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**OFF-LOADING  
LARGE VESSEL**

Considering the high risks inherent to this operation, a lifting plan is prepared in advance and HSE controls are put in place.



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**PIPE RACKS**

On similar facilities, pipe racks and their foundations represent a tangible part of the works.

Here the foundations are of isolated type and are cast in-situ.

The racks are made of structural steel.

They could have been also made from precast concrete frames.

◀ **GRP PIPES**

A critical operation in GRP pipework is the lamination and pre-forming of fittings such as bends and tees.

This work is done in a covered workshop.

**ISOLATED FOOTINGS**

Isolated reinforced concrete footings are aligned to carry piperack supports.

Holding down bolts are positioned and stud columns cast in order to embed and cover the bolts.



**NGL EXTRACTION UNIT - FAHUD**

The Oman Oil Company, one of the government's major investments and development arm decided to build the Liwa Plastic project in Sohar Industrial Port.

Four packages were awarded.

GS Engineering and Construction were given the NGL extraction Unit in Fahud.

Sarooj were entrusted with the enabling works in terms of on-plot cut and fill, perimeter road and security fence.

Our scope consists of the foundation works and underground pipework.

About half a million cubic meters of various borrow and excavated materials were moved.

Twenty thousand cubic meters of reinforced concrete have been poured in piperack supports, machine foundations, retaining walls, pits and manholes.

GRP pipes were laminated in an enclosed shed before they were laid in trenches.

An internal asphalt road network serves the various plant areas.

It is to be noted that during 2018, Sarooj were ahead of programme in the delivery of their SOW (Scope of Work).

**CAREFUL CONCRETING**

It is of prime importance that the anchor bolts do not move during concreting and are well covered with concrete.

Extra care and continuous monitoring should be exercised during the placing of the wet mix.

