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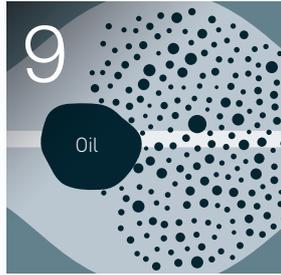
4



ENPRO SUBSEA ACQUISITION

The strategic acquisition of Enpro Subsea substantially strengthens Hunting's Subsea Division.

9



ORGANIC RECOVERY

Organic Oil Recovery technology to enhance production and reduce waste is being rolled out around the world.

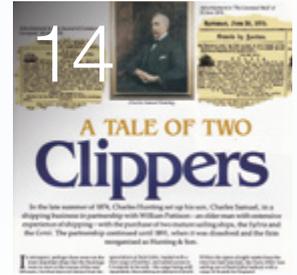
12



SHEARED AND SEALED

A second generation of EziShear products provide cost-effective well control solutions.

14



A TALE OF TWO CLIPPERS

A history of the vessels which laid the foundation for today's Hunting Group.

19



SAUDI ARABIAN SOLUTIONS

Responding to customer need, an innovative well intervention system solves their well debris issues.

20



CONTINUOUS IMPROVEMENT INSIGHTS

Company-wide continuous improvement initiatives gather those incremental savings, reduce cost and boost productivity.

22



BRAVO BRENT

The newly acquired Enpro Subsea has been lauded for its decommissioning operation in the North Sea.

23



OUR HUNTING COMMUNITY

Pandemic response.



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"The exceptional circumstances of the past twelve months have brought exceptional challenges to us all – in every aspect of our personal and professional lives. It has unquestionably been a year of great difficulty, but it has also been an opportunity to show our strength.

I am hugely proud of how Hunting has embraced and adapted to this significant and continuing change to business. This ability to adapt to change has proved important throughout this company's history, evolution which is supported by strong roots and we remain robust because of it.

The other great source of our strength is our sense of community and instinct to look after each other – this is all the more important when in many cases teams are operating at a distance from one another.

We go into this year with real optimism, optimism that is grounded in the enduring strength of the Hunting brand and its best in class position in the market. I was recently delighted to take part in the Trees for Houston initiative at the aptly named Hunting Bayou, which demonstrates both how we continue to support wider issues in the community and, more broadly, our commitment to responsible growth."



Jim Johnson, Chief Executive Officer





Enpro Subsea Acquisition

The strategic addition of Enpro further strengthens Hunting's international presence in the subsea arena



In early 2020, Hunting completed the acquisition of Enpro Subsea, a well-known provider of Life of Field (LoF) enhanced production systems. Aberdeen-based Enpro specialise in products that maximise the ultimate recovery from subsea wells by enabling production-enhancing technologies on standard hardware while structurally reducing field development costs and delivering first oil faster.

With a fine reputation, the company continues to trade under the Enpro Subsea brand for the time being and operates with the existing management team



Formed in 2011, the company has developed leading subsea technology that has been adopted by offshore operators in the global energy industry. Enpro's products focus on delivering technologies principally through Flow Access Modules, Flow Intervention and Field Decommissioning Services. These offer flexible field development options to clients including production and intervention modules to maximise recovery from oil and gas wells. The modular configuration that is a common theme sometimes described as the equivalent of an oil industry USB, leads to shorter development timescales resulting in lower client costs. →



"Enpro's technology offering has been utilised by major operators in key offshore development basins around the world. In joining the Hunting group we look forward to utilising its global operating platform to develop new customers and sales and to capitalise on this growing market segment"

This targeted acquisition bolsters Hunting Energy's core competencies and fits in with the strategic imperative to boost proprietary and proven technologies, in a compatible and attractive market segment. With a fine reputation, the company continues to trade under the Enpro Subsea brand for the time being and operates with the existing management team from its facility in Aberdeen with subsidiaries in Ghana, Norway and the US. The business currently has a headcount of 40 personnel. The photo of the leadership team just prior to the acquisition comprises: Front row L to R: Declan Slattery (Enpro Finance Director), Dane Tipton (Hunting Subsea), Steve Robb (Enpro Operations Director), Ian Donald (Enpro Chairman and CEO) and Tom Bryce (Enpro Marketing Director). Back row L to R: Craig McDonald (Enpro Sales Director), Scott George (Hunting Energy Services) and Neil Rogerson (Enpro Engineering

Director). In the Stock Exchange announcement that followed closure of the acquisition, Jim Johnson noted:

"The acquisition of Enpro further strengthens Hunting's subsea offering and adds a high technology product group to our portfolio. The offshore market continues to strengthen and we look forward to providing a wider technology offering to our customers who continue to seek lower cost, enhanced production and more efficient solutions to the production of oil and gas."

While Ian Donald, added:

"Enpro's technology offering has been utilised by major operators in key offshore development basins around the world. In joining the Hunting group we look forward to utilising its global operating platform to

develop new customers and sales and to capitalise on this growing market segment."

Enpro's business model is focused on technology and product development, with all manufacturing outsourced to third parties. Over time, it is the intention to bring much of this process in-house and utilise Hunting's existing worldwide footprint. It will also leverage the group's key regional hubs and extend Enpro's technology to Hunting's international customer base.

The Enpro business comprises four core areas: Field Development Engineering, Decommissioning, Flow Intervention Services, and perhaps the most widely known, Flow Access Modules.

FLOW ACCESS MODULES (FAMS)

- Enable Access to maximise ultimate recovery from subsea wells
- Provide Smart Standardisation with LoF flexibility
- Accelerate subsea tieback schedules unlocking first oil faster



FAMs create an universal port in the 'Jumper' flowline on the seabed, enabling the use of standard Xmas Trees and Manifolds. With the FAM providing LoF flexibility within the system design, it enables Smart Standardisation to maximise the functionality of standard subsea hardware and accelerate field development.

This method future proofs developments, provides LoF flexibility, addressing key costs and lowering risk installation & intervention compared to 'on tree' solutions.

FLOW INTERVENTION SERVICES (FIS)

- Field proven system for low cost hydraulic intervention
- Multi-well campaigns completed enhancing production
- Modular system configurable to a range of operating criteria

The main product offering in the FIS unit is the hydraulic intervention, a high-rate, high-pressure modular system which allows for stand-alone interventions directly into any well or flowline. This proven system delivers multiple interventions from a range of vessel types, including acid stimulation and scale squeeze operations. →



FIELD DECOMMISSIONING

Enpro's Field F-Decom System provides a low risk, safe, and cost-efficient method of characterising, accessing and removing trapped hydrocarbons and associated fluids in concrete cells within the seabed structures. This method enables operators to meet their OSPAR decommissioning obligations. As successfully demonstrated in several campaigns, this also provides programme flexibility as it is deployable from either a platform or a vessel. (Please see the Bravo Brent article on page 22).

In spite of the pandemic environment, the Enpro team has been successfully integrated into Hunting Energy's Subsea division and the Hunting culture

FIELD DEVELOPMENT

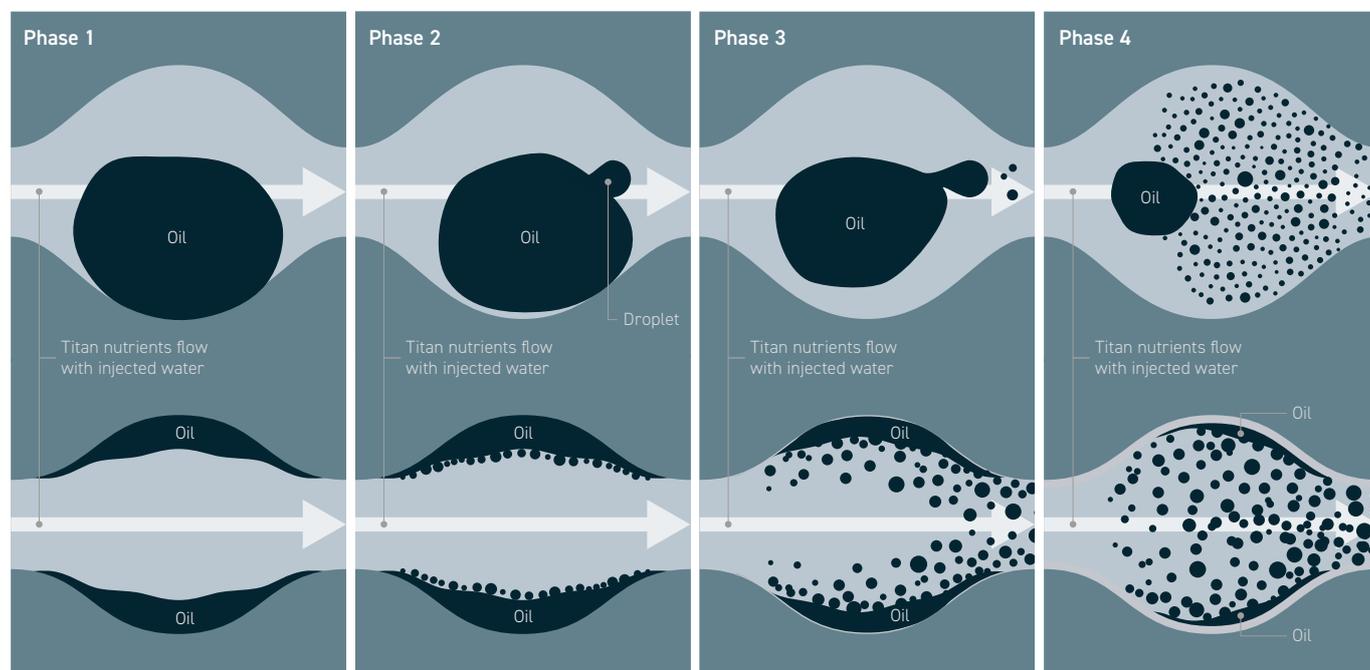
Enpro's Field Development (F-dev) service is a multi-disciplinary offering encompassing the full asset lifecycle to facilitate robust decision-making and maximising value. The team focus on facilitating full integration across the value chain, efficient delivery and optimised efficiency. Typically, Enpro provide front-end development engineering services covering well, process and flow assurance. This includes extensive engagement with the joint venture partners. Enpro personnel embed in the operator's team, working with the in-house subsurface, reservoir engineering, drilling and commercial departments. This supports decision making at critical approval points and keeps external partners aligned. Following the Final Investment Decision on a project, Enpro can be engaged to deliver the execution phase.

In spite of the pandemic environment, the Enpro team has been successfully integrated into Hunting Energy's Subsea division and the Hunting culture. ■



Organic Recovery

The company has developed a new technology partnership to enhance oil recovery from mature fields at comparatively low cost



In the last year, Hunting has agreed an exclusive collaboration with technology partner, Titan Oil Recovery Inc to establish OOR operations in 23 countries

Organic Oil Recovery (OOR) is a unique organic process, which mobilises microbes that are already resident in reservoirs to increase oil production. In the last year, Hunting has agreed an exclusive collaboration with technology partner, Titan Oil Recovery Inc to establish OOR operations in 23 countries.

Headquartered in Aberdeen and with a satellite operation in the Middle East, Hunting Energy's OOR team is actively progressing the export of this technology across three continents. This means working closely with several major operators, as well as with E&P companies

to extend reservoir production. Currently the team have more than 10 projects with some 30 pilot operations underway in 24 oilfields, which have production up to 140,000 BOPD. This is demonstrating how the technology can be deployed cost effectively, while being fully scalable to full-field applications without the need for CAPEX. Typically, enhanced recovery methods are costly and require significant investment, so this technology creates a better value proposition for operators, which increases recoverable reserves and by extension lowers the lifting costs. →

The ability to increase production aligned to an extremely simple and cost-effective process makes it a unique and attractive proposition



TECH FOCUS

Through batch treatment by injection of supplemental nutrients, the process significantly increases a specific microbial population. As part of their life cycle, those microbes move to the oil/water interface, reducing surface tension and releasing significant quantities of trapped residual oil. This dramatically improves the mobility of the oil in tight pore spaces and ultimate recovery. Another important feature is its ability to tackle the root cause of Hydrogen Sulfide gas (H₂S) formation by targeting specific species of microbes to outcompete Sulphate Reducing Bacteria, which are the cause of this toxic gas formation.

In short: OOR technology directly increases operator's production and recoverable reserves by accessing trapped oil in the reservoir, which would typically have remained in place. The ability to increase production aligned to an extremely simple and cost-effective process make it an attractive proposition. It marries the emerging science of Reservoir Microbiology with Enhanced Oil Recovery (EOR) for a cost-effective approach to optimising asset value.

OOR TEAM



Grant Fuller who is responsible for operations in Europe, as well as coordinating the laboratory and analysis activities led by the technology partner in the US.



Chris Venske manages all Operational & Commercial activity within the Middle East & Asia, providing key technical input to all global operations.



Taj Uddin, who looks after the Middle East including pilot tests in Bahrain and Oman.



Roger Findlay is the General Manager who has overall responsibility for managing day-to-day operations and staff ensuring projects progress in-line with customer needs.

THE CNOOC SCOTT FIELD INITIATIVE

The challenge set by the customer was to “identify alternative EOR technology to increase production reserves with no CAPEX and minimal offshore footprint”.

The Scott Field, located in the UK Central North Sea, is in a mature stage of development. The oil field is developed in the highly-productive Upper Jurassic Humber Group sandstones of Oxfordian to Kimmeridgian age. It was discovered in 1983, sanctioned in 1990 and first oil produced in 1993. Scott is located about 187 kilometres northeast of Aberdeen in 142 metres of water.

In June 2020, the Scott operating partner, CNOOC Petroleum Europe Limited, undertook a test application in the field. The objective was to demonstrate applied EOR within the tight confines of the offshore environment.

The OOR procedure involved:

2,400 barrels of injection quality seawater and nutrient mix injected at four barrels per minute directly at the wellhead. This included the over-displacement of approximately 400 barrels of injection quality seawater at four barrels per minute.

- The well was then shut in for seven days (Incubation period)
- A second nutrient rich over-displacement of approximately 1000 barrels of injection quality seawater at four barrels/min to push newly formed near wellbore ecology further into reservoir
- The Well was then shut in again for a further incubation period of three days
- Subsequently the field was returned to production

The application of the OOR pilot process for the Scott field consisted of the following steps:

Step 1 – Field screening of reservoir characteristics and well specific data

Step 2 – Target well sampling & laboratory analysis

Step 3 – Single well pilot test (In-Situ Microbial Response Analysis – ISMRA®)

The pilot test was designed specifically to replicate the laboratory results in the reservoir. Produced water samples were taken pre OOR nutrient injection and just after well flow back. A significant production response is often observed; however, the most important aspect to this step was the microbial response observed in the laboratory from samples taken upon return to production

Step 4 – Targeted water flood Implementation

Progression to step 4 – Targeted water flood implementation will be confirmed once the microbiology and the production impact has been assessed

Step 5 – Full Field Implementation



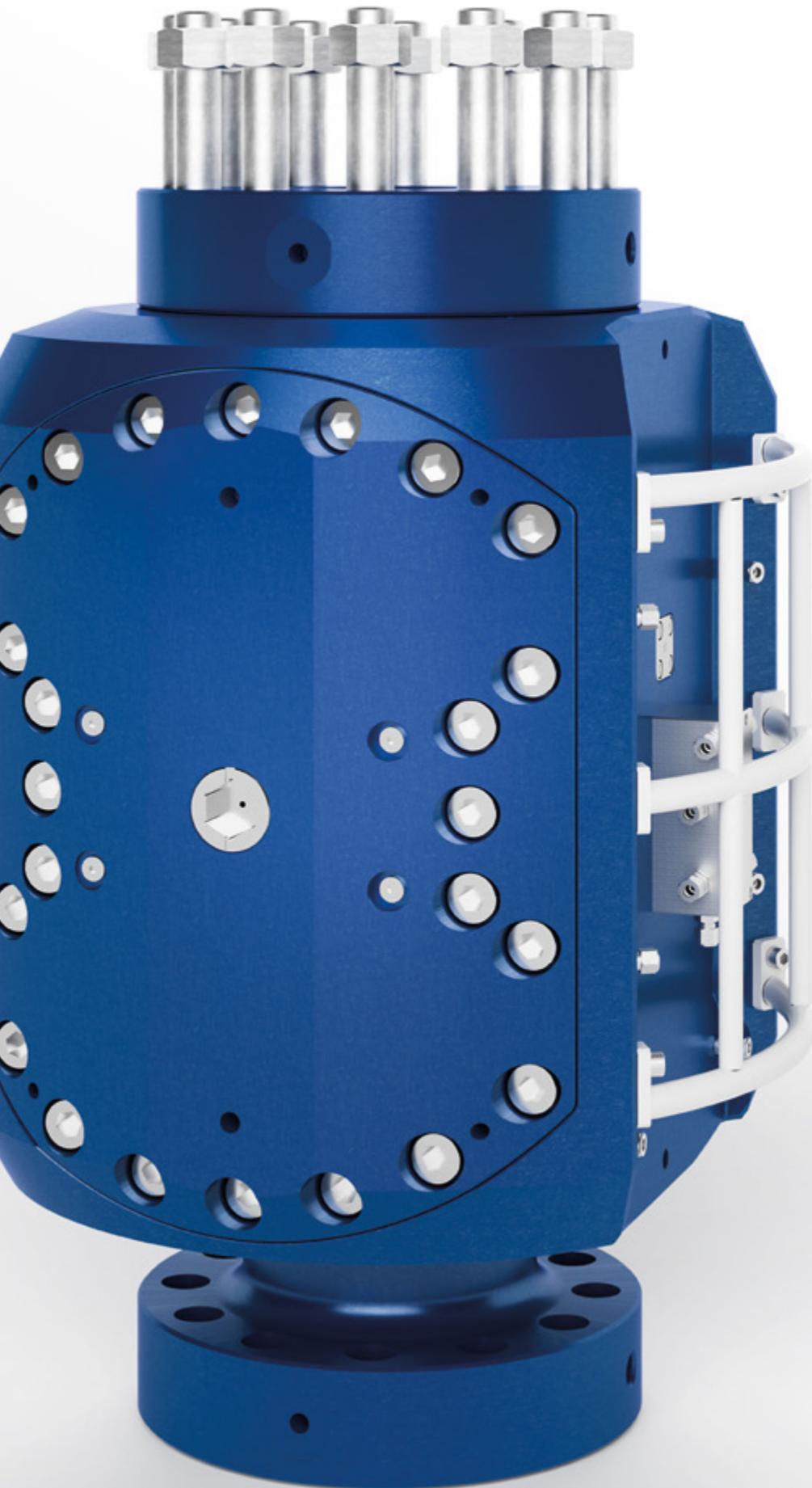
AND THE RESULTS ARE IN

The effects from the pilot project were impressive and can be summarised as:

- 1,000% + return on investment from incremental revenue over pilot cost
- 25,000 + incremental production in barrels of oil per day
- 4% drop in water cut
- 1 week payback

No wonder Andy Bostock of CNOOC International was happy to comment:

“Promising results from an elegant EOR technology that can be implemented without a large offshore footprint”. ■



This is now a best-in-class product geared to a market that demands the pressure control and integrity of wellbore operations

Sheared and sealed

A second generation of proprietary EziShear products from the Well Intervention team has now been commercialised providing an increasingly cost-effective and critical well control function

Hunting has offered an EziShear Seal Valve (ESSV) since 2018, providing the customer with a shear and seal function as a second pressure control barrier above the wellhead but below the Wireline Valve or Coiled Tubing Valve.

It is now a safety requirement in many locations around the world to integrate valve equipment such as the ESSV. It is placed directly above the wellhead Blow Out Preventer (BOP) allowing Slick Line, braided cable and electric line to be severed, fall below the wellhead BOP and two pressure barriers then closed for well control.

The small design suited to the limited deck access hatch covers on offshore rigs, as well as the ability to both shear and seal effectively, led to the original design of the ESSV. Prior to this, Slick and Electric Lines as well as Coiled Tubing could be sheared and a pressure barrier like a Ball Valve closed but this required two devices and many were too large to fit below the rig deck and near the wellhead BOP.

The first generation ESSV worked very well with wire conveyance requirements but was limited to certain sizes, weights and grades of Coiled Tubing.

With this global challenge in mind, the UK-based Well Intervention team began a redesign of the current system to meet the shear and seal requirements for use with Coiled Tubing.

The new EziShear Seal Valve – Heavy Duty (ESSV-HD) features a more functional and serviceable main body, robust internal severing and sealing components while still operating at the lower hydraulic pressures required at a well site.

Testing prior to commercial release included a continuous 546 open/close and 78 pressure cycles, all without servicing the ESSV-HD assembly. Afterwards, Coiled Tubing shear tests were successfully completed, before two weeks of final, successful, temperature trials in a qualifying range of -10°C to 105°C / 14°F to 221°F .

This is now a best-in-class product geared to a market that demands the pressure control and integrity of wellbore operations; A significant success for the Well Intervention Engineering, Manufacturing and Assembly/Test teams that continually develop world-class systems that the customer needs. ■



A tale of two Clippers

In the late summer of 1874, Charles Hunting set up his son, Charles Samuel, in a shipping business in partnership with William Pattison – an older man with extensive experience of shipping – with the purchase of two mature sailing ships, the *Sylvia* and the *Genii*. The partnership continued until 1891, when it was dissolved and the firm reorganised as Hunting & Son



Charles Samuel Hunting

In retrospect, perhaps these were not the most important ships that Hunting were to own in the course of the next 100 years, but that does not detract from the fact that they were the cornerstone on which the Hunting Group of Companies was founded and which today has grown into an international organisation consisting of three public companies with interests throughout the world. If importance was the intention, then perhaps one might have singled

out the *Joseph Ferens* (1877), the first steamship, or the first tanker, the *Duffield* (1893), or even one of the post war tankers, but this story is of the *Sylvia* and *Genii*.

BUILDING

Both ships were built of wood, to Lloyds A1 classification, at Saint John, New Brunswick, Canada, a prominent centre for wooden shipbuilding and lumber exporting in the mid 19th century. The *Genii* was completed in 1857 and the *Sylvia* in 1862. At this time many of the vessels were built on speculation at Saint John, loaded with a first cargo of lumber, and sailed across to Liverpool to be sold – the cargo being sold separately, thus adding an element of profit to the cost of the voyage.

Sylvia was built by Thomas Edward Millidge, who owned an established and respected shipyard at the upper reaches of the harbour, above the Reversing Falls – a notorious gorge through which the tide rushed continuously apart from a short period each day at slack water – a curious site for a shipyard. This yard had constructed at least 100 vessels by the early 1860s.

The *Genii* was built at the yard of McLachlan and Stackhouse at West Saint John, in the main harbour; her dimensions were 182:36:21.5 feet and her tonnage was 975 tons. This yard was also a well-known builder and many notable ships were constructed on the slipways at Carleton, Saint John. A record piece of work was accomplished by them in 1862, when they built the barque *Dusty Miller* of 575 tons. Within the space of eight weeks from the time her keel was laid, the *Dusty Miller* was sailing out of Saint John's harbour with a cargo of boards for England.

Sylvia was built under Lloyd's Survey and her tonnage was 1,214 tons. Her principal dimensions were 174:37:24.5 feet. She had one deck, beams for a second and a half-poop, and a woman's figure for a head. A piece from the Saint John *Weekly Telegraph*, just after her launch on 29 November 1862, best describes her: 'A splendid new ship is now lying at the Custom House Wharf, launched a few days since from the building yard of Thomas E. Millidge, Esq., Kennebecasis. She will register over 1,200 tons and is said to be owned by Messrs Gibbs, Bright & Co. of England, Messrs Wiggins & Son,

s. v. 'Sylvia'

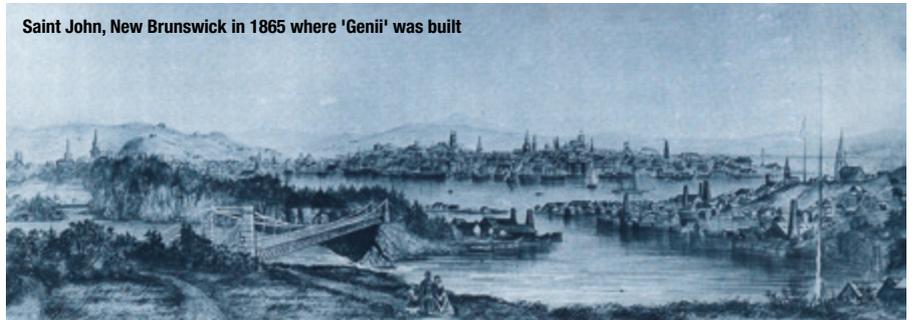


She is thoroughly iron kneed and fastened, and is about as handsome a vessel as we have seen for some time in our harbour

T.E. Millidge Esq. and H.W. Wison Esq. Mr Joseph Dunlop is the builder and we think we may safely risk his reputation as a builder on the ship of which we are now speaking. She is thoroughly iron kneed and fastened, and is about as handsome a vessel as we have seen for some time in our harbour. It is said that she will carry a larger cargo for her tonnage than any vessel ever launched in this port. The cabins are being fitted up in first rate style by Mr Thompson of Portland, and it is intended to have her ready for sea about the 1st of January.'

Both ships were sent over to England on a Governor's Pass – that is, without being registered in New Brunswick on

Saint John, New Brunswick in 1865 where 'Genii' was built



the understanding that they would be registered as soon as they reached the UK. On arrival at Liverpool, *Sylvia* was registered, given the official number 45871 and the signal hoist VGDB, whilst *Genii* was given number 21046 and hoist NDRB.

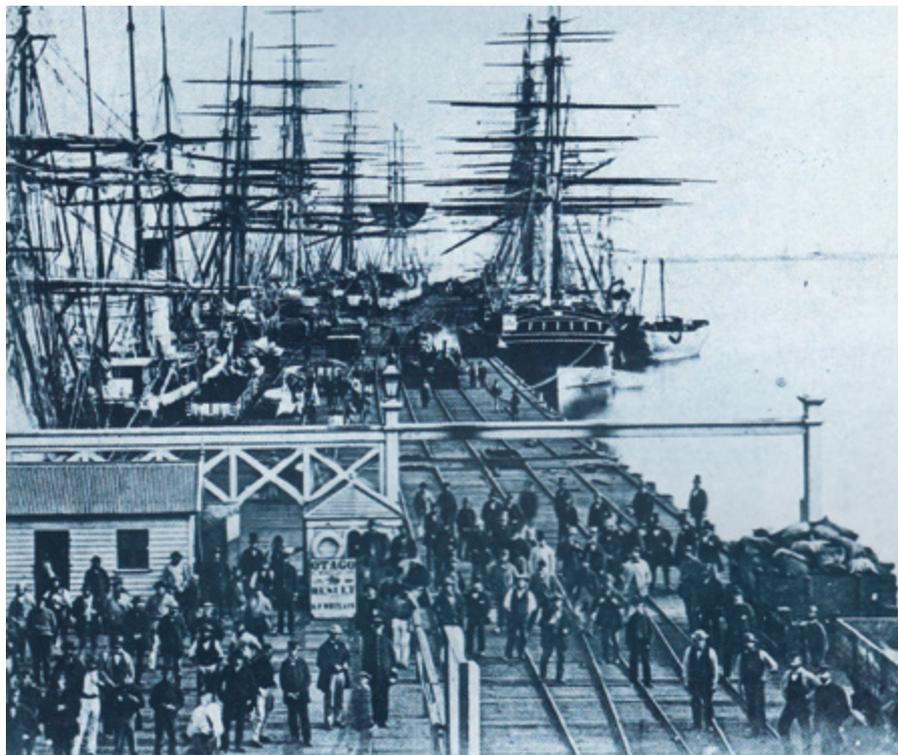
Like many other ships, both the *Sylvia* and the *Genii* were reduced to barque rig later on in life, an economy measure forced upon square riggers as steamships proved their efficiency and won the market over with their reliability. However, when the two vessels were purchased by the partnership of Hunting & Pattison in 1874, both were ship-rigged.

WHICH CAME FIRST?

It has always been understood that the first vessel in the Hunting fleet was the *Sylvia*, but this, in fact, may not necessarily be the case. *The Liverpool Register* records that a bill of sale, dated September 1874, shows that the *Sylvia* was sold to William Joseph Pattison of South Shields by John Bruce of '10 August – cash per *Sylvia*'. With regard to the *Genii*, all bills of sale etc., relate to 13 August, thus it is fairly conclusive that the *Genii* was purchased on this date. However, the *Sylvia* is recorded in *The Liverpool Register* as being sold to W. J. Pattison on 11 September. This therefore allows speculation as to exactly when the *Sylvia* came into Hunting ownership, as dates vary between 10 August and 11 September, 1874. →

Whatever conclusions one draws about which ship was bought first, it does seem certain that the *Genii* was the first vessel to trade under the Hunting flag. She set sail for Saint John in September 1874, while *Sylvia* apparently remained in dock at Liverpool until February of the following year.

Both vessels were cargo ships though both did have brief ventures as passenger clippers. *Sylvia* completed at least three voyages as a packet ship – once for the Blue Ball Line to New York, and twice to Boston for the Boston Packet Line. She was capable of fast passages – her fastest transatlantic voyage, with a cargo of timber and herring, from Saint John to Liverpool in September 1866, was reported as just 19 days. The weather could also be perverse, as her worst voyage, some two years earlier, while westbound from Liverpool to Boston, took 83 days with several storms causing considerable damage including loss of sails, rigging and spars.



Advertisement in 'The Liverpool Mail' of 20 June 1874



Advertisement in 'The Journal of Commerce', Liverpool, 18 July 1874

On Thursday, 12 September 1861, the *Genii* cast off from Sandridge Pier, Melbourne, bound for Otago with 292 passengers aboard, each having paid the sum of £5.10.0. to travel steerage

GOLD RUSH

The *Genii*, while spending most of her life plying the Far East trading centres, was involved in the New Zealand gold rush of 1861-2, when gold was found in Otago province, at Tuapeka, some 40 miles outside the town of Dunedin. On Thursday, 12 September 1861, the *Genii* cast off from Sandridge Pier, Melbourne, bound for Otago with 292 passengers aboard, each having paid the sum of £5.10.0. to travel steerage. *Genii* sailed in the company of such crack clipper ships as the *Lightning* and the *Empress of the Seas* which, with other vessels, left Australia that weekend with over 2,000 prospectors on board. It is on record that, for the first three weeks in September, some 5,800 passengers sailed for Otago and there were still about 2,500 remaining in Melbourne trying to secure a passage – a true 'gold rush', similar to the Peruvian 'rush' at Callao seven years earlier.

She arrived in Otago on 27 September with 299 passengers, presumably seven having boarded late as the ship cleared Port Phillip Heads, where she dropped the pilot. Her cargo on this voyage makes interesting

reading: 54 hogsheads (hhds) ale, 30 casks packed with bottled beer, 20 cases & 15 half-cases tobacco, 212 chests & 200 half-chests tea, 1 hhd wine, 19 hhds 1 quarter cask 12 cases brandy, 50 cases Geneva (gin), 1 hhd rum, 185 boxes candles, 150 boxes soap, 24 packages drapery.

The *Genii* made two further trips to Otago, on 13 December 1861 and on 27 February 1862. On 28 February, word was received that Prince Albert, the Prince Consort, had died in England, and all ships in the bay immediately lowered their flags and hoisted colours at half-mast in respect. This second voyage, with 318 passengers, was the last that she made as a passenger ship. On her return to Melbourne, the 'tween deck fittings, put in for passengers, were stripped out and sold, and she sailed for Guam as a cargo vessel in May that year.

Having touched on the romantic adventure of trade involving the gold rush, it should be restated that both vessels were primarily involved in the non-glamorous movement of general cargoes all over the world.

s.s. 'Joseph Ferens'



TRADING

The trade areas can be roughly divided into four: The north Atlantic – this was chiefly the timber trade, and the ports of call included Saint John, Quebec and Boston with occasional visits to New York, Mobile, Pensacola and New Orleans. *Sylvia* was in the north Atlantic timber trade for eight years of her life, but not during her ownership by Hunting. Four of the nine voyages by the *Genii*, while under the Hunting flag, were also in this trade, and in which she continued after she was sold.

The Far East – the usual ports of call were Calcutta and Rangoon, though others visited included Mauritius, Bombay, Galle, Madras, Bangkok, Penang, Manila, Hong Kong, Foo-chow-foo and, as mentioned earlier, Australia and New Zealand. *Sylvia* made three voyages to the Far East between 1868 and 1874, twice returning via the west coast of South America. *Genii* was in this trade from her launch until the time Hunting bought her. Cargoes in this trade consisted primarily of rice, linseed, sugar and hides.

The west coast of South America – on this route vessels traded to the various Chilean and Peruvian guano and nitrate ports. *Sylvia* was intermittently in this trade between 1869 and 1878.

The Mediterranean – under Hunting ownership, both vessels were employed in the Mediterranean trade. *Sylvia*

made one voyage, carrying coal on the outward leg and esparto grass on the return. *Genii* made five of her nine voyages for Hunting to this area.

Surprisingly, although both ships sailed all over the world, they met only twice. The first time was April 1868, at Bombay. They arrived within a couple of days of one another, but although the *Sylvia* was fixed and started loading cotton, linseed and rope in April, the *Genii* finally left mid-May in ballast for Calcutta to load a cargo of rice. The second meeting was in July 1881 at Quebec where they were both loading timber, though neither was then owned by Hunting.

Sylvia's first voyage for Hunting was a long one, starting February 1875 and ending December 1876. The itinerary was Liverpool–Caldera–Iquique–Pabellon–Queenstown–Hull. She left England with a cargo of coal, and returned carrying guano. During her second voyage for Hunting, also to the west coast of South America, a giant tidal wave devastated most of the coast for hundreds of miles. The *Sylvia* was in the vicinity at the time but suffered no damage. However, the little town of Pabellon where she loaded nitrate had only two of its original 400 houses left standing.

Genii's first Hunting voyage was from Liverpool to Saint John with general cargo, departing 12 September 1874. She returned on 6 January 1875 carrying



Captain R. D. Purvis and his wife Jenny in about 1894, just before his departure on a round the world trip which lasted 3 1/2 years. Captain Purvis was the first master of 'Genii' under Hunting & Pattison's ownership from September 1874 to the end of 1876

timber and fish. Her considerable cargo comprised 539,971 feet of deal, 31,936 feet deal ends, 3,000 palings, 257 tons birch, 76 barrels apples and 1,100 boxes of smoked herrings.

During her life, the *Genii* completed 31 voyages of which ten were under the Hunting flag. She was sold in 1878 and made a further ten voyages for her new owners, mainly in the timber trade. By now she was an old vessel and the report of her penultimate voyage states that she put in at Holyhead leaking and having lost her deck cargo of timber in a storm. In April 1884, she left Greenock with a cargo of coal for Quebec, but put back as unseaworthy. This was her last voyage for, in 1887, she was sold and was subsequently broken up. →



Calcutta in 1864, where both 'Sylvia' and 'Genii' called during Hunting's ownership



Carsaig Arches, Isle of Mull, Scotland near where 'Mardoll' (ex 'Sylvia') was wrecked

The *Sylvia* completed 21 voyages during her lifespan of 20 years, five of which were under the Hunting flag. Her end, however, was quite different from the *Genii*, and much more violent.

STORM AND SHIPWRECK

In 1881 the *Sylvia* was sold into Norwegian ownership and renamed *Mardoll*. She had an uneventful voyage: South Shields–Quebec–London, (meeting the *Genii* at Quebec). Her second voyage for her new owners was to be her last. Returning from Quebec with two passengers and a crew of 20 in November that same year, the *Mardoll* encountered a great storm in mid-Atlantic. She lost most of her sails, had her decks swept almost continuously by huge seas, her cabin skylight was washed away

along with all her casks and water tanks, and she had all her provisions rendered inedible by salt water. The captain, officers and crew were all suffering from exposure and injuries received from falling spars and the deck cargo getting adrift and for three days they were without water or food. The ship slowly became waterlogged, and only her cargo of timber kept her afloat.

Fortunately, on the third day, the barque *Mermaid* (also out of Quebec) hove in sight and stood by until a rescue could be effected the next morning. The complete ship's complement was rescued without loss of life, and the *Mardoll* was abandoned on the point of sinking. After this nothing was heard of her for some time. She was supposed lost but, in fact, she was being carried slowly towards Scotland by the north Atlantic drift, and about three months later, reports on sightings of her began to come in.

The *Mardoll* (ex-*Sylvia*) was sighted at least three times by passing ships, in February and again in March, still just afloat and quite derelict. Her rudder was gone, although her bowsprit and mizzenmast were still standing, and about 15 feet of foremast was left. At some stage someone had tried to take her in tow as two hawsers had been made fast to the windlass and remnants of these still hung over the bow.

The *Mardoll* (ex-*Sylvia*) was sighted at least three times by passing ships, in February and again in March, still just afloat and quite derelict

Finally, on 11 March 1882, the *Mardoll* was sighted by fishermen on the south side of Mull. They boarded her but were unable to get the anchors out, and the vessel drove ashore and started breaking up, near Shiaba. Some 20,000 battens were eventually salvaged from her cargo before she disintegrated. A seaman's chest with flags painted on it was found in a creek about four miles west of Carsaig Arches, along with the remains of the masts, bowsprit and the ship's boats and thousands of broken battens, all that was left of a once proud vessel.

It was thus a sad ending for a fine ship which, in her heyday, had been an ocean thoroughbred, and on which, in conjunction with the *Genii*, an international industrial organisation has been formed. ■

Saudi Arabian solutions

Oil production in fields originally producing at reservoir pressures experience declining pressure over time

To assist in continued production, Velocity Strings of smaller tubing, typically Coiled Tubing, are run inside the production pipe.

Saudi Arabia is increasing the installation of more Velocity Strings into wells in these older fields to maintain production before resorting to more expensive intervention methods.

Prior to the Velocity String installation, retrievable mechanical plugs are run on Slick Line and set in the landing nipples, allowing completion work to commence. The plugs are removed days after the other work is done.

Working with the Customer, Hunting offered a junk catcher design set above the plug which was successfully tested, eliminated the NPT and exceeded expectations



From when the plugs are set and retrieved, well debris may be disturbed by the workover and settle onto the plug, creating operational issues in the recovery of the plugs. Cleanout runs, using Slick Line Bailer tools, are then required to remove well debris. Hunting's customer, the service company, was being charged NPT (Non-Productive Time) for the cleanout runs.

The service company approached Hunting Well Intervention Saudi Arabia for a solution to reduce the NPT time required removing debris. Working with the customer, Hunting offered a junk catcher design set above the plug which was successfully tested, eliminated the NPT and exceeded expectations.

The operator now includes this solution as a requirement for plugs set in a Velocity String completion with other applications to be evaluated.

Hunting Saudi Arabia is now building the first order of this new product with deliveries in Q2-2020 and is working with Aberdeen Engineering to enhance the design for a wider application. ■



Continuous Improvement insights



Hunting Titan Gun Shop Roaming Inspection

The simplest solutions often prove the most effective. In an effort to increase time efficiency and reduce inspection delays in the Gun Shop, Hunting Titan introduced a solution which minimised time wastage and scrap rates.

As part of Hunting's Continuous Improvement programme, a method of Roaming Inspection was developed by Quality Assurance personnel in the Titan Gun Shop, meaning that components and products are inspected throughout their production rather than being subject to a full inspection upon completion. The previous method was to bring machined parts from one building to another, where they might sit for days whilst waiting for a 100% inspection. With Roaming Inspection, parts now bypass final inspection and are sent straight to their subsequent operation, allowing personnel to be reassigned as needed and the reduction in the number of non-conformances.

The implementation of this policy meant that the Quality Inspectors' footprint was reduced and they were freed up to be utilised in other areas of production, allowing the product to move approximately 25% faster through the line with a scrap reduction rate of 15%. The Roaming Inspection in the Sub shop alleviated the need for a 100% final inspection and the associated time constraints, eliminating 375 feet of travel per pallet, saving the inspector approximately four hours per day and improving product movement by 20%.

Turbine toolshop streamlining at Dearborn

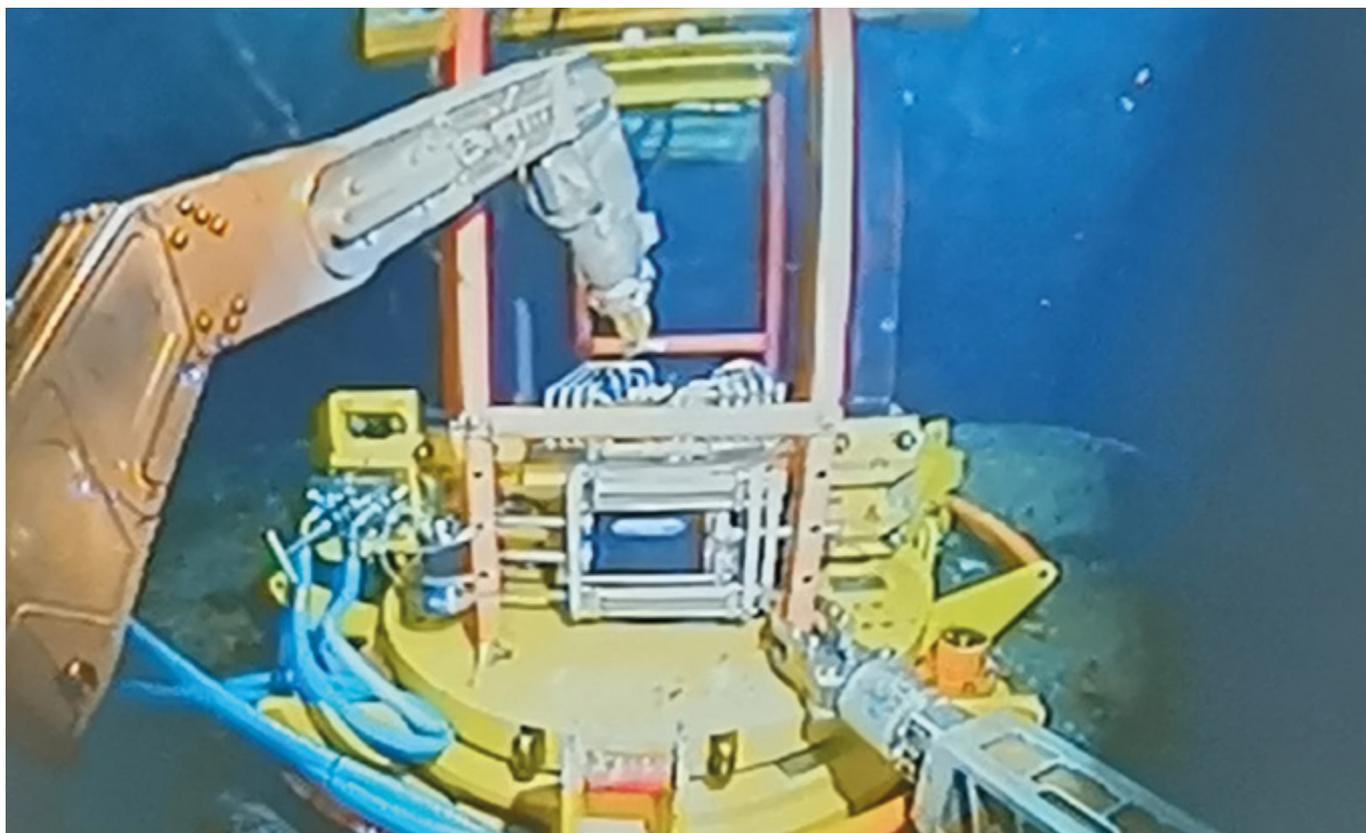
Hunting took the doctrine of 'measure twice, cut once' to streamline a wide range of processes in its toolshop and saved the company money and time using the established Kaizen process. The scheme, which forms part of Hunting's wider Continuous Improvement strategy, used a five-phase approach to eliminate unnecessary elements of production which added time, effort and cost, but no value.

The Kaizen event took a codified approach to identifying wasteful elements of production, such as wait times, overproduction, excess in inventory and non-essential transport. Once these were identified in the workspace, they could be evaluated with labelling, using coloured tags to determine whether or not they added value. Any objects or processes which did not add value were removed, and efficiency-boosting processes were implemented, such as mobile tool trolleys, moulded cases for toolboxes and equipment cradles, an improved filing system and a general tidy of the shop floor. The scheme also improved worker safety by clearing obstacles from routes of egress.

The TPM (Total Productive Maintenance) programme will be used as a benchmark for shop floor implementation for Hunting's overall TPM processes. It improved OEE (Overall Equipment Effectiveness) by 10%, enhanced employee awareness and boosted efficiency across the board.

Hunting took the doctrine of 'measure twice, cut once' to streamline a wide range of processes in its toolshop and save the company money and time using the established Kaizen process





Bravo Brent

Enpro Subsea enables safe removal of 'attic' oil from Brent's Bravo platforms

Hunting's Subsea Technologies division has successfully completed its fourth operation in the North Sea supporting DeepOcean using Enpro Subsea's proven field decommissioning (F-Decom) system. The recent operation on Shell UK's Brent Bravo structure was completed ahead of schedule and within budget.

Enpro's patented technology enabled the safe access and removal of attic oil from concrete storage cells at the base of the Brent Bravo platform at a depth of 140 metres. The system, which on previous campaigns had been deployed directly from surface platforms, was this time deployed from a DeepOcean construction vessel, leading to a significant reduction in operating days per cell.

The F-Decom system is the only field-proven system for securely accessing fluids

"the system is well-proven, and Shell have previous deployed our F-Decom technology on both their Brent Bravo and Brent Delta platforms"

within gravity-based structures (GBS) and allowing operators to safely meet their decommissioning regulatory obligations to protect Europe's marine environment.

The project involved Enpro's offshore engineers and onshore support teams working alongside DeepOcean's operations and subsea teams onboard the construction vessel, the Maersk Forza.

Enpro's proprietary solution centres around a patented 'anchor hub' technology. This mechanically locks into the concrete cell cap and allows a suite of tooling (i.e. drilling, sampling, wireline, pumping) to be compact and lighter, enabling it to be easily installed and operated using work class ROVs. It also means that the operation could be conducted in a broad range of weather scenarios.

Enpro Engineering Director Neil Rogerson said: "the system is well-proven, and Shell have previous deployed our F-Decom technology on both their Brent Bravo and Brent Delta platforms... We now have extended the track record of the only field proven system, which can be configured to suit a variety of Attic Oil Recovery decommissioning programmes." ■

Our Hunting Community

APPOINTMENTS AND PROMOTIONS

Bruce Ferguson appointed to the Board of Hunting PLC

We are pleased to welcome Bruce Ferguson as Finance Director of Hunting PLC. He succeeded Peter Rose at the AGM in April 2020 and brings considerable knowledge and experience to the Board, having been with the company for 26 years, and becoming Regional Managing Director of Europe, Middle East and Africa (EMEA).

Peter Rose retires

We would like to pay tribute to Peter and thank him for his commitment and contribution over the last 23 years, and for the twelve years he spent as Finance Director, during which time he played an instrumental role in the development of the company. Peter has provided his successor, Bruce, with exceptional support in the transition, and we wish him all the very best in his well-earned retirement.

Brenda Farrow appointed as Group Head of Tax

We are pleased to announce the appointment of Brenda Farrow as Group Head of Tax at Hunting. She joins us after spending a decade at global security printing company De La Rue, prior to which she was in the Corporate Tax Department at Deloitte where she received her ACA and CTA qualifications. We are excited to see her bring her expertise to the table.

Stewart Barrie promoted to EMEA Regional Managing Director

Stewart Barrie joined Hunting in 2012 and has spent the last nine years in various management positions in the UK, Singapore and Dubai. He has a total of 32 years of experience in the industry having spent his career with major service companies in a variety of Operational, Technical, Sales

and Management positions across the globe. Stewart is based in Aberdeen.

Ian Park appointed as Managing Director of Hunting Energy Services (UK) Ltd

Ian Park has accepted the position of Managing Director of Hunting Energy Services UK Ltd. In his role he will be responsible for supply and management of OCG products in Europe, including the Fordoun UK and Velsen Netherlands tubular facilities. Originally joining from Conoco UK as Contracts Manager, Ian has spent the last 25 years with Hunting and is an expert in the field of manufacturing principles and the OCTG marketplace.

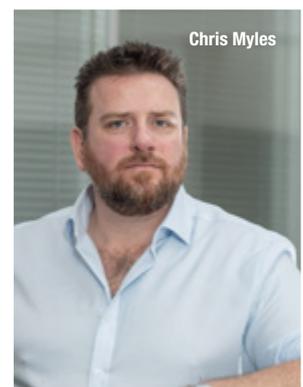
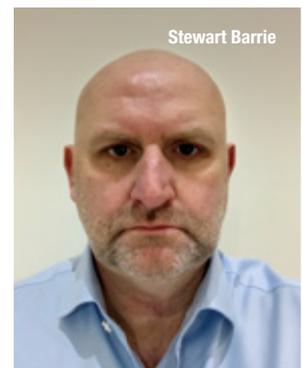
Chris Myles appointed as Thru-Tubing Product Manager

We are pleased to announce the appointment of Chris Myles as Thru-Tubing Product Manager, based in Aberdeen.

Chris will be responsible for the Thru-Tubing product line and associated new technologies and will be working with the global sales team to enhance our position in the Thru-Tubing market. Chris has 25 years of experience in the Oil and Gas Industry and has held various engineering and managerial roles with Tam International, Baker Hughes, Weatherford and Viking Completions.

Jerry Vielmas joins Hunting as Senior Tax Analyst

A warm welcome to Jerry Vielmas who will be based in the Northchase office in Houston and will be responsible for all sale and use of tax-related matters for the US. Jerry joins Hunting from six years at Stallion Oilfield Services, prior to which he spent two years at the Texas Comptroller's office.





C-19 COMMUNAL RESPONSE



The challenges that have arisen during the global pandemic has affected every aspect of working life. It has been tough but it is notable how our colleagues have risen not only to the specific challenge of the virus but also to the circumstances of those less fortunate in the communities in which the company operates.

Some of these reactions are demonstrative of the long standing Hunting culture of resourcefulness and individual initiative.

Working practices had to change radically in short order. Safe social distancing meant that manufacturing facilities had to be reconfigured, deep cleaning undertaken,

new sanitisation measures introduced, PPE made available and remote working introduced where feasible. At the Wuxi facility, the electronics area was an ideal environment to fit a new disposable mask manufacturing line. Within a very short time, Hunting-branded masks were shipped to company facilities around the world and supplied to staff and their families.





It is remarkable that in these circumstances, engagement with the respective communities went unabated: blood donations, support for the elderly, food provision for hospital workers and many other company-sponsored campaigns have been maintained, including widespread mask donations.





HUNTING'S SAM HOUSTON PARKWAY FACILITY RECEIVES AWARD FOR ENGINEERING INNOVATION

Hunting's US Manufacturing group at the Sam Houston Parkway facility received Schlumberger's 2019 Blue Award for their outstanding performance and contribution

on Schlumberger Ardmore's ODIN Valve. Hunting was a key contributor to this programme and was one of five key vendors globally to achieve this award.

Presenting this award from Schlumberger was Mohammed (Din) Mohiuddin (Global Supply Chain Manager, CPL & CLG) (not pictured). Pictured (L-R): Carolina Herrera (Supplier

leader), Brandon Kurtz (Center Manager), Max Fabre (Sales Representative), Corey Savoie (Sales Representative), and Salvador Vilaseca (Supply Chain Manager).



Pictured (L-R): Arve Badsvik, Hans Brekken, Tove Kvalvik, Terje Hogstad, Ståle Granberg, Tom Berntsen

NORTH SEA

We are proud to announce that the members of the Norway office have been awarded and fully certified according to the NS-EN ISO 9001:2015. The ISO 9001 is the most widely recognised standard in the world for quality management systems, and

it demonstrates a company's ability to consistently provide products and services which meet customer and regulatory requirements. The award is a result of great effort and dedication from the team, and special recognition and thanks are owed to Tove Kvalvik,

HSE Manager, for facilitating the project and ensuring top performance from all involved.

Following this ISO accreditation, we are pleased to share the first in-country serviced PC package for Altus Intervention, which has undergone a full five-year service,

including upgrading of the Triple WLV from API-6A compliance to API-16A compliance. The project was the result of a close collaboration between Hunting and Altus Intervention, and the equipment is on its way back to Denmark for another five years of service in the field.

HUNTING ENERGY SERVICES DONATES \$20,000 TO HOUSTON TREE PLANTING PROJECT

Hunting Energy Services has recently donated \$20,000 to the Trees for Houston foundation. Since 1983 the Foundation has planted

600,000 trees across the Houston region, including over 40,000 trees at 768 schools. The Executive Director of the Foundation, Barry J. Ward,

wrote personally to thank Hunting for the donation which will be devoted to their six tree nurseries throughout the Houston

area, signifying Hunting's commitment to building a healthier, cleaner Houston.



HUNTING LONG SERVICE AWARDS

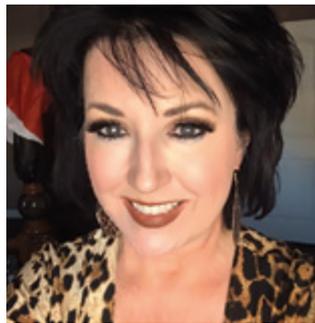
TRENCHLESS – BOUCHARD LA

Above from left:

Anthony Deselle, who marked his 31st anniversary as a Lead Machine Operator in January this year.

Roy LaBiche, who has been a Lead Quality Assurance Auditor for 26 years this year.

Patrick Bijoux, who marked his 25th anniversary as Quality Assurance Auditor in December last year.



30-YEAR ANNIVERSARIES AT PAMPA

Lori O'Brien started with the organisation on September 18 1989. She has worked in Finance for the better part of her career. Lori held the Corporate Controller position before retiring in 2019 and has rejoined the company as a Financial Analyst. We would like to congratulate her for 30 years of service with our organisation.



Joseph Bellow began his career with Titan on June 27 1990. He has been an integral part of the Material Handling department throughout his time with the company. We would like to congratulate Joseph, Material Handling Supervisor, for 30 years of service with our organisation.



Marvin Carlton joined the Titan team on August 28 1990. He started out in the Manual Machine Shop running an Engine Lathe. Shortly after joining the team, he transferred to Quality Control in 1991 where he has worn many hats within the department over the years. We would like to congratulate Marvin, Quality Manager, for 30 years of service with our organisation.



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