Paper **The use of Geographic Information Systems as a Decision Support System for solution mining**

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Introduction

The time that mining, apart from market conditions, was only depending on the geology in place and on relevant legislation in the country or state under consideration, is far behind us. Nowadays every operator finds itself exposed to external forces that influence to a large extent the existence, continuity and expansion of its mining activities.

In order to support the 'mining process' in its broadest sense the 'right' use of a Geographic Information System (GIS) to store, retrieve, analyse and present – in short to manage geo-information – is of utmost importance.
As mining companies grow older and the amount and complexity of data increases, GIS becomes a prerequisite for successful mining and for successful interaction with its environment.
Akzo Nobel Salt B.V. operates its Hengelo brine field since the mid-thirties and its Winschoten and Zuidwending brine fields since the mid-fifties and mid-sixties respectively.
The paper describes initial results of a GIS pilot for the Zuidwinding brine field. The pilot serves to identify potential threats and weaknesses of the application of GIS in an geo-environment. The final objective is to build a GIS for the Hengelo brine field to support mining operations and to manage surface subsidence related issues [1].
The actual work is contracted by 'Ingenieursbureau Oranjewoud B.V.', which is specialised in geodetic and GIS services for the mining industry in the Netherlands.