21...Reactor building
22...Continuous wall
WG1, WG2...Contaminated ground water
L_z...Layer of zeolite (zeolite bottom slab)

What is claimed is:

1. A method for improving ground comprising: a step of drilling a drilling hole in a ground to be improved; a step of moving a jet device in a vertical direction by rotating the same while the jet device is inserted into the drilling hole and a fluid for cutting the ground is injected from the jet device; and a step of injecting a solidification material from the jet device, wherein said step of moving the jet device in a vertical direction by rotating the same while the fluid for cutting the ground is injected from the jet device comprises: a step of cutting the ground by injecting the partition forming material; and a step of injecting a solidification material while the ground is cut by injecting the stable liquid after injecting the partition forming material.

2. The method according to claim 1, wherein the method for improving ground comprising: a step of collecting a mixture of a stable liquid discharged above the ground and a cut soil by a slurry collecting structure; and a step of carrying the slurry collected by the slurry collecting structure to a slurry treating structure and adding a decomposition enzyme from an enzyme feed source.

3. A method for improving ground comprising: a step of drilling a drilling hole in a ground to be improved; and a step of moving a jet device in a vertical direction by rotating the same while the jet device is inserted into the drilling hole and a fluid for cutting the ground is injected from the jet

device, wherein said step of moving the jet device in a vertical direction while the fluid is injected injects zeolite from the jet device.

ABSTRACT

The present invention provides a method for improving ground which is capable of improving the strength or quality of an underground consolidated body formed by reducing the ratio of water to a "rich-mixed" solidification material (a cement) (W/C), assuredly carrying the solidification material from a feed source to a jet device, and reducing the amount of the solidification material treated as an industrial waste in a construction process.

The present invention was accomplished by a method for improving ground including: a step of drilling a drilling hole (H) in a ground to be improved (G);a step of moving (pulling up) a jet device (1) in a vertical direction by rotating the same while the jet device (1) is inserted into the drilling hole(H) and a fluid for cutting the ground(G)(a stable liquid or a partition forming material) is injected from the jet device (1); and a step of injecting a solidification material from the jet device (1).

[Selected drawing] Fig. 1

[Fig. 1]

[Fig. 2]

[Fig. 3]

[Fig. 4]

[Fig. 5]

[Fig. 6]

[Fig. 7]

[Fig. 8]

[Fig. 9]

[Fig. 10]

What is claimed is:

1. A method for improving ground comprising: a step of drilling a drilling hole in a ground to be improved; a step of moving a jet device in a vertical direction by rotating the same while the jet device is inserted into the drilling hole and a fluid for cutting the ground is injected from the jet device; and a step of injecting a solidification material from the jet device, wherein said step of moving the jet device in a vertical direction by rotating the same while the fluid for cutting the ground is injected from the jet device comprises: a step of cutting the ground by injecting the partition forming material; and a step of injecting a solidification material while the ground is cut by injecting the stable liquid after injecting the partition forming material.

2. The method according to claim 1, wherein the method for improving ground comprising: a step of collecting a mixture of a stable liquid discharged above the ground and a cut soil by a slurry collecting structure; and a step of carrying the slurry collected by the slurry collecting structure to a slurry treating structure and adding a decomposition enzyme from an enzyme feed source.

3. A method for improving ground comprising: a step of drilling a drilling hole in a ground to be improved; and a step of moving a jet device in a vertical direction by rotating the same while the jet device is inserted into the drilling hole and a fluid for cutting the ground is injected from the jet device, wherein said step of moving the jet device in a vertical direction while the fluid is injected injects zeolite from the jet device.