

**AIM Announcement**

**13 February 2025**

### **Update - Pioche Sepiolite Project**

Further to its announcement of 27 December 2024, Sunrise Resources plc wishes to advise that it has now received a data package from Tolsa giving details of exploration work and results obtained by Tolsa during its evaluation of the Pioche Sepiolite Project in Nevada, USA.

Sepiolite is an important speciality clay used mainly for its gelling and absorbing properties.

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#### **HIGHLIGHTS:**

- Data package covers results for all work carried out by Tolsa since exploration commenced in 2022, including:
  - Geological mapping, trenching, surface sampling, auger drilling (20 holes drilled in 2023) and sonic drilling (10 holes drilled in 2024).
  - Specialist testing results for samples from the above field programmes.
- Data has been reviewed in conjunction with sepiolite expert Tom Powell<sup>1</sup> with the following conclusions:
  - Extensive sepiolite beds have been discovered over an area of 2.6km x 1.3km with samples containing up to 92% sepiolite.
  - Outer limits of sepiolite deposit not yet defined.
  - Drill spacing is too wide (average c. 300m) for effective correlation of sepiolite beds.
  - East Mesa Area is a priority and large target area where the best sepiolite occurs over a large area (see accompanying map).
  - Drilling has not adequately tested the West Mesa (discovery) Area.
  - Sepiolite morphology (important for commercial properties) is similar to that found in the IMV sepiolite mine in the Amargosa Valley, Nevada, but different to Tolsa's Spanish sepiolite.

No testwork reported by Tolsa to evaluate the potential for use of Pioche sepiolite for gelling saltwater in the US oil/gas drilling market, for which Amargosa Valley-type sepiolite is well suited.

- Timing for new market entrant is favourable due to
  - Expectation of a strong increase in oil/gas well drilling activity under the Trump Administration.
  - The existential environmental threats to the Amargosa Valley sepiolite mine, the only producer of sepiolite in the USA.

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<sup>1</sup> Tom Powell is an acknowledge expert of speciality clays and holds patents on the formulation and use of speciality clays in OTC pharmaceuticals and oil & gas drilling. He was formerly General Manager of the Amargosa Valley sepiolite mining operations for IMV. Mr. Powell works with the Company on 20% Finders fee basis in connection with any income received by the Company from parties he introduces to the Company.

### **Commenting today, Executive Chairman Patrick Cheetham said:**

*“Our expenditure on this project is less than US\$60,000 but it has so far returned US\$150,000 in option fees and the project has benefited from several hundred thousand dollars of third-party, non-dilutive expenditure.*

*“The data we now hold confirms that Tolsa located large quantities of sepiolite clay over a wide and open-ended area. Tolsa’s drilling, although widely spaced, has defined priority target areas having potential for future resource definition and a great springboard for anyone picking up the baton for the further development of this project.*

*“The only producing sepiolite deposit in the USA, in the Amargosa Valley, Nevada has successfully served the US sepiolite market since the 1970s, first under Gulf Resources ownership, then under Rio Tinto’s ownership, and most recently under the control of global lime producer Lhoist, but it now faces an existential threat from encroaching Areas of Critical Environmental Concern.*

*“This paves the way for a new entrant to the US sepiolite market with new parties showing interest in the Pioche Project now that Tolsa is no longer involved.”*

### **Further information**

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**Shares in the Company trade on AIM. EPIC: "SRES"**

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### **Nominated Adviser**

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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.

### **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.

### **Cautionary Notice**

The news release may contain certain statements and expressions of belief, expectation or opinion which are forward looking statements, and which relate, inter alia, to the Company's proposed strategy, plans and objectives or to the expectations or intentions of the Company's directors. Such forward-looking statements involve known and unknown risks, uncertainties and other important factors beyond the control of the Company that could cause the actual performance or achievements of the Company to be materially different from such forward-looking statements. Accordingly, you should not rely on any forward-looking statements and save as required by the AIM Rules for Companies or by law, the Company does not accept any obligation to disseminate any updates or revisions to such forward-looking statements.

### **DETAILED INFORMATION**

The Pioche Sepiolite Project is 100% owned by SR Minerals Inc. ("SRM"), a Nevada-registered, wholly owned subsidiary of Sunrise Resources plc.

The Project is located in Lincoln County, Nevada, to the northeast of Pioche, a historic mining town just off US Route 93. The Company's mining claims are on Federally owned land administered by the Bureau of Land Management ("BLM"). Access to rail is available at the town of Caliente, 35 miles south of the project area on Route 93.

### **Exploration**

Originally documented as a sepiolite occurrence in the 1970s, the occurrence was relocated by SRM in 2021. In 2022, Tolsa ISA Inc., a US subsidiary of Spanish sepiolite producer Tolsa SA, entered into an option to purchase agreement with SRM and explored the property until December 2024 when the option period expired.

In summer 2022, Tolsa completed a programme of detailed geological mapping and trenching. This identified two (possibly three) sub-horizontal and extensive sepiolite beds outcropping intermittently along the margins of two mesas now known as the West and East Mesa areas. A silica rich caprock tops the sepiolite at the discovery location forming low mesas and flattened ridgetops.

Outcrop is generally poor throughout the claims due to a covering of Quaternary-age soils, sands and gravels.

### **2023 Drilling Campaign**

In Summer 2023, Tolsa carried out an auger drilling programme. Twenty holes with the prefix SR- were completed for a total 930 ft of drilling and an average per drill of 47.6 ft.

Drilling was carried out using an auger rig mounted on a Ford F550 truck. A total of 166 samples were collected on 5ft auger stems with sample intervals determined by texture,

appearance, colour and lithological differences. From this, forty samples were submitted to Tolsa in Madrid for initial screening.

## **2024 Drilling & Trenching Campaign**

In order to acquire larger samples with better depth control and reduced downhole contamination, a programme of sonic drilling was carried out in July 2024. The drilling was contracted to Harris Drilling and achieved excellent recovery of 6-inch diameter core-like samples. Ten holes were completed, prefixed AF-.

During the 2024 drill programme a number of excavator pits were also sampled.

## **Sample Testing Programmes**

Tolsa has provided Sunrise with a database containing sample testing results for various mapping, trench and drill samples.

The testing, carried out in 2023 and 2024, included:

- Chemical Analysis
- X-RAY Diffraction (“XRD”) (mineral identification, quantification and estimation)
- Scanning Electron Microscopy (“SEM”)(to determine mineral morphology)
- Aqueous Viscosity (to determine gelling characteristics)
- BET Surface Area T

The testing data provided has been reviewed by Sunrise and Tom Powell.

Chemical analysis and XRD results were used to calculate sepiolite contents for various surface and drill samples. Sepiolite content varies from sample to sample, as is to be expected, but with sepiolite contents up to 92%.

The determination of viscosity is a critical measure to determine the gelling properties of sepiolite when used as a viscosity modifier. Higher viscosity generally imparts a higher commercial value.

The best and most consistent aqueous viscosity results come from the 2022-2023 exploration in the East Mesa area, notably in Trench 10, the nearest drill holes SR-14-2023, some 140m away, and SR-25-2023, some 400m further to the southeast. Both drill holes contains extensive sepiolite beds with higher viscosities.

No testwork is reported by Tolsa to evaluate salt-water viscosity. However, this is a key property for the US oil drilling market where sepiolite is used in drilling muds to gel saltwater and raise the drill cuttings, a use for which Amargosa Valley-type sepiolite is well suited.

The 2024 drill holes did not follow up on the earlier results and were mainly drilled further afield and to the south-east, as shown in the accompanying map, and no follow up holes were drilled in the West Mesa Area.

Typically, sepiolite deposits in the Amargosa Valley are drilled on c.30m centers in order to establish continuity of sepiolite deposits and to define reserves. The current drill spacing at Pioche is a c.300m. This is considered to be too wide for effective correlation of sepiolite beds.

Tolsa has drilled only one hole in the West Mesa Area and both the East and West Mesa areas are priority areas for future evaluation.

The sepiolite morphology at Pioche, disclosed by SEM, is similar to Amargosa Valley sepiolite and will likely require similar established processing techniques.

The BET-Surface Area of measured Pioche samples is within the mid-range for commercial sepiolite deposits.

The timing for a new entrant to the sepiolite market in Nevada is favourable. Increased oil/gas well drilling is expected under the Trump administration. At the same time, the only US sepiolite producer in the Amargosa Valley is under existential threat as it is unable to replenish reserves due to the encroachment of Areas of Critical Environmental Concern.

### **Technical Glossary**

**Auger drilling:** a method of drilling where the ground is penetrated by and sample recovered on a helical screw. Suitable for shallow reconnaissance drilling of unconsolidated materials. The drill hole is not cased (enclosed) and so is susceptible to wall rock contamination and poor recoveries.

**Sonic Drilling:** A method of drilling where a hollow drill stem is vibrated at high frequency under load penetrating and sometimes under rotation, penetrating the ground and recovering an uncontaminated sample. Ideally suited for drilling clays where the samples are recovered as solid cores or plugs.

**X-RAY Diffraction:** a non-destructive analytical technique used to determine physical properties such as crystal structure which is used and identify semi-quantitatively the minerals present in a sample.

**Scanning Electron Microscopy (SEM):** a powerful analytical technique to perform analysis on a wide range of materials, at high magnifications, and to produce high resolution images of morphology.

**Aqueous Viscosity:** a measure of a water based fluid's resistance to a change in shape or to movement of its neighbouring portions relative to one another. In this case it is the viscosity measured when a given amount of sepiolite is dispersed in water.

**BET-Surface Area:** a measurement of the specific surface area of a solid material expressed in m<sup>2</sup>/g. Sepiolite has a high BET-Surface Area.

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