STAVELY MINERALS
ASX Code: SVY

Quarterly Report December 2022

HIGHLIGHTS

Exploration

Stavely Project, Thursday's Gossan, Western Victoria

- A technical review led by Dr Steve Garwin concludes that mineralisation at the Cayley Lode is transitioning from 'high-sulphidation' to 'intermediate sulphidation' high-grade copper and gold in the south-east.
- Changes in the mineral associations, including hematite - specularite and magnetite with chalcopyrite dominant over pyrite abundance - with the deeper intercepts indicating hotter (~400°C) temperatures of formation and likely proximity to a mineralised copper-gold porphyry.
- Further drilling will determine if parity of gold grades in g/t to copper grades in % continues at depth. The deepest Cayley Lode intercept in drill hole SMD182 returned:
  - 10.4m at 4.34% Cu and 3.17g/t Au and 11g/t Ag from 421m drill depth, including
    - 4.9m at 6.74% Cu, 6.45g/t Au and 19g/t Ag from 426m drill depth.
- Stavely Minerals to drill test Cayley Lode depth extensions following new interpretation showing high-grade copper and gold mineralisation transitioning towards a porphyry.

Ararat Project, Carroll's VMS, Western Victoria

- A review of the data and drill core from the Carroll's VMS in the Ararat Project was completed by Dr Bruce Gemmell. Dr Gemmell concluded there is significant scope for extension of known lenses and for identification of additional parallel lenses of sulphide mineralisation.

Corporate

- Stavely Minerals had a total of $6.2M cash on hand at the end of the December 2022 Quarter.

OVERVIEW

Due to the on-going wet ground conditions in western Victoria as a result of the La Niña weather pattern, all on-ground exploration for the December Quarter had to be postponed to next Quarter.

The Willaura weather station recorded the highest rainfall (since recording started in 1902) for October 2022 of 211.4mm (mean of 53.5mm). November 2022 recorded 146.4mm, almost three times the mean rainfall of 47.7mm.

Due to the delays in commencing the field season, the first Quarter of 2023 will be very busy with the regional aircore and auger sampling programs commencing as well as the diamond drilling program at Thursday's Gossan.

During the December Quarter, there was a comprehensive review of the Thursday's Gossan / Cayley Lode data and drill core and subsequent interpretation by highly respected exploration consultant Dr Steve Garwin. Diamond drill holes have been planned to test the depth extents of the Cayley Lode mineralisation and for the possible causative porphyry.

Dr Garwin's insights have assisted the site team to recognise a systematic zonation of sulphides in the high-grade copper-gold mineralised structures which has provided us with a new porphyry exploration target – pursuing Cayley Lode at depth to the south-east.

This south-eastern plunge already represented a compelling near-resource exploration target given the increasing width, grade and tenor of the mineralisation in the last few deeper drill-holes drilled in 2022. It has also now been recognised that the mineral assemblage in these last few, and so far deepest, drill-holes into the Cayley Lode during the resource drill-out show an increase in temperature of mineral formation which, if it continues, should lead to the causative porphyry.

A number of wide-spaced diamond drill-holes have been planned to further 'walk the mineralisation down' below the base of existing drilling at approximately 380m below surface and test for the continuation of the Cayley Lode down to approximately 700m below surface. It is anticipated that the mineralisation will transition further into porphyry-style copper-gold mineralisation.

Subsequent to the Quarter, in early January aircore drilling commenced at the Junction 3 exploration target. Junction 3 is located in the southern portion of the Thursday's Gossan chalcocite blanket and is located midway between Thursday's Gossan and the Junction 1 target (Figure 2). Limited aircore drilling in the early 1990's by North Limited returned anomalous intercepts including 18m @ 0.38% Cu from 21m in STRAVA304, 42m @ 0.17% Cu from 24m in STAVRA545 and 24m @ 0.19% Cu from 36m to end of hole.

During the Quarter a detailed project review of the Carroll's VMS deposit was conducted by external consultant, Dr Bruce Gemmell.

Based on the geologic/ geochemical characteristics of the Carroll's deposit, Dr Gemmell agreed with defining the mineralisation as a Besshi (or mafic-pelitic) VMS deposit. Dr Gemmell concluded that the Carroll's deposit fits into the lens/ blanket style VHMS deposit formed predominantly via sub-seafloor replacement.

Dr Gemmell recommended further exploration as there may be multiple copper-gold-silver mineralised lenses at depth and across the favourable host rock package. There is significant scope for extension of known lenses and for identification of additional parallel lenses of sulphide mineralisation.

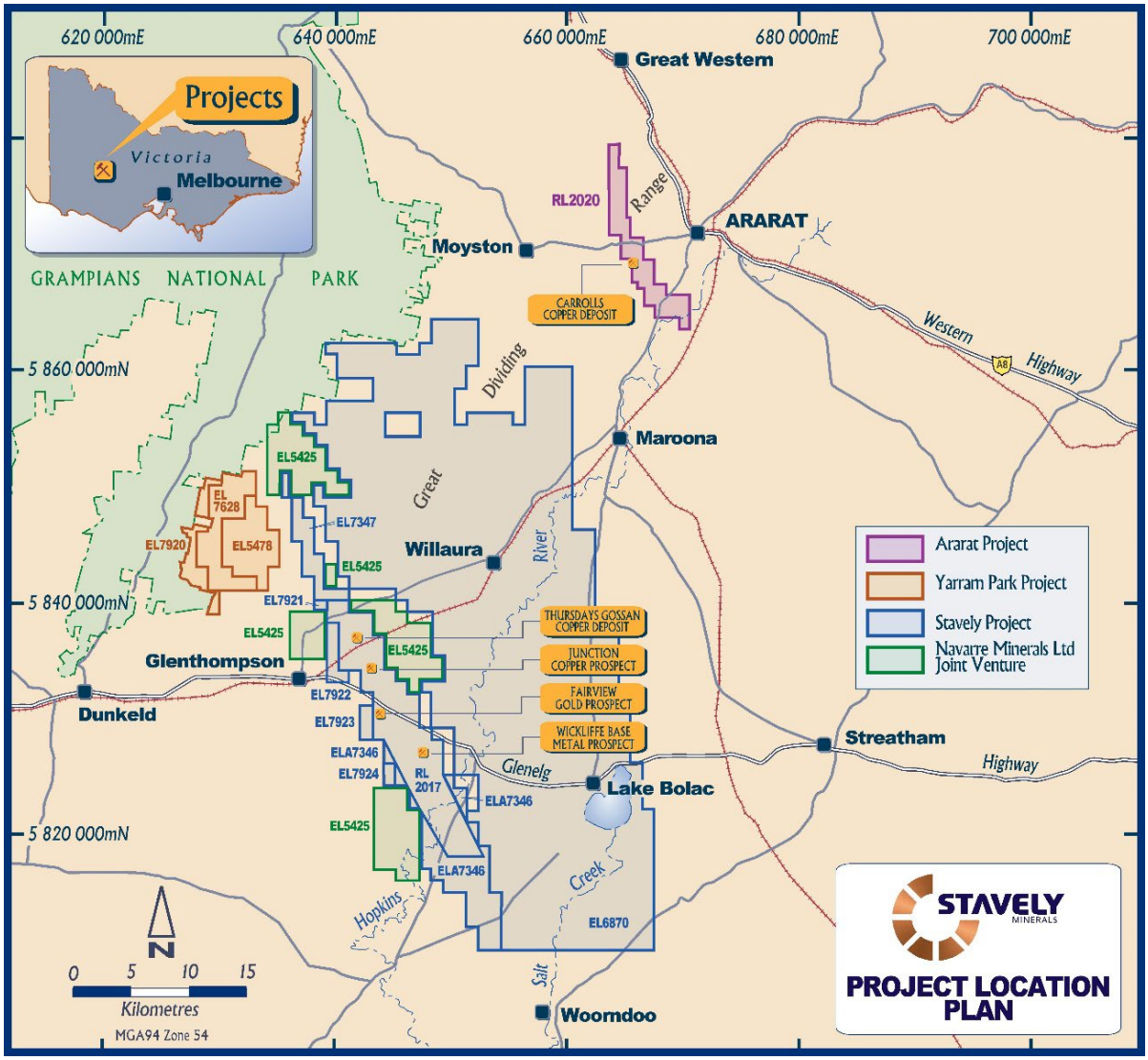


Figure 1. Western Victoria Project location plan.

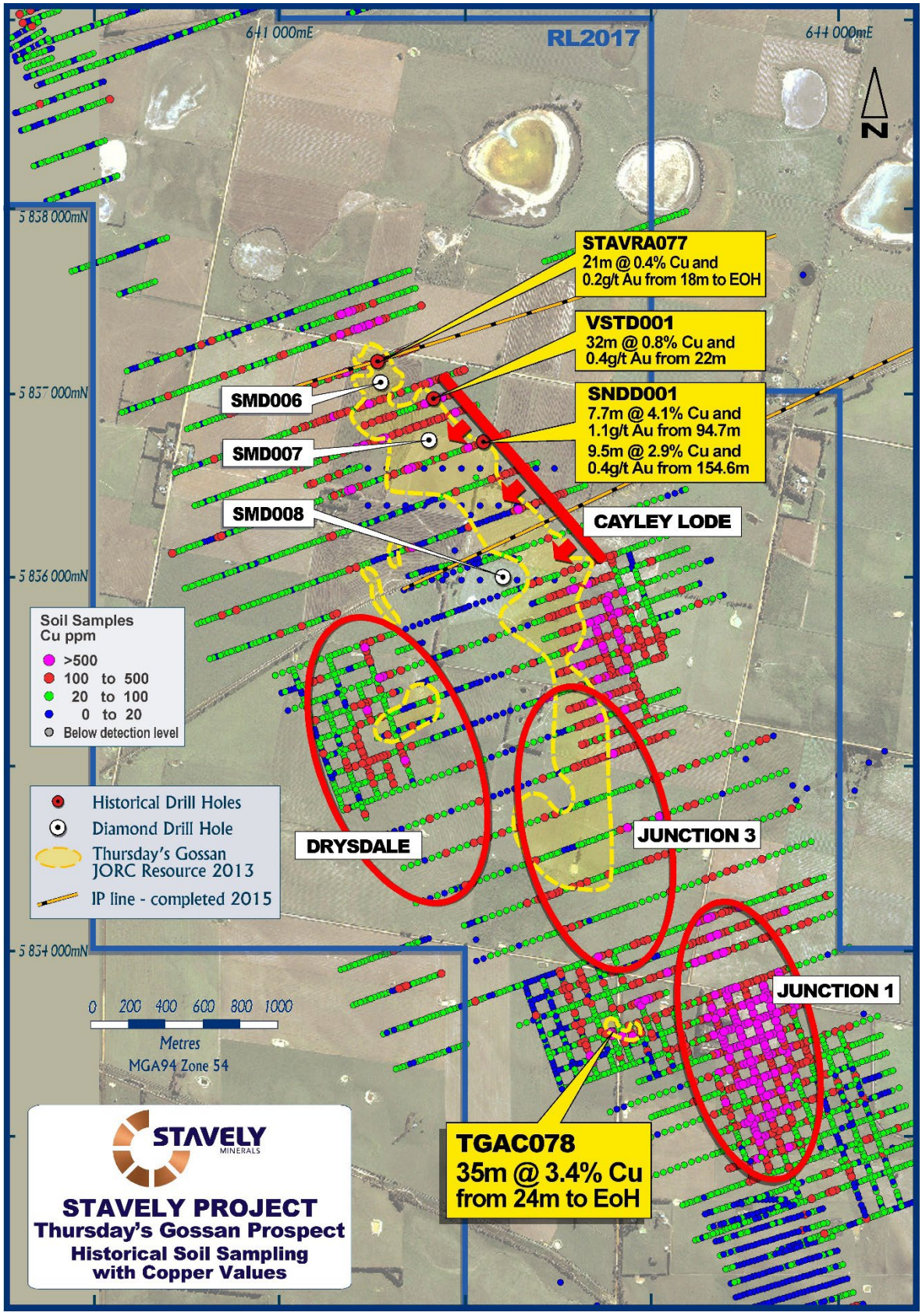


Figure 2. Historical soil auger sampling showing copper results – the unexplained Junction 1 prospect is circled.

EXPLORATION

Stavely Project (RL2017, EL6870, EL7347, EL7921, EL7922, EL7923 & EL7924)

Thursday's Gossan Prospect – Cayley Lode

During the Quarter, consulting geologist Dr. Steve Garwin presented the findings of his review of the Cayley Lode and the Stavely Project. Dr. Garwin has more than 34 years of experience and is a leading authority on porphyry, epithermal and Carlin-style mineralisation. Dr Garwin has been involved in several major exploration and mining projects, including the Batu Hijau porphyry Cu-Au mine in Indonesia, the gold mines of the Carlin and Battle Mountain Trends in Nevada, the Cortadera porphyry deposit cluster in northern Chile and the recently discovered world-class Alpala porphyry Cu-Au-Ag deposit in Ecuador.

Dr. Garwin reviewed the geochemical and geophysical datasets and in September conducted a site visit to inspect the drill core.

Following the recent review of data and drill core by Dr Garwin, in conjunction with site-based personnel, a significant new porphyry target has been established immediately south east of the Cayley Lode deposit.

The review has identified that the mineralisation is transitioning in character from a distal ~250°C to 300°C high-sulphidation assemblage with characteristic copper sulphide minerals enargite and covellite, to a hotter ~400°C to 450°C intermediate-sulphidation assemblage with chalcopyrite-hematite-specularite and magnetite.

While the sulphide assemblage of mineralisation at the Cayley Lode has previously been noted as zoned spatially and temporally, the intermediate-sulphidation assemblage demonstrated by drill holes SMD173 and SMD182 (the last and deepest drill-holes on the Cayley Lode) are interpreted as reflecting temperatures of deposition / thermal stability that would be considered proximal to the causative porphyry long targeted by Stavely.

Of significance, the transition to an intermediate-sulphidation assemblage is also apparently associated with a significant increase in the relative gold grade where gold grades in g/t are approaching equivalence to copper grades in %. For example, SMD182 had an upper intercept[1] of:

- 10.4m at 4.34% Cu and 3.17g/t Au and 11g/t Ag from 421m drill depth, including
  - 4.9m at 6.74% Cu, 6.45g/t Au and 19g/t Ag from 426m drill depth

A range of mineral and element ratios (Cu/Zn, chalcopyrite/pyrite, Cu/S, Ag/Pb and K/Na) assessed by Dr Garwin all "vector towards to a copper-gold-silver rich core in the south-eastern part of the [Cayley] Lode with potential to host a porphyry cupola [the top of a porphyry] near holes SMD159, 160-163, 173 and 182." Dr Garwin's presentation to the Stavely Board is available at www.stavely.com.au under the Technical Data tab.

By extending drilling into the hotter portions of the hydrothermal mineralising system, it is intended to progressively drill towards the causative porphyry intrusion at depth with the objective of discovering a well-mineralised copper-gold porphyry deposit.

Stavely Minerals is planning to drill a wide-spaced (150m-spaced pierce point) panel of six diamond drill-holes (starting with a fence of 4 holes initially) to extend the Cayley Lode down-plunge with the objective of confirming the further transition of high-grade copper-gold mineralisation to that hosted by the causative porphyry.

[1] See ASX announcement 27/04/2022

Discussion

The schematic cross-section in Figure 3 is used to illustrate the positions of drill intercepts with distinct variations in mineral and sulphide assemblage that will be described below, progressing from the earliest drilled to the last drilled hole to date – SMD182.

It should be noted that, while the respective drill intercepts are hosted on three different structures – the ultramafic contact fault (UCF, host to the Cayley Lode), the copper lode splay (CLS) and the north-south structure (NSS) – it is the mineral assemblage of each that is demonstrating thermal progression from a distal to a porphyry-proximal setting. It is possible that the system is driven by more than one porphyry phase and that there is temporal overprinting of mineralisation phases.

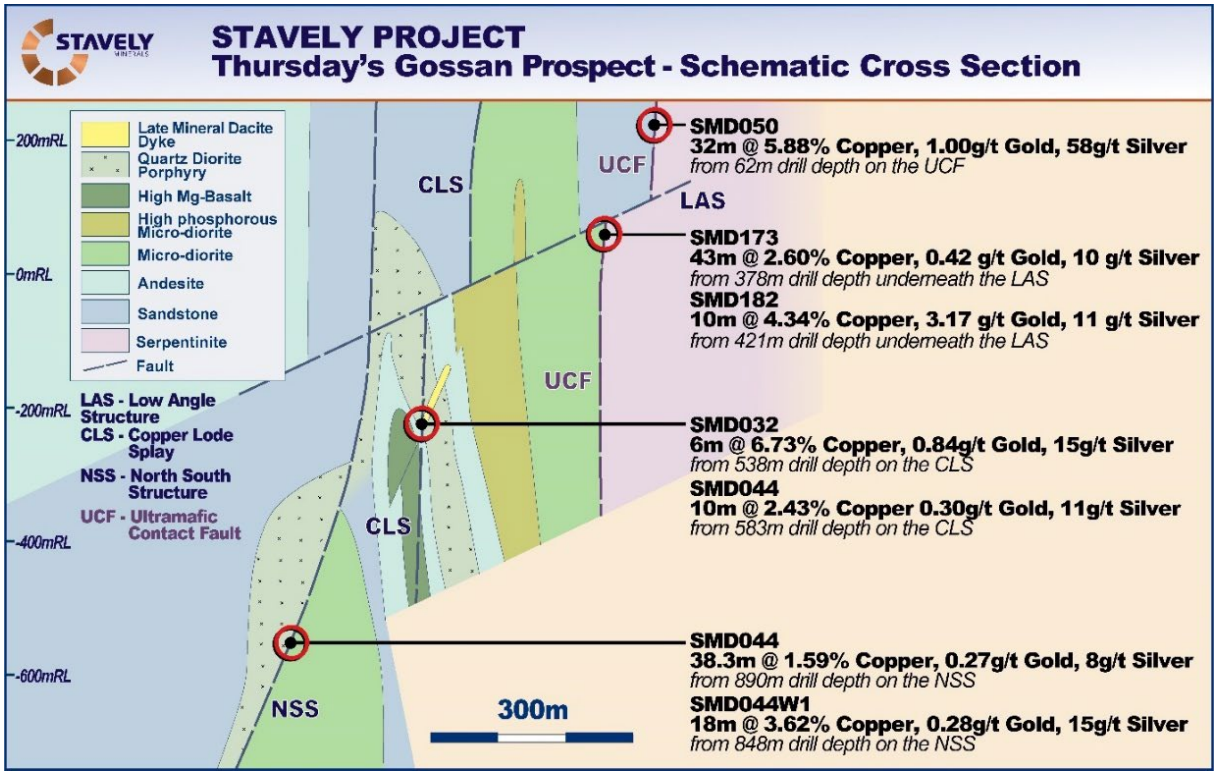


Figure 3. Distribution of selected drill intercepts on three structures, the ultramafic contact fault (UCF) – host structure to the Cayley Lode – the copper lode splay (CLS) and the north-south structure (NSS).

SMD032, 542.5m drill depth

SMD032 intercepted 6m at 6.73% Cu, 0.84g/t Au and 15g/t Ag from 538m drill depth (see ASX announcement 19/01/2019).

Photo 1 (a) and (b) shows a cut face of drill core in (a) and a µXRF image of the sulphide species in the sample (b). This sample clearly demonstrates that the earliest sulphide was massive pyrite which was then veined, brecciated and infilled by abundant chalcocite and later enargite. Enargite is a characteristic high sulphidation copper-arsenic sulphide. It can be inferred that the enargite formed in cooler conditions. This can occur either at some distance away from the porphyry source, or as a late overprint as the entire system cools.

(a)

(b)

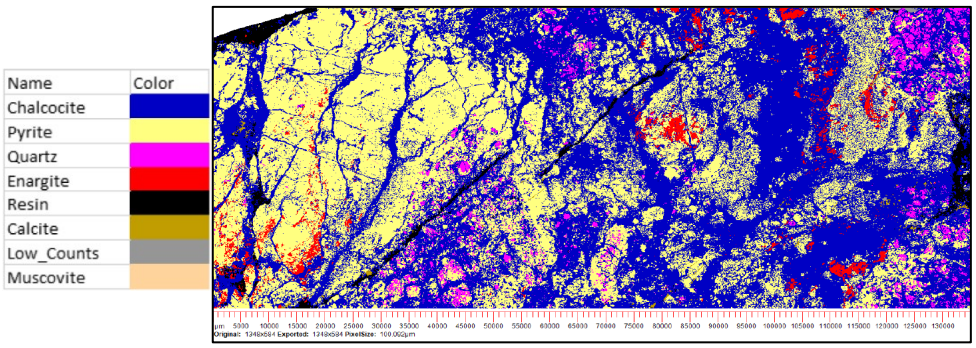


Photo 1. (a) a cut face of HQ3 diameter drill core from 542.5m drill depth in SMD032 and (b) a µXRF image of the sulphide species in the same sample. Note the copper-arsenic sulphide mineral enargite in red.

SMD044W1 – 859.0m drill depth

SMD044W1 was a wedge 'daughter' drill hole drilled to get a second intercept on the north-south structure at a depth of approximately 850m drill depth. SMD044W1 intercepted 18m at 3.62% Cu, 0.28g/t Au and 15g/t Ag from 848m drill depth (see ASX announcement 23/04/2019).

The intercept demonstrated spectacular textures, again showing an early massive- to semi-massive pyrite phase, then brecciated and infilled by high-tenor copper sulphides bornite (purple), chalcocite (gun metal grey) and covellite (bright blue) with minor digenite, enargite and colusite also noted in petrology (Photo 2). Covellite, digenite, enargite and colusite are classic high sulphidation copper sulphides. Colusite is a copper-vanadium-arsenic sulphide with a type-locality / first identified from the Colusa Claim at Butte, Montana.

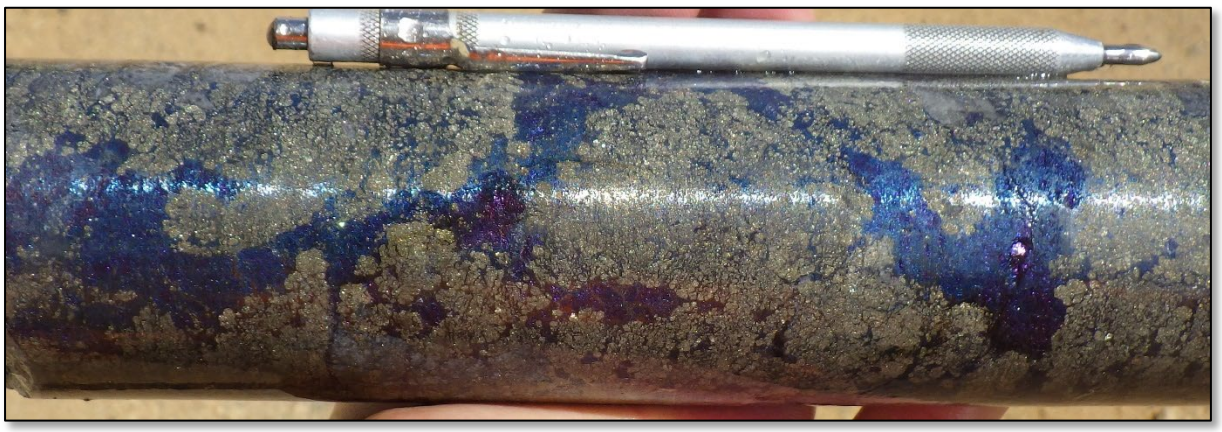


Photo 2. Brecciated pyrite vein with bornite-covellite-chalcocite-digenite in-fill at 859.0m in SMD044W1, HQ3 diameter drill core – colusite ($Cu_{13}VAs_3S_{16}$), digenite and enargite noted in petrology.

SMD050 – 85.3m drill depth

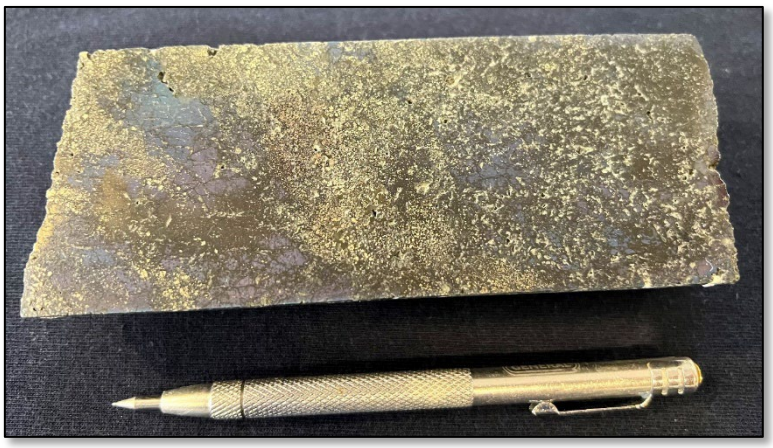
SMD050 intercepted 32m at 5.88% Cu, 1.00g/t Au and 58g/t Ag from 62m drill depth (see ASX announcement 26/09/2019).

The intercept in SMD050 was dominated by early massive- to semi-massive pyrite (as previously described in SMD032 and SMD044W1 above) which was subsequently fractured, brecciated and infilled by abundant high-tenor copper sulphides bornite and hypogene chalcocite (Photo 3).

Photo 3. An uncut face of HQ3 diameter drill core from 85.3m drill depth in SMD050. Note the dominant copper sulphides being bornite (purple) and chalcocite (gun metal grey).

Photo 4 shows (a) a photo of a piece of cut half-core from 85.3m drill depth and, (b) a µXRF image mapping out the sulphide species in the cut face. This sample came from a sub-interval that returned 2m at 40% Cu, 3.00g/t Au and 517g/t Ag.

(a)



(b)

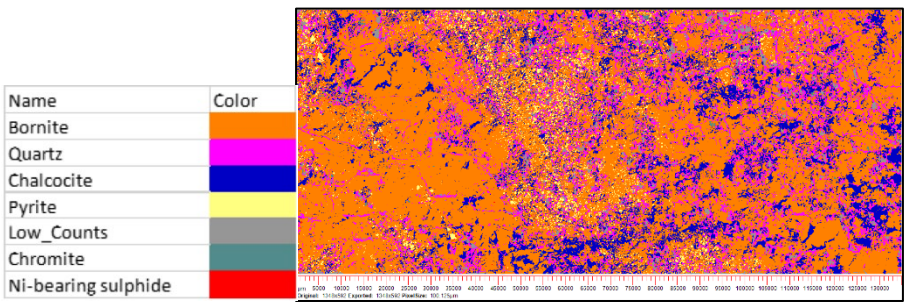


Photo 4. (a) a cut face of HQ3 diameter drill core from 85.3m drill depth in SMD050 and (b) a µXRF image of the sulphide species in the same sample. Note the dominant copper sulphides being bornite and chalcocite.

SMD173 – 390.6m drill depth

SMD173 was one of the last diamond drill holes completed during the Mineral Resource drill-out. SMD 173 was designed to confirm that mineralisation did continue at depth below the Low Angle Structure.

SMD173 intercepted 43m at 2.60% Cu, 0.42g/t Au and 10g/t Ag from 378m drill depth (see ASX announcement 08/03/2022). Of significance is that the character of the mineralisation in SMD173 had changed relative to intercepts from previous drill holes.

The early massive to semi-massive pyrite phase was less evident and the interval was more dominantly characterised by jigsaw breccia to stockwork veins of quartz-chalcopyrite-hematite-specularite-magnetite (Photo 5). There is very little pyrite in this interval.

Photo 5. Chalcopyrite-quartz-hematite fill jigsaw breccia in chlorite-silica altered microdiorite - SMD173, 390.6m drill depth, HQ diameter uncut drill core. Note the dominance of chalcopyrite and hematite and the almost total lack of pyrite as distinct from the previous samples in SMD032, SMD044W1 and SMD050.

SMD182 – 423.5m drill depth

SMD182 was the last drill hole completed in the Mineral Resource drill-out. The objective of this drill-hole was to further test the down-plunge extent of the Cayley Lode beyond SMD173.

SMD182 intersected 10.4m at 4.34% Cu, 3.17g/t Au and 11g/t Ag from 421m drill depth, including 4.9m at 6.74% Cu, 6.45g/t Au and 19g/t Ag (see ASX announcement 27/04/2022).

Photo 6. Chalcopyrite-specularite-hematite-magnetite mineralisation - SMD182, 423.5m drill depth, HQ3 diameter ½ cut drill core.

Two important observations from SMD182 are; 1) the clear association of hematite-specularite-magnetite-chalcopyrite with very little pyrite (Photo 6), and 2) the near parity of gold grade in g/t to

the copper grade in %. The potential economic significance of an increase in gold grades with high-grade copper in this intercept cannot be overstated. As mentioned in the original announcement, more drilling is required to confirm this increase in relative gold grade but it is not unexpected given the change in the character of the mineralisation.

Black Range Joint Venture Project (EL5425)

Narrapumelap REE Prospect

From the results returned from the soil auger sampling program conducted in 2022, there appears to be potential for a REE-enriched carbonatite or peralkaline intrusion in the Narrapumelap Prospect area (Figure 4).

Several samples returned elevated Ce values, up to 866ppm. Oxide conversion of the REE results of that sample returned 0.24% TREO+Y (Figure 4) (see ASX announcement 04/10/2022).

This will need to be confirmed with additional soil auger sampling and air-core drilling prior to any definitive diamond drilling.

A traverse of aircore holes has been planned between the two highest Ce values and over the magnetic high.

In-fill soil auger sampling from 400m x 400m in the initial programme to 100m x 100m in the immediate vicinity of soil sample SSL13042 and broader 200m x 200m in-fill sampling in other areas of REE anomalism has also been planned.

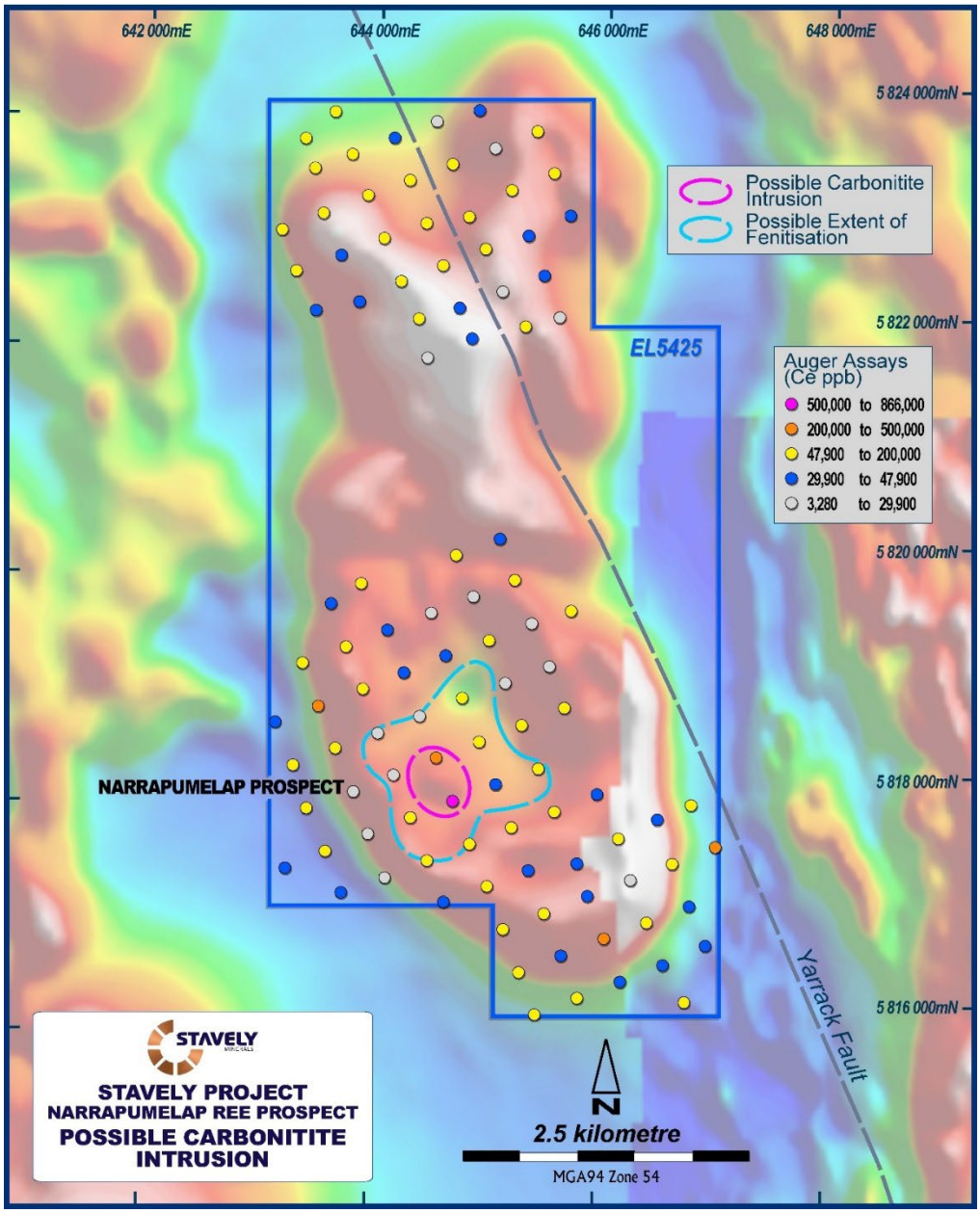


Figure 4. Soil auger sample locations overlaid on magnetics for the Buckeran Diorite with outlines of interpreted possible carbonatite or peralkaline intrusion and possible fenetisation alteration halo at the Narrapumelap Prospect.

Yarram Park Project (EL5478, EL7628 & EL7920)

Toora West

No on-ground exploration activities were conducted on the Yarram Park Project during the Quarter.

Ararat Project (RL2020)

No on-ground exploration activities were conducted on the Ararat Project during the Quarter.

During the Quarter Dr Gemmell undertook a desktop study to review the geology, geochemistry, and exploration potential of the Carroll's VMS deposit and district. Dr Gemmell also conducted a site visit to inspect the core and undertake a field trip to the deposit and surrounding area.

Based on the geologic/ geochemical characteristics, Dr Gemmell concluded that the Carroll's deposit can be classified as a Besshi (or mafic-pelitic) VMS deposit and fits into the lens/blanket style of VMS deposit formed predominantly via sub-seafloor replacement.

Dr Gemmell did not find any evidence of a sea floor mound or significant stringer zones. He concluded that the ore lens formed via sub-seafloor replacement of host stratigraphy. Dr Gemmell observed that the ore lenses appeared to be thinning at depth and towards the edges.

Dr Gemmell considered the best chance of increasing the size of the Carroll's deposit to be the discovery of another lens within the prospective package of rocks. He recommended deep drilling followed by downhole EM.

VMS deposits tend to form in clusters in a district and Dr Gemmell considered there to be good potential to find additional ore lenses at Carroll's (deeper) or along strike within the prospective belt of host rocks.

Planned Exploration

Stavely Project (RL2017, EL6870, EL7347, EL7921, EL7922, EL7923 & EL7924)

The planned regional exploration programs will commence early in the next quarter. The diamond drilling planned to test the depth extents of the Cayley Lode mineralisation and for the possible causative porphyry will also commence early in the next quarter.

Black Range Joint Venture (EL5425)

During the next quarter follow-up aircore drilling and auger sampling will be conducted at the Narrapumelap REE prospect.

CORPORATE

Stavely Minerals had a total of $6.2M cash on hand at the end of the December 2022 Quarter.

Additional ASX Information

- Exploration and Evaluation Expenditure during the Quarter was $241,000 (excluding staff costs). Full details of exploration activity during the Quarter are included in this Quarterly Activities Report.
- There were no substantive mining production and development activities during the Quarter.
- Payments to related parties of the Company and their associates during the Quarter was $236,000. The Company advises that this relates to executive directors' salaries, non-executive directors' fees and superannuation.

ANNOUNCEMENTS

Investors are directed to the following announcements (available at www.stavely.com.au) made by Stavely Minerals during the December 2022 Quarter for full details of the information summarised in the Quarterly Report.

29/11/2022 Stavely to Test Cayley Lode Depth Extensions Following New Interpretation Showing High-Grade Copper and Gold Mineralisation Transitioning Towards a Porphyry.

During the Quarter, Stavely Minerals participated in the following conferences and investor meetings:

02 - 04/11/2022	International Mining and Resource Conference, Sydney
16- 17/11/2022	1-2-1 Mining Investment, Frankfurt
22- 23/11/2022	1-2-1 Mining Investment, London
29/11 - 1/12/2022	Mines and Money, London

Tenement Portfolio - Victoria

The tenements held by Stavely Minerals as at 31 December 2022 are as follows:

Area Name	Tenement	Grant Date/ (Application Date)	Size (Km^2)
Black Range JV*	EL 5425	18 December 2012	100
Yarram Park	EL 5478	26 July 2013	26
Yarram Park	EL 7628	10 December 2021	28
Yarram Park	EL7920	15 September 2021	27
Ararat	RL 2020	8 May 2020	28
Stavely	RL 2017	8 May 2020	81
Stavely	EL 6870	30 August 2021	865
Stavely	EL 7346	(10 June 2020)	41
Stavely	EL 7347	17 June 2022	17
Stavely	EL7921	15 September 2021	1
Stavely	EL7922	29 September 2021	6
Stavely	EL7923	29 September 2021	3
Stavely	EL7924	29 September 2021	2

* 80% held by Stavely Minerals Limited, 20% by Black Range Metals Pty Ltd, a fully owned subsidiary of Navarre Minerals Limited.

Chris Cairns
Executive Chair and Managing Director

The information in this report that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr Chris Cairns, a Competent Person who is a Member of the Australian Institute of Geoscientists. Mr Cairns is a full-time employee of the Company. Mr Cairns is Executive Chair and Managing Director of Stavely Minerals Limited and is a shareholder and an option holder of the Company. Mr Cairns has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken 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 Cairns consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

***Previously Reported Information**: The information in this report that references previously reported exploration results and mineral resources is extracted from the Company's ASX market announcements released on the date noted in the body of the text where that reference appears. The previous market announcements are available to view on the Company's website or on the ASX website (www.asx.com.au). The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market 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.*

Authorised for lodgement by Chris Cairns, Executive Chair and Managing Director.
27 January 2023