

Escravos to Warri River Crossing

Nigerian National Petroleum Corporation (NNPC)



In November 1996, NNPC awarded Willbros a contract for engineering, procurement, construction, pre-commissioning, field services, and start-up of a 2-km (1.2-mile), 24-inch crude oil pipeline bypass across the Escravos River from swamp conditions on both banks. The scope included coal tar enamel and concrete pipe coating, dredging the river bed, welding the river section, pulling the section, backfilling, and equipping the platforms with cathodic protection, valve settings, launchers, and receivers on both sides of the river.

The Escravos to Warri Pipeline carries crude from the NNPC/Chevron Escravos Terminal to refineries at Warri and Kaduna. The pipeline, which was constructed in 1978, had not been the subject of a pig inspection since 1984. A survey of the Escravos River led to the discovery that approximately 213 m (700 feet) of the pipeline across the river had been exposed by river bed scour to about 8 to 9 m (25 to 30 feet) above the bed. Willbros was contracted to install a bypass so that the flow would be uninterrupted by subsequent repair.

The new bypass pipeline was tied-in utilizing hot taps and stopples to stop the flow. After tie-in of the new pipe was complete, the flow was diverted into the new bypass line. The existing pipeline was then repaired using a series of underwater piled pipeline supports across the channel of the river.

The Escravos River is a main shipping channel route with a depth of up to 30 m (98 feet) at the crossing location.

The project was completed in June 1996.

*Project Award
November 1996*

*Project Completion
June 1996*

Nigeria

