

ASX Announcement | 28 November 2023  
Variscan Mines Limited (ASX:VAR)

## MAIDEN JORC MINERAL RESOURCE ESTIMATE FOR SAN JOSE MINE OF 1.1Mt @ 9.0% ZINC, 1.2% LEAD

### Highlights

- Maiden JORC Mineral Resource Estimate ('MRE') of 1.1Mt @ 9.0% Zinc, 1.2% Lead published for the historically producing San Jose Mine, situated within the Novales-Udias Project in Cantabria, northern Spain.
- Resources in the Indicated category represent 45% of the MRE with grades notably higher (10% Zn) than those in the Inferred category (8.2% Zn) providing potential for significant grade and tonnage increases with infill drilling.
- The deposit is considered to be of sufficient grade, quantity, and continuity to have reasonable prospects for eventual economic extraction.
- New, additional JORC Exploration Target has also been estimated for the wider San Jose and Udías deposits, indicating the potential for the initial MRE to grow substantially.
- The Exploration Target for the San Jose Mine is supplemental to the existing JORC Exploration Target over the entire Novales-Udias Project published by Variscan in Q3 2022 which remains extant.
- Mineralisation remains open along strike, and at depth, offering the potential to increase the MRE through follow-up drilling.
- The maiden MRE reported for the San Jose Mine is one of the highest grade zinc mineral resources currently owned by an ASX-listed company.

Variscan Mines Limited (ASX:VAR) ("Variscan" or "the Company") is pleased to report a maiden JORC (2012) compliant Mineral Resource Estimate ("MRE") for the San Jose Mine, near Novales, located in Cantabria, northern Spain.

### Maiden JORC Mineral Resource Estimate for the San Jose Mine

ERM Sustainable Mining Services team (previously CSA Global) ("ERM"), was engaged by Variscan to report a MRE for the San Jose deposit and the adjacent north-eastern part of the Udías deposit.

The MRE is **1.1Mt @ 9.0% Zn and 1.2%Pb** at a cut-off grade of 2% Zn.

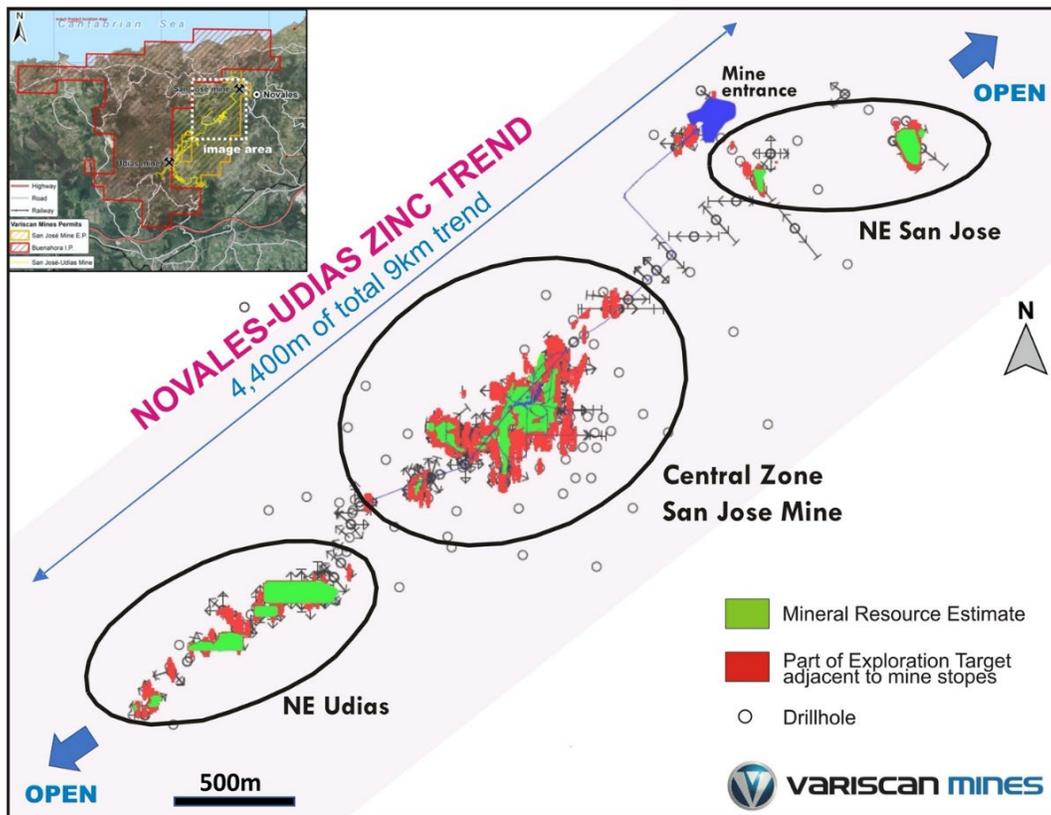
**Table 1.** JORC Mineral Resource Estimate for San Jose Mine and north-eastern Udías by deposit and classification reported above a 2% Zn cut-off

Deposit	Classification	Tonnes (Kt)	Zn %	Pb %	Zn + Pb %
San Jose	Indicated	490	10.0	1.7	11.7
	Inferred	250	12.3	1.6	14.0
	<b>Sub-total</b>	<b>740</b>	<b>10.8</b>	<b>1.7</b>	12.5
San Jose (NE)	Inferred	260	4.7	0.1	4.8
Udías (NE)	Inferred	90	6.5	0.4	6.8
Total	<b>Indicated</b>	<b>490</b>	<b>10.0</b>	<b>1.7</b>	<b>11.7</b>
	<b>Inferred</b>	<b>590</b>	<b>8.2</b>	<b>0.8</b>	<b>8.9</b>
	<b>Total</b>	<b>1,080</b>	<b>9.0</b>	<b>1.2</b>	<b>10.2</b>

Notes:

- Due to effects of rounding, the total may not represent the sum of all components.
- Mineral Resource is reported from all blocks, classified as either Indicated or Inferred, where interpolated block grade is  $\geq 2.0\%$  Zn
- Block model is coded where blocks have been depleted by historical underground mining activities.
- A density value of 3 t/m<sup>3</sup> is applied to all blocks

**Figure 1.** JORC Mineral Resource Estimate for San Jose Mine and north-eastern Udías by deposit



The MRE has been estimated for the San Jose deposit and included the adjacent north-eastern part of the Udías deposits, both of which were previously mined for zinc during the 20th century.

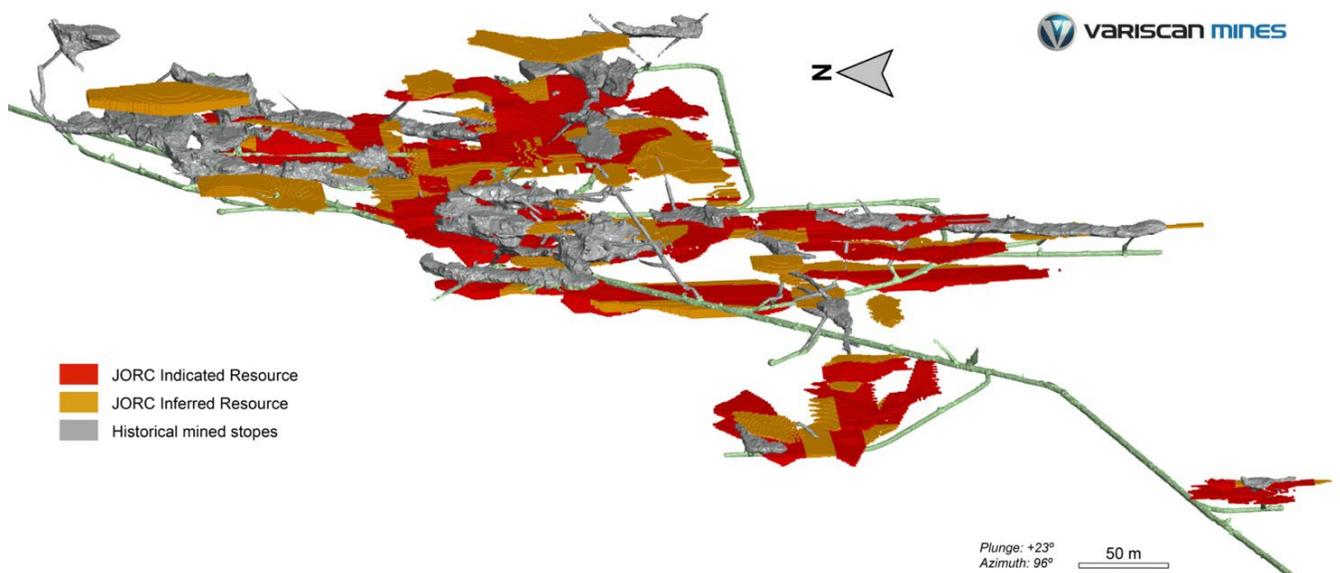
The Project is centred around the former producing San Jose underground zinc-lead mine with a large surrounding area of exploration opportunities over the 9 km Novales Trend, which includes a number of satellite underground and surface workings.

Underground and surface drilling has been carried out since the 1960's, with a drill hole database containing 1,105 drill-holes for approximately 94,808m. Variscan carried out surface and underground drilling programs in 2022 and 2023, targeting extensions to the known zones of mineralisation as well as targeting new zones of mineralisation.

The mineralisation is classified as Mississippi Valley-type ("MVT"), hosted within a stratiform dolomitic unit. The MRE is classified as a combination of Indicated and Inferred categories and has been reported in accordance with the JORC Code (2012)<sup>1</sup>, with geological and sampling evidence sufficient to assume geological and grade continuity within the volumes classified as Indicated. The MRE classification levels are based upon an assessment of geological understanding of the deposit, geological and grade continuity, drill-hole spacing, quality control results, search and interpolation parameters, and an analysis of available density information.

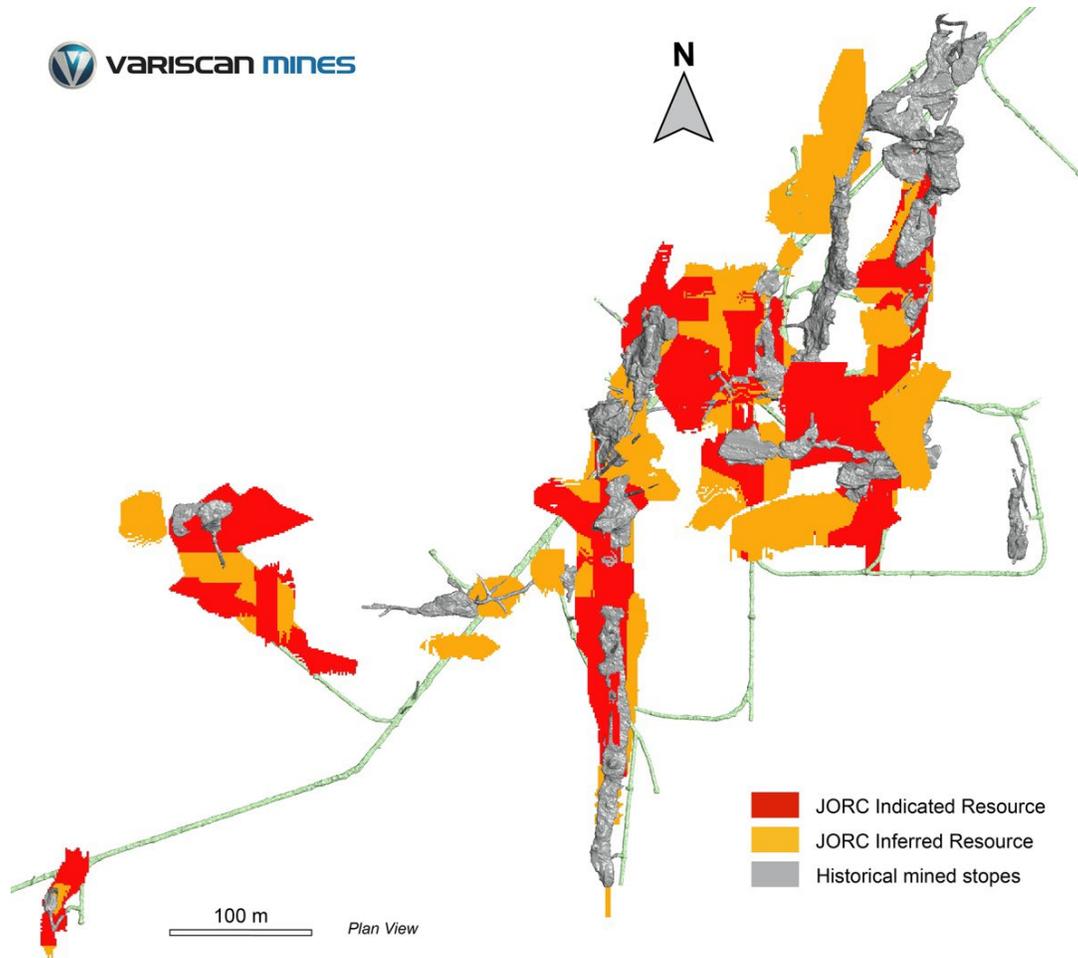
The deposit is considered to be of sufficient grade, quantity, and continuity to have reasonable prospects for eventual economic extraction.

**Figure 2.** Mineral Resource Estimate categories in 3D View



<sup>1</sup> Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. The JORC Code, 2012 Edition. Prepared by: The Joint Ore Reserves Committee of The Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia (JORC).

**Figure 3.** Mineral Resource Estimate categories in Plan View



The San Jose Mine sits within the wider Novalés-Udías Project, which is located in northern Spain. It is an area with a rich mining history of MVT Zn-Pb deposits, including this Project and the world-class Reocin MVT Zn-Pb deposit located 8 km to the south-east. The region has sufficient infrastructure for water and power to support a future mining operation, and a sizeable workforce resident in nearby regional towns. Metallurgical testwork was recently commissioned by Variscan, with results pending; however, the very simple ore mineralogy, the bulk of which is zinc sulfide, as well as a historical records of past concentrates averaging ~60% Zn and 65-75% Pb, indicate that the ores are amenable to straightforward processing and beneficiation.

The high-grade nature of the San Jose Mine is evident. Variscan's own drilling has returned very high grades<sup>2</sup>. It is understood that the Run of Mine grade between 1970 and 1988 was approximately 6.3% Zn and 1.7% Pb<sup>3</sup>.

<sup>2</sup> Refer ASX announcements: 3rd February 2020, 3rd March 2020, 16th March 2020, 1st April 2020, 9th March 2021, 25th May 2021, 15th June 2021, 4th August 2021, 15th March 2022, 7th July 2022, 25th August 2022, and 2nd March 2023

<sup>3</sup> Historical production data sourced from the School of Mines in Torrelevega, Cantabria

### Additional JORC Exploration Target indicates the potential scale and grade of the San Jose Mine

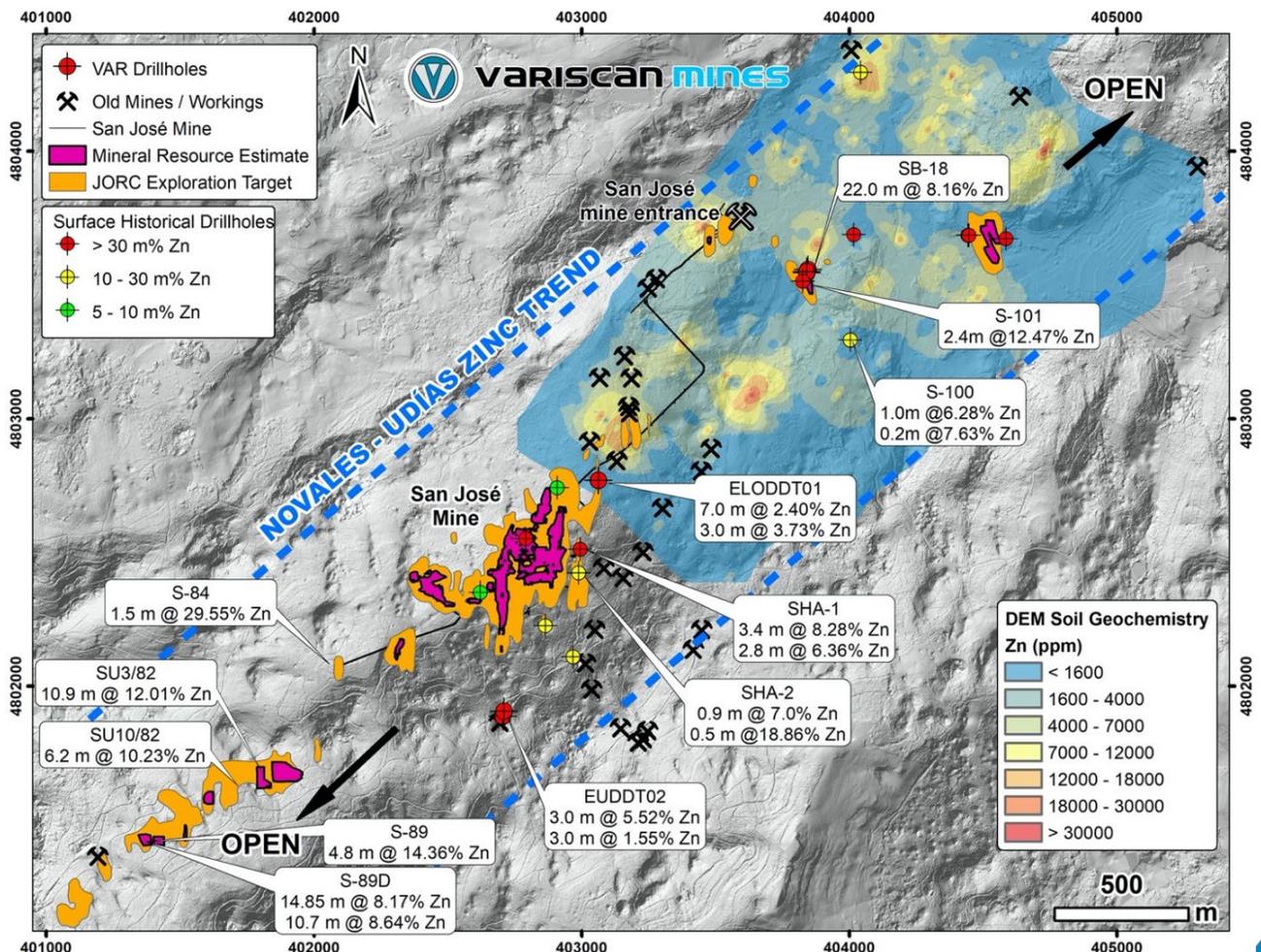
The above reported MRE sits within a larger JORC Exploration Target of **3Mt - 6Mt, with grade ranges of 7 - 11% Zn and 0.3 - 1.6% Pb\***.

\*The potential quantity and grade of this exploration target is conceptual in nature, there is currently insufficient exploration completed to support a mineral resource of this size and it is uncertain whether continued exploration will result in the estimation of a Mineral Resource. The Exploration Target has been prepared in accordance with the JORC Code (2012).

**Table 2. JORC Exploration Target Tonnage and Grade Estimate Ranges**

Range	Tonnes (Mt)	Zn %	Pb %
Lower Estimate	3.0	7.0	0.3
Upper Estimate	6.0	11.0	1.6

**Figure 5. JORC Exploration Target indicates scope for Mineral Resource to grow**



The following observations and assessment of historical records and drilling data within and surrounding the San Jose Mine and Novales-Udías Trend were used to guide and support the estimation of the Exploration Target. A significant part of the Exploration Target is located beyond the limits of historical and recent drilling in the central part of the San Jose deposit, but is supported by the following:

- Style of mineralisation seen to exhibit significant lateral continuity.
- Information from historical surface drill holes in the area surrounding the San Jose Mine and extending towards the NE (Novales), and towards SW (Udías).
- Soil geochemistry data; and
- An assessment of largely under-explored mineral trends parallel to those observed at San Jose and occurring in the sub-surface of neighbouring carbonate hills, and observed in several artisanal mines (e.g. La Andrea, Eloisa, Eucaliptal, Mina Grande, Mina Pequeña, and a few others that were the object of limited diamond drilling by Variscan).

To further support the reporting of an Exploration Target, a conceptual block model for part of the volumes supporting the Exploration Target was constructed by estimating a categorical distribution of logged mineralisation into a block model. Grade was not interpolated into this model, but a tonnage was estimated using an assumed density of 2.7 t/m<sup>3</sup>. This estimated tonnage was used to guide the reported tonnage ranges in the Exploration Target. The grade ranges are based upon a review of the Zn and Pb grade ranges estimated in the Mineral Resource model for San Jose and Udías. A significant volume of the estimated Exploration Target is located beyond the conceptual block model, and not adjacent to the San Jose stopes, as discussed in the earlier bullet points.

**The Exploration Target indicates the potential scale and grade of mineralisation in the San Jose deposit if additional exploration work is conducted.** It is uncertain if further exploration will result in the estimation of a Mineral Resource upgrade.

The Exploration Target is concentrated around the MRE deposits and over the same strike length. As these areas are well understood by Variscan it presents a de-risked opportunity and Variscan's planned field work for calendar year 2024 will include drilling over the extent of the Exploration Target.

The Exploration Target for the San Jose Mine is supplemental to the JORC compliant Exploration Target over the larger Novales-Udías Project published by Variscan in Q3 2022 (refer ASX announcement 22 July 2022) which remains extant.

### **Supplementary Information for the Mineral Resource Estimate**

The following subsections are provided consistent with ASX Listing Rule 5.8.1, with further information provided in the JORC Code (2012) – Table 1, which is attached to this announcement.

#### **Geology and Geological Interpretation**

The MVT deposit mineralisation is hosted within a grey dolostone unit underlain and overlain by limestone beds. Mineralisation is epigenetic resulting from fluids sourced from deep faults in the underlying siliciclastic sediments and circulating through the carbonates. There are at least two phases of dolomitisation, with mineralisation likely related to the latter. Lead-zinc development appears in the middle to lower part of the dolomitic unit. The dolomite is more iron-rich in areas of Pb-Zn; the mineralogy is relatively simple with sphalerite - galena ± marcasite ± calamine.

Mineralisation is commonly brecciated, banded and colloform, and occurs as 'bag'-shaped karst fills, stratiform lenticular, sub-horizontal lenses and vertical fault fills. Mineralisation is not continuous and can be irregular in thickness, usually thinning away from the faults. Thicknesses of mineralisation vary from 30 cm to several meters and the individual mineralisation lenses are separated by barren dolostone. Grades vary from <1% to >50% Zn, and drill samples often return grades of >10% Zn. Lead is subordinate, usually <3% but can reach grades of 50% in some areas.

CSA Global used geological models provided by Variscan to guide the modelling of mineralisation domains which are of sufficient quality to support a Mineral Resource estimate. The geological interpretations were carried out on 10 m spaced northing sections ( $\pm 5$  m data windows), with polygons digitised to capture the zones of mineralisation. Polygons were grouped together to form lenses, and 3D wireframe solid models constructed. Some internal dilution of barren dolostone was captured in the domain models.

Additional models were interpreted by CSA Global after reviewing the remnant mineralisation not included in the Variscan interpretations. Often the remnant mineralisation hugs or is adjacent to mining voids. CSA Global also interpreted zones of mineralisation in north-eastern Udías, and in the north-eastern region of the Project, including near the underground portal, where Variscan have recently completed initial drilling.

### **Drilling Techniques**

Historical drilling was completed between the 1950's and 1980's by Real Compañía Asturiana de Minas ("RCAM") - Asturiana de Zinc Sociedad Anonima ("AZSA"), a large mining company operating the Project during that time. The historical underground drilling is understood by Variscan to be all core drilling, and no details with regard to the drilling have been identified in the historical data. The historical drilling supporting the MRE include 925 diamond holes for 89,680 m. All historical drill hole collars were located by Variscan and have been re-surveyed, and the down hole drill directions measured with compass for bearing and dip, and the holes have been used to support the estimation of the MRE.

Variscan's drilling comprises underground and surface diamonds drill holes completed between 2020 and 2023, with 180 diamond holes for 5,128 m.

### **Sampling Techniques**

Variscan drill core were sampled as half core with sample lengths ranging between 0.4 m and 1.2 m, averaging 1.0 m, and include at least 1 m of core adjacent to the start and finish of logged mineralisation. Sample recoveries are typically >90%. Detailed geological logging was carried out for all Variscan drill-holes, with all holes photographed before and after cutting of core. Samples were logged for lithology, veins and veining intensity, alteration and mineralisation.

Descriptions and recordings of historical sampling methods are limited in their availability, with evidence that at least one of the main project operators, Asturiana de Zinc, assayed half core. Variscan have located and digitised hardcopies of geological logs for 755 of the historical underground diamond drill holes and 115 historical surface diamond drill holes. Holes were logged to varying degrees of detail, however most holes have lithological logs and record the presence and nature of mineralisation.

### **Sample Analysis Method**

All Variscan half core samples were sent directly to the ALS Seville laboratory for preparation and subsequent analysis according to industry standards with crushing, pulverizing and splitting prior to sample analysis. The sample sizes taken for the drilling reported are considered suitable for the deposit type and style of

mineralisation at this stage of exploration. The laboratory is accredited (ALS Seville) and the techniques for Zn/Pb are considered suitable.

No descriptions of the historical assaying and laboratory procedures used have been located by Variscan. It is unknown whether the techniques used were partial or total.

QAQC results from the Variscan drilling are regarded as satisfactory and the Competent Person supports their use in the Mineral Resource estimate. No QAQC results were located for the historical drilling.

### **Estimation Methodology**

A block model constrained by the interpreted geological wireframes was constructed with a parent cell size of 5 m (E) by 5 m (N) by 5 m (RL), with sub-celling to 1.25 m E by 1.25 m N by 1.25 m RL to maintain the resolution of the mineralised domains.

Drill samples were composited to 1 m or 2 m lengths, dependent upon the average sample length for each mineralisation domain. Top cuts for Zn were applied to reduce the effect of outlier grade values, and block grades for Zn, Pb, and the oxides for Zn (ZnOx) and Pb (PbOx) were interpolated using either ordinary kriging (Zn and Pb) or Inverse Distance squared (ZnOx and PbOx). A minimum of 8 and maximum of 22 samples were used to interpolate the parent cells. Block grades were validated both visually and statistically. All modelling was completed using Datamine software. The block model has been depleted by underground mine voids, including decline and stopes, which have been surveyed by Variscan. A bulk density value of 3.0 t/m<sup>3</sup> was applied to all blocks, based upon an assessment of 689 samples measured for density using the Archimedes method.

### **Mineral Resource Classification**

The Mineral Resource is classified as a combination of Indicated and Inferred. The classification of the Mineral Resources considered geological understanding of the deposit, quality of the samples, quality and quantity of density data, drill hole spacing, and the quality of the block grade estimates. Geological understanding and quality of samples is sufficient to assume geological and grade continuity in the Indicated volumes.

### **Cut-off Grades**

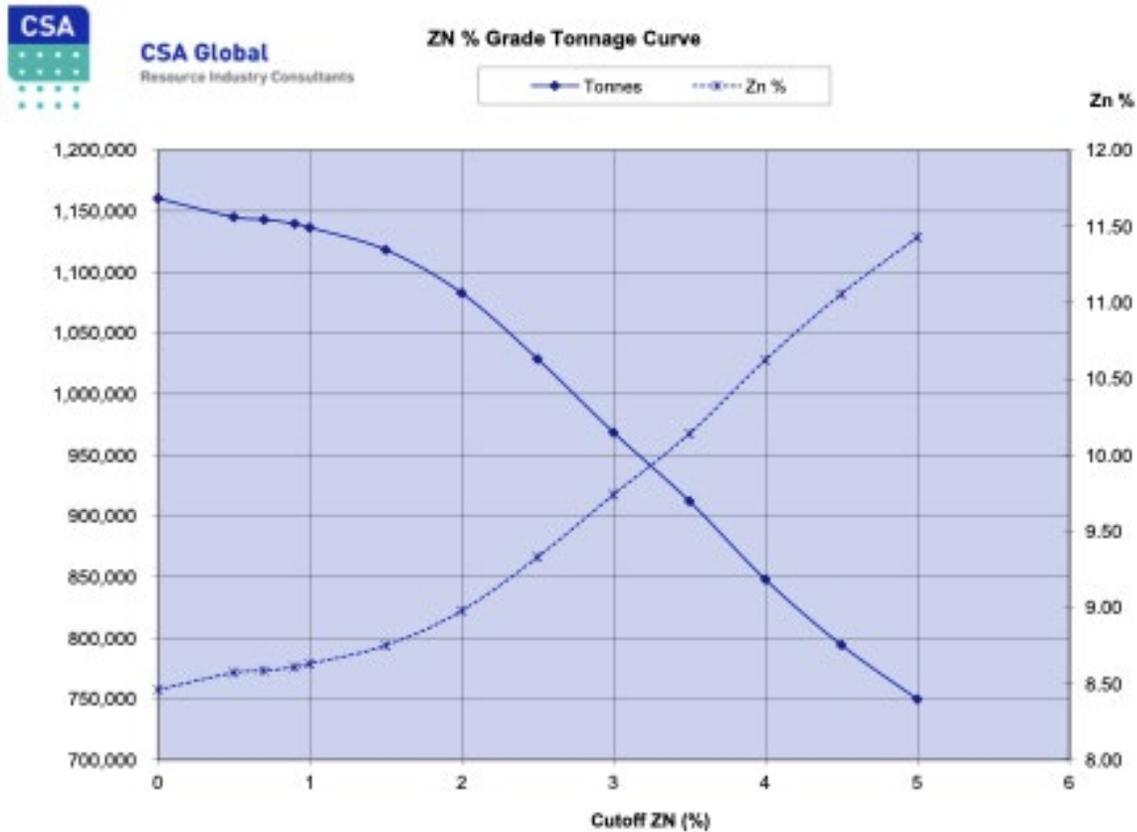
The Mineral Resource is reported above a cut-off grade of 2% Zn, which is considered by Variscan and the Competent Person to be reasonable, with this cut-off grade used for reporting of other MVT style Mineral Resources.

### **Mining and Metallurgical Methods**

Future mining activities will use underground methods, as have been used during the latter part of the 20th Century.

Variscan Mines has undertaken metallurgical studies on the San Jose mineralisation, with results pending. Based on extensive past experience of similar projects (i.e., low formation temperature MVT-style zinc-lead), and the fact that ore mineralogy at San Jose is strongly dominated by zinc sulphide, with only subordinate galena and occasional trace contents of iron sulphide, it is inferred that ore beneficiation will be straightforward and produce a high-grade zinc concentrate.

**Figure 6.** Cut-off grade sensitivity: Zinc Grade and Tonnage Curve



**Variscan’s Managing Director & CEO, Stewart Dickson said,**

*“This maiden mineral resource estimate for the San Jose Mine is a significant milestone for the Company. It validates the success of our exploration activities to date and establishes a platform upon which we can continue to build a resource inventory as well as advance mine re-start assessments.*

*We are particularly pleased that the MRE is very high grade with significant tonnage upside growth in the order of 3 - 6 times based on the Exploration Target published simultaneously. Mineralisation remains open along strike and to depth, which presents the Company with a path to potential resource inventory growth through additional exploration drilling as much of the 9km Novales Trend has yet to be incorporated into a formal resource.*

*We are looking forward to continuing to deliver on our stated development pathway.”*

**ENDS**

*This ASX announcement has been approved by the Board and authorised for issue by Mr Stewart Dickson, Managing Director and CEO, Variscan Mines Limited*

**For further information, please contact:**

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**About Variscan Mines Limited (ASX:VAR)**

Variscan Mines Limited (ASX:VAR) is a growth oriented, natural resources company focused on the acquisition, exploration and development of high-quality strategic mineral projects. The Company has compiled a portfolio of high-impact base-metal interests in Spain, Chile and Australia. Its primary focus is the development of its advanced zinc projects in Spain. The Company's name is derived from the Variscan orogeny, which was a geologic mountain building event caused by Late Paleozoic continental collision between Euramerica (Laurussia) and Gondwana to form the supercontinent of Pangea.

To learn more, please visit: [www.variscan.com.au](http://www.variscan.com.au)

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## Competent Person Statement

The information in this report that relates to Mineral Resources is based on, and fairly reflects, information compiled by Mr David Williams and Dr. Michael Mlynarczyk. Mr. David Williams is a full-time employee of ERM and is a Member of the Australian Institute of Geoscientists (RPGeo). Dr. Michael Mlynarczyk is a Principal consultant for Redstone Exploration Services, a geological consultancy acting as an external consultant to Variscan Mines and is a Professional Geologist (PGeo) of the Institute of Geologists of Ireland, and European Geologist (EurGeol) of the European Federation of Geologists, as well as Fellow of the Society of Economic Geologists (SEG). Mr David Williams and Dr. Michael Mlynarczyk have sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as Competent Persons as defined in the 2012 Edition of the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code). Mr David Williams and Dr. Michael Mlynarczyk consent to the disclosure of the information in this report in the form and context in which it appears. Dr. Michael Mlynarczyk assumes responsibility for matters related to Sections 1 and 2 of JORC Table 1, while Mr David Williams assumes responsibility for matters related to Section 3 of JORC Table 1.

The information in this report that relates to Exploration Targets is based on, and fairly reflects, information compiled by Mr David Williams. David Williams is a full-time employee of ERM and is a Member of the Australian Institute of Geoscientists (RPGeo). David Williams has sufficient experience 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 the Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code). Mr David Williams consents to the disclosure of the information in this report in the form and context in which it appears.

## Forward Looking Statements

Forward-looking statements are only predictions and are not guaranteed. They are subject to known and unknown risks, uncertainties and assumptions, some of which are outside the control of the Company. Past performance is not necessarily a guide to future performance and no representation or warranty is made as to the likelihood of achievement or reasonableness of any forward-looking statements or other forecast. The occurrence of events in the future are subject to risks, uncertainties and other factors that may cause the Company's actual results, performance or achievements to differ from those referred to in this announcement. Given these uncertainties, recipients are cautioned not to place reliance on forward looking statements. Any forward-looking statements in this announcement speak only at the date of issue of this announcement. Subject to any continuing obligations under applicable law and the ASX Listing Rules, the Company, its directors, officers, employees and agents do not give any assurance or guarantee that the occurrence of the events referred to in this announcement will occur as contemplated.

## APPENDIX A - JORC TABLE 1

### Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <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.</li> <li>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 style="list-style-type: none"> <li>The drilling data of the San Jose mine and adjacent area that is referenced in this report relate to historical surface and underground drilling conducted by previous operators, as well as to the underground and surface drilling conducted in the area by Variscan Mines in the years 2020-2023. The complete information on the multiple drilling campaigns of various vintages is extensive and can be found in prior ASX press releases by Variscan Mines from 3rd February 2020, 3rd March 2020, 16th March 2020, 1st April 2020, 9th March 2021, 25th May 2021, 15th June 2021, 4th August 2021, 15th March 2022, 7th July 2022, 25th August 2022, and 2nd March 2023 on the website <a href="http://www.variscanmines.com.au">www.variscanmines.com.au</a>.</li> <li>Historical data is sourced from previous Project operator exploration activities, performed from the 1950's to the late 1990's. Historical data includes both underground and surface core drilling, of which the paper-format core logs and location maps are held at the School of Mines and Energy Engineering at Torrelavega, a faculty of the University of Cantabria, Spain.</li> <li>Due to the incomplete nature of the historical drill hole data, including procedures, a comment on the sample representativity or calibration of measurement tools or systems used by historical workers cannot be made, and cannot be considered 'industry standard' by modern standards.</li> <li>Historical drilling includes 666 holes (52,148 m) drilled underground at San Jose; 105 holes (6,294 m) drilled underground at Udías; and 154 holes (31,238 m) drilled from surface. All drill collars have been located and re-surveyed by Variscan and the hole azimuth and dips measured at the collar positions.</li> <li>Variscan Mines underground drilling data referenced in this report comprises 177 diamond drill holes (totalling 4,806 m). Details of Variscan's underground drilling campaigns are provided in Variscan Mines ASX press releases (see website <a href="http://www.variscan.com.au">www.variscan.com.au</a>).</li> <li>In addition to underground drilling, limited surface diamond drilling was conducted by Variscan Mines. Drilling consisted of 3 surface drill holes (totalling 322 m of core), and details are provided in the Variscan Mines' ASX 2nd March 2023 press release.</li> <li>All diamond drilling of Variscan Mines was sampled using industry best practice methods (diamond drilled core cut along its length to produce half core). Samples were sent to the accredited ALS Seville laboratory for analysis. Samples are considered representative and include waste intervals on the periphery of mineralised intersections. It is assumed that the equipment used was calibrated correctly as per the internal SOP's at ALS Seville.</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-</li> </ul>	<ul style="list-style-type: none"> <li>Variscan Mines diamond BQTK (40.77mm diameter) core was drilled using Hagby Onram 100, Atlas Copco Diamec 252 and Hilti portable drill rigs. PQ and HQ diamond core was drilled using a Rolatec RL-1000 drill rig.</li> <li>Neither Variscan Mines drillholes nor the historical drillholes have employed oriented core methods.</li> <li>The historic surface and underground drilling is understood to be all</li> </ul>

Criteria	• JORC Code explanation	• Commentary
	<ul style="list-style-type: none"> <li>sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	<ul style="list-style-type: none"> <li>core drilling. No details of the drilling techniques employed have been identified in the historic data. This includes reference to core diameter(s), core orientation methods, and downhole survey data. No records of the type of drill rig used have been identified.</li> <li>Details of the historical drilling can be found in ASX press releases by Variscan Mines from the following dates: 3<sup>rd</sup> Feb 2020, 3<sup>rd</sup> March 2020, 16<sup>th</sup> March 2020 and 1<sup>st</sup> April 2020 on the website <a href="http://www.variscan.com.au">www.variscan.com.au</a></li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>Core recovery for the Variscan Mines drill holes is typically &gt;90%. Core recovery is routinely recorded for all drill holes and recorded in drill hole logs. The lowest drill hole recovery recorded is 63.7% mean recovery; this value is anomalous compared to recoveries recorded for the remaining drill holes. As a rule drill holes with such low recoveries have been re-drilled.</li> <li>No other methods have been used to maximise sample recovery. The relationship between sample recovery and grade has not been assessed.</li> <li>No records of drill core recovery have been identified for most of the historical drillholes and no historical drill core has been preserved. Where recovery data is available, it typically includes recoveries &gt;90%, however, recoveries as low as 60% have also been recorded. Given the absence of core recovery data, it is not possible to assess the potential relationship between sample recovery and grade. The absence of drill recovery data means that the referenced historical assays may be marginally incorrect. No assessment or estimation of these effects has been made due to the lack of detailed data.</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Detailed geological and geotechnical logging has been carried out for all of Variscan Mines drill holes. There is sufficient geotechnical and geological logging data to support the Mineral Resource estimate.</li> <li>All Variscan Mines drill holes were logged for lithology, veins, alteration and mineralisation; logged for recovery and geotechnical measurements; and were photographed before and after core cutting.</li> <li>No geotechnical logs have been identified for historical drillholes, but the bulk of geological logs were retrieved and digitised, with the vast majority of historical holes having assay and lithology downhole data. No core photography has been identified.</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <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</li> </ul>	<ul style="list-style-type: none"> <li>The Variscan Mines drillholes have been sampled using industry procedures for logging (of mineralisation), sampling and QAQC that are considered appropriate for the style of mineralisation.</li> <li>Variscan Mines samples were selected by geologists based on the logging of mineralised intervals. Half drill core samples were cut using a rotary diamond saw along the length of the drill core. Samples were predominantly 1 m lengths and range from 40 cm to 1.2 m to accommodate geological boundaries. As per Variscan Standard Operating Procedures (SOP), a minimum of three samples were taken for each mineralised intersection, the first sample encompassing the</li> </ul>

Criteria	• JORC Code explanation	• Commentary
	<p>appropriateness of the sample preparation technique.</p> <ul style="list-style-type: none"> <li>• Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>• 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.</li> <li>• Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<p>mineralised zone and the remaining two samples selected either side to ensure waste intervals were sampled and the extent of mineralisation defined. Additionally, when a separate geological zone or rubble or broken core begins, a new sample will be taken, and when solid core resumes the next samples will be selected. In zones of poor recovery (&lt;50%) the default sample interval will be the drillers depth markers. The nature and quality of sampling techniques are considered appropriate for this deposit and drilling type.</p> <ul style="list-style-type: none"> <li>• All Variscan Mines half core samples were sent directly to the ALS Seville laboratory for preparation and subsequent analysis according to industry standards with crushing, pulverizing and splitting prior to sample analysis. Sample sizes are considered suitable for the deposit type and style of mineralisation.</li> <li>• Historical sampling is selective, mainly guided by visual observation and clearly neither low-grade mineralisation, trace mineralisation, nor “apparent” waste were sampled. No sample preparation techniques nor procedures are available from historical records. It is not known whether ¼, ½ or whole core was submitted for analysis, though assaying half-core was routinely used by Asturiana de Zinc Sociedad Anonima, with sampling intervals ranging from 0.5 m to 3.0 m. Larger assay sample intervals, up to 10 m, are observed for historic logs, and are likely to represent sample composites. Historical compositing techniques are not described. The appropriateness of historical sub-sampling techniques and samples are not known.</li> <li>• No Quality Control procedures or data is provided for historical drill hole samples. This includes evidence of field duplicates or other current industry standard quality control procedures, such as Certified Reference Materials and blanks. In the absence of sample size data, no comment on whether the sample size is appropriate for the grain size of the sampled material can be made for these historical drillholes.</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <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 (ie lack of bias) and precision have been established.</li> </ul>	<ul style="list-style-type: none"> <li>• For the drilling conducted by Variscan Mines the sampling is considered partial as half core remains. The laboratory is accredited (ALS Seville) and the techniques for Zn/Pb (Zn-OG62h, Pb-OG62h, and Zn-AA07), as well as Zn-AA07 for non-sulphide (‘oxide’) zinc and are considered suitable for the elements in question.</li> <li>• QAQC Procedures adopted by Variscan Mines for drill core assaying include the use of CRMs (OREAS 134B, OREAS 133A, and OREAS 130; i.e., high, medium, and low grade) inserted into the sample stream, along with coarse/pulp blanks and internal duplicates, where a single coarsely crushed sample is further processed as two separate splits. The frequency and variety of QAQC samples inserted into the sample stream has typically been in the order of 10-20% and is considered fully compliant with industry’s best practice, with the samples reviewed showing good repeatability.</li> <li>• Assay data referenced in this report are raw elemental assay data.</li> <li>• In the case of historical drilling, no descriptions of the assaying and laboratory procedures used have been found. It is unknown whether the techniques used were partial or total, though there is evidence that at least one of the main project operators, Asturiana de Zinc Sociedad Anonima, as a general rule assayed half core. No descriptions of quality control procedures adopted for historical drilling by the laboratory, nor any results of Quality Control data have been identified. Therefore, no comment can be made on whether acceptable accuracy or precision of results have been established.</li> </ul>

Criteria	• JORC Code explanation	• Commentary
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>• The analytical processes related to Variscan Mines' drilling campaigns have been supervised by senior ALS staff experienced in mineral assaying.</li> <li>• Most of Variscan Mines drillholes consist of underground diamond drillholes located within the San Jose Mine, and 3 surface diamond drill holes in the vicinity of the mine's entrance, south of the Novales village. Some of the holes are located near existing historical drillholes, however, they cannot be considered twinned holes.</li> <li>• The data for all of Variscan Mines' drilling campaigns are stored in excel and all assay certificates and final assay results provided by ALS Seville have been reviewed.</li> <li>• In the case of historical drilling campaigns, owing to the lack of preserved drill core, it has not been possible to verify significant intersections. It is not known whether verification of intersections was undertaken by previous operators at the time of drilling. The historical data does not include any twinned holes. No documentation or records of primary data (other than paper logs), data entry procedures, data verification, data storage (physical and electronic) protocols have been identified. Historical records consist largely of handwritten drill hole summaries. This data was identified and transcribed to Microsoft Excel © and then imported into Leapfrog Geo and Datamine Studio RM for drill hole database validation, significant intersections, and 3D viewing. Variscan intends to transfer this data to an industry standard drill hole database during ongoing exploration of the project.</li> <li>• Given the absence of detailed historical information relating to the historical assay data, no adjustment to the assay data has been made. The data has been reported as it was recorded in the original documentation. Variscan have no reason to exclude data presented in the historical logs.</li> <li>• Of the total 666 historical underground drill holes located at San Jose, and inventoried by Variscan Mines from historical drill records (and totaling 52,148m); the collar locations and drill traces of 634 drill holes were located and resurveyed. The remaining 32 drill holes either could not be located, were destroyed or are inaccessible, and these holes were not used to support the Mineral Resource estimate.</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>• The collars of historical underground drillholes were recently surveyed in detail by Variscan Mines geologists using the 3D laser survey of the San Jose mine drifts and stopes realized by Variscan Mines in the years 2020-2022. These collar locations were then cross-checked with detailed historical mine plans. In addition, for each drill hole, the drill trace azimuth and inclination were measured in situ using a Brunton compass and checked across the historical drill records, for consistency.</li> <li>• Variscan Mines underground drill collars were initially surveyed using the Nortop Ingenieros S.L.U Total Station which survey points using an 'all-in-one' laser disto device (incorporating a digital compass, clinometer and distance meter) placed on a 4kg tripod to avoid movements and a topographic rod (with bubble level) to mark the position of the Nortop points. Checks were made with a Brunton compass to verify that there were no measurements errors. Several checks were made with Nortop points bases obtaining the same results. These are considered relatively accurate.</li> <li>• Subsequently, both the Variscan Mines and all of the historical underground drill collars were systematically resurveyed by physical in-situ inspection and using the 3D laser survey of the San Jose mine drifts</li> </ul>

Criteria	• JORC Code explanation	• Commentary
		<p>and stopes realized by Variscan Mines in the years 2020-2022. All of the collar locations were then cross-checked with detailed historical mine plans. In addition, for every drill collar surveyed, the drill trace azimuth and inclination were measured in situ using a Brunton compass and checked across the historical drill records.</p> <ul style="list-style-type: none"> <li>• Variscan Mines surface drill hole collars were surveyed using an ultra-high resolution Hi-target Inno1 GPS unit (highly accurate).</li> <li>• The method of recording surface drill collar coordinates by the historical operating companies has not been identified. Historical drilling was undertaken prior to the use of GPS devices, and drill collars positions were constrained using 'traditional' geodesy and topography surveying. The historical surface drill collar coordinates were initially identified in a local grid and transformed to the European Terrestrial reference System 1989 (ETRS89), an earth-centre, earth-fixed geodetic Cartesian reference frame for GIS work. The accuracy of reported surface drill hole collars appears reasonable, though, as about a dozen historical surface drill hole collars marked by concrete slabs were identified in the field and resurveyed using an ultra-high resolution Hi-target Inno1 GPS unit, showing a reasonable degree of relative geospatial correlation.</li> <li>• All the maps and 3D models referenced in this report have been made with ETRS89.</li> <li>• Surface topography was provided by CNIG (IGN) as topographic contours at 25k scale, the contours were used to generate a digital terrain model in 3D after transformation to the local mine grid to conform to the majority of drillhole data in Leapfrog Geo and Datamine StudioRM. It is considered satisfactory for these purposes.</li> <li>• The San Jose mine 3D underground laser survey was conducted by 3DMSI using a robotic total station to take the in-situ pre-existing historical survey pin locations to use as reference points. A "Z+F Imager 5050C laser scanner", as well as a "Leica Geosystems TS16 01 total station" for controlling positional accuracy and a "Leica geosystems BLK-2-GO laser scanner" for detailed mapping of the tunnels and drives were used to capture data inside stopes and drives at San Jose, and these data were registered as a point cloud. The BLK-2-GO was controlled with targets positioned with the TS16 on the corners of the drives. The point cloud was simplified and wireframes created from this data set.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <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 Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>• Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>• The underground diamond drilling referenced in this report was drilled in a fence or fan pattern from drilling pads underground. These holes were drilled in various orientations (the majority upward) and their spacing varies significantly. There is sufficient distribution of drill holes to support geological and grade continuity for the main San Jose mine area. However, the smaller peripheral zones require further exploration to establish geological continuity and improve the confidence of the interpretation.</li> <li>• The surface diamond drilling referenced in this report was drilled downward from drill pads duly prepared on the surface, either vertically or as inclined drill holes. The surface drill holes are not located in a grid pattern, and it is believed that many historical drill holes were placed based on accessibility of the drill sites. The areas peripheral to the San Jose mine requires further exploration to determine geological and grade continuity.</li> </ul>

Criteria	• JORC Code explanation	• Commentary
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>• Project mineralisation is stratabound, sub-horizontal and lenticular, following sub-vertical trends, and with lateral and vertical extensions with a significant control by steeply-dipping feeder fault zones. Mineralisation presents as 'bags' (pods) composed of 'stacked' sub-horizontal lenses. Due to the irregular and/or variable nature of the mineralisation, an estimate of potential bias through orientation of sampling has not been made.</li> <li>• While the location of mineralisation centres on the Novales trend following a broad NNE strike, the orientation of distinct orebodies on this trend is understood to be variable both in terms of strike and dip. Underground drilling is often radial in nature, and no comment can be made on the orientation of drilling in respect of mineralisation orientation. Surface drilling is often vertical and/or dipping steeply.</li> <li>• Variscan Mines underground diamond drillholes have been oriented at a variety of orientations drilling both above and below from the main gallery level, similar to those drilled historically to intersect mineralised lenses and corridors above and below the main gallery level. These orientations are considered appropriate for the geometry of this mostly lenticular MVT mineralisation at San Jose. In some cases where the drill holes have been oriented vertically both above and below the main gallery, the sample interval lengths within the sub-horizontal lenticular morphology of the mineralisation are considered to be representative of true thickness and are not considered to include a sampling bias.</li> <li>• Variscan Mines surface diamond drill holes have been oriented downward, dipping at either 90 or 60 degrees. These orientations are considered appropriate for the geometry of this mostly lenticular MVT mineralisation. In the case of the vertical downward drill hole, the sample interval lengths within the sub-horizontal lenticular morphology of the mineralisation are considered to be representative of true thickness and are not considered to include a sampling bias.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>• The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>• Variscan Mines samples are securely stored at the locked on-site core shed and were handed directly to a courier for transport to ALS Seville. Samples were logged and collected on site under supervision of the responsible Variscan Mines geologist.</li> <li>• Regarding historical drilling, no records relating to the sample security have been identified.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>• The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>• No detailed 3<sup>rd</sup> party audits have taken place regarding the sampling techniques for Variscan Mines drillholes.</li> <li>• No audits or reviews of the sampling techniques and data have been undertaken for the historical records.</li> </ul>

## Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>The exploitation permit for the Novales-Udías historical mine area that encompasses the San Jose mine is owned by Variscan Mines and is in good standing.</li> <li>The tenure of Variscan Mines in Cantabria consists of two distinct mineral permits. In the east is the San Jose (Novales) mining permit, composed of 44 mining quadrangles ('cuadrículas mineras' – each c. 617m x 470m in size), and totalling a surface area of 1,222.34 ha. In the west is the more sizeable Buenahora exploration permit composed of 146 mining quadrangles and totalling a surface area of 4,055.37 ha. Both permits are in good standing, with the former valid until 12/07/2035 and the latter until 22/02/2025, both with possibility of permit renewal.</li> <li>The author is not aware, at the time of writing, of any environmental or social license issues that could affect ongoing works within these licences, nor any issues with tenure or permission to operate in this region. On the contrary, the socially and environmentally responsible mineral development undertaken by Variscan Mines has resulted to date in an outstanding social license to operate.</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>The historical data referenced in this report refer to exploration undertaken by historic mining companies operating the Project from the 1950's to the mid 1980's. The previous workers include Hispanibal and Asturiana de Zinc Sociedad Anonima / Real Compania Asturiana de Minas (previously a subsidiary of Xstrata / Glencore).</li> <li>The historical data referenced in this report and undertaken by the historic workers is held at the School of Mines and Energy Engineering at Torrelavega, a faculty of the University of Cantabria.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>The mineralisation at the project is considered to represent a Mississippi Valley Lead-Zinc Type with associated structural- and stratigraphy-controlled carbonate dissolution and replacement Lead-Zinc type sulphide mineralisation, where Zinc strongly predominates over Lead.</li> <li>Mineralisation at the project occurs as stratabound, sub-horizontal and lenticular, following sub-vertical trends, and with lateral and vertical extensions, with a significant control by steeply-dipping feeder faults. Mineralisation in this setting presents as 'bags' (pods) composed of 'stacked' sub-horizontal lenses.</li> </ul>
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <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</li> </ul>	<ul style="list-style-type: none"> <li>All holes, except for the historical holes for which no survey information is available, were used to support the Mineral Resource estimate.</li> <li>No records of specific gravity or density measurements have been identified for historical drillholes. On the other hand, Variscan Mines has been systematically measuring specific gravity of drill core obtained in all of its drilling campaigns.</li> <li>It is noted that some of the historical drilling was undertaken prior to the cessation of mining activities on the project, and as such some of the mineralisation intersected may have been mined out. Using the high-resolution 3D mine stope model for the San Jose mine, these 'mined-out' volumes were used to deplete the mineral resource model presented herein. No information has been excluded.</li> </ul>

Criteria	• JORC Code explanation	• Commentary
	<p>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.</p>	
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>• Exploration results are not reported here</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <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> <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>	<ul style="list-style-type: none"> <li>• Underground historical drill holes have typically been inclined upwards from the main San Jose mine drives in a fan pattern from single and multiple bays to intersect sub horizontal mineralised lenses present at the mine. These angles vary significantly, and it is expected that mineralisation is encountered at oblique angles and therefore cannot represent true thickness unless drilled vertically upwards/downwards into a lens directly above or below the main drive level.</li> <li>• Variscan Mines underground drill holes have been drilled both vertically upwards (+90° dip) and downwards (-90° dip), as well as inclined at varied dips and azimuths in between, to target mineralisation above and below the main San Jose mine drive levels. Where vertical holes have been drilled by Variscan, it is considered these most closely represent true thickness of the sub-horizontal lenticular mineralisation.</li> <li>• The same geometrical relationships apply to surface diamond drill holes, whether historical or conducted by Variscan Mines, i.e., only in the case of vertical downward drill holes, the sample interval lengths within the sub-horizontal lenticular morphology of the mineralisation are considered to be representative of true thickness and are not considered to include a sampling bias. Therefore, many interval widths reported refer to downhole length not true thickness.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>• Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported</li> </ul>	<ul style="list-style-type: none"> <li>• Maps and figures supporting this Mineral Resource estimate are included in the announcement.</li> </ul>

Criteria	• JORC Code explanation	• Commentary
	These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Exploration results are not reported here</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>No other exploration data referenced in this report is considered sufficiently meaningful or material to warrant further reference</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <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 geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul style="list-style-type: none"> <li>Variscan have exploration plans to advance the Novales-Udías Project. These exploration plans include: <ul style="list-style-type: none"> <li>Drilling campaign from surface to test step out extensions from the San Jose mine, as well as further compelling drill targets identified from historical or Variscan surface drilling.</li> <li>Drilling campaign underground at the San Jose mine to test: <ul style="list-style-type: none"> <li>Extensions of mineralised lenses</li> <li>Vertical extensions</li> <li>New lower lying lenses</li> <li>Infill mineralised lenses</li> </ul> </li> </ul> </li> <li>Drilling campaign underground at near-surface historical artisanal mines neighbouring the San Jose mine, in order to test for underlying mineralised lenses, likely to occur at lower elevations.</li> </ul>

### Section 3 Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
<b>Database integrity</b>	<ul style="list-style-type: none"> <li>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</li> <li>Data validation procedures used.</li> </ul>	<ul style="list-style-type: none"> <li>Variscan maintain all drilling records by way of MS Excel spreadsheets.</li> <li>Data used in the Mineral Resource was provided to CSA Global, containing relevant information for collar locations, downhole surveys, assay and sample logs of lithologies.</li> <li>All data tables were loaded into Datamine which ran its own data validation steps, including checking for overlapping sample intervals, missing collars or surveys, etc. Any errors were relayed to Variscan who promptly corrected the data.</li> </ul>
<b>Site visits</b>	<ul style="list-style-type: none"> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	<ul style="list-style-type: none"> <li>The Competent Person (Data) has visited site on numerous occasions since 2020 and has supervised the surveying of underground mine voids, drill collars, and the planning and collection of drill data. He has also visited ALS Seville / ALS Ireland to inspect their sample preparation and sample analyses protocols.</li> </ul>
<b>Geological interpretation</b>	<ul style="list-style-type: none"> <li>Confidence in (or conversely, the uncertainty of ) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of grade and geology.</li> </ul>	<ul style="list-style-type: none"> <li>CSA Global completed all geological modelling using Datamine software. Preliminary geological interpretations were provided by RockDomain Consulting Pty Ltd and were used to guide the 3D geological modeling carried out by CSA Global. The geological models reasonably portray the geospatial distribution of Zn + Pb mineralisation encountered in MVT type deposits, with a reasonable level of confidence provided in the models.</li> <li>The mine development model of the San Jose mine in Novales was prepared using mining software Micromine Origin and Leapfrog Geo.</li> <li>Geological interpretations were based upon diamond drilling samples, including their geological logs and sample assays.</li> <li>No alternative interpretations were considered.</li> <li>Mineralisation is stratiform within a dolostone unit, which controls the vertical and lateral extents of the modeled domains.</li> </ul>
<b>Dimensions</b>	<ul style="list-style-type: none"> <li>The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.</li> </ul>	<ul style="list-style-type: none"> <li>The total Mineral Resource extends along the strike (050°) of the host dolostone unit for 4,400 m, with large extents un mineralised.</li> <li>The San Jose deposit extends along strike of mineralisation (010°) 630 m, across strike 560 m, and extends down dip to a maximum of 240 m below surface.</li> <li>The north-eastern part of the Udías deposit extends along strike (010°) 600 m, across strike 300 m, and extends down dip to a maximum of 220 m below surface.</li> </ul>

Criteria	• JORC Code explanation	• Commentary
<b>Estimation and modelling techniques</b>	<ul style="list-style-type: none"> <li>• <i>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</i></li> <li>• <i>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</i></li> <li>• <i>The assumptions made regarding recovery of by-products.</i></li> <li>• <i>Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</i></li> <li>• <i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i></li> <li>• <i>Any assumptions behind modelling of selective mining units.</i></li> <li>• <i>Any assumptions about correlation between variables.</i></li> <li>• <i>Description of how the geological interpretation was used to control the resource estimates.</i></li> <li>• <i>Discussion of basis for using or not using grade</i></li> </ul>	<ul style="list-style-type: none"> <li>• Datamine Studio RM software was used for all geological modelling, grade interpolation, resource classification and reporting. Snowden Supervisor (v8.15) and GeoAccess Professional were used for geostatistical analyses.</li> <li>• A block model with block sizes 5 m(X) x 5 m(Y) x 2.5 m(Z) was constructed, using the same flagging variables as used to flag the drillhole samples. The block size compares favourably with the drill spacing supporting the Indicated classification volumes.</li> <li>• A topographic DTM was used to deplete the block model at surface.</li> <li>• All historical and recent (drilled by Variscan) drill data was used to support the Mineral Resource. Historical holes for which drill collars could not be located were not used.</li> <li>• Drillhole samples were flagged against the mineralisation wireframe solids, and appropriate Datamine variables were set to unique numeric values, for each wireframe solid.</li> <li>• Samples were composited to appropriate lengths (1 m or 2 m) per domain, and an assessment of high-grade sample assays was carried out so that appropriate grade capping could be applied. A statistical analysis of Zn and Pb by domain was carried out, followed by variography for both Zn and Pb for the most populated domains.</li> <li>• Top cut and composited sample grades for Zn, Pb, Zn (Oxide) and Pb (Oxide) were interpolated into the block model using ordinary kriging. Sample search ellipse radii vary in dimension according to the drill spacing within the mineralisation domains, varying between 70 m (along strike) x 20 m (across strike) x 5 m (vertical), to 20 m x 15 m x 5 m. A minimum of 8 and maximum of 22 samples were used to interpolate each parent cell, with interpolated grades assigned to the sub-cells within the parent blocks. A maximum of 6 samples from each drill hole were allowed per block estimate. Block discretisation of 6 x 6 x 3 was used.</li> <li>• Block grades were validated both visually and statistically, using swath plots and comparison of mean block and sample grades.</li> </ul>

Criteria	• JORC Code explanation	• Commentary
	<ul style="list-style-type: none"> <li>cutting or capping.</li> <li>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</li> </ul>	
<b>Moisture</b>	<ul style="list-style-type: none"> <li>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</li> </ul>	<ul style="list-style-type: none"> <li>Tonnages are reported on a dry basis.</li> </ul>
<b>Cut-off parameters</b>	<ul style="list-style-type: none"> <li>The basis of the adopted cut-off grade(s) or quality parameters applied.</li> </ul>	<ul style="list-style-type: none"> <li>A cut-off grade of 2.0% Zn was chosen to report the Mineral Resource based upon advice from Variscan, with a similar cut-off grade used for reporting other MVT Mineral Resources.</li> </ul>
<b>Mining factors or assumptions</b>	<ul style="list-style-type: none"> <li>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</li> </ul>	<ul style="list-style-type: none"> <li>All previous mining at San Jose and Udías took place using underground methods, such as stoping and room and pillar methods, and future mining activities will also be conducted using conventional underground methods. A mine restart study has recently been commissioned and the results are pending.</li> <li>Other mining factors are not applied at this stage.</li> </ul>
<b>Metallurgical factors or assumptions</b>	<ul style="list-style-type: none"> <li>The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider</li> </ul>	<ul style="list-style-type: none"> <li>The historical records of metallurgical testing at the San Jose mine processing plant are incomplete and only pertain to the operating time of AZSA (Asturiana de Zinc), which pre-dated 1989. The c. 35,000 tonnes per year flotation plant was able to process 5 tonnes of ore per hour, and the comparatively diluted head grade of nearly 7% Zn, 2% Pb yielded concentrates averaging c. 60% Zn and 65-75% Pb. However, based on verbal communications with past employees, it is believed that the beneficiation process was of only moderate efficiency and could be much improved.</li> </ul>

Criteria	<ul style="list-style-type: none"> <li><b>JORC Code explanation</b></li> </ul>	<ul style="list-style-type: none"> <li><b>Commentary</b></li> </ul>
	<p><i>potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.</i></p>	<ul style="list-style-type: none"> <li>Variscan Mines has undertaken metallurgical studies on the San Jose mineralisation, with results pending. Based on extensive past experience of similar projects (i.e., low formation temperature MVT-style zinc-lead), and the fact that ore mineralogy at San Jose is strongly dominated by zinc sulphide, with only subordinate galena and occasional trace contents of iron sulphide, it is inferred that ore beneficiation will be straightforward and produce a high-grade zinc concentrate.</li> </ul>
<b>Environmental factors or assumptions</b>	<ul style="list-style-type: none"> <li><i>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.</i></li> </ul>	<ul style="list-style-type: none"> <li>Prior to undertaking its underground drilling program, Variscan conducted a detailed geochemical baseline study focused on the presence of trace elements in mine waters, as well as surrounding surface waters, and this study did not detect any water contamination from past mining. There is ongoing adherence to international environmental regulations, and continuing monitoring of their baseline environmental systems.</li> <li>No environmental factors or assumptions were used during this estimation, and it is assumed that no environmental factors exist that could prohibit the future mining development. Variscan Mines plans using a low-footprint modular processing plant to be located at the site of the historical flotation plant to considerably reduce the impact of mineral development on the local environment.</li> </ul>
<b>Bulk density</b>	<ul style="list-style-type: none"> <li><i>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and</i></li> </ul>	<ul style="list-style-type: none"> <li>Variscan completed 689 measurements for density from diamond core samples, using the Archimedes method. A statistical analysis of the density data shows a range of density values from 2.4 t/m<sup>3</sup> to 3.55 t/m<sup>3</sup>, which are due to increased presence of sphalerite and / or galena. The Competent Persons determined that a density value of 3.0 t/m<sup>3</sup> should be applied to the Mineral Resource estimate, which approximately corresponds to the mean density for samples within the mineralisation zones.</li> </ul>

Criteria	<ul style="list-style-type: none"> <li>JORC Code explanation</li> </ul>	<ul style="list-style-type: none"> <li>Commentary</li> </ul>
	<ul style="list-style-type: none"> <li>representativeness of the samples.</li> <li>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.</li> <li>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</li> </ul>	<ul style="list-style-type: none"> <li>Due to a low number of density measurements from samples with chemical analyses, no correlation can be discerned at this stage between density and grade.</li> </ul>
<b>Classification</b>	<ul style="list-style-type: none"> <li>The basis for the classification of the Mineral Resources into varying confidence categories.</li> <li>Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> </ul>	<ul style="list-style-type: none"> <li>The Mineral Resource has been classified as a combination of Indicated and Inferred, with geological and sampling evidence sufficient to assume geological and grade continuity within the volumes classified as Indicated. The classification levels are based upon an assessment of geological understanding of the deposit, geological and grade continuity, drillhole spacing, quality control results, search and interpolation parameters, and an analysis of available density information. The Indicated volumes cover the volumes with 10 - 20 m (northing) by 10 m (easting) drill spacing.</li> <li>Mineral Resource classification was applied to the block model using a cookie cutter approach, with polygons digitised around drill samples for most domains and using "slope of regression" outputs (using values of &gt;0.5 for Indicated) from the Zn kriging to guide the limits of the polygon. Domains are combinations of either Indicated + Inferred, Inferred + unclassified, or Inferred only.</li> <li>The Inferred Mineral Resource volumes have not been significantly extrapolated beyond the limits of the drillholes. Some domains in the Udías deposit were modelled with excessive volume compared to the distribution of drill samples, and classification polygons for Inferred were used to confine the Mineral Resources to volumes adequately supported by drilling.</li> <li>The results appropriately reflect the Competent Person's view of the deposit.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of Mineral Resource estimates.</li> </ul>	<ul style="list-style-type: none"> <li>No audits or reviews of the current Mineral Resource estimate have been undertaken apart from internal reviews carried out by ERM / CSA Global, and a brief presentation to the board and senior technical staff of Variscan.</li> <li>No adverse findings were noted from these reviews.</li> </ul>
<b>Discussion of relative accuracy/ confidence</b>	<ul style="list-style-type: none"> <li>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or</li> </ul>	<ul style="list-style-type: none"> <li>Only ordinary kriging and inverse distance squared methods were used to interpolate the grade variables, and no other estimated methods were used in parallel.</li> <li>Relevant tonnages and grade above nominated cut-off grades for Zn are provided in the introduction and body of this report. Tonnages were calculated by filtering all blocks above the cut-</li> </ul>

Criteria	• JORC Code explanation	• Commentary
	<p><i>procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</i></p> <ul style="list-style-type: none"> <li>• <i>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</i></li> <li>• <i>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i></li> </ul>	<p>off grade and sub-setting the resultant data into bins by mineralisation domain. The volumes of all the collated blocks were multiplied by the dry density value to derive the tonnages.</p> <ul style="list-style-type: none"> <li>• The Mineral Resource is a local estimate, whereby the drillhole data was geologically domained, resulting in fewer drillhole samples to interpolate the block model than the complete drillhole dataset, which would comprise a global estimate.</li> </ul>

## Project Summary

The Novales-Udias Project is located in the Basque-Cantabrian Basin, some 30km southwest from the regional capital, Santander. The project is centred around the former producing San Jose underground mine with a large surrounding area of exploration opportunities which include a number of satellite underground and surface workings and areas of zinc anomalism identified from recent and historic geochemical surveys. Variscan has delineated a significant 9km mineralised trend and a sub-parallel 3km trend from contemporary and historical data across both the Buenahora exploration and Novales mining permits.

The San Jose Mine is nearby (~9km) to the world class Reocin Mine which is the largest known strata-bound carbonate-hosted Zn-Pb deposit in Spain<sup>4</sup> and one of the world's richest MVT deposits<sup>5</sup>. Further it is within trucking distance (~80km) from the San Juan de Nieva zinc smelter operated by Asturiana de Zinc (100% owned by Glencore).

Significantly, the Novales-Udias Project includes a number of granted mining tenements<sup>6</sup>.

### Novales-Udias Project Highlights

- Near term zinc production opportunity (subject to positive exploratory work)
- Large tenement holding of 68.3 km<sup>2</sup> (including a number of granted mining tenements)
- Regional exploration potential for another discovery analogous to Reocin (total past production and remaining resource 62Mt @ 8.7% Zn and 1.0% Pb<sup>7,8</sup>)
- Novales Mine is within trucking distance (~ 80km) from the zinc smelter in Asturias
- Classic MVT carbonate hosted Zn-Pb deposits
- Historic production of high-grade zinc; average grade reported as ~7% Zn<sup>9</sup>
- Simple mineralogy of sphalerite – galena – calamine
- Mineralisation is strata-bound, epigenetic, lenticular and sub-horizontal
- Reported historic production of super high grade 'bolsas' (mineralised pods and lenses) commonly 10-20% Zn and in some instances +30% Zn<sup>10</sup>
- Assay results of recent targeted grab samples taken from within the underground Novales Mine recorded 31.83% Zn and 62.3% Pb<sup>11</sup>
- Access and infrastructure all in place
- Local community and government support due to historic mining activity

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<sup>4</sup> Velasco, F., Herrero, J.M., Yusta, I., Alonso, J.A., Seebold, I. and Leach, D., (2003) 'Geology and Geochemistry of the Reocin Zinc-Lead Deposit, Basque-Cantabrian Basin, Northern Spain' *Econ. Geol.* v.98, pp. 1371-1396.

<sup>5</sup> Leach, D.L., Sangster, D.F., Kelley, K.D., Large, R.R., Garven, G., Allen, C.R., Gutzner, J., Walters, S., (2005) 'Sediment-hosted lead-zinc deposits: a global perspective'. *Econ. Geol.* 100th Anniversary Special Paper 561-607

<sup>6</sup> Refer to ASX announcement of 29 July 2019

<sup>7</sup> Velasco, F., Herrero, J.M., Yusta, I., Alonso, J.A., Seebold, I. and Leach, D., 2003 - Geology and Geochemistry of the Reocin Zinc-Lead Deposit, Basque-Cantabrian Basin, Northern Spain: in *Econ. Geol.* v.98, pp. 1371-1396.

<sup>8</sup> Cautionary Statement: references in this announcement to the publicly quoted resource tonnes and grade of the Project are historical and foreign in nature and not reported in accordance with the JORC Code 2012, or the categories of mineralisation as defined in the JORC Code 2012. A competent person has not completed sufficient work to classify the resource estimate as mineral resources or ore reserves in accordance with the JORC Code 2012. It is uncertain that following evaluation and/or further exploration work that the foreign/historic resource estimates of mineralisation will be able to be reported as mineral resources or ore reserves in accordance with the JORC Code 2012.

<sup>9</sup> These figures have been taken from historical production data from the School of Mines in Torrelavega historical archives.

<sup>10</sup> Reports of the super high-grade mineralisation are supported with historical production data from the School of Mines in Torrelavega historical archives. (Refer ASX release 29 July 2019)

<sup>11</sup> Refer to ASX Announcement of 19 December 2020