

# Reclaim™ Thru-Tubing P&A Solutions

## Prevents Gas Migration in 70-Year-Old Well, Protects Water Table, Avoids Surface Leakage

### Objectives

- Isolate permeable and hydrocarbon-bearing formation to protect underground resources.
- Set bridge plug inside 5-1/2 in. casing to support the cement in the main bore and prevent the flipping of fluids.

### Our Approach

- Weatherford was approached by the customer to determine how to best plug and abandon (P&A) an injection well while protecting the underground environment and avoid surface leakage.
- After a review of the well data and logs, Weatherford engineering experts observed that sustained casing pressure (SCP) was still occurring in the well and recommended the Reclaim thru-tubing plug and abandonment system to seal off the A annulus and main bore.
- Performed as a three-stage operation using both coil and wireline conveyance, the well was perforated and a bridge plug was set 5 ft to 10 ft (1.5 m to 3.0 m) below the lowermost perforation. Wireline was then rigged down and the Weatherford acid wash tool (AWT) was deployed on the coil to perform the washing cycle.
- With the AWT positioned at the top of the upper-most perf, the washing cycle was performed by moving the AWT down in 2-ft intervals. Upon completion of the washing cycle, the AWT was run to TD and the bridge plug tagged.
- Once the depths were confirmed, the interval was cemented dynamically. Cement then exited the AWT slots before entering the perforations where it circulated up the A annulus to re-enter via the perforations above the AWT. The cement re-entering above the AWT was pulled through the bypass via a vacuum effect created by the dynamic pump-and-pull nature of the cementing operation.
- The annulus and main bore were successfully cemented.

### Value to Customer

- The Weatherford Reclaim thru-tubing plug and abandonment solutions created a permanent hydraulic seal in one trip, establishing the barrier without impacting current or future production zones.
- Single-trip efficiency reduced rigtime and risk associated with milling in conventional abandonment operations.
- Gas migration to the surface was effectively shut off in the 70-year-old well, protecting the underground environment and potable-water resources.



Reclaim thru-tubing P&A system creates a safe and permanent hydraulic seal with single-trip efficiency.

#### LOCATION

United States

#### WELL TYPE

Injector

#### FORMATION

Cased-hole environment

#### CASING SIZE AND TYPE

8-5/8 in. 28 PPF

5-1/2 in. 17 PPF

#### DEPTH

Interval 435 ft to 285 ft (132.5 m to 86.8 m)

#### PRODUCTS/SERVICES

- Reclaim Thru-Tubing Plug and Abandonment System
- Weatherford Acid Wash Tool

