UPSTREAM ENGINEERING FEED ENGINEERING LIST OF EXPERIENCE

CLIENT	PROJECT NAME	DESCRIPTION	SCOPE
EXMAR/First E & P	Anyala and Madu	Natural Gas	Nigeria, West Africa, OML 83/85, 300' W.D. 350 MMSCFD Central Gas Processing Platform (with future expansion to 1.0 BCFD) field development and pipelines. Pre-Feed/Concept Select study included alternate Gas Processing methods and support base options – Fixed structure; FPSO; MOPU, FSO Conventional Central Production Platform Evaluated gas processing options, developed CAPEX and Schedules
Lekoil	OGO Development	Condensate and Natural Gas	Nigeria, West Africa, OPL 310, 300' W.D. 30,000 BOPD/100 MMSCFD field development. Pre-Feed/Concept Select study included alternate development options vs. FPSO; MOPU, FSO, Conventional Central Production Platform, Self-Installing Production Platform.
NewAge (African Global Energy) Ltd	Etinde	Condensate and Natural Gas	Cameroon, West Africa, 200' W.D. field development. Pre-Feed/Concept Select study included alternate development options vs. FPSO; MOPU, FSO, Conventional Central Production Platform, Self-Installing Production Platform.
EOG Resources, Trinidad	Sercan	Natural Gas Production	Trinidad, 340' W.D. field development. The study consisted of evaluating wellhead platform, drilling/production platform and drilling wellhead platform and pipeline. Activities included concept selection, installed cost estimates, project schedules for concepts being considered.
Afren Resources	Okwok	Crude Oil Production	Nigeria, Offshore shallow water field development. The FEL study included the concept select stage. Activities included: concept evaluation, preparation of installed cost estimates, scheduling, CAPEX, OPEX, Development concepts evaluated included; wellhead platforms, MOPU, FPSO, drilling/production platforms, FSO and pipelines.

UPSTREAM ENGINEERING FEED ENGINEERING LIST OF EXPERIENCE

CLIENT	PROJECT NAME	DESCRIPTION	SCOPE
Afren Resources	Okoro	Crude Oil Production	Nigeria, Offshore shallow water field development. The FEL study included the concept select stage. Activities included: concept evaluation, preparation of installed cost estimates, scheduling, CAPEX, OPEX, Development concepts evaluated included; wellhead platforms, MOPU, FPSO, drilling/production
Arup/Husky	WHRCAD	Crude Oil Production	platforms, FSO and pipelines. Offshore New Foundland. The study consisted of providing conceptual and pre-feed engineering for drilling wellhead platform topsides to be installed on a concrete gravity based structure. Topsides weight = 12,000 tons.
PEMEX Exploration and Production	Ribereno	Crude Oil Production	Bay of Campeche, Near shore, shallow wáter field development. The FEL study included the Appraise Stage and Concept Select Stage. Activities included: concept evaluation, preparation of installed cost estimates, CAPEX, OPEX, economic evaluation NPV, ROI, etc. Development concepts evaluated included; wellhead platforms, SeaHorse platforms, production platforms, drilling platforms, concrete platforms and pipelines.
PEMEX Exploration and Production	Ayin-Alux-Xulum	Crude Oil Production	Bay of Campeche Offshore field development. The FEL study included the Appraise Stage and Concept Select Stage. Activities included: concept evaluation, preparation of installed cost estimates, CAPEX, OPEX, economic evaluation NPV, ROI, etc. Development concepts evaluated included; wellhead platforms, SeaHorse platforms, production platforms, drilling/production platforms, FPSO, subsea trees and pipelines.
Chevron CABGOC	CRX/Congo River Crossing	Crude Oil Transportation	Concept Selection, Pre-Feed, FEED and EPCI Bid Package development for Two Four Pile Pipeline Pigging Platforms for the Congo River Pipeline Crossing. Topsides included 22" pig receiver and (3) 12" pig launchers.
Contour Global	Lake KIVUWATT	Natural Gas Production and Power Generation	Lake Kivu, Congo. Pre-FEED study to evaluate process design for gas extraction and water handling/treatment options based on floating system, process design, compression and pipelines.

UPSTREAM ENGINEERING FEED ENGINEERING LIST OF EXPERIENCE

CLIENT	PROJECT NAME	DESCRIPTION	SCOPE
Transworld E & P	Tui Project	Crude Oil Production	New Zealand Offshore field development. The FEL study included the Concept Select Stage.Activities included: concept evaluation, preparation of installed cost estimates, CAPEX, OPEX, economic evaluation NPV, ROI, etc. Converted Jack-Up MOPU plus Pipeline to FPSO. Platform plus workover rig and pipeline to FPSO. Remote Subsea Tie-Back to FPSO. Concrete Gravity Base Structure (GBS) and CALM buoy. Subsea Wells and Leased FPSO. Platform Plus Leased FSO.