

Specialist Press Release

March 15, 2021

Contact:
Ruth Wallner
BAUER Aktiengesellschaft
BAUER-Strasse 1
86529 Schrobenhausen, Germany
Phone +49 8252 97-1844
public.relations@bauer.de
www.bauer.de

Dam remediation project in Jordan: Bauer carries out cut-off wall work for earth basins at the Dead Sea

Amman, Jordan – Potash salts are an essential part of fertilizers. In many regions of the world, potassium salts are extracted from large underground deposits left behind by dried-up prehistoric seas. The Dead Sea is also rich in potash salt. The Arab Potash Company (APC) in Jordan uses this natural resource as the basis for the production of Carnallite. This is obtained in several earth basins with an area of 112 km² at the southern end of the Dead Sea, in which the pumped salt water evaporates and the much sought after raw material is left behind. What is special about this is that the basins are located around 400 m below mean sea level and therefore at the lowest point on earth (above water). However, the dikes that surround the basins have become porous over time and must now be repaired.

In 2018, BAUER International FZE, a subsidiary of BAUER Spezialtiefbau GmbH, was commissioned to build around 112,000 m² of cut-off wall over a length of 4.2 km on one of the main dikes. In the subsequent preparation phase, Managing Director Georges Abdo built a complete construction site organization from scratch in the Jordanian desert – Site Group, a Bauer subsidiary, was already present in the country and actively supported the colleagues.

The project actually started in April 2019 and entertained interesting challenges: on the one hand, the work on the cut-off wall had to be carried out in just 16 months. On the other hand, complicated logistics, mobilization of specialist staff, harsh weather conditions, extremely salty environment and other factors made things more difficult. The subsoil presented a special challenge: due to the hard crystalline salt layers, two cutters had to be used instead of grabs to build the cut-off wall. In addition, the high salt content had a negative effect on the support fluid and the setting properties of the concrete. Nevertheless, Bauer experts solved this problem and developed support fluids for the two-phase system based on salt-resistant clay mineral and polymers. Various worldwide deposits of bentonite were tested, until the suitable composition could be developed. The novel inclinometer guided sheet pile installation concept proved its reliability in achieving continuous interlocking.

“The trustful and highly cooperative relation with the owner, who provided all his remarkable support, was a crucial factor in overcoming a multitude of administrative and organizational hurdles”, reports Georges Abdo, Bauer FZE Managing Director in Jordan. Notably, all problems were solved.

A further challenge was posed by the coronavirus as reached to Jordan. During the lock down, and after compulsory break, the client extended additional support and managed to get a special permit to start the work on the site while observing strict precautionary

measures. A central crisis committee led by Bauer Project Manager Hassan Farhat ensured the implementation of the rectification measures in such a way that not only all obstacles could be overcome, but also making it possible to make up for the delays. In the end, Bauer was able to complete the project ahead of the planned schedule in October 2020 – a tremendous success by which the client was also impressed, and BAUER International FZE has already been engaged to perform further remediation sections.

Watch the video: <https://youtu.be/IYfmF2gVcZA>

Image: 2021-03_BAUER_Dam remediation project in Jordan



In just 16 months, BAUER International FZE constructed around 112,000 m² of cut-off wall over a length of 4.2 km for the rehabilitation of a dike at the Dead Sea. © BAUER Group

About BAUER Spezialtiefbau Group

BAUER Spezialtiefbau GmbH, the original parent company of the BAUER Group, has been a major driving force in the development of specialist foundation engineering. It carries out all of the customary processes of foundation engineering, primarily for excavation pits, foundations, cut-off walls and ground improvements on a worldwide basis. In doing so, BAUER Spezialtiefbau GmbH works closely together with their over 50 subsidiaries and branches across the globe. Regional networks around the world allow for the quick and flexible application of machines, teams and expertise. Bauer Spezialtiefbau offers their customers individual, creative and economical specialist foundation engineering solutions for demanding construction projects, from planning through to execution. More at bst.bauer.de

About Bauer

The BAUER Group is a leading provider of services, equipment and products dealing with ground and groundwater. With over 110 subsidiaries, Bauer can rely on a worldwide network on all continents. The Group's operations are divided into three forward-looking segments with high synergy potential: Construction, Equipment and Resources. Bauer profits enormously from the collaboration of its three business segments, enabling the Group to position itself as an innovative, highly specialized provider of products and services for demanding projects in specialist foundation engineering and related markets. Bauer therefore offers suitable solutions to the world's greatest challenges, such as urbanization, the growing infrastructure needs, the environment, as well as water, oil and gas. The BAUER Group was founded in 1790 and is based in Schrobenhausen, Bavaria. In 2019, it employed about 12,000 people in around 70 countries and achieved total Group revenues of EUR 1.6 billion. BAUER Aktiengesellschaft is listed in the Prime Standard of the German



Stock Exchange. More information can be found at www.bauer.de. Follow us on [Facebook](#), [LinkedIn](#) and [YouTube](#)!