Stellar Resources Ltd.: Tin Mineral Resource Upgrade to JORC 2012

29.11.2016 | ABN Newswire

Melbourne, Nov 29, 2016 - Stellar Resources Limited (ASX:SRZ) ("Stellar" or the "Company") is pleased to advise that it has completed a review and upgrade from JORC 2004 to JORC 2012 of Mineral Resource estimates for its 100% owned Zeehan tin deposits. The Zeehan tin deposits lie within RL5/1997 and underpin the Heemskirk Tin Project - the highest grade undeveloped tin resource of significance listed on the ASX.

- Mineral Resource of 6.35mt grading 1.13% tin or 72,000t of contained tin

- 97% of contained tin is in the form of cassiterite

- Cassiterite is the most readily recoverable tin mineral

- 64% of Indicated Resource at Lower Queen Hill - first in development queue

- LQH Indicated Resource grade is 1.42% or 26% above the resource average
- Zeehan tin deposits are open and have significant exploration potential

- Next step is infill drilling to convert resources to ore reserves

- Infill drilling provides an opportunity to explore Severn for higher grade

"The estimate is more robust than the JORC 2004 estimate and not materially different in tonnes and grade. Importantly, the JORC 2012 estimate identifies a high grade Indicated Resource at Lower Queen Hill that will be the target for initial underground mining studies" said Stellar's Managing Director, Mr Peter Blight.

"The combination of a rising tin price and results from a planned infill drilling program that will target higher grade zones in Lower Queen Hill and Severn should underpin a positive outlook for Stellar shareholders as the company progresses Heemskirk Tin towards development" he added.

Resource Statement

The JORC 2012 Mineral Resource estimate is summarised in Table 1. The global Indicated and Inferred Resource estimate is 6.35mt grading 1.13% total Sn. Table 1 in link below also identifies cassiterite as the dominant Sn mineral and includes grades of associated base metals to demonstrate geochemical differences between deposits. As Table 2 in link below shows, the JORC 2012 estimate is not materially different from the JORC 2004 estimate. However, JORC 2012 is a more robust estimate as it includes some additional drill holes and the results from mining, metallurgy and environmental studies.

Tenure

The Zeehan Tin Deposits, Severn, Queen Hill and Montana, lie within RL5/1997 (retention licence) which is 100% owned by Stellar Resources Limited through its wholly owned subsidiary company Columbus Metals Limited. The RL is located on the western side of Zeehan, a historic mining town located in northwest Tasmania. Stellar Resources Limited has recently submitted a Mining Lease application over the RL to Mineral Resources Tasmania. The application is currently pending approval.

Geology

The Zeehan Tin Deposits are Devonian Granite related cassiterite-pyrite-pyrrhotite-basemetal stockwork and replacement style mineralisation hosted in Proterozoic sediments and volcaniclastics of the Zeehan Sub Basin, Western Tasmania. The stratabound mineralisation is structurally controlled on fold/fault dilation zones between lithologies of contrasting rheology.

Three steeply dipping and moderately plunging tabular deposits have been delineated over an area of 600m

by 500m to 500m depth, the Severn, Queen Hill and Montana deposits. The Severn and Queen Hill deposits strike mine grid north-south, dip steeply east and plunge moderately north. The Montana deposit strikes east-northeast and has a steeply south to vertical dip.

Mineralisation in all deposits remains open down plunge. Tin occurs principally as cassiterite with minor stannite and base-metal sulphides located towards the top and periphery of the Queen Hill and Montana Deposits.

Drilling Information

The Zeehan Tin Deposit Mineral Resource estimation is based on 100 historic diamond drill holes for 25,538m and 45 recent diamond drill holes for 13,720m. Mineralised intercepts range in core diameter with 58% NQ 47.6mm, 26% BQ 36.4mm and the remaining 16% larger sizes. Diamond core recoveries over mineralised zones averaged 98% for the Severn deposit, 96% for Queen Hill and 82% for Montana.

Most historical and all recent drill-hole collars were surveyed by qualified surveyors. The first 28 drill holes had downhole surveys completed using acid tube and Tropari. The remainder had downhole surveys completed by Eastman single shot camera. Historical and recent geological logging of drill core is of high quality and completed by experienced geologists and field personnel.

Sampling/Assay Database

Mineralised diamond drill core was halved and bagged on 1m sample intervals while respecting geological boundaries. Samples were ticketed and security ensured by delivery to ALS laboratories in Burnie by Stellar Resources staff.

The database contains 6,905 assay records, 4,286 from previous explorers and 2,619 from Stellar Resources drilling programs. Summary statistics demonstrate good correlation between the two data sets.

Drill core was analysed at several commercial and company laboratories for a range of elements over the various historical and recent drilling campaigns. Total Sn was analysed by fusion disc and pressed powder XRF techniques. Soluble Sn, Cu, Pb, Zn, S and Ag were analysed by AAS. Historical and recent SG determinations were made using a combination of pycnometer and the Archimedes method on non-porous drill core.

QAQC procedures involved extensive independent laboratory check analyses. Correlation between laboratory analyses is generally excellent with the exception of some periodic systematic bias of up to 10%. Drilling, logging and analytical procedures are not considered to present any material risk to the estimation of Mineral Resources on a global level.

Mining Method

The Zeehan Tin Deposits are amenable to decline access, open stope mining methods with Drift and Fill and Avoca mining methods proposed where orebody dip requires. Rock fill, cemented rock fill and cemented aggregate fill were considered where appropriate. Mining studies were completed by MiningOne (2013 and 2016) and Polberro Consulting (2015).

Metallurgical Test-Work

Sn recovery and concentrate grade assumptions are based on test-work conducted by ALS Metallurgy at its Burnie facility with supervision and interpretation of results by WorleyParsons. The most comprehensive test-work program was completed for the Severn deposit with partial testing of the flow sheet for the Queen Hill deposit.

Cut-off Grade

A block cut-off grade of 0.6% was determined using industry standard mining recovery, metallurgical recovery determined from test work, independent cost studies and the prevailing LME spot tin price and exchange rate. Table 3 shows that an increase in cut-off grade to say 0.7%Sn has only a modest impact on contained Sn in the Mineral Resource.

Estimation

Wire-framed solid models of geological and mineralisation domains (based on a 0.4% Sn contour) were created from cross-sections, geological maps and drill-hole data. Mineralised domains are generally stratabound and demonstrate reasonable sectional continuity given the broad drill spacing and style of mineralisation. The mineralised domain models are considered appropriate in the context of the resource classifications applied to this estimate.

A block modelled (10mx10mx10m) resource estimate was calculated using an ordinary kriged algorithm for Sn constrained by solid models in the Severn and Queen Hill deposits. An inverse distance squared algorithm was used to interpolate Sn grades into the Montana solid models and S, Cu, Pb, soluble Sn and SG into all mineralised solid models.

Classification

Inferred and Indicated Resources, reported above a 0.6% Sn cut-off, were classified according to the guidelines of the 2012 edition of the JORC Code. The classification included consideration of data quality and distribution, spatial continuity, confidence in the geological interpretation and estimation confidence. The Queen Hill deposit above 930mRL and south of 3770N is classified as Indicated Resource as it is reasonably well drilled and the geology model well supported. The remaining area of Queen Hill and the Severn and Montana deposits were classified as Inferred Resource largely due to the broad drill spacing (100m x 100m) and short range grade variability.

To view tables and figures, please visit:
http://abnnewswire.net/lnk/SQIU6I3S

About Stellar Resources Limited

Stellar Resources Ltd (ASX:SRZ) is a tin exploration and development company. Its flagship project, Heemskirk Tin, is the highest grade undeveloped tin deposit in Australia and has excellent potential for resource expansion. Located near the historic mining town of Zeehan in northwest Tasmania, Heemskirk benefits from ready access to transport infrastructure, power and water. Stellar's objective is to establish Heemskirk as Australia’s second largest tin producer.

Contact

Peter Blight, Managing Director
Stellar Resources Limited
Tel: 03 9618 2540
Email: peter.blight@stellarresources.com.au