

HEIMDALL
TERMINALS

Crude oil cavern

February, 2023

- *Strictly private & Confidential* -

SCANDINAVIAN TANK STORAGE

In collaboration with



Terminal and port overview – *Kristinestad Finland*

Cordinates:

- **Latitude:** 62.266667 |
- **Longitude:** 21.350000

Terminal Director

- ❖ Kimmo Lankinen

Port operator

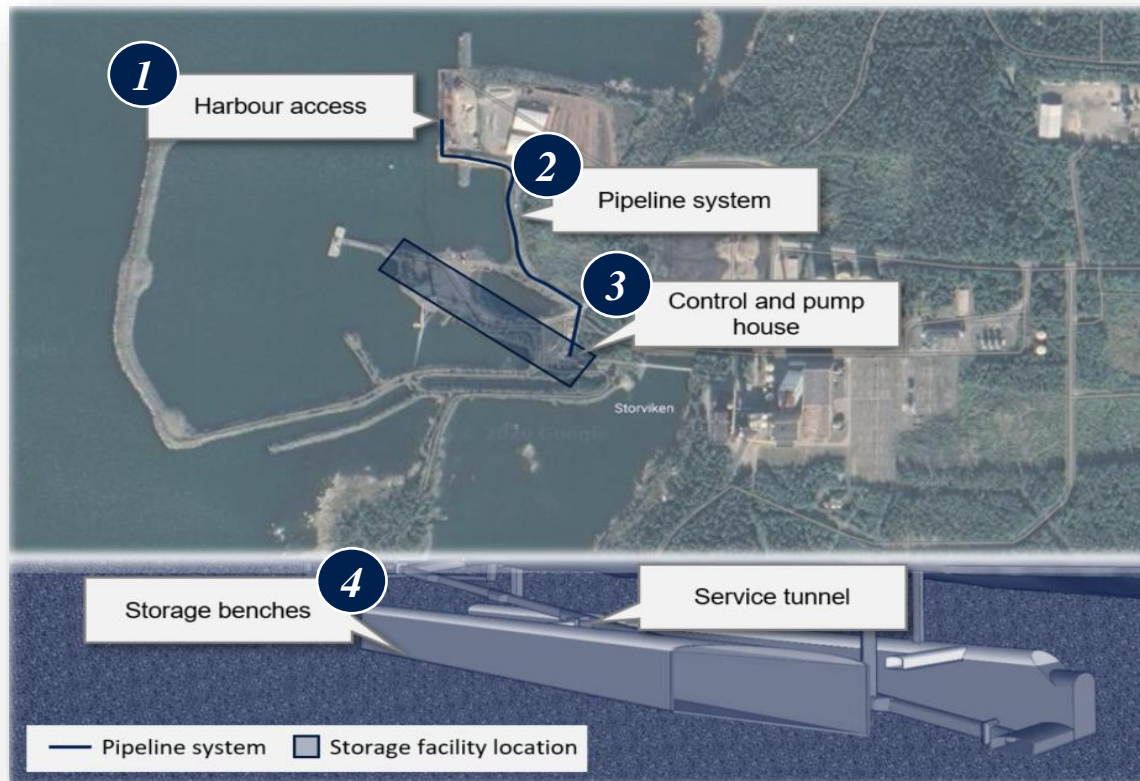
- ❖ Heimdall Terminals

Port owner

- ❖ Pohjolan Voima Oy

Operation support

- ❖ Scandinavian Tank Storage



Key facility metrics

1	Max Beem	Max Draft	Max LOA
	40 m	12 m	190 m

2	Pipeline system
	<i>~500 meters of pipeline</i>

3	Pump capacity
	<i>1,600 m³ per hour</i>

4	Net crude loading capacity
	<i>Up to 340,000 m³</i>

Terminal ready for utilization within 60 days after signing

Agreements

 Approved  In process

Above ground land lease

Heimdall Terminals has an agreement on right to use ~2,250m² above the underground storage



Harbour right of use agreement

Agreement allowing Heimdall to access the port facilities by the cavern



Land lease and construction approval

Agreement allowing for construction of ~500 meters of pipeline. Valid for 30 years with an option to extend



Marketing agreement with STS

Agreement with STS on assistance to rent out the facilities. See further details on page 3



Licences

Environmental license - *Crude oil - yes / Diesel/Gasoil license - can be discussed*

An environmental impact statement regarding the environmental impact of Heimdall operations

Permitted



The Finnish Safety and Chemicals Agency («Tukes»)

Tukes require installations and operations to comply with regulations for operators storing chemical products

Permitted

Final inspection Jan/Feb 2023



Customs clearance

Crude oil storage facilities in Finland needs to comply with restrictions from the local tax authorities. Heimdall Terminals is in the process of applying for the license

In Process

Custom Guarantee to be issued in
March 2023



Operating partner | Scandinavian Tank Storage

Full-service storage company throughout the Nordic region supporting Heimdall Terminals

Scandinavian Tank Storage in brief

- Scandinavian Tank Storage, privately owned, independent storage company for bio and petroleum-based products established in 1993
- A proven vendor for crude oil, petroleum and renewables storage, allowing their partners to seamlessly focus on facility operation.
- Management with 20 years experience from oil and petroleum storage and trading, day-to-day involvement with customers, has proven a successful process finding long-term clients



STS contributing with unique operating experience

Oversee final stage of commissioning

As part of the agreement with STS, one project manager from STS will full-time contribute to overlooking the construction and development of the rock cavern for Heimdall Terminals

This individual will contribute with more than 20 years of similar operations and substantially de-risks the construction and development process



Highly experience

STS has long term experience of handling contracts and negotiations with clients and trustful reputation in the market.



Marketing & operational partner

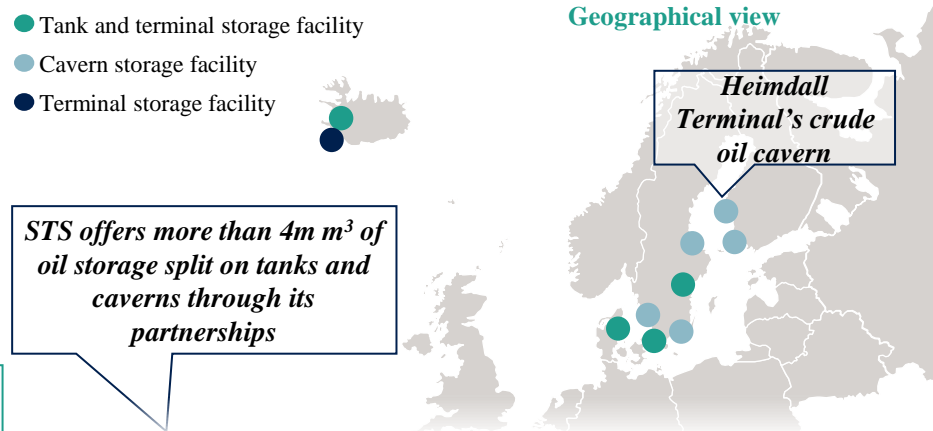
The agreement with STS reduces the operational risk through predetermined contracts, a fixed set of procedures for subsequent events.



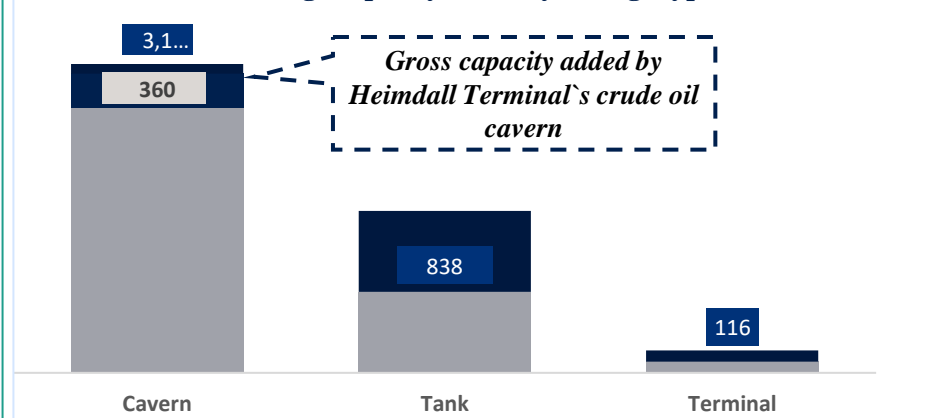
Overview of cavern and tank storage facilities

- Tank and terminal storage facility
- Cavern storage facility
- Terminal storage facility

Geographical view

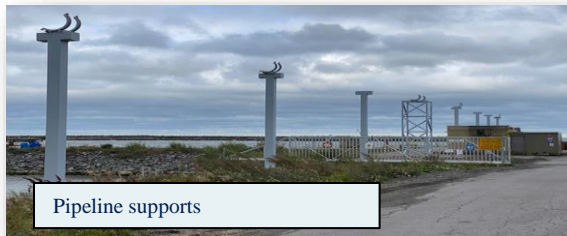


STS storage capacity (km³) by storage type



Project development and pictures

- The top-level valves have been removed for operational purposes
- Emptying the service tunnel of water
- The cooling water tunnels have been segregated by concrete plugs from access tunnel to enable simultaneous work in the cavern and cooling for the power plant
- The caverns have been emptied of water and old oil.
- Injection (sealing of leaks)
- Cleaning of the caverns roof and walls
- Order of product and leak water pumps
- Demolishing the pump rom
- Delivery of leak water pumps
- Finishing of the product pipeline
- Cleaning, painting and upgrades in the pump room
- Construction/upgrading of the service entrances into the caverns
- Installations of protection pipes and instruments
- Installation of leak water pumps
- Wastewater tank & system installed at port
- New surface and general upgrades at port



Pipeline supports



Maintenance tunnel



Inside cavern



Opening of service tunnels



New pipeline constructed



Pump room during renovation



Removal of the old product

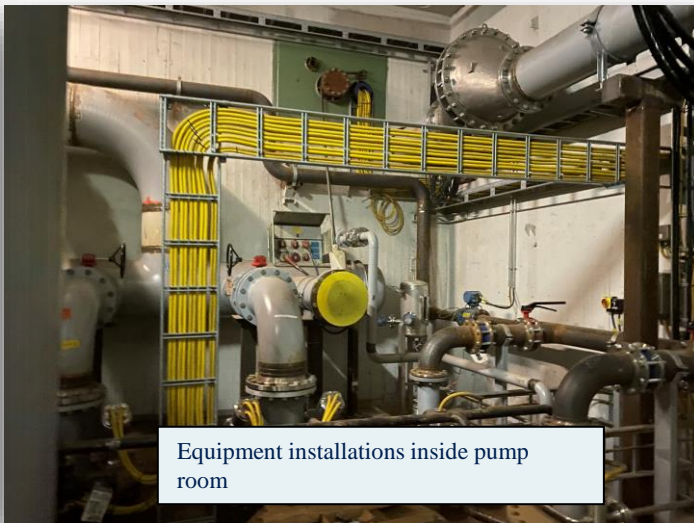


Inside cavern

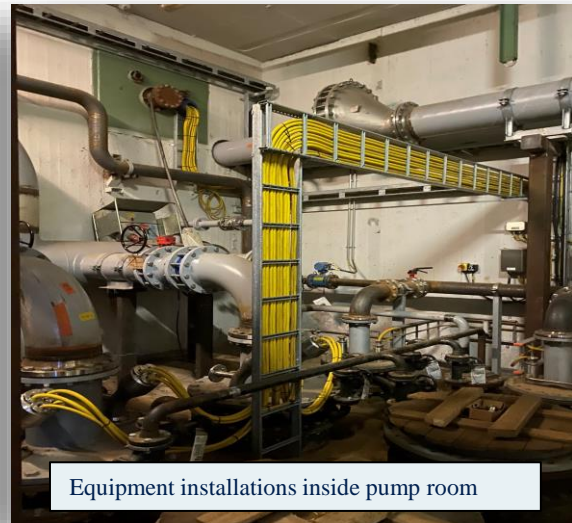
Project development and pictures



Equipment installations inside pump room



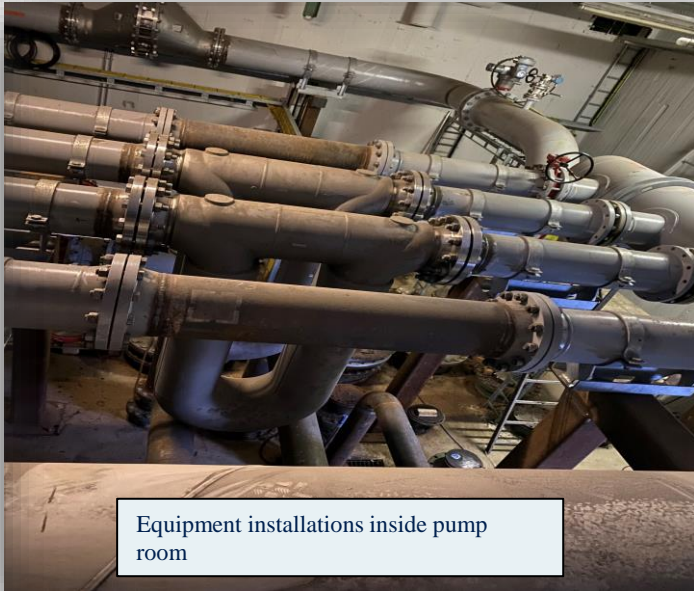
Equipment installations inside pump room



Equipment installations inside pump room



Electric connections cabinets installations inside Electrical room

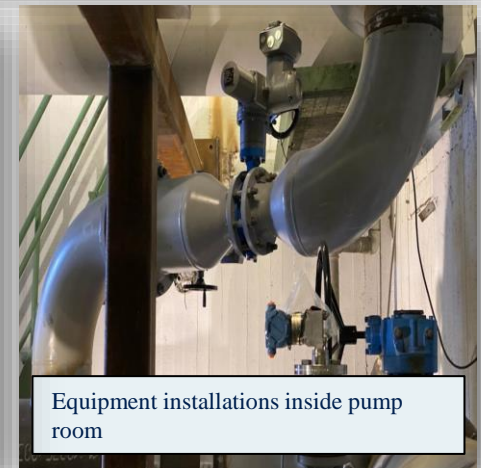
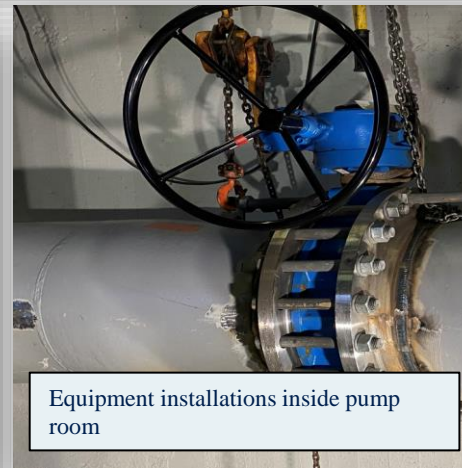
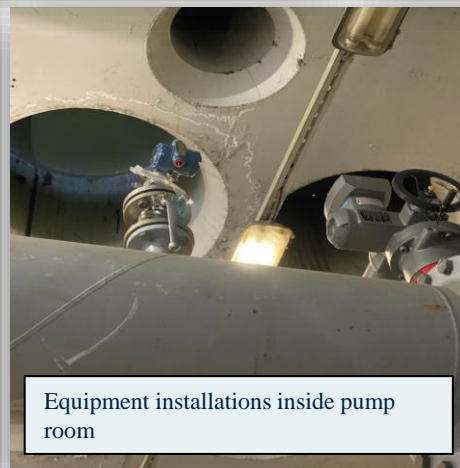
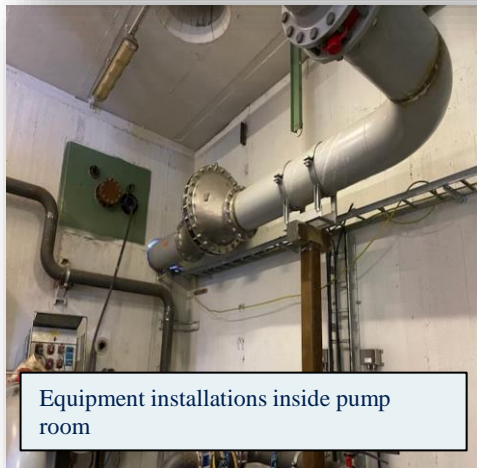
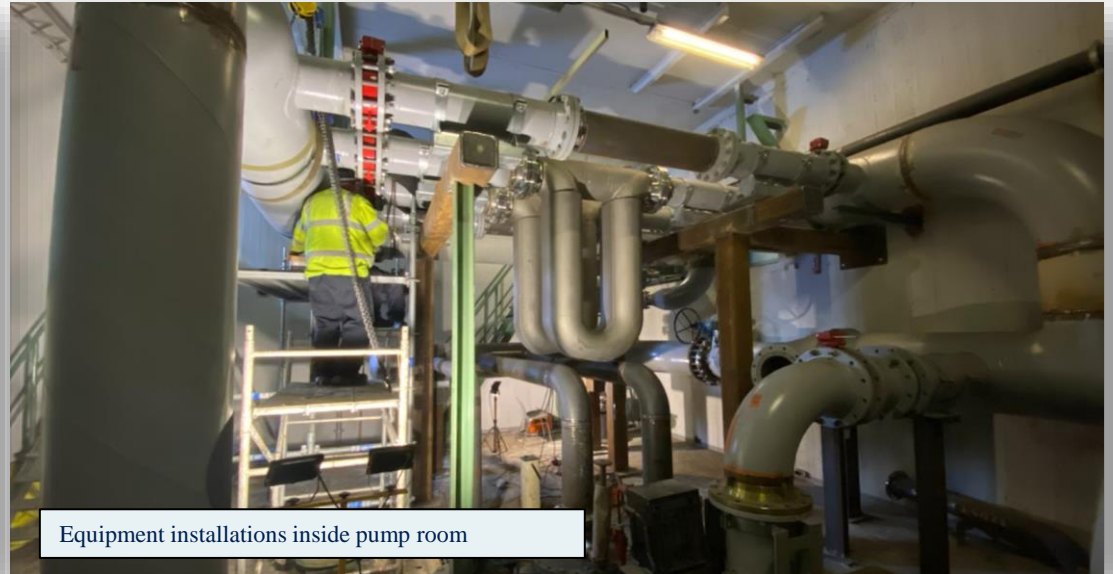
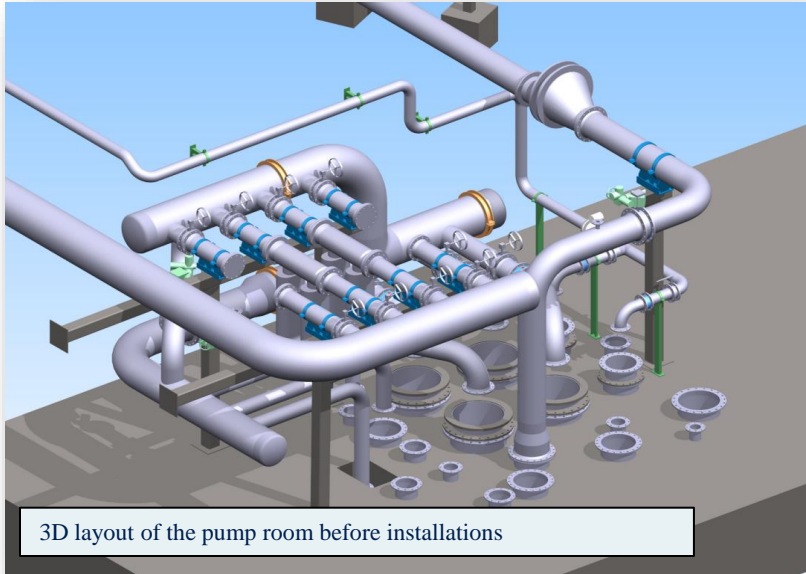


Equipment installations inside pump room



VRU- Tower

Project development and pictures



Project development and pictures



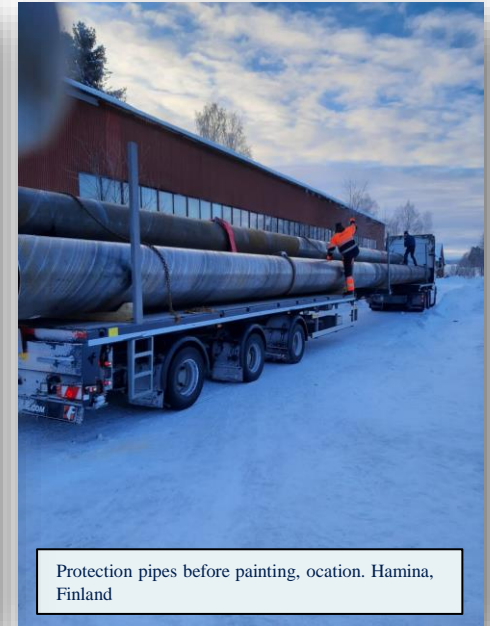
Final parts of the pipeline is being welded and installed at the quay



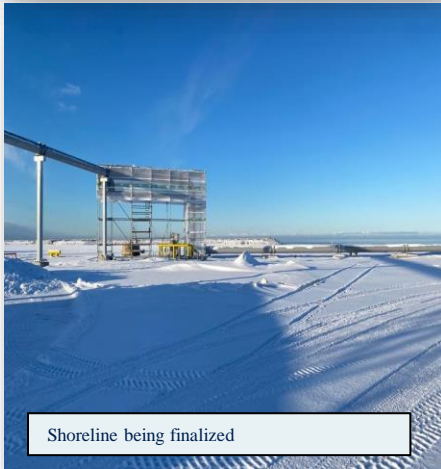
Pressure test at Kramp, Kamara & Bärmann GmbH, Frankfurt, Germany



Pump room before installations



Protection pipes before painting, location Hamina, Finland



Shoreline being finalized



Shipments from Kramp, Kamara & Bärmann GmbH, Frankfurt, Germany to be sent to Heimdall Terminal storage

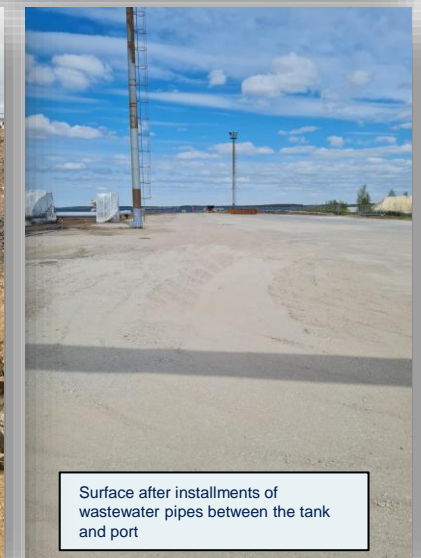
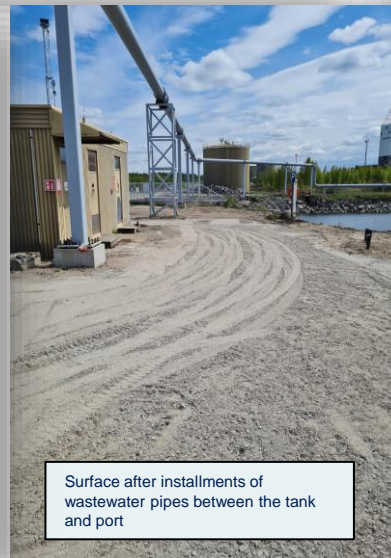
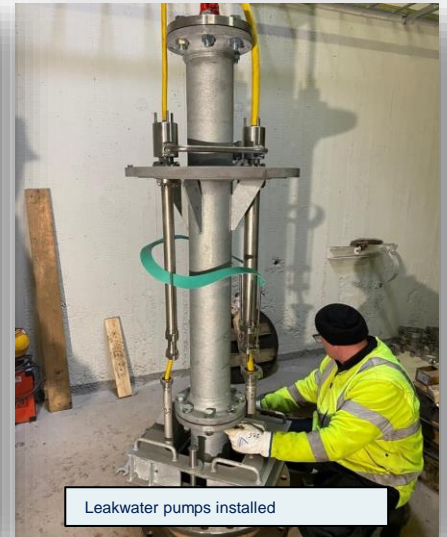
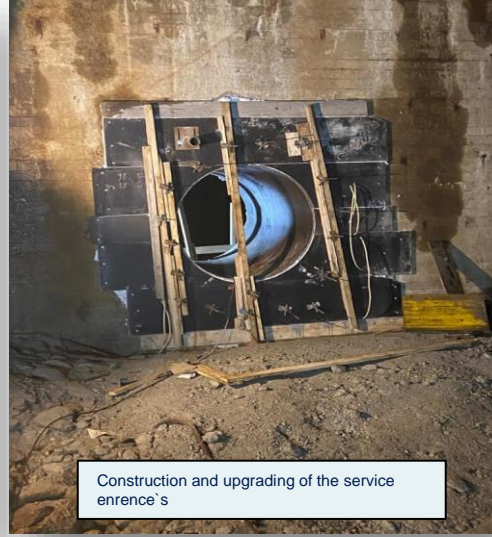


Final pipeline installations at the jetty



Construction and upgrading of the service entrance's

Project development and pictures



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