Zoom Lecture on Tuesday 22nd September 2026

Woodsmith Mine – Journey to the Zechstein

Presented by

Wyn Young BSc

Mine Geologist, Anglo American

Date: Thursday 22nd September 2026

This lecture is being presented on Zoom only

Lecture starts at 7pm

After graduating from Cardiff University in 2018 with a degree in geology, Wyn began his career at the Woodsmith Project as a Shaft Technician. Working underground on the Shaft Boring Roadheader (SBR), he held responsibility for surveying, geological logging, and engineering support, gaining valuable hands-on experience in one of the UK's most significant infrastructure and mining projects. In 2022, he transferred internally to the geology team, where he has since supported the project's development across its three shafts, two of which are planned to be 1.6km in depth, 37 km mineral transport tunnel, and exploration drilling programmes.

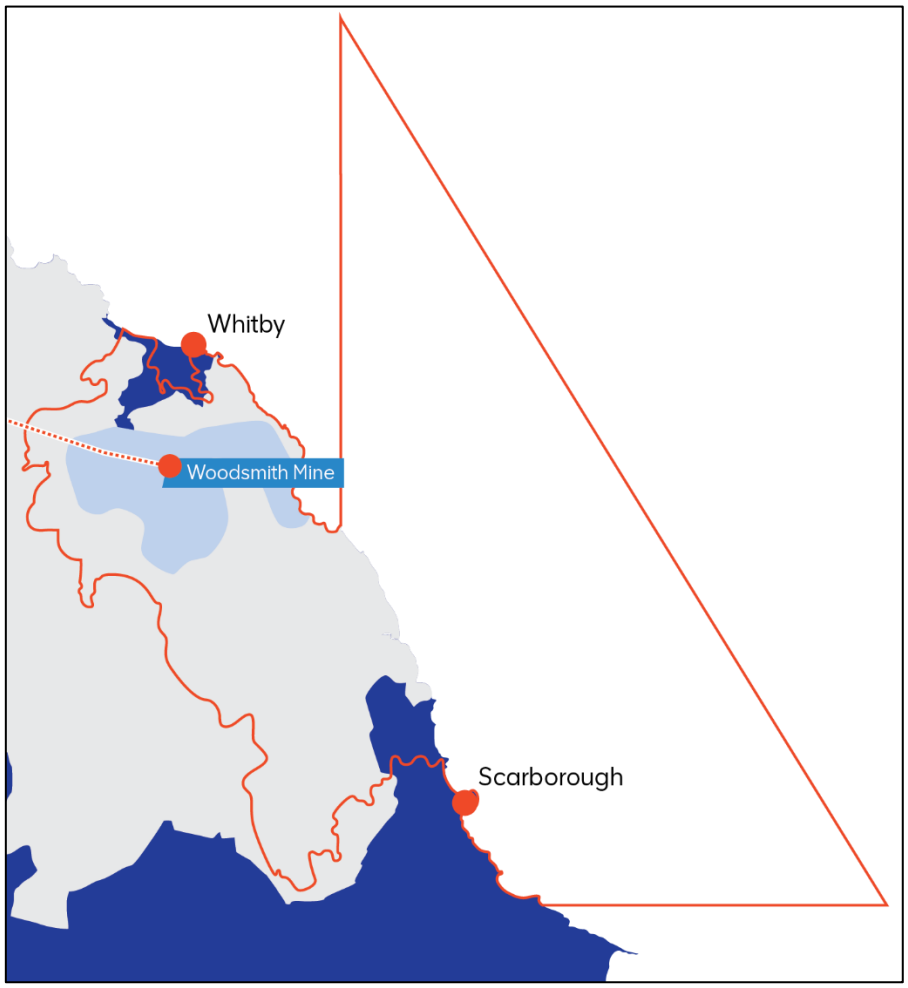
Outside of work, Wyn lives in the Lake District with his wife and dog, spending every possible moment climbing, wild swimming, hiking or planning adventures where he can trick his wife into teaching her more geology (most recently Kyrgyzstan and Japan)!

Abstract

The Woodsmith Project

The Woodsmith Project is one of the largest and most ambitious mining and infrastructure developments currently under construction in the UK. Located near Whitby, North Yorkshire, the project is designed to extract polyhalite, a naturally occurring multi-nutrient mineral used in agricultural fertilisers. Once operational, the mine will access the world's largest known polyhalite deposit through two shafts extending to depths of approximately 1.6 km beneath the North York Moors National Park. *Figure 1 below:* 64m tall SBR – one of two that are currently creating the 1.6km deep shafts.

To minimise its environmental footprint, the extracted ore will be transported via a 37 km underground Mineral Transport System (MTS) tunnel to processing and export facilities on Teesside, rather than by surface transport. The project combines large-scale mining, tunnelling, shaft sinking, and exploration drilling, making it one of the most technically complex engineering projects in Europe. When completed, Woodsmith is expected to produce 13 million tonnes per annum. *Figure 2 below:* Map of the Woodsmith Project's location, and current mining lease.



Polyhalite

Polyhalite is a naturally occurring evaporite mineral composed of four essential plant nutrients: potassium, sulphur, magnesium, and calcium. Unlike many conventional fertilisers, polyhalite can be applied directly without extensive chemical processing, making it a low-carbon and sustainable source of crop nutrition. Marketed as POLY4, the mineral provides a multi-nutrient fertiliser suitable for a wide range of crops and soil types, helping to improve soil health, enhance crop yields, and support more sustainable agricultural practices around the world.

Accessing the lecture

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