

Ochre from mine water gets new lease of life as artists' pigment

The Coal Authority has helped to demonstrate a novel way to use ochre from treated mine water by using the product in fine art paints.

This is one of a number of ways we are looking at recycling ochre that is removed from mine water during [our treatment process](#).

The limited edition line of wall paint and artists' oil paints were made by Onya McCausland, an artist with Slade School of Fine Art at UCL (University College London), when she was studying for her doctorate.

The Coal Authority manages 82 mine water treatment schemes across Britain, handling and treating more than 122 billion litres of mine water every year. The schemes prevent up to 4,000 tonnes of iron solids from entering watercourses. If the water is left untreated, it could pollute and stain the riverbed turning it orange.

Jon Aumonier, the Coal Authority's Innovation Project Manager, said:

Onya's use of ochre from our mine water treatment schemes in this project is just one of the rewards of the hard work and financial commitment made by the Coal Authority in the recovery, process and testing of ochre samples.

We have worked very hard to get the ochre to this point and seeing it turned into pigments is fantastic.

Bohdan Iwanskyj, the Coal Authority's Principal Innovation Manager, added:

Through this project we were able to reuse a byproduct and ensured that our material stream could be used as an input for other processes.

It demonstrates the possibility of utilising ochre for a variety of uses and opens up other opportunities for the Coal Authority.

Onya, pictured above, visited former coal mine sites dotted throughout Britain – from Scotland, Lancashire and Yorkshire to South Wales – where she collected samples of ochre for further study.

It was through her paintings that she discovered striking differences between the pigments depending on their geographic location and she said:

This highlights how mine water treatment schemes are the vital link between the colour, the material and the place.

They reflect an important part of Britain's cultural, social and industrial history and legacy.

Six Bells Red, the first limited edition of the new line of pigments, was launched (online and with a physical presence) on Friday 11 December at the Six Bells mine water treatment scheme in South Wales.

The highlight of the launch was the unveiling of a commemorative plaque by Alun Davies, Member of the Senedd for Blaenau Gwent, to officially recognise the Coal Authority site as the source of the paint.

Six Bells Red contains more than 50 per cent of iron and is a deep reddish hue.

To mark the occasion, 1,000 tubes of artists' oil paint, named Six Bells Burnt Ochre, each with its own serial number, were made available.

In addition, a special limited edition of 100 one-litre tins have been produced and up to 50 tins will be given to people and organisations across Gwent to enable members of the community to participate in a collective multi-part public artwork.

This will involve painting buildings, houses, doors, gates and walls in the area to create a display that visitors can see and engage with.