2016 – On going

Vessel Name: **KAOMBO**
Vessel type: FPSO
Shipyard: GPC Abu Dhabi & Sembawang Shipyard

*Our scope of work:*

Scope #1:
Engineering consultancy (Naval architecture / Structural engineering) for turret loadout operation.

Scope #2:
Engineering consultancy Structural design verification – FPSO hulls, topsides structures, turret, mooring & weight control.

---

2016 – On going

Vessel Name: **UniMopu**
Vessel type: production jack-up
Shipyard: TBD

*Our scope of work:*

Conceptual & basic design of the self-installing platform.

Preparation of a complete technical package and manage tender to shipyards for construction of the platform and integration of top sides.
### 2015

**Vessel Name:** MPJ 328 Buffalo Class  
**Vessel type:** Multi-purpose self propelled self-elevating unit (Liftboat)

**Our scope of work:**

“in House” Basic Design Package (Global strength, leg design, main scantling, stability, general arrangement, accommodations)

### 2015

**Vessel Name:** Triumph 109  
**Vessel type:** Tender assist drilling barge

**Our scope of work:**

Engineering services: Stability and lifting analysis for DES rig up.
2014 / 2015

Vessel Name: TD7000
Vessel type: Ultra deepwater compact drillship – New Build

Our scope of work:

Complete “in House” Basic Design Package (Structure, stability, hydrodynamics, general arrangement, accommodations, drilling systems)

Development of constructions specification.

Enquiries for main equipment. Cost analysis.

2014

Vessel Name: ICHTHYS - FPSO
Vessel type: FPSO
Shipyard: Keppel Shipyard

Our scope of work:

LOWER TURRET SKIDDING OPERATION

Engineering consultancy for loadout operation (Naval architecture / Structural engineering)
2013 / 2015 Customer: **Mena Offshore Investments Ltd**

**Vessel Name:** Explorer I  
**Vessel type:** Jack-Up Drilling Rig (LeTourneau Super 116E)  
**Shipyard:** YZJ Offshore (Shanghai)

**Our scope of work:**

Review and adjustments to Construction Specifications before signature with builder.

Ower Representative & technical adviser during engineering and procurement phase. Multi-disciplinary team provided:
- Rearrangement of hull tanks
- Conceptual arrangements of shaker house, drill floor, cantilever, helideck, living quarters, Mud mix room and other various areas.
- Assist / advise Builder for design of all rig systems (piping, HVAC, electrical)
- Assist Builder for drilling equipment selection.
- Review and approval of all purchased equipment.
- Review and approval of all detail design drawings.

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2012 Customer: **GSP Offshore— Grup Servicii Petroliere**

**Vessel Name:** GSP Venus  
**Vessel type:** Ultra Deepwater Drillship – New Build  
**Shipyard:** TBD

**Our scope of work:**

Review of contractual construction specifications and clarification meeting with potential builder.
2012  
Customer: Triumph Drilling

Vessel Name: Triumph 109 (Ex Searex 9)  
Vessel type: Tender assist drilling barge  
Shipyard: ST Marine, Singapore

Our scope of work:

- Complete Basic Design Package for jumboisation project.
  - Conceptual design, including hull resizing, new shape.
  - Structural design hull and heavy lift crane pedestal
  - Motion analysis
  - Mooring analysis
  - Strength and various FEA analysis.
  - Deck layout with D.E.S.
  - D.E.S. lifting studies.
  - Anti-heel fast ballasting system and associated piping

All classed approved by ABS.
Marine operation manual update.

2010/2012  
Customer: Sungin Geotec (Posco Plantec)

Vessel Name: KJU Tiger Class  
Vessel type: Jack-up Drilling rig – New Build  
Shipyard: Sungin Geotec

Our scope of work:

- Complete “in House” Basic Design Package,
- Complete set of construction specifications,
- Obtained design class approval,
- Detail equipment specifications,
- RFQs for long lead items.
2012  
Customer: Transocean

Vessel Name: **Actina**
Vessel type: Semisubmersible drilling unit
Shipyard: Sembawang shipyard for modification

**Our scope of work:**
Performed survey onboard the vessel. Designed complete rearrangement of the mud treatment system

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2010/2011  
Customer: Marina Technology and Construction

**Project Name:** Floating hotel structures, Marina bay, Singapore

**Our scope of work:**
Complete basic and detail design package for hull and superstructures
## 2010

**Customer:** Pacific Drilling Inc.

<table>
<thead>
<tr>
<th>Vessel Name</th>
<th>Pacific Bora</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vessel type</td>
<td>New ultra deepwater drillship</td>
</tr>
<tr>
<td>Shipyard</td>
<td>Samsung Heavy Industry</td>
</tr>
</tbody>
</table>

**Our scope of work:**

1. Engineering support & project management: post delivery modifications and improvements.
2. Participation in the Hazop session.

## 2009/2010

<table>
<thead>
<tr>
<th>Vessel Name</th>
<th>Tropical Driller</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vessel type</td>
<td>Ultra deepwater compact drillship – New Built</td>
</tr>
<tr>
<td>Shipyard</td>
<td>TBD</td>
</tr>
</tbody>
</table>

**Our scope of work:**

Complete “in House” Basic Design Package (Structure, stability, hydrodynamics, general arrangement, accommodations, drilling systems)
2009  
Customer: **Songa Offshore**

**Vessel Name:** Songa Mercur  
**Vessel type:** Existing Semi-submersible  
**Shipyards:** N/A

**Our scope of work:**

1) New stability analysis IMO Modu & DNV.  
2) Complete New Marine Operations Manual up to class approval.  
3) Structural FEM analysis of upper deck under special loading conditions.  
4) Derrick modification & installation of new top drive (Engineering & project management).

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2009  
Customer: **Transocean**

**Vessel Name:** Transocean Legend  
**Vessel type:** Existing Semi-submersible  
**Shipyards:** At anchorage in Malaysia

**Our scope of work:**

1) On site project management for miscellaneous repairs & modifications.  
2) Misc engineering studies:  
   - FEA analysis of lifeboat platforms  
   - Mechanical engineering for new iron roughneck  
   - Design of retractable BOP umbilical sheaves  
   - Feasibility study for mooring winches central control console  
   - Feasibility study for installation of Weatherford stabbing arm.  
   - Engineering study for installation of telescopic stabbing basket.  
   - Misc. electrical engineering studies.
<table>
<thead>
<tr>
<th>Year</th>
<th>Customer</th>
<th>Vessel Name</th>
<th>Vessel Type</th>
<th>Shipyard</th>
<th>Our scope of work</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006-2008</td>
<td><strong>Swiber &amp; Black Gold Drilling</strong></td>
<td><strong>Equatorial Driller</strong></td>
<td>Deepwater drilling barge – New Built</td>
<td>TBD</td>
<td>Complete “in House” Basic Design Package, Complete set of construction specifications, Obtained design class approval, Shipyard preparation, Project management, Detail equipment specifications, Procurement of long lead items.</td>
</tr>
</tbody>
</table>
2003

Customer: PT Apexindo

Vessel Name: **Rig 105**

Vessel type: Multi-purpose Barge - Conversion

Shipyard: Labroy Shipyard, Batam, Indonesia

**Our scope of work:**

- Engineering package for conversion of existing swamp barge into a multi-purpose vessel.
- Studies for conversion as tender assisting workover drilling vessel.
- Preparation of Shipyard scope of work.


2002-2003

Customer: PT Apexindo

Vessel Name: **Yani Rig 104**

Vessel type: Drilling Swamp Barge - New Built

Shipyard: Keppel Fels, Singapore

**Our scope of work:**

*With PROTOMAX Ltd*

- Basic Design
- Construction specification
- Construction supervision from engineering to commissioning and vessel delivery.
2002-2003  

Customer: PT Apexindo

Vessel Name: **Maera**  
Vessel type: Cantilever Drilling Swamp Barge - Major Conversion  
Shipyard: Keppel Fels, Singapore

*Our scope of work:*

*(With PROTOMAX Ltd)*

- Basic Design
- Construction specification
- Construction supervision from engineering to commissioning and vessel delivery.

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2002-2003  

Customer: PT Apexindo

Vessel Name: **Raissa**  
Vessel type: Cantilever Drilling Swamp Barge - New Built  
Shipyard: Keppel Fels, Singapore

*Our scope of work:*

*(With PROTOMAX Ltd)*

- Basic Design
- Construction specification
- Construction supervision from engineering to commissioning and vessel delivery.