Appin Mine Ventilation and Access Project

SOUTH32
Illawarra Metallurgical Coal

PROJECT UPDATE TEN **AUGUST 2023**



Shaft sinking is commencing as the site is progressively being rehabilitated.

CONSTRUCTION UPDATE

Shaft pre-sinking has commenced and has included mobilisation of equipment, drilling and pre-grouting, and shaft collar construction.

The collar section for ventilation shaft 8 has been excavated and covers have been erected over the site workshops. Watering over grassed areas is continuing and tree screening along the boundary fence line will start soon.

These activities will occur in standard daytime construction hours.

UPCOMING ACTIVITIES

- ✓ **Mobilisation of shaft sinking contractor to site**
- **Construction of shaft collars**
- **Pre-sink mechanical excavation and controlled blasting**
- **Construction of temporary headframe**
- **Installation of sinking stage (work platform)**
- **Main sink mechanical excavation and controlled blasting**

PROJECT UPDATE

An essential requirement of underground mining is adequate ventilation to ensure a safe and efficient working environment for our people. RUC Mining was awarded the contract to design and construct the two ventilation shafts and have already started the next phase of the project, including:

- Mobilisation of shaft sinking equipment to site
- Pre-sinking of the ventilation shaft requiring drilling, blasting, and mucking
- Construction of a shaft collar to hold the temporary headframe and winder
- Construction of the headframe

Pre-sinking is developing the first 50m of the shaft to install the sinking stage, or working platform, which is used to work from for the balance of the shaft sinking. It includes the concrete collar and civil structure to carry the headgear and winders.

A video illustrating these activities has been produced and is available to view on our website along with other videos.

Approval was received for our Construction Environment Management Plan (CEMP) relating to these works in early 2023. The CEMP was developed in consultation with the EPA, Wollondilly Shire Council and Transport for NSW. It provides specific environmental management and monitoring measures for remaining construction works, including minimising noise, dust, and visual impacts. The Blast Management Plan is included in the CEMP and can be found on our website.

MENANGLE ADVISORY PANEL

The Menangle Advisory Panel comprises 11 community members, Illawarra Metallurgical Coal representatives, and an Independent Chairperson. The panel was established to inform and engage with the local community and facilitate regular communication.

The panel meets bi-monthly to discuss a range of topics and share project updates. Minutes of previous meetings can be found on our website.

Pre-drilling the rock with a series of holes

Loading the holes with small charges and other materials

Placing blast mats and other protections over the shaft top

Electronically detonating the charges in a timed sequence

Removing the broken-up pieces of rock and supporting the shaft walls

CONVENTIONAL SHAFT SINKING

A conventional shaft sinking method will be employed to construct the shafts, using controlled charges (or blasts) to excavate from the surface to the target depth. The method is not new and is commonly used to excavate hard rock in construction and shaft sinking.

The typical shaft sinking cycle includes:

1. Blast holes are drilled
2. Blast holes are loaded with explosives and small, controlled blasts are initiated
3. Blasted material is loaded into kibbles, which is then hoisted to the surface
4. Shaft is lined with concrete

The cycle is repeated sequentially until each of the shafts reach their completed depth. Services can then be installed, such as power, ventilation, compressed air, and water.

Shaft sinking activities will be strictly regulated to ensure it is done safely and with minimal impact. With the right controls and processes in place, controlled blasting is safe.

A new information video on conventional shaft sinking is available on our website.



Construction has started on the temporary headframe to be used during shaft sinking.

CONTROLLED BLASTING

All blasts will be designed and conducted by a competent and qualified person with experience in construction and shaft-sinking.

During pre-sink, a robust heavy-duty blast cover will be used while during the main sink, heavy-duty headframe doors will be positioned above the collar which will be closed during each blast. As well as the real-time environmental monitoring equipment already being used, additional monitoring equipment will measure and record overpressure and ground vibration levels in real-time. Digital delay blasting will reduce vibration and noise and adaptive management will be used with each blast considering previous blast monitoring results.

A blast notification board detailing the date and time of the next blast will be maintained on Menangle Road. We intend conducting one blast per day per shaft. During pre-sink, blasting will initially occur between 9am and 5pm from Monday to Friday, and between 9am and 1pm on Saturdays.

SPEND LOCAL, EMPLOY LOCAL

We're proud to be a part of the community, working together on big projects, lending a hand when needed, and supporting local business. Our Principal Shaft Sinking Contractor, RUC Mining, is also committed to supporting local businesses and communities and is forming mutually beneficial partnerships while carrying out the AVMA project.

Local engineering company, Nepean Engineering, was recently awarded the contract to manufacture and construct the headframe that will be used during the shaft sinking.

Further details will be shared about upcoming employment and local business opportunities.

PROJECT DETAILS

An integral requirement of underground mining is adequate ventilation and mine access, to ensure a safe and efficient working environment for our people. This project will construct mine ventilation and access facilities at 345 Menangle Road, Menangle. This project is essential for the continuation of Appin Mine and our workforce of 1,800 employees. The mine access infrastructure will support access to the mine for some of our workforce and supplies. No coal handling infrastructure is proposed.

Visit our website or scan the QR code for further details on the Project, view our CEMP, and view our construction activity sequence video.

CONTACT US

You can also follow us on Facebook to stay connected with our operations and community activities. Scan the QR code or go to Facebook and search: South32 Illawarra Metallurgical Coal

If you would like to speak with us about our activities, call our free Community Call Line 1800 102 210 or email illawarracommunity@south32.net