Longwall mining in Western Pennsylvania

Active and closed mines

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Subsidence

Subsidence is when the overlying rock and other material falls into the void where coal has been removed results from longwall mining. As the longwall system advances, the mine roof caves in behind the steel shields.

An 'under' view

In longwall mining, a very large block or “panel” of coal is isolated by the development of entries and crosscuts. Special mining and roof support equipment is then setup along the working face. This working face can be anywhere from 600 to 1,500 feet wide.

The coal is mined by a longwall mining machine that moves across the face. Mined coal is then hauled by a chain conveyor along the length of the face. The roof is supported by special hydraulic supports called chocks and shields that are advanced as the mining progresses.

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