

## Venezuela; Aphron Fluid Technology for Drilling Multi-Pressured, Problematic Formations

### Well Information

|                     |  |
|---------------------|--|
| Location:           | Lake Maracaibo, Venezuela; Lagomar Field |
| Formation:          | La Rosa through C-6U1                    |
| Formation Pressure: | 288—467 kg/m <sup>3</sup> equivalent     |
| Interval:           | Vertically Drilled Off-Shore             |

### The Objective

The operator needed to drill an area known to have borehole instability due to shale's, tight hole and stuck pipe. The operator did have success on the last hole utilizing the Aphron ICS™ Fluid System.

### The Solution

The HiTech engineering group recommended the use of our Aphron ICS™ Fluid System.

### The Results

Aphron ICS™ Fluid System functioned as engineered providing excellent borehole stability as the wells were successfully drilled to TD with out lost circulation or stuck pipe. The Aphron ICS™ Fluid System allowed for successful electric logs including RFT and eliminated the need for intermediate casing.

#### Economic Accomplishments:

|                                       |                                   |
|---------------------------------------|-----------------------------------|
| Eliminated 8 days rig time            | Savings (well A): US: \$1,370,000 |
| Eliminated intermediate casing string | Savings (well B): US: \$630,000   |
| Eliminated cementing, intermediate    |                                   |
| Eliminated air equipment costs        |                                   |

**Additional Information** If you would like to know more about the Aphron System and how it's performed on hundreds of wells for our customers, please contact HiTech Fluid Systems Ltd.



Head Office  
Suite 1800, 505—3rd Street SW  
Calgary, Alberta, Canada T2P 3E6  
403.547.2906 Main Phone  
403.547.3129 Main Fax  
[www.hitechfluid.com](http://www.hitechfluid.com)