

October 15, 2024

JX Nippon Oil & Gas Exploration Corporation

## **JX, University of Wyoming, and JCOAL Signs MOU for CO<sub>2</sub> Mineralization**

JX Nippon Oil & Gas Exploration Corporation ("JX") (President and CEO: Toshiya Nakahara) is pleased to announce that we signed a Memorandum of Understanding ("MOU") on CO<sub>2</sub> mineralization with the University of Wyoming and the Carbon Frontier Organization ("JCOAL") on October 14<sup>th</sup>, 2024.

JX is adapting to the dynamically changing global and business environment by promoting a "Two-Pronged" approach: continuing with oil and natural gas exploration and production business which has been its "fundamental business," while putting focus on advancing its environment-friendly business centered on CCS/CCUS (Note) as the "growth business."

CO<sub>2</sub> mineralization, the main scope of this MOU, is a key component of the "growth business" of JX. It is a process whereby CO<sub>2</sub> chemically reacts with water and rocks under specific conditions, precipitating into solid minerals. This method allows for the safe geological storage of CO<sub>2</sub> injected underground and serves as an alternative to CCS. JX started its activities in CO<sub>2</sub> mineralization when it signed a joint study agreement with the Japan Organization for Metals and Energy Security (JOGMEC) in 2022 to study CO<sub>2</sub> mineralization through laboratory experiments.

CO<sub>2</sub> mineralization is gaining traction rapidly, with many entities around the world conducting laboratory experiments and field demonstrations. Among these entities, the University of Wyoming is one of the leading universities in this area, even receiving funding from the U.S. Department of Energy. This has made the University of Wyoming the perfect partner for achieving our shared goals. As for JCOAL, its mission is to develop technologies and promote projects for carbon neutrality. JX has been discussing various technologies and projects with JCOAL, including CO<sub>2</sub> mineralization.

The objectives of our ongoing CO<sub>2</sub> mineralization project is to conduct a field demonstration in Japan for carbon management solution to reduce CO<sub>2</sub>. By signing this MOU with the University of Wyoming and JCOAL, JX aims to deepen our technical knowledge and this in turn, will accelerate our progress towards such field demonstration.

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(Note)

CCS: Carbon dioxide Capture and Storage.

It is a technology for the capture and underground storage of emitted CO<sub>2</sub>.

CCUS: Carbon dioxide Capture, Utilization, and Storage.

It is a technology not only for capture and underground storage of emitted CO<sub>2</sub>, but also for the utilization of CO<sub>2</sub> to create new products or energy generation.



Photo of signing ceremony

Yasuto Ariga, Executive Officer, General Manager of e-Technology Innovation Center, JX

Holly Krutka, Executive Director, School of Energy Resources University of Wyoming

Tsukamoto Osamu, President, JCOAL

JX Nippon Oil & Gas Exploration will become  
 **ENEOS Xplora**