Joint Study with JOGMEC on Tight Oil of The Onnagawa Formation in Akita Prefecture

Since March this year, Japan Petroleum Exploration Co., Ltd. (hereafter, the “Company”) has been engaged in an engineering study on tight oil (shale oil) of the Onnagawa Formation of the Company’s oil and gas fields in Akita Prefecture, jointly with Japan Oil, Gas and Metals National Corporation (hereafter, JOGMEC).

The Company has received numerous inquiries on this project since July 6. Accordingly, to organize the information, the Company announces a general outline of the two agreements it concluded with JOGMEC, as follows.

【Joint study agreement concerning FY2011 project for supporting operations*1）】
1. Project name: “Technical research concerning tight oil development at the Onnagawa Formation”
3. Contents    1) Review of the latest tight oil (shale oil) development methods
   2) Examination of the well stimulation method for Ayukawa oil and gas field ,Yurihara oil and gas field and Fukumezawa (Sarukawa) oil field
   3) Evaluation of the potential of Onnagawa Formation tight oil in all of Akita Prefecture

【Joint study agreement concerning FY2012 project for supporting operations】
1. Project name: “Technical research concerning tight oil development at the Onnagawa Formation (2) (acid treatment test*2)”
3. Contents: 1) Well stimulation (acid treatment) and acoustic emission (AE) for existing wells at 1 Ayukawa oil and gas field and Yurihara oil and gas field
   2) Result analysis, overall evaluations
*1) Under this project, the Company and JOGMEC conduct joint research aimed at solving specific technical issues concerning exploration and development operations.
*2) An acid treatment test is conducted for eliminating formation damage from an oil reservoir by having acid contact the reservoir or injecting acid into it so as to obtain full or higher-than-full productivity.

This joint engineering study is conducted with JOGMEC on optimizing development-engineering efforts at the Onnagawa Formation, where there are hopes that tight oil exists. This formation is of the same type as the Monterey Formation in the US state of California, where a large-scale tight oil (shale oil) development project is underway.

If the study yields positive results, the Company will consider pilot tests (new exploration of horizontal wells and well stimulation work) at the Onnagawa Formation of its oil fields in Akita.

【Reference】
1. General outline of the Company’s oil and gas fields
   http://www.japex.co.jp/business/japan/field.html
2. Outcrop of the Onnagawa Formation

Outcrop of the Onnagawa Formation in Chokai district, Yurihonjo City, Akita Prefecture