



## New Data Doubles Gold Target at Window Glass Hill Granite to Six Kilometres of Strike Length

Matador Mining Limited (ASX: MZZ; OTCQX: MZZMF; FSE: MA3) (“Matador” or the “Company”) is pleased to announce that interpretation of detailed magnetics, lithogeochemistry and historic data has doubled the known strike length of the highly prospective Window Glass Hill Granite (“WGHG”) Intrusion to over six kilometres at the Cape Ray Gold Project (the “Project”) Newfoundland, Canada.

### Highlights:

- Highly prospective WGHG intrusion defined over six kilometres strike length (hosting the 232Koz Au WGH and the 80Koz Au Central-PW Mineral Resources) (Figure 1);
- New detailed magnetics and bottom of hole (“BOH”) lithogeochemistry data demonstrate that an untested sheared wedge of the WGHG extends three kilometres further north-east along the Cape Ray Shear Zone (“CRSZ”) than previously interpreted, immediately north of the 519Koz Au Central Zone Mineral Resources (which are hosted in sheared sediments);
- WGHG extension is hosted entirely within the CRSZ and buried under a shallow veneer of till, so has not been rock chip sampled, nor has it been targeted by diamond drilling, representing an exceptional untested structural target for gold mineralization;
- Less than 15% of the six-kilometre strike length of the WGHG has been drill tested near surface, with most drilling to date limited to less than 120 vertical metres below surface, leaving significant discovery potential at depth;
- Power auger sampling through till cover, and abundant surface rock chips with >1g/t Au in areas of outcrop (Figure 2), demonstrate the potential for vein-hosted gold mineralisation across the entirety of the highly altered and quartz-veined WGHG;
- Recent WGHG Margin discovery<sup>1</sup>, achieved by using magnetics and geochemistry to “see through” the till cover, highlights the potential for multiple structurally-controlled gold mineralisation shoots to exist across the large but under-explored WGHG; and
- To date there has been no drilling specifically targeting shear hosted mineralisation in sediments adjacent to the WGHG, which is considered an important mineralized zone in similar granite-hosted gold deposits (such as Red 5 Limited’s (ASX: RED) 6.1Moz King of the Hills Deposit in Western Australia).

<sup>1</sup> ASX announcement 26 August 2021

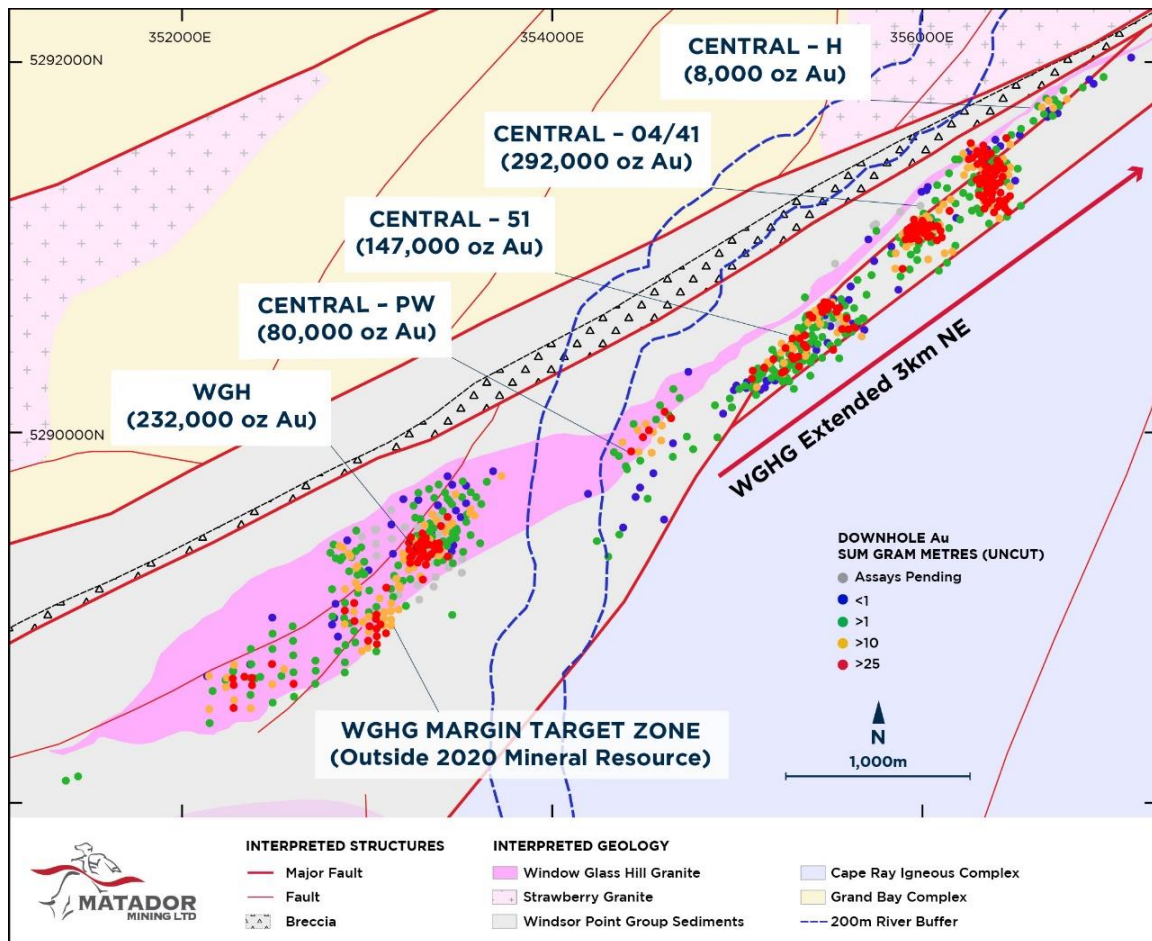


Figure 1: WGHG footprint extended to >6 kilometres of strike length north of Central Zone

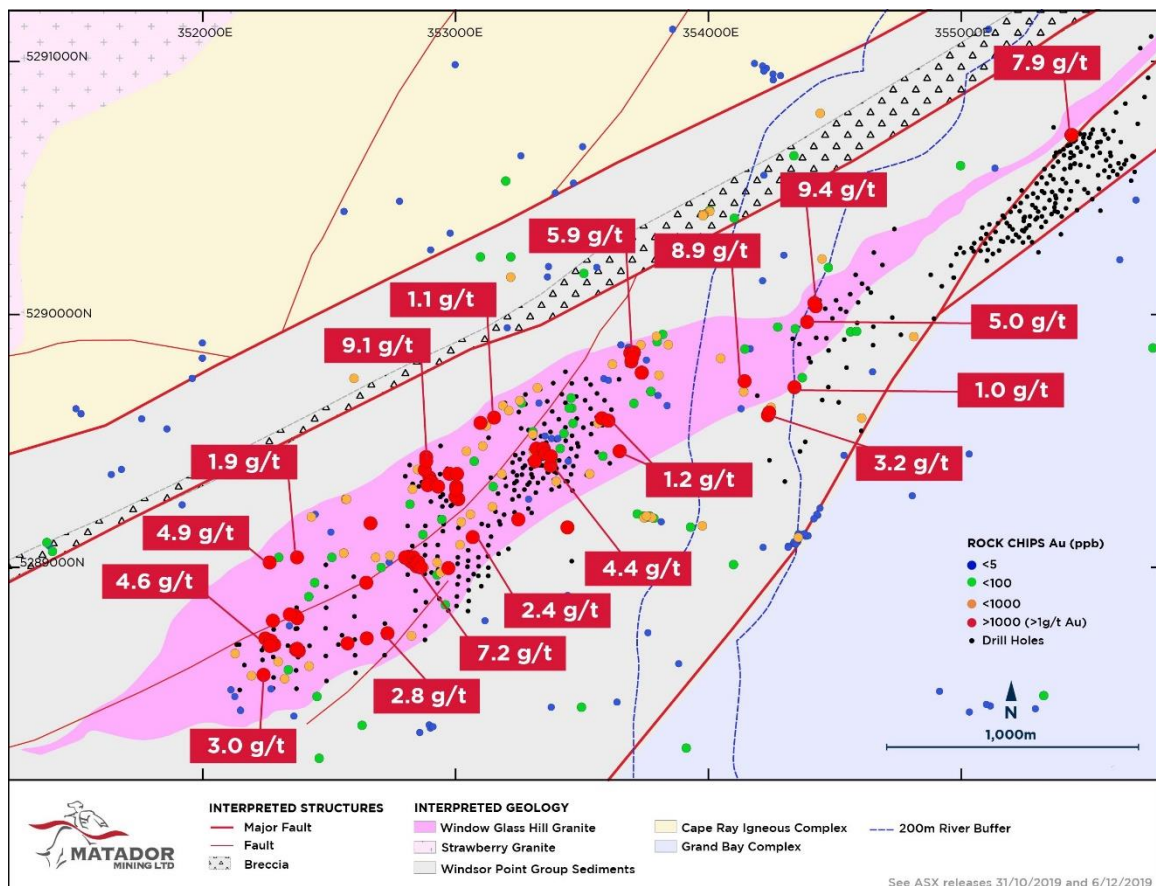


Figure 2: Gold in rock chips across the WGHG (sample distribution limited by outcrop exposure)

Executive Chair Ian Murray commented:

*“The opportunity presented by the large WGHG system to support significant mineral resource growth within a stone’s-throw of the proposed processing facility at Central Zone is extremely exciting. To find that the WGHG extends a further three kilometres to the north-east, immediately adjacent to the existing 519Koz Au Central Zone Mineral Resource, in an area almost completely devoid of previous drilling, represents a great opportunity for Matador to test through 2022.*

*For characterising and mapping the critical attributes controlling mineralisation hidden beneath the shallow till cover, this outcome has once again demonstrated the value of:*

- *collecting and interpreting detailed magnetics;*
- *collecting quantitative basement lithogeochemistry data;*
- *questioning historic logging; and*
- *revisiting faded historic map interpretations.*

*Matador will dedicate at least one diamond drill rig throughout the 2022 summer drilling season aiming to grow the WGHG-hosted resources footprint and continue to make new discoveries across the 85% of WGHG area and granite contact zones that are still to be effectively drill tested. We will also concurrently advance the broader greenfield discovery efforts and exploration target pipeline.”*

### **WGHG upside potential compared to other significant granite/intrusion hosted gold systems**

Gold mineralisation within the WGHG system is related to quartz-sulphide-gold veining and brecciation of the brittle granite host during the gold event(s). The tenor and volume of gold mineralisation is directly related to the intensity of quartz-sulphide-gold vein development which is controlled by fault/shear structures and brittle damage zones relating to rheological (rock strength) contrasts. These rheological competency contrasts occur both within the WGHG and between the WGHG and the weaker adjacent Windsor Point Group (“WPG”) sedimentary rocks. Both locations provide excellent focal points for gold mineralisation.

Gold mineralisation is often obscured by shallow till cover requiring effective auger sampling and structural targeting using the detailed magnetics, to discover new gold zones like the WGHG Margin Target within the WGHG.

The WGHG is interpreted to host two distinctly different gold mineralisation styles:

- **Granite-hosted, stacked, quartz-sulphide-gold (ladder) veins with subordinate finer stockwork quartz-sulphide-gold veins and breccias:**
  - The WGH Mineral Resource (232Koz Au), the Central-PW Mineral Resource (80Koz Au) and the recent WGHG Margin discovery are type examples of the granite hosted ladder and stockwork vein mineralisation style within the WGHG
  - Brittle veining and brecciation of the granite/intrusion is localized by the competency contrast between the strong brittle granite and the relatively weaker surrounding sediments. At the time of mineralisation, increasing pressure, associated with the injection of gold bearing hydrothermal fluids, has fractured the brittle host granite forming the gold bearing vein assemblages. The intensity of quartz-sulphide-gold veining is further enhanced where fault/shear structures cut across the granite forming distinct zones of increased veining, delivering significantly higher grade and thicker gold mineralisation (e.g. **19m at 4.2 g/t Au** (CRD214), **32m at 2.6 g/t Au** (CRD277), **45m at 1.2 g/t Au incl. 8m at 5.1 g/t Au** and **22m at 1.2 g/t Au** (CRD212) at the recent WGHG Margin discovery<sup>2</sup>

<sup>2</sup> ASX announcements 26 August 2021, 21 September 2021, 30 November 2021 and 14 December 2021

- To offer a potential analogue, this is a similar veining and mineralisation process reported at Marathon Gold Corporation's (TSXV: MOZ) 4.8Moz Au Valentine Lake gold mineral system (Figure 3), where at least 4 significant gold deposits have been defined within a 10-kilometre-long intrusion in faulted contact with a weaker sequence of sedimentary rocks<sup>3</sup> approximately 50 kilometres northeast along strike from Matador's Cape Ray Gold Project
- In general, the granite hosted mineralisation style generates larger (bulk) tonnages of lower grade (1-2 g/t Au) mineralisation ideally suited to open pit extraction, with almost all of the current WGHG-hosted Mineral Resources and ongoing exploration focused within 120 vertical metres of surface
- **Sediment-hosted gold mineralisation controlled by fault/shear zones focused in the weaker sediments surrounding the strong WGHG:**
  - The Isle aux Morts deposit (60Koz at 2.4 g/t Au<sup>4</sup>), located approximately 10 kilometres north-east of the WGH deposit along the CRSZ, is a good example of gold mineralisation related to the strain partitioning between a relatively thin granite intrusion and weaker sedimentary host rocks. Shear strain is localised in the weaker sediments producing discrete higher-grade plunging gold shoots associated with gold bearing quartz veins within or parallel to the shear zone (e.g.: **18m at 11 g/t Au (CRD162), 19m at 4.6 g/t Au (CRD161)**<sup>5</sup>)
  - Offering another analogue, the upside potential of competency related shear-hosted gold mineralisation is demonstrated at Red 5 Limited's 6.1Moz Au<sup>6</sup> King of the Hills deposit on the margin of the three-kilometre long Tarmoola Granodiorite in Western Australia's Eastern Goldfields (Figure 3). At King of the Hills, the bulk of the Mineral Resource is localized in multiple high-grade shoots in weaker host rocks immediately adjacent to the Tarmoola Granodiorite contact. Irregularities in the shape of the granite contact focus the deformation and gold mineralizing hydrothermal fluids and control the orientation of the plunging shoots. Subordinate gold mineralisation is also hosted by brittle veining within the Tarmoola Granodiorite (similar to the WGHG)
  - The recent recognition that a sheared wedge of the WGHG extends three kilometres along the northern edge of the string of Central Zone mineral resources, raises the possibility that the WGHG might also be responsible for localising the quartz-sulphide-gold shear veins associated with the sediment-hosted 519Koz Au Central Zone Mineral Resources<sup>4</sup>, which also exhibit plunging shoot geometries. If this is the case, the sediments in close contact with the entire 14-kilometre-long circumference of the WGHG present a compelling (and untested) discovery opportunity

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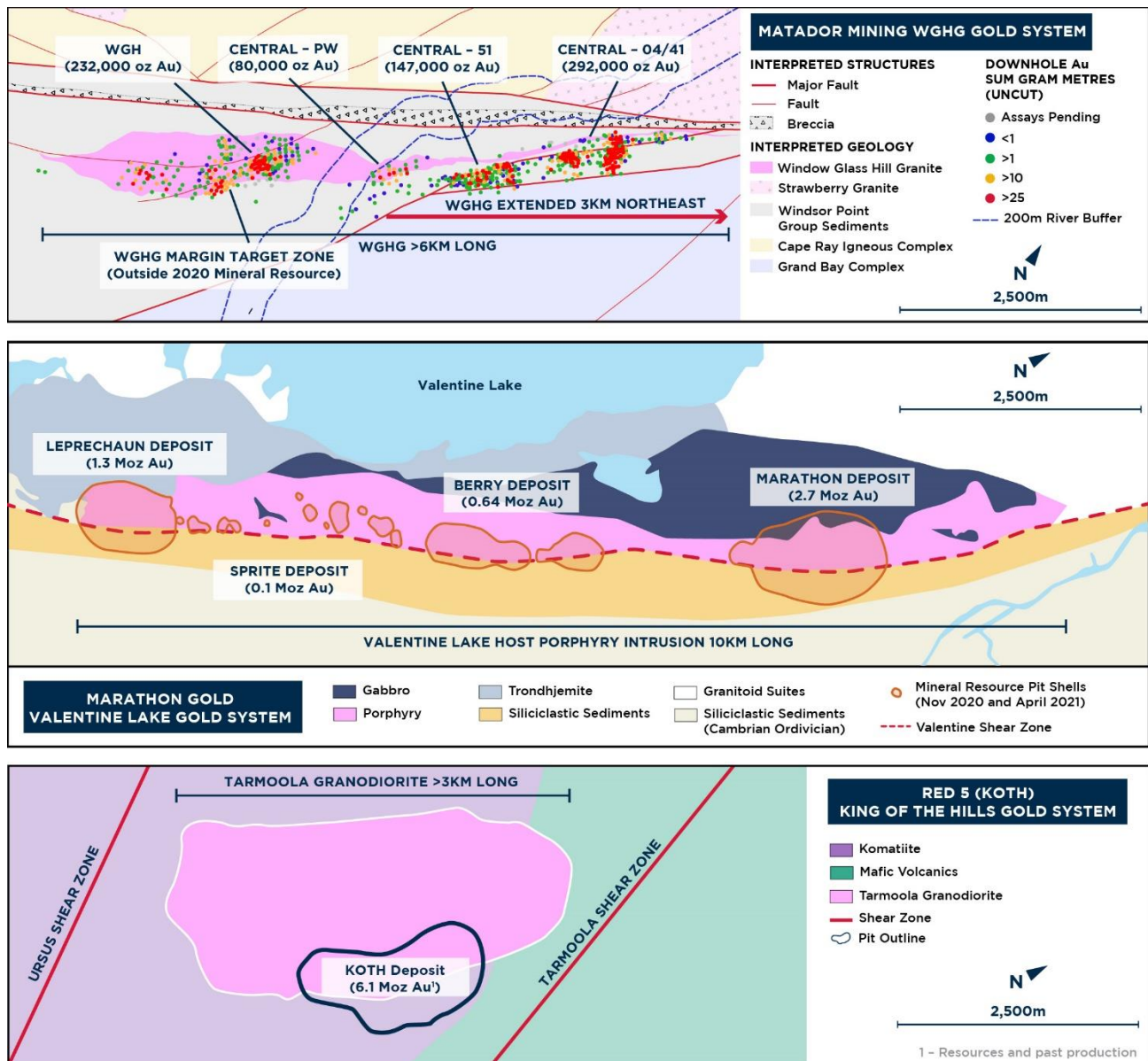
<sup>3</sup> Marathon Gold Corporate Update Presentation January 2022 ([www.marathon-gold.com](http://www.marathon-gold.com))

<sup>4</sup> ASX announcement 6 May 2020

<sup>5</sup> ASX announcement 1 February 2021

<sup>6</sup> Resources plus past production - Red 5 ASX announcement 25 January 2022





**Figure 3: Comparison of the WGHG gold mineral system to Marathon Gold Corporation's intrusion-hosted 4.8Moz Au Valentine Lake Project and Red 5 Limited's 6.1Moz Au Granite margin hosted King of the Hills Project**

Similar (untested) structurally controlled gold mineralisation targets have been identified in the magnetic data along the entire 120 kilometre strike length of the Company's claims covering the Cape Ray Shear Zone. The high priority Benton target area (Figure 6), with unexplained historic rock chip samples up to 191 g/t Au, is located on a sheared granodiorite-sediment contact.

The regional till sampling survey completed at the 50km<sup>2</sup> Malachite Lake area (assays pending) targets a large area with no historic exploration where a multitude of intrusions are cross-cut by a complex second-order fault/shear zone array splaying off a prominent regional bend in the Cape Ray Shear Zone. The PW-East target currently being drilled as part of Matador's winter drilling program is targeting part of the previously untested eastern extension of the WGHG granite north of the Central Zone deposits (Figure 6).

## **Auger geochemistry and magnetics data deliver detailed geology and alteration map for WGHG**

Geochemical analysis of the BOH samples from the power auger program across the WGHG area completed in 2021 (Figure 4) has enabled the BOH lithologies to be classified and interpreted in conjunction with the detailed magnetics, to provide a new detailed solid geology map of the WGHG and the enveloping WPG sedimentary sequences (previously impossible due to lack of outcrop).

This process resulted in the identification of two chemically distinct phases of the WGHG which appear to control the geometry of mineralisation within the WGHG and at least three chemically distinct sedimentary units in the WPG. These lithogeochemical classifications have been correlated with their magnetic signatures enabling the interpretation of the fold geometries in the sediments surrounding the WGHG to be much better constrained (improving both WGHG and Big Pond exploration targeting outcomes).

The same BOH geochemical dataset can be used to classify hydrothermal alteration mineralogy which, when combined with hyperspectral mineralogy analysis of the BOH core samples, can be used to create an alteration mineralogy map interpretation (Figure 5).

These map products can then be integrated with the BOH and till pathfinder element and gold geochemistry to provide a well constrained basement targeting toolkit that can “see through” the shallow till cover that has impeded historic exploration of the WGHG area, and indeed the entire Cape Ray Gold Project.

The first target for the current winter drilling program is granite-hosted mineralisation associated with the recently defined WGHG extension north-east of the PW Deposit (at the south-west end of Central Zone). The 80Koz PW Mineral Resource is hosted in the Eastern extension of the WGHG and is similar in style (vein/sulphide/alteration) to the existing WGH Mineral Resource.

The WGHG extends at least three kilometres further north-east of PW, just north of the other Central Zone Mineral Resources, which are all hosted in sheared sediments on, or near, the southern contact of the WGHG. The WGHG north of the Central Zone resources has not been effectively drill-tested and presents a strong structural target for WGHG-style quartz stockwork and ladder vein hosted gold, as well as shear-zone hosted gold adjacent to the granite margin.

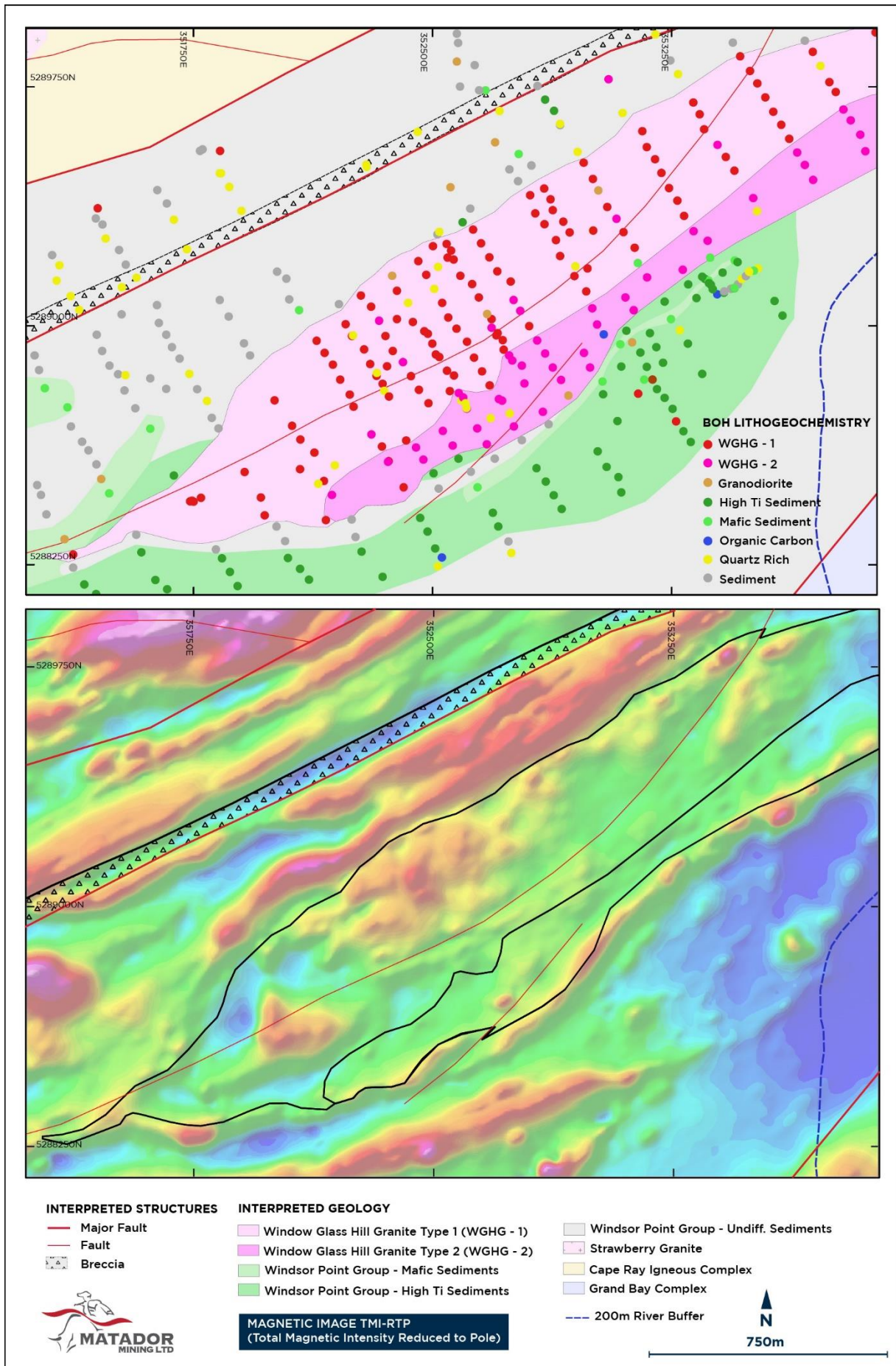
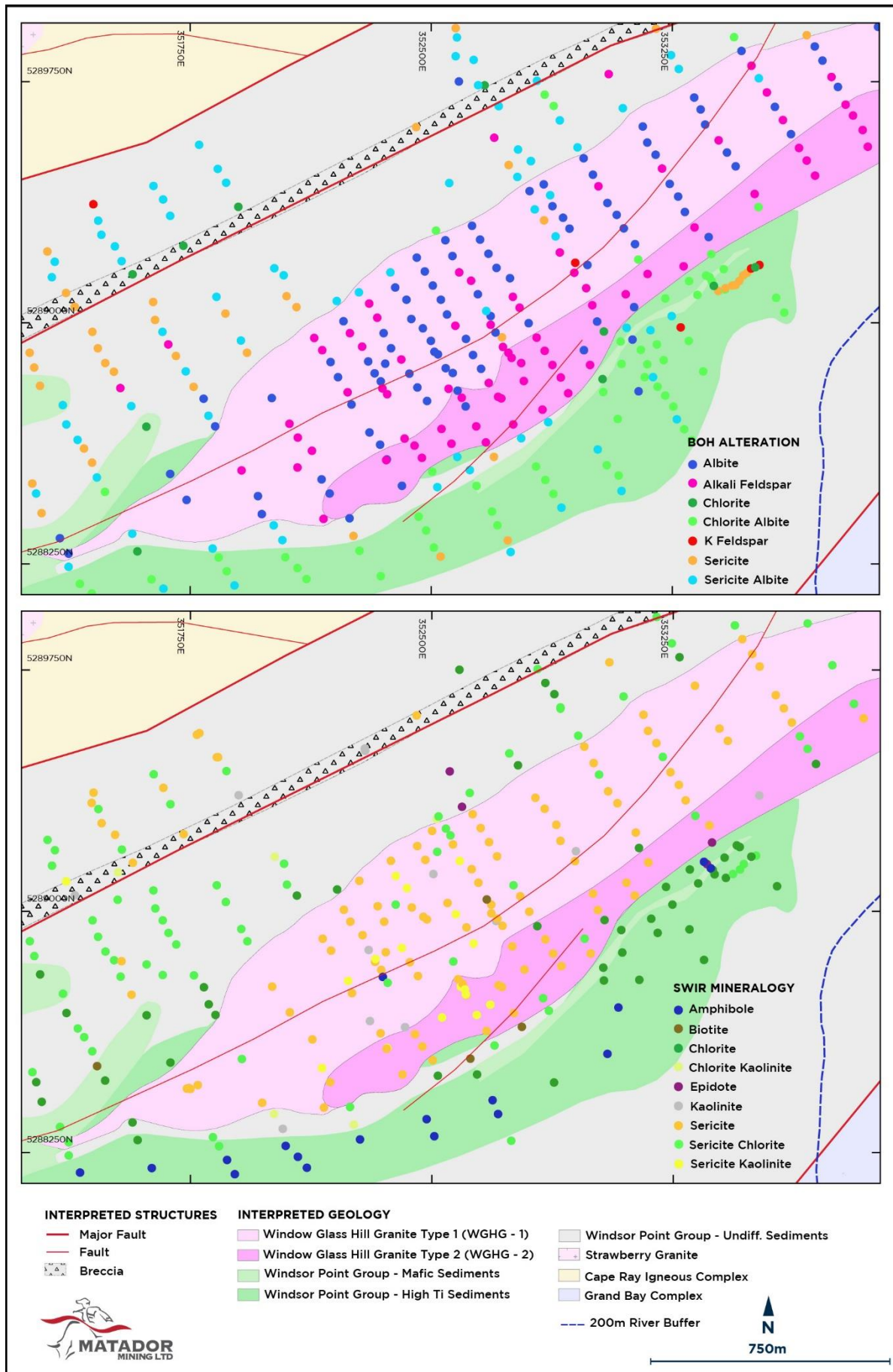


Figure 4: Solid geology interpretation from integration of BOH lithogeochemistry and magnetics





**Figure 5: Alteration mineralogy classifications from BOH geochemistry and SWIR spectral mineralogy datasets**

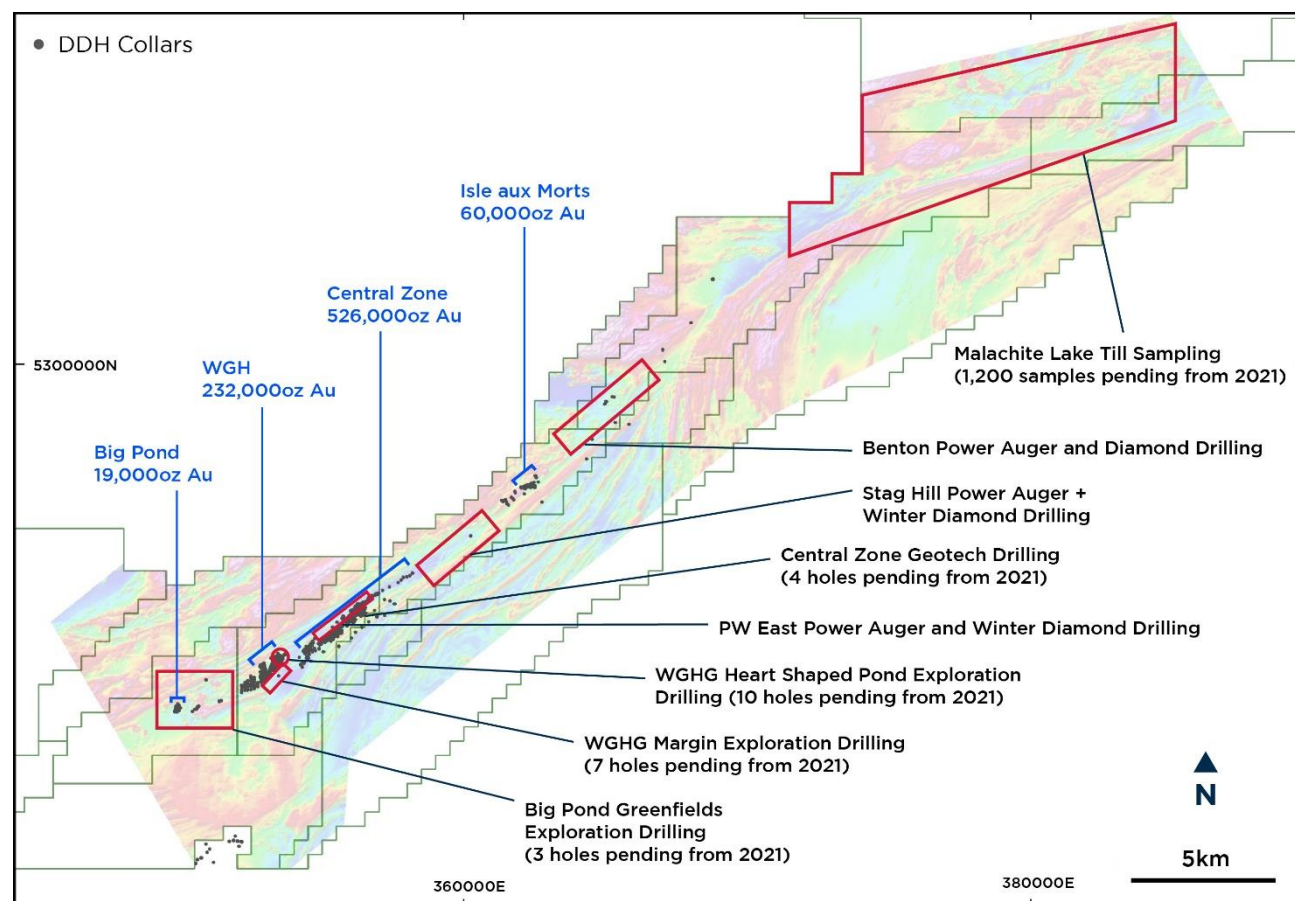


## Assays Pending from Summer Drill Program

Assay results are imminent from 35 diamond holes drilled during the 2021 summer drilling season<sup>7</sup> including the following targets:

- 10 greenfield diamond drill holes assessing the WGHG Heart-Shaped Pond (HSP) target area. This area, just west of the main WGH Mineral Resource, has never been drilled, however, new Power Auger geochemistry delivered multi-gram bottom-of-hole gold intercepts prompting a reassessment of the target area's prospectivity;
- 7 greenfield diamond drill holes testing for along-strike extensions of the WGHG Margin mineralisation to the north-east;
- 3 greenfield diamond drill holes from the Big Pond Area;
- 11 infill drill holes within the WGH Mineral Resource; and
- 4 geotechnical drill holes undertaken at Central Zone.

Results are also pending for 1,200 conventional till samples from the Malachite Lake greenfield reconnaissance program and the remainder of the Stag Hill power auger sampling program<sup>8</sup>.



**Figure 6: 2021-22 Exploration target areas and outstanding assay results from 2021**

This announcement has been authorised for release by the Company's Board of Directors.

<sup>7</sup> ASX announcement 31 January 2022

<sup>8</sup> ASX announcement 18 November 2021

To learn more about the Company, please visit [www.matadormining.com.au](http://www.matadormining.com.au), or contact:

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## About the Company

**Matador Mining Limited (ASX: MZZ; OTCQX: MZZMF; FSE: MA3)** is a gold exploration company with tenure covering 120 kilometres of continuous strike along the highly prospective, yet largely under-explored Cape Ray Shear in Newfoundland, Canada. In November 2021 Matador was the recipient of the CIM NL Prospector/Explorer of the Year award. The Company released a Scoping Study which outlined an initial potential seven-year mine life, with a forecast strong IRR (51% post Tax), rapid payback (1.75 year) and LOM AISC of US\$776/oz Au (ASX announcement 6 May 2020). The Company is currently undertaking the largest exploration program carried out at Cape Ray, with upwards of 45,000 metres of diamond drilling, targeting brownfield expansion and greenfields exploration. Matador acknowledges the financial support of the Junior Exploration Assistance Program, Department of Industry, Energy and Technology, Provincial Government of Newfoundland and Labrador, Canada.



## Reference to Previous ASX Announcements

In relation to the results of the Scoping Study which were announced on 6 May 2020, Matador confirms that all material assumptions underpinning the production target and forecast financial information included in that announcement continue to apply and have not materially changed.

In relation to the Mineral Resource estimate announced on 6 May 2020, the Company confirms that all material assumptions and technical parameters underpinning the estimates in that announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

In relation to the exploration results included in this announcement, the dates of which are referenced, the Company confirms that it is not aware of any new information or data that materially affects the information included in those announcements.

The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.

### **Competent Person's Statement**

The information contained in this announcement that relates to exploration results is based upon information compiled by Mr Warren Potma, who is an employee of Matador Mining Limited in the position of Exploration Manager. Mr Potma is a Member of the AUSIMM and a Member of the AIG and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the JORC Code 2012. Mr Potma consents to the inclusion in the announcement of the matters based upon the information in the form and context in which it appears.