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APPENDIX A INSTRUMENTATION DRAWINGS



NOTES:

All dimensions are in metres unless otherwise noted.

Projection is Diavik Mine Grid.

The contour lines shown on this Drawing are as per Construction Records Drawing 14300-41D2-1004.1D-CRR and are based on 2015, 2016, 2017 and 2018 construction records provided by DDMI. A21 Pit contours lines are based on survey provided by DDMI and dated August 07, 2023. Refer to Construction Records Drawing 14300-41D2-1004.1D-CRR for more details. Contour interval is 1.0 m.

Dike, toe berm, 0+550 marine fill, 0+800 marine fill, 0+300 marine fill, 0+700 buttress, A5 area marine fill buttress, A5 area stabilization berm and truck pull-out pad fill limits and crest lines shown on this Drawing are as per Construction Records Drawing 14300-41D2-1006.1E-CRR, and are based on 2015, 2016, 2017 and 2018 construction records provided by DDMI. Refer to Construction Records Drawing 14300-41D2-1006.1E-CRR for more details.

Approved foundation limits shown on this Drawing are as per Construction Record Drawing 14300-41D2-1004.1D-CRR and are based on 2015, 2016, 2017 and 2018 construction records provided by DDMI. Refer to Construction Records Drawing 14300-41D2-1004.1D-CRR for more details.

Safety berm details on infield access roads are omitted for clarity.

DPS-07 and DPS-08 construction lines are as per Construction Record Drawings

14300-41D2-1021C-CRR through 1022.3C-CRR.

Open pit outline may not be current and should be checked with the Owner.

Shoreline based on data provided by DDMI (November 14, 2015).

Detailed instrumentation locations on plan and profile are shown on Construction Record Drawings 14300-41D2-1026.1C-CRR through 14300-41D2-1026.6C-CRR. Installation stations and offsets are provided in Construction Record Drawings 14300-41D2-1027.1C-CRR through

14300-41D2-1027.3C-CRR. Instrumentation cross sections are shown in Construction Record Drawings 14300-41D2-1028.1C-CRR through 14300-41D2-1028.40C-CRR. Refer to Construction Record Drawings 14300-41D2-1030.1B-CRR through 14300-41D2-1030.4B-CRR for installation details.

Connection of A21 Dike vibrating wire piezometers (VWP) to automated data acquisition systems (ADAS) and permanent trenching of multiconductor cables were completed during the 2017 and 2018 Construction Seasons. Instrument cable layout and data logger locations were designed by RST, Tetra Tech and DDMI. Completed cable and trenching survey data were supplied by DDMI. . Survey data for instrument locations, survey control monuments, permanently trenched multi-conductor cables, pipe and culvert crossings, A21 Pit depressurization wells, and ADAS shacks were supplied by DDMI. Pit piezometers and depressurization wells locations provided by DDMI on October 16, 2020 and November 12, 2020.

13. Cut-off wall system details shown on profile on Construction Record Drawings

14300-41D2-1026.1C-CRR through 1026.6C-CRR are based on 2016 and 2017 Construction Records. Refer to Construction Record Drawings 14300-41D2-1041A-CRR through 14300-41D2-1060.23A-CRR for details.

14. Decommissioned instruments are shown in grey and are included on Drawing for completeness. 15. Polyethylene protection boxes, located on the dike and toe berm crests, are typically installed overlying the piezometer borehole and are not shown for clarity. Several protection boxes were not installed overlying the piezometer boreholes and are shown on Construction Record Drawings 14300-41D2-1026.1C-CRR through 1026.6C-CRR.

⁵16. ADAS shacks were installed during the 2017 and 2018 Construction Seasons. Design of ADAS shacks was by others. Dimensions shown this Drawing are not to scale and are shown for reference purposes only.

Pump well shacks were installed by DDMI during the 2018 Construction Season. Design of pump well shacks was by others. Pump well shacks are not shown this Drawing for clarity. 18. This Drawing is to be read in conjunction with accompanying BGC's report titled "A21 Dike 2024 Annual Performance Report", and dated November 2024.

19. As of the date of this drawing, the design information contained on this drawing reflects BGC's design intent and the material design changes made during construction that were brought to BGC's attention. BGC does not warrant, guarantee, or accept responsibility for the accuracy or completeness of the as-constructed information supplied to BGC by others and shown on this drawing.

20. BGC prepared this drawing for the exclusive use of BGC's client identified on this drawing. BGC shall have no liability for any damages, injury, or loss arising from the unauthorized use or modification of this drawing. Any unauthorized use, modification, or reliance on information contained on this drawing is at a party's own risk.

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BGC	PROJECT	No.: 120	7018	DWG No.: 14300-41D2-1026-PR24









NOTES:

- 1. All dimensions are in metres unless otherwise noted.
- 2. Refer to Construction Record Drawings 14300-41D2-1026B-CRR through 14300-41D2-1026.6B-CRR for plan views showing instrument locations. Positive (+) offsets are in the direction of increasing reference line stationing, negative (-) offsets are in the direction of decreasing reference line stationing.
- 3. Survey markers, geophone piers, manhole details, protection boxes and thermistor header boxes are not shown on cross sections for clarity. Refer to Construction Record Drawings 14300-41D2-1029B-CRR through 14300-41D2-1030.4B-CRR for typical backfill details.
- 4. A21 Dike and A21 Pit piezometric data based on ADAS data export dated July 23, 2023. A21 Dike and A21 Pit piezometric elevations shown are for July 22, 2023. 5. 2023 End of Season Dike topographic contour provided by DDMI on August 7, 2023.

6. Prepared foundation extends to the limits shown on Construction Records Drawing 14300-41D2-1004.1C-CRR. Prepared foundation shown is from DDMI composite surfaces dated October 14, 2015 for 2015 foundation preparation areas, and November 17, 2016 for 2016 foundation preparation areas. Incomplete survey data was provided by DDMI for the toe berm foundation preparation work completed in 2017 and 2018, thus the prepared foundation surface does not show the final foundation surface within the toe berm footprint. Lake bed and South Island ground surface shown outside these prepared foundation limits is from DDMI composite surface dated October 14, 2015. 7. The dike and toe berm crest and fill limits are based on the 2015 to 2018 construction surveys provided by DDMI. Refer to Construction Record Drawings 14300-41D2-1006.1D-CRR through 14300-41D2-1008.2B-CRR for more details.

The infield area topography shown downstream of the toe berm toe is based on DDMI drone survey data dated August 30, 2019. 8. Material limits and extents shown below elevation 418 m are from 2015 to 2017 Construction Records provided by DDMI survey. A combination of Zone 2 and Zone 3 materials was used to raise the dike from elevation 418 to 420.85 m. From approximate elevation 420.85 to 421 m, a layer of Zone 1 material was placed on the dike crest for trafficability. This layer of Zone 1 material is not shown for clarity.

- 9. Items in grey show the original A21 Dike design geometry. Items in black show the as-built dike configuration as per construction records provided by DDMI.
- 10. This Drawing is to be read in conjunction with the accompanying BGC's report titled "A21 Dike 2024 Annual Performance Report" and dated November 2024. 11. As of the date of this drawing, the design information contained on this drawing reflects BGC's design intent and the material design changes made during construction that were brought to BGC's attention. BGC does not warrant,
- guarantee, or accept responsibility for the accuracy or completeness of the as-constructed information supplied to BGC by others and shown on this drawing. 12. BGC prepared this drawing for the exclusive use of BGC's client identified on this drawing. BGC shall have no liability for any damages, injury, or loss arising from the unauthorized use or modification of this drawing. Any unauthorized use, modification, or reliance on information contained on this drawing is at a party's own risk.

SCALE:	1:500	CLIENT:	Rio Dominion Diamond Corporation	PROJECT: 2024 DIAVIK A21 DIKE	PERFORMANCE REPORT
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APPENDIX B PHOTOGRAPHIC RECORD

BGC Engineering

HOTO 06 Image from drone video looking southwest around Station 0+750 m to Station 0+800 m, including view of the crest of the 0+700 upstream buttress.

PHOTO 11 Image from drone video looking north at the upstream slope of the A21 Dike around Station 1+600 m.

PHOTO 12 Image from drone looking north at the upstream slope of the A21 Dike near Station 1+800.

PHOTO 13 Upstream slope at Station 0+100 m looking east (up-station).

PHOTO 14 Upstream slope at Station 0+370 m looking west (down-station).

РНОТО 1	5 Minor change of	f upstream slope erosion nea	r PW-02 (Station 0+340 m	n) from 2023 (left) to	2024 (right). See Photo 3.
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PHOTO 16 Upstream slope at the 0+750 upstream buttress at Station 0+700 m looking up-station (southeast).

PHOTO 21 Station 0+620 m looking northwest (down-station). Crack between survey marker M0622 and PW-03 last identified in 2022 is no longer visible.

PHOTO 22 A21 Dike crest at Station 1+050 m showing erosion depression (geotechnical feature A21-F48) in 2023 (left) and 2024 (right).

PHOTO 24 Image from the drone video of the A21 Dike crest and downstream slope near Station 0+120 m looking northwest.

PHOTO 25 Image from the drone video of the A21 Dike crest and downstream slope near Station 0+360 m looking north.

PHOTO 26 Image from the drone video of the A21 Dike crest and downstream slope near Station 0+600 m looking northeast.

PHOTO 27 Image from the drone video of the A21 Dike crest and downstream slope near Station 0+880 m.

PHOTO 28 Image from the drone video of the A21 Dike crest and downstream slope near Station 1+040 m looking east .

PHOTO 29 Image from the drone video of the A21 Dike looking southeast at the A21 Dike crest and downstream slope near Station 1+140 m.

PHOTO 30 Image from the drone video of the A21 Dike looking southeast at the A21 Dike crest and downstream slope near Station 1+320 m.

PHOTO 31 Image from the drone video of the A21 Dike looking southwest at the A21 Dike crest and downstream slope near Station 1+440 m. The upper portion of the A5 marine fill buttress visible near the bottom of the image.

PHOTO 32 Image from the drone video of the A21 Dike looking west at the south arm crest near Station 1+790 m.

PHOTO 33 Image from the drone video of the A21 Dike looking west at the south arm crest near Station 1+920 m.

PHOTO 34Downstream slope and toe berm from Station
0+220 m looking southwest (down-station).

PHOTO 35 Downstream slope and toe berm from Station 0+550 m looking southeast (up-station).

PHOTO 36 A21 Dike downstream slope from Station 0+780 m looking south (up-station).

PHOTO 37 A21 Dike downstream slope from Station 0+900 m looking southwest (up-station).

PHOTO 38 A21 Dike downstream slope around Station 1+475 m, looking down-station.

PHOTO 39 A21 Dike downstream slope around Station 1+525 m, looking down-station.

PHOTO 40 Looking down-station at the Toe Berm crest near Station 0+150 m (see Photo 24). Note the inactive sinkhole first observed in 2019.

PHOTO 41 Looking up-station at the Toe Berm crest near Station 0+100 m (see Photo 24. Cracks first observed in 2023 appear unchanged.

PHOTO 42Looking up-station at the Toe Berm and
DPS-07 near Station 0+520 m.

PHOTO 43 Looking up-station at the Toe Berm near Station 0+620 m.

- **PHOTO 44** Looking up-station at the Toe Berm near Station 0+880 m (see Photo 27). Crack observed along the downstream crest of the toe berm.
- **PHOTO 45** Looking up-station at the Toe Berm near Station 0+920 m.

PHOTO 47 Infield area looking downstream from Station 1+300 m.

PHOTO 48 Seepage area southwest of DPS-08, looking southwest. Some ponded water observed.

PHOTO 49 Sand boil scars in seepage area south of DPS-08.

CLIENT:

Local erosion interpreted to be linked to lakebed drainage

PHOTO 50 Edge of pond downstream of the toe berm by Station 1+280 m. Water level was higher than in 2023.

PHOTO 51 A5 marine fill buttress looking southwest from Station 1+420 m.

PHOTO 52 Panoramic overview of the A5 marine fill buttress looking south from Station 1+420 m (bottom). A floating pump was located in the depression downstream of the buttress to remove water during the spring freshet (top right).

PHOTO 53 Infield area near Station 1+800 looking north. Ponded water is slowly draining through the viewpoint platform north to the pit crest.

CLIENT:	BIGIC	REPORT TITLE: A21 DIKE 2024 ANNUAL PERFORMANCE REPORT		
Diavik Diamond Mine		PROJECT No.: 1207018	DATE: NOVEMBER 2024	

PHOTO 54 Overview looking north at the A21 Pit wall between approximately Station 0+200 to 0+750 m. Seepage observed in the Joe's Fault area.

PHOTO 57 Inside the ADAS shack #2 panel box.

