

# **MAERSK VIKING MPD SYSTEM**



**INSIDE** THIS ISSUE ISSUE 25 | Q1 2022

**3C METAL OPENS OFFICE** AND WORKSHOP IN SAUDI **ARABIA THROUGH AGENCY** AGREEMENT

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### A WORD FROM 3C METAL'S PRESIDENT AND CEO



In my first message for the year, I would like to congratulate our teams for finishing 2021 in a strong position. We experienced a large level of activity in Q4 2021 which carried over into the new year and has seen activity increase for all entities.

One of the biggest developments of O1 has been our establishment of local fabrication capabilities in the Kingdom of Saudi Arabia. Through a partnership with the Arabian Establishment for Trade and Shipping (AET), 3C Metal has leased a workshop and warehouse with tools and equipment in Damman, in the Eastern Province of the country. Saudi Arabia has many emerging opportunities in renewables and the oil and gas industry so we are pleased to have a team now permanently based in Damman. AET is a local company, registered with all major clients in Saudi Arabia and has compliance with the in-Kingdom Total Value Add (IKTVA) program. We look forward to working with AET and to build upon our range of services offered in the Kingdom.

Across the Group, there has been significant momentum for ria reactivation and green technology projects as well as traction in our diversification efforts. In Asia, the Middle East and the USA, we are continuing to experience considerable activity for projects for rig intakes, MPD integrations and ballast water treatment system retrofits. In France, our activity with our key client Teréga continues to go from strength to strength. 3C Metal, has recently been awarded multiple major EPC contracts with Teréga, some of which will continue until mid-2024.

In the southern region of Africa, 3C Metal Belmet, along with our partner company, Cinco Engineering, has been carrying out projects for De Beers Marine for several mining vessels. 3C Metal Belmet also secured one of the Group's first significant projects in nuclear power. The team are carrying out piping scopes for the Koeberg nuclear power station in South Africa as part of a program to extend the plant's operating life.

Also in Africa, our newest entity, 3C Metal Belmet Mozambigue, is continuing its work on two projects awarded by Technip Energies. Due to the rising activity in Mozambigue, our local workshop team recently spent some time in South Africa to complete a range of skill development training sessions at our specialist center in Cape Town. These sessions included an in-house program following modules from the MerSETA Accredited Skills Program as well as offshore survival training. These training programs are part 3C Metal's commitment to offering our teams opportunities for upskilling as much as possible.

As we look ahead to 2022, our focus will remain not just on our commercial efforts but also on our safety initiatives, environment responsibilities and corporate social responsibility. Our main objective for 3C Metal Group for the year will be to have a safe year without accidents. We will be revising our Group Safety Code, conducting studies to minimize our carbon emissions and maintaining our efforts with our corporate social responsibility. More details about these initiatives will be shared in the coming months.

Please enjoy reading about some of our latest highlights and your feedback and comments are always welcome.

#### **Philippe Boy** President and CEO of 3C Metal

### **3C NEWS 3C METAL OPENS OFFICE AND WORKSHOP IN SAUDI ARABIA THROUGH AGENCY AGREEMENT**

3C Metal is pleased to announce its establishment of an agency agreement with the Arabian Establishment for Trade and Shipping (AET) in Saudi Arabia. 3C Metal now has a permanent team based in Dammam, in the Eastern Province of the Kingdom.



3C Metal's permanent team in Saudi Arabia will extend the Group's services to new regions of the Middle East.

Through the agreement, 3C Metal has access to facilities in Dammam including a workshop and yard space with tools and equipment. AET is a well-known local company, registered with all major clients in Saudi Arabia (including Saudi Aramco) with long established local content development and compliance with the in-Kingdom Total Value Add (IKTVA) program.

3C Metal President and CEO, Philippe Boy, said the partnership with AET will help facilitate 3C Metal's ability to deploy personnel onshore and offshore for upgrades and repair projects in Saudi Arabia.

"Saudi Arabia represents a plethora of opportunities across the energy sector – from oil and gas to opportunities in renewables stemming from the Saudi Green Initiative. While 3C Metal has been based in the Middle East for more than two decades, for many years we have been working hard to gain a stronger foothold in Saudi Arabia by having local fabrication capabilities," Mr Boy said. "We are looking forward to assisting our clients that are based in Saudi Arabia by providing services through an organization that is registered with the IKTVA program. We believe that 3C Metal's expertise and AET's local support network and client base are an ideal match to help expand our operations in the region," he said.

Under the agency agreement with AET, 3C Metal will offer services including onshore and offshore deployment capabilities, local piping and structural fabrication capabilities and access to tenders with Saudi Aramco.

3C Metal's team have been present in Saudi since early 2022. The team specialize in project management, engineering, deployment, 3D laser scanning surveys, piping services and structural services.

# **MÉLUSINE ENERGY PROJECT UNDERWAY FOR TERÉGA**

3C Metal was recently commissioned by Teréga to carry out a package for the construction of a biomethane unit as part of their Mélusine Energy project. This unit will produce biomethane from agricultural waste. The project is being carried out in Aillas, in the Gironde department of France.

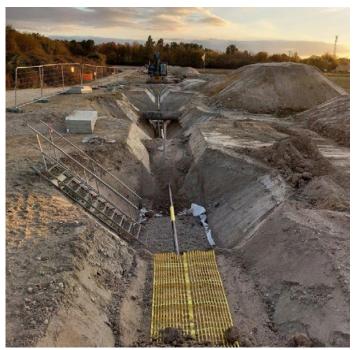
3C Metal's work involves the construction of a pipeline measuring 250m in length and three inches in diameter. The pipeline was pressure tested after being put underground. This typical pipeline methodology reduces safety risks during welding and coating operations.

The connections and commissioning were successfully completed at the beginning of December. The final phase of the project, which includes civil engineering, is scheduled to be completed in early 2022.









**3C NEWS** 

# **3C METAL JV AWARDED EPC CONTRACT BY TERÉGA IN FRANCE**

### 3C Metal, in joint venture with CITBA, has been awarded an EPC contract for Teréga's SECURLUG Project which will be carried out in Lussagnet, southwest France.

The project scope consists of the installation of two new 7MW electro-compressors, related civil works, building and piping, creation of a new electric building to power the new compressors and the installation of a new decompression vent.

This turnkey project is scheduled for completion in early 2024.

3C Metal is very pleased to grow our business with one of our key clients, Teréga, and is excited to be working with CITBA.

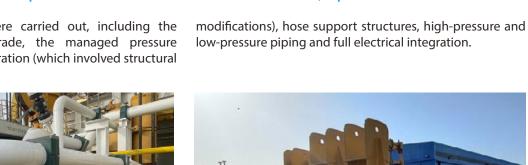


# 3C Metal have delivered several major scopes for Noble Drilling onboard the Noble Gerry de Souza drillship while it was located in Las Palmas, Spain.

A total of 17 scopes were carried out, including the standpipe manifold upgrade, the managed pressure drilling (MPD) system integration (which involved structural







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Additional scopes included an extension to the existing starboard-side transfer deck which was fabricated in South Africa and installed in Las Palmas. The structure has a total weight of approximately 60 tons. The scopes were delivered over the course of several months with the 3C Metal team working hard to deliver all the scopes to the client's requirements.





### **BOAT LOCK PROJECT UNDERWAY IN BAHRAIN**

### 3C Metal are delivering a project for a boat lock for a private villa community in Bahrain.

The project involves engineering, supply, prefabrication and installation of four steel boat lock gates - two with a weight of nine tons each and two with a weight of seven tons each. Additional items for fabrication include walkways on the gates, grouted seal plates (duplex stainless steel), stoplogs for maintenance of the lock gates, water retainers for testing and floating pontoons in aluminum and composite decking. 3C Metal will also deliver the full hydraulic system (HPU, tanks, cylinders and tubing, emergency HPU) and a full electrical and instrumentation system (including PLC).

Phase one of the installation, which includes the stoplogs, hinges and seal plates, is now complete. Phase two will be completed in Q2 and the overall project will be completed in Q3.





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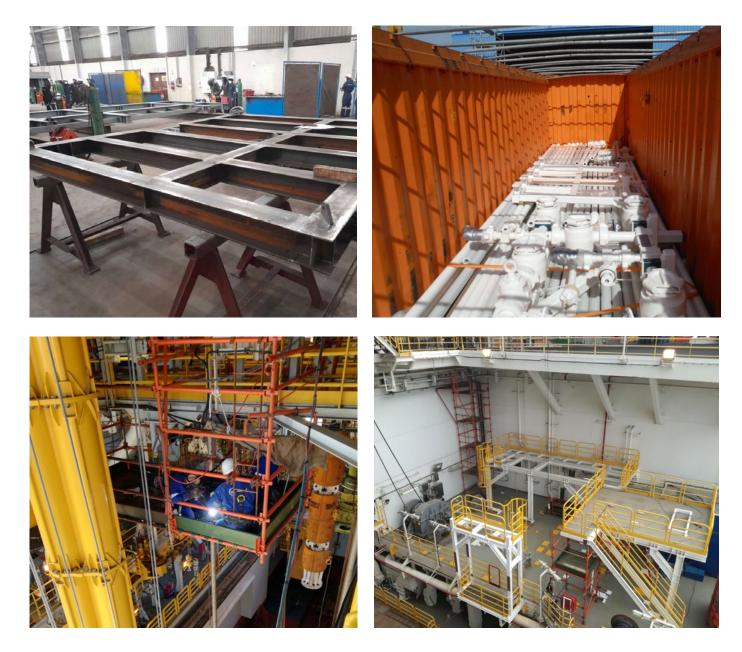
### 3C NEWS MAJOR SCOPES CARRIED OUT FOR SONANGOL QUENGUELA DRILLSHIP

# 3C Metal was awarded the rig intake scopes for the Sonangol Quenguela drillship in preparation for its drilling contract in Angola. The work was awarded by Sonadrill, a 50-50 joint venture between Seadrill and an affiliate of Sonangol.

The scopes included the integration of an IWOCS system (XT and TH modes), coil tubing, brine equipment, hose hangers, well test equipment, a tilted mousehole and a boat landing. 3C Metal was also awarded work for the fabrication of multiple high pressure (HP) lines including coil tubing, injection lines, completion lines, test lines and well test lines.

Initial 3D laser scans were performed onboard the drillship in Singapore and in Walvis Bay, Namibia. This allowed for accurate engineering design of the structural and piping elements of the work. The engineering phase also included the ABS design review. Three of 3C Metal's workshops were utilized for the fabrication phase. All structural items were carried out by the workshops in Namibia and South Africa and the HP piping has been carried out in the UAE. In total, 3C Metal fabricated 130 tons of steel as well as 400 meters of HP piping. The electrical items were sourced from Cape Town and Aberdeen, UK. A slug and brine mixing system was also awarded to 3C Metal which involved the installation of new 12, 8 and 6-inch low pressure lines.

Installation started in mid-October in Walvis Bay, Namibia with an average of 58-60 personnel onboard.



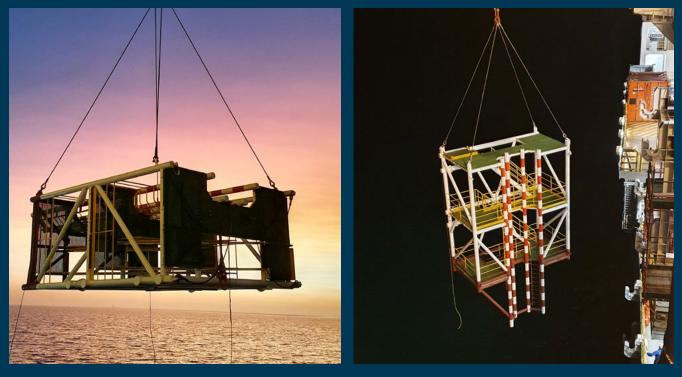
### **BOAT LANDING FABRICATION FOR QUENGUELA CARRIED OUT IN NAMIBIA**

One of the main upgrade scopes awarded for the Sonangol Quenguela drillship was the fabrication of the boat landing (weighing approximately 18 tons) which was carried out at 3C Metal's facility in Namibia.

Due to local material availability and the short delivery schedule, 3C Metal Belmet, (3C Metal Group's Cape Town-based entity) performed all the cutting on the multiple profile cutting and stationary pipe cutting machines. The material was then transported to 3C Metal Belmet in Walvis Bay, Namibia, where fabrication commenced.

The fabrication of the boat landing was completed in January 2022 and was required to be transported with an abnormal load (6.6m x 3.5m x 10.5m). The execution of this scope highlights the added value 3C Metal can offer to clients by having in-house fabrication facilities located in Walvis Bay, in close proximity to West African markets.





### **MAERSK VIKING MPD SYSTEM INTEGRATION A SUCCESS**

## 3C Metal was awarded a contract by Maersk for the integration of a managed pressure drilling (MPD) system onboard the Maersk Viking drillship.

The project was managed by 3C Metal's UAE-based entity with fabrication support from the entities in South Africa and Namibia. The concept for this project was to provide the design, prefabrication, installation and class approval of all structures and piping for the MPD system.

In the initial stages of the project, 3C Metal deployed a team to carry out 3D laser scanning of the vessel. The data acquired from the laser scan aided the 3D modeling for structures and pipe routing so it could be integrated seamlessly into the rig and around the existing equipment.

The structural components of the project included MPD bridges, a valve access platform, reeler moonpool padeyes, a hose support, hose hanging structures and hose lifting structures. The sea-fastening of the following equipment

was also part of 3C Metal's scope for installation; reelers and a junk catcher on the MPD bridges, buffer and microflux manifolds, buffer and RCD HPU, an accumulator rack an A60 cabin.

The MPD and hydraulics integration included high-pressure piping (up to 7.5K PSI), low-pressure piping and 48 hydraulic lines. This equated to almost 30 tons of piping. 3C Metal also carried out the full electrical integration for the project. All work involved was reviewed and approved by ABS.

The work was carried out while the rig was in transit from Gabon to Malaysia, with stop overs in Namibia, South Africa, Mauritius and Singapore. The team have now demobilized after delivering project successfully with no safety related incidents.



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# FOUR PROJECTS CARRIED OUT IN CAPE TOWN HARBOUR BY CINCO Engineering in 2021

Last year Cinco Engineering, partly owned by 3C Metal Belmet in South Africa, carried out four maintenance projects in the port of Cape Town Harbour for De Beers, making it an extremely busy and productive year.





Mafuta

**3C NEWS** 



Debmar Atlantic

The year started with the Mafuta recovery vessel. This was a challenging project and the first that Cinco Engineering, together with 3C Metal Belmet, carried out for a generic piping contract that was awarded to 3C Metal Belmet at the end of 2020. The Mafuta was in the dry dock of Cape Town Harbour for 60 days. Cinco Engineering and 3C Metal Belmet completed 33,000 hours of direct labor on the project.

The SS Nujoma recovery vessel followed shortly after the Mafuta in April and May of 2021. The project was successfully executed in approximately 40 days, and included various mechanical scopes, including the conveyor refurbishment and sheave bearing replacements.

From June to August, work was performed on Debmarine Namibia's Debmar Atlantic recovery vessel that resulted in 20,000 hours of direct labor during a period of 60 days. Scopes included the mining system track frame repairs, spud bearing changeout system modification and a significant amount of piping in the recovery plant and engine room.



Benguela Gem (previously known as the AMV3)

The year ended with work on the largest vessel in the fleet, the Benguela Gem (previously known as the AMV3). Cinco Engineering's involvement in this project included the launch and recovery system installation, de-watering plant piping and mechanical installation as well as the integration of all above-deck recovery plant modules on the vessel. This work resulted in a further 45,000 hours of direct labour, during 110 days, to close out the year.

In total, approximately 112,000 hours of "in-port" work was completed for De Beers in 2021. All the work was executed safely without any lost time injury.

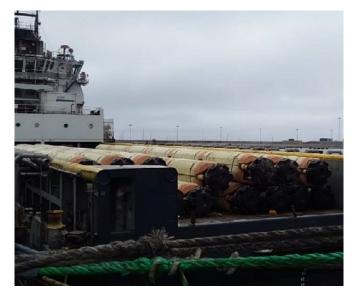
Cinco Engineering has had a positive start to 2022. Work has commenced on the Grand Banks recovery vessel and 3C Metal Belmet and Cinco Engineering are looking forward to seeing what the remainder of the year will bring.

### 3C NEWS 3C SUBSEA CHARTERS PSV TO TRANSFER RISERS FOR MAERSK DRILLING

# 3C Subsea, in partnership with Logistics Support Services, recently chartered a platform supply vessel (PSV) for Maersk Drilling to transfer 31 marine drilling risers onshore.

The risers were transferred from the Maersk Voyager drillship to the PSV in Namibian waters and then transported to Walvis Bay port. They were then offloaded on quayside temporarily before being trucked on lowbed trailers to the 3C Subsea and Logistics Support Services yard for long term storage and preservation. The operation was carried out with a high regard for safety for all heavy lifting operations and within the planned 48-hour timeframe. The partnership between 3C Subsea and Logistics Support Services offers drilling contractors operating in the region with a strategically located riser hub and facilities offering a full turnkey solution including riser movement, riser recertification, overhaul, repair, preservation and storage.







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### **3C NEWS 3C SUBSEA CARRIES OUT RISER REORIENTATION FOR TURKISH PETROLEUM**

3C Metal's specialist division, 3C Subsea, recently carried out the reorientation of the buoyancy modules of 28 marine drilling risers from Turkish Petroleum's Kanuni Drillship in the Port of Filyos, Turkey.

The risers were transferred onshore from the drillship to allow the 3C Subsea team to disassemble, reorientate and reassemble the buoyancy modules to meet the client's requirements to improve and make the riser running operations onboard the drillship safer.

3C Subsea maintained a high level of safety awareness at all times and accomplished the scope well within the planned schedule allowing the risers to be returned to the drillship to meet the client's time constraints.







# **3C METAL TO EXHIBIT AT THE 2022 OFFSHORE TECHNOLOGY CONFERENCE IN HOUSTON**

Once again 3C Metal will take part in the Offshore Technology Conference (OTC), held at the NRG Park in Houston, USA, from 2 – 5 May.



For the fourth year running, 3C Metal will have a promotional stand at the exhibition's French Pavilion located in Hall C, booth 2539. The OTC will enable 3C Metal to showcase its brand to representatives from the world's largest oil



producers and service providers. A team of dedicated 3C Metal employees will be on site every day to answer questions and promote 3C Metal's services.

### **3C NEWS 3C METAL COMPLETES INSTALLATION PHASE OF THE MPD INTEGRATION FOR THE NOBLE DON TAYLOR**

3C Metal has delivered the MPD upgrade for Noble Corporation's Noble Don Taylor drillship while it was located offshore Guyana.









The project followed the successful completion of the MPD upgrade for the Noble Don Taylor's sister vessel, the Noble Tom Madden drillship, in Q4 2020. The scope of both projects was comparable and 3C Metal used the experience gained on the sister vessel to deliver a streamlined service that met all project requirements.

For this project 3C Metal provided the DNV-approved engineering, piping and structures. The scope included hose supports and an access platform in the moonpool, portable bridges to support the MPD manifolds, structures to support the HPU, CCU and umbilical reeler and a platform to support the MPD riser joint. 3C Metal also provided the interconnecting piping, electrical cables and hydraulic tubing between the manifolds and the rig.

Fabrication work was carried out in Houston with support from 3C Metal's workshop in Dubai. The team demobilized after working hard to deliver this project safely and smoothly with no lost time injury or safety incidents.

### **3C NEWS**

# **3C METAL MIDDLE EAST FOR REACHES 4 MILLION MAN-HOURS** LTI-FREE

3C Metal has achieved an excellent safety milestone - 4 million man-hours LTI-free – through the combined efforts of the entity's office, workshop and deployment staff.

This milestone is a direct reflection of 3C Metal's commitment to the highest standards for safe work practices. 3C Metal strives to provide support and training to our teams to ensure safety remains the number one priority.







### **FIBRE OPTIC TRAINING FOR 3C METAL TECHNICIANS**

In March, 3C Metal's technicians took part in a fibre optic course to install, test, and troubleshoot fibre optic cables to IEEE, ITU and SCTE standards.

The course is accredited by the Light Brigade and incorporates classroom and hands-on learning.

The main areas of focus for the course included selection and installation of fibre optic cables; multimode and single mode fibre optic cables and cable management; and fibre optic network types and equipment requirements. The team were also instructed on fusion splicing, optical time domain reflectometer (OTDR) and optic loss testing methods, reporting and troubleshooting.

Fibre Optic cables are used extensively in almost all of 3C Metal's offshore integration projects. Having the capability in-house ensures 3C Metal's quality standards are maintained and enables faster response times.







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