EAST LAVERTON NICKEL EXPLORATION UPDATE

Highlights

- **First three holes, testing two bedrock conductors within the Diorite Hill Complex, completed at GSN's 100% owned East Laverton Nickel Project in Western Australia**
    - **The deeper conductor (L076) remains unexplained, however disseminated and narrow vein iron sulphides were intercepted beyond the target depth, from 548m downhole**
    - **Two reverse circulation (RC) holes into shallow conductor (L124) did not intercept obvious conductive geology, however this stratigraphic position is still considered prospective for PGE mineralisation**
- **The Diorite Hill Complex remains prospective for Ni-Cu-PGE mineralisation with favourable mafic / ultramafic geology, encouraging sulphide content and no sedimentary units noted in all three holes drilled by GSN**
- **Follow up programs at Diorite Hill will be determined once downhole electromagnetic (DHEM) processing is finalised and assay data has been received**
- **The second stage of East Laverton exploration will target the 17km of ultramafic stratigraphy of the Granite Well and Rotorua trends, prospective for Kambalda-style komatiite hosted nickel sulphide mineralisation. First pass ground based electromagnetic (EM) surveys are planned for the first half of 2023.**

GSN's Managing Director, Matthew Keane, commented:

"While GSN's first three holes into the Diorite Hill Complex have not intercepted significant quantities nickel or copper sulphides, the interpreted geology remains encouraging for nickel-copper-PGE mineralisation. To date, only nine deeper holes have been drilled into the complex, including the latest three by GSN. However, our understanding has increased substantially, and this will benefit future targeting".

"The next phase of our East Laverton exploration program will include first pass ground EM over the 17km of virtually untested komatiite stratigraphy of the Granite Well and Rotorua trends. Base metal exploration for this project remains in its infancy and we have not even tested the region's gold potential, despite historic intercepts including 9m at 2.4g/t gold".

Great Southern Mining Limited (ASX: GSN) ("**GSN**" or the "**Company**") provides an exploration update for its 100% owned East Laverton Project in Western Australia. Drilling has now been completed for a three-hole program designed to test two bedrock electromagnetic ("**EM**") conductors within the Diorite Hill Intrusive Complex ("**Diorite Hill**"), namely Conductor L076 and Conductor L124 (Figure 1) (refer to GSN ASX announcement dated 15 November 2022). While drilling did not intercept significant quantities of nickel or copper sulphides, the Diorite Hill Complex has been proven to contain prospective mafic-ultramafic geology with no internal graphitic or sedimentary shale units (being potential sources of false-positive conductors). All three holes contained widely dispersed trace sulphides highlighting the fertile nature of the complex. Assays for precious metals are pending.

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Diorite Hill Conductors

Conductor L076

Conductor L076 was drill tested with a 579.6m deep hole comprising a 274m RC pre collar with a NQ-size diamond tail. Drilling encountered a sequence of high magnesium basalts followed by gabbro and pyroxenite units, interpreted to be the Diorite Hill layered sequence. Trace (>0.2%) sulphides (pyrrhotite, pyrite and chalcopyrite) have been observed throughout the complex. The interpreted base of the Diorite Hill Complex was marked with a garnet pyroxenite gneiss from 285m to 289m downhole. The remaining geology of the hole comprised a sequence of foliated and pillow basalts. Pillow features indicate that the basalt sequence sits outside of the layered intrusion and supports the interpretation that hole 22ELRCD0001 has successfully drilled through the contact of the layered intrusion.

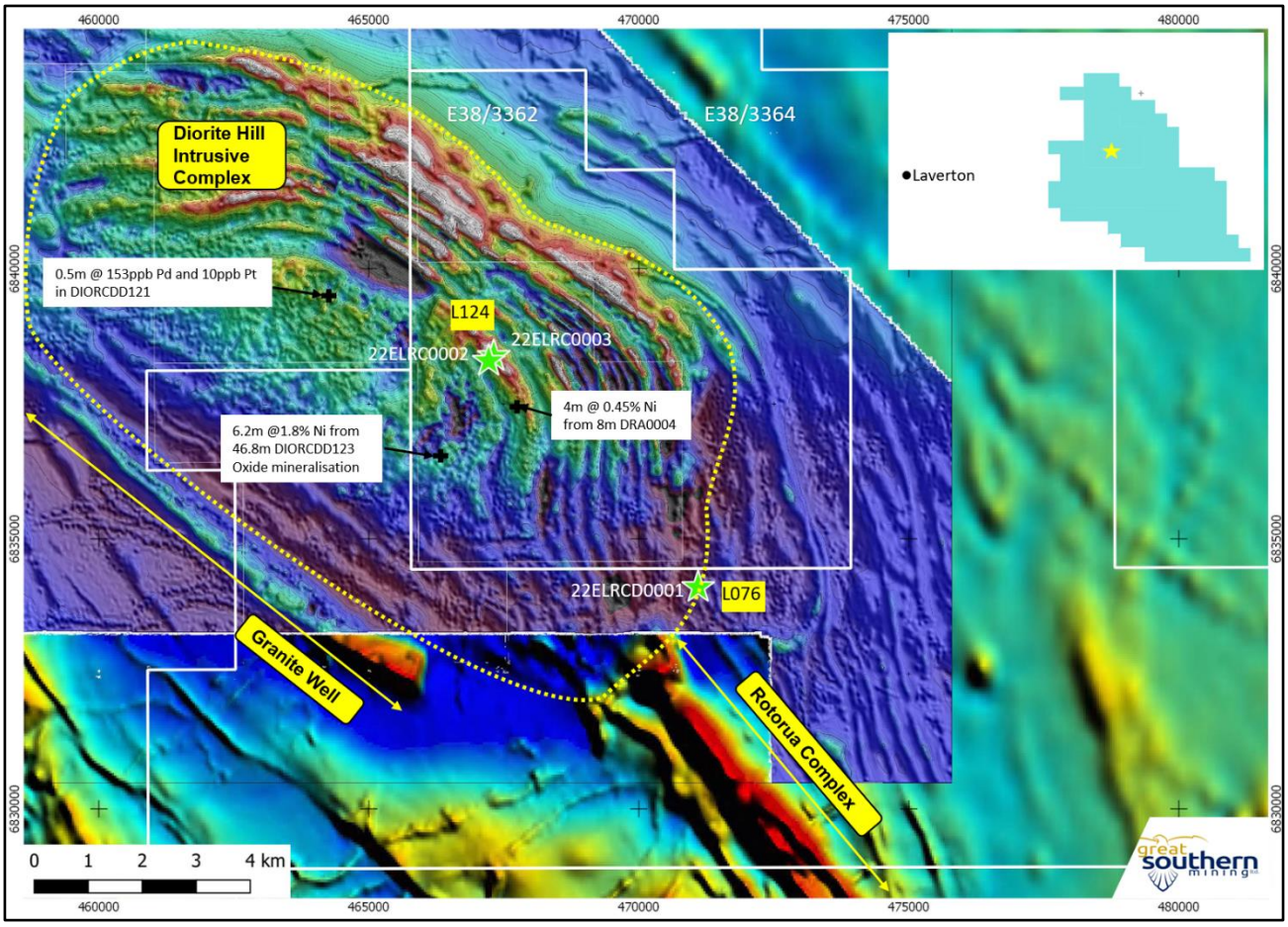

Figure 1 Diorite Hill Intrusive Complex showing the location of EM plate drillhole positions (green stars) underlain by Geological Survey of Western Australia aeromagnetic imagery. Conductor L076 sits on the interpreted margin of the instruction (yellow dashed line), while conductor L124 lies along on the lower contact of stratigraphy with a high magnetic response, interpreted to be an internal mafic / ultramafic contact.

Disseminated and vein iron sulphides were observed at various intervals throughout the mafic sequence with thin veins from 304.6m to 305.2m (up to 8mm) and wider, more prolific veins (up to 200mm) from 545.5 to 549m downhole. Chalcopyrite was observed at the 304.6 to 305.2m interval (Figure 3). Downhole EM could only be undertaken to a depth of 211m downhole due to a hole blockage, however this survey did reconfirm the presence of a significant conductor. Unfortunately, the downhole EM could not provide sufficient data to confirm if the sulphides from 545.5 to 549m were the source of this conductor.

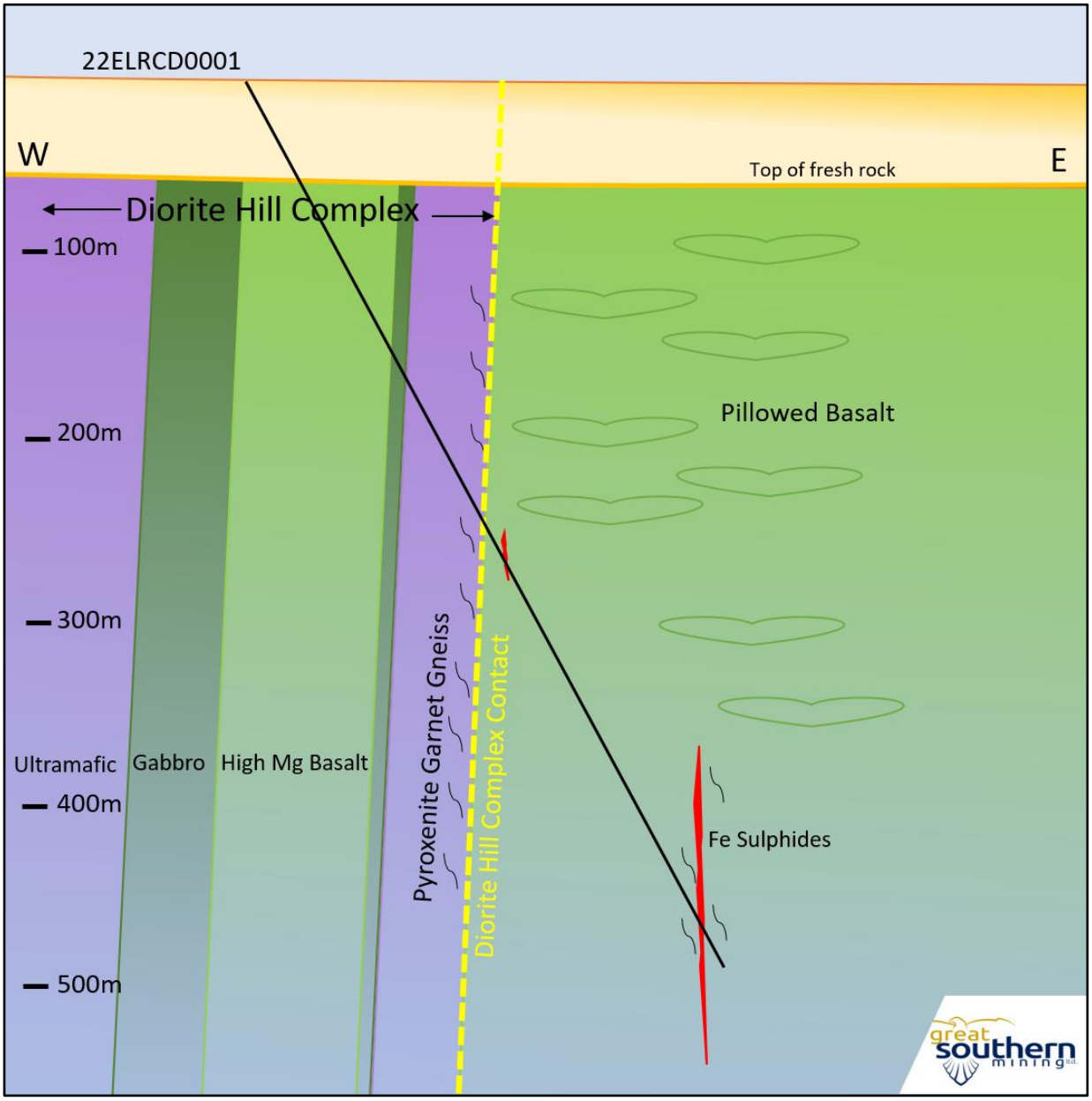

Figure 2 Cross section 6834100mN highlighting the Diorite Hill Complex contact and sulphides intersected downhole.

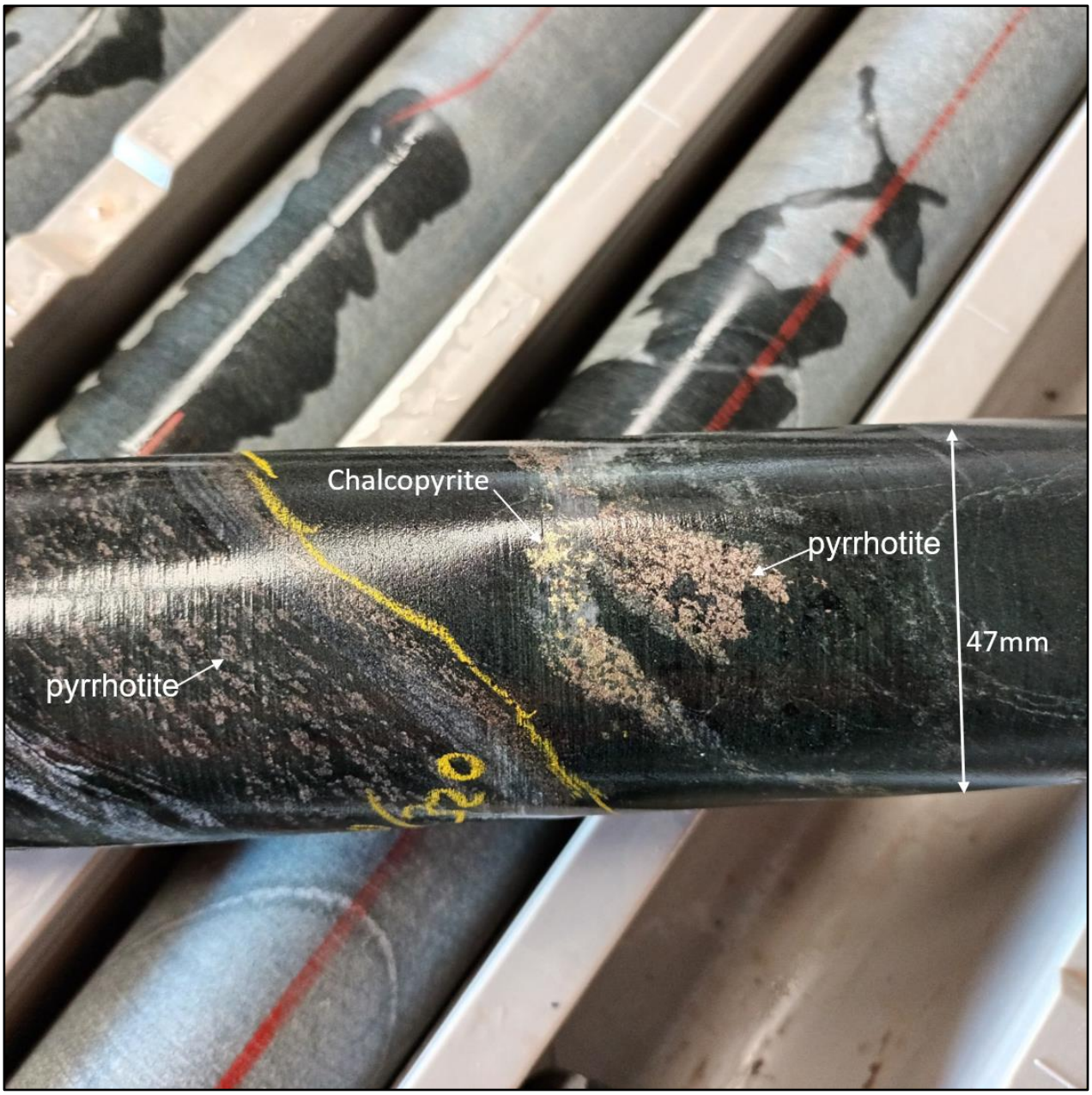

Figure 3 Close up image of sulphides intersected at 304.8m downhole.

Conductor L124

Conductor L124 was drill tested with two RC holes (22ELRC002 and 22ELRC003) for a total of 308m. Drilling intersected a suite of mafic and ultramafic horizons with two types of ultramafic observed, defined by their pyroxene or olivine composition. Trace (>0.2%) sulphides (pyrrhotite) were logged in 22ELRC002 from 62m to 100m and increased magnetite was observed in the same hole from 109-120m. Downhole EM could not replicate the previously defined surface EM conductor, which has now been reinterpreted as a near surface feature. While no significant nickel or copper sulphides were observed in holes 22ELRC002 and 22ELRC003, assays will be submitted to test for platinum group and pathfinder elements.

Interpretation of magnetic imagery shows the position of the two RC holes to be proximal to a major stratigraphic break, from a magnetically unlayered sequence in the southwest of the complex to a magnetically-layered sequence in the northeast (see Figure 1). Such major stratigraphic breaks are commonly the most prospective internal positions within differentiated mafic-ultramafic intrusions for PGE-enriched horizons. An analogy for this positioning of PGE enrichment within a layered intrusive is the Munni Munni deposit in Western Australia, depicted in Figure 4 below. GSN plans to conduct further work along, what it considers to be, a similar prospective horizon within the Diorite Hill Complex. It is important to note that electromagnetic tools are likely to be less effective for targeting PGE enriched units, therefore other methodologies such as detailed magnetics, geochemical vectoring and drilling will be considered for future exploration.

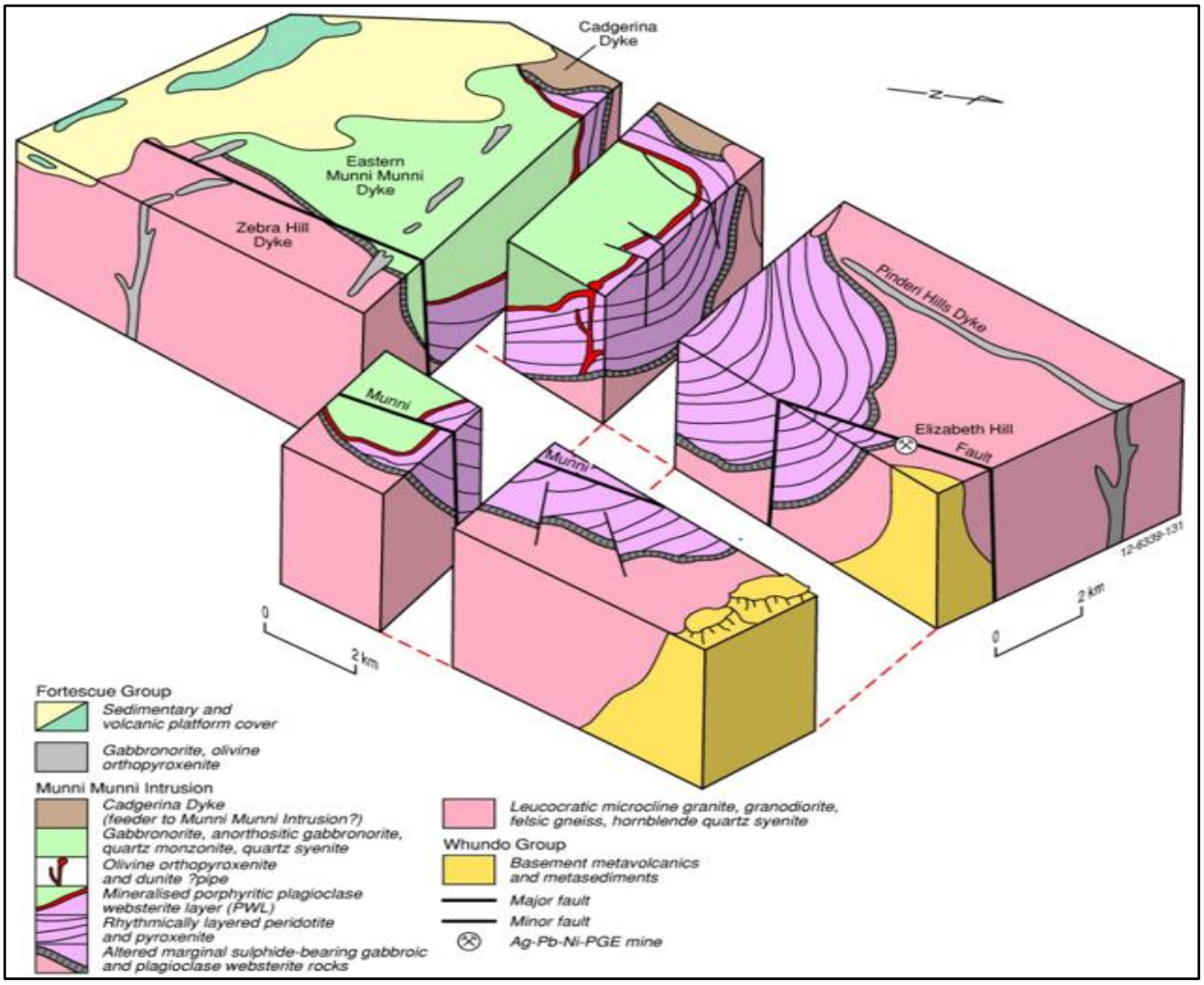

Figure 4 Munni Munni Block model highlighting the layered sequence to unlayered sequence and this favourable position for PGE enrichment. PGE mineralisation (red layer) sits between the Gabbroic (light green) and layered ultramafic (purple) units. (Source: Record 2014/51 | GeoCat 82239 Platinum-group elements in Australia Geological setting, mineral systems, and potential Editors: Hoatson, D.M. and Lewis, B. Authors: Hoatson, D.M., Miezitis, Y., Jaireth, S. and Huston, D.L)

Rotorua and Granite Well Exploration

The East Laverton Nickel Project also contains approximately 17km of virtually unexplored ultramafic stratigraphy along the Granite Well and Rotorua trends (Figure 5). These are considered prospective for Kambalda-style komatiite hosted nickel mineralisation.

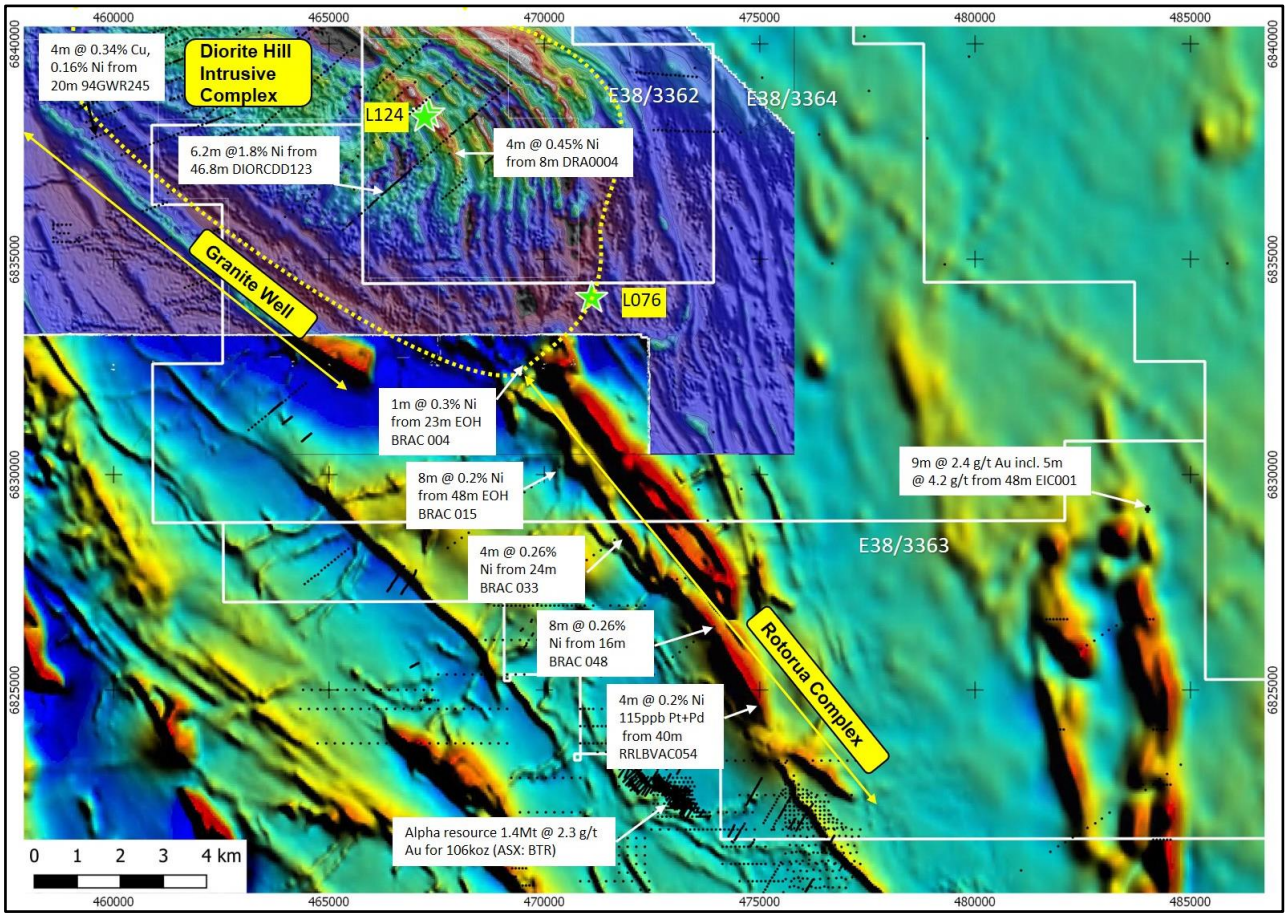

Figure 5 Magnetic image highlighting the Rotorua and Granite Well targets with drillhole database displaying Newmont significant intersections along the edge Rotorua complex. Refer to Brightstar Resources (BTR) 2021 Annual Report for Alpha Gold Resource.

The Granite Well trend comprises of 10km of interpreted komatiitic ultramafic stratigraphy immediately west of the Diorite Hill intrusion, of which ~3km of strike is within GSN's tenure. Limited exploration has targeted Granite Well, however hole 94GWR245 on a neighbouring tenement to the north intercepted anomalous and coincident copper-nickel sulphides (20m @ 0.28% Cu, 0.11% Ni from 12m, including 4m @ 0.34% Cu, 0.16% Ni). In addition, multiple shallow historic holes along this trend have nickel values above 0.2% with no drilling on the 3km portion of GSN's tenure.

The Rotorua ultramafic trend consists of a 14km long ultramafic sequence extending south from the Diorite Hill Complex. No historical nickel focussed exploration has been conducted over Rotorua, however limited shallow gold focussed aircore drilling on the western margin of the ultramafic stratigraphy showed anomalous nickel (0.2-0.3% Ni) in base of holes samples. Drillhole RRLBVAC054 was also

assayed for platinum and palladium with a peak value of 115ppb Pd+Pt (Figure 5). The presence of komatiitic spinifex textures were also noted in base of hole logging.

Stage Two Exploration at East Laverton

The Company plans to undertake moving loop EM (MLEM) surveys on both the Rotorua and Granite Well komatiite trends. Both surveys have now been designed and costed with surveys likely to take place in early 2023 in conjunction with any follow up exploration of the Diorite Hill Complex.

Gold Potential of the East Laverton Project

While gold exploration at East Laverton is not the immediate focus, it is noteworthy that Brightstar Resources' (ASX:BTR) Alpha deposit (1.4 million tonnes at 2.3g/t gold for 106,000 ounces) resides on the southern edge of the East Laverton tenure. The strike extent of this mineralised trend extends into GSN's ground and has not been effectively explored.

Further, a review of historical datasets has also demonstrated the potential for orogenic gold, with intercepts such as 9m at 2.4g/t gold, including 5m at 4.2g/t gold from 48m (EIC001, WAMEX A48007) reported from historic drilling in the east of the project area (Figure 5).

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

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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.

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.

Table 1 - Recent drillhole locations at East Laverton Diorite Hill coordinates are in MGA 94 zone51

Drillhole	Easting	Northing	Dip	Azimuth	Depth
22ELRCD0001	471096	6834099	-60	090	579.6
22ELRC0002	467315	6838380	-60	225	190
22ELRC0003	467220	6838290	-60	045	118

JORC Code 2012 Edition – Table 1

Section 1 Sampling Techniques and Data

Criteria	Commentary

Sampling techniques	• RC drill cuttings were collected over 1m intervals via cyclone into buckets and placed in piles on the floor (15-35 kg of sample material):
	  ○ For RC assay sampling, 1-3kg of sample was split from each 1meter sample length via a cone splitter. The cyclone was manually cleaned at the completion of each rod and thoroughly cleaned at the completion of each hole. The 1-3kg samples are yet to be assayed.
	  ○ 4-meter comps via spear method and have been taken. The anomalous 4m samples may be assayed in 1m intervals.
	• 4m RC samples were collected and submitted for analysis at Bureau Veritas in Perth for Fire assay analysis for Au, Pt, Pd and. Mixed Acid Digest for As, Co, Cu, Cr, Fe, Mg, and Ni. No assays have been received.
	• Field QC procedures involved the use of Certified Reference Materials (CRM's) as assay standards.
	• Diamond core samples are yet to be assayed.

Drilling techniques	The drilling operation was undertaken by experienced drilling contractor Pression Drilling Ltd. • Reverse Circulation (RC) drilling was conducted with a modern truck mounted Rig. RC samples were obtained utilizing high pressure and high-volume compressed air using RC 143mm diameter face bit. • Holes orientations were surveyed using a Reflex-multi at 30m intervals. • Diamond drilling was undertaken by Drillcore and used NQ size diameter drill core.
Drill sample recovery	• RC sample recoveries of less than approximately 80% are noted in the geological/sampling log with a visual estimate of the actual recovery. Very few samples were recorded with recoveries of less than 80%. • Wet RC samples are recorded in logs with only a small portion (~3%) detected • Diamond core recovery was noted throughout the drilling minimal core loss (less than 0.5%) was noted.

Logging	• All RC drilling was logged at the rig by an experienced geologist.
	  ○ Lithology, veining, mineralisation, alteration, weathering and oxidation were recorded;
	  ○ Evidence for structural features is noted.
	  ○ RC logging is qualitative and descriptive in nature and representative portions of samples were retained in chip trays for future reference.
	  ○ Diamond core was logged as above and also structural and geotechnical logged. Diamond core was also orientated and photographed.
	All data was recorded/logged in the field in Log Chief deposit and subsequently transferred to the electronic drillhole database (DataShed5).

Sub-sampling techniques and sample preparation	RC samples (nominal 15-35 kg weight) were split through a cyclone splitter, and a 2-3 kg sub-sample submitted as the primary sample for assay. 4-meter comps have been taken for the portions of the drilling. The anomalous 4m samples will be assayed in 1m intervals. No 4m assays have been received to date. Sample size is regarded as appropriate
Quality of assay data and laboratory tests	Quality of drillhole assay data unknown, industry standard assumed.
Verification of sampling and assaying	Results are verified by the geologist before importing into Datashed. No twin holes have been conducted Data is collected by tablet in the field and is imported into Datashed5.

Criteria	Commentary
	RC Field QC procedures involved the use of Certified Reference Materials (CRM's) as assay standards and blanks. Assay data is reviewed prior to importing into Datashed no adjustments are made to raw assay files. No assays have been reported
Location of data points	• All data location points referred to in this report are in: • Datum: Geodetic Datum of Australia 94 (GDA94) Projection: Map Grid of Australia (MGA) • Zone: Zone 51 • All collar surveys were completed using handheld GPS (+/- 5m accuracy). • Drill rig alignment was attained using a handheld compass and verified with downhole surveys collected near-surface followed by approximately every 30m. • Downhole surveys were routinely carried out, generally on continuous measure, conducted using Reflex-multishot. • The 3D location of individual samples is considered to be adequately established and in line with industry standards for this stage of exploration. • Topography is nominal at this stage holes will be picked up using a DGPS in the future.
Data spacing and distribution	• The drill hole spacing ranges is not systematic and target (EM) related • The drill holes were planned to test model EM conductive plates • Sampling of RC cuttings has been undertaken at 4m intervals and areas of interest in diamond. • The current drill hole spacing and distribution is not sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure and classification. • 4m sampling compositing has been applied to areas of less interest and for regional exploration holes.
Orientation of data in relation to geological structure	No drilling orientation and/or sampling bias has been recognised at this time.
Sample security	• Logging has been carried out by GSN and contract personal who were always on-site during drilling. • No third parties have been allowed access to the samples. • Samples were shipped directly from site to a secure stored site in Laverton to undergo evaluation. • Select samples for geochemical analysis were transported from Laverton to Bureau Veritas in Perth where upon receipt the samples are officially checked in and appropriate chain of custody documentation received. All sample information is kept in paper and digital form. Digital data is backed up onto the Company server regularly and then externally backed up daily.
Audits or reviews	No audits or reviews have been conducted.

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.

Criteria	Commentary
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. (WAMEX A report A33246). Aberfoyle followed up on their PGE prospective ultramafic – mafic contact zone at diorite hill with a four (4) hole RC pre-collar diamond program in 1992 (DIORCDD 120, 121, 122, 123) for a combined 525m of drilling. (WAMEX A report A35358 and A35364). 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 sulphide mineralisation was not discussed. CRA explored the Granite Well area between 1993-95 a 76 RAB program was completed in 1994 for 2158m (94GWRseries) for gold exploration along the granite ultramafic contact. Holes were assayed for Au, Co, Cr, Cu, Fe, Ni, Pt and Pd. (WAMEX A report A45588). 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) and 4m at 0.45% Ni from 8m (DRAC0004) (WAMEX A64129). 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). (WAMEX A68301). 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. Gold exploration aircore drilling (BRAC series) by Newmont in 2005 WAMEX open file report WAMEX A69883. A small 2 hole RC program was completed by Placer in 1996 over the Curra area (East Ida) best intersection of 9m @ 2.4 g/t Au including 5m @ 4.2 g/t from 48m (EIC001, WAMEX A48007) Regional Aircore drilling was completed at Rotorua for total of 59 AC holes for 3598m were drilled on by Regis Resources RRLBVAC series (WAMEX A report A801062).
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

Criteria	Commentary
	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	All the drill holes reported in this report are summarized in in the report Easting and northing are given in MGA94 – Zone 51 coordinates. RL is AHD Dip is the inclination of the hole from the horizontal. Azimuth is reported in magnetic degrees as the direction the hole is drilled. Down hole length is the distance measured along the drill hole trace. Intersection length is the thickness of an anomalous gold intersection measured along the drill hole trace. Hole length is the distance from the surface to the end of the hole measured along the drill hole trace.
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	All matters of importance have been included.
Other substantive exploration data	All relevant information has been included.
Further work	Future exploration is included in next steps of the body of the report