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Introducing LOCAS 3D
Application to the Geomechanical Modeling
of an Oil-Storage Facility

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Abstract

Brouard Consulting has developed a 3D addition to its software package LOCAS which is dedicated to salt caverns. LOCAS has been enhanced continuously for 20+ years and, to date, LOCAS is still the only commercially available software that has been designed especially for salt-cavern modeling that is able to couple cavern thermodynamics and rock-salt complex geomechanics properly. Furthermore, LOCAS is also user-friendly software that exhibits numerous features, including facility data management.

Some features of the new 3D version of LOCAS are shown using the example of an oil-storage facility. The entire history of the facility since its creation is modelled. This example investigates the geomechanical stability of the facility during workover operations, which implies periods of low pressure in the caverns.

Key words: Computer Software, Computer Modeling, Rock Mechanics, Storage Cavern

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