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EFFECTIVE AND ENVIRONMENTALLY COMPLIANT IN SITU RECOVERY OF SEDIMENTARY HOSTED URANIUM

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This paper reviews recent advancements in

1. Development of in-situ recovery (ISR) projects for uranium including

 dedicated exploration/delineation methods and field tests for gathering determining data,

 efficient lab tests and assays of core samples, including up-scaling methodology applied to (1D) column leach tests for a reliable feasibility study of (3D) field ISR,

1. Planning and optimization of ISR processing comprising wellfield hydrology,

 leaching chemistry,

 monitoring and process control,

 economics,

 environmental compliance,

1. Post-mining measures for ISR aquifer restauration in accordance to regulatory re-quirements including

 conceptual methodology (combining test procedures and model predictions) for ISR project development and permit procedure,

 monitoring and optimization.

The effective and environmentally compliant ISR of uranium will be demonstrated for recent ISR projects operated by Heathgate Resources in the Frome Basin, South Australia.

Country or International Organization

Australia

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