

ASX and Media Release: 16 January 2018

ASX Code: WRM

White Rock Minerals to build on its 2018 Red Mountain VMS Project gains

ASX Code: WRM

Issued Securities

Shares: 1,636 million Options: 570 million

Cash on hand (30 Sept 2018) \$2.6M

Market Cap (14 Jan 2019) \$11.4M at \$0.007 per share

Directors & Management

Peter Lester Non-Executive Chairman

Matthew Gill
Managing Director &
Chief Executive Officer

Ian Smith
Non-Executive Director

Jeremy Gray Non-Executive Director

Stephen Gorenstein Non-Executive Director

Shane Turner Company Secretary

Rohan Worland Exploration Manager

For further information, contact: Matthew Gill or Shane Turner Phone: 03 5331 4644

<u>info@whiterockminerals.com.au</u> www.whiterockminerals.com.au White Rock Minerals Ltd ("White Rock" or the "Company") is pleased to provide an update regarding White Rock's globally significant high-grade zinc and precious metals volcanogenic massive sulphide ("VMS") Red Mountain Project in central Alaska (Red Mountain Project).

The successful progress of the 2018 exploration program resulted in the signing of a cornerstone investment and strategic relationship agreement with Sandfire Resources NL (ASX:SFR) (Sandfire). Sandfire contributed \$2.5 million equity and a further \$1 million convertible loan unsecured to White Rock during 2018.

Subsequently, at the end of 2018, Sandfire exercised its option to enter into a Joint Venture Agreement¹ over the Red Mountain Project, which once signed, would see funds committed with Stage One of this JV being a minimum of A\$20M spent on the project over the first four years. For Year One (the 2019 field season), the funding requirement would be a minimum of A\$6M. This is a great endorsement of White Rock's view of the project's quality and potential.

The results achieved from the successful 2018 exploration program also resulted in the expansion of the tenement package² with an area of **475km²** now secured over the Bonnifield Mining District and additional prospective footwall stratigraphy, plus a number of additional historic VMS mineral occurrences not yet explored with modern techniques.

MD & CEO Matt Gill said "White Rock has successfully completed a number of exploration activities during 2018 as we push towards proving up that the Bonnifield Mining District can indeed be an emerging new VMS camp of significance, containing zinc, silver, lead and gold. Our success in making a new discovery at the Hunter prospect, high grade drilling intercepts at Dry Creek and West Tundra, confirming that these two deposits remain open down dip and in places along strike, and demonstrating the successful application of geophysics and geochem approaches, are significant developments. This work continues to unlock a much larger picture in terms of resource and district potential."

"During 2019, White Rock plans to follow up on the successful 2018 exploration program. We are in the process of designing and budgeting a program of field mapping, rock and soil sampling, geophysics and diamond drilling at Red Mountain. This work is designed to advance and delineate exploration targets towards the discovery of new mineralization that has the potential to favourably impact project economics and add to our already globally significant high-grade JORC Resource."

Summary

Exploration program highlights since White Rock acquired the Red Mountain Project include:

- Maiden JORC 2012 Mineral Resource estimate³ for the Dry Creek and West Tundra Flats deposits calculated from historic drilling with:
 - High grade Inferred Mineral Resource of 9.1 million tonnes @ 12.9% ZnEq⁴ for 1.2Mt of contained zinc equivalent at a 3% Zn cut-off.
 - o Total Inferred Mineral Resource of **16.7 million tonnes @ 8.9% ZnEq⁴** for 1.5Mt of contained zinc equivalent at a 1% Zn cut-off for Dry Creek, 3% Zn cut-off for West Tundra Flats & 0.5% Cu cut-off for Dry Creek Cu Zone.
 - o Impressive base metal and precious metal content with 678,000t zinc, 286,000t lead, 53.5 million ounces silver and 352,000 ounces gold.



Further Highlights for 2018

- A total of 24 drill holes for 4,111 metres of diamond core drilling was completed during 2018.
- Best drill intersection in the history of this project into the Discovery Lens at the Dry Creek deposit with 4.7m @ 19.5% Zn, 7.8% Pb, 466g/t Ag, 6.9g/t Au and 1.5% Cu for 49.7% ZnEq⁴ (DC18-79)⁵.
- Down dip extension of the Fosters Lens at the Dry Creek deposit with 4.3m @ 4.8% Zn, 2.3% Pb, 1,435g/t
 Ag, 2.2g/t Au and 0.5% Cu for 43.2% ZnEq⁴ (DC18-77)⁵ and remaining open down dip.
- Best drill intersection in the history of this project at the West Tundra deposit with 3.5m @ 15.1% Zn,
 6.7% Pb, 518g/t Ag, 2.1g/t Au and 0.2% Cu for 35.2% ZnEq⁴ (WT18-28)⁶.
- Discovery and successful drill testing of the new Hunter prospect massive sulphide mineralisation with 1.4m @ 17.4% Zn, 3.9% Pb, 90g/t Ag & 1.6% Cu for 25.8% ZnEq⁴ from 48.2m (HR18-01)⁷. This discovery remains open east and west and down dip with massive sulphide mapped for over 500 metres along strike on the surface.
- Identification of 9 high priority geochemical anomalies⁸ from a detailed regional stream sediment program across the core area of regional prospectivity centred on the Bonnifield East syncline with particular emphasis on two distinct anomaly clusters; west of the known mineralisation at Dry Creek (the southern limb of the Bonnifield syncline) and in the Glacier Creek area with strong sulphide footwall alteration on the northern limb of the Bonnifield syncline. Strong base metal anomalism up to 1.1% zinc in streams indicates high prospectivity for outcropping massive sulphides.
- Successful orientation ground geophysics across known mineralisation with CSAMT accurately identifying massive sulphide mineralisation at Dry Creek and West Tundra enabling the technique to be a rapid reconnaissance tool for identifying drill targets within zones of anomalous geochemistry and favourable stratigraphy⁹. The CSAMT crew acquired 40 line km of new data along strike of Dry Creek and West Tundra.
- Successful application of portable XRF analysis of soil samples to deliver rapid target generation.

¹ Refer ASX Announcement 27th December 2018 "Sandfire Exercises Option to Enter Joint Venture on Red Mountain".

² Refer ASX Announcement 21st November 2018 "Expanded Land Holding with Additional High-Grade VMS Prospects, Red Mountain".

³ Refer ASX Announcement 26th April 2017 "Maiden JORC Mineral Resource, Red Mountain".

 $^{^4}$ ZnEq = Zinc equivalent grades are estimated using long-term broker consensus estimates compiled by RFC Ambrian as at 20 March 2017 adjusted for recoveries from historical metallurgical test work and calculated with the formula: ZnEq =100 x [(Zn% x 2,206.7 x 0.9) + (Pb% x 1,922 x 0.75) + (Cu% x 6,274 x 0.70) + (Ag g/t x (19.68/31.1035) x 0.70) + (Au g/t x (1,227/31.1035) x 0.80)] / (2,206.7 x 0.9). White Rock is of the opinion that all elements included in the metal equivalent calculation have reasonable potential to be recovered and sold.

⁵ Refer ASX Announcement 4th July 2018 "High Grade Zinc-Silver Drill Intersections Extend Mineralisation at Red Mountain".

⁶ Refer ASX Announcement 18th June 2018 "Initial Drilling Delivers High Grade Zinc Results at Red Mountain".

⁷ Refer ASX Announcement 20th August 2018 "High Grade Zinc Discovery at the Hunter Prospect, Red Mountain".

⁸ Refer ASX Announcement 4th December 2018 "New Geochemical Anomalies Associated with VMS Alteration, Red Mountain".

⁹ Refer ASX Announcement 20th June 2018 "New Massive Sulphide Mineralisation Drill Intercepts Coincident with Geophysics Anomalies at Red Mountain".



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, Mineral Resource estimates, Ore Reserve estimates, production targets and forecast financial information derived from the production targets, 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. In the case of Mineral Resource estimates, Ore Reserve estimates, production targets and forecast financial information derived from the production targets, all material assumptions and technical parameters underpinning the estimates, production targets and forecast financial information derived from the production targets contained in the relevant market announcement continue to apply and have not materially changed.

For more information about White Rock and its Projects, please visit our website www.whiterockminerals.com.au

or contact:

Matt Gill (MD & CEO) or Shane Turner (Company Secretary)

Phone: +61 (0)3 5331 4644 Phone: +61 (0)3 5331 4644

Email: info@whiterockminerals.com.au



About Red Mountain (as more fully set out in the ASX Announcement dated 15 February 2016)

- The Red Mountain Project is located in central Alaska, 100km south of Fairbanks, in the Bonnifield Mining District. The tenement package comprises 754 mining claims over a total area of 475km².
- The Red Mountain Project contains polymetallic VMS mineralisation rich in zinc, silver and lead, with potential for significant gold and copper.
- Mineralisation occurs from surface and is open along strike and down-dip.
- White Rock used historical drilling to determine a maiden JORC 2012 Mineral Resource estimate for the Dry Creek and West Tundra Flats deposits (ASX Announcement 26 April 2017). The Inferred Mineral Resource contains an impressive base metal and precious metal content with 678,000t zinc, 286,000t lead, 53.5 million ounces silver and 352,000 ounces gold.



Table 1 - Red Mountain April 2017 Inferred Mineral Resource Estimate*

Prospect	Cut-off	Tonnage	ZnEq ¹	Zn	Pb	Ag	Cu	Au	ZnEq	Zn	Pb	Ag	Cu	Au
		Mt	%	%	%	g/t	%	g/t	kt	kt	kt	Moz	kt	koz
Dry Creek Main	1% Zn	9.7	5.3	2.7	1.0	41	0.2	0.4	514	262	98	12.7	15	123
West Tundra Flats	3% Zn	6.7	14.4	6.2	2.8	189	0.1	1.1	964	416	188	40.8	7	229
Dry Creek Cu Zone	0.5% Cu	0.3	3.5	0.2	0.04	4.4	1.4	0.1	10	0.5	0.1	0.04	4	1
Total		16.7	8.9	4.1	1.7	99	0.2	0.7	1,488	678	286	53.5	26	352

Table 2 - Red Mountain April 2017 Inferred Mineral Resource Estimate* at a 3% Zn Cut-off (contained within Table 1, not additional)

Prospect	Cut-off	Tonnage	ZnEq ¹	Zn	Pb	Ag	Cu	Au	ZnEq	Zn	Pb	Ag	Cu	Au
		Mt	%	%	%	g/t	%	g/t	Kt	kt	kt	Moz	kt	koz
Dry Creek Main	3% Zn	2.4	8.7	4.7	1.9	69	0.2	0.4	211	115	46	5.3	5	32
West Tundra Flats	3% Zn	6.7	14.4	6.2	2.8	189	0.1	1.1	964	416	188	40.8	7	229
Total		9.1	12.9	5.8	2.6	157	0.1	0.9	1,176	531	234	46.1	12	260

^{*} The Red Mountain Mineral Resource information was prepared and first disclosed under the JORC Code 2012 as per the ASX Announcement by White Rock Minerals Ltd on 26 April 2017.

 $ZnEq = 100 \times [(Zn\% \times 2,206.7 \times 0.9) + (Pb\% \times 1,922 \times 0.75) + (Cu\% \times 6274 \times 0.70) + (Ag g/t \times (19.68/31.1035) \times 0.70) + (Au g/t \times (1,227/31.1035) \times 0.80)] / (2,206.7 \times 0.9).$

White Rock is of the opinion that all elements included in the metal equivalent calculation have reasonable potential to be recovered and sold.

¹ Zinc equivalent grades are estimated using long-term broker consensus estimates compiled by RFC Ambrian as at 20 March 2017 adjusted for recoveries derived from historical metallurgical testing work and calculated with the formula:



- Good preliminary metallurgical recoveries of >90% zinc, >75% lead, >80% gold, >70% silver and >70% copper.
- Previous drilling highlights (ASX Announcement 15 February 2016) include:

Dry Creek

- o 4.6m @ 23.5% Zn, 531g/t Ag, 8.5% Pb, 1.5g/t Au & 1.0% Cu from 6.1m
- o **5.5m @ 25.9% Zn, 346g/t Ag, 11.7% Pb, 2.5g/t Au & 0.9% Cu** from 69.5m
- o 7.1m @ 15.1% Zn, 334g/t Ag, 6.8% Pb, 0.9g/t Au & 0.3% Cu from39.1m

West Tundra Flats

- o **1.3m @ 21.0% Zn, 796g/t Ag,9.2% Pb, 10.2g/t Au & 0.6% Cu** from 58.6m
- o **3.0m @ 7.3% Zn, 796g/t Ag, 4.3% Pb, 1.1g/t Au & 0.2% Cu** from 160.9m
- o **1.7m @ 11.4% Zn, 372g/t Ag, 6.0% Pb, 1.7g/t Au & 0.2% Cu** from 104.3m

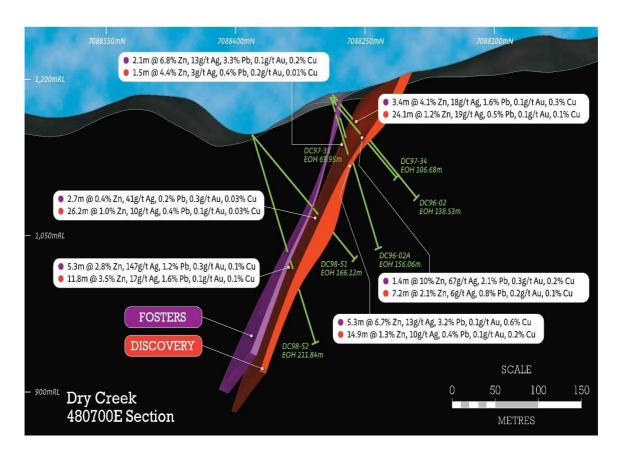


Figure 1: Cross-section 480,700E looking towards the east through the Dry Creek deposit showing the geometry of the Fosters and Discovery mineralised massive sulphide lenses and drill intercepts.



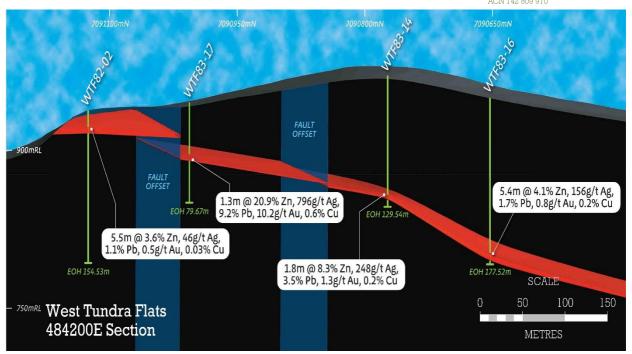


Figure 2: Cross-section 484,200E looking towards the east through the West Tundra Flats deposit showing the mineralised massive sulphide lens and drill intercepts.

- VMS deposits typically occur in clusters ("VMS camps"). Deposit sizes within camps typically follow a log normal distribution, and deposits within camps typically occur at regular spacing. The known deposits at Dry Creek and West Tundra Flats provide valuable information with which to vector and target additional new deposits within the Red Mountain camp.
- Interpretation of the geologic setting indicates conditions that enhance the prospectivity for gold-rich
 mineralisation within the VMS system at Red Mountain. Gold mineralisation is usually found at the top of
 VMS base metal deposits or adjacent in the overlying sediments. Gold bearing host rocks are commonly
 not enriched in base metals and consequently often missed during early exploration sampling. This provides
 an exciting opportunity for potential further discoveries at Red Mountain.

White Rock sees significant discovery potential, given the lack of modern day exploration at Red Mountain. This is further enhanced by the very nature of VMS clustering in camps and the potentially large areas over which these can occur.

Expanded tenement package.

The expansion of White Rock's tenement package followed a successful first year of field activities for White Rock where drilling intersected multiple high-grade intervals of zinc-silver-lead-gold-copper mineralisation at Dry Creek, West Tundra and the newly discovered Hunter prospect (*refer ASX Announcements dated 18 June 2018, 4 July 2018 and 20 August 2018*). With some drill hole results returning in excess of **17% zinc, 6% lead, 1,000 g/t silver, 6 g/t gold and 1.5% copper**, the 2018 field season also saw three reconnaissance crews out in the field mapping and sampling. The culmination of this work has encouraged White Rock to expand its strategic tenement holding to take in more of what has been identified as a highly prospective geological setting (*refer ASX Announcement dated 21 November 2018*).



The majority of the expanded tenement area forms a contiguous block of mining claims that now extend the Red Mountain project over a larger area of the Bonnifield Mining district, to the west along strike and south into the prospective footwall stratigraphy identified as containing multiple VMS prospective time horizons. The new claim areas will allow White Rock to systematically explore what is now held to be a highly prospective regional stratigraphic setting capable of hosting multiple high-grade zinc-rich polymetallic VMS deposits.

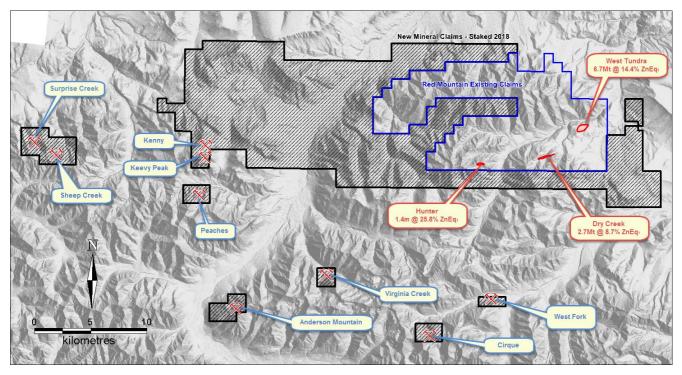


Figure 3: Red Mountain Project tenement outline on terrain map with locations for the Dry Creek and West Tundra Flats VMS deposit Mineral Resources*, the new discovery at the Hunter Prospect and outlier VMS prospects.

During the 2018 field season, White Rock also completed a detailed regional stream sediment program over prospective stratigraphy within the Red Mountain project area. This part of the comprehensive 2018 exploration program was optimised based on the geochem orientation survey completed across known mineralisation at Dry Creek. This "calibration" provided a geochemical signature of base metal and precious metal elements together with other pathfinders to use for future exploration of the VMS prospective stratigraphy on both the northern and southern limbs of the regional Bonnifield syncline.

This 2018 reconnaissance program identified a number of extensive alteration features for future exploration. Some of these extend on surface for several kilometres of strike. The results from the regional stream sampling program have successfully highlighted 8 priority anomalies within the area of alteration (Figure 4), providing areas for immediate focus through follow-up ground reconnaissance, surface sampling and the application of electrical geophysics prior to drill targeting (refer ASX Announcement dated 4 December 2018).



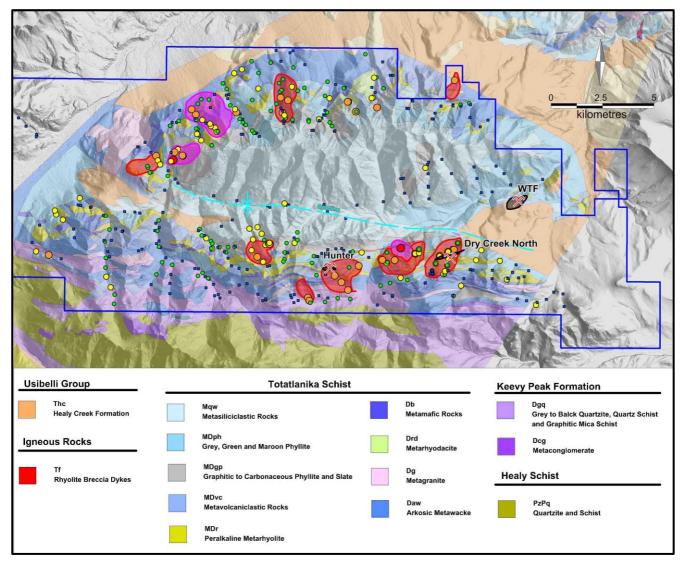


Figure 4: Location of high priority stream sediment geochemical anomalies on the DGGS geology map (after Freeman et al., 2016) and terrain surface with locations for the Dry Creek and West Tundra Flats VMS deposits, and the recent Hunter VMS discovery.

REFERENCES

Freeman, L. K., Newberry, R. J., Werdon, M. B., Szumigala, D. J., Andrew, J. E. & Athey, J. E., 2016. Preliminary Digital Bedrock Geological Map Data of the Eastern Bonnifield Mining District, Fairbanks and Healy Quadrangles, Alaska. Alaska Division of Geological & Geophysical Surveys Preliminary Interpretative Report 2016-03, 8p.

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