

PROJECT SHEET

UMM QASR JETTY 2
BASRAH, REPUBLIC OF IRAQ

BOSKALIS

Boskalis is a leading global marine contractor and services provider. With safety as our core value, we offer a wide variety of specialist activities to the oil & gas and renewables sectors. These activities include marine installation and decommissioning, seabed intervention, marine transport and services, subsea services and marine survey. In addition, Boskalis is a global dredging contractor, provides towage and terminal services across the globe and delivers marine salvage solutions.

By understanding what drives our clients we are able to provide the solutions that enable them to meet their specific business goals. For this reason we are constantly looking for new ways to broaden and optimize our offering and are committed to expanding our proposition, supported by our financial strength. With our committed professionals in engineering, project management and operations, 500 specialized vessels and an unprecedented breadth of activities in 90 countries across six continents we help our clients push boundaries and create new horizons.

INTRODUCTION

The Basrah Gas Company (BGC) Umm Qasr Marine Terminal (UQMT) is the main Iraqi Hydrocarbon Terminal, handling LPG and Oil products. BGC is a 25-year joint venture between Iraq's South Gas Company holding 51%, Shell 44% and Mitsubishi Corporation 5%. The Project site is located on the West bank of Khor Al Zubayr Waterway between Khor Al Zubayr Port and Umm Qasr Port.

BWCL (Boskalis Westminster Contracting Ltd.) has been contracted to complete the deepening of the Berth at Jetty 2, including the slopes, in order for the UQMT jetties to become accessible for larger vessels in line with contract base and subsequent additional scopes (Variation Orders for Jetty 1, 3 and MOF).

Dredging has been carried out and all dredged materials were pumped ashore in a designated disposal area on the opposite side of the Khor al Zubayr Waterway using a floating line with shore connection.

During execution of the Base Scope, the additional scope of Jetties 1 and 3, and the MOF Jetty were awarded and executed.

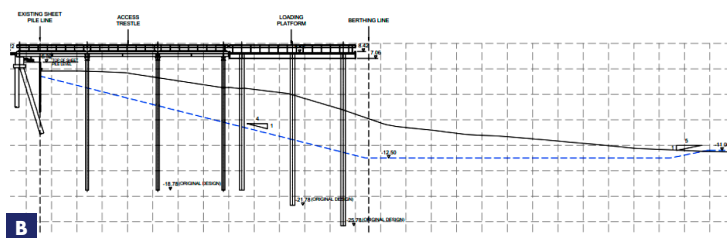
FEATURES

Client	Basrah Gas Company
Location	Basrah, Republic of Iraq
Period	February 2022 – October 2022
Contractor	Boskalis Westminster Contracting Ltd.
Type of contract	Maintenance dredging

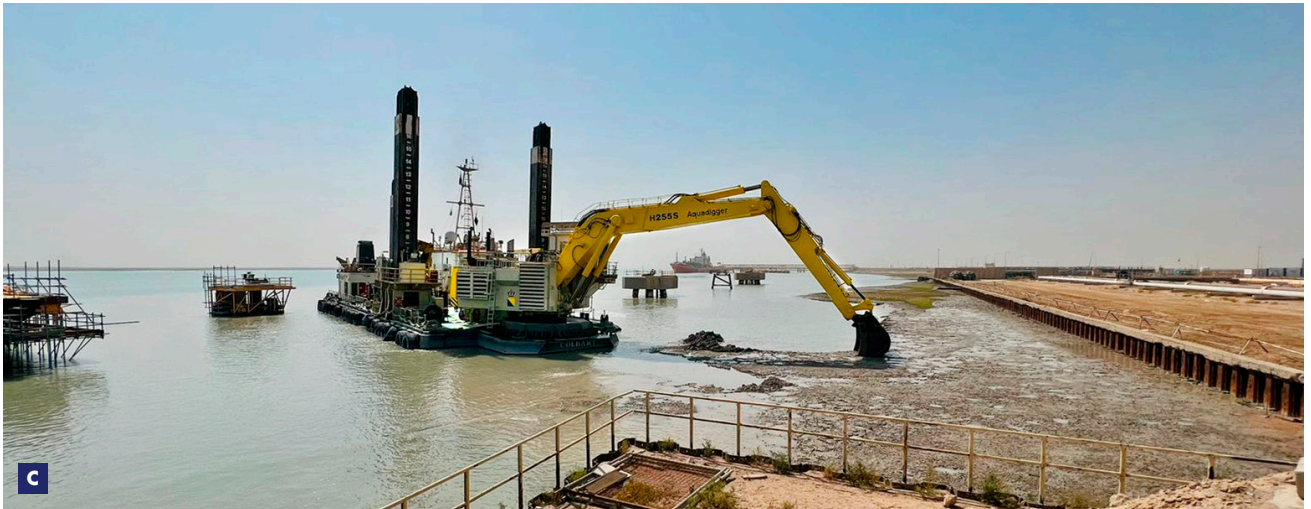


MAIN ELEMENTS OF THE BASE PROJECT SCOPE

- Dredging of Berth Pocket of Jetty 2 to dimensional depths by Trailing Suction Hopper Dredger Waterway, material pumped ashore in the designated reclamation area.
- Dredge the slopes behind the Jetty 2, by means of side cast dredging with Backhoe Dredger Colbart, material finally deposited in the Berth pocket of Jetty 2.
- Dredge the side cast slope material and finalize the design depths of Berth 2 to -12.5 m LAT by Trailing Suction Hopper Dredger Waterway, dredged material pumped ashore in the designated reclamation area.



- A** Project area
- B** Typical cross section of the berth pocket of the Jetty 2 Area - including the slope section



C

DREDGING

The dredging of the Berth Pockets and slopes on the sides of the Khor al Zubayr waterway where fast flowing currents, of up to 5 knots have been measured, was performed during the months of June and September 2022.

The slope dredging had to be executed in between the existing structures of the Jetty terminals requiring a very secure operation.

To ensure safe operations, a sophisticated alarm system was installed on the Backhoe Dredger, to advise the operating team that during the shifting operations, the pontoon could possibly come too close to the structures.

The works were executed, without any hindrance to the existing shipping, both for the UQMT terminals as well as vessels for the Khor al Zubayr (KAZ) port.

DREDGED QUANTITIES

	Tender volume	Dredged volume	Remarks
Jetty 2	171,450	300,000	Base scope
Jetty 1	-	300,000	Variation order
Jetty 3	-	20,000	Variation order
MOF Jetty	-	5,000	Variation order

- C** BHD Colbart dredging the slopes behind the berth pocket of Jetty 2
D Dredging of the Berth pocket at Jetty 2 by TSHD Waterway



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SAFETY, HEALTH, ENVIRONMENT AND QUALITY

The works were executed in the hottest period of the year, between June and September. Temperatures of more than 50 degrees Celsius were observed during the project. The Boskalis 'Beat the Heat Program' under the Heat Management Plan proved being successful in mitigating these challenging circumstances. A total of 73,200 manhours were registered with Zero LTI's and incidents.



EQUIPMENT DEPLOYED ON THE PROJECT

- Trailing Suction Hopper Dredger (TSHD) "Waterway"
- Backhoe Dredger (BHD) "Colbart"



- E** Profiled slope behind berth pocket of Jetty 2 at Low Water Spring
- F** Water sampling on the Khor al Zubayr waterway
- G** TSHD Waterway & BHD Colbart working closely together

ENVIRONMENTAL PROTECTION MEASURES

Under the approved 2017 Umm Qasr Refrigeration Project Environment, Social and Health Impact Assessment (ESHIA), Ambient and Operational TSS water samples were taken every 3 days, to ensure dredging related turbidity did not exceed the stipulated levels.

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