

REAL RESULTS

ACP[™] Packer and Hydraulic Stage Tool Achieve Critical Liner Cementation in Geothermal Well

Objectives

• Stop lost circulation during a second-stage liner cementing procedure by using an annulus casing packer and hydraulic stage tool.

Results

- Weatherford's 9 5/8-in. *ACP* annulus casing packer with 10-ft standard elastomer was run and inflated above a total-loss zone at approximately 11,154 ft (3,400 m) vertical depth.
- After the liner hanger was set and the running tool was released, the *ACP* packer was inflated with cement, and the hydraulic stage tool opened. Full returns were seen at the surface, indicating that the *ACP* packer had set in the openhole section, providing required zonal isolation to cement the liner.
- Complete liner cementation was achieved using the Model 854 Sub-Surface Release[™] plug system.

Value to Client

• Installation of the Weatherford *ACP* packer and hydraulic stage tool within the liner system enabled full returns after the setting procedure, permitting the operator to displace all water-based mud behind the liner with cement and without any losses.



Weatherford *ACP* packers furnish zonal isolation in critical wellbore locations, reducing well costs by eliminating squeeze jobs, while minimizing uneconomical water or gas production. They can also help to achieve significant improvements in well economics by eliminating primary cementing, perforating, and wellbore cleanup operations, resulting in lower costs with initially higher production rates.

Client Geothermal operator in Germany

Location Durrnhaar, Germany

Well Type Geothermal

Setting Depths

- 9 5/8-in. casing shoe:11,824 ft (3,604 m)
- 9 5/8-in. ACP: 11,240 ft (3,426 m)
- 9 5/8-in. hydraulic stage tool: 11,233 ft (3,424 m)
- 9 5/8-in. x 13 3/8-in. liner hanger: 6,804 ft (2,074 m)

Products/Services

- Stage cementing services
- ACP inflatable packer
- Hydraulic stage tool
- Model 854 Sub-Surface Release
 plug system

Weatherford International Ltd. 515 Post Oak Blvd., Suite 600 Houston, Texas 77027 USA Tel: 713-693-4000 weatherford.com

Erdwerk Hydrologie Geothermie Bernd Boechzelt Geologist boechzelt@erdwerk.com Weatherford Yves Daniel Region Technical Sales and Operation Manager, Inflatable Packers yves.daniel@euweatherford.com Weatherdrop products and services are subject to the Company's standard terms and conditions, available on reguest at weatherford com. For more information contact an authorized Weatherford representative. Unless noted otherwise, trademarks and service marks therein are the property of Weatherford. Specifications are subject to change without notice. Weatherford sells its products and services in accordance with the terms and conditions set forth in the applicable contract between Weatherford and the clients.