### **ASX Announcement**

12 January 2023



# **Broad Gold Anomalies Confirmed and Significantly Extended at Firebird**

## **Highlights**

- Infill and extensional Ultrafine soil sampling results confirms and significantly extends gold anomalism at the Firebird Gold Project.
- Discrete and significantly contrasting high tenor gold zones within the broad anomalies are coincident with structural and lithological trends.
- Gold anomalism trends are consistent with Archean gold lode deposits in the region.
- Great Western has prioritised exploration, including drill testing, for this compelling project in the first half of 2023.

Great Western Exploration Limited (ASX: GTE) ("Great Western" or "the Company") is pleased to announce that gold anomalism has been confirmed and significantly extended at the Company's Firebird Gold Project.

#### **Firebird Gold Project**

GTE 100% (E53/2027, E53/1894), GTE earning 80% (E53/2129)

The Firebird Gold Project is located within the Youanmi Greenstone Belt, and 2.5km west of Western Gold's Gold Duke Project, which contains several Mineral Resources reported to JORC 2012 standard (Figure 1). The Firebird Gold Project comprises 100% owned GTE ground and the adjacent Joyner's Project JV, a joint venture held by Jindalee Resources where Great Western can earn 80%.

Soil sampling completed prior to Great Western's project interest defined a large zone of gold anomalism measuring 2.1km x 350m wide (GTE ASX Announcement 23 August 2021<sup>1</sup>). The Company recently completed Ultrafine+ soil sampling to confirm and extend this anomalism.

Results from this programme confirmed and significantly extended gold anomalism, with broad gold anomalous gold zones now up to 3.7km long and 450m wide. Further, several strong contrasting and discrete higher tenor anomalies within the broader anomalism were delineated and not evident in the initial sampling (Figure 2). The higher tenor anomalies are coincident with NNW-SSE structural trends, consistent with Archean Gold Lode Deposits of the region and are priority areas of interest.

Great Western has prioritised exploration at this compelling project, which will include geological and structural modelling plus drill testing of these gold anomalous zones.

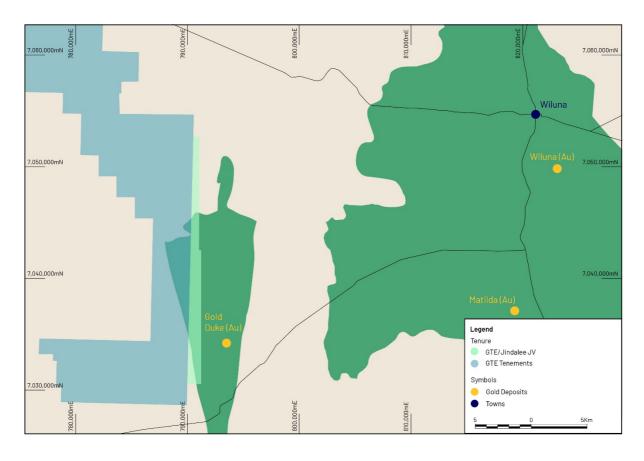


Figure 1: Location of the Firebird Project in relation to Western Gold's Wiluna West Gold Project.



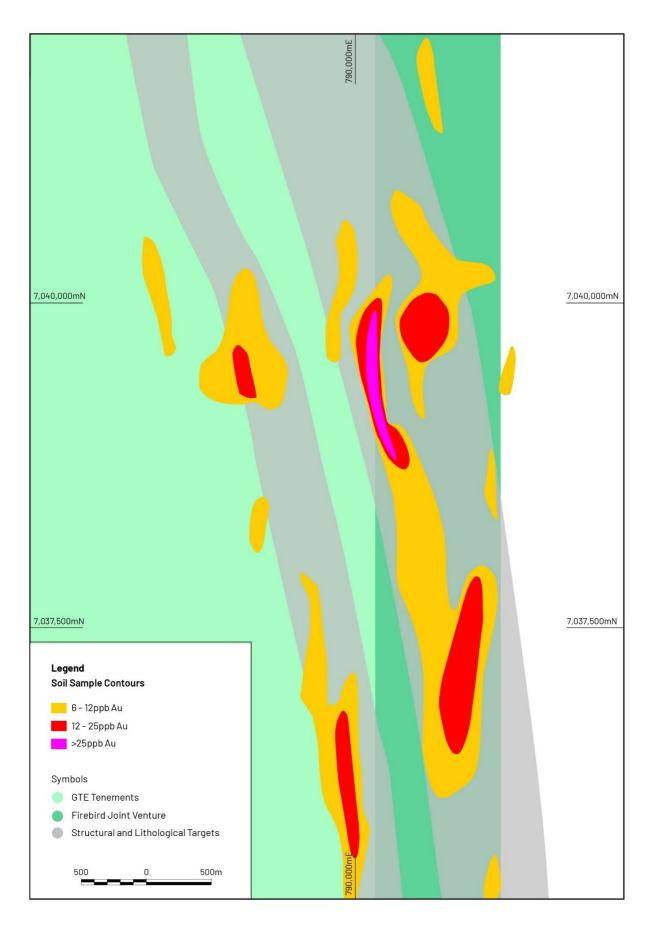


Figure 2: Interpreted Ultrafine+ soil sample anomalism contours of the Firebird Project.



Great Western looks forward to updating shareholders with further work completed at this project.

#### **About Great Western Exploration**

Great Western Exploration (GTE.ASX) is a copper, gold and nickel explorer with a world class, large land position in prolific regions of Western Australia. Great Westerns tenements have been underexplored or virtually unexplored (Figure 3).

Numerous field work programmes across multiple projects are currently underway and are well-funded with a tight capital structure, providing leverage upon exploration success.



Figure 3: Location of Great Western's Exploration Tenure.



Authorised for release by the board of directors of Great Western Exploration Limited.

Tony Walsh

**Company Secretary** 

**Great Western Exploration Limited** 

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Previous ASX Releases - GTE.ASX

1. 23 August 2021 Large Strong Gold Anomaly at Firebird Gold Project.

#### **Competent Person Statement**

The information in this report that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr. Shane Pike who is a member of the Australian Institute of Mining and Metallurgy. Mr. Pike is an employee of Great Western Exploration Limited and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which 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. Pike consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to the Company's Exploration Results is a compilation of Results previously released to ASX by Great Western Exploration (23/08/2021) Mr. Shane Pike consents to the inclusion of these Results in this report. Mr. Pike has advised that this consent remains in place for subsequent releases by the Company of the same information in the same form and context, until the consent is withdrawn or replaced by a subsequent report and accompanying consent. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that all material assumptions and technical parameters in the market announcements continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.



#### **Appendix 1 - Ultrafine Sampling Summary**

Sample Medium Soil: B horizon or ~10 cm depth.

Sample Collection: ~200g samples collected using metal tools passing through 0.125mm or

0.9mm sieves into sample pouches and submitted to LabWest Minerals Analysis Pty Ltd for Ultrafine Analysis. Industry standard procedures used

to minimise sample site contamination.

**Sample Spacing:** Grid spacing of 50m (east-west) x 400m (north-south) to 100m (east-west)

x 800m (north-south).

Number of Samples: 1,014 (plus duplicates).

QAQC: Duplicate samples collected every 50 samples. No Company standards

submitted; laboratory reported standards.

Analysis: Ultrafine (UF) analysis. Method developed geochemical method developed

by CSIRO and carried out by LabWest.

**Sample Preparation:** 2g of <2-micron size fraction sieved from sample and analysed.

**Sample Analysis:** Microwaved assisted aqua regia with ICP-MS/OES.

#### **Elements & Detection Limits:**

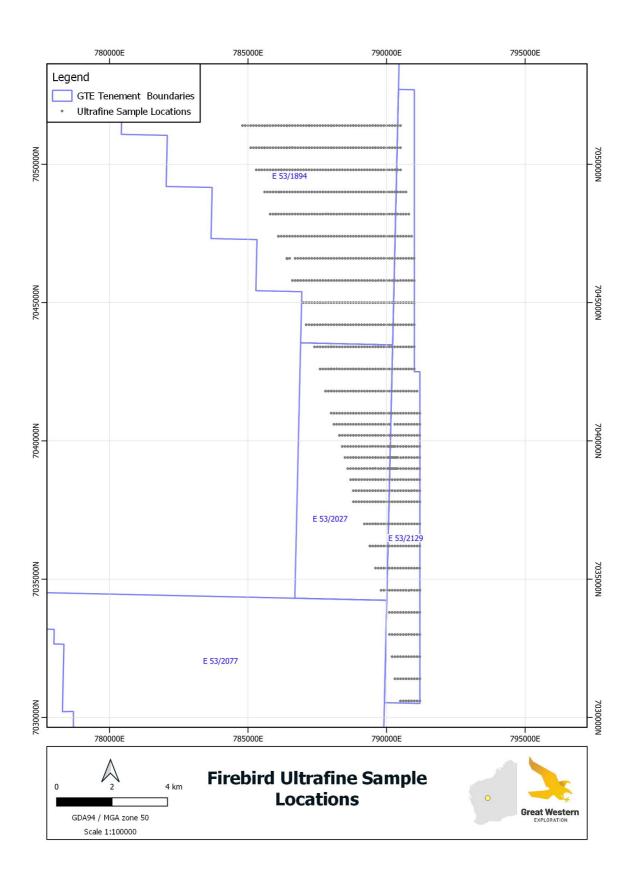
Element	Units	Detection Limit	Element	Units	Detection Limit	Element	Units	Detection Limit
Ag	ppm	0.003	Hf	ppm	0.002	Sb	ppm	0.001
Al	ppm	10	Hg	ppm	0.001	Sc	ppm	0.2
As	ppm	0.5	In	ppm	0.001	Se	ppm	0.05
Au	ppb	0.5	K	ppm	10	Sn	ppm	0.02
Ва	ppm	0.2	La	ppm	0.05	Sr	ppm	0.1
Be	ppm	0.01	Li	ppm	0.05	Та	ppm	0.001
Bi	ppm	0.002	Mg	ppm	10	Te	ppm	0.001
Br	ppm	1	Mn	ppm	0.5	Th	ppm	0.02
Ca	ppm	10	Мо	ppm	0.03	Ti	ppm	2
Cd	ppm	0.004	Na	ppm	10	TI	ppm	0.003
Ce	ppm	0.05	Nb	ppm	0.01	U	ppm	0.003
Co	ppm	0.01	Ni	ppm	0.2	V	ppm	1
Cr	ppm	2	Pb	ppm	0.05	W	ppm	0.001
Cs	ppm	0.03	Pd	ppb	1	Υ	ppm	0.005
Cu	ppm	0.1	Pt	ppb	1	Zn	ppm	0.2
Fe	ppm	50	Rb	ppm	0.1	Zr	ppm	0.1
Ga	ppm	0.05	Re	ppm	0.0001			
Ge	ppm	0.05	S	ppm	5			



Firebird	Firebird Ultrafine Soil Statistics:											
Element	Units	Detection Limit	Min	Max	Mean	Standard Deviation	P25	P50	P75	P97.5	Contrast (P97.5/P50)	Contrast (Max/P97.5)
Ag	ppm	0.003	0.013	0.110	0.031	0.010	0.024	0.030	0.036	0.055	1.8	2.0
As	ppm	0.5	3.5	38.8	9.3	2.7	7.8	8.9	10.2	15.7	1.8	2.5
Au	ppb	0.5	0.3	44.7	3.3	3.6	1.5	2.5	3.8	11.5	4.6	3.9
Ва	ppm	0.2	19.4	200.0	47.4	13.8	38.5	45.4	53.4	76.5	1.7	2.6
Ca	ppm	10	10	101000	223.4	3171	50	70	120	544	7.8	185.5
Cd	ppm	0.004	BD	0.120	0.016	0.011	0.011	0.014	0.017	0.048	3.4	2.5
Cr	ppm	2	67	1070	125	56	105	117	132	210	1.8	5.1
Cu	ppm	0.1	26.4	105.0	45.3	6.8	41.1	44.2	48.4	60.7	1.4	1.7
Fe	ppm	50	26900	172000	67518	9034	62525	67200	71800	81768	1.2	2.1
Hg	ppm	0.001	0.002	0.196	0.017	0.015	0.009	0.012	0.020	0.055	4.6	3.6
Mn	ppm	0.5	71.0	2230.0	267.4	187.0	168.0	209.0	274.0	856.7	4.1	2.6
Мо	ppm	0.03	0.56	6.79	2.09	0.52	1.81	2.00	2.23	3.66	1.8	1.9
Ni	ppm	0.2	12.6	95.6	28.0	6.8	23.9	27.1	31.1	41.9	1.5	2.3
Pb	ppm	0.05	10.00	51.30	24.77	4.47	22.00	24.70	27.50	34.07	1.4	1.5
Pt	ppb	1	BD	14	3	1	2	3	3	6	2.0	2.3
Zn	ppm	0.2	26.0	186.0	51.3	12.1	43.5	49.7	57.0	78.1	1.6	2.4

\*BD: Below Detection (for statistical calculations half of the detection limit is used when assay result is BD).







## Appendix 2.

## JORC Code, 2012 Edition (Table 1) - Firebird Ultrafine Sampling

#### Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>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.</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 (eg '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 (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>A total of 1,014 individual soil samples (plus duplicates) were collected from the Firebird Project Tenements. Sampling was undertaken on an east-west x north-south grid spacing of 50m x 400m to 100m x 800m.</li> <li>A ~200g sample was collected from each site using metal digging tools and a 0.125mm or 0.9mm sieve. Samples were retrieved from a hole dug ~10cm deep, passed through the sieve, and collected in a soil-geochemistry bag.</li> <li>Industry standard procedures utilised to minimise sample site contamination.</li> <li>Field samples were prepared by LabWest Minerals Analysis Pty Ltd (LabWest). A 2g charge weight of &lt;2μm material was collected from each sample for UltraFine analysis.</li> </ul>
Drilling techniques	<ul> <li>Drill type (eg core, reverse circulation, open- hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter,</li> </ul>	Not applicable – no drilling reported.



Criteria	JORC Code explanation	Commentary
	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	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise 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 due to preferential loss/gain of fine/coarse material.</li> </ul>	Not applicable – no drilling reported.
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 or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>A basic qualitative description of the sample location was recorded by field staff.</li> <li>A photograph of each sample and location was taken.</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core 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 maximise representativity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for</li> </ul>	<ul> <li>Field soil sampling was completed by trained Apex Geoscience Ltd (Apex) field technicians, using internal procedures to avoid sample contamination and ensure representative samples were taken. These procedures included cleaning sampling equipment between samples, removing jewellery during sampling, collection of dry samples, taking several scoops from the bottom of sample holes, and sieving to remove large soil particles.</li> <li>Sub-sampling was completed by an independent and certified laboratory, LabWest (Perth), using internal QC procedures. The 2g subsample of &lt;2µm material was appropriate to analyse the ultrafine</li> </ul>



Criteria	JORC Code explanation	Commentary
	<ul> <li>field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul><li>particles and ensure sample representivity.</li><li>Field duplicate samples were collected and assessed at a rate of 1:50.</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 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.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	<ul> <li>Samples were submitted to LabWest in Perth for gold and multi-element analysis utilising the Ultrafine method, a technique developed in conjunction with the CSIRO to analyse the reactive &lt;2µm clay fraction with microwave aqua regia digestion and low detection level ICPMS. Only the most resistive analytes were not completely digested.</li> <li>LabWest's internal QAQC procedures were utilised, and results deemed to have acceptable levels of accuracy and precision. Each rack of 35 samples was analysed with 2x reagent blanks, 2x (in-rack) repeat analysis, and 3x certified reference materials (CRMs).</li> </ul>
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>All results were reviewed internally by company geologists, and externally geochemistry consultancy GC Xplore.</li> <li>Data was received and stored in digital format in secure off-site servers.</li> <li>No adjustments were made to assay data.</li> </ul>
Location of data points	<ul> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>A handheld GPS with +/- 5m accuracy was used for sample location.</li> <li>All data utilises the UTM grid GDA94, Zone 50S.</li> <li>Publicly available topographic data used to assign sample heights.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the</li> </ul>	<ul> <li>Sampling has been undertaken on east-west / north-south orientated lines at either; 50m x 400m or 100m x 800m (See Appendix 1).</li> <li>The soil sampling data spacing and distribution was deemed sufficient</li> </ul>



Criteria	JORC Code explanation	Commentary
	Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.  • Whether sample compositing has been applied.	<ul> <li>to interpret some geological and grade continuality. This was deemed appropriate for further exploration targeting. The soil data is not appropriate for use in any Mineral Resource or Ore Reserve estimation.</li> <li>No sample compositing was completed.</li> </ul>
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 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.</li> </ul>	<ul> <li>Soil sampling orientation is appropriate considering the regional geology interpretation.</li> <li>The regional, gridded, soil sampling strategy was utilised to reduce biases introduced by varied sample spacing.</li> </ul>
Sample security	The measures taken to ensure sample security.	<ul> <li>Samples were sealed after collection then transported directly from site to LabWest Perth by Apex Geoscience personnel. Sample security was not considered an issue.</li> </ul>
Audits or reviews	<ul> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul> <li>Sampling methodology was reviewed by GC Xplore and orientation surveys conducted to test the Ultrafine analysis technique to other particle size fractions and analysis methods. The current methodology was deemed appropriate.</li> </ul>



#### Section 2 Reporting of Exploration Results

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

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 the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	Relevant tenement Tenement No:     Tenement Type:     Status:     Location:     Size (km2)     Ownership:     Native Title:     Other Agreements:     Non-State Royalties:     Other Encumbrances:     Historical Sites:     National Parks:     Environment:	E 53/1894  Exploration License, Western Australia  Granted – 24/05/2017  Wiluna District  213  GTE 100%  Partially covered by Determined Native Title Claim. TMPAC Regional Land Access Agreement executed.  Small section of the tenement within the Determined Native Title Claim of the Yugungya-Nya People.  None  None  None  To be notified  To be notified  Paroo calcrete PEC covers a portion of the tenement.
		Tenement No: Tenement Type: Status: Location: Size (km2) Ownership: Native Title:	E 53/2027  Exploration License, Western Australia  Granted – 10/01/2019  Wiluna District  31  GTE 100%  No native title exists



Criteria	JORC Code explanation	Commentary	
		Other Agreements:	None
		Non-State Royalties:	None
		Other Encumbrances:	None
		Historical Sites:	None
		National Parks:	None
		Environment:	None
		Tenement No:	E 53/2129
		Tenement Type:	Exploration License, Western Australia
		Status:	Granted 26/05/2021
		Location:	Wiluna District
		Size (km2)	20.7
		Ownership:	GTE Earning up to 80%. JV in place between GTE and tenement holder Jindalee Resources (ASX: JRL).
		Native Title:	Partially covered by Determined Native Title Claim. A land access agreement is currently being negotiated with TMPAC.
		Other Agreements:	Earn-in and Joint Venture in place between GTE and JRL. For details see GTE ASX announcement: 22/08/2021 Large Strong Gold Anomaly at Firebird Gold Project.
		Non-State Royalties:	None
		Other Encumbrances:	None
		<b>Historical Sites:</b>	None
		National Parks:	None
		Environment:	None
Exploration done by	Acknowledgment and appraisal of exploration	<ul> <li>Acknowledgemen</li> </ul>	t and appraisal of exploration undertaken by previous
other parties	by other parties.	•	n GTE ASX announcement: 22/08/2021 – Large naly at Firebird Gold Project.
Geology	<ul> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	GTE have targeted	Archaean lode-gold mineralisation utilising soil ditional exploration with confirm this geological



Criteria	JORC Code explanation	Commentary
		setting and style.
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:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </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>	Not applicable - no drill hole information reported.
Data aggregation methods	<ul> <li>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.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	No data aggregation was completed.
Relationship between mineralisation	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> </ul>	Not applicable - no drill hole information reported.



Criteria	JORC Code explanation	Commentary
widths and intercept lengths	<ul> <li>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').</li> </ul>	
Diagrams	<ul> <li>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.</li> </ul>	Plan view of the sample locations are provided in Appendix 1.
Balanced reporting	<ul> <li>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.</li> </ul>	<ul> <li>Individual assays not reported, results are summarised within the Appendix 1 Ultrafine Statistics Table.</li> </ul>
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 test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul>	<ul> <li>Field structural mapping appears to coincide with surface Ultrafine sampling contours. Rock-chip sampling was completed on outcrops and assay results are outstanding.</li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (eg tests 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</li> </ul>	<ul> <li>Further exploration work could include geological mapping and outcrop sampling, additional Ultrafine/lag sampling, and/or RAB/AC/RC drilling.</li> </ul>
	geological interpretations and future drilling areas, provided this information is not commercially sensitive.	<ul> <li>Geological interpretations of grade continuality was made in the body of the announcement.</li> </ul>

