



3 September 2018

Significant optimisations and capital cost savings identified as Sulphur Springs DFS enters final stage

Strong progress with mine design and scheduling, plant optimisation and capital cost reductions

Highlights:

- Open pit mine design and optimised mining schedule developed.
- Production rate increased to 1.25Mtpa from 1.0Mtpa to maximise financial returns.
- Optimisation of underground mine design completed, building on 2017 Value Engineering Study.
- Process plant configuration designed to produce ~60ktpa of Zn and 45ktpa Cu concentrate.
- Initial CAPEX savings totalling ~\$18.7M identified compared with the 2017 Value Engineering Study.
- Capital cost reduction strategies continuing with final costs to be presented in the DFS.
- DFS on track to be finalised by the end of Q3 2018.

Venturex Resources Ltd ("the Company" or "Venturex") is pleased to advise that it is continuing to make strong progress with the Definitive Feasibility Study ("DFS" or "the Study") of its 100%-owned **Sulphur Springs Copper-Zinc Project** in WA, which is now in its final stages and on track to be completed by the end of this quarter.

The delivery of the DFS, based on the revised and optimised open pit and underground mining configuration for Sulphur Springs, will mark a major step towards achieving Venturex's objective of becoming a significant new midtier Australian base metals producer, positioned to take advantage of the strong market outlook for both copper and zinc.

An update on key Study areas is provided in more detail below:

Mining

Mine design and scheduling has been further developed based on the significant recent progress in metallurgical and geotechnical testing for the open pit, which has allowed for an optimised mining schedule to be developed at an increased production rate of 1.25Mtpa compared with 1.00Mtpa in previous studies.

The result of this work has been applied to the scheduling parameters to provide a more accurate and value-driven schedule. Supported by recent drilling campaigns for resource upgrades and geotechnical understanding, the open pit has now been optimised to provide an increased production rate of 1.25Mtpa, which will add financial value to the life-of-mine schedule.

Increases in productivity related to advances in equipment are also a factor that has led to design and schedule optimisation, including engaging in more detailed discussions with open pit and underground contractors to reflect a more accurate timetable and cost.

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Optimisation of the underground mine design has also been completed, although much of the work completed in the Value Engineering Study (VES) in 2017 is still valid. Recent work has confirmed that the project can accommodate a significantly higher production rate than previously suggested.

Logistics and shipping opportunities have been identified that will allow for efficient trucking of concentrate from site to the Port Hedland port.

Concentrates will be containerised and stored at port before being loaded onto ships for export to Asian smelters. Containerised storage also allows for the benefit of on-ship blending of concentrate product to achieve the most saleable specifications, therefore maximising revenue and minimising penalties.

Figure 1: Sulphur Springs Open Pit & Underground Mine Design



Plant & Infrastructure

The Sulphur Springs' process plant has been designed for a throughput of 1.25Mtpa. The plant will produce approximately 60ktpa of zinc concentrate and 45ktpa of copper concentrate.

The key criteria for equipment selection are the suitability for duty and the projected mine life of the operation. As a result of the additional metallurgical test work completed recently (see ASX release dated 06 August 2018), this has allowed for optimisation of the plant design criteria, leading to a practical design which maximises functionality while minimising cost.

The plant layout provides ease of access to all equipment for operating and maintenance requirements while maintaining a compact footprint to minimise construction costs.

The process plant consists of a mineral processing flotation concentrator with associated services and ancillaries. The plant has been designed to take Run-of-Mine (ROM) ore from the mine and concentrate the copper- and zincbearing minerals to produce a copper-bearing product, a zinc-bearing product and a barren tail.



The process facilities involved include the following components: Crushing, SAG and Ball milling, Flotation, Thickening, Filtration, Product handling, Tailings disposal, Reagents, Services and Ancillaries.

Figure 2: Sulphur Springs Process Plant & Infrastructure Layout



Capital Costs

As part of the DFS, a strong emphasis has been placed on reducing upfront capital expenditure to ensure that the project is constructed in the most cost-effective manner. Capital cost reduction strategies are continuing, with final numbers to be released with the DFS.

Some key cost savings that have been identified in relation to the accommodation camp, mobile equipment, access road and process plant are presented in Table 1 (compared to previously published figures from the 2017 Value Engineering Study or VES) and discussed in further detail below. Further capital cost evaluation is being completed and will be finalised upon release of the DFS.

Capital Item	VES Cost 2017 (AUD Million)	DFS Cost 2018 (AUD Million)	Change (AUD Million)	Comment
Accommodation Camp	17.4	4.54	-12.9	Purchase of Spinifex Ridge camp
Mobile Equipment	4.31	0.0	-4.31	Leasing equipment instead of purchase
Access Road	4.55	3.18	-1.37	Design optimisation
Process Plant*	51.5	55.4	+3.90	Throughput increased 25% to 1.25MMtpa
Miscellaneous Infrastructure	6.35	2.29	-4.06	Fencing, Earthworks, BOO for fuel storage
TOTAL	84.1	65.4	-18.7	

Table 1: Capital Cost Comparison DFS (2018) v VES (2017)

* Process plant was previously 1.00 million tonnes per annum capacity, the DFS utilises a 1.25 million tonnes per annum capacity plant



Accommodation Camp

The Company purchased the Spinifex Ridge accommodation camp from Moly Mines / Young Australian Mines in July 2018 (see ASX release 9 July 2018) for A\$1 million. The Company has since signed a lease agreement until the end of 2018 with a third party for their exclusive use of the camp in this period for the fee of A\$1 million.

This effectively means that the cost to the Company of acquiring the camp is zero, with the added benefit of the current occupants agreeing to spend the required capital to bring the camp up to an operational standard. The camp will be relocated to the Sulphur Springs site in Q1 2019.

Significant savings of up to A\$12.9 million are expected from this arrangement. These savings also take into account the addition of extra rooms to the Spinifex Ridge camp to cater for the required personnel for the Sulphur Springs operations. They equate to a 74% reduction in costs when compared to the Value Engineering Study in 2017.

Owners' Capital Costs – Plant Mobile Equipment

Previous studies assumed that the Company was purchasing equipment outright at the start of the project. To reduce expenditure all equipment will be leased, resulting in a saving of A\$4.31 million. These savings equate to a 100% reduction in costs when compared to the Value Engineering Study in 2017.

Process Plant

The process plant has been increased in size to a throughput capacity of 1.25Mtpa compared with 1.0Mtpa in previous studies. A natural economy of scale to the ore body allows for an increase in production rate of this magnitude or even higher. The process plant design has been optimised through reducing footprint and steel requirements to minimise construction cost, time and complexity. Despite the increased throughput, the capital cost for the process plant has only increased by 7.5% (A\$3.90 million) when compared to the 2017 VES.

Access Road

The site access road linking the Abydos Haul Road to the Sulphur Springs site will require upgrading to allow for access of heavy equipment, as well as being the route that concentrate will be trucked from site to Port Hedland. Optimisation of road design has led to a reduction in costs but still offers a useable and reliable access to and from site. The reduction in construction costs equates to a saving of A\$1.37 million. These savings equate to a 30% reduction in costs when compared to the Value Engineering Study in 2017.

Non-Critical Infrastructure

A number of non-critical infrastructure items have also been identified and removed as appropriate. Further capital cost savings are being identified with final estimates to be reported in the DFS.

Management Comment

Venturex Managing Director AJ Saverimutto said the Company's development plans for the Sulphur Springs Copper-Zinc Project were rapidly taking shape, with the Definitive Feasibility Study now in its final stages and on track for completion within weeks.

"As the DFS nears completion we are pleased to see results that clearly demonstrate the robust nature of the Sulphur Springs Project. Our team has diligently completed the design and construction process to ensure it is efficient, cost effective and can be delivered on time and on budget. Significant optimisations in project construction capital, mining, processing and operations are starting to show the true value of Sulphur Springs to Venturex and its shareholders. We look forward to delivering the final DFS results to the market shortly and getting on with the job of building the project as quickly as we can."

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About Venturex Resources Limited

Venturex Resources Limited (ASX: VXR) is an exploration and development company with two advanced Copper Zinc Projects near Port Hedland in the Pilbara region of Western Australia. The two projects are the Sulphur Springs Project which includes the Sulphur Springs Project, Kangaroos Caves Resource plus 27km of prospective tenements on the Panorama trend and the Whim Creek Project which includes the Resources at the Whim Creek, Mons Cupri and Salt Creek mines together with the Evelyn project and 18,100 ha of prospective tenements over the Whim Creek basin. Our strategy is to work with our partners Blackrock Metals to expand and extend the existing 4 tonne per day oxide copper heap leach and SXEW operation at Whim Creek, identify other near term production options at Whim Creek, Mons Cupri and Sulphur Springs and fully optimise the Sulphur Springs Project have it shovel ready to take advantage of forecast improvements in base metal prices.