

Yancoal Southey Project



Will obvious changes occur to the landscape? No, subsidence is predicted to result in relatively small and gradual slope changes within the well field. Elevations in the area naturally vary within 100 metres (m).

What is subsidence? It is the localized lowering of the land surface as a result of developing underground open caverns.

How can subsidence be predicted? Subsidence is predicted using an industry standard model that incorporates site-specific information and the mine plan.

How will the Southey Project prevent subsidence? It will be a solution mine (limited material removed), pillars of unmined material will be left in place between caverns, and the caverns will be arranged and sized to limit potential effects.

How will the Southey Project confirm subsidence effects aren't underestimated? Predictions are conservative and monitoring will be a regulatory requirement.



Subsidence Effects Won't be Obvious

Yancoal Canada Resources

Robin Kusch
Unit 300, 211 4th Avenue South
Saskatoon, SK S7K 1N1

Phone: 1-306-668-5558 ext. 6015
Mobile: 1-306-227-1073
Fax: 1-306-668-5559
Email: r.kusch@yancoal.ca
www.yancoal.ca

The localized change will not be observable to the naked-eye, the average slope change predicted from the mine field outward is 3.9 metres per kilometre (m/km), a change of 3.9 millimetres per meter (mm/m). The maximum gradient is predicted to be 5 mm/m. For the worst case scenario, subsidence could potentially be 6.7 metres, this change would occur over at most 1.7 km (3.9 mm/m) and at least over 1.34 km (5 mm/m). These changes are consistent with that observed at existing mines (+40 years of monitoring; for Belle Plaine in older areas with high extraction ratios an elevation decline of 1.51 m reported). Although the ultimate change will occur slowly over a long time (i.e., more than a century), the rate of change will be greatest during operations (detected 1 to 2 years after mining); therefore, site-specific data will be available prior to decommissioning.

5 metres (vertical) over 1 kilometre (horizontal)

