

ENCOURAGING RESULTS FROM STAGE 1 TESTWORK BY CSIRO ON THE BYRO REE & LITHIUM PROJECT – ADDITIONAL INFORMATION

Octava Minerals Ltd (ASX:OCT) (“Octava” or the “Company”), a Western Australia focused explorer of the new energy metals antimony, REEs, Lithium and gold, is pleased to provide additional information relating to results for Stage 1 of the CSIRO Bioleaching test program to determine potential for extraction of metals from the Byro REE & Li samples. (refer ASX announcement 16 June 2025).

CSIRO undertook a process to test for ‘native’ bioleaching microorganisms and in addition to test the effectiveness of bioleaching microorganisms from the CSIRO biomining culture collection.

Octava provided two 1 L water samples (Table 1) and 10 of 100 g samples for enriching native bioleaching microbes, and five 1 kg ore samples for leaching experiments (Table 2). The samples were from various depths of two bore holes as shown in Figure 1. (note full details in relation to the metallurgical bore holes were outlined in ASX announcement - 25 February 2025)

Table 1. Water samples provided by the Client.

Water sample	Water volume (L)
Tank 8 (27.11.2024)	~1
Pindilya Bore (1.12.2014)	~1

Table 2. Ore samples provided by the Client.

Sample mass	Description
10 x 100 g	Samples 1-2 exposed to air (very low grade of rare earth elements (REE))
	Samples 3-10 from upper and lower ore horizon in each hole (higher grade of REE)
5 x 1 kg	Samples 1-3 taken from upper horizon
	Samples 4-5 taken from lower horizon

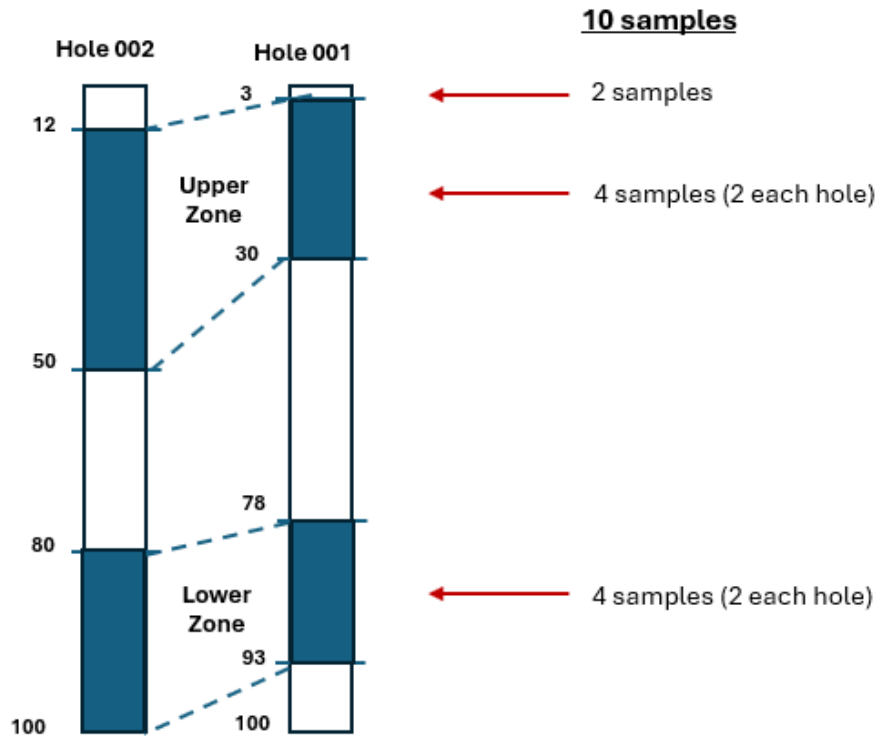


Figure 1. A schematic diagram of the sampling locations for each of the two bore holes.

In addition to the native microorganisms a total of nine mixed and pure cultures were sourced from CSIRO biomining culture collection and used for adaptation on the sample material.

Cells were harvested from the two water samples and the ten small samples for enrichment cultures set up using a combination of the material from the 5 large bags provided with and without additional substrates.

Enrichment cultures were also set up with a mixed culture inoculum from CSIRO biomining culture collection and passed through three consecutive rounds to adapt the cultures to the samples.

Results

First enrichment round

Cell numbers increased in the flasks set up with a mixed culture from the CSIRO biomining culture collection with and without additional substrates. No cells were detected in the flasks set up with cells harvested from Byro samples/water samples at the start or after 14 days, which indicated that the cell numbers in the water and samples were very low and no acidophilic biomining cultures could be enriched from the Byro samples or water samples with or without additional substrate amendments.

Second enrichment round

As no cells or notable activity were detected in the flasks inoculated with cells harvested from the Byro water and samples, the Byro “enrichment cultures” were not continued for the subsequent enrichment rounds.

Cell numbers were counted and shown to increase during the 2 weeks incubation in all flasks inoculated with the CSIRO mixed culture reaching 1.40×10^8 without additional substrates and up to 1.09×10^9 cells/mL with additional substrates.

Solution pH slightly increased in the absence of additional substrates, but the pH decreased when additional substrates were added, likely because of biogenic acid generation by oxidation of the added substrates or compounds released from the samples.

Redox potential with CSIRO mixed culture showed an increase in redox in all flasks, indicating ferrous iron oxidation. Ferrous iron concentrations with CSIRO mixed culture showed a decrease in ferrous iron concentrations in all flasks, indicating ferrous iron oxidation.

Third enrichment round

Cell numbers at the end of the third enrichment round reached 8.93×10^7 cells/mL without additional substrate and up to 2.09×10^9 cells/mL with additional substrates. Changes in solution pH, redox potential and ferrous iron concentrations were consistent with those measured in the second enrichment round.

As advised in the ASX announcement dated 16 June 2025 the results of the Stage 1 testing suggest that CSIRO mixed culture readily adapted to the sample material showing good cell growth, ferrous iron oxidation and acid generation, and will be suitable for use in Stage 2 bioleaching experiments.

Stage 2 will involve testing the selected microorganisms from Stage 1 for their potential to bioleach REE, Li, Zn, V, Rb, Sc and K metals from the Byro mineralisation.

The Stage 2 test program is now underway with the results to be provided as they become available.

This announcement has been authorised for release by the Managing Director/CEO.

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About Octava Minerals Ltd

Octava Minerals Limited (ASX:OCT) is a Western Australian based new energy metals exploration and development company. The Company has 4 strategically located projects in geographically proven discovery areas in Western Australia.

Forward looking Statements

This announcement includes certain “forward looking statements”. All statements, other than statements of historical fact, are forward looking statements that involve risks and uncertainties. There can be no assurances that such statements will prove accurate, and actual results and future events could differ materially from those anticipated in such statements. Such information contained herein represents management’s best judgement as of the date hereof based on information currently available. The Company does not assume any obligation to update forward looking statements.

Competent Person Statement

Where Octava references previously announced Exploration Results in this report and specifically the information noted in ASX announcements dated 25 February 2025 and 30 April 2025. Octava confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that all material assumptions and technical parameters in those announcements continue to apply and have not materially changed.

CSIRO

Dr Anna Kaksonen is Senior Principal Research Scientist at the CSIRO and has sufficient experience to advise the Company on matters relating to bioleaching microorganisms and process development for extraction of metals from black shale. Dr Kaksonen is satisfied that the information provided in the announcement on biomining and the CSIRO testwork has been presented accurately.

About the Byro Project

The Byro Project is located on the Byro Plains of the Gascoyne Region, Western Australia, 220km south-east of Carnarvon and consists of two granted Exploration Licences – E 09/2673 and E 09/2674 – totalling 555 km². The Byro Project also has a Native Title agreement in place. Nearby infrastructure includes accessibility to a commercial port (Geraldton) and power from the NW gas pipeline and future potential access to Western Australian government proposed green energy sites. (Refer ASX announcement 25 February 2025)

Figure 2. Byro Project Location Map

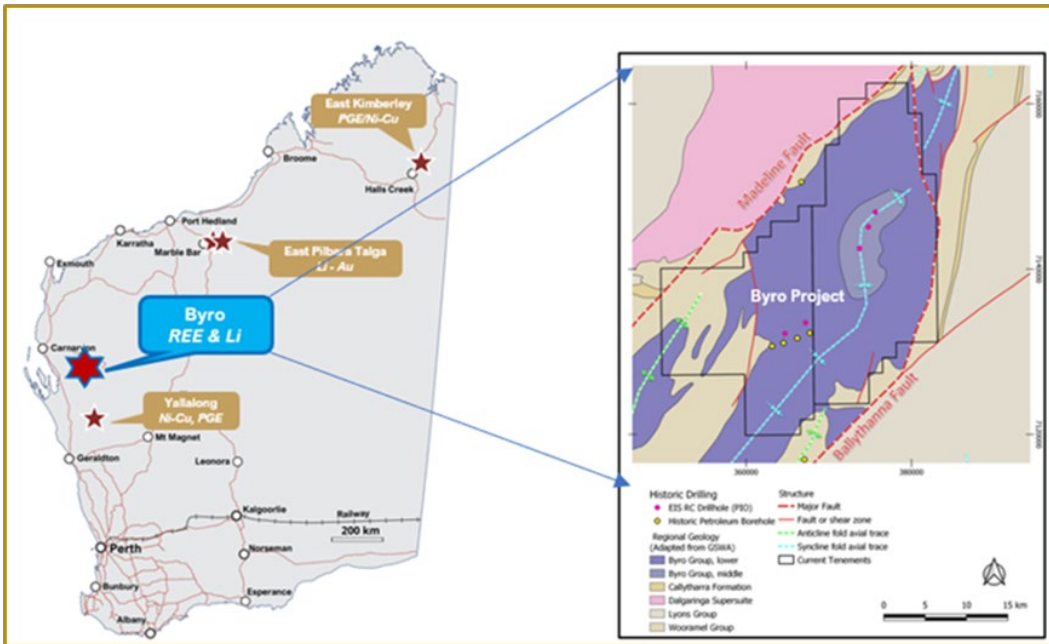
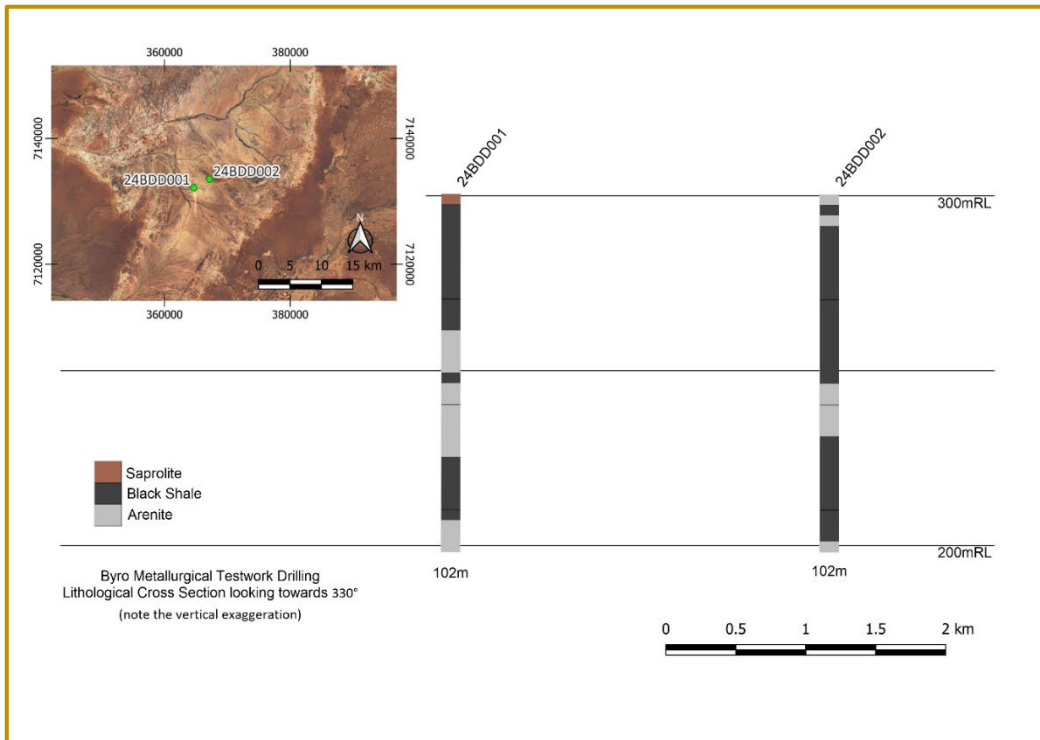


Figure 3 Byro Metallurgical Drillholes – Lithological Cross Section



Biomining Black Shale

Permian Black shales are known worldwide for their potential to host enriched poly-metallic deposits. The black shales in the Byro sub-basin appear to have formed a metal sink that contains large volumes of anomalous REE, Li and base metals.

Biomining / bioleaching is a process whereby metals are leached from ore as a result of microbial action. It involves microorganisms deriving energy for growth by the oxidation of reduced compounds of iron and sulfur. Biomining has been utilised on large scale for the extraction of a variety of metals from sulfidic deposits, including nickel, copper, zinc, and cobalt, and the pretreatment of refractory sulfidic gold ores before cyanidation. The Talvivaara Mine (now called Terrafame Mine) in Finland became the first large scale biomining/bioleaching operation to bioleach a variety of metals from a polymetallic black shale.



Figure 4. Byro Core Tray (Drillhole 24BDD002 Depth 7.2 – 14.15m)