

SOLUTION MINING RESEARCH INSTITUTE

New address as of June, 1995:

**1745 Chris Court
Deerfield, Illinois 60015-2079**

**Country code: 1 ♦ Voice: 847-374-0490
Fax: 847-374-0491 ♦ E-mail: bdiamond@mcs.com**

**MEETING
PAPER**



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Testing of Borehole Plugs Placed in Bedded Halite and Anhydrite

by

Edward W. Peterson

and

Peter L. Lagus

INTRODUCTION

This paper will describe experimental techniques and review the results of two sets of borehole tests aimed at quantifying the ability of grout plugs to seal boreholes through either anhydrite or halite formations. One set of tests was performed on a grout plug placed in a borehole at depth. A second set of tests was performed on horizontal and vertical plugs set in shallow boreholes drilled into the ribs and invert of a mined facility. These tests were performed in order to evaluate the capability to seal boreholes and shafts against incursion of aquifer fluid.

This work was conducted for the Sandia National Laboratories as part of the Waste Isolation Pilot Plant (WIPP) Research and Development Program. The U.S. Department of Energy (DOE) is developing the WIPP facility in southeast New Mexico. The purpose is to provide a research and development facility which can demonstrate the safe disposal of radioactive waste resulting from defense programs of the United States (Public Law 96-164). The WIPP disposal horizon is located 656 m (2150 feet) below ground surface in a bedded halite deposit.

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