

June 17, 2016 Japan Petroleum Exploration Co., Ltd. (JAPEX)

<u>Commencement of the Drilling Survey (Phase 3)</u> in Bandai District, Fukushima Prefecture for Geothermal Energy Development

The Fukushima Geothermal Project Team (the Team) has been conducting a surface survey of geothermal resources at the area around Mt. Bandai in the Bandai-Asahi National Park. This project has been conducted since 2013, with the consent of local communities and the financial support from Japan Oil, Gas and Metals National Corporation (JOGMEC). As the Team completed the three-year surface survey and confirmed a promising area to be developed, it will move onto the next phase; drilling survey in the area.

The Team consists of 11 companies: Idemitsu Kosan Co.,Ltd., INPEX CORPORATION, Sumitomo Corporation, Japan Petroleum Exploration Co., Ltd., Geothermal Energy Research & Development Co., Ltd., Japan Metals & Chemicals Co., Ltd., Mitsui Oil Exploration Co., Ltd., Mitsubishi Gas Chemical Company, Inc., Mitsubishi Corporation, Mitsubishi Corporation Power Ltd., and Mitsubishi Materials Corporation.

1. Purpose and outline of the Drilling Survey

The Team will drill two survey wells (directional) to investigate underground temperature, geological structure, and the presence of reservoir as the 3rd Phase of geothermal survey.

- 2. Outline of the Geothermal Resource Survey
 - (1) Phase 1 (completed in FY2013)

Surface study to propose hot spring monitoring (e.g. survey for hot spring sources, and geochemical analysis of fluids)

(2) Phase 2 (completed in FY2015)

Surface study to estimate the underground structure (e.g. survey for hot spring monitoring and observation of micro-earthquakes)

(3) Phase 3 (FY2016 to 2017 (planned))

See Item 1 above.

3. A Schedule for Drilling Survey (Phase 3) (FY2016)

Action	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Preparation for drilling												
Site arrangement												
Rig up												
Drilling							BD-1	⇒ Rig SI	ide ⇒ B[)-2		
Rig down												
Monitoring of hot springs												
Observation of micro-earthquakes												
Summarizing data												

4. Schedule of the study

Based on the result of drilling survey, the Team will set up a plan for drilling development wells and present the plan to the local communities. Under the consent of the local communities, the Team will decide to move forward to the feasibility study. In this study, a drilling of geothermal fluid production wells, a drilling of re-injection wells, a demonstrative test, and an environmental assessment will be conducted.



Scene of the ceremony to pray for the safety of the drilling survey held on-site today



[Reference] Drilling site information

0	Drining bite information				
Site	Description				
Address	Tsuchiyusawayama, Inawashiro-machi, Yama-Gun, Fukushima Prefecture				
Owner	Inawashiro Property Ward				
Status	 Access to the site is prohibited as it is controlled by the Inawashiro Property Ward. Although a tour of the site during the drilling survey is planned, it is not allowed to enter the site for security and safety reasons. 				

A Drilling plan for Exploration wells

No.	Drilling site	Direction	Well data
BD-1	Inawashiro	Approximately 10 degrees west from southern direction	Diameter : 8.5 inches (21.59 cm) Drilling depth: 2,300 m (maximum)
BD-2	Property Ward	Approximately 70 degrees west from southern direction	Vertical depth: 1,900 m (maximum) Deviation : 1,150 m (maximum)

Survey area and location of the exploration wells $E 140^{\circ} 02^{\circ} 00^{\circ} E 140^{\circ} 04^{\circ} 00^{\circ}$

