

*FPSO P-75 in Búzios field  
1<sup>st</sup> oil in November 2018*



## Production & Sales Report 2Q19

## Production and sales highlights in 2Q19

**Rio de Janeiro, July 25<sup>th</sup>, 2019** – We had a solid operating performance in 2Q19, especially in the pre-salt fields, which accounted for 57% of our oil production. In May, we completed ten years of pre-salt production in the Santos Basin, with efficiency and productivity indicators above the offshore industries average. In just one decade, the accumulated operated production (Petrobras plus partners) in the Santos Basin pre-salt reached 2.5 billion boe, a significant volume, which corresponds to all proven reserves in Argentina, for example.

The unique features of the Santos Basin pre-salt, such as the location in ultra-deep waters, the 2 km thick salt layer and the 300 km distance from the coast, were an unprecedented challenge in the oil and gas industry. Ten years after Tupi's first oil, we not only developed unprecedented solutions to overcome pre-salt challenges by employing the highest technical expertise, but we also proved its economic viability and set a sequence of records.

Oil, NGL and natural gas production reached 2,633 kboed in 2Q19, 3.8% up on 1Q19. Pre-salt production increased by 12.7%, reaching 1,168 kboed in 2Q19. However, production in the post-salt fields decreased by 4.1% from 730 kbpd in 1Q19 to 700 kbpd in 2Q19, mainly due to the definitive shutdown of production on platforms P-33 and P-37. Shallow water and onshore production, which is the focus of our active portfolio management, decreased by 10% compared to 1Q19.

Pre-salt growth is due to the ramp-up of platforms that started-up in 2018 and 2019. These platforms, whose production capacities total 1.05 MMbpd (952 kbpd attributable to Petrobras), contributed with 436 kboed in 2Q19.

Despite the growth perspective, which will materialize with the continued ramp-up of newly installed pre-salt platforms, production volumes were lower than expected in 2Q19.

Our commitment to transparency and respect for investors obliges us to revise our production target for 2019. We have changed our year target from 2.8 MMboed to 2.7 MMboed plus or minus 2.5%. The projected oil production is 2.1 MMbpd with a variation of plus or minus 2.5%. The revised target is supported by the resolution of commissioning problems in the Buzios platforms gas plants, which already resulted in an operational improvement in July, with average production returning to 2.7 MMboed, and by the replanning of operational efficiency and the scheduling of wells start-up in Búzios, based on the results obtained so far.

In relation to refining segment, oil products output increased in 2Q19 by 1.4% over the first quarter as a result of lower maintenance, higher domestic demand for oil products and higher availability of conversion units. It is important to highlight that, associated with the increase in production, there was an improvement in the profile of oil products output, with a higher share of diesel, jet fuel and gasoline in total production. We also highlight, as part of the movement to develop new markets and add value to pre-salt oil exports, the opening of a crude oil tanking capacity at Qingdao

Port in China's Shandong province. The choice of location is strategic: in 2019 China was the destination of approximately 75% of the volume of crude oil we export, most of which is destined for independent refiners from Shandong and surrounding regions. Through this initiative, we seek to solidify our presence in the promising Chinese market, one more step in the journey towards diversification of our oil sales.

### Main highlights:

- In 2Q19, operated pre-salt production reached a new monthly record of 2.07 MMboed and a new daily record of 2.21 MMboed at the end of June. Production attributable to Petrobras in this fields reached monthly and daily records of 1.49 MMboed and 1.58 MMboed, respectively. In early July, operated production set a new daily record of 2.30 MMboed in the pre-salt fields.
- In 2Q19, the pre-salt fields accounted for 57% of Petrobras' oil production.
- The 7 new systems that started-up in 2018 and 2019 in the Buzios and Lula pre-salt fields, and the Tartaruga Verde post-salt field, reached 553 kbpd operated production on June 26<sup>th</sup>.
- In July, P-74 reached 161 kbpd production, exceeding the project's original capacity of 150 kbpd.
- In 2Q19, oil products sales increased 0.5% in the brazilian market compared to 1Q19, led by diesel sales, which increased by 4.9%.
- Oil products output and utilization factor increased in 2Q19, following the increase in domestic sales and seasonality of diesel demand. There was also an improvement in the production profile compared to 1Q19 due to the higher availability of refining plant conversion units.
- In 2Q19, diesel imports were reduced by almost one third compared to the previous quarter. As a result, the 4.9% increase in 2Q19 (a growth of 34 kbpd) in domestic diesel sales was met with our own production (5.9% increase).

## 1 – Oil and gas production

Thousand barrels of oil equivalent per day (kboed)	2Q19	1Q19	2Q18	1H19	1H18	Variation (%)		
						2Q19/ 1Q19	2Q19/ 2Q18	1H19/ 1H18
Crude oil, NGL and natural gas - Brazil	2,553	2,461	2,563	2,507	2,573	3.7	-0.4	-2.6
Crude oil and NGLs (Kbpd)	2,052	1,971	2,063	2,012	2,074	4.1	-0.5	-3
Onshore	122	129	136	126	139	-5.6	-10.4	-9.6
Shallow water	62	76	95	69	93	-17.8	-34.2	-25.9
Post-salt - deep and ultra deep	700	730	840	715	864	-4.1	-16.7	-17.2
Pre-salt	1,168	1,036	992	1,102	978	12.7	17.7	12.7
Natural gas (Kboed)	500	489	500	495	498	2.2	0.2	-0.7
Crude oil, NGL and natural gas - abroad	81	78	96	79	97	4.1	-16.2	-18.7
<b>Total (kboed)</b>	<b>2,633</b>	<b>2,538</b>	<b>2,659</b>	<b>2,586</b>	<b>2,670</b>	<b>3.8</b>	<b>-1.0</b>	<b>-3.1</b>

Oil, NGL and natural gas production was 2,633 kboed in 2Q19, an increase of 3.8% over 1Q19 (2,538 kboed), mainly due to the ramp-up of pre-salt platforms that started-up in 2018 and 2019 in Buzios (P-74, P-75, P-76 and P-77) and Lula fields (P-67 and P-69). Compared to 2Q18, despite the above-mentioned ramp-up, production was flat due to (i) the sale of 25% of the Roncador field and Petrobras America's assets, which resulted in a 72 kboed production reduction; (ii) the maintenance shutdowns; and (iii) the production decline of post-salt fields.

Despite the increase in production compared to 1Q19, the results were lower than initially expected for 2Q19, mainly due to the difficulties faced in June with the stabilization of the gas plants of the new Buzios production systems due to their greater complexity (larger gas plants, with more equipment and systems, handling large volumes of H<sub>2</sub>S and CO<sub>2</sub>, and greater degree of automation reaching 20,000 control points). As a result, the commissioning time of the gas plants has been longer than the one achieved on the platforms installed in the Lula field. These factors caused the postponement of new producing wells, resulting in a production of 180 kboed in Buzios field, below the forecast in June. In addition, there was an unplanned 14-day shutdown at FPSO Cidade de Mangaratiba in the Lula field to correct the gas dehydration system, which impacted June production in 60 kboed.

In keeping our commitment to transparency, we have changed our production target for the year from 2.8 MMboed to 2.7 MMboed plus or minus by 2.5%. The projected oil production is 2.1 MMbpd with a variation of plus or minus 2.5%. The revised target is supported by the resolution of the previously mentioned problems, which already resulted in an operational improvement in July, with average production returning to 2.7 MMboed level, and by the replanning of operational efficiency and the scheduling of wells start-up in Búzios.

It is noteworthy that all wells needed for the ramp-up of the new platforms are already drilled and the necessary resources (such as rigs, supply vessels, flowlines and subsea equipment) for commissioning are available. In addition, in July, the P-74 platform produced 161 Kbpd, which is higher than the project's original capacity of 150 Kbpd, after adjustments to the plant parameters, allowing the best use of the high potential of Buzios wells.

In 2Q19, operated pre-salt production reached a new monthly record of 2.07 MMboed, in addition to a new daily record of 2.21 MMboed at the end of June. The production attributable to Petrobras in this fields reached the monthly and daily records of 1.49 MMboed and 1.58 MMboed, respectively. Our pre-salt oil production continues to grow, registering a 12.7% increase over the previous quarter, mainly due to the ramp-up of new platforms, which contributed with 170 Kboed. With this increase in production, the pre-salt fields accounted for 57% of total oil production in 2Q19, while in 2Q18 it accounted for 48%.

This increase of the pre-salt share in the portfolio is in line with our strategy of focusing efforts on assets that generate the highest return for our shareholders. The deployment and good performance of the new platforms (whether the newly installed or those expected to start-up, like P-68 in 2019 and P-70 in 2020) are critical for next years' production growth and our team is 100% committed to executing this strategy.

Post-salt oil production decreased by 4.1%, from 730 Kbpd in 1Q19 to 700 Kbpd in 2Q19, mainly due to the definitive shutdown of the P-33 and P-37 platforms (which ended their production cycle and will be replaced by new platforms that will be part of the revitalization of the Marlim field), as well as the production decline of the fields. Compared to the same period of last year, post-salt oil production decreased by 16.7%, mainly due to maintenance shutdowns, production decline of the fields and the sale of 25% of the Roncador field (36 Kboed). We highlight our efforts to reduce the decline in the Campos Basin, with the acquisition of new exploration areas, complementary development, Marlim revitalization and strategic partnership to increase the recovery factor, totaling investments of US \$ 21 billion by 2019-23.

Onshore fields totaled 122 Kbpd in 2Q19, in line with 1Q19 and 2Q18. Those fields are included in the company's portfolio optimization processes.

In shallow waters, non-core assets to be divested, oil production was 62 Kbpd, down 17.8% from 1Q19 and 34.2% from 2Q18. This drop was due to the definitive production shutdown of the P-9 and PNA-1 platforms, which ended their production cycle after more than 38 years.

Divestments of mature fields that have low productivity and high lifting cost help to improve the allocation of capital, thereby increasing value generation. At the same time, they enable us to deleverage and reduce our cost of capital.

## 2 - Refining

kbpd	2Q19	1Q19	2Q18	1H19	1H18	Variation (%)		
						2Q19/1Q19	2Q19/2Q18	1H19/1H18
Total production volume	1,765	1,740	1,841	1,753	1,760	1.4	4.1	-0.4
Total sales volume	1,745	1,737	1,791	1,741	1,719	0.5	-2.6	1.3
Reference feedstock	2,176	2,176	2,176	2,176	2,176	-	-	-
Refining plants utilization factor (%)	76	75	81	76	76	1.3	-6.2	-
Processed feedstock (excluding LNG)	1,665	1,638	1,752	1,651	1,661	1.6	-5.0	-0.6
Processed feedstock	1,707	1,674	1,810	1,690	1,717	2.0	-5.7	-1.6
Domestic crude oil as % of total	89	92	93	90	94	-3.3	-4.3	-4.3

Production in 2Q19 reached 1,765 kbpd, which represents an increase of 1.4% over 1Q19, due to the lower maintenance associated with higher demand for oil products in the Brazilian market, especially diesel. It is also important to highlight that the higher availability of the conversion units (coking and catalytic cracking) in 2Q19, in addition to enabling increased production, provided an improvement in the profile of oil products produced, i.e. the share of diesel, jet fuel and gasoline, fuels that have positive crack spread in the total production increased from 68% in 1Q19 to 69% in 2Q19. We also emphasize that due to the growth in demand and availability of conversion units it was possible to increase the utilization factor of the distillation units (from 75% in 1Q19 to 76% in 2Q19).

### 2.1- Diesel

thousand barrels per day (kbpd)	2Q19	1Q19	2Q18	1H19	1H18	Variation (%)		
						2Q19/1Q19	2Q19/2Q18	1H19/1H18
Production volume	720	680	749	700	687	5.9	-3.9	1.9
Sales volume for the Brazilian market	732	698	709	715	648	4.9	3.3	10.5

The higher availability of conversion units in 2Q19 enabled the 5.9% increase in diesel production compared to 1Q19, recovering from higher maintenance in coking units in several refineries in 1Q19 and from the accident occurred at the Paulínia Refinery (REPLAN) that impacted January 2019's production. This growth allowed us to fully meet the increase in demand, consequently reducing diesel imports in the period. Compared to the previous year, the 3.9% decrease was due to the lower availability of the refining system as a consequence of the higher maintenance, especially in hydrotreating, cracking and coking units.

Diesel sales increased by 4.9% in 2Q19 over 1Q19 due to market seasonality. As a mitigating factor, sales by other competitors increased in 2Q19 causing our market share to drop from 84.2% to 82.7%. Sales growth of 3.3% compared to 2Q18 was driven by the demand expansion associated with competitive prices. Also noteworthy was the truckers' strike in May 2018, which negatively impacted demand and deliveries in 2Q18. These factors were partially offset by a slight

increase in product placement by third parties and lower consumption in infrastructure works. Market share remained stable in relation to the same period of the previous year, dropping from 83.2% to 82.7%.

## 2.2 - Gasoline

thousand barrels per day (kbpd)	2Q19	1Q19	2Q18	1H19	1H18	Variation (%)		
						2Q19/1Q19	2Q19/2Q18	1H19/1H18
Production volume	388	391	411	389	405	-0.8	-5.6	-4.0
Sales volume for the Brazilian market	367	385	419	376	408	-4.7	-12.4	-7.8

In 2Q19, gasoline production was flat compared to 1Q19 and reduced relative to 2Q18 was a consequence of lower demand for the product in the market.

Domestic sales in 2Q19 were lower than in 1Q19 due to the increased competitiveness of hydrated ethanol relative to gasoline, as a result of the beginning of the sugarcane crop in the south-central region, which results in lower ethanol prices, favoring its consumption in some states. Imports by third parties remained at a similar level between the quarters, leading to a reduction in market share from 80.4% to 79.7%. Compared to 2Q18, the decrease of 12.4% was mainly due to the loss of gasoline participation for hydrated ethanol in flex vehicles, with a decrease in the average price relationship between hydrated ethanol and gasoline, favoring the consumption of sugarcane products. Additionally, there was an increase in imports by third parties, a reduction in the fleet of gasoline-powered vehicles and an increase in engine efficiency in the total fleet, causing the market share to drop from 84.3% in 2Q18 to 79.7% in 2Q19.

## 2.3 – Fuel oil

thousand barrels per day (kbpd)	2Q19	1Q19	2Q18	1H19	1H18	Variation (%)		
						2Q19/1Q19	2Q19/2Q18	1H19/1H18
Production volume	176	198	189	187	185	-11.1	-6.9	1.1
Sales volume for the Brazilian market	38	45	35	42	42	-15.0	10.4	-1.0

Fuel oil production decreased by 11.1% in 2Q19 compared to 1Q19, due to the higher utilization of conversion units (higher availability of coking and catalytic cracking units) and the drop in fuel oil sales to thermoelectric plants. Compared to 2Q18, the decrease was 6.9% due to the lower availability of the refining system as a result of higher maintenance.

Fuel oil sales to the Brazilian market were 38kbpd, a reduction of 15.0% relative to 1Q19, due to lower thermoelectric dispatch, due to the improved hydrological scenario in 2Q19. The positive seasonality in manufacturing industry output mitigated the drop in sales. Compared to 2Q18 there was a 10.4% increase in sales as a result of the higher level of deliveries to the industrial

segment. There was also an increase in fuel oil deliveries to thermoelectric plants compared to the same period of 2018, to preserve water reservoirs, even with higher wind and solar generation.

## 2.4- Naphtha

thousand barrels per day (kbpd)	2Q19	1Q19	2Q18	1H19	1H18	Variation (%)		
						2Q19/1Q19	2Q19/2Q18	1H19/1H18
Production volume	82	70	65	76	62	17.1	26.2	22.6
Sales volume for the Brazilian market	85	91	91	88	94	-5.7	-6.4	-6.7

Naphtha production increased 17.1% over 1Q19 due to the higher processing of imported light oil and condensate. Compared to 2Q18, production increased by 26.2%, causing a reduction in naphtha imports to serve the Brazilian market.

In 2Q19, naphtha sales were 85 kbpd, a 5.7% decrease compared to 1Q19 due to the maintenance connecting TEMADRE to the Landulpho Alves Refinery (RLAM) and the smaller naphtha demand from Braskem due to the stoppage of the Alagoas plant. In addition to these factors, thefts in pipelines in the São Paulo region contributed to a 6.4% drop against 2Q18.

## 2.5- Liquefied petroleum gas (LPG)

thousand barrels per day (kbpd)	2Q19	1Q19	2Q18	1H19	1H18	Variation (%)		
						2Q19/1Q19	2Q19/2Q18	1H19/1H18
Production volume	122	118	129	120	126	3.4	-5.4	-4.8
Sales volume for the Brazilian market	232	215	238	224	228	8.1	-2.4	-1.8

LPG production increased 3.4% in 2Q19 compared to 1Q19, due to a larger market and the higher utilization of conversion units, mainly catalytic cracking units. There was a 5.4% reduction compared to 2Q18 due to lower demand in 2Q19.

LPG sales increased 8.1% compared to 1Q19 mainly due to lower average temperatures and seasonality of LPG consumption due to higher economic activity in the period. Compared to 2Q18, there was a decrease of 2.4% mainly due to the higher average temperatures in 2Q19.

## 2.6- Jet fuel

thousand barrels per day (kbpd)	2Q19	1Q19	2Q18	1H19	1H18	Variation (%)		
						2Q19/1Q19	2Q19/2Q18	1H19/1H18
Production volume	105	113	113	109	117	-7.1	-7.1	-6.8
Sales volume for the Brazilian market	114	126	118	120	120	-9.7	-3.2	0.2

In 2Q19, jet fuel production volume was 7.1% lower following the reduction in demand for the product. On the other hand, the optimization of operations allowed the increase of diesel production. Compared to 2018, the drop in production was 7.1% due to lower demand.

In 2Q19, jet fuel sales decreased by 9.7% due to seasonality of demand, which was stronger in 1Q19 due to the holiday and carnival period. In addition, we highlight a reduction in growth in the airline industry as a result of recent adjustments in the sector, driven by the increase in airline costs due to the devaluation of the real against the dollar and the increase in the international price of fuel oil. Compared to 2Q18, the decrease was 3.2% as a result of the adjustment in the airline industry and currency devaluation.

### 3- Gas & Power

	2Q19	1Q19	2Q18	1H19	1H18	Variation (%)		
						2Q19/1Q19	2Q19/2Q18	1H19/1H18
Thermal availability - Average MW	2,788	2,788	2,788	2,788	2,788	-	-	-
Contract sales - Average MW	1,194	1,152	1,275	1,173	1,289	3.6	-6.4	-9.0
Generation of electricity - average MW	975	2,406	2,248	1,686	2,108	-59.5	-56.6	-20.0
Settlement price of the differences - R\$ / MWh	131	285	303	208	250	-54.0	-56.8	-16.8
National gas delivery (MM m <sup>3</sup> / day)	49	51	51	50	51	-3.9	-3.9	-2.0
Regasification of liquefied natural gas (MM m <sup>3</sup> / day)	8	7	5	8	4	14.3	60.0	100.0
Imports of natural gas (MM m <sup>3</sup> / day)	13	18	23	15	23	-27.8	-43.5	-34.8
Sales volume of natural gas - MM m <sup>3</sup> / day	69	75	77	72	76	-8.0	-10.4	-5.3

Electricity generation was 975 MW in 2Q19, a 59.5% decrease compared to 1Q19 due to more favorable hydrological conditions. This situation is reflected in the lower settlement price of the differences value.

Natural gas sales volume was 69 MM m<sup>3</sup> / day in 2Q19, a reduction of 6 MM m<sup>3</sup> / day compared to 1Q19 due to the drop in thermoelectric dispatch. In addition, the fall in the volume of natural gas supplied to the fertilizer plants was offset by the increased supply to the refining units.

Lower prices in the international liquefied natural gas (LNG) market in 2019 led the company to choose to reduce Bolivian gas imports and increase LNG purchases to complement the natural gas supply.

## Exhibit I: Consolidated Sales Volume

Sales volume (kbpd)	2Q19	1Q19	2Q18	1H19	1H18	Variation %		
						2Q19/1Q19	2Q19/2Q18	1H19/1H18
Diesel	732	698	709	715	648	4.9	3.2	10.3
Gasoline	367	385	419	376	408	-4.7	-12.4	-7.8
Fuel oil	38	45	35	42	42	-15.6	8.6	-
Naphtha	85	91	91	88	94	-6.6	-6.6	-6.4
LPG	232	215	238	223	228	7.9	-2.5	-2.2
Jet Fuel	114	126	118	120	120	-9.5	-3.4	-
Others	156	155	163	156	161	0.6	-4.3	-3.1
<b>Total oil products</b>	<b>1,724</b>	<b>1,715</b>	<b>1,773</b>	<b>1,720</b>	<b>1,701</b>	0.5	-2.8	1.1
Alcohols, nitrogenous, renewables and others	7	14	18	11	18	-50.0	-61.1	-38.9
Natural gas	323	338	349	330	345	-4.4	-7.4	-4.3
<b>Total brazilian market</b>	<b>2,054</b>	<b>2,067</b>	<b>2,140</b>	<b>2,061</b>	<b>2,064</b>	-0.6	-4.0	-0.1
Exports of petroleum, oil products and other	606	664	577	635	625	-8.7	5.0	1.6
Sales of international units	67	170	215	118	243	-60.6	-68.8	-51.4
<b>Total external market</b>	<b>673</b>	<b>834</b>	<b>792</b>	<b>753</b>	<b>868</b>	-19.3	-15.0	-13.2
<b>Grand total</b>	<b>2,727</b>	<b>2,901</b>	<b>2,932</b>	<b>2,814</b>	<b>2,932</b>	-6.0	-7.0	-4.0

## Exhibit II – Net Exports and Imports

thousand barrels per day (kbpd)	2Q19	1Q19	2Q18	1H19	1H18	Variation (%)		
						2Q19/1Q19	2Q19/2Q18	1H19/1H18
<b>Net export (import)</b>	217	317	225	267	358	-31.5	-3.6	-25.4
<b>Import</b>	389	343	352	366	266	13.4	10.5	37.6
Petroleum	189	179	180	184	131	5.6	5.0	40.5
Diesel	51	70	50	60	25	-27.1	2.0	140.0
Gasoline	36	25	7	31	5	44.0	414.3	520.0
Naphtha	14	13	28	14	31	7.7	-50.0	-54.8
GLP	85	46	79	65	67	84.8	7.6	-3.0
Other oil products	14	10	8	12	7	40.0	75.0	71.4
<b>Export</b>	606	660	577	633	624	-8.2	5.0	1.4
Petroleum	416	494	429	455	462	-15.8	-3.0	-1.5
Fuel oil	129	116	127	122	119	11.2	1.6	2.5
Other oil products	61	50	21	56	43	22.0	190.5	30.2

Net exports decreased by 100 kbpd to 217 kbpd in 2Q19, mainly due to the need to replenish oil stocks due to lower oil production in 1Q19. In addition, LPG imports increased in 2Q19 due to market seasonality and inventory replenishment (lower imports in 1Q19).

In 2Q19 bunker and fuel oil exports increased due to better foreign market conditions as a result of the expectations generated due to IMO's change in marine fuel specification. Regarding the new specification of 0.5% sulfur, production tests performed at refineries have already totaled about 30 kbpd of bunker in recent months and reached the level higher than initially planned.

In 2Q19, 70% of oil exports were destined to China. An additional 10% were destined to other Asian locations.

In 2Q19, oil imports were slightly higher due to increased sales and economic attractiveness of processing light and condensate oils.

Diesel imports fell due to increased production in 2Q19. This increase in production was enabled by optimization of operations and higher demand in the Brazilian market.

## Disclaimer

This release includes forward-looking that are subject to risks and uncertainties. The forward-looking statements, which address the Company's expected business and financial performance, among other matters, contain words such as "believe," "expect," "estimate," "anticipate," "optimistic," "intend," "plan," "aim," "will," "may," "should," "could," "would," "likely," and similar expressions. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date on which they are made. There is no assurance that the expected events, trends or results will actually occur. We undertake no obligation to publicly update or revise any forward-looking statements, whether as a result of new information or future events or for any other reason. The amounts informed for 3Q19 are estimates. The operational data contained in this release is not audited by the independent auditor.