

AIM Announcement

31 October 2023

Reese Ridge Zinc-Lead-Silver (-Gallium) Project

Sunrise Resources plc is pleased to report positive results from further evaluation work at its Reese Ridge Project in Nevada, USA, where the surface occurrence of high-grade zinc mineralisation was reported by the Company on 29 June 2023.

The news release of 29 June 2023 highlighted a zone of low resistivity, below the surface zinc occurrence, that was evident in a 2010 report from a geophysical survey carried out to explore for geothermal energy. The Company reported that such a low resistivity (high conductivity) zone could be indicative of a significant zone of sulphide mineralisation.

The Company has now sourced the original ¹ZTEM airborne electromagnetic data and commissioned leading Canadian geophysical company, Geotech Ltd (“Geotech”), to carry out further processing and 2D and 3D inversions on the ZTEM data. Computational power and inversion modelling has substantially improved since 2010 and this has allowed Geotech to provide more reliable 3D conductivity models for drill targeting.

3D inversion produces a 3D model that “maps” the conductivity of the earth at and below surface. The newly developed 3D model has confirmed an annular zone of low resistivity (high conductivity) below the surface mineralisation that extends from just below near surface to a depth of nearly 1,000m. This annular zone surrounds a core of high resistivity which the Company interprets as a granitic intrusion. This would be consistent with a Carbonate Replacement Deposit (“CRD”) model for mineralisation.

CRD deposits can be large and high-grade as seen in the Taylor (Hermosa) Deposit in the neighbouring State of Arizona which was purchased by South32 for \$1.6 billion in 2018 and is now under development.

In other work at the Reese Ridge Project, the Company has received results from a petrological report on thin section examination of mineralised surface samples. This has indicated that the zinc mineralisation at surface is largely contained in secondary minerals, the result of weathering or alteration, but remnants of zinc sulphide (sphalerite) and lead sulphide (galena) were identified consistent with sulphide mineralisation at depth and a possible source for the low resistivity anomaly.

A review of chemical analyses from the surface mineralisation has identified anomalously high levels of the metal gallium in the high-grade zinc samples - up to 69ppm gallium. Gallium is an essential mineral in the production of semi-conductors and is increasingly used in the production of solar panels. It is also used in high frequency computer chips. It is extracted from some zinc ores and approximately 80% of the world’s gallium is produced in China. China has placed some restrictions on the export of gallium and gallium compounds in response to the US’s restrictions on the exports of high-end computer chips to China.

The Company is now planning a follow-up exploration programme to include drill testing.

Images from the 3D inversion models will be available on the Reese Ridge Project Page on the Company’s website, <https://www.sunriseresourcesplc.com/reese-ridge-project-nevada> and at the end of this document.

"We are fortunate to have secured access to the airborne ZTEM data for this project at no cost to the Company. The results from 3D conductivity modelling are impressive, with exciting targets now defined. The petrological work has helped confirm that we are looking at CRD style mineralisation and the project is now drill ready."

"The elevated gallium values are a pleasant surprise. Gallium is listed as critical on the US Department of Energy's 2023 list of critical minerals as it is critical to the green energy transition and at a high risk of supply disruption. It is also important to high-end computer chips. We will ensure that gallium is included in all further analyses at Reese Ridge."

Patrick Cheetham, Executive Chairman, Sunrise Resources plc.

Further information

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Market Abuse Regulation (MAR) Disclosure

The information contained within this announcement is deemed by the Company to constitute inside information as stipulated under the Market Abuse Regulations (EU) No. 596/2014 which forms part of UK domestic law by virtue of the European Union (Withdrawal) Act 2018 ('MAR'). Upon the publication of this announcement via Regulatory Information Service ('RIS'), this inside information is now considered to be in the public domain.

Notes:

1. ZTEM

ZTEM is a type of electromagnetic (EM) survey to measure variations in the electrical properties of rocks. EM surveys try to identify bodies of rock that conduct electricity well, like massive sulphide bodies or rocks that resist carrying current more than their surrounds. ZTEM surveys are different to other commercial EM systems because they measure variations in naturally-occurring EM fields rather than introducing an EM field into the ground and measuring the responding field, like VTEM. Instead, ZTEM measures variations in the naturally-occurring or passive magnetic fields produced by thunderstorms around the world. This magnetic field is planar – constant in all directions – but areas of highly conductive or very resistive rock will cause measurable disruptions. ZTEM surveys are designed to map resistivity contrasts to great depths, exceeding 1-2km.

2. Qualified Person Information:

The information in this release has been compiled and reviewed by Mr. Patrick Cheetham (MIMMM, MAusIMM) who is a qualified person for the purposes of the AIM Note for Mining and Oil & Gas Companies. Mr. Cheetham is a Member of the Institute of Materials, Minerals & Mining and also a member of the Australasian Institute of Mining & Metallurgy.

Images from the 3D inversion models:

