# FIRST QUARTER REPORT FOR THE PERIOD ENDED 31 MARCH 2018 17 APRIL 2018



ASX: OSH | ADR: OISHY | POMSOX: OSH

# 2018 FIRST QUARTER PERFORMANCE IMPACTED BY PNG HIGHLANDS EARTHQUAKE

	1Q 2018	4Q 2017	% CHANGE
Total production (mmboe)	4.84	7.59	-36
Total sales (mmboe)	5.12	7.67	-33
Total revenue (US\$m)	295.0	389.0	-24

- ❖ Total production in the first quarter of 2018 was 4.84 million barrels of oil equivalent (mmboe), 36% lower than in the previous quarter. This reflected the shut in of Oil Search-operated production and the PNG LNG Project following the 7.5 magnitude earthquake that struck the PNG Highlands on 26 February 2018.
- ❖ The Oil Search-operated Central Processing Facility (CPF) resumed operations in late March, with oil production at Kutubu commencing at an initial rate of approximately 4,000 barrels of oil per day. Production from the Kutubu fields is expected to progressively ramp up during April.
- ❖ The PNG LNG Project safely recommenced LNG production in mid-April, ahead of ExxonMobil's previously estimated eight-week timeframe. LNG exports are expected to resume shortly.
- Engagement between the Papua LNG (PRL 15), P'nyang (PRL 3) and PNG LNG joint ventures has gained momentum after broad alignment was reached in February by Oil Search and its key joint venture partners on the preferred downstream development concept for LNG expansion in PNG. The proposed development comprises the construction of three LNG trains totaling 8 MTPA in capacity, with two trains dedicated to Papua LNG, supplied with gas from the Elk-Antelope fields, and one train underpinned by gas from the existing PNG LNG fields and the P'nyang field.
- ❖ Recertification of P'nyang gas field resources by an independent expert has resulted in a tripling of gross certified 1C resource to 3.51 trillion cubic feet (tcf), while 2C gross resources have increased to 4.36 tcf. Combined with recently-certified gas resources in the Elk-Antelope fields in PRL 15, there is approximately 11 tcf of certified gross undeveloped 2C gas resource available to support LNG expansion, with in excess of 8 tcf on a 1C basis.
- The Kimu 2 appraisal well in the Forelands region is due to spud shortly, with the Barikewa 3 appraisal well expected to follow late in the second quarter/early in the third quarter. In the PNG Highlands, the Muruk 2 appraisal well, designed to help narrow resource estimates for the field, is expected to spud in the fourth quarter of 2018.
- ❖ Following the completion of the Alaska North Slope acquisition in February 2018, Oil Search has assigned 127.5 million barrels (mmbbl) of net 2C contingent oil resource (500 mmbbl gross) to the Pikka Unit. The Company assumed operatorship in March 2018 and recruitment is now underway to build a subsurface, drilling and operational team based in Anchorage, in preparation for a comprehensive drilling programme commencing in early 2019. Six wells plus a sidetrack recently drilled by ConocoPhillips adjacent to Oil Search's acreage have all encountered oil.



- Oil Search released its inaugural Climate Change Resilience Report in March, prepared in accordance with the Financial Stability Board Task Force Recommendations for Climate-related Financial Disclosures. Extensive scenario analysis has indicated that Oil Search's assets are resilient to climate change under a range of scenarios, including a 2°C pathway.
- ❖ As a result of the earthquake, Oil Search has revised its 2018 production guidance to 23 26 mmboe, while unit production costs are expected to be in the range of US\$10.50 13.50 per boe and depreciation and amortisation charges are forecast to be between US\$12 and US\$13 per boe. Capital cost guidance has been reduced to US\$425 520 million.

# **OMMENTING ON THE FIRST QUARTER RESULT, OIL SEARCH MANAGING DIRECTOR, PETER BOTTEN, SAID:**

# **PNG** Highlands earthquake

"The first quarter of 2018 was one of the most challenging in Oil Search's and PNG's history.

On 26 February, a magnitude 7.5 earthquake struck the PNG Highlands. Over subsequent weeks, numerous aftershocks took place, many of a magnitude greater than 5. Very fortunately, all Oil Search staff and contractors, located at the Company's operating sites were accounted for, with only minor injuries reported.

As a precautionary measure to ensure the safety of all staff and contractors, as well as assess any damage to facilities, production from Oil Search's operated oil and gas fields in the Highlands was shut-in. ExxonMobil, operator of the PNG LNG Project, also shut in the wells at Hides, the Hides Gas Conditioning Plant (HGCP) and the LNG trains at the LNG plant site near Port Moresby.

Following the earthquake, Oil Search undertook an extensive review of all Oil Search-operated facilities and infrastructure to assess what, if any, remedial work would be required to ensure the integrity of the assets and the safe resumption of production. While substantial damage was sustained to several of the Company's camps, the Refinery at Kutubu and some roads, the operating facilities generally withstood the earthquake well, with no loss of oil or gas containment identified.

The Gobe Processing Facility (GPF) experienced minimal impacts and came back online in early March before undergoing a two-week planned shut-down for maintenance. In late March, the Central Processing Facility (CPF) resumed operations, with oil production commencing from a number of Kutubu complex wells, at an initial rate of approximately 4,000 barrels of oil per day. One of Oil Search's key priorities was to ensure that the condensate handling facilities at the CPF and the Oil Search-operated liquids export system, which are integral parts of the PNG LNG Project infrastructure, were ready to receive, store and export PNG LNG liquids and export Associated Gas as soon as possible. Fortunately, only minor remedial works were required and the facilities were operational ahead of the recommencement of production from the HGCP.

Located closest to the epicentre, Oil Search's Agogo Production Facility (APF) and Moran field sustained the most damage from the earthquake. Work is ongoing to repair the access roads, as well as a number of control systems, wellpads and flow lines prior to reinstating production at the APF. In particular, the Moran 4,6,9 wellpad has been materially compromised and geotechnical and engineering studies are underway to establish how best to address the damage. The Moran field is expected to be progressively reinstated to full production over the course of 2018. While Oil Search's Hides Gas to Electricity (GTE) facilities suffered only minor damage, the Porgera Joint Venture's power generation facilities that utilise Hides GTE gas are not expected to come back online until May and it may take a number of months to ramp up generation rates to pre-earthquake levels.



Remediation work is continuing to restore all facilities, to support the return to full production. We anticipate that over the second quarter, approximately 80% of Oil Search-operated oil production will be returned to pre-earthquake levels.

Although there was damage to the HGCP camp and other infrastructure, including the Komo Airfield, the major PNG LNG Project processing facilities, export gas and condensate pipelines and Hides production wells were not significantly impacted by the earthquake due to their world-class design and construction. In March, an LNG cargo was purchased to ensure that the LNG tanks and loading system, as well as associated infrastructure at the LNG plant site near Port Moresby, were kept cool. This minimised the restart time for LNG production and ensured the continued supply of power to Port Moresby. The HGCP started delivering gas and LNG production recommenced in April, ahead of ExxonMobil's previously estimated eight-week timeframe. LNG is currently being produced from one LNG train, with the second train expected to be brought online as gas supply from the HGCP ramps up. LNG exports are expected to resume shortly.

During the period in which PNG LNG operations were shut down, some of the planned maintenance work at the LNG plant site, which had previously been scheduled for April and October, was conducted. Planned modifications to the HGCP, including Angore tie-in work, were also brought forward.

The Oil Search-operated and PNG LNG production facilities are insured for property damage, including cover for earthquake related damage. We are in discussions with our insurers to progress claims on a timely basis. Following an initial visit to the impacted locations, the insurance loss adjustor has recommended an initial reserve of US\$150–250 million (gross joint venture values) for damage to the insured Oil Search-operated assets, with an initial progress payment of approximately US\$60 million in the process of being paid by the insurers. Oil Search will be entitled to approximately 60% of the participating joint venture insurance recoveries.

Supporting infrastructure for the Oil Search-operated assets, such as gathering lines, wellpads, roads and certain camp facilities, is self-insured and the repair and restoration costs for these assets will be funded by the relevant joint ventures. Neither Oil Search nor the PNG LNG Project carry business interruption insurance.

Sadly, the impact of the earthquake on local communities, particularly in the Hela, Southern Highlands and Western Provinces, has been devastating, with more than 200 deaths as well as the destruction of homes, livelihoods, important infrastructure and loss of basic necessities.

As one of the few organisations in PNG with the ability to provide rapid on-the-ground assistance, Oil Search played a critical 'first responder' role in the relief efforts, offering its Moro logistical base as an important hub for aid distribution. The Oil Search Foundation, in partnership with Oil Search and other companies that have generously donated funds to the relief efforts, has also played a leading role in the delivery of aid to impacted communities. To date, Oil Search has delivered more than 200 tonnes of food and supplies, reaching approximately 200,000 people mostly within remote villages, has delivered almost 100 health centre kits and has undertaken nearly 2,400 medical treatment cases. The Company has contributed approximately US\$5 million in cash and kind to support disaster relief efforts, in addition to generous contributions from our staff in both Australia and PNG.

We continue to work with the PNG Government's National Disaster Restoration Team and respective Provincial Disaster Committees, Government Agencies, community leaders and donor groups to address the needs of communities in the Highlands."

# LNG expansion

"While the PNG Highlands earthquake disrupted our production operations during the quarter, it had no impact on the progress of LNG expansion activities, which have accelerated following the achievement of broad alignment on the preferred downstream development concept between Oil Search, Total and ExxonMobil in early 2018. The proposed development concept comprises the construction of three LNG trains, with total capacity of approximately 8 MTPA, on the existing PNG LNG plant site. Two of these trains are expected to be dedicated to Papua LNG, supplied with gas from the Elk-Antelope fields, with the third expansion train underpinned by gas from the existing PNG LNG fields and the P'nyang field.



During the quarter, discussions on LNG expansion between the PNG LNG Project, P'nyang (PRL 3) and Papua LNG (PRL 15) joint ventures intensified. The parties are meeting regularly to advance the technical concept, project financing and commercial agreements required to enable integration of the projects. Oil Search expects a decision on the Front End Engineering and Design (FEED) phase to take place in the second half of 2018, subject to final partner approvals and progress on Government negotiations on fiscal arrangements.

With LNG from the Papua LNG Project and potentially the PNG LNG/P'nyang expansion train expected to be equity marketed, during the quarter Oil Search established an office in Japan, staffed by a highly experienced LNG marketing team. The team will target customers in North-East and South-East Asian markets for offtake agreements covering Oil Search's share of expansion LNG."

# Recertification of P'nyang field

"In January 2018, the P'nyang South 2 ST1 appraisal well reached total depth after intersecting gas in the south-east region of the field. A recertification of the field's gas resources was undertaken by independent expert, Netherland, Sewell & Associates, Inc. (NSAI), incorporating the results of this well, as well as additional seismic and core data. This resulted in a tripling in the certified gross 1C gas resource to 3.51 tcf and an increase in 2C gross resources, to 4.36 tcf.

Combined with gas resources in the Elk-Antelope fields in PRL 15, there is now approximately 11 tcf gross of certified undeveloped 2C gas resource, more than sufficient to underpin 8 MTPA of additional, globally competitive, LNG capacity at the existing LNG plant site. Importantly, based on this and the recent certifications of gas resources within the Elk-Antelope fields, there is in excess of 8 tcf of 1C resource, which will greatly assist marketing activities within each venture."

# **Power activities**

"During the quarter, the Company continued to mature its various power initiatives. Construction of a 58 MW gas-fired power station at Caution Bay, adjacent to the PNG LNG plant site, is now underway, with first electricity deliveries to Port Moresby targeted for the first quarter of 2019. The PNG Biomass project has substantially completed its FEED activity and discussions took place during the quarter with government and lenders on potential financing arrangements."

#### Alaska

"In February, following approval by the Committee on Foreign Investment in the US, the Alaska North Slope acquisition was completed. Oil Search assumed operatorship in March 2018, approximately three months earlier than expected, as a result of support from Government, regulators, joint venture partners and native companies.

During the quarter, we commenced building an Anchorage-based integrated project team, comprising operations, subsurface, development and support personnel. We have been very pleased with the strong level of interest from well qualified candidates with extensive experience in the Alaska North Slope, who have been attracted by the opportunity to be involved in the development of one of the US' largest conventional oil discoveries in recent times. We anticipate that by the end of 2018, approximately 100 people will be located in the Anchorage office. The team, led by Keiran Wulff, who has transitioned from his previous role as Executive General Manager - Exploration to be President - Alaska, is currently being supported by personnel from Oil Search's corporate office but it is intended that the Alaskan operation will be run largely independently.

Following completion of the acquisition, we have assigned 127.5 million barrels (mmbbl) of 2C contingent oil resource to the Pikka Unit, which reflects Oil Search's 25.5% share of the estimated gross resources of 500 mmbbl for the Unit (see ASX release for further detail). Oil Search continues to assess the resource potential of its Alaskan



assets. Regional drilling adjacent to Oil Search's interests has been undertaken by ConocoPhillips during the current winter drilling season. ConocoPhillips has announced that all six wells plus a sidetrack, which include two wells on-trend with the Pikka Unit Nanushuk field, encountered oil and verified the potential of the play (see ConocoPhillips release "ConocoPhillips announces successful results of 2018 winter exploration and appraisal program in Alaska", 16 April 2018). Oil Search will have access to some of the ConocoPhillips well data and discussions are underway with ConocoPhillips to determine areas of cooperation.

Oil Search will be undertaking a detailed review and integration of all available information in the second half of the year and will update resource ranges ahead of the final appraisal programme in the 2018/19 winter drilling season, before entering FEED for the Nanushuk development in the second half of 2019. Once all the data has been integrated we consider that there is a likelihood of material upside compared to Oil Search's current resource estimate. This information will help Oil Search maximise the value of the option to increase our interests in the Alaskan North Slope assets, potentially by exercising and then on-selling some or all of the additional interest to introduce a strategic third party into the joint venture.

Engagement with the community and local companies remains ongoing, with the focus on securing stakeholder alignment on the forward exploration, appraisal and development programme."

# **Inaugural Climate Change Resilience Report released**

"In March 2018, Oil Search released its inaugural Climate Change Resilience Report, prepared in accordance with the Financial Stability Board Task Force Recommendations for Climate-related Financial Disclosures. This makes Oil Search one of the first ASX-listed companies to have reported under these new guidelines.

The Report includes the outcomes of comprehensive climate scenario analysis, conducted to determine how Oil Search is positioned for a low-carbon world. Pleasingly, the analysis has indicated that the PNG LNG Project and Oil Search's operated oil assets, as well as our LNG expansion project in PNG and oil assets in the Alaska North Slope, are resilient to climate change under a range of scenarios, including a 2°C pathway. The impact of climate change will continue to be incorporated into all of the Company's strategic decisions.

Oil Search will be holding a webcast on Wednesday, 18 April, at 10am AEST, at which we will provide an overview of the report approach and the key findings from the climate scenario analysis."

#### **Changes to the Oil Search Board**

"As previously disclosed to the market, Gerea Aopi resigned from the Oil Search Board in March after 12 years of service. He will also resign from his role as Executive General Manager - Stakeholder Engagement at the end of May. However, Gerea will continue to serve as PNG Country Chair, on a part time basis, as well as Director of the Oil Search Foundation and Oil Search Power Holdings, allowing the Company to continue to benefit from his extensive knowledge and strong relationships with a wide range of stakeholders in PNG as we progress LNG expansion to sanction.

During the quarter, following an extensive international search, two new Non-Executive Directors, Ms Susan Cunningham and Dr Bakheet Al Katheeri, were appointed to the Oil Search Board. Ms Cunningham has more than 35 years of oil and gas industry experience and has held exploration and development positions at a number of energy companies, including Amoco Production Company, Statoil, Texaco and Noble Energy. Dr Al Katheeri is currently the Chief Executive Officer of Mubadala Petroleum and has over 20 years of diverse operating and management experience in the oil and gas industry, primarily in the Middle East. Mubadala Petroleum is a subsidiary of Mubadala Investment Company, Oil Search's largest shareholder, so consequently, appropriate arrangements have been put in place to address any potential conflicts of interest that may arise from Dr Al Katheeri's role at Mubadala Petroleum."



# **♦ REVISED 2018 GUIDANCE**

2018 production is presently forecast to be in the range of 23 - 26 million barrels of oil equivalent (mmboe), compared to guidance of 28.5 - 30.5 mmboe prior to the earthquake. These estimates may change, subject to the completion of remaining remedial work, the speed of reinstating and ramping up production from the various fields and ongoing safe and reliable performance of infrastructure and facilities recently brought back into operation.

Production costs on a unit basis are expected to increase to US\$10.50 – 13.50 per boe, reflecting the high proportion of fixed costs in the context of the lower production outlook, as well as the costs of remediation, net of insurance recoveries, following the earthquake. Production cost guidance includes the cost of purchasing an LNG cargo to keep the LNG trains cool prior to restart. We expect to narrow the guidance range once there is more certainty about the production outlook for the year. Unit depreciation and amortisation costs are forecast to be slightly higher than previously guided, at US\$12 – 13 per boe, reflecting a higher proportion of PNG LNG production compared to oil production following the earthquake.

Capital costs are expected to be in the range of US\$425 – 520 million, lower than previously forecast. Exploration and evaluation cost guidance has remained broadly unchanged, with lower costs associated with the delay in drilling the Muruk 2 appraisal well offset by higher drilling costs associated with the Kimu 2 and Barikewa 3 wells. However, production capital costs have declined materially, reflecting the deferral of two development wells planned for 2018 into 2019.

	Previous Guidance	Current Guidance
Production		
Oil Search-operated PNG oil and gas (mmboe) <sup>2,3</sup>	4.5 - 5.5	2.7 – 4.0
PNG LNG Project:		
LNG (bcf)	105 –109	89 – 96
Power (bcf)	0.6 - 0.7	0.6
Liquids (mmbbl)	3.3 - 3.5	2.8 – 3.1
Total PNG LNG Project (mmboe) <sup>2</sup>	24.0 - 25.0	20 – 22
Total production (mmboe)	28.5 – 30.5	23 – 26
Operating Costs		
Production costs	US\$8.50 - 9.50 / boe	US\$10.50 - 13.50 / boe
Other operating costs	US\$145 – 155 million	US\$140 – 150 million
Depreciation and amortisation	US\$11.50 - 12.50 / boe	US\$12 - 13 / boe
<u>Capital Costs</u>		
Exploration and Evaluation	US\$255 – 310m	US\$250 - 310m
Development	US\$50 - 65m	US\$40 - 50m
Production	US\$80 - 85m	US\$35 - 40m
Other PP&E	US\$45 - 50m	US\$50 - 55m
Power	US\$50 - 65m	US\$50 - 65m
Total	US\$475 – 575m	US\$425 – 520m

Numbers may not add due to rounding.

Gas volumes have been converted to barrels of oil equivalent using an Oil Search specific conversion factor of 5,100 scf = 1 boe, which represents a weighted average, based on Oil Search's reserves portfolio, using the actual calorific value of each gas volume at its point of sale.

Includes SE Gobe gas sales.



# **♦ PRODUCTION SUMMARY¹**

QUARTER END	FULL YEAR
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	MAR 2018	DEC 2017	MAR 2017	DEC 2017
PNG LNG Project <sup>2</sup>				
LNG (mmscf)	17,560	26,572	26,299	106,266
Gas to power (mmscf) <sup>3</sup>	160	171	158	665
Condensate ('000 bbls)	474	759	807	3,157
Naphtha ('000 bbls)	50	78	77	312
PNG crude oil production ('000 bbls)				
Kutubu	393	649	714	2,630
Moran	137	357	328	1,267
Gobe Main	3	4	5	20
SE Gobe	8	11	15	56
Total oil production ('000 bbls)	540	1,022	1,061	3,973
SE Gobe gas to PNG LNG (mmscf) <sup>4</sup>	520	826	677	3,265
Hides GTE Refinery Products <sup>5</sup>				
Sales gas (mmscf)	919	1,502	1,430	5,843
Liquids ('000 bbls)	20	32	27	118
Total barrels of oil equivalent ('000 boe) <sup>6</sup>	4,840	7,592	7,574	30,314

<sup>1.</sup> Numbers may not add due to rounding.

<sup>2.</sup> Production net of fuel, flare, shrinkage and SE Gobe wet gas.

<sup>3.</sup> Gas to power had previously been accounted for as losses within the PNG LNG Plant.

<sup>4.</sup> SE Gobe wet gas reported at inlet to plant, inclusive of fuel, flare and naphtha.

<sup>5.</sup> Hides GTE production is reported on a 100% basis for gas and associated liquids purchased by the Hides (GTE) Project Participant (Oil Search 100%) for processing and sale to the Porgera power station. Sales gas volumes are inclusive of approximately 2% unrecovered process gas.

<sup>6.</sup> Gas and LNG volumes have been converted to barrels of oil equivalent using an Oil Search specific conversion factor of 5,100 scf = 1 boe, which represents a weighted average, based on Oil Search's reserves portfolio, using the actual calorific value of each gas volume at its point of sale. Minor variations to the conversion factors may occur over time.



# **♦ SALES SUMMARY¹**

	QUARTER END			FULL YEAR
	MAR 2018	DEC 2017	MAR 2017	DEC 2017
Sales data PNG LNG PROJECT				
LNG (Billion Btu)	22,406	31,341	29,022	123,239
Condensate ('000 bbls)	455	759	796	3,145
Naphtha ('000 bbls)	60	96	93	335
PNG oil ('000 bbls)	516	1,065	977	3,909
HIDES GTE				
Gas (Billion Btu) <sup>2</sup>	983	1,608	1,536	6,266
Condensate & refined products ('000 bbls) <sup>3</sup>	20	26	29	115
Total barrels of oil equivalent sold ('000 boe) <sup>4</sup>	5,119	7,674	7,219	30,044
Financial data (US\$ million)				
LNG and gas sales	215.0	259.1	226.0	993.1
Oil and condensate sales	68.9	115.5	98.3	395.0
Other revenue <sup>5</sup>	11.1	14.5	19.3	58.0
Total operating revenue	295.0	389.0	343.7	1,446.0
Average realised oil and condensate price (US\$ per bbl) <sup>6</sup>	70.38	63.05	55.17	55.68
Average realised LNG and gas price (US\$ per mmBtu)	9.19	7.86	7.40	7.67
Cash (US\$m)	697.3	1,015.2	1,017.3	1,015.2
Debt (US\$m) <sup>7</sup>				
PNG LNG financing	3,625.5	3,625.5	3,939.4	3,625.5
Corporate revolving facilities <sup>8</sup>	-	-	-	-
Net debt (US\$m)	2,928.2	2,610.2	2,922.1	2,610.2

Numbers may not add due to rounding.

<sup>2.</sup> Relates to gas delivered under the Hides GTE Gas Sales Agreement.

<sup>3.</sup> Relates to refined products delivered under the Hides GTE Gas Sales Agreement or sold in the domestic market and condensate.

<sup>4.</sup> Gas and LNG sales volumes have been converted to barrels of oil equivalent using an Oil Search specific conversion factor of 5,100 scf = 1 boe, which represents a weighted average, based on Oil Search's reserves portfolio, using the actual calorific value of each gas volume at its point of sale and asset specific heating values. Minor variations to the conversion factors may occur over time.

<sup>5.</sup> Other revenue consists largely of rig lease income, infrastructure tariffs and electricity, refinery and naphtha sales.

<sup>6.</sup> Average realised price for Kutubu Blend including PNG LNG condensate.

<sup>7.</sup> Excludes finance leases recorded as borrowings.

<sup>8.</sup> As at 31 March 2018, the Company's corporate revolving facilities were undrawn.



# **♦ PRODUCTION PERFORMANCE**

2018 first quarter production net to Oil Search was 4.84 million barrels of oil equivalent (mmboe), comprising the following:

- LNG produced at the PNG LNG plant, net of SE Gobe sales, fuel, flare and shrinkage, of 17,560 mmscf.
- Gas produced for domestic market power generation of 160 mmscf.
- PNG LNG liquids production of 0.52 mmbbl, comprising condensate produced during gas processing at the Hides Gas Conditioning Plant (HGCP) and naphtha at the PNG LNG plant.
- PNG oil field production and gas and liquids production from the Hides GTE Project of 0.84 mmboe. These fields produced at an average rate of 18,303 barrels of oil equivalent per day (gross), including 2,327 mmscf of gas (gross) exported to the PNG LNG Project from the SE Gobe field.

# PNG LNG Project (29.0%)

First quarter production from the PNG LNG Project, net to Oil Search, was 4.00 mmboe, comprising 17.560 bcf of LNG, 0.160 bcf of gas for power generation and 0.52 mmbbl of liquids. This was 36% lower than the previous quarter, reflecting the shut-in of production following the Highlands earthquake on 26 February.

An average of 93 mmscf/day of gas was supplied to the PNG LNG Project by Oil Search from the Associated Gas (Kutubu and Gobe Main) and SE Gobe fields, representing approximately 13% of the total gas delivered to the LNG plant.

During the period in which PNG LNG operations were shut down, some of the maintenance work at the PNG LNG plant site and planned modifications to the Hides Gas Conditioning Plant, including some Angore tie-in work, were brought forward.

# Kutubu (PDL 2 – 60.0%, operator)

First quarter oil production net to Oil Search from the Kutubu complex was 0.39 mmbbl, 39% lower than in the fourth quarter of 2017. Gross production rates averaged 7,280 bopd during the period, compared to 11,752 bopd in the previous quarter.

Oil production was significantly affected by the earthquake, with production shut in from 26 February for most of the remainder of the quarter.

# Moran Unit (49.5%, based on PDL 2 – 60.0%, PDL 5 – 40.7% and PDL 6 – 71.1%, operator)

Oil Search's share of Moran first quarter oil production was 0.14 mmbbl, 62% lower than in the previous quarter, reflecting the impact of the earthquake, workover activity and natural field decline.

#### Gobe (PDL 3 - 36.4% and PDL 4 - 10%, operator)

Oil Search's share of oil production from the Gobe fields in the first quarter of 2018 was 0.01 mmbbl, down 35% on the previous quarter, reflecting the impact of the earthquake. Production remained shut in for most of the rest of the quarter.



The gross average production rate for Gobe Main was 40% lower than in the fourth quarter 2017, at 294 bopd, while the gross average production rate at SE Gobe was 33% lower than in the previous quarter, at 375 bopd.

During the quarter, Oil Search's share of SE Gobe gas exported to the PNG LNG Project was 520 mmscf.

# Hides Gas-to-Electricity Project (PDL 1 - 100%)

Gas production for the Hides Gas-to-Electricity Project in the first quarter of 2018 was 919 mmscf, produced at an average rate of 10.2 mmscf per day. 19,739 barrels of condensate were produced for use within the Hides facility or transported by truck to the Hides Gas Conditioning Plant for export. Following the earthquake, production remained shut in for the rest of the quarter.

# **EXPLORATION AND APPRAISAL ACTIVITY**

#### Gas

#### **Highlands**

In January 2018, the P'nyang South 2 ST1 appraisal well in PRL 3 (Oil Search – 38.5%) reached a total depth of 2,725 metres. The well encountered gas in good quality Toro and Digimu sands, though the Emuk Formation was largely water-bearing. The result confirmed the extension of the P'nyang field to the south-east. An independent recertification over the P'nyang field, incorporating the results of P'nyang South 2 ST1 as well as additional seismic and core data, was completed in April, resulting in a material increase in the certified gross 1C contingent gas resource to 3.51 tcf and 2C to 4.36 tcf. This compares to the 2012 certified gross 1C resource of 1.13 tcf and 2C of 2.37 tcf and Oil Search's estimated 2C contingent resource estimate of 3.69 tcf (gross), booked at the end of 2017. The PRL 3 joint venture continues to work with the Department of Petroleum to progress the offer of a Petroleum Development Licence over the P'nyang field.

At Muruk, construction staff who had been preparing the Muruk 2 appraisal well pad were evacuated following the Highlands earthquake. Geotechnical evaluation has not identified any damage to the pad, although rehabilitation of the construction camp and water source is required. Well pad construction is expected to recommence shortly ahead of a targeted spud date in the fourth quarter of 2018, subject to weather and gaining access to site following the earthquake. Muruk 2 is a significant, 11 kilometre, step out from the Muruk 1 discovery well and will provide valuable information to help narrow Oil Search's gas resource estimates. The second phase of a 2D seismic acquisition programme covering approximately 100 kilometres over Muruk and an adjacent prospect, which was halted following the earthquake, is also expected to recommence in the fourth quarter.

#### Forelands/Gulf

In the Forelands region of PNG, the Kimu 2 appraisal well in PRL 8 (Oil Search – 60.7%, operator) is expected to commence drilling shortly and should reach total depth in late May/early June. The Barikewa 3 appraisal well in PRL 9 (Oil Search – 45.1%, operator) is planned to be drilled following Kimu 2. The wells will help define the resource base of these fields and assist in selecting the optimal commercialisation route. This could include the delivery of third party gas for LNG expansion or small scale LNG, which represents a potential competitive source of fuel for domestic and regional markets that are currently dependent on diesel and/or heavy fuel oil.

In the onshore Papuan Gulf Basin, during the quarter Oil Search commenced a 2D seismic programme covering approximately 330 kilometres on behalf of ExxonMobil and Total. Data is being acquired over the ExxonMobil-operated PPLs 475, 476 and PRL 39 licences and the Total-operated PRL 15 licence (Oil Search – 22.835%) with the programme expected to complete in the third quarter of 2018. This seismic will help delineate a number of attractive leads and



prospects surrounding the world-class Elk-Antelope gas fields in PRL 15. Significant cost savings have been achieved for all joint venture partners through Oil Search's acquisition of the seismic data in a single programme. Discussions continue with ExxonMobil affiliates for Oil Search's entry into the Gulf licences PPL 474, 475, 476 and PRL 39.

#### Offshore Gulf of Papua

Following encouraging results from the reprocessing of existing 3D data over the shallow water Gulf licences in 2017, Oil Search has initiated further seismic reprocessing to firm up the acreage's prospectivity and to identify targets for potential drilling in 2019.

In the deep water Gulf, interpretation of 2D data continued, enhancing the Company's understanding of the petroleum systems in the region. Identified prospects are being risked, ranked and prioritised. A 3D seismic acquisition programme to further constrain prospectivity is being considered by the operator for 2019.

#### Oil

#### **PNG**

Several development and appraisal targets and near field exploration prospects have been identified in and around Oil Search's PNG oil fields. These targets have the potential to add material oil resources and are commercially very attractive given their proximity to infrastructure. In the fourth quarter of 2018, Oil Search will acquire additional seismic to further constrain these prospects ahead of potential drilling in 2019.

#### **Alaska**

In March, Oil Search assumed operatorship of the Alaska North Slope assets, following completion of its acquisition of a 25.5% interest in the Pikka Unit and adjacent exploration acreage and a 37.5% interest in the Horseshoe Block in February. During the quarter, the Company focused on setting up its Anchorage office and recruiting individuals with subsurface, operational and development expertise to build its local capability, ahead of an extensive appraisal programme commencing in early 2019.

Engagement with the community and local companies continued in order to explore opportunities for collaboration, with the focus on securing stakeholder alignment on the forward appraisal and development programme.

#### Middle East/North Africa

In March, Oil Search completed the sale of the Al Barqa (Block 7) licence in Yemen to Petsec Energy (Middle Eastern) Ltd, marking the Company's exit from Yemen.

Work with the Kurdistan Regional Government on a relinquishment agreement for the Taza PSC in Kurdistan continued during the quarter.



# **\* DRILLING CALENDAR**

Subject to joint venture and government approvals, the 2018 exploration and appraisal programme is planned as follows:

WELL	WELL TYPE	LICENCE	OSH INTEREST	EXPECTED SPUD DATE
PNG				
Kimu 2	Appraisal	PRL 8	60.7%	April 2018
Barikewa 3	Appraisal	PRL 9	45.1%	End 2Q / early 3Q 2018
Muruk 2	Appraisal	PDL 9	24.4%	4Q 2018
ALASKA				
Up to 3 wells	Appraisal / Exploration	Pikka / Horseshoe	25.5% / 37.5%	Commencing 1Q 2019

Note: Wells, location and timing subject to change.

# **♦ FINANCIAL PERFORMANCE**

#### Sales revenue

Sales volumes in the first quarter were materially impacted by the PNG Highlands earthquake which occurred on 26 February and resulted in the shut-in of all Oil Search-operated production and the PNG LNG Project. A total of 20 LNG cargoes, or 22,406 billion Btu, of LNG was sold, 29% lower than sales volumes in the previous quarter, comprising 18 sold under long-term contract and two cargoes sold on the spot market, compared to 28 cargoes sold in the previous quarter. Oil, condensate and naphtha sales volumes for the period totaled 1.05 mmbbl, 46% lower than liquid sales in the previous quarter. Four cargoes of Kutubu Blend and two naphtha cargoes were sold during the period.

The average oil and condensate price realised during the quarter was US\$70.38 per barrel, 12% higher than in the fourth quarter of 2017, reflecting a continued recovery in global oil prices. The average price realised for LNG and gas sales was US\$9.19 per mmBtu, reflecting the approximate three-month lag between the spot oil price and LNG contract prices. The Company did not undertake any hedging transactions during the period and remains unhedged.

Total sales revenue from LNG, gas, oil and condensate for the period declined 24% on the previous quarter to US\$283.9 million, reflecting the impact of the earthquake on production and sales volumes. Other revenue, comprising rig lease income, infrastructure tariffs, electricity, refinery and naphtha sales, was US\$11.1 million.

#### Capital management

At 31 March 2018 and following the completion of the Alaska North Slope acquisition in February, Oil Search had liquidity of US\$1.55 billion, comprising US\$697 million in cash and US\$850 million in undrawn corporate credit facilities. US\$3.63 billion of debt was outstanding under the PNG LNG project finance facility, resulting in a net debt position of US\$2.93 billion at the end of the quarter.

Based on the Company's current view on oil prices, Oil Search expects that it will have sufficient financial capacity to fund its major growth projects – LNG expansion in PNG and the Nanushuk development in Alaska – as well as scheduled debt repayments and future dividends.



# Capital expenditure

During the quarter, exploration and evaluation expenditure totaled US\$457.2 million, primarily reflecting the completion of the Alaska North Slope acquisition (US\$415.2 million including transaction costs), drilling of P'nyang South 2 ST1 (US\$5.0 million) and preparations to drill Muruk 2 (US\$3.8 million) and Kimu 2 (US\$9.5 million) in PNG. US\$5.9 million of exploration costs were expensed, mainly comprising seismic acquisition costs as well as geological, geophysical and general and administration expenses in PNG. Development expenditure for the quarter totaled US\$7.5 million, which included US\$5.2 million spent on the PNG LNG Project and US\$2.3 million on the PNG Biomass power project. Expenditure on producing assets was US\$5.0 million, while expenditure on property, plant and equipment was US\$8.2 million.



# **SUMMARY OF INVESTMENT EXPENDITURE AND EXPLORATION AND EVALUATION EXPENSED<sup>1</sup>**

	QUARTER END			FULL YEAR
	MAR 2018	DEC 2017	MAR 2017	DEC 2017
Investment Expenditure				
Exploration & Evaluation				
PNG	39.2	39.7	43.3	158.8
USA	417.2	7.9	-	7.9
MENA	0.8	0.4	0.5	2.9
Total Exploration & Evaluation	457.2	48.0	43.8	169.5
Development				
PNG LNG	5.2	10.5	4.1	30.1
Biomass	2.3	3.3	2.4	9.8
Total Development	7.5	13.9	6.5	39.9
Production	5.0	9.4	10.9	40.7
PP&E	8.2	22.6	0.2	27.6
Total	477.9	93.9	61.4	277.6
Exploration & Evaluation Expenditure Expensed <sup>2,3</sup>				
PNG	4.8	(2.7)	5.6	27.0
USA	0.1	6.2	-	6.2
MENA	1.0	0.3	0.5	2.7
Total current year expenditures expensed	5.9	3.9	6.1	35.9
Prior year expenditures expensed	-	-	-	-
T-1-1	<b>5</b> 0	0.0	0.4	05.0

Total

5.9

3.9

6.1

35.9

Numbers may not add up due to rounding.
 Exploration costs expensed includes unsuccessful wells, exploration seismic and certain costs related to administration costs and geological and geophysical activities. Costs related to permit acquisitions, the drilling of wells that have resulted in a successful discovery of potentially economically recoverable hydrocarbons and appraisal and evaluation of discovered resources are capitalised.
 Numbers do not include expensed business development costs. In the first quarter of 2018, there was a credit to business development costs of US\$1.9 million as transaction costs incurred on



# Gas/LNG Glossary and Conversion Factors Used<sup>1,2</sup>

Mmscf Million (10<sup>6</sup>) standard cubic feet

mmBtu Million (10<sup>6</sup>) British thermal units

Billion Btu Billion (10<sup>9</sup>) British thermal units

MTPA (LNG) Million tonnes per annum

Boe Barrel of oil equivalent

1 mmscf LNG Approximately 1.10 - 1.14 billion Btu

1 boe Approximately 5,100 standard cubic feet

1 tonne LNG Approximately 52 mmBtu

#### PETER BOTTEN, CBE

**Managing Director** 

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## **DISCLAIMER**

This report contains some forward-looking statements which are subject to particular risks associated with the oil and gas industry. Actual outcomes could differ materially due to a range of operational, cost and revenue factors and uncertainties including oil and gas prices, changes in market demand for oil and gas, currency fluctuations, drilling results, field performance, the timing of well workovers and field development, reserves depletion and fiscal and other government issues and approvals.

<sup>1.</sup> Minor variations in conversion factors may occur over time, due to changes in gas composition.

<sup>2.</sup> Conversion factors used for forecasting purposes only.