



**PROJECT:**

Fluid typing of known reservoir zones with reference to PVT data from offset wells.

**CHALLENGE:**

Detect hydrocarbon-bearing zones in low resistivity and low gas pay zones.

**SOLUTION:**

Use of C6+ components to determine hydrocarbon zones where C1-C5 and resistivity measurements remain inconclusive.

**BENEFITS FOR CLIENTS:**

- Early information, interpretation and analysis,
- Additional pay zone detected, leading to oil reservoir discovery.

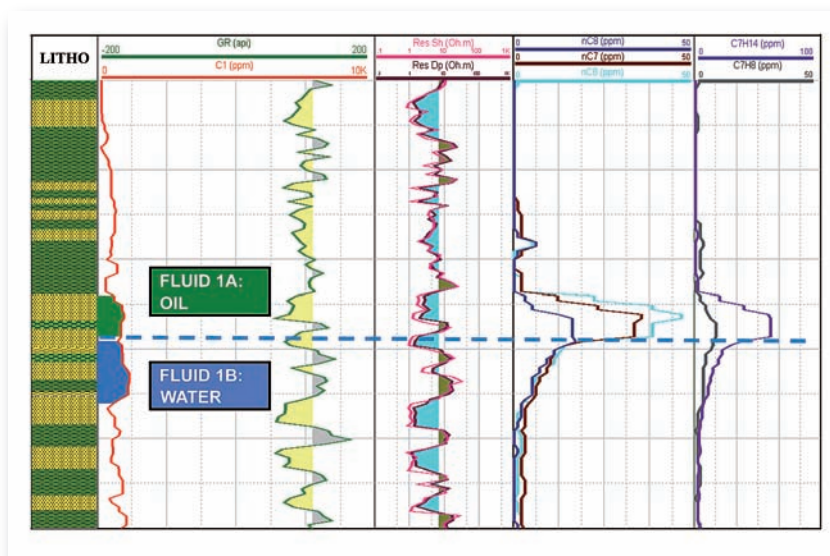
**FACTS:**

- FLAIR C6+ helped in additional pay zone identification.

## Case Study: Additional pay zone in development field

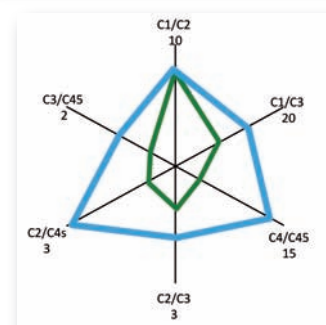
**FLAIR allows detection of a hydrocarbon-bearing zone where LWD and conventional mud gas data are inconclusive.**

In a recent development well, FLAIR was deployed for the first time in the block to obtain early information on the formation fluid composition. An additional hydrocarbon potential was identified due to improved mud gas extraction and a wider range of measurements (C1-C8).



**Fluid 1A** indicated heavy composition. A significant presence of C6-C8, Methyl-CycloHexane and light aromatics triggered re-evaluation of this zone. This fluid was confirmed as Oil during a well test.

**Fluid 1B** shows lighter fluid composition and was interpreted as a Water wet zone.

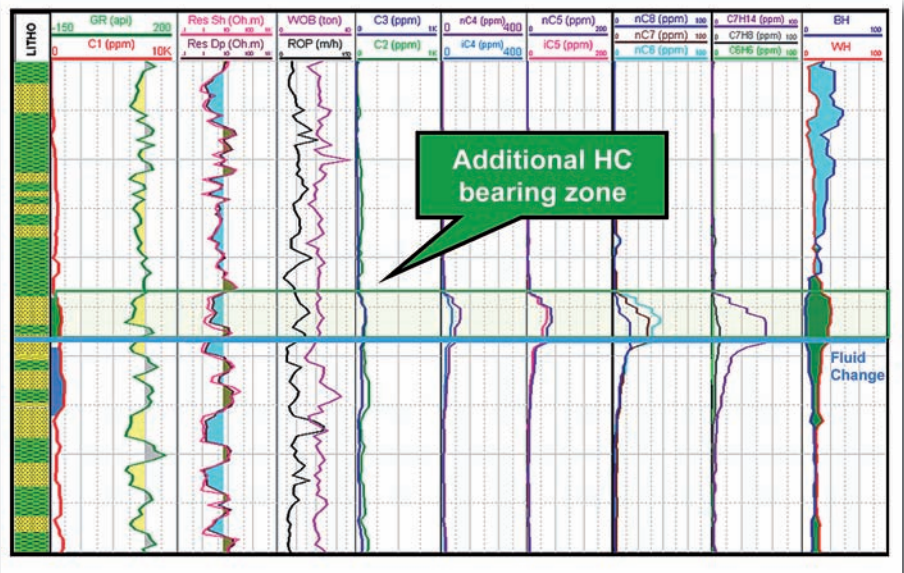




## The C6-C8 components are key parameters for reliable formation fluid evaluation

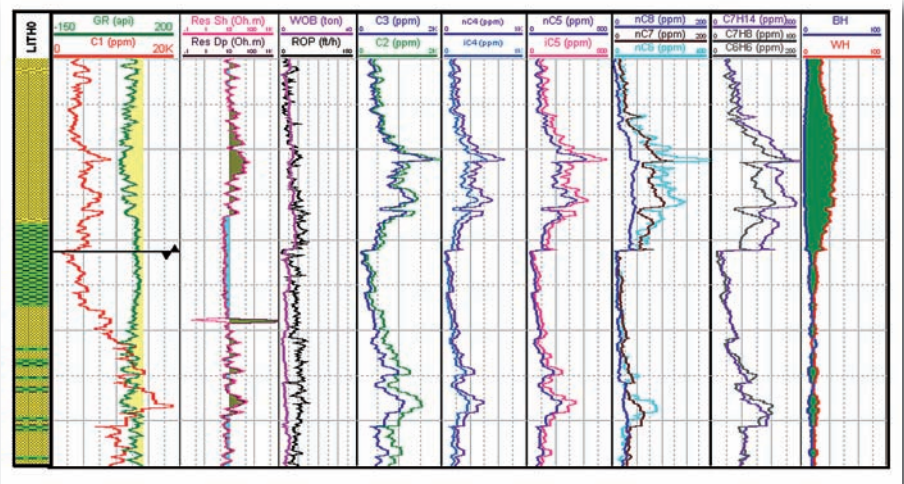
Additional pay zone identified, apart from main objective:

FLAIR data detected potential zone where resistivity is inconclusive.



Main objectives met in the well as forecasted:

FLAIR and LWD in the main objective complement each other to confirm hydrocarbon-bearing reservoir.



### RESULTS:

- The additional interval identified as hydrocarbon potential was re-evaluated with extensive wireline and sampling runs to confirm the presence of hydrocarbons.
- A well test on this zone flowed Oil.

#### CONTACTS:

##### Head Office:

127, avenue du Bois de la Pie  
Paris Nord II • B.P. 67049 Roissy-en-France  
95971 ROISSY CDG CEDEX • France  
Tel: +33 (0)1 41 59 23 00  
Fax: + 33 (0)1 41 59 23 23  
E-mail: mail@geoservices.com

For additional information, please contact your local Geoservices representative.

##### District Offices:

north-europe@geoservices.com  
west-africa@geoservices.com  
mediterranean@geoservices.com  
latin-america@geoservices.com  
north-america@geoservices.com  
middle-east@geoservices.com  
north-asia@geoservices.com  
south-asia@geoservices.com

View other case studies at:

[www.geoservices.com](http://www.geoservices.com)