



## **GEOPHYSICS IDENTIFIES DISCRETE PORPHYRY-STYLE DRILL TARGET AT GLENLOGAN PROJECT**

- **Combined tensor induced polarisation (TIP) and magnetotelluric (MT) survey identifies anomalies like those seen around copper-gold porphyries**
- **Anomalies comprise semi-coincident chargeable and conductive zones on the margin of a large resistive zone**
- **Anomalies are located on northeast flank of the main magnetic anomaly and could represent alteration and/or mineralisation associated with a discrete intrusive situated on the fringe of the main magnetic intrusion as is often seen in known porphyry occurrences**
- **Anomalies are centred 1,500 metres NNE of the end of the first hole drilled by S2, which saw increasing copper, gold and disseminated pyrite associated with increasing density of quartz diorite porphyry dykes towards the end (the northeastern-most part) of that hole**
- **Next step is a detailed dipole-dipole induced polarisation survey to aid siting of a potential drillhole**

S2 Resources Ltd (“S2” or the “Company”) advises that a combined tensor induced polarisation (TIP) and magnetotelluric (MT) survey has successfully identified a discrete semi-coincident conductivity, chargeability and resistivity anomaly at its Glenlogan porphyry copper-gold project, where the Company can earn a 70%, and potentially 80% interest from Legacy Minerals (ASX:LGM).

The initial hole drilled to test a large buried magnetic body in mid-2024 confirmed the presence of a large unmineralized magnetic alkaline gabbroic diorite intrusion but also intersected a zone of anomalous gold and copper associated with an increase in disseminated pyrite within and around a swarm of later quartz diorite porphyry dykes throughout the last 300 metres of the hole (see Figure 1 and refer to S2 ASX announcements of 3 September 2024 and 28 October 2024 for details).

The presence of these features was considered sufficiently encouraging to undertake a broader combined TIP and MT geophysical survey specifically tailored to identify any zones of resistivity (potentially representing intrusive bodies and/or silica alteration), conductivity (potentially representing alteration) and chargeability (potentially representing disseminated sulphides) around the margins of the main magnetic intrusion. The presence of mineralisation associated with smaller

“finger” intrusions arrayed around the periphery of larger intrusions is a common feature in such deposits, as is shown schematically in Figure 2.

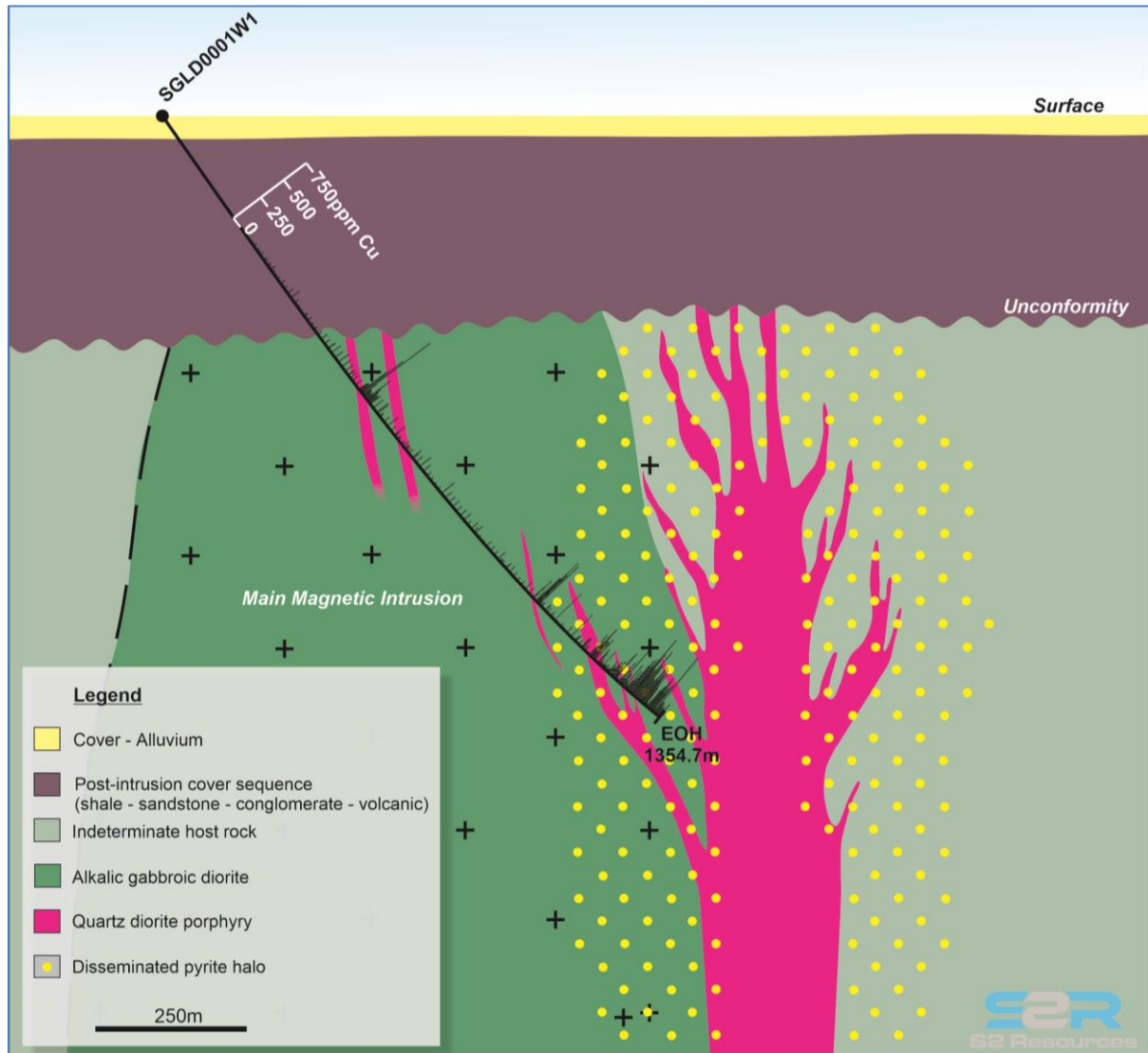


Figure 1. Schematic NNW-looking cross section of first hole at Glenlogan, showing increasing copper (and gold and pathfinder elements) and disseminated pyrite associated with a quartz diorite porphyry dyke swarm towards the end of the hole (right hand side/ENE), with postulated potentially mineralised quartz diorite “pencil” intrusion on the flank of the main unmineralised magnetic gabbroic diorite intrusion. The target intrusion, and any mineralisation associated with it, could extend upwards to the base of the unconformity at a vertical depth of ~350 metres.

The geophysical survey comprised a total of 53 stations of both TIP and MT, covering approximately 18 square kilometres extending significantly beyond the limits of the magnetic body to ensure adequate coverage and depth penetration. This survey method was selected to obtain sufficient coverage without the need to have highly energised cable arrays running across multiple properties and roads.

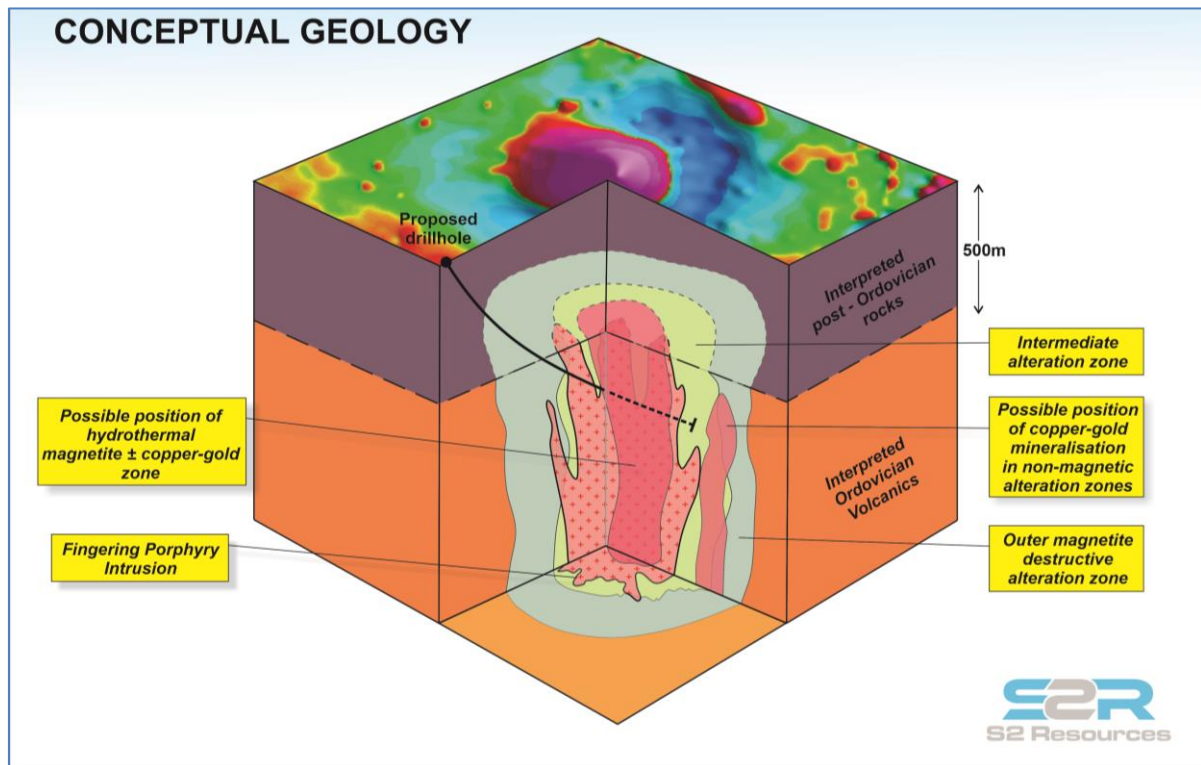


Figure 2. Schematic 3D isometric cutaway block diagram showing location of peripheral “pencil” intrusions around the periphery of the main magnetic intrusion. The first drillhole essentially followed the planned trace shown here, drilled through the central magnetic core, and started showing evidence of elevated copper, gold, pathfinder elements, disseminated pyrite and increasing quartz diorite porphyry dykes towards the end of the hole.

The TIP survey identified a modest but distinct chargeability anomaly semi-coincident with a subtle resistivity anomaly located on the northeast flank of the main magnetic anomaly (see Figure 3). The MT survey also identified a strongly resistive zone also coinciding with the TIP anomalies (see Figure 3). The semi-coincident relationship of these anomalies, as shown in Figure 4, is consistent with the classic porphyry model, where an outer chargeable zone represents the outer sulphide (pyrite) -rich shell and the conductive zone represents the strongly altered core of a porphyry system. These anomalies are estimated to start at a depth of ~300 metres below surface, which is consistent with the thickness of the post-intrusion cover sequence, indicating that they are likely to relate to features in the basement sequence, where the targeted porphyry intrusions are expected to be. This is also shallower than the anomalism encountered in the first drill hole, which may have drilled into the root zone of something closer to surface.

The location of these anomalies on the northeastern flank of the main magnetic intrusion is considered particularly interesting for two reasons. Firstly, because mineralised “pencil” intrusions often occur on the flanks of the bigger intrusive bodies, and secondly, these anomalies are centred about 1,500 metres to the NNE of the end of the first drillhole, which was heading ENE, and which intersected increasing copper, gold and pathfinder element anomalism and disseminated pyrite associated with a swarm of quartz diorite porphyry dykes throughout the last 300 metres before termination.

A more detailed dipole-dipole array IP survey is being planned to provide optimal spatial resolution of the chargeability and resistivity anomalies to identify the best location for drill testing.

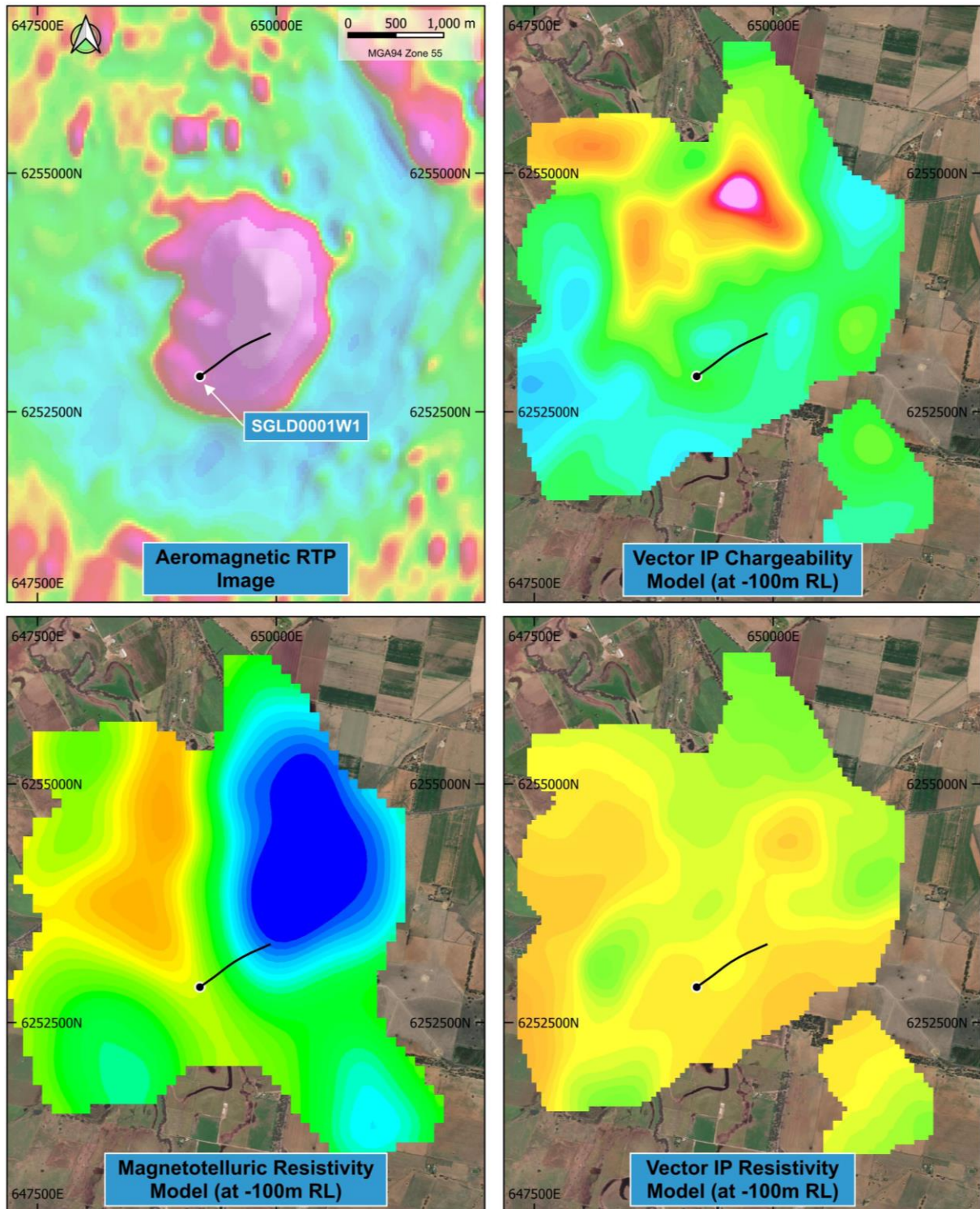


Figure 3. Trace of first drillhole and location of geophysics with various anomalies. Clockwise from top left: main magnetic anomaly (original target), vector IP chargeability anomaly on north-northeastern flank of main magnetic anomaly, vector IP resistivity anomaly as a subtle lobe on the northeastern flank of the main magnetic anomaly, and strong magnetotelluric resistivity anomaly coincident with vector IP resistivity anomaly position. Note the -100m RL is approximately 380 metres below surface.

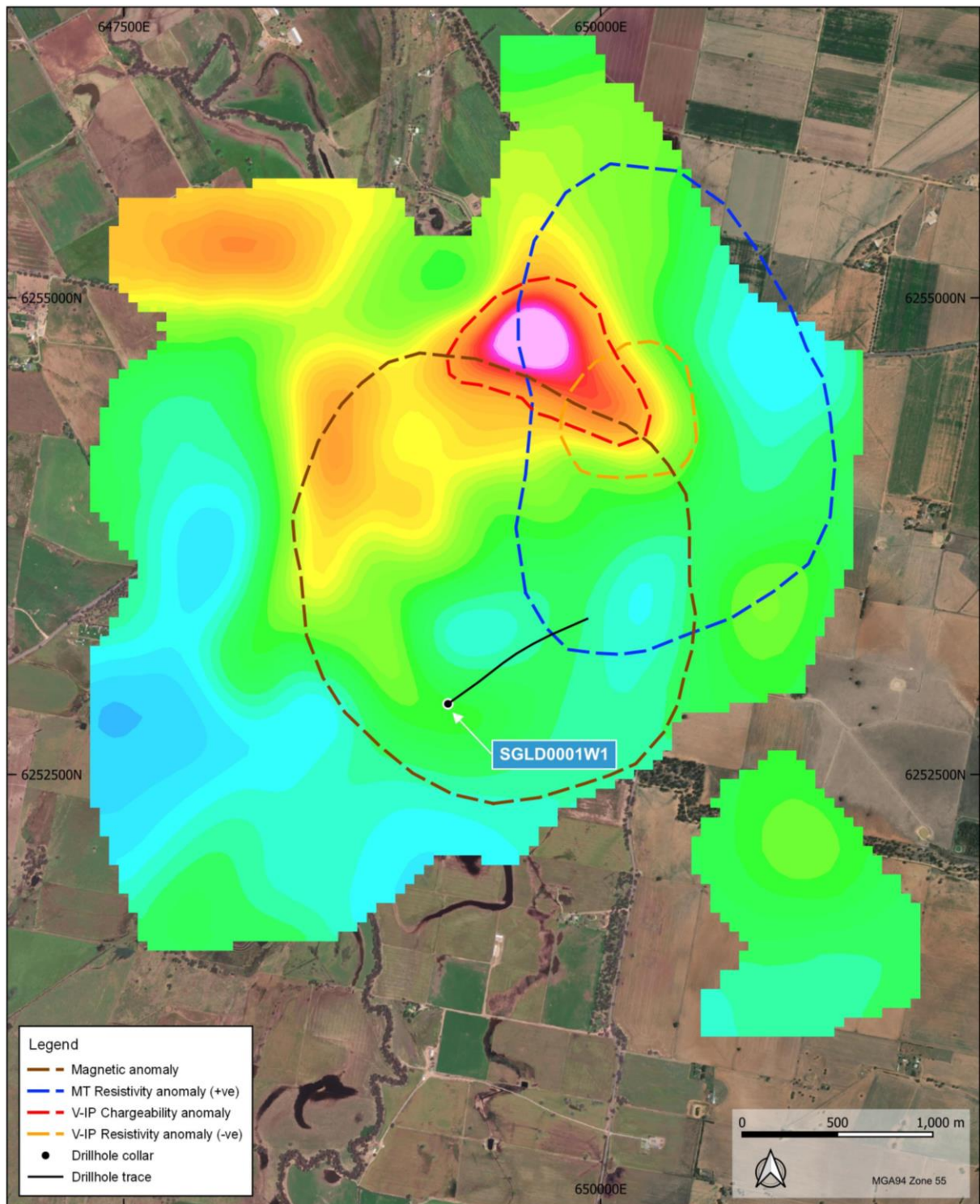


Figure 4. Summary map of various anomalies, showing strong degree of coincidence and location on the northeastern flank of the main magnetic anomaly – a position consistent with the potential location of smaller “finger” intrusions on the periphery of the main magnetic intrusion.

## Project background

The Glenlogan project comprises an exploration licence (EL9614) covering 85 square kilometres in the highly endowed Lachlan Fold Belt of New South Wales, which contains a number of major gold/copper deposits, including Newmont's Cadia-Ridgeway operations (36.6Moz gold/8.3Mt copper), Evolution Mining's Cowal (8.8Moz gold) and North Parkes (3.3Moz gold/2.9Mt copper) mines, and Alkane's Tomingley (1.8Moz gold) mine and Boda (8.4Moz gold/1.5Mt copper) deposit (see Figure 5).

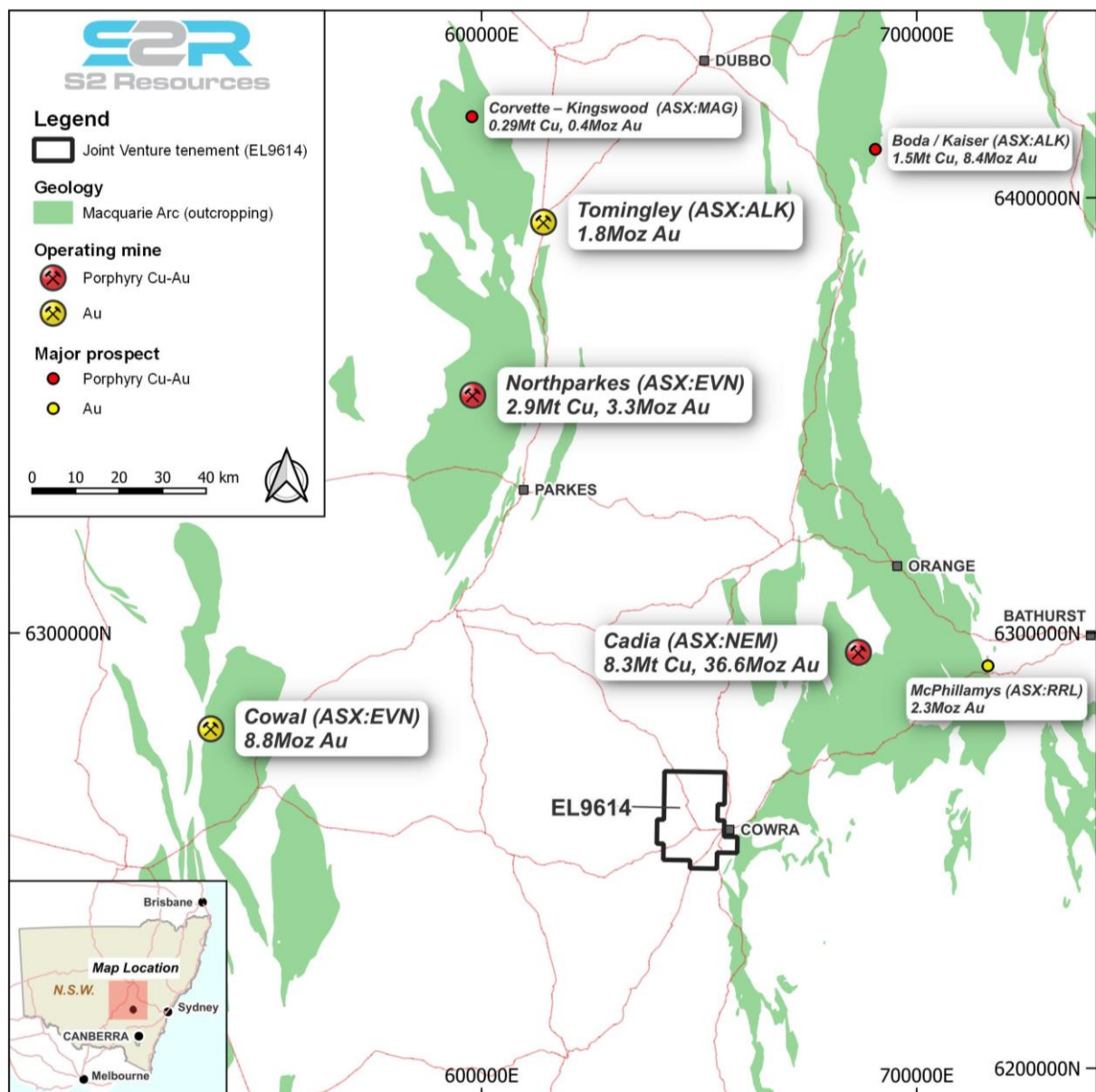


Figure 5. District scale map showing location of the Glenlogan project (EL9614) relative to outcropping prospective Macquarie Arc rocks and known copper-gold occurrences. The project area is immediately west of outcropping Macquarie Arc rocks where they are interpreted to lie beneath younger (Silurian/Devonian) sequences.



S2 is earning up to an 80% interest in this project from ASX-listed Legacy Minerals ("Legacy"). The agreement comprises an earn-in and joint venture phase, with key terms as follows:

- S2 Legacy with 1 million ordinary shares on signing, representing a consideration of approximately A\$150,000 at a deemed price of A\$0.15 per share
- Minimum commitment is to drill the Shellback magnetic anomaly within 12 months and to undertake 1,200 metres of diamond drilling
- S2 can spend A\$2 million within 2 years of signing to earn a 51% participating interest
- Following this, S2 can elect to spend a further A\$4 million within a further 3 years to earn an additional 19% interest for a 70% participating interest, including a minimum of 8,000 metres of diamond drilling

At the earn-in point:

- A joint venture will be formed with S2 having up to a 70% participating interest and Legacy having a 30% participating interest
- Legacy will have a one-time choice to retain its participating interest or to convert this to a 20% carried interest
- In the circumstance of a participating interest, Legacy must contribute or dilute
- Should Legacy's participating interest drop below 10%, its interest will revert to a 2% net smelter return (NSR) royalty
- S2 can buy down half of this royalty (ie, 1%) for A\$3 million at any time up to 3 years from a joint venture being formed
- In the circumstance of a carried interest, S2 will have an 80% interest and Legacy's 20% interest will be funded by S2 up to the commencement of commercial production, with this being will repayable from 70% of the production revenue attributable to Legacy's 20% interest in a mining operation

*This announcement has been provided to the ASX under the authorisation of the S2 Board.*

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Past Exploration results reported in this announcement have been previously prepared and disclosed by S2 Resources Ltd in accordance with JORC 2012. The Company confirms that it is not aware of any new information or data that materially affects the information included in these market announcements. The Company confirms that the form and content in which the Competent Person's findings are presented here have not been materially modified from the original market announcement. Refer to [www.s2resources.com.au](http://www.s2resources.com.au) for details on past exploration results.

## Competent Persons statement

Information in this report that relates to Exploration Results is based on information compiled by John Bartlett, who is an employee and equity holder of the Company. Mr Bartlett is a member of the Australian Institute of Mining and Metallurgy (MAusIMM) and has sufficient experience of relevance to the style of mineralization and the types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Bartlett consents to the inclusion in this report of the matters based on information in the form and context in which it appears.

The following Tables are provided to ensure compliance with the JORC code (2012) edition requirements for the reporting of exploration results.

## SECTION 1: SAMPLING TECHNIQUES AND DATA

Criteria	JORC Code explanation	Commentary
Sampling techniques	<i>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</i>	All 2024 drilling was diamond core drilling from surface completed by Deepcore Australia Pty Ltd, based out of Bendigo, Victoria.
	<i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used</i>	All 2024 core is split in half by core saw for external laboratory preparation and analysis.
	<i>Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information</i>	Based on the distribution of mineralisation the core sample size is considered adequate for representative sampling.
Drilling techniques	<i>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</i>	All 2024 drilling was diamond core from surface, PQ, HQ and NQ3 size. NQ3 core is triple tube wireline. Core orientation uses the Axis Camp Ori tool.
Drill sample recovery	<i>Method of recording and assessing core and chip sample recoveries and results assessed</i>	2024 drilling methods are selected to ensure maximum recovery possible.
	<i>Measures taken to maximise sample recovery and ensure representative nature of the samples</i>	2024 core recovery is collected in a set of standard Excel templates then transferred to the digital database.

Criteria	JORC Code explanation	Commentary
	<i>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i>	No drilling results are being reported
<b>Logging</b>	<i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i>	All 2024 diamond core undergoes geotechnical and geological logging to a level of detail (quantitative and qualitative) sufficient to support use of the data in all categories of Mineral Resource estimation. Diamond core logging includes records of lithology, alteration, veining, structure and recovery.
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i>	All 2024 core is photographed.
	<i>The total length and percentage of the relevant intersections logged</i>	All 2024 drill holes are logged in full.
<b>Sub-sampling techniques and sample preparation</b>	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	Core is split in half by core saw and one-half sampled and submitted to the laboratory for analysis.
	<i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i>	No non-core sampling was completed by S2 during this drill program.
	<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	2024 core samples are submitted to ALS and undergo standard industry procedure sample preparation (crush, pulverise and split) appropriate to the sample type and mineralisation style..
	<i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>	Full QAQC system is in place for 2024 core assays to determine accuracy and precision of assays.
	<i>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</i>	2024 core is cut to achieve non-biased samples. No duplicate samples have been collected at this stage.
	<i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	Sample sizes are appropriate to the grain size of the material being sampled.
<b>Quality of assay data and laboratory tests</b>	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>	Core samples were submitted to ALS for analysis. Au is assayed using a 25g fire assay with AAS finish (Au-AA25). A multi-element suite of 48 elements is assayed by technique ME-MS61 (0.25g charge by four acid digest and ICP-MS finish).  The nature and quality of the analytical technique is deemed appropriate for the mineralisation style. Fire assay for Au is considered total. Multi-element assay four acid digest are considered near-total for all but the most resistive minerals (not of relevance).
	<i>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i>	No geophysical tools were used to determine any element concentrations.
	<i>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</i>	Full QAQC system is in place for 2024 core sample assays including blanks and standards (relevant certified reference material).
<b>Verification of sampling and assaying</b>	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	No significant intercepts are being reported

Criteria	JORC Code explanation	Commentary
	<i>The use of twinned holes.</i>	No twin holes are reported.
	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	For 2024 drilling the primary sampling data is collected in a set of standard Excel templates. The information is managed by S2's database manager for validation and compilation into S2's central database.
	<i>Discuss any adjustment to assay data.</i>	No adjustments to assay results have been applied
<b>Location of data points</b>	<i>Accuracy and quality of surveys used to locate drillholes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i>	All 2024 diamond drill holes are surveyed by handheld GPS in the first instance.  All 2024 diamond drill holes are surveyed downhole using the Axis Champ Gyro at approximately 12m intervals to determine accurate drill trace locations. There is no magnetic interference with respect to downhole surveys.
	<i>Specification of the grid system used.</i>	The grid system is MGA GDA94 (Zone 55). Local easting and northing are in MGA.
	<i>Quality and adequacy of topographic control.</i>	Elevation data for all data is determined by a digital elevation model derived from public domain SRTM 10m Elevation grids
<b>Data spacing and distribution</b>	<i>Data spacing for reporting of Exploration Results.</i>	Samples have been collected from a single diamond drill hole at a sample spacing of a nominal 10 metres down the entire length of hole, with continuous sampling completed through zones of visual interest.  The TIP / MT survey data stations were collected on an uneven pattern to best accommodate cultural features (roads, buildings, powerlines etc) at surface. The station spacings typically varied from 300 – 700 metres.
	<i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i>	No Mineral Resource or Ore Reserve estimation is reported.
	<i>Whether sample compositing has been applied.</i>	No compositing has been applied
<b>Orientation of data in relation to geological structure</b>	<i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i>	The orientation of sampling is believed to unbiased, although there is currently insufficient data to confirm.
	<i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i>	There is currently no evidence of any sample bias.
<b>Sample security</b>	<i>The measures taken to ensure sample security.</i>	Chain of custody is managed by S2 personnel. Drill core is visually checked at the drill rig and then transported to S2's Cowra facility where it is cut and sampled before being secured in a locked shed. Bagged samples are transported to the ALS laboratory in Orange by S2 personnel.
<b>Audits or reviews</b>	<i>The results of any audits or reviews of sampling techniques and data.</i>	No audits or reviews have been conducted by S2 at this stage.

## SECTION 2: REPORTING OF EXPLORATION RESULTS

Criteria	JORC Code explanation	Commentary						
Mineral tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.	<p>The Glenlogan project comprises one exploration licences (see list below), covering approximately 85 square kilometres.</p> <p>The tenements is held in the name of Legacy Minerals Pty Ltd and is subject to Earn-in Joint Venture with S2 Resources Ltd (terms outlined in text of this announcement).</p> <table><tr><th>TENID</th><th>TENSTATUS</th><th>HOLDER</th></tr><tr><td>EL 9614</td><td>LIVE</td><td>Legacy Minerals Pty Ltd</td></tr></table> <p>The project is located east of the township of Cowra, within the Central West region of New South Wales. Access to the project is via the Mid Western Highway, Olympic Highway and Lachlan Valley Way, which pass through the tenement.</p>	TENID	TENSTATUS	HOLDER	EL 9614	LIVE	Legacy Minerals Pty Ltd
	TENID	TENSTATUS	HOLDER					
EL 9614	LIVE	Legacy Minerals Pty Ltd						
	The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	<p>EL9614 is a granted exploration licence within in New South Wales and the current term of grant is until 11 February 2026, with the licence currently considered in good standing.</p> <p>Prior to accessing the ground S2 is required to obtain signed land access agreements with the landowners.</p>						
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<p>Historical exploration within the project area has been limited. In 1982, Mines Exploration completed a single deep drill hole, DDHCV1, to a depth of 629m. The hole, located 1km to the west of the magnetic target, intersected Devonian sediments to end of hole at 629m supporting the interpretation of a major fault to the west of the magnetic target.</p> <p>Reconnaissance drilling in 1992 was completed by Placer Exploration Limited and intercepted altered monzonite at end of hole shallow percussion holes drilled directly above the Cowra Target. Drill holes CRB7 (56m) and CRB57 (96m) were strongly altered by chlorite-sericite-quartz-zeolite, comparable to the propylitic alteration commonly found distal to porphyry systems. Drill holes did not reach the Ordovician basement which is interpreted to be at approximately 450m depth. Post mineral intrusions are common in large, long lived mineral systems and as such the observation of monazite in drilling is considered encouraging for a large and older intrusive complex at depth in association with the magnetic anomaly.</p> <p>Rio Tino held the project between 1994-1997, undertaking Magnetic modelling which suggested the magnetic anomaly was approximately 800m below surface, thus the likelihood of a large-scale mineral system associated with the magnetic source was not likely to be amenable to shallow mining methods and drilling was therefore not conducted.</p>						

Criteria	JORC Code explanation	Commentary
<b>Geology</b>	Deposit type, geological setting and style of mineralisation.	<p>The Glenlogan Project is in the Central Lachlan Fold Belt, NSW, which hosts world-class Au-Cu orebodies including the Cadia-Ridgeway, Northparkes and Cowal Mines. The project is considered prospective for copper-gold porphyry intrusions and/or associated skarn style copper-gold.</p> <p>The exploration tenement covers the western margin of the Siluro-Devonian Cowra trough, located in the Forbes Anticlinal Zone of the Lachlan Fold Belt. The Ordovician Macquarie Arc volcanics are interpreted to be buried beneath these later geological units.</p> <p>The “Shellback” magnetic anomaly is modelled to intrude to within 450 – 600m of surface, suggesting the body has not intruded into the overlying Silurian sequence, thus suggesting the magnetic body was emplaced during the early Silurian to late Ordovician, which is a similar timing to the Cadia Valley porphyry complex (435.9 – 459.7Ma). It is considered that the Silurian age cover sequence will have been critical in the preservation of any potential porphyry mineralisation across the Glenlogan Project, as it was for the preservation of the Cadia Valley porphyry district.</p> <p>Comparable aeromagnetic responses to those present at the Glenlogan project have been reported at other major porphyry Cu-Au deposits, including: Cadia East (AUS), Grasberg (IND), Alumbrera (ARG), and Buenavista Del Cobre (MEX). The strong magnetic response suggests a discrete central magnetic high possibly due to chalcopyrite-bornite-magnetite mineralisation, associated with a porphyry proximal potassic alteration zone, surrounded by an annular magnetic low due to magnetite destructive hydrothermal alteration of surrounding rock, features that are characteristic of globally important Cu-Au porphyry deposits.</p>
<b>Drill hole Information</b>	A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length.	All drilling within the project area is historical in nature, and no drill holes are considered material at this point. Compilation and validation of the historical datasets is ongoing.
<b>Data aggregation methods</b>	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.	N/a – no significant drill results are being reported.
	Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.	N/a – no significant drill results are being reported.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	N/a – no metal equivalents are being reported.

Criteria	JORC Code explanation	Commentary
<b>Relationship between mineralisation widths and intercept lengths</b>	These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').	N/a – no significant drill results has being reported.
<b>Diagram</b>	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	Refer to Figures in body of text.
<b>Balanced reporting</b>	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	Any historical results considered significant are to be reported.
<b>Other substantive exploration data</b>	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	Legacy commissioned Geodiscovery to undertake a target review including 3D inversion modelling of the regional aeromagnetic dataset to establish the depth to top of body. S2 has independently commissioned Newexco to undertake 3D inversion modelling and forward modelling of the magnetics which has supports the findings of Geodiscovery. S2 has completed a regional Tensor IP / MT survey over the target area. The survey was carried out by Fender Geophysics with processing and inversion modelling completed by Southern Rock Geophysics.
<b>Further work</b>	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive	S2 is currently assessing various ground geophysics options over the broader target area with the aim of identifying the limits of alteration associated with any porphyry mineralisation..