

MIS005-P02

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## The continuous velocity analysis in the BSR area in the offshore area between the Hokkaido and the Shimokita Peninsula

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In the eastern offshore area of the Shimokita Peninsula, the Bottom Simulating Reflector (hereafter BSR) was found in the seismic data for the site survey of the drilling training of "Chikyu" conducted by JAMSTEC in 2002. In the drilling training of "Chikyu" by JAMSTEC in 2006, the methane hydrate was found in the core near the sea floor. It is presumed the occurrence of the methane hydrate or methane in this area.

On the other hand, the distribution of BSR in the offshore area between the southern of central Hokkaido and the Shimokita Peninsula were interpreted from the former seismic survey data by Hayashi et al. (2010).

The amplitude of BSR in this area is not so stronger than that of BSR in the Nankai Trough area. It is presumed that the velocity contrast that generates BSR is small. It is presumed that the saturation of MH is small.

We were conducted the continuous velocity analysis of the seismic survey of "Douou Nanpou - Sanriku-oki" which was conducted in this area by METI in fiscal year 2008. This continuous velocity analysis (the velocity analysis interval: every 25m) was executed below the two seconds two-way-time deep from the sea floor.

As a result, the reversal of the P wave velocity was found, and the occurrence of the methane hydrate was presumed in this area where the BSRs were found. In addition, the reversal of the P wave velocity was found in the not found BSR area of the primary interpretation. The existence of BSR was faintly intermittently confirmed by the detail BSR interpretation.

The P wave velocity evaluation by the continuous velocity analysis was confirmed the effectiveness to detect the BSR which was generated by the contrast of P wave velocity by with or without methane hydrate especially in the weak-amplitude-BSR area.

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Keywords: methane hydrate, BSR