

69 WAV LTD / CHEVRON

EGP3A ESCRAVOS PROJECT (NIGERIA)



SEA PROJECT N. 1179

69 WAV Ltd / CHEVRON – EGP3A ESCRAVOS PROJECT (NIGERIA)

1 General project Overview and Reference



Overview of shore approach area

CHEVRON NIGERIA LIMITED (CNL) awarded West African Ventures Limited (WAV) the Contract of continuing with the outstanding work scope to complete the 24" x 23.62km EGTL – PLEM Export pipeline system.

During the previous pipe-laying campaign, two separate sections of the Export pipeline were laid.

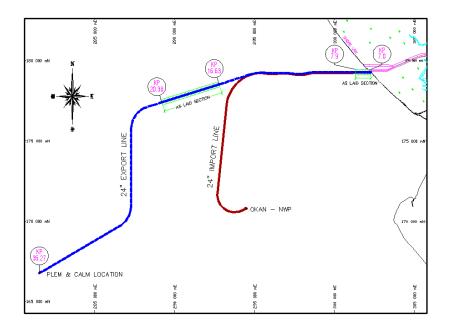
A beach pull was initiated from KP 7.0, the shoreline, and was laid down at KP 7.9. An offshore section was initiated from KP 16.63 and laid down at KP20.38.

The remaining overall scope of work consists of the following:

- Post Lay Burial of the Import pipeline from KP 7.194, the shoreline, to KP 14.0, running parallel to the export pipeline route.
- Pipe lay of the remaining section of the 24" Export pipeline from KP 7.9 to KP 16.68, approximately 8.9km Shallow water section.
- Subsea midline tie-in of the already-laid Export pipeline to the newly laid pipeline section at KP 16.8.
- Pipe lay of the remaining section of the 24" Export pipeline from the location of PLEM at KP 35.27 to KP16.8, approximately 18.47km Deep water section.
- Complete installation of a PLEM and CALM buoy system, including mooring chains, subsea hoses, floating hose and mooring hawser.
- Pre-commissioning of the entire Export pipeline system.



The figure below reflects the current status of the remaining scope of work for the 24" export pipeline and shows the 24" import line route:



2 Scope of work

SEA S.r.I. (SEA) was subcontracted by WEST AFRICAN VENTURES (WAV) to perform the post-trenching operations along the following two route sections:

- Post-lay burial trial which will involve approx. 150m per machine for the Export pipeline, from KP 16.630 to KP 20.380 (Trial Section);
- Post lay burial of the Import pipeline from KP 7.194, the shoreline, to KP 14.000;

The requested burial depth of the pipelines was 1.0 m to Top of Pipe below the natural seabed or 3m to Top of Pipe below the Mean Water Level (MWL), whichever is greater.

Two trenching spreads (LEO PTM and COMBO PTM) were used to carry out the trenching works in order to complete the requested SOW in the shortest time.

Both machines were installed onboard of different TSVs (ROSSANA and one vessel provided by WAV).

Trimaran Rossana modular BARGE was used as TSV.

SEA TRIAL ON 24" EXPORT LINE - 150 METERS



Product	Zone	Between KP	Between KP	M (each PTM)	Burial Depth TOP (m)	Depth of Cut (BOT-m)	From WD (m)	To WD
24" EXPORT PIPELINE	Trial Section	16,630	20,380	150	1	1.77	-6	-10

POST-TRENCHING 24" IMPORT LINE - 6.806 METERS

Product	Zone	From KP	To KP	m	Burial Depth TOP (m)	Depth of Cut (BOT-m)	From WD (m)	To WD (m)
24" IMPORT PIPELINE	Shallow Water Section	7,194	10,650	3,456	1	1.71	-1	-3
	Deep Water Section	10,650	14,000	3,350	1	1.71	-3	-5

3 Encountered soil condition

On the basis of Chevron report describing the pre-lay survey carried out along both of the routes from PLEM locations to shore, the stratigraphy indicated the presence of 2 geological Units: Unit A and Unit B.

Unit A is considered to comprise predominantly of silty clay with some organic peat material.

The sand becomes coarser as you approach the shore.

Unit A varies in thickness from 4.0m-8.0m.

Unit B lies directly below Unit A. Unit B is considered to comprise predominantly of sand

clay and the soil are older and denser than Unit A.



4 Photos at worksite





Rossana Trimaran shallow water barge equipped with A-frame



LEO PTM onboard of Rossana Trimaran



COMBO PTM onboard of Martin-P Vessel

5 Reference

Claudia Pasi Sea Srl

Oggetto:

I: R: Milestone reached on the EGP3A Pipe Line Project - Import Gas Pipe Line is now trenched, 02:20hrs on 11.12.12

Da: Bengt Bengtsson

Inviato: martedì 11 dicembre 2012 2.56

Oggetto: Milestone reached on the EGP3A Pipe Line Project - Import Gas Pipe Line is now trenched, 02:20hrs on

11.12.12

To All;

It is with pleasure and a great relief, that I can say thank you to all, that participated in the completion of the trenching job on the Import Gas Pipe Line.

Well done, and Safe!

Thanks to Chevron for working with WAV and Subcontractors on this task, **Thank you SEA** for cutting the "ditch", Thank you ADS and all Divers, Thanks to all Tugs – Martine P, Puffin Island, Eileen M, Julius Berger Tugs, + all support boats, Thank you Jascon 8 and Crew, Thank you all WAV personnel, Thank you GOSL Survey, Thank you LCC and Thank you Onne Fabrication Yard, and everybody else – nobody forgotten!!!!!!

Now I can just say:

To Chevron; TURN ON THE GAS (once MP is 500m away, last dive survey done and site safe and clear)

To WAV: LET'S GET JASCON 2 READY TO LAY THE EXPORT LINE!!!

Special Thanks to: Captain Marco for holding it all together, Damian and Peter for never giving up!!!!!

Note: Pls pass on thank you onwards, since I for sure left some addresses out.

Best Regards,

Bengt Bengtsson

Sr.Project Manager



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