

# AFRIROCK 2025

PIONEERING PROGRESS :  
THE FUTURE OF ROCK ENGINEERING

**Venue:** Sun City, Rustenburg, South Africa  
**19 JULY 2025** – Pillar Workshop  
**20 JULY 2025** – Geotech Workshop  
**21-23 JULY 2025** – Conference  
**24 JULY 2025** – Technical Visits

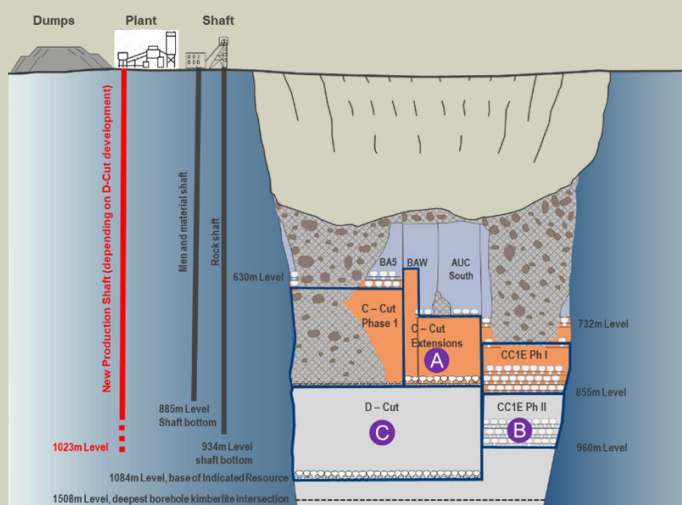


## Petra Diamonds Cullinan Diamond Mine

**Date:** Thursday, 24 July 2025

### BACKGROUND

The Cullinan Diamond Mine (CDM) is located 35 km to the NE of the city of Pretoria. The kimberlite pipe measures approximately 860 m and 400 m along the long and short axes but does vary with depth. The upper portions of the kimberlite orebody have been depleted through open-pit and blast hole open stope mining. The current development and production mining operations are concentrated between 813 m and 895 m below surface, where the methods of mining applied is Block Caving (BC) in C-Cut (824L Undercut Level and 839L Extraction level) in combination with Expansion Project currently underway for a three-level SLC in the eastern section of the orebody, CC1E. (See Figure 1). The Capital Expansion also includes extension of the C-Cut block cave (C-Cut Phase 2 labelled "A" in Figure 1. Future potential mine expansion includes extension of the CC1E SLC (labelled "B") and the D-Cut which will be a new block cave with extraction below 900 m level (labelled "C").



**Figure 1: Schematic section showing the mining block layout at Cullinan Diamond Mine.**

**C-Cut Phase 1** – Production Section that will be toured by attendees. Production commenced in 2016 with an estimated 10-year life.

#### Geotechnical challenges experienced includes:

- Severe deformation resulting in plugging of drawpoints or tunnels.
- Excessive footwall heave and severe damage of sidewalls due to unravelling / disintegration of kimberlite rock.
- Mud Pushes / Rushes around the outer Kimberlite contact draw points resulting in stringent measure employed to mitigate the risk.

**Cost: R1 200 (Return Transport)**

**REGISTER HERE**

\*Please note the site can accommodate 20 people maximum and registration will be on a first come basis



### FOR FURTHER INFORMATION, CONTACT:

Gugu Charlie,  
Conferences and Events  
Coordinator

E-mail: [gugu@saimm.co.za](mailto:gugu@saimm.co.za)  
 Tel: +27 11 538 0238, Web: [www.saimm.co.za](http://www.saimm.co.za)

ECSA and SACNASP Validated CPD Activity  
 Credits = 0.1 per hour attended