EUROPEAN OFFSHORE PETROLEUM NEWSLETTER

Vol. 42 No 34 **30 August 2017**

LATE NEWS

COSL needs 250 rig workers

COSL Drilling Europe requires around 250 rig workers for two of its semi-submersible rigs as the units prepare for new contracts.

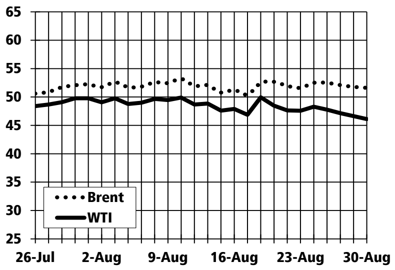
In July, COSL bagged two contracts for its drilling rigs. The first one was handed out by Nexen Petroleum for the *COSLPioneer* rig to work in the UK North Sea, while the second deal was awarded by Lundin Petroleum for the *COSLInnovator* rig to work offshore Norway.

Both rig contracts are set to start during Q1 2018, with 70-80 jobs created in the UK sector and the rest offshore Norway.

OIL WATCH

Latest prices

Brent/WTI Crude Price
(US $ per barrel)



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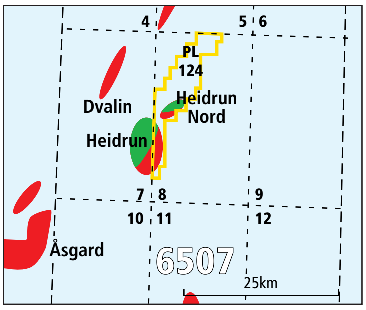

Statoil is finishing exploration well **6507/8-9** in **Production Licence 124** (PL 124) offshore Norway as a small gas discovery – with a tieback to the **Heidrun** field being the likely development option.

The well was drilled 9km northeast of the Heidrun field in the Norwegian Sea around 270km southwest of Sandnessjøen.

"The primary exploration target for the well was to prove petroleum in Middle and/or Lower Jurassic reservoir rocks (the Fangst and/or Båt Group). The secondary exploration target was to prove petroleum in Lower Jurassic reservoir rocks (the Båt Group)," said the Norwegian Petroleum Directorate (NPD).

The well encountered a gas column of around 80m (262ft) in the Åre formation in the Båt Group, of which 35m (115ft) were in sandstone with good reservoir quality. The gas/water contact was proven 2,185m (7,169ft) below the sea surface.

In the secondary exploration target, the well encountered several water-filled sandstone layers with good reservoir quality in lower parts of the Åre formation in the Båt Group.

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Minor gas discovery in Barents Sea

Statoil is completing exploration well **7435/12-1** in **Production Licence 859** (PL 859) offshore Norway as a minor gas discovery.

The well was drilled around 365km northeast of the **7324/8-1** discovery (**Wisting**), about 420km from the Norwegian coast and around 35km from the border between Norway and Russia.

This is the first well to be drilled in the southeastern Barents Sea, which was opened for exploration activity in 2013. It is also the northernmost wildcat well drilled on the Norwegian shelf, said the Norwegian Petroleum Directorate (NPD).

"The primary exploration target for the well was to prove petroleum in Middle Jurassic to Late Triassic reservoir rocks (Stø, Tubåen and Fruholmen formations). The secondary exploration target was to prove petroleum in Late to Middle Triassic reservoir rocks (Snadd and Kobbe formations)," added the NPD.

Well 7435/12-1 encountered a 34m (112ft) gas column in the Stø formation, of which 28m (92ft) were in sandstone with good to very good reservoir quality. The gas/water contact was proven 580m (1,903ft) below the sea surface. In the secondary exploration target in the Snadd formation, aquiferous sandstone layers with moderate reservoir quality were encountered.

Sandstones with poor reservoir quality were encountered in the Kobbe formation, of which some sandstone layers contained gas. Preliminary estimates place the size of the discovery in the Stø formation between 6-12 Bcm (211.8-423.6 Bcf) of recoverable gas.

"As of today, the discovery is not profitable to develop," the NPD noted.

The well was not formation tested but extensive data acquisition and sampling have been carried out. Well 7435/12-1 was drilled to a vertical depth of 1,540m (5,053ft) below the sea surface, and was terminated in the Kobbe formation from the Middle Triassic Age.

This is the first exploration well in PL 859, which was awarded in the 23rd Licensing Round in 2016. The water depth is 253m (830ft) and the well will be permanently plugged and abandoned.

Well 7435/12-1 was drilled by the *Songa Enabler*, which will now proceed to drill wildcat well **7317/9-1** in **PL 718** in the Barents Sea, where Statoil is the operator.

OIL & GAS COMPANIES

Company	Stock Market	Closing price 29 Aug 2017 US $	% change 1 week	% change 1 month	% change 12 months	Market cap US $ (millions)
AKER BP	Oslo	18.08	0.5	-5.8	22.65	6,106.73
AMINEX (LON)	London	0.06	7.59	57.41	120.78	200.51
BP	London	5.70	-0.41	-0.73	1.28	112,640.92
CABOT ENERGY	London	0.05	0	3.12	22.22	16.81
CAIRN ENERGY	London	2.23	-4.5	-2.77	-10.08	1,299.75
DNO	Oslo	1.51	29.78	28.71	27.93	1,638.45
ENI	Milan	15.76	-0.2283	-1.1312	-2.6726	57,295.58
ENQUEST	London	0.32	-24.43	-26.67	-1.66	371.57
FAROE PETROLEUM	London	1.09	-1.75	-2.33	23.53	398.72
GAZPROM	MICEX SE	2.01	1.98	1.2	-13.14	47,638.46
HELLENIC PETROLEUM	Athens	9.13	-2.06	-2.06	105.14	2789.69
ITHACA ENERGY (DI)	London	1.43	0	0	70.38	595.22
JKX OIL & GAS	London	0.17	0	-20.59	-30.77	30.02
LUKOIL	MICEX SE	49.23	-0.1	3.58	-3.23	41,871.19
LUNDIN INTERNATIONAL	Eur.Paris	208.35	0	0	0	338.56
LUNDIN PETROLEUM	Stockholm	21.35	-6.63	-7.09	13.86	7,267.17
MAUREL ET PROM	Eur.Paris	4.32	1.6949	2.2727	-13.0435	845.68
MOL MAGYAR OLAJ-ES GAZIPARI	Budapest	91.42	-0.66	5.09	34.44	9,363.58
NORSK HYDRO	Oslo	6.98	1.6	5.17	48.16	14,433.88
OMV (FRA)	Frankfurt	54.98	-1.3	-5.73	83.39	17,993.99
PREMIER OIL	London	0.69	-4.05	-11.98	-27.55	353.57
PROVIDENCE RES.	London	0.11	7.94	-48.09	-20.93	65.78
REPSOL YPF	Madrid-SIBE	16.78	-1.482	-1.273	23.6794	25,641.82
ROYAL DUTCH SHELL A	Amsterdam	27.62	-1.4794	-3.059	3.2817	124,624.35
RWE	Frankfurt	24.79	-0.641	17.913	40.395	14,274.72
SOCO INTERNATIONAL	London	1.53	-0.42	-1.25	-21.13	509.37
STATOIL	Oslo	18.65	-1.84	-2.44	8.59	61,302.08

% change is for Total Shareholder Return i.e. assumes all dividends re-invested

oil & gas companies (contd.)

Company	Stock Market	Closing price 29 Aug 2017 US $	% change 1 week	% change 1 month	% change 12 months	Market cap US $ (millions)
STERLING ENERGY	London	0.19	0	-4.92	293.22	41.32
TOTAL	Eur.Paris	51.65	-1.0709	-0.0814	-0.1395	129,177.82
TULLOW OIL	London	1.99	-4.3	-10.92	-22.08	2,747.53
WESTMOUNT ENERGY	London	0.08	0	0	34.3	3.31

OIL SERVICE COMPANIES

Company	Stock Market	Closing price 29 Aug 2017 US $	% change 1 week	% change 1 month	% change 12 months	Market cap US $ (millions)
ABB LTD N	SIX Swiss	22.92	-2.689	-4.235	1.259	49,693.55
AKASTOR	Oslo	1.97	2.36	-1.94	74.91	539.05
AKER	Oslo	35.59	-2.14	-8.03	7.84	2,645.35
AMEC FOSTER WHEELER	London	5.34	-1.65	-8.12	-28.02	2,081.01
CGG	Eur.Paris	5.26	31.5315	16.8	-79.6279	116.58
FRED OLSEN ENERGY	Oslo	1.19	-7.72	-5.45	-32.1	79.42
FUGRO	Amsterdam	12.39	-1.6229	-24.8633	-27.0959	1,085.91
NAT. OILWELL VARCO	New York	30.36	0.5298	-8.3056	-11.8723	11,537.96
PETROFAC	London	5.48	-4.32	-6.8	-51.16	1,895.61
PETROLEUM GEO SERVICES	Oslo	1.93	-1	-12.92	-17.3	652.51
PETROLIA	Oslo	0.47	1.12	0.28	12.5	25.05
PROSAFE	Oslo	2.56	-17.15	-34.87	-68.57	183.00
SAIPEM	Milan	3.54	-6.6456	-14.8383	-27.6961	3,586.50
SBM OFFSHORE	Amsterdam	15.75	-4.6562	-11.0017	-1.1689	3,241.32
SEADRILL	Oslo	0.18	-32.21	-54.37	-93.52	92.06
TECHNIP DEAD - MERG	Eur.Paris	81.05	0	0	26.45	9,659.98
TECHNIPFMC (PAR)	Eur.Paris	25.27	-2.865	-14.9848		11,810.47
TGS-NOPEC GEOPHS.	Oslo	20.72	0.63	-4.42	11.49	2,117.12
WEIR GROUP	London	22.63	-0.17	-6.17	11.27	5,055.71
WOOD GROUP (JOHN)	London	7.25	-2.1	-9.02	-21.84	2,778.57

Source: Thomson Reuters Datastream

People

Simons joins Oil & Gas UK

Phil Simons, vice president North Sea & Canada at Subsea 7, has been appointed to the board of industry body Oil & Gas UK.

Simons joined Subsea 7 in Aberdeen in 2004 as a senior project manager, progressing through the business to become the vice president for Canada, Mediterranean and Russia in 2011. He became vice president for North Sea & Canada in 2016.

"I am very pleased to join the Oil & Gas UK board at such a pivotal and demanding time in our industry's history, and I look forward to working closely with the other members to help harness the collaboration needed to take us through the unique challenges ahead," Simons said.

Safety

Statoil gets contingency nod

Norway's Petroleum Safety Authority (PSA) has given Statoil consent to change contingency planning at the Halten-Nordland Area in the Norwegian Sea.

The PSA said that the contingency planning changes are in regard to the development of Statoil's **Aasta Hansteen** field. The reason for the contingency planning changes are due to the field being located at a depth of 1,300m (4,265ft) in the Vøring Area and 300km from shore. The field is operated by Statoil. Its partners are Wintershall, OMV and ConocoPhillips.

Statoil applied for consent to change the established area contingency planning for the area, which involves cooperation on emergency preparedness between several facilities and fields with the aim of sharing maritime and airborne emergency response resources.

These resources may include one or more emergency response vessels and search and rescue helicopters, said the PSA.

The Aasta Hansteen field will be developed using a spar platform, which will be Norway's first in production. A spar is a cylindrical, partially submerged offshore drilling and production platform that is particularly well adapted to deepwater.

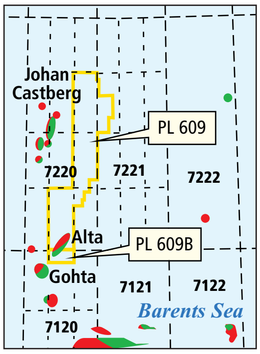
In early July, Statoil started upending operations on the large spar substructure. After the operation was completed, only 40 metres of the 200 metre-long substructure stood above the sea level.

The 46,000 substructure for the spar platform was built by Hyundai Heavy Industries (HHI) in Ulsan, South Korea. HHI is also building the topsides for the spar.

When the entire spar is complete, it will be towed to the Norwegian Sea field during 2018.

Alta appraisals wrapped

Lundin Petroleum has completed the drilling of appraisal wells **7220/11-4** and **7220/11-4 A** on the **7220/11-1** (**Alta**) oil and gas discovery in **Production Licence 609** (PL 609) offshore Norway.



The wells were drilled around 2km south of the discovery well 7220/11-1, 3km north-northeast of appraisal wells **7220/11-3** and **7220/11-3 A**, and 190km northwest of Hammerfest.

The discovery was proven in carbonate rocks in the Gipsdalen Group in October 2014. Before the 7220/11-4 and 7220/11-4 A wells were drilled, the operator's resource estimate for the discovery was between 20-64 MMcm (706.0 MMcf-2.26 Bcf) of recoverable oil equivalents.

"The objective of well 7220/11-4 was to delineate the eastern flank of the discovery by investigating the reservoir extent of conglomerates of the Late Permian to Early Triassic Age, Late Carboniferous to Early Permian carbonate rocks (Ørn formation), hydrocarbon columns and the quality of Carboniferous reservoir rocks (Falk formation)," said the Norwegian Petroleum Directorate (NPD).

"The objective of well 7220/11-4 A, was to delineate the discovery around 1km north of 7220/11-4, investigate the extent of Late Permian to Early Triassic conglomerates and the quality of Late Carboniferous to Early Permian carbonate rocks (Ørn formation)."

Well 7220/11-4 encountered a 48m (157ft) hydrocarbon column in Late Permian to Early Triassic conglomerates, of which 44m (144ft) was an oil column.

Well 7220/11-4 A encountered a 54m (177ft) hydrocarbon column in Late Permian to Early Triassic conglomerates and carbonate rocks in the Ørn formation, of which 44m (144ft) was an oil column.

"The reservoir quality through the oil column varied in both wells. Several zones have very good permeability. The hydrocarbon contacts were the same in both wells. Extensive data acquisition and sampling have been carried out. Pressure data shows the same hydrocarbon contacts as observed in previous wells drilled on the discovery and confirms good communication over the Alta structure," added the NPD.

A formation test was conducted in well 7220/11-4. The maximum production rate was 960 cm/d (33.89 Mcf/d) oil and 93 Mcm/d (3.28 MMcf/d) of associated gas per flow through a 56/64-inch nozzle opening. The test confirmed very good reservoir properties and good lateral continuity in the conglomerate reservoirs.

The results from the appraisal wells are important with regard to further work mapping the eastern flank of the discovery, and will be used to reassess the resource estimate.

These are the tenth and eleventh exploration wells in PL 609, which was awarded in the 21st Licensing Round in 2011.

Appraisal wells 7220/11-4 and 7220/11-4 A were drilled to a vertical depth of 2,255m (7,399ft) and 2,027m (6,651ft) below the sea surface, respectively, and were terminated in Carboniferous rocks in the Ugle formation and Falk formation, respectively. Water depth at the site is 402m (1,319ft).

The wells were drilled by the *Leiv Eiriksson* drilling facility, which will now proceed to drill exploration well **7220/6-3** in the northern part of PL 609.

Dry hole for AkerBP

Aker BP has completed the drilling of wildcat well **25/4-11** in **Production Licence 677** (PL 677) offshore Norway as a dry hole.

The well was drilled in the central Norwegian North Sea, around 11km northwest of the **Vilje** field and 220km northwest of Stavanger.

The objective of the well was to prove petroleum in Palaeocene reservoir rocks (the Heimdal formation).

"The well encountered around 70m (230ft) of aquiferous sandstone in the Heimdal formation with very good reservoir quality. The well is dry. Data acquisition has been carried out," said the Norwegian Petroleum Directorate.

This is the first exploration well in PL 677, which was awarded in APA 2012.

Well 25/4-11 was drilled to a vertical depth of 2,372m (7,783ft) below the sea surface and was terminated in the Heimdal formation. The water depth at the well site is 112m (367ft). The well has been permanently plugged and abandoned.

Well 25/4-11 was drilled by the *Maersk Interceptor* rig, which will now move to drill appraisal well **25/2-19 S** in **PL 442**, which is operated by Aker BP.

Black Sea well spudded

OMV Petrom has started drilling operations in the Black Sea, offshore Romania, using the *GSP Uranus* jack-up drilling rig.

Owner GSP said the rig move started on 19 August and the jack-up reached location the following day. The rig moving and positioning operations were carried out with the support of the *GSP Queen* anchor handling tug support vessel.

The *GSP Uranus* is a three legged, self-elevating unit, cantilever type, Marathon Le Tourneau Class 116-C design drilling rig.

● Later this year, the rig is due to go on contract with Black Sea Oil and Gas, a wholly owned unit of Carlyle International Energy Partners.

Eni has eye on Goliat prospect

The Norwegian Petroleum Directorate (NPD) has granted Eni Norge a drilling permit for exploration well **7122/10-1 S** offshore Norway.

The probe will be drilled on the **Goliat Eye** prospect using the *Scarabeo 8* semi-submersible rig in **Production Licence 697** (PL 697).

"The area in this licence consists of the northwestern half of **Block 7122/10**. The well will be drilled about 10km southwest of the **Goliat** field. PL 697 was awarded on 8 February 2013 in APA 2012. This is the first well to be drilled in the licence," said the NPD.

Drilling is scheduled to begin in the first half of September and will last at least 37 days. The water depth at the site is 342m (1,122ft).

The *Scarabeo 8* was built in Russia and Italy and commissioned in 2012. The facility is classified by DNV GL.

Eni Norge operates PL 697 with a 70% stake, while Edison Norge holds 20% and Concedo has 10%.

Exploration

Norwegian Sea find tieback potential

...continued from page 1

"The preliminary estimation of the size of the discovery is between 700 MMcm (24.71 Bcf) and 1.2 Bcm (42.36 Bcf) of recoverable gas. The licensees in PL 124 will consider a tie-in of the discovery to existing infrastructure on the Heidrun field," added the NPD.

The well was not formation tested but extensive data acquisition and sampling have been carried out.

Well 6507/8-9 was drilled to a vertical depth of 2,352m (7,717ft) below the sea surface and was terminated in the Åre formation in the Lower Jurassic.

Water depth is 358m (1,175ft). The well will now be permanently plugged and abandoned.

Well 6507/8-9 was drilled by the *Deepsea Bergen* drilling facility, which will now move to drill exploration well **33/9-22 S** in **PL 881** in the North Sea, which is operated by Wellesley Petroleum.

This is the eighth exploration well in PL 124, which was awarded in the 10th Licensing Round in 1986.

Vessels

Khankendi finishes trials

Azerbaijan's Baku Shipyard has completed sea trials for the Subsea Construction Vessel (SCV) *Khankendi* that is being built for the BP-operated **Shah Deniz Stage 2** project in the Azeri sector of the Caspian Sea.

The *Khankendi* SCV has been designed to install subsea structures of the huge Shah Deniz Stage 2 gas development project. It will perform construction activities on the field for the next 10 years.

The six-week trial took place in the Caspian Sea and represented the vessel's initial voyage in open waters, the Baku Shipyard said.

The shipyard added that throughout nearly two months of intense diagnostics, maritime experts executed more than 120 different tests designed to evaluate everything from the *Khankendi*'s engine and propulsion performance to its dynamic positioning, navigation systems, cabin acoustics as well as the offshore capabilities.

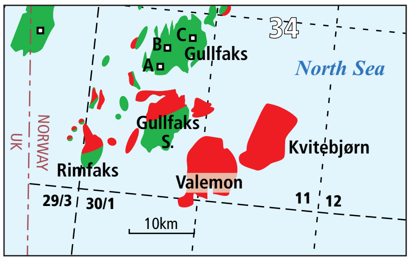
The completion of sea trials brings the shipyard a step closer to the imminent delivery of the *Khankendi* SCV to BP. The vessel is now back at the shipyard ahead of its naming ceremony in early September.

The vessel will be equipped with dynamic positioning to allow working in 2.5 metre wave height, a 900 metric tonne main crane for 600m subsea operation, an 18-man two-bell diving system, two work-class remotely operated vehicles, a strengthened moon pool and two engine rooms.

Rigs

West Elara gets Valemon go-ahead

Statoil has been given consent by Norway's Petroleum Safety Authority (PSA) to use the *West Elara* jack-up rig for drilling and completing on the **Valemon** field offshore Norway.



"We have given Statoil consent to use the *West Elara* mobile drilling facility to drill and complete production wells **34/11-B-6** and **34/11-B-16** on the Valemon field. Planned drilling start-up is September/ October 2017. The drilling operations are expected to last for 160 days," said the PSA.

Valemon is a gas and condensate field in the northern sector of the Norwegian North Sea and lies immediately west of the **Kvitebjørn** field. The field has been developed using a fixed production platform. Production started in 2015.

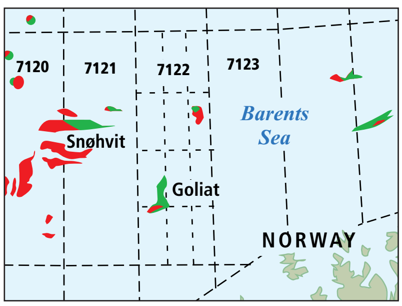
The *West Elara* rig was delivered by Jurong Shipyard in Singapore in 2011.

Field Development

Floatel consent for Goliat

Eni Norge (Eni) has been given consent by Norway's Petroleum Safety Authority (PSA) to use the *Floatel Endurance* mobile accommodation facility on the **Goliat** field in the Barents Sea offshore Norway.

"Due to the extra work on the Goliat field, Eni requires more cabin capacity, and has therefore applied to the PSA for consent to use the *Floatel Endurance* mobile accommodation facility as a floatel. We have granted Eni consent for this," said the PSA.



The consent applies for the period 20 August to 15 November 2017. The *Floatel Endurance* will be dynamically positioned and linked to the Goliat facility by a telescopic footbridge.

The *Floatel Endurance* is a semi-submersible accommodation facility that was delivered by the Keppel FELS yard in Singapore in 2015. It is owned and will be operated by Floatel International AB of Sweden.

In Brief...

Catcher FPSO sail-away

UK player Premier Oil reports that the Floating Production, Storage and Offloading (FPSO) vessel for the Catcher field offshore the UK, called *BW Catcher*, has left deepwater anchorage off the coast of Singapore and is on its way to the North Sea.

The journey is expected to take approximately 45 days, Premier said.

Energean gets Karish-Tanin FDP nod

Energean Oil & Gas has been given approval from the Israeli government for the Field Development Plan (FDP) for the **Karish** and **Tanin** gas fields in the Mediterranean Sea.

"Approval is a major step towards delivering the US $1.3-1.5 Bn development on time and on budget in 2020," Energean said, which submitted the FDP on 20 June 2017.

Energean Israel holds a 100% stake in the Karish and Tanin fields, which combined have 76.49 Bcm (2.7 Tcf) of natural gas and 41m boe of light hydrocarbon liquids, totalling 531m boe of 2C resources.

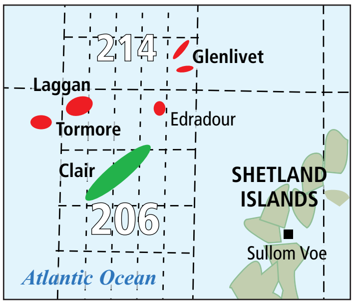
The Karish main development plan includes drilling three wells, using a Floating Production, Storage and Offloading (FPSO) vessel that will be located around 90km off the coast with a production capacity of 11.33 MMcm (400 MMcf/d).

The next stage in the project, which plans for first gas in 2020, is to reach the Final Investment Decision (FID) before the end of 2017.

Energean's CEO, Mathios Rigas, said: "The Israeli government's approval of the FDP is a major milestone and achievement for us, and we are grateful for their swift handling of our submission. We are working at full speed to achieve the planned FID by year-end, and we have made significant progress in agreeing terms on the necessary gas sales contracts to this effect."

UK Edradour-Glenlivet flows

Total has started production from the **Edradour** and **Glenlivet** gas and condensate fields, located in around 300-435m (984-1,427ft) of water in the West of Shetland area, close to the **Laggan-Tormore** fields which came onstream in February 2016.



The Edradour and Glenlivet development will bring additional production capacity of up to 56,000 boe/d.

"The start-up of the Edradour and Glenlivet fields demonstrates Total's ability to deliver projects, taking advantage of favourable market conditions and simplifying designs to optimise execution. We have completed this project ahead of schedule and 30% under the initial budget," said Arnaud Breuillac, president of Exploration & Production at Total. "This development will contribute to our production growth in the North Sea."

The Edradour and Glenlivet development consists of a 35km tieback of three subsea wells to the existing Laggan-Tormore production system, which include the 143km pipeline and the onshore Shetland Gas Plant.

Following treatment at the gas plant, the gas is exported to the UK mainland via the Shetland Island Regional Gas Export System (SIRGE) and FUKA pipeline, and will serve the UK domestic market. The condensates are exported via the Sullom Voe Terminal.

Total E&P UK operates Edradour and Glenlivet with a 60% stake, while DONG E&P UK holds 20% and SSE E&P UK has 20%.

Total has been present in the UK for more than 50 years and is one of the country's leading oil and gas operators, with equity production of 158,000 boe/d in 2016. Total's production in the UK comes from several operated fields located offshore in three major zones: the **Alwyn**/**Dunbar** area in the Northern North Sea, the **Elgin**/**Franklin** area in the Central North Sea and the new Laggan-Tormore hub in the West of Shetland area.

Erskine restart delayed

The restart of production from the Chevron-operated **Erskine** gas condensate field in the UK North Sea has been delayed by two weeks due to facilities maintenance.

The Erskine field includes a normally unattended installation and is remotely controlled from the Chrysaor-operated **Lomond** platform. A 30km pipeline links the two facilities.

Processing takes place in a dedicated module on the Lomond platform. Gas and condensate are exported separately to Chrysaor's **North Everest** platforms before gas is finally exported via the Central Area Transmission System and condensate is exported through the Forties Pipeline System.

Production from the Erskine field was suspended on 31 July for maintenance work, coinciding with a period of maintenance of the Forties Pipeline System through which Erskine condensate is transported.

At the same time a planned treatment to soak and remove wax build-up in the Lomond to **Everest** condensate export pipeline has been carried out. Production was scheduled to restart in the past week, Serica Energy, Chevron's partner in the Erskine field, said.

However, the operator of the Lomond platform advised Serica that restart of production operations is expected to be deferred for a further two week period in order to allow monitoring and control of methanol and xylene components used for the wax treatment prior to resumption of exports to the Forties Pipeline System.

When this work is finished, Erskine wells will be flowed at maximum rates to clear the treated wax from the line. If the line is sufficiently clear, a pigging programme will then be implemented to maintain the pipeline going forward, although it is possible that further chemical treatment may be required before pigging can start.

Serica's executive chairman, Tony Craven Walker, said: "Although the pipeline dewaxing procedures have taken longer than planned by the Lomond operator and Erskine production will resume later than we were expecting, the underlying field capability remains strong and we expect production to pick up as soon as the current restrictions are resolved."

World News

CGG starts Brazil shoot

CGG has kicked off work on the Espirito Santo IV large BroadSeis 3D multi-client survey in the deepwater and ultra-deepwater areas of the Espirito Santo Basin offshore Brazil.

The *Oceanic Champion* vessel is acquiring the data, which is expected to take seven months. The industry-supported survey will cover 10,300sq km and be processed at CGG's Rio de Janeiro Subsurface Imaging centre.

The high-end broadband sequence will include the latest 3D deghosting, Full-Waveform Inversion velocity modeling and Tilted Transverse Isotropy imaging. Fast-Track PSDM products will be delivered six months after completion of the acquisition, CGG said.

World News

TechnipFMC's Canada EPCI

TechnipFMC has been awarded an Engineering, Procurement, Construction and Installation (EPCI) contract from Husky Energy for the West White Rose project in Eastern Canada.

The workload includes the supply and installation of subsea equipment, including tie-in manifolds, flexible flow-lines, and control umbilicals, which will connect the recently announced West White Rose platform to the existing *SeaRose* FPSO vessel.

Calendar 2017

OCTOBER

9-13 Global Industrial Cyber Security Professional (GICSP) training
London, UK or
Amsterdam, Netherlands
Email: info@imfacademy.com
Tel: +31 (0)40 246 02 20
www.imfacademy.com

10-12
Operational Excellence & Risk Management Summit (Europe)
London, UK
http://opexandriskmanagement europe.iqpc.com

NOVEMBER

6-8 Operational Excellence in Oil & Gas Summit
Houston, Texas, USA
www.opexinoilandgas.com

7-9
Energy Trading Operations & Technology Summit – ETOT
London, UK
Contact:
DimitraT@irn-international.com
Tel: +44 207 111 1615
www.etotsummit.com/

29-30
Tank Storage Germany
Hamburg, Germany
www.stocexpo.com

2018

FEBRUARY

6-8 Operational Excellence & Risk Management Summit
Houston, Texas, USA
http://opexandriskmanagement.iqpc.com

MARCH

14-16
Asia Pacific Maritime (APM)
Singapore
Contact: apm@reedexpo.com.sg
Tel: +65 6780 4586
www.apmaritime.com

Services

IKM wins Caspian deal

IKM Cleandrill has landed a contract from Total for riserless mud circulating system services in the Azerbaijan sector of the Caspian Sea.

Total E&P Absheron, a 50:50 joint operating company between Total and Azerbaijan's state-owned SOCAR for the **Absheron** project (JOCAP), handed out the deal.

IKM Cleadrill will start operations in early 2018 in what is the player's first operation in the Caspian Sea.

The project itself involves the drilling of one well at a water depth of 450m (1,476ft). Production from this high-pressure field will be around 35,000 boe/d, including condensate.

The produced gas will supply Azerbaijan's domestic market. The first phase of production will also enable a dynamic appraisal of the field for future phases, IKM added.

The contract will include the installation of IKM's MRR 500 mud recovery system onto a new semi-submersible drill rig, and provision of subsea drilling fluid pumping services as part of Absheron project's drilling campaign in Azerbaijan.

"The project is technically challenging, with deep water, high mud weights, and potentially harsh environmental conditions. IKM is upgrading its standard MRR 500 system with increased pumping power to meet this requirement. The new MRR 500 XL system will provide the Absheron project with the latest generation high-power mud recovery technology," said IKM.

Tom Hasler, managing director of IKM, added: "This contract's award represents a significant win for IKM Cleandrill. Total undertook a detailed evaluation of the MRR 500 XL system as part of the bidding process, and our technical department has once again reset the benchmark for mud recovery technology to meet their requirements.

"Moving into the Caspian region is strategically important for the company and consolidates our position as the leading global mud recovery provider."

Company News

CAN scoops North Sea work

Aberdeen-based CAN Group has landed an extension to a services deal by Apache for the operator's assets in the North Sea.

CAN will provide topsides inspection and integrity support services for Apache's assets on the UK Continental Shelf. The two-year deal adds to an existing multi-year contract and will secure more than 65 jobs.

CAN's director Innes Walker said: "The fact operators are investing in their North Sea assets is hugely encouraging for the supply chain – ongoing recovery from the downturn will only be possible through their continued commitment to maximising economic recovery in the basin."

Framo wins FSRU deal

Norway's Framo has won a contract to deliver sea water lift pumps for a potential Floating Storage Regasification Unit (FSRU) for the shipowner GasLog at Samsung Heavy Industries.

The order was placed soon after Framo signed a supply agreement for similar pump systems for a FSRU under construction at the same Korean yard for shipowner Høegh LNG. Delivery is scheduled for August 2018.

"This represents acknowledgement of our ultra-compact pump concept that is now gaining a solid position on the FSRU market," said Thorbjørn Vågenes, director of Oil and Gas pumping systems in Framo.

Framo added: "In comparison with conventional pump systems, Framo's pumps provide significant savings on space and eliminate the need for a separate pump room on board the ship."

John Crane wins UK deal

John Crane Asset Management Solutions has landed a contract to supply Maersk Oil with data services to support the planned maintenance strategy at the **Culzean** field development in the UK North Sea.

John Crane will provide data build services, as well as establishing a maintenance plan for all topside equipment. A Detailed Criticality Analysis and Maintenance Definition (DCAMD) strategy will be developed to cover high-criticality equipment with generic procedures being used for non-critical appliances.

The Culzean gas condensate field has resources estimated at 250m-300m boe and is located in the Central North Sea. The high pressure, high temperature field is due to start production in 2019.

James Reid, project manager at John Crane, said: "We are pleased to deliver a smooth planned maintenance programme for Maersk Oil that combines both preventative and condition based maintenance."

Premier's 1H mixed bag

UK operator Premier Oil posted record output for the first half (1H) of 2017, although the company's profit took a dip compared to 1H 2016.

Premier posted record production of 82,100 boe/d, an increase of 34.5% on 1H 2016's output of 61,000 boe/d.

Profit after tax was US $40.7m, compared to $167.1m in 1H 2016, including one-off non-cash credits.

Cash flow from operations for 1H 2017 was $292.0m, compared to a 1H 2016 tally of $108.7m. This is a rise of 168% on 1H 2016. Opex was $14.7/boe, down 11% on 1H 2016.

Premier said the sailaway of the FPSO for the North Sea **Catcher** field development project is under way, with the operator also reporting positive development drilling results.

Heads of Terms have also been signed for new infrastructure partnership for the UK **Tolmount** project.

Premier also confirmed the potential sale of equity in the UK **Wytch Farm** field for $200m.

Tony Durrant, Premier's chief executive, said: "Premier continues to deliver excellent operational performance, which will drive free cash flow and the reduction of net debt. The first half saw good progress on the Catcher and Tolmount projects, a world-class exploration success in Mexico and the acceleration of cash flow from disposals. Following the successful completion of our refinancing, we are ahead of plans to restore financial strength while progressing a number of exciting projects for future growth."

Premier's chairman, Mike Welton, said: "Premier delivered a strong first half operationally, with record production of 82,100 boe/d, up 34.5% on the first half of 2016. This was driven by high production efficiency across the portfolio, enhanced by a full period of contribution from the former E.ON assets, which continue to exceed expectations at the time of the acquisition. UK production, which now represents over half of group production, saw particular outperformance by the **Huntington** field, which was the highest net producer in the portfolio.

"In Asia, demand for our Indonesian gas was strong with our Natuna Sea Block A again capturing a market share within its principal gas contract (GSA1) considerably ahead of its contractual share. In Vietnam, production during the period passed 50m bbl, in excess of the original total volumes envisaged at the time of sanction of the Chim Sáo project.

"As a result of the strong production performance in the first half we now expect production for 2017 to be in the range of 75,000-80,000 boe/d, an increase on our previous guidance of 75,000 boe/d.

"At the same time as increasing production, we continue to focus on managing our operating cost base and our committed capital expenditure. Our operating costs in the first half were $14.7/boe (1H 2016: $16.5/boe), 11% lower than the corresponding period and our full year capex guidance of $325m remains well below our original budget. Significant cost reductions have been achieved over the last two years and we continue to see opportunities for further savings from collaboration initiatives and competitive re-tendering.

"Progress on the Catcher development in the UK North Sea has been excellent and the field is on track for first oil before the end of 2017. The FPSO is mechanically complete and after the final stages of commissioning in Singapore it left for the North Sea having completed its marine trials. On the Catcher field itself all the key elements of the subsea equipment have been installed and we have also completed the last of the twelve wells that we planned in advance of first oil.

"Test flow rates and net pay calculations are above original prognosis and as a result we now expect to deliver an improved peak production profile of 60,000 boe/d ahead of the sanctioned estimate of 50,000 boe/d (gross). Once onstream the Catcher field will provide a step change in our production levels, generating tax-free cash flows for the group.

"Premier retains considerable optionality within our portfolio to maintain and grow our production and deliver value for all stakeholders. In March 2017, the board sanctioned the BIGP (Bison, Iguana, Gajah Puteri) incremental development project in Indonesia to back fill our existing gas sales contracts.

"Alongside this we have made good progress moving forward the next generation of material development projects. FEED is underway on the first phase of our Tolmount gas development in the Southern North Sea and we are pleased to have signed a Heads of Terms to enter into an infrastructure partnership regarding the development of the facilities.

"Premier's share of the capex required to develop this large gas field is now estimated at only $100m. On this basis, Tolmount is a very attractive project, meeting our economic thresholds even at low gas prices, allowing us to use our UK tax losses and with significant further reserve upside. In the Falkland Islands, focus in the first half has been on progressing funding alternatives for the first phase of our **Sea Lion** project. Good progress has been made and discussions are ongoing with both potential providers of export credit finance and supply chain contractors to secure suitable funding and commercial terms.

"In July we were delighted to add to our significant discovered but undeveloped reserves and resources, currently sitting at over 800m boe, with a material exploration success in Mexico.

"The world-class oil discovery at the Zama-1 exploration well vindicated our strategy of focusing on under-explored but proven hydrocarbon basins with the ability to deliver a material discovery in a lower cost operating environment. Our initial estimates for the full field are a P90-P10 gross unrisked resource range of 400m-800m boe. The focus, with our joint venture partners, will now be to appraise and plan the development of this world-class discovery.

"Active portfolio management remains a key element of our strategy. The successful acquisition and integration of the E.ON portfolio last year looks increasingly beneficial with the producing assets exceeding expectations and the economics of Tolmount continuing to improve.

"With the acquisition having reached cash payback during the first half of the year, our focus is now on delivering our disposal programme of non-core assets in order to accelerate balance sheet deleveraging. The sale of the Pakistan business is expected to conclude by the year-end.

"We have also announced the potential sale of our entire interest in the Wytch Farm field for a consideration of $200m. This sale, assuming completion in the second half of 2017, will lead to a material reduction in our debt, including the release of $75m of Letters of Credit covering future decommissioning liabilities.

"A comprehensive refinancing of all of our debt facilities has now been completed. The refinancing, with our facilities maintained and maturities extended out to 2021 and beyond, marks a major milestone for Premier establishing a solid foundation for us to fulfill our strategic plans going forward.

"Debt reduction remains a priority, but the refinancing provides the headroom and flexibility to plan for future investment in selective new projects. Net debt stood at $2.7 Bn at the half year, down from the year-end as we delivered positive free cash flow in the first half. We expect to continue to be net cash flow positive (after capex and planned disposals) at current oil prices and deleveraging will accelerate as the Catcher field comes onstream and further proceeds are generated from our disposal programme."

UK subsea wind potential

With global offshore wind energy expenditure expected to rise to more than US $453.4 Bn (£350 Bn) between now and 2026, "there is a huge opportunity for subsea companies to step up and play their part in helping to meet the world's renewable energy targets," says industry body Subsea UK.

"This will see a significant number of developments taking off over the next few years, and with world renowned experience in offshore oil and gas engineering, the UK has the skills and expertise to lead the way – delivering investment and creating jobs," said Subsea UK.

Subsea UK will be running an event on 20 September "to explore the offshore wind developments that are currently underway, while offering practical help and advice to companies looking to access the rapidly growing offshore renewables market."

Subsea UK's chief executive, Neil Gordon, said: "The offshore wind market is growing at an incredible rate, presenting a wealth of opportunities for the UK supply chain. By closely examining some of the developments that have proven to be successful, we can help companies overcome the barriers and make their mark in the offshore wind sector.

"The UK is home to some of the world's largest wind farms across all stages of production, including operation, construction, and in planning. However, there are still a number of challenges to overcome to ensure that offshore wind fulfills its potential.

"It's vital that the industry works together to share knowledge, get costs down and find smarter ways of working to increase the UK's competitiveness in a growing global industry. This means building alliances, strengthening the supply chain and embracing new technologies.

"By bringing together companies that are already active in the offshore renewables space, we can help guide newcomers though the steps required to break into the industry, while highlighting the opportunities most accessible to the UK supply chain," added Gordon.

Drilling

Norway Goanna well spudded

Faroe Petroleum reports the spudding of exploration well **39/9-22 S** on the **Goanna** prospect in **Production Licence 881** (PL 881) offshore Norway.

The Goanna licence is located in the northern Norwegian North Sea, near the border with the UK and adjacent to the giant producing **Statfjord** and **Snorre** fields, which offer the potential for alternative export routes, Faroe said.

The Goanna prospect straddles the border between PL 881 and **PL 037**, and the well will target a structural and stratigraphic prospect of Upper Jurassic Munin formation sandstones. Faroe's associated costs of drilling this well will be fully carried by its joint venture partner up to the budgeted dry hole cost.

The semi-submersible rig *Deepsea Bergen* is drilling the probe. Results will be announced when operations have been completed.

Graham Stewart, chief executive of Faroe, said: "We are pleased to announce the spudding of this near field exploration well in the very prolific Tampen Area and surrounded by giant oil fields. Goanna represents a target in a very exciting new area for Faroe and the company's dry hole costs in the well are fully covered."

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Annual subscription: £775

ISSN 0332 5210

Head Office:
Ogilvie Publishing Ltd
56 Aylesford Mews
Sunderland
SR2 9HY
United Kingdom

Tel: +44 (0)191 567 8497

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Printing: Four Point Printing, Shepperton, UK