



LEADER IN CONTEMPORARY  
SUBSEA SOLUTIONS

# THE TREND *Newsletter*



Issue 8, March 2015



# DEEPWATER

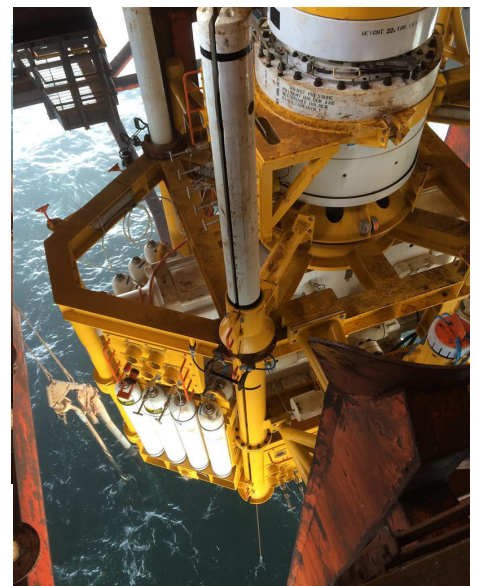
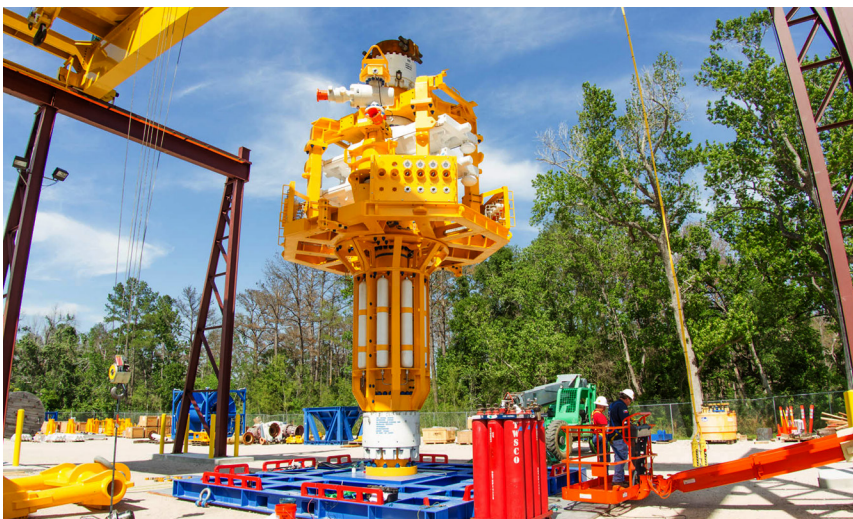
Trendsetter is a global provider of specialized subsea solutions to the oil and gas industry's toughest challenges. We specialize in solving unconventional problems with conventional field proven technology.

Our quick response, innovative technology and commitment to customer service, safety and quality are what make us the leader in contemporary subsea solutions. Our team of experts has established a reputation for providing cutting-edge, reliable solutions with a quick turnaround, while keeping safety as the number one priority.

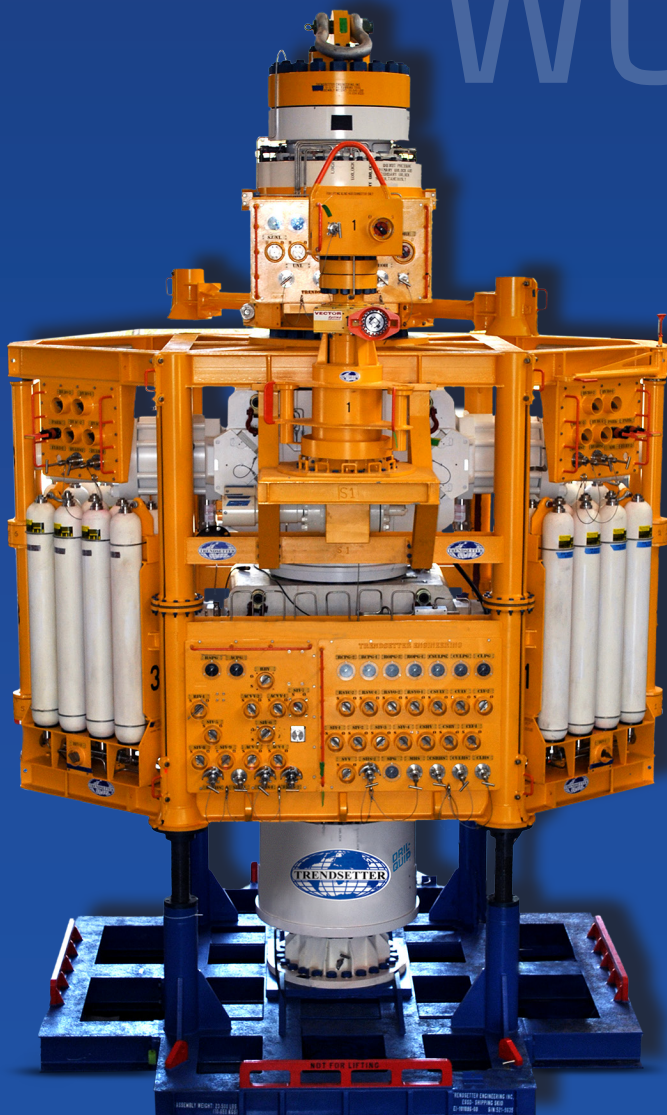
Our expertise and inventive approach ensure our clients receive the most advanced and dependable solutions available today in the subsea oil and gas industry.



# EXPERTISE



# DELIVERING INNOVATIVE SOLUTIONS WORLDWIDE



- CAPPING & CONTAINMENT SYSTEMS
- SOURCE CONTROL SOLUTIONS
- MANIFOLDS & FOUNDATIONS
- CONNECTION SYSTEMS
- CONTROLS & DISTRIBUTION EQUIPMENT
- BOP SUBSEA ACCUMULATOR MODULES
- SPECIALIZED TOOLING SOLUTIONS
- RENTAL EQUIPMENT
- FIELD DEVELOPMENT
- MANUFACTURING & FABRICATION
- INSTALLATION, TESTING & AFTERMARKET
- ROV SIMULATION
- CONSULTING SERVICES

# PRESIDENT'S MESSAGE



Welcome to The Trend, Trendsetter's official company news source of our latest technological developments and advancements! 2014 was a great year for Trendsetter as we successfully completed multiple high-profile projects, including a Mudline Closure Device (MCD) for a major oil and gas operator as well as an industry leading 18 ¾" 15,000 psi capping stack for Wild Well Control. To accommodate the demand for these large scale projects, we have added a new storage facility, providing greater capacity for our existing equipment and allowing us the ability to provide equipment storage for our clients. This new storage facility will also serve to house our quality and shipping and receiving departments.

I am proud to announce that last year, Trendsetter was recognized for the third year in a row by the Houston Chronicle as one of Houston's "Top Workplaces," as well as the Houston Business Journal's "Best Places to Work" for the second year in a row. The Houston Chronicle also named Trendsetter

one of Houston's fastest growing companies as Trendsetter was ranked on the Chron 100 list. These mentions are an honor and a true testament to our employees and our company culture.

Not only is Trendsetter committed to bringing innovative technology to the oil and gas industry, we are proud to support organizations working to strengthen our community. We share our success by giving back to charitable and educational institutions that address our community needs. Last year, Trendsetter participated in several events supporting multiple causes including youth charities, cancer research, hunger relief and our veterans.

Last year was a success on a multitude of levels and looking ahead to 2015, I am encouraged as we continue to broaden our business efforts. This year, Trendsetter will complete a worldwide response subsea containment system for Oil Spill Response Limited (OSRL) and the Subsea Well Response Project (SWRP). This project will utilize an innovative flow back and capture solution for subsea well blowouts. Another exciting project to be completed this year is the integration of a subsea well-based High-Integrity Pressure Protection System (HIPPS) in the Gulf of Mexico for ExxonMobil.

We plan to continue responding to market challenges and expand our lines of service equipment.

I am excited to announce our innovative Trendsetter Connection System. This has been a monumental accomplishment for our team, and the exceptional quality and ingenuity of this system is first class.

I would personally like to thank and congratulate each and every one of our employees for making this past year an extraordinary success. I would also like to extend my appreciation to our customers and suppliers for their continuous support. I pray for another great year at Trendsetter and look forward to the challenges and new developments that await us.

A handwritten signature in white ink, appearing to read "Ron Downing". The signature is fluid and cursive, with a prominent initial "R" and "D".

Ron Downing  
President

Trendsetter welcomes Brian Salerno, Director of the Bureau of Safety and Environmental Enforcement and HWCG, to our facility in Houston, Texas. From left to right, Brett Morry (Trendsetter), Ross Frazer (HWCG), John Weust (HWCG), Mario Lugo (Trendsetter), Natalie Older (Trendsetter), Dave Coatney (HWCG), Brian Salerno (BSEE), Mike Cargol (Trendsetter), Nicole Downing (Trendsetter), Johnnce Hall (Trendsetter) and John Sprot (Trendsetter).



Voted  
**Houston Chronicle's**  
**CHRON 100**  
 for the first year!



Voted  
**Houston Business Journal's**  
**FAST 100**  
 for two  
 consecutive years!



Voted  
**Houston Business Journal's**  
**BEST PLACES TO WORK**  
 for two  
 consecutive years!



Voted  
**Houston Chronicle's**  
**TOP WORK PLACES**  
 for three  
 consecutive years!



# NEW PROJECTS AND TECHNOLOGY

## TRENDSETTER UNVEILS NEW CONNECTION SYSTEM

Trendsetter is pleased to announce the new and innovative Trendsetter Connection System (TCS).

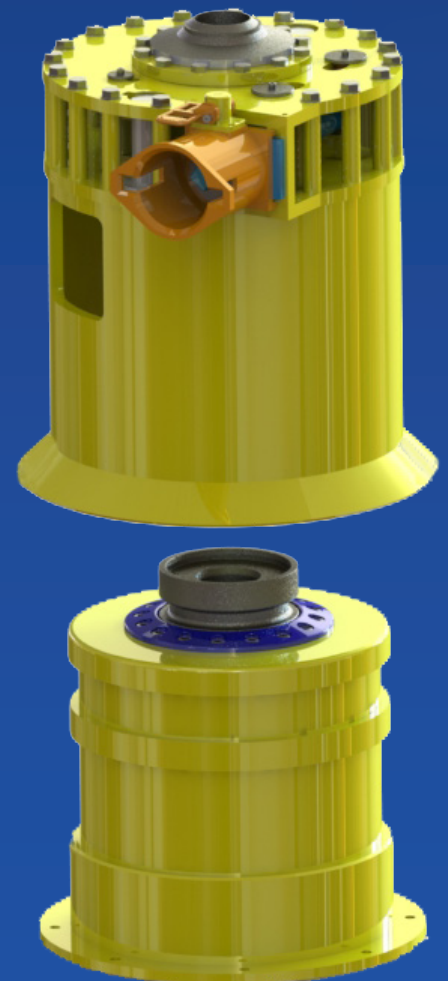
The Trendsetter Connection System (TCS) provides a robust subsea clamp connector solution that will meet or exceed clients' project needs. The TCS solution, comprised of the TC7 clamp connector and the TC11 clamp connector, is an innovative development that illustrates Trendsetter's vast experience in product development and system integration. The TCS system has been developed around industry lessons, research and feedback on the existing subsea connection systems. The current connectors include the following:

- TC2H Horizontal Collet Connector
- TC7 Clamp Connector
- TC11 Clamp Connector

The connectors utilize Trendsetter Engineering's metal to metal (MTM) gasket system, TEX.

### Features and Benefits:

- Utilizes a robust 3-piece segmented clamp resulting in bending and torsion capacities, based on zero hub separation, that are equivalent or exceed other clamp connectors and rival typical collet connector capacities.
- Provides a more reliable subsea connection by tensioning the lead screw as opposed to others who rely on torque.
- Deploys with the newly developed metal-to-metal TEX gaskets that require low setting force to energize, allowing for more of the connector's capacity to be used for the jumper.
- Common hub design and porch structures for each clamp to reduce tooling needs and to streamline system design.
- Newly developed hub alignment system that allows for greater misalignment during installation, provides soft landing and allows for subsea gasket replacement.
- Simple installation with integrated soft landing system to reduce handling and recovery time for connector installation tooling.
- Utilizes readily available, standard ROV tooling to operate the clamp systems.



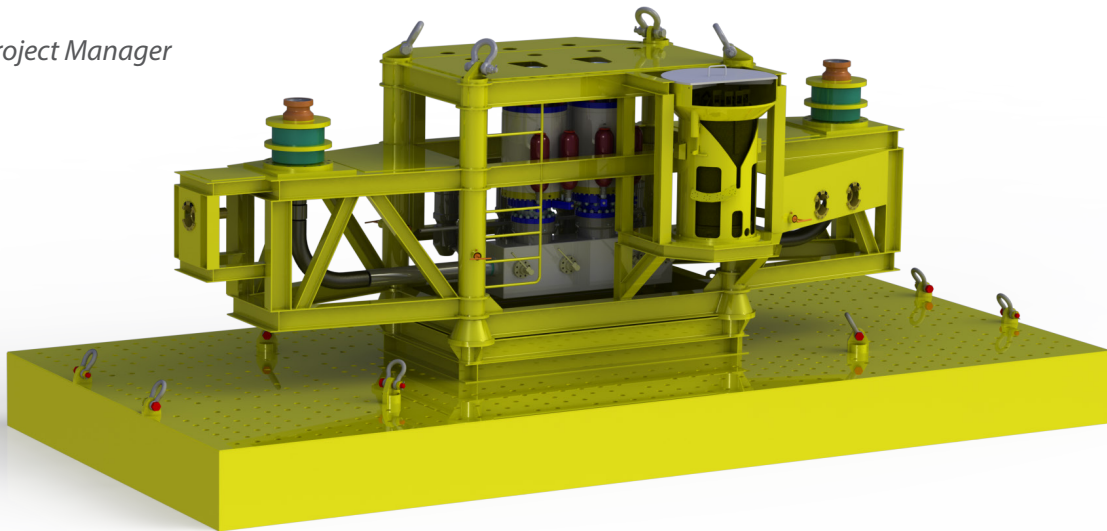
# TRENDSETTER RECEIVES SUBSEA HIPPS INTEGRATION CONTRACT FROM EXXONMOBIL

Trendsetter has been awarded a contract for module hardware design and overall integration of a subsea well-based High-Integrity Pressure Protection System (HIPPS) for ExxonMobil's Julia field development in the Gulf of Mexico.

The Julia field is located in 7,500 feet of water approximately 15 miles from the host platform. The Julia HIPPS is a pressure protection system designed as a contingency to prevent internal damage to downstream subsea equipment should a Julia well encounter higher than predicted pressures. Delivery of the Julia HIPPS module is scheduled for the first quarter of 2016.

"Trendsetter is very excited to be a part of the Subsea HIPPS Module System project for the GoM. We have a strong history with ExxonMobil, having helped them solve an array of subsea challenges over the past 15 years. We are very pleased to build on this positive relationship with our client."

*Nadeem Elnasr, Project Manager*



# TRENDSETTER TO ASSIST NOBLE ENERGY IN THE GUNFLINT DEVELOPMENT

Trendsetter was awarded a contract by Noble Energy to design, manufacture and test a total of **five** subsea pipeline end termination (PLET) and inline sled (ILS) structures for their ongoing Gunflint development. The Gunflint development is a tieback to the Gulfstar I platform in the Gulf of Mexico.

"Trendsetter is excited to expand on our history of supplying innovative production system solutions to the oil and gas industry. We look forward to supporting Noble Energy on making the Gunflint development a successful project in support of the first-oil target date."

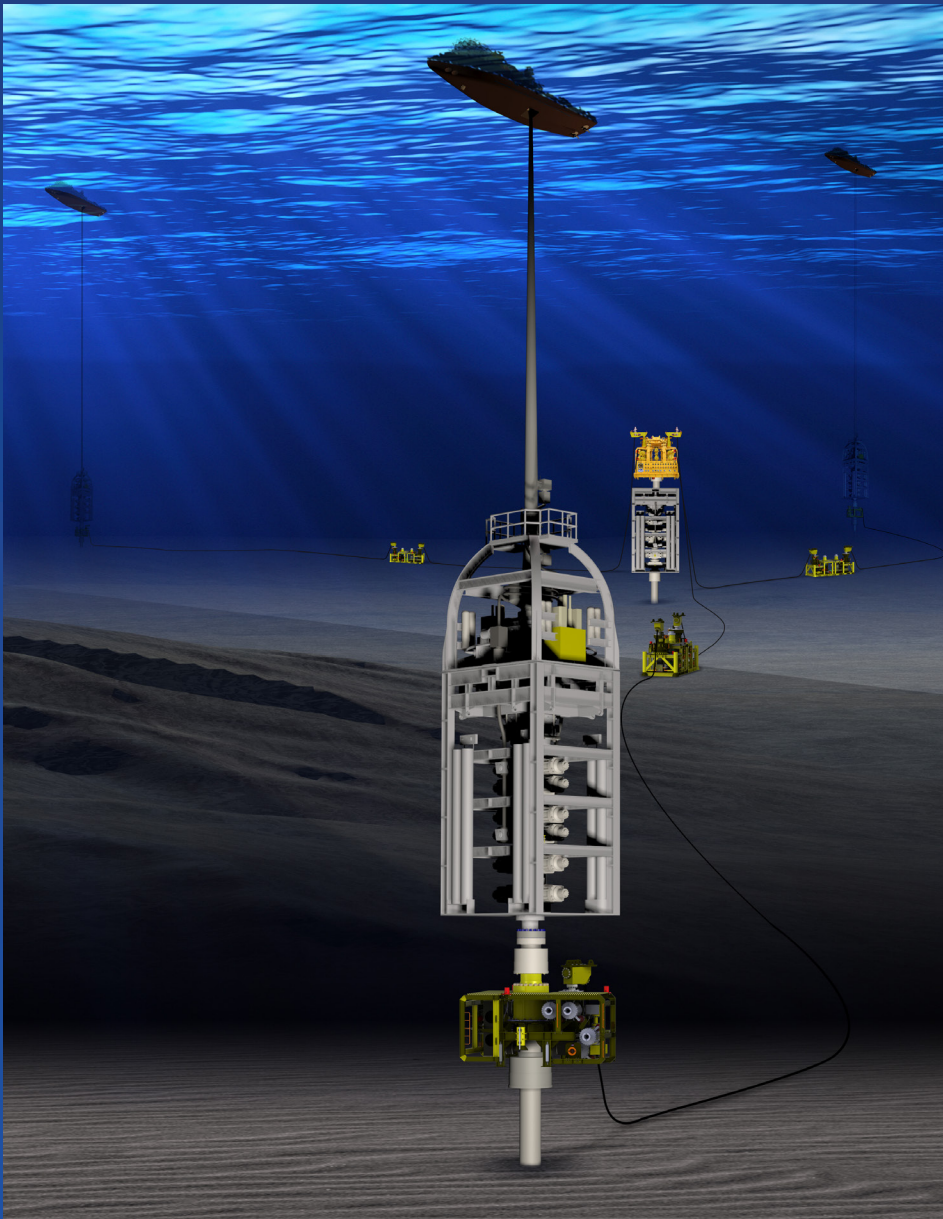
*Tony Matson, Project Manager*

Design engineering and early manufacturing is currently underway on three production jumpers, Trendsetter's unique vertical connection system, a host of ROV tooling, as well as fabrication support equipment. Delivery is scheduled for early 2015 in support of Noble Energy's installation schedule.

# SUBSEA CONTAINMENT SYSTEM FOR SWRP'S INTEGRATED INTERVENTION SYSTEM

Trendsetter is currently working on key components of a worldwide response subsea containment system for Oil Spill Response, Ltd. (OSRL). OSRL is an industry-owned co-operative and the largest global provider of oil spill response and preparedness services. OSRL is collaborating with the Subsea Well Response Project (SWRP) to make a new integrated intervention system available to the global industry.

Management, engineering and procurement was performed at Trendsetter's facilities in Houston, Texas. The equipment will be owned by OSRL and will be made available to all operators worldwide on a subscription basis. The system provided by Trendsetter will include 3 FLETs, 3 flowspool assemblies, 6 flowline connectors, 3 flexible jumper connectors, 3 jumper choke connectors, 7 connector mounted over-pressure-protection devices, as well as custom containers and skids to enable air freight of this subsea intervention equipment.

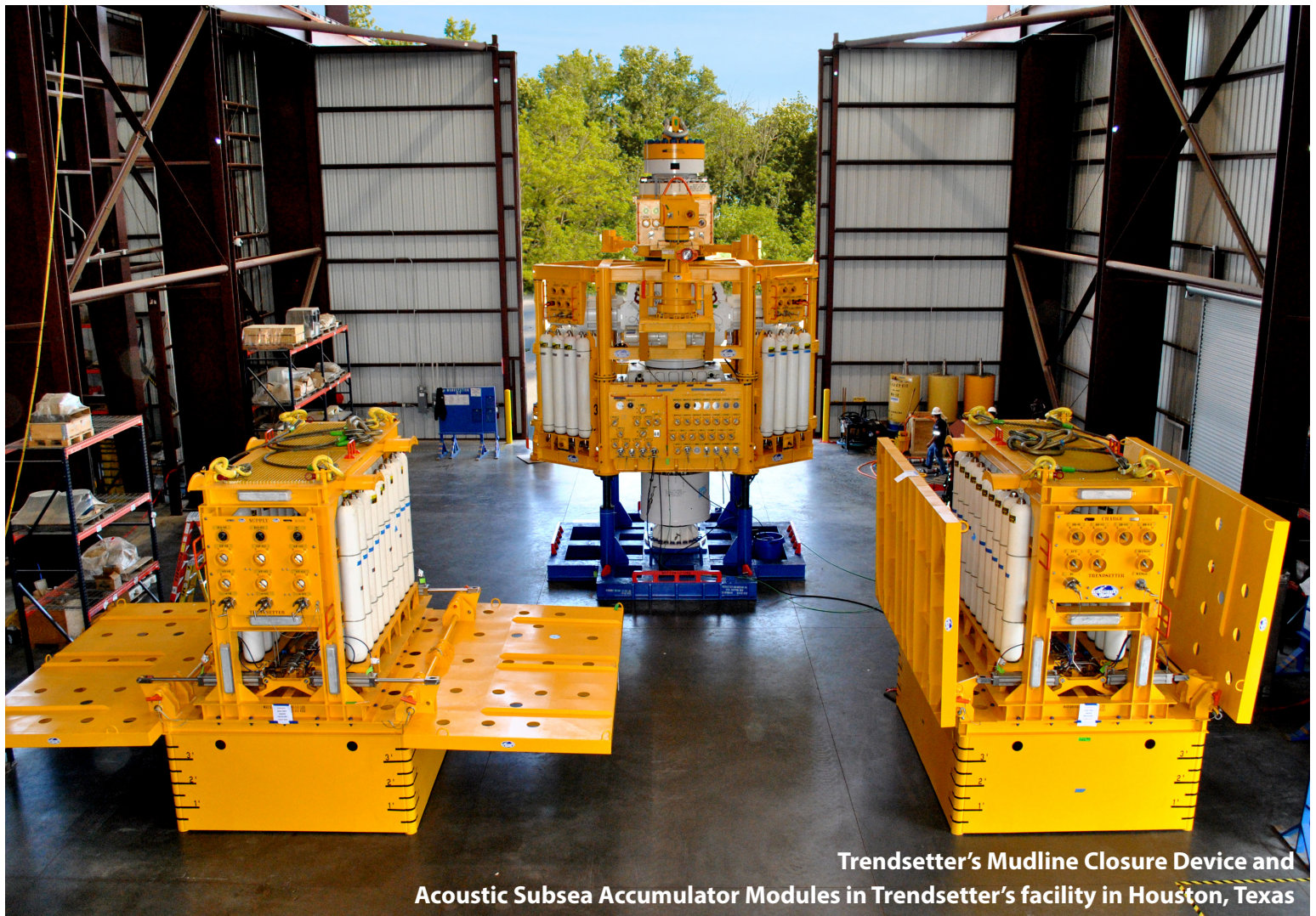


The project will utilize an innovative flow back and capture solution to direct well hydrocarbons to surface for a safe disposal if ever required in a subsea intervention. The flowspool assembly, a custom manifold with hydraulic valves, is landed on a dummy wellhead to transition flow from the incident well to a vertical riser. The flowspool is connected to the collection vessel via an internal landing string equipped with a traditional subsea test tree system.

This system simplifies and expedites the mobilization and installation effort, makes the system modular to accommodate rapid response during emergency and minimizes storage and maintenance costs.

The equipment will all be stored at Trendsetter's facilities in Houston, Texas in a state of readiness for worldwide deployment should an emergency loss of subsea well control occur.





Trendsetter's Mudline Closure Device and Acoustic Subsea Accumulator Modules in Trendsetter's facility in Houston, Texas

## MUDLINE CLOSURE DEVICE (MCD)

Trendsetter has developed an 18 ¾"– 15,000psi mudline closure system that is installed in addition to the traditional BOP assembly to enhance safety during drilling in harsh environments. At the heart of the system is a **Mudline Closure Device** or MCD. The MCD is designed to be installed between the BOP and subsea wellhead during drilling operations and can be used to shear and isolate the well should loss of well control occur. MCDs could also be installed on the seabed when connected via a rigid riser to a surface BOP when used with jack up rigs. The MCD serves as an additional safety shut-in device during drilling operations with dedicated hydraulic controls independent of the BOP and BOP control system. The MCD provides a clean re-entry capability and is capable of monitoring, logging and transmitting pressure and temperature readings up to 9 months should the rig need to abandon the well due to an unforeseen event.

Along with the MCD, the system includes a dedicated subsea control system that includes subsea accumulator modules (SAMs), acoustic electro-hydraulic control systems and hydraulic flying leads. In addition, the system includes a test stand, an 18 ¾" – 15,000psi secondary pressure cap and other supporting equipment.

Trendsetter's MCD system is available for purchase or lease and is designed to perform the following basic functions:

- Connects and seals to an 18-3/4" 10,000psi or 15,000psi wellhead housing
- Provides an 18-3/4" 10,000psi or 15,000psi upper mandrel connection to the subsea BOP
- Provides two individual BOP rams capable of shearing and sealing off wellbore with 15,000psi wellbore pressure when actuated with acoustics or with the ROV back-up system
- Provides two subsea mateable connections for contingency bore access, well kill operations and cap and flow scenarios

# WILD WELL CONTROL 18 3/4" 15,000 PSI CAPPING STACK

Trendsetter successfully completed the design and build of a state-of-the-art capping stack for Wild Well Control. The 18-3/4" 15,000 psi capping stack was designed, manufactured, and assembled within nine months. The cutting edge well capping equipment is designed so that it can be deployed around the world via air freight or ocean freight in the event of a subsea well control incident.

The well capping stack equipment is capable of containing oil wells in depths of 10,000 feet. The capping stack is equipped with four choke outlets, two of which can be converted to flow lines.

The capping stack was successfully tested at Trendsetter's facilities in Houston, Texas and will be delivered to Singapore where it will be readily available should a subsea well control incident occur.

*"Trendsetter was pleased to have the opportunity to work on this project with Wild Well Control. We are very proud that this is Trendsetter's 9th capping stack to build overall."*

*Hamed Moshrefi, Project Manager*



## EMERGENCY PREPAREDNESS

Over the last quarter, Trendsetter's teams of trained technicians and engineers dispatched to all corners of the world to provide scheduled maintenance support for the four Trendsetter-designed OSRL capping stack systems located in Norway, Brazil, South Africa and Singapore. In addition, the teams conducted scheduled maintenance on the HWCG system, upgrades to the MWCC TLP Stack at Trendsetter's Houston facility, as well as various other equipment related activities at MWCC's facility in Ingleside, Texas.

Trendsetter's planning and preparedness teams also stayed busy continuing their support of the industry's deepwater response preparedness. Through Subsea Well Response Project (SWRP), Trendsetters supported Statoil ASA's well capping exercise in September in Stavanger, Norway. The exercise was conducted to provide insight to local regulator PSA and industry peers as to how Statoil is prepared to deal with a subsea well control event, as well as the process to plan for such an event using the Master Guide for Well Response being finalized by SWRP. Trendsetter's team led the plan development, training and exercise facilitation. In order to create a sense of realism, extensive animations and videos were produced to support the exercise using Trendsetter's in-house ROV simulator system provided by GRI Simulations.

Training was also conducted through Australian Marine Oil Spill Centre Pty Ltd (AMOSC) for the offshore operator base in Perth, Australia. Trendsetter conducted Source Control Awareness Training for the attendees, which included representatives from ConocoPhillips, Apache, Shell, BHP, Santos, Woodside, ENI, INPEX, Chevron and regulator, NOPSEMA.

The team continues to support the industry from Newfoundland, Canada to Rio de Janeiro, Brazil and all points east and west.



**Trendsetter's Wild Well Control  
18 3/4" 15,000 psi Capping Stack**

# CAPPING STACK TECHNOLOGY

Post-Macondo, the deepsea oil industry was challenged to revitalize faith in equipment integrity and contingency response. Various consortiums of international oil companies aligned to design, build, distribute and plan for future subsea well crises. The first of such collaborations was the Marine Well Containment Company (MWCC), consisting of ten Gulf of Mexico companies involved in deepwater drilling. MWCC awarded Trendsetter the contract to develop and manufacture a single ram capping stack, which was completed in an unprecedented 7 ½ weeks. This was a critical element that allowed drilling to resume in the GOM, establishing Trendsetter as a global leader in providing fit-for-purpose capping stack technology.

Since, Trendsetter has built eight additional custom capping stack systems, including the HWCG Capping Stack, Arctic Capping Stack for Shell, Tension Leg Platform (TLP) Capping Stack for MWCC, four Oil Spill Response Limited (OSRL) Capping Stacks, and the Wild Well Control Capping Stack. Trendsetter continues to lead the industry as a global provider of innovative capping stack technology.



18 3/4" 15,000 PSI  
MWCC  
10,000 FT WATER DEPTH  
4X 5 1/8" OUTLETS



18 3/4" 15,000 PSI  
HWCG  
10,000 FT WATER DEPTH  
2X 5 1/8" OUTLETS



18 3/4" 10,000 PSI  
SHELL OIL COMPANY  
10,000 FT WATER DEPTH  
2X 5 1/8" OUTLETS



7 1/16" 10,000 PSI  
MWCC  
10,000 FT WATER DEPTH  
2X 4" OUTLETS



2X - 7 1/16" 10,000 PSI  
OIL SPILL RESPONSE LIMITED  
10,000 FT WATER DEPTH  
4X 5 1/8" OUTLETS



2X - 18 3/4" 15,000 PSI  
OIL SPILL RESPONSE LIMITED  
10,000 FT WATER DEPTH  
4X 5 1/8" OUTLETS



18 3/4" 15,000 PSI  
WILD WELL CONTROL  
10,000 FT WATER DEPTH  
4X 5 1/8" OUTLETS



Trendsetter's 18 3/4" 15,000 psi OSRL Capping Stack in Stavanger, Norway

# OUR COMMITMENT TO QUALITY

It is the policy of Trendsetter to meet and/or exceed our customer requirements by on-time delivery of the highest quality subsea equipment, in strict compliance with safety and regulatory requirements, while providing maximum value and superior customer service during and after the sale of products.

Trendsetter is ISO 9001:2008 Quality Management System Certified.

## THINK SMART BEFORE YOU START

HSE is our top priority and shall be managed by establishing objectives, targets and educational programs that strengthen our culture. Through employee engagement, active participation and leadership from top level management we shall:

- Conduct our activities in a manner that ensures the health and safety of our staff and other persons whom our activities affect.
- Fully comply with all laws, regulations or other requirements within each country or region we operate.
- Identify hazards and implement mitigating actions to reduce safety and health risks and harm to the environment.
- Engage all personnel on HSE to ensure knowledge is shared and best practices implemented across the organization.
- Ensure the protection, integrity and safe operation of all equipment and facilities.
- Protect the environment, reduce waste, prevent pollution and, return surroundings to their natural state.
- Consistently monitor HSE performance and implement strategic initiatives to systematically and continuously improve our program.



**David Barbour**  
*HSE Manager*

As Director of HSE, David is responsible for the design, implementation and management of processes within the organization's health, safety and environmental program. With multiple interfaces, both internally and externally, David ensures compliance to applicable HSE regulations and conformance to client standards and industry best practice. David provides guidance and support for all functions within Trendsetter through strategic initiatives to allow for continuous improvement of the HSE program with the goal of incident prevention.

David has over 15 years of experience in upstream and downstream oil and gas construction and manufacturing, including 7 years in HSE management. Prior to joining Trendsetter, David's previous experience include managing HSE for all projects within the gulf coast region, including the primary HSE role within the Marine Well Containment System project.

David earned an Associate of Applied Science Degree in Occupational Health and Safety from San Jacinto College before earning a Bachelor of Science Degree in Occupational Health and Safety from Columbia Southern University.

# EMPLOYEE PROFILES



**David Older**  
*Executive Vice President of Engineering*

David has over 15 years of experience working exclusively in the oil and gas industry as a subsea engineer and project manager with experience in an array of high profile projects across the globe, including the United States, Australia and West Africa. Prior to joining Trendsetter, David worked for ExxonMobil Development Company and then Anadarko Petroleum Corporation where he managed the Caesar Tonga Project and installed the first Steel Lazy Wave Riser in the Gulf of Mexico.

As Executive Vice President of Engineering, David manages the engineering department and all operations including new product development, design and analysis. He is responsible for delivering standardized, quality engineered solutions that meet the global market requirements for subsea production and drilling systems. David is responsible for ensuring all projects are held to industry standards. David earned a Bachelor of Science Degree in Mechanical Engineering from Texas A&M University.



**Mike Cargol**  
*Vice President of Service and Response Operations*

As the Vice President of the newly formed Rentals and Services Divisions, Mike is responsible for the delivery of rental equipment and services to Trendsetter's clients in support of oil and gas field operations, maintenance of emergency response systems, source control response planning and subsea well control response operations.

Mike's oil and gas career has spanned over 20 years and ranges from operational and management roles in drilling, completion, intervention, abandonment, well control and subsea operations. His operational experience, understanding of the marketplace and business management skills provide the foundation for Mike to lead Trendsetter's talented and experienced team in building and expanding their product and services portfolio to the industry through the Rentals and Services division.

Mike attended Northwestern State University where he received a degree in Aviation Science and the University of New Orleans where he received a degree in Business Administration.



**Chris Perry**  
*Project Engineer*

Chris has over 10 years of experience in the oil and gas industry including project management, systems and process engineering, manufacturing engineering, construction management and downhole tool design team lead. His current responsibilities include the planning, leading and execution of all technical aspects of various subsea capital projects from engineering concept to manufacture and testing.

During his time with Trendsetter, Chris and his team have overseen the completion of a four-year adventure into hybrid riser chain management, and he has planned and executed projects for remote control of subsea blow out preventer stacks and finalized a product to reduce wellhead fatigue by tethering the BOP to subsea piles. Chris holds a Bachelor of Science Degree in Mechanical Engineering from Louisiana State University in Baton Rouge, LA, where he graduated with honors.



# LEADER IN CONTEMPORARY SUBSEA SOLUTIONS



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