

**13. Examinations to Promote Decomposition and Analysis Methods  
for Soil Containing Organic Matter  
- Basic Evaluation of Reuse Method for Intermediate Storage Facility Soil -**

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The soil stored in intermediate storage facilities for use as reclamation materials and the disaster sediment generated by frequent heavy rain in recent years contain many plants and other unreduced organic matter. The soils in the intermediate storage facility also include water-absorbing resins and similar materials in the soil modifying materials.

In this study, we performed several tests and analyses to assess a method for reproducing long-term changes in short timeframes, including the decomposition of organic matter in soil, and assessing the changes. The results confirmed that high temperature and high pressure treatment accelerates the deterioration of organic matter and that oxygen demand measurements and spectrum analysis are suitable for evaluating the deterioration of organic matter. The results also showed that the mixture of organic matter improves soil strength, but that this strength may degrade over the long term.

**Key words:** intermediate storage facilities, organic matter, water absorbing resin, deterioration, acceleration test, analysis, soil quality test