

Dear Householder or Landowner,

Kapunda's rich mining history grew from Australia's first ever commercial copper mine in the 1840's. The open pit mine ceased production in 1912, but since then successive mining companies have looked at recovering the mine's remaining copper.

There is a resource of nearly 119,000 tonnes of copper remaining at the mine, of which up to 80,000 tonnes may potentially be extracted by a novel non-invasive mining method called InSitu Recovery (ISR). ISR is not a new mining technique, but recent scientific developments by CSIRO and University of Adelaide means ISR may now be applied to extracting other minerals including copper and gold. Because of this development, research is required in a real-world scenario to ascertain the effectiveness of these new methods.

What is ISR?

Different to conventional mining, ISR involves no blasting, no dust nor noise creation and leaves a minimal environmental footprint. ISR is a series of bores drilled into the ore body and then biodegradable solutions are injected to extract the copper & gold. The mineral laden solution is then pumped to a small-scale processing plant off site. for market; all whilst still protecting Kapunda's mining heritage and tourism access.

ECR, along with University of Adelaide and CSIRO, received an Australian Commonwealth Government Research Grant for \$2.85 million over 3 years to explore the possibility of extracting copper at Kapunda in an environmentally low impact way. Why Kapunda? Copper leaches naturally from the ground, there is an abundance of historical drilling data and still a significant amount of copper in the ground.

Researchers at the University of Adelaide are developing an underground 3D model that includes the old workings, the natural geological fractures and likely fluid flow pathways, all of which will influence the movement of copper solution. CSIRO are finding the optimal biodegradable solutions that extract copper and gold within existing natural pH levels, whilst maintaining current quality of the water table. CSIRO have also established environmental baselines of the Light River and surrounding area are undertaking social research on community attitudes.

All the research listed above may provide the basis for future developments for a new environmentally sound and economic metal extraction method, representing a new opportunity for Kapunda and other deposits throughout Australia.

Over the past 2 years we have had the opportunity to meet with a range of local individuals, businesses, and groups including Council and will continue to do so.

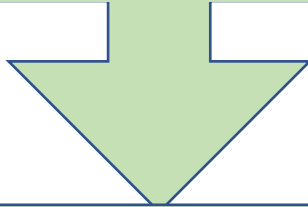
We are very mindful of those who live close to the mine or use the area regularly and invite all to speak to us about the project. Information can be found on our website, updates on our Facebook page, phone (08-7127 1110) or come in and speak to us on our Kapunda Office days, generally Tuesdays and Thursdays.

What is the Timeline?

Research

- Selection of the best environmentally sound solution to extract the copper
- Creation of a 3D hydro-geological model of the area including the underground workings.
- Environmental baseline measurements of surrounding area, inc the Light River

**2018 -
2019**

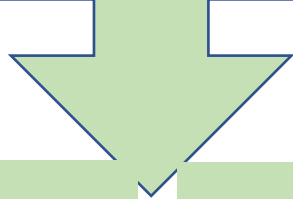


Pilot Study

Testing In-Field, via a number of water bores (sites away from public access) of the optimal solution to extract copper utilising: -

- Hydrogeological model of mine area
- Environmental data
- Water quality data

**2020 -
2021**



Unsuccessful Research?

No further action nor activity and thank-you to the town of Kapunda for accommodating us.

If the technical research is successful, further evaluation of whether a mining proposal is warranted (regulator, community and economics), may be undertaken.

➤ 2022+