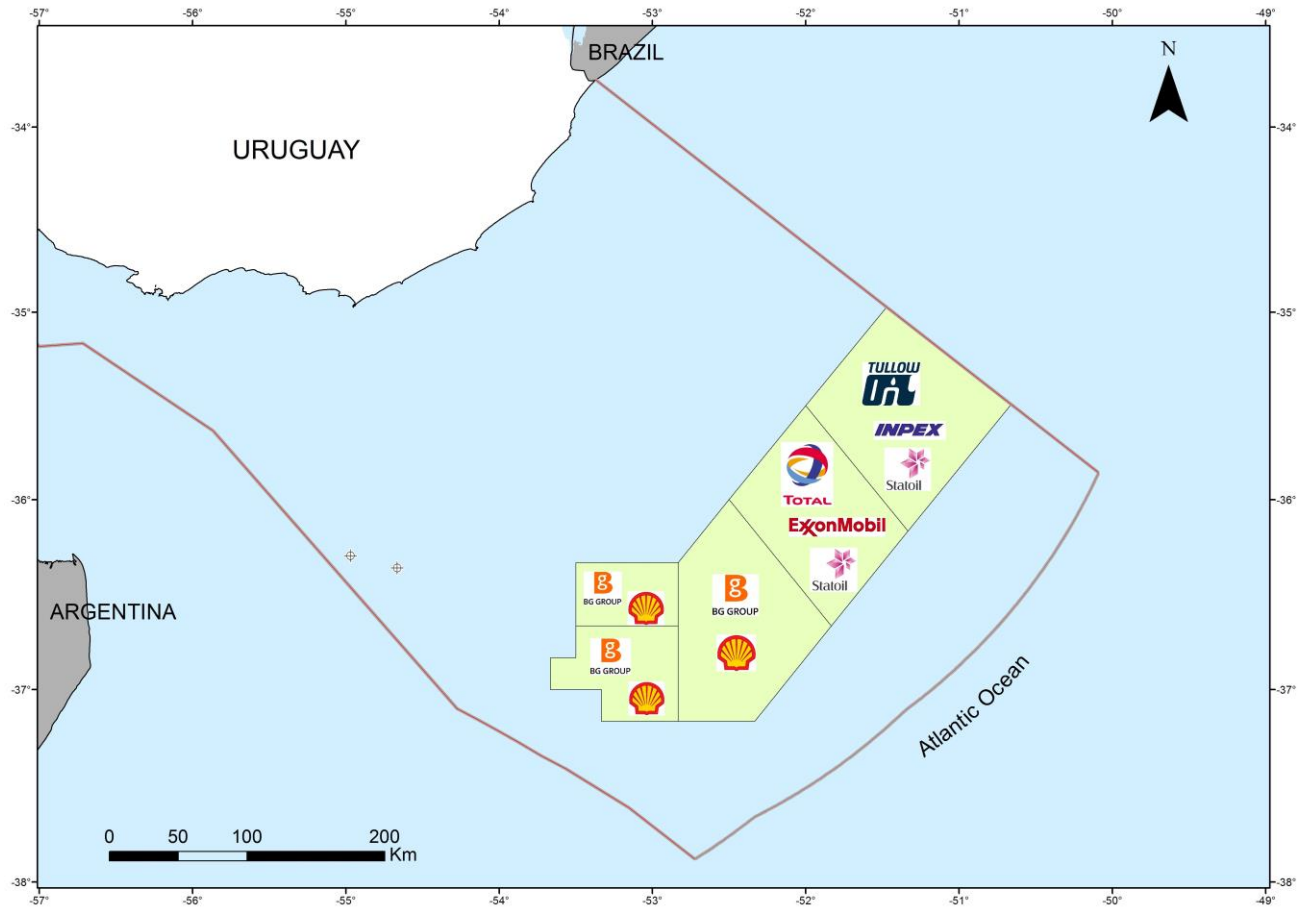


Punta del Este Basin, Uruguay

Fluid Inclusion Stratigraphy (FIS) Study

A Charge Potential Evaluation of 2 wells with GCMS / CSIA module



Price:	\$39,000		<p>RESULTS</p> <p>Present and Past Distribution of Petroleum</p> <p>Petroleum Type and Quality</p> <p>Proximal Undrilled Pay & Bypassed Pay</p> <p>Seals</p> <p>API Gravity</p> <p>Evidence for Bacterial/Thermal Alteration</p> <p>Reservoir Compartments</p> <p>Petroleum Source and Maturity</p>
Completed:	February 2012		
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Fluid Inclusion Technologies, Inc.

“Innovations in Petroleum Risk Management”

2217 N. Yellowood Ave.

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Outline

Fluid Inclusion Technologies proposes undertaking a regional evaluation of petroleum charge in key wells from the North Falkland basin. This study of the South Atlantic margin forms part of a comprehensive Fluid Inclusion Technologies database made up of a number of studies across both sides of the North and south Atlantic Margins. The foundation for this assessment was fluid inclusion volatile analysis (Fluid Inclusion Stratigraphy or FIS). Fluid inclusion petrography is included on selected samples that showed significant FIS anomalies (possible migration pathways, paleo-hydrocarbon columns or present-day hydrocarbon columns).

Classical geochemical techniques that analyze residual pore fluids are often inadequate for determining where petroleum fluids have been, and are typically hampered by contamination, fractionation and alteration issues. Subsurface fluid processes leave resolvable chemical traces in the form of crystallographically **trapped fluids in diagenetic cements and healed microfractures**. These fluid inclusions are not subject to evaporation during sample storage or loss of light ends during sampling from depth. They persist in the geological record long after the parent fluids have moved on, but are continuously formed even up to the very recent past. Hence, fluid inclusion studies have the potential to provide a **detailed account of petroleum distribution and charge history**.

2 Study Wells

Well	Operator	Age at TD	TD (m)
Lobo	Chevron	Upper Jurassic	2714
Gaviotin	Chevron	Upper Jurassic	3632

Project Description

Fluid Inclusion Stratigraphy (1058 samples)

Cuttings and core samples from 2 wells have been analyzed for their fluid inclusion volatile content with the Fluid Inclusion Stratigraphy (FIS) **volatile mapping technique**. Full-well profiles of key inorganic and C1-C13 organic species have been constructed from FIS results. These data are interpreted in terms of **petroleum inclusion presence, type and quality; possibility for deeper or lateral proximal pay; and prominent seals or reservoir compartments**. FIS results and stratigraphic information were used to determine samples on which the following detailed analyses are performed.

Fluid Inclusion Petrography (28 analysis)

Selected zones within the analyzed wells that showed elevated FIS hydrocarbon responses have been evaluated for their aqueous and petroleum inclusion populations via thin section analysis under plane light and UV illumination. Fluid inclusions have been characterized in terms of their **relationship to the host** (e.g., in cements or healed microfractures), abundance, fluorescence characteristics **origin** (generated locally from intercalated source rock, or migrated into the section from a deeper kitchen) and suitability for determining quantitative information. Multiple petroleum populations will be distinguished, where present, and placed into a **relative chronology**.

Fluid Inclusion API Gravity Determination (6 analysis)

Based on the results of the previous analyses, samples have been selected for quantitative fluid inclusion API gravity, homogenization temperature and salinity determinations (bubble-point or dew-point evaluation). These data have been combined with FIS data to evaluate aspects of **hydrocarbon type, quality, saturation state, timing, and fluid source**.

Fluid Inclusion Biomarker Oil Analysis (4 analysis)

Selected zones within the analyzed wells that have shown appropriate FIS hydrocarbon responses have been evaluated for their biomarker range hydrocarbon components via GCMS of extracted liquids. Samples selected were cleaned of surface contamination prior to extraction.

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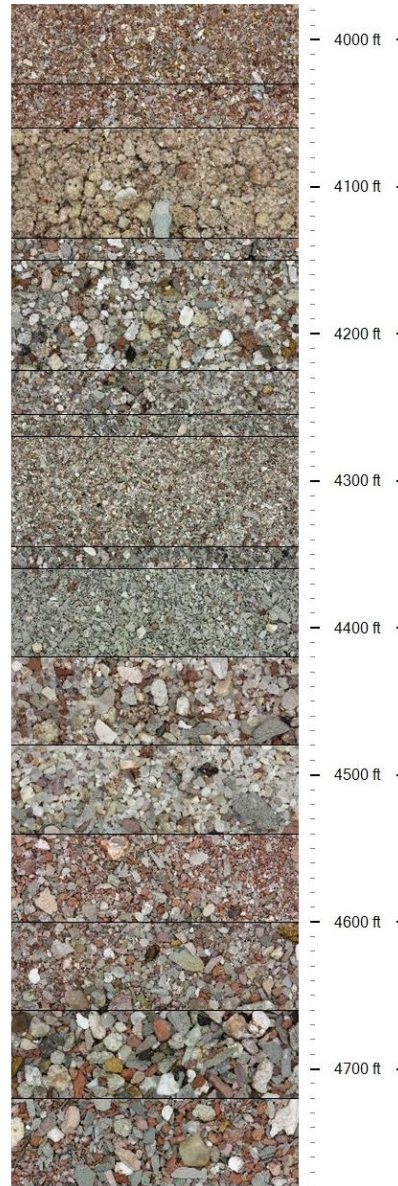
Fluid Inclusion Gas-Range GC (8 Analysis)

Selected zones within the analyzed wells that have shown appropriate FIS hydrocarbon responses have been evaluated for their gas-range compounds via GC analysis.

PhotoSTRAT™:

Photographic documentation and presentation in a stratigraphic context of all the ditch cuttings and cores analysed during the study.

Examples of PhotoSTRAT Images from Gaviotin





Deliverables & Timing

The project deliverables will consist of the following items:

- 1) Individual well reports on FIS results (petroleum distribution and type, seals, proximal undrilled pay, etc.)
- 2) Fluid Inclusion temperature, API gravity and salinity data for each well, based on FIS data
- 3) Integration of the FIS data with detailed analysis of the implications for E & P in the study area
- 4) Digital files of all data and reports. Hard copy available for additional charge.

Price & Terms

The study is complete and available to E & P companies on a single or group basis

Single company, **\$39,000 USD**

Group rates: **2 Company Group 170%**
3 Company Group 240%
4 Company Group 300%

Further Information & Contacts

For further information, please contact:

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