INTRODUCTION
A new area was constructed in the Port of Libreville for a mineral terminal, dry dock, fishing port, processing facilities and other port activities, such as aggregate processing. This new port development was required to improve and strengthen the logistic capacity for the inland mining industry, to reduce export costs, and thus to increase the competitiveness of mineral exports from Gabon.

Boskalis International Gabon (SA) was the contractor for dredging the access channel and the vessel turning basin, and for the reclamation of the new port development area.

SCOPE OF WORK
The contract for this project was awarded in May 2015, and preparations started one month later for the first mobilization in July 2015. These activities included execution of bathymetric and topographic surveys prior to the dredging campaign, which started in August and was completed in September 2015. The reclamation works commenced in mid-November 2015 and the full project scope was completed in mid-January 2016.
The project scope encompassed:

- Dredging and relocating approximately 1.3 million m³ of unsuitable material from the new vessel turning basin, using the Trailing Suction Hopper Dredger (TSHD) Waterway. The dredged material was transported to a designated offshore disposal site, located at a sailing distance of approximately 4 km.
- Dredging and pumping ashore approximately 2.0 million m³ of sand from an offshore borrow area at approximately 30 km distance to construct a platform for stockpiles, and infrastructure for the mineral terminal and other facilities, using the TSHD Willem van Oranje.

These two special-purpose TSHDs were mobilized with sinker pipelines, floating pipelines and land pipelines of a total length of 3.8 km. The land-based equipment consisted of two large excavators, a wheel loader, and bulldozers to process the pumped sand.

CHALLENGES

The limited timeframe to execute the project. Though small volumes the job had all aspects of a complete port development which caused the different activities and logistics to follow each other quite rapidly which put additional pressure on all the interfaces. The main challenges encountered during the execution of the project were the assembly and installation of a 1.5 km long sinker line to transport the sand from the TSHD to the reclamation area, the thick layers of soft sub-soil which demanded a tailor-made approach to avoid subsoil failures and the limited timeframe to execute the project.

SAFETY PERFORMANCE

Intense tailor-made training for our local team prior to project start was instrumental in ensuring high safety performance throughout the project. The training incorporated our NINA (No Injuries, No Accidents) program. No major incidents or accidents occurred during the project.

CONCLUSION

Boskalis successfully completed the dredging and land reclamation / development work, the client was fully satisfied with our performance. The project was completed within budget and on time.