



# Investigator 22 and Investigator 24 Exploration Drilling Report

# **Key Highlights**

- Investigator 24 and Investigator 22 first pass exploration drilling program completed
- Mine sequence including skarn hosted scheelite mineralisation identified in all three holes
- KI 111 1.2m @ 2.8% WO₃ from 2.8m in oxidised zone
- KI 113 1.0m @ 0.6% WO<sub>3</sub> from 141.5m in garnet skarn
- Further exploration drilling planned for calendar Q2 2024

Group 6 Metals Limited (ASX: G6M, "Group 6 Metals" or the "Company") is pleased to provide an update on its regional exploration activities at the Company's wholly owned Dolphin Tungsten Mine ("DTM"), located on King Island, Tasmania. Exploration drilling has been completed with the assistance of a Tasmanian Government Exploration Drilling Grant Initiative (EDGI).

Drill holes KI 111 and KI 112 are the first holes in the Investigator 24 area for almost 50 years and the first to intersect the full mine sequence including B and C lens with associated calc-silicate skarn mineralisation similar to the Bold Head and Dolphin mines.

KI 113 was drilled 200m north of the Investigator 21 site intersecting B and C lens and calc-silicate skarn mineralisation before intersecting the granite.

Scheelite mineralisation associated with garnet-pyroxene skarn was observed under UV light in all three drill holes with sporadic medium to low grade mineralisation confirmed by Laboratory analysis.

The Company aims to test the full potential of the area (63Km²) under exploration lease and to extend the project life beyond the current 14 years through near mine and exploration drilling projects¹. G6M's plan is to resume exploration after ramp up and steady state production is achieved at the Dolphin Mine.

## Group 6 Metals Managing Director & Chief Executive Officer, Keith McKnight, said:

"While work is continuing on the ramp up of tungsten production at the Dolphin Tungsten Mine, the Company is keen to continue developing regional exploration opportunities surrounding the mine,

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<sup>&</sup>lt;sup>1</sup> Refer Forward Looking Statements

building on the high-grade mineralisation intersects encountered from previous exploration drilling carried out at Investigator 21 in 2018 (KIS:ASX 17 May 2018)."

"All three exploration holes have successfully intersected skarn mineralisation in the mine series validating the exploration potential of the Grassy region. The presence of scheelite mineralisation associated with the skarn indicates the right geological processes for significant mineralisation in the district. The Company is excited by the results from step out exploration in this region and systematic drilling is planned to allow more targeted exploration on structural targets."

Approved by the board of Group 6 Metals Limited.

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## **About Group 6 Metals**

Group 6 Metals Limited (ASX: G6M), previously known as King Island Scheelite Limited (ASX: KIS), is an Australian resources exploration, development and production company. The Company's name honours tungsten as Group 6 Metals' first commodity project (The Dolphin Mine) in production, as tungsten is a member of Group 6 of the periodic table along with chromium and molybdenum, as well as being a critical mineral and a geopolitically strategic resource.

The Company is focused on the producing high-grade tungsten concentrate from of its 100%-owned Dolphin Mine located on King Island, Tasmania. The Company's medium-term objectives is to investigate opportunities to value-add the product for supply into the upstream tungsten industry.



# **Technical Report**

Group 6 Metals mobilised an exploration drill rig to King Island between February and April 2023 to conduct an exploration drilling program testing the western margin of the Grassy Granite, at the Investigator 22 and 24 prospects (Figure 1).

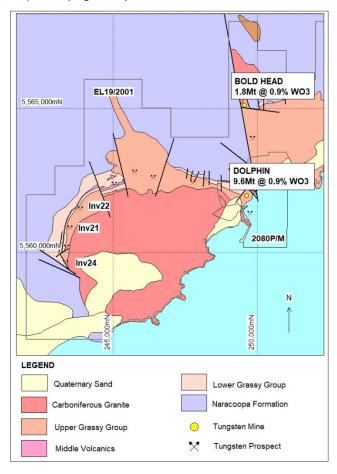


Figure 1 – Regional Geology of the Grassy District and location of Investigator 21

Regional geological mapping and wide spaced exploration drilling completed by historical mine operator Geopeko in the 1980's identified a 9km strike length of geology prospective for scheelite mineralisation on the periphery of the Grassy Granodiorite (Figure 1). Much of the prospective area remains to be drill tested. The Investigator 24 site had only one incomplete diamond drill hole completed in 1974. Historic exploration of the Investigator 22 site included only one exploration hole completed 600m north of Investigator 21 in 1975.

The primary objective of G6M's initial drilling is to test the Lower Grassy Group formation which hosts the world class tungsten resources at Dolphin (ASX:KIS 15 April 2015) and Bold Head (ASX:KIS 26 September 2019).

Skarn formation and scheelite mineralisation have occurred where Lower Grassy Group carbonates come into direct contact with the intrusion, or adjacent to brittle faults intersecting the intrusion. Mineralisation of the known deposits is hosted within a 100-200m thick sequence of complex skarn mineralogy with two main altered dolomite horizons known as B and C Lens both of 10-30m thickness separated by a similar thickness of skarn altered volcanic sediments.

The Investigator 22 and 24 Prospects are located over 6km west of the Dolphin and Bold Head deposits (Figures 1 and 2). These western prospects are priority target areas identified by the Company on its 100% owned Exploration Licence EL 19/2001 which covers approximately 63km<sup>2</sup>.



Two diamond drillholes have been completed at the Investigator 24 Prospect, KI 111 and KI112. These holes are the first reconnaissance exploration in this area to intersect the entire mine sequence, both identifying calc-silicate skarn.

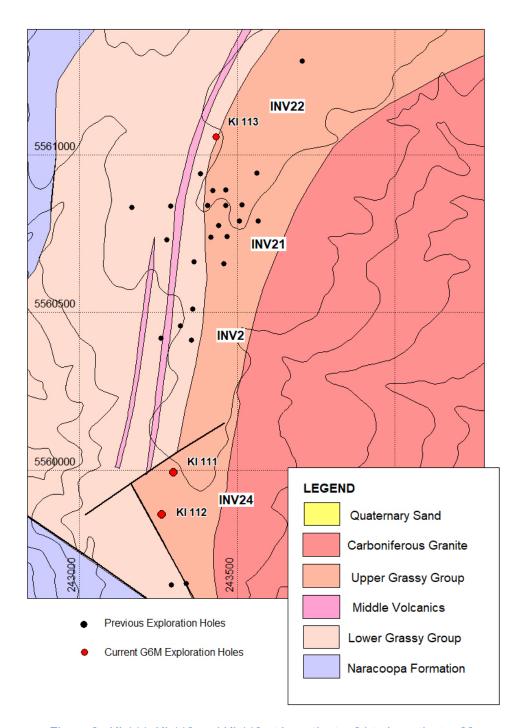


Figure 2. KI 111, KI 112 and KI 113 at Investigator 24 to Investigator 22

Both drillhole KI 111 and KI 112 intersected the host B lens and C lens dolomite horizons and associated pyroxene-garnet calc-silicate skarn adjacent to the Grassy Granodiorite (Figures 3 and 4), with both holes ending in the Grassy Granodiorite. Skarn mineralisation has been observed in the drill core with sparse low grade scheelite mineralisation confirmed visually under ultraviolet light within the skarn at sporadic intervals down hole. Scheelite fluoresces blue-white under ultraviolet light (Figures 6).



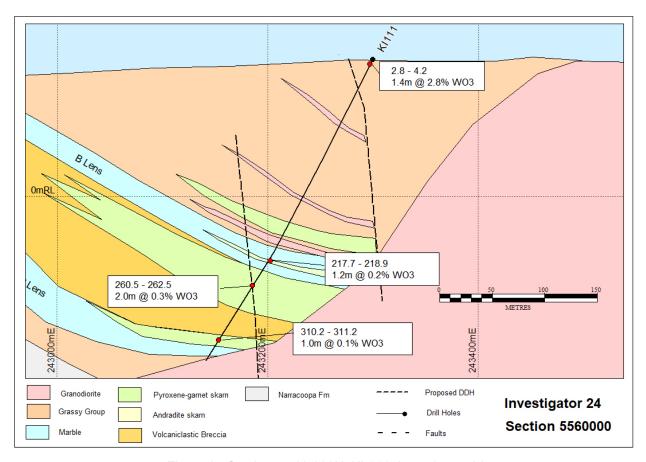


Figure 3. Section 5,560,000N, KI 111, Investigator 24

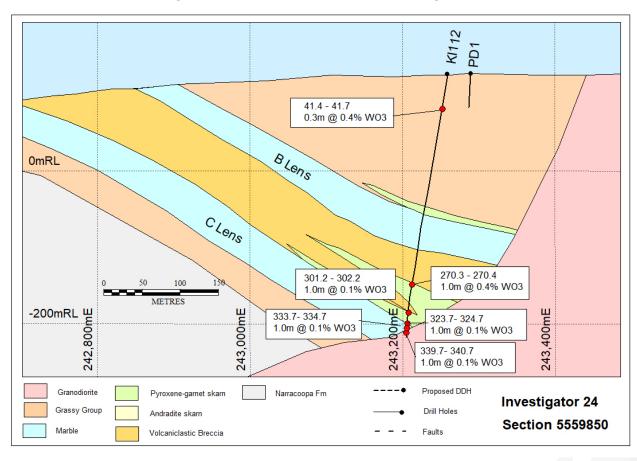


Figure 4. Section 5,559,850N, KI 111, Investigator 24



Drill hole KI 113, testing the Investigator 22 prospect intersected the host B lens and associated pyroxene-garnet calc-silicate skarn near the top of C Lens adjacent to the Grassy Granodiorite (Figures 5). A thin C lens garnet skarn was possibly intersected with associated patchy scheelite mineralised banded footwall beds. Several intercepts above 0.1% WO<sub>3</sub> were associated with broader low-grade skarn (Figure 5, Table 1).

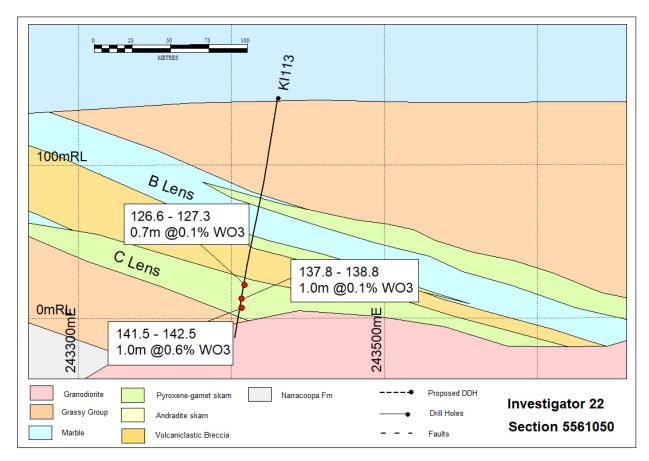


Figure 5. Section 5,561,050N, KI 113, Investigator 22



Figure 6. KI 111, 261.5m Scheelite in calc-silicate skarn, ultraviolet light.



Figure 7. KI 112, 334.2m garnet-pyroxene skarn and scheelite ultraviolet light.



Mineralisation at both the Investigator 22 and Investigator 24 is directly analogous to the Dolphin and Bold Head deposits, hosted in the same calcareous volcaniclastic sediments near the base of the Grassy Group where they are in close proximity to the Grassy Granodiorite.

Table 1. Drill collar details

BHID	East_GDA	North_GDA	RL	Length m	Dip	Azm	From m	To m	Length m	WO <sub>3</sub> %
KI 111	243292.9	5559996.4	127.5	329.4	-60	270	2.8	4.2	1.4	2.8
							153.7	154.7	1.0	0.1
							217.7	218.9	1.2	0.2
							260.5	262.5	2.0	0.3
							310.2	311.2	1.0	0.1
KI 112	243258.7	5559858.2	126.1	350.3	-80	270	41.4	41.7	0.3	0.4
							270.4	270.9	0.5	0.4
							301.2	302.2	1.0	0.1
							323.7	324.7	1.0	0.1
							333.7	334.7	1.0	0.1
							339.7	340.7	1.0	0.2
KI 113	243430.3	5561056.1	142.8	152.7	-80	270	126.6	127.3	0.7	0.1
							137.8	138.8	1.0	0.1
							141.5	142.5	1.0	0.6

The host sequence is interpreted to dip shallowly east, where it is truncated by the west dipping margin of the Grassy Granodiorite (Figure 3 - 5). Mineralisation at Bold Head and Dolphin is controlled by folding and brittle faulting within the Grassy Group where it forms roof pendants above the Granodiorite. Although drill spacing is broad, a similar structural setting is possible at both Investigator 22 and Investigator 24.

The scheelite skarn mineralisation confirms the prospectivity of the 9km strike length of the Grassy Group-Granodiorite contact (Figure's 1). Further mineralisation is likely to be identified with ongoing exploration<sup>2</sup>. Mineralisation at Bold Head is generally only 50m in width, spatially associated with brittle faulting. A series of 100m spaced drill holes on 200m spaced sections is recommended to identify offsets in the granite and host horizon and focus targeted drilling.

Drilling was completed by Spaulding's Drilling Pty Ltd with a track mounted diamond drill rig. All mineralised intercepts were drilled as NQ diamond core with good recoveries from the un-weathered skarn mineralisation.

Drill collars were surveyed by licensed mine surveyors with a differential GPS. Downhole surveys were completed with a devi-shot downhole survey tool.

Drill core was logged in the G6M core facility in Grassy. All core is stored in the Grassy core compound. Logging was completed on excel spreadsheets and loaded into an access database. A low wavelength ultraviolet lamp was used to delineate zones with significant scheelite mineralisation. Areas with strong fluorescence were marked for sampling. Mineralised intercepts were cut with a diamond saw and half drill core sampled on 1m lengths. Drill core was bagged on site, sealed in poly-weave bags and sent to ALS Laboratories in Burnie for analysis. Samples will be analysed for WO<sub>3</sub> by fusion disc XRF.

<sup>&</sup>lt;sup>2</sup> See forward looking statements



#### **ADDITIONAL NOTES**

### **Forward Looking Statements**

Some statements in this announcement regarding estimates or future events are forward-looking statements. They involve risk and uncertainties that could cause actual results to differ from estimated results. Forward looking statements include but are not limited to, statements concerning the Company's exploration program, outlook, target sizes and mineralised material estimates. They include statements preceded by words such as "expected", "planned", "target", "scheduled", "intends", "potential", "prospective" and similar expressions.

Statements regarding plans with respect to the Company's mineral properties may contain forward looking statements in relation to future matters that can only be made where the Company has a reasonable basis for making those statements.

This announcement has been prepared in compliance with the JORC Code (2012) and the current ASX Listing Rules. The Company believes that it has a reasonable basis for making the forward-looking statements in the announcement, including with respect to any production targets and financial estimates, based on the information contained in this and previous ASX announcements.

#### **Competent Persons' Statement**

The information in this report that refers to Exploration Results and Mineral Resource Estimations is based on information compiled by geology consultant Mr. Tim Callaghan who is a Member of The Australasian Institute of Mining and Metallurgy ("AusIMM") and the Australian Institute of Geologists (AIG). Mr. Callaghan 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 Australian Code for Reporting Exploration Results, Mineral Resources and Ore Reserve. Mr. Callaghan consents to the inclusion in the report of matters based on his information in the form and context it appears.







# Appendix 1. JORC (2012) Table 1 report

Section 1. Sampling Techniques and Data				
Criteria	JORC Code Explanation	Commentary		
Sampling Techniques	<ul> <li>Nature and Quality of sampling (e.g., cut channels, random chips or specific specialized industry standard measurement tools appropriate to the minerals under investigation, such as downhole gamma sondes, or handheld XRF instruments etc.).</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>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 1m samples from which 3kg was pulverized to produce 30g 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 sampling types (e.g., submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>Industry standard NQ wire-line diamond drilling.</li> <li>NQ diamond drill holes completed for 832.4m</li> <li>Approximately 1m samples of 2-3kg were taken from diamond saw cut drill core whilst respecting geological boundaries. Broken core or zones of poor core recovery were sampled between core blocks.</li> </ul>		
Drilling Techniques	<ul> <li>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, where core is oriented and if so by what method</li> </ul>	<ul> <li>Triple tube NQ wire line diamond drill core for 832.4m.</li> <li>Core not oriented.</li> </ul>		
Sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	Core reconstituted, marked up and measured for recovery and RQD.		

	<ul> <li>Measures taken to maximize sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred.</li> <li>Recovery generally excellent (100%) within mineralised zones</li> <li>No relationship between recovery and grade was observed</li> </ul>
Logging	<ul> <li>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.</li> <li>Whether logging is qualitative of quantitative in nature. Core (or costean, channel etc.) photography.</li> <li>Core geologically logged by experienced geologists over all drilling campaigns.</li> <li>Standard lithology codes used for interpretation.</li> <li>RQD and recoveries logged.</li> <li>Logs loaded into customised spreadsheets and uploaded into access database.</li> </ul>
Sub-Sample techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter of half taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub sampling stages to maximize representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the insitu material collected, including for instance results of field duplicate/second half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled</li> <li>Half diamond saw cut core bagged on 1.0m samples while respecting geological contacts.</li> <li>Samples considered representative of mineralisation intervals.</li> <li>Bagged core delivered to ALS Laboratories in Burnie</li> <li>Entire sample crushed to 2mm. Riffle split 250g sub sample and pulverize to 705 passing 75um.</li> <li>Sub sample split for borate fusion disc XRF analysis.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysics tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibration factors applied and their derivation etc.</li> <li>Nature of quality control procedures adopted (e.g., standards, blanks, duplicates, external</li> <li>Only visual identification of scheelite has been made using UV light.</li> <li>No estimate of grades has been made other than confirmation and approximate qualitative estimation of scheelite content.</li> <li>All samples will be analysed by fusion disc XRF at ALS Laboratories Burnie. Fusion disc XRF is considered appropriate for refractory minerals such as scheelite.</li> <li>No QAQC program was implemented.</li> </ul>



	laboratory checks) and whether acceptable levels of accuracy (i.e., lack of bias) and precision have been established.	
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel</li> <li>The use of twinned holes</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols</li> <li>Discuss any adjustment to assay data</li> </ul>	<ul> <li>Only visual identification of scheelite made with UV light.</li> <li>Analyses pending.</li> </ul>
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and downhole surveys) trenches, mine workings and other locations used in mineral resource estimation.</li> <li>Specification of grid system used.</li> <li>Quality and accuracy of topographic control.</li> </ul>	<ul> <li>Exploration hole collar surveys located by licensed surveyor.</li> <li>All coordinates in GDA94 Zone 55/3</li> <li>RL's as MSL</li> <li>Down hole surveys completed on all holes. Topographic dtm created from hole collars and Lands Department 10m contours.</li> </ul>
Data Spacing and distribution	<ul> <li>Data spacing for exploration results.</li> <li>Whether data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for Mineral Resource and Ore Reserve estimation procedures and classifications applied.</li> <li>Whether sample compositing has been applied</li> </ul>	Drill spacing approximately 500m for reconnaissance exploration holes.
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between drilling orientation and the orientation of key mineralised structures is considered to have introduced sampling bias, this should be assessed and reported if material.</li> </ul>	<ul> <li>All DDH have been drilled on east-west sections approximately perpendicular to deposit strike.</li> <li>Drill hole orientation is not considered to have introduced any material sampling bias.</li> </ul>
Sample Security	The measures taken to ensure sample security	<ul> <li>Samples ticketed and bagged on site.</li> <li>Delivered to ALS laboratories in Burnie by commercial courier.</li> <li>All historic data captured and stored in customized access database.</li> <li>Data integrity validated with Surpac Software for EOH depth and sample overlaps.</li> </ul>



		•	Manual check by reviewing cross sections with the historic drafted sections and plans.
Audits or Reviews	The results of any audits or reviews of sampling techniques and data	•	No audits or reviews of sampling data and techniques completed.



Section 2 Reporting of Exploration Results					
Criteria	JORC Code Explanation	Commentary			
Mineral tenement and land tenure status	<ul> <li>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.</li> <li>The security of tenure held at the time of reporting along with known impediments to obtaining a license to operate the area</li> </ul>	<ul> <li>EL19/2001 is 100% owned by Group Six Metals Ltd a subsidiary Australian Tungsten Ltd.</li> <li>Scheelite mining district with periodic operation since the 1930's.</li> <li>There are no known or experienced impediments to operating a license in this area.</li> </ul>			
Exploration done by other parties	<ul> <li>Acknowledgement and appraisal of exploration by other parties</li> </ul>	<ul> <li>Early exploration by King Island Scheelite and Geopeko commencing in the 1950's.</li> </ul>			
Geology	Deposit type, geological setting and style of mineralisation	The Dolphin Deposit is a carbonate hosted metasomatic skarn hosted in hornfelsed Cambrian sedimentary rocks on the northern margin of the Grassy Granodiorite. The skarn consists of layered pyroxene skarn, garnet skarn and pyroxene-garnet skarn replacing two principal carbonate horizons. Scheelite occurs as coarse and fine-grained disseminations in calc-silicate skarn. Investigator 24 is a similar style of deposit.			
Drill Hole Information	<ul> <li>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</li> <li>easting and northing of the drill hole collar</li> <li>elevation or RL of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>downhole length and interception depth</li> <li>hole length</li> <li>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</li> </ul>	See Table 1 in the body of this report.			
Data aggregation methods	In reporting of Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g., cutting of high	Mineralised zones are reported as downhole visual confirmation only.			



Section 2 Reporting of Exploration Results					
Criteria	JORC Code Explanation	Commentary			
	grades) and cutoff grades are usually material and should be stated.  • Where aggregate intercepts include short lengths of high-grade results and longer lengths of low-grade results, the procedure used for aggregation should be stated and some examples of such aggregations should be shown in detail  • The assumptions used for any reporting of metal equivalent values should be clearly stated.				
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the downhole lengths are reported, there should be a clear statement to this effect (e.g., down hole length, true width not known)</li> </ul>	<ul> <li>Visual mineralisation lengths have been reported as downhole lengths.</li> <li>Holes have been drilled to intercept the deposit at high angles to best represent true widths.</li> <li>Refer to the sections included in the body of the announcement to view the relationship between downhole lengths and mineralisation orientations.</li> </ul>			
Diagrams	<ul> <li>Appropriate maps and sections (with scales) and tabulated intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill collar locations and appropriate sectional views.</li> </ul>	See body of the announcement for relevant plan and sectional views and tabulated intercepts.			
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	Not applicable			
Other substantive exploration data	<ul> <li>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 results, bulk density, groundwater, geochemical and rock characteristics, potential deleterious or contaminating substances.</li> </ul>	Geological mapping, auger sampling and soil sampling completed by Geopeko Lt in the 1970's			



Section 2 Reporting of Exploration Results					
Criteria	JORC Code Explanation	Commentary			
Further work	<ul> <li>The nature and scale of planned further work (e.g., test for lateral extensions or depth extensions or large scale step out drilling)</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>				

