EU scientists test submersible drone by sending it down 1,000-foot flooded Peak District mine

The underwater drone is prepared for a dive.

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A team of scientists have tested an underwater drone they hope will unearth Europe's untapped precious metals by sending it over 400 feet down the now-flooded Ecton Mine.

The drone - which measures about two-feet across - would be used to map and take samples from similar submerged mines across continental Europe at depths of up to 1,000 feet.

Launching the drone.

Ecton Mine - once the deepest mine in Britain and the source of 10 per cent of the world's copper supply - was chosen as the test site due to the complexity of its levels and pipes.

Although its copper was exhausted in the 1860s members of the Ecton Mine Educational Trust (EMET) say the drone is likely to uncover precious industrial artefacts, such as small canal boats, trackway, tools and ladder-ways which were left behind when water pumps were turned off in the mid-nineteenth century.

At present over 70 per cent of copper is imported from outside Europe and the consortium of 12 organisations behind the drone - known as Underwater Explorer For Flooded Mines (UNEXMIN) - hope it will lead to the extraction of important minerals such as copper ore, zinc and bauxite.

EMET chairman Hugh Carson told how trustees felt 'terribly fortunate' that the drone scientists needed 'somewhere complicated and dangerous' for their trials.

Scientists from seven EU countries enjoy a Sunday off in Buxton.

He said: "Ecton Hill is an intriguing place which gets under your skin - the pipes which contained the copper ore are massive.

"It is really interesting that we should have a national monument which is also a site of special scientific interest within the Peak District.

"We can hardly move a stone without permission and are really fortunate that Historic England, Natural England and the Peak District National Park have given us permission to carry out these trials at Ecton.

"It's only a matter of time before we see the artefacts and canal level."

Hugh, 73, a former history teacher, told how the two prototype drones had discovered a cross-cut between two shafts in Deep Ecton Mine mine which he and his colleagues knew nothing about .

He said: "It's a wonderful place for people who are involved in industrial archaeology - what's most important for us is the industrial heritage still down there."

When the copper ore ran out in the 1860s the pumps that kept the mine accessible ceased pumping - leaving the mine flooded and archaeologists scratching their heads over what was left behind ever since.

EMET was formed to promote geology, mining and mineral extraction and to encourage young people to seek careers in them.

The Mine - inherited from owner the late Geoff Cox - is also used by Universities and individuals for scientific research and development.

The Trust provides the facilities for school and university teachers to run one-day or two-day field courses that introduce young people to subjects relevant to the minerals industry.

Hugh hopes the UNEXMIN team will return in September and uncover industrial relics which have been lost to since the mine flooded over 150 years ago.

So far they have reached depths if about 400 feet - less than half the depth of the mine.

For more information about EMET and visit ectonmine.org and UNEXMIN