Seismic imaging of subsurface geological structures in Pohang Yeongil Bay using ocean bottom seismic data
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Abstract

The purpose of this study was to determine the subsurface geological structures in Pohang Yeongil Bay, Korea, using ocean bottom seismic data. The study area is located in a region that has undergone tectonic movements. The seismic data were obtained using a OBS (Ocean Bottom Seismometer) system, which consists of three OBSs: WF1, EF1, and EF2. The OBSs were deployed at three different depths: 51, 76, and 101 m. The processing of the seismic data was carried out using the RTM (Reverse Time Migration) method, and the image quality was improved by applying the RTM technique. The processed seismic images showed clear geological structures, including faults, folds, and faults, which could be identified using the RTM technique. The results of this study can be used for understanding the geological history of the area and for planning future drilling and seismic surveys.

Keywords

Seismic imaging, Ocean bottom seismic, Reverse time migration, Geological structures

1. Introduction

The study area is located in a region that has undergone tectonic movements. The OBSs were deployed at three different depths: 51, 76, and 101 m. The seismic data were processed using the RTM method, and the image quality was improved by applying the RTM technique. The processed seismic images showed clear geological structures, including faults, folds, and faults, which could be identified using the RTM technique. The results of this study can be used for understanding the geological history of the area and for planning future drilling and seismic surveys.

2. Results

The processed seismic images showed clear geological structures, including faults, folds, and faults, which could be identified using the RTM technique. The results of this study can be used for understanding the geological history of the area and for planning future drilling and seismic surveys.

3. Conclusion

The results of this study can be used for understanding the geological history of the area and for planning future drilling and seismic surveys.

References
