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# Star Zinc Conceptual Grade-Tonnage Estimate

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**For immediate release  
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Galileo Resources Plc  
("Galileo" or "the Company")  
Star Zinc Conceptual Grade-Tonnage Estimate**

**Galileo is pleased to announce results of an independent conceptual grade and tonnage estimate (see cautionary note below in this regard) based on modelling the results from the Company's recently completed 26-diamond drill hole programme (announced 14 May 2018) on the Zambian Star Zinc project ("Star Zinc") and in which, the Company, in joint venture with BMR Group plc ("BMR"), has an 85% interest.**

Cautionary note: A formal Mineral Resource Estimate has not been prepared at this time and there is no Standard being reported to in this regard in this announcement. The potential quantity and grade expressed in this release is conceptual in nature and, at this stage, there is insufficient exploration data to estimate a Mineral Resource Estimate in accordance with any Standard and it is uncertain whether further exploration will result in the estimation of Mineral Resources.

## Highlights

- The conceptual grade tonnage (CGT) estimate models a potential exploration target of 485 000 tonnes ("t") deposit at 15.4% Zn grade (see table 1)
- At a nominal 3% zinc ("Zn") cut-off the CGT model from the current drilling represents an 80% increase in tonnes with a 14% decrease in grade when compared to previous CGT modelling exercise ("conservative case ") in 2015 based on historical exploration data\*
- This conceptual analysis suggests a core of high grade massive willemite material in both the east and west limbs of the deposit
- This modelling indicates a domal mineralised structure, with the east and west limbs dipping shallowly away from the centre of the structure, focused below an old historic pit
- The wireframe-modelled limbs did not meet under the old pit; suggesting the need for further exploration in this area to determine continuity or interaction, if any, of the two limbs
- Results from the CGT highlight further exploration potential to extend mineralisation to the east-north-east and south east, which remain open ended
- The area below the open pit and geophysics/geochemistry over the surrounding area and other areas outside the mineralised domain remain to be explored

\* (BMR - RNS announcement 16 August 2016 and also see table 2 and related note <sup>(a)</sup>).

Table 1 Conceptual grade tonnage model

Domain	Tonnes (t)	Grade (Zn %)
MG5	9,000	5.1
MG4	9,000	8.3
MG3	188,000	8.4
MG2	83,000	7.4
MG1	30,000	13.2
HG2	104,000	31.2
HG1	61,000	24.8
TOTAL	485,000	15.4

Volume and tonnes are rounded to 3 significant figures; metal is rounded to 2 significant figures. Note: the above CGT calculation has not been prepared in accordance with any Reporting Standard and therefore should be treated with caution at this stage and should not be relied upon.

Table 2: Comparison between 2015 and 2018 conceptual model results (at a nominal 3% Zn cut-off)

	Tonnes	Grade
	t	%Zn
2015 Conservative Case <sup>a</sup>	269,081	11.8
2015 Pragmatic Case <sup>a</sup>	386,278	17.6
2018 CGT	485,000	15.4
% difference from Conservative case 2015	80%	-14%
% difference from Pragmatic case 2015	26%	-13%

*Note <sup>a</sup> The conceptual Grade tonnage work completed in 2015 produced two models, representing "conservative" and "pragmatic" cases.*

**Colin Bird, Chief Executive Officer, said:**

"This result is very pleasing in as much as it substantiates our initial prognosis for acquiring a majority interest in the project. The study has demonstrated two quite distinct mineralisation types <sup>(b)</sup> which potentially could lead to significant increases in tonnage of material with zinc-grade in excess of cut-off. The areas to the east and south-east of the mineralised domain remain open with good geophysical and geochemical signatures identified prior to entering into the JV on this project. Other near-by areas with good underlying geologic physical parameters remain available for exploration. The Company intends to test the prognosis for a deeper feeder source for the mineralisation but prior to this it will research this further, which to a large degree will be led by the current programme evaluation and further drill results."

**Note <sup>b</sup> Zn mineralisation on Star Zinc comprises broadly:**

- *in the West, high-grade semi-massive Willemite mineralisation, vein hosted mineralisation and replacement style mineralisation hosted within dolomitic limestone. Rarer occurrences are breccia hosted and vein hosted within argillite*
- *in the East, haematite-stained argillaceous/shaly limestones hosting mineralisation - typically as replacement style mineralisation with a lower frequency of vein hosted style (compared to the West)*
- *in both the East and West, supergene Zn is present in karsts, fault zones and highly weathered fracture zones as well as associated with ferruginous pisolitic laterite and soil material.*

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

Technical Sign-Off

Andrew Sarosi, director of Galileo, who holds a B.Sc. Metallurgy and M.Sc. Engineering, University of Witwatersrand and is a member of the Institute of Materials, Minerals and Mining, is a "qualified person" as defined under the AIM Rules for Companies and a competent person under the reporting standards. The technical parts of this announcement have been prepared under Andrew's supervision and he has approved the release of this announcement.

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#### Forward looking statements

Certain statements in this announcement, are, or may be deemed to be, forward looking statements. Forward looking statements are identified by their use of terms and phrases such as "believe", "could", "should" "envisage", "estimate", "intend", "may", "plan", "will" or the negative of those, variations or comparable expressions, including references to assumptions. These forward looking statements are not based on historical facts but rather on the Directors' current expectations and assumptions regarding the Company's future growth, results of operations, performance, future capital and other expenditures (including the amount, nature and sources of funding thereof), competitive advantages, business prospects and opportunities. Such forward looking statements reflect the Directors' current beliefs and assumptions and are based on information currently available to the Directors. A number of factors could cause actual results to differ materially from the results discussed in the forward looking statements including risks associated with vulnerability to general economic and business conditions, competition, environmental and other regulatory changes, actions by governmental authorities, the availability of capital markets, reliance on key personnel, uninsured and underinsured losses and other factors, many of which are beyond the control of the Company. Although any forward looking statements contained in this announcement

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#### The Star Zinc Project

The Star Zinc project is a historical small-scale open pit mine from where, reportedly, low tonnage, but high grade willemite (a zinc silicate mineral) was extracted intermittently in the 1950s to 1990s.

The Star Zinc project is located approximately 18km NNW of Lusaka (see Figure 3.1 below), and is accessible via the tarred "Great North Road" and a good all weather graded road, with the journey time from central Lusaka of approximately 30 minutes (traffic allowing).

There is adequate power, water, rail & telecommunications, with the International Airport at Lusaka, less than 45 minutes away.

The Mines and Minerals Development Act No. 11 of 2015, which grants a Large Scale Prospecting Licence provides for an initial 4 years with a further two 3-year extensions totalling 10 years, with a mandatory 50% reduction of licence area at the completion of the 1st grant and 2nd grant periods respectively. The first renewal period initially expired 13 August 2016 but was extended to 13 August 2018. The Company has submitted an application for the next renewal period.

The Star Zinc Willemite project was mapped in the 1960s by several geologists of the Northern Rhodesia (now Zambia) Geological Survey.

At Star Zinc, two main fracture trends are present, one E - W, and another N - S. Both sets of fractures are nearly vertical and are irregularly mineralised. Willemite generally replaces the host rock marbles in the form of massive ore bodies, but it occurs also in veins

In addition, karstic (pertaining to landscape underlain by limestone which has been eroded by dissolution, producing ridges, fissures, sinkholes and other characteristic landforms) mineralisation and red soils (terra rossa) are locally heavily mineralised with detrital willemite and supergene zinc minerals. Zinc values measured in soils at Star Zinc reach up to 15,600 ppm and are accompanied by the pathfinder elements Ag (silver), Pb (lead), Ba (barium), Sb (antimony) and Cd (cadmium). The karst infill has a zinc content up to 45wt.% Zn, up to 35wt.% Fe and up to 5g/t Ag.

The mineralogical assemblage non-sulphide zinc minerals includes a whole number of minerals, but the main economic phases present are Zn-silicates (willemite, hemimorphite, Zn-bearing clays), Zn- Pb carbonates (smithsonite, cerussite), hydrated Zn- Pb carbonates (hydrozincite, hydrocerussite) and Zn- Mn- Fe- oxides (zincite, franklinite, gahnite).

Limited independent metallurgical testwork by others has clearly shown that the willemite present at Star Zinc is amenable to acid leaching with positive results for two samples tested. Zinc leaching efficiencies obtained ranged from 89% and 92%. The testwork indicated polymerisation of dissolved silica in the leachate.

An independent competent person's report commissioned by BMR concluded. In summary, the Star Zinc project has good potential to become a viable project.

Note: the information about Star Zinc is sourced primarily from Competent Person's Report for the Star Zinc Project, Zambia; Wardell Armstrong, January 2016

#### Glossary

<b>Argillaceous</b>	pertaining to argillite
<b>Argillite</b>	rocks or sediment consisting of or containing clay
<b>Detrital</b>	loose fragments or grains that have been worn away from rock
<b>Calcite</b>	mineral of calcium carbonate
<b>Dolomite</b>	mineral composed of calcium magnesium carbonate
<b>Dolomitic</b>	pertaining to dolomite
<b>Floats</b>	pieces of rock that have been removed and transported from their original outcrop
<b>Hematite</b>	reddish-black mineral consisting of ferric (iron) oxide.
<b>ICP-OES/MS</b>	inductively coupled plasma - optical emission spectrometry /mass spectrometry
<b>Karst</b>	landscape underlain by limestone (calcium carbonate), which has been eroded by dissolution, producing ridges, fissures and so on
<b>Karstic</b>	pertaining to karst
<b>Laterite</b>	a soil and rock type rich in iron and aluminium
<b>Leaching</b>	chemical process of solubilising metals in rock into solution
<b>Pisolite</b>	a rock comprising pea-sized concentric formations within a fine matrix
<b>Pisolitic</b>	pertaining to pisolite
<b>ppm</b>	parts per million
<b>XRF Spectrometer</b>	analytical instrument for determining chemical composition using x-ray fluorescence
<b>Supergene</b>	pertaining to processes or enrichment that occurs relatively near surface
<b>Willemite</b>	zinc silicate ore mineral

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