## ASX and Media Release

Wednesday, 17th March 2021



# Magnetics Interpretation Assists Drill Targeting in 2021

ASX Code: WRM OTCQX: WRMCF

**Issued Securities**Shares: 72.7 million
Options: 5.7 million

**Cash on hand** (31 Dec 2020) \$11.5M

**Market Cap** (16 Mar 2021) \$42.8M at \$0.59 per share

**Directors & Management**Peter Lester
Non-Executive Chairman

Matthew Gill
Managing Director &
Chief Executive Officer

Jeremy Gray Non-Executive Director

Shane Turner Company Secretary

Rohan Worland Exploration Manager

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#### **HIGHLIGHTS**

- White Rock controls a strategic district-scale 798km² land holding in the Bonnifield District of central Alaska where there is gold potential related to the Tintina Gold Province (Figure 1) and where there is VMS potential in the western extension of the Yukon-Tanana Terrane.
- As a part of the Company's exploration activities in 2020, an airborne magnetics and radiometrics survey was flown<sup>1</sup> to assist in mapping the geology and structures and guide planning for this year's exploration program.
- 3D modelling and a geological interpretation of the airborne magnetics and radiometrics survey is providing a foundation for interpreting the links between Cretaceous granites and structures controlling mineralisation at the Company's large Last Chance Gold Target in the Tintina Gold Province.
- The Tintina Gold Province is host to giant gold deposits including Donlin Creek (45 Moz Au<sup>2</sup>), Pogo (10 Moz Au<sup>3</sup>) and Fort Knox (13.5 Moz Au<sup>4</sup>), which are all Intrusion-Related Gold Systems (IRGS) associated with Cretaceous granites.
- ✓ At the Last Chance Gold Target, White Rock expects to be able to drill test structural positions with the potential for high grade gold mineralisation during the 2021 field season, expected to commence mid-June.
- ✓ The magnetics interpretation has also defined a stratigraphic domain hosting newly identified VMS prospects at Horseshoe, Bib, Bib West, Peaches and Grapple<sup>5</sup>. These newly identified VMS prospects will also be a focus for surface prospecting to assist to define the priority targets for drill testing during the upcoming 2021 field season.

White Rock Minerals ("White Rock" or "the Company") (ASX:WRM, OTCQX:WRMCF) is pleased to provide an update regarding ongoing interpretation of data acquired at the Last Chance gold target during the 2020 field season<sup>1</sup>. An interpretation of the airborne magnetics survey acquired during July 2020 has been undertaken following processing and modelling of the data. The resulting geological interpretation, completed by specialist magnetics consultant Kim Cook, has integrated all available geological field data and advanced inversion modelling completed by Carl Windels. This work aimed to identify structural positions related to potential intrusion sources driving the large gold mineral system identified at Last Chance, Alaska.

## **Last Chance Gold Anomaly.**

Inversion modelling of the magnetics data has identified a distinct remnant signature associated with mapped Cretaceous granites. The modelled remnant signature indicates the likely presence of a roofed intrusive system extending east-west to the south of the main Last Chance surface gold anomaly, which could be a probable heat and metal source for Cretaceous age hydrothermal activity.

Mapped Cretaceous granites occur to the southeast of Last Chance near the Wood River and are well identified in the airborne magnetics as a magnetic low feature and with associated hornfels magnetic highs found along their periphery (Figure 4). These same magnetic characteristics are seen to the west where no granites are mapped at surface, suggesting a series of buried *(or roofed)* granite plutons exist below the surface.

Inversion modeling in the area of the Last Chance gold anomaly indicates that the depths to the top of the interpreted intrusions range between 500 to 2,000 metres, with a number of possible intrusive apophyses and/or controlling structures with related alteration extending close to surface (Figure 5). While no direct relationship between the Cretaceous granite and gold mineralisation has been recognised at Last Chance, their close association with IRGS deposits seen elsewhere in the Tintina Gold Province (e.g. Fort Knox and Pogo) is a favourable association that assists interpretation and targeting at Last Chance.

Regional fault systems are strongly evident in east-west oriented alternating magnetic low and high bands across the project area, especially just north of the Last Chance target area. These are likely active regional subsidiary shears or back-thrusts associated with neotectonic motions occurring along the major Denali fault system nearby and a north propagating fold-thrust belt that is actively uplifting the Alaska Range. Smaller accommodating faults are seen in the magnetics as two distinct groups; a northwest striking set occurring mostly on the west side of the project area and a northeast striking set occurring on the east side of the project area (Figures 2 & 3). These northwest and northeast orientations emanate from a position centred on the Last Chance Gold Target where there is a gentle bend in the regional east-west fault system.

Additional work is required to distinguish between structures active during gold mineralisation and the more recent active neotectonic faults unrelated to mineralisation. Drilling to date has uncovered brittle re-activated fault systems which were once pathways for hydrothermal fluids as well as more recent barren fault-gouge structures. The magnetic interpretation provides the beginnings of a structural framework that can continue to be refined with additional data and will form the foundation for targeting structural hosted gold mineralisation.

Selection of the most favourable structural conduits above the interpreted granites will be aided by the alteration and geochemical data acquired from mapping, surface sampling, drilling and satellite spectral analysis completed during 2020.

White Rock expects to be able to drill test structural positions with the potential for high grade gold mineralisation during the 2021 field season that is expected to commence mid-June.

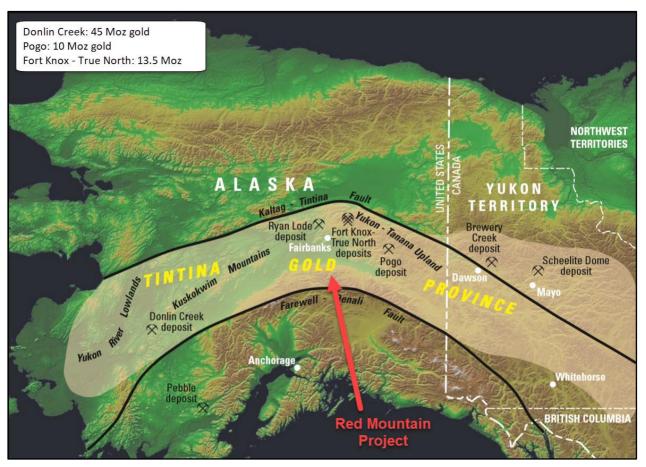
## **New VMS Targets.**

In addition to the targeting of gold mineralisation at Last Chance, the magnetics interpretation has provided significant improved understanding of the VMS potential that extends across the tenement package to the north of Last Chance.

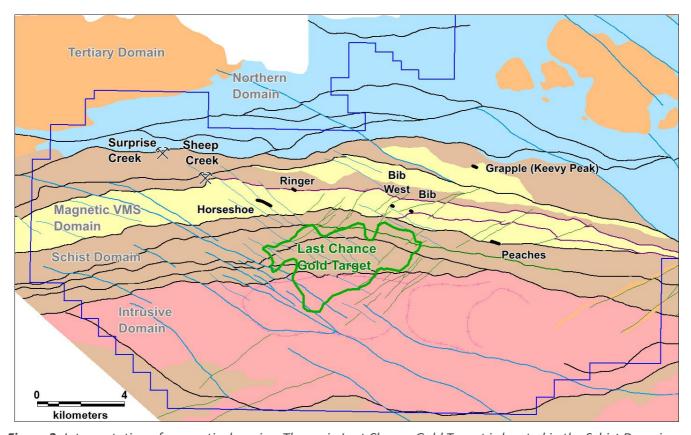
Reconnaissance mapping and sampling identified six target areas with outcropping VMS mineralisation at Horseshoe, Bib, Bib West, Ringer, Peaches and Grapple (refer ASX Announcement from 1<sup>st</sup> February 2021). Magnetics identifies a clear stratigraphic domain that hosts these western VMS mineral occurrences.

The prospective Magnetic VMS Domain provides an area of focus for more intense prospecting in conjunction with more detailed surface sampling and geophysical surveys across the new target areas early during the 2021 field season. Given the association of pyrrhotite, a magnetic iron sulphide mineral, with the VMS occurrences, it is expected that more detailed surface magnetics will be modelled to provide more definitive drill targets of the VMS horizon beneath the extensive talus cover that covers up to 95% of the prospect target areas.

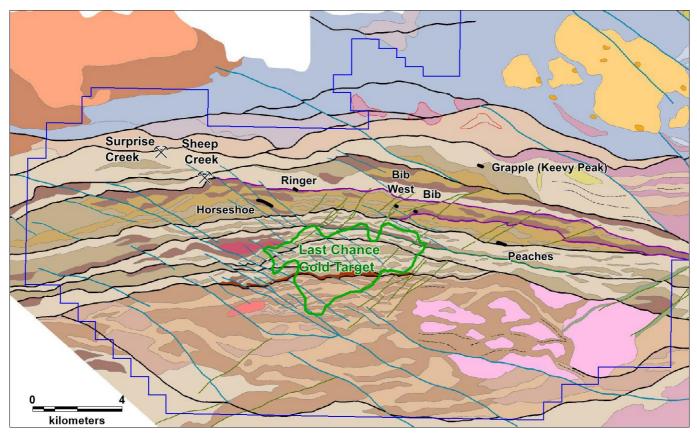
It is expected that surface prospecting will define targets for drill testing during the second half of the 2021 field season.



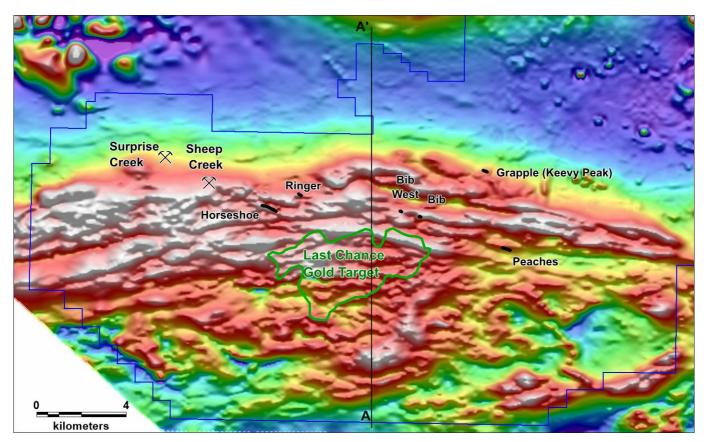
**Figure 1:** Location of the Red Mountain Project (including the Last Chance Gold Target) within the Tintina Gold Province and its major gold deposits including Donlin Creek (45Moz Au<sup>4</sup>; NovaGold & Barrick), Fort Knox (13.5Moz  $A^5$ ; Kinross) and Pogo (10 Moz Au<sup>6</sup>; Northern Star).



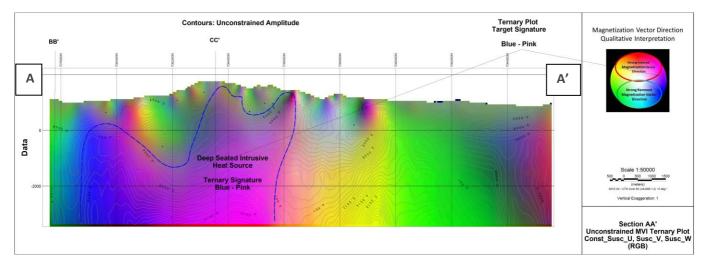
**Figure 2**: Interpretation of magnetic domains. The main Last Chance Gold Target is located in the Schist Domain on the northern margin of the Intrusive Domain where there are exposed and interpreted buried Cretaceous granites that could be the driving source of gold mineralising fluids along structural pathways marginal to the granite. The mapped VMS mineralisation at Horseshoe, Ringer, Bib, Bib West, Peaches and Grapple are all associated with linear magnetic features within a magnetic domain that extends east-west through the district.



**Figure 3:** Detailed magnetic interpretation showing the location of the main Last Chance Gold Target and the newly mapped VMS targets at Horseshoe, Ringer, Bib, Bib West, Peaches and Grapple.



**Figure 4:** Magnetics RTP image showing the location of the main Last Chance Gold Target and the newly mapped VMS targets at Horseshoe, Ringer, Bib, Bib West, Peaches and Grapple that all contain pyrrhotite, a magnetic iron sulphide mineral that will prove useful for modelling and targeting VMS mineralisation at these prospects.



**Figure 5:** North-south section A-A' (refer Figure 3) of the 3D magnetics inversion model by Carl Windels showing the remnant magnetised body interpreted as a deep seated intrusive heat source. The 3D magnetics inversion model provides an overall interpretation of the distribution of the remnant magnetic signature associated with exposed and buried Cretaceous granites through the southern Intrusive Domain. This then allows for the interpretation of apophyses and structures extending to surface for integration with alteration and geochemical datasets for future drill targeting of favourable structural positions for gold mineralisation.

This release is authorised by the Board of White Rock Minerals Ltd.

#### **Competent Persons Statement**

The information in this report that relates to exploration results is based on information compiled by Mr Rohan Worland who is a Member of the Australian Institute of Geoscientists and is a consultant to White Rock Minerals Ltd. Mr Worland 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 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Worland consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.

### No New Information or Data

This announcement contains references to exploration results and Mineral Resource estimates, all of which have been cross-referenced to previous market announcements by the Company. The Company confirms that it is not aware of any new information or data that materially affects the information included in the relevant market announcements and in the case of estimates of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.

<sup>&</sup>lt;sup>1</sup> Refer ASX Announcement 10<sup>th</sup> August 2020 "Airborne Geophysics Completed at the Last Chance Gold Target, Alaska".

<sup>&</sup>lt;sup>2</sup> Total Reserve and Resource gold ounces; NovaGold Resources Inc., NI43-101 Report, Updated Feasibility Study (amended) 20 January 2012

<sup>&</sup>lt;sup>3</sup> Combined production and remaining Resource gold ounces for Fort Knox – True North; Production figures from Special Report 74, State of Alaska's Mineral Industry 2018, DNR, DGGS; Resource figures from Kinross Gold Corporation 2018 Mineral Resource Statement inclusive of Reserves, News Release dated 13 February 2019.

<sup>&</sup>lt;sup>4</sup> Combined production and remaining Resource gold ounces; Production figures from Special Report 74, State of Alaska's Mineral Industry 2018, DNR, DGGS; Resource figures from Northern Star Resources Limited June 2019 Mineral Resource Statement inclusive of Reserves, 2019 Annual Report.

<sup>&</sup>lt;sup>5</sup> Refer ASX Announcement 1<sup>st</sup> February 2021 "Multiple New Mineralised VMS Targets at Red Mountain, Alaska".