



LEADER IN CONTEMPORARY  
SUBSEA SOLUTIONS

# THE TREND

*Newsletter*



Issue 5, January 2014



## 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, especially in a crisis environment.

Our quick response, innovative technology and commitment to customer service, safety and quality, is what makes 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 STACKS & 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



Trendsetter has continued to experience extraordinary growth and change, thanks largely to our continued commitment to teamwork, technology-focused product strategies, and devoted clients. We have successfully reached key milestones, increased our sales and research and development initiatives, achieved significant technological advancements, and strengthened our position as the premier manufacturer and developer of subsea equipment. Even in the face of challenging economic conditions, we are finding new ways to develop innovative subsea solutions for our industry. This year, we have successfully and safely completed all four capping stacks for Oil Spill Response Ltd. (OSRL), which have been strategically deployed throughout the world. As Trendsetter continues to revolutionize the oil and gas industry with state-of-the-art subsea drilling and completion technology, the development

of alternative capping devices are also on the forefront of our initiatives.

Trendsetter's efforts were recognized for the second year in a row as we were ranked #10 on the Houston Business Journal's 2013 Fast 100 Companies list! It was such an honor to be recognized among some of Houston's most thriving and successful businesses. In addition, Trendsetter was ranked on the Houston Chronicle's Top Workplaces list and the Houston Business Journal's Best Places to Work list. I truly believe our employees are our greatest assets, and I am both privileged and honored to receive these honors.

The upcoming years will be exciting as we continue to broaden our business efforts and move from promise to product. We have set increasingly ambitious goals for ourselves, but we have the intense vision and resources to achieve them. We have the people with the knowledge and experience to bring specialty products to niche markets, and we know the steps we need to take are simply an extension of what we have been doing successfully since our inception. Simultaneously, we plan to continue responding to market challenges and expand our lines of service equipment to

achieve an aggressive timeline for the development of new products. To achieve these goals, we have expanded our facility to accommodate more equipment, as well as an additional 20,000 square foot office space to house our engineering, quality assurance and manufacturing groups.

I thank and congratulate each and every one of our employees for making this past year such an exhilarating success. I would also like to extend my appreciation to our customers and our suppliers for their continuous support.

Mario R. Lugo, P.E.  
President & CEO



"Trendsetter continues to prosper as we create new jobs and generate new ideas that meet the demands of our industry."

Mario R. Lugo, P.E.  
President & CEO



# LOGISTICS & AFTERMARKET

“Our work is not complete until our clients are satisfied with our products and services. When we put our name on a product, you are getting the best the industry has to offer.”

## Johnce Hall, Global Service and Aftermarket Manager

Trendsetter specializes in product testing, offshore installation and aftermarket support, while maintaining an outstanding safety record. Our technicians are trained experts in providing SIT and FAT testing and site service operations for subsea equipment in compliance with design and operating procedures.

The Trendsetter complex houses state-of-the-art facilities to accommodate manufacturing, a wide variety of subsea product and equipment testing, and oversee installation of our subsea equipment. As Trendsetter continues to grow and expand, so do our facilities. We are expanding our facilities to accommodate our

manufacturing, assembly and testing capabilities to maintain and enhance our thriving capping stack business. Trendsetter is currently in the process of adding an additional facility to complement the existing 40,000 square foot high bays, as well as a 30,000 psi gas testing pit, testing facility, providing greater capacity for additional construction, testing, and storage.

Packaging, transporting, storing, and delivering products for the oil and gas industry requires in-depth planning and vigilant execution. As we design and manufacture our own products, we understand the best approach and methods of handling and packaging these neatly and securely. We ensure our clients that

all of our equipment and tooling is meticulously and properly crated and/or packaged accordingly and appropriately.

Trendsetter has provided aftermarket support in supplying qualified personnel to assist with ongoing testing, maintenance, and offshore operations. Our technicians are highly trained with international experience, and are able to operate and preserve the equipment to original specifications. In addition, Trendsetter offers regular maintenance and testing of our capping stack systems. In the event of a subsea well-control incident, our equipment must be readily available to our clients: Oil Spill Response Ltd (OSRL), Helix Well Containment Group (HWCG) and Marine Well Containment Company (MWCC).

# SOURCE CONTROL SOLUTIONS

Over the last three years our industry has seen the development of emergency response evolve from one that was geared towards surface collection (oil spill response) to a multi-faceted approach including direct intervention at the subsea wellhead. In the months and years following the Macondo incident, the industry has focused on ensuring that the hardware required to deal with another such event was available. Trendsetter Engineering has positioned itself as the world’s leader of such equipment including subsea capping stacks, cap and flow systems as well as BOP intervention packages and miscellaneous other

subsea response items. Growing on this success, Trendsetter is pleased to announce the formation of its newest service line, Source Control Solutions. The SCS team has been developed to provide the industry with the solution to bridge the existing gap from compliance (i.e. equipment) to preparedness (i.e. comprehensive response plan and personnel).

The SCS solution is a comprehensive package ranging from strategic to tactical response services. This strategic response group provides services such as source control training, emergency response and

logistics planning as well as subject matter experts for drill, exercise and actual response support. The tactical response group provides the ‘boots on the ground’ team to conduct field engineering, equipment build, test, installation and operation as well as ancillary engineering work on location such as sea fastening planning and operational procedure modifications.

With the additional value of SCS, Trendsetter continues to extend its lead as the premier provider of subsea solutions.

# EMPLOYEE PROFILES



Johnce Hall  
*Global Service & Aftermarket Manager*

Johnce Hall joined the Trendsetter team in 2011 as a Project Coordinator, multitasking on a wide variety of job functions. He has worked closely with various divisions within the company adding value at every turn. He has assisted the operations group, increasing company productivity through software implementation and has also played a large part in initiating a new quality program. In addition, Johnce has improved the efficiency of the engineering group by establishing and managing an effective system for maintaining all company drawings and documentation.

In his new role as Global Service and Aftermarket Manager, Johnce has been tasked with overseeing all aftermarket projects. This includes creating service and testing plans for all Trendsetter equipment, managing and scheduling all service and technical support personnel traveling across the globe, and maintaining and testing Trendsetter equipment.

Johnce recognizes the demands of our customers and the importance of meeting tight deadlines safely and within budget. He works diligently to ensure that our clients’ project goals and objectives are met while delivering top notch customer service. In a short time, Johnce has excelled in his new position and his efforts have been recognized by multiple clients.

Johnce earned a Bachelor of Arts in Business from Southwestern University in Georgetown, Texas and enjoys photography.



Mike Cargol  
*Emergency Response Manager*

As Emergency Response Manager, Mike will initiate Trendsetter’s Source Control Solutions (SCS) division. He has extensive knowledge of subsea response planning with over 20 years of experience in the oilfield and offshore sectors. He has strong management and business development skills with a high technical aptitude and ability to analyze problems and propose creative solutions.

Although the equipment niche has been for the most part filled, there is an immediate requirement for services related to the regulatory compliance documentation, corporate preparation and operational support associated with subsea source control planning

and response. This demand is not only domestic, but also international extending to a broad range of clients and geographic regions. Mike will lead Trendsetter’s SCS group to deliver the services required to “connect the dots” between Trendsetter, equipment providers and operators to ensure that they are not only compliant to local regulatory requirements, but are truly prepared to respond in the unlikely event of a subsea well blowout.

Mike’s extensive experience in all facets of the service market makes him the ideal choice to lead Trendsetter’s growth initiatives and we are proud to have him on our team.

# CAPPING STACK TECHNOLOGY

Capping stack technology is one of the highest impact developments to hit the industry in many years, and Trendsetter remains at the apex of innovation.

Post-Macondo, the deepsea oil industry was challenged to revitalize faith in equipment integrity and contingency response. Across the world, various consortiums of international oil companies aligned to design, build, distribute, and plan for future subsea well crisis. The first of such collaborations was the Marine Well Containment Company (MWCC), consisting of ten Gulf of Mexico (GOM) companies involved in deepwater drilling. MWCC awarded Trendsetter Engineering 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.

Shortly following this accomplishment, Trendsetter designed, manufactured, and assembled the 18 ¾ ", 15,000 psi capping stack assembly for the Helix Well Containment Group (HWCG), a consortium of 24 GOM oil and gas owners and operators, whose mission is to provide rapid response in the event of a subsea blowout. This capping stack system was safely designed and completed

in an astonishing 6 weeks, while meeting the requirements of the Bureau of Safety and Environmental Enforcement (BSEE).

Since, Trendsetter has built 6 additional custom capping stack systems, including the Arctic Capping Stack for Shell and the Tension Leg Platform (TLP) Capping Stack for MWCC. Trendsetter is living up to its reputation as a global leader in providing innovative capping stack technology.

## SUBSEA WELL RESPONSE PROJECT

Trendsetter successfully completed the design, manufacturing and delivery of four state-of-the-art capping stack toolboxes. The cutting edge well capping equipment is designed so that it can be deployed around the world in the event of a subsea well control incident. It is available to oil and gas companies across the industry, marking a major advancement for international oil spill response capability.







Oil Spill Response Limited (OSRL) has collaborated with the Subsea Well Response Project (SWRP), formed by nine of the world’s leading oil and gas companies, to develop this new integrated intervention

system and make it available to the industry. OSRL is an industry owned cooperative and the largest global provider of oil spill response and preparedness services. . The capping stacks are capable of containing subsea oil wells in water depths up to 10,000 feet in the event of a subsea well-control incident.

The well capping equipment will be stored at OSRL bases in four international locations (Norway, Brazil, South Africa and Singapore) and maintained ready by Trendsetter for immediate mobilization and onward transportation by sea and/or air in the event of an incident.

“The ingenuity of our engineering group never ceases to inspire me. To know that our team developed a vital solution that has transformed our industry’s approach to containing a well blow out is extraordinary, to say the least.”

David Older, Executive Vice President of Engineering

					
18 3/4" 15,000 PSI MARINE WELL CONTAINMENT COMPANY 10,000 FT WATER DEPTH 4X 5 1/8" OUTLETS 100,000 BARRELS/DAY	18 3/4" 15,000 PSI HELIX WELL CONTAINMENT GROUP 10,000 FT WATER DEPTH 2X 5 1/8" OUTLETS 100,000 BARRELS/DAY	18 3/4" 10,000 PSI SHELL OIL COMPANY 10,000 FT WATER DEPTH 2X 5 1/8" OUTLETS 100,000 BARRELS/DAY	7 1/16" 10,000 PSI MARINE WELL CONTAINMENT COMPANY 10,000 FT WATER DEPTH 2X 4" OUTLETS 100,000 BARRELS/DAY	2X - 18 3/4" 15,000 PSI OIL SPILL RESPONSE LIMITED 10,000 FT WATER DEPTH 4X 5 1/8" OUTLETS 100,000 BARRELS/DAY	2X - 7 1/16" 10,000 PSI OIL SPILL RESPONSE LIMITED 10,000 FT WATER DEPTH 4X 5 1/8" OUTLETS 100,000 BARRELS/DAY





## OSRL AFTERMARKET SUPPORT & MAINTENANCE

Trendsetter's support of equipment doesn't stop once it leaves Houston.

We have a global team of project managers, engineers and technicians to support projects on-site and offshore throughout the world that are trained to meet worldwide requirements.

Oil Spill Response Limited's (OSRL) 4 Capping Stack systems are designed, manufactured, and tested to cap a flowing well. To maintain its readiness in the event of an emergency, its functionality and integrity need to be tested on

a quarterly basis throughout its twenty-year life cycle. Trendsetter provides an experienced maintenance team to support the 4 capping stacks that are located in Norway, Singapore, South Africa, and Brazil.

The maintenance program was created by Trendsetter with contributions from leaders of the Subsea Well Response Project. Legislative requirements and industry best practices were also

implemented into the program.

Trendsetter's maintenance team diligently adheres to a busy schedule as they rotate to each location throughout the year to test and service this critical equipment. Trendsetter is honored to provide our expertise to help ensure that the capping stack system is ready to respond worldwide.



# NEW PROJECTS AND TECHNOLOGY

Technology in the oil and gas industry is in a constant state of re-invention. As the leader in contemporary subsea solutions, Trendsetter is on a continuous path toward developing the most innovative technology to provide the industry with reliable, safe and advanced solutions.

## Trendsetter Awarded Subsea Containment System for Subsea Well Response Project's Integrated Intervention System

Trendsetter has been awarded a contract to provide 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 will be 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.

*"This is a major contract for Trendsetter Engineering. It showcases Trendsetter's innovative solutions that improve the industries worldwide response capabilities to a subsea well control incident. Trendsetter is committed to increasing the industries' oil spill response readiness through innovative subsea solutions."*

Mauricio Madrid  
Director of Projects

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

# WELLHEAD COMPLETION CAPS

Trendsetter was awarded the contract to develop, fabricate and test two Wellhead Completion Caps (WCC) to seal off and protect the previously completed production wells. These caps will be contingency tools in the event that the permanent production trees are not available in time to support the offshore drilling schedule.

Due to the extended delivery times for production trees from suppliers and the increasing difficulty for oil companies to secure the necessary permits to drill, Trendsetter has designed, developed and fabricated wellhead completion caps to protect previously completed production wells. These completion caps permit the oil companies to release the drilling rig upon the completion of a well regardless of subsea tree delivery. Once the production tree becomes available, the WCC is recovered and replaced by the permanent production tree. Down-hole plugs are removed with a rigless intervention system, and the well is ready for startup without the added expense and schedule risk of having to source a drilling rig.

Trendsetter's WCC is designed and tested in accordance to API 6A/17D requirements and can be built to interface with any industry wellhead and tubing hanger. The system is landed and locked onto the tubing head spool with or without the tubing hanger installed. The WCC includes a nominal 5" production bore and nominal 2" annulus bore.

Furthermore, the Trendsetter designed system provides a sealing barrier to the production bore of the tubing hanger and allows vertical

access to the production bore to enable the removal of wireline plugs or intervention from a drilling rig or rigless intervention system. Local pressure gauges are utilized, and all operations and monitoring are performed by an ROV.

In addition to the WCC, Trendsetter was asked to develop the mandrel latch tool to accompany it and to allow for intervention with a subsea test tree (SSTT) system. This hydraulic operated x-mas tree latch tool (XTLT) is designed to attach an internal landing string to the WCC and provide the necessary conduits

to access the well through the WCC. Trendsetter's innovative XTLT is designed with the misalignment for rough and final alignment inside the WCC and is not sensitive to marine riser debris.







# 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.

# SAFETY IS THE TREND

At Trendsetter, we value the importance of our high level of safety standards and the strong safety culture that our employees exude. Safety is our number one priority. That’s why we continuously seek to enhance our safety program and maintain our outstanding safety performance. Our exceptional safety record guides our employees to focus on leadership, teamwork and continual improvement of our safety standards.



# TRENDSETTER’S CONSULTANCY GROUP

*“Trendsetter has handpicked the most talented and experienced people in the industry that collaborate effortlessly into making every project a success.”*

Nicole Eve, Purchasing Agent/Inventory Manager

Our people are the difference at Trendsetter. Since 1996, Trendsetter’s Consultancy Group has comprised of only the best in the oil and gas industry. The talent and expertise is vast and incomparable, and has been invaluable to our project group. Our personnel have been designated as “Subject Matter Experts” (SMEs) by our customers in numerous areas, earning them a reputation as the best problem solvers in the industry. Areas of subsea expertise include the following:

- Horizontal and Vertical Subsea Trees
- Subsea Manifolds
- Connection Systems
- Production and Drilling Control Systems
- ROV Tooling
- Subsea Valves
- System Integration Testing
- Subsea Wet Insulation
- Subsea Foundations



# FACILITY EXPANSION

Our state-of-the-art facilities allow us to assemble, test, house and mobilize our capping stacks and other equipment all under one roof, increasing our efficiency and our ability to meet the growing demand from our customers.

Trendsetter is headquartered in northwest Houston, Texas on 27 acres of fenced yard with gated entrances for security and large driveways that further ease access for large trucks and heavy transport vehicles. The property located just east of Texas State Highway 249 is minutes from the Sam Houston Tollway (Beltway 8), a major highway tributary with access throughout the greater Houston area.

Trendsetter currently houses 14,000 square feet of office space and a training facility. With the significant growth that Trendsetter has experienced in the last year, and with major projects already underway, we recently added a new 2-story 22,000 square foot office building to house our engineering, quality assurance and manufacturing groups.

In addition to office space, the Trendsetter complex houses multifaceted facilities to accommodate manufacturing, assembly and testing of our subsea equipment. Due to our significant growth, we continue to expand our facilities to increase our manufacturing and fabrication capabilities. Trendsetter is recently completed the construction of an additional facility to complement the existing 40,000 square foot high bay, providing greater capacity for additional construction, testing, and storage. Trendsetter is also in the process of adding a third manufacturing facility.

Trendsetter is committed to expanding our resources and facilities to meet the growing demands of our industry.





# LEADER IN CONTEMPORARY SUBSEA SOLUTIONS



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