

EMERGING DISCOVERY AT THE GOLDEN BOULDER PROSPECT

Highlights

- Latest aircore (AC) drilling at the Golden Boulder prospect, part of GSN's 100% owned Duketon Gold Project, extends gold mineralisation and confirms continuity along multiple trends
- Strike of Golden Boulder Main mineralised trend extended by 1.3km, for a total of 1.6km, with the best intercept from the latest drilling recording 12m @ 1.3 g/t Au from 44m, including 4m @ 2.4 g/t Au from 48m in 23GBAC022
- Golden Boulder East mineralised trend also extending for over a kilometre, with a standout intercept of 8m @ 3.9 g/t Au from 44m, including 4m @ 6.8 g/t Au from 48m in 23GBAC008
- On the Golden Boulder East trend, gold mineralisation in drilling combined with interpretation of sub-audio magnetic (SAM) surveys highlight a prospective stratigraphic contact extending for ~4km within GSN tenure
- Extension reverse circulation (RC) drilling at the Southern Star prospect and follow up drilling at the Golden Boulder prospect planned to commence in the June Quarter 2023

Great Southern Mining Limited (ASX: GSN) ("**GSN**" or the "**Company**") is pleased to announce the results of a step-out aircore (AC) program at the Company's Golden Boulder prospect, part of the Company's 100% owned Duketon Gold Project in Western Australia.

The AC program comprised 3,445m and targeted two lines of mineralisation identified as the Golden Boulder Main and the Golden Boulder East trends (Figure 1). Both trends are delineated by historic gold workings which extend for over 3km. Golden Boulder is interpreted to sit along the greater Rosemont trend which hosts Regis Resources' (ASX: RRL) Rosemont (~1,06Moz Au) and Ben Hur (~390koz Au) deposits and GSN's Southern Star prospect.

This drilling is part of a wider campaign over the Duketon Gold Project, which will target multiple prospects situated on prolific gold bearing trends known to host economic gold deposits to the north within Regis Resources' Duketon Project area (Figure 4).

GSN's Managing Director, Matthew Keane, commented:

"This latest drilling program has returned both significant gold intercepts and continuity of mineralisation along multiple trends, increasing our confidence of an emerging discovery at the Golden Boulder prospect. This prospect sits along a well-endowed structural trend that hosts multiple gold deposits. GSN's primary object for 2023 is to advance three advanced prospects within the Duketon Gold Project namely, Southern Star, Golder Boulder and Amy Clarke, in order to define material gold resources within the Company's 100% owned tenure".

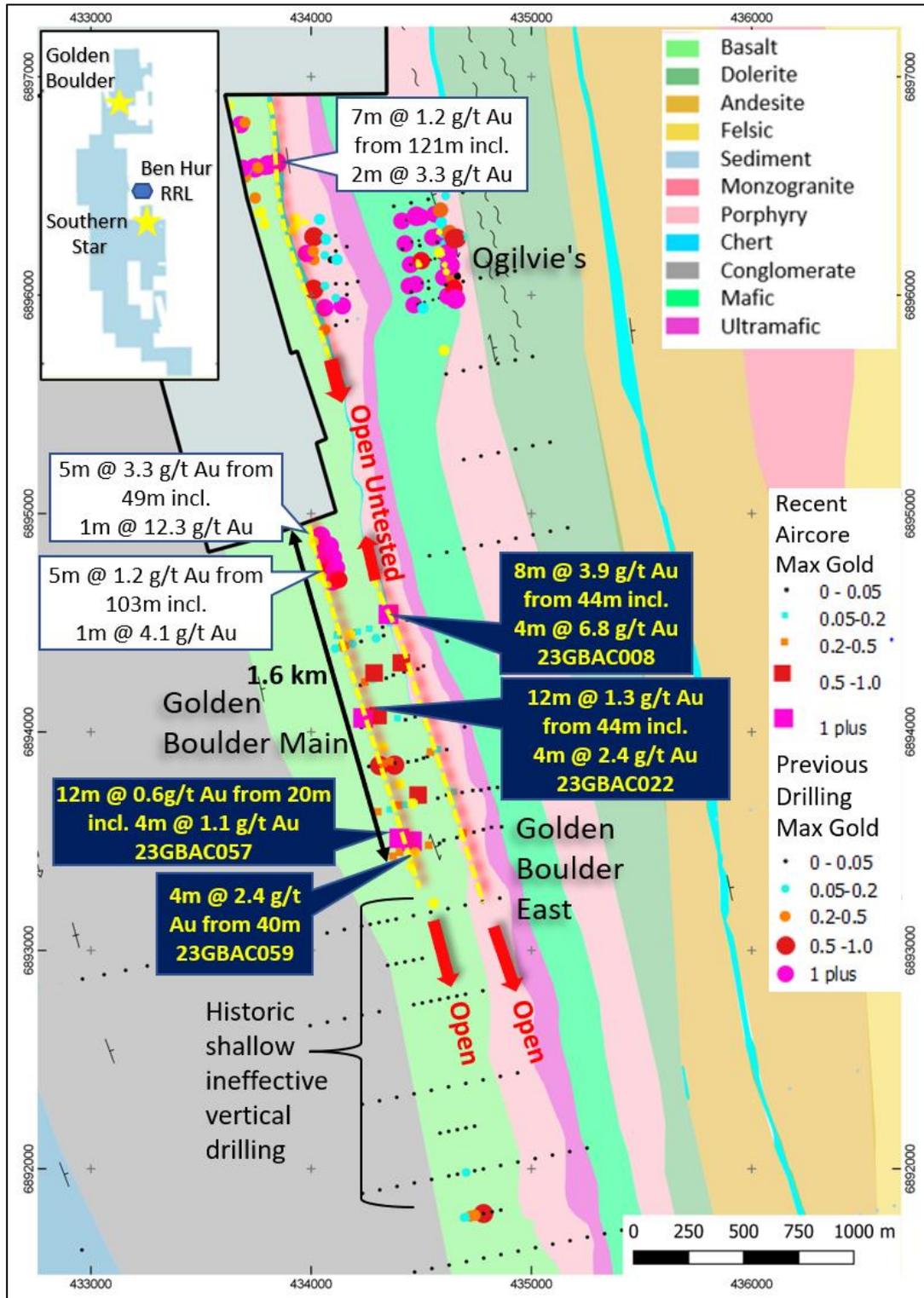


Figure 1. Map highlighting the two gold trends, Golden Boulder Main and Golden Boulder East, and showing the recent aircore drilling results underlain by interpreted geology.

High Grade Gold at Golden Boulder - Duketon Gold Project

The Golden Boulder area was identified by GSN as a high priority prospect with several parallel, stacked mineralised gold trends identified from historic working and limited drilling. Previous to GSN, drilling in the area was sparse, shallow and untargeted, averaging just 40m below surface. The most recent 68-hole AC drilling program (for 3,445m), targeted two of the stacked lines of mineralisation, identified as Golden Boulder Main and Golden Boulder East.

Results indicate the potential to host economically significant gold mineralisation with both trends intersecting ore grade intercepts and continuous mineralisation over a considerable strike length. All significant intercepts from the recent AC drilling reside within the oxide zone.

Golden Boulder Main

Golden Boulder Main was identified as a high priority drill target when GSN first acquired the tenement (E38/3518) in 2020. Golden Boulder consists of over 50 shallow shafts with reported historic production of **1,915 tonnes at 28.6 g/t Au** for 1,761 ounces of gold (WAMEX report A85278). Chlorite altered sheared basalt with smokey quartz veins appears to host the highest grade gold.

Standout intersections from GSN's first pass 16-hole drilling campaign in 2021¹ returned intercepts including:

- **5m @ 3.3 g/t Au** from 49m, including **1m @ 12.3 g/t Au** and **1m @ 1.2 g/t Au** from 73m in 21GBRC0001, and
- **5m @ 1.2 g/t Au** from 103m, including **1m @ 4.1 g/t Au** in 21GBRC0007.

The recently completed AC drilling was designed to extend the mineralisation along strike to the south, with ~200m spaced lines perpendicular to the interpreted mineralised trend. New intersections along the predicted line of mineralisation have increased the strike of Golden Boulder substantially with a 1.6km anomalous gold trend now defined (Figure 1). Significant intersections include:

- **12m @ 1.3 g/t Au** from 44m, including **4m @ 2.4 g/t Au** 48m in 23GBAC022,
- **12m @ 0.6 g/t Au** from 20m, including **4m @ 1.0 g/t Au** 24m in 23GBAC057, and
- **4m @ 2.4 g/t Au** 44m in 23GBAC059.

¹ Refer to GSN ASX announcement dated 23 September 2021

The newly defined strike extension is still open to the south and at depth with two of the higher-grade intersections, **4m @ 1.1 g/t Au** in 23GBAC057 and **4m @ 2.4 g/t Au** 44m in 23GBAC059, intersected on the southernmost line of the drill program. Historic drilling further south was vertical, untargeted and very shallow (Figure 2). Surface geochemistry and historic drilling to the south is believed to be impeded by a surface ferruginous hard cap layer.

Moving forward, GSN will use targeted RC drilling to follow up on the 1.6km mineralised zone defined to date, and to test below the ferruginous hard cap to the south.

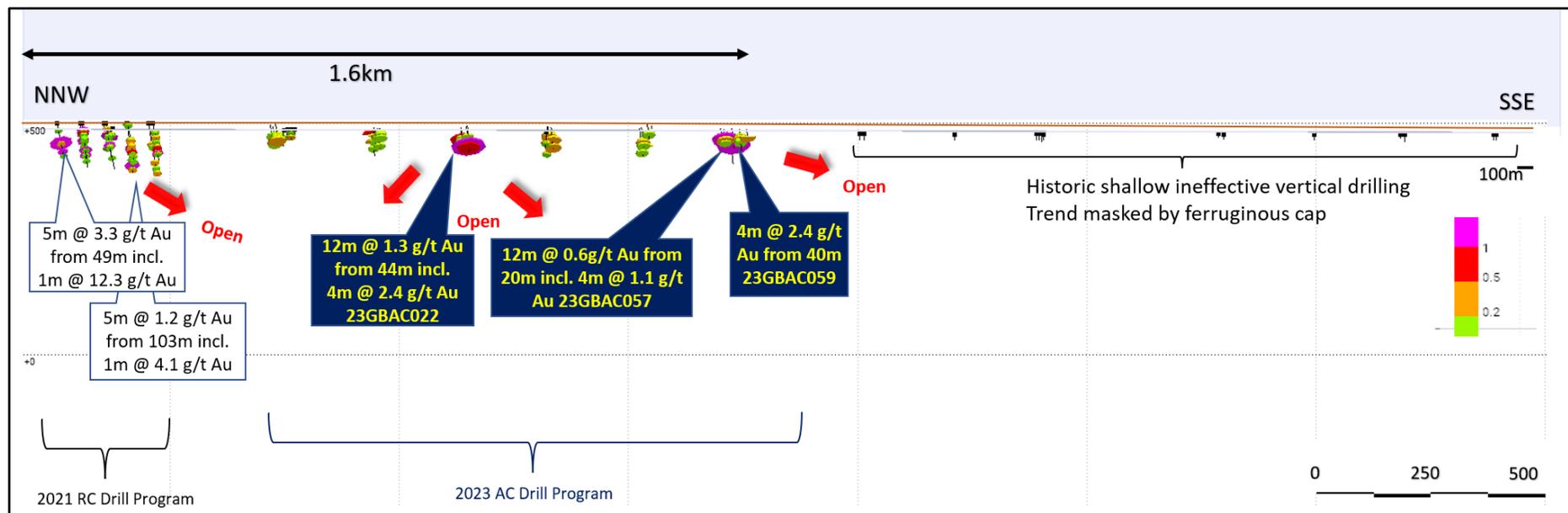


Figure 2. Golden Boulder Main Line Trend: GSN's drilling highlights significant contiguous gold mineralisation in the deeper angled aircore compared to ineffective historical drilling to the south at Golden Boulder.

Golden Boulder East

The Golden Boulder East line is defined by a small number of deep workings running parallel to Golden Boulder Main. Drilling targeted a ferruginous and strongly sheared quartz structure within a volcanic unit close to the contact of a ferruginous chert striking NNW-SSE.

This sedimentary chert package is believed to be acting as a trap for gold mineralisation and logging recorded a mixed package of shale and chert bands with gold hosted within the chert horizon.

The standout intercept on the Golden Boulder East trend of **8m @ 3.9 g/t Au** from 44m, including **4m @ 6.8 g/t Au** 48m in 23GBAC008, is within the chert horizon.

A SAM survey was conducted in 2016. This geophysical tool used a transformed measure of magneto-metric conductivity (MMC). In MMC format, data is more readily related to the underlying conductive structures or units. In general terms, MMC highs may be associated with underlying features that are relatively conductive and lows are associated with resistive features. It is interpreted that the MMC high, seen as deep magenta coloration in Figure 3, maps the contact of a shale unit extremely well along the Golden Boulder East trend.

Gold mineralisation is closely associated with the MMC high unit and both the gold mineralisation in the recent aircore (including the intersection in hole 23GBAC008) and the historic workings reside on this MMC high feature.

It is noteworthy that the correlation between the high-grade gold intersections and the MMC high unit has only become apparent from GSN's recent aircore program. This has resulted in a substantial upgrade in the exploration potential of Golden Boulder East, as no drilling has specifically targeted this unit which extends for 4km along the entire extent of the survey (Figure 3).

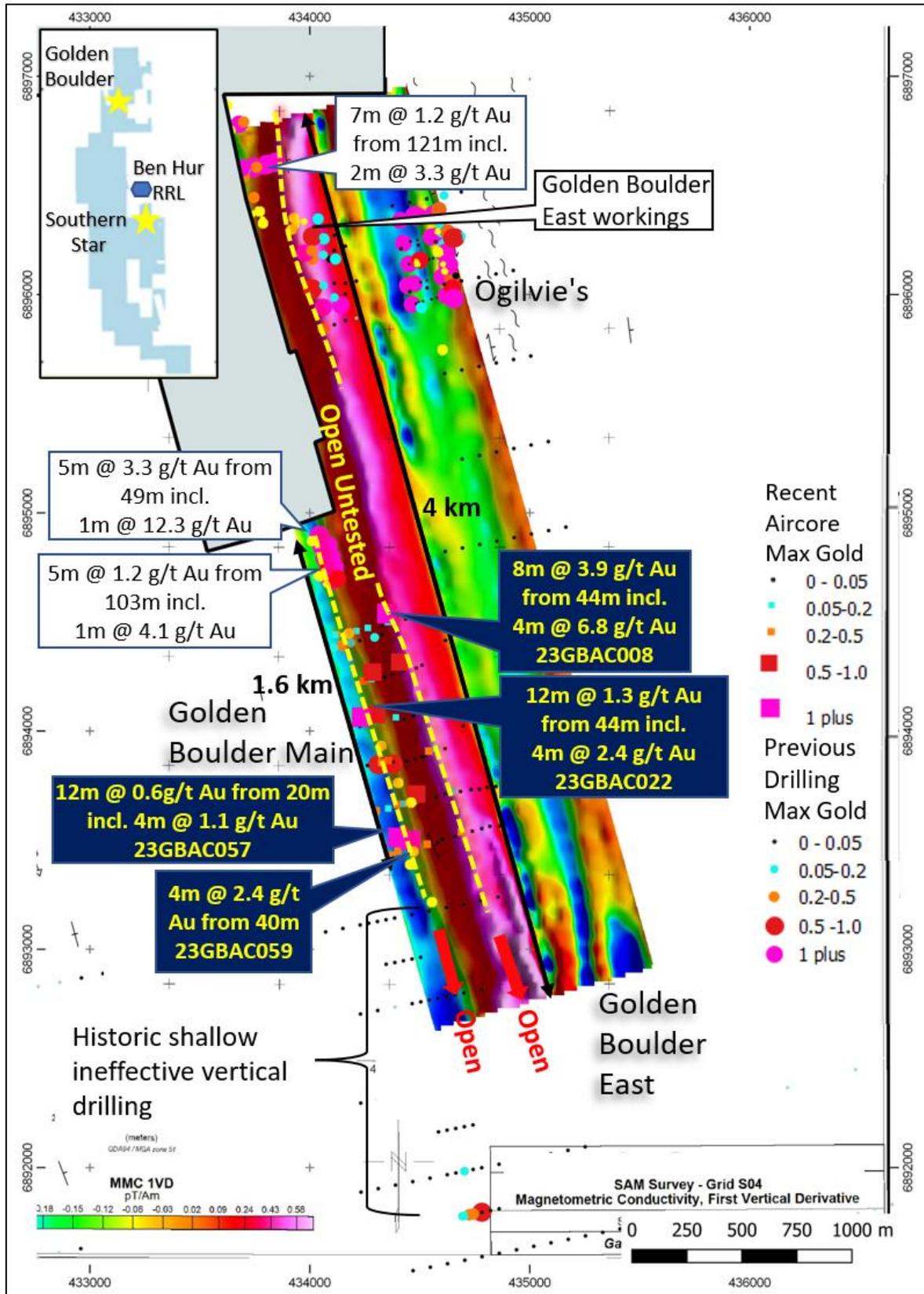


Figure 3. SAM survey clearly showing a strong conductive unit (magenta) interpreted to be the contact of a shale unit, with gold anomalism clearly tracing this unit.

Next Steps at the Duketon Gold prospect

GSN plans to commence a RC drilling program at the Southern Star prospect in the coming weeks. This program aims to test extensions to known mineralisation both at depth and along strike to the north and south where surface geochemical anomalies have been identified. It will also test a parallel trend to the west which GSN interprets to be along strike from RRL's Ben Hur deposit, located ~3km to the north (refer to GSN ASX announcement dated 27 March 2023).

At Golden Boulder, some bottom of hole multi-element assay data is still awaited from the recent AC program. Once received, this data will be collated with known mineralised gold trends and geological interpretation to plan the next phases of extensional AC and RC drilling at this prospect.

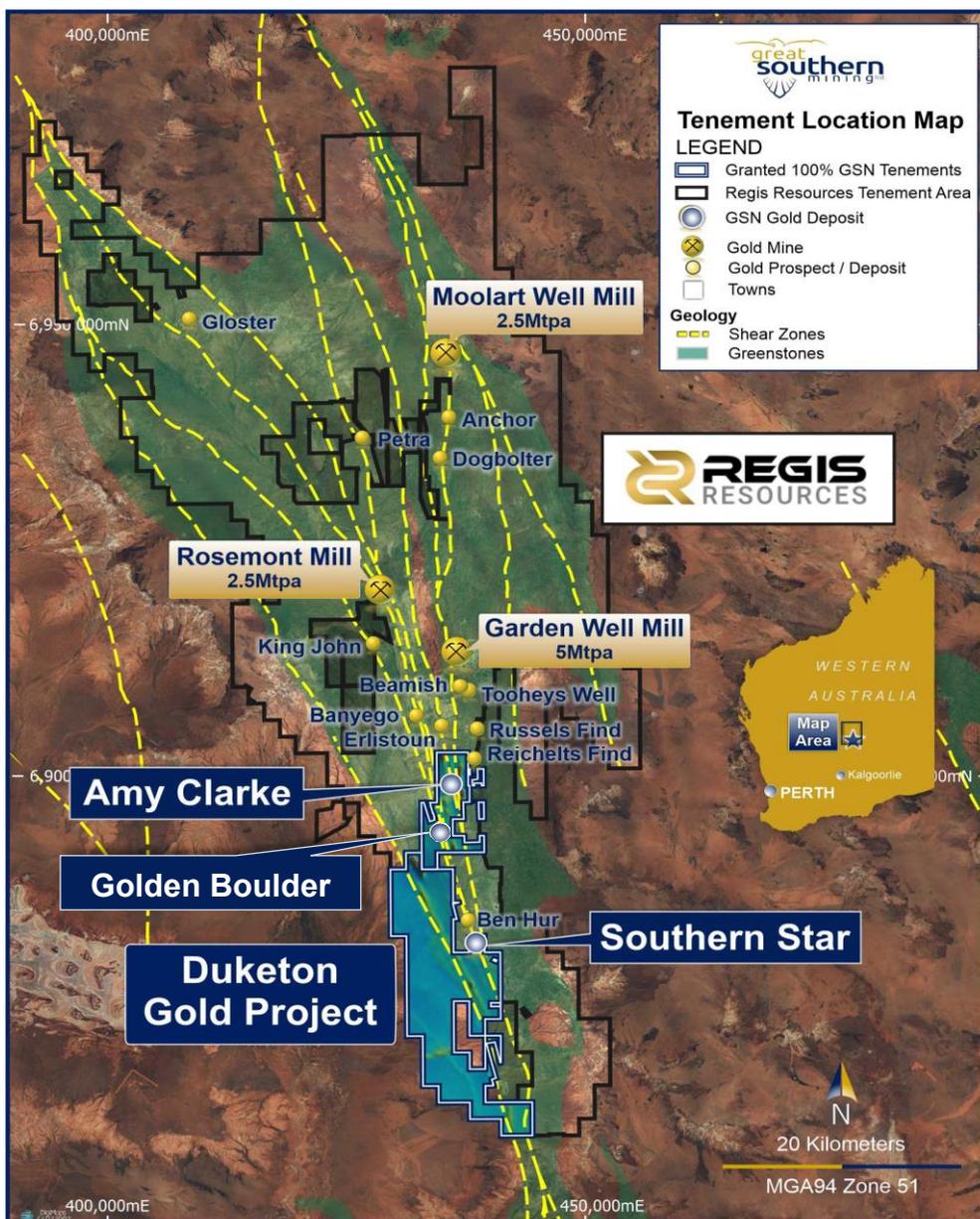


Figure 4. Map of GSN Duketon Gold Project showing existing prospects and known gold occurrences, deposits and mines.

Table 1 – Recent Drillhole locations at Golden Boulder

Drillhole	Easting	Northing	Dip	Azimuth	Max Depth
23GBAC001	434277.2	6894584	-60	255	45
23GBAC002	434269	6894584	-60	255	31
23GBAC003	434338.3	6894594	-60	255	49
23GBAC004	434365	6894602	-60	255	31
23GBAC005	434416.9	6894616	-60	255	64
23GBAC006	434469.4	6894631	-60	255	31
23GBAC007	434508.5	6894643	-60	255	68
23GBAC008	434534.2	6894652	-60	255	57
23GBAC009	434581	6894664	-60	255	73
23GBAC010	434330.5	694359.8	-60	255	27
23GBAC011	434369.2	6894365	-60	255	15
23GBAC012	434399.6	6894370	-60	255	51
23GBAC013	434432.2	6894381	-60	255	60
23GBAC014	434486	6894397	-60	255	22
23GBAC015	434463.4	6894388	-60	255	55
23GBAC016	434518.1	6894412	-60	255	38
23GBAC017	434567.2	6894426	-60	255	79
23GBAC018	434587.3	6894435	-60	255	68
23GBAC019	434629.5	6894440	-60	255	69
23GBAC020	434655.6	6894453	-60	255	59
23GBAC021	434373.5	6894172	-60	255	23
23GBAC022	434419.1	6894177	-60	255	65
23GBAC023	434451.7	6894192	-60	255	51
23GBAC024	434481	6894193	-60	255	59
23GBAC025	434544.6	6894206	-60	255	59
23GBAC026	434573.6	6894207	-60	255	39
23GBAC027	434616.8	6894221	-60	255	31
23GBAC028	434659.4	6894235	-60	255	63
23GBAC029	434463	6894388	-60	255	72
23GBAC030	434732.4	6894266	-60	255	61
23GBAC031	434483.2	6893997	-60	255	55
23GBAC032	434524.6	6894009	-60	255	35
23GBAC033	434511.9	6894005	-60	255	58
23GBAC034	434584.7	6894014	-60	255	56
23GBAC035	434623.5	6894021	-60	255	18
23GBAC036	434655.4	6894032	-60	255	37
23GBAC037	434672.7	6894038	-60	255	60

Drillhole	Easting	Northing	Dip	Azimuth	Max Depth
23GBAC038	434696.7	6894048	-60	255	48
23GBAC039	434728.2	6894064	-60	255	60
23GBAC040	434760.1	6894070	-60	255	42
23GBAC041	434457.6	6893775	-60	255	52
23GBAC042	434510	6893788	-60	255	42
23GBAC043	434552.8	6893804	-60	255	49
23GBAC044	434578.9	6893810	-60	255	69
23GBAC045	434628.4	6893824	-60	255	69
23GBAC046	434663.2	6893830	-60	255	52
23GBAC047	434720.1	6893848	-60	255	58
23GBAC048	434759	6893863	-60	255	95
23GBAC049	434800.4	6893870	-60	255	67
23GBAC050	434830.4	6893874	-60	255	51
23GBAC051	434878.9	6893883	-60	255	42
23GBAC052	434915.8	6893885	-60	255	35
23GBAC053	434952.2	6893893	-60	255	46
23GBAC054	434991.1	6893897	-60	255	52
23GBAC055	434526.5	6893572	-60	255	24
23GBAC056	434556.8	6893591	-60	255	55
23GBAC057	434582.9	6893626	-60	255	39
23GBAC058	434599.4	6893635	-60	255	46
23GBAC059	434640.3	6893613	-60	255	49
23GBAC060	434689	6893622	-60	255	92
23GBAC061	434727.2	6893641	-60	255	32
23GBAC062	434747.2	6893655	-60	255	60
23GBAC063	434806.2	6893668	-60	255	59
23GBAC064	434845	6893678	-60	255	58
23GBAC065	434884.2	6893692	-60	255	25
23GBAC066	434926.8	6893704	-60	255	39
23GBAC067	434963.8	6893715	-60	255	50
23GBAC068	435009.8	6893717	-60	255	54

Significant mineralised intersections for Golden Boulder (Significant intercepts are defined as >4m @ 0.1g/t Au)

Hole ID	Depth From	Depth To	Interval Width	Au g/t
23GBAC001	28	36	8	0.13
	40	45	5	0.39
23GBAC003	20	24	4	0.14
	40	48	8	0.20
23GBAC005	20	24	4	0.14
23GBAC008	24	28	4	0.20
	32	40	8	0.10
	44	52	8	3.90
incl.	32	40	4	6.79
	56	57	1	0.56
23GBAC010	12	20	8	0.12
	24	27	3	0.16
23GBAC012	20	28	8	0.21
	44	48	4	0.12
23GBAC013	36	40	4	0.11
23GBAC015	20	28	8	0.46
23GBAC018	32	40	8	0.53
23GBAC022	24	28	4	0.23
	36	40	4	0.14
	44	56	12	1.30
incl.	48	52	4	2.43
23GBAC023	24	28	4	0.11
	32	36	4	0.18
23GBAC024	28	32	4	0.86
23GBAC028	20	28	8	0.31
23GBAC029	36	40	4	0.24
23GBAC031	28	36	8	0.25
	48	54	8	0.24
23GBAC033	20	28	8	0.24
	48	52	4	0.11
23GBAC038	16	20	4	0.21
23GBAC039	56	59	3	0.12
23GBAC041	36	40	4	0.44
23GBAC042	24	32	8	0.16
23GBAC043	32	40	8	0.17
	44	48	4	0.19

Hole ID	Depth From	Depth To	Interval Width	Au g/t
23GBAC044	60	64	4	0.16
23GBAC046	32	36	4	0.78
23GBAC056	16	20	4	0.11
	24	36	12	0.21
23GBAC057	20	32	12	0.64
incl.	24	28	4	1.08
	35	38	3	0.12
23GBAC059	40	44	4	2.37
23GBAC060	52	56	4	0.49
23GBAC064	32	36	4	0.26

The release of this ASX announcement was authorised by the Managing Director and Executive Chairman 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 40km 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 advanced Southern Star gold prospect and the 55koz Mon Ami gold deposit.

Competent Person's Statement

The information in this report that relates to exploration results at the Duketon Gold 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	<ul style="list-style-type: none"> • AC drill cuttings were collected over 1 m intervals via cyclone into buckets and placed in piles on the floor (15-35 kg of sample material): <ul style="list-style-type: none"> ○ One metre sample were collected as the rig drilled, 4-metre comps via spear method have been taken. The anomalous 4m samples were assayed in 1m intervals. A separate 1m sample was also taken at the bottom of each hole for multielement analysis. ○ For AC 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 were pulverized to produce 50g charge digested with Aqua Regia. • AC samples were collected and submitted for analysis at Bureau Veritas in Perth. The samples have been digested with Aqua Regia. This is a partial digest though is extremely efficient for extraction of Gold. Ag,AsAu(AR),Bi,Cu,Mo,Ni,Sb,Sr,W have been determined by Inductively Coupled Plasma (ICP) Mass Spectrometry. • Bottom of hole sample were collected and submitted for analysis at Bureau Veritas in Perth and have not been received to date. • Field QC procedures involved the use of Certified Reference Materials (CRM's) as assay standards, and blanks. QA/QC procedures were implemented to industry standards for this stage of exploration.
Drilling techniques	<p>The drilling operation was undertaken by experienced drilling contractor Gyro.</p> <ul style="list-style-type: none"> • Aircore drilling (AC) drilling was conducted with a modern truck mounted was a one engine concept which powers both hydraulics and compressor. The Rig features a Booster mounted on board. The Rig Carrier is a short wheelbase custom purpose-built MAN 6x6 all-wheel drive. Rods are 3m long with a 3 ½ bit.
Drill sample recovery	<ul style="list-style-type: none"> • 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 (5%) detected.
Logging	<ul style="list-style-type: none"> • All AC drilling was logged at the rig by an experienced geologist. <ul style="list-style-type: none"> ○ 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. <p>All data was recorded/logged in the field in Log Chief deposit and subsequently transferred to the electronic drillhole database (DataShed5).</p>
Sub-sampling techniques and sample preparation	<p>Sample preparation of Great Southern Mining samples follows industry best practice standards at accredited laboratories. Sub-sampling and sample preparation techniques used are considered to maximise representivity of drilled material. QA/QC procedures implemented during each drilling program are to industry standard practice. Samples sizes are considered appropriate for this style of gold mineralisation and as an industry accepted method for evaluation of gold deposits in the Eastern Goldfields of Western Australia.</p> <p>Recent AC sub-samples were collected over 1 metre downhole intervals. No duplicates are taken</p>

Criteria	Commentary
	<p>for AC drilling. Sample sizes are approximately 3kg, this is considered appropriate for the material being sampled. due to the early stage of exploration</p>
<p>Quality of assay data and laboratory tests</p>	<ul style="list-style-type: none"> • Assay technique is digested with Aqua Regia. This is a partial digest though is extremely efficient for extraction of Gold. • Assaying of the AC drilling samples are being conducted by Bureau Veritas, Perth. • Field QC procedures involved the use of Certified Reference Materials (CRM's) as assay standards, in conjunction with blanks. The results of this analysis are reviewed when results are received. • Assay technique is digested with Aqua Regia. This is a partial digest though is extremely efficient for extraction of Gold and is an appropriate assay method for the target-style mineralisation. <p>Standard lab QC was also implemented as part of the geochemical testing protocol.</p> <p>No geophysical tools have been applied to the samples, or down hole, at this stage.</p>
<p>Verification of sampling and assaying</p>	<p>Results are verified by the geologist before importing into Datashed.</p> <p>No twin holes have been conducted.</p> <p>Data is collected by tablet in the field and is imported into Datashed5.</p> <p>AC Field QC procedures involved the use of Certified Reference Materials (CRM's) as assay standards and blanks.</p> <p>Assay data is reviewed prior to importing into Datashed no adjustments are made to raw assay files.</p>
<p>Location of data points</p>	<ul style="list-style-type: none"> • 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. • 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.
<p>Data spacing and distribution</p>	<ul style="list-style-type: none"> • The drill hole spacing ranges is not systematic; however, most holes are drilled at 255° across the regional strike. Drill hole collar positions are based solely on the drilling of specific exploration targets Data Spacing is variable see plans in report. • Unknown due to early-stage exploration • 4m composite sampling has been used due to the early stage of exploration. • 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.
<p>Orientation of data in relation to geological structure</p>	<ul style="list-style-type: none"> • The drill holes have been designed to cross cut the main lithology 255° to maximise structural, geotechnical and geological data. • No drilling orientation and/or sampling bias has been recognised at this time.
<p>Sample security</p>	<ul style="list-style-type: none"> • 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.

Criteria	Commentary
	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 E38/3518 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.
Exploration done by other parties	Relevant exploration done by other parties are outlined in the body of this report or previous GSN ASX announcements.
Geology	The Duketon Greenstone Belt is comprised of mafic and ultramafic rocks, felsic volcanic and volcanoclastic rocks, and associated clastic sedimentary rocks. The contacts with bounding granitic rocks are typically intensely deformed. Axial surfaces of folds typically trend north-northwest with limbs commonly sheared by major structures. The major regional scale structures are a key element for large scale gold deposition and three of these mineralised structures strike through the new tenements under application and are highly prospective areas for gold accumulation.
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	Significant assay intervals are recorded above 0.1g/t Au. no top cuts applied. A breakdown of the high-grade Interval is shown in the body of the report.
Relationship between mineralisation widths and intercept lengths	All significant intersections are quoted as downhole widths. Holes are drilled at a -60-degree dip which is industry standard. No relationship between mineralised with and intercept width can be identified at this early stage of exploration. All lengths are reported as downhole.
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 includes assessment of recent drill results. Mineralisation is open along strike and at depth. Diagrams highlight potential area of interest for follow up work.