

# Second Quarter Activities Report

For period ending 30 June 2019

ASX: STO | ADR: SSLZY

# Santos

18 July 2019

## Record production and revenue

- First half production of 37 mmmboe was a record for Santos and 32% above the corresponding period.
- Sales volumes of 45.2 mmmboe were up 19% and sales revenues up 18% to \$2 billion in the first half.

## Major growth projects advanced

- Dorado-2 appraisal success confirmed a larger than anticipated major oil and gas resource in the Bedout Basin, offshore Western Australia, significantly de-risking a future development. Santos now expects to book a significant resource upgrade above its currently booked 2C resource for Dorado.
- PNG LNG expansion advanced by the signing of a binding letter of intent to acquire a 14.3% interest (pre-government back-in) in PRL 3 which contains the P'nyang natural gas field.
- The Barossa project entered exclusive negotiations with the Darwin LNG Joint Venture for the supply of backfill gas to Darwin LNG and also awarded the subsea production system contract ahead of a planned FID by early 2020.

## Onshore growth

- Higher quarterly and year-to-date production in both the Cooper Basin and GLNG.
- A record 102 wells were drilled in GLNG during the quarter (100% success rate) and 25 wells drilled in the Cooper Basin (80% success rate) including fastest ever Cooper total well execution of 4.3 days.

## Strong free cash flow

- Santos generated \$300 million in free cash flow in the second quarter, bringing total free cash flow for the first half to over \$600 million.
- Strong free cash flows reduced net debt by \$0.3 billion in the second quarter to \$3.1 billion (excluding the impact of the new AASB 16 Leases standard).

Santos Managing Director and Chief Executive Officer Kevin Gallagher said the first half of 2019 had delivered record production volumes and sales revenues, along with strong free cash flow of over \$600 million.

“Our disciplined operating model and approach to capital allocation has delivered a strong first half result and the successful integration of our Western Australian business has exceeded expectations.”

“Santos has now delivered positive free cash flow for thirteen consecutive quarters.”

“These cash flows underpin our brownfield growth strategy where we hit a number of significant milestones during the quarter, including farming-in to P'nyang and awarding the subsea contract for Barossa.”

“Following successful appraisal of Dorado and Moomba South, we expect to book significant resource and reserve upgrades respectively for these assets.”

“We are also hitting record drilling rates in the onshore business and completed two appraisal wells for our carbon capture, utilisation and storage project in the Cooper Basin.”

“Second quarter production was however impacted by planned maintenance in the Cooper Basin and PNG LNG.”

“With this maintenance activity now mostly behind us, we currently expect stronger production in the second half,” Mr Gallagher said.

## Comparative performance

Santos share	Units	Q2 2019	Q1 2019	Change	2019 YTD	2018 YTD	Change
Production	mmboe	18.6	18.4	1%	37.0	28.0	32%
Sales volume	mmboe	22.4	22.8	-2%	45.2	38.0	19%
Ave. realised oil price	\$/bbl	75.26	68.90	9%	72.11	75.37	-4%
Sales revenue	\$million	959	1,015	-5%	1,974	1,680	18%
Capital expenditure <sup>1</sup>	\$million	270	177	53%	447	306	46%

<sup>1</sup> Capital expenditure including restoration expenditure and acquisition of exploration assets but excluding capitalised interest.

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## Sales volumes (Santos share)

Product	Unit	Q2 2019	Q1 2019	Q2 2018	2019 YTD	2018 YTD
LNG	000 t	714.6	768.0	630.8	1,482.6	1,273.2
Domestic sales gas & ethane	PJ	64.3	65.5	52.6	129.8	106.2
Crude oil	000 bbls	2,666.2	2,897.6	2,863.9	5,563.9	5,297.8
Condensate	000 bbls	1,261.7	1,298.7	811.6	2,560.3	1,889.6
LPG	000 t	77.8	17.0	43.8	94.7	65.3
<b>Sales</b>						
Own product	mmboe	17.9	17.4	13.5	35.3	27.3
Third-party	mmboe	4.5	5.4	5.6	9.9	10.7
<b>Total sales volume</b>	<b>mmboe</b>	<b>22.4</b>	<b>22.8</b>	<b>19.1</b>	<b>45.2</b>	<b>38.0</b>

Second quarter sales volumes were lower than the prior quarter primarily due to the timing of LNG and liquids shipments. Two PNG LNG cargoes were on the water at the end of the quarter and liquids cargoes from the Cooper Basin and Western Australia lifted in early July.

## Sales revenues (Santos share)

Product	Unit	Q2 2019	Q1 2019	Q2 2018	2019 YTD	2018 YTD
LNG	\$m	341	436	323	777	599
Domestic sales gas & ethane	\$m	285	303	254	588	515
Crude oil	\$m	211	190	225	401	399
Condensate	\$m	83	79	61	161	132
LPG	\$m	39	8	23	47	34
<b>Sales</b>						
Own product	\$m	712	787	598	1,499	1,157
Third-party	\$m	247	228	288	475	523
<b>Total sales revenue</b>	<b>\$m</b>	<b>959</b>	<b>1,015</b>	<b>886</b>	<b>1,974</b>	<b>1,680</b>
Third-party purchase costs	\$m	196	207	209	403	408

Second quarter sales revenues were lower than the prior quarter primarily due to lower average oil-linked LNG and domestic gas prices, and the timing of LNG and liquids shipments. Two PNG LNG cargoes were on the water at the end of the quarter and liquids cargoes from the Cooper Basin and Western Australia lifted in early July.

## Average realised prices

Product	Unit	Q2 2019	Q1 2019	Q2 2018	2019 YTD	2018 YTD
LNG price	US\$/mmBtu	9.09	10.79	9.74	9.97	8.96
Domestic gas price	US\$/GJ	4.40	4.62	4.83	4.51	4.85
Oil price	US\$/bbl	75.26	68.90	78.61	72.11	75.37
Condensate price	US\$/bbl	65.39	60.77	74.52	63.02	69.77
LPG price	US\$/t	505.92	466.03	525.03	499.12	526.61

The average realised LNG price was lower than the prior quarter reflecting the linkage of sales contracts to a lagged Japan Customs-cleared Crude (JCC) price, while lower domestic gas prices primarily reflect lower oil-linked contracts and FX movements on AUD denominated contracts.

The average realised oil price in the quarter was significantly higher than average Dated Brent due to Santos' high-quality crudes in Western Australia and the Cooper Basin commanding a strong premium.

## Production by asset (Santos share)

Asset	Unit	Q2 2019	Q1 2019	Q2 2018	2019 YTD	2018 YTD
Western Australia	mmboe	7.7	7.2	2.8	14.9	5.6
Cooper Basin	mmboe	3.9	3.8	3.9	7.7	7.5
Queensland & NSW	mmboe	3.2	3.1	3.0	6.3	5.9
PNG	mmboe	3.2	3.2	2.6	6.4	4.6
Northern Australia	mmboe	0.6	1.0	0.5	1.6	1.7
Asia <sup>1</sup>	mmboe	-	-	1.4	-	2.7
<b>Total production</b>	<b>mmboe</b>	<b>18.6</b>	<b>18.4</b>	<b>14.2</b>	<b>37.0</b>	<b>28.0</b>

<sup>1</sup> Asian assets sold effective September 2018.

## Production by product (Santos share)

Product	Unit	Q2 2019	Q1 2019	Q2 2018	2019 YTD	2018 YTD
Sales gas to LNG plant	PJ	30.9	32.3	26.6	63.2	53.6
Domestic sales gas & ethane	PJ	57.2	55.7	40.9	112.9	79.3
Crude oil	000 bbls	2,071.2	2,047.3	1,555.9	4,118.5	3,190.4
Condensate	000 bbls	1,088.6	1,044.5	727.4	2,133.1	1,413.2
LPG	000 t	36.6	35.3	37.8	71.9	72.3
<b>Total production</b>	<b>mmboe</b>	<b>18.6</b>	<b>18.4</b>	<b>14.2</b>	<b>37.0</b>	<b>28.0</b>

Second quarter production was higher than the prior quarter primarily due to higher production volumes in Western Australia and across the onshore assets, partially offset by planned maintenance and shipment timing at Darwin LNG.

## 2019 Guidance

Production guidance is narrowed to 73-77 mmboe and sales volume guidance to 90-97 mmboe. Unit production cost guidance is lowered to \$7.25-7.75/boe. All guidance is shown in the table below.

2019 guidance item	Previous Guidance	Updated guidance
Sales volumes	88-98 mmboe	90-97 mmboe
Production	71-78 mmboe	73-77 mmboe
Upstream production costs <sup>1</sup>	\$7.50-8.00/boe	\$7.25-7.75/boe
Capital expenditure	~\$1.1 billion	No change

<sup>1</sup> Production cost guidance includes all planned shutdown activity and PNG LNG earthquake recovery costs.

Further detail of 2019 year-to-date capital expenditure, including exploration and evaluation expenditure, is reported in the table on page 11 of this report.

Financial information included in this report is unaudited and subject to finalisation of the company's accounting and audit processes, and Board review. As such, actual results for the half-year ended 30 June 2019 may differ from the information given in this report.

## 2019 First-half results

Santos will release its results for the half-year ended 30 June 2019 on Thursday 22 August 2019. The first-half report (incorporating Appendix 4D) and associated investor presentation will be available on Santos' website at [www.santos.com](http://www.santos.com). A webcast briefing including investor/analyst questions will also be available on Santos' website from 11:00am AEST on 22 August 2019.

## Balance sheet and net debt

As disclosed in the Notes to the 2018 Consolidated Financial Statements, Santos will adopt the new AASB 16 Leases standard in 2019. As at 31 December 2018, the estimated balance sheet debt impact of the lease liabilities was \$294 million.

Net debt reduced to \$3.1 billion as at 30 June 2019 but excluding the impact of the adoption of AASB 16. Santos had cash and cash equivalents of \$1.2 billion and gross debt of \$4.3 billion (excluding the impact of AASB 16) as at 30 June 2019.

## Oil price hedging

2.2 million barrels of oil hedging expired in the second quarter.

The following oil price hedging positions were in place as at 30 June 2019.

Open oil price positions	2019	2020
Swaps (barrels)	480,000	
Brent fixed swap price (\$/bbl)	US\$63.23	
Re-participating swaps (barrels) <sup>1</sup>	240,000	
Brent fixed swap price (\$/bbl)	US\$67.39	
Brent long call price (\$/bbl)	US\$76.00	
Zero-cost collars (barrels) <sup>2</sup>	4,734,000	
Ceiling (\$/bbl)	US\$79.83	
Floor (\$/bbl)	US\$51.35	
Re-participating 3-Ways (barrels) <sup>3</sup>		4,180,000
Brent long call price (\$/bbl)		US\$77.64
Brent short call price (\$/bbl)		US\$70.00
Brent long put price (\$/bbl)		US\$55.00

<sup>1</sup> When Brent price is below the weighted average long call price, Santos realises fixed swap price. When Brent price is above the call strike price, Santos realises Brent price less the difference between the long call price and the fixed swap price.

<sup>2</sup> When Brent price is above the weighted average ceiling price, Santos realises ceiling price. When Brent price is between the floor and ceiling price, Santos realises Brent price. When Brent price is below the floor price, Santos realises floor price.

<sup>3</sup> When Brent price is above the weighted average long call price, Santos realises Brent price less the difference between the long call price and the short call price. When Brent price is between the short call price and long call price, Santos realises short call price. When Brent price is below the long put price, Santos realises long put price.

## Western Australia

Santos share	Units	Q2 2019	Q1 2019	Q2 2018	2019 YTD	2018 YTD
<b>Sales volume</b>						
Sales gas	PJ	34.4	32.6	14.9	67.0	28.7
Condensate	000 bbls	290.9	175.4	146.4	466.3	323.8
Crude oil	000 bbls	897.2	955.5	139.5	1,852.6	439.8
<b>Total sales volume</b>	<b>mmboe</b>	<b>7.1</b>	<b>6.7</b>	<b>2.9</b>	<b>13.8</b>	<b>5.7</b>
<b>Total sales revenue</b>	<b>\$million</b>	<b>219</b>	<b>198</b>	<b>81</b>	<b>417</b>	<b>168</b>
<b>Production</b>						
Sales gas	PJ	35.5	33.3	14.6	68.8	27.9
Condensate	000 bbls	421.2	351.9	163.2	773.1	307.6
Crude oil	000 bbls	1,208.9	1,187.0	151.9	2,396.0	475.7
<b>Total production</b>	<b>mmboe</b>	<b>7.7</b>	<b>7.2</b>	<b>2.8</b>	<b>14.9</b>	<b>5.6</b>
Capital expenditure	\$million	79	43	15	122	17

Notwithstanding an outage at a major domestic customer in June, WA sales gas production volumes were 6% higher than the first quarter due to stronger volumes and shutdowns for tropical cyclone Veronica in the prior quarter.

Condensate sales volumes were higher than the prior quarter due to shipment timing and higher volumes lifted from the liquids-rich Varanus Island gas fields.

Crude sales volumes were lower than the prior quarter primarily due to the timing of liftings.

The Santos-operated offshore drilling campaign continued during the quarter. Following the previously reported success at the first well, Corvus-2, the drilling rig moved to the Bedout Basin to undertake a three-well appraisal and exploration program around the major oil and gas discovery made at Dorado-1 during 2018.

The Dorado-2 appraisal well was spudded on 1 May and was drilled to a total depth of 4,593 metres. The well achieved its appraisal objectives and has significantly de-risked a future development of the Dorado field. Santos now expects to book a significant resource upgrade above its currently booked 2C resource for Dorado. For further well information, refer to Santos' ASX release of 6 June 2019.

Following Dorado-2, the Roc South-1 exploration well was spudded on 16 June, targeting a trap with similarities to the Dorado discovery. Subsequent to the end of the quarter, wireline logs indicated that the well had failed to encounter commercial hydrocarbons in the primary and secondary targets and the well will be plugged and abandoned.

Following Roc South-1, the rig will return to Dorado to drill the Dorado-3 appraisal well, where production testing is planned.

During the quarter, Santos (100%) was awarded gazettal licence WA17-4 (designated WA-540-P) adjacent to its existing acreage position in the Bedout Basin.

## Cooper Basin

Santos share	Units	Q2 2019	Q1 2019	Q2 2018	2019 YTD	2018 YTD
<b>Sales volume</b>						
Sales gas and ethane						
Own product	PJ	15.0	15.8	14.2	30.8	29.6
Third-party	PJ	1.0	0.8	0.6	1.8	1.5
Total	PJ	16.0	16.7	14.8	32.6	31.1
Condensate						
Own product	000 bbls	549.0	490.5	314.8	1,039.5	755.5
Third-party	000 bbls	33.0	84.2	52.6	117.2	151.9
Total	000 bbls	582.0	574.7	367.4	1,156.8	907.4
LPG						
Own product	000 t	69.5	7.0	41.6	76.5	47.9
Third-party	000 t	1.6	2.9	2.9	4.5	8.9
Total	000 t	71.1	9.8	44.5	80.9	56.8
Crude oil						
Own product	000 bbls	972.5	551.0	604.1	1,523.6	1,076.8
Third-party	000 bbls	792.9	1,387.8	1,489.9	2,180.8	2,545.4
Total	000 bbls	1,765.4	1,938.9	2,094.0	3,704.3	3,622.2
<b>Total sales volume</b>	<b>mmboe</b>	<b>5.7</b>	<b>5.4</b>	<b>5.4</b>	<b>11.1</b>	<b>10.3</b>
<b>Total sales revenue</b>	<b>\$million</b>	<b>289</b>	<b>245</b>	<b>278</b>	<b>534</b>	<b>502</b>
<b>Production</b>						
Sales gas and ethane	PJ	15.0	14.6	15.4	29.6	29.7
Condensate	000 bbls	244.9	222.4	240.8	467.3	448.8
LPG	000 t	30.3	28.7	35.2	59.1	62.9
Crude oil	000 bbls	859.1	856.9	769.1	1,716.0	1,427.9
<b>Total production</b>	<b>mmboe</b>	<b>3.9</b>	<b>3.8</b>	<b>3.9</b>	<b>7.7</b>	<b>7.5</b>
Capital expenditure	\$million	71	59	48	130	108

Second quarter gas production in the Cooper Basin was higher than the prior quarter due to a strong focus on delivery of new gas wells and alignment of planned maintenance activities to optimise production uptime.

Continuous improvement in operations efficiency has resulted in a number of new benchmarks set in the Cooper Basin:

- Munkarie-11 under balance drilled (UBD) gas well rig release to online in 18 days;
- Namur-17 shallow gas well (total depth 4,248ft) set a new record for fastest total well execution duration in Cooper with a rig release to rig release drill time of 4.3 days and a spud to total depth time of 2.3 days;
- Coopers Creek-5 gas well achieved 5.8 days spud to total depth (10,332ft), the fastest deep well in the Cooper Basin.

Strong crude oil production has been maintained in-line with the prior two quarters, with better than expected results from the Watkins field development.

During the quarter, 12 development wells (11 gas and one oil), 11 appraisal wells (five gas and six oil), and two near field exploration wells (one oil and one gas) were drilled. Of the appraisal wells, three gas wells and six oil wells were cased and suspended for testing and support further activity in the areas. Successful near field exploration activities resulted in Raffle North West-1 encountering gas pay in the Permian reservoirs, and was cased and suspended for future production.

A total of 51 wells were drilled in the first-half and the Cooper Basin remains on track to drill more than 100 wells and grow year-on-year production in 2019.

Anna North 1, a gas exploration well drilled in Q4 2018 that intersected gas bearing Toolachee Formation, has delivered a high side test result flowing at a stabilised well test rate of 6.7 mmscf/d on 26/64" choke at 2,290 psi flowing WHP. The well will be connected for production and further assessment of follow-up potential.

Field development planning for the Moomba South project continued during the quarter with a view to taking a final investment decision by year-end. Following the successful appraisal program, Santos expects to make a reserve booking at the end of 2019.

Also during the quarter, two wells were drilled as part of the carbon capture, utilisation and storage (CCUS) program to appraise the potential to inject carbon dioxide from Moomba into the reservoir to enhance oil recovery and ultimately store carbon dioxide. Coring in the two wells was successfully completed and the collected samples are being evaluated in the laboratory.

## Queensland & NSW

Santos share	Units	Q2 2019	Q1 2019	Q2 2018	2019 YTD	2018 YTD
<b>Sales volume</b>						
GLNG Joint Venture						
LNG	000 t	377.5	410.9	382.6	788.5	730.7
Domestic contracts	PJ	4.7	4.6	6.0	9.3	13.0
Eastern Qld (non-GLNG) <sup>1</sup>	PJ	4.6	4.9	4.9	9.5	11.5
<b>Total sales volume<sup>2</sup></b>	<b>mmboe</b>	<b>5.1</b>	<b>5.5</b>	<b>5.5</b>	<b>10.6</b>	<b>11.0</b>
<b>Total sales revenue<sup>2</sup></b>	<b>\$million</b>	<b>227</b>	<b>289</b>	<b>253</b>	<b>516</b>	<b>463</b>
<b>Production</b>						
GLNG Joint Venture						
Sales gas to LNG	PJ	11.7	10.2	10.8	22.0	21.1
Domestic contracts	PJ	1.2	2.1	1.0	3.3	1.9
Eastern Qld (non-GLNG) <sup>1</sup>	PJ	5.4	5.5	5.5	10.9	11.0
NSW	PJ	0.2	0.2	0.2	0.4	0.4
<b>Total production<sup>2</sup></b>	<b>mmboe</b>	<b>3.2</b>	<b>3.1</b>	<b>3.0</b>	<b>6.3</b>	<b>5.9</b>
Capital expenditure	\$million	76	57	63	133	110

<sup>1</sup> Combabula, Scotia (Santos legacy domestic volumes), Spring Gully and Denison.

<sup>2</sup> Total sales volume, sales revenue and production include sales gas from NSW assets.

GLNG operational data (gross)	Units	Q2 2019	Q1 2019	Q2 2018	2019 YTD	2018 YTD
Sales gas to domestic market	PJ	22	19	25	40	48
LNG produced <sup>1</sup>	000 t	1,270	1,307	1,239	2,577	2,456
Sales gas to LNG plant						
GLNG equity gas	PJ	41	37	38	78	71
Santos portfolio gas	PJ	14	14	14	28	29
Third-party	PJ	22	28	23	50	49
<b>Total sales gas to LNG plant</b>	<b>PJ</b>	<b>77</b>	<b>79</b>	<b>75</b>	<b>156</b>	<b>149</b>
LNG cargoes shipped		21	23	21	44	40

<sup>1</sup> Includes LNG produced from GLNG equity gas, Santos portfolio gas and third-party quantities.

Including gas volumes originally slated for export cargoes but diverted to the domestic market by the GLNG partners, first-half LNG-equivalent production was 2.7 million tonnes. Daily LNG-equivalent run-rates of 6 mtpa were achieved during the first half and GLNG remains on track to deliver an LNG-equivalent run-rate of 6 mtpa by year end.

A one-month planned statutory shutdown of GLNG train 1 is scheduled for the third quarter.

Gross GLNG-operated upstream sales gas production increased to 600 TJ/d at the end of the quarter, supported by continued steady production growth from Roma and Scotia.

Gross daily production from Fairview was 410 TJ/day at the end of the quarter. Production continues to be supported by a focussed program of development and well optimisation projects.

Gross daily production from Roma increased to 107 TJ/day at the end of the quarter. Production continues to build, supported by growth in both legacy and new development areas of the field. Drilling continues in the Roma East project with 222 wells drilled and 181 wells online. Production from the project is building in line with expectation as dewatering continues.

Gross daily production from the Scotia field grew to 74 TJ/d at the end of the quarter. Production from the field continues to grow as the reservoir dewateres.

Production from the Arcadia field remained steady. Drilling continues in the Arcadia Valley project with 95 wells drilled and 23 wells online to date. First production to sales from this phase of development is expected on schedule in late 2019.

Santos' share of production from the non-operated Combabula and Spring Gully fields was 41 TJ/day.

102 wells were drilled across the GLNG acreage in the second quarter. This sets a new record for wells drilled in a single quarter across GLNG operations. A total of 189 wells were drilled in the first-half and the drilling pace remains on track to deliver 350-400 wells by year end. Fifty-four development wells were drilled across Santos' non-operated Eastern Queensland acreage in the quarter.

In Eastern Queensland, ATP 2045 (gazettal PLR2018-1-5) was awarded to the Santos (50%, Operator) / Shell (50%) Joint Venture.

In NSW, Santos announced it had signed non-binding memoranda of understanding with Brickworks and Weston Energy for the supply of natural gas from the Narrabri Gas Project. Under the proposed transactions, Santos would supply Brickworks with up to 3 PJ per year of natural gas from Narrabri for seven years from 2025 and Weston Energy with 10 PJ per year for 10 years, commencing no earlier than 2023. The supply of Narrabri gas is subject to a final investment decision, negotiation and execution of a definitive gas supply agreement and approvals by each party.



## PNG

Santos share	Units	Q2 2019	Q1 2019	Q2 2018	2019 YTD	2018 YTD
<b>Sales volume</b>						
PNG LNG						
LNG <sup>1</sup>	000 t	284.0	265.8	203.4	549.7	384.3
Condensate	000 bbls	297.2	389.4	252.1	686.6	502.0
Crude oil	000 bbls	3.6	3.3	1.9	6.9	5.2
<b>Total sales volume</b>	<b>mmboe</b>	<b>3.0</b>	<b>2.9</b>	<b>2.1</b>	<b>5.9</b>	<b>4.1</b>
<b>Total sales revenue</b>	<b>\$million</b>	<b>150</b>	<b>175</b>	<b>115</b>	<b>325</b>	<b>215</b>
<b>Production</b>						
PNG LNG						
Sales gas to LNG <sup>1</sup>	PJ	16.5	17.0	13.3	33.5	23.7
Condensate	000 bbls	330.1	342.5	286.8	672.6	508.1
Crude oil	000 bbls	3.1	3.3	2.2	6.5	4.9
<b>Total production</b>	<b>mmboe</b>	<b>3.2</b>	<b>3.2</b>	<b>2.6</b>	<b>6.4</b>	<b>4.6</b>
Capital expenditure	\$million	13	7	9	20	15

<sup>1</sup>Includes SE Gobe

PNG LNG operational data (gross)	Units	Q2 2019	Q1 2019	Q2 2018	2019 YTD	2018 YTD
<b>Production</b>						
LNG	mt	2.1	2.2	1.6	4.3	2.9
Sales gas to LNG plant	PJ	124	127	99	251	177
Condensate <sup>1</sup>	000 bbls	2,428	2,539	2,125	4,967	3,761
Sales gas (SE Gobe) <sup>2</sup>	PJ	2	2	1	4	4
LNG cargoes shipped		27	29	18	56	38

<sup>1</sup> Measured at the Kutubu entry point.

<sup>2</sup> Purchased by PNG LNG.

Strong performance continued in the second quarter notwithstanding planned plant maintenance in May and June. The LNG plant operated at an annualised rate of 8.4 mtpa during the second quarter and achieved a record daily rate equivalent to 9.25 mtpa annualised in early July.

Pressure build-up monitoring continues at the Muruk-2 appraisal well. As previously reported, results from the drill stem test confirmed the presence of gas in the Toro A reservoir with pressure data and gas composition establishing a likely connection to the Muruk-1 discovery.

In May, Santos announced that it had signed a binding letter of intent to acquire a 14.3% interest (pre-government back-in) in Petroleum Retention Licence 3 (PRL 3), which contains the P'nyang natural gas field in Papua New Guinea. The arrangement marked an important step towards the proposed expansion at the PNG LNG plant via a 2.7 mtpa third LNG train fed by existing Project resources and P'nyang. For further information, refer to Santos' ASX release of 16 May 2019.

## Northern Australia

Santos share	Units	Q2 2019	Q1 2019	Q2 2018	2019 YTD	2018 YTD
<b>Sales volume</b>						
Darwin LNG						
LNG	000 t	53.1	91.3	44.8	144.4	158.3
Bayu Undan						
Condensate	000 bbls	77.1	160.2	44.5	237.3	152.8
LPG	000 t	6.7	7.4	(0.8)	14.0	8.4
<b>Total sales volume</b>	<b>mmboe</b>	<b>0.6</b>	<b>1.1</b>	<b>0.4</b>	<b>1.7</b>	<b>1.7</b>
<b>Total sales revenue</b>	<b>\$million</b>	<b>33</b>	<b>52</b>	<b>28</b>	<b>85</b>	<b>76</b>
<b>Production</b>						
Darwin LNG						
Sales gas to LNG	PJ	2.7	5.1	2.5	7.7	8.8
Bayu Undan						
Condensate	000 bbls	92.5	127.6	34.0	220.1	143.7
LPG	000 t	6.3	6.6	2.5	12.8	9.3
<b>Total production</b>	<b>mmboe</b>	<b>0.6</b>	<b>1.0</b>	<b>0.5</b>	<b>1.6</b>	<b>1.7</b>
Capital expenditure	\$million	12	6	20	17	29

Darwin LNG / Bayu-Undan operational data (gross)	Units	Q2 2019	Q1 2019	Q2 2018	2019 YTD	2018 YTD
<b>Production</b>						
LNG	000 t	620	940	540	1,560	1,487
Sales gas to LNG plant	PJ	38	57	34	94	91
Condensate	000 bbls	1,652	1,529	535	3,181	1,539
LPG	000 t	81	77	32	158	95
LNG cargoes shipped		9	14	9	23	24

Sales and production volumes were lower than the prior quarter due to the shipping schedule and planned maintenance activities at Darwin LNG.

On 9 May, Santos announced that the Barossa project had strengthened its position as the leading candidate for Darwin LNG backfill with the award of the Subsea Production System (SPS) contract. Following a competitive tender, Technip Oceania Pty Ltd was the successful bidder to supply the SPS. The Engineering, Procurement and Construction (EPC) contract represents a commitment to long-lead items in advance of a final investment decision expected in early 2020. Evaluation of all the other major tenders for the FPSO, gas export pipeline, subsea umbilical riser and flowline package, and drilling rig is also progressing well.

Santos also announced that the Barossa Joint Venture had entered into exclusive negotiations with the Darwin LNG Joint Venture for the supply of backfill gas. The arrangement gives the Barossa JV an exclusive commercial negotiation period to reach a processing services agreement as well as settle on a tariff.

The wildcat Dukas-1 exploration well targeting a conventional sub-salt play in the Amadeus Basin, spudded on 16 April and was drilling ahead at the end of the quarter.

Approvals from Northern Territory regulatory authorities for the planned McArthur Basin drilling campaign are progressing. The program is likely to comprise a single well in 2019 which will drill horizontally through the Velkerri shale objective. Subject to regulatory approvals, the well is planned to spud in the third quarter.

## Corporate, exploration and eliminations

Santos share	Units	Q2 2019	Q1 2019	Q2 2018	2019 YTD	2018 YTD
<b>Total sales volume</b>	<b>mmboe</b>	<b>0.9</b>	<b>1.2</b>	<b>1.3</b>	<b>2.1</b>	<b>2.5</b>
<b>Total sales revenue</b>	<b>\$million</b>	<b>42</b>	<b>55</b>	<b>62</b>	<b>97</b>	<b>123</b>
Capital expenditure	\$million	20	4	9	24	23

Sales volumes and revenues in the corporate segment primarily represent gas trading activities.

Capital expenditure was higher than the prior quarter primarily due to the drilling of the Dukas-1 exploration well in the Amadeus Basin, onshore Northern Territory.

## Capital expenditure

Total exploration, evaluation and development expenditure is summarised in the table below.

\$million	Q2 2019	Q1 2019	Q2 2018	2019 YTD	2018 YTD
<b>Capital expenditure</b>					
Exploration <sup>1</sup>	12	19	21	32	38
Evaluation	86	15	11	100	23
Development and other capex (inc restoration)	172	143	135	315	245
<b>Capital expenditure excl capitalised interest</b>	<b>270</b>	<b>177</b>	<b>167</b>	<b>447</b>	<b>306</b>
Capitalised interest	2	2	2	4	3
<b>Total capital expenditure<sup>1</sup></b>	<b>272</b>	<b>179</b>	<b>169</b>	<b>451</b>	<b>309</b>
<b>Exploration and evaluation expensed</b>					
Exploration	17	7	19	24	36
Evaluation	-	3	6	3	9
<b>Total current year expenditure</b>	<b>17</b>	<b>10</b>	<b>25</b>	<b>27</b>	<b>45</b>
Write-off of amounts capitalised in prior years	-	-	-	-	-
<b>Total expensed</b>	<b>17</b>	<b>10</b>	<b>25</b>	<b>27</b>	<b>45</b>

<sup>1</sup> Includes acquisition of exploration assets

## Seismic activity

The table below details seismic activity during the quarter and status.

Permit	Basin/area	Survey	Type	km/km <sup>2</sup>	Status
WA437P, WA438P	Bedout, WA	Keraudren	3D	3,090 km <sup>2</sup>	61% complete
ATP2017	Bowen, Qld	Tinowon	2D	30 km	22% complete

## Drilling summary

### Exploration activity

#### Northern Australia

Well name	Basin/area	Santos	Well status
Dukus 1ST1	Amadeus	40%	Drilling

### Near-field exploration (NFE) / Appraisal wells

#### Cooper Basin oil

Well name	Basin/area	Santos	Well status
Tennaperra 6	QLD	70%	C&S, successful
Watson North 2	QLD	55.5%	C&S, successful
Watson North 3	QLD	55.5%	C&S, successful
Bankhead 1	SA	66.6%	P&A
Charo 17	SA	66.6%	C&S, successful
Gidgealpa 62	SA	66.6%	C&S, successful
Gidgealpa 63	SA	66.6%	C&S, successful

#### Cooper Basin gas

Well name	Basin/area	Santos	Well status
Dunadoo 2	QLD	60.06%	C&S, successful
Durham Downs 11	QLD	60.06%	C&S, successful
Raffle North West 1	QLD	60.06%	C&S, successful
Bookabourdie 12	SA	66.6%	P&A
Namur 18	SA	66.6%	C&C, successful
Taylor South 2	SA	66.6%	P&A

#### Papua New Guinea gas

Well name	Basin/area	Santos	Well status
Muruk 2#**	Southern Highlands PNG	10%***	P&A, successful appraisal

#### Western Australia gas

Well name	Basin/area	Santos	Well status
Corvus 2*	Carnarvon	100%	P&A, successful appraisal
Dorado 2	Bedout	80%	P&A, successful appraisal
Roc South 1	Bedout	80%	P&A

# Not operated by Santos

\* Spud in Q1, completed in Q2

\*\* Spud in Q4, completed in Q2

\*\*\* Muruk-2 was drilled in PDL 9. Santos holds a 10% economic interest in any Muruk hydrocarbons located in PDL 9 and is funding a corresponding share of the appraisal well.

### Development wells

#### Cooper Basin oil

Well name	Basin/area	Santos	Well status
Cocinero 10	QLD	55%	C&C, successful

#### Cooper Basin gas

Well name	Basin/area	Santos	Well status
Durham Downs 10	QLD	60.06%	P&A
Durham Downs North 7	QLD	60.06%	C&S, successful
Coopers Creek 4	SA	66.6%	C&C, successful
Coopers Creek 5	SA	66.6%	C&C, successful oil & gas
Dullingari North 22*	SA	66.6%	C&C, successful
Gidgealpa 64	SA	66.6%	C&S, successful
Munkarie 11	SA	66.6%	C&C, successful
Namur 16	SA	66.6%	C&C, successful
Namur 17	SA	66.6%	C&C, successful
Namur 19	SA	66.6%	C&C, successful
Nanima 2	SA	66.6%	C&C, successful
Strzelecki 33	SA	66.6%	C&C, successful

#### Queensland - GLNG gas

Well name	Basin/area	Santos	Well status
AC18-51-1	Arcadia	30%	C&S, successful
AC18-56-1	Arcadia	30%	C&S, successful
AC18-57-1	Arcadia	30%	C&S, successful
AC18-58-1	Arcadia	30%	C&S, successful
AC18-65-1	Arcadia	30%	C&S, successful
AC18-66-1	Arcadia	30%	C&S, successful
AC18-69-1	Arcadia	30%	C&S, successful
AC18-70-1	Arcadia	30%	C&S, successful
AC18-97-6	Arcadia	30%	C&S, successful
AC18-97-7	Arcadia	30%	C&S, successful
AC18-97-8	Arcadia	30%	C&S, successful
AC23-31-1	Arcadia	30%	C&S, successful
Castle Hill 6	Arcadia	30%	C&S, successful
Castle Hill 9	Arcadia	30%	C&S, successful
Castle Hill 10	Arcadia	30%	C&S, successful
Castle Hill 11	Arcadia	30%	C&S, successful
Castle Hill 15	Arcadia	30%	C&S, successful

Castle Hill 16	Arcadia	30%	C&S, successful	RM68-08-1	Roma	30%	C&S, successful
Castle Hill 17	Arcadia	30%	C&S, successful	RM68-13-1	Roma	30%	C&S, successful
Castle Hill 20	Arcadia	30%	C&S, successful	RM68-18-1	Roma	30%	C&S, successful
Castle Hill 21	Arcadia	30%	C&S, successful	RM68-19-1	Roma	30%	C&C, successful
Mount Kingsley 12	Arcadia	30%	C&S, successful	RM68-23-1	Roma	30%	C&S, successful
Mount Kingsley 13	Arcadia	30%	C&S, successful	RM68-24-1	Roma	30%	C&S, successful
FV11-59-21*	Fairview	23.85%	C&C, successful	RM68-25-1	Roma	30%	C&S, successful
FV11-63-1	Fairview	23.85%	C&S, successful	RM68-29-1	Roma	30%	C&S, successful
FV11-74-21	Fairview	23.85%	C&C, successful	RM68-30-1	Roma	30%	C&S, successful
FV11-89-1	Fairview	23.85%	C&C, successful	RM68-33-1	Roma	30%	C&S, successful
FV11-90-1	Fairview	23.85%	C&C, successful	RM68-34-1	Roma	30%	C&S, successful
FV11-91-1	Fairview	23.85%	C&C, successful	RM68-35-1	Roma	30%	C&S, successful
FV12-35-1	Fairview	23.85%	C&S, successful	RM68-46-1	Roma	30%	C&S, successful
FV12-76-1	Fairview	23.85%	C&C, successful	RM68-55-1	Roma	30%	C&S, successful
FV12-77-1	Fairview	23.85%	C&S, successful	RM68-56-1	Roma	30%	C&S, successful
FV12-78-1	Fairview	23.85%	C&S, successful	RM68-64-1	Roma	30%	C&S, successful
FV12-79-1	Fairview	23.85%	C&S, successful	RM68-65-1	Roma	30%	C&S, successful
FV12-80-1	Fairview	23.85%	C&S, successful	RM68-72-1	Roma	30%	C&S, successful
FV12-83-1	Fairview	23.85%	C&S, successful	RM68-73-1	Roma	30%	C&S, successful
FV12-83-1DW1	Fairview	23.85%	C&S, successful	RM68-74-1	Roma	30%	C&C, successful
FV12-90-1	Fairview	23.85%	C&S, successful	RM68-75-1	Roma	30%	C&S, successful
RM40-143-1	Roma	30%	C&S, successful	RM68-76-1	Roma	30%	C&S, successful
RM40-144-1	Roma	30%	C&S, successful	RM68-86-1	Roma	30%	C&C, successful
RM40-145-1	Roma	30%	C&S, successful	RM68-88-1	Roma	30%	C&C, successful
RM40-146-1	Roma	30%	C&S, successful	RM68-98-1	Roma	30%	C&C, successful
RM40-147-1	Roma	30%	C&S, successful	RM68-99-1	Roma	30%	C&C, successful
RM40-148-1	Roma	30%	C&S, successful	RM68-109-1	Roma	30%	C&C, successful
RM40-149-1	Roma	30%	C&S, successful	RM68-117-1	Roma	30%	C&C, successful
RM40-150-1	Roma	30%	C&S, successful	RM68-120-1	Roma	30%	C&C, successful
RM40-151-1	Roma	30%	C&S, successful	RM68-138-1	Roma	30%	C&C, successful
RM40-152-1	Roma	30%	C&S, successful	RM68-141-1	Roma	30%	C&C, successful
RM49-125-1	Roma	30%	C&C, successful	RM68-150-1	Roma	30%	C&C, successful
RM49-136-1	Roma	30%	C&C, successful	RM68-151-1	Roma	30%	C&S, successful
RM49-145-1	Roma	30%	C&C, successful				
RM50-78-1	Roma	30%	C&C, successful				
RM50-79-1	Roma	30%	C&C, successful				
RM50-80-1	Roma	30%	C&C, successful				
RM50-89-1	Roma	30%	C&C, successful				
RM50-90-1	Roma	30%	C&C, successful				
RM50-91-1	Roma	30%	C&C, successful				
RM50-95-1	Roma	30%	C&S, successful				
RM50-96-1	Roma	30%	C&S, successful				
RM50-99-1	Roma	30%	C&C, successful				
RM50-100-1	Roma	30%	C&C, successful				
RM50-105-1	Roma	30%	C&S, successful				
RM50-108-1	Roma	30%	C&S, successful				
RM50-109-1	Roma	30%	C&S, successful				
RM50-119-1	Roma	30%	C&S, successful				
RM50-129-1	Roma	30%	C&S, successful				
RM50-130-1	Roma	30%	C&S, successful				
RM50-131-1	Roma	30%	C&S, successful				
RM68-07-1	Roma	30%	C&S, successful				

### Queensland - Eastern Queensland gas (EQ)

Well name	Basin/area	Santos	Well status
Combabula 341 <sup>#</sup>	Combabula	7.28%	C&S, successful
Combabula 342 <sup>#</sup>	Combabula	7.28%	C&S, successful
Combabula 361 <sup>#</sup>	Combabula	7.28%	C&S, successful
Combabula 367 <sup>#</sup>	Combabula	7.28%	C&S, successful
Combabula 385 <sup>#</sup>	Combabula	7.28%	C&S, successful
Combabula 386 <sup>#</sup>	Combabula	7.28%	C&S, successful
Combabula 405 <sup>#</sup>	Combabula	7.28%	C&S, successful
Combabula 406 <sup>#</sup>	Combabula	7.28%	C&S, successful
Combabula 407 <sup>#</sup>	Combabula	7.28%	C&S, successful
Combabula 408 <sup>#</sup>	Combabula	7.28%	C&S, successful
Combabula 409 <sup>#</sup>	Combabula	7.28%	C&S, successful
Combabula 410 <sup>#</sup>	Combabula	7.28%	C&S, successful
Combabula 411 <sup>#</sup>	Combabula	7.28%	C&S, successful
Combabula 413 <sup>#</sup>	Combabula	7.28%	C&S, successful
Combabula 427 <sup>#</sup>	Combabula	7.28%	C&S, successful
Combabula 428 <sup>#</sup>	Combabula	7.28%	C&S, successful

Combabula 429 <sup>#</sup>	Combabula	7.28%	C&S, successful
Combabula 430 <sup>#</sup>	Combabula	7.28%	C&S, successful
Combabula 432 <sup>#</sup>	Combabula	7.28%	C&S, successful
Combabula 435 <sup>#</sup>	Combabula	7.28%	C&S, successful
Combabula 436 <sup>#</sup>	Combabula	7.28%	C&S, successful
Combabula 478 <sup>#</sup>	Combabula	7.28%	C&S, successful
Combabula 479 <sup>#</sup>	Combabula	7.28%	C&S, successful
Combabula WB02 <sup>#</sup>	Combabula	7.28%	Drilling
Reedy Creek 76 <sup>#</sup>	Combabula	7.28%	C&S, successful
Reedy Creek 77 <sup>#</sup>	Combabula	7.28%	C&S, successful
Reedy Creek 86 <sup>#</sup>	Combabula	7.28%	C&S, successful
Reedy Creek 106 <sup>#</sup>	Combabula	7.28%	C&S, successful
Reedy Creek 107 <sup>#</sup>	Combabula	7.28%	C&S, successful
Reedy Creek 108 <sup>#</sup>	Combabula	7.28%	C&S, successful
Reedy Creek 137 <sup>#</sup>	Combabula	7.28%	C&S, successful
Reedy Creek 138 <sup>#</sup>	Combabula	7.28%	C&S, successful
Reedy Creek 139 <sup>#</sup>	Combabula	7.28%	C&S, successful
Reedy Creek 140 <sup>#</sup>	Combabula	7.28%	C&S, successful
Reedy Creek 141 <sup>#</sup>	Combabula	7.28%	C&S, successful
Reedy Creek 142 <sup>#</sup>	Combabula	7.28%	C&S, successful
Reedy Creek 146 <sup>#</sup>	Combabula	7.28%	C&S, successful
Reedy Creek 165 <sup>#</sup>	Combabula	7.28%	C&S, successful
Reedy Creek 166 <sup>#</sup>	Combabula	7.28%	C&S, successful
Reedy Creek 167 <sup>#</sup>	Combabula	7.28%	C&S, successful
Reedy Creek 168 <sup>#</sup>	Combabula	7.28%	C&S, successful
Reedy Creek 169 <sup>#</sup>	Combabula	7.28%	C&S, successful
Reedy Creek 196 <sup>#</sup>	Combabula	7.28%	C&S, successful
Reedy Creek 197 <sup>#</sup>	Combabula	7.28%	C&S, successful
Reedy Creek 201 <sup>#</sup>	Combabula	7.28%	C&S, successful
Reedy Creek 229 <sup>#</sup>	Combabula	7.28%	C&S, successful
Reedy Creek 232 <sup>#</sup>	Combabula	7.28%	C&S, successful
Reedy Creek 280 <sup>#</sup>	Combabula	7.28%	C&S, successful
Reedy Creek 281 <sup>#</sup>	Combabula	7.28%	C&S, successful
Reedy Creek 288 <sup>#</sup>	Combabula	7.28%	C&S, successful
Reedy Creek 289 <sup>#</sup>	Combabula	7.28%	C&S, successful
Durham Ranch 860 <sup>**</sup>	Spring Gully	4%	C&S, successful
Durham Ranch 901 <sup>#</sup>	Spring Gully	4%	Drilling
Durham Ranch 905 <sup>#</sup>	Spring Gully	4%	C&S, successful
Durham Ranch 907 <sup>#</sup>	Spring Gully	4%	C&S, successful

<sup>#</sup> Not operated by Santos

\* Spud in Q1, completed in Q2

## Abbreviations and conversion factors

Abbreviations		Conversion factors	
C&C	cased and completed	Sales gas and ethane, 1 PJ	171.937 boe x 10 <sup>3</sup>
C&S	cased and suspended	Crude oil, 1 barrel	1 boe
gas	coal seam gas	Condensate, 1 barrel	0.935 boe
DES	delivered ex ship	LPG, 1 tonne	8.458 boe
FPSO	floating production, storage and offloading	LNG, 1 PJ	18,040 tonnes
GJ	Gigajoules	LNG, 1 tonne	52.54 mmBtu
kbbls	thousand barrels		
kt	thousand tonnes		
LNG	liquefied natural gas		
LPG	liquefied petroleum gas		
m	Million		
mmbbl	million barrels		
mmboe	million barrels of oil equivalent		
mmBtu	million British thermal units		
mmscf	million standard cubic feet		
mt	million tonnes		
mtpa	million tonnes per annum		
NFE	near-field exploration		
P&A	plugged and abandoned		
pa	per annum		
PJ	petajoules		
PSC	production sharing contract		
t	tonnes		
TJ	terajoules		

## Disclaimer

This report contains forward looking statements that are subject to risk factors associated with the oil and gas industry. It is believed that the expectations reflected in these statements are reasonable, but they may be affected by a range of variables which could cause actual results or trends to differ materially, including but not limited to: price fluctuations, actual demand, currency fluctuations, geotechnical factors, drilling and production results, gas commercialisation, development progress, operating results, engineering estimates, reserve estimates, loss of market, industry competition, environmental risks, physical risks, legislative, fiscal and regulatory developments, economic and financial markets conditions in various countries, approvals and cost estimates.

All references to dollars, cents or \$ in this document are to United States currency, unless otherwise stated.