ASX Announcement
ASX: SUP
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SUPERIOR LAKE
RESOURCES

Quarterly Activities Report – 30 June 2018

Highlights

– Maiden JORC (2012) resource delivered
  • 2.15 Mt at 17.7 % Zn, 0.9 % Cu, 0.4 g/t Au and 33.5 g/t Ag
  • 90 % of the resource classified in the Indicated Mineral Resource
– Field visit undertaken during the June quarter
  • Current infrastructure in place in excellent condition
– Project Restart Study implementation accelerated
  • Preliminary evaluation studies on mine dewatering, re-equipping of the shaft, processing plant on target for Q3 2018
  • Defining the Project permitting process on target for Q3 2018
  • Mine scoping study on track for Q3 2018

Superior Lake Resources (SUP.ASX) is pleased to provide shareholders the following quarterly activities report for the quarter ending 30 June, 2018.

Following the release of its maiden JORC (2012) resource confirming the quality of the Project as one of the highest-grade zinc deposits globally, the company is now fast tracking the Re-Start Study for the Superior Lake Project (Project). This work is on track and is expected to be delivered in Q3, 2018. The study includes the completion of preliminary capital cost estimates for the mine dewatering, re-equipping of the mine (shafts, haulage systems etc.), a new concentrator on site, and a mining scoping study. Work also includes a definition of the permitting process, the timing and cost to enable the recommencement of production.

Jorc Resource

During the June quarter Superior completed a significant milestone with the release of its maiden JORC (2012) resource of 2.15 Mt at 17.7% Zn, 0.9% Cu, 0.5 g/t Au and 33.4 g/t Ag.

The completed resource confirms and demonstrates that the mineralisation is robust and continuous with over 90% of the resource classified in the Indicated Mineral Resource category.

Table 1 – Superior Lake Total Mineral Resource at 3% Zn cut-off grade

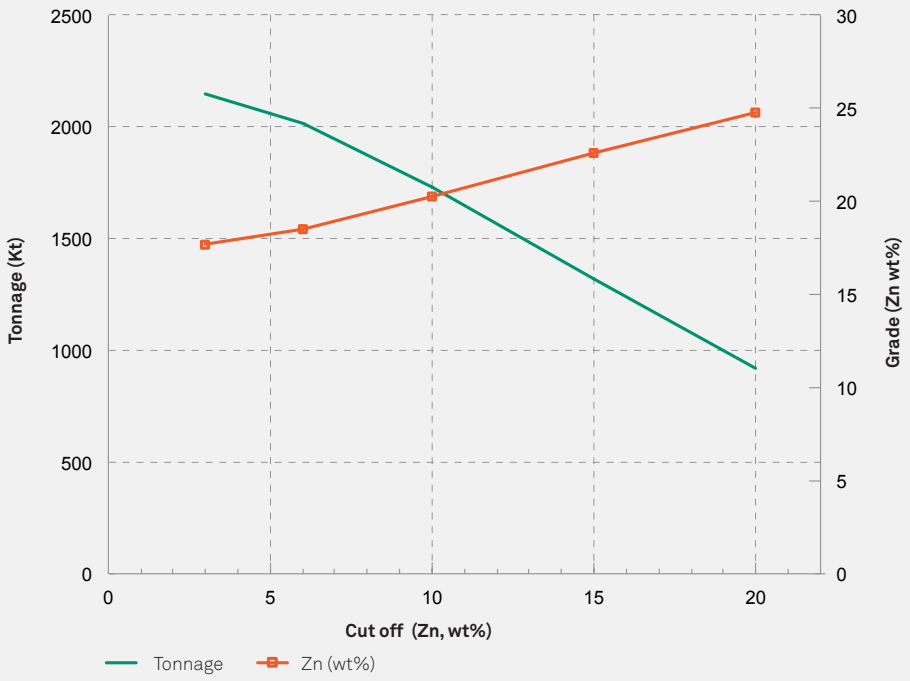
Classification	Tonnage	Zn%	Cu%	Au g/t	Ag g/t
Indicated	1,992,000	17.8 %	0.9 %	0.4 g/t	33.7 g/t
Inferred	152,000	15.4 %	0.9 %	0.4 g/t	31.2 g/t
Total	2,145,000	17.7 %	0.9 %	0.4 g/t	33.5 g/t

Table 2 – Superior Lake Resources – Comparison at 3% and 6% cut-off Grade

Classification	Cut-off Grade	Tonnage Mt	Zn %	Cu %	Au g/t	Ag g/t	Tonnes Zn	Tonnes Cu	Ounces Au	Ounces Ag
Indicated	3% Zn	1.99	17.8	0.9	0.4	33.7	355,000	17,000	25,800	2,157,000
	6 % Zn	1.88	18.7	0.9	0.4	35.3	350,000	16,700	24,300	2,129,000
Inferred	3% Zn	0.15	15.4	0.9	0.4	31.2	23,000	1,000	1,800	153,000
	6 % Zn	0.13	16.9	0.9	0.4	33.2	22,700	1,200	1,700	144,000
Total	3 % Zn	2.15	17.7	0.9	0.4	33.5	378,000	18,000	27,600	2,309,000
	6 % Zn	2.01	18.5	0.9	0.4	35.1	373,000	17,900	25,500	2,273,000

The quality of the resource estimate is further demonstrated in Table 2 and Figure 1 which shows that there is minimal variation in the tonnage and grade between cut-off grades of 3% and 6% Zn.

Figure 1 – Superior Lake Project – Grade Tonnage Curve



Mineral Resource Description and Methodology

The Superior Lake Zinc Project consists of two deposits, Pick Lake and Winston Lake, and is located approximately 150 kilometres north east of the city of Thunder Bay Ontario, Canada. This is the highest-grade zinc project in Canada. The Project was mined for over a decade (~3Mt of ore mined) before closing in January 1999, due to a sustained period of a low zinc price. Since mine closure there has been no significant exploration completed on the Project.

Geology and Geological Interpretation

Winston and Pick Lake are recognised as Noranda-style VMS deposits which are characterised by the presence of the zinc - copper (+/- gold, +/- galena, +/- tetrahedrite) mineralisation composed of sphalerite-chalcopyrite-pyrrhotite-pyrite which can be surrounded by a pyrite-pyrrhotite halo with minor sphalerite, tetrahedrite and galena. Confidence in the model is high as the mineralisation of the deposits essentially occurred as a single massive sulphide seam distributed along the VMS horizon. The mineralisation and the host rock stratigraphy can be delineated between the drill holes.

Geological interpretation and the resource model are based on the drill hole database (**approximately 1787 drill holes**) and digitised underground drive maps and cross sections. The distances between drill holes intersecting the mineralisation in the Winston Lake deposit is 10 to 30m and 20 to 40m at the Pick Lake deposit. The interpretation of the mineralisation was confirmed by plans and section showing the mapping and sampling of the underground development.

Sampling and Sub-Sampling Techniques

The Pick mineralisation was defined by intervals logged as massive and semi-massive sulphides within the Pick clotted rhyolite or tuff units. The assay values for zinc were compared to these intervals and found to correlate well. The zinc percent assay values were used to select intersections where no logging information was present. The interpretation of continuity was based on ore drive level plans that showed mapping information for the sulphide horizon.

A nominal cut-off grade of 1% Zn was used to define the mineralised intervals which were used to construct a vein model. Edge boundaries were applied from ore drive extents and long-section mine plans that indicated the conductor boundary position from geophysical surveys.

Drilling Techniques

Diamond drillholes used to sample the mineralisation at Pick and Winston were based on 1603 holes drilled from both underground and surface. No historical information is available regarding sampling techniques or sample QAQC. However, the 10-year production history at the mines supports the magnitude of the assay values and location of the drillholes. The dataset is considered to be acceptable for use in Mineral Resource estimation by the Competent Person.

Sample Analysis Method

Samples were composited to 1m lengths using a best fit algorithm. Statistical continuity analysis of the samples was carried out using Istatis® geostatistical software to produce variograms for each element. The block models were constructed using parent cell sizes of 20mE by 20mN by 1mRL with sub-cell sizes of 0.5mE by 0.5mN by 0.5mRL for Pick and 1mE by 1mN by 1mRL for Winston. The composite data was unflattened and a two-pass estimation of grades was carried out in unfolded space using Ordinary Kriging or Simple Kriging.

Estimation Methodology

The mineralised domains have demonstrated sufficient confidence in both geological and grade continuity to support the definition of Mineral Resources. The nominal drill spacing of 20 to 30m, together with geological mapping and sampling from ore development, alimak raises and stoping is considered to be sufficient to assign an Indicated Mineral Resource classification to the majority of the Mineral Resource. Material classified as Inferred Mineral Resources is located on the margins of the Indicated Mineral Resources and the extents of the mineralisation, where sampling and control on the domain geometry are less confident.

The input data is comprehensive in its coverage of the deposits and does not favour or misrepresent the in-situ mineralisation. No assumptions have been made as to mining methods other than it will be by underground methods.

Superior Lake Project Site Visit

During the quarter, Superior Lake's CEO David Woodall visited the project site reviewing the significant surface infrastructure in place and attending meetings with key stakeholders in local and provincial government, as well as consultants and potential service providers that can assist in the Project redevelopment. Activities completed during the site visit were:

- Completed a site visit to review the surface infrastructure at the project site.
- Meetings with the Ministry of Northern Development and Mines to discuss the Project and the permitting and regulatory environment requirements.
- Complete a review in Thunder Bay with Nordmin Engineering on the preliminary capital estimates and the permitting process required to re-commence the Project. This work is on track and will be delivered in Q3, 2018.
- Meetings with local project stakeholders.

Figure 2 – Superior Lake Tailings Dam

Figure 3 – Freshwater Dam

Figure 4 – 115kV Power Infrastructure

Figure 4 – Project Access Road and 115kV Powerline

Superior Lake Re-start Strategy

Superior is continuing with the implementation of the Project Re-Start Strategy. The redevelopment of the Superior Lake Project will occur in three stages:

Stage 1: Preliminary Capital and Mining Concept Study - This key work will generate crucial inputs for the second stage, a Definitive Feasibility Study

Stage 2: Definitive Feasibility Study – With 90% of the resource categorised in the Indicated Category a DFS will be completed, and concurrently permit applications required for the project will be initiated.

Stage 3: The third stage will see the commencement of construction and the operational readiness that will lead to the recommencement of zinc production from the Project.

The company will continue to provide ongoing updates on Superior's strategy as it progresses, with Stage 1 on track for completion in Q3 2018, Stage 2 commencing in Q4 2018, and Stage 3 commencing in Q4 2019 as shown in Figure 5.

Stage 1 includes the completion of preliminary capital and mining concept study that will provide the key inputs for the Definitive Feasibility Study planned to commence in Q4 2018. The preliminary capital cost estimate work is being done by Nordmin Engineering from Thunder Bay, Ontario. This work includes preliminary capital cost estimates and operating methodologies for the mine dewatering, re-equipping of the mine (shafts, haulage systems etc.) and for the new concentrator on site. The scope of Nordmin's work also includes a description of the process, timing and cost of the permitting for the commencement of production from the project.

The second deliverable in Stage 1 is the mining scoping study that commenced on the completion of the maiden JORC resource. Given the historical production from the operation, where mechanised cut and fill, AVOCA, and alimak stoping were previously used, the company has engaged Mining Plus to complete the conceptual development and stope layouts adopting the sublevel longhole method with introduced cemented pastefill. The objectives of this scoping study are to deliver:

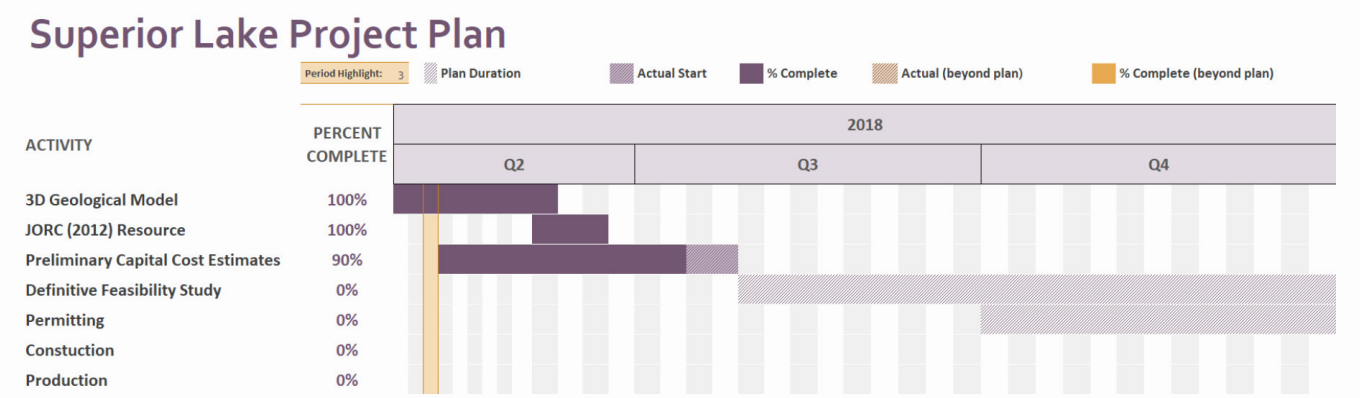
- Mine development and stoping design (integrated with the historical underground development in place);
- Stoping sequence to show the progression of the mining front and interaction with the filling cycle.
- Production schedule to optimise the extraction of the resource; and
- Estimated operating and capital costs.

The key design criteria to be adopted in the study is to have multiple development and stoping work areas that will optimise productivity and crucially mitigate mine production risk.

Key Milestones for the Project are:

- Preliminary capital and mining concept study – Q3 2018
- Definitive Feasibility Study – Q4 2018 to Q2 2019
- Project Development and Permitting – Q3 2019 to Q4 2020
- Production – Q4 2020

Figure 5 – Project Schedule



Corporate

During the quarter Superior Lake completed an investor roadshow in Sydney and Melbourne and released an updated presentation, that can be reviewed at: https://superiorlake.com.au/sup/asx-announcements-2/

The Superior Lake Annual General meeting was also held on 25 April 2018 which approved the remuneration report, renominations of Mr Keong Chan & Mr Yunde Li and the additional 10% placement capacity.

The Company at the end of the June quarter had $1.3 million cash at bank.

Other Projects

Mt Morley Project E30/477 (100% SUP)

During the quarter the annual work program report was lodged with the Department of Mines. Preliminary desktop studies were carried out on the Mt Morley Project during the quarter.

Competent Person Statement

Mineral Resources

The information in this announcement that relates to the Mineral Resources on the Superior Lake Project was first reported by the Company to ASX on July 3rd, 2018. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement, and in the case of estimates of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.