

# ASX Release

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ASX Ltd Companies Announcement Office Electronic Lodgement System

Dear Sir,

# 1P, 2P AND 3P RESERVES AND 2C CONTINGENT RESOURCES AS AT 30 JUNE 2015

Beach Energy Limited (ASX: BPT, "Beach") advises the following in relation to its reserves and contingent resources as at 30 June 2015:

| Reserves (Net)  | 1P   | 2P   | 3P    |
|---|------|------|-------|
| Oil (million barrels "MMbbl")                                   | 8.0  | 19.4 | 39.3  |
| Gas and gas liquids (million barrels of oil equivalent "MMboe") | 24.4 | 55.0 | 105.5 |
| Total (MMboe)   | 32.4 | 74.4 | 144.8 |

NB. All reserve and resource figures throughout this announcement are quoted net of fuel; due to rounding, numbers presented may not add precisely to totals provided

| Contingent resources (Net)                 | <b>2</b> C |
|--|------------|
| Oil (MMbbl)                                | 12.9       |
| Conventional gas and gas liquids (MMboe)   | 75.2       |
| Unconventional gas and gas liquids (MMboe) | 588.6      |
| Total (MMboe)                              | 676.6      |

The various categories in the tables above are 1P (Proved), 2P (Proved and Probable), 3P (Proved, Probable and Possible) reserves and 2C contingent resources.

The breakdown of net reserves between 'developed' and 'undeveloped' is detailed in the table below.



| Developed and undeveloped reserves | Developed |      |      | Undeveloped |      |      |
|------------------------------------|-----------|------|------|-------------|------|------|
| (Net)                              | 1P        | 2P   | 3P   | 1P          | 2P   | 3P   |
| Oil (MMbbl)                        | 6.5       | 14.6 | 28.8 | 1.5         | 4.8  | 10.5 |
| Gas and gas liquids (MMboe)        | 14.3      | 35.1 | 63.8 | 10.1        | 19.9 | 41.6 |
| Total (MMboe)                      | 20.8      | 49.6 | 92.6 | 11.6        | 24.7 | 52.2 |

The breakdown of net 2P reserves by permit, or business unit where practical, is summarised below.

| 2P reserves<br>(Net) | Note  | FY14 | Oil equivale<br>Production | ent (MMboe)<br>Revisions | FY15 | Oil<br>(MMbbl) | Gas liquids<br>(MMboe) | Gas<br>(PJ) |
|----------------------|-------|------|----------------------------|--------------------------|------|----------------|------------------------|-------------|
| Ex PEL 91            | 1     | 5.4  | (1.6)                      | 2.0                      | 5.8  | 5.8            | -                      | -           |
| Ex PEL 92            | 2     | 2.9  | (1.1)                      | 0.7                      | 2.5  | 2.5            | -                      | -           |
| Ex PEL 111           | 3     | 0.2  | (0.1)                      | 0.1                      | 0.2  | 0.2            | -                      | -           |
| Ex PEL 104           | 4     | 1.0  | (0.5)                      | 0.7                      | 1.2  | 1.2            | -                      | -           |
| BPT Qld              | 5     | 0.5  | (0.2)                      | 0.1                      | 0.4  | 0.4            | -                      | -           |
| Ex PEL 106           | 6     | 2.0  | (0.3)                      | 0.5                      | 2.2  | -              | 0.6                    | 9.1         |
| Delhi                | 7     | 71.9 | (5.1)                      | (7.9)                    | 58.9 | 6.3            | 7.9                    | 260.1       |
| Cooper / Ero         | manga | 83.9 | (9.0)                      | (3.6)                    | 71.3 | 16.5           | 8.5                    | 269.2       |
| Egypt                | 8     | 1.7  | (0.1)                      | 1.6                      | 3.1  | 2.9            | -                      | 1.3         |
| Total                |       | 85.6 | (9.1)                      | (2.0)                    | 74.4 | 19.4           | 8.5                    | 270.5       |

- 1. Beach equity interest: 40%; production retention licences ("PRL") 151 to 172 granted; probabilistic methodology applied, except for Chiton Field (deterministic methodology applied)
- 2. Beach equity interest: 75%; PRL 85 to 104 granted; deterministic methodology applied, except for Rincon Field (probabilistic methodology applied)
- 3. Beach equity interest: 40%; PRL 142 to 150 granted; deterministic methodology applied
- 4. Beach equity interest: 40%; PRL 136 to 141 granted; deterministic methodology applied
- 5. Beach equity interest: 100%; deterministic methodology applied
- 6. Beach equity interest: 50%; PRL 129 and 130 granted; deterministic methodology applied
- 7. Beach equity interests: SACB JV 20.21% and SWQ JVs 20-40%; deterministic methodology applied
- 8. Beach equity interest: 22%; ; probabilistic methodology applied; Beach has entered into a binding agreement with Rockhopper Exploration plc in relation to the sale of its wholly owned subsidiary, Beach Petroleum (Egypt) Pty Ltd. Further details of the transaction are included in Beach's announcement of 10 August 2015 (reference 042/15).



#### Bauer Field

A 10-well development drilling campaign was completed in the Bauer Field, which included a number of oil column intersections higher than pre-drill estimates and strong flow rates recorded from short term tests. The results from this drilling campaign extended the areal extent of the field and resulted in an increased net Estimated Ultimate Recovery to 7.8 MMbbl (+2.7 MMbbl)<sup>1</sup>.

The results of this campaign have increased the areal extent of the field. Revised petroleum reserves were estimated using the probabilistic methodology and are based on interpretation and mapping of 3D seismic data, with oil column heights defined from wireline log analysis. The range of petrophysical parameters applied was revised based on recently acquired core data from the field.

Commercial productivity of the Namur Sandstone in the Bauer Field is proven, with 19 wells currently producing, and operating cash costs of \$25 – \$30 per barrel within Beach's operated Western Flank oil permits. Following infrastructure upgrades completed in FY15 to cater for increased production volumes, Beach has a high degree of confidence in the commerciality of the 10 development wells. Based on Beach's internal assessment of commodity prices, operating cost structure and infrastructure currently in place, revised net developed reserves for the Bauer Field have been determined, as summarised below.

| Bauer Field     |       |           |       |
|-----------------|-------|-----------|-------|
| (MMbbl, Net)    | 1P    | <b>2P</b> | 3P    |
| 30 June 2014    | 1.3   | 3.0       | 5.7   |
| FY15 Production | (1.6) | (1.6)     | (1.6) |
| FY15 Revisions  | 2.1   | 2.5       | 3.0   |
| 30 June 2015    | 1.8   | 3.9       | 7.1   |

These figures are based on SPE-PRMS definitions and guidelines and represent Beach's 40% interest in the Bauer Field. Petroleum reserves were estimated using probabilistic methods and based on interpretation and mapping of 3D seismic data, with oil column heights defined from wireline log analysis. The range of petrophysical parameters applied was revised based on recently acquired core data from the field.

## Delhi

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An internal deterministic estimate of Delhi Permian oil and gas reserves was undertaken and subsequently reviewed by independent auditor, RISC Advisory. Jurassic oil reserves were also estimated deterministically and reviewed internally. As a result of their review, RISC Advisory considered that Beach's reserve estimates are, in the aggregate, reasonable within the established audit tolerance and prepared in accordance with generally accepted petroleum engineering and evaluation principles, as set forth in the Standards Pertaining to the Estimating and Auditing of Oil and Gas Reserves Information promulgated by the Society of Petroleum Engineers. Following the internal assessment and review, a net downward revision to oil and gas reserves of 7.9 MMboe was applied. Revised net Delhi reserves (aggregate developed and undeveloped) are summarised below.

<sup>&</sup>lt;sup>1</sup> In accordance with ASX Listing Rule 5.25.3, no contingent or prospective resources are booked within PEL 91, and reported reserves are not adjusted for risk



| Delhi Net Reserves |       |       |        |
|--------------------|-------|-------|--------|
| (MMboe, Net)       | 1P    | 2P    | 3P     |
| 30 June 2014       | 26.5  | 71.9  | 157.3  |
| FY15 Production    | (5.1) | (5.1) | (5.1)  |
| FY15 Revisions     | 3.1   | (7.9) | (34.4) |
| 30 June 2015       | 24.5  | 58.9  | 117.9  |

#### **NTNG Contingent Resources**

DeGolyer and MacNaughton ("D&M"), an independent resource estimating firm based in Dallas, Texas, evaluated well results from the Nappamerri Trough Natural Gas ("NTNG") program following completion of the four-well fracture stimulation and flow testing campaign undertaken in ATP 855 in the latter half of 2014. D&M assigned contingent resources to the areas around Etty-1, Hervey-1, Redland-1 and Geoffrey-1, incorporating results from fracture stimulation and flow testing.

On 27 March 2015, joint venture partner Chevron Exploration Australia 1 Pty Ltd ("Chevron") advised that it would not participate in Stage 2 of the work program, and its equity interests returned to Beach for nil consideration.

The aggregate increment in contingent resources from the D&M assessment and return of Chevron's equity interests is summarised below. Further information relating to these events is detailed in Beach's announcements dated 27 March 2015 (reference #020/15 and #021/15).

| Ex PEL 218 and ATP 855 Net Contingent Resources <sup>1, 2</sup> |     |     |       |  |
|---|-----|-----|-------|--|
| (MMboe, Net)  | 1C  | 2C  | 3C    |  |
| 30 June 2014  | 136 | 277 | 543   |  |
| FY15 Production   | -   | -   | -     |  |
| FY15 Revisions  | 60  | 218 | 741   |  |
| 30 June 2015  | 196 | 495 | 1,284 |  |

<sup>1.</sup> Beach equity interests: PEL 218 - 100% (PRLs 33 to 49 granted) and ATP 855 - 64.9%

Yours sincerely,

**Neil Gibbins** 

**Acting Chief Executive Officer** 

<sup>2.</sup> Contingent resource estimates have been prepared on a statistical aggregation basis and in accordance with the Petroleum Resources Management System (March 2007). Contingent resource estimates are those quantities of gas (produced gas minus carbon dioxide) that are potentially recoverable from known accumulations but which are not yet considered commercially recoverable due to the need for additional delineation drilling, further validation of deliverability and original gas in place, and confirmation of prices and development costs.



## For more information please contact the following on +61 8 8338 2833:

# Corporate

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**Investor Relations** 

Derek Piper Investor Relations Manager

# **Competent Persons Statement**

The reserves and resources information in this announcement is based on, and fairly represents, information and supporting documentation prepared by, or under the supervision of, Mr Tony Lake (Reservoir Engineering Manager). Mr Lake is an employee of Beach Energy Limited and has a BE (Mech) degree from the University of Adelaide and is a member of the Society of Petroleum Engineers (SPE). The reserves and resources information in this announcement has been issued with the prior written consent of Mr Lake in the form and context in which it appears.