

Jimah East Coal Fired Power Plant

Jimah, Negeri Sembilan, Malaysia

Keller effectively dealt with various and unexpected site challenges while successfully completing the work on time with a cost-effective, packaged solution.



The project

Keller was engaged to carry out foundation and ground improvement works at Jimah, Negeri Sembilan, Malaysia, for a new 2x1,000MW Coal Fired Power Plant.

The challenge

The site presented challenging ground conditions with a 10m thick layer of sand material followed by very soft marine clay up to 40m below ground level. This posed difficulty for the Stone Column installation as sand layer would densify during the process making it increasingly difficult to penetrate as works progressed. Work execution planning was critical as phasing of the works and methods piling areas were outspread and multiple contractors were also working in the same areas.

The solution

Keller in collaboration with Ansah Asia, carried out a range of Geotechnical solutions – Driven Spun Piling, Deep Soil Mixing, Jet Grouting and Vibro Stone Columns. Ansah Asia drove approximately 8,000 nos. Spun Piles, 40 meters deep to support various plant structures. Deep Soil Mixing and Jet Grouting columns were installed to act as temporary support for waterfront retaining wall and to facilitate deep excavation for intake pump station and box culvert. Stone Columns were installed to support the seawater intake channel rock mound jetty. Enforcement of stringent HSEQ practices, regular meetings and constant communication with the main contractors helped the team to improve the production process and to meet client's requirements on time.

Project facts

Owner(s)

Jimah East Power Sdn Bhd

Keller business unit(s)

Keller ASEAN

Main contractor(s)

Hyundai Engineering Co., Ltd., HSL Constructor Sdn. Bhd.,
Taisei Corporation Sdn. Bhd., IHI-Toshiba-Hyundai
Consortium

Solutions

Bearing capacity / settlement control

Markets

Power

Techniques

Wet soil mixing
Jet grouting
Vibro stone columns

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