

## A Complex Fishing Application Yields Success in Ecuador

Experienced Wellbore Integrity Solutions (WIS) personnel planned and recovered a heavily corroded completion, allowing the restoration of well production in the Sucumbios region of Ecuador.

### CHALLENGE

A completion recovery was required by the customer with the added risk of recovery complexity due to a severely corroded completion. Plans and contingencies required development and update at the wellsite to ensure a successful operation within the planned rig time allocated.

### SOLUTION

WIS provided experienced personnel to plan and execute the operation. Locally positioned assets and supporting inventory were utilized to provide the necessary equipment for both primary and contingency retrieval bottom hole assemblies. The assemblies utilized were selected to minimize debris during the retrieval process.

### RESULTS

- Efficient planning and contingency options resulted in a completion that was fully recovered with a rig time saving of two days.
- The customer was able to re-establish the desired production from the well.



### A heavily corroded completion resulted in an increased complexity fishing operation. WIS completed the operation successfully, saving two days of rig time.

A completion recovery, by the WIS team in Ecuador, developed into a more complex operation due to the heavily corroded condition of the completion string and packers. The completion string comprised of 3½ inch tubing, which was completely corroded in multiple areas (Figure 1&2), and two Quantum Hydraulic Packers, in both the 9⅝ inch and 7 inch casings (Figures 3&4).

Due to the unexpected, heavily corroded condition of the completion, contingency plans and alternative recovery bottom hole assemblies were prepared in real time at the wellsite to ensure operational continuity. For example, milling or washover operations were avoided in this case, to reduce the introduction of additional debris into the wellbore. The WIS personnel at the well site and support base worked closely with the customer at all times to deliver a successful completion recovery. Despite the issues encountered with the heavily corroded completion, the operation was concluded in two days less than planned.



Figure 1: Heavily corroded 3½ in. production tubing.

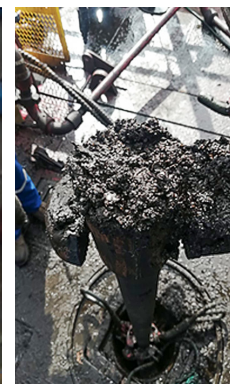


Figure 2: Debris inside the recovered upper Quantum Packer.



Figure 3: Broken 3½ in. production tubing pieces inside the upper Quantum packer.



Figure 4: Successful recovery of lower Quantum Packer.