

ASX Announcement 16 June 2021

Exploration Update: South Cobar Polymetallic Project

- Technical review confirms multiple Cu-Au and Pb-Zn-Ag targets, including a drill-ready target at Achilles 1
- High resolution airborne magnetic and radiometric survey over entire tenement to commence this month to progress target definition
- Advanced inversion modelling of recent government airborne electromagnetic survey underway
- Prominent exploration geologist and former Head of the Geological Survey of NSW appointed to lead program

Strategic Energy Resources (SER) is pleased to announce an update on exploration activities covering our 100% owned EL9012 South Cobar in NSW. The tenement lies along the eastern margin of the Siluro-Devonian Rast Trough at the southern end of the Cobar Basin. The Cobar region has once again become a focus for exploration following multiple new discoveries such as the Aurelia Metals Ltd (ASX: AMI) Federation deposit (3.5 Mt at 5.5% Pb, 9.8% Zn, 1.4g/t Au, 7g/t Ag and 0.3% Cu)¹, and the vast array of highly sought-after precompetitive data released by the NSW Government as part of their MinEx CRC program. SER successful received Ministerial consent to apply for EL9012 within the South Cobar Mineral Allocation Area in December 2019 during the first Expressions of Interest period.

EL9012 is in the proximity of the existing undeveloped volcanic-hosted massive sulfide (VHMS) mineralisation at Brown's Reef (Pb-Zn-Cu-Ag-Au); and covers a number of underexplored structural corridors and historical mineral occurrences in a fertile stratigraphic sequence of the Cobar Supergroup (Figure 1).

Sedimentary cover within EL9012 is generally thin, with significant areas of basement outcrop. Basement lithologies are dominated by the early Devonian submarine, felsic lava-sill complexes of the Ural Volcanics, which have largely been untested for VHMS mineralisation. The underlying late Silurian Preston Formation, which hosts VHMS mineralisation at Brown's Reef, does not outcrop within the exploration licence, however there are indications from previous exploration that packages of this unit occur along the Woorara Fault which cuts the east of the tenement. Furthermore, the exploration area is intersected by a number of structural corridors, which have potential to host Cobar-style Cu-Au and Pb-Zn-Ag mineralisation.

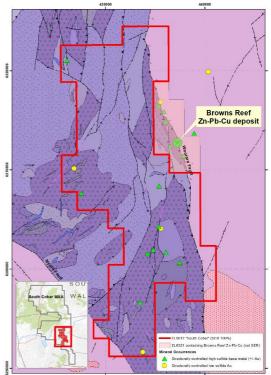


Figure 1: SER's EL9012 South Cobar project with basement geology and known mineral occurrences.

¹ See AMI announcement of 23 February 2021: <u>Updated Federation Mineral Resource Estimate</u> strategicenergy.com.au



Technical review confirms multiple Cu-Au and Pb-Zn-Ag targets

In the period since grant in November 2020, SER has undertaken a detailed technical review of historical exploration and geophysical datasets covering EL9012, along with recently completed Geological Survey of NSW (GSNSW) HyLogger[™] spectral scanning of two historical diamond holes from the Achilles 1 prospect. Eight targets have been identified, which are shown on Figure 2 and summarised in Table 1. The targets include a drill-ready target at Achilles 1, which is described in detail in a later section of this announcement.

Target	Description
Achilles 1	Drill-ready target for Cobar-style Cu-Au mineralisation. See full description below.
Mount Bowen	Described in GSNSW mineral occurrence database as a zone of minor disseminated sulfides, including chalcopyrite and galena, within strongly recrystallised rhyodacitic tuffs of the Ural Volcanics. No systematic exploration has been undertaken. Further work required to assess the prospect's potential for VHMS mineralisation.
Ural Mine	Historical gold-silver workings last worked in 1934, with a 5.7m main shaft accessing a quartz reef up to 1.5m in width. Dump material is quartz-carbonate-sulfide and a sample collected by Anaconda Australia Inc. in 1966 assayed 1% Cu, 1.48% Pb and 0.015% Zn., Further work required to assess the prospect's potential for VHMS mineralisation.
Salmon	Major NNW-trending structure that is cut by numerous NW-trending faults, which lies under shallow cover and is essentially unexplored. Potential for Cobar-style Cu-Au and Pb-Zn-Ag mineralisation.
Tooronga East	Located in a structurally complex zone at the S end of the Salmon structure, adjacent to an interpreted splay off the Woorara Fault. Detailed mapping by the Electrolytic Zinc Company in 1980 identified two fossiliferous chert horizons (potentially after limestone) associated with welded tuffs, which represent interludes in rhyolitic volcanism. Subsequent RAB drilling of the western chert horizon returned bottom of hole values of up to 1600ppm Pb, 410 ppm Zn and 310 ppm As, with the Pb anomaly open under shallow cover to the north. Further work is required to assess the prospect's potential for VHMS mineralisation.
Woorara Fault North	A major structural corridor that bounds the eastern margin of the Rast Trough and is spatially associated with VHMS mineralisation at Brown's Reef. The northern portion of the fault within EL9012 lies under shallow cover and is essentially unexplored. Further work is required to better define conceptual structural targets for Cobar-style Cu-Au and Pb-Zn-Ag mineralisation.
Woorara Fault South	A major structural corridor that bounds the eastern margin of the Rast Trough and is spatially associated with VHMS mineralisation at Brown's Reef. The southern portion of the fault within EL9012 lies under shallow to moderately deep cover and is essentially unexplored, other than a 1.5km section immediately south of Brown's Reef. Further work is required to better define conceptual structural targets for Cobar-style Cu-Au and Pb-Zn-Ag mineralisation.
Southern Corridor	Approximately 14 x 2km N-S trending corridor centred around a subtle gravity high, which is spatially associated with seven known base and precious metal occurrences. Detailed surface mapping by Dominion Gold in 1993 identified a 3 x 1km quartz-sericite alteration zone on the eastern and southern flanks of Mt Tooronga, with patchy disseminated sulfide boxworks in feldspar-quartz-phyric lavas and volcaniclastic rocks. Rock chip samples collected by Dominion assayed up to 680ppm As, 4710ppm Bi, 137ppm Mo and 820ppm Pb. Dominion considered Mt Tooronga to be prospective for VHMS mineralisation, but planned further work was not undertaken. Basement geology is well exposed on the western side of the Southern Corridor, but the eastern margin is largely obscured by recent transported cover.

Table 1: Summary of identified exploration targets, EL9012.



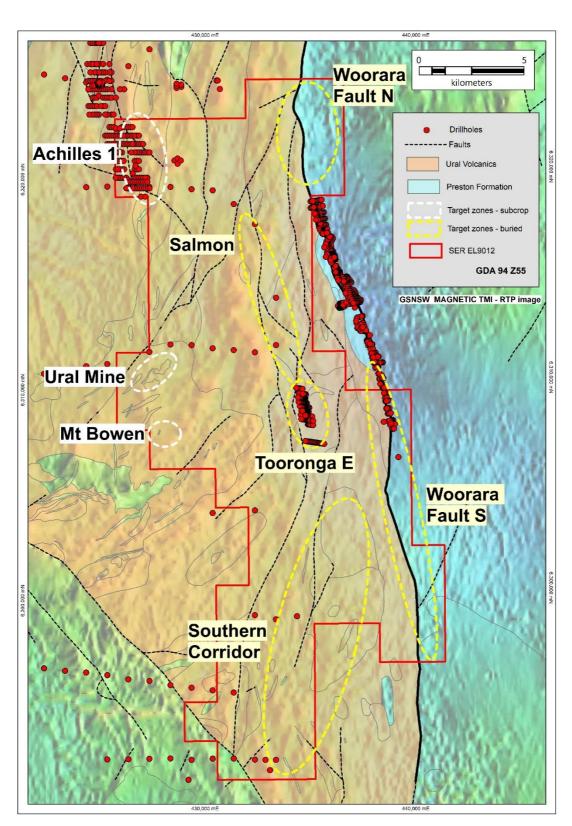


Figure 2: Location of SER exploration targets within EL9012. White ellipses represent targets in areas of good quality basement outcrop. Yellow targets are significantly obscured by cover. The base map shows the total magnetic intensity, with Lachlan Orogen geological units, boundaries and faults.



Achilles 1 Copper-Gold Prospect

Achilles 1 lies at the southern end of a major shear that also hosts Australian Gold and Copper Ltd (ASX: AGC) Achilles 2 and Achilles 3 prospects, the latter of which has recently reported significant base metal sulfide drill intersections.²

Exposed basement at Achilles 1 comprises sheared, argillically-altered sediments and tuffs that contain a number of shear-parallel lenses of strong silicification and quartz veining. Grid based soil sampling undertaken by Santa Fe Mining (SFM) in 1996 and 1997 defined strong copper (up to 169ppm), lead (to 810ppm) and zinc (to 1680ppm) with lesser gold (to 15ppb), molybdenum (to 23ppm) and arsenic (to 150ppm) anomalies coincident with mapped ~N-S striking zones of strong silicification. A program of rotary air blast drilling undertaken at Achilles 1 in 1998 by Savage Australian Exploration under a joint venture agreement with SFM also returned anomalous base metal values of up to 410ppm Cu, 2050ppm Pb and 818ppm Zn.

In 2005, Western Plains Gold (WPG) drilled two diamond drillholes at Achilles 1, designed to test two of the soil anomalies identified by SFM. Hole DDH-A1-1 was abandoned due to caving at 184.1m, failing to reach its target depth of 250m. The hole intersected significant metamorphic recrystallisation and silicification related to shearing, but no evidence of base metal mineralisation. DDH-A1-2 was successfully completed to 300.4m and intersected a broad zone of intense hydrothermal alteration, with blebs of chalcopyrite and minor chalcocite. The hole returned a peak value of 0.33% Cu from 90m to 92m, within a 64m zone averaging 0.10% Cu, from 76m to 140m. SER analysis of recently completed HyLogging[™] of these two diamond holes by the GSNSW reveals mineralogical changes that are typical for Cobar-style Cu-Au mineral systems, including replacement of phengite by muscovite, replacement of Mg-chlorite by Fe-chlorite and destruction of potassium feldspar. These trends, coupled with the low-grade copper mineralisation in DDH-A1-2, suggest that the two drillholes represent near misses.

WPG also collected detailed ground magnetics over a 1500 x 500m area at Achilles 1. SER has replotted this dataset and identified a NE-striking magnetic high that is coincident with anomalous copper in soils (Figure 3). The projection of this feature to the northeast is also coincident with anomalous RAB copper results and an apparent steeply E-dipping conductor on Line 1025 of the GSNSW-Geoscience Australia Cobar airborne electromagnetic (AEM) survey, that was released in late 2020 (Figure 4).

Following acquisition of new high-resolution aeromagnetic and radiometric data to further refine drill targeting (see below), SER plans to complete a drilling program in late 2021 and early 2022 at Achieles 1 to effectively test the prospect for Cobar-style Cu-Au mineralisation.

² See AGC announcement of 3 May 2021: <u>Base-Metal Sulphides overlying EM Conductor at Achilles</u>

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RAB Cu ppm

100 – 150

○ 150 – 400

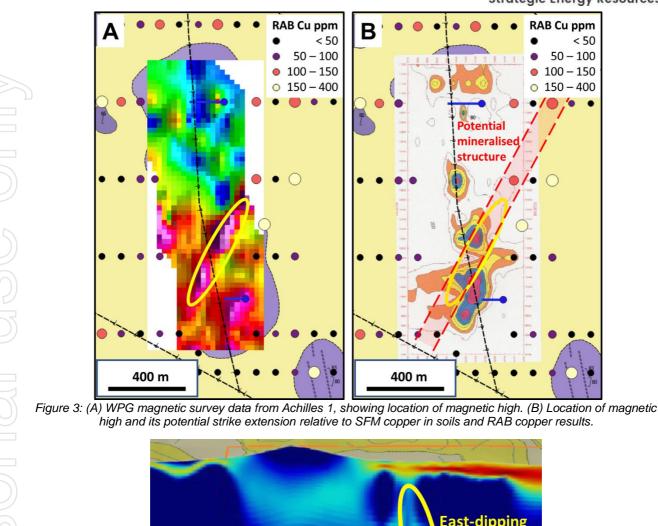
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Potential mineralised structure

< 50

50 - 100



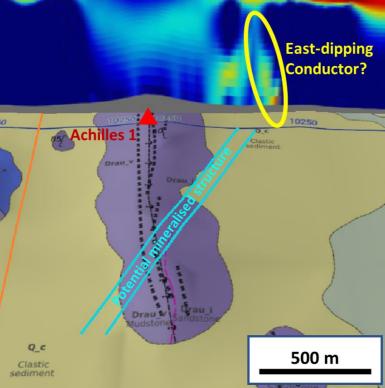


Figure 4: 3D perspective view looking north of surface geology at Achilles 1, showing location of potential mineralised structure defined from WPG ground magnetics, relative to an apparent steeply East-dipping conductor on GSNSW-Geoscience Australia Cobar AEM Line 10250.

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Airborne magnetic and radiometric survey

To better refine drill targeting at Achilles 1 and to focus future exploration efforts for other targets within EL9012, SER have contracted Thomson Airborne to undertake an airborne magnetic and radiometric survey over the entire licence. The survey will be flown over 5-7 days during late June and/or early July. The fixed-wing single engine Cessna 210 will fly 100m spaced East/West orientated lines with more detailed infill lines across a northern area, which includes Achilles 1 and a central region which covers the Mount Bowen, Ural Mine and Tooronga East prospects (Figure 5). Landholder notices have been sent and SER will have a representative on ground prior to the survey starting.

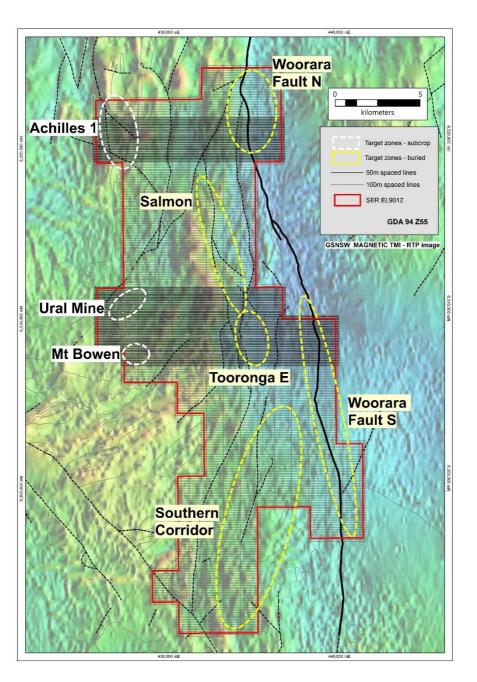


Figure 5: Location of the proposed airborne magnetic and radiometric survey lines over EL9012. White ellipses represent targets in areas of good quality basement outcrop. Yellow targets are significantly obscured by cover. The base map shows the total magnetic intensity, with Lachlan Orogen lithological boundaries and faults.

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Advanced inversion modelling of government airborne electromagnetic survey

The GSNSW-Geoscience Australia Cobar AEM survey completely covers SER's EL9012, with a line spacing of 2.5km. SER has engaged Intrepid Geophysics to undertake advanced 2.5D inversions of data collected over EL9012 and is currently reviewing this data, which will be combined with existing geophysical datasets, previous exploration in the EL and SER's new magnetic and radiometric data ahead of conducting appropriate infill ground geophysical and geochemical surveys to identify further drill targets across the EL.

Prominent exploration geologist appointed to lead NSW program

SER have engaged Dr Chris Yeats, former Executive Director of the Geological Survey of NSW, to lead their NSW exploration program.

Chris is an ore deposit geologist and geochemist with 30 years' experience in precious and base metal exploration and research in terranes ranging in age from the Archaean to modern active seafloor hydrothermal systems. From 2015 to 2020, he led the GSNSW, driving a transformation of its precompetitive geoscience acquisition and delivery.

Chris was instrumental in leading the GSNSW's engagement in the MinEx CRC and its highly successful Statewide Mineral Potential Mapping project, which included the development of new insights into the mineral systems of the Cobar Basin. He brings extensive leadership experience and strong technical skills in mineral system science, exploration targeting, geochemistry, petrology, geological mapping and core logging to SER.

Next Steps

In the coming months, following interpretation of the newly acquired airborne magnetic and radiometric data and negotiation of access agreements with landholders, SER will commence on-ground activities in EL9012, which will include a program of drilling at Achilles 1.

The South Cobar region, including EL9012, will also continue to be a focus for GSNSW's precompetitive data acquisition, including drilling, as part of the GSNSW's engagement in the MinEx CRC's National Drilling Initiative (<u>https://minexcrc.com.au/program-three-national-drilling-initiative/</u>). As an Affiliate Member of MinEx CRC, SER is well-placed to leverage the results of this work into successful exploration outcomes.

This announcement is authorised by the Strategic Energy Resources Limited Board. **Executive Chairman Stuart Rechner**

For further information, please contact Mr Rechner +61 3 9692 7222 or visit website www.strategicenergy.com.au

The information in this report that relates to Exploration Results is based on information compiled by Mr Stuart Rechner BSc (Geology) MAIG MAusIMM, a Member of the Australian Institute of Geoscientists and the Australasian Institute of Mining and Metallurgy. Mr Rechner is a Director and shareholder of Strategic Energy Resources Ltd. Mr Rechner has sufficient experience which is relevant to the styles of mineralisation and types of deposits under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Rechner consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.



JORC Code, 2012 Edition – Table 1 Section 1 Sampling Techniques and Data

Criteria	Commentary
Sampling techniques	 In 1981 the Electrolytic Zinc Company (EZ) completed a 135 hole Rotary Air Blast (RAB) drilling program at Tooronga East for a total of 944.5m. Holes were spaced at 25m and 50m on 200m-spaced, 100°-oriented gridlines. No information has been reported relating to how the grid was established. In 1996 and 1997, Santa Fe Mining (SFM) completed soil sampling on a 1500m x 600m grid at Achilles 1. Following an initial orientation survey of 37 samples, a further 303 samples were collected at 25m sample spacing on 100m-spaced, east-west oriented gridlines. SFM reports that the grid was established. In 1998, Savage Australian Exploration (SAE) under joint venture with SFM completed a program of 182 RAB holes for a total of 3270m of open hole blade and hammer. Holes were spaced at 100m, or more, on 400m-spaced, east-west gridlines at Achilles 1 and Achilles 2 (which is not held by SER). 135 of these holes lie within EL9012. SAE report using DGPS to locate points within and extend the existing Achilles grid established by SFM. In 2005, Western Plains Gold (WPG) drilled two diamond drill holes totalling 484.5m at Achilles 1. The holes were located on a re-established portion of the SFM/SAE grid. No information has been reported relating to how the grid to be the grid was established.
Drilling techniques	 The EZ RAB program was completed by Cherlor Air Drillers using a modified Ingersol-Rand T-3 rig and comprised vertical holes to a maximum depth of 58m, but typically <10m, which were designed to sample covered basement. The SFM soil program was completed using a hand auger. The SAE RAB program was completed by Wilson Dilling using a Pioneer Mole Rig. 145 of the holes were vertical. Collar inclination is reported for inclined holes, but no downhole survey information is recorded. The deepest hole reached a depth of 48m, with most holes between 10m and 25m in depth. Both WPG diamond drillholes were completed by Anderson Drilling Company using a U650 mounted on a DAF truck. Both holes were surveyed using an Eastman Multishot Camera. DDH-A1-1 was surveyed at 0, 72m, 120m and 180m downhole depth. DDH-A1-2 was surveyed at 0, 6m, 150m and 300m downhole depth. DDH-A1-1 was cored at HQ diameter from surface to 53.3m and NQ diameter from 53.3m to end of hole (184.1m). DDH-A1-2 was cored at NQ diameter from surface to end of hole (300.4m)
Drill sample recovery	 Chip and core recovery methodologies and values are not reported for the historical RAB and diamond drilling programs at Tooronga East and Achilles 1.
Logging	 Geological logging by field geologists recorded qualitative descriptions of RAB chips and diamond drillcore. No systematic photography was undertaken of chips or core trays at the time of collection. SER has secured high resolution digital photography and mineralogical scanning of DDH-A1-1 and DDH-A1-2 completed by the Geological Survey of NSW's (GSNSW's) HyLogger™ facility at Londonderry in June 2021.
Sub-sampling techniques and sample preparation	 For the EZ RAB program, samples of bedrock material were collected from the bottom of each hole for analysis. For the SFM soil program, samples were collected at depths ranging from 2cm to 20cm in a poorly developed B horizon. For the SAE RAB program, samples were collected every 1.5m and split 12.5(sample)/87.5(residue) on site to create a 2kg to 3kg assay sample. 34 holes that did not reach basement were not sampled, to reduce assay costs. Holes were assayed from surface, except where barren overburden was common, and many samples were subsequently combined into 3m composite samples at the lab prior to analysis. For the WPG diamond drilling program, 2m core intervals were selected for assay based on geological logging. Half core samples were crushed at the laboratory to 85% passing 75µm, then riffle split to 3kg for analysis.
Quality of assay data and laboratory tests (Equipment used)	 For the EZ RAB program, a total of 134 samples were assayed by Comlabs in Adelaide for Pb and As (by XRF) and Cu and Zn (by AAS).

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•	For the SFM soil program, 37 orientation samples were assayed by ALS in Orange for
	Au (fire assay) and Cu, Pb, Zn, Ag, and As (by AAS) and a further 303 samples were
	analysed at the same laboratory for the above elements in addition to Bi and Mo (also
	by AAS).

- For the SAE RAB program, a total of 1219 samples were assayed by ALS in Orange for ٠ Au (50g fire assay) and Cu, Pb, Zn, Ag, As, Fe, Mn and S (all by ICP-AES).
- For the WPG diamond drilling program, a total of 135 samples were assayed by ALS in orange for Au (50g fire assay) and Ag, Cu, Pb, Zn and K (all by aqua regia digest ICP-AES).
- Laboratory in-house QAQC includes the use of internal lab standards, splits and • duplicates and participation in external umpire laboratory assessments.

Verification of sampling and assaying	Not reported.
Location of data points	 Soil sample locations at Achilles 1 have been extracted from historical exploration reports. Drillhole collar locations, elevations, azimuths and inclinations at Achilles 1 and Tooronga East have been extracted from historical exploration reports and verified against GSNSW's publicly available drill collar location dataset. Locations are reported in metres in GDA94 MGA Zone 54 and relative depths in AHD.
Data spacing and distribution	 Drill hole spacing / targeting at Achilles 1 and Tooronga East is appropriate for early exploration. Information available is not sufficient for the estimation of a Mineral Resource.
Orientation of data in relation to geological structure	 Drillhole orientation relative to geological structures has not been reported. Downhole lengths are not considered true widths given limited geological understanding.
Sample security	No sample security issues are reported.
Audits or reviews	None undertaken.

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JORC Code, 2012 Edition – Table 1 Section 2 Reporting of Exploration Results

Criteria	Commentary
Mineral tenement and land tenure status	 EL9012 is a granted tenement held 100% by SER. The project is located 10km west of Lake Cargelligo, NSW. The tenement is in good standing with no known impediments.
Exploration done by other parties	 Since 1965, 34 Group 1 exploration licences have been held over all or part of EL9012. Previous explorers have focussed on areas of outcropping basement, and targeted polymetallic Cobar-style and/or VHMS mineralisation, with some exploration for orogenic, intrusion related and epithermal gold, as well as tin-tungsten. Most exploration within EL9012 has been regional reconnaissance, with closer-spaced drilling limited to Achilles 1, Tooronga East and the Woorara Fault; and detailed surface mapping and/or sampling limited to Achilles 1, Tooronga East, Mount Tooronga, Ural Mine and Anaconda. Details of historical drilling and soil programs reported in this release are provided in Section 1. In 1966, Anaconda Australia Inc. collected 752 rock chip geochemistry samples across EL28, which incorporates the majority of the area covered by EL9012. Sample locations, geochemical results and the analytical techniques used for this survey are not available in the GSNSW database. However, the company's annual report quotes analytical values of 10,000ppm copper, 14,800 ppm lead and 1,500 ppm zinc for a sample of dump material collected from workings 1.5 miles north of the Ural Trig. Station, which corresponds to the location of the Ural Mine. In 1993, Dominion Gold completed a detailed 1:10 000 scale surface mapping and rock chip sampling program at Mount Tooronga. Sample locations are shown on a topographic map. A total of 125 rock chip samples were collected and assayed by the same laboratory for Ag, Co, Cd, Ni, Mo, Sb, Te and Hg (by AAS), and Ba, Sn, W and Th (by XRF). In 2005, WPG completed a ground magnetic survey over Achilles 1, 364 measurements were taken at 12.5m intervals on 16 100m-spaced lines over an area of 1500m x 500m. No details of the survey instrumentation were included in the WPG report. In 2014, Kidman Resources commissioned a gravity survey, which consisted of several gravity traverses along public and private roads, tracks and fence
Geology (Target deposit type)	 Recent cover within EL9012, is generally thin (0-100m), with significant areas of outcrop. Mapped and interpreted basement lithologies comprise the early Devonian submarine, felsic lava-sill complexes of the Ural Volcanics, which have largely untested potential for VHMS mineralisation. The EL is intersected by a number of structural corridors, which have potential to host Cobar-style Cu-Au and Pb-Zn-Ag mineralisation.
Drill hole Information	 See table and figures in main body of text. Drill collar table for Achilles 1 diamond drilling re-stated below (GDA94 MGA Zone 55). <u>Hole ID Easting Northing RL Azimuth Dip Total depth</u> DDH-A1-1 426358 6319965 205 -55 270 184 DDH-A1-2 426246 6320984 205 -55 270 300.4
Data aggregation methods	 Location and assay data for previous drilling have been extracted from historical exploration reports and verified against GSNSW's publicly available drill collar location and drillhole geochemistry datasets. The geochemically anomalous interval reported for DDH-A1-2 has been calculated using a cutoff of 100ppm copper.
Relationship between mineralisation widths and intercept lengths	 Downhole lengths are not considered true widths given limited geological understanding and the reliance on historical reporting.

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Diagrams	See figures in release.
Balanced reporting	 This report is based on publicly available historical exploration data. Further details will be reported in an upcoming Exploration Update as SER's work program progresses.
Other substantive exploration data	 SER has reinterpreted the 2005 ground magnetic data collected by WPG to produce a detailed magnetic map of Achilles 1 (see figure in release). SER has integrated the 2014 Kidman Resources gravity data with existing publicly available regional gravity data (4km spaced stations) to produce a new isostatic bouguer anomaly map of EL9012.
Further work	 SER has engaged Intrepid Geophysics to undertake 2.5D inversions of relevant portions of the 2019 GSNSW/Geoscience Australia 2.5km spaced Cobar Airborne Electromagnetic Survey. These inversions are currently being interpreted by SER. As described in the release, SER has engaged Thomson Airborne to undertake an airborne magnetic and radiometric survey over EL9012 to define potential target areas. Based on the results of the new geophysical data and existing historical data, SER will engage stakeholders to reach access agreements and execute a drilling program at Achilles 1 to test for Cobar-style shear-hosted mineralisation.

 SER will undertake appropriate exploration over other targets within EL9012 following assessment of the new geophysical data.