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Massive Sulphide Copper Intersection at Jervois

- Rockface drillhole intersected **massive bornite-chalcopyrite** mineralisation.
- Visual estimates of **90% copper sulphides over 3.02m true thickness**.
- **The Resource is open at depth and to west-south-west.**
- DHEM Survey of hole underway.
- Potential to:
 - Expand Rockface Mineral Resource and Ore Reserve, and
 - Extend the mine plan.

KGL Resources Limited (ASX: KGL) (KGL or the Company) is delighted to report the intersection of massive copper sulphides in KJCD481D3, a hole at the periphery of the high grade Rockface orebody.

As part of its Feasibility Study, KGL is undertaking a program of development drilling at Jervois which is designed to improve the accuracy of the mineral resource model for mine design purposes, and to convert JORC Inferred to Indicated Resource category. The drilling has been completed for the Reward and Bellbird Deposits. Assays for the Reward holes have been reported (13/5/2021, 20/7/2021 and 22/9/2021) and final assay results are imminent for the Bellbird drilling.

A series of 8 resource development drillholes have been scheduled for Rockface, of which 4 have been completed. By necessity, the development and confirmatory drilling was focused near the margins of the known deposits to better define their boundaries, and increase confidence.

The fourth hole drilled in the Rockface program intersected what is some of the richest copper mineralisation ever seen at Jervois (Figures 1 to 3). This high-grade mineralisation is visually estimated to contain 90% sulphide, principally chalcopyrite and bornite over a total true thickness of 3.02 metres. Table 1 provides more details on the visual estimate.

Importantly, this intersection unlocks the potential of the Rockface North deposit for high-grade extensions at depth and along strike (See Figures 4 and 5).

Down-hole EM contractors are currently on site and it is planned to carry out a DHEM survey on KJCD481D3 in the coming days. The visually high-grade intersection, does not correspond to any of the known EM conductors at Rockface even though the mineralisation is expected to be highly conductive and responsive to DHEM. The DHEM response and interpretation will be important for guiding further drilling, and will highlight the potential for resource extensions.

KGL CEO Simon Finnis comments, "This rather unexpected, but spectacular intersection at Rockface North, and the potential it reveals, is anticipated to materially add to the Rockface mineral Resource. The intersection is close to the current mine plan and will conceptually result in an extension to the west as a minimum. The core from the intersection is being afforded the highest priority for processing and half-core samples will be despatched for analysis in the coming days."

This announcement is based solely on a visual inspection of the core. The core samples have yet to be assayed.

This announcement has been approved by the Directors of KGL Resources Limited.



Figure 1: Massive copper-sulphide Intersection in in hole KJCD481D3



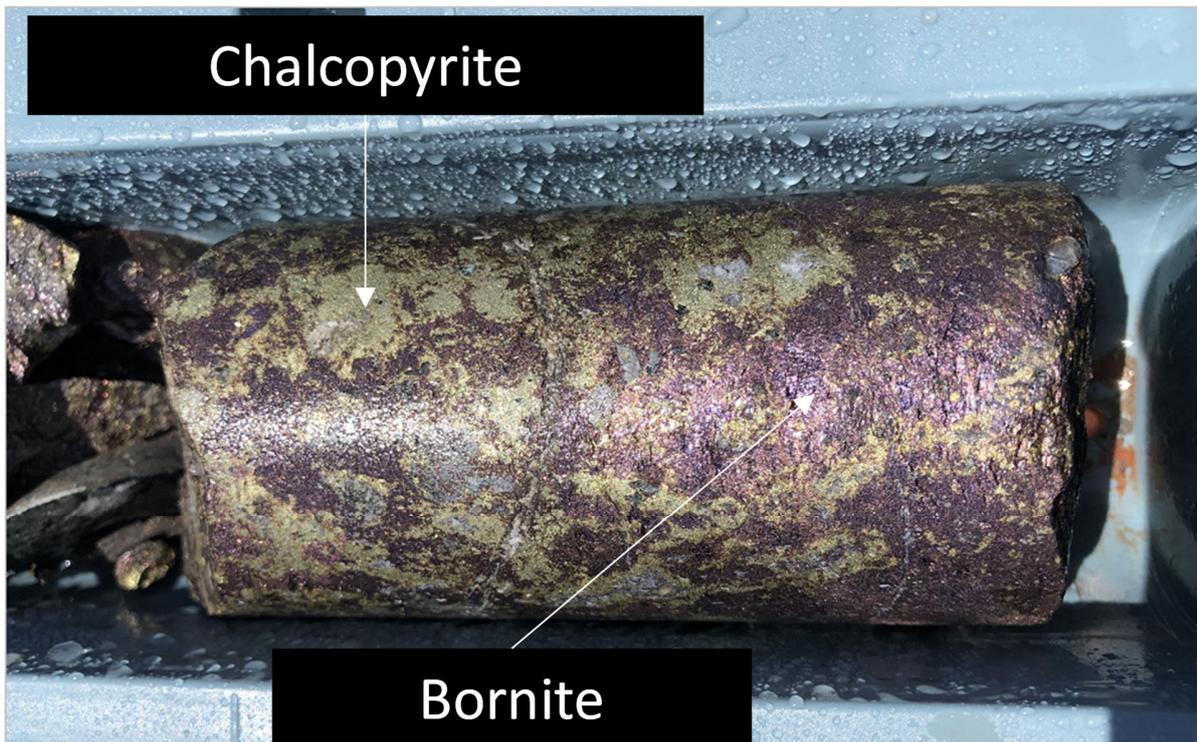


Figure 2: Close-up of massive bornite-chalcopyrite zone in hole KJCD481D3



Figure 3: Close-up of massive chalcopyrite-pyrite zone in hole KJCD481D3

Table 1 Summary Geological Log

From m	To m	Thickness m	Est True Thickness m	Sulphide Minerals	Nature	Est % Sulphide ¹	Alteration
720.3	725.3	5.0	4.32	n/a	n/a	n/a	Biotite Magnetite
725.3	727.2	1.9	1.64	Bornite Chalcopyrite	Massive	90	Massive Sulphide
727.2	728.2	1.0	0.86	n/a	n/a	n/a	Biotite Magnetite
728.2	729.8	1.6	1.38	Chalcopyrite Pyrite Sphalerite	Massive	90	Magnetite
729.8	733.7	3.9	3.37	Chalcopyrite Pyrite	Veined	3	Magnetite

Note:

1. Visual observations only, Assays pending.

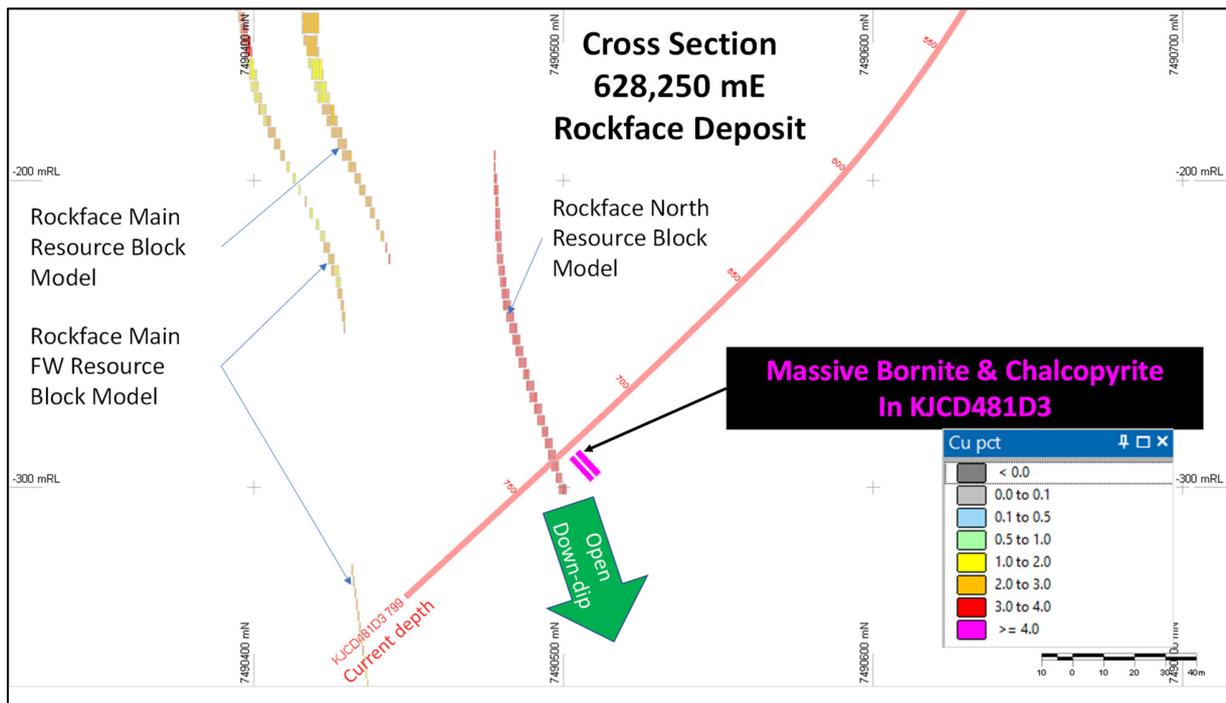


Figure 4: Cross-section of the lower part of hole KJCD481D3 which intersected massive copper-sulphides over an estimated true thickness of 3.02 metres. The intersection is near the extremities of the current inferred mineral resource estimate and shows that the Rockface North deposit remains open down-dip for further discovery.

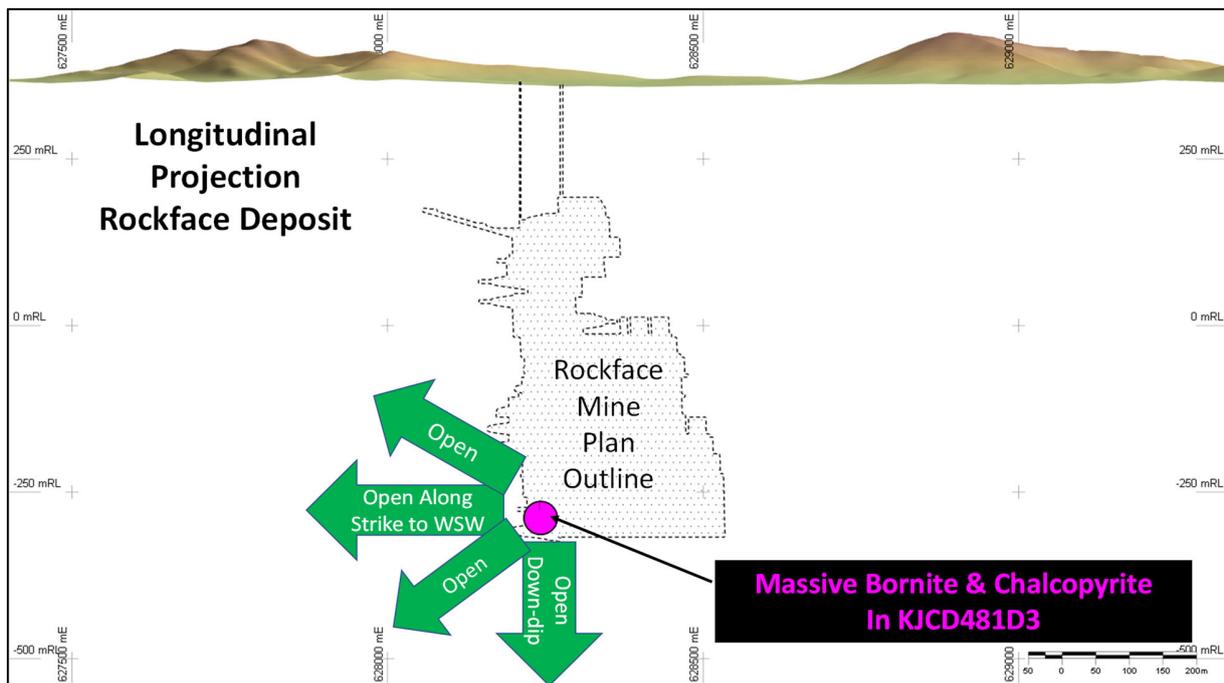


Figure 5: Longitudinal projection showing the outline of the Rockface mine plan and the location of the massive copper sulphide intersection in hole KJCD481D3. The potential for further exploration success exists both down-dip and along strike to the west-south-west.

Competent Persons Statements

The information in this announcement that relates to Exploration Targets and Exploration Results is based on data compiled by John Levings BSc, a Competent Person who is a Fellow of The Australasian Institute of Mining and Metallurgy. Mr Levings is Principal Geologist for the Company. Mr Levings has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration and to the activity, which is being undertaken to qualify as a Competent Person as defined in the 2012 Edition of 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Levings consents to the inclusion in the announcement of the matters based on his information in the form and context in which it appears.

JORC Code, 2012 Edition – Table 1

1.1 Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> 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. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. 	<ul style="list-style-type: none"> At Reward diamond drilling and reverse circulation (RC) drilling were used to obtain samples for geological logging and assaying. The core samples comprised a mixture of sawn HQ quarter core, sawn NQ half core and possibly BQ half core (historical drilling only). Sample lengths are generally 1m, but at times length were adjusted to take into account geological

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> 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. 	<p>variations. RC sample intervals are predominantly 1m intervals with some 2 and 4m compositing (historical holes only).</p> <ul style="list-style-type: none"> RC samples are routinely scanned by KGL Resources with a Niton XRF. Samples assaying greater than 0.1% Cu, Pb or Zn are submitted for analysis at a commercial laboratory. Mineralisation at all deposits is characterized by disseminations, veinlets and large masses of chalcopyrite, associated with magnetite-rich alteration within a psammite. The mineralisation has textures indicative of structural emplacement within specific strata i.e. the mineral appears stratabound. Documentation of the historical drilling (pre-2011) for Reward is variable.
<p><i>Drilling techniques</i></p>	<ul style="list-style-type: none"> 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). 	<ul style="list-style-type: none"> The KGL and previous Jinka-Minerals RC drilling was conducted using a reverse circulation rig with a 5.25-inch face-sampling bit. Diamond drilling was either in NQ2 or HQ3 drill diameters. Metallurgical diamond drilling (JMET holes) were PQ There is no documentation for the historic drilling techniques. Diamond drilling was generally cored from surface with some of the deeper holes at Rockface and Reward utilizing RC pre-collars. Oriented core has been measured for the recent KGL drilling.
<p><i>Drill sample recovery</i></p>	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The KGL RC samples were not weighed on a regular basis but when completed no sample recovery issues were encountered during the drilling program. Jinka Minerals and KGL split the rare overweight samples (>3kg) for assay. Since overweight samples were rarely reported no sample bias was established between sample recovery and grade. Core recovery for recent drilling is >95% with the mineral zones having virtually 100% recovery. No evidence has been found for any relationship between sample recovery and copper grade and there are no biases in the sampling with respect to copper grade and recovery.
<p><i>Logging</i></p>	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> All KGL RC and diamond core samples are geologically logged. Logging in conjunction with multi-element assays is appropriate for mineral resource estimation. Core samples are also orientated and logged for geotechnical information.

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> All logging has been converted to quantitative and qualitative codes in the KGL Access database. All relevant intersections were logged. Paper logs existed for the historical drilling. There is very little historical core available for inspection.
<p><i>Sub-sampling techniques and sample preparation</i></p>	<ul style="list-style-type: none"> <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i> <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i> <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i> <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i> <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> <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i> 	<ul style="list-style-type: none"> The following describes the recent KGL sampling and assaying process: <ul style="list-style-type: none"> RC drill holes are sampled at 1m intervals and split using a cone splitter attached to the cyclone to generate a split of ~3kg; RC sample splits (~3kg) are pulverized to 85% passing 75 microns. Diamond core was quartered with a diamond saw and generally sampled at 1m intervals with samples lengths adjusted at geological contacts; Diamond core samples are crushed to 70% passing 2mm and then pulverized to 85% passing 75 microns. Two quarter core field duplicates were taken for every 20m samples by Jinka Minerals and KGL Resources. All sampling methods and sample sizes are deemed appropriate for mineral resource estimation Details for the historical sampling are not available.
<p><i>Quality of assay data and laboratory tests</i></p>	<ul style="list-style-type: none"> <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i> <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> <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> 	<ul style="list-style-type: none"> The KGL drilling has QAQC data that includes standards, duplicates and laboratory checks. In ore zones standards are added at a ratio of 1:10 and duplicates and blanks 1:20. Base metal samples are assayed using a four-acid digest with an ICP AES finish. Gold samples are assayed by Aqua Regia with an ICP MS finish. Samples over 1ppm Au are re-assayed by Fire Assay with an AAS finish. There are no details of the historic drill sample assaying or any QAQC. All assay methods were deemed appropriate at the time of undertaking.
<p><i>Verification of sampling and assaying</i></p>	<ul style="list-style-type: none"> <i>The verification of significant intersections by either independent or alternative company personnel.</i> <i>The use of twinned holes.</i> <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i> <i>Discuss any adjustment to assay data.</i> 	<ul style="list-style-type: none"> Data is validated on entry into the MS Access database, using Database check queries and Maxwell's DataShed. Further validation is conducted when data is imported into Micromine and Leapfrog Geo software Hole twinning was occasionally conducted at Reward with mixed results. This may be due to inaccuracies with historic hole locations rather than mineral continuity issues. For the resource estimation below detection values were converted to half the lower detection limit.

Criteria	JORC Code explanation	Commentary
<i>Location of data points</i>	<ul style="list-style-type: none"> • 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. • Quality and adequacy of topographic control. 	<ul style="list-style-type: none"> • For the KGL drilling surface collar surveys were picked up using a Trimble DGPS, with accuracy to 1 cm or better. • Downhole surveys were taken during drilling with a Ranger or Reflex survey tool at 30m intervals • All drilling by Jinka Minerals and KGL is referenced on the MGA 94 Zone 53 grid. All downhole magnetic surveys were converted to MGA 94 grid. • For Reward there are concerns about the accuracy of some of the historic drillhole collars. There are virtually no preserved historic collars for checking. • There is no documentation for the downhole survey method for the historic drilling. • Topography was mapped using Trimble DGPS and LIDAR
<i>Data spacing and distribution</i>	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • Drilling at Rockface was on nominal 50m centres with downhole sampling on 1m intervals. • Drilling at Reward was on 25m spaced sections in the upper part of the mineralisation extending to 50m centres with depth and ultimately reaching 100m spacing on the periphery of mineralisation. • For Reward shallow oxide RC drilling was conducted on 80m spaced traverses with holes 10m apart. • The drill spacing for all areas is appropriate for resource estimation and the relevant classifications applied. • A small amount of sample compositing has been applied to some of the near surface historic drilling.
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • Holes were drilled perpendicular to the strike of the mineralization; the default angle is -60 degrees, but holes vary from -45 to -80. • Drilling orientations are considered appropriate and no obvious sampling bias was detected.
<i>Sample security</i>	<ul style="list-style-type: none"> • The measures taken to ensure sample security. 	<ul style="list-style-type: none"> • Samples were stored in sealed polyweave bags on site and transported to the laboratory at regular intervals by KGL staff or a transport contractor.
<i>Audits or reviews</i>	<ul style="list-style-type: none"> • The results of any audits or reviews of sampling techniques and data. 	<ul style="list-style-type: none"> • The sampling techniques are regularly reviewed internally and by external consultants.

1.2 Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary												
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The Jervois Project is within EL25429 and EL28082 100% owned by Jinka Minerals and operated by Kentor Minerals (NT), both wholly owned subsidiaries of KGL Resources. The Jervois Project is covered by Mineral Claims and an Exploration licence owned by KGL Resources subsidiary Jinka Minerals. 												
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> Previous exploration has primarily been conducted by Reward Minerals, MIM and Plenty River. 												
<i>Geology</i>	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> EL25429 and EL28082 lie on the Huckitta 1: 250 000 map sheet (SF 53-11). The tenement is located mainly within the Palaeo-Proterozoic Bonya Schist on the northeastern boundary of the Arunta Orogenic Domain. The Arunta Orogenic Domain in the north western part of the tenement is overlain unconformably by Neo-Proterozoic sediments of the Georgina Basin. The stratabound mineralisation for the project consists of a series of complex, narrow, structurally controlled, sub-vertical sulphide/magnetite-rich deposits hosted by Proterozoic-aged, amphibolite grade metamorphosed sediments of the Arunta Inlier. Mineralisation is characterised by veinlets and disseminations of chalcopyrite in association with magnetite. In the oxide zone which is vertically limited malachite, azurite, chalcocite are the main Cu-minerals. Massive to semi-massive galena in association with sphalerite occur locally in high grade lenses of limited extent with oxide equivalents including cerussite and anglesite in the oxide zone. Generally, these lenses are associated with more carbonate-rich host rocks occurring at Green Parrot, Reward and Bellbird North. 												
<i>Drill hole Information</i>	<ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> 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. 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. 	<table border="1"> <thead> <tr> <th>Hold ID</th> <th>Easting</th> <th>Northing</th> <th>RL</th> <th>Azimuth</th> <th>Dip</th> </tr> </thead> <tbody> <tr> <td>KJCD481D3</td> <td>628185.00</td> <td>7490804.00</td> <td>357.04</td> <td>145.14</td> <td>-75.50</td> </tr> </tbody> </table> <p>For intercept depths please see Table 1 in the body of the report</p>	Hold ID	Easting	Northing	RL	Azimuth	Dip	KJCD481D3	628185.00	7490804.00	357.04	145.14	-75.50
Hold ID	Easting	Northing	RL	Azimuth	Dip									
KJCD481D3	628185.00	7490804.00	357.04	145.14	-75.50									
<i>Data aggregation methods</i>	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Minimum grade truncation 0.5%Cu for intercepts above 200m RL Minimum grade truncation 1.0%Cu for intercepts below 200m RL Aggregate intercepts use length-weighting No top-cuts are applied nor considered necessary 												

Criteria	JORC Code explanation	Commentary
	<p><i>shown in detail.</i></p> <ul style="list-style-type: none"> The assumptions used for any reporting of metal equivalent values should be clearly stated. 	<ul style="list-style-type: none"> No metal equivalents are used
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> 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'). 	<ul style="list-style-type: none"> In the main deposit areas, the geometry of the lodes is well known and is used to estimate true widths, which are quoted in the report
Diagrams	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Refer Figures 1 and 2 in the report
Balanced reporting	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Results for all holes are reported according to the Data Aggregation Methods stated above
Other substantive exploration data	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Outcrop mapping of exploration targets using Real time DGPS. IP, Magnetics, Gravity, Downhole EM are all used for targeting Metallurgical studies are well advanced including recovery of the payable metals including Cu, Ag and Au. Deleterious elements such as Pb Zn Bi and F are modelled
Further work	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The current report relates to infill and mineral resource confirmatory drilling and is ongoing Brownfields and greenfield drilling has also commenced Additional IP and DHEM surveys are planned