

## **HIGH PRIORITY TARGETS DELINEATED AT EDINBURGH PARK PROJECT – SUPPLEMENTARY INFORMATION**

Great Southern Mining Limited (ASX:GSN) advises that supplementary information has been added to the ASX announcement relating to the Edinburgh Park Project dated 21 June 2023.

The historical results referred to in the announcement have been taken from open file annual technical reports. Refer to the additional supplementary information on page 12 of this Announcement and the detailed information in relation to the historical holes and results within the attached JORC Table 1 & 2.

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**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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## **HIGH PRIORITY TARGETS DELINEATED AT EDINBURGH PARK PROJECT**

### **Highlights**

- Detailed structural analysis and an extensive review of technical data has delineated five high priority epithermal, porphyry and intrusion related targets at GSN's 100% owned Edinburgh Park Project in northern Queensland.
- In total, 29 target areas have been delineated within the Company's 1,750km<sup>2</sup> province scale project area, which surrounds the ~1.7Moz gold equivalent Mt Carlton gold-silver-copper mine.
- Planning of geophysical surveys and drilling is currently underway.

Great Southern Mining Limited (ASX: GSN) ("**GSN**" or the "**Company**") has completed an extensive technical review and target generation process of its 100% owned Edinburgh Park Project, located in northern Queensland, approximately 130 kilometres southeast of the city of Townsville. This work has delineated 29 individual target areas prospective for high and low sulphidation epithermal style gold-silver mineralisation, porphyry hosted gold-copper mineralisation and intrusion related gold (IRG) mineralisation. A subsequent ranking exercise, incorporating "ground truthing", has defined a sub-group of higher priority target areas, namely Molongle, Mt Dillon, Red Rocks, Leichhardt Creek and Sledgehammer. The licences comprising the Edinburgh Park Project surround and abut the ~1.7Moz gold equivalent Mt Carlton gold-silver-copper mine, currently owned by Navarre Minerals (ASX:NML).

GSN has commenced detailed planning of geophysical and geochemical surveys and drilling programs over these targets. Despite the close proximity to the Mt Carlton mine, the majority of targets within Edinburgh Park remain either undrilled or very sparsely drilled.

In conjunction to planning its own exploration programs, GSN is also investigating partnering opportunities, being cognisant that drilling of large scale epithermal and porphyry deposits can require significant funding.

### **GSN's Managing Director, Matthew Keane, commented:**

*"Publicly, Great Southern Mining has been relatively quiet in relation to our Edinburgh Park Project in recent times. However, behind the scenes a vast body of work has been undertaken over the past 18 months, resulting in some very exciting targets. Most of these targets remain virtually untested, despite the nearby occurrence of a ~1.7 Moz gold equivalent mine in the same geological sequence. The scale of these target areas, commonly over three kilometres in strike, and the intrusive related mineralisation styles being targeted, provide scope for major gold-silver-copper discoveries".*

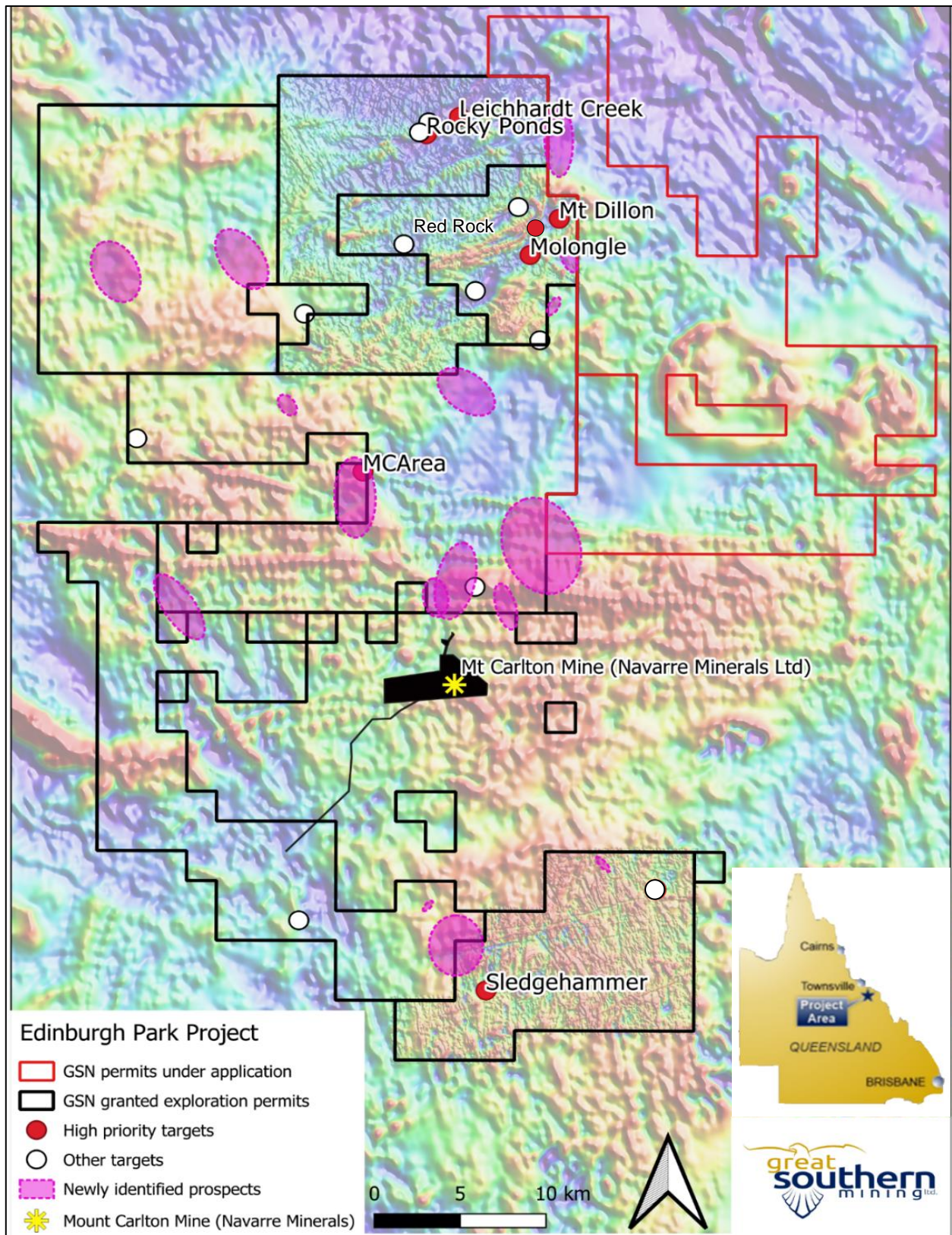


Figure 1. Map of the Edinburgh Park Project showing targets defined to date, including five high priority targets where exploration programs are currently being planned. High priority targets are highlighted with red dots. Target areas shaded in pink have been delineated in the past 18-months from a study by consultant, Outcrop Exploration Services in conjunction with hyperspectral surveys.



## Edinburgh Park within a favourable geological setting

Edinburgh Park is located on the northern margin of the Bowen Basin in northern Queensland. The area is dominated by outcropping geology of the Early Permian Lizzie Creek Volcanics and underlying Lower Carboniferous-age granitoids. Two mineralising events have been identified in the region, including that of the high sulphidation epithermal Mt Carlton deposit (284Ma to 277Ma, Sahlstrom et al, 2018) and a more recent event attributed to the low sulphidation epithermal Crush Creek deposit (~230Ma, Simpson, 2004), owned by Navarre Minerals Limited (ASX: NML).

## Five standout target areas within Edinburgh Park

Following ~18 months of data consolidation, hyperspectral analysis<sup>1</sup> (HyMap system), structural analysis, geochemical sampling and field mapping, GSN has delineated approximately 29 target areas within its Edinburgh Park Project. This incorporated a detailed technical study undertaken and by industry-recognised geological consultants, Marcus Willson and Dr Chris Yeats of Outcrop Exploration Services Pty Ltd.

The primary styles of mineralisation targeted in the project area are intrusive-related gold (IRG) deposits, high and low sulfidation epithermal gold-silver systems within the Permian volcanics, and gold-copper-molybdenum porphyry systems within the Carboniferous basement. Of the 29 targets defined to date, a ranking exercise has defined five high priority target areas which are detailed below.

### ***Molongle (high sulphidation epithermal gold-silver target)***

Molongle is north-south trending ~700m x 150m zone of epithermal-style quartz veined hydrothermal breccia within a silica-sericite-pyrite altered dacite porphyry. Surface soil geochemistry has shown the breccia is strongly anomalous in gold, silver, lead, antimony and arsenic, with surface rock chips grading up to 5.3g/t gold. Just 11 reverse circulation (RC) holes have been drilled into the target area, the majority of which are shallow, vertical and predate 1990 (see "JORC 2012 Table 1 Section 2: Drill hole information").

Better results from historical drilling include<sup>2,3</sup>:

- 3m at 1.0g/t Au and 1.6g/t Ag from 174 m in MDRC02
- 3m at 0.3 g/t Au and 7.6 g/t Ag from 24m, within a broader zone of 36m at 3.1g/t Ag from 18m in MDRC03
- 24m at 0.36g/t Au from surface, including 8m at 0.49g/t Au from 16m in PDH04

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<sup>1</sup> Refer to ASX announcement 15 April 2020.

<sup>2</sup> Cloncurry Metals, 2009. EPM 15969, Edinburgh Park, annual report for period ending 20/6/2009. GSQ open file exploration report CR058516.

<sup>3</sup> Ashton Mining, 1989. EPM 5809, Mount Dillon, report for period ending on 19/9/1989, and final report. GSQ open file exploration report CR021370.

Historical drilling targeted induced polarization (IP) anomalies<sup>4</sup>, with limited success in hitting their targets. Based on magnetic surveys and surface mapping, GSN believes that mineralisation is more likely to be controlled by prominent northwest and northeast trending structures, which will be the target for future drilling. Additionally, the Molongle breccia is underlain by a ~800m x 400m untested resistive IP anomaly at approximately 150m depth, which represents a clear drill target. Several shallower (~100m depth) conductive IP targets also remain untested.



Figure 2. Boulder float showing an example of crustiform quartz veining with pyritic selvages at Molongle.

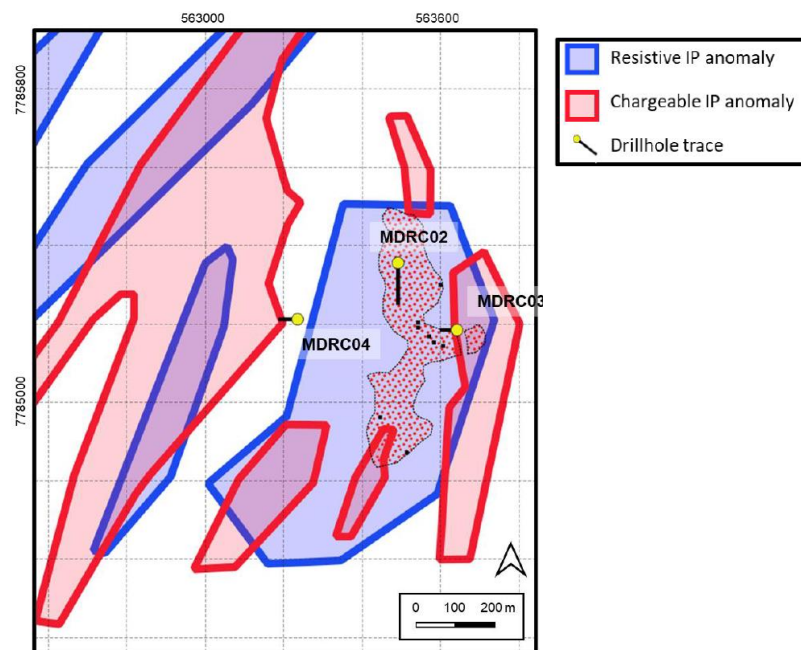


Figure 3. Historical IP surveys at the Molongle target area (dot shaded polygon) showing historical drill collars (black and yellow dots), drill traces (black lines) and resistive and chargeable anomalies. The large blue resistivity IP anomaly ~150m below the surface Molongle breccia zone area remains untested.

<sup>4</sup> Ashton Mining, 1989. EPM 5809, Mount Dillon, report for period ending on 19/9/1989, and final report. GSQ open file exploration report CR021370.

### ***Mt Dillon (high sulphidation epithermal gold-silver target or porphyry system)***

Mount Dillon is directly northeast of Molongle and interpreted to be part of the same sequence of volcanic rocks, albeit over a larger surface area (~2.5km by 1.5km) and extending over a greater thickness, based on topography. The entire Mount Dillon area is affected by strong clay-pyrite-silica alteration, with an abundance of sulphide typically varying from 3% to 10%. The widespread distribution of pyrophyllite and argillic alteration at Mount Dillon implies the presence of a relatively high temperature (>300°C), acidic hydrothermal system, typical of a high-sulfidation epithermal environment (Figure 4). Despite the pervasive alteration observed, rock chip geochemistry for metals and pathfinder elements is generally low. The features of Mount Dillon are consistent with a lithocap or outflow zone of a significant porphyry mineral system.

To date, no attempt has been made to drill test under the Mount Dillon lithocap. Historically, just two RC holes were drilled<sup>5</sup>, targeting IP anomalies west of the main zone of interest. These old IP surveys only flanked the main alteration system (Figure 5). A modern, deep penetrating IP survey is under consideration as the first stage of exploration within this area.

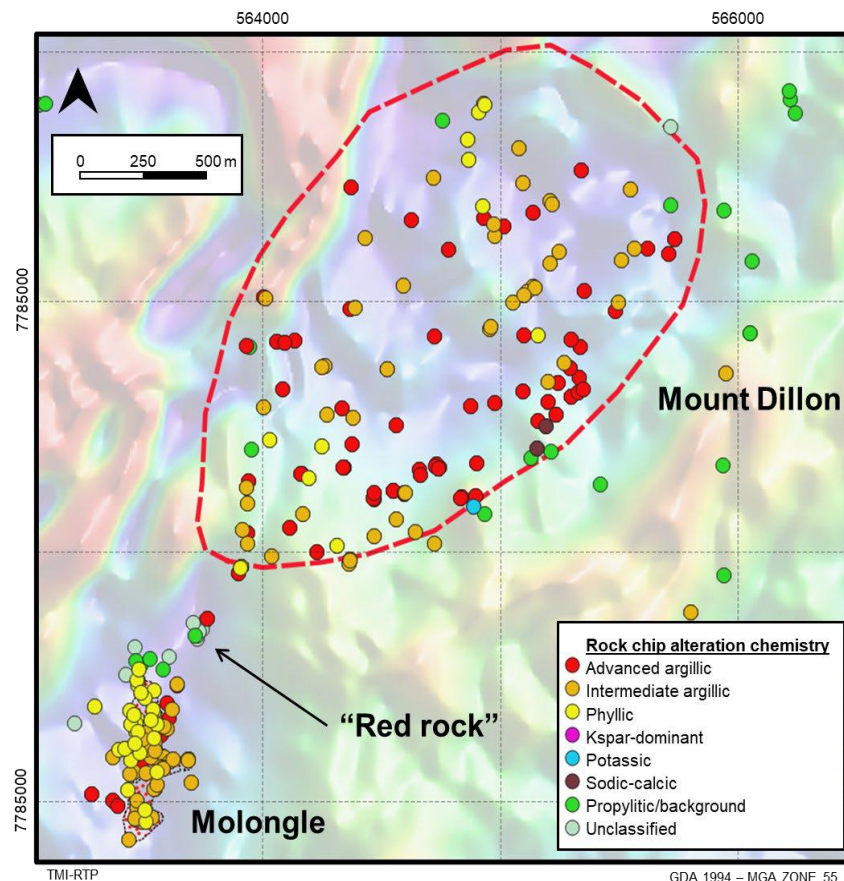


Figure 4. Alteration map of the Mt Dillon target area (within red polygon) over aeromagnetic imagery.

<sup>5</sup> Cloncurry Metals, 2009. EPM 15969, Edinburgh Park, annual report for period ending 20/6/2009. GSQ open file exploration report CR058516.

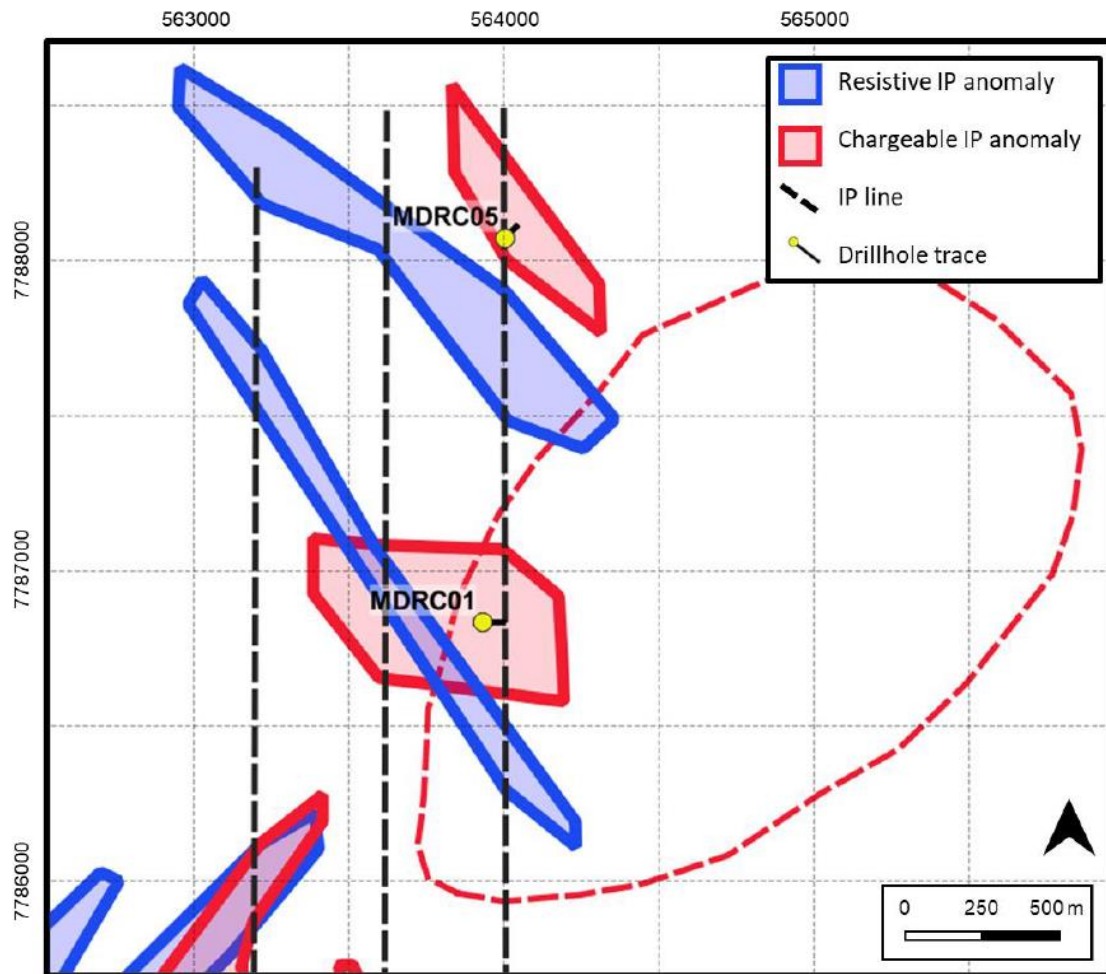


Figure 5. Historical IP survey at the Mount Dillon target area (red dashed polygon) showing historical drill collars (yellow dots), drill traces (black lines) and resistive and chargeable anomalies (blue and red polygons).

### **Red Rock (porphyry copper-gold-silver-molybdenum target)**

The Red Rock target is exposed by Molongle Creek between Molongle and Mt Dillon prospects (see Figure 4) and named after the prominent red hematite-potassium feldspar alteration in the area. This alteration and its lower topography is considered to be an indication of a lower position within a porphyry system. This is hypothetically closer to the potassic core, and therefore potentially closer to porphyry gold-copper mineralisation (Figure 6). GSN has collected rock chip samples from the area grading up to 0.54% copper and 63 g/t silver.



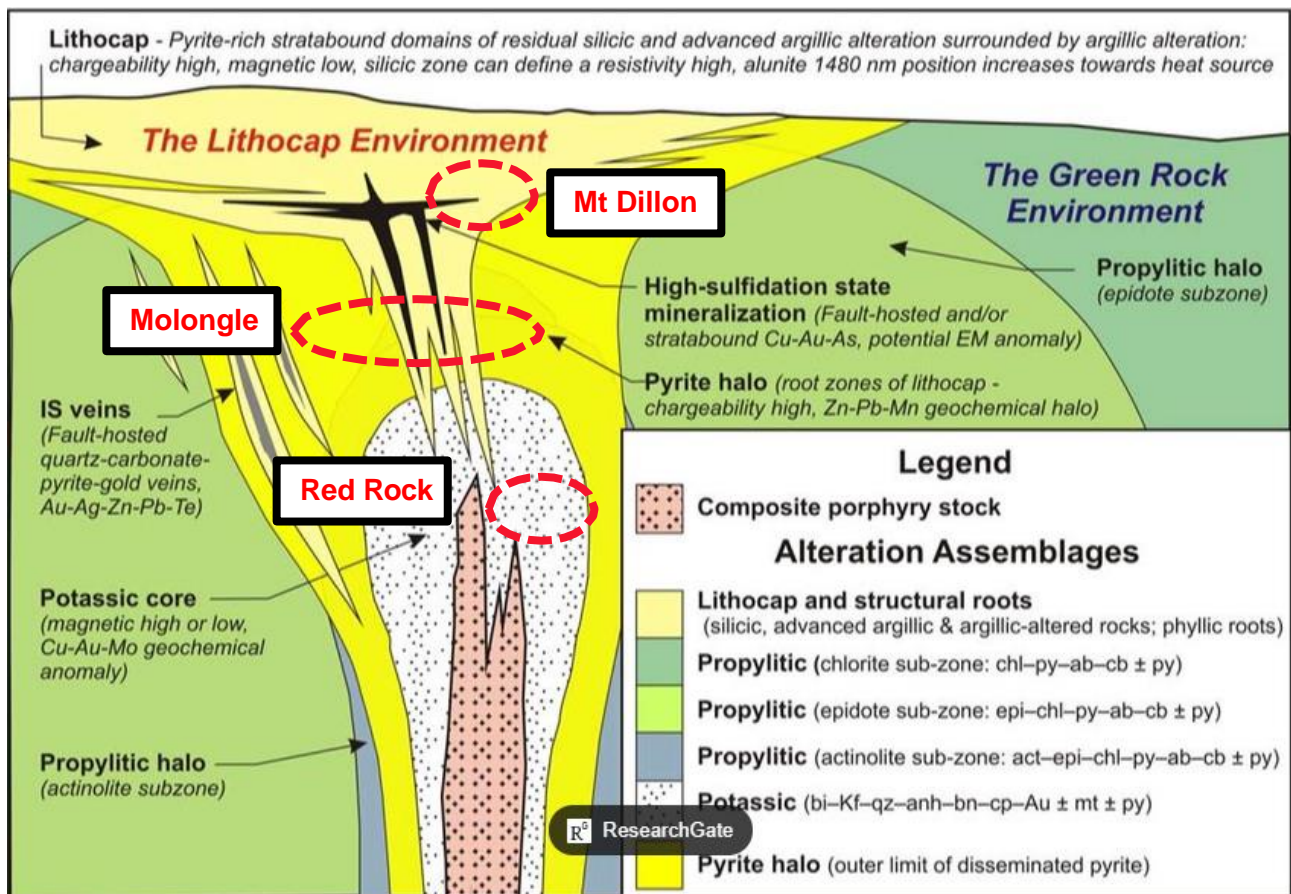


Figure 6. Schematic diagram of the porphyry-epithermal mineralising environment (edited from Cooke, 2022), showing the interpreted porphyry settings of Mount Dillon, Molongle and the Red Rock target areas.

### Leichhardt Creek

Leichhardt Creek extends over an area of approximately seven kilometres. It contains granophyric and porphyritic granites intruding into the regional basement Carboniferous granitoids, relating to a late-stage deformation event (D4). The area shows clear porphyry-style zonation of alteration and trace elements, incorporating a high temperature, molybdenum rich potassic core, an intermediate phyllic zone with elevated base and precious metals and distal propylitic alteration with lesser metal enrichment (Figure 7).

There are several areas of interest within Leichhardt Creek, including a 3km by 1km stockwork zone containing sheeted veins with quartz-pyrite infill, gossanous breccia pipes (Rocky Ponds and North Breccias) and gold-bearing stockwork veining (Megan Veins) (Figure 8). The southwest portion of Leichhardt Creek contains surface base and precious metal enrichment largely associated with phyllic alteration. (Green Ants and Megan Veins locations, Figure 8).

Several rock chips collected from outcropping stockwork quartz veins at the Megan Veins location grade above 1g/t gold, with the highest assay of 10.6 g/t gold<sup>6</sup>.

<sup>6</sup> Refer to ASX announcement 14 February 2019.



The molybdenum-rich potassic core of the Leichhardt Creek stockwork zone was drill tested by Otter Exploration in 1973, targeting IP anomalies, with seven shallow (28m to 70m) percussion and one 183m diamond drillhole<sup>7</sup>. See JORC Table 1, “*Verification of sampling and assaying.*” These holes intersected vein and alteration assemblages that are consistent with a major porphyry mineral system, however they failed to intersect economic mineralisation. These holes were assayed for Cu, Pb, Zn, Mo but not for precious metals (gold and silver). Drill testing of these IP targets was considered inadequate, failing to penetrate due to either hard rock or excessive water. One vein intersected in hole DDH-2 returned 1m @ 0.9% Pb, 1.25% Zn from 111.3m. GSN drilled five RC holes into one of the southwestern breccias (the Rocky Ponds breccia) in 2019, returning anomalous gold, gold, silver, copper, lead and zinc, with a best interval of 0.21 g/t Au and 50 g/t Ag, 0.44% Cu, 0.76% Zn and 372 ppm Mo<sup>8</sup>. The high concentrations of zinc and silver and relatively low gold values intersected suggest that the drilled interval is relatively low temperature, raising the possibility that more gold-rich mineralisation may be present at depth. It is also likely that the Rocky Ponds breccia and the North breccia, located ~750m to the north-northwest, lie on the same controlling structure, raising the possibility of strike extension and further mineralisation at depth between the two occurrences (Figure 9).

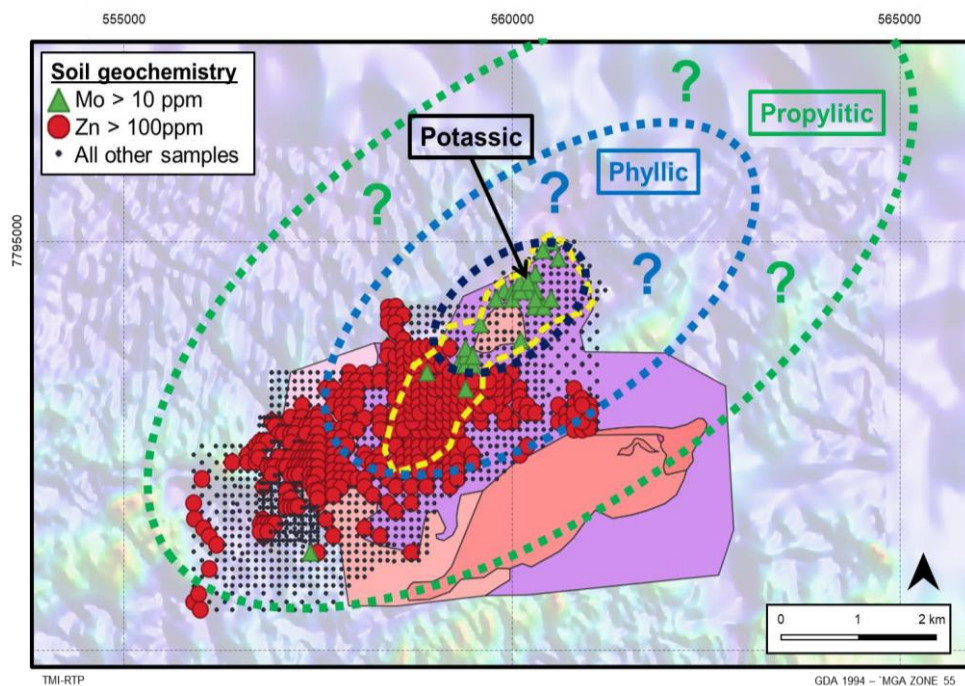


Figure 7. Extent of soil grid at Leichhardt Creek showing high molybdenum and high zinc samples relative to the interpreted potassic, phyllic and propylitic alteration systems at the prospect. Note that the phyllic alteration zone is unsampled to the NW, NE and E, and the propylitic zone is open in all directions.

<sup>7</sup> Otter Exploration N. L., 1973a. Percussion drilling report, A-P 1021M, Beaks Mountain, Qld. GSQ open file exploration report CR004360.

Otter Exploration N. L., 1973b. Diamond drilling report, A-P 1021M, Beaks Mountain, Qld. GSQ open file exploration report CR004592.

Otter Exploration N. L., 1973c. Report on exploration activity on A-P 1021M for the period 18 April 1972- 31 December 1972. GSQ open file exploration report CR004593.

<sup>8</sup> Refer to GSN ASX Announcement 4 July 2019.

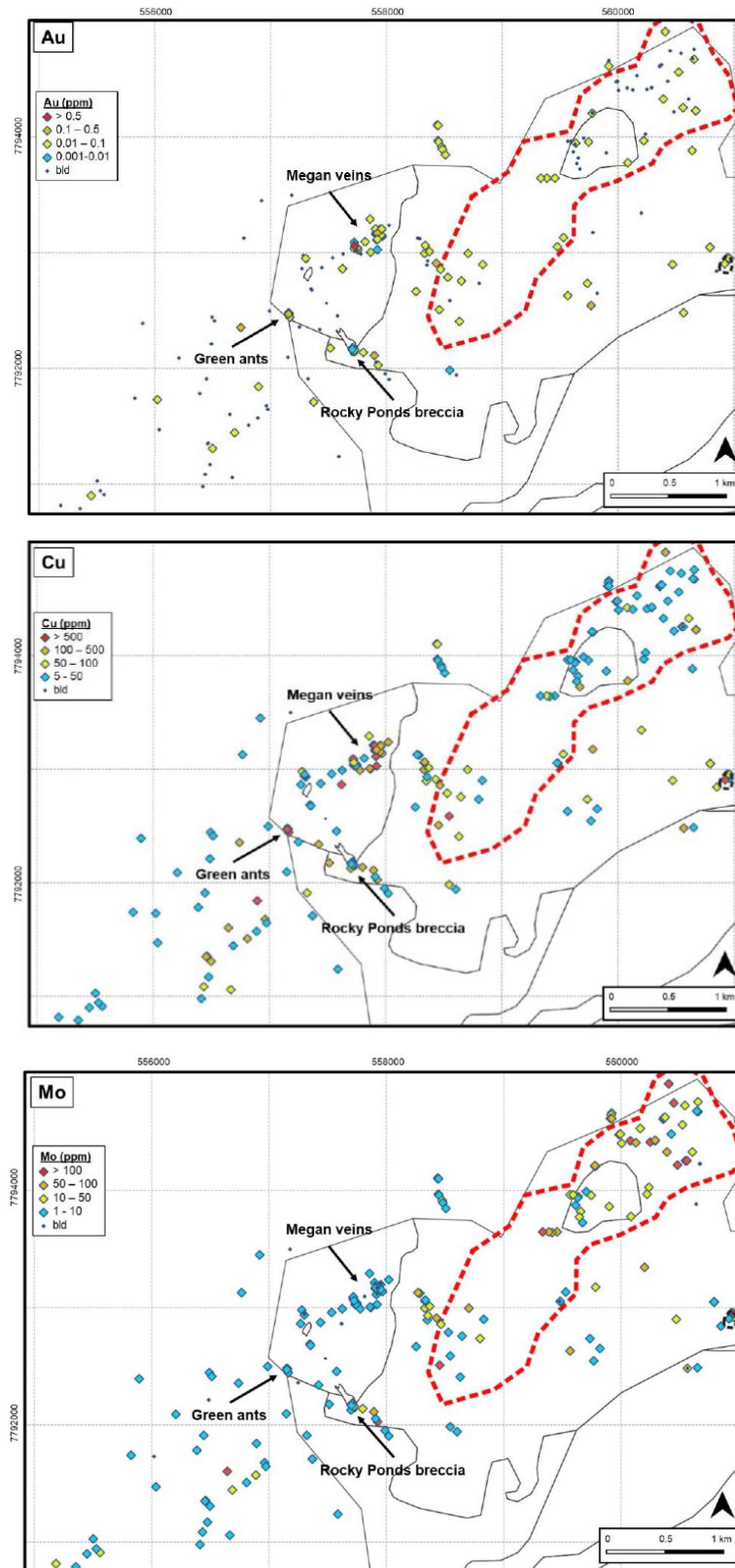


Figure 8. Rock chip geochemistry for gold, copper and molybdenum relative to major lithological units and the stockwork zone (red dash) at Leichhardt Creek.

The rock chip and results for Megan Veins, Green Ants and Rocky Ponds Breccia, part of the Leichhardt Creek Prospect, were previously reported to the ASX on 18 March 2021.



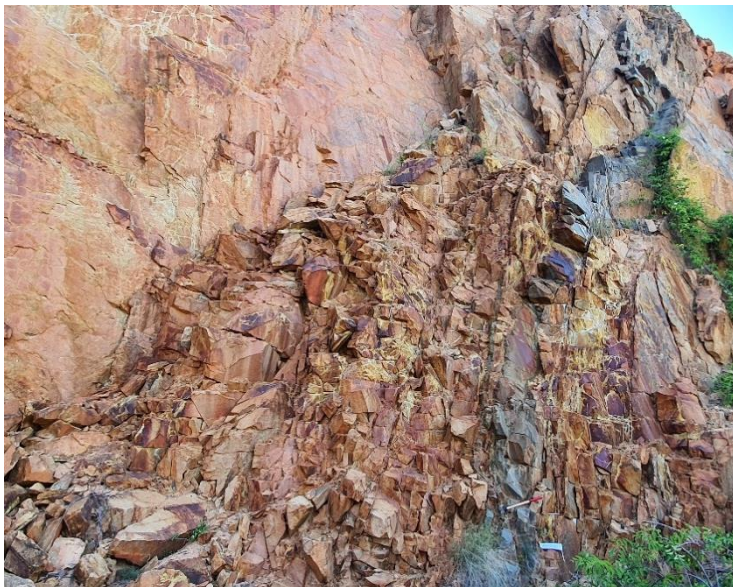


Figure 9. Leichhardt Creek outcrop geology. Outcropping quartz-pyrite stockworks at the Megan Veins location (top). Exposed sericite altered, quartz-pyrite veins with jarosite weathering at the Granite Quarry location (bottom).

### ***Sledgehammer (Shear hosted and/or epithermal gold-silver target)***

The Sledgehammer target is located 18km south of the Mt Carlton mine, hosted in a sequence of basalts and volcanoclastic rocks. The area is largely under cover, however some surface geochemical sampling of outcropping quartz-pyrite veining and brecciation has yielded bonanza grades of up to 47.5 g/t gold and 38.2 g/t silver<sup>9</sup>. The area is also anomalous in arsenic, copper and molybdenum.

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<sup>9</sup> Refer to ASX announcement 29 July 2014.



Drilling by GSN in 2015<sup>10</sup> and 2017<sup>11</sup>, incorporated six RC and six aircore holes. This drilling was largely designed to test IP anomalies with a few holes below a high grade breccia. A single diamond hole was also drilled in 2017 for stratigraphic purposes intersecting sequences of volcanoclastics with interbedded tuffs and basalt intrusives. The best intercept from this drilling was a one metre intercept of 7.5 g/t gold, 5.1 g/t silver and 131 ppm arsenic from 7m in hole JHT01. Recent work by GSN suggests that mineralisation and more acidic argillic alteration observed at surface, is more likely to be associated with the junction of northeast and northwest structures identified in aeromagnetic surveys. These structures remain untested by drilling.

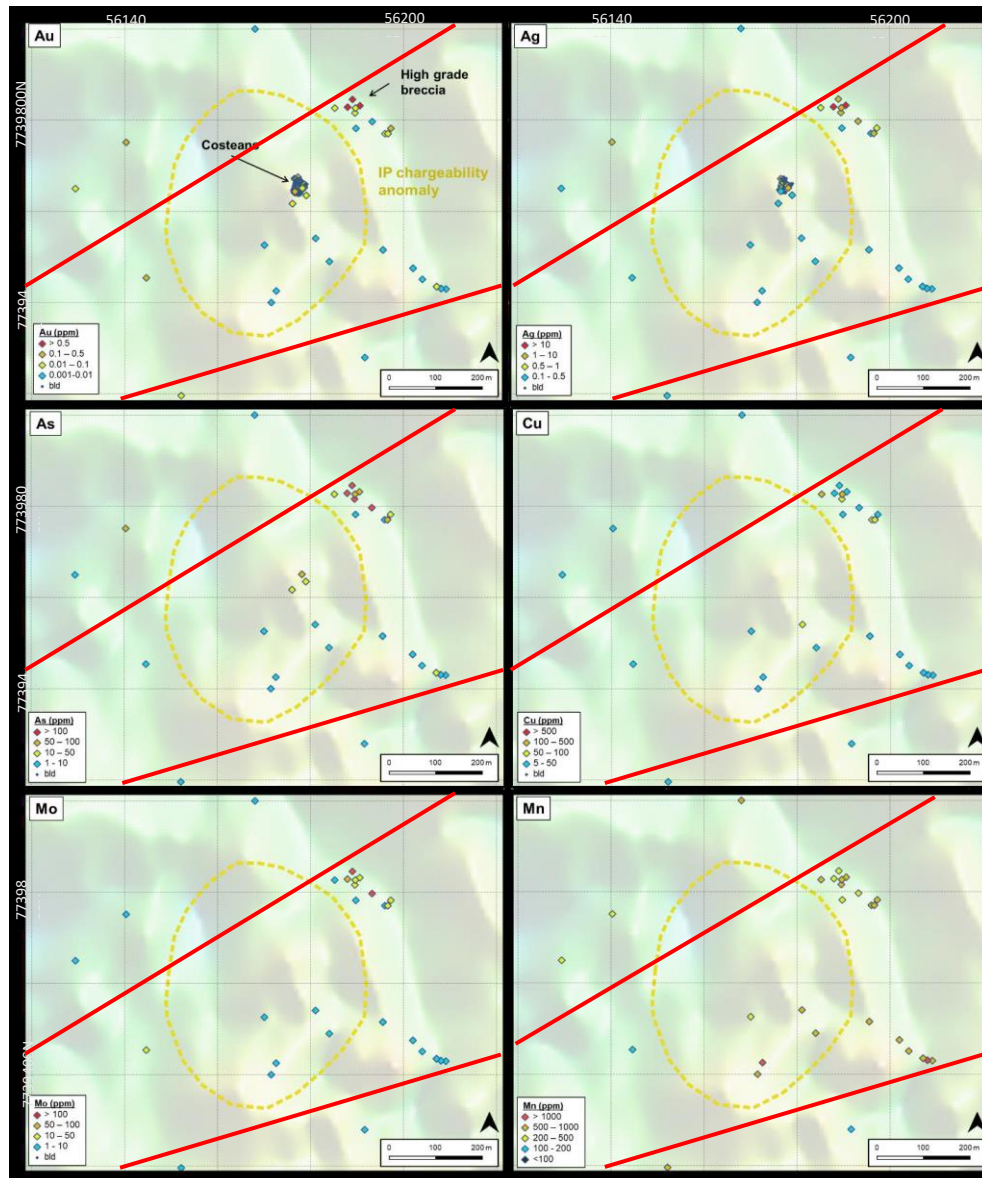


Figure 10. Rock chips samples from the Sledgehammer target showing anomalous gold, silver, arsenic, copper, molybdenum and manganese with major interpreted faults (solid red lines).

<sup>10</sup> Refer to ASX announcement 21 July 2015.

<sup>11</sup> Refer to ASX announcement 11 October 2017.

## **Next steps**

Planning of geophysical studies and drilling programs for high priority target areas is currently underway. This will likely incorporate modern technology deep penetrating Induced Polarization surveys over areas including Mt Dillon and Leichhardt Creek and a combination of scout aircore and stratigraphic diamond drilling in other areas including Red Rock and Sledgehammer. At the Molongle target area, a reverse circulation (RC) percussion drilling program is currently being refined, targeting interpreted major NW and NE trending magnetic structures, outcropping breccias and better results from previous drilling.

## **Cautionary Statement on Historical Exploration Results**

It should be noted the historical drill results of Otter Exploration N.L., Cloncurry Metals and Ashton Mining, referred to in this announcement, have not been reported in accordance with the JORC Code 2012.

It is the opinion of the Competent Person that GSN has done sufficient work to validate the quality of historical drilling. It is expected that future work will confirm historical intercepts. Specifically, drilling data from Otter Exploration was acquired in 1972, prior to the release of the first JORC Code in 1989. The aforementioned data was obtained from open-file annual reports which have been appropriately referenced by way of citation. The drilling data was recorded in standard geological logs, which appear to have been recorded to modern standards. Data from Cloncurry was acquired in 2008 and reported as appendices downloaded from its database. It is the opinion of the Competent Person that the data collection and reporting appear rigorous, fit for purpose and compliant with JORC 2004.

The Competent Person is satisfied that the drilling techniques reported in the open file reports are fit for the purpose of evaluating the prospectivity of the Edinburgh Park Project, in terms of assessing the historical exploration practices and the indicative results.

It is possible that following further evaluation and/or exploration work that the confidence in the prior reported Exploration Results may be reduced when reported under the JORC Code 2012.

Nothing has come to the attention of the Company that causes it to question the accuracy or reliability of the prior Exploration Results, however the Company has not independently validated the historical Exploration Results other than as noted in the commentary contained in the JORC Code 2012 – Table 1.

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

### **For Further Information Contact:**

Matthew Keane

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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 mining districts of Laverton in Western Australia and Mt Carlton in north Queensland, all projects are located within 40km of operating mills and major operations.

## Competent Person's Statement

*The information in this report that relates to exploration results at the Edinburgh Park Project is based on, and fairly represents, information and supporting documentation compiled and/or reviewed 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.*

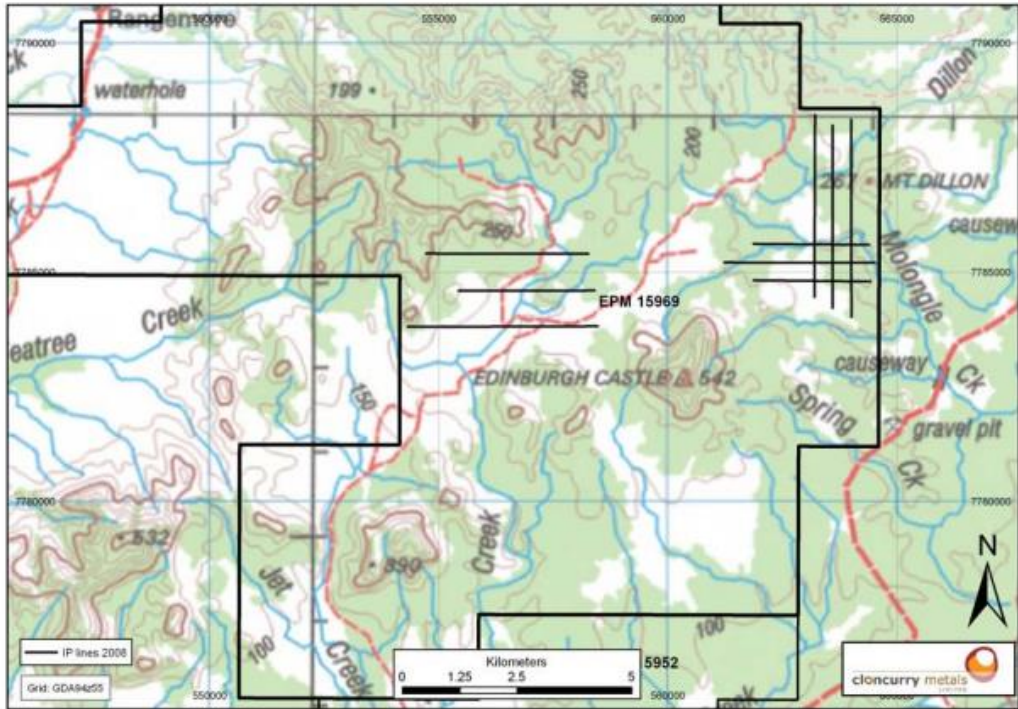
## Forward Looking Statements

*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	<p>2009 Historical IP data</p> <ul style="list-style-type: none"> <li>Broad spaced dipole-dipole IP surveys were completed at the Mt Dillon – Molongle prospect areas, and the Fish Creek prospect. Quantec Geoscience Pty Ltd completed the surveys with equipment that included a VIP 10000 transmitter and a Scintrex IPR12 receiver. In total 28.4 line km of data was collected with 18.5km from Mt Dillon -Molongle, and 9.8km from Fish Creek. At Molongle-Mt Dillon, IP lines were run at a 400m spacing both north-south and east-west to give at a grid-type geometry (Figure 5), and at Fish Creek lines were run east west at a spacing of 800m. Dipole spacing in both areas was 100m.</li> </ul>  <p>Location of IP survey lines. by Cloncurry metals</p> <p>Reverse circulation MDRC series holes</p> <ul style="list-style-type: none"> <li>Drill cuttings were collected in plastic sample bags at 1m intervals and sub sampled for laboratory assaying using a PVC spear and composited in 3m intervals with each sample weighing between 3-4Kg. Duplicates of the composites and standards of known metal content were inserted in the field sample stream at a rate of about 1 in 20 samples.</li> </ul> <p>Reverse circulation PDH series holes</p> <ul style="list-style-type: none"> <li>Drill samples representing a 2m sample were collected and submitted to Classic Comlabs limited</li> </ul>
Drilling techniques	<p>MDRC series holes were drilled by Drilltorque Queensland with a Schramm 450 percussion RC rig using a face sampling hammer.</p> <p>PDH series used a RC rig using a 5 ½ inch hammer.</p>
Drill sample recovery	<p>MDRC series sample recoveries of less are noted in the geological/sampling log with a visual estimate of the actual recovery. Very few samples were recorded with poor recoveries</p> <ul style="list-style-type: none"> <li>Wet samples are recorded in logs with only a small portion (1%) detected</li> <li>No relationship has been detected between grade and sample recovery</li> </ul>

Criteria	Commentary																
	No records of drill sample recovery for PDH series.																
Logging	<p>MDRC series holes were qualitatively geologically logged, with magnetic susceptibility measurements taken on each metre interval. Recorded data includes lithology, alteration, structure, texture, mineralisation, sulphide content, weathering and other features. Drillhole collar coordinates, azimuth, dip, depth and sampling intervals are also recorded. Qualitative logging includes classification and description of lithology, weathering, oxidation, colour, texture and grain size. Quantitative logging includes identification and percentages of mineralogy, sulphides, mineralisation, and veining.</p> <p>PDH series representative logging of lithology, alteration.</p>																
Sub-sampling techniques and sample preparation	<p>MDRC series holes drill cuttings were collected in plastic sample bags at 1m intervals and sub sampled for laboratory assaying using a PVC spear and composited in 3m intervals with each sample weighing between 3-4kg. Samples sizes are considered appropriate for this style of gold mineralisation and as an industry accepted method for evaluation of gold deposits.</p> <p>2m samples were collected for PDH series no record of exact sampling technique is documented</p>																
Quality of assay data and laboratory tests	<p>MDRC series samples were analysed for gold and a range of pathfinder and major elements by SGS Laboratories in Townsville; sample dissolution was achieved using an aqua regia digest; Au was analysed by graphite furnace AAS (method ARL155) and the pathfinder and base elements were determined by ICPAES (method ARI155). Details of elements analysed and detection limits are given in the table below.</p> <table><tr><th>ELEMENT</th><th>METHOD</th><th>DESCRIPTION</th><th>DETECTION LIMIT (ppm)</th></tr><tr><td>Au</td><td>ARL155</td><td>50gm sample; Aqua Regia Digest, GFA</td><td>0.001</td></tr><tr><td>Pathfinders</td><td>ARI155</td><td>50gm sample, Aqua Regia digest with ICP-AES determination</td><td>Ag(0.5), As(2), Bi(1), Cd(0.2), Co(0.5), Cr (1), Cu(0.5), Mn(2), Mo(1), Ni(1), P(50), Pb(5), Sb(2), V(0.2), Y(1), Zn(0.5)</td></tr><tr><td>Majors</td><td>ARI155</td><td>As above</td><td>Ca (20), Fe(50), S(2)</td></tr></table> <p>PDH series were submitted to submitted to Classic Comlabs limited, Townsville for determination of Au by fire assay and Ag by acid digestion.</p>	ELEMENT	METHOD	DESCRIPTION	DETECTION LIMIT (ppm)	Au	ARL155	50gm sample; Aqua Regia Digest, GFA	0.001	Pathfinders	ARI155	50gm sample, Aqua Regia digest with ICP-AES determination	Ag(0.5), As(2), Bi(1), Cd(0.2), Co(0.5), Cr (1), Cu(0.5), Mn(2), Mo(1), Ni(1), P(50), Pb(5), Sb(2), V(0.2), Y(1), Zn(0.5)	Majors	ARI155	As above	Ca (20), Fe(50), S(2)
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Au	ARL155	50gm sample; Aqua Regia Digest, GFA	0.001														
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Majors	ARI155	As above	Ca (20), Fe(50), S(2)														
Verification of sampling and assaying	<p>Sampling and assaying in relation to MDRC series holes are historical in nature and the data is based information obtained from <i>Cloncurry Metals, 2009. EPM 15969, Edinburgh Park, annual report for period ending 20/6/2009. GSQ open file exploration report CR058516</i>. Assay data from Cloncurry Metals was analysed by ALS-Chemex and SGS- Analabs Laboratories (both of Townsville) for low level Au and a range of pathfinder and major elements. Assay data was included in the exploration report as exported database tables, and includes QAQC.</p> <p>Sampling and assaying in relation to PDH series holes are historical in nature and the data is based information obtained from <i>Ashton Mining, 1989. EPM 5809, Mount Dillon, report for period ending on 19/9/1989, and final report. GSQ open file exploration report CR021370</i>. Assay data was included in these reports as appended files from the laboratories, and as such, is verifiable. This assay data does not include QAQC.</p> <p>Selected sampling and assays in relation to drilling and sampling conducted by Otter Exploration (DDH series and PDH series) were sent to Supervise Sheen Laboratory in Herberton, Queensland and split on a sample interval; of approximately 1.5 metres for analysis by AAS for Cu, Pb, Mo and Zn, with one sample checked for Au and Ag. Duplicate sampling for analyses QC was deemed unnecessary as the assays correlated well to the logged geology and mineralisation, the level of mineralisation was low, and the reliability of the lab had already been established. Analyses were reported prior to the JORC 1989.</p>																

Criteria	Commentary
	Assay data is reviewed prior to importing into Datashed no adjustments are made to raw assay files
<b>Location of data points</b>	All holes are located on a GDA94 grid and were set out using a hand held GPS with an accuracy of +/- 5m
<b>Data spacing and distribution</b>	Data Spacing is variable see plans in report. Unknown due to early-stage exploration composite sampling has been used due to the early stage of exploration.
<b>Orientation of data in relation to geological structure</b>	No sample bias has been detected at this early stage. No drilling orientation and/or sampling bias has been recognised at this time.
<b>Sample security</b>	Unknown due to historical nature of the drilling
<b>Audits or reviews</b>	Historical drilling and sampling methods and QA/QC are regarded as not being as thoroughly documented compared to current standards. Inhouse reviews of various available historical company reports of drilling and sampling techniques indicates that these were most likely conducted to industry best practice and standards of the day. Drilling, sampling methodologies, and assay techniques used in these drilling programs are considered to be appropriate and to mineral exploration industry standards of the day.

## Section 2 Reporting of Exploration Results

Criteria	Commentary
<b>Mineral tenement and land tenure status</b>	Tenements EPM's 18986, 25196, 26527, 26810, 27130, 27131, 27450, 27506 and 27944 were granted in the name of Great Southern Mining Limited. These tenements are in good standing.
<b>Exploration done by other parties</b>	Relevant exploration done by other parties are outlined in the body of this report or previous GSN ASX announcements.
<b>Geology</b>	<p>The majority of the areas are underlain by granitoids that probably belong to the Carboniferous-Permian Coast Range Igneous Province. The two dominant units are a medium grained biotite monzogranite (Molongle Creek Granite?) and a fine to medium grained hornblende biotite diorite (unnamed?). Smaller volumes of microgranite and granophyre may represent intrusive plugs or fractionated marginal phases of the larger granitoid bodies. The granophyric plugs and surrounding microgranites contain some porphyry style mineralisation.</p> <p>A few outliers of intermediate to acid pyroclastic and volcanoclastic rocks overly the granitoids. These rocks are probably part of the Permo-Triassic Lizzie Creek Volcanics. The volcanic areas are generally much smaller than indicated on the published government maps except near the south and west margins of the mapped area where volcanics are dominant. Epithermal mineralisation systems at Molongle and Mount Dillon occur within outliers of these volcanics.</p> <p>Swarms of Syenite, rhyolite and microdiorite/dolerite dykes intrude the granitoids and the volcanics. Hence, they are probably Triassic or younger in age. There are at least two series of microdiorite dykes. The most voluminous series is the youngest and appears to cut all other types of dyke and most of the mineralisation. Most of the dykes have NNW to N strikes and steep easterly dips. Rare microdiorite dykes were mapped with E strikes. Many of the mapped zones of mineralisation and alteration also trend NNW, suggesting that the dykes and hydrothermal fluids have accessed long lived structures in this orientation.</p> <p>The topography closely reflects geology. Large flat areas covered with alluvium or sheet wash are typically underlain by medium grained unaltered granitoids. Outcrops can still be found in</p>



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	deeply incised creeks. Higher ground is usually occupied by microgranites and altered volcanics. Outcrop is relatively good in these areas, but altered zones and dykes are often prominent. Creek lines in these areas tend to be occupied by unaltered rocks.																																																																																																																																																																																																																																						
Drill hole Information	<div>All the drill holes reported in this report are summarized in in the report.</div> <table><tr><th>Company</th><th>Hole Id</th><th>Final Depth</th><th>East MGA94 ZONE 55</th><th>North MGA94 ZONE 55</th><th>RL</th><th>Drilling Type</th><th>Drilling date</th><th>Azimut h</th><th>Dip</th></tr><tr><td>ASHTON MINING</td><td>PDH01</td><td>80</td><td>563569.9</td><td>7785169</td><td></td><td>PERC</td><td>19-Aug-89</td><td></td><td></td></tr><tr><td>ASHTON MINING</td><td>PDH02</td><td>80</td><td>563583.3</td><td>7785153</td><td></td><td>PERC</td><td>19-Aug-89</td><td></td><td></td></tr><tr><td>ASHTON MINING</td><td>PDH03</td><td>60</td><td>563599.6</td><td>7785300</td><td></td><td>PERC</td><td>21-Aug-89</td><td></td><td></td></tr><tr><td>ASHTON MINING</td><td>PDH04</td><td>72</td><td>563542.2</td><td>7785204</td><td></td><td>PERC</td><td>21-Aug-89</td><td></td><td></td></tr><tr><td>ASHTON 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MGA94 ZONE 55	RL	Drilling Type	Drilling date	Azimut h	Dip	ASHTON MINING	PDH01	80	563569.9	7785169		PERC	19-Aug-89			ASHTON MINING	PDH02	80	563583.3	7785153		PERC	19-Aug-89			ASHTON MINING	PDH03	60	563599.6	7785300		PERC	21-Aug-89			ASHTON MINING	PDH04	72	563542.2	7785204		PERC	21-Aug-89			ASHTON MINING	PDH05	50	563542.1	7785191		PERC	22-Aug-89			ASHTON MINING	PDH06	42	563606.3	7785144		PERC	23-Aug-89			ASHTON MINING	PDH07	60	563445.5	7784962		PERC	23-Aug-89			ASHTON MINING	PDH08	47	563513.7	7784872		PERC	24-Aug-89			CLONCURRY METALS LTD	FCRC01	144	554721	7783796	143	RC	05-Dec-08	270	-60	CLONCURRY METALS LTD	FCRC02	182	554903	7784009	141	RC	03-Dec-08	286	-60	CLONCURRY METALS LTD	FCRC03	168	557050	7784602	138	RC	11-Dec-08	270	-60	CLONCURRY METALS LTD	FCRC04	168	556092	7783047	133	RC	30-Nov-08	286	-61.5	CLONCURRY METALS LTD	FCRC06	132	556608	7784782	138	RC	28-Dec-08	286	-60	CLONCURRY METALS LTD	FCRC15	78	556721	7784776	132	RC	07-Dec-08	270	-60	CLONCURRY METALS 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	CLONCURRY METALS LTD	MDRC 05	104	564004	7788072	88	RC	17-Dec-08	45	-60
	OTTER EXPLORATION	DDH 1	184.4	559056.2	7793261		DD			
	OTTER EXPLORATION	DDH 2	182.9	560219.4	7794448		DD			
	OTTER EXPLORATION	PDH-1	30.48	560223.1	7794862		PERC	16-Sep-72	0	-90
	OTTER EXPLORATION	PDH-10	51	560328.3	7794641		PERC	24-Oct-72	0	-90
	OTTER EXPLORATION	PDH-2	28.04	560064.2	7794646		PERC	16-Sep-72	0	-90
	OTTER EXPLORATION	PDH-3	43	559815	7794402		PERC	17-Sep-72	90	-85
	OTTER EXPLORATION	PDH-4	78	559178.6	7793095		PERC	20-Sep-72	0	-90
	OTTER EXPLORATION	PDH-5	32.31	559846.8	7793205		PERC	27-Sep-72	270	-60
	OTTER EXPLORATION	PDH-6	69.8	560490.1	7794750		PERC	28-Sep-72	0	-90
	OTTER EXPLORATION	PDH-7	18	559813	7793263		PERC	28-Sep-72	90	-83
	OTTER EXPLORATION	PDH-8	63.65	559953	7794433		PERC	09-Oct-72	270	-80
	OTTER EXPLORATION	PDH-9	63	560223.1	7794429		PERC	17-Oct-72	270	-80
	<p>Easting and northing are given in MGA94 – Zone 55 coordinates.</p> <p>RL is AHD</p> <p>Dip is the inclination of the hole from the horizontal. Azimuth is reported in magnetic degrees as the direction the hole is drilled.</p> <p>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.</p> <p>Hole length is the distance from the surface to the end of the hole measured along the drill hole trace.</p> <p>No material information has been excluded.</p>									
<b>Data aggregation methods</b>	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.									
<b>Relationship between mineralisation widths and intercept lengths</b>	<p>All significant intersections are quoted as downhole widths. No relationship between mineralised width and intercept width can be identified at this early stage of exploration.</p> <p>All lengths are reported as downhole.</p>									
<b>Diagrams</b>	Relevant Diagrams are included in the body of this report.									
<b>Balanced reporting</b>	All matters of importance have been included.									
<b>Other substantive exploration data</b>	All relevant information has been included.									

Criteria	Commentary
<b><i>Further work</i></b>	Future exploration includes further assessment of historical drill results, geological and geochemical results which have previously been announced. Diagrams and text included in this release highlight potential areas of interest for follow up work.