# ASX ANNOUNCEMENT

**21st September 2022**

# High Grade Samples Received from the Christina Tin-Tungsten Project

## Highlights:

- **Samples recorded up to 2.19% Sn (tin) and 44.2% $WO_3$ (tungsten) from quartz veins**
- **Other mineralogical samples taken from host granite revealed anomalous tin and tungsten grades**
- **100 further samples have been dispatched to SGS laboratories in Canada**
- **Tungsten has numerous applications in electrical vehicles**

EV Resources Limited ("**EVR**", or "**the Company**") is pleased to report on the initial eight samples taken at the Christina Tin-Tungsten Project in Morocco, from selected locations on surface and underground.

The eight samples were collected as part of an initial due diligence programme and were taken primarily for mineralogical assessment in specialist laboratories in Europe, to understand the mineral assemblages of the host granites, as a guide for the exploration strategy. Three samples (EZ-06, EZ-07, EZ-08) were collected from the quartz veined material, both on old surface stockpiles and from underground and these samples have, as anticipated, returned outstanding assays that demonstrate a compelling exploration project. Table 1 below describes the assay results from the sample programme.

***Table 1. Assays from SGS Laboratories***

| Sample Number | Rock Type | Site | Sn (%) | W % | Nb (ppm) |
|---|---|---|---|---|---|
| EZ-01 | altered quartz vein | surface | <0.005 | 0.01 | 5 |
| EZ-02 | granite with potassic alteration | surface | 0.0058 | 0.02 | 9 |
| EZ-03 | granite with potassic alteration | Underground fault | 0.01 | 0.04 | 10 |
| EZ-04 | granite with potassic alteration | underground | <0.005 | <0.005 | 10 |
| EZ-05 | granite with potassic alteration | underground | <0.005 | 0.00 | 10 |
| EZ-06 | quartz vein with wolframite | stockpile near explosives depot | **0.46** | <0.005 | **135** |
| EZ-07 | quartz vein with wolframite | stockpile near explosives depot | **0.12** | **15.10** | **227** |
| EZ-08 | quartz vein with wolframite | Sample from mine shaft at 80m depth | **2.19** | **44.20** | **206** |



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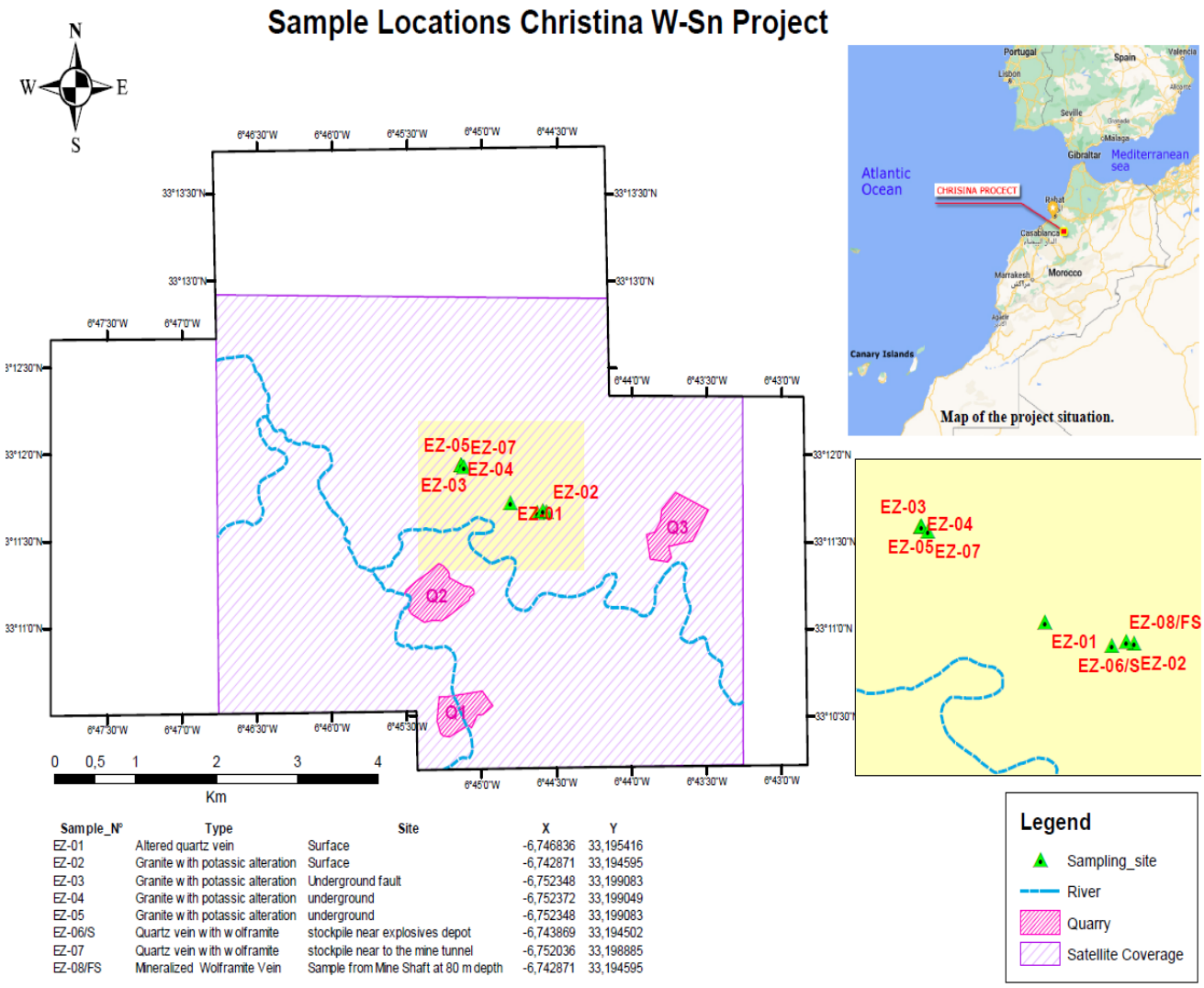


| Sample_N° | Type | Site | X | Y |
|---|---|---|---|---|
| EZ-01 | Altered quartz vein | Surface | -6,746836 | 33,195416 |
| EZ-02 | Granite with potassic alteration | Surface | -6,742871 | 33,194595 |
| EZ-03 | Granite with potassic alteration | Underground fault | -6,752348 | 33,199083 |
| EZ-04 | Granite with potassic alteration | underground | -6,752372 | 33,199049 |
| EZ-05 | Granite with potassic alteration | underground | -6,752348 | 33,199083 |
| EZ-06/S | Quartz vein with wolframite | stockpile near explosives depot | -6,743869 | 33,194502 |
| EZ-07 | Quartz vein with wolframite | stockpile near to the mine tunnel | -6,752036 | 33,198885 |
| EZ-08/FS | Mineralized Wolframite Vein | Sample from Mine Shaft at 80 m depth | -6,742871 | 33,194595 |

***Figure 1. Sample Locations at Christina***

**Geological Report**

The Christina Tin (Sn) and Tungsten (W) grassroots exploration project is located approximately 120km east of Casablanca, Morocco. EV Resources has secured an option for a large area (48km²) under licence, a proportion of which is being converted to a mining licence. (See ASX Announcement "*Extension of Purchase Option at Christina Project*, dated 24th August 2022).

The project area has seen sporadic mining during the 1930's through to the early 1980's, from a few nearly vertical shafts (to 80m below surface) and from at least three horizontal adits with lengths of up to 150m. Ore was hand-sorted, and no plant was ever in operation.

The deposit is located in the southern part of the Hercynian granitic Zaer intrusive. Mineralisation is associated with the presence of coarse-grained two-mica granite, showing potassic alteration, and with the presence of greisen, and a high density of quartzose micro veins.

In June 2022 an initial eight rock samples - hydrothermally altered granite and quartz veins with visible wolframite, taken from surface and from underground, in situ and from stockpiles - were collected in a highly selective manner to gain an insight into the mineral content of host granite rock, and metal grades from the quartz veins. Moreover, this first sampling campaign served as a trial to identify the optimal route for sample preparation and assaying techniques for a much larger number of samples.



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**Sample Preparation**

The samples were prepared at SGS Maroc (Casablanca) using the following technique:

1. Weight and dry sample
2. Crush entire sample to -2mm to 75%.
3. Split around 220 – 250gr using riffle splitter.
4. Pulverize the 220 – 250 gr to 85% -75 microns.

70–100-gram pulp samples were shipped and assayed at SGS Canada. The most appropriate method is an ICP-MS package (56 elements) with Sodium Peroxide Fusion (GE_IMS90A50_C). Sodium peroxide is a strongly oxidizing flux that is basic, not acidic in nature. It renders most refractory minerals soluble. As Sn and W contents in three samples were found above the upper detection limit of 1%, they were re-assayed with GO_ICP90Q100. Due to higher contents of Mn (compared to Fe), wolframite is probably mainly present as hübnerite. REE and Nb / Ta values are low, as are all other metals of potential interest.

Duplicate pulps of the samples were also sent to Aix Minerals laboratory in Germany, with the intent to obtain an understanding of the mineralogical content. Aix Minerals is a specialist laboratory for X-Ray Diffraction analysis. All minerals occurring in the samples were identified and quantified.

Samples EZ-01 to EZ-05 consist of quartz, plagioclase, K-feldspar and illite/muscovite. For samples EZ-06, EZ-07 and EZ-08 the tungsten bearing minerals wolframite and scheelite could be identified, as well as traces of cassiterite.

**Next Steps**

100 samples of micro-veinlets and surrounding granites have been submitted to SGS Laboratories in Canada. The programme has been designed to test the potential for bulk mineralisation outside of the very high-grade quartz veins, which will be a key determinant in a precise exploration strategy.

A further 300 samples taken in the recent programme are in storage and await dispatch to SGS once the results of the 100 samples have been analysed.

*This ASX announcement was authorised for release by the Board of EV Resources Limited.*

**ENDS**

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# Tungsten – An Electric Vehicle Metal

EV Resources has noted that the tin-tungsten orebody evidently has a substantial tungsten component to complement the primary focus on tin. Tungsten is a key component of many emerging applications in the transition to a lower carbon economy, and it has a number of applications directly used in the EV industry.

Tungsten is listed as a Critical Mineral on most Governments' list of critical minerals, and most production is based in China. Tungsten is a shiny, silvery-white metal that has the highest melting point as compared to other metals. It derives its name from the Swedish "Tung Sten," which means "heavy stone." Due to its high melting point property, it has diverse uses. Tungsten is a highly corrosive resistance, and therefore it is resistant to acid attacks. Tungsten is malleable and quite ductile. Tungsten metal can be used as a pure metal or mixed with metals (alloys) because of its favourable properties. Some of the uses of tungsten metal in many industrial applications are well known, but its relevance to EVR is its emerging role in the Electric Vehicle (EV) industry.

**Lithium-Ion Batteries**

The Company is aware of two technology companies advancing lithium battery technology which use tungsten as a performance enhancing component that principally allow a faster charging rate and higher power density in rechargeable batteries.

These emerging technologies add tungsten and carbon multi-layered nanotubes to the anode materials that bond to the copper anode substrate and build up a web-like nanostructure. This layer formed a vast surface for more ions to attach to during recharge and discharge cycles which results in the improvement of the recharge rates and overall energy storage due to the increase in the storage area for ions.

**Semi-Conductors**

At present, high-purity tungsten and tungsten alloys have been widely used in the field of semiconductor integrated circuit manufacturing as gate electrodes, shielding metals, diffusion barriers, etc. Tungsten has become an indispensable key basic material. Even though integrated circuits are replacing many electronic applications that use tungsten or tungsten wire, an integrated circuit cannot be manufactured without tungsten wire. This is because most integrated circuits made today start with a single crystal ingot of silicon, called a boule. It is created by dipping a small seed crystal into pure molten silicon in an oven that has been heated to about 2732°F (1500°C).

The molten silicon is slowly pulled and elongated into a boule, forming a larger, cylindrical crystal. Once it is solidified, the crystal is sliced into wafers and polished to provide very regular, flat substrates for semiconductors. The only material that is suitable for pulling a boule — and uniquely capable of performing as designed in the very high temperature of the silicon manufacturing process— is a cable made of woven tungsten wire. Because tungsten has the least elongation of any material, tungsten wire can pull the silicon in operating temperatures where other materials with a lower melting point would stretch and break. Tungsten wire is also used in semiconductor chip manufacturing as cantilever probe needles. These probes are used to test integrated circuits when they are still arrayed on monocrystalline wafers.

**Fuel Cells**

Tungsten oxides or powder can be used in fuel cells. This is because tungsten oxide is associated with intercalation and poly-condensation properties that are vital in making fuel cells. Therefore, tungsten may be used as one of the raw materials in industries making these cells.



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**Forward Looking Statement**

Forward Looking Statements regarding EVR´s plans with respect to its mineral properties and programs are forward-looking statements. There can be no assurance that EVR's plans for development of its mineral properties will proceed as currently expected. There can also be no assurance that EVR will be able to confirm the presence of additional mineral resources, that any mineralisation will prove to be economic or that a mine will successfully be developed on any of EVR's mineral properties. The performance of EVR may be influenced by a number of factors which are outside the control of the Company and its Directors, staff, and contractors. These statements include, but are not limited to statements regarding future production, resources or reserves and exploration results. All of such statements are subject to certain risks and uncertainties, many of which are difficult to predict and generally beyond the control of the company, which could cause actual results to differ materially from those expressed in, or implied or projected by, the forward-looking information and statements. These risks and uncertainties include, but are not limited to: (i) those relating to the interpretation of drill results, the geology, grade and continuity of mineral deposits and conclusions of economic evaluations, (ii) risks relating to possible variations in reserves, grade, planned mining dilution and ore loss, or recovery rates and changes in project parameters as plans continue to be refined, (iii) the potential for delays in exploration or development activities or the completion of feasibility studies, (iv) risks related to commodity price and foreign exchange rate fluctuations, (v) risks related to failure to obtain adequate financing on a timely basis and on acceptable terms or delays in obtaining governmental approvals or in the completion of development or construction activities, and (vi) other risks and uncertainties related to the company's prospects, properties and business strategy. Our audience is cautioned not to place undue reliance on these forward-looking statements that speak only as of the date hereof, and we do not undertake any obligation to revise and disseminate forward-looking statements to reflect events or circumstances after the date hereof, or to reflect the occurrence of or non-occurrence of any events.

**Competent Person's Statement**

The information in this announcement that relates to the Christina Project, is based on information compiled by Mr Bakr Khudeira who is a Member of the Australian Institute of Mining and Metallurgy (MAusIMM Number 230652). Mr Khudeira is a consultant to EVR. Mr Khudeira 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 Khudeira consents to the inclusion in this announcement of the matters based on information in the form and context in which it appears.



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## APPENDIX 1:

***Details of Sample Type and Location.***

| Sample N° | Rock Type | Site | X | Y |
|---|---|---|---|---|
| EZ-01 | altered quartz vein | surface | -6.746836 | 33.195416 |
| EZ02 | granite with potassic alteration | surface | -6.742871 | 33.194595 |
| EZ-03 | granite with potassic alteration | Underground fault | -6.752336 | 33.199047 |
| EZ-04 | granite with potassic alteration | underground | -6.752336 | 33.199047 |
| EZ-05 | granite with potassic alteration | underground | -6.752336 | 33.199047 |
| EZ-06/Sr | quartz vein with wolframite | stockpile near explosives depot | -6.752336 | 33.194553 |
| EZ-07 | quartz vein with wolframite | stockpile near explosives depot | -6.752336 | 33.199047 |
| EZ-08/FS | quartz vein with wolframite | Sample from mine shaft at 80m depth | -6.742871 | 33.194595 |



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# JORC Code, 2012 Edition – Table 1 report template

## Section 1 Sampling Techniques and Data

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

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| ***Sampling techniques*** | • *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.*<br>• *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.*<br>• *Aspects of the determination of mineralisation that are Material to the Public Report.*<br>• *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.* | • A raw target mass of averaged 1.5 kg (1 – 2 kg) was taken from the surface (fresh granite, quartz vein), from an underground gallery (fresh granite, quartz vein), and from stockpiles (quartz vein material)<br>• Quartz vein material contained visible mineralization (wolframite), granite and quartz veins from surface and underground without visible mineralisation |
| ***Drilling techniques*** | • *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.).* | • No drilling was performed |
| ***Drill sample recovery*** | • *Method of recording and assessing core and chip sample recoveries and results assessed.*<br>• *Measures taken to maximise sample recovery and ensure representative nature of the samples.*<br>• *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.* | • No drilling was performed |
| ***Logging*** | • *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.*<br>• *Whether logging is qualitative or quantitative in nature. Core (or costean,* | • No drilling was performed |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | *channel, etc.) photography.*<br>• *The total length and percentage of the relevant intersections logged.* | |
| ***Sub-sampling techniques and sample preparation*** | • *If core, whether cut or sawn and whether quarter, half or all core taken.*<br>• *If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.*<br>• *For all sample types, the nature, quality and appropriateness of the sample preparation technique.*<br>• *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.*<br>• *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.*<br>• *Whether sample sizes are appropriate to the grain size of the material being sampled.* | • Rock samples were dry<br>• Comminution and preparation to sub-samples was conducted at SGS facility at Mohammedia in Morocco, using SGS preparation method (PRP89)<br>  • Weight and dry sample<br>  • Crush entire sample to -2mm to 75%<br>  • Split around 220-250gr using riffle splitter<br>  • Pulverize the 220-250gr to 85% -75 microns<br>  • Ship of around 70-100gr to SGS Canada<br>• Due to the very early stage of exploration (sampling was done reconnaissance style), standard QA/QC procedures during sampling were not observed. However, SGS inserted blanks and standards during the execution of the assaying programme<br>• Sample size at Christina Project is believed to be broadly appropriate and consistent with industry best-practice. But given the high level of heterogeneity in tungsten mineralization in quartz veins, the sample sizes used for assessment of W grades in rock samples at Christina are too small and hence a reliable assessment of the W grade is not possible |
| ***Quality of assay data and laboratory tests*** | • *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*<br>• *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.*<br>• *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.* | • SGS Method Code for 56 overview element assays at SGS Burnley / Ontario in Canada is GE_IMS90A50_C. Description: Na2O2 Fusion, HNO3, ICP-MS<br>• Sample preparation process and analytical method is standard for W-Sn deposits worldwide<br>• Assay results in excess of 1% W and 1% Sn were re-assayed by GO_ICP90Q100 for a maximum of 5% Sn and 4% W<br>• Standard quality procedures by SGS (standards, blanks, duplicates)<br>• External laboratory is Aix Minerals in Germany (X Ray Diffraction analysis, including quantitative determination of primary dominant mineral constituents and trace mineral components) |
| ***Verification of sampling and assaying*** | • *The verification of significant intersections by either independent or alternative company personnel.*<br>• *The use of twinned holes.*<br>• *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.*<br>• *Discuss any adjustment to assay data.* | • No drilling was performed |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| ***Location of data points*** | • *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.*<br>• *Specification of the grid system used.*<br>• *Quality and adequacy of topographic control.* | • Sample points recorded by GPS (NAVA F30)<br>• Grid system: WGS-84 |
| ***Data spacing and distribution*** | • *Data spacing for reporting of Exploration Results.*<br>• *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.*<br>• *Whether sample compositing has been applied.* | • The samples are reconnaissance in nature, and therefore sampling spacing is very variable<br>• The data is not suitable for use in mineral resource estimate reporting and is not intended for such use |
| ***Orientation of data in relation to geological structure*** | • *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.*<br>• *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.* | • The samples are reconnaissance in nature and cover different locations, so any biasing effect caused by orientation is yet to be determined |
| ***Sample security*** | • *The measures taken to ensure sample security.* | • Between sampling and time of delivery at SGS samples were stored for two weeks at home of EV Resources consultant Rachid El Moukhayar |
| ***Audits or reviews*** | • *The results of any audits or reviews of sampling techniques and data.* | • No audits have been carried out at this point |

## 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*** | • *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.*<br>• *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.* | • Permit No. PR2137940, PR2137970 and PR1137830. The licences are exploration licences, with an application for the conversion of a portion to an exploitation licence<br>• No material issues with third parties<br>• The project area is located ca 120 km east of the coastal city of Casablanca |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| ***Exploration done by other parties*** | • *Acknowledgment and appraisal of exploration by other parties.* | • There has been no previous conventional exploration |
| ***Geology*** | • *Deposit type, geological setting and style of mineralisation.* | • Hercynian vein-type mineralisation hosted in two-mica granite |
| ***Drill hole Information*** | • *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:*<br>  ○ *easting and northing of the drill hole collar*<br>  ○ *elevation or RL (Reduced Level – elevation above sea level in meters) of the drill hole collar*<br>  ○ *dip and azimuth of the hole*<br>  ○ *down hole length and interception depth*<br>  ○ *hole length.*<br>• *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.* | • No drilling was performed |
| ***Data aggregation methods*** | • *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g., cutting of high grades) and cut-off grades are usually Material and should be stated.*<br>• *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.*<br>• *The assumptions used for any reporting of metal equivalent values should be clearly stated.* | • No data aggregation methods were used in this announcement |
| ***Relationship between mineralisation widths and intercept lengths*** | • *These relationships are particularly important in the reporting of Exploration Results.*<br>• *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.*<br>• *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g., 'down hole length, true width not known').* | • No drilling was performed |
| ***Diagrams*** | • *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These* | • No drilling was performed |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | *should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.* | |
| ***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.* | • All assay results of this campaign are reported in SGS Report 30 July 2022, SGS Report 30 August 2022, and Aix Minerals Report 19 July 2022 |
| ***Other substantive exploration data*** | • *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.* | • No information available on metallurgy, ground water, bulk density, or rock stability |
| ***Further work*** | • *The nature and scale of planned further work (e.g., tests for lateral extensions or depth extensions or large-scale step-out drilling).*<br>• *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.* | • During historical artisanal mining only wider quartz veins (>50cm) with visible wolframite mineralisation were exploited. The upcoming sampling campaign is designed to test for wolframite and scheelite mineralisation contained in veinlets and micro veins, and in host granite adjoining quartz veining<br>• Planned sampling programme will also investigate targets further away from historical production sites within licenced areas |