

ASX ANNOUNCEMENT

27 January 2021

QUARTERLY ACTIVITIES REPORT AND APPENDIX 5B

For the quarter ended 31 December 2020

Highlights:

- Completion of oversubscribed placement raising A\$3.12 million before costs
- RC drilling commenced at Cox's Find targeting down-plunge extensions and along-strike potential repeat gold deposits
- In-house review of tenure applications in the Duketon Belt identified multiple drill-ready targets along the 12km of mineralised trends that also host Garden Well, Rosemont and Ben Hur gold deposits (owned by Regis Resources Limited)
- Clear development pathway outlined for a potential open-pit mining operation at Mon Ami; environmental and technical studies progressing to schedule
- RC drilling commenced at Mon Ami in early January 2021 targeting the high-grade near surface mineralisation and deeper high-grade extensions
- Ground truthing and geochemical programs at Edinburgh Park, Queensland, ongoing to generate drill-ready targets for planned testing in 2021

Cox's Find Drilling

The Reverse Circulation (RC) drilling at Cox's Find is targeting extensions to the deposit at depth in the southern search space, as well as possible repeats of the deposit further along strike to the south where the same lithology, faults and folds are evident (Figure 1).

The June/July 2020 drill results at Cox's Find not only included several spectacular high-grade intersections of up to **5m @ 80.0 g/t Au from 160m including 1m @ 404 g/t Au**, but also a highly significant **15m @ 1.01 g/t Au intercept from 167m in hole 20CFRC034** (refer ASX Announcements 29/7/20 and 8/9/20). The significance of this intercept is that it opens up an entirely new search space immediately to the south of the high-grade unmined panel delineated by recent spectacular high-grade drill intersections. The current drilling program is targeted to test this new near-mine search space.

The Cox's Find mining leases are also highly prospective for repeats of the Cox's Find deposit to be discovered along strike from the historical workings, which saw historical mine production of **77,000 ounces gold at an average grade of approximately 22 g/t Au**. The exploration model is designed to find repeats of the Cox's Find chert and shale target sequence that hosts the mineralisation where it intersects the main north-south trending mineralised structures.

Drilling has continued in January and results are expected to be received during the current quarter.

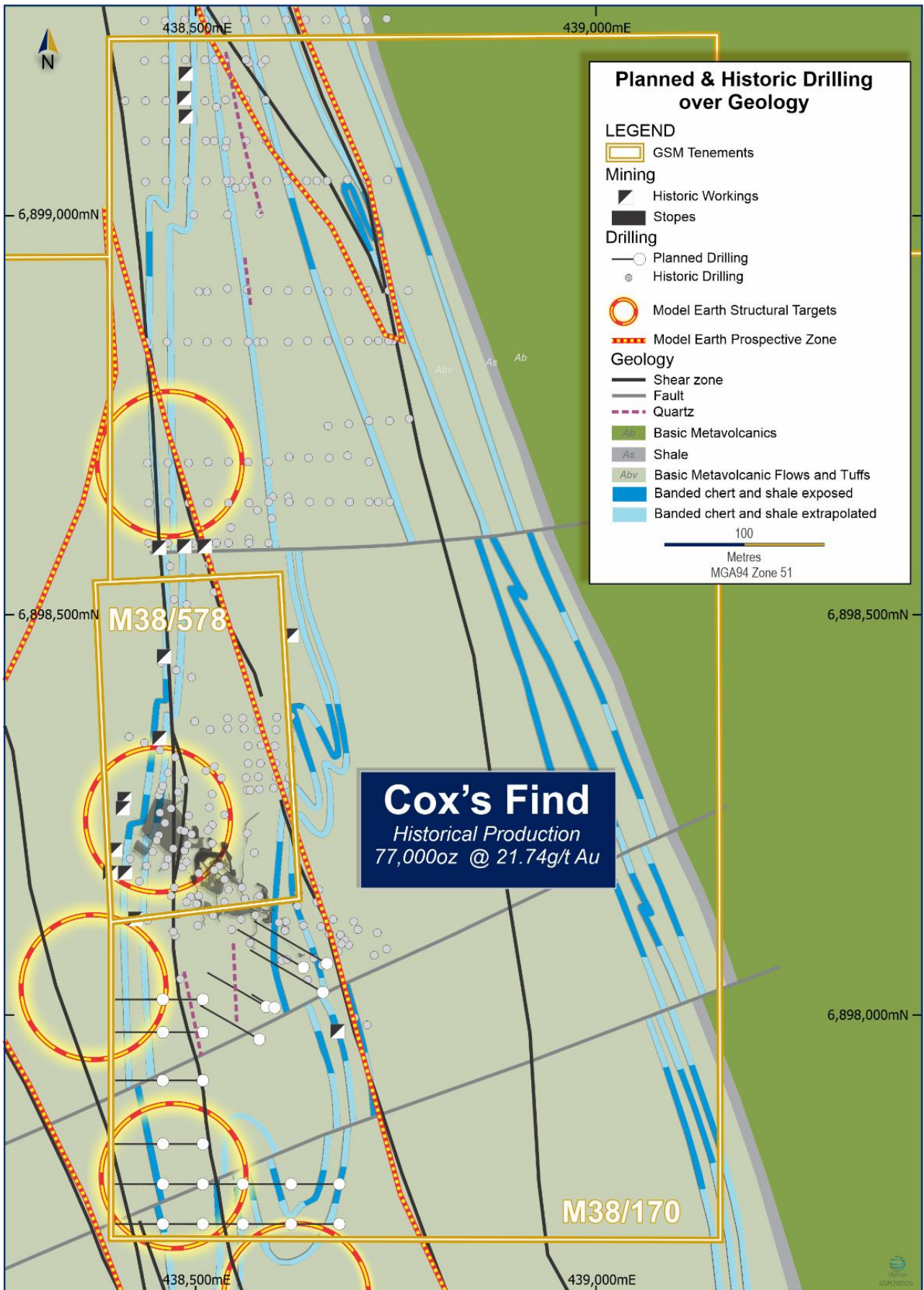


Figure 1 - Cox's Find Geological Map highlighting planned drilling

Duketon Belt New Tenement Applications

GSN completed a review of new tenement applications acquired earlier in 2020. The review identified large-scale gold targets along the 12km of strike length with clearly identifiable mineralised trends that host the Garden Well, Rosemont and Ben Hur gold deposits currently owned and operated by Regis Resources Limited (Figure 2, refer ASX Announcement 5/11/20). The tenements were applied for in July 2020 and are progressing through the WA Mines Department's expedited procedure, with grant anticipated early in 2021. GSN plans to refine the targets described in this announcement and commence systematic exploration of the entire package. This is expected to include RC drilling commencing in the second half of 2021.

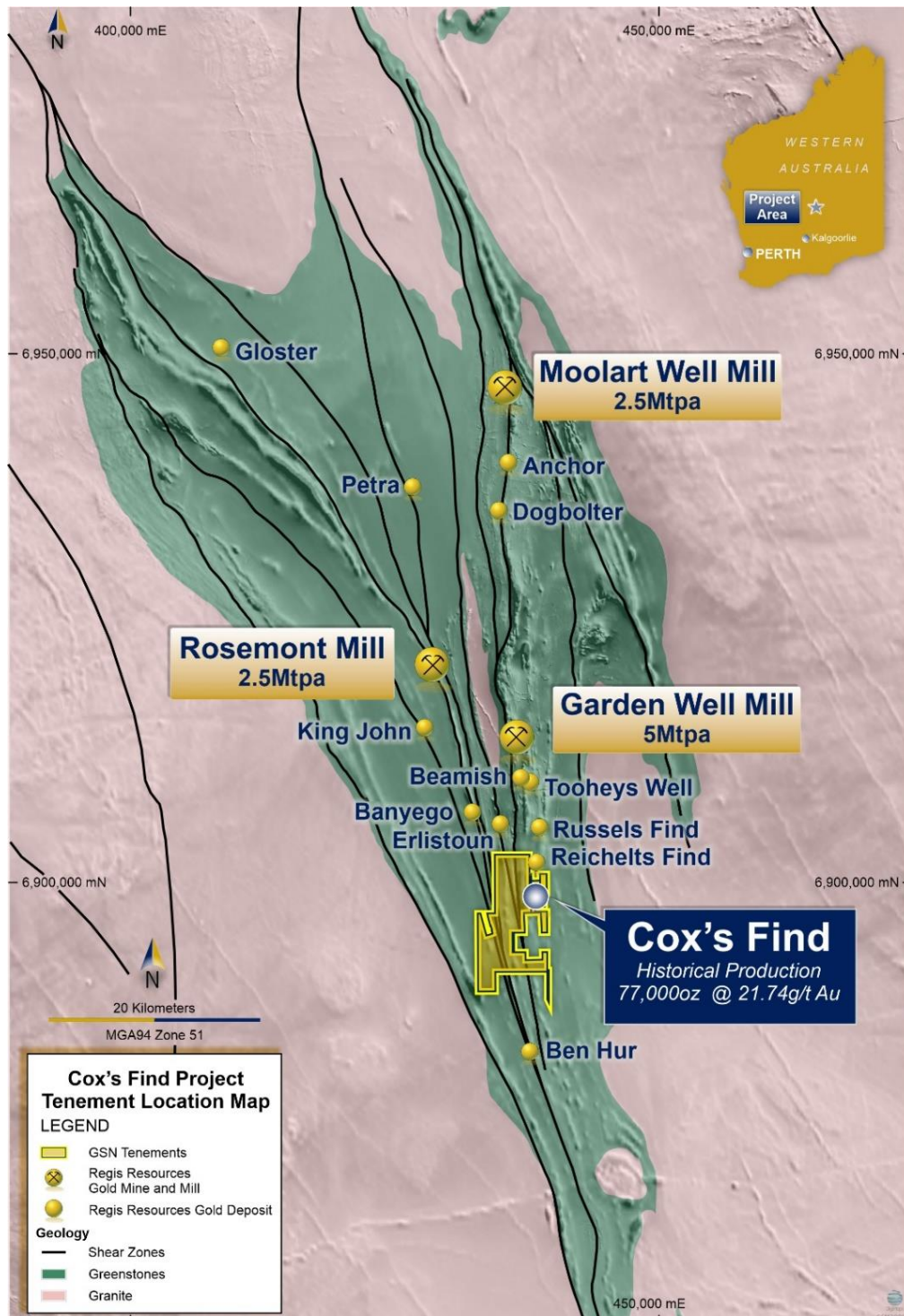


Figure 2 – Duketon Belt Location Map

Mon Ami Development

During the quarter GSN completed an in-house preliminary economic evaluation of the potential for an open-pit development at the Mon Ami deposit. The results were positive and saw GSN immediately commence the full suite of requisite preliminary activities towards the objective of obtaining a mining approval (under the *Mining Act 1978 (WA)*) during 2021.

Mon Ami is located on a granted mining lease. An 8km haul road has been designed that links the deposit with the existing sealed Mt Weld road and a miscellaneous license application has been pegged over this route. A general-purpose license has been pegged for a waste dump.

An archeological and ethnographic heritage survey was completed in November over the project area with the Nyalpa Pirniku Traditional Owners. The survey did not identify any heritage sites that could not be avoided by the proposed mine development.

Dipping of drill holes within the proposed open-pit mining area identified the water table level at approximately 50m below surface. Analysis of water samples indicates that the water is of brackish quality which will be ideal for mine and haul road dust suppression use.

Waste characterisation samples have been submitted for analysis. Geotechnical and biological studies have been commissioned.

The objective of these development activities is to have a “shovel ready” project to present to nearby mill owners as part of proposed commercial discussions. Numerous milling solutions exist within 150km of Mon Ami.

Mon Ami Drilling

RC drilling at Mon Ami commenced in January 2021 (Figure 3) targeting near-surface, high-grade mineralisation to improve open pit development potential and a deeper high-grade target analogous to the nearby Ida H high-grade underground mine.

In August 2020 the company announced several near surface high-grade hits including **11m @ 7.9 g/t gold from 26m including 4m @ 15.9g/t gold** in 20MARC011 and **4m @ 12.4 g/t gold from 80m** in 20MARC003 (4m composite sample; refer ASX Announcement 12/8/20). These high-grade results are interpreted to be localised at the intersection of cross-cutting splays along the regional shear with drilling. Interpretation of the results has identified opportunities to extend these high-grade zones with shallow RC drilling which is expected to further improve the economics of a potential open pit development.

The long section of the Mon Ami deposit (Figure 4) reveals a dominant northerly plunge to the mineralisation including a **2m @ 27.5 g/t Au** intersection from 173m in MLRC036 (refer ASX Announcement 16/7/18). There is no previous drilling directly down plunge along this trend. GSN believes that this high grade lode could extend to depth in analogous fashion to the Ida H deposit, which is located 14km to the north of Mon Ami along the same regional shear zone (the Barnicoat Shear). At Ida H, a rich underground gold deposit was hidden under a similar small surface deposit. Historical underground production at Ida H was **176koz @ 22.8 g/t Au**.

First assay results from the current drilling are expected during February 2021.



Figure 3: RC Drilling at Mon Ami, January 2021

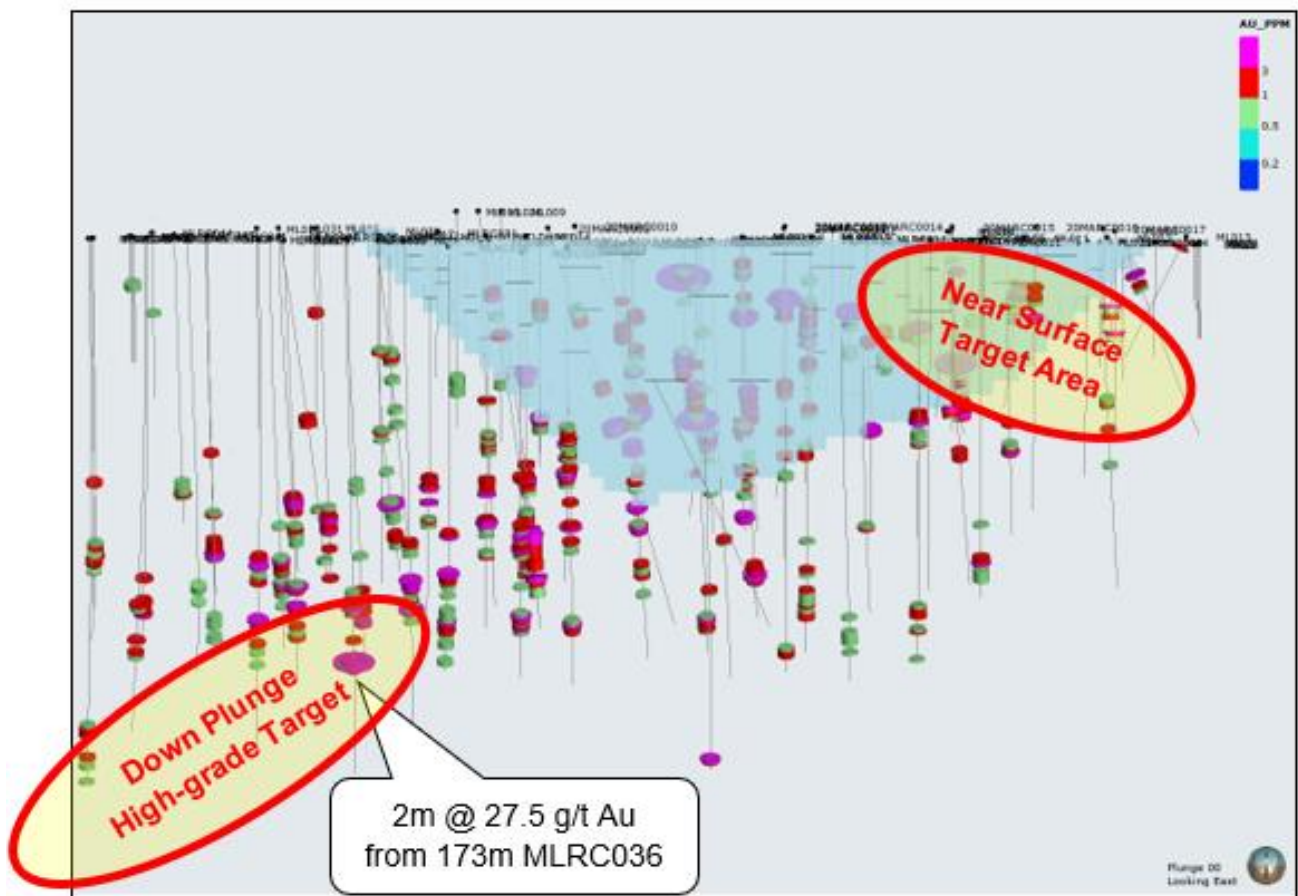


Figure 4: Long Section highlighting the 2 target areas presently being drilled at Mon Ami

Northern Queensland

The Company continued the extensive geochemical and mapping program underway at the large-scale Edinburgh Park Project in northern Queensland. The program is led by our Townsville based Head of Exploration – Queensland who has set up the exploration infrastructure, established a team of contractors and consultants, and commenced exploration operations. This geochemical mapping program is the first systematic gold focused exploration program undertaken over these highly prospective targets, which were identified from interpretation of the hyperspectral data (co-funded with Evolution Mining Limited) with geological mapping and geophysics. A workshop is scheduled in the current quarter with industry and academic experts to review the data collected during the December quarter, with the aim of ranking the targets for planned drill testing during 2021.

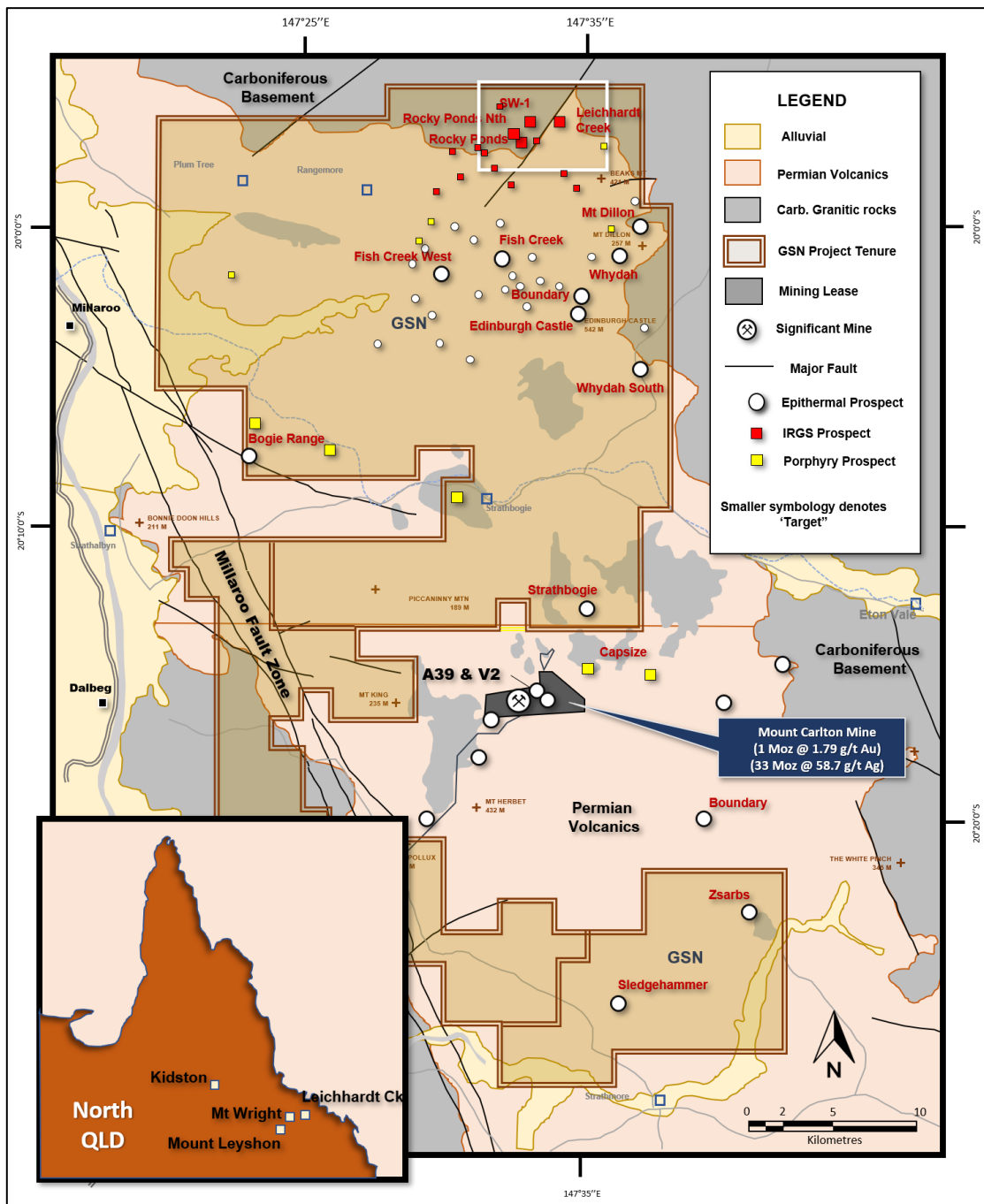


Figure 5: Location and geology of GSN's Edinburgh Park Project relative to the Mt Carlton Mine

Other Projects

East Laverton (Western Australia)

Desktop studies continued with a field visit undertaken in November 2020 for mapping purposes.

Mt Weld (Western Australia)

In December 2020 GSN announced that its application to participate in the 2021 Exploration Incentive Scheme was successful. The awarded grant is for up to A\$150,000 of direct drilling expenditure matched dollar-for-dollar with the Company. The Project is immediately adjacent to the Mt Weld Rare Earths Mine, south of Laverton in Western Australia.

Palmer River (Queensland)

EPM 27291 and EPM 27305 were pegged in 2019 in response to a high-level due diligence review of copper and gold occurrences in the region. They are considered to hold potential for Volcanic Massive Sulphide (VMS) copper and hard rock and associated placer gold mineralisation. The Palmer River district is also an historical mining district that had a gold rush in the late 19th century, starting in 1873 with the discovery of alluvial gold. The area has not been subject to a significant degree of modern exploration techniques providing GSN with significant potential exploration upside. During the December quarter the exploration team undertook a field visit to the area noting further prospectivity with a number of historical, alluvial gold mines identified along the Palmer and Mossman Rivers (Figure 6). EPM 27707 was pegged during the quarter and is currently in application.



Figure 6: Drone photo of GSN exploration team at Palmer River.

Additional disclosures pursuant to Listing Rule 5.3.3 for the quarter

Project Summary: refer to Table 1 below.

Mining tenements acquired/disposed of during the quarter: refer to Table 1 below.

Beneficial percentage interests held in farm-in or farm-out agreements at the end of the quarter:
Nil

Beneficial percentage interests held in farm-in or farm-out agreements acquired or disposed during the quarter: Nil

| Project | Tenement | % Interest | Grant date | Expiry date | Tenement Area km ² | |
|-----------------------------|-------------------------------|------------|---------------|-------------|-------------------------------|-----|
| WESTERN AUSTRALIA | | | | | | |
| Mon Ami | M38/1256 | 100% | 03-09-12 | 02-09-33 | 0.6 | |
| | E38/2829 | 100% | 23-12-13 | 22-12-23 | 1 | |
| | G38/38 | 100% | Pending grant | | | |
| | L38/341 | 100% | Pending grant | | | |
| | L38/349 | 100% | Pending grant | | | |
| Coxs Find | M38/170 | 100% | 10-10-88 | 09-10-30 | 1 | |
| | M38/578 | 100% | 04-08-04 | 03-08-25 | 0.9 | |
| | M38/740 | 100% | 24-07-08 | 23-07-29 | 1.4 | |
| | E38/3476 | 100% | 10-09-20 | 10-09-25 | 1 | |
| | L38/328 | 100% | 18-11-20 | 17-11-41 | 0.4 | |
| | E38/3518 | 100% | Pending grant | | | |
| | P38/4523 | 100% | Pending grant | | | |
| | P38/4524 | 100% | Pending grant | | | |
| Mt Weld | P38/4525 | 100% | Pending grant | | | |
| | E38/2442 | 100% | 17-02-11 | 16-02-21 | 15 | |
| | E38/2856 | 100% | 23-02-15 | 22-02-25 | 15 | |
| East Laverton | E38/2587 | 100% | 15-10-14 | 14-10-24 | 24 | |
| | E38/3362 | 100% | Pending grant | | | |
| | E38/3363 | 100% | 03-07-19 | 02-07-24 | 135 | |
| QUEENSLAND | E38/3364 | 100% | Pending grant | | | |
| | Edinburgh Park Project | | | | | |
| | Johnnycake | EPM 18986 | 100% | 13-12-12 | 12-12-22 | 150 |
| McArea | EPM 25196 | 100% | 03-03-14 | 02-03-23 | 7 | |
| Johnnycake North | EPM 26527 | 100% | 23-08-17 | 22-08-22 | 90 | |
| Beaks Mountain | EPM 26810 | 100% | 17-07-18 | 16-07-23 | 186 | |
| Reedy Range | EPM 27130 | 100% | 24-09-19 | 23-09-24 | 227 | |
| Strathalbyn | EPM 27131 | 100% | 24-09-19 | 23-09-24 | 317 | |
| King Creek | EPM 27506 | 100% | 30-11-20 | 29-11-25 | 24 | |
| Bogie Range | EPM 27450 | 100% | Pending grant | | | |
| Palmer River Project | | | | | | |
| Mt Bennett | EPM 27291 | 100% | 10-02-20 | 09-02-25 | 294 | |
| Eagle Mountain | EPM 27305 | 100% | 10-02-20 | 09-02-25 | 96 | |
| Palmer River North | EPM 27707 | 100% | Pending grant | | | |
| Driscolls Hill | EPM 27460 | 100% | 29-09-20 | 28-09-25 | 30 | |

Table 1 – Project Summary

GSN also holds several second-in-time tenement applications that are not shown in Table 1, as it is uncertain if they will progress to grant. For all tenements listing in Table 1 as “pending grant”, the Directors are not aware of any reason that would result in the applications not being granted to the Company.

Corporate

On 9 November 2020 the Company’s Executive Chairman elected to exercise 6,000,000 Listed Options (GSNOA) raising A\$0.3 million of new equity funds.

On 20 November 2020 the GSN announced it completed a successful placement raising A\$3.12 million before costs. The placement involved issuing 39,000,000 Fully Paid Ordinary Shares at A\$0.08 each plus 1 free attaching Listed Option (GSNOA) for every 4 placement shares. The Listed Options have an exercise price of A\$0.05 each on or before 4 September 2022.

The Lead Manager was paid a fee of 6% of the gross proceeds and issued 2,000,000 Listed Options on the same terms as those above. The Shares and Listed Options were issued under the Company’s existing capacity under Listing Rules 7.1 and 7.1A.

During the quarter the Company repaid a loan to the Executive Chairman of A\$0.3 million plus interest.

On 6 October 2020 the Company issued 1,200,000 Unlisted Options to the CFO/Company Secretary under the Company’s adopted Long-Term Incentive Plan. 600,000 Unlisted Options are exercisable at A\$0.05 expiring 31 December 2022. These Unlisted Options have now vested. The remaining 600,000 Unlisted Options are exercisable at A\$0.10 expiring 30 June 2023, vesting if the employee remains with the Company as at 31 December 2021.

In December 2020 the Company received A\$0.10 million relating to the receipt of the first tranche of the Exploration Incentive Scheme from the June 2020 drilling program at Cox’s Find.

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This ASX release was approved by the Executive Chairman on behalf of the GSN Board

For Further Information Contact:

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Executive Chairman

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About Great Southern Mining

Great Southern Mining Limited is a leading Australian listed gold exploration company. With significant land holdings in the world-renowned gold districts of Laverton in Western Australia and Mt Carlton in North Queensland, all projects are located within 25km of operating gold mills and major operations.

The Company's focus is on creating and capturing shareholder wealth through efficient exploration programs and strategic acquisitions of projects that complement the Company's existing portfolio of quality assets.

For further information regarding Great Southern Mining Limited please visit the ASX platform (ASX:GSN) or the Company's website www.gsml.com.au.

Competent Person's Statement

| Deposit | Competent Person | Employer | Professional Institute |
|--|------------------------------|---|-------------------------------|
| <i>Mon Ami 2020 Exploration Results</i> | <i>Simon Buswell-Smith</i> | <i>Great Southern Mining Ltd</i> | <i>MAIG</i> |
| <i>Mon Ami 2019 Exploration Results incl. metallurgy</i> | <i>Dr Bryce Healy</i> | <i>Noventum Group Pty Ltd</i> | <i>MAIG</i> |
| <i>Mon Ami Mineral Resource</i> | <i>Dr Michael Cunningham</i> | <i>SRK Consulting (Australasia) Pty Ltd</i> | <i>MAusIMM, MAIG</i> |

The information in this report that relates Exploration Results and Mineral Resources is based on the information of the Competent Persons listed in the table above. Each of the Competent Persons have sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity they are undertaking to qualify as Competent Persons under the JORC Code (2012). For new information each consent to the inclusion in the report of the matters based on his information in the form and context in which they occur. Previously announced information is cross referenced to the original announcements. In these cases, the Company is not aware of any new information or data that materially affects the information presented and that the technical parameters underpinning the estimates continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Persons findings are presented have not been materially modified from the original market announcements.

Forward Looking Statements

Forward-looking statements are only predictions and are not guaranteed. They are subject to known and unknown risks, uncertainties and assumptions, some of which are outside the control of the Company. Past performance is not necessarily a guide to future performance and no representation or warranty is made as to the likelihood of achievement or reasonableness of any forward-looking statements or other forecast. The occurrence of events in the future are subject to risks, uncertainties and other factors that may cause the Company's actual results, performance or achievements to differ from those referred to in this announcement. Given these uncertainties, recipients are cautioned not to place reliance on forward looking statements. Any forward-looking statements in this announcement speak only at the date of issue of this announcement. Subject to any continuing obligations under applicable law and the ASX Listing Rules, the Company, its directors, officers, employees and agents do not give any assurance or guarantee that the occurrence of the events referred to in this announcement will occur as contemplated.