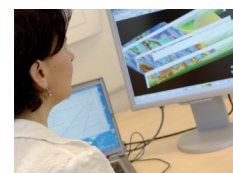
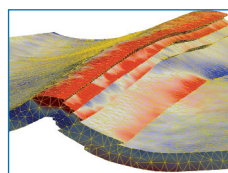
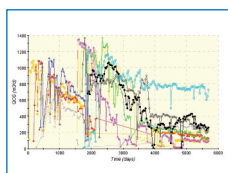
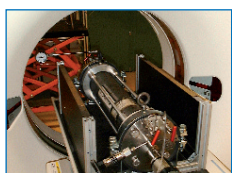
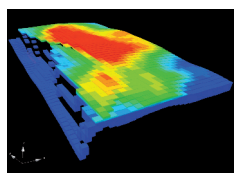


IFP positions in the field of Exploration-Production Reservoir Research Engineer



World energy demand is set to double between now and 2050. And yet we are only able to recover, on average, 35% of the oil contained in a reservoir.

In order to extend available hydrocarbon reserves, IFP is designing innovative technologies for the integration of field data, and is developing physical models and software for reservoir and well simulation. These skills, initially specific to the oil sector, are now also being used to model the underground storage of CO₂, for example. Reservoir engineering expertise can thus play a concrete role in combating the greenhouse effect.



Responsibilities

Working as part of a multidisciplinary team, a reservoir research engineer develops technologies for the geological storage of CO₂ and strives to improve the recovery of hydrocarbons from reservoirs:

- he/she develops, validates and applies integrated methods and methodologies in the fields of dynamic characterization, digital simulation and reservoir management;
- he/she designs physical experiments for data acquisition and combines them with physical and digital models for interpretation of results;
- he/she determines the necessary petrophysical parameters for reservoir simulators;
- he/she devises models for more accurate prediction of the physical mechanisms of fluid flows in porous media;
- he/she contributes to the industrialization of reservoir and well modeling and simulation software.

Skills required

- engineering degree or equivalent (IFP School, exploration-production option) and/or thesis in physics, physicochemistry or fluid mechanics applied to porous media;
- high level knowledge of physical and numerical modeling of flows, and/or transport phenomena in porous structures (knowledge in the field of scientific calculation);
- high level knowledge of laboratory analysis, instrumentation and experimentation techniques;
- understanding of physics, analytical mind, scientific curiosity and team spirit,
- fluent English.

Career development opportunities

A reservoir engineer develops extremely advanced technical expertise, which he/she can put to good use within the framework of multiple projects and partnerships.

Numerous career development opportunities: scientific and technical expert, teacher-researcher, project leader, manager, business engineer, either within IFP or with our partners, in France or abroad.

IFP is a world-class public-sector research and training center, aimed at developing the technologies and materials of the future in the fields of energy, transport and the environment.

Personal experiences

Frédéric Roggero
Simulation of Flows and Transfers
in Porous Media Department Head
in the Reservoir Engineering Division



Frédéric is a graduate of the Paris ENSAM Engineering School and the ESTA Aerospace School.

Why did you choose IFP?

I began my career in 1986 at Onera, where I helped develop numerical calculation codes. I then went to Beicip-Franlab, an IFP subsidiary and industrial partner, to work on the simulation of fluid flows in oil fields. In 1994, I joined IFP at the helm of a European project on production data integration in reservoir modeling.

What does your job involve?

As Department Head, it is my role to ensure the teams develop their expertise so that they can meet the requirements of R&D programs. Previously, I was project leader and was involved in defining multi-year research programs in the domain of field simulation and monitoring.

What do you like about your job?

Above all, managing the department's teams and scientific leadership. I also enjoy working on innovative subjects, in which IFP often plays a strategic role. Lastly, the projects conducted with industrial partners give us a more concrete view of the ultimate purpose of our research.

How do you see your career developing?

Numerical simulation and monitoring, reservoir production optimization or the study of CO₂ storage sites with a sustainable development focus provide a broad scope for investigation. There are numerous technological challenges to overcome and the prospects for career development are particularly interesting.

Pierre Boulin
Petrophysics Engineer



Pierre is a graduate of the Ecole Centrale de Lille and obtained his PhD in hydrogeology working at the CEA in Grenoble

Why did you choose IFP?

I wanted to use the knowledge and expertise that I acquired in the field of fluid mechanics and transfer in porous media in the course of my hydrogeology thesis, by working for a major French research center. I applied to IFP as soon as I learned there was an opening in its Reservoir Engineering Division and was hired at the start of 2009.

What does your job consist of?

As part of IFP's research activities – in the field of CO₂ storage in particular – I supervise tests to characterize the petrophysical parameters of drilling cores after having determined the experimental protocol to be adopted. I compare the experimental results obtained with modeling tests, which I also conduct, and I then publicize all this work by writing conference papers or articles for scientific journals.

What do you like about your job?

I find it stimulating to validate my models by means of experiments and, through the variety of tests conducted, to acquire the know-how with a view to applying the results obtained. I also really enjoy working as a team in close partnership with colleagues from other IFP sectors, to design and develop new tests.

How do you see your career developing?

There are lots of opportunities for a beginner like myself. I'm drawn to the training side; in the short term, I'd like to get involved in managing a thesis and, later on, alongside my research activities, lecture at IFP School.

To apply for a position: <http://recruitment.ifp.com>

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