

# September 2014 Quarterly Production Report

## Exploration and Production report for Quarter ended 30 September 2014

Comparative performance at a glance - Origin's total proportional interests			
Previous Quarter Comparison	September 2014	June 2014	Change %
Production (PJe)	34.9	35.0	(0)
Sales (PJe)	37.5	38.0	(1)
Revenue (A\$m)	251.1	281.3	(11)
Prior Corresponding Quarter Comparison	September 2014	September 2013	Change %
Production (PJe)	34.9	37.5	(7)
Sales (PJe)	37.5	41.0	(9)
Revenue (A\$m)	251.1	306.7	(18)

Note: Information presented in the table above and throughout this report relates only to hydrocarbon exploration and production activities undertaken by Origin Energy Limited ("Origin"), its subsidiaries and the incorporated joint ventures in which it has interests. The report does not cover other business activities of Origin such as electricity generation or energy retailing.

### Highlights

- Production in line with the June Quarter 2014 reflecting reduced contributions from Otway and Kupe, offset by increased contributions from Cooper and APLNG
- Revenue 11% lower than the June Quarter 2014 due to timing of product liftings, lower sales of third party volumes and a lower average commodity price
- Production 7% lower than September Quarter 2013 due to reduced contributions from Otway, BassGas and Kupe, partly offset by an increased contribution from APLNG
- APLNG drilled 166 development wells during the Quarter, bringing the total to 985 wells
- The Upstream component of the APLNG CSG to LNG project is 85% complete and the Downstream component is 82% complete
- Completion of the Browse Basin Sale and Purchase Agreement with Karoon Gas
- The Senecio 3 appraisal well identified a new gas discovery. Potential reserves will be defined after production flow testing is completed

### Production and Sales

#### September Quarter 2014 compared with June Quarter 2014

Production of 34.9 PJe in the September Quarter 2014 was in line with June Quarter 2014. This is primarily attributable to changed customer nominations at Otway (0.8 PJe) and lower customer nominations at Kupe (0.3 PJe), offset by higher production at Cooper (0.7 PJe) due to improved plant reliability and additional wells coming online during the Quarter and higher production at APLNG (0.4 PJe) due to fluctuating seasonal demand.

Sales revenue decreased 11% from the June Quarter 2014 reflecting timing of product liftings, lower sales of third party volumes and a lower average commodity price.

## September Quarter 2014 compared with September Quarter 2013

Production of 34.9 PJe in the September Quarter 2014 was 2.6 PJe or 7% lower than the comparable Quarter in 2013. This is primarily attributable to lower production at Otway (-2.1 PJe) due to changed customer nominations and higher plant downtime, BassGas (-0.8 PJe) due to the comparable period containing Yolla 3 production and lower customer nominations at Kupe (-0.5 PJe), partly offset by APLNG (0.9 PJe) following commencement of production at Kenya East and Condabri during May 2014 and June 2014 respectively.

Sales revenue decreased 18% from the September Quarter 2013 reflecting lower production, the timing of product liftings and a lower average commodity price.

### **Exploration, Evaluation and Capital Expenditure**

Expenditure on exploration and evaluation activities was \$38 million and capital expenditure on development and production activities was \$80 million (excluding APLNG) for the Quarter, as detailed in Section 5 of this report.

### **Significant activities during the Quarter included:**

- **NT/P84 Bonaparte Basin Permit**

On 3 July 2014 a new exploration permit, NT/P84 was awarded, adjacent to the exploration permit WA-454-P located in the offshore Bonaparte Basin, for a six year term.

- **Browse Basin Sale and Purchase Agreement with Karoon Gas**

On 12 August 2014 Origin announced it had completed the acquisition of Karoon Gas's (Karoon) 40% interest in two offshore exploration permits (WA-315-P and WA-398-P) in Western Australia's Browse Basin. Under the terms of the transaction, Origin paid Karoon a US\$600 million cash consideration with additional payments of US\$75 million payable upon a project Final Investment Decision (FID) and US\$75 million payable on first production. A further payment of up to US\$50 million will be payable on first production if 2P reserves at the time of FID reach certain thresholds.

<http://www.originenergy.com.au/news/article/asxmedia-releases/1594>

- **Otway Basin**

The Speculant-1 exploration well spudded on 23 September 2014 with anticipated completion early in the March 2015 Quarter. The well is being drilled using the rig Ensign 931.

<http://www.originenergy.com.au/news/article/asxmedia-releases/1611>

Rig Ensign 931 is also drilling the Halladale field development well which spudded subsequent to the end of the Quarter (see Post Report Date events).

- **Beetaloo Basin**

On 20 August 2014 Origin completed farm-ins with Falcon Oil & Gas Australia Limited for onshore unconventional exploration permits EP76, EP98 and EP117.

- **Drilling Activities:**

- **APLNG**

APLNG participated in 267 wells during the Quarter, including 13 operated exploration/ appraisal wells, 9 non-operated exploration/appraisal wells, 9 groundwater monitoring bores and 236 development wells (166 operated and 70 non-operated production wells).

- **Cooper Basin**  
Origin participated in the drilling of 29 wells during the Quarter, consisting of four exploration and appraisal wells and 25 development wells.
- **Perth Basin**  
The Senecio 3 appraisal well was drilled, cased and suspended in the permits L1/L2 (Origin 50%, non-operated) in the North Perth Basin, Western Australia after encountering gas in the primary and deeper targets.

#### Post Report Date events:

- **NZ Onshore**

The Rimu and Kauri facilities restarted production on 14 October 2014 following a full process safety hazard analysis review.

- **Otway Basin**

The Halladale field development well spudded on 18 October 2014 with anticipated completion in the June 2015 Quarter. The well is being drilled using the rig Ensign 931.

## 1. PRODUCTION, SALES AND REVENUE

Note: Current Quarter production figures for some non-operated areas may include preliminary production data for the last month of the Quarter. Where actual production volumes only became available after the report date for that Quarter, previous Quarter figures have been amended to reflect this.

### 1.1 Production by Product and Area (including interest in APLNG)

Natural Gas and Ethane	Unit	This Quarter	Previous Quarter	% Change	September	YTD 2014/15	YTD 2013/14
					Quarter 2013		
<b>Natural Gas</b>	PJ						
APLNG (CSG and Denison Trough)		12.4	12.0	3	11.5	12.4	11.5
SA Cooper & SWQ		3.2	2.7	20	2.9	3.2	2.9
Otway Basin (offshore)		8.2	9.1	(10)	10.3	8.2	10.3
Bass Basin		1.6	1.7	(6)	2.2	1.6	2.2
Surat Basin		-	-	-	-	-	-
Perth Basin		1.1	0.9	26	1.2	1.1	1.2
Taranaki Basin (onshore)		-	-	-	0.1	-	0.1
Taranaki Basin (Kupe)		3.1	3.3	(8)	3.3	3.1	3.3
<b>Ethane</b>	PJ						
SA Cooper & SWQ		0.4	0.4	0	0.4	0.4	0.4
<b>Total Production</b>		30.1	30.1	(0)	31.9	30.1	31.9
<b>Total Sales Volume</b>		31.2	30.3	3	32.9	31.2	32.9
<b>Total Sales Revenue</b>	\$M	136.9	129.9	5	140.1	136.9	140.1
<b>Average Gas Price</b>	\$/GJ	4.38	4.29	2	4.26	4.38	4.26

Crude Oil	Unit	This Quarter	Previous Quarter	% Change	September	YTD 2014/15	YTD 2013/14
					Quarter 2013		
<b>Crude Oil</b>	kbbbls						
SA Cooper & SWQ		82.3	72.2	14	77.8	82.3	77.8
Surat Basin		-	0.3	(100)	3.9	-	3.9
Perth Basin		-	-	-	-	-	-
Taranaki Basin (onshore)		-	1.6	(100)	34.0	-	34.0
<b>Total Production</b>		82.3	74.1	11	115.7	82.3	115.7
<b>Total Sales Volume</b>		442.9	520.3	(15)	508.8	442.9	508.8
<b>Total Sales Revenue</b>	\$M	51.6	64.0	(19)	66.8	51.6	66.8
<b>Average Crude Price</b>	\$/bbl	116	123	(5)	131	116	131

Condensate/Naphtha	Unit	This Quarter	Previous Quarter	September		YTD 2014/15	YTD 2013/14
				% Change	Quarter 2013		
Condensate/Naphtha	kbbbls						
APLNG (Denison Trough)		0.2	-	-	0.3	0.2	0.3
SA Cooper & SWQ		54.5	46.9	16	58.2	54.5	58.2
Otway Basin (offshore)		114.7	112.6	2	122.4	114.7	122.4
Bass Basin		57.6	63.6	(9)	87.2	57.6	87.2
Surat Basin		-	-	-	-	-	-
Perth Basin		0.9	0.6	42	1.0	0.9	1.0
Taranaki Basin (onshore)		-	-	-	-	-	-
Taranaki Basin (Kupe)		212.3	233.3	(9)	256.5	212.3	256.5
<b>Total Production</b>		<b>440.2</b>	<b>457.0</b>	<b>(4)</b>	<b>525.6</b>	<b>440.2</b>	<b>525.6</b>
<b>Total Sales Volume</b>		<b>333.5</b>	<b>506.3</b>	<b>(34)</b>	<b>549.9</b>	<b>333.5</b>	<b>549.9</b>
<b>Total Sales Revenue</b>	<b>\$M</b>	<b>33.2</b>	<b>55.0</b>	<b>(40)</b>	<b>62.9</b>	<b>33.2</b>	<b>62.9</b>
<b>Average Condensate Price</b>	<b>\$/bbl</b>	<b>99</b>	<b>109</b>	<b>(8)</b>	<b>114</b>	<b>99</b>	<b>114</b>

LPG	Unit	This Quarter	Previous Quarter	September		YTD 2014/15	YTD 2013/14
				% Change	Quarter 2013		
LPG	Kt						
SA Cooper & SWQ		6.9	6.8	1	7.2	6.9	7.2
Otway Basin (offshore)		14.4	13.4	8	15.6	14.4	15.6
Bass Basin		5.3	5.7	(8)	7.3	5.3	7.3
Surat Basin		-	-	-	-	-	-
Taranaki Basin (onshore)		-	-	-	0.2	-	0.2
Taranaki Basin (Kupe)		13.8	13.6	1	14.1	13.8	14.1
<b>Total Production</b>		<b>40.3</b>	<b>39.5</b>	<b>2</b>	<b>44.4</b>	<b>40.3</b>	<b>44.4</b>
<b>Total Sales Volume</b>		<b>38.3</b>	<b>40.7</b>	<b>(6)</b>	<b>44.7</b>	<b>38.3</b>	<b>44.7</b>
<b>Total Sales Revenue</b>	<b>\$M</b>	<b>29.5</b>	<b>32.3</b>	<b>(9)</b>	<b>36.8</b>	<b>29.5</b>	<b>36.8</b>
<b>Average LPG Price</b>	<b>\$/t</b>	<b>769</b>	<b>793</b>	<b>(3)</b>	<b>822</b>	<b>769</b>	<b>822</b>

## 1.2 Production by Basin (including APLNG production)

Production by Basin (All products, PJe)	Unit	This Quarter	Previous Quarter	September		YTD 2014/15	YTD 2013/14
				% Change	Quarter 2013		
Production by Basin	PJe						
APLNG (CSG and Denison Trough)		12.4	12.0	3	11.5	12.4	11.5
SA Cooper & SWQ		4.8	4.1	16	4.4	4.8	4.4
Otway Basin (offshore)		9.6	10.4	(8)	11.7	9.6	11.7
Bass Basin		2.2	2.3	(6)	3.0	2.2	3.0
Surat Basin		0.0	0.0	-	0.0	-	-
Perth Basin		1.1	0.9	26	1.2	1.1	1.2
Taranaki Basin (onshore)		-	-	-	0.3	-	0.3
Taranaki Basin (Kupe)		4.9	5.2	(6)	5.4	4.9	5.4
<b>Total Production Volume</b>	<b>PJe</b>	<b>34.9</b>	<b>35.0</b>	<b>(0)</b>	<b>37.5</b>	<b>34.9</b>	<b>37.5</b>
<b>Total Sales Volume</b>	<b>PJe</b>	<b>37.5</b>	<b>38.0</b>	<b>(1)</b>	<b>41.0</b>	<b>37.5</b>	<b>41.0</b>
<b>Total Sales Revenue</b>	<b>\$M</b>	<b>251.1</b>	<b>281.3</b>	<b>(11)</b>	<b>306.7</b>	<b>251.1</b>	<b>306.7</b>
<b>Average Commodity Price</b>	<b>\$/GJe</b>	<b>6.70</b>	<b>7.39</b>	<b>(9)</b>	<b>7.48</b>	<b>6.70</b>	<b>7.48</b>

### 1.3 Production, Sales Volumes and Revenue Summaries

#### 1.3.1 Origin excluding interest in APLNG

Total All Products	Unit	This Quarter	Previous Quarter	% Change	September	YTD 2014/15	YTD 2013/14
					Quarter 2013		
Total Production Volume	PJe	22.5	22.9	(2)	26.0	22.5	26.0
Total Sales Volume	PJe	24.1	25.5	(5)	28.4	24.1	28.4
Total Sales Revenue	\$M	204.9	238.4	(14)	262.2	204.9	262.2
Average Commodity Price	\$/GJe	8.49	9.34	(9)	9.22	8.49	9.22

#### 1.3.2 Origin's interest in APLNG

Total All Products	Unit	This Quarter	Previous Quarter	% Change	September	YTD 2014/15	YTD 2013/14
					Quarter 2013		
Production APLNG 100%	PJe	33.1	32.1	3	30.7	33.1	30.7
<u>Origin's interest:</u>							
Production (all products)	PJe	12.4	12.0	3	11.5	12.4	11.5
Sales (all products)	PJe	13.4	12.5	7	12.6	13.4	12.6
Total Sales Revenue	\$M	46.2 <sup>(1)</sup>	42.9	-	44.5	46.2	44.5

<sup>(1)</sup> Includes capitalised revenue related to APLNG ramp gas volumes.

### 1.4 Internal and External Purchase and Sales Summary

#### 1.4.1 Internal and External Sales (Origin excluding interest in APLNG)

Internal & External Sales Volumes	Unit	This Quarter	Previous Quarter	% Change	September	YTD 2014/15	YTD 2013/14
					Quarter 2013		
Total Sales Volume	PJe						
Internal		6.5	9.5	(32)	11.2	6.5	11.2
External		17.7	16.0	10	17.3	17.7	17.3
Total		24.1	25.5	(5)	28.4	24.1	28.4

#### 1.4.2 External Purchases

Product Purchases included in above sales	Unit	This Quarter	Previous Quarter	% Change	September	YTD 2014/15	YTD 2013/14
					Quarter 2013		
Origin (excluding interest in APLNG)	PJe	2.5	2.6	(3)	2.5	2.5	2.5
Origin's interest in APLNG	PJe	1.0	1.0	0	1.1	1.0	1.1
Total	PJe	3.5	3.6	(2)	3.6	3.5	3.6

## 2 DEVELOPMENT AND EXPLORATION OPERATIONS

### 2.1 Origin's interests held through Australia Pacific LNG (APLNG)

#### 2.1.1 Upstream Operations

APLNG production (100%) was 33.1 PJe during the Quarter, an increase of 3% compared to the June Quarter 2014 (32.1 PJe) due to fluctuating seasonal demand.

Average production from operated assets increased to 240 TJ/d in the September Quarter 2014 from 239 TJ/d in the June Quarter 2014 (APLNG share) and increased to 120 TJ/d from 114 TJ/d from non-operated assets (APLNG share).

APLNG participated in 267 wells during the Quarter, including 13 operated exploration/appraisal wells, nine non-operated exploration/appraisal wells, nine groundwater monitoring bores and 236 development wells (166 operated and 70 non-operated production wells).

#### APLNG Operated Development Wells

The drilling program continued, with 166 operated development wells drilled during the Quarter. Of these, 37 were drilled in Condabri, 17 in Spring Gully, 68 in Combabula, 21 in Talinga and 23 in Orana. A total of 985 LNG development wells have been drilled to 30 September 2014.

			Prior Development <sup>1</sup>	LNG Development <sup>2</sup>	
			Wells commissioned	Development wells drilled	Wells commissioned
Bowen	Spring Gully	This Quarter	-	17	15
		YTD 2014/15	-	17	15
		Total to Date	185	114 <sup>5</sup>	64
		Max. Avg Well Deliverability <sup>3</sup>	1.0 TJ/d		
Surat	Talinga	This Quarter	-	21	-
		YTD 2014/15	-	21	-
		Total to Date	101	24	-
		Max. Avg Well Deliverability <sup>3</sup>	2.7 TJ/d		
	Orana	This Quarter	-	23	48
		YTD 2014/15	-	23	48
		Total to Date	-	118	48
		Max. Avg Well Deliverability <sup>3</sup>			
	Condabri	This Quarter	-	37	82
		YTD 2014/15	-	37	82
		Total to Date	-	418 <sup>5</sup>	271
		Max. Avg Well Deliverability <sup>3</sup>	0.8 TJ/d		
	Combabula/ Reedy Creek	This Quarter	-	68	41
		YTD 2014/15	-	68	41
		Total to Date	-	311	63
		Max. Avg Well Deliverability <sup>3</sup>	-		
Total	This Quarter	-	166	186	
	YTD 2014/15	-	166	186	
	Total to Date	286 <sup>4</sup>	985 <sup>5</sup>	446	

1 APLNG operated wells designated to deliver gas to its domestic operations

2 APLNG operated wells designated to deliver gas to both trains of the CSG to LNG project

3 Maximum average observable rate sustained over a week, throughout the year, from wells that have been online for more than six months

4 Excludes 25 conventional wells in the Denison Trough and 23 CSG wells in the Peat Project Area not targeted for any Phase 1 development

5 Revision to Total to Date to now exclude 2 re-drilled wells

## **Bowen Basin (CSG)**

### *Spring Gully Project Area (Operated)*

The Spring Gully field achieved gross average production of 123 TJ/d (APLNG share 121 TJ/d) during the Quarter.

During the Quarter three exploration/appraisal wells were drilled.

### *Fairview Project Area (Non-operated)*

Average Fairview gas production during the Quarter was 69 TJ/d (APLNG share 17 TJ/d).

12 development wells and one exploration/appraisal well were drilled in the non-operated Fairview project area.

### *Other Non-Operated Areas*

One exploration/appraisal well was drilled in Mt Kingsley and Sunnyholt non-operated project areas during the Quarter.

### *Peat Project Area (Operated)*

Average gas production for the Quarter was 2.0 TJ/d (100% owned by APLNG). The Peat Plant was shut-down on 25 August to upgrade electrical equipment. The plant will be restored to operation as soon as possible.

Two exploration/appraisal wells were drilled during the Quarter.

## **Surat Basin (CSG)**

### *Talinga/Orana Project Area (Operated)*

Average production for the Quarter was 62 TJ/d (100% owned by APLNG). The Talinga field was operated below capacity mainly to accommodate ramping up of Kenya East and Condabri field production during the Quarter.

Two exploration/appraisal wells were drilled in the Quarter.

### *Argyle/Kenya/Lauren/Bellevue Project Area (Non-operated)*

ATP648 JV (Kenya East) averaged 132 TJ/d (APLNG share 41 TJ/d) for the Quarter.

ATP 620 JV (Kenya) production averaged 135 TJ/d during the Quarter (APLNG share 55 TJ/d) and PL 247 (Bellevue) production averaged 24 TJ/d during the Quarter (APLNG share 7 TJ/d).

Across total participating QGC tenements, 58 development wells and two exploration/appraisal wells were drilled during the Quarter.

### *Condabri Project Area (Operated)*

Condabri production averaged 52 TJ/d (100% owned by APLNG) for the Quarter. During much of the Quarter the field was operated in turndown mode, minimising gas production whilst maximising water production.

Development of the Condabri project area continued with two exploration/appraisal wells drilled during the Quarter.

### *Combabula/Reedy Creek Project Area (Operated)*

Development of the Combabula/Reedy Creek project area continues with 68 development wells drilled during the Quarter.

### *Other Areas (Operated)*

One exploration/appraisal was drilled in the Waar Waar area.

Three exploration/appraisal wells were drilled in the Ramyard area during the Quarter.

### **Denison Trough (including Conventional)**

Average gas production for the Quarter was 6.3 TJ/d (APLNG share 3.2 TJ/d). No new wells were drilled in the Denison Trough area this Quarter.

### *Non-Operated Denison CSG wells*

One exploration/appraisal well was drilled in Arcadia Station, East Lynne, Hardenley West and Lynwood East

## **2.1.2 Upstream Project Update**

The Upstream project was 85% complete at 30 September 2014.

A total of 985 wells have been drilled and 446 wells commissioned.

Reedy Creek Train 1 and 2, Orana Train 1 and 2, and Condabri South Train 2 Gas Processing Facilities achieved mechanical completion. Eurombah Creek modules were placed and construction is on track.

Gathering installation activities continued to progress in field development areas. A cumulative total of 583 diameter kilometres of pipe have been installed.

Condabri Water Treatment Facility is now delivering treated produced water to agricultural users via the Monreagh Dam. Reedy Creek Water Treatment Facility and aquifer injection scheme construction is progressing.

Pipeline commissioning continues in support of gas facility commissioning with preparations to pack the pipeline to Curtis Island underway.



*Eurombah Creek*

## **2.1.3 Downstream Project Update**

The Downstream project was 82% complete at 30 September 2014.

Train 2 module fabrication in Batam continues to progress, with three modules shipped during the Quarter, leaving five modules remaining to be shipped as at the end of September 2014. All modules are expected to be delivered and set by the end of CY2014.

The Train 1 Inlet Air Chiller (IAC) skids were shipped from Batam in July 2014 and were installed in their final location in August 2014. The Train 2 IAC skids were shipped in September 2014.



The Tank A and B hydro tests were completed in July 2014 and August 2014 respectively. The loading platform for the LNG Jetty is complete and the LNG Jetty and Permanent Buildings are expected to be completed next Quarter.

Factory Acceptance Testing (FAT) was completed on the Train 2 Integrated Control Safety System (ICSS).

Commissioning and Start-Up (CSU) activities are ramping up with the first systems turned over from the construction group to the CSU team during the Quarter, and an integrated Bechtel/APLNG team has been mobilised.

The Project Labour Agreement between Bechtel and the Curtis Island workforce was approved by majority vote in August 2014. The workforce is approaching its peak and is expected to remain at these levels through to Q1 CY2015.



Curtis Island - Site Overview

## 2.2 Cooper / Eromanga Basin (South Australia / Queensland)

### *Origin/Santos/Beach Joint Venture*

Cooper Basin production of 4.8 PJe was up 16% on the previous Quarter. This was due to improved plant reliability and additional wells coming online during the Quarter.

A total of 29 wells were drilled in the Quarter, consisting of four exploration and appraisal wells and 25 development wells. All of the wells were cased and suspended for future production.

### *Origin/Senex/Planet Gas Joint Venture*

Planning for the seismic program as part of the Stage 1 farmin program is well advanced, with 3D seismic survey acquisitions scheduled for the March 2015 Quarter.

## 2.3 Otway Basin (Victoria / Tasmania)

Otway Basin production of 9.6 PJe (Origin share) has decreased by 8% from the previous Quarter as a result of changed customer nominations.

The Speculant-1 exploration well spudded on 23 September 2014 with anticipated completion early in the March 2015 Quarter. The Halladale field development well spudded on 18 October 2014 with anticipated completion in the June 2015 Quarter. The wells are being drilled using the rig Ensign 931.

The Enterprise 3D marine seismic survey contract has been awarded to Polarcus, with the acquisition scheduled for the December 2014 Quarter. Approval of the Environment Plan has been granted by National Offshore Petroleum Safety Authority (NOPSEMA).

The T/30P exploration permit was renewed for a five year term during the Quarter.

#### **2.4 Bass Basin (Tasmania)**

Bass Basin production of 2.2 PJe was down 6% from the previous Quarter.

Planning is in progress for the BassGas asset integrity shutdown scheduled for the December 2014 Quarter.

Planning continued for the Yolla compression and condensate handling module installation during the Quarter. Origin has secured the heavy-lift vessel, the Sapura 3000, with the lift scheduled for the December 2014 Quarter.

Planning continued during the Quarter for the Yolla development drilling campaign which is scheduled for execution in early 2015. Origin has secured the West Telesto jackup drilling rig which is anticipated to arrive on location in the March 2015 Quarter subject to its current drilling campaign.

#### **2.5 Surat Basin (Queensland)**

Operations at the Kincora gas processing plant remained suspended during the Quarter pending the completion of an asset review.

Testing continues at Duke 2 and Duke 3 pilots at the Ironbark ATP 788 CSG tenement.

#### **2.6 Perth Basin (Western Australia)**

Perth Basin production of 1.1 PJe has increased by 26% from the previous Quarter due to higher plant availability.

The Senecio 3 appraisal well was drilled, cased and suspended in the permits L1/L2 (Origin 50% non-operated) in the North Perth Basin, Western Australia. The well successfully identified gas in the primary target (Dongara and Wagina sandstones) and also encountered new gas pools in the deeper Kingia and High Cliff sandstones. Contingent resource volumes and potentially reserves will be defined after production flow testing, currently scheduled for early CY2015.

#### **2.7 Bonaparte Basin (Western Australia/Northern Territory)**

##### *Petrel Field (WA6R & NT/RL1)*

The Joint Venture is reviewing potential development options for the Bonaparte LNG project including via a pipeline connection to Darwin.

##### *WA 454P*

Origin, as Operator, has been carrying out geological and geophysical studies during the Quarter in preparation for the drilling of the Breakwater-1 exploration well forecast for late CY2015.

##### *NT/P84*

On 3 July 2014 a new exploration permit, NT/P84 was awarded, adjacent to the exploration permit WA-454-P located in the offshore Bonaparte Basin, for a six year term.

## 2.8 Taranaki Basin (New Zealand)

### *Kupe (offshore Taranaki)*

Kupe production of 4.9 PJe (Origin share) has decreased by 6% from the previous Quarter due to lower customer nominations.

### *Rimu/Kauri/Manutahi (onshore Taranaki)*

The Rimu and Kauri facilities restarted production on 14 October 2014 following a full process safety hazard analysis review.

## 2.9 Canterbury Basin (New Zealand)

The forward work program variation including a seismic survey commitment in 2015 and an extension of the permit to 2021 has been approved by the regulator. Analysis of samples from the Caravel-1 well continued.

## 2.10 Song Hong Basin (Vietnam)

The processing of 1,217km of 2D seismic data acquired in Block 121 during the previous Quarter is ongoing.

## 3. ACQUISITIONS/DIVESTMENTS

### ACQUISITIONS

- On 12 August 2014 Origin announced it had completed the acquisition of Karoon Gas's (Karoon) 40% interest in two offshore exploration permits (WA-315-P and WA-398-P) in Western Australia's Browse Basin (for further detail refer to Significant Activities)
- Bonaparte Basin exploration permit NT/P84 was awarded on the 3 July 2014 (for further detail refer to Significant Activities)

#### 4. DRILLING ACTIVITY

##### 4.1 Exploration/Appraisal

The table below summarises the exploration and appraisal drilling in which Origin had an interest during the Quarter:

Exploration/Appraisal Wells	Basin / Area	Target	Origin Effective Interest %	Well Status
Gaschnitz 4	Cooper Basin SA	Gas	13.19%	C&S
Cocinero 1	Cooper Basin SWQ	Oil	25.00%	C&S
Cook 28 (Hz)	Cooper Basin SWQ	Oil	25.00%	C&S
Cook 29 (Hz)	Cooper Basin SWQ	Oil	25.00%	C&S
Senecio 3	Perth Basin	Gas	50.00%	C&S
Durham Ranch 244	Bowen	CSG	35.44% *	Exploration
Fairview 18-27-1	Bowen	CSG	8.97%	Appraisal
Mount Kingsley 10	Bowen	CSG	8.94%	Exploration
Peat 45	Bowen	CSG	37.50% *	Exploration
Peat 46	Bowen	CSG	37.50% *	Exploration
Reids 2	Bowen	CSG	35.44% *	Exploration
Reids 3	Bowen	CSG	35.44% *	Exploration
Sunnyholt 7	Bowen	CSG	8.94%	Appraisal
Arcadia Station 1	Denison Trough	CSG	18.75%	Appraisal
East Lynne 2	Denison Trough	CSG	18.75%	Appraisal
Hardenley West 1	Denison Trough	CSG	18.75%	Appraisal
Lynwood East 1	Denison Trough	CSG	18.75%	Appraisal
Celeste 106	Surat	CSG	11.72%	Appraisal
Clunie 6	Surat	CSG	11.72%	Appraisal
Condabri 230	Surat	CSG	37.50% *	Exploration
Condabri 235	Surat	CSG	37.50% *	Appraisal
Orana North 396	Surat	CSG	37.50% *	Exploration
Ramyard 23	Surat	CSG	34.77% *	Appraisal
Ramyard 24	Surat	CSG	34.77% *	Appraisal
Ramyard 25	Surat	CSG	34.77% *	Appraisal
Talinga 134	Surat	CSG	37.50% *	Appraisal
Waar Waar 8	Surat	CSG	37.50% *	Appraisal
Speculant-1	Otway Basin	Gas	100.00% *	Continuing

\* Denotes Origin Operatorship

## 4.2 Development

The table below summarises the development drilling in which Origin had an interest during the Quarter. Origin participated in 245 CSG development wells (including groundwater monitoring wells) across the Bowen and Surat Basins and 25 conventional gas development wells in the Cooper Basin during the Quarter.

Basin / Area Development Wells	Origin Effective Interest %	Well Status
<i>Cooper Basin - SW QLD</i>		
<i>Target - Gas</i>		
Vega 5	16.74%	C&S
Durham Downs 6	16.74%	C&S
<i>Cooper Basin - SA</i>		
<i>Target - Gas</i>		
Big Lake 109	13.19%	C&S
Big Lake 110	13.19%	C&S
Big Lake 115	13.19%	C&S
Moorari 14	13.19%	C&S
Tirrawarra 82	13.19%	C&S
Big Lake 116	13.19%	C&S
Moolion North 2	10.54%	C&S
Hera 3	16.74%	C&S
Big Lake 117	13.19%	C&S
Big Lake 111	13.19%	C&S
Tirrawarra 83	13.19%	C&S
Big Lake 112	13.19%	C&S
Big Lake 113	13.19%	C&S
Moolion 7	10.54%	C&S
Hera 4	16.74%	C&S
Big Lake 118	13.19%	C&S
Big Lake 114	13.19%	C&S
Tirrawarra 81	13.19%	C&S
Goranie East 1	13.19%	C&S
Big Lake 119	13.19%	C&S
Lake MacMillan 3	13.19%	C&S
Andree 5	13.19%	C&S
Big Lake 124	13.19%	C&S
<i>Bowen</i>		
<i>Target - CSG</i>		
Durham Ranch 127	35.44% *	Development
Durham Ranch 139	35.44% *	Development
Durham Ranch 140	35.44% *	Development
Durham Ranch 146	35.44% *	Development
Durham Ranch 147	35.44% *	Development
Durham Ranch 150	35.44% *	Development
Durham Ranch 232	35.44% *	Development
Durham Ranch 357	35.63% *	Development
Durham Ranch 359	35.63% *	Development
Durham Ranch 361	35.63% *	Development
Durham Ranch 362	35.63% *	Development
Durham Ranch 363	35.63% *	Development

Basin / Area Development Wells	Origin Effective Interest %	Well Status
Durham Ranch 364	35.63% *	Development
Durham Ranch 365	35.63% *	Development
Durham Ranch 374	35.63% *	Development
Fairview 13-20-1	8.97%	Development
Fairview 13-20-2	8.97%	Development
Fairview 13-20-3	8.97%	Development
Fairview 13-20-4	8.97%	Development
Fairview 13-20-5	8.97%	Development
Fairview 18-03-1	8.97%	Development
Fairview 18-03-2	8.97%	Development
Fairview 18-03-3	8.97%	Development
Fairview 18-03-4	8.97%	Development
Fairview 18-03-5	8.97%	Development
Fairview 18-26-4	8.97%	Development
Fairview 18-26-5	8.97%	Development
Spring Gully 120	37.40% *	Development
Spring Gully 73	37.40% *	Development
Spring Gully MB3-B	35.44% *	GWM
Spring Gully MB8-H	35.44% *	GWM
<i>Surat</i>		
<i>Target - CSG</i>		
Carinya MB1-G	37.50% *	GWM
Carinya MB3-G	37.50% *	GWM
Carinya MB4-S	37.50% *	GWM
Celeste 108	11.72%	Development
Celeste 118	11.72%	Development
Celeste 119	11.72%	Development
Celeste 12	11.72%	Development
Celeste 129	11.72%	Development
Celeste 130	11.72%	Development
Celeste 131	11.72%	Development
Celeste 139	11.72%	Development
Celeste 140	11.72%	Development
Celeste 158	11.72%	Development
Celeste 159	11.72%	Development
Celeste 160	11.72%	Development
Celeste 167	11.72%	Development
Celeste 168	11.72%	Development
Celeste 175	11.72%	Development
Celeste 177	11.72%	Development
Celeste 184	11.72%	Development
Celeste 185	11.72%	Development
Celeste 186	11.72%	Development

Basin / Area Development Wells	Origin Effective Interest %	Well Status
Celeste 195	11.72%	Development
Codie 124	15.24%	Development
Codie 215	15.24%	Development
Codie 216	15.24%	Development
Codie 217	15.24%	Development
Combabula 128	34.77% *	Development
Combabula 142	34.77% *	Development
Combabula 143	34.77% *	Development
Combabula 158	34.77% *	Development
Combabula 162	34.77% *	Development
Combabula 163	34.77% *	Development
Combabula 164	34.77% *	Development
Combabula 170	34.77% *	Development
Combabula 171	34.77% *	Development
Combabula 172	34.77% *	Development
Combabula 173	34.77% *	Development
Combabula 181	34.77% *	Development
Combabula 182	34.77% *	Development
Combabula 196	34.77% *	Development
Combabula 201	34.77% *	Development
Combabula 202	34.77% *	Development
Combabula 216	34.77% *	Development
Combabula 217	34.77% *	Development
Combabula 2R	34.77% *	Development
Combabula 30	34.77% *	Development
Combabula 34	34.77% *	Development
Combabula 39	34.77% *	Development
Combabula North 111	34.77% *	Development
Combabula North 112	34.77% *	Development
Combabula North 113	34.77% *	Development
Combabula North 114	34.77% *	Development
Combabula North 115	34.77% *	Development
Combabula North 150	34.77% *	Development
Combabula North 151	34.77% *	Development
Combabula North 152	34.77% *	Development
Combabula North 153	34.77% *	Development
Combabula North 154	34.77% *	Development
Combabula North 155	34.77% *	Development
Combabula North 166	34.77% *	Development
Combabula North 167	34.77% *	Development
Combabula North 168	34.77% *	Development
Combabula North 170	34.77% *	Development
Combabula North 192	34.77% *	Development
Combabula North 193	34.77% *	Development
Combabula North 194	34.77% *	Development
Combabula North 195	34.77% *	Development
Combabula North 231	34.77% *	Development
Combabula North 232	34.77% *	Development
Combabula North 233	34.77% *	Development
Combabula North 234	34.77% *	Development

Basin / Area Development Wells	Origin Effective Interest %	Well Status
Combabula North 235	34.77% *	Development
Combabula North 237	34.77% *	Development
Combabula North 249	34.77% *	Development
Combabula North 250	34.77% *	Development
Combabula North 251	34.77% *	Development
Combabula North 253	34.77% *	Development
Combabula North 254	34.77% *	Development
Combabula North 255	34.77% *	Development
Combabula North 280	34.77% *	Development
Combabula North 281	34.77% *	Development
Combabula North 282	34.77% *	Development
Combabula North 283	34.77% *	Development
Combabula North 320	34.77% *	Development
Combabula North 321	34.77% *	Development
Combabula North 322	34.77% *	Development
Combabula North 337	34.77% *	Development
Combabula North 338	34.77% *	Development
Combabula North 339	34.77% *	Development
Combabula North 340	34.77% *	Development
Combabula North 373	34.77% *	Development
Combabula North 374	34.77% *	Development
Combabula North 375	34.77% *	Development
Combabula North 380	34.77% *	Development
Condabri North 132	37.50% *	Development
Condabri North 138	37.50% *	Development
Condabri North 139	37.50% *	Development
Condabri North 142	37.50% *	Development
Condabri North 143	37.50% *	Development
Condabri North 144	37.50% *	Development
Condabri North 45	37.50% *	Development
Condabri North 46	37.50% *	Development
Condabri North 47	37.50% *	Development
Condabri North 48	37.50% *	Development
Condabri North 49	37.50% *	Development
Condabri North 50	37.50% *	Development
Condabri North 52	37.50% *	Development
Condabri North 53	37.50% *	Development
Condabri North 54	37.50% *	Development
Condabri North 56	37.50% *	Development
Condabri North 57	37.50% *	Development
Condabri North 58	37.50% *	Development
Condabri North 79	37.50% *	Development
Condabri North 80	37.50% *	Development
Condabri North 81	37.50% *	Development
Condabri North 82	37.50% *	Development
Condabri North 83	37.50% *	Development
Condabri North 84	37.50% *	Development
Condabri North 85	37.50% *	Development
Condabri North 86	37.50% *	Development
Condabri North 87	37.50% *	Development

Basin / Area Development Wells	Origin Effective Interest %	Well Status
Condabri North 88	37.50% *	Development
Condabri North 89	37.50% *	Development
Condabri North 90	37.50% *	Development
Condabri North 91	37.50% *	Development
Condabri North 92	37.50% *	Development
Condabri North 93	37.50% *	Development
Condabri North 94	37.50% *	Development
Condabri North 95	37.50% *	Development
Condabri North 96	37.50% *	Development
Condabri North 97	37.50% *	Development
Jammat 150	11.72%	Development
Jammat 163	11.72%	Development
Jammat 19	11.72%	Development
Jammat 20	11.72%	Development
Jammat 21	11.72%	Development
Kenya 167	15.24%	Development
Kenya 189	15.24%	Development
Kenya 190	15.24%	Development
Kenya East 116	11.72%	Development
Kenya East 117	11.72%	Development
Kenya East 126	11.72%	Development
Kenya East 172	11.72%	Development
Kenya East 213	11.72%	Development
Orana 21	37.50% *	Development
Orana 22	37.50% *	Development
Orana 23	37.50% *	Development
Orana 24	37.50% *	Development
Orana 74	37.50% *	Development
Orana 75	37.50% *	Development
Orana 76	37.50% *	Development
Orana 77	37.50% *	Development
Orana 78	37.50% *	Development
Orana 79	37.50% *	Development
Orana 80	37.50% *	Development
Orana 81	37.50% *	Development
Orana 82	37.50% *	Development
Orana MB4-W	37.50% *	GWM
Orana North 11	37.50% *	Development
Orana North 12	37.50% *	Development
Orana North 13	37.50% *	Development
Orana North 14	37.50% *	Development
Orana North 15	37.50% *	Development
Orana North 16	37.50% *	Development
Orana North 17	37.50% *	Development
Orana North 18	37.50% *	Development
Orana North 8	37.50% *	Development
Orana North 9	37.50% *	Development
Pine Hills MB1-W	34.77% *	GWM

Basin / Area Development Wells	Origin Effective Interest %	Well Status
Reedy Creek 59 MON-H	34.77% *	GWM
Sean 101	11.72%	Development
Sean 102	11.72%	Development
Sean 103	11.72%	Development
Sean 11	11.72%	Development
Sean 110	11.72%	Development
Sean 111	11.72%	Development
Sean 116	11.72%	Development
Sean 117	11.72%	Development
Sean 118	11.72%	Development
Sean 119	11.72%	Development
Sean 120	11.72%	Development
Sean 125	11.72%	Development
Sean 126	11.72%	Development
Sean 127	11.72%	Development
Sean 128	11.72%	Development
Sean 13	11.72%	Development
Sean 136	11.72%	Development
Sean 137	11.72%	Development
Sean 138	11.72%	Development
Sean 149	11.72%	Development
Sean 165	11.72%	Development
Talinga 136	37.50% *	Development
Talinga 137	37.50% *	Development
Talinga 138	37.50% *	Development
Talinga 140	37.50% *	Development
Talinga 141	37.50% *	Development
Talinga 142	37.50% *	Development
Talinga 143	37.50% *	Development
Talinga 144	37.50% *	Development
Talinga 145	37.50% *	Development
Talinga 146	37.50% *	Development
Talinga 147	37.50% *	Development
Talinga 148	37.50% *	Development
Talinga 149	37.50% *	Development
Talinga 150	37.50% *	Development
Talinga 151	37.50% *	Development
Talinga 152	37.50% *	Development
Talinga 153	37.50% *	Development
Talinga 154	37.50% *	Development
Talinga 155	37.50% *	Development
Talinga 156	37.50% *	Development
Talinga 92	37.50% *	Development
Waar Waar MB3-H	37.50% *	GWM

Notes:

\* Denotes Origin Operatorship

## 5. EXPLORATION, EVALUATION AND CAPITAL EXPENDITURE

The tables below include total expenditure incurred on exploration and evaluation activities and capital expenditure on development and production activities. They include expenditure committed under farm-in agreements and capitalised interest and exclude expenditure on acquisitions. Expenditure in the current financial year is preliminary and is subject to audit review. Note: Numbers may not add due to rounding.

<u>Australian Operations</u>	September				
	This Quarter	Previous Quarter	Quarter 2013	YTD 2014/15	YTD 2013/14
A\$m					
Exploration / Evaluation	38	157 <sup>(1)</sup>	17	38	17
Development / PP&E	79	60	47	79	47
<b>Total</b>	<b>117</b>	<b>217<sup>(1)</sup></b>	<b>64</b>	<b>117</b>	<b>64</b>

<u>New Zealand Operations</u>	September				
	This Quarter	Previous Quarter	Quarter 2013	YTD 2014/15	YTD 2013/14
NZ\$m					
Exploration / Evaluation	0	13	1	0	1
Development / PP&E	2	3	3	2	3
<b>Total</b>	<b>2</b>	<b>16</b>	<b>4</b>	<b>2</b>	<b>4</b>

<u>International Operations</u>	September				
	This Quarter	Previous Quarter	Quarter 2013	YTD 2014/15	YTD 2013/14
A\$m					
Exploration / Evaluation	0	8	19	0	19
Development / PP&E	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>8</b>	<b>19</b>	<b>0</b>	<b>19</b>

<u>Total (excluding APLNG)</u>	September				
	This Quarter	Previous Quarter	Quarter 2013	YTD 2014/15	YTD 2013/14
A\$m					
Exploration / Evaluation	38	177 <sup>(1)</sup>	38	38	38
Development / PP&E	80	63	50	80	50
<b>Total</b>	<b>119</b>	<b>240<sup>(1)</sup></b>	<b>88</b>	<b>119</b>	<b>88</b>

<sup>(1)</sup> includes \$101 million in committed expenditure for the Stage 1 work program of the farm-in agreement with Senex Energy in the Cooper-Eromanga Basin

### APLNG

Origin is required to contribute cash to APLNG (in proportion to its equity holding) where APLNG has insufficient cash from other sources to fund its activities.

<u>Origin's contribution to APLNG</u>	September				
	This Quarter	Previous Quarter	Quarter 2013	YTD 2014/15	YTD 2013/14
A\$m					
Contribution	751	815	742	751	742



## 6. ORIGIN'S INTERESTS

### 6.1 Origin held interests in the following permits at the end of the Quarter:

Basin/Project Area	Interest	Basin/Project Area	Interest	Basin/Project Area	Interest
<b>AUSTRALIA</b>		<b>AUSTRALIA</b>		<b>AUSTRALIA</b>	
<b>COOPER BASIN (South Australia)</b>		<b>Spring Gully</b>		<b>OFFSHORE OTWAY BASIN</b>	
Patchawarra East Block PPLs	10.54%	ATP 592P and PLs 195, 203, 268(A), 414(A), 415(A), 416(A), 417, 418(A) and 419(A)	35.44% * <sup>1</sup>	<b>Victoria</b>	
SA Unit PPLs	13.19%	PL 204	37.40% * <sup>1</sup>	Vic/P42 (V)	100.00% *
Reg Sprigg West Unit (PPL 194/PPL 211 )	7.90%	PL 200	35.89% * <sup>1</sup>	Vic/P43	67.23% *
PEL 637 and PRL 106	40.00%	PPL 180	37.50% * <sup>1</sup>	Vic/L23	67.23% *
PELs 638	30.00%			Vic/P69	100.00% *
				Vic/RL2(V)	100.00% *
<b>COOPER BASIN (Queensland)</b>		<b>Talinga/ Orana</b>		<b>Tasmania</b>	
SWQ Unit Subleases	16.74%	ATP 692P, PLs 209, 215, 226, 272, 216(A), 225(A), 289(A), 445(A) and 481(A)	37.50% * <sup>1</sup>	T/L2, T/L3 and T/30P	67.23% *
Aquitaine A * B Blocks of ATP 259P and associated PLs	25.00%	PPL's 171 and 181	37.50% * <sup>1</sup>	T/34P	86.63% *
Aquitaine C Block of ATP 259P and associated PLs	27.00%	PFL 26	37.50% * <sup>1</sup>	<b>Bass Basin (Tasmania)</b>	
Wareena Block of ATP 259P and associated PLs	10.00%			T/L1	42.50% *
				T/18P	39.00% *
<b>GALILEE BASIN (Queensland)</b>		<b>Kenya/ Argyle/Lauren/Bellevue</b>		<b>PERTH BASIN (Western Australia)</b>	
ATP 666P	37.50% * <sup>1</sup>	PLs 179, 180, 228, 229 and 263	15.23% <sup>1</sup>	EP320 and L11	67.00% *
ATP 667P	37.50% * <sup>1</sup>	PL 247	11.02% <sup>1</sup>	L 14	49.19% *
		PLs 257, 273, 274, 275, 278, 279, 442, 466, 474 and 503(A)	11.72% <sup>1</sup>	L1/L2 (Excluding Dongara, Mondarra and Yardarino)	50.00%
<b>SURAT BASIN (Queensland)</b>		<b>Peat</b>		<b>BROWSE BASIN (Western Australia )</b>	
PL 14	100.00% *	ATP 1188P	11.72% <sup>1</sup>	WA-315P and WA-398P	40.00%
PL 74	69.00% *	PFL 19	11.72% <sup>1</sup>		
PL 30	75.00% *	PPL 107	15.23% <sup>1</sup>	<b>BONAPARTE BASIN (Western Australia &amp; Northern Territory)</b>	
PLs 21, 22 and 27	87.50% *			WA 454P	50.00% *
PLs 53, 174 and 227	100.00% *	<b>Other Bowen Basin</b>		NT/RL1 and WA6R	5.00%
PL 264	90.00% *	ATP 804P	10.99% <sup>1</sup>	NT/P84	50.00%
PL 71 (Exploration)	72.00% *	ATPs 653P and 745P and PLs 420(A), 421(A) and 440(A)	8.94% <sup>1</sup>		
PL 71 (Production)	90.00% *	PLs 219 and 220	37.50% * <sup>1</sup>	<b>BEETALOO BASIN (Northern Territory)</b>	
PL 70	100.00% *			EP 76, EP 98 and EP117	35.00%
ATP 471P Weribone Pooling Area	50.64% *	<b>Other Surat Basin</b>			
ATP 336P and PLs 10W, 11W, 12W, 28, 69 and 89	46.25%	ATP 606P and PLs 297, 404, 408, 403(A), 405(A), 406(A), 407(A), 412(A), 413(A) and 444(A)	34.77% * <sup>1</sup>	<b>NEW ZEALAND</b>	
PL 11 Snake Creek East 1 Exclusion Zone	25.00%	ATP 631P, PLs 281(A) and 282(A)	6.79% <sup>1</sup>	<b>TARANAKI BASIN</b>	
ATP 647P (Block 2656 only)	50.00% *	ATP 663P and PLs 434(A), 435(A), 436(A), 437(A), 438(A) and 439(A)	37.50% * <sup>1</sup>	PML 38146	50.00% *
ATP 754P	50.00% *	973P, and PLs 265, 266 and 267	37.50% * <sup>1</sup>	PMP 38151	100.00% *
ATP 788P	100.00% *	ATP 972P, and PLs 469(A), 470(A) and 471(A)	34.77% * <sup>1</sup>	PMP 38155	100.00% *
ATP 471P Bainbilla	24.75%	ATP 1178P	37.50% * <sup>1</sup>	<b>CANTERBURY BASIN</b>	
		PPL's 143, 177, 178, 185 and 186	37.50% * <sup>1</sup>	PEP 38264	45.00%
<b>DENISON TROUGH (Queensland)</b>		<b>ONSHORE OTWAY BASIN</b>		<b>VIETNAM</b>	
PLs 41, 42, 43, 44, 45, 54, 67, 173, 183 and 218	18.75% * <sup>1</sup>	<b>Victoria</b>		<b>SONG HONG BASIN</b>	
ATP 337P (Denison Trough) - Production	18.75% * <sup>1</sup>	PPLs 6,9 and PRL1	90.00% *	Block 121	45.00% *
ATP 337P (Denison Trough) - Exploration, PLs 449(A), 450(A), 451(A), 454(A) and 457(A)	18.75% <sup>1</sup>	PPLs 4, 5, 7, 10 and 12	100.00% *		
ATP 337P Mahalo and PL448(A)	11.25% <sup>1</sup>	PPL 2 Ex (Iona Exclusion)	100.00% *	<b>BOTSWANA</b>	
ATP 1177P	18.75% <sup>1</sup>	PPL 8	100.00% *	PL134/2010, PL135/2010, PL136/2010	50.00% <sup>2</sup>
PPL's 10 and 11	18.75% * <sup>1</sup>				
<b>LNG (Gladstone)</b>				<b>Notes:</b>	
PPL's 162 and 163	37.50% * <sup>1</sup>			* Operatorship	
PFL 20	37.50% * <sup>1</sup>			<sup>1</sup> Interest held through 37.5% ownership of APLNG Joint Venture	
<b>CSG (Queensland)</b>				<sup>2</sup> Interest held through 50% ownership of Kubu Energy Resources (Pty) Ltd (a Botswana company). The JV has advised the government of its intention to relinquish the permit	
<b>Fairview</b>					
ATP 526P and PLs 90, 91, 92, 99, 100, 232, 233, 234, 235 and 236	8.97% <sup>1</sup>				

## 7. CONVERSION FACTORS AND ABBREVIATIONS

### 7.1 Conversion Factors

Crude oil	0.00583	PJ/kbbls
Condensate	0.00541	PJ/kbbls
LPG	0.0493	PJ/ktonnes
Ethane	0.0517	PJ/ktonnes

### 7.2 Abbreviations

<b>APLNG</b>	Australia Pacific LNG - an incorporated Joint Venture between Origin, ConocoPhillips and Sinopec
<b>barrels</b>	an international measure of oil production. 1 barrel = 159 litres
<b>Bopd</b>	barrels of oil per day
<b>BTEX</b>	benzene, toluene, ethylbenzene, xylene
<b>bwpd</b>	barrels of water per day
<b>C&amp;C</b>	cased and completed
<b>C&amp;S</b>	cased and suspended
<b>CSG</b>	coal seam gas
<b>CTU</b>	coiled tubing unit
<b>DA</b>	designated authority
<b>DERM</b>	Department of Environmental and Resource Management
<b>DST</b>	Drill Stem Test
<b>EA</b>	environmental authority
<b>FEED</b>	front end engineering & design
<b>FID</b>	final investment decision
<b>GJ</b>	gigajoule = $10^9$ joules
<b>GWM</b>	Ground Water Monitoring
<b>joule</b>	a measure of energy
<b>Kbbls</b>	Kilo barrels = 1,000 barrels
<b>Ktonnes</b>	Kilo tonnes = 1,000 tonnes
<b>LNG</b>	liquefied natural gas
<b>LPG</b>	liquid petroleum gas
<b>MDRT</b>	measured depth from rotary table
<b>mmscfd</b>	million standard cubic feet per day
<b>mtpa</b>	million tonnes per annum
<b>P&amp;A</b>	plugged and abandoned
<b>P&amp;S</b>	plugged and suspended
<b>PCA</b>	potential commercial area
<b>PSC</b>	production sharing contract
<b>PSDM</b>	post stack depth migration (seismic processing)
<b>PJ</b>	petajoule = $10^{15}$ joules
<b>PJe</b>	petajoule equivalent, a measure used to express the volume of different petroleum products on the basis of the energy contained in the product
<b>Pigging</b>	pipeline examination and maintenance
<b>QGC</b>	Queensland Gas Company
<b>Spudding</b>	to commence drilling a well
<b>SWQ</b>	South West Queensland
<b>TD</b>	total depth
<b>TJ</b>	terajoule = $10^{12}$ joules
<b>TJ/d</b>	terajoules per day
<b>TVDSS</b>	Total Vertical Depth Subsea
<b>Water Inj</b>	water injection well