



# PROJECT NEWSLETTER



## Status Summary

Fabrication of the Delta House Facilities continues to be on schedule at the numerous yards and manufacturing plants around the world. Below is a short list of construction activities that are ongoing around the globe:

- FPS Hull Fabrication: South Korea
- Anchor Chain Fab. & Life Boats Construction: China
- Anchor Rope & Mooring Shackles Fabrication: Belgium
- Mooring System Connectors Fabrication: United Kingdom
- FPS Deck Fabrication: South Texas
- Fairleads Construction: Canada & China
- Chain Jacks Fabrication: California, USA
- Line Pipe Fabrication: Germany & Japan
- Subsea Control Pods and Multiphase Meters: Norway

Even with this significant amount of input from overseas, most of the Delta House investments in drilling and facilities are being made here, in the USA.

Congratulations to everyone involved in the successful drilling of the 2nd appraisal well.

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## Drilling & Completions



Drilling for Delta House continues moving forward as we completed operations at the appraisal well at Mississippi Canyon 255 #1. The well was successfully drilled to TD and cased in preparation for the subsequent completion operations. The successful drill and case operations at the appraisal well marks the fourth Delta House well drilled and cased to TD and ready for completion operations in the wellbore. Operations went well and the rig finished the work 7 days ahead of schedule and ~\$10 MM under AFE.

To keep pace with the schedule, LLOG regulatory and drilling organizations have had to respond quickly to be ready for the next well, MC 209. This is just north of the initial LLOG Well in MC 253. The LLOG drilling/regulatory team received drilling permit approval after just 11 days, a record for LLOG post Macondo (and probably an industry record for quick permit approval as well!). The rig spudded the North well over the weekend and has already set and cemented the 28" casing section. The Ensco 8502 is on target to complete drilling operations on late July.

Also, LLOG and Sevan are progressing the mobilization and commissioning plans for the Sevan Louisiana. LLOG has contracted Rig QA International for the rig systems commissioning and acceptance. Lloyd's Register (formerly West Engineering) will conduct the BOP and BOP systems commissioning and acceptance testing. The rig is scheduled to leave China in the Sept-Oct time frame and arrive in the GOM in mid to late January 2014. Dave Huber, Sr. VP Operations and Projects for Delta House partner Deep Gulf Energy Co, recently visited the Sevan Louisiana and found the rig and construction site well managed and is looking "...forward to participating in the drilling and completing of the Delta House wells with such a fine rig and Sevan personnel."



Dave Huber with some of the Sevan staff, including the OIM, Mr. Rolf Peder Aslaksen

# Hull Engineering



Exmar is working closely with the hull fabrication site team in Ulsan, South Korea and also coordinating the Hull Owner Furnished Equipment.

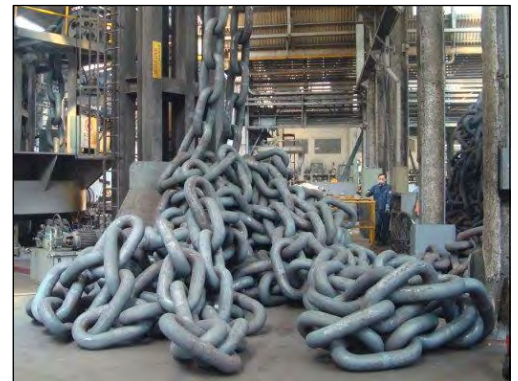
The following are recent and ongoing activities:

- Reviewing and closing out DNV comments – nearly complete
- Mooring Chain Fabrication – Ongoing, pre-production chain fabrication and testing completed successfully. Full production chain fabrication beginning this week
- Mooring Messenger Chain Fabrication – Ongoing
- Mooring Polyester Rope Fabrication - Ongoing, DNV Break Tests completed successfully. Full production began last week
- Mooring Fairleads Fabrication – Ongoing. First set of hull brackets shipped in May
- Mooring Chain Jacks and associated equipment fabrication - Ongoing
- Mooring Hawse Pipe Weathertight enclosure fabrication – Ongoing, nearing completion, will be shipped to Korea in June.
- Mooring Subsea Connector vendor selected – Engineering phase ongoing.

Exmar representatives are witnessing fabrication and testing of hull OFE in China, Korea and Europe. Hull owner furnished equipment fabrication is ongoing as can be seen in the photos.



Mooring Pre-production Chain Dimensional Checking



Mooring Messenger Chain Production

# Hull Fabrication



HHI has expended 246,349 man hours to date and project is 38.4% complete. Fabrication is proceeding in blocks that are broken down into Node, Column and Pontoon sections which will be assembled together later. 32 of 84 blocks are currently in various stages of fabrication.

Kick-off meeting was held with USCG on May 22nd. Next meeting is scheduled for end of June.

UNEX has been contracted to provide Riser Adapter Jigs and Riser Adapter. Kick-off meeting was held with UNEX on May 15th. UNEX is ordering material and preparing shop drawings.

Inspection of piping spools at Sung-IL (SIM) is on-going. 2,325 spools are to be fabricated with final delivery set for end of July. 1,080 spools have been inspected to date.

Site team continues Safety Walk-Downs on a weekly basis whereas the site team reports any discovered safety concerns to HHI for corrective action.

CFI (Client Finding Item) system is now in place with DNV participation.

Site team inspectors and DNV are participating in welder qualification test inspection. Also, site team participated in HHI conducted coating education course for painting contractors.

First Safety award is scheduled for End of June.



Node Section Below Potable Water Tank



Node Section Ballast Tank

## Engineering/Design:

- , Overall progress for Engineering Topsides through May is approximately 77% complete.
- , Continuing Kick-Off Meetings with Fabricators.
- , Ongoing reviews of Vendor Data Packages.
- , Issuing Piping & Instrumentation Diagrams for Design / Construction.
- , Producing a Master Integrated Schedule with Kiewit's input.
- , Issued Instrumentation/Electrical Package to Kiewit for Bid
- , Producing Issued for Construction Isometric Drawings. To date, approximately 1100 out of 2700 (41%) have been issued.
- , Continuing to issue Production Module and Turbine Compressor Mezzanine structural drawings for construction.
- , Continuing 3D modeling of Production Module, Turbine Compressor and Generator Modules, Pipe Racks, and ICP.  
Incorporating vendor packages into the 3D model as they are received.
- , Ongoing submittals to DNV.
- , HMI/PLC 30% Design Review with Client held.

## Procurement:

- , Approximately 98 total Topsides Purchase Orders will be completed at the end of the project.
- , 84 Purchase Orders (86%) have been issued (4 issued in May).
- , 8 Request for Quotation Packages are out for bid (8 issued in May).
- , 6 Packages are in Technical Development.

# Production Equipment Fabrication

Below is a snapshot of current activities that our inspectors are overseeing:

**General Marine Leasing** continues to fabricate the 38 man Living Quarters. The package is 27% complete. Level 1 structural work continues on stitch welding the inner crimp plate and seal pass outer crimp plate. 90% of all drain penetrations are installed and welded. The Level 2 structural support columns are installed, welded and inspected. Drain and HVAC penetrations are installed and welded. Level 1 & 2 have been blasted and zined except for seam welded areas and penetrations. Level 3 structural frame, deck plate and HVAC penetrations are installed and welded. They will be blasted and zined shortly.

The Storage Building is being fabricated at **Stallion Offshore**. The building's main structure is fabricated and will have approximately a week of welding and then will be ready to receive the penetrations for various components needed.

Coating on MCC building is completed at **Powell**. The next phase of fabrication is installation of insulation and internal assembly of architectural walls.

With the completion of the E & I, final inspection of the Hydrocyclone's skid and piping was performed at **Accelerated** on May 14, 2013. Scheduled shipment to Kiewit in mid-June.

The three launcher/receiver skids are being built at **Dynamic Industries**. All the main skid beams and interior support beams have been welded. Currently, the pad eyes are being put into place and welded.



Living Quarters



MCC Building



**NOV Petrex** has started receiving materials for the vessels on the Gas Dehydration Skid. One cylinder, 3 heads and some instrumentation have arrived. Fabrication will start in June. Also, the Oil Treater Degasser 1 and Oil Treater Degasser 2 are about 95% complete. Coating is complete and all that remains are for the vessel's internals to be installed. Oil Treater 1 and Oil Treater 2 are about 85% complete. Both vessels are ready to be hydro tested followed by coating. All the Division 2 Separators are in fabrication. Separator 1, Separator 2, Separator 3, the IP Separator, and the Test Separator are all in the process for getting their nozzles installed and welded. Heads are also being attached to the shells of each vessel and magnetic particle testing is taking place.

The Oil Flotation Cell is 100 % complete. The Pump Skid associated with this Flotation Cell is also 100% complete. Both items shipped from **Patrick Fab** to Kiewit on May 28th.

The Suction and Discharge Scrubbers are being fabricated at **Honiron**. The 1st Stage Suction has both heads welded on and the remaining nozzles will be tacked up and welded out. The 2nd stage scrubbers have the bottom heads on and are being welded out internally before they go to the sub arc station to be welded out and NDE performed. All welds that have been made so far have had NDE performed and are good.

The fabrication of all the Oil Treater Inlet Heaters are nearing completion at **Vahterus Factory**. The plate packs are ready for installation inside the (3)-vessel units.

At **Seatrax**, fabrication of all major components necessary to assemble the Pedestal Cranes has been completed. The kingposts will be fabricated throughout June. The two Pedestal Cranes are on schedule to deliver on August 14, and September 11, 2013 respectively.



Oil Flotation Cell



Pedestal Crane

## Production Deck Fabrication



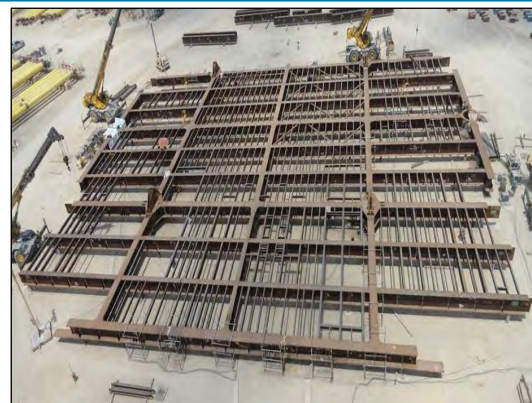
Work at Kiewit continues to progress. Plate girder fabrication is nearly complete and node fabrication is completed. Framing of the lower and upper levels continue with installation of special, primary, secondary and tertiary steel. Dimensional tolerances are being checked every couple of days to insure proper dimensions.

Coating of tubular braces is complete and installation continues.

Pipe support fabrication is well under way and blasting and painting is in progress. Pipe rack fabrication has begun.

CB&I is the sub-contractor for pipe spooling. Kick off meeting has been held and CB&I has received most of the piece marked isometrics. Kiewit will sub-contract the fabrication of the handrails to Markle Manufacturing in San Antonio, Texas. Fabrication of the E&I supports and light stanchions has been sub-contracted to Medcalf in Houston, TX.

The production module has been lofted and cutting of the material should begin soon. The compression module is currently being lofted.



Upper Level  
Framing



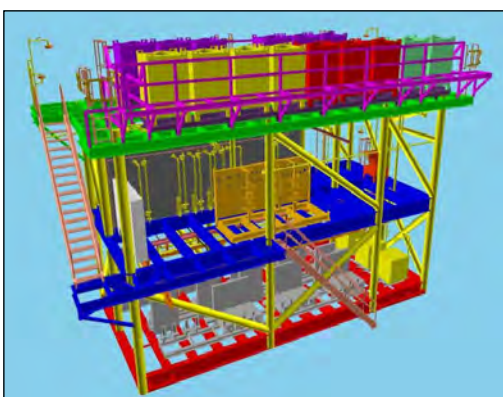
Lower Level  
Framing

## TOPSIDES

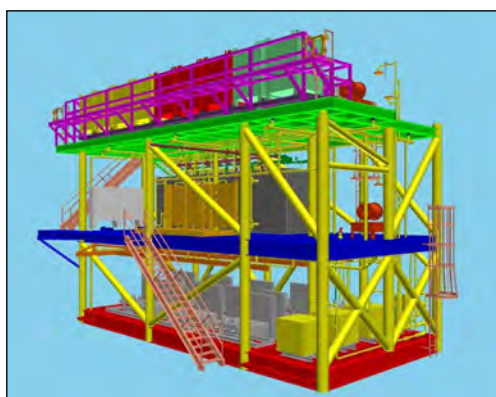
- Chemical Injection Module:
  - Reviewed and approved drawings for the Methanol Pumps and Milton Roy Pumps.
  - Received and currently reviewing revised structural drawings from Omega Natchiq for the Methanol Distribution Skid.
  - Received and reviewing bids for the Chemical Storage Tank, and expect to issue a bid recommendation shortly.
  - Preparing Chemical Injection Module RFQ for issue in early June.
  - Projected delivery for the Chemical Injection Skid is 12/6/13.
- Hydraulic Power Unit (HPU) and Topsides Umbilical Termination Assembly (TUTA):
  - Preparing RFQ for issue in early June.
  - Projected delivery for the HPU and TUTAs is 12/4/13.

## SUBSEA

- Issued revised field maps for flying lead lengths and comments to electrical and hydraulic analysis input specifications back to FMC.
- Reviewed and commented on drafts of Fugro hazard survey reports for the oil and gas export pipelines and all of the infield pipelines. Revisions were completed by Fugro and final hazard survey reports for the export pipelines have been received. Continuing to work with Fugro on final issue of infield reports and plats.
- Prepared pipeline, umbilical and jumper permit packages, and will issue to LLOG for BSEE submittal in early June.
- Held pre-production meeting with V&M in Germany on 4/18/13, and they will start pipe production in September. Sumitomo began production of pipe on 5/13/13. As of 6/5/13, they have completed 98% of the 8" line pipe, 97% of the 8" SCR pipe, 15% of the 6" line pipe, 79% of the 12" SCR pipe, and 67% of the 16" SCR pipe.
- Awarded pipeline installation contract to Technip. Held a meeting with Technip and Exmar to begin looking at riser pull-in engineering.
- Received and reviewing umbilical fabrication bids. Will be awarded mid-June.
- Issued Purchase Orders to Cameron for the Shell and BP subsea tie-in valves.
- 2H Offshore issued the Purchase Order for the eight (8) riser stress joints. Delivery is approximately 14 to 15 months. Exmar will include the baskets with the order for the riser receptacles.
- Issued RFQ for the VIV Suppression Strakes on 5/21/13.
- Revised VK 817 preliminary modification package based on comments received from Enterprise. Reissued to Shell and Enterprise for review 5/28/13.
- ROV vessel Joshua Chouest conducted a site investigation on several side scan anomalies. All of the side scan hits turned out to be modern debris or insignificant.



Chemical Injection Module looking SE



Chemical Injection Module looking NE



8" Line Pipe at Sumitomo