   |  |
|           | IS APPROXIMATELY 154.5m                          | -        |      |           |   |  |
|           |  |          |      |           |   |  |
|           | , , , , , , , , , , , , , , , , , , ,            |          |      |           |   |  |
|           | N. C.        |          |      |           |   |  |
|           |  |          |      |           |   |  |
|           |  |          |      |           |   |  |
|           |  |          |      |           |   |  |

QA REPRESENTATIVE
QC REPRESENTATIVE
OWNER'S REPRESENTATIVE

NAME

Matimen Sezepura Moneral Patrice Gegnan IGNATUR**₽** 

John Just

DATE

2018-08-29



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

| APPROVAL FOR:  □ Foundation approval (footprint)  □ Foundation approval (key trench)  |          |  |
|---|----------|--|
| Fill placement: Rockfill  CB cutoff wall approval  Other:   |          |  |
| Station Inclination:    Details:   Details: | <u>s</u> |  |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:          |    | VERIFICATIONS DONE |    |   |     |  |  |
|--|----|--------------------|----|---|-----|--|--|
| (Add additional items if needed)                   | QA |                    | QC |   | N/A |  |  |
|  | Υ  | N                  | Υ  | N |     |  |  |
| Lines and grades                                   | J  |                    | 1/ |   |     |  |  |
| 2. Free of ice/snow/water                          | J  |                    | Ü  |   |     |  |  |
| 3. Cleaning of trench and/or pile bottom           |    |                    |    |   | 1   |  |  |
| 4. Gradation (visual)                              | J  |                    | U  |   |     |  |  |
| 5. Placement (lift thickness, segregation, etc.)   | 1  |                    | V  |   |     |  |  |
| 6. Compaction                                      | ./ |                    |    |   |     |  |  |
| 7. Foundation on bedrock                           |    |                    |    |   | 1   |  |  |
| 8. Key-in depth into bedrock                       |    |                    |    |   | 1   |  |  |
| 9. Water quality                                   |    |                    |    |   | 7   |  |  |
| 10. CB slurry viscosity and density                |    |                    |    |   | 1   |  |  |
| 11. Elevation of CB Piles                          |    |                    |    |   |     |  |  |
| 12. Primary piles strength (Minimum of 50 kPa UCS) |    |                    |    |   |     |  |  |
| 13. Keying between primary and secondary           |    |                    |    |   | ./  |  |  |
| 14. Cracks on top of cutoff wall                   |    |                    |    |   |     |  |  |

| 5 en et .  |                | QA  |       | QC |   | N/A |
|--|----------------|-----|-------|----|---|-----|
|  | n file (80) at | Υ   | · N . | Y  | N |     |
| 15. CB mix/slurry tested (UCS, permeability, and pinhole |                |     |       | V  |   | 5   |
| 16. As built survey completed                            |                |     |       | V  |   | J   |
| 17.  |                |     |       |    |   |     |
| 18.  |                | 0.0 |       |    |   |     |
| 19.  |                |     |       |    |   |     |
| 20.  |                |     |       |    |   |     |
| 21.  |                |     |       |    |   |     |
| 22.  |                |     |       |    |   |     |
| 23.  |                |     |       | *  |   |     |
| 24.  |                |     |       |    |   |     |
| 25.  |                |     |       |    |   |     |

| DETAILS                          |  | <u>AI</u> |   |    | <u>/:</u> |
|----------------------------------|--|-----------|---|----|-----------|
| (Refer to list above for item #) |  | QA        | 4 | QC |           |
| ITEM                             |  | Y         | N | Υ  | N         |
|                                  |  |           |   |    |           |
|                                  |  |           |   |    |           |
|                                  |  |           |   |    |           |
|                                  |  |           |   |    |           |
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|                                  |  |           |   |    |           |
|                                  |  |           | - |    |           |
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|                                  |  |           | - |    |           |
|                                  |  |           | - |    | _         |
|                                  |  |           |   |    |           |

QA REPRESENTATIVE
QC REPRESENTATIVE
OWNER'S REPRESENTATIVE

NAME

Matthew sezeower Muner Patrice Gogna SIGNATURE

Male for

DATE

2018-08-39

8018-28-29



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

| PROJECT#: 658 DOCUMENT#: 3018                           | CONSTRUCTION  309  80809-NS-07  (MMDD-DS/NS-01) DS/NS =                   | DATE: TIME: Day/Night shift            | 9019-09 01 |
|---|---|--|------------|
| APPROVAL FOR:   | Foundation appr Foundation appr Fill placement:  CB cutoff wall ap Other: | oval (key trench)                      |            |
| Station O+755 To Inclination:  ELEVATION:  Union varies | 0 0+815, NORTH SIDE<br>   | PREVIOUS APPROVALS  Station:  Details: |            |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:          | <u>v</u> | ERIFI | NE BY: |   |     |
|--|----------|-------|--------|---|-----|
| (Add additional items if needed)                   | QA       |       | QC     |   | N/A |
|  | Y        | N     | Y      | N |     |
| 1. Lines and grades                                | J        |       | ~      |   |     |
| 2. Free of ice/snow/water                          | J        |       | V      |   |     |
| 3. Cleaning of trench and/or pile bottom           |          |       |        |   | J   |
| Gradation (visual)                                 | J        |       | V      |   |     |
| 5. Placement (lift thickness, segregation, etc.)   | J        |       | V      |   |     |
| 6. Compaction                                      | J        |       | U      |   |     |
| 7. Foundation on bedrock                           |          |       |        |   | ./  |
| Key-in depth into bedrock                          |          |       |        |   | 1   |
| 9. Water quality                                   |          |       |        |   | d   |
| 10. CB slurry viscosity and density                |          |       |        |   | ./  |
| 11. Elevation of CB Piles                          |          |       |        |   | 1   |
| 12. Primary piles strength (Minimum of 50 kPa UCS) |          |       |        |   | ./  |
| 13. Keying between primary and secondary           |          |       |        |   | ./  |
| 14. Cracks on top of cutoff wall                   |          |       |        |   |     |

|   | QA   | 4 | QC  |   | N/A |  |
|---|------|---|-----|---|-----|--|
|   | . Y- | N | Y   | N |     |  |
| 15. CB mix/slurry tested (UCS, permeability, and pinhole tests) |      |   | V   |   | V   |  |
| 16. As built survey completed                                   |      |   | V   | / | V   |  |
| 17.   |      |   |     |   |     |  |
| 18.   |      |   |     |   |     |  |
| 19.   |      |   |     |   |     |  |
| 20.   |      |   |     |   |     |  |
| 21.   |      |   |     |   |     |  |
| 22.   |      |   |     |   |     |  |
| 23.   |      | : | , i |   |     |  |
| 24.   |      |   |     |   |     |  |
| 25.   |      |   |     |   |     |  |

| DETAILS                          |   | <u>APPRO</u> | VED BY | <u>Y:</u> |
|----------------------------------|---|--------------|--------|-----------|
| (Refer to list above for item #) | Q | A            | QC     | ;         |
| ITEM                             | Y | N            | Y      | N         |
|                                  |   |              |        |           |
|                                  |   |              |        |           |
|                                  |   |              |        |           |
|                                  |   |              |        |           |
|                                  |   |              |        |           |
|                                  |   |              |        |           |
|                                  |   |              |        |           |
|                                  |   |              |        |           |
|                                  |   |              |        |           |
|                                  |   |              |        |           |

QA REPRESENTATIVE
QC REPRESENTATIVE
OWNER'S REPRESENTATIVE

NAME

MATHEU DEZEQUEZ

GNATURE

DATE

2018-08-29

2016-08-99



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

|  | CONSTRUCTION 09 29-NS-08 MDD-DS/NS-01) DS/NS = D   |                                      | ATE: | 2:00<br>(24 hour clock) |
|--|--|--------------------------------------|------|-------------------------|
|  | Foundation appropriate Foundation appropriate Fill placement: 60 CB cutoff wall appropriate Other: | val (key trench)                     |      |                         |
| Station 0+450 TO Inclination:  ELEVATION :  varies | 0+525, 2007H SIDE  | PREVIOUS APPROVALS Station: Details: |      |                         |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:          | 7  | ERIFIC | CATION | S DOI | ONE BY: |  |
|--|----|--------|--------|-------|---------|--|
| (Add additional items if needed)                   | QA |        | QC     |       | N/A     |  |
|  | Υ  | N      | Υ      | N     |         |  |
| Lines and grades                                   | J  |        | V      |       |         |  |
| 2. Free of ice/snow/water                          | J  |        | V      |       |         |  |
| 3. Cleaning of trench and/or pile bottom           |    |        |        |       | ./      |  |
| 4. Gradation (visual)                              | 1  |        | U      |       |         |  |
| 5. Placement (lift thickness, segregation, etc.)   | J  |        | V      |       |         |  |
| 6. Compaction                                      | V  |        |        | ,     |         |  |
| 7. Foundation on bedrock                           |    |        |        |       | ./      |  |
| 8. Key-in depth into bedrock                       |    |        |        |       | ./      |  |
| 9. Water quality                                   |    |        |        |       | ./      |  |
| 10. CB slurry viscosity and density                |    |        |        |       | ./      |  |
| 11. Elevation of CB Piles                          |    |        |        |       | /       |  |
| 12. Primary piles strength (Minimum of 50 kPa UCS) |    |        |        |       | 1       |  |
| 13. Keying between primary and secondary           |    |        |        |       | 7       |  |
| 14. Cracks on top of cutoff wall                   |    |        |        |       | 7       |  |

|   |             | QA  |     | QC   |   | N/A      |
|---|-------------|-----|-----|------|---|----------|
|   | 87.5        | Υ . | . N | Y    | N |          |
| 15. CB mix/slurry tested (UCS, permeability, and pi |             |     |     | ~    | , | 1        |
| 16. As built survey completed                       |             |     |     | 0    |   | <b>V</b> |
| 17.   |             |     |     |      |   |          |
| 18.   |             |     |     |      |   |          |
| 19.   |             |     |     |      |   |          |
| 20.   |             |     |     |      |   |          |
| 21.   |             |     |     |      |   |          |
| 22.   |             |     |     |      |   |          |
| 23.   | Man William |     | 1   | **** |   |          |
| 24.   |             |     |     |      |   |          |
| 25.   |             |     |     |      |   |          |

| DETAILS   |                        | A  | PPRO | VED BY | <u>/:</u> |
|-----------|------------------------|----|------|--------|-----------|
| (Refer to | list above for item #) | QA |      | QC     |           |
| ITEM      |                        | Υ  | N    | Υ      | N         |
|           | *                      |    |      |        |           |
|           |                        |    |      |        |           |
|           |                        |    |      |        |           |
|           | \( \tau_{-} \)         |    |      |        |           |
|           |                        |    |      |        |           |
|           | × =                    |    |      |        |           |
|           |                        |    |      |        |           |
|           |                        |    |      |        |           |
|           |                        |    |      |        |           |
|           |                        |    |      |        |           |

QA REPRESENTATIVE
QC REPRESENTATIVE
OWNER'S REPRESENTATIVE

NAME

MU Borrand Hatrice Coglan GNATURE

DATE

9018-08-99

2017-08-29



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

Telephone: (514) 393-8000 Fax: (514) 390-2765 www.snclavalin.com

| PROJECT:   | VTO can      | STRUCTION              |                   |           |        |          |       |        |
|--|--------------|------------------------|-------------------|-----------|--------|----------|-------|--------|
| DDO IFOT #   | 658309       | •                      |                   | DATE:     | 201    | 8 -01    | 3-29  | ì      |
| DOCUMENT #:  | 20180829     | -NS-09                 |                   | TIME:     | 2:     | 00       |       |        |
| (  | YYYYMMDD     | -DS/NS-01) $DS/NS = D$ | ay/Night shift    |           | (24 hc | our cloc | k)    |        |
| APPROVAL FOR:  | 0            | Foundation appro       |                   |           |        |          |       |        |
|  |              |                        |                   |           |        |          |       |        |
|  | ×            | Fill placement: R      |                   |           |        |          |       |        |
|  |              | CB cutoff wall app     | oroval            |           |        |          |       |        |
|  |              | Other:                 |                   |           |        |          |       |        |
| LOGITION   |              |                        | DDEWOUG ADDDOVAL  | •         |        |          |       |        |
| LOCATION   |              |                        | PREVIOUS APPROVAL | <u>.5</u> |        |          |       |        |
| Victoria de la compansión de la compansi | 0 70 0+      | 756, SOUTH SIDE        | Station:          |           |        |          |       |        |
| Inclination:   |              |                        | Details:          |           |        |          |       |        |
| ELEVATION :  | aries        | <u>157.0</u> m         |                   |           |        |          |       |        |
|  |              |                        |                   |           |        |          |       |        |
| COMPLIANCE WITH  | TECHNICAL    | SPECIFICATIONS:        |                   | <u>v</u>  | ERIFIC | CATION   | IS DO | NE BY: |
| (Add additional item   | ns if needed | )                      |                   | QA        |        | QC       |       | N/A    |
| 8  |              |                        |                   | Υ         | N      | Υ        | N     |        |
| 1. Lines and gra   | ades         |                        |                   | J         |        | V        |       |        |
| 2. Free of ice/sr  | now/water    |                        |                   | /         |        |          |       |        |
| 3. Cleaning of tr  | rench and/o  | or pile bottom         |                   |           |        |          |       | J      |
| 4. Gradation (vis  | sual)        |                        |                   | J         |        | U        |       |        |
| 5. Placement (li   | ft thickness | s, segregation, etc.)  |                   | 1         |        |          |       |        |
| 6. Compaction  |              |                        |                   | 1         |        | U        |       |        |
| 7. Foundation o  | n bedrock    |                        |                   |           |        |          |       | J      |
| 8. Key-in depth  | into bedroo  | ck                     |                   |           |        |          |       | J      |
| 9. Water quality   |              |                        |                   |           |        |          |       | J      |
| 10. CB slurry viso   | cosity and   | density                |                   |           |        |          |       | J      |
| 11. Elevation of C   | CB Piles     |                        |                   |           |        |          |       | V      |
| 12. Primary piles  | strength (N  | Minimum of 50 kPa      | UCS)              |           |        |          | 2     | J      |
| 13. Keying between   | een primary  | and secondary          | ALP STAR          |           |        |          |       | J      |

14. Cracks on top of cutoff wall

| as .  | Q  | Δ - | QC |   | N/A |
|---|----|-----|----|---|-----|
| d a second  | Υ  | - N | Υ  | N |     |
| 15. CB mix/slurry tested (UCS, permeability, and pinhole tests) |    |     | V  |   | V   |
| 16. As built survey completed                                   |    |     |    | / | V   |
| 17.   |    |     |    |   |     |
| 18.   |    |     |    |   |     |
| 19.   |    |     |    |   |     |
| 20.   |    |     |    |   |     |
| 21.   |    |     |    |   |     |
| 22.   |    |     |    |   |     |
| 23.   | 17 |     |    |   |     |
| 24.   |    |     |    |   |     |
| 25.   | 1  |     |    |   |     |

| DETAILS     |                        |  | A  | PPRO | VED BY | <u>/:</u> |
|-------------|------------------------|--|----|------|--------|-----------|
| (Refer to   | list above for item #) |  | QA | ١.   | QC     | :         |
| ITEM        |                        |  | Y  | N    | Υ      | N         |
|             | 42                     |  |    |      |        |           |
|             | <u> </u>               |  |    |      |        |           |
|             |                        |  |    |      |        |           |
|             |                        | THE STATE OF THE S |    |      |        |           |
|             |                        |  |    |      |        |           |
|             | 1 1 1                  |  |    |      |        |           |
| <del></del> |                        |  |    |      |        |           |
|             |                        |  |    |      |        |           |
| -           |                        |  |    |      |        |           |
|             |                        | <u> </u>   |    |      |        |           |

QA REPRESENTATIVE
QC REPRESENTATIVE
OWNER'S REPRESENTATIVE

NAME

MATHEU JEZEQUEL

IGNATURE:

DATE

2018-08-34

2016 - OK-29



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

| DOCUMENT #: 30                            | 10 CONSTRUCTION 58309 180839-NS-10 YYMMDD-DS/NS-01) DS/NS = D                  | DATE: TIME:  | 0018-08-04 |
|---|--|--|------------|
| APPROVAL FOR:                             | Foundation appro Foundation appro Fill placement: Re CB cutoff wall app Other: | oval (footprint)<br>oval (key trench)<br>ockfice<br>oroval |            |
| Station 0+140 · Inclination:  ELEVATION : | TO 0+335, NORTH SIDE   | PREVIOUS APPROVALS  Station:  Details:                     |            |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:          | <u>v</u> | ERIFIC | CATIONS | S DON | IE BY: |
|--|----------|--------|---------|-------|--------|
| Add additional items if needed)                    | QA       |        | QC      |       | N/A    |
|  | Y        | N      | Υ       | N     |        |
| Lines and grades                                   | J        |        | V       |       |        |
| 2. Free of ice/snow/water                          | J        |        | V       |       |        |
| Cleaning of trench and/or pile bottom              |          |        |         |       | J      |
| 4. Gradation (visual)                              | J        |        | (/      |       |        |
| 5. Placement (lift thickness, segregation, etc.)   | J        |        | C,      |       |        |
| 6. Compaction                                      | J        |        |         |       |        |
| 7. Foundation on bedrock                           |          |        |         |       | J      |
| 8. Key-in depth into bedrock                       |          |        |         |       | J      |
| 9. Water quality                                   |          |        |         |       | 1      |
| 10. CB slurry viscosity and density                |          |        |         |       | ./     |
| 11. Elevation of CB Piles                          |          |        |         |       | J      |
| 12. Primary piles strength (Minimum of 50 kPa UCS) |          |        |         |       | J      |
| 13. Keying between primary and secondary           |          |        |         |       | J      |
| 14. Cracks on top of cutoff wall                   |          |        |         |       | ./     |

|   | QA | - 3 | QC   |   | N/A |
|---|----|-----|------|---|-----|
| ## #  | Y  | -N  | Υ    | N |     |
| 15. CB mix/slurry tested (UCS, permeability, and pinhole tests) |    |     | -    |   | 1   |
| 16. As built survey completed                                   |    |     | V    |   | ./  |
| 17.   |    |     |      |   |     |
| 18.   |    |     |      |   |     |
| 19.   | 7  |     |      |   |     |
| 20.   |    |     |      |   |     |
| 21.   |    |     |      |   |     |
| 22.   |    |     |      |   |     |
| 23.   | 8  |     | - 10 |   |     |
| 24.   |    |     |      |   |     |
| 25.   |    |     |      |   |     |

| <b>DETAILS</b> |                       |   | APP |   |    |   |  |
|----------------|-----------------------|---|-----|---|----|---|--|
| (Refer to I    | ist above for item #) |   | QA  |   | QC |   |  |
| ITEM           |                       |   | Y   | N | Υ  | N |  |
|                | N                     |   |     |   |    |   |  |
|                |                       |   |     |   |    |   |  |
|                |                       | 1 |     |   |    |   |  |
|                |                       |   |     |   |    |   |  |
|                |                       |   |     |   |    |   |  |
|                | ×                     |   |     |   |    |   |  |
|                |                       |   |     |   |    |   |  |
|                |                       |   |     |   |    |   |  |
|                |                       |   |     |   |    |   |  |
|                |                       |   |     |   |    |   |  |

QA REPRESENTATIVE
QC REPRESENTATIVE
OWNER'S REPRESENTATIVE

NAME

MATHIEU SÉZÉQUEL

IGNATURE

Challe Just

DATE

2018 - 08- 29

7018-98-70

8-99



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

| PROJECT:  PROJECT #:  658309  DOCUMENT #:  0080839 - NS-11  (YYYYMMDD-DS/NS-01) DS/NS = Day  | DATE: 2018 - 08 - 39 TIME: 2:00 (24 hour clock) |
|--|---|
| Foundation approvation approva | al (key trench)                                 |
| Station 0+390 TO 0+508, NOATH SIDE Inclination:  ELEVATION:    Varies   153.0 m  | Station: Details:                               |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:          |    | ERIFIC | CATION | S DOI | NE BY: |
|--|----|--------|--------|-------|--------|
| (Add additional items if needed)                   | QA | Vį.    | QC     | N/A   |        |
|  | Υ  | N      | Υ      | N     |        |
| Lines and grades                                   | J  |        | V      |       |        |
| 2. Free of ice/snow/water                          | 1  |        | V      |       |        |
| 3. Cleaning of trench and/or pile bottom           |    |        |        |       | J      |
| 4. Gradation (visual)                              | V  |        | 1      |       |        |
| 5. Placement (lift thickness, segregation, etc.)   | J  |        | V      |       |        |
| 6. Compaction                                      | J  |        | V      |       |        |
| 7. Foundation on bedrock                           |    |        |        |       | 1      |
| 8. Key-in depth into bedrock                       |    |        |        |       | V      |
| 9. Water quality                                   |    |        |        |       | J      |
| 10. CB slurry viscosity and density                |    |        |        |       | 1      |
| 11. Elevation of CB Piles                          |    |        |        |       | J      |
| 12. Primary piles strength (Minimum of 50 kPa UCS) |    |        |        |       | V      |
| 13. Keying between primary and secondary           |    |        |        |       | J      |
| 14. Cracks on top of cutoff wall                   |    |        |        |       | 1      |

|   | QA |     | QC |   | N/A |
|---|----|-----|----|---|-----|
| * .   | Y  | N   | Υ  | N |     |
| 15. CB mix/slurry tested (UCS, permeability, and pinhole tests) |    |     | ~  |   | J   |
| 16. As built survey completed                                   |    |     | 1  |   | J   |
| 17.   |    |     |    |   |     |
| 18.   |    |     |    |   |     |
| 19.   |    |     |    |   |     |
| 20.   |    |     |    |   |     |
| 21.   |    |     |    |   |     |
| 22.   |    |     |    |   |     |
| 23.   |    | 400 |    |   |     |
| 24.   |    |     |    |   |     |
| 25.   |    |     |    |   |     |

| <u>DETAILS</u>                   |  |    |   | OVED BY: |   |  |  |  |
|----------------------------------|--|----|---|----------|---|--|--|--|
| (Refer to list above for item #) |  | QA | ١ | QC       | : |  |  |  |
| ITEM                             |  | Υ  | N | Υ        | N |  |  |  |
|                                  |  |    |   |          |   |  |  |  |
|                                  |  |    |   |          |   |  |  |  |
|                                  |  |    |   |          |   |  |  |  |
|                                  |  |    |   |          |   |  |  |  |
|                                  |  |    |   |          |   |  |  |  |
|                                  |  |    |   |          |   |  |  |  |
|                                  |  |    |   |          |   |  |  |  |
|                                  |  |    |   |          |   |  |  |  |
|                                  |  |    |   |          |   |  |  |  |
|                                  |  |    |   |          |   |  |  |  |

QA REPRESENTATIVE QC REPRESENTATIVE OWNER'S REPRESENTATIVE NAME



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

| PROJECT:     | WTO COM   | rstruction       |             |                   |           |                 |
|--------------|-----------|------------------|-------------|-------------------|-----------|-----------------|
| PROJECT #:   | 658309    |                  |             |                   | DATE:     | 9018-08-39      |
| DOCUMENT #:  | 901808 29 | - NS-12          |             |                   | TIME:     | 2:00            |
|              | (YYYYMMDD | -DS/NS-01) DS/NS | S = D       | ay/Night shift    |           | (24 hour clock) |
| APPROVAL FOR |           | Foundation ap    |             |                   |           |                 |
|              |           | Foundation ap    | ppro        | val (key trench)  |           |                 |
|              | ×         | Fill placement   | t: <u>R</u> | OLKFILL           |           |                 |
|              |           | CB cutoff wall   | l app       | roval             |           |                 |
|              |           | Other:           |             |                   |           |                 |
|              |           |                  |             |                   |           |                 |
| LOCATION     |           |                  |             | PREVIOUS APPROVAL | <u>.s</u> |                 |
| Station 0+   | 625 TO 0  | + 756, NORTH S   | IOE         | Station:          |           |                 |
| Inclination: |           |                  |             | Details:          |           |                 |
| ELEVATION :  | varies    | 157.0            | m           |                   | -         |                 |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:          | <u>v</u> | ERIF | CATION | NE BY: |     |
|--|----------|------|--------|--------|-----|
| (Add additional items if needed)                   | QA       |      | QC     |        | N/A |
|  | Υ        | N    | Υ      | N      |     |
| 1. Lines and grades                                | J        |      | U      |        |     |
| 2. Free of ice/snow/water                          | J        |      | V      |        |     |
| 3. Cleaning of trench and/or pile bottom           |          |      |        |        | V   |
| 4. Gradation (visual)                              | J        |      | J      |        |     |
| 5. Placement (lift thickness, segregation, etc.)   | J        |      | V      |        |     |
| 6. Compaction                                      | J        |      | (/     |        |     |
| 7. Foundation on bedrock                           |          |      |        |        | J   |
| Key-in depth into bedrock                          |          |      |        |        | 1   |
| 9. Water quality                                   |          |      |        |        | 1   |
| 10. CB slurry viscosity and density                |          |      |        |        | 1   |
| 11. Elevation of CB Piles                          |          |      |        |        | ./  |
| 12. Primary piles strength (Minimum of 50 kPa UCS) |          |      |        |        | J   |
| 13. Keying between primary and secondary           |          |      |        |        | J   |
| 14. Cracks on top of cutoff wall                   |          |      |        |        | 1   |

|   | QA | · · | QC |   | N/A |
|---|----|-----|----|---|-----|
| 0.0   | Y  | N.  | Υ  | N |     |
| 15. CB mix/slurry tested (UCS, permeability, and pinhole tests) |    |     | V  |   | 1   |
| 16. As built survey completed                                   |    |     | U  |   | 1   |
| 17.   |    |     |    |   |     |
| 18.   |    |     |    |   |     |
| 19.   |    |     |    |   |     |
| 20.   |    |     |    |   |     |
| 21.   |    |     |    |   |     |
| 22.   |    |     |    |   |     |
| 23.   | 9  |     | -  |   |     |
| 24.   |    |     |    |   |     |
| 25.   |    |     |    |   |     |

| DETAILS                          | A  | VED BY | DBY: |   |  |
|----------------------------------|----|--------|------|---|--|
| (Refer to list above for item #) | QA | Š.     | QC   |   |  |
| ITEM                             | Υ  | N      | Υ    | N |  |
|                                  |    |        |      |   |  |
| *                                |    |        |      |   |  |
| ,                                |    |        |      |   |  |
|                                  |    |        |      |   |  |
|                                  |    |        |      |   |  |
|                                  |    |        |      |   |  |
|                                  |    |        |      |   |  |
|                                  |    |        |      |   |  |
|                                  |    |        |      |   |  |
|                                  |    |        |      |   |  |

QA REPRESENTATIVE QC REPRESENTATIVE OWNER'S REPRESENTATIVE NAME



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

| PROJECT: PROJECT#: DOCUMENT#:        | Wto construction  658309  30(80839-NS-13  (YYYYMMDD-DS/NS-01) DS/NS = 1   | DATE: TIME: Day/Night shift            | 2018 - 08-99<br>2:00<br>(24 hour clock) |
|--------------------------------------|---|--|---|
| APPROVAL FOR                         | Foundation appropriate Foundation appropriate Foundation appropriate Fill placement: 18 CB cutoff wall appropriate Other: | oval (key trench)  oproval             |   |
| Station O+7 Inclination: ELEVATION : | 797 TO 0+935, NOATH SIDE  varies 157.0 m  | PREVIOUS APPROVALS  Station:  Details: |   |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:          |          | VERIFICATIONS DONE BY |    |   |     |  |  |  |  |
|--|----------|-----------------------|----|---|-----|--|--|--|--|
| (Add additional items if needed)                   | QA       | <b>\</b>              | QC |   | N/A |  |  |  |  |
|  | Y        | N                     | Υ  | N |     |  |  |  |  |
| 1. Lines and grades                                | J        |                       | V  |   |     |  |  |  |  |
| 2. Free of ice/snow/water                          | J        |                       | V  |   |     |  |  |  |  |
| 3. Cleaning of trench and/or pile bottom           |          |                       |    |   | ./  |  |  |  |  |
| 4. Gradation (visual)                              | J        |                       |    |   | -   |  |  |  |  |
| 5. Placement (lift thickness, segregation, etc.)   | J        |                       | V  |   |     |  |  |  |  |
| 6. Compaction                                      | <b>V</b> |                       | 1  |   |     |  |  |  |  |
| 7. Foundation on bedrock                           |          |                       |    |   | ./  |  |  |  |  |
| Key-in depth into bedrock                          |          | -                     |    |   | ./  |  |  |  |  |
| 9. Water quality                                   |          |                       |    |   | 1   |  |  |  |  |
| 10. CB slurry viscosity and density                |          |                       |    |   | 1   |  |  |  |  |
| 11. Elevation of CB Piles                          |          |                       |    |   | 1   |  |  |  |  |
| 12. Primary piles strength (Minimum of 50 kPa UCS) |          |                       |    |   | /   |  |  |  |  |
| 13. Keying between primary and secondary           |          |                       |    |   | 1   |  |  |  |  |
| 14. Cracks on top of cutoff wall                   |          |                       |    |   | ./  |  |  |  |  |

|   | QA |   | QC |   | N/A |
|---|----|---|----|---|-----|
|   | Υ. | N | Υ  | N |     |
| 15. CB mix/slurry tested (UCS, permeability, and pinhole tests) |    |   | V  |   | 1   |
| 16. As built survey completed                                   |    |   | U  |   | J   |
| 17.   |    |   |    |   |     |
| 18.   |    |   |    |   |     |
| 19.   |    |   |    |   |     |
| 20.   |    |   |    |   |     |
| 21.   |    |   |    |   | 2   |
| 22.   |    |   |    |   |     |
| 23.   | 47 |   | 4. |   |     |
| 24.   |    |   |    |   |     |
| 25.   |    |   |    |   |     |

| DETAILS   |                        | <u>A</u> | PPRO | VED BY | <u>/:</u> |
|-----------|------------------------|----------|------|--------|-----------|
| (Refer to | list above for item #) | QA       |      | QC     |           |
| ITEM      |                        | Υ        | N    | Υ      | N         |
|           |                        |          |      |        |           |
|           | ×                      |          |      |        |           |
|           |                        |          |      |        |           |
|           | 2                      |          |      |        |           |
|           |                        |          |      |        |           |
|           |                        |          |      |        |           |
|           |                        |          |      |        |           |
|           |                        |          |      |        |           |
|           |                        |          |      |        |           |
|           |                        |          |      |        |           |

QA REPRESENTATIVE QC REPRESENTATIVE OWNER'S REPRESENTATIVE NAME

DATE



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

| PROJECT: PROJECT#: DOCUMENT#: |           | Construction<br>8 309<br>02 - NS - 01                                       |                                | DATE:           | 2010/01/02      |
|-------------------------------|-----------|---|--------------------------------|-----------------|-----------------|
| ii<br>ii                      |           | DS/NS-01) DS/NS = D   |                                | - <del></del> 0 | (24 hour clock) |
| APPROVAL FOR:                 |           | Foundation appro Foundation appro Fill placement: CB cutoff wall app Other: | val (key trench)  **RockFill** |                 |                 |
| LOCATION                      |           |   | PREVIOUS APPROV                | /ALS            |                 |
| Station                       | 1330 to   | 0+380   | Statio                         | on:             |                 |
| Inclination:                  | 1.5 H: IV |   | Detai                          | ls:             |                 |
| ELEVATION :                   | varies    | 157 m   |                                |                 |                 |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:          |    | VERIFICATIONS DONE |    |    |     |  |  |  |  |
|--|----|--------------------|----|----|-----|--|--|--|--|
| (Add additional items if needed)                   | Q  | QA                 |    |    | N/A |  |  |  |  |
|  | Υ  | N                  | Y  | N  |     |  |  |  |  |
| 1. Lines and grades                                | 1  |                    | V  |    |     |  |  |  |  |
| 2. Free of ice/snow/water                          | 1  |                    | 1/ |    |     |  |  |  |  |
| 3. Cleaning of trench and/or pile bottom           |    |                    |    |    | ./  |  |  |  |  |
| Gradation (visual)                                 |    | 1                  |    | ./ |     |  |  |  |  |
| 5. Placement (lift thickness, segregation, etc.)   |    |                    | 1/ | V  |     |  |  |  |  |
| 6. Compaction                                      | ./ |                    | 1  |    |     |  |  |  |  |
| 7. Foundation on bedrock                           |    |                    | 0  |    |     |  |  |  |  |
| Key-in depth into bedrock                          | -  |                    |    |    |     |  |  |  |  |
| 9. Water quality                                   |    |                    |    |    |     |  |  |  |  |
| 10. CB slurry viscosity and density                |    |                    |    |    | 1   |  |  |  |  |
| 11. Elevation of CB Piles                          |    |                    |    |    | 1   |  |  |  |  |
| 12. Primary piles strength (Minimum of 50 kPa UCS) |    |                    |    |    | 1   |  |  |  |  |
| 13. Keying between primary and secondary           |    |                    |    |    | 7   |  |  |  |  |
| 14. Cracks on top of cutoff wall                   |    |                    |    |    | /   |  |  |  |  |

|                                | * T                              |     | QA     |   | QC |   |  |
|--------------------------------|----------------------------------|-----|--------|---|----|---|--|
|                                |                                  | Y   | N      | Υ | N  |   |  |
| 15. CB mix/slurry tested (UCS, | permeability, and pinhole tests) |     |        |   |    | / |  |
| 16. As built survey completed  | 2                                |     |        |   |    | ~ |  |
| 17.                            |                                  |     |        |   |    |   |  |
| 18.                            |                                  |     |        |   |    |   |  |
| 19.                            |                                  |     |        |   |    |   |  |
| 20.                            |                                  |     |        |   |    |   |  |
| 21.                            |                                  |     |        |   |    |   |  |
| 22.                            |                                  |     |        |   |    |   |  |
| 23.                            |                                  |     | 1 × 1  |   |    |   |  |
| 24.                            |                                  | 8.5 | .8 5 . |   |    |   |  |
| 25.                            | s 15.                            |     |        |   |    |   |  |

| DETAILS   |                        |                                     | <u>A</u> | <u>PPRO</u> | VED BY | <u>/:</u> |
|-----------|------------------------|-------------------------------------|----------|-------------|--------|-----------|
| (Refer to | list above for item #) | on gradation PG                     | QA       |             | QC     |           |
| ITEM      |                        | 4                                   | Υ        | N           | Υ      | N         |
| 4         | Southside (ups         | stream): non-conformity             | /        |             | /      |           |
|           |                        | 39 to 0+350 with bowders            |          |             |        |           |
| *         | with diameter          | largely over 1500 to 2000 mm. The   |          |             |        |           |
|           | boulders affect        | the slope at this particular point  |          |             |        |           |
|           | Northside (dow         | nstream): Between 0+330 to          |          |             |        |           |
|           |                        | to Fine ROCKFill in small quantity. |          |             |        |           |
|           |                        | rapidly corrected with OH/OC        |          |             |        |           |
|           | 1                      | it the nockfill stockpile.          | -20 21   |             |        |           |
|           |                        | -                                   |          |             |        |           |
|           |                        | . 8                                 | 10 1 7   |             |        |           |

| APPROVED BY:           | NAME                    | SIGNATURE        | DATE       |
|------------------------|-------------------------|------------------|------------|
| QA REPRESENTATIVE      | Josa than leblanc       | Smathan Loblance | 02/09/2018 |
| QC REPRESENTATIVE      | Cedrick Filler Trembler | Coux Est Kuly    | 02/09/2018 |
| OWNER'S REPRESENTATIVE | latrice Cagnos          | Tal Cay          | JOR/09/02  |
|                        | U                       | ()               |            |

# **Appendix H-3**

# **Fine Filter Placement**

| As-Built Report of Whal | e Tail Dike           | Original -V.00   |
|-------------------------|-----------------------|------------------|
| 2020-06-05              | 658309-0000-56ER-0001 | Technical Report |



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

| PROJECT: PROJECT#: DOCUMENT#: | WTO (6<br>908829 |  |                                       | DATE:    | 08-17                |
|-------------------------------|------------------|--|---------------------------------------|----------|----------------------|
|                               | (YYYYMMD         | D-DS/NS-01) DS/NS = $[$  | Day/Night shift                       | TIME:    | 3.90                 |
| APPROVAL FOR:                 |                  | Foundation appropriate Foundation appropriate Fill placement: _FC CB cutoff wall apport of ther: | oval (footprint)<br>oval (key trench) |          | (24 hour clock)      |
| LOCATION                      |                  |  |                                       |          |                      |
| Station                       | 70-              |  | PREVIOUS APPROVALS                    | <u>i</u> |                      |
| Inclination:                  | 370 TO           | 0+395  | Station:                              |          |                      |
| ELEVATION _                   |                  |  | Details:                              |          |                      |
|                               | varies           | _1 <b>53.5</b> _ m   | -                                     |          |                      |
| COMPLIANCE WITH               | H TECHNICAL      | SPECIFICATIONS:  | Γ                                     | VEI      | RIFICATIONS DONE BY: |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:          |    | VERIFICATIONS DONE |    |   |          |  |
|--|----|--------------------|----|---|----------|--|
| (Add additional items if needed)                   | QA | ١.                 | QC |   | N/A      |  |
| 1. Lines and grades                                | Y  | N                  | Υ  | N |          |  |
|  |    |                    | ./ |   |          |  |
| 2. Free of ice/snow/water                          |    |                    | /  |   |          |  |
| 3. Cleaning of trench and/or pile bottom           |    |                    | V  |   | ,        |  |
| 4. Gradation (visual)                              |    |                    |    |   | V        |  |
| 5. Placement (lift thickness, segregation, etc.)   | V  |                    | V  |   |          |  |
| 6. Compaction                                      | V  |                    | 1  |   |          |  |
| 7. Foundation on bedrock                           |    |                    |    |   | <u> </u> |  |
| 8. Key-in depth into bedrock                       |    |                    | -  |   | J        |  |
| 9. Water quality                                   |    |                    |    |   |          |  |
| 10. CB slurry viscosity and density                |    |                    |    |   | J,       |  |
| 11. Elevation of CB Piles                          |    |                    |    |   | J,       |  |
| 12. Primary piles strength (Minimum of 50 kPa UCS) |    |                    |    |   | <u></u>  |  |
| 13. Keying between primary and secondary           |    |                    |    |   | _√_      |  |
| 4. Cracks on top of cutoff wall                    |    |                    |    |   | ./       |  |

|   | QA |   | QA QC |   |          |
|---|----|---|-------|---|----------|
|   | Υ  | N | Υ     | N |          |
| 15. CB mix/slurry tested (UCS, permeability, and pinhole tests) |    |   |       |   | 1        |
| 16. As built survey completed                                   |    |   |       |   | <b>√</b> |
| 17.   |    |   |       |   |          |
| 18.   |    |   |       |   |          |
| 19.   |    |   |       |   |          |
| 20.   |    |   |       |   |          |
| 21.   |    |   |       |   |          |
| 22.   |    |   |       |   |          |
| 23.   |    |   |       |   |          |
| 24.   |    |   |       |   |          |
| 25.   |    |   |       |   |          |

| ETAILS .                                     |   |   |  | <u>:</u>  |
|--|---|---|--|---|
|  |   |   | QC   |   |
|  | Y   | N   | Υ  | N   |
| HANDLING + PLACEMENT MEET THE SPECS          | J   |   | <b>✓</b>   |   |
| Fe plucement for neturn 375 - 395, FF pushed |   |   |  |   |
| FE from merions section on the next approved |   |   |  |   |
| Join Latin                                   |   |   |  |   |
|  |   |   |  |   |
|  |   |   |  |   |
|  | Fe plucement for return 375 - 395, FF pushed from 0+370 in order to keep overkip of avoid | HANDLING + PLACEMENT MEET THE SOECS  The placement for perture 375 - 395, Ft pushed  from 0+370 in order to keep overlap of avoid | HANDLING + PLACEMENT MEET THE SDECS  FR placement for netting 375 - 395, FF pushed  from 0+370 in order to keep overlap of avoid | HANDLING + PLACEMENT MEET THE SPECS  The placement for section 375 - 395, FF pushed  from 0+370 in order to keep overlap of avoid |

| APPR | UVEL | , , , |
|------|------|-------|

QA REPRESENTATIVE
QC REPRESENTATIVE
OWNER'S REPRESENTATIVE

NAME

MATHIEU JEZEQUEL Dons J. Condomb Pich- Enc Manda GNATURE,

DATE

2018-08-17

es18-08-17



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

| PROJECT:       | \A/TO (0)   | USTAUCTION               |                    |       |                         |
|----------------|-------------|--------------------------|--------------------|-------|-------------------------|
| PROJECT #:     | 658309      |                          | ,                  | DATE: | 2018 60 10              |
| DOCUMENT #:    | 2018 08 17  | -NS-04                   |                    | TIME: | 9010 08-17              |
|                | (YYYYMMDD   | D-DS/NS-01) DS/NS = [    | Day/Night shift    |       | 5:30<br>(24 hour clock) |
| APPROVAL FOR : |             | Foundation appro         | oval (footprint)   |       |                         |
|                |             | Foundation appro         |                    |       |                         |
|                | $\boxtimes$ | Fill placement: <u>F</u> | WE FILTER          |       |                         |
|                |             | CB cutoff wall app       | proval             |       |                         |
|                |             | Other:                   |                    |       |                         |
|                |             |                          |                    |       |                         |
| LOCATION       |             |                          | PREVIOUS APPROVALS | 3     |                         |
| Station        | 030 TO (    | 2+360                    | Station:           |       |                         |
| Inclination:   | 5M: IV      |                          | Details:           |       |                         |
| ELEVATION      | varies      | <u>157.0</u> m           | -                  |       |                         |
|                |             |                          |                    |       |                         |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:          | VERIFICATIONS DONE B |          |     |           |  |  |  |
|--|----------------------|----------|-----|-----------|--|--|--|
| (Add additional items if needed)                   | QA                   | İ        | QC  | N/A       |  |  |  |
|  | Υ                    | N        | Y N |           |  |  |  |
| 1. Lines and grades                                | 1                    |          | ./  |           |  |  |  |
| 2. Free of ice/snow/water                          | J                    |          | ./  | -         |  |  |  |
| 3. Cleaning of trench and/or pile bottom           | - V                  |          | V   | 1         |  |  |  |
| 4. Gradation (visual)                              |                      |          | _   | J         |  |  |  |
| 5. Placement (lift thickness, segregation, etc.)   | /                    | -        | V   |           |  |  |  |
| 6. Compaction                                      | V                    | -        |     |           |  |  |  |
| 7. Foundation on bedrock                           |                      | _        |     | J,        |  |  |  |
| 8. Key-in depth into bedrock                       |                      | $\dashv$ |     | J.        |  |  |  |
| 9. Water quality                                   |                      | _        |     | J,        |  |  |  |
| 10. CB slurry viscosity and density                |                      |          |     | J,        |  |  |  |
| 11. Elevation of CB Piles                          |                      |          |     |           |  |  |  |
| 12. Primary piles strength (Minimum of 50 kPa UCS) |                      |          |     | J,        |  |  |  |
| 13. Keying between primary and secondary           |                      |          |     |           |  |  |  |
| 14. Cracks on top of cutoff wall                   |                      |          |     | $\sqrt{}$ |  |  |  |
| Gradica off top of cutoff wall                     |                      |          |     | V         |  |  |  |

|   | QA      | QA QC |   | N/A |    |
|---|---------|-------|---|-----|----|
|   | Y N Y N |       | N |     |    |
| 15. CB mix/slurry tested (UCS, permeability, and pinhole tests) |         |       |   |     | V. |
| 16. As built survey completed                                   |         |       |   |     |    |
| 17.   |         |       |   |     |    |
| 18.   | **      |       |   |     |    |
| 19.   |         |       |   |     |    |
| 20.   |         |       |   |     |    |
| 21.   |         |       |   |     |    |
| 22.   |         |       |   |     |    |
| 23.   |         |       | , |     |    |
| 24.   |         |       |   |     |    |
| 25.   |         |       |   |     |    |

| DETAILS | DETAILS (Refer to list above for item #)         |           | PPRO | ROVED BY: |   |  |
|---------|--|-----------|------|-----------|---|--|
|         |  |           | QA   |           |   |  |
| ITEM    |  | Υ         | N    | Υ         | N |  |
| 3       | LIFT THICKNESS IS 2.0 m WHICH IS HIGHER THAN THE | $\sqrt{}$ |      | /         |   |  |
|         | UPPER LIMIT OF 1.5m ALLOROING TO THE SOFCS       |           |      |           |   |  |
|         | (SEE 3.6.3.4) => DOES NOT MEET THE SPECS.        |           |      | ,         |   |  |
| 1,2.4   | MEET THE SPECS                                   | $\sqrt{}$ |      | /         |   |  |
|         |  |           |      |           |   |  |
|         |  |           |      |           |   |  |
| 0       |  |           |      |           |   |  |
|         |  |           |      |           |   |  |
|         |  |           |      |           |   |  |
|         |  |           |      |           |   |  |

QA REPRESENTATIVE
QC REPRESENTATIVE
OWNER'S REPRESENTATIVE

NAME

MATHEY JEZEOUEL Dens J. Carlonde Dian Fr. M.A. M. SIGNATURE

DATE

2018-08-17

2017-08-17



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

| PROJECT:      | WTO W    | ONSTRUCTION           |                    |       |                           |
|---------------|----------|-----------------------|--------------------|-------|---------------------------|
| PROJECT #:    | 658309   |                       |                    | DATE: | 00/0 00 10                |
| DOCUMENT #:   | 90180818 | - NS-02               |                    | TIME: | 2018 - 08 - 18            |
|               |          | D-DS/NS-01) DS/NS = [ | Day/Night shift    |       | 5 : 05<br>(24 hour clock) |
| APPROVAL FOR: |          | Foundation appro      | oval (footprint)   |       |                           |
|               |          | Foundation appro      |                    |       |                           |
|               |          | Fill placement: _F    | INE PILTER         |       |                           |
|               |          | CB cutoff wall app    |                    |       |                           |
|               |          | Other:                | ű                  |       |                           |
| LOCATION      |          |                       |                    |       |                           |
| LOCATION      |          |                       | PREVIOUS APPROVALS | 3     |                           |
|               | 395 TO   | 04435                 | Station:           | 0+3   | 70 70 0+395               |
| Inclination:  |          |                       | Details:           | 0 1 3 | /O [0 043 D               |
| ELEVATION :   | varies   | <u>153.5</u> m        | -                  |       |                           |
|               |          |                       |                    |       |                           |

| (Add additional items if needed)                   |          | VERIFICATIONS DONE |          |     |           |  |  |
|--|----------|--------------------|----------|-----|-----------|--|--|
|  | QA       | le:                | QC       | N/A |           |  |  |
| 4 15   | Υ        | N                  | Υ        | N   |           |  |  |
| Lines and grades                                   |          |                    | ./       |     |           |  |  |
| 2. Free of ice/snow/water                          | 1        |                    | V /      |     |           |  |  |
| 3. Cleaning of trench and/or pile bottom           | V        |                    | V        |     | ,         |  |  |
| 4. Gradation (visual)                              |          |                    |          |     | 1         |  |  |
| 5. Placement (lift thickness, segregation, etc.)   | V        |                    | <b>V</b> |     |           |  |  |
| 6. Compaction                                      | <b>V</b> |                    | /        |     |           |  |  |
| 7. Foundation on bedrock                           |          |                    |          |     | $\sqrt{}$ |  |  |
| 8. Key-in depth into bedrock                       |          |                    |          |     | √,        |  |  |
| 9. Water quality                                   |          |                    | -        |     | <u>V,</u> |  |  |
| 10. CB slurry viscosity and density                |          |                    |          |     | V         |  |  |
| 11. Elevation of CB Piles                          |          |                    |          |     | J,        |  |  |
| 12. Primary piles strength (Minimum of 50 kPa UCS) |          | _                  |          |     | <u> </u>  |  |  |
| 3. Keying between primary and secondary            |          |                    |          |     | 1         |  |  |
| 4. Cracks on top of cutoff wall                    | -        |                    |          |     | 1         |  |  |

|   | [   | QA  |     | QC  |   | N/A      |  |
|---|-----|-----|-----|-----|---|----------|--|
|   | . * | Υ . | Ņ   | Υ   | N | ,        |  |
| 15. CB mix/slurry tested (UCS, permeability, and pinhole tests) |     |     |     |     |   | J        |  |
| 16. As built survey completed                                   |     |     |     |     |   | <b>/</b> |  |
| 17.   |     |     |     |     |   |          |  |
| 18.   |     | i   |     |     |   |          |  |
| 19.   |     |     |     |     |   |          |  |
| 20.   |     |     |     |     |   |          |  |
| 21.   |     |     |     |     |   |          |  |
| 22.   |     |     |     |     |   |          |  |
| 23.   |     | *** | 5.4 | S 1 |   |          |  |
| 24.   |     |     |     |     |   |          |  |
| 25.   |     |     |     |     |   |          |  |

| DETAILS |   | A  | PPRO | VED BY | <u>:</u> |
|---------|---|----|------|--------|----------|
|         | o list above for item #)                        | QA | ě    | QC     |          |
| ITEM    | o list above for item in                        | Υ  | N    | Υ      | N        |
| 2       | PLACEMENT ACCORDING TO TECHNICAL SPECIFICATIONS |    |      | /      |          |
|         |   |    |      |        |          |
|         | ·   |    |      |        |          |
|         |   | _  |      |        |          |
|         |   |    |      |        |          |
|         |   |    |      |        |          |
|         |   |    |      | -      |          |
|         |   |    |      |        |          |

QA REPRESENTATIVE
QC REPRESENTATIVE
OWNER'S REPRESENTATIVE

NAME

MATRIER SEZEQUEL Dens J. (outombe Plen Eric Many SIGNATURE

DATE

9018-08-18

2012-08-18



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

| PROJECT : PROJECT #: | WTO (0      | NSTRUCTION            |                             |                |                      |
|----------------------|-------------|-----------------------|-----------------------------|----------------|----------------------|
| DOCUMENT #:          | 9180818     | - NS - 03             |                             | DATE:<br>TIME: | 0010 00-10           |
|                      | (YYYYMMDL   | D-DS/NS-01) DS/NS = [ | Day/Night shift             |                | (24 hour clock)      |
| APPROVAL FOR :       |             | Foundation appro      | oval (footprint)            |                |                      |
|                      |             | Foundation appro      | oval (key trench)           |                |                      |
|                      | ×           | Fill placement: _F    | INE FILTER                  |                |                      |
|                      |             | CB cutoff wall app    |                             |                | _                    |
|                      |             | Other:                |                             |                |                      |
| LOCATION             |             |                       | DDEWOUG ADDRESS             |                |                      |
|                      | 135 to C    | 04809                 | PREVIOUS APPROVALS Station: |                | 30 to 0+260          |
| Inclination: (.5     | H: IV       |                       | Details:                    |                | 50 10 0+840          |
|                      | varies      | <u> 157.0</u> m       |                             |                |                      |
| COMPLIANCE WITI      | H TECHNICAL | SPECIFICATIONS:       |                             | VEI            | RIFICATIONS DONE BY: |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:               | 1        | /ERIFI   | CATION | NE BY: |           |
|---|----------|----------|--------|--------|-----------|
| (Add additional items if needed)                        | QA       | <b>\</b> | QC     |        | N/A       |
| 1. Lines and grades                                     | Y        | N        | Υ      | N      |           |
|   |          |          | /      |        |           |
| 2. Free of ice/snow/water                               | 1        |          | 1      |        |           |
| <ol><li>Cleaning of trench and/or pile bottom</li></ol> | V        |          |        |        |           |
| 4. Gradation (visual)                                   |          |          |        |        | V         |
| 5. Placement (lift thickness, segregation, etc.)        | <b>V</b> |          | 1      |        |           |
| 6. Compaction   | <b>\</b> |          |        |        | ,         |
| 7. Foundation on bedrock                                |          |          |        |        | V         |
| Key-in depth into bedrock                               |          |          |        |        | $\sqrt{}$ |
| 9. Water quality  |          |          |        |        | <u>√</u>  |
| 10. CB slurry viscosity and density                     |          |          |        |        | √,        |
| 11. Elevation of CB Piles                               |          |          |        |        | 1         |
| 12. Primary piles strength (Minimum of 50 kPa UCS)      |          |          |        |        | V_        |
| 13. Keying between primary and secondary                |          |          |        |        | V         |
| 14. Cracks on top of cutoff wall                        |          |          |        |        | J         |
|   |          |          |        |        | V         |

| Γ   | QA |    | QC |   | N/A |
|---|----|----|----|---|-----|
| 15. CB mix/slurry tested (UCS, permeability, and pinhole tests)  16. As built survey completed  17.  18.  19.  20.  21. | Υ  | N. | Υ  | N |     |
| 15. CB mix/slurry tested (UCS, permeability, and pinhole tests)   |    |    |    |   | /   |
| 16. As built survey completed   |    |    |    |   |     |
| 17.   |    |    |    |   |     |
| 18.   |    |    |    |   |     |
| 19.   |    |    |    |   |     |
| 20.   |    |    |    |   |     |
| 21.   |    |    |    |   |     |
| 22.   |    |    |    |   |     |
| 23.   |    |    |    |   |     |
| 24.   |    |    |    |   |     |
| 25.   |    |    |    |   |     |

| DETAILS |   | <u>A</u> | PPRO\ | /ED BY:  | <u>:</u> |
|---------|---|----------|-------|----------|----------|
|         | list above for item #)                          | QA       |       | QC       |          |
| ITEM    |   | Y        | N     | Y        | N        |
| 5       | GOOD HANDLING BUT LIFT THICKNESSES EXCEED 1.5 m | <b>V</b> |       | <b>/</b> |          |
|         |   |          |       |          |          |
|         |   |          |       |          |          |
|         |   |          |       |          |          |
|         |   |          |       |          |          |
|         |   |          |       |          |          |
|         |   |          |       |          |          |
|         |   |          |       |          |          |
|         |   |          |       |          |          |

QA REPRESENTATIVE

QC REPRESENTATIVE

**NAME** 

MATHER SEZEQUEL Deno J. Carlondo Previence Milando SIGNATURE

DATE

81-80-8106

2018-08-18

2018-08-18

OWNER'S REPRESENTATIVE



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

| PROJECT:       | arul     | Construction                            |  |             |                 |             |
|----------------|----------|---|--|-------------|-----------------|-------------|
| PROJECT #:     |          |   | Λ  | D.175       |                 |             |
| DOCUMENT #:    | 20186    | 369<br>3819 - NS-0<br>DS/NS-01) DS/NS = | S. Dou/Minha at W.                               | DATE: TIME: | 5:50            |             |
| APPROVAL FOR : |          | Foundation appre                        | oval (footprint)  oval (key trench)  Fine Filter |             | (24 hour clock) | _           |
|                | 46       |   |  |             |                 | <u>- 80</u> |
| LOCATION       |          |   | PREVIOUS APPROVA                                 | ALS         |                 |             |
| Station        | of 1F4+C | 0+480                                   | Station  |             | 195 to 0+435    |             |
| Inclination:   |          |   | Details  |             | 595 to 0+435    | -           |
| ELEVATION :    | aries    | <u>153.5</u> m                          |  |             |                 | -           |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:        | <u>v</u>                  | ERIFI | CATION   | IS DOI | NE BY: |
|--|---------------------------|-------|----------|--------|--------|
| (Add additional items if needed)                 | QA                        |       | QC       |        | N/A    |
|  | Y                         | N     | Υ        | N      |        |
| 1. Lines and grades                              | $\int_{-\infty}^{\infty}$ |       | 1        |        |        |
| 2. Free of ice/snow/water                        | J                         |       |          |        |        |
| Cleaning of trench and/or pile bottom            |                           |       | <b>V</b> |        |        |
| 4. Gradation (visual)                            |                           |       | -        |        | V      |
| 5. Placement (lift thickness, segregation, etc.) | /                         |       | /        |        |        |
| 6. Compaction                                    | V                         |       | /        |        |        |
| 7. Foundation on bedrock                         |                           |       |          |        | /      |
| 3. Key-in depth into bedrock                     |                           |       |          |        |        |
| 9. Water quality                                 |                           |       |          |        | /      |
| CB slurry viscosity and density                  |                           |       |          |        | /      |
| Elevation of CB Piles                            |                           |       |          |        | /      |
| Primary piles strength (Minimum of 50 kPa UCS)   |                           |       |          |        | ~      |
| Keying between primary and secondary             |                           |       |          |        | ~      |
| Cracks on top of cutoff wall                     |                           |       |          |        | /      |
| Oracks of top of cutoff wall                     |                           |       |          |        | 1      |

|   | QA |   | QC |   | N/A |
|---|----|---|----|---|-----|
|   | Υ  | N | Υ  | N |     |
| 15. CB mix/slurry tested (UCS, permeability, and pinhole tests) |    |   |    |   | /   |
| 16. As built survey completed                                   |    |   |    |   | /   |
| 17.   |    |   |    |   |     |
| 18.   | Ą  |   |    |   |     |
| 19.   |    |   |    |   |     |
| 20.   |    |   |    |   |     |
| 21.   |    |   |    |   |     |
| 22.   |    |   |    |   |     |
| 23.   | :  |   |    |   |     |
| 24.   |    |   |    |   |     |
| 25.   |    |   |    |   |     |

| DETAILS                          | APPROVED BY: |   |    | <u>:</u> |
|----------------------------------|--------------|---|----|----------|
| (Refer to list above for item #) | QA           |   | QC |          |
| ITEM                             | Y            | N | Υ  | N        |
| RU                               | $\sqrt{}$    |   | /  |          |
|                                  |              |   |    |          |
|                                  |              |   |    |          |
|                                  |              |   |    |          |
|                                  |              |   |    |          |
|                                  |              |   |    |          |
|                                  |              |   |    |          |
|                                  |              |   |    |          |
|                                  |              |   |    |          |
|                                  |              |   |    |          |

| ۸P | PE | 0 | VFD                       | BY:   |  |
|----|----|---|---------------------------|-------|--|
| AP |    |   | $\mathbf{v} = \mathbf{v}$ | D 1 . |  |

QA REPRESENTATIVE
QC REPRESENTATIVE
OWNER'S REPRESENTATIVE

NAME

Marahen Sezerone Dons J. Canlorde Her Eic Mandel TURE , A DATE

2018-08-19



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

| PROJECT:      | WIN COM      | STAUCTION             |                         |       |                 |
|---------------|--------------|-----------------------|-------------------------|-------|-----------------|
| PROJECT #:    | 628309       | SITUCUON              |                         |       |                 |
| DOCUMENT #:   |              |                       |                         | DATE: | 9018-08-90      |
|               | -3018 Q890   | 1-NS-03               |                         | TIME: | 5:55            |
|               | (1111VIIVIID | )-DS/NS-01) DS/NS = [ | Day/Night shift         |       | (24 hour clock) |
| APPROVAL FOR: |              | Foundation appro      | oval (footprint)        |       |                 |
|               |              | Foundation appro      |                         |       |                 |
|               |              | Fill placement:       | Fine Filter             |       |                 |
|               |              | CB cutoff wall app    | oroval                  |       |                 |
|               |              | Other:                |                         |       |                 |
|               |              |                       |                         |       |                 |
| LOCATION      |              |                       | PREVIOUS APPROVAL       | S     |                 |
| Station       | +772 +       | 6 0+808               | Station:                |       |                 |
| Inclination:  |              | 8 0.000               | Mary Section (Section ) |       |                 |
| ELEVATION     |              |                       | Details:                |       |                 |
|               | varies       | <u> 153.5</u> m       |                         |       |                 |
|               |              |                       |                         |       |                 |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:               | VE        | RIFIC | CATION | S DOI | NE BY: |
|---|-----------|-------|--------|-------|--------|
| (Add additional items if needed)                        | QA        |       | QC     |       | N/A    |
| Lines and grades  | Υ         | N     | Υ      | N     |        |
|   | J         |       | 1      |       |        |
| 2. Free of ice/snow/water                               | 1         |       | ./     |       |        |
| <ol><li>Cleaning of trench and/or pile bottom</li></ol> |           | -     | V      |       |        |
| 4. Gradation (visual)                                   |           |       | 1      |       | /      |
|   | J         | 3     | /      |       |        |
|   | $\sqrt{}$ |       | 1      |       |        |
| 6. Compaction   |           |       |        |       |        |
| 7. Foundation on bedrock                                |           |       |        |       | /      |
| 3. Key-in depth into bedrock                            |           |       |        |       | 1      |
| Water quality   |           |       |        |       |        |
| CB slurry viscosity and density                         |           |       |        |       | /      |
| Elevation of CB Piles                                   |           |       |        |       | V      |
| 2. Primary piles strength (Minimum of 50 kPa UCS)       |           |       |        |       | 1      |
| Keying between primary and secondary                    |           |       |        |       | ~      |
| Cracks on top of cutoff wall                            |           |       |        |       | /      |
| - Saton Wall  |           |       |        |       | 1/     |

|   | QA |   | QA |   | QC | ) | N/A |
|---|----|---|----|---|----|---|-----|
|   | Y  | N | Υ  | N |    |   |     |
| 15. CB mix/slurry tested (UCS, permeability, and pinhole tests) |    |   |    |   | 1  |   |     |
| 16. As built survey completed                                   |    |   |    |   | /  |   |     |
| 17.   |    |   |    |   |    |   |     |
| 18.   |    |   |    |   |    |   |     |
| 19.   |    |   |    |   |    |   |     |
| 20.   |    |   |    |   |    |   |     |
| 21.   |    |   |    |   |    |   |     |
| 22.   |    |   |    |   |    |   |     |
| 23.   |    |   |    |   |    |   |     |
| 24.   |    |   |    |   |    |   |     |
| 25.   |    |   |    |   |    |   |     |

|                |                      |  | <u>A</u> | PPRO\ | VED BY | <u>':</u> |
|----------------|----------------------|--|----------|-------|--------|-----------|
| <u>DETAILS</u> |                      |  | QA       |       | QC     |           |
|                | st above for item #) |  | Υ        | N     | Υ      | N         |
| ITEM           |                      |  | 1        |       | 1      |           |
| ALL            |                      |  | V        |       | V      |           |
|                |                      |  |          |       |        |           |
|                |                      |  |          |       |        |           |
|                |                      |  |          |       |        |           |
|                |                      |  |          |       |        |           |
|                |                      |  |          |       |        |           |
|                |                      |  |          |       |        |           |
|                |                      |  |          |       |        |           |
|                |                      |  |          |       |        |           |
|                |                      |  |          |       |        | $\vdash$  |
|                |                      |  |          |       |        |           |

QA REPRESENTATIVE QC REPRESENTATIVE

OWNER'S REPRESENTATIVE

NAME

MATHER SEZEQUEL

Pier-Ens Mande

SIGNATURE

DATE

9018-08-90

248-08-20

2019-08-20



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

| PROJECT:      | WTO CONSTRUCTION                   |             |
|---------------|------------------------------------|-------------|
| PROJECT #:    | 679700                             | 10. A.B. A. |
| DOCUMENT #:   | 2012/2012/2014/201                 | 18 - 08-20  |
|               | (VVVVMMDD DC/MC cd) DC/MC          | our clock)  |
| APPROVAL FOR: | :                                  |             |
|               | ☐ Foundation approval (key trench) |             |
|               | Fill placement: FINE FILTER        |             |
|               | ☐ CB cutoff wall approval          |             |
|               | Other:                             |             |
|               |                                    |             |
| LOCATION      | PREVIOUS APPROVALS                 |             |
| Station 0+    | 1495 TO 0+505 Station: 0+431       | to 0+480    |
| Inclination:  | Details:                           | 10 0 100    |
| ELEVATION :   | varies <u>153.5</u> m              |             |
|               | varies <u>153.5</u> m              |             |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:          | VERIFICATIONS DONE B |   |    |   |        |  |  |
|--|----------------------|---|----|---|--------|--|--|
| (Add additional items if needed)                   | QA                   | 1 | QC |   | N/A    |  |  |
|  | Y                    | N | Υ  | N |        |  |  |
| Lines and grades                                   | 1                    |   | J  |   |        |  |  |
| 2. Free of ice/snow/water                          | 1                    |   | /  |   |        |  |  |
| 3. Cleaning of trench and/or pile bottom           |                      |   | V  |   |        |  |  |
| 4. Gradation (visual)                              |                      |   | ,  |   | \ \ \  |  |  |
| 5. Placement (lift thickness, segregation, etc.)   | V                    |   | V  |   |        |  |  |
| 6. Compaction                                      | V                    |   | V  |   |        |  |  |
| 7. Foundation on bedrock                           |                      |   |    |   |        |  |  |
| 8. Key-in depth into bedrock                       |                      |   |    |   | V      |  |  |
| 9. Water quality                                   |                      |   |    |   |        |  |  |
| 10. CB slurry viscosity and density                |                      |   |    |   | J      |  |  |
| 11. Elevation of CB Piles                          |                      |   |    |   | J,     |  |  |
| 12. Primary piles strength (Minimum of 50 kPa UCS) |                      |   |    |   | V      |  |  |
| 13. Keying between primary and secondary           |                      |   |    |   | $\int$ |  |  |
|  |                      |   |    |   | $\int$ |  |  |
| 14. Cracks on top of cutoff wall                   |                      |   |    |   | 1      |  |  |

|   | QA |   | QC |   | N/A |
|---|----|---|----|---|-----|
|   | Υ  | N | Υ  | N | ,   |
| 15. CB mix/slurry tested (UCS, permeability, and pinhole tests) |    |   |    |   | V   |
| 16. As built survey completed                                   |    |   |    |   | V   |
| 17.   |    |   |    |   |     |
| 18.   |    |   |    |   |     |
| 19.   |    |   |    |   |     |
| 20.   |    |   |    |   |     |
| 21.   |    |   |    |   |     |
| 22.   |    |   |    |   |     |
| 23.   |    |   |    |   |     |
| 24.   |    |   |    |   |     |
| 25.   |    |   |    |   |     |

| DETAILS                          | _ A | PPRO     | VED BY | <u>':</u> |
|----------------------------------|-----|----------|--------|-----------|
| (Refer to list above for item #) | QA  | <b>\</b> | QC     |           |
| ITEM                             | Υ   | N        | Y      | N         |
| ALL                              | V   |          | /      |           |
| 7100                             |     |          |        |           |
|                                  |     |          |        |           |
|                                  |     |          |        |           |
|                                  |     |          |        |           |
|                                  |     |          | -      |           |
|                                  |     |          |        |           |
|                                  |     |          |        |           |
|                                  |     |          |        |           |
|                                  |     |          |        |           |

QA REPRESENTATIVE
QC REPRESENTATIVE
OWNER'S REPRESENTATIVE

NAME

Deno Contrabe

SIGNATURE

DATE

3018-08-30

2013-08-20



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

| PROJECT:     | MAD COM                                 | docali           |                   |       |                 |         |
|--------------|---|------------------|-------------------|-------|-----------------|---------|
| PROJECT #:   | 658309                                  |                  | ^                 | D.1== |                 |         |
| DOCUMENT #:  |   |                  | 7                 | DATE: | August          | 20,0018 |
|              | 20 18 087<br>(YYYYMMDD-DS/              |                  |                   | TIME: |                 |         |
|              | (11111111111111111111111111111111111111 | N3-01) D3/N3 = 1 | Day/Night shift   |       | (24 hour clock) |         |
| APPROVAL FOR | : 🗖 Fo                                  | undation appro   | oval (footprint)  |       |                 |         |
|              | □ Fo                                    | undation appro   | oval (key trench) |       |                 |         |
|              | Fill                                    | placement:       | Fine fiter        | nala  | Lean            |         |
|              | ☐ CB                                    | cutoff wall app  | oroval            |       |                 | - I     |
|              | ☐ Oth                                   | ner:             |                   |       |                 |         |
|              |   |                  |                   |       |                 |         |
| LOCATION     |   |                  | PREVIOUS APPROVA  | LS    |                 |         |
| Station      | 505 to                                  | Otsela           | Station:          |       | /a /            |         |
| Inclination: | 110                                     | 0.070            | 1                 | 019   | 195 6 0         | 1505    |
| ELEVATION    |   |                  | Details:          |       |                 |         |
|              | varies                                  | 53.5 m           |                   | -     |                 |         |
|              |   |                  |                   |       |                 |         |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:          |     | /ERIFI   | RIFICATIONS DONE BY |   |   |  |
|--|-----|----------|---------------------|---|---|--|
| (Add additional items if needed)                   |     | <b>\</b> | QC                  |   |   |  |
|  | Υ   | N        | Υ                   | N |   |  |
| Lines and grades                                   | 10  |          | /                   |   |   |  |
| 2. Free of ice/snow/water                          | 1.1 |          |                     |   |   |  |
| 3. Cleaning of trench and/or pile bottom           | V   |          | V                   |   |   |  |
| 4. Gradation (visual)                              |     |          |                     |   |   |  |
|  | ~   |          | /                   |   |   |  |
|  | 1   |          |                     |   |   |  |
| 6. Compaction                                      |     |          |                     |   |   |  |
| 7. Foundation on bedrock                           |     |          |                     |   |   |  |
| 8. Key-in depth into bedrock                       |     |          |                     |   | - |  |
| 9. Water quality                                   |     |          |                     |   |   |  |
| 10. CB slurry viscosity and density                |     |          |                     |   | ~ |  |
| 11. Elevation of CB Piles                          |     |          |                     |   | _ |  |
|  |     |          |                     |   | - |  |
| 12. Primary piles strength (Minimum of 50 kPa UCS) |     |          |                     |   |   |  |
| 13. Keying between primary and secondary           |     |          |                     | - |   |  |
| 14. Cracks on top of cutoff wall                   |     | _        |                     |   |   |  |
|  |     |          |                     |   |   |  |

|  |        |          |  |   | QA |     | QC |   |
|--|--------|----------|--|---|----|-----|----|---|
|  | £."    | 1        |  | Y | N  | Υ   | N  |   |
| 15. CB mix/slurry tested (UCS, permeability, and | pinhol | e tests) |  |   |    |     |    | V |
| 16. As built survey completed                    |        |          |  |   |    |     |    |   |
| 17.  |        |          |  |   |    |     |    |   |
| 18.  | *      |          |  |   |    |     |    |   |
| 19.  |        |          |  |   |    |     |    |   |
| 20.  |        |          |  |   |    |     |    |   |
| 21.  |        |          |  |   |    |     |    |   |
| 22.  |        |          |  |   |    |     |    |   |
| 23.  | ¥      |          |  |   |    | 7.4 |    |   |
| 24.  |        |          |  |   |    |     |    |   |
| 25.  |        | 4 4 4 1  |  |   |    |     |    |   |

| DETAILS |                   | <u>A</u> | APPROVED BY: |    | <u>:</u> |
|---------|-------------------|----------|--------------|----|----------|
|         | above for item #) | QA       |              | QC |          |
| ITEM    |                   | Υ        | N            | Υ  | N        |
| TILIVI  |                   |          |              |    |          |
|         | 5 . 1             |          |              |    |          |
|         |                   |          |              |    |          |
|         |                   |          |              |    |          |
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| >       |                   |          |              |    |          |
|         |                   |          |              |    |          |
|         |                   |          |              |    |          |

| APPROVED BY:           | NAME           | SIGNATURE  | DATE       |
|------------------------|----------------|--|------------|
| QA REPRESENTATIVE      | Tezera Azmahl  | The free ()  |            |
| QC REPRESENTATIVE      | Maxine Cote    | A market of the same of the sa | 2018-08-20 |
| OWNER'S REPRESENTATIVE | Her-Eric Monda | July for   | 2011 00 20 |
|                        |                |  |            |

Page 2/2



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

| PROJECT:       | \1/TO <4  | DISTRUCTION           |                   |          |                                  |
|----------------|-----------|-----------------------|-------------------|----------|----------------------------------|
| PROJECT #:     | 658 309   | NOSTRUCTION           |                   | DATE     |                                  |
| DOCUMENT #:    | 301808 34 | -15 00                |                   | DATE:    | 9018-08-31                       |
|                | (YYYYMMDI | D-DS/NS-01) DS/NS = [ | Day/Night shift   | TIME:    | <u>5 : /5</u><br>(24 hour clock) |
| APPROVAL FOR : |           | Foundation appro      | oval (footprint)  |          |                                  |
|                |           | Foundation appro      | val (key trench)  |          |                                  |
|                |           | Fill placement: _f    | INE FILTER        |          |                                  |
|                |           | CB cutoff wall app    | •                 |          |                                  |
|                |           | Other:                |                   |          |                                  |
| LOCATION       |           |                       |                   |          |                                  |
| LOCATION       |           |                       | PREVIOUS APPROVAL | <u>S</u> |                                  |
| Station        | 447 70    | 0+490                 | Station:          | 0+9      | 30 70 04760                      |
| Inclination:   | 5H: IV    |                       | Details:          |          | 30 to 0+260                      |
| ELEVATION _    | varies    | 157.0m m              |                   |          |                                  |
|                |           |                       |                   |          |                                  |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS: (Add additional items if needed)   | VERIFICATIONS DONE |   |    |     |     |  |
|--|--------------------|---|----|-----|-----|--|
|  | QA                 |   | QC | N/A |     |  |
| Lines and grades   | Υ                  | N | Υ  | N   |     |  |
| and grades   | $\int$             |   | 1  |     |     |  |
| 2. Free of ice/snow/water  | - /                |   |    |     |     |  |
| <ol><li>Cleaning of trench and/or pile bottom</li></ol>  | V                  |   |    |     |     |  |
| 4. Gradation (visual)  |                    |   |    |     |     |  |
| 5. Placement (lift thickness, segregation, etc.)   | $\cup$             |   | ~  |     |     |  |
| 6. Compaction  | $\int$             |   |    |     |     |  |
|  |                    |   |    |     |     |  |
| 7. Foundation on bedrock   |                    |   |    |     |     |  |
| 3. Key-in depth into bedrock   |                    |   |    |     |     |  |
| . Water quality  |                    |   |    |     | J,  |  |
| CB slurry viscosity and density  |                    |   |    |     |     |  |
| Elevation of CB Piles  |                    |   |    |     | J   |  |
| CHARLES OF THE CHARLE |                    |   |    |     | ./  |  |
| 2. Primary piles strength (Minimum of 50 kPa UCS)  |                    |   |    |     |     |  |
| Keying between primary and secondary   |                    | - | _  |     | V / |  |
| 4. Cracks on top of cutoff wall  |                    |   |    |     | V   |  |

|   | QA      | QA QC      |  | N/A |        |
|---|---------|------------|--|-----|--------|
|   | Y N Y N |            |  |     |        |
| 15. CB mix/slurry tested (UCS, permeability, and pinhole tests) |         |            |  |     | $\int$ |
| 16. As built survey completed                                   |         | -0.41-0.53 |  |     | S      |
| 17.   |         |            |  |     |        |
| 18.   |         |            |  |     |        |
| 19.   |         |            |  |     |        |
| 20.   |         |            |  |     |        |
| 21.   |         |            |  |     |        |
| 22.   |         |            |  |     |        |
| 23.   |         |            |  |     |        |
| 24.   |         |            |  |     |        |
| 25.   |         |            |  |     |        |

| DETAILS |                         | A  | PPRO | VED BY | <u>':</u> |
|---------|-------------------------|----|------|--------|-----------|
|         | st above for item #)    | QA |      | QC     |           |
| ITEM    | of above is: its in a j | Υ  | N    | Υ      | N         |
| ALL     |                         | J  |      |        |           |
|         |                         |    |      |        |           |
|         |                         |    |      |        |           |
|         |                         |    |      |        |           |
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|         |                         |    |      |        |           |
|         |                         |    |      |        |           |
|         |                         |    |      |        |           |

QA REPRESENTATIVE
QC REPRESENTATIVE
OWNER'S REPRESENTATIVE

NAME

MATHER SEZEOUEZ Aris I Contombe Arice Cognon GNATURE

9

DATE

9018-08-31

10-80-91



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

| PROJECT: PROJECT#: DOCUMENT#: | 928<br>701/<br>701/<br>701/ | 309<br>80821 | -NS-05<br>-DS/NS-01) DS/NS = 1   | Day/Night shift                      | DATE:<br>TIME: | 2:9  | 7-08-71<br>5<br>ir clock) |  |
|-------------------------------|-----------------------------|--------------|--|--------------------------------------|----------------|------|---------------------------|--|
| APPROVAL FOR :                |                             |              | Foundation appropriate Foundation appropriate Fill placement: CB cutoff wall appropriate CB cutoff wall appropriate Fill placement in the cutoff wall approp | oval (key trench)                    |                |      |                           |  |
| Inclination:                  | +540<br>varies              | 70           | 0+545<br>1535_m  | PREVIOUS APPROVALS Station: Details: | <u>0</u> +50   | 05 + | 540                       |  |
| COMPLIANCE WITH               | LTEQUE                      |              |  |                                      |                |      |                           |  |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:               | <u>\</u> | /ERIFI   | CATIONS DONE BY |   |           |  |
|---|----------|----------|-----------------|---|-----------|--|
| (Add additional items if needed)                        | QA       | <b>\</b> | QC              |   | N/A       |  |
| Lines and grades  | Y        | N        | Υ               | N |           |  |
|   | \ \      |          | 1               |   |           |  |
| 2. Free of ice/snow/water                               | 1        |          | 1               |   |           |  |
| <ol><li>Cleaning of trench and/or pile bottom</li></ol> |          |          | V               | , |           |  |
| 4. Gradation (visual)                                   |          |          | ,               |   |           |  |
| 5. Placement (lift thickness, segregation, etc.)        | V        |          | V               |   |           |  |
| 6. Compaction   |          |          | 1               |   |           |  |
| 7. Foundation on bedrock                                |          |          |                 |   | V         |  |
|   |          |          |                 |   |           |  |
| 8. Key-in depth into bedrock                            |          |          | -               |   |           |  |
| 9. Water quality  |          |          |                 |   |           |  |
| CB slurry viscosity and density                         |          |          |                 |   | <u></u>   |  |
| Elevation of CB Piles                                   |          |          |                 |   | $\sqrt{}$ |  |
| 2. Primary piles strength (Minimum of 50 kPa UCS)       |          |          |                 |   |           |  |
| Keying between primary and secondary                    |          |          |                 |   | J         |  |
| Cracks on top of cutoff wall                            |          |          |                 |   |           |  |

|   | QA |   | QC |   | N/A |
|---|----|---|----|---|-----|
|   | Υ  | N | Υ  | N | ,   |
| 15. CB mix/slurry tested (UCS, permeability, and pinhole tests) |    |   |    |   |     |
| 16. As built survey completed                                   |    |   |    |   | V   |
| 17.   |    |   |    |   |     |
| 18.   |    |   |    |   |     |
| 19.   |    |   |    |   |     |
| 20.   |    |   |    |   | _   |
| 21.   |    |   |    |   |     |
| 22.   |    |   |    |   |     |
| 23.   |    |   |    |   | -   |
| 24.   |    |   |    |   |     |
| 25.   |    |   |    |   |     |

| DETAILS |   | <u>A</u>      | PPROV   | ED BY | <u>:</u> |
|---------|---|---------------|---------|-------|----------|
|         | f = 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | QA            |         | QC    |          |
|         | ist above for item #)                   | Υ             | N       | Υ     | N        |
| ITEM    |   | -/            |         |       |          |
| ALL     |   | <br>$\sqrt{}$ |         | V     |          |
|         | J                                       |               |         |       |          |
|         |   |               |         |       |          |
|         |   |               |         |       |          |
|         |   |               |         |       |          |
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|         |   |               | 200.000 |       |          |
|         |   |               |         |       |          |
|         |   |               |         |       |          |

QA REPRESENTATIVE
QC REPRESENTATIVE
OWNER'S REPRESENTATIVE

NAME

NATHEU SEZE QUE

Latrice Gagnon

SIGNATURE

DATE

7014 -V 8-71

2018-03-2

2015-09-21



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

| PROJECT : PROJECT #: | OTW           | Constru            | chon         |           |       |                 |         |
|----------------------|---------------|--------------------|--------------|-----------|-------|-----------------|---------|
|                      | 658           | 9309               |              |           | DATE: | Larre           | 01 - 17 |
| DOCUMENT #:          | 201808        | 21-05-0            |              |           | TIME: | AUR UST         | 21,2018 |
|                      | (YYYYMMDD     | -DS/NS-01) DS/NS = | Day/Night sh | ift       |       | (24 hour clock) |         |
| APPROVAL FOR:        |               | Foundation appre   | oval (footpr | rint)     |       |                 |         |
|                      |               | Foundation appro   |              | 7.500     |       |                 |         |
|                      | 4             | Fill placement: _  | Fine         | Fife      |       |                 |         |
|                      |               | CB cutoff wall ap  | proval       |           |       |                 |         |
|                      |               | Other:             |              |           |       |                 |         |
| LOCATION             |               |                    |              |           |       |                 |         |
| LOCATION             |               |                    | PREVIOUS     | APPROVALS |       |                 |         |
|                      | 380 +         | 0 01447            |              | Station:  | ±0    |                 |         |
| Inclination:         |               |                    |              | Details:  |       |                 |         |
| ELEVATION :          | varies        | 15} m              |              | -         | 4     |                 |         |
| COMPLIANCE WITH      | 1 TECHNICAL S | SPECIFICATIONS:    |              |           | VER   | RIFICATIONS DON | IE DV.  |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:               | 7  | /ERIFI   | CATION | NS DO | NE BY: |
|---|----|----------|--------|-------|--------|
| (Add additional items if needed)                        | QA | <b>\</b> | QC     | ;     | N/A    |
| 1. Lines and grades                                     | Υ  | N        | Υ      | N     |        |
| - The and grades  | 1  |          | 1      |       |        |
| 2. Free of ice/snow/water                               |    |          | V      |       |        |
| <ol><li>Cleaning of trench and/or pile bottom</li></ol> |    |          |        |       |        |
| 4. Gradation (visual)                                   |    |          |        |       |        |
|   |    |          | /      |       |        |
| the trickness, segregation, etc.)                       |    | •        | . /    |       |        |
| 6. Compaction   |    |          |        |       |        |
| 7. Foundation on bedrock                                |    |          |        |       |        |
| 3. Key-in depth into bedrock                            |    |          |        |       |        |
| 9. Water quality  |    |          |        |       |        |
| CB slurry viscosity and density                         |    |          |        |       | 1      |
| Elevation of CB Piles                                   |    |          |        |       | _      |
|   |    |          |        |       | ~      |
| 2. Primary piles strength (Minimum of 50 kPa UCS)       |    |          |        | -     |        |
| Keying between primary and secondary                    | -  | _        | -      |       |        |
| 4. Cracks on top of cutoff wall                         | 2  |          |        |       |        |

| K. H. L. A. D.  | *                          | QA         |      | QC |   | N/A |
|---|----------------------------|------------|------|----|---|-----|
| Notified to the Carlos of the | ***                        | <b>Y</b> , | N.   | Υ  | N |     |
| 15. CB mix/slurry tested (UCS, permeal  | bility, and pinhole tests) |            |      |    |   | ~   |
| 16. As built survey completed   |                            |            |      |    |   | /   |
| 17.   |                            |            |      |    |   |     |
| 18.   | w 1 1 1                    |            |      |    |   |     |
| 19.   |                            |            |      |    |   |     |
| 20.   |                            |            |      |    |   |     |
| 21.   |                            |            |      |    |   | -   |
| 22.   |                            |            |      |    |   |     |
| 23.   |                            |            | a' . |    |   |     |
| 24.   |                            |            |      |    |   |     |
| 25.   | . 7                        |            |      |    |   |     |

| DETAILS                   |                 |              | <u>A</u> | PPRO' | VED BY | <u>′:</u> |
|---------------------------|-----------------|--------------|----------|-------|--------|-----------|
| DETAILS (Refer to list ab | ove for item #) |              | QA       |       | QC     |           |
| ITEM                      | ye for item ny  |              | Y        | N     | Υ      | N         |
|                           | *               |              | _        |       |        |           |
|                           |                 |              |          |       |        |           |
|                           |                 | • Servido de |          |       |        |           |
|                           |                 |              |          |       |        |           |
|                           |                 |              |          |       | -      |           |
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| -                         |                 |              |          |       |        |           |
|                           |                 |              |          |       |        |           |
|                           |                 |              |          |       |        |           |

| APPROVED BY:       | NAME A STATE OF THE STATE OF TH | SIGNATURE | DATE 21, 2018 |
|--------------------|--|-----------|---------------|
| QA REPRESENTATIVE  | Tezera Azmarca   |           | 2018-08-21    |
| QC REPRESENTATIVE  |  | A G       | 304108-21     |
| OWNER'S REPRESENTA | ATIVE PAING DAYNON   |           |               |



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

| PROJECT:     | WTO    | Constrad              | ion                |          |                 |
|--------------|--------|-----------------------|--------------------|----------|-----------------|
| PROJECT #:   | 6583   |                       |                    | DATE:    | Aug. 21, 2018   |
| DOCUMENT #:  |        | 0821-05.              | -02                | TIME:    |                 |
|              |        | )-DS/NS-01) DS/NS = [ |                    |          | (24 hour clock) |
| APPROVAL FOR | : 🗆    | Foundation appro      | oval (footprint)   |          |                 |
|              |        | Foundation appro      | oval (key trench)  |          |                 |
|              | U      | Fill placement:       | Fine Liter         |          |                 |
|              |        | CB cutoff wall app    | oroval             |          |                 |
|              |        | Other:                |                    |          |                 |
|              |        |                       |                    |          |                 |
| LOCATION     |        |                       | PREVIOUS APPROVALS | <u> </u> |                 |
| Station      | +120 + | b 0 + 230             | Station:           |          |                 |
| Inclination: |        |                       | Details:           |          |                 |
| ELEVATION :  | varies | 157 m                 | -                  |          |                 |
|              |        |                       |                    |          |                 |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:  | 1 2 | /ERIFI | CATION | IS DOI | NE BY: |
|--|-----|--------|--------|--------|--------|
| (Add additional items if needed)   | QA  | 4      | QC     |        | N/A    |
| d Lines and  | Υ   | N      | Υ      | N      |        |
| Lines and grades   |     |        | ./     |        |        |
| 2. Free of ice/snow/water  |     |        | V      |        |        |
| <ol> <li>Cleaning of trench and/or pile bottom</li> </ol>  |     |        |        |        |        |
| 4. Gradation (visual)  |     |        | V      |        |        |
|  |     |        | 1      |        |        |
| - desired (int trickriess, segregation, etc.)  | 1   |        | ./     |        |        |
| 6. Compaction  |     |        |        |        |        |
| 7. Foundation on bedrock   |     |        |        |        |        |
| Key-in depth into bedrock  |     |        |        |        | -      |
| 9. Water quality   |     |        |        |        | _      |
| 10. CB slurry viscosity and density  |     |        |        |        | レノノ    |
| 11. Elevation of CB Piles  |     |        |        |        |        |
| A A CONTRACTOR OF THE CONTRACT |     |        |        |        |        |
| 12. Primary piles strength (Minimum of 50 kPa UCS)   |     |        | -      |        |        |
| 13. Keying between primary and secondary   |     |        |        |        |        |
| 14. Cracks on top of cutoff wall   |     |        |        |        | ,      |
| , social man   |     |        |        |        |        |

|   | W           |  |        |     |    |   |     |  |
|---|-------------|--|--------|-----|----|---|-----|--|
|   |             | 20 att   | <br>QA |     | QC |   | N/A |  |
|   |             | 1,   | Υ,     | · N | Υ  | N |     |  |
| 15. CB mix/slurry tested (UCS, permeability | ty, and pin | hole tests)  |        |     |    |   | V   |  |
| 16. As built survey completed               |             |  |        |     |    |   |     |  |
| 17.   |             |  |        |     |    |   |     |  |
| 18.   |             |  |        |     |    |   |     |  |
| 19.   |             |  |        |     |    |   |     |  |
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| 21.   |             | Wang to the same of the same o |        |     |    |   |     |  |
| 22.   |             |  |        |     |    |   |     |  |
| 23.   |             | a â  |        | . 1 |    |   |     |  |
| 24.   |             |  |        |     |    |   |     |  |
| 25.   |             | j ·  |        |     |    |   |     |  |

| DETAILS (Refer to list above for item #) |   | APPROVED BY: |   |   |  |
|--|---|--------------|---|---|--|
|  |   | QA           |   | ; |  |
| ITEM                                     | Y | N            | Υ | N |  |
|  |   |              |   |   |  |
|  |   |              |   |   |  |
|  |   |              |   |   |  |
|  |   |              |   |   |  |
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|  |   |              |   |   |  |
|  |   |              |   |   |  |
|  |   |              |   |   |  |
|  |   |              |   |   |  |
|  |   |              |   |   |  |

| APPROVED BY:           | NAME           | SIGNATURE | DATE         |
|------------------------|----------------|-----------|--------------|
| QA REPRESENTATIVE      | Tezera Azmata  | Junion)   | AUR- 21/2016 |
| QC REPRESENTATIVE      | Waxine Cole    | N.C.      | 804-08-91    |
| OWNER'S REPRESENTATIVI | Hatrice Gagnan | - Bar Can | 0011 01 21   |



Sustaining capital Mining & Metallurgy 1140 Maisonneuve boul. West Montreal (Québec) Canada H3A 1M8

| PROJECT:  PROJECT#:  658309  DOCUMENT#:  20180821-05-03 | DATE: Avg 21, 2018              |
|---|---------------------------------|
| (YYYYMMDD-DS/NS-01) DS/NS = [                           |                                 |
| (   | Day/Night shift (24 hour clock) |
| APPROVAL FOR:   | oval (footprint)                |
| ☐ Foundation appro                                      |                                 |
| . <del></del>   | Fine Fister                     |
| ☐ CB cutoff wall app                                    |                                 |
| ☐ Other:  |                                 |
|   |                                 |
| LOCATION  | PREVIOUS APPROVALS              |
| Station 0+ 260 +0 0+ 330                                | Station:                        |
| Inclination:  | Production Society Beauty       |
| ELEVATION   | Details:                        |
| : varies 157 m  |                                 |
|   |                                 |
| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:               |                                 |
| (Add a different of Edifications:                       | VERIFICATIONS DONE BY:          |

| COMPLIANCE WITH TECHNICAL SPECIFICATIONS:  (Add additional items if needed) | VERIFICATIONS DONE BY: |   |    |   |     |  |
|---|------------------------|---|----|---|-----|--|
|   | QA                     |   | QC |   | N/A |  |
| 1. Lines and grades   | Υ                      | N | Υ  | N |     |  |
|   | 1                      |   | ./ |   |     |  |
| 2. Free of ice/snow/water   | 1                      |   |    |   |     |  |
| <ol> <li>Cleaning of trench and/or pile bottom</li> </ol>                   |                        |   | V  |   |     |  |
| 4. Gradation (visual)   | 1                      |   | /  |   |     |  |
| 5. Placement (lift thickness, segregation, etc.)                            | V                      |   | /  |   |     |  |
|   | ~                      |   | /  |   |     |  |
| 6. Compaction   |                        |   |    |   |     |  |
| 7. Foundation on bedrock  |                        |   |    |   |     |  |
| 8. Key-in depth into bedrock  |                        |   |    |   | レ   |  |
| 9. Water quality  |                        |   |    |   | レ   |  |
| 10. CB slurry viscosity and density   |                        |   |    |   | 1   |  |
|   |                        |   |    |   | -   |  |
| 11. Elevation of CB Piles   |                        |   |    |   | -   |  |
| 12. Primary piles strength (Minimum of 50 kPa UCS)                          |                        |   |    |   |     |  |
| 13. Keying between primary and secondary                                    |                        | _ |    |   |     |  |
| 14. Cracks on top of cutoff wall  |                        |   |    |   | -   |  |
| - Saton Hall  |                        |   |    |   | -   |  |