



Trading Symbols  
AIM: UFO  
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**Alien Metals Ltd  
("Alien Metals" or "the Company")**

**Excellent initial metallurgical results from Silver Tailings Project at Elizabeth Hill**

**Potential for economic recovery and for the project to be a significant source of income**

**Follow the link to view the announcement in full including all figures:**

Alien Metals Ltd (LSE AIM:UFO), a minerals exploration and development company, is pleased to provide an update regarding the Company's exclusivity agreement over the Elizabeth Hills Silver Tailings Project (the "Project") at Elizabeth Hill, Western Australia, as announced on 10 March 2021.

Initial results from 6 samples that have been subject to test leaching by ALS Perth are very encouraging and have returned high levels of silver recovery.

Alien has extended the exclusivity period with the Project owner for a further 45 days to factor in the backlog of work from laboratories in Perth due to the current high workloads they are experiencing. This extension will allow Alien to undertake further assessment over the potential retreatment and recovery of the silver tailings as discussions continue regarding the potential acquisition of the Project.

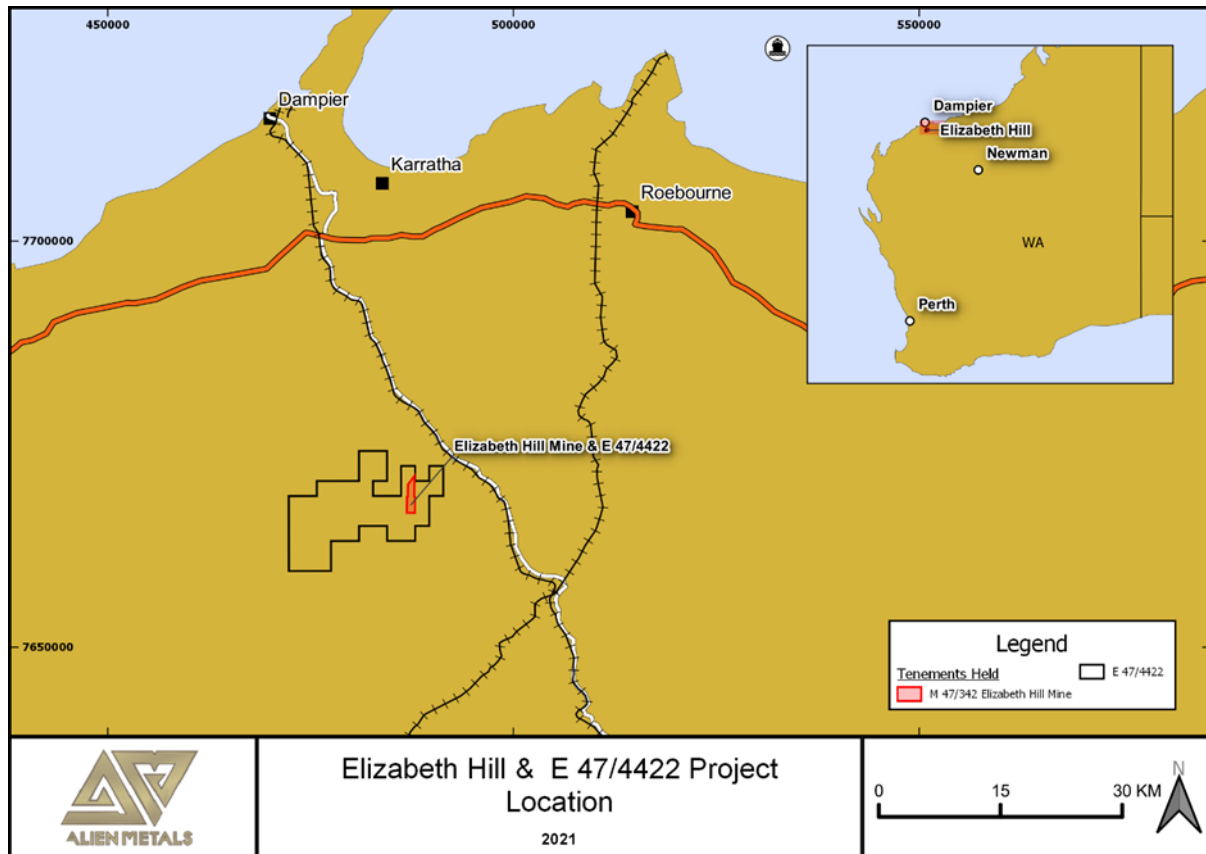
**Highlights**

- Excellent initial recovery results from metallurgical testing
- Maximum of **95.2%** silver recovery, with an average recovery of **91.9 %** silver from 6 samples
- Head grade comparison highly repeatable
- Recent sampling of the tailings undertaken by Alien and announced on 10 March 2021 returned very encouraging results:
  - 84 samples were taken from 21 locations, with silver grades up to **1,270 g/t (38 oz/t)**
  - The samples returned an average grade of **472 g/t Ag (13.3 oz/t Ag)**
- Extension of exclusivity period granted for a further 45 days

**Bill Brodie Good, CEO & Technical Director of Alien Metals, commented:**

*"We have been aware of the potential of the historic silver tailings at Elizabeth Hill for some time. Knowing that the Elizabeth Hill silver mine's historic operations were somewhat inefficient and being a very high-grade project with abundant native silver in the orebody we felt that, despite previous reprocessing activities, there is likely significant value remaining in the silver tailings."*

*“These initial metallurgical results are really encouraging and have given the management confidence that, with further test work, the silver tailings hold potential for economic recovery. With the continued strength in the silver price, currently around \$28 USD/Oz, we see potential for the project to be a significant source of income.”*



**Figure 1: Location of Elizabeth Hill Silver Project, Western Australia**

The purpose of this initial metallurgical test work was to determine the proportion of the silver content that is amenable to leaching, with the results assisting in the planning of a more formal test work campaign.

The six samples were each riffle split to extract four portions of 50 grams for analysis and leach testing. Three portions were used for triplicate head analyses of each sample. The fourth portion was subject to an intensive cyanide leach to determine cyanide soluble silver. The leach procedure involved two Leachwell assay tablets and 24 hours leach time. The leach solutions and solid residues were then analysed for silver so that percentage silver dissolution and built-up head analyses could be calculated for each sample.

Including the built-up head there were effectively four analyses of total silver for each sample. There was some scatter between the four analyses; this is to be expected due to the “nugget effect” resulting from the presence of coarse silver particles in the samples. However, the degree of scatter was modest, indicating that there were no large nuggets of silver present. The laboratory commented that the ‘reasonable reproducibility of the silver head assays (i.e., x 3 for each sample) and the good silver

head balance, suggests the silver is probably present as finer material, which is encouraging from a processing aspect as it means the tailings appear homogenous and suitably ground to date.

The average silver recovery to solution was 91.7%, whilst the highest and lowest recoveries were 95.2% and 88.0% respectively. These results indicate that silver recovery by leaching may be a viable processing method.

**For the full table of results see Table 1 in the Appendix.**

The Company is working on follow-up metallurgical test work that will establish a cost-effective means of exploiting this tailings resource. Investigations could cover the following:

1. Investigate the applicability of a non-cyanide leach route – e.g., Clean Metals Thiosulfate leach, or acidic thiourea.
2. Investigate cyanide leaching conditions – grind, cyanide strength, leach time, temperature, and effect of other reagents (lead nitrate, oxygen, etc.) on cyanidation.
3. Investigate alternatives for silver recovery from solution to produce a saleable product, e.g., zinc cementation, sulfur dioxide precipitation, resin adsorption then elution and electrowinning, silver sulfide precipitation.

#### **History of the tailings**

Located within the Company's mining lease ML47/342 there remains the partly retreated tailings from the original silver mine operations at Elizabeth Hill. This is currently subleased from Alien by Wombat Resources Pty Ltd (Wombat).

Alien's preliminary assessment indicates that there remains about 16,000 tons of silver tailings on site, based on tonnage of ore extracted from the mine however further work will be undertaken during the exclusivity period to confirm available tailings for reprocessing.

Historic reports refer to grades above 1,000 g/t (33oz/t) silver in the original tailings due to inefficient processing practices of the ore during historic mining, Ref Independent Technical Assessment Report on the Elizabeth Hill Project, Agricola Mining Consultants, June 2018.

Historically some reprocessing of the silver tailings was undertaken, however limited information exists on processing recoverability.

**For further information please visit the Company's website at [www.alienmetals.uk](http://www.alienmetals.uk), or contact:**

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### **Notes to Editors**

Alien Metals Ltd is a mining exploration and development company listed on AIM of the London Stock Exchange (LSE: UFO). The Company's focus is on precious and base metal commodities, with its operations located in proven mining jurisdictions and it has embarked upon an acquisition-led strategy headed by a high-quality geological team to build a strong portfolio of diversified assets.

In 2019, the company acquired 51% of the Brockman and Hancock Ranges high-grade (Direct Shipping Ore) iron ore projects and increased its holding to 90% in May 2021 while in 2020 acquired 100% of the Elizabeth Hill Silver Project, which consists of the Elizabeth Hill Historic Silver Mine Mining Lease and the surrounding Munni Munni North Exploration Tenement. The Australian projects are located in the world-renowned Pilbara region of Western Australia.

The Company also holds two silver projects located in Zacatecas State, Mexico's largest silver producing state, which produced over 190m oz of silver in 2018 alone, accounting for 45% of the total silver production of Mexico for that year. The Company's Donovan 2 Copper Gold project in the same region is currently under an Earn-in agreement with Capstone Mining Corp. of Canada.

The company was also awarded an Exploration Licence in Greenland in late 2020, which surrounds the world class Citronen Zinc-Lead deposit.

In addition to progressing and developing its portfolio of assets and following its strategic review of its portfolio of silver and precious metals projects, Alien Metals has identified priority exploration targets within all of its projects which it is working to advance systematically.

## **Appendix**

### **February 2021 Sampling Results**

A brief program of hand auguring of the existing tailings was carried out at the end of December 2020 by the Alien geological team to get an initial understanding of the grade of the remaining material in the dump as review of historical reports does not give any clear outline of this.

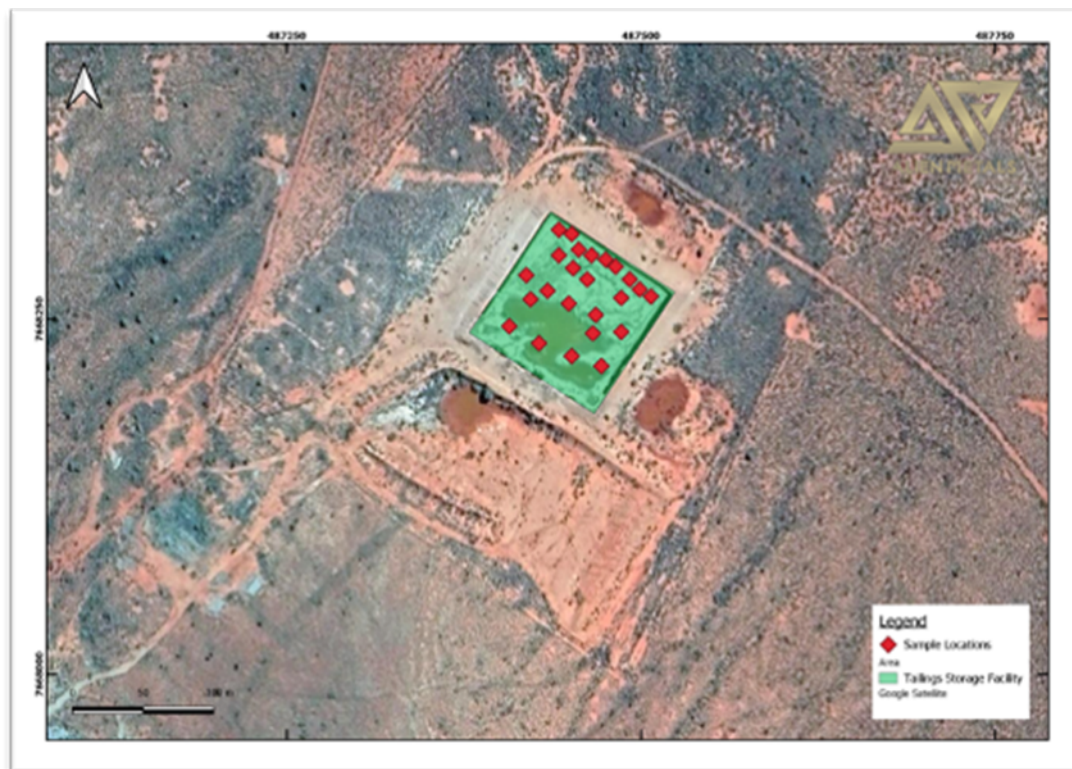
A hand auger was used and at each sample site and four samples were taken at different depths (see table 1). The holes were stopped when they reached the base of the tailings on the liner. The average sample depth from surface was 1.5m with the deepest samples going to 1.87m and the shallowest to 1.19m. The samples were not geologically logged as it was felt unnecessary as the material is essentially homogenous crushed ore material from the mine so uniform in nature.

The samples were sent to ALS Perth and analysed for a main suite of 35 elements by Aqua Regia ICP-AES with follow up analysis of any initial high grade silver assays by code Ag-OG46 by Aqua Regia which totalled 78 out of the 84 samples submitted.

ALS as part of their standard analysis performed their in-house QA/QC which appears acceptable in relation to this sample batch.

The results show that there remains significant silver in the tailings, even if they were reprocessed from the original mine processing days, as well as some acceptable credits for copper, nickel, and zinc. The sample results included a high of **1,270 g/t Ag (38 Oz/t)** and a low of 60.6 g/t Ag (which at just under 2 Oz/t silver is still a significant grade). Only 6 samples from the 84 analysed returned below 100 g/t Ag which is also significant.

The results show good consistency downhole as well as from hole to hole and the pattern of the higher grades against the few low grades could be related to historical access to the tailings being cut into the southern area. Alien is planning to follow-up in more detail from this sampling to better understand the spread and concentration of the material.



**Figure 1: Sample points on Tailings, Elizabeth Hill Mine, Western Australia, December 2020**





**Figure 2: Sample point and sample split, Elizabeth Hill Mine Tailings, December 2020**

**Table 1: Summary results of initial metallurgical tests, Elizabeth Hill Tailings Project, May 2021**

Sample Description	Head g/t Ag	Residue g/t Ag	Solution g/t Ag	Solution Extn. g/t Ag	Solution Extn. % Ag	Calc'd Head g/t Ag
AM20005-022A "A" RESI	350					
AM20005-022A "B" RESI	326					
AM20005-022A "C" RESI	306					
AVERAGE	327	16	35	315	95.2	331
AM20005-022B "A" RESI	332					
AM20005-022B "B" RESI	336					
AM20005-022B "C" RESI	306					
AVERAGE	325	18	36.4	327.6	94.8	345.6
AM20005-023A "A" RESI	78					
AM20005-023A "B" RESI	78					
AM20005-023A "C" RESI	80					
AVERAGE	79	6	9	81	93.1	87
AM20005-023B "A" RESI	68					
AM20005-023B "B" RESI	78					
AM20005-023B "C" RESI	84					
AVERAGE	77	10	8.6	77.4	88.6	87.4
AM20005-024A "A" RESI	114					
AM20005-024A "B" RESI	110					
AM20005-024A "C" RESI	114					
AVERAGE	113	14	11.4	102.6	88	116.6
AM20005-024B "A" RESI	108					
AM20005-024B "B" RESI	118					
AM20005-024B "C" RESI	128					
AVERAGE	118	10	12.2	109.8	91.7	119.8