

Geophysical, Geotechnical and EIA Studies Selaata, Lebanon

EDESSA was retained by Kellogg Brown & Root (KBR) to provide the technical input for a LNG feasibility study in northern Lebanon. Based on the requirements of the project, the following different tasks were completed:

- A detailed onshore topographic survey was done for an area of 800m by 500m.
- An onshore geotechnical investigation was conducted comprising 6 boreholes drilled to a depth of 20m, and collection of samples for testing. A laboratory schedule was implemented that included sieve analysis and Atterberg limits tests for soils, and unconfined compressive strength (UCS), point load, carbonate, sulfate and chloride content tests for rocks.
- A comprehensive environmental impact assessment (EIA) of the site was conducted, addressing current baseline conditions, constructional and operational impacts, and mitigation measures.
- A marine current measuring survey was conducted taking readings at several locations over a period of one month.
- An offshore geophysical survey comprising bathymetric, side-scan, and sub-bottom profiling surveys was conducted. The objective was to evaluate the water depth, sediment thickness, and seabed features in the area, in order to determine the most feasible location for a jetty. The survey was conducted with a vessel equipped with differential global positioning system (DGPS). Based on field results, divers were sent at two locations to obtain sediment samples from the seabed.

