

A large green industrial skid, likely for natural gas supply, is being lifted by a crane mounted on a truck. The skid is complex, with various pipes, valves, and structural elements. A worker in a high-visibility orange vest and white hard hat stands on the truck bed, observing the operation. In the background, other workers and a white container are visible under a blue sky with scattered clouds.

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As we reach the halfway mark of the year, it gives me great pleasure to report that 3C Metal's activities in all our regions have remained strong this quarter. What has been pleasing to see is not just the steady flow of projects but also the diversity of the projects.

In Europe, the Gulf of Mexico, Asia and the Middle East our core activities in the oil and gas industry remain strong. In Africa, we continue to tap into new markets with the delivery of several projects for renewable energy, mining and marine work. The southern region of the African continent continues to represent many opportunities for us. We are making efforts to increase

our support to clients in Mozambique, South Africa, Namibia and Angola, with commercial discussions taking place and a strong bid pipeline established. Considering the potential for new projects in Mozambique, a branch of Belmet Marine has been registered in the country. I'm pleased to announce that Belmet Marine recently secured a project for the piping component of an oil storage facility in Beira, Mozambique. It is the first project of this scale to be carried out by a 3C Metal entity. The project is underway and is featured in this newsletter.

In other news, we are in the process of implementing a new Group Safety Code to help us achieve our goal of zero unsafe acts and zero unsafe conditions. With the Group operating facilities in six countries and with our deployment teams operating in remote and often challenging conditions, it is integral to our success that we continue to drive a safety culture that permeates all our operations. In addition to the Group Safety Code, we are developing new training for supervisors and team leaders, enhancing our deployment guidance for employees and rolling out new awareness campaigns that seek to

minimize the specific risks associated with our work – particularly in our workshops and offshore environments.

In early May, 3C Metal exhibited at the 50th Offshore Technology Conference in Houston. As well as showcasing our services and capabilities, it was great to meet with some of our existing clients and receive positive feedback about the quality of our services. Moving forward, in order to continue our success, it is crucial that we adjust and respond to changes affecting the marketplace. This means, listening to our clients and tailoring our services to meet their needs. A large proportion of the work awarded to 3C Metal is repeat business and I believe this is a direct reflection of the consistent, reliable performance of our teams and efficiency of our services. We will continue to look for new ways to expand our offerings and explore innovations to maintain our reputation as a trusted provider of turnkey engineering solutions.

**Philippe Boy**  
President

## A WORD FROM THE OPERATIONS DIRECTOR

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3C Metal has seen a spike of activity for the first half of the year, especially in Q2, driven by an increased sentiment in the oil and gas market.

Synergies between the 3C Metal Group entities have allowed us to capitalize on fast-track projects by utilizing our globally located workshops to deliver solutions for fabrication, strategic sourcing and equipment preparation for our execution teams. This has aided the rapid launch of critical projects and the delivery of cost and schedule-effective solutions. Through the support of 3C

Metal operations teams in Asia, the Middle East, Africa, Europe and the Gulf of Mexico, we have managed to find solutions to assist clients regardless of delivery locations or schedule constraints.

At the core of the successful project awards remains the reactivity of the engineering and projects teams, that are working around the clock to survey client's assets globally, acquire data through laser scanning and fast-track engineering deliverables. The 3C Metal engineering team's ability to deliver almost immediate concepts for scope clarification with the client, release material requirements to enable advanced sourcing, promptly provide fabrication drawings all whilst liaising with classification societies to ensure compliance to the highest industry standards is truly world class and is the main reason for the success of the bulk of the projects delivered by the projects team.

We have been given opportunities by all of our major clients on some of the most challenging projects in our market and with their support and drive for quality have managed to deliver. We have also been extremely fortunate to be able to assist with the growth and development of the Managed Pressure Drilling (MPD) activity in the market with 23 completed or ongoing MPD installations on a wide range of deepwater assets with several additional projects in the pipeline to be awarded in the coming weeks and months.

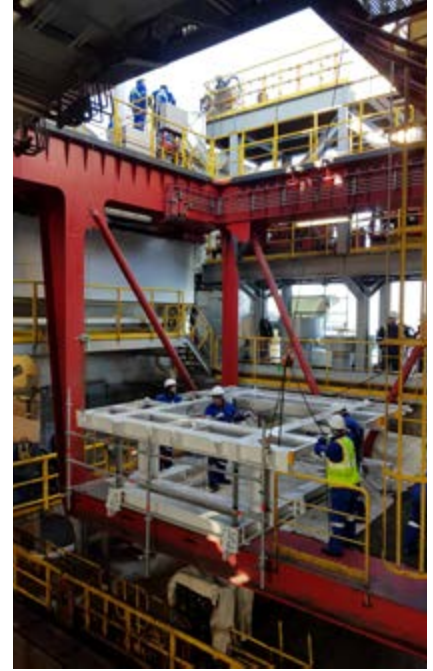
We will remain reactive to our clients' needs - offering global solutions through our tailored engineering and the skills of our operations teams. With their support and drive, we will continue to safely delivery a high standard of workmanship on each project.

**Dejan Zigic**  
Operations Director



## 3C METAL CARRIES OUT NOBLE GLOBETROTTER II MPD INTEGRATION

3C Metal was awarded its first full system integration with Noble for their unique Globetrotter II drillship. Awarded at the end of Q3 2018, 3C Metal Middle East had to provide a fast turnover for the installation to start in early January in Bulgaria.



The work included a structure for the umbilical reeler, bridges to hold the hydraulic power units (HPU), three hose supports in a very tight moonpool, along with a deck extension and stiffening of the structures to house the large 35 ton AFGlobal MPD manifolds.

The complete work scope involved the running of 14 high pressure (HP) and low pressure (LP) pipe lines, installing four Coriolis metering loops within a very restricted space, and completing a full electrical integration.

All supply and prefabrication was done through 3C Metal Middle East's workshop. Guided by laser scanning surveys

and accurate 3D modeling, 3C Metal was able to design and prefabricate nearly all of the structures and piping. All fabrication and engineering was reviewed and approved by ABS. Special assistance was required by 3C Metal's French entity to supply specialized electrically-actuated knife valves that were installed on the MPD system.

Installation began in late January 2019 in Bulgaria. Inclement and constantly changing weather conditions added extra challenges for the project. 3C Metal adapted to these challenges, working through the conditions to successfully deliver the project with no impact on the final delivery date.

## 3C METAL MIDDLE EAST CARRY OUT ANOTHER MPD SYSTEM INTEGRATION FOR WEATHERFORD

Last year, 3C Metal completed a project for a semi-permanent modular Weatherford MPD system integration onboard Turkish Petroleum's Fatih drillship (formerly the Deepsea Metro II). In January this year, Weatherford awarded 3C Metal the exact same MPD integration work for the Fatih's sister drillship, the Yavuz drillship (formerly the Deepsea Metro I), also owned by Turkish Petroleum.



Following the experience of Fatih's MPD integration, 3C Metal implemented the same design for the Yavuz - four DNV 2.7-3 modules on the existing X-Mas tree footings, minimizing modifications required for the rig's existing structures. The team was able to do an as-built laser scan of the Fatih installation. This allowed for small touch-ups for the new installation and overall improved the efficiency for the engineering, fabrication and installation.

As per the previous integration project, the MPD system had three HP lines and five LP lines installed. The work also involved the full hydraulic, pneumatic and electrical installations. All

the work was approved to DNV drilling offshore standard DNV-OS-E101, and all of the manufacturing was handled by the 3C Metal Middle East workshop.

With the aid of the as-built laser scans, the additional order of manufacturing and by directly installing a buffer manifold into the DNV modules, the team was able to evolve the outfitting process and space within the modules for ease of access around the equipment. The project was delivered safely with zero incidents and the end result was yet another high quality MPD system integration by 3C Metal.



## HP PIPING PACKAGE DELIVERED FOR ARABIAN DRILLING COMPANY JACK-UP RIG

In late 2018, 3C Metal Middle East was awarded the supply, engineering and fabrication of a HP piping package for jack-up rig AD80, owned by Arabian Drilling Company.



The package consisted of an API 16C monogrammed choke line, kill line and an emergency kill line in compliance with Saudi Aramco Drilling and the Workover Well Control Manual (5th Edition). Also included in the package were HP crossover lines between the choke and kill manifold, cement manifold and standpipe manifold, and HP over board lines, cement standpipe lines and HP mud lines.

3C Metal Middle East conducted a survey onboard the AD80 using 3D laser scanning technology. The engineering was carried out to define the routing of the lines and piping supports, calculate the choke and kill lines as per API 16C

standard and the other lines as per ASME B31.3.

The choke, kill and emergency kill lines were fully manufactured, tested and monogrammed as per API 16C standard at the 3C Metal Middle East facility in Dubai. The other lines were prefabricated, leaving a few joints which were then welded on site.

The complete package was sent to Bahrain. The project was completed and dispatched to the destination in early February 2019 with the final installation and testing of the lines completed by the shipyard.

## 3C METAL ASIA COMPLETES WEATHERFORD MPD PROJECT ONBOARD NOBLE CLYDE BOUDREAUX

Noble's semisubmersible, the Noble Clyde Boudreaux, was awarded a contract for drilling an exploration well in Myanmar requiring the use of MPD.



Discussions regarding a potential MPD upgrade had been ongoing since the start of 2018. Several meetings were held with the operator and Weatherford to adjust and review the system extent in order to come up with the best solution in

terms of cost and efficiency. A final plan was agreed upon in late November 2018 and the project started almost immediately after that.

The complete turnkey solution was completed by 3C Metal in roughly three months. This included detailed engineering - starting from a laser survey and up to a structural analysis, piping flexibility analysis and an umbilical routing review.

Prefabrication was completed in parallel with the engineering - thanks to close collaboration between our engineering office and the 3C Metal Asia workshop. A team of 17 personnel managed to safely complete the site integration within schedule, working around the rig's operation priorities.

The Project Management and Site Installation team adjusted the workforce and planning in order to complete some of the tie-ins to the rig's existing systems (which could only be completed during some short and fixed timeframes).

This is another example of 3C Metal's expertise in integrating MPD systems on drilling rigs. Once again the 3C Metal team proved their ability in getting complex systems integrated smoothly and safely within the shortest possible timeframe.

3C Metal are grateful for Noble's continuous collaboration and support in the South East Asia region.



## 3C METAL ASIA CARRY OUT DIVERTER AND HP TUBING FOR ENSCO 115

In late 2018, EnscoRowan's jackup rig, ENSCO 115, stopped in Johor Port, Malaysia, while in between contracts. It was a great opportunity for the 3C Metal Asia team to provide local assistance for the rig.



The rig required some maintenance and several upgrades as part of its contract preparation. 3C Metal was awarded work for the rig's critical tubing scopes.

A team was deployed onboard to replace the whole diverter control tubing as well as installing new 20k rated tubing for blowout preventer (BOP) testing. The work, which included pressure testing and flushing, was carried out within a few weeks.

This work is testament to the team's ability to deliver timely and high quality services for critical and high pressure systems.

## 3C METAL ASIA COMPLETE CONTRACT FOR PIG RECEIVER

Following the completion of a pressure vessel project in 2017, the same client awarded 3C Metal with the supply and fabrication of another piping product.



3C Metal Asia was requested to assist with the preparation of fabrication drawings as well as the supply of material (API 5L X60 grade) and fabrication of a pig receiver.

The fabrication was controlled by both ABS and the client's surveyors to ensure the highest quality and dimensional precision. The receiver was fully pressure tested and painted before delivery and shipping to China.





## 3C METAL DELIVERS NATURAL GAS SUPPLY SKID FOR TEREKA IN SOUTHWEST FRANCE

3C Metal successfully manufactured and installed a new natural gas supply skid for Terega in Southwest France.



The manufacturing took nine weeks including the supply of piping materials NDT and pressure testing. The pressure testing and factory acceptance tests were lead within 3C Metal's facilities in Sauvelade, France.



## 3C METAL SOUTH AFRICA BUILDING CONTAINERIZED WATER TREATMENT UNITS

3C Metal South Africa are currently building containerized water treatment units for PROXA Water. Once completed, PROXA will be able to deploy the containerized units to anywhere in the world to supply treated water to drought stricken communities or to compensate for clean water supply fluctuations.



3C Metal South Africa currently have two ultra-filtration (UF) units, one reverse osmosis (RO) unit and one utility container in its workshop. 3C Metal South Africa were contracted to fabricate all the steelwork and container modifications, piping fabrication, non-destructive testing, pressure testing, installation of free-issue equipment, corrosion protection, quality control, testing and delivery of the complete assembled containerized plant according to the client's specifications and procedures.

The RO and UF containerized units consist of RO membrane

housings, UF modules, complete with the related piping, valves, instrumentation, pumps and other vessels installed in the 40ft shipping container.

The containerized units will be fabricated and tested complete with all the piping, valves, instrumentation, pumps and vessels in the workshop upon project completion before they are released for delivery to site.

All the structural steel was fabricated in accordance with AWS D 1.1 and piping in accordance with ASME IX.



## BELMET MARINE UNDERTAKING FIRST PROJECT IN MOZAMBIQUE

In January 2019 Belmet Marine started their first ever project in Mozambique. The work is being carried out for Martifer-Visabeira, S.A. and involves prefabrication work, site installation and full factory acceptance testing until cold commissioning.



The piping fabrication scope to be performed is approximately 37,000 inches of welding with pipe sizes ranging from 0.75 to 20 inches in diameter.

To complete the project safely and within the required time frame, Belmet Marine ensured local personnel were trained in the Belmet and 3C Metal Group quality and safety standards. To help with this, the project was started with expatriate and

local personnel to ensure knowledge and expertise were transferred.

Before the unfortunate event of Cyclone Idai, Belmet had 36 local personnel assigned to different aspects of the fabrication. Due to cyclone, fabrication was temporarily suspended. Fabrication will be 100% operational in mid-2019 and is expected to continue until early 2020.



## SAFETY AWARD FOR 3C METAL EMPLOYEES

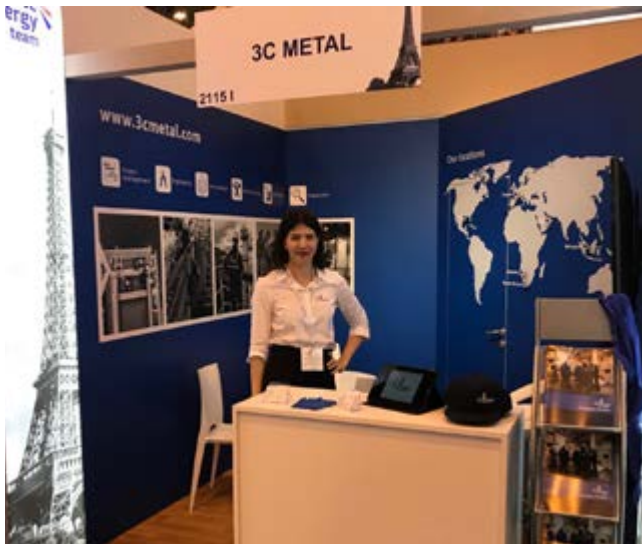


Two 3C Metal employees have received a safety award from De Beers Marine while undertaking work for Belmet onboard the Mafuta vessel.

The awards went to Andrew Marques and Ferdinand Van Der Westhuisen, with each receiving a prize for their keen observation and safe work practices while working on De Beers Marine's diamond mining ship, Mafuta, while it was in-port.

## 3C METAL EXHIBIT AT OTC 2019

3C Metal took part in the 2019 Offshore Technology Conference (OTC), held at the NRG Park in Houston, USA from 6 to 9 May.



The OTC is a flagship event that brings together energy professionals to explore advancements in scientific and technical knowledge for offshore resources. For the second year running, 3C Metal had a promotional stand at the exhibition's French Pavilion.

The event provided a unique opportunity for 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 were on site every day to answer questions and promote 3C Metal's turnkey engineering solutions.



## 3C METAL ELECTRICAL DEPARTMENT

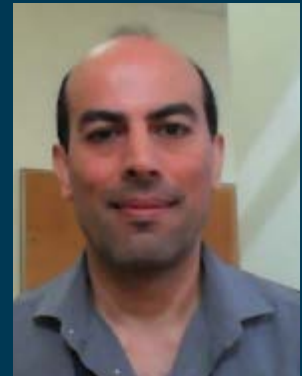
The 3C Metal Electrical Department was established in late 2018 to complement 3C Metal's strong multidisciplinary engineering capabilities and streamline its service offerings to clients.

Building on 3C Metal's success as a leading partner in turnkey engineering solutions, the Electrical Department's primary role is to maintain and develop core competencies for better in-house electrical support for our projects and clients.

### MEET THE 3C METAL ELECTRICAL TEAM

#### SAMI HALABEYA

Sami Halabeya is the Electrical Manager leading the 3C Metal Group Electrical Department. He holds a Master's Degree in Electrical Engineering. He has 17 years' experience in electrical design and engineering in marine and offshore oil and gas electrical installation projects. Sami joined 3C Metal Middle East in mid-2018. In his free time, he enjoys swimming, running and painting.



#### FARHAN ABBAS

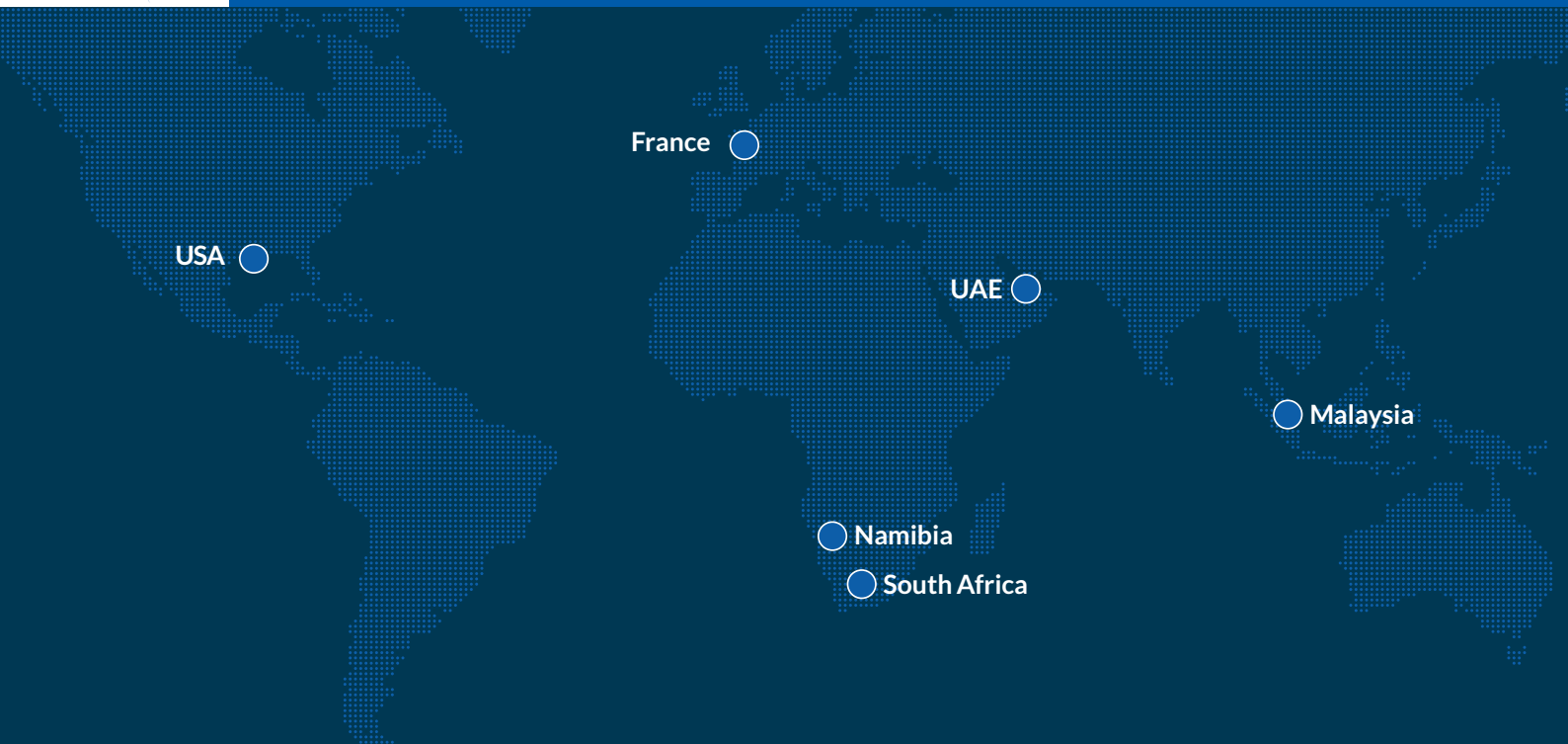
Farhan Abbas is the Senior Electrical Coordinator at 3C Metal Middle East. He holds a Bachelor of Electrical Engineering. He previously worked in Qatar in various offshore and marine projects, from refurbishment to new build. He joined 3C Metal Middle East in November 2018. In his spare time Farhan runs a NGO to help the needy. He enjoys playing cricket and listening to music.



#### BRICE MOLINE

Brice Moline started his career as an Electrical Engineer at 3C Metal Middle East in November 2018. He holds a Master's Degree in Electrical and Electronics Engineering. Brice enjoys running and reading in his spare time.





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