ASX: GSN

ASX ANNOUNCEMENT

15 June 2022



DRILL TESTING OF EM CONDUCTORS TO COMMENCE AT EAST LAVERTON NICKEL PROJECT

Highlights

- The Company was awarded a co-funded drilling grant of up to \$220,000 at the 100% owned East Laverton Nickel Project in Laverton, Western Australia.
- Drilling to commence in early July 2022 and is designed to test the newly identified conductor L076, modelled at 2km x 1km in length, with a second conductor, L124, to also be drill tested.
- A diamond drill rig and a Reverse Circulation (RC) rig have been booked, with the co-funded drilling
 program being the first drill program by GSN to test the nickel-copper-PGE prospectivity of the Diorite
 Hill Magmatic complex.
- A moving loop electromagnetic survey over the Rotorua and Curra ultramafic complex is under design by Newexco consultants.

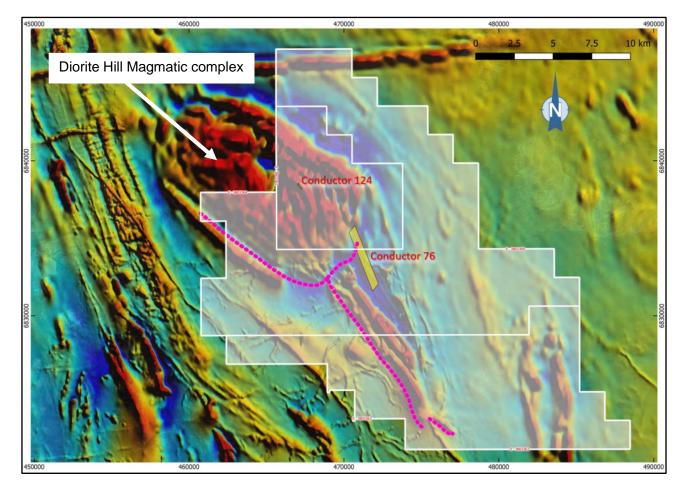


Figure 1: Diorite Hill Magmatic complex, highlighting newly identified conductors overlayed with GSWA magnetics and interpreted basal contact.

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GSN's Executive Chairman, John Terpu, commented:

"The team has worked hard over the last few months to refine the newly identified EM targets over what is an underexplored area of Laverton. The Company has methodically progressed the East Laverton Nickel Project from the concept stage to the modelling of these compelling conductors. The next logical step is to drill test them. The Company was awarded the EIS grant in May 2022 and with the grant funding window now open, the Company has booked the required drill rigs and we are excited to be testing these highly prospective targets. As a discovery Company, it doesn't get much more exciting than this."

Technical Discussion

Following the Company's success in being awarded the Exploration Incentive Scheme (EIS) grant in May 2022, the Company is now in the position to drill test the East Laverton Nickel Project.

Work has continued on the refinement of the location and dip of conductors L076 and L124. The conductors have now been modelled in 3D, with the drill program designed to test the bedrock conductor at L076 with a 600m drill hole (RC with diamond tail) planned (Figure 2). The conductor has been modelled at 2km x 1km in length.

Continued refinement of conductor L124 has also noted the conductor is located proximal to a magnetic source within the interpreted intrusive and modelled at 300m X 300m. This isolated conductor, identified in the centre of the Diorite Hill intrusion, is considered prospective for platinum-group elements (PGE) enrichment. The drill program has been planned with the conductor to be tested with a number of RC holes.

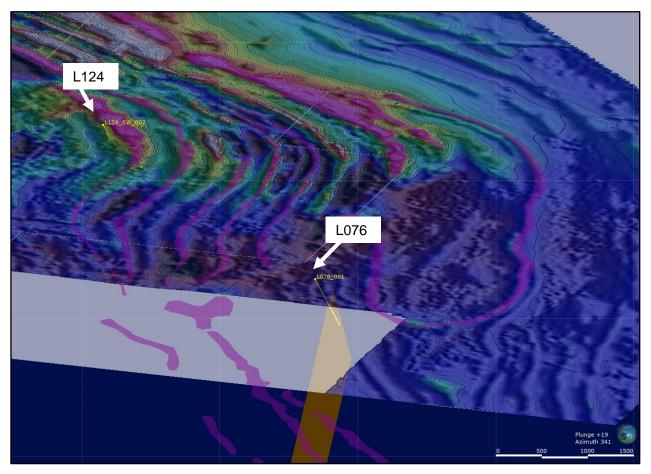


Figure 2: Detailed magnetic data (TMI) with interpreted draped ultramafic units (purple) and modelled conductor plates with proposed drilling.



Next Steps

Additional work is being undertaken to identify additional conductors using the same modern exploration techniques which yielded the compelling conductors over the Diorite Hill intrusion. The Company is also looking to undertake a similar style moving loop electromagnetic survey, designed by geological consultants Newexco Exploration Pty Ltd, on the Rotorua and Curra Komatiite units (Figure 3). These units have had very little nickel exploration historically with komatiite style mineralisation being the focus for GSN. The survey is likely to take place following the completion of the drill program.

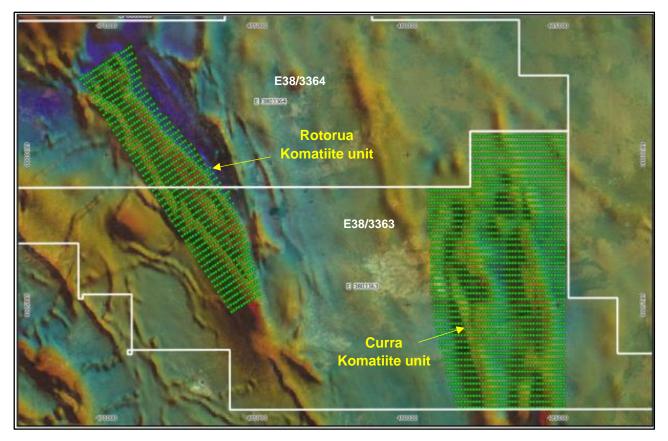


Figure 3: GSWA magnetics with proposed MLEM surveys over the Rotorua complex (left survey) and the Curra complex (right survey).

Remarkably, little exploration has previously occurred over the Rotorua Complex. Limited RAB lines have been drilled by BHP-Utah in 1998 and Newmont Australia in 2005, however the focus was exclusively on gold mineralisation.

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.

The East Laverton project has the potential to host both magmatic type deposits (in Diorite Hill; Figure 4) and komatilitic type deposits (in the Rotorua and Curara Komatilites).

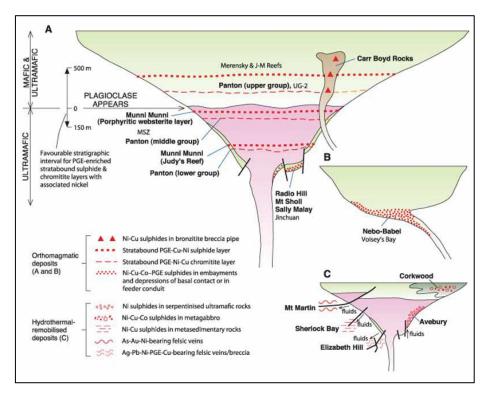


Figure 4: Schematic distribution of nickel-sulphide deposits associated with mafic *±* ultramafic intrusions.

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 world-class 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 (Figure 5) 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.

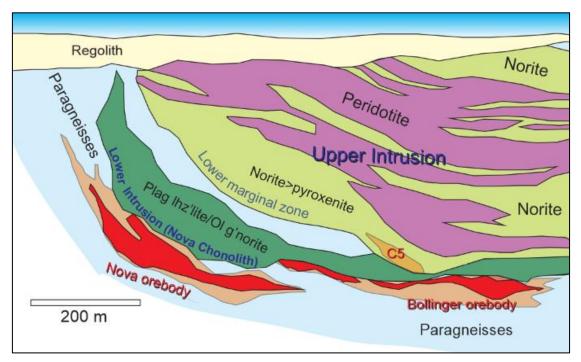


Figure 5: Nova-Bollinger east-west schematic long section, looking north (Taranovic et. Al., 2019)



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 Duketon Gold Project only 30km to the north.

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>.

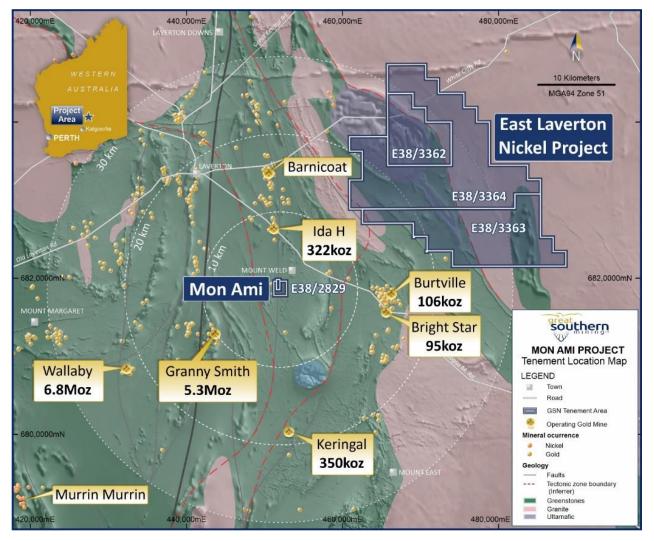


Figure 6: Location of the East Laverton Nickel Project.



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.