



FEATURES

Client	Port of Sillamäe (Silport)
Location	Sillamäe, Estonia
Execution period	June 2013 – December 2013
Main contractor	Terramare Eesti OÜ



A Trailing suction hopper dredger (TSHD) Shoalway.

B View of the Port of Sillamäe (Silport).

SCOPE

Capital dredging works for deepening of the Western basin of Sillamäe port, dredging depths varying $-12.0\text{ m} / -13.0\text{ m} / -15.5\text{ m}$.

Maintenance dredging on entrance channel, berths 1 & 2, and Eastern basin, dredging depths varying from -7.0 m to -16.5 m .

QUANTITIES

Western basin dredging	2,569,000 m ³
Maintenance dredging	133,000 m ³

MAIN PLANT

Trailing suction hopper dredger	Shoalway
Backhoe dredgers	Wodan & Koura
Self propelled barges	Cork Sand, Long Sand, Sirius, Orion, George
Plough	Lana
Tug	Jacob
Survey vessel	Norse



INTRODUCTION

The port of Sillamäe is the closest EU port to Russia with a location on the southern shore of Gulf of Finland, just 25 km from the border between EU and Russia. It is a multifunctional port handling bulk and liquid bulk cargoes, general and

ro-ro cargoes and containers. Quayside depths at the port vary from -7 m to -16 m.

The construction of the Sillamäe port commenced in September 2003 and the port became operational in October 2005. Since then the port has grown rapidly and is today the largest privately owned port within EU. The cargo volume handled in the port in 2013 was almost 7 million tons.

VERSATILE FLEET FOR THE DREDGING

Terramare Eesti OÜ and port of Sillamäe signed a contract agreement for the deepening of the Western basin in April 2013. Works under the contract commenced with a pre-dredge survey at the end of June and dredging works at the beginning of July 2013.

Dredging started with a large backhoe dredger (BHD) Wodan in the southern part of the Western basin. Next dredging unit to arrive at site was trailing suction hopper dredger (TSHD) Shoalway which concentrated dredging the softer materials on northern part of the basin. Medium size BHD Koura joined the dredging fleet in August with main task to dredge the sections in front the quaywalls and -12 m contract areas in the southern part of the basin. The material dredged consisted of different type of clays varying from very soft silty clay to very hard blue clay. TSHD Shoalway was demobilized from the site at the end of November when main volume was dredged. The final touches to clean up the areas for handing over were carried out by BHD Wodan with the assistance of plough pontoon Lana.

DISTINCTIVE ENVIRONMENTAL MONITORING

The quality control of the works was carried out by multi-beam survey equipment installed in the survey vessel Norse.

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PORT OF SILLAMÄE, ESTONIA

SILLAMÄE WESTERN BASIN DREDGING



Contractually the environmental monitoring of the works was the responsibility of the client and was carried out by Tartu University. Since a confined storage area of nuclear and chemical waste is located near the works the possible effect on radiation was studied during the works. Two external consulting companies, Ökosil from Estonia and NRG from the Netherlands were contracted to carry out radiation survey and measurements on dredged material and in the dredging area.

In addition to capital dredging works maintenance dredging at the entrance channel, oil berths 1 and 2 and the Eastern basin was carried out by TSHD Shoalway, BHD Wodan and Plough Lana.

Dredging works on the project were completed on time on 12th December and post-dredge survey on 15th December 2013.

C Backhoe dredger Wodan in the basin.

D Self propelled barges Long Sand and Cork Sand.