

# Case Study



The information in this case study is reprinted from the American Cyanamid AM-9 technical manual. AM-9 was American Cyanamid's acrylamide grout product. Avanti's AV-100 Chemical Grout matches the chemical formulation, usage and performance of AM-9.

**Title:** Increasing Oil Production

**Location:** Archer County, Texas, U.S.A.

**Contractor:** Halliburton Company

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## **PROBLEM:**

A petroleum production water flood project was not responding well to flooding. One of the producing wells was making 10 barrels of oil and 45 barrels of water per day. One of the water injection wells was thought to be causing the trouble. This well was cased with 4 ½ inch casing to 3,841 feet, and perforated between 3,771-3,790 feet and 3,801-3,810 feet. An injection profile indicated that about half of the injected water was entering the zone between the two perforated intervals.

## **SOLUTION:**

This problem was solved by sealing the zone between perforated intervals in the injection well.

## **APPLICATION:**

A packer was set in the injection well at 3,689 feet on two-inch tubing. A 400-AM-9 Chemical Grout batch was catalyzed to gel in 35 minutes at 106°F. The batch was pumped into the formation at about 30 gpm. Pump pressure was 200 psi.

## **RESULTS:**

An injection profile run on the injection well after treatment indicated that the treated zone had been completely shut off. Production increased to 75 barrels of oil and 90 barrels of water per day. Two months after treatment, the well was still making 40 barrels of oil and 100 barrels of water per day.