

Keppel Merlimau Cogen Foundation Works

Jurong Island, Singapore

Using Keller's local track record, we worked closely with Alstom to demonstrate the benefits of vibro compaction to the owner.



The project

Keppel Merlimau Cogen was the first independent power project in Singapore Power market. Cogen II is their second power plant in Singapore. The plant was located in the reclaimed part of Jurong Island.

The challenge

The subsoils within the site comprised 16m to 18m of loose to medium dense sand followed by residual soils of Jurong Formation. Although ideal for the vibro compaction process, the owner was concerned with the potential effects of vibration on the existing structure.

The solution

Keller worked closely with the main contractor to demonstrate the effectiveness of the proposed method as well as providing real examples of previous projects to address their concerns. The cost effective vibro compaction solution was completed safely and on time for a total of 25,000m² supporting all structures, including the heavy turbine units. The clients commented that being to cast the slabs within 4 months of commencement was the fastest foundation work for similar structures they had ever experienced on one of their projects.

Project facts

Owner(s)

Keppel Merlimau Cogen Pte Ltd

Keller business unit(s)

Keller ASEAN

Main contractor(s)

Alstom Power Singapore Pte Ltd

Solutions

Bearing capacity / settlement control

Markets

Power

Techniques

Vibro compaction

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