

Kali-Forschungsinstitut
Sondershausen

Extraction of carnallite by solution mining - an economic and ecological
alternative to conventional potash mining

Authors: Grüschow, Norbert - Head of the solution mining and pro-
cessing department
Saalbach, Botho - Head of the working team in charge of
solution mining

On the international scale, systematic potash mining initially started
in 1861 in the carnallite of the Stassfurt region. The experiences
made with carnallite in the GDR potash industry extend over all four
potash seams mined. This operational practice of more than 100 years in
mining and processing carnallite and the scientific-technological de-
velopment enabled the GDR potash industry to present a new, effective
mining and processing method ensuring the production at reasonable costs.

The ever deteriorating conditions of the sylvinite and hard salt depo-
sits in the GDR forced the development of this process. In view of the
deposit conditions this trend is not only confined to the GDR, but is
a world-wide problem /Phosphorus & Potassium - London, 84(1976)
pp. 39 - 41/.

If one considers already the use of carnallite, the transition to pot-
ash which is solely produced from carnallite is of vital importance
for the longterm development of the potash industry in the Südharz
region.

As you know, sylvinite-containing potash rocks have in general a much
higher K_2O content than carnallite. Mining and processing of car-
nallite are more difficult and require more expenditure.