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# Star Zinc Project Drilling Results

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**Galileo Resources Plc**  
**("Galileo" or "the Company")**  
**Star Zinc Drilling Results**

Galileo is pleased to announce results\* for the final eight diamond drill holes of its 26-hole drilling programme on the Zambian Star Zinc project ("Star Zinc"), in which the Company has an 85% interest. These holes were drilled in the southern periphery of the historic mineralised zone.

## Highlights

- Assay results received for the final eight diamond drill holes ("DDH") of the 26-DDH programme on the Star Zinc project (*see Table 1*) at depths downhole to 63 metres (m).
- These DDHs were mainly proximal to the southern periphery of the historic mineralised body.
- Four holes, DDH020 (west) and D DHs 024 to 026 (east) show medium to high grade zinc (Zn) mineralisation from 4.72% Zn to 15.4% Zn.
- DDH020 shows **6.21% Zn** over **24 metres** (m) width downhole (from 31 to 55m downhole) including **14.3% Zn over 8m width**. DDH024 shows **5.02% Zn** over **26m** from **near-surface (3 m)** including **3m assaying 10.80% Zn** from 17 to 20 m. DDH025 shows **8.29% Zn** over **29m** from **surface, including 13m assaying 15.4% Zn**.
- Independent consulting geologists engaged to develop a conceptual 3D-model and grade-tonnage estimate for the deposit based on the drill data.
- Continued presence of **germanium** (Ge) values, up to 19 ppm (g/t) associated with Zn mineralisation, and up to 47g/t silver (Ag) (in DDH022) recorded in the intersections. Germanium has been trading at \$2300/kg (\$2.3/g)<sup>b</sup>

\* all assays subject to final QAQC analysis

<sup>b</sup> 07 May 2018 <http://www.kitco.com/strategic-metals/> Germanium is used mainly in semiconductors in transistors and electronic, and end uses include [fibre-optic systems](#), [infrared optics](#), [solar cell applications](#), and [light-emitting diodes \(LEDs\)](#)

**Colin Bird, Chief Executive Officer, said:** "This final batch of results support our view that the project will be boosted by peripheral, at or near-surface, mineralised karsts and zinc oxides. At a cut-off grade of 3% zinc, (based on the fact that the deposit is very close to surface), this would potentially require little or no blasting. We have engaged an

independent geological consultant to develop, amongst other things, a conceptual (3D-model) grade-tonnage estimate based on differentiation of the material into medium (3-20% Zn) and high grade (>20% Zn) domains. We expect from this exercise and further study to be able to direct the next exploration and drilling programme with a view to further increasing the size of the deposit and to generate a compliant maiden resource estimate. To complement this, we are currently evaluating the results from a collection of physical core rock property measurements in relation to potential geophysical exploration methods in order to assess suitability and determination of the most optimal exploration drill-targeting tool. We will report on the modelling results, which are expected at the beginning of June"

## Drilling Note

DDHs SZDD019, SZDD020 & SZDD021 represent a 2<sup>nd</sup> fence line through the western core of the deposit. DDH SZDD022 tested the western strike extension. DDHs SZDD024- SZDD026 represent the holes testing the main mineralised zone in the east.

## Zn mineralisation in the deposit 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.

**Table 1 - Selected drilling results - Final 8 holes of 26-hole drilling programme <sup>b</sup>**

Hole ID	Downhole (metres)		Assay (weighted average) <sup>c</sup>			Gross in-situ value <sup>**</sup> \$/t rock <sup>e</sup>	
	From	To	Width	Zn %	Ge <sup>1</sup> ppm		Ag <sup>1</sup> ppm
SZDD013	41	48	7	1.08	0.6	5	36
SZDD019	44	59	15	2.03	1.7	2	66
SZDD020 including 32	31	55	24	6.21	9.3	13	215
		40	8	14.3 <sup>d</sup>	21	23	483
SZDD021	28	33	5	2.63	6	23	105
SZDD022	61	63	2	3.6	1.3	47	136
SZDD024 including 13 including 17	3	24	21	5.02	2.2	8	160
		14	1	11.24 <sup>d</sup>	2	7	345
		20	3	10.8 <sup>d</sup>	3.3	11	337
SZDD025 including 14	0	29	29	8.29	5.5	12	297
		27	13	15.4 <sup>d</sup>	8.9	19	492
SZDD026 including 18	12	27	15	4.72	1	10	149
		20	2	10.45 <sup>d</sup>	2	7	321

Core sampling criteria includes:

- No High Grade Cut

- Max. 3m Internal dilution

>1 m Minimum Width (mineralization)

Cavities where no sampled - Treated as Core Loss / Dilution

<sup>1</sup> figures rounded

<sup>\*\*</sup> the figures in this column are simply a calculation of grade multiplied by price (as set out in f below) and should not be considered a guide to the value of recoverable material at this stage

<sup>b</sup> Analysis by Accredited Intertek Genalysis Laboratory Services: Zn and Ge by peroxide fusion finish with ICP-OES/MS; Ag by 4-Acid digestion with MS. Analyses subject QA/QC quality assurance/checks

<sup>c</sup> 0.4% nominal Zn cut unless otherwise indicated

<sup>d</sup> 10% nominal Zn cut

<sup>e</sup> Zn \$3000/t; Ge \$2300/kg; Ag \$16/oz

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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#### 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 (Zn) content up to 45wt.% Zn, up to 35wt.% Fe and up to 5g/t Ag.

The mineralogical assemblage of Zn nonsulphides 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>	of 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>Karstic</b>	pertaining to landscape underlain by limestone (calcium carbonate), which has been eroded by dissolution, producing ridges, fissures and so on
<b>Laterite</b>	a soil and rock type rich in <a href="#">iron</a> and <a href="#">aluminium</a> ,
<b>Leaching</b>	chemical process of solubilising metals in rock into solution
<b>Pisolitic</b>	pertaining to pisolite a rock comprising pea-sized concentric formations within a fine matrix
<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

This information is provided by RNS

The company news service from the London Stock Exchange

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