

SUNRISE RESOURCES plc

(“the Company”)

AIM Announcement

30 October 2018

CS PROJECT - UPDATE

Sunrise Resources plc, the AIM-traded company focusing on the development of its CS Pozzolan-Perlite Project in Nevada, USA, is pleased to provide the following project update:

HIGHLIGHTS:

- Commercial trials completed for bulk samples:
 - 2 tons of raw perlite successfully expanded in commercial production furnace to produce *horticultural grade* perlite suitable for the cannabis industry.
 - 100 tons of pozzolan ground in commercial scale production mill and tested positive for compliance with ASTM C618 standard for natural pozzolan.
- Initial three phase, 15-year mine plan completed.
- Perlite and pozzolan process options include low capex alternatives.
- Positive market developments:
 - Demand for natural pozzolan expected to increase as fly ash shortages continue to build.
 - *Horticultural grade* perlite market stimulated by increasing legalisation of cannabis.
- Permitting timeline reviewed following regulator’s procedural changes - estimated completion (mine ready) during third quarter 2019.

Commenting today Sunrise Executive Chairman Patrick Cheetham said: “I am delighted to be announcing the successful completion of commercial-scale trials on bulk samples of both the pozzolan and perlite from our CS Project. These pave the way for commercial arrangements with the parties involved and tests are also in progress with other potential customers. It is a good time to be entering these markets. Cement companies and fly ash suppliers are already grappling with a shortage of fly ash and this shortage will be intensified when the largest supplier to western markets, the large coal-fired Navajo Power Station in Arizona, closes as expected in 2019. Meanwhile the perlite market in the western US continues to be strong as more US States, and now Canada, continue the legalisation of cannabis for which perlite provides an ideal growing medium.”

This announcement contains inside information for the purposes of Article 7 of EU Regulation 596/2014.

Further information

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Detailed Information:

BULK SAMPLING – COMMERCIAL TRIALS

As reported on 3 September 2018 the Company recently excavated a 100-ton bulk sample of natural pozzolan and an 8-ton sample of perlite from the CS Project.

Natural Pozzolan

The 100-ton bulk sample of natural pozzolan was collected from site by a cement company for trial grinding and subsequent testing in a cement mix.

The Company has been advised by the cement company that the trial was successful and that the bulk sample met all the tested requirements of ASTM C618, the standard for natural pozzolan for use in cement and concrete mixes.

This is an extremely positive development and the cement company concerned has expressed a desire to continue co-operation with Sunrise, working towards a commercial arrangement.

Sunrise has retained approximately 30 tons of the original bulk sample and has made test samples of this available to a number of other cement companies with whom market discussions are continuing.

Perlite

The 8-ton bulk sample of raw perlite was initially sent to SGS Lakefield in Canada for crushing and screening to produce a horticultural grade raw perlite for expansion testing and to provide data for crushing characterisation. Horticultural grade raw perlite is the main grade being targeted for production by the Company and for which the Company signed off-take Memoranda of Understanding with two different companies earlier this year.

Approximately 2 tons of the resulting horticultural grade raw perlite were then sent from SGS Lakefield to one of the two above-mentioned companies for expansion trials in a commercial-scale furnace.

This trial was very successful with the expander reporting “better-than-could-have-been-hoped-for results”. An expanded perlite meeting the size requirements for horticultural perlite was produced with by-product fines meeting the commercial specification for water filtration grade material. The expander has expressed a strong desire to work with the Company as a new supplier of perlite to its facility.

Customer trials are also being arranged with other potential raw perlite customers.

MINE PLANNING & DESIGN¹

The mine design, which at this stage is required for permitting purposes, was contracted to SRK Consulting in Reno some weeks ago and has now been completed.

An open-pit mine is proposed for development in three phases over a 15-year period. The objective of a phased approach is to minimise the amount of the initial reclamation bond.

The Company believes that the deposits of perlite and natural pozzolan at the CS Project will sustain a much longer mine life, with large areas of the deposit such as the Northeast Zone not yet drilled. However, all mine designs evolve over time and require modifications to their mine permits from time to time and therefore it would not be realistic to plan beyond fifteen years for permitting purposes.

Whilst the areas of perlite and pozzolan are spatially separate, they overlap in the Main Zone and can be developed within the same overall pit outline.

Perlite Mining

Phase 1 perlite production (years 1-3) is scheduled to rise quickly from an initial rate of 20,000 tons per annum (tpa) of perlite to 100,000 tpa at the start of Phase 2 (years 4-8) and continue at that rate throughout all of Phases 2 and 3 (years 9-15).

Natural Pozzolan Mining

Pozzolan production is scheduled at an initial rate of 100,000 tpa rising to 300,000 tpa at the end of Phase 1, reaching a steady rate of 500,000 tpa during all of Phases 2 and 3.

Separate, alternative, mine plans have been developed for both the Main Zone and Tuff Zone pozzolan deposits. The pit design for the Main Zone pozzolan can supply pozzolan for the full 15-year mine plan on its own.

The pit design for the Tuff Zone only takes in half of the Tuff Zone deposits but can still supply all of Phase 1 and 2 requirements and over half of Phase 3 requirements on its own.

At this stage the Company is leaving its options open to develop the Tuff Zone or Main Zone pozzolans separately or together.

Rock waste from mine pits will be stored within the Project Area and where possible in worked out areas of the pit. The overall waste to ore ratios are very low - 0.25 tons waste per ton of perlite and pozzolan (combined) in the Main Zone and 0.16 tons waste per ton of pozzolan in the Tuff Zone with most of the waste being not being mined until after Year 8 in each case.

The Mine Plan does not include the extensive deposits of pozzolan in the Northeast Zone of the Project Area. The Company will include further exploration drilling in its mine permitting Plan of Operations to take place concurrently with mining.

MINERAL PROCESSING

The Company has identified the following options for processing and sale of natural pozzolan and perlite:

Natural Pozzolan

- Direct sale of as-mined ore to cement companies.

This option, as tested with the recent bulk sample, would allow for production to start immediately after permitting is completed and at minimal capital cost.

- Production of a ground pozzolan for sale to cement companies and the ready-mix concrete companies.

This second option would require construction of a grinding plant, most likely off-site and closer to the centres of demand.

Perlite

- Production of coarse horticultural grade perlite using mobile crushing and screening equipment.

The required mobile plant is readily available to rent or lease and production could start immediately permitting is completed at minimal capital cost.

As raw perlite is also a good natural pozzolan, undersized perlite could be sold as pozzolan. It could also be stockpiled for later processing in a fixed plant to produce a range of finer-grained industrial raw perlite products.

- Production of a complete range of raw perlite products in coarse, medium and fine grades.

This would require a more sophisticated fixed processing plant to be built on site. A preliminary plant design has been completed for permitting purposes.

The permitting Plan of Operations will allow for all these possible processing options to give the Company maximum flexibility for initial production and future processing to additional and/or higher value products.

MARKETING & MARKET DEVELOPMENTS

Natural Pozzolan

Natural pozzolan is one of a range of materials that can replace cement in cement and concrete mixes and which collectively are known as Supplementary Cementitious Materials (SCMs). Traditionally coal-fired power station fly ash has been the most widely used SCM in the cement and ready-mix concrete market, but fly ash supplies have been declining due to the progressive closure of coal-fired power stations in the USA.

Companies whose businesses are built around the distribution and supply of fly ash are now looking for alternative SCMs and to recovery of previously land-filled fly ash ponds. One major supplier of fly ash to western US markets is Boral Industries and its efforts to secure new sources of SCMs are highlighted in two recent news releases <https://flyash.com/news/>. Similarly, their customers, cement and ready-mix concrete companies, are looking to source supplies of natural pozzolan independently of their fly ash suppliers. These are our potential customers.

The closure of coal-fired power stations is continuing apace largely due to competition from cheaper natural gas-fired stations. Of particular regional significance is the planned 2019 closure of the Navajo Generating Station which is the largest coal-fired power station west of the Mississippi and a major supplier of fly ash to western markets. Efforts to find a buyer who would keep the plant open a few more years appear to be failing and closure will remove a significant proportion of the fly ash supplies to the markets we are targeting in Nevada and California.

The Company believes that the high quality of its material puts it in a favourable market position and that its leverage in the markets is increasing with the expected further shortage of fly ash. We anticipate that the price of natural pozzolan will increase over time.

Perlite

The market for perlite is well established but in recent years the market for horticultural perlite has been invigorated by the growth in cannabis cultivation following the legalisation of cannabis in various US States and, most recently, in Canada.

Only coarse grades of raw perlite from certain sources can be expanded to produce the coarse expanded perlite used as a growing medium for cannabis. Raw perlites from other sources shatter too much on expansion and are not suitable.

It is therefore significant that the Company's recent commercial trials confirmed that the coarse grades produced from the processed bulk sample produced the expanded product that is of interest to the cannabis industry as well as other more traditional horticultural buyers.

MINE PERMITTING

Mine permitting in Nevada is a procedure involving many individual steps and processes of which the National Environmental Policy Act (NEPA) process is a key process.

In August 2017 the Federal Government issued a directive intended to shorten the NEPA process. However, the response of the Bureau of Land Management (BLM), the federal body responsible for administration of the permitting procedure including the NEPA process, has been to take certain

Company reporting requirements outside of NEPA and require that they be completed before the NEPA process can begin.

We can report that we are on track with our own work to this point, but given the uncertain timelines resulting from the recent changes to the NEPA process we are currently allowing extra time for permitting and estimate that permitting will be completed, and that we will be mine ready, in the third quarter of 2019, rather than in the second quarter of 2019 as previously estimated.

This may prove conservative, and the Company is working hard with the BLM and its permitting consultants to bring forward this timeline. Further updates will be provided as appropriate.

Notes:

- 1. The purpose of the mine planning has been to provide information for the permitting Plan of Operations. The pit designs have been developed using a geological model for the project which is based on data from drilling, surface sampling, outcrop mapping and extensive quality testing. Industrial mineral deposits tend to be more predictable in their extent than gold or base metals deposits. However, no code compliant mineral resource has been estimated for the CS Project at this stage. In the case of industrial mineral deposits, where the minerals are sold on contract, it is common that resource and reserve estimates are not made until a later stage of development. Accordingly, no financial forecasts can be released at this time.*
- 2. 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 a member of the Australasian Institute of Mining & Metallurgy.*

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