



# Weatherford®

## REAL RESULTS

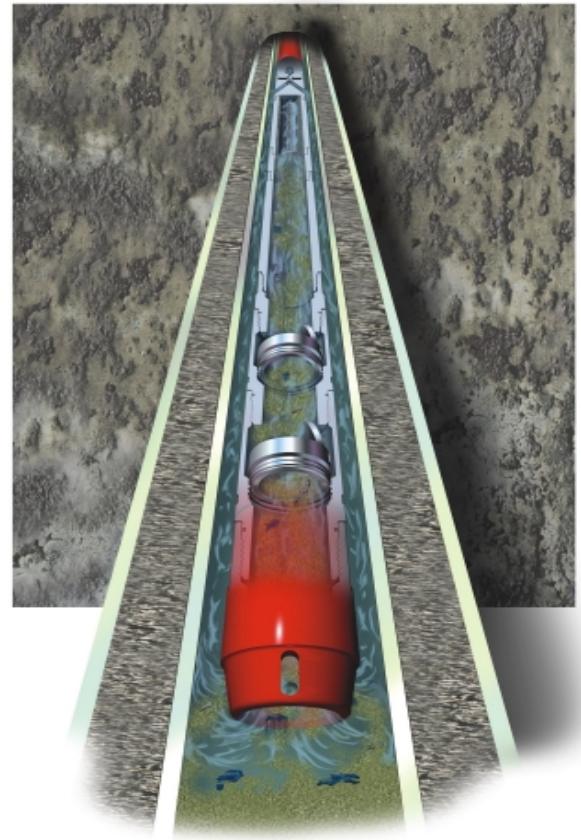
### Lake Maracaibo: Cyclone Bailer® Tool Performs as Designed, Rescues Horizontal Venezuelan Well

#### Objectives

- The operator had drilled and cased this well with a 3 1/2-in., 9.23-lb/ft liner. The approximate depth was 17,000 ft (5,182 m), with a BHT of 280°F (138°C). Electric wireline was run to perforate the well and could not reach the intended perforating depth due to fill.

A slickline BHA with a bailer was run to recover approximately 60 ft (18 m) of fill in the liner. Upon retrieval the bailer contained some pieces of metal; so a decision was made to run a skirted magnet to recover the metal.

When the slick tool string with magnet was retrieved from the well, it was found that the mandrel of the skirted magnet had backed out of the magnet, leaving a 2.25-in. skirt made of stainless steel and the magnet in the well. The well had a profile nipple with a 2.313 in. ID, preventing overshotting the fish. The skirt sitting on top of the magnet would have made milling operations difficult if not impossible due to the skirt/magnet combination spinning while attempting to mill.



#### Location

Lake Maracaibo, Venezuela

#### Liner

3-1/2 in., 9.23 lb/ft

#### Depth

17,000 ft (5,182 m)

#### Bottomhole Temperature

280°F (138°C)

#### Tool String

- 2 3/16-in. MHA
- Quick Connect
- 2 1/8-in. CTD® motor
- *Cyclone Bailer* tool with screen
- 3 joints of 2 1/16-in. washpipe
- DFCV
- 2 1/4-in. rotary shoe

#### Products/Services

- Thru-tubing fishing services
- *Cyclone Bailer* tool
- CTD motor



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### Results

- A decision was made to rig up coiled tubing and attempt to vacuum out the debris from below the magnet with the Cyclone Bailer® tool, allowing the skirt and magnet to fall to bottom or to a depth below the zone of interest—the perforating depth.
- While running the BHA, problems were encountered with the electrical depth counter on the CT, resulting in some confusion as to the actual depths. Continued running the BHA to bottom and tagged the fish at approximately 16,600 ft (5,060 m) CT measurement. Increased pump rate to 1 BPM and slowly applied weight. The fish began to move down the hole. Continued running in the hole to a depth of approximately 16,689 ft (5,087 m) CT measurement and could not advance any further. POOH.
- Recovery: Two joints of the washpipe filled with an emulsified oil-based drilling fluid. Bottom joint approximately 1/3 of emulsified drilling fluid with the remaining 2/3 a mixture of small pieces of metal, rubber, and a material later identified as primarily Barite. Due to problems encountered with the depth indicator of the coiled tubing unit, electric wireline was run to verify depths. Electric wireline logs verified that the well had been cleaned to within 2 ft (0.6 m) of the original TD. The well was perforated and put into production.

### Value to Client

- The well was returned to production.

