

3C News



**3C METAL'S DEPLOYMENT
TEAM ACHIEVES 2 MILLION
MAN-HOURS WITH ZERO LTIS**

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A WORD FROM 3C METAL'S PRESIDENT



The first quarter of 2019 has seen us get off to a busy start with a promising outlook for the year ahead. Despite challenges facing the industry, 3C Metal's core activities in the oil and gas industry remain strong with the award of offshore and onshore work.

Our expertise continues to grow in the delivery of small to medium EPC projects. Our track record shows impressive figures of managing fast-track projects - from surveying and engineering to prefabrication and onsite installation and commissioning. Our teams consistently demonstrate their ability to quickly respond to the needs of our clients, wrapping up projects quickly, and reaching pre-commissioning within very short periods of time.

In Asia and the Middle East we are continuing to experience a healthy amount of activity for MPD integrations - recent projects include integrations for TPAO's Fatih, Transocean's Deepwater Nautilus, Saipem's Scarabeo 9 and Seadrill's West Carina (featured in this newsletter on page 5). With successive MPD integration projects being awarded in these regions, our teams continue to pioneer new ways to innovate and make creative solutions to suit our clients' needs.

Other project highlights featured in this newsletter include the MPD pipework and new HPU installation for the Maersk Valiant (page 8) carried out by 3C Metal USA and the RGH integration onboard the Pacific Santa Ana (page 4) for Pacific Drilling by 3C Metal Middle East. In the African region, Belmet has carried out various fabrication projects for the Maersk Installer offshore supply ship (page 7). The expansion of Belmet's Namibia workshop is almost complete and comes as a response to anticipated activity in the region. Belmet have also established a branch in Mozambique to get ready for

the development of natural gas reservoirs straddling Areas 4 and 1 in the Rovuma Basin, offshore Mozambique. Construction of a hydrocarbon storage and handling terminal in Beira for the Portuguese company GALP (our first in-country project), was started in December 2018 but our team was recently demobilized in the wake of the devastation caused by cyclone Idai.

Moving forward we are ramping up our business development efforts in order to tap into active markets. Abu Dhabi, Saudi Arabia and the southern parts of Africa are currently key areas of focus for us. In an effort to exert all efforts to deliver our services to new regions and move steadfastly with our strategic plan for growth, we will continue to invest in our teams - offering continuous skills development and providing permanent technical support. I cannot stress enough that our growth and ability to win new work is attributed to the hard work and dedication of our teams, and I wish to thank them for their accomplishments.

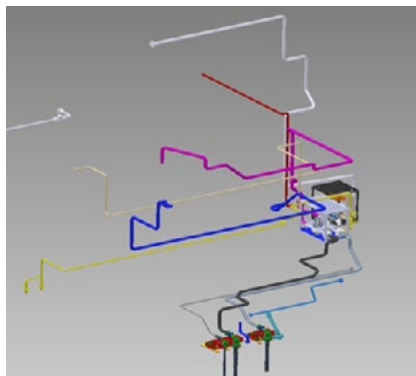
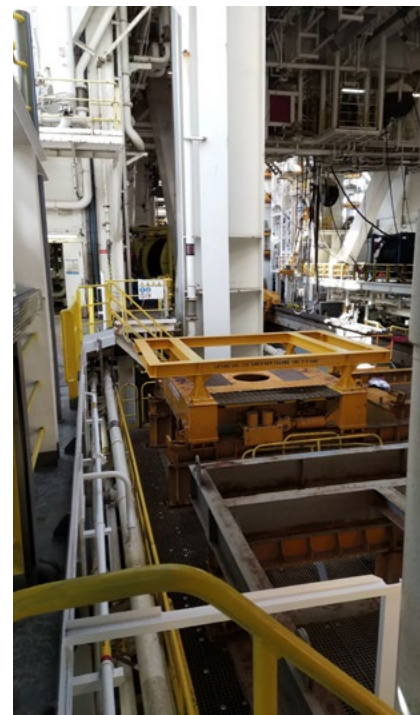
In other achievements, our deployment team recently surpassed a safety milestone of 2 million man-hours with zero LTIs. At 3C Metal, safety isn't just about compliance - it is at the heart of all our operations, and this achievement is a reflection of that. This year we are looking into new measures to make sure our safety systems promote unwavering discipline in applying safe work practices. We are investing in new training to enable employees to identify and respond to any potential hazards associated with their work.

Please enjoy reading some of the highlights for the quarter. As always, should you wish to offer feedback or find out more about our projects or services, don't hesitate to contact us.

Philippe Boy
President - 3C Metal

INTEGRATION OF RGH SYSTEM ONBOARD PACIFIC SANTA ANA DRILLSHIP

Earlier this year 3C Metal Middle East completed the riser gas handling (RGH) system integration onboard the Pacific Santa Ana drillship for Pacific Drilling in Las Palmas, Spain.



The scope of work included the engineering design, ABS class approval, prefabrication and installation required for the full system integration onboard the rig. In the initial stages of the project, 3C Metal deployed a team to carry out the onsite 3D laser scanning survey in Las Palmas. This aided the 3D modelling and accurate design for the structural integration and pipes routing.

The structural integration involved the design, supply, prefabrication and installation for the deck integration of the AF Global RGH manifold and Safekick Choke manifold, the deck integration of both the AF Global RGH reel and hydraulic power unit (HPU) and the extension of the blowout preventer (BOP) working platform. The RGH subsea riser joint and its associated controls were all supplied by AF Global. The work also included installation aids for the HPU and reeler's smooth positioning, integration of a storm loop sheave, hose handling padeyes and hose supports.

The piping integration involved the design, supply, prefabrication and installation of all lines required for the RGH system but also all the lines to have the rig ready for a future MPD integration - including high pressure (HP) piping (up to 15k PSI) and low pressure (LP) piping. More than 30 tons of piping was installed.

The full class design review of all structural and piping was managed by 3C Metal. The scope of work also included the electrical installation for the RGH system integration, which was managed by one of 3C Metal's reputable electrical partners.

With a team of up to 44 personnel and a total of 1,831 man-days onboard, 3C Metal was able to complete the project with zero lost time injuries (LTIs). The end result was a fully-functional system, integrated seamlessly into the drillship.

MPD INTEGRATION ONBOARD WEST CARINA

3C Metal Asia have carried out an MPD integration project for Seadrill's ultra-deepwater drillship, the West Carina. After participating in the rig's first MPD upgrade in 2015, when it was being mobilized in Brazil, 3C Metal was this year appointed to modify this first generation system and upgrade it with a new kit of equipment.



The rig's previous MPD manifolds were removed following the end of the Brazil assignment and a new set of manifolds were mobilized for the next MPD campaign in Malaysia. The rig's MPD tower was modified to accommodate the new set as well as most of the piping, which was replaced and upgraded to meet the functionalities of the new system. Additions included coriolis meters, which were fitted on all mud pumps, as well as modifications to some of the flowpath.

Thanks to a group effort, the upgrade was completed around the rig planning and scheduled stops, and before the rig

started its MPD campaign. 3C Metal USA led the project, conducting the laser scanning and initiating the design phase. 3C Metal South Africa prefabricated the coriolis spools. The installation phase was only able to commence once the rig reached Singapore. The 3C Metal Asia team then assisted with the HP lines prefabrication and installation.

This project is yet another example of 3C Metal Group's experience with MPD upgrades, delivered through close collaboration between its entities.

BOP ACCUMULATOR UPGRADE ONBOARD THE WEST CAPELLA

3C Metal Asia has been participating in the upgrade of the BOP accumulator onboard Seadrill's ultra-deepwater drillship, the West Capella. The work involved a new set of accumulators to be fitted on the BOP stack and the replacement of the interconnecting piping.



3C Metal supplied all the stainless steel 6,000 psi rated piping and fittings and fabricated all the different function routes onsite. All lines were made with dual seal hydraulic flanges, all tested to 9,000 psi and flushed down to NAS 6.

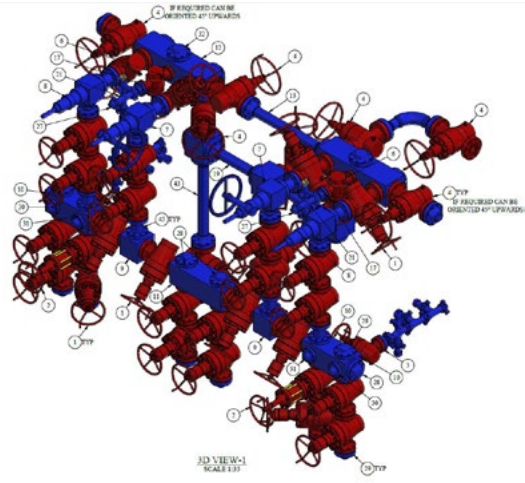
The installation was completed onboard the vessel while it was mobilizing for its next contract. This was a time-critical project and 3C metal deployed a team to work around-the-clock to complete the scope in the shortest possible timeframe.



The team also deployed dedicated stainless steel equipment and set up a protected area in order to manufacture the lines while avoiding contact with surrounding carbon steel material. The entire scope was under ABS surveillance. Thanks to 3C Metal's ABS certified welders and ABS approved procedures, the onsite review was concluded without comments. Once again 3C Metal's stringent quality standards were key to delivering a fully approved system and overcoming any challenges presented by the work.

3C SUBSEA PERFORMS INSPECTION OF A CHOKE AND KILL MANIFOLD

3C Metal South Africa's specialist division, 3C Subsea, was recently contracted to undertake an onboard inspection of a drillship's 15ksi choke and kill manifold, during its special periodic survey (SPS).



3C Subsea was able to offer a large array of services with the involvement of three entities of 3C Metal Group.

3C Metal Middle East conducted the laser scanning and engineering drawings. 42 valves were to be replaced and, using the 3D scanning technology and engineering capabilities, 3C Metal was able to verify that the new valves will fit perfectly in the existing manifold.

The Group's subsidiary responsible for global sourcing, 3C Supply, delivered the required high strength bolting with special coatings, and high pressure gasket seals.

The 3C Subsea team performed the inspection as per the requirements of the API 6A standard of the manifold's main subcomponents. 3C Subsea mobilized multi-skilled inspectors and calibrated equipment to perform a visual and dimensional inspection, as well as Non-Destructive-Testing (NDT) such as Ultrasonic (UT), Liquid Penetrant (PT), Magnetic particles (MT) testing.

3C Subsea continues to provide the highest quality services for onsite riser and capital drilling equipment, inspection, repair and recertification.

BELMET MARINE NAMIBIA CARRIES OUT WORK FOR THE MAERSK INSTALLER

Belmet Marine Namibia recently completed various projects for the Maersk Installer vessel. The work was awarded by Oceaneering and carried out in Walvis Bay while the vessel was in port prior to being mobilized to Angola to undertake well projects for BP.



The initial order for two antenna pedestals was subsequently increased to include prefabricated steelwork. All technical issues and concerns were liaised directly with the Oceaneering team in the USA as well as their local team in the Port of Walvis Bay.

After undertaking work on the antenna pedestals, Belmet accepted further work that included the supply and onsite support for the in-service riser inspection system (IRIS)

subsea assembly structure. Once completed, Belmet Marine Namibia had executed 28 various contracts on the project over a six week period.

The estimated total steel mass amounted to 40 tons and included the IRIS support structure, antenna pedestals, three sub-frame foundations, various access platforms as well as ladders and handrails, skid modifications and machining and equipment modifications.

BELMET MARINE ENGINEERING NAMIBIA'S WORKSHOP EXPANSION



Despite difficult conditions in the Namibian market, Belmet remains committed to the expansion plans for its Walvis Bay facilities.

The expansion is nearing completion and will effectively increase the capacity of the workshop by 70%. Part of the expansion includes the addition of an in-house painting facility which will provide Belmet with the opportunity to undertake quality corrosion services in-house.

Belmet's Managing Director, Pieter Kroon said the expansion is in response to renewed confidence in the Namibian market and anticipated activity in the region.

MPD PIPEWORK AND NEW HPU INSTALLATION FOR MAERSK DRILLING

3C Metal's Houston based entity, 3C Metal USA, undertook a project for MPD pipework and the installation of a new HPU for Maersk Drilling's Maersk Valiant drillship.



3C Metal carried out the initial laser scanning survey, the engineering, fabrication and installation. The scope of work included the modification of MPD piping (ICP spools flow lines), fabrication of spools and structural components, the installation of the new HPU and the supply and installation of support and cable trays.

Prefabrication was carried out in the 3C Metal Middle East workshop in Dubai. The installation was carried out in the Gulf of Mexico over a period of 23 days with a team of nine personnel onboard.

The full ABS approval was received for all lines, prefabricated and installed. The project was successfully completed on time with zero LTIs and no incidents to report.

3C METAL TO EXHIBIT AT THE 2019 OTC IN HOUSTON

3C Metal are pleased to announce that it will exhibit at the 50th Offshore Technology Conference (OTC) which will be held from 6 to 9 May, in Houston, USA.



The OTC is a flagship event that brings together energy professionals to explore advancements in scientific and technical knowledge for offshore resources. It is the second year running that 3C Metal will take part. Attendees are encouraged to visit 3C Metal at booth 2115 at the French Pavilion.

3C METAL AND 3C SUPPLY EXHIBIT AT NAPEC 2019

3C Metal and 3C Supply recently took part in the 2019 North Africa Petroleum Exhibition and Conference (NAPEC) held in Oran, Algeria.



NAPEC is the largest oil and gas exhibition and conference in Africa focusing on the North Africa market. It is dedicated to the upstream, midstream and downstream activities.



The conference was held from 10 to 13 March. Taking part provided 3C Metal an excellent opportunity to promote its services and for 3C Supply to showcase its complete supply chain solutions to potential clients in the region.

3C METAL'S DEPLOYMENT TEAM ACHIEVES 2 MILLION MAN-HOURS WITH ZERO LTIS

3C Metal's offshore team recently celebrated an impressive achievement of 2 million offshore man-hours with zero LTIs. This milestone was reached shortly after the offshore team closed 2018 with zero LTIs for the year.

3C Metal is proud of its strong safety culture – a culture that has been maintained by actively encouraging every employee to take responsibility for applying and promoting the highest standards of safe work practices. The health, safety and wellbeing of 3C Metal's teams continues to be its number one priority. Moving forward, 3C Metal will strive to maintain its safety track record through the continual improvement of its safety systems and processes and the dedication to safety by all 3C Metal teams.



TEAM BUILDING TAKEN TO NEW HEIGHTS FOR 3C METAL MIDDLE EAST

In February, 3C Metal Middle East took part in their annual team building event at Aventura Nature Park in Dubai. The park is situated in a unique forest of Ghaf trees and it served as an excellent space for an afternoon of fun.



Staff were divided into five teams – gold, silver, bronze, purple and blue – and worked together to complete five challenges. The challenges were a coordination challenge, sand ski challenge, the wall climb, the “Mission Impossible” challenge and the “Leap of Faith”. The teams had to complete the challenges as many times as they could to earn points in a set amount of time.

In the coordination challenge, holding long strings connected to a ring, teams had to balance a tennis ball on the ring and move from one end of a course to the other as many times as they could. In the sand skis challenge, teams were required to walk on two canvas “skis” with rope handles, without anyone touching the ground and with one person blindfolded. The wall climb involved wearing a harness and climbing a tall wall using

grips to ring a bell at the top. The mission impossible challenge, required one team member to be suspended in a harness with other team members moving the suspended person using a pulley system to get collect objects on the ground. The most adrenaline inducing challenge was the “Leap of Faith”. One by one teams had to put on a harness, climb to the top of a tall post, balance on the top and leap for the orange target suspended in front of the post.

At the end of the day the silver team scored the most points – winning bragging rights and complimentary passes to Aventura Nature Park. To end the day everyone headed to the Dubai Creek Golf and Yacht Club for dinner and drinks to celebrate.

3C METAL USA

3C Metal USA was established in late 2017 to increase the Group's activities in North and South America. With its major clients based in the USA, the new location allows 3C Metal to be even more responsive to their needs. Specializing in project management and engineering, 3C Metal USA's services include deployment, 3D laser scanning surveys, piping services and structural services.

MEET THE 3C METAL USA TEAM

NICOLAS GANDON

Operations Manager

Nicolas Gandon is the Operations Manager of 3C Metal Group's newest USA entity. He holds Master's Degrees in Mechanical Engineering from French and Brazilian universities. He started with 3C Metal Middle East as a Project Engineer and spent five years based in Dubai running projects in Asia and Africa. In his free time, he enjoys mountain biking and traveling.



CESAR DOMINGUEZ

Project Engineer

Cesar Domínguez is a US Project Engineer and holds a Bachelor's Degree in Petroleum Engineering from Texas Tech University. He skilfully collaborates logistics, coordinates and manages projects to ensure their timely and successful delivery. In his free time, he enjoys traveling, playing golf and spending time with family and friends.

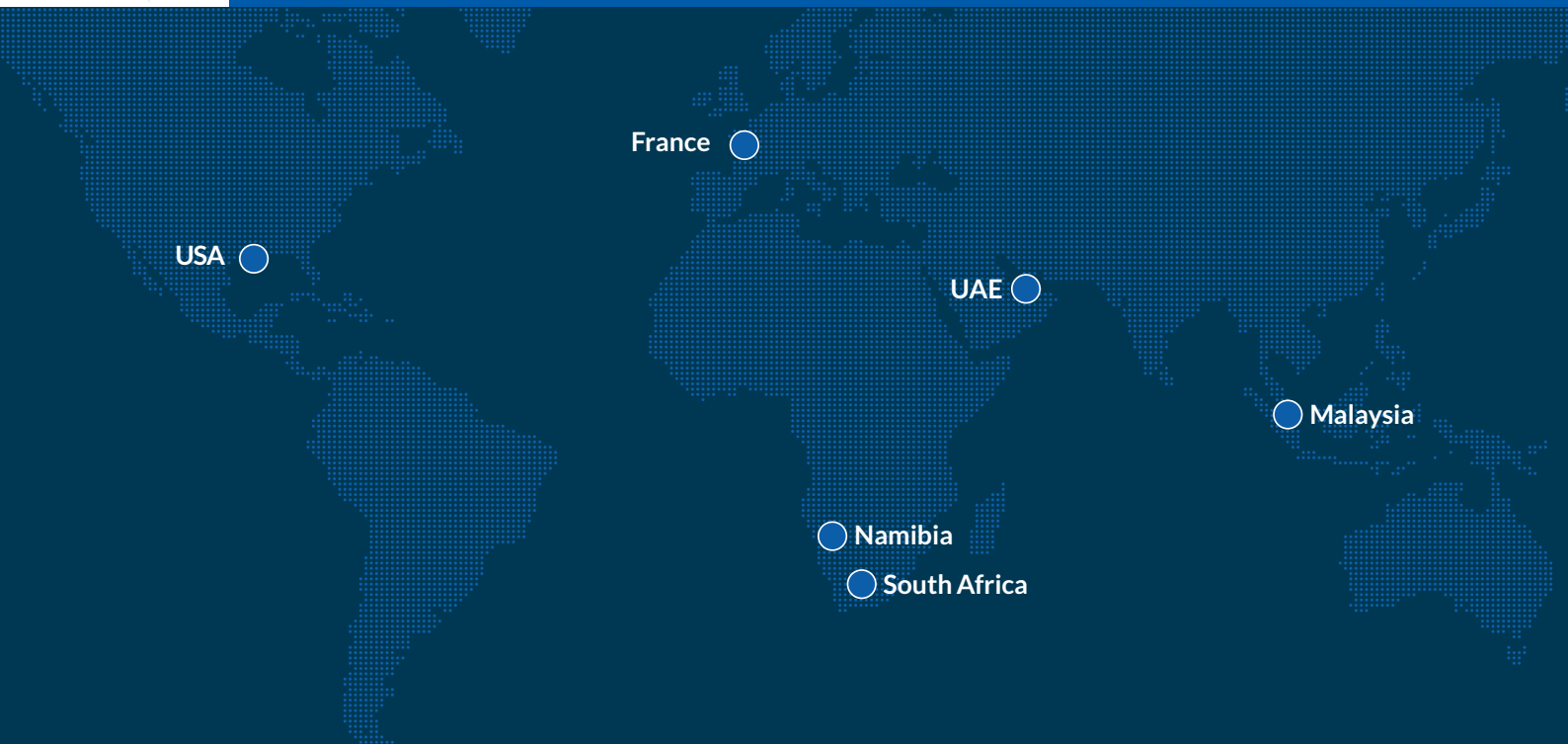


IRIS BRAGGS

Administrative Coordinator

Iris is an enthusiastic Jill-of-all-trades for management in the oil and gas engineering industry. Her accomplishments include achieving successful ISO accreditation in HSEQ and QMS as well as office ergonomics implementation. She is a dedicated, loyal EA by nature and supports all levels of management, namely C-Level executives. In her free time, she enjoys dancing Afro-Cuban dance, Rumba and Bachata.





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