ASX: GSN ASX ANNOUNCEMENT

9 March 2022

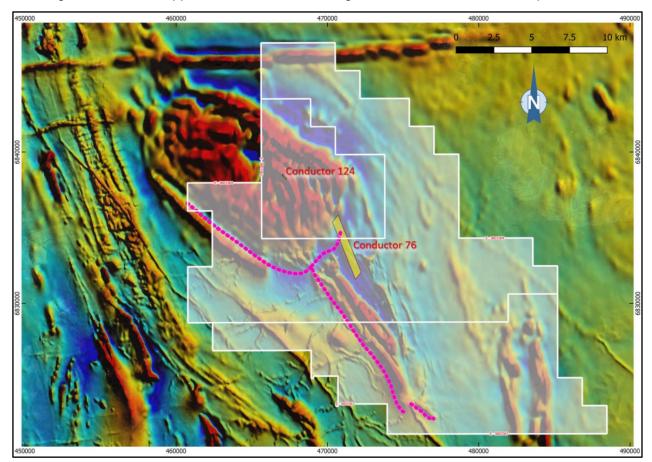


Large EM Conductor confirmed ready for drill testing at the East Laverton Nickel Project

Great Southern Mining Limited (ASX: GSN) (the "Company" or "GSN") is pleased to announce an infill Fixed-Loop Electro-Magnetic (FLEM) survey has confirmed bedrock conductors at the Company's 100%-owned East Laverton Nickel Project (Project) in Western Australia.

Highlights

- The largest anomaly has been modelled by consultants, Newexco Exploration, as a large (2km x 1km) sub-vertical conductor of 1,000 siemens at a depth of approximately 360m.
- This prominent modelled bedrock conductor is in close proximity to be the edge of the interpreted Diorite Hill Magmatic Intrusion, which is a favourable position for massive sulfide accumulation.
- The geology of the Project area has potential to host Nova-Bollinger style nickel deposits with the project providing GSN transformational discovery potential.
- Review currently underway by highly experienced nickel consultant Dr Jon Hronsky looking at the nickel and platinum-group element potential of the Project.



Programme of Work approved ahead of drill testing, estimated to commence in April 2022.

Figure 1 Diorite Hill Magmatic complex (red oval magnetic response), highlighting newly identified conductors overlayed with GSWA magnetics and interpreted basal contact.



GSN's Executive Chairman, John Terpu, commented:

"The new FLEM survey has produced a compelling large conductor in close proximity to be the edge of the interpreted Diorite Hill magmatic intrusion. The geology of the project area is what sets this project apart from other nickel projects in Western Australia, as it has the potential to host magmatic nickel deposits like the Nova-Bollinger style deposit. These deposits generally produce large conductors and that's what we have now confirmed at East Laverton. We will be drill testing the large conductor as well as another more discrete conductor positioned in the middle of the intrusion as soon as all the approvals are in place. We are also planning further EM surveys along what is referred to as the Rotorua complex which is a fertile ultramafic that is yet to have any effective drill testing. The East Laverton Nickel Project is progressing well and is part of GSN's strategy to look at all opportunities to create shareholder value through discoveries."

Technical Discussion

This announcement relates to the completion and interpretation of a follow up FLEM survey carried out between the 2nd and 12th February 2022, over anomalies L076 and L124 at the East Laverton Nickel Project.

Leading exploration and geophysical consultants Newexco Exploration identified numerous soundings that returned anomalies during the initial survey (see ASX dated 08/12/2021). This survey has updated the interpretation, modelling and accuracy around the anomalies.

The large compelling anomaly (L076), interpreted to be located on or near the boundary the Diorite Hill mafic intrusive, is a favourable position for massive sulfide accumulation. The infill survey enabled the conductor to be sufficiently modelled with a proposed drill design now complete. A 600m drill hole has been planned to test the interpreted bedrock conductor. This hole targets a 2km x 1km plate modelled at various dips with an estimated depth-to-top of around 360m.

The newly identified conductor's location led to a recent re-evaluation of the historical work and the position of the basal contact is now interpreted on the south-west margin of the intrusion and the company is targeting this contact for nickel-copper accumulations of the same style as the Nova-Bollinger and Voisey Bay Nickel deposits.

This interpretation is significant from a prospectivity review as nickel sulphide orebodies are often associated with the basal contact as this is a favourable position for metal settling and accumulation.

Remarkably, virtually no historical nickel-copper exploration has been conducted over the complex in general and no drilling has taken place at the location of the large conductor.



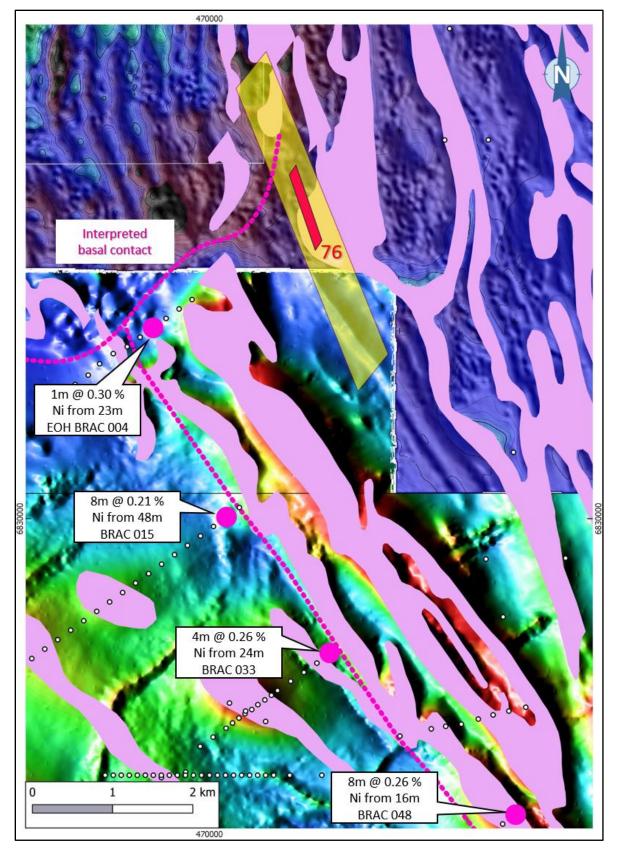


Figure 2 Detailed magnetics with interpreted basal contact, highlighting the proximity of the newly modelled large conductor L076. Drillhole database displaying Newmont significant intersections along the Rotorua complex.



A smaller but significantly isolated anomaly L124, located proximal to a magnetic source within the interpreted intrusive, has been modelled and is also recommended for further work.

The bedrock anomaly is evident on early times and was modelled by Plate L124 which is located at 467265mE 6838340mN -30m depth dipping at 80 to 045 degrees with a nominal size of 200m X 200m and 500S conductance. This is anomalous for this survey and is considered a favourable position for platinum-group elements (PGE) enrichment. The conductor is worthy of follow-up and should be able to be intersected with a small Reverse Circulation (RC) drill program.

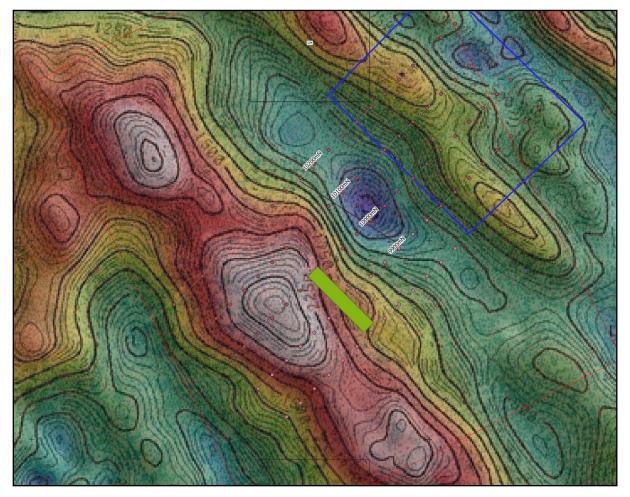


Figure 3:L124 with detailed aeromagnetic image showing bedrock conductor in green.

In 2005 Newmont Australia ("Newmont") completed an aircore (AC) drilling program comprising 107 AC holes (BRAC001 – 31, 33 – 108) for 5,816m targeting the eastern part of the Merideth Shear and several linear magnetic features, one of which was the Rotorua ultramafic magnetic feature (Figure 2). The western margin of the complex was intersected in several drill lines with significant Ni enrichment in laterite with a peak 1m Ni intersection of 0.30% Ni was received (BRAC004, 23-24m, end of hole). Newmont were focused on gold exploration at the time, and little discussion is given to either the ultramafics intersected or the Ni mineralisation.



The Rotorua unit has had very little nickel exploration and GSN have identified this unit to also be prospective for nickel sulphide deposition with komatiite style mineralisation the focus. A planned EM survey over the Rotorua complex in conjunction with Newexco has taken place and is currently under review.

Next Steps

The south-east portion of the survey area is of main interest, Newexco have designed a 600m deep drill hole to test the interpreted bedrock conductor (L076) as shown on Figure 2 and Figure 4. This hole targets a plate modelled at various dips with a depth to top of conductor around 360m, the hole is aimed well below this to avoid drilling over the top of the conductor.

A 500m RC drill program has been planned to target conductor L124.

A review of the East Laverton Project which is dominated by the Diorite Hill Layered Ultramafic Magmatic Intrusion and the adjoining Rotorua complex is underway by highly experienced nickel consultant Dr Jon Hronsky.

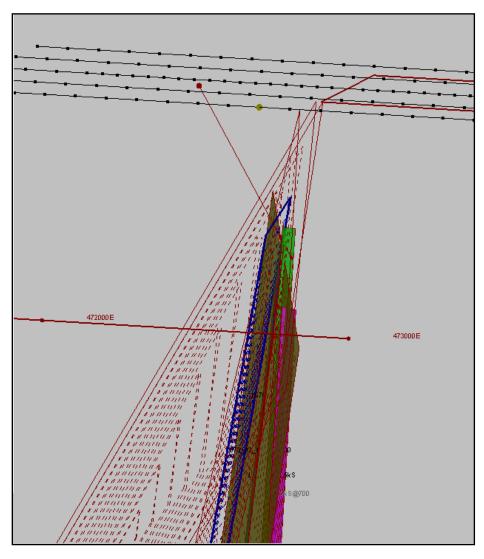


Figure 4:Section showing range of models with intersection of conductor 076 at around 450m below surface and at 515mdh in the planned drill hole.



The release of this ASX announcement was authorised by the Executive Chairman on behalf of the Board of Directors of the Company.

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About East Laverton Project

The East Laverton Project is dominated by the Diorite Hill Layered Ultramafic Magmatic Intrusion (**Diorite Hill**), Diorite Hill covers an area of approximately 110km² and consists of a thick (7,000m) cumulate rock sequence of interlayered peridotites, pyroxenites, gabbros and anorthosites. The southern and eastern part of the complex is contained within the project area.

Diorite Hill intruded a greenstone volcanic rock sequence indicated by the presence of non-cumulate mafic/ultramafic hornfels xenoliths within the complex. Diorite Hill is commonly covered by shallow modern aeolian sands that have hampered previous exploration. Diorite Hill is abutted to the south by the Rotorua Komatiite, a 10km by 1.5km extrusive ultramafic. The Curara Komatiite is further to the east.

Komatiites flows have been the main source of developed nickel-sulfide mines in WA and have been explored extensively since the late 1960's. Due to their well understood geochemistry, formation, and high-grade sulfide enrichment process within defined channels, most of the studies and exploration programs in WA have focused on discovering this style of mineralisation. The Kambalda-Kalgoorlie-Leinster-Laverton Goldfields Region has been the main focus for komatiite exploration, with limited potential existing outside this region. Greenfields discoveries of komatiite nickel have reduced in recent years in the Goldfields Region and its only deep brownfields exploration that is delivering new nickel deposits.

Elsewhere around the world, large scale magmatic nickel deposits are the common place, producing worldclass deposits with long productive mine lives. In WA, magmatic nickel deposits occur scattered throughout the state, however, they have had a long and slow history of discovery, development and understanding.

Its only in recent years, since the 2012 discovery of the Nova-Bollinger 13Mt @ 2% Ni 0.8% Cu and 0.1 % Co deposit in the Fraser Range, that a string of magmatic nickel deposit have suddenly been discovered. As komatiite sources dry up, focus and understanding around magmatic nickel deposits is starting to gain momentum, resulting in exploration companies looking at various mafic-ultramafic bodies which have had limited to no exploration completed over them to date. This is resulting in a new level of understanding in WA on the formation/deposition of nickel-copper sulfides within magmatic rocks, leading to a wave of new discoveries.

Interest in magmatic nickel-copper deposits have had a resurgence with the recent discoveries of magmatic hosted sulfide mineralisation at Legend Mining's (ASX:LEG) Rockford Project and Chalice Gold Mines (ASX:CHN) Julimar Projects. It is this "Voisey Bay" magmatic style model has not been adequately explored at Diorite Hill. This represents a compelling exploration target opportunity which the Company intends to aggressively pursue.



About Great Southern Mining

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

The East Laverton Nickel Project is located 15km east from the town of Laverton in Western Australia where GSN maintains an exploration base to service its significant exploration portfolio in the region, including the Southern Star Gold Deposit.

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 <u>www.gsml.com.au</u>.

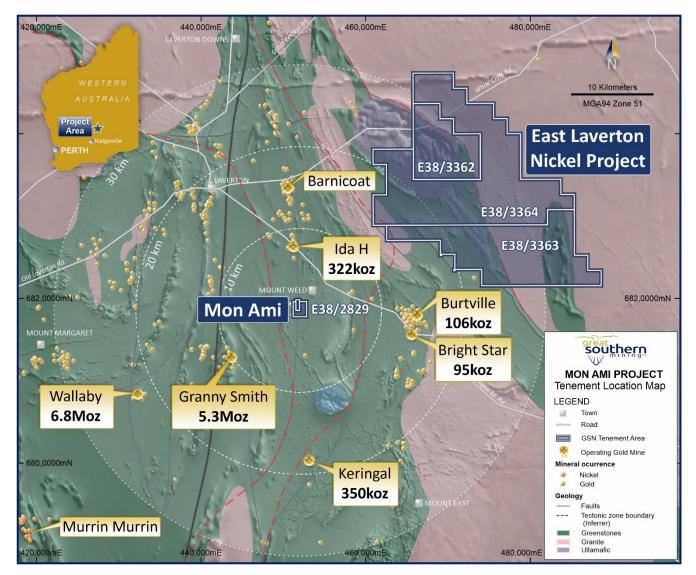


Figure 5:GSN tenure in Laverton.



Competent Person's Statement

The information in this report that relates to exploration results at the East Laverton Nickel Project is based on, and fairly represents, information and supporting documentation compiled by Simon Buswell-Smith. Mr. Buswell-Smith is a full-time employee of Great Southern Mining Limited. He has sufficient experience relevant to the style of mineralization and type of deposit under consideration. Mr. Buswell-Smith is a Member of the Australian Institute of Geoscientists and as such, is a Competent Person for the Reporting of Exploration Results, Mineral Resources and Ore Reserves under the JORC Code (2012). Mr. Buswell-Smith consents to the inclusion in the report of the matters based on his information in the form and context in which they occur.

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.



JORC Code 2012 Edition – Table 1

Section 1 Sampling Techniques and Data

| Criteria | Commentary |
|---|--|
| Sampling techniques | The FLEM surveys L076 and L124 used a 500X500m with 200 and 100m line spacing and 100 and 50m station spacing. A bartington Fluxgate sensor and smartem 24 EM system operating at 1Hz. Thin rectangular plate modelling was carried out in free space using program Maxwell. |
| Drilling techniques | Aircore drilling by Newmont in 2005 WAMEX open file report A69883 no detail is reported and industry standard at the time is assumed. |
| Drill sample recovery | No drill recovery was reported. |
| Logging | Logging of geology, weathering, colour, veining was reported. |
| Sub-sampling techniques and sample preparation | N/A |
| Quality of assay data and laboratory tests | Quality of drillhole assay data unknown, industry standard assumed. |
| Verification of sampling and assaying | Infill profiles repeated original anomalous responses, validating EM survey. |
| Location of data points | All sites are in MGA94 – Zone 51 grid coordinates Handheld GPS was used for location. |
| | Topographic control in nominal. |
| Data spacing and distribution | See sample techniques |
| Orientation of data in relation to geological structure | N/A |
| Sample security | Data was gathered daily onsite and sent to Newexco daily for interpretation. |
| Audits or reviews | Newexco process and interpret the field data received and is peer reviewed. |

Section 2 Reporting of Exploration Results

| Criteria | Commentary |
|--|---|
| Mineral tenement and land tenure status | Tenement E38/3663 was granted 27/7/2020 in the name of East Laverton Exploration Pty Ltd, a 100% owned subsidiary of Great Southern Mining Limited. The tenement is in good standing. |
| | Tenements E38/3664 and E38/3662 was granted 29/04/2021 in the name of Great Southern Mining Limited. The tenements are in good standing. |
| Exploration done by other parties | In 1990 Aberfoyle conducted three RAB drilling programmes totalling 4,629m in 119 holes (DHRB001 – 119) across the Diorite Hill Complex aimed at assessing the PGE potential. Bottom of hole and near surface lateritic samples were collected from drill holes DHRB001 to 83 and bottom of hole samples only from DHBR084 to 119. Aberfoyle followed up on their PGE prospective ultramafic – mafic contact zone at diorite hill with |



| Criteria | Commentary |
|------------------------|---|
| | a four (4) hole RC pre-collar diamond program in 1992 (DIORCDD 120, 121, 122, 123) for a combined 525m of drilling. |
| | A conclusion from the work was that the hole intersected too high in the layered complex to be prospective for PGE mineralisation, however no further work was undertaken. The potential for primary Ni sulfide mineralisation was not discussed. |
| | Follow-up drilling by Ni-West in 2002 on Aberfoyles best intersections consisted of 15 vertical aircore programs for 534m (DRA0001 – 0005, KNA001 – 002, DCAC0001 – 13). Holes were drilled to recognisable bedrock, were generally low anomalism and included a best 'standout' intercept of 8m at 0.98% Ni and 0.18% Co from 32m (DRAC0008) located proximal to the Ni intersection in DIORCDD 123 by Aberfoyle. |
| | Placer Dome Asia Pacific ("Placer") farmed into the Diorite Hill Project in late 2002 and initially completed a high-resolution airborne EM and magnetic survey. Work completed by Placer during the following year included follow up soil sampling (452 samples), RAB and minor aircore drilling totalling 7,224 metres in 171 drill holes, and two diamond drill holes for 599.5 metres (including 78.7 metres in pre-collars). |
| | The drilling programme was designed to map basement geology beneath the transported cover, test soil and geophysical anomalies and locate PGM-bearing sulfide and chromite layers. Holes were sited to give broad coverage across the entire width of the intrusive body, both augmenting and infilling the earlier Aberfoyle RAB drilling, and targeting the zones/layers interpreted to be the most prospective from both the magnetics and the earlier drilling. |
| | In 2006, Southern Geoscience consultants ("SGC") were contracted by A1 Minerals to re- process and interpret aeromagnetic data collected as part of the Diorite Hill Hoistem helicopter EM survey flown by Placer Dome. |
| Geology | The East Laverton project incorporates the southern portion of the Diorite Hill Layered Ultramafic Complex, a NW-SE trending body, about 7000m wide and delineated by an aeromagnetic anomaly. The interpreted feeder conduit to the layered complex has been classified as the Rotorua Ultramafic unit. |
| | The Diorite Hill Layered Intrusive Complex was originally interpreted as an east facing, steeply dipping sequence, but was subsequently interpreted as a shallow dipping, west facing sequence complicated by thrusting with remnants of hornfels grade country rock. There is a complex inter- fingering of cross-cutting coarse pyroxenite in fine magnetic recrystallised dolerite/peridotite, as well as xenoliths of the finer grained lithology in foliated pyroxenite. |
| | The geology is poorly understood, with previous workers interpreting a layered sill complex comprising alternating layers of olivine-rich cumulates, pyroxenites, gabbros and even anorthosites. A mafic-ultramafic hornfels has been interpreted along the granite contact to the east, and it appears as if abundant hornfels xenoliths may have been caught up in the layered pyroxenite and gabbro units. A basaltic rock sequence defines the western margin. Recrystallised dolerite has also been interpreted from certain outcrops. |
| | The topography is generally flat to slightly undulating with occasional low hills of outcrop and lateritic residuum. Outcrop in the area is poor (5–10%), restricted to the north eastern sector of the body, with the remainder covered by transported alluvium, laterite and minor calcrete. |
| | Sediments have been mapped in the eastern portion of the tenement. |
| Drill hole Information | No new drillhole information reported historic drillholes by Newmont |



| Criteria | Commentary |
|--|--|
| | No material information has been excluded drillholes with low nickel values are also displayed |
| Data aggregation methods | N/A |
| Relationship between mineralisation widths and intercept lengths | relationship is unknown due to limited data |
| Diagrams | Relevant Diagrams are included in the body of this report. |
| Balanced reporting | |
| Other substantive exploration data | N/A |
| Further work | Future exploration is included in next steps of the body of the report |