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Risk assessment and prevention of surface subsidence in deep multiple coal seam mining under dense above-ground buildings: Case study

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subsidence, horizontal movement, inclination, and horizontal deformation, whereas the key index to control is the compression ratio of backfill materials. The results of surface subsidence prediction and measurements in the Tangshan Coal Mine show that the solid waste backfill mining technique can effectively control the surface subsidence, deformation, and safety of buildings. This study is highly instrumental in sustained deep mining and environmental protection.

KEYWORDS:

risk assessment | surface subsidence | backfill mining | dense buildings | environmental protection

Conflict of interest

The authors declare no conflict of interest.

Additional information

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