# TheExplorer

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Kupe Reserves Upgraded

# KUPE RESERVES UPGRADED

#### 34.7% increase in Kupe Developed Reserves

Developed reserves in the Kupe gas and light oil field have been upgraded. Following a review by New Zealand Oil & Gas, the company's share of 2P developed reserves have increased by 34.7 per cent above those carried at 30 June 2015, from 4.2 million barrels of oil equivalent to 5.6 today.

This reserves increase not only provides additional volume from within the existing development but it's likely that contracted volumes can be met without the need for significant additional capital spending that had been anticipated in previous calculations of Kupe reserves. Undeveloped reserves of 3.2 mlllion barrels, which were included in the company's total Kupe 2P reserves at 30 June 2015, are the subject of further work to assess options for developing potential additional reserves. New Zealand Oil & Gas believes the undeveloped reserves will remain in line with this estimate, if the existing development plans are carried forward. The additional work may provide material additional reserves if economic assessments support development. An update of the total developed and undeveloped reserves will be provided on completion of this work, which is expected in the second quarter of 2016.

| New Zealand Oil & Gas<br>share           | Previous 2P<br>Developed Reserves<br>at 30 June 2015 | Previous 2P Developed<br>Reserves less<br>production since 1 July | 2P Developed<br>Reserves at<br>1 Oct 2015 | Change | %     |
|--|--|---|---|--------|-------|
| Sales Gas (PJ)                           | 18.4   | 17.4  | 23.3                                      | 5.9    | 34.0% |
| LPG - Kilotonnes                         | 79.9   | 75.7  | 97.4                                      | 21.7   | 28.7% |
| Light oil - million barrels              | 0.8  | 0.7   | 1.0                                       | 0.3    | 43.2% |
| Millions of barrels<br>of oil equivalent | 4.4  | 4.2   | 5.6                                       | 1.4    | 34.7% |

Reserves are quantities of petroleum anticipated to be commercially recoverable from known accumulations from a given date forward; that are judged to be discovered, recoverable, commercial and remaining. Probable [2P] reserves have a 50 per cent chance or better of being technically and economically producible.

Developed reserves are expected to be recovered from existing wells and facilities. Undeveloped reserves are quantities expected to be recovered through future investments (e.g. new wells, compressors, and other facilities). Total reserves are the sum of developed and undeveloped reserves at a given level of certainty.

Oil and gas reserves reported in this statement are as at 1 October 2015.

The Kupe estimate is based on production data and compositional simulation models provided by the field operator. It is the result of deterministic reservoir simulation modelling, matched with full production history on a well-by-well basis, in addition to decline curve analysis, supported by rate transient analysis, and both flowing and static material balance.

Estimates of reserves are based on their value in use with a discount rate of 10% applied. The oil price assumptions are based on the Bloomberg consensus mean, with contracted volumes of gas and LPG sold on current contract terms. For volumes in excess of current contracts, a future base market price of NZD\$6/gigajoule (real) is assumed for gas sales and LPG prices are linked to the Bloomberg consensus mean forecast for oil.

This reserves statement is approved by, based on, and fairly represents information and supporting documentation prepared by New Zealand Oil & Gas Vice President & General Manager, Exploration & Production Andrew Jefferies, B Eng (Mech Hons), MSc Pet Eng, MBE, an SPE (Society of Petroleum Engineers) Certified Petroleum Engineer with over 23 years of industry experience.

New Zealand Oil & Gas has a 15% interest in Kupe. The other Kupe partners are Origin Energy, 50% (Operator); Genesis Energy, 31%; and Mitsui, 4%.

# **KUPE**



\$14.4m

1.01

Gas

etajoule

September Q 15

New Zealand

Oil & Gas

previous

quarter

0.97

4,095

61,411

15.2

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••••••

share

61,198

Barrels of oil

4,127

LPG -Tonnes

New Zealand

Oil & Gas

share for comparable

> quarter a year ago

> > 0.92

4,132

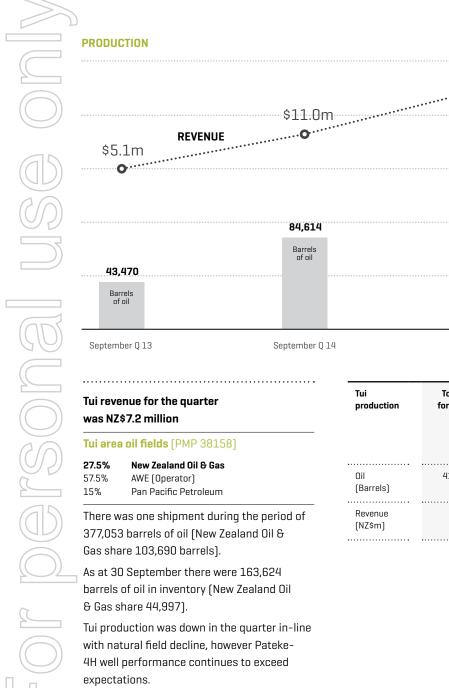
63,678

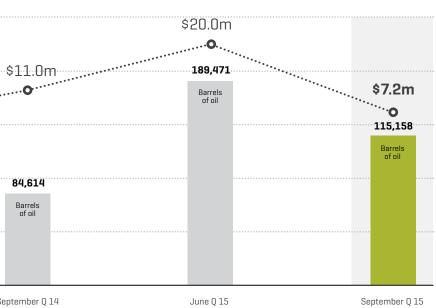
15.8

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| for quarter | New Zealand<br>Oil & Gas<br>share for<br>quarter | New Zealand<br>Oil & Gas<br>share<br>previous<br>quarter   | New Zealand<br>Oil & Gas<br>share for<br>comparable<br>quarter a<br>year ago                               |
|-------------|--|--|--|
| 418,756     | 115,158  | 189,471  | 84,614   |
| ••••••      | 7.2  | 20.0   | 11.0   |
|             |  | for quarterOil & Gas<br>share for<br>quarter418,756115,158 | for quarterOil & Gas<br>share for<br>quarterOil & Gas<br>share<br>previous<br>quarter418,756115,158189,471 |

| Maari production | Total field for<br>quarter | Cue share for<br>quarter |
|------------------|----------------------------|--------------------------|
|                  |                            |                          |
| Oil (Barrels)    | 1,354,040                  | 67,702                   |
| Revenue (NZ\$m)  |                            | 5.0                      |

Cue's net share of oil sales in the quarter from the Maari and Manaia fields (PMP38160) was 62,558 barrels which generated NZ\$5.0 million in revenue received.

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The average oil production rate in the quarter was approximately 14,718 gross barrels of oil per day (Cue share 736 barrels of oil per day).

The Maari development drilling programme is now complete. The field is now averaging about 16,000 barrels of oil per day from nine Maari field producers and one Manaia producer.

The joint venture is planning to further increase the field's production rate up to 20,000 barrels of oil per day with the optimisation of production and an upcoming 2015/2016 work-over campaign which is being finalised by the operator.

#### SAMPANG

| Sampang<br>production | Total field for<br>quarter | Cue share for<br>quarter |
|-----------------------|----------------------------|--------------------------|
| Gas (Petajoules)      | 5,755                      | 0.76                     |
| Oil<br>(Barrels)      | 115,560                    | 15,095                   |
| Revenue (NZ\$m)       | ••••••                     | 6.47                     |
|                       |                            |                          |

The Oyong average daily oil production rate for the quarter was 1,256 barrels of oil per day (gross) and the average daily gas average rate was 24.37 million cubic feet (gross) (Cue share 162 barrels of oil per day and 2.99 million cubic feet of gas per day - both net of government take under the PSC).

The Oyong field maintains an average daily rate of 30 million cubic feet of gas primarily produced as associated gas from the oil producing wells.

Wortel-3 and Wortel-4 flowed gas at a combined average daily rate of 38.27 million cubic feet (gross) during the quarter (Cue share 5.31 million cubic feet of gas per day net of government take under the PSC).

#### **PINE MILLS**

| Pine Mills<br>production | Total field for<br>quarter | Cue share for<br>quarter |
|--------------------------|----------------------------|--------------------------|
| Oil (Barrels)            | 6,456                      | 4,002                    |
| Revenue (NZ\$m)          |                            | 0.24                     |
| <b>.</b>                 |                            |                          |

Oil sales in the quarter from the Pine Mills field were 3,495 barrels which generated NZ\$0.24 million in revenue received. The average oil production rate for the quarter was approximately 70 barrels of oil per day (gross) (Cue share 44 barrels of oil per day).

New Zealand Oil & Gas has a 48.11 per cent interest in Cue's share of production and financials.

# TARANAKI

The company aims for a prudent spend on exploration, reduced from previous levels in response to market conditions, while maintaining our contractual commitments.

## PROGRESS BAR KEY



# Kupe (PML 38146)

Producing

| 15% | New Zealand Oil & Gas    |  |
|-----|--------------------------|--|
| 50% | Origin Energy (Operator) |  |
| 31% | Genesis Energy           |  |
| 4%  | Mitsui                   |  |

The joint venture is continuing its review of the Kupe field development plan to determine the most efficient means to maintain and optimise recovery, and to assess whether opportunities in the permit have potential to be developed.

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# Aihe (PEP 54865)

Seismic Survey

20% Cue Energy\*

80% Todd Exploration Ltd (Operator)

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The permit carries a minimum work programme of 285 square-kilometres of 3D seismic to be acquired, processed and interpreted prior to June 2016. The joint venture may elect to commit to a well before December 2016 or surrender the permit.

Planning for the 3D seismic survey has commenced and is planned for early 2016 subject to vessel availability.

The joint venture is seeking to fund the seismic programme by farming out.

## **Matuku** (PEP 51906) Further Evaluation

| 12.5% | New Zealand Oil & Gas |
|-------|-----------------------|
| 65%   | OMV (Operator)        |
| 22.5% | Octanex               |

The 400 square-kilometre Kaka 3D seismic survey was acquired in the southeast of the permit in 2014. Initial processing of the data was completed in the second quarter of 2015. Interpretation is progressing.

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Final pre-stack depth migration processing is expected before the end of 2015.

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## **Kaheru** (PEP 52181) Drill preparation

| 35% | New Zealand Oil & Gas (Operator) |
|-----|----------------------------------|
| 40% | TAG OII                          |
| 25% | Beach Energy                     |

Work continued during the quarter on arrangements for drilling the Kaheru prospect in 2016. Given the prevailing economic conditions, the joint venture is considering more economic drilling options and it is unlikely to drill using a jack up rig before May 2016. In the coming quarter, the joint venture will investigate options to defer or amend work obligations under the permit.

# CANTERBURY GREAT SOUTH BASIN

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**Vulcan** (PEP 55793)

Seismic survey

**30%** New Zealand Oil & Gas 70% Woodside Energy (New Zealand) (Operator)

A 3D seismic survey of approximately 1100 square-kilometres was successfully acquired by Dolphin Geophysical in the first quarter of 2015. Interpretation is underway. An updated data set is expected before the end of the year.

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# **Whio** (PEP 51313)

Further Evaluation

| 14% | Cue Energy*          |
|-----|----------------------|
| 30% | OMV New Zealand Ltd. |
| 35% | Todd Exploration Ltd |

30%OMV New Zealand Ltd. (Operator)35%Todd Exploration Ltd21%Horizon Oil (New Zealand) Ltd

The joint venture is assessing the remaining potential associated with the Matariki trend up-dip of the Maari field. Studies are being completed by the operator to determine the feasibility of acquiring additional 3D seismic data to reduce the geological risk of the remaining prospects.

# **Te Kiri** (PEP 51149) Drilling

| 20% | Cue  | Energy*     |        |            |
|-----|------|-------------|--------|------------|
| 80% | Todd | Exploration | n Ltd. | (Operator) |

Well design and drilling programme work for the Te Kiri North-1 well is continuing with drilling now expected for late 2015 or early 2016. The operator has proposed a well which will be deviated from the surface location to intersect a potentially oil-bearing objective in the Miocene-age Mount Messenger Formation and a deeper Eocene-age gas-bearing objective.

Existing infrastructure nearby will facilitate early commercialisation in a success case.

\* New Zealand Oil & Gas has a 48.11 per cent interest in Cue Energy.

## **Clipper** (PEP 52717) Further Evaluation

50%New Zealand Oil & Gas (Operator)50%Beach Energy

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Talks are advanced with potential farm in partners to drill the Barque prospect located within the Clipper Graben. The size of the Barque prospect was announced in the June quarterly report as having a best estimate of unrisked prospective resource of 530 million barrels of oil equivalent. A decision on whether to commit to a well in the permit is required by April 2016.

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## Galleon (PEP 55792)

Further Evaluation

## 100% New Zealand Oil & Gas (Operator)

A change of conditions was granted during the quarter deferring the date when a decision must be made to acquire 3D seismic data over the permit.

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**Toroa** (PEP 55794) Seismic Survey

# 30%

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70%

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**New Zealand Oil & Gas** Woodside Energy (New Zealand 55794) (Operator)

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A 3D seismic survey of approximately 1100 square-kilometres was successfully acquired by Dolphin Geophysical in the first quarter of 2015. Interpretation is underway. An updated data set is expected in before the end of the year.

# **INDONESIA**

Sampang **Production Sharing Contact** 

Production

| 15% | Cue Energy*                 |
|-----|-----------------------------|
| 45% | Santos Sampang Pte Ltd.     |
|     | (Operator)                  |
| 40% | Singapore Petroleum Company |
|     |                             |

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The Sampang PSC well workover programme to increase production and extend field life has concluded. Work to install onshore gas compression at the Grati gas plant has been completed and all three compressors are fully functional. Compression capacity has resulted in increased deliverability from Wortel. The Oyong oil and gas field is also now benefitting from an amendment to the existing gas contract, which included a significant price increase and became effective in July.

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#### **MNK Kisaran**

**Production Sharing Contract** Early Evaluation

| 11.25% | New Zealand Oil & Gas       |
|--------|-----------------------------|
| 33.75% | Bukit Energy                |
| 55%    | Pacific Oil & Gas (Operator |

The Production Sharing Contract relates to an unconventional resource in the Kisaran PSC area.

Technical work including preliminary data analysis, geological and geophysical studies is underway.

#### **Palmerah Baru**

**Production Sharing Contract** 

Seismic survey

| 36% | New Zealand Oil & Gas |
|-----|-----------------------|
| 54% | Bukit Energy Palmerah |
|     | Baru (Operator)       |
| 10% | PT SNP Indonesia      |

Data interpretation has high-graded eight promising leads. The operator is targeting a seismic programme for late 2016 to analyse these leads in more detail.

# **MNK Palmerah**

**Production Sharing Contract** Early Evaluation

|        | 0 0 0 0                            |
|--------|------------------------------------|
| 15.84% | New Zealand Oil & Gas              |
| 69.36% | Bukit Energy Resources             |
|        | Palmerah Deep Pte. Ltd. (Operator) |
| 8.8 %  | PT SNP Indonesia –                 |
|        | Bumi Perdana Energy Limited        |
| 3%     | Bumi Perdana Energy Limited        |
| 3%     | Glory Wealth Pacific Limited       |

The Production Sharing Contract relates to an unconventional resource in the Palmerah Baru PSC area. Planning is underway to progress the technical work programme.

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#### Bohorok

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**Production Sharing Contract** Drilling

| 5% | New Zealand Oil & Gas   |  |
|----|-------------------------|--|
| 5% | Bukit Energy (Operator) |  |

10% Surya Buana Lestarijaya Bohorok

A 205 square-kilometre seismic survey over the PSC was completed in 2014 and the joint venture has high-graded a gas condensate prospect to drillable status.

The joint venture is in farm out discussions with interested parties.

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#### **MNK Bohorok**

Joint Study Agreement Early Evaluation

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| 20.25% | 6  |
|--------|----|
| 55%    | χ  |
| 20.25% | 1  |
| 4.5%   | (; |

New Zealand Oil & Gas Lion Energy (Operator) Bukit Energy Surya Buana Lestarijaya Bohorok

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The joint study of the unconventional resource potential in the Bohorok PSC is progressing well. The study is expected to be completed in late 2015.

#### Kisaran

Production Sharing Contract Plan of Development

| 22.5% | New Zealand Oil & Gas        |  |  |
|-------|------------------------------|--|--|
| 55%   | Pacific Oil & Gas (Operator) |  |  |
| 22.5% | Bukit Energy                 |  |  |

The joint venture is continuing to assess development options.

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#### Mahato

12.5

**Production Sharing Contract** 

| %  | Cue Energy*  |
|----|--------------|
| /0 | GUE LIICI UV |

62.5% Texcal Mahato EP Ltd. (Operator) 25% Bukit Energy Central Sumatra (Mahato) Pte Ltd

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Multiple appraisal and exploration opportunities have been mapped and two wells are currently planned for 2016.

A 2D seismic programme to high-grade further exploration prospects is also planned for late 2015 or early 2016.

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#### Mahakam Hilir

**Production Sharing Contract** Drilling

100% Cue Enerav\* Mahakam Hilir Pte Ltd. (Operator) SPC

Extensive field mapping in the block has helped identify a final location for the Naga Selatan-2 well. Well planning is progressing, with the construction of the drilling pad and access roads now underway.

A final well proposal will be submitted to SKKMIGAS for approval to drill in early January 2016.

# AUSTRALIA

# UNITED STATES

# WA-359-P

## Further Evaluation

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#### 100% Cue Energy (Operator)\*

Cue has evaluated a new play type associated with the prolific gas-bearing Mungaroo formation.

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The play fairway extends across several adjacent permits including WA-359-P and WA-409-P.

The "Ironbark" prospect has been identified as the primary candidate for drilling. Cue has received regulatory approval to extend its year 3 well commitment date until October 2016. Cue has commenced its farm-out process.

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# WA-360-P

Further Evaluation

| 37.5% | Cue Energy*                   |
|-------|-------------------------------|
| 62.5% | MEO Australia Ltd. (Operator) |

Reprocessing of approximately 650 square-kilometres of existing 3D seismic data over the Maxwell prospect is continuing.

There is no well commitment in the near term.

## WA-361-P

Early Evaluation

| •   | 0   | 0          | 0         | 0          | 0       |
|-----|-----|------------|-----------|------------|---------|
| 15% | Cue | e Energy   | (Operato  | r]*        |         |
| 50% | Nor | th West    | Shelf Exp | loration P | 'ty Ltd |
|     | (Op | erator)    |           |            |         |
| 35% | Min | ieralogy F | Pty Ltd   |            |         |

The regulator has approved an application for a work programme variation to allow geotechnical studies to be completed. The work programme term concludes on 30 January 2016.

## WA-389-P

## **Further Evaluation**

40% 60%

Cue Energy (Operator)\* BHP Billiton Petroleum (Australia) Pty Ltd (Operator)

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Reprocessing of existing 2D and 3D seismic data is underway.

## WA-409-P

Further Evaluation

0 0 0

100% Cue Energy (Operator)\*

A 12 month extension to year 6 of the permit has been granted to allow completion of technical work associated with the Ironbark prospect.

Cue plans to farm down its 100 per cent working interest.

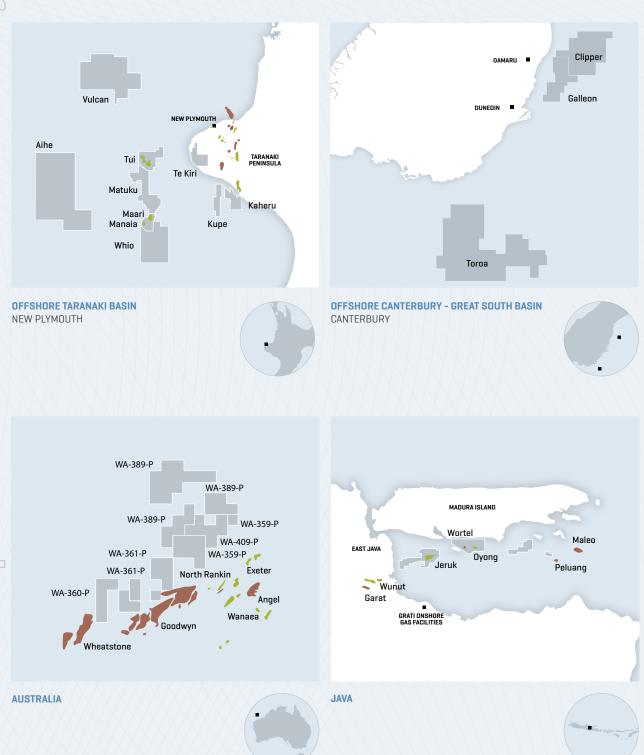
## **Pine Mills**

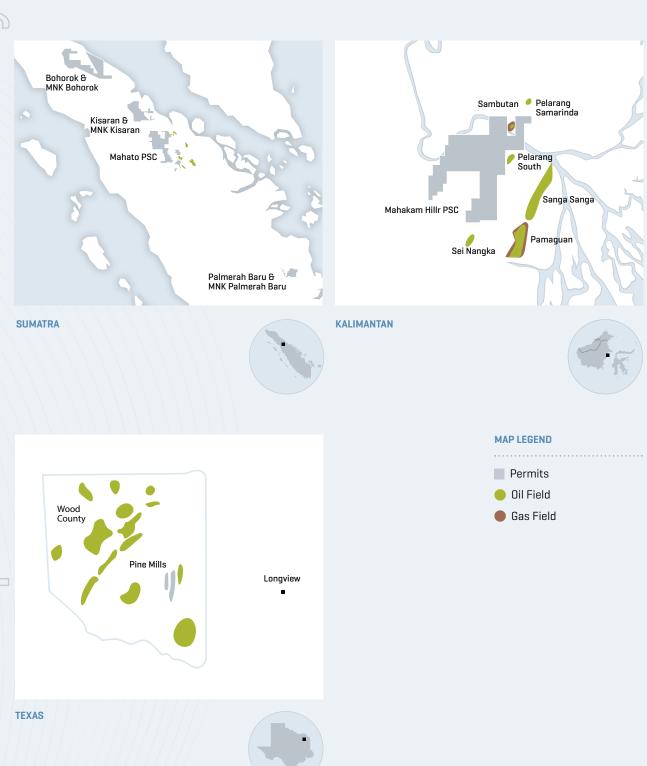
### Producing

80% Cue Energy (Operator)\* 20% Gale Force Petroleum Inc.

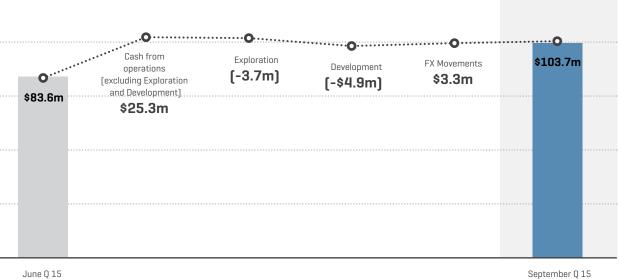
Cue acquired an 80 per cent interest in the producing Pine Mills area oil fields in East Texas, USA in June 2015. Cue is now implementing a plan to stabilise and grow production over the coming months by working over and reactivating existing wells.

# EXPLORATION PERMIT MAPS





## **CASH BALANCE**



## June Q 15

## **FINANCIAL PERFORMANCE**

New Zealand Oil & Gas has performed strongly in the quarter, with receipts boosted by substantial sales late in the June quarter, while other costs ran at normal levels.

Exploration costs show Cue's preparations for drilling in Indonesia, and development expenditure includes completion of drilling at Maari.

The weaker New Zealand dollar has resulted in a positive impact on US dollar balances for both New Zealand Oil & Gas and Cue.

## REVENUE

|                 | \$47.6m         |                 |
|-----------------|-----------------|-----------------|
|                 | Cue<br>\$12.36m |                 |
|                 |                 | \$33.3m         |
| \$26.8m         | Kupe<br>\$15.2m | Cue<br>\$11.7m  |
| Kupe<br>\$15.8m |                 |                 |
|                 |                 | Kupe<br>\$14.4m |
|                 | Tui<br>\$20.0m  |                 |
| \$11.0m         |                 | Tui<br>\$7.2m   |

# New Zealand Oil & Gas operating revenue for the quarter was NZ\$33.3 million.

Revenue was down compared to last quarter mainly because of the timing of shipments from the Tui field.

This included revenue from the sale of Tui oil NZ\$7.2 million, revenue from the sale of Kupe sales gas, LPG and light oil of

NZ\$14.4 million and the recognition of Cue's revenue for the quarter of NZ\$11.7 million.

As at September 2015, the New Zealand Oil & Gas cash balance was NZ\$103.7 million, with cash holdings held in both NZ and US dollar accounts. NZ\$29.3 million is held by Cue. New Zealand Oil & Gas had no outstanding debt at end of the period.

More financial information is contained in the 30 September 2015 Quarterly Cash Flows Report, which has been released to the NZX and ASX.

|   | 3 months to<br>30 September 2015* | Previous quarter* | Comparable quarter<br>a year ago** |
|---|-----------------------------------|-------------------|------------------------------------|
| Revenue                                 | 33.3                              | 47.6              | 26.8                               |
| Cash balance                            | 103.7                             | 83.6              | 130.6                              |
| ••••••••••••••••••••••••••••••••••••••• | ••••••                            | ••••••            | ••••••                             |

Revenue from Cue's sales is recognised on a cash basis.

\*Financial update includes 100 per cent of Cue's revenue and cash balance with no adjustment for the 51.89 per cent non-controlling interest \*\* Cue's revenue and cash balance are not included in comparative figures as the effective date for control was 31 March 2015.

# Update to Annual Report – Disclosure of NZX Waiver

New Zealand Oil & Gas omitted to include a summary of a waiver it received from NZX Regulation in its annual report as required by Listing Rule 10.4.5[f]. That waiver was issued on 3 February 2015 in connection with NZOG's on-market offer to acquire all of the ordinary shares in Cue Energy Resources Ltd. A summary of the waiver is available nzog.com/waiver

Contact the investor centre

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