Solution Mining Research Institute Spring 2013 Technical Conference

Lafayette, Louisiana, USA, 22 – 23 April 2013

DUAL BORE LEACHING IN MANOSQUE

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Abstract

Geostock is currently creating two new caverns to store low-sulfur diesel on the site of Manosque (France), on behalf of Geosel.

These caverns have been designed with two wells, in order to reduce the diameter of the operational wells, without impacting the operating flow rates.

At the design stage the leaching was supposed to be conducted through one single well. After 18 months it has been decided to also use the 2nd well for the leaching process in order to increase the leaching flow rate and reduce the construction time.

This choice led to a large decrease of the head losses in the leaching tubings, allowing a significant increase of the flow rates (from 250 m3/h to 500 m3/h).

Yet, the dual wellbore configuration brought new constraints such as:

- Difficult connection of the second well (As the two wells were not drilled at the same depth)
- Measurements while leaching (Tools such as sonars were supposed to be used for measurement while leaching. However, the 2nd well deviation and the bad symmetry of the cavern forbid to use it as it was planned)
- Blanket control (The second well gives additional information about the pressure in the cavern, improving the knowledge of the position of the blanket interface. However, it appears that other factors such brine density between the wells adds some uncertainty)

Key words: Solution mining**,** Caverns for Liquid Storage, Cavern hydraulics, Cavern operation, France