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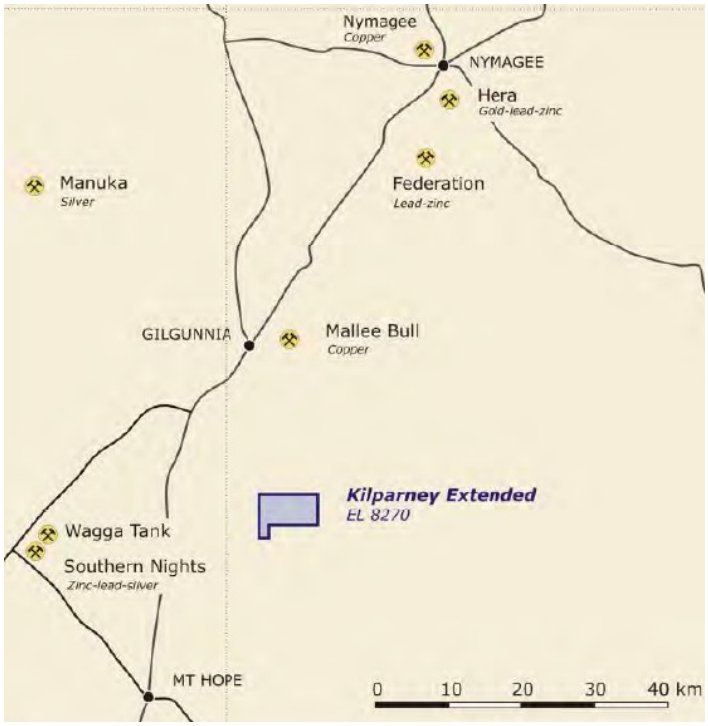
Kilparney Extended Geophysics Update

The Company has completed a gravity geophysical survey over EL8270 located 40 kilometres south of Nymagee in Central NSW

Deep (and conductive) overburden to a depth of approximately 90m in many places in the region mitigates against some geophysical techniques. As basement structure is a key factor in localising the Cobar style deposits, infill gravity was proposed. This technique has been applied in the region and at Golden Cross' Burra Prospect near Canbelego with encouraging results.



The area of EL8270 is characterised by sparse outcrop and overburden of unknown depth. The main feature of interest has been the western end of the licence adjacent to the Kilparney Prospect, a regional magnetic feature which has been prospected previously by other explorers.

Current regional gravity data is wide spaced approximately 4km x 2km, with insufficient stations over the main features to achieve resolution suitable for targeting. There is potential to clarify basement structure at reasonable cost with infill stations.

To assess the usefulness of the gravity technique, Cobar based, Precision Exploration Services were engaged to access EL8270 and collected gravity readings on a first pass 800m x 800m grid pattern. Dense scrub impacted access to most of the sites.

A total of 54 sites were accessed. The data have been collated and reviewed to produce preliminary images as shown in Figure 1 and 2

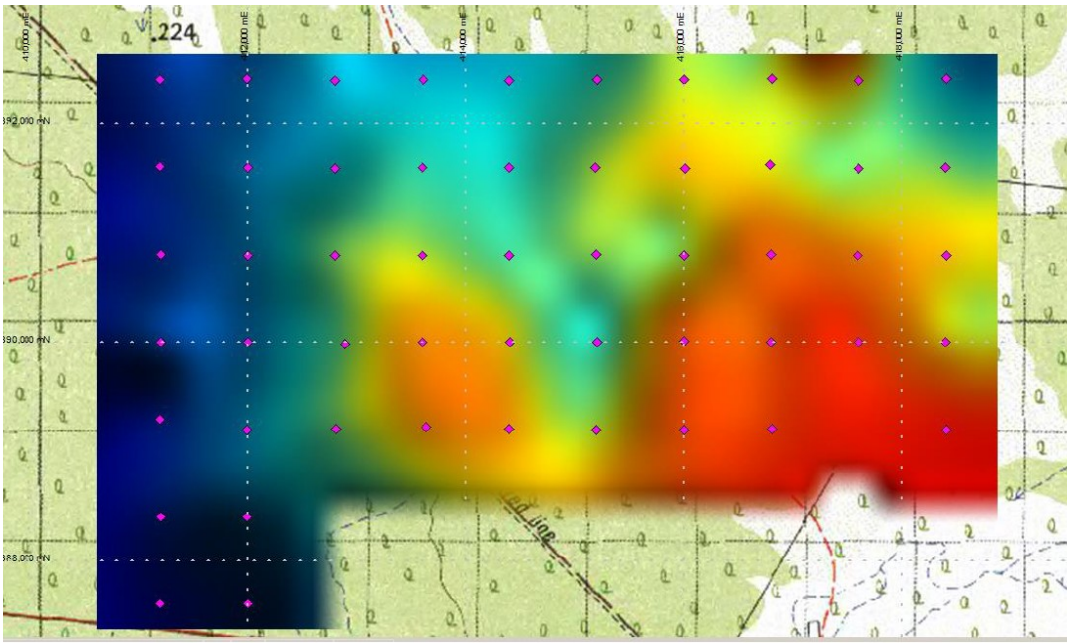


Figure 1 Bouguer Gravity

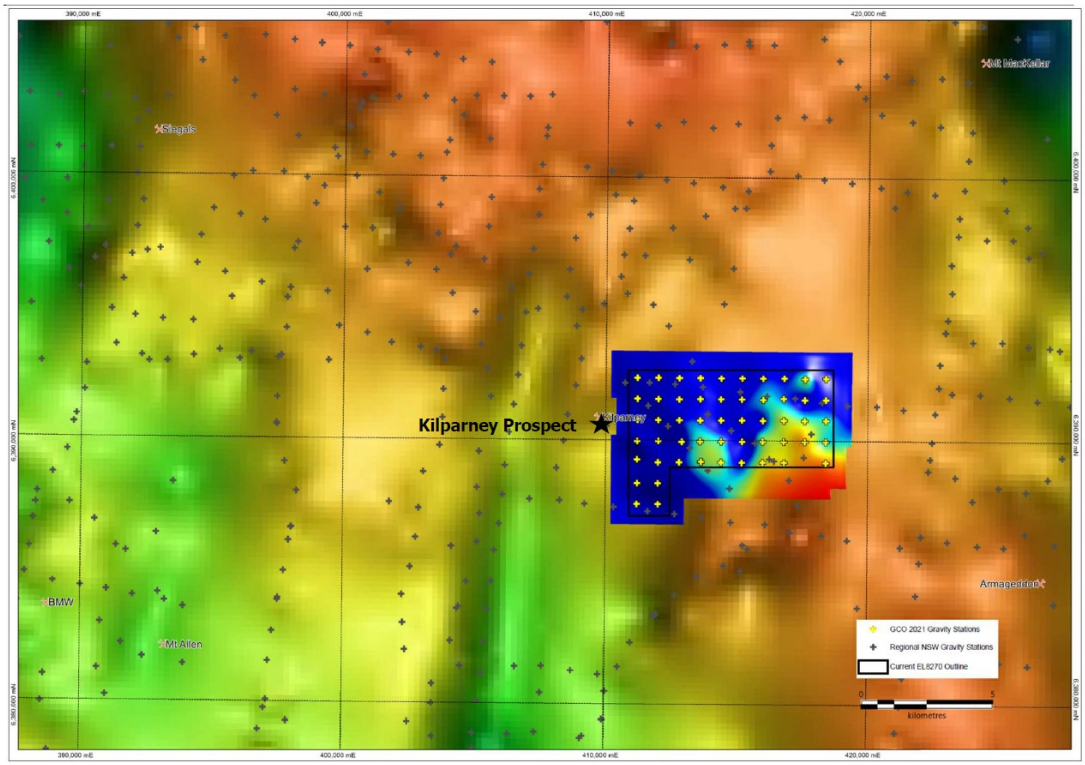


Figure 2 Bouguer Gravity and regional data image

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While no clear gravity features are evident in the images adjacent to the Kilparney Prospect, a gravity high at the eastern end of EL8270 is of interest where it coincides with a magnetic high in regional datasets.

The data is to be interpreted in more detail by geophysicist and further processing and evaluation are to be planned in the next stage of work.

This announcement has been reviewed and authorised for release by the GCR Board.

Compliance Statements
Competent Person

JORC Table 1
Section 1 – Sampling Techniques & Data
Section 2 – Reporting of Exploration Results

The information in this report that relates to Exploration Results is based on information from previous reports, compiled by Mr Bret Ferris, who is a Member of the Australasian Institute of Geoscientsts. (AIG). Mr Ferris is a consultant to Golden Cross Resources Limited, and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity he is undertaking 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 Ferris consents to the inclusion in this report of the matters based on that information in the form and context in which it appears.

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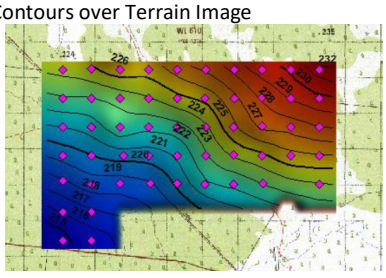
JORC Compliance Statement: Kilparney Gravity Survey

Sections 1 and 2 of Table 1, JORC Code, 2012 Edition

Section 1: Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (eg 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.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.*	• The Kilparney Gravity Survey was completed by Precision Exploration Services, Cobar NSW. • After mobilization, initial access recce & establishment of a local GPS Base site; a Gravity Control Base point (2100675), was brought in from the nearest AFGN Base 1993912105 , situated on the Kidman Way South of Gilgunnia. • The GPS was initially run from autonomous coordinates & files of 30 second static data were collected for both onsite check processing & later submission to Trimble RTX Post processing • The carried in gravity base point (2100675), was located on the main access; the transecting cleared & graded Gas Pipeline. From this base, traverse reading loops were undertaken, carrying gravity ties out across the grid area. • Grid gravity traversing was effected with station navigation per a Garmin Montana 680 Handheld GPS. • Stations were centred on a nominal 800m square grid. Some station sites were moved to read stable ground with acceptable sky/satellite view. • Gravity Readings were taken with a Model G Lacoste & Romberg Meter • Survey of reading station coordinates & levels were measured with 6 minute x 30 second static post processed baselines with a pair Trimble SPS880/R8 units • With the returned RTX GPS Base GDA 94 LL coordinates, the final GPS survey project was re-processed per Trimble TBC to generate corrected positions for all measured stations. **Gravity Processing** • Instrument gravity readings were processed with STRIDER Gravity Software. • Reductions for TIDE, LATTITUDE undertaken with GRAVRED with a residual Drift file produced. • Further Bouguer corrections were undertaken through BOUGUER. This process applied corrections for FREE AIR & Infinite Slab Bouguer • The entire survey area is gently tilted from the NE Corner to the SW Corner. • RL Contours over Terrain Image  The slightly smooth gradient did not require any terrain correction
Drilling	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and*	• N/A]

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Criteria	JORC Code explanation	Commentary
techniques	*details (eg 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).*	
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *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.*	• N/A
Logging	• *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.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• N/A
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *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.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• N/A.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *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.* • *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	• N/A • N/A • N/A
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• N/A
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.*	• Survey of reading station coordinates & levels were measured with 6 minute x 30 second static post processed baselines with a pair Trimble SPS880/R8 units • MGA GDA94 z55

Criteria	JORC Code explanation	Commentary
	• *Quality and adequacy of topographic control.*	
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *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.* • *Whether sample compositing has been applied.*	• Stations were centred on a nominal 800m square grid. Some station sites were moved to read stable ground with acceptable sky/satellite view.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *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.*	• Subsurface structure is unknown. Data points are on a 800m square grid to avoid any data bias in a particular direction
Sample security	• *The measures taken to ensure sample security.*	•
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• Planned geophysicist review will address any sampling and data issues.

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.* • *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.*	• Kilparney Extended (EL8270) held 100% by Golden Cross Operations PL, a wholly owned subsidiary of Golden Cross Resources Ltd under EL8270 • EL8270 is located over the pastoral property Kilparney • EL8270 is current to 6 May 2023 over an area of 11 graticular units or ~14 sq. kilometres.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• The region has been explored by Golden Cross Operations under a group of tenements [The Rast Group] from 2007 to 2014. • Most of the area of EL8270 was vacant for many years due to a dearth of obvious targets outside the Kilparney Magnetic Feature, and low understanding of the regolith, and bedrock structure. The key to the area is structure and AirborneEM and Gravity combined with Magnetics offer a good combination of techniques to identify basement structural targets for more detailed ground work. •
Geology	• *Deposit type, geological setting and style of mineralisation.*	• Cobar style lode deposit under up to 90m of overburden.

Drill hole Information	• *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*
		• N/A

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Criteria	JORC Code explanation	Commentary
	○ *down hole length and interception depth* ○ *hole length.* • *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* • *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.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• N/A
Relationship between mineralisation widths and intercept lengths	• *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 (eg 'down hole length, true width not known').*	• N/A
Diagrams	• *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.*	• N/A
Balanced reporting	• *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.*	• N/A
Other substantive exploration data	• *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.*	• N/A
Further work	• *The nature and scale of planned further work (eg 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.*	• The initial data set will be passed to a geophysisict for review and interpretation. Where warranted infill reading will be taken to improve resolution of selected areas. • Evaluation of other geophysical techniques to validate features, ahead of assessment for shallow drilling to bedrock. .

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