

Commencement of Bulk Sampling at Golden Crown Prospect



Mt Malcolm Mines NL (ASX: M2M or "the Company") is pleased to announce the completion of the grade control reverse circulation (RC) drilling program, and the commencement of bulk sampling and an ore processing study at the Golden Crown Prospect.

Highlights

- A 522 metre RC drilling campaign at the Company's Golden Crown Prospect has been completed.
- The northern extensions of the eastern lode were tested with two drillholes (72 metres drilled depth for each).
- 18 grade control drillholes completed to support the bulk sampling program.
- Samples have been submitted to SGS Kalgoorlie for analysis, with results expected within a fortnight.
- A test study processing seven composite samples from the February 2024 RC drilling program is being performed, using wet gravity separation at a nearby third-party plant.
- A comprehensive bulk sampling program has commenced, targeting up to ~8,000 tonnes of high-grade ore.

Managing Director, Trevor Dixon, said, "The Company is excited with the progress at the Golden Crown Prospect in 2024. The current bulk sampling and test study on ore processing is poised to mark another significant milestone. These activities aim to establish the feasibility of wet gravity processing at the nearby third-party plant and assess the mineability of the shallow high-grade ore at the Golden Crown Prospect. I would like to commend our team for their exceptional work in achieving these significant advancements."

RC Drilling Program

The Company has successfully completed 18 shallow grade control drillholes along three designated lines, within the bulk sampling area to support the upcoming bulk sampling. The drillholes on the centre line were spaced 5 metres apart, while those on the outer lines were spaced 8 metres apart (Figure 1).

These drillholes, with depths ranging from 18 to 24 metres, intersected potentially mineralized quartz veins on both the centre line and the eastern line. The thickness of these veins varied from a metre up to 12 metres.

Two exploration drillholes (72 metres each) were performed to investigate the northeastern extension of the identified lode from drilling conducted during February 2024 (ASX release on 6th May 2024).

The collected samples have been submitted to SGS Kalgoorlie for Fire Assay analysis, and we anticipate receiving the results within a fortnight.

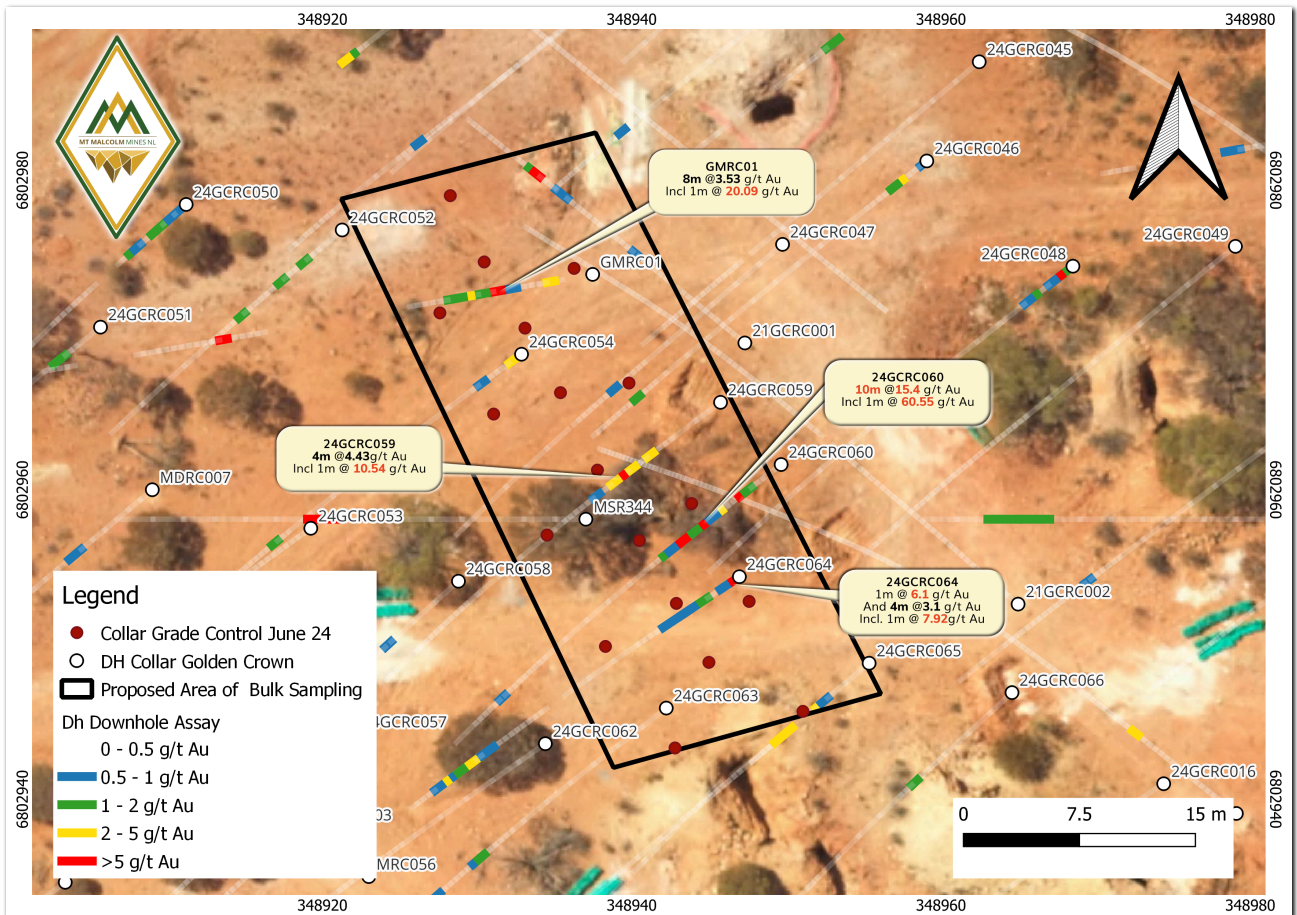


Figure 1: Map showing bulk sampling area and collars of grade control drilling

Test Study on Processing of Samples

A rigorous sampling regime was undertaken to compose seven batches (A to G) from the February 2024 RC samples, ranging in average grade from 2 g/t Au to over 41 g/t Au, with a combined approximate weight of 1.3 tonnes (Table 1). The samples have been delivered to a nearby third-party plant, Blockchain Resources Pty Ltd, following the Company's agreement to process bulk samples as announced to the ASX on 29th May 2024.

Sample Batch	Dry Weight (kg)	Average Grade Au (g/t)	Estimated Contained Au (g)
A	512.3	2.46	1.26
B	229.1	3.26	0.75
C	169.5	4.46	0.76
D	107.9	6.10	0.66
E	133.5	9.46	1.26
F	103.1	12.43	1.28
G	62.9	41.32	2.60
Total	1318.3		8.57

Table 1: Details of the samples submitted for ongoing wet gravity processing study.

Testwork for sample (batches A to G) processing is now underway, with initial results expected within a week.

The ongoing testwork aims to evaluate the economic viability of processing of upcoming bulk samples in the wet gravity plant, offering crucial insights into resource development potential.

The commencement of bulk sampling is a significant milestone toward the advancement of this shallow high grade gold prospect.

The Company remains focused on resource estimation, further metallurgical studies, and environmental assessments as it pursues the next phase of exploration and development at Golden Crown Prospect.

About Golden Crown

The Golden Crown gold prospect, with its rich historical significance and recent promising results, has become the Company's focal point for resource estimation and project development. The February 2024 RC drilling program has delineated a well-defined mineralized area, providing a solid foundation for robust maiden Mineral Resource Estimates.

Historically, Golden Crown has proven to be a significant producer, yielding 1,720 oz between 1899 and 1904. The Golden Crown gold prospect features three shallow lodes that remain open along the down plunge (Figure 2), with deeper mineralization still unexplored. Notably, there are 17 intercepts greater than 5 g/t Au, including 7 intercepts greater than 10 g/t Au, 5 intercepts greater than 15 g/t Au, and 3 intercepts greater than 30 g/t Au. This high-grade near-surface deposit is well-suited for low-impact, small-scale mining operations.

The Company completed 2,772 metres of RC drilling in Q1 2024 at Golden Crown and assay results showcased significant intercepts including highest recorded intersection of 6m @ 24.46 g/t Au and broad high-grade zone of 10m @ 15.40 g/t Au in drillhole 24GCRC060 (Refer M2M ASX release 13th March 2024 and 6th May 2024). Other important high-grade intercepts include:

- 4m @ 3.29 g/t Au (20-24m) in 24GCRC032
- 4m @ 5.23 g/t Au (22-26m) in 24GCRC033
- 3m @ 6.88 g/t Au (0-3m) in 24GCRC048
- 4m @ 4.43 g/t Au (14-18m) in 24GCRC059

In a recent re-assay of the historic hole GMRC01, the results showed 19.46 g/t Au at 12-13m.

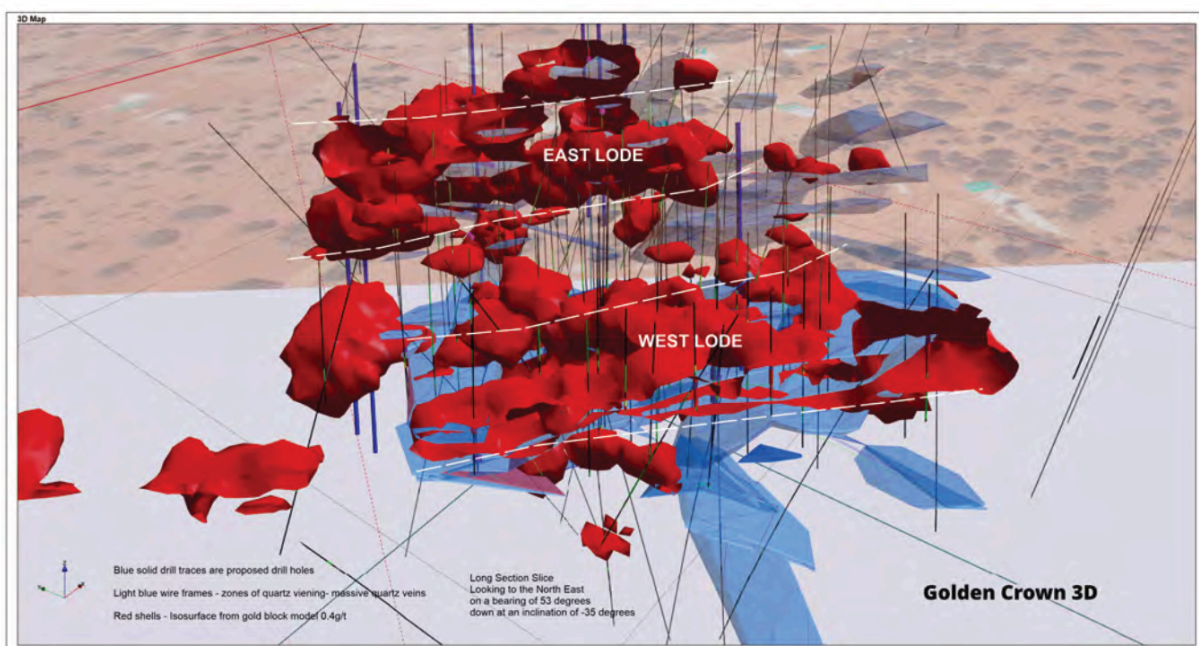


Figure 2: 3D view of Golden Crown gold mineralisation (isosurface 0.4 g/t Au).

Competent Person Statement

The information in this report that relates to Exploration Targets, Exploration Results, Mineral Resources is based on information compiled by Mr. Vivek Sharma, a Competent Person and a full-time employee of the company who is a Member of The Australasian Institute of Mining and Metallurgy. Mr. Vivek Sharma has sufficient experience that is relevant to the style of mineralisation and type of deposit 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. Vivek Sharma consents to the inclusion in the report of the matters based on the information compiled by him, in the form and context in which it appears.

Forward Looking Statements

Some of the statements appearing in this announcement may be forward-looking statements. You should be aware that such statements are only predictions and are subject to inherent risks and uncertainties. Those risks and uncertainties include factors and risks specific to the industries in which Mt Malcolm Mines NL operates and proposes to operate as well as general economic conditions, prevailing exchange rates and interest rates and conditions in the financial markets, among other things. Actual events or results may differ materially from the events or results expressed or implied in any forward-looking statement. No forward-looking statement is a guarantee or representation as to future performance or any other future matters, which will be influenced by a number of factors and subject to various uncertainties and contingencies, many of which will be outside M2M's control. In relying on the above mentioned ASX announcement and pursuant to ASX Listing Rule 5.32.2, the Company confirms that it is not aware of any new information or data that materially affects the information included in the above-mentioned announcement.

This announcement has been authorised by the Board of Mt Malcolm Mines NL.

For further information please contact: -

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APPENDIX A

JORC 2012 TABLE 1 REPORT - GOLDEN CROWN PROSPECT

SECTION 1 - Sample techniques and Data

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

Criteria	Commentary
<i>Sampling techniques</i>	Reverse Circulation (RC) drill samples from the current campaign collected by M2M over 1m downhole intervals from beneath a cyclone attached to the rig. Typically, 3-4kg sub-samples were obtained via a stationary cone splitter attached to the underside of the cyclone. Sub-samples were collected in pre-numbered calico bags for submission to the analytical laboratory. For the exploration holes a mixed sampling approach was adopted for the analysis, wherein 1-metre sub samples were selected based on logging criteria. Following this selection process, the remaining portions of the drillhole were composite samples, usually 4 metres. Samples were collected from the respective green bags using a spear, ensuring an even representation of the entire composition. Where the weight of samples were higher in the range, systematic riffle splitting was carried out to bring the sample weight below 3kg. The sampling techniques and methodologies used are deemed appropriate and industry standard for this style of exploration.
<i>Drilling techniques</i>	RC drilling was carried out using conventional, industry standard methodologies utilising a face-sampling hammer with bit shrouds. Drill bit diametres were typically 140-145mm. RC drilling was conducted by iDrillings truck-mounted Hydco 350RC 8x8 Atcross drill rig with a 600/700psi 1800cfm air compressor with auxiliary and booster air compressors (when required). All recovered samples were dry RC drilling was carried out using conventional, industry standard methodologies utilising a face-sampling hammer with bit shrouds. Drill bit diametres were typically 140-145mm. RC drilling was conducted by iDrilling's truck-mounted Hydco 350RC 8x8 Atcross drill rig with a 600/700psi 1800cfm air compressor with auxiliary and booster air compressors (when required). All recovered samples were dry and there were no wet samples. Being shallow holes (grade control), these were not surveyed down-hole.
<i>Drill sample recovery</i>	M2M sample collection utilised a stationary splitter attached to the underside of the rig's cyclone. A 3-4kg sub-sample was collected in calico bags for submission to the assay laboratory. The remaining sample is collected in plastic bags and stored on site for future reference. The cyclone and cone splitter is flushed with compressed air at the end of each 6m drill rod. This process was maintained throughout the program. Recovery percentages were recorded and are considered to be good. Part of the exploration drillhole was covered by compositing, usually 4 metres. Samples were composited from the respective green bags using a spear, ensuring a comprehensive representation of the entire composition. Collected samples are deemed reliable and representative of drilled material. No material discrepancy, that would impede a mineral resource estimate, exists between collected RC primary and sub-samples. No indication of sample bias is evident, nor has it been established. No relationship has been observed to exist between sample recovery and grade.

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JORC 2012 TABLE 1 REPORT - GOLDEN CROWN PROSPECT

Criteria	Commentary
<i>Logging</i>	<p>All drill holes are geologically logged in their entirety at 1m intervals to the end of the hole. Drill hole data is either digitally or physically captured. Validated and standardisation are required prior to being uploaded to the Mt Malcolm data base. The level of logging detail is considered appropriate for exploration and is appropriate to support mineral resource estimation, mining studies, and metallurgical studies. M2M's qualitative logging includes classification and description of lithology, weathering, oxidation, colour, texture and grain size. Quantitative logging includes identification and percentages of mineralogy, sulphides, mineralisation and veining.</p>
<i>Sub-sampling techniques and sample preparation</i>	<p>M2M samples were collected at 1m down-hole intervals. Typically, a 3-4kg sub-sample split was obtained via a stationary cone splitter attached to the underside off the cyclone. Sampling methodologies are considered industry standard. Sub-samples were collected at the end of each day and transported to a secure location; the remaining residue (stored in plastic bags) are retained at a "bag farm" on site for future reference. Samples were kept dry by the use of auxiliary and booster compressors; no wet samples were encountered. Field duplicates, blanks and Certified Reference Material ("CRM") were periodically inserted into the M2M sample batches at a ratio of 1:33, 1:50 and 1:33 respectively. Sub sampling and sample preparation techniques are acceptable; results indicate reasonable and acceptable analytical repeatability. The QA/QC procedures implemented during the drill program is appropriate for this style of mineralisation and industry standard practice. Where the weight of samples were higher in the range systematic riffle splitting was carried out to bring the sample weight below 3kg. Sample size and collection methodologies are considered appropriate for this style of gold mineralisation and as an industry accepted method for evaluation of gold deposits in the Eastern Goldfields of Western Australia. For the wet gravity sample processing study, individual metres of RC samples from the February 24 drilling were collected and composited to make seven samples. RC Samples in green plastic bags, with an average weight of 22 kg (a 10% reduction was applied to the original weight to calculate the dry weight of the samples) were composited for each grade range, resulting in seven classifications: 2 to 3 g/t Au, 3 to 4 g/t Au, 4 to 5 g/t Au, 5 to 7 g/t Au, 7 to 9 g/t Au, and 9 to 17 g/t Au. Additionally, there was a batch for samples with more than 17 g/t Au. These batches were respectively named A to G.</p>
<i>Quality of assay data and laboratory tests</i>	<p>Analysis of M2M samples will be conducted by SGS, Kalgoorlie. Samples will be dried, crushed and totally pulverised (75um). Samples will be assayed for gold only using classical Fire Assay technique with AES finish on a 50 g subsample (0.01ppm Au detection limit). Field duplicates and Certified Reference Material, standards and blanks are regularly inserted into the sample batch. The laboratory also includes standards and blanks as part of their internal QA/QC.</p>

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SECTION 1 - Sample techniques and Data

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

Criteria	Commentary
<i>Verification of sampling and assaying</i>	<p>There is always a risk with legacy data that sampling, or assay biases may exist between results from different drilling programs due to different sampling protocols, different laboratories, and different analytical techniques. Samples were dispatched to SGS laboratories in Kalgoorlie. Sample preparation included drying, crushing and pulverising. Analysis was via 50gram Fire Assay (AES). Standards, blanks and CRM results are within acceptable limits. No adjustment or calibration have been made to any of the assay data. Sampling and assay techniques are conducted at today's standard. In the past sampling and assaying were conducted to the standards of the day.</p>
<i>Location of data points</i>	<p>All GCRC drill hole collar location points were initially recorded by M2M using a handheld GPS and reported to datum GDA94 and UTM MGA94 zone 51 coordinate system, with horizontal accuracy to $\pm 5m$. January and February 2024 RC drill collars are recorded with a handheld GPS and recorded in the UTM MGA94 zone 51 coordinate system. Later, these collars were picked up by DGPS. All historical drill collar data has been converted to MGA94 UTM zone 51. Several historical drill hole collars have been visually verified in the field and were used as control points in conjunction with aerial photo confirmation.</p>
<i>Data spacing and distribution</i>	<p>Drill spacing and drill technique is sufficient to establish the degree of geological and grade continuity appropriate for any mineral resources and ore reserve estimation procedures and classifications applied. The mineralised systems remain open and additional infill or deeper drilling is required to close off and confirm the full extent of identified mineralisation, particularly at depth. Data acquired and processed is only being considered for exploration purposes.</p>
<i>Orientation of data in relation to geological structure</i>	<p>The sheared Malcolm greenstone sequence displays an NNE to NE lithological orientation with steeply dipping stratigraphy. Stratigraphy is disrupted by the development of NW, NNW, NS, EW and NE trending faulted shear systems which display a variety of fold styles ranging from open to isoclinal, in some cases the greenstone sequence has been overturned. The main outcropping quartz vein at Golden Crown is coincident with the position of the rhyolite-rhyodacite contact. WNW-dipping shear zones (thrusts) crosscut the vein and the external shear zone foliation merged with laminations in the quartz. These sections of laminated quartz were the only mined portions of the reef. There is also a significant change in the orientation of thrust shears as they track across reactivated contacts. It is considered that minimal sample bias has been introduced by sample orientation. No orientation sampling bias has been identified in the data thus far. Drilling and sampling programs are conducted generally orthogonal to the strike of the mineralisation, to obtain unbiased drill sample data. And grade control drillholes from the recent campaign are vertical.</p> <p>The regional geological structure is considered to be complex.</p>

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Criteria	Commentary
<i>Sample security</i>	M2M samples are collected from the field daily. They were securely stored in a locked yard at Leonora and will be transported to the analytical laboratory by a local contractor. Once received by the laboratory, samples are checked against the field manifest, sorted, and prepared for assay. Samples were then processed and assayed under the supervision of the analytical laboratories. Once in the laboratories possession adequate sample security measures are assumed to be adopted. No sample security sample details are available for historical drilling and analysis.
<i>Audits or reviews</i>	Sampling methodologies, assay techniques and QA/QC protocols used in the various historic drilling programs are not as thoroughly documented when compared to today's current standards. Reviews of the various available historical company reports regarding drilling and sampling techniques indicate that they were conducted to industry standard practice of the day. In some cases, data is not well validated and confidence levels are low with respect to collar coordinates, assay and logging techniques and sampling procedures. Further audits or reviews are not considered necessary at this particular exploration stage.

Section 2 - Reporting of Exploration Results

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

Criteria	Commentary
<i>Mineral tenement and land tenure status</i>	The Golden Crown tenement (M37/475) is located within the Shire of Leonora in the Mt Margret Mineral Field in the centre of the North Eastern Goldfields of Western Australia. The tenement is in good standing. M37/475 is held by Mt Malcolm Gold Holdings Pty Ltd, a wholly owned subsidiary of Mt Malcolm Mines NL. The tenements are managed and explored by Mt Malcolm Mines NL. The details of all Company tenements are disclosed in Annexure B "Solicitor's report on tenements" which was released by the company in its IPO Prospectus dated 2nd August 2021 "Mt Malcolm Mines NL CAN 646 466 435 Prospectus" as supplemented by a supplementary Prospectus dated 19th August 2021 (Prospectus). All gold production is subject to a Western Australian government royalty of 2.5%.

Section 2 - Reporting of Exploration Results

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

Criteria	Commentary
<i>Exploration done by other parties</i>	<p>The Golden Crown tenement has been explored and drilled by a number of exploration and mining companies over numerous years dating back to the late 1980s, more active gold exploration companies include, Chevron, North Limited, Jubilee Gold Mines and Melita Mining NL. All have contributed to various exploration programs utilising a wide variety of standard exploration techniques. Exploration activities by these companies covered all aspects of mineral exploration with a particular focus on gold. On ground activities included geophysics, geochemistry, geological mapping, drill programs (RAB, Aircore, RC), sampling, structural interpretation and geological assessments. Historical reporting and descriptions of laboratory sample preparation, assay procedures and quality control protocols for the samples from the various drilling programs are variable in their descriptions and completeness. The drilling database has been assembled, interrogated and scrutinised to a satisfactory level however, in the majority of cases the data is historical and predates JORC 2012 compliance. It has not been possible to fully verify the reliability and accuracy of all portions of the data however it appears that no serious problems have occurred. Historical exploration techniques and reported mineralisation was conducted to the industry standards of the day.</p>
<i>Geology</i>	<p>The Project area is located 12km east of Leonora overlying altered mafic basalt/felsic volcanoclastic/sedimentary sequences of the Malcolm Greenstone Belt, including the Golden Crown sequence positioned within the greenstones of the Kurnalpi Terrain. Local lithologies are characterized by linear trending steeply dipping structures and highly sheared stratigraphy. Rock outcrop is evident, and the project area is located on a small hill. Structurally the area is intensely sheared and folded. Regionally gold mineralization is associated with lithological contacts hosted by NW, NNW & EW trending shear zones often associated with quartz veining. There are several old workings and open stopes evident at the Golden Crown prospect. The sequence from footwall to hanging wall is dacite, rhyolite, rhyodacite, basalt and andesitic andesite. Gold lodes represented by shallowly northeast - plunging shoots are focussed along the hanging wall of the rhyolite unit with a repetition within the overlying rhyodacite.</p>
<i>Drill hole Information</i>	<p>The location of drill hole collars is recorded in the company database and presented as part of the significant intersections in the body of this report. All hole depths refer to down hole depth in metres. Hole collars are quoted in the MGA94 Zone51 co-ordinate system. Drill hole depths are measured down-hole from the collar (top) of the hole to the bottom (end) of the hole.</p>
<i>Data Aggregation methods</i>	<p>No averaging of the raw assay data was applied. Raw data was used to determine the location, width of gold intersections and anomalous gold trends. Geological assessment and interpretation were used to determine the relevance of the plotted intersections with respect to the sampled medium.</p>

Section 2 - Reporting of Exploration Results

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Criteria	Commentary
<i>Data Aggregation methods cont.</i>	When drill holes are quoted individual grades are reported as down hole length weighted average grades. Only intersections greater than or close to 1.0g/t Au are regarded as significant and anomalous. Intersections > 0.5g/t Au are regarded as indicative of potential mineralisation; they are viewed as anomalous but not considered to be significant however they are useful as a guide to potential mineralisation trends and relevant to any surrounding mineralisation halo. Significant intersections (>1g/t Au) with no more than 1m of internal dilution are in the body of this report. No top cuts were applied to any assay values. There is no reporting of metal equivalent values.
<i>Relationship between Mineralisation widths and intercept lengths</i>	<p>In general, the drill hole orientation may not be at an optimal angle to the strike of the greenstone sequence (NW-NNW) and the identified gold mineralisation. However, the majority of holes are orientated in a south westerly direction -60°/230°. Since the greenstone sequence is generally steeply dipping north northeast, drill intercepts are reported as downhole widths. As a result, the reported intersections do not necessarily represent true widths. Orientation and geometry of the mineralisation zones has been primarily determined by interpretation of historical drilling and geological modelling.</p> <p>The maximum and minimum sample width within the reported mineralised zones is 1m. Quoted intersections are length weighted averages. The recent grade control drillholes have been drilled vertically.</p>
<i>Diagrams</i>	The example diagrams and plans are included in the body of this announcement.
<i>Other Substantive exploration data</i>	Regarding the results reviewed, no other substantive data is currently considered necessary. The project area has been explored by several listed companies in the past, only results regarded as substantial, by those companies, have been reported. All meaningful and material information is presented in this document. Further data collection will be reviewed and reported as and when considered material.
<i>Further work</i>	Conduct resource estimation using recent and historical drilling results. Comprehensive metallurgical studies, including gravity test work and cyanide leaching for different grind sizes. Waste rock characterization studies are planned to evaluate potential environmental impacts and implement sustainable waste management practices.
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