

PROJECT SHEET

OLERO CREEK RESTORATION PROJECT REFURBISHMENT OF THE NORTH WATER STATION

INTRODUCTION

In October 2010 Chevron Nigeria Limited (CNL) awarded the Olero Creek Restoration (OCR) contract to Saipem Contracting Nigeria Limited (SCNL) with Nigerian Westminster Dredging and Marine Limited (NWDM) as subcontractor.

The Olero Creek facilities are located in the Olero Creek Field in OML-49 lease and consist of:

- The North Flow Station (NFS), including production separation and oil shipping
- The North Water Station (NWS), including water treating and injection
- The North Compression Station (NCS), including gas compression and dehydration
- Quarters and Utilities Station (QUS), including accommodation, power generation and utilities

These four gravity-based concrete barges are connected by Interconnecting Piping (ICP) along a bridge. The North Flow Station (NFS) together with a temporary production system called the Benin River Flow Station is transporting oil and water from Olero Creek to the CNL facilities at Escravos.

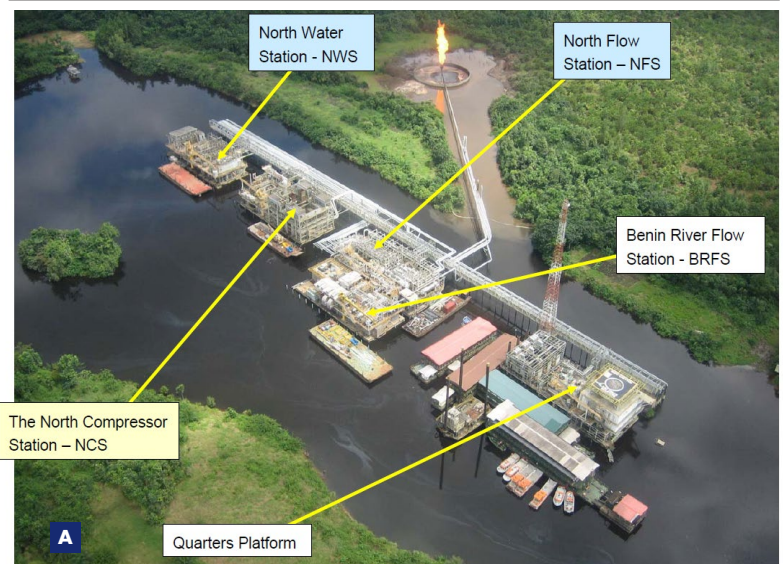
The Olero Creek facilities were vandalised during a period of civil unrest in 2003 and further deteriorated the years thereafter.

The subject contract covered the refurbishment of the North Flow Station (NFS) and the North Water Station (NWS).



FEATURES

Client	Chevron Nigeria Limited
Location	Olero Creek and Warri, Delta State, Nigeria
Period	2010 - 2012
Main contractor	Saipem Contracting Nigeria Limited
Sub contractor	Nigerian Westminster Dredging & Marine Limited



NWDM GENERAL SCOPE OF WORK

The NWDM scope of work consisted of the refurbishment of existing equipment and installation of new equipment on the North Water Station (NWS) at the NWDM Merogun yard in Warri and the transportation, installation, hook-up, commissioning and start-up at the Olero Creek location on completion of the refurbishment works. The NWS is a concrete gravity based barge with dimension 51.92m x 24.44m x 4.27m. The barge arrived at the NWDM yard in December 2010.

NWS REFURBISHMENT

The NWS Refurbishment Works consisted in more detail of the following activities:

- Transport and installation of company supplied materials civil works
- Installation of structural steel
- Removal of old pedestal crane and installation of a new pedestal crane
- Installation of generator shelter building
- Fabrication and installation of piping spool
- Installation of piping, valves and other specialty piping items
- Installation of electrical and instrumentation
- Transport and installation of the electrical equipment room (EER)

- A** The Olero Creek facilities
- B** The NWS on arrival at the NWDM yard in Warri
- C** NWDM yard facilities

REINSTALLATION OF NWS AT OLERO CREEK

When the refurbishment of the NWS was near completion, the barge was towed out from the NWDM yard on 29 March 2012 and arrived at the Olero Creek location on 1 April 2012.

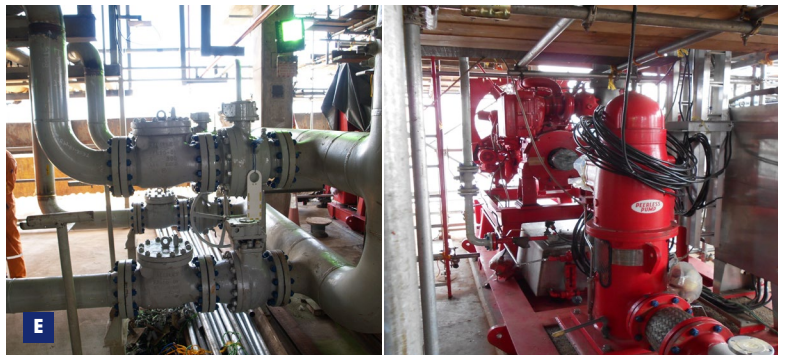
Before reinstallation of the NWS Barge at its original location at Olero Creek, the foundation sand pad had to be repaired. Also the barge slot and access to the slot had to be dredged to remove the silt and provide enough draft for the NWS to re-enter the Olero Creek location.

Immediately upon arrival the NWS barge was repositioned on the sand pad for the finalisation of construction works, hook-up of the bridge, electrical and instrumentation and piping works. After successful testing and Commissioning the NWS was handed over to CNL for Mechanical Acceptance in September 2012.

SHE-Q

The works were executed to the highest levels of Quality Assurance/Quality Control. Furthermore and with compliments to the Project Management Team, we are proud to mention that the project was completed without any Lost Time Injury (LTI) during the execution of the works on a total of nearly 1.9 million man-hours.

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- D** NWS barge near completion
- E** Various piping works, valves, pumps, etc.
- F** Installation new pedestal crane
- G** Arrival NWS barge at Olero Creek

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