HILLGROVE RESOURCES

EXPLORATION IN THE DELAMERIAN OF SOUTH-EAST SOUTH AUSTRALIA

PETER ROLLEY IIIII EXPLORATION MANAGER
29 NOVEMBER 2019
No representation or warranty is or will be made by any person (including Hillgrove Resources Limited ACN 004 297 116 ("Hillgrove", "HGO", or the "Company") and its officers, directors, employees, advisers and agents) in relation to the accuracy or completeness of all or part of this document (the "Document"), or the accuracy, likelihood of achievement or reasonableness of any forecasts, prospects or returns contained in, or implied by, this Document or any part of it. This Document includes information derived from third party sources that has not been independently verified.

This Document contains certain forward-looking statements with respect to the financial condition, results of operations and business of Hillgrove and certain plans and objectives of the management of Hillgrove. Forward-looking statements can generally be identified by the use of words such as ‘project’, ‘foresee’, ‘plan’, ‘expect’, ‘aim’, ‘intend’, ‘anticipate’, ‘believe’, ‘estimate’, ‘may’, ‘should’, ‘will’ or similar expressions. Indications of, and guidance on, production targets, targeted output, mine development or timelines, exploration or expansion timelines, infrastructure alternatives and financial position and performance are also forward-looking statements. Any forecast or other forward-looking statement contained in this Document involves known and unknown risks and uncertainties and may involve significant elements of subjective judgment and assumptions as to future events which may or may not be correct. Such forward-looking statements are not guarantees of future performance and involve known and unknown risks, uncertainties and other factors, many of which are beyond the control of Hillgrove, and may cause actual results to differ materially from those expressed or implied in such statements. There can be no assurance that actual outcomes will not differ materially from these statements.

Various factors may cause actual results or performance to differ materially. These include without limitation the following: risks specific to Hillgrove’s operations; credit risk; levels of supply and demand and market prices; legislation or regulations throughout the world that affect Hillgrove’s business; insurance expenses; the risk of an adverse decision or other outcome relating to governmental investigations; class actions or other claims; growth in costs and expenses; and risk of adverse or unanticipated market, financial or political developments (including without limitation in relation to commodity markets). You are cautioned not to place undue reliance on forward-looking statements. These forward-looking statements are based on information available to us as of the date of this Document. Except as required by law or regulation (including the ASX Listing Rules) we undertake no obligation to update these forward-looking statements.

This Document is provided for informational purposes only and is subject to change without notice. Subject to any obligations under applicable laws, regulations or securities exchange listing rules, Hillgrove disclaims any obligation or undertaking to release any updates or revisions to this Document to reflect any change in expectations or assumptions. Nothing in this Document should be interpreted to mean that future earnings per share of Hillgrove will necessarily match or exceed its historical published earnings per share, or that there has been no change in the affairs of Hillgrove since the date of this Document. Nothing contained in this Document constitutes investment, legal, tax or other advice. The information in this Document does not take into account the investment objectives, financial situation or particular needs of any recipient. Before making an investment decision, each recipient of this Document should make its own assessment and take independent professional advice in relation to this Document and any action taken on the basis of this Document.

**Competent Person’s Statement**

The information in this release that relates to Exploration Results, Exploration Targets and Mineral Resource Estimates is based on information compiled by Mr Peter Rolley, who is a Member of The Australian Institute of Geoscientists. Mr Rolley is a full-time employee of Hillgrove Resources Limited and has sufficient experience relevant to the styles of mineralisation and type of deposit under consideration 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 (JORC Code)’. Mr Rolley has consented to the inclusion in the release of the matters based on their information in the form and context in which it appears. All exploration drill results, soil sampling images, and rock chip results have previously been reported to the ASX by Competent Person at the time.
HIGHLIGHTS OF THE DELAMERIAN TERRAIN

ENDOWED
• Cu, Au
• Cu, Pb, Zn, Au
• Cu, Mo

SHALLOW COVER
• Cu, Au, Mo outcrop in various areas
• 60-100 metres cover over large areas

UNDER-EXPLORED
• No regional exploration for ~20 years
• New technology now available

GREAT OPPORTUNITY
• Minex CRC with large $$$ into Delamerian
• Section 15 Moratorium now in place
• Hillgrove hold ~6150 sq kms
• Outcropping Cu – Mo never drilled
Hillgrove has a staged Exploration and Development strategy in the Delamerian

STAGE 1
- Converting Mine Lease assets to Reserves at Kanmantoo

STAGE 2
- Establishing resources near the Kanmantoo mine for production growth

STAGE 3
- Exploration of Region for the next Mine

Lachlan Wallace will address Stages 1 & 2 later today.

This talk presents Stage 3
Apart from;

- Extensive Copper fertility
- Host to Stavely Porphyry Cu-Au (in Vic)
- Several Porphyry Cu-Mo occurrences
- Extensive calc-alkaline and alkaline volcanism and intrusives
- Identified by GA and USGS as the third most prospective Porphyry belt in Australia
- There is gold there as well as copper!
- Now under a Section 15 whilst Minex CRC and GSSA spend $$$!

**The Delamerian is a big under-explored volcanic belt**
What’s with the IOCG label on slide 4 and in previous presentations?

Dr R. Taylor has undertaken detailed petrology on a series of > 100 rock specimens from Cambrai down to Keith, incl Kanmantoo. He concludes;

- “… although not perfect the sequence has some sympathy with a species of IOCG style.” April 2018.

- “… has major analogies with the magnetite rich IOCG systems.” July 2019

In addition, samples of the Kanmantoo ore included into the OSNACA geochemical data base fit well within the IOCG grouping

Mapping, logging, clearly show that the high temperature gradient at Kanmantoo is an alteration front and NOT a metamorphic gradient

Important to work from known to unknown
There are Multiple Mineralising events, so let’s keep on open mind;

- **522 - 514 Ma** – SHMS Base metals – e.g. Angas, Mt Torrens
- **500 – 490 Ma** – Epigenetic Cu with D2 – e.g. Kanmantoo (Uni Adelaide – HGO work)
- **A reminder** – The Delamerian orogen is around 514 – 490 Ma (Foden 2006)
- **483 Ma** – Cu mineralised Potassic veins at Kanmantoo (Uni Adelaide – HGO work)
- **487 – 478 Ma** – Cu mineralised monzonites at Kanappa (Uni Adelaide – HGO work)
- **471 Ma** – Gold vein systems at Deloraine, Kitticoola
- **478 – 450 Ma** – Cu-Mo veins through K-spar Porphyritic granite at Colebatch
- **450 Ma** – Cu-Mo Porphyry at Anabama

**Multiple mineralising events and complexity**
Hillgrove hold 6,150 sq kms of EL’s of opportunities in the Delamerian.

Topics within this presentation include:

- How deep is the cover?
- Does geochemistry work with transported cover?
- Kanappa – a Cu-Au skarn
- Colebatch – a Cu-Mo Porphyry
- Sherlock – a Zn-Pb-Cu volcanogenic
- et al

Too many targets to speak about
Passive Seismic used for the first time in the area.

- Worked really well when trialled over two areas already drilled
- A great discriminator of depth of cover
- Identified large areas with < 100m cover
- A better constraint for gravity modelling
- Co-incidence of rapid change in depth with GSSA interpreted basement faults

A new model of depth to basement

A new method to map major basement structures
A number of analytical techniques trialled over two known mineralised areas covered by 50 – 100m of Tertiary marine sediments

- Same areas sampled on two occasions
- Five different analytical methods tested
- Used GSSAASTER and radiometric imagery to “level” the geochemistry to different regolith domains
- Two totally different analytical methods came up with the same sulphide anomaly in both sample trials

And we have had the work verified by an independent consulting group

**A new geochemical technique successfully identifies known mineralisation through transported cover**
DOES GEOCHEMISTRY IN THE MURRAY BASIN WORK?

**Analytical Method A**
- Element 1
- Element 2

**Analytical Method B**
- Element ratio 1
- Element ratio 2

NB: the origin is the basement mineralisation at 95m depth

*So now we have a new basement mapping tool AND A new geochemical tool to discriminate fertile geophysical anomalies*
Kanappa

The Kanappa Cu-Au zone is 50kms from Kanmantoo

A series of diorites, pegmatites and aplites intrude into a sequence of schists and carbonates

Soil copper zone 4.4kms long

Petrology of the drill core shows the 250m wide alteration zone overprints both sediments and intrusives and is high magnetite, pyrrhotite with Fe-Cu-W-Mo-Au-Zn

Petrology of drill core – definitely magmatic skarn
Uni Adelaide age dating of monzonite dykes – 478.4 +/- 6.4 Ma

Target is source intrusives – not skarns

These drill results confirm Hillgrove’s view that the Kanappa area is prospective for large scale magmatic related copper-gold mineral deposits
The red circles are the whole rock geochemistry of the monzonites at Kanappa, and these are very similar to signatures of the global Porphyry Copper felsic intrusives.

*Kanappa Magmatism is consistent with Cu Porphyry fertility indexes*
Colebatch

Field sampling of Cu-Mo outcrop

Petrology
Quartz monzonites, fluorite, molybdenite, rapakivi textures,
Interpreted as classic Porphyry Cu-Mo system

Never drilled
Sherlock

Drill core with
- SHR08 0.5m @ 11.6% Cu, 1.1% Zn from 102m

in an interbedded sequence of:
- Basalts, gabbros, and dolerites
- Calc-silicates
- Tuffs
- Meta-sediments
- Andesites

Sulphides include pyrite, sphalerite, chalcopyrite, galena, pyrrhotite

Nothing like the Kanmantoo Group!

Considered by the past owners of Roseberry – Pasminco – to be similar to the Mt Read Volcanics in Tasmania of the same age.

Large Exploration holding is prospective for large scale copper mineralisation

1 See Pasminco 1998 report in SARIG Envelope 9015 for full details, logs and assay sheets. Drill core is stored in State Government Core Library. Competent Person, Peter Rolley, confirms that the intersection quoted is in the form and context of the Pasminco original report. Also see ASX:HGO release 29-04-2019
Alamil

Drill core with narrow veins and disseminated adularia/chlorite/epidote/galena zones of chalcopyrite and sulphides in diorite over 267m, from 86m depth

Perhaps akin to an “epithermal mineralising system”? (Petrology report by Dr R. Taylor)

KMD-07-01 326.5m

*Large Exploration holding is prospective for large scale copper mineralisation*
Black Range

MTR11 204.5m Fe – Sn – Zn magnetite breccia

Petrology shows the rock to be haematite after magnetite

At margin of coincident gravity and magnetic highs

Large Exploration holding is prospective for large scale copper mineralisation
et al

Tolmer – Chalcopyrite in altered basalts (MTR12)

Richardson – altered volcanioclastic with pyrite, K-spar, epidote alteration and veining with anomalous Cu, Au, Ag (CODD04)

Mt Rhine - Au – Cu outcrops in calc-silicates to 40 g/t Au (ASX:HGO 25-10-2017)

Large Exploration holding is prospective for large scale copper mineralisation
EXPLORATION BOOM IN THE DELAMERIAN
DEMONSTRATED FROM NORTH TO SOUTH ENDOWMENT AND TARGETS

**ENDOWED**
- Cu, Au
- Cu, Pb, Zn, Au
- Cu, Mo

**SHALLOW COVER**
- Cu, Au, Mo outcrop in various areas
- 60-100 metres cover over large areas

**UNDER-EXPLORED**
- No regional exploration for ~20 years
- New technology now available

**GREAT OPPORTUNITY**
- Minex CRC with large $$$ into Delamerian
- Section 15 Moratorium now in place
- Hillgrove hold ~6150 sq kms
- Outcropping Cu – Mo never drilled

Realising value for shareholders through a pipeline of Cu-Au projects