

# Asset performance

## Vietnam

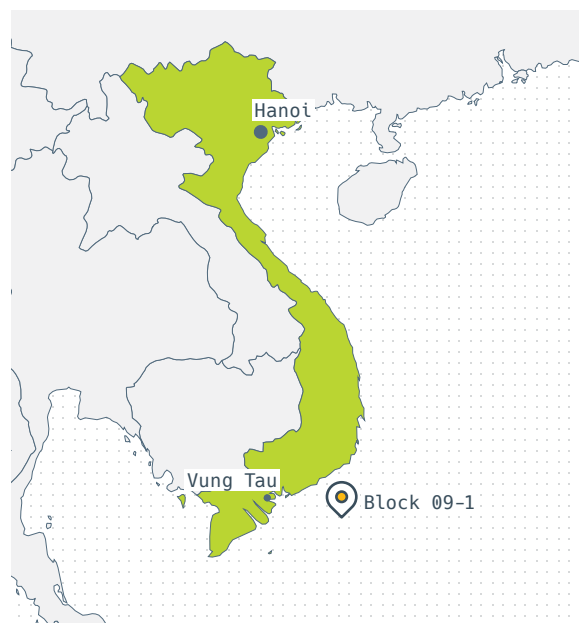
### Block 09-1

Block 09-1 is being developed as part of an intergovernmental agreement dated December 27, 2010. The White Tiger and the Dragon as well as the White Hare and the White Bear fields, which are being developed by the JV Vietsovpetro, are located 150 km offshore on the southern Vietnam shelf.

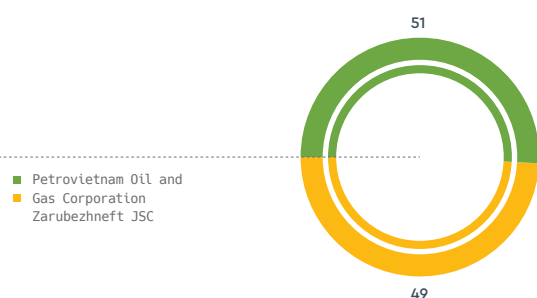
### Production performance

Production declined in the project due to natural depletion at the White Tiger and Dragon fields, which led to a decline in production at the core well stock.

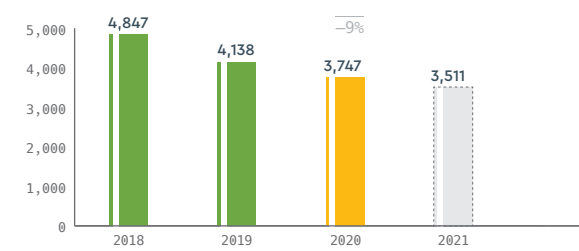
Zarubezhneft conducted production and exploration drilling as part of its planned production program, which has been adjusted due to the significant decline in oil prices. The updated drilling plan called for abandoning the lease of contracted jack-up drilling rigs and the use of the Company's own drilling rigs to conduct the planned well interventions.



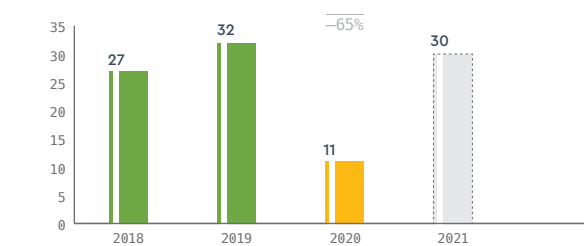
### OWNERSHIP STRUCTURE, %



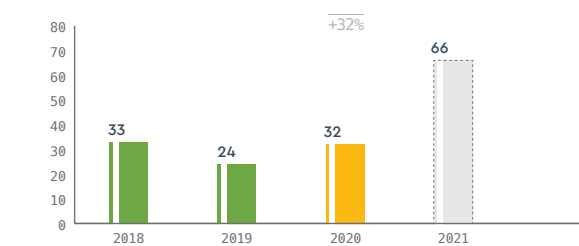
### HYDROCARBON PRODUCTION, thousand toe



### EXPLORATION DRILLING, thousand m



### PRODUCTION DRILLING, thousand m



## Economic performance

In 2020, major construction work included the commissioning of the new WHP-21, a system of underwater pipelines, and power transmission lines.

### As of the end of 2020

- ▶ An extensive well intervention program (WIP) was completed with incremental production of 167,500 tons of oil
- ▶ Measures were taken to establish the formation pressure maintenance system at the block's fields, which helped to reduce the decline rates to 17.6%
- ▶ Natural gas production targets were exceeded by 10%
- ▶ Construction was completed on 11 new wells
- ▶ Three sidetracking interventions were completed
- ▶ The unmanned WHP-21 was commissioned in October 2020
- ▶ Five fracking interventions were completed, including two well interventions using Frac&Pack sand control technology

- ▶ 36 offshore facilities were built and commissioned with total investment of USD 41.5 million
- ▶ The additional compressor facility for gas flaring reduction at the Dragon field was commissioned, pushing up the associated gas utilization rate to 95%
- ▶ The natural gas processing system for connection to the Fastrack pipeline at RC1/RC3 was rebuilt and commissioned to implement the second development phase of the northeast block of the Dragon field.

Cost optimization measures reduced operating expenses in the reporting period by 14% compared with the previous year. The lower profitability rate was caused by oil prices dropping to USD 47.1 per barrel and a decline in oil sales.

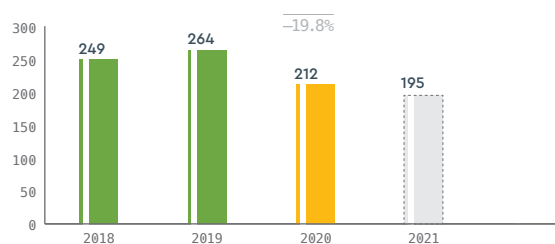
### Development prospects

In the medium term, the primary goal of the project is to take measures to slow the decline in production and maintain the annual level of oil and condensate production within 3,000,000 tons.

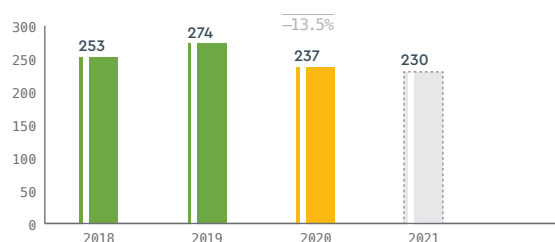
For this purpose, the Company plans to complete 67 well interventions in an effort to integrate the residual reserves of the White Tiger, Dragon, Polar Bear, and White Hare fields.

With respect to major construction work, the Company plans to install and build two wellhead platforms (WHP-18A and WHP-19) and commission them in the fourth quarter of 2021. Tenders will be held for the purchase of materials, equipment, and services to build the RC-10 wellhead platform and RC-RB1 riser platform at the Dragon field so that they can be commissioned in 2022.

### CAPITAL EXPENSES, USD mln



### OPERATING EXPENSES, USD mln



## Block 09-3

Work at Block 09-3 (VRJ) is performed under the Petroleum Contract for the Development and Operation of Block 09-3 Reserves on the shelf of Vietnam dated January 19, 2002, and the Joint Development Agreement (JDA) on the Southern Dragon—Sea Turtle field (SD-ST) dated June 26, 2009. Under the JDA, the participating interest and allocation of production for Block 09-1 and Block 09-3 in the development of the joint SD-ST block is 50% and 50%, respectively.

In 2017, Idemitsu (15%) and PVEP (35%) withdrew from the Petroleum Contract and transferred their shares to Zarubezhneft on January 1, 2017. On September 6, 2018, the Vietnamese Government issued an investment certificate for Block 09-3 permitting oil and gas activities, under which Zarubezhneft is the contractor with a 100% of participating interest starting from January 1, 2017.

### Production performance

The decline in production at the Southern Dragon—Sea Turtle field in 2020 compared with the previous period is mainly due to the reduced formation pressure. The overall decline is lower than the target due to lower rates of water flooding.

As of the end of 2020:

- ▶ An inspection was conducted of the sail of the substructure, the load-bearing module, the topside structure, and risers of underwater pipelines of WHPs RC-4 and RC-DM
- ▶ Corrosion-resistant coating (CRC) was restored and metal structures of the topside structure on RC-4 and RC-DM were repaired
- ▶ A pilot descent of the electrical centrifugal pump (ECP) into well 422 was performed



### Economic performance

The increased operating expenses in 2020 compared with the previous year is due to the cost of gas lift services (revision of the service rates by the decision of the Participants at Custody Meter Station No. 13 of the Southern Dragon—Sea Turtle Joint Block) and the repair of marine structures (more routine repair work on 2 WHPs, RC-4, and RC-DM than planned).

The reduced profitability was due to oil price dropping to USD 47.1/bbl and a decline in oil sales.

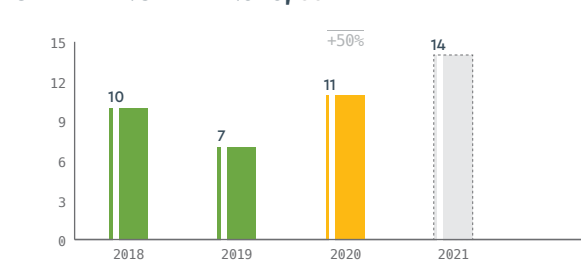
### Development prospects

The Company plans to perform work to equip the ECP Unit in Well No. 2X/RCDM in 2021 to solve the main problem with the block and to stabilize production.

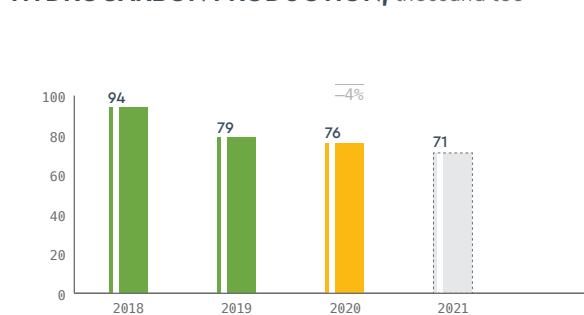
### OWNERSHIP STRUCTURE, %



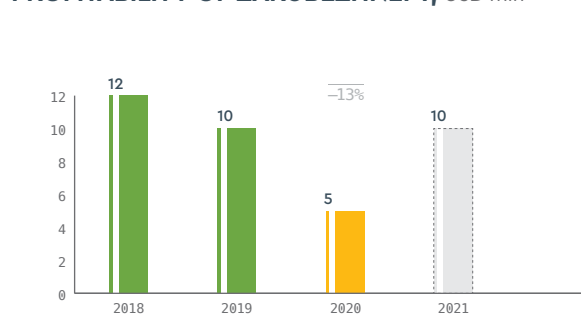
### OPERATING EXPENSES, USD mln



### HYDROCARBON PRODUCTION, thousand toe



### PROFITABILITY OF ZARUBEZHNEFT, USD mln



## Block 04-3

Block 04-3 is located in the northern part of the Nam Con Son basin on the southern shelf of Vietnam, 280 km southeast of Vũng Tàu. The Thien Ung — Mang Cau structure is located within Block 04-3.

Petrovietnam Oil and Gas Corporation and Zarubezhneft signed a petroleum contract on June 26, 2009 based on a commercial discovery concerning Block 04-3 on the Vietnam shelf. JV Vietsovpetro is the project operator.

Thien Ung WHP was commissioned on December 20, 2016 after the completion of drilling and testing of the gas condensate well 6-TU.

Thien Ung WHP is designed for treating gas from the Dai Hung and Thien Ung fields.

## Production performance

Total gas production was 528.2 million m<sup>3</sup> after the start of operations and gas condensate production was 128,000 tons.

## 2020 results

Until September 2020, gas condensate from the Thien Ung and Dai Hung fields was transported from the Thien Ung WHP to the White Tiger field via the Nam Con Son 2 pipeline (NCS-2), phase 1, length L=160 km. Connection to the NCS-2 phase 2 pipeline is expected in 2021.



## Economic performance

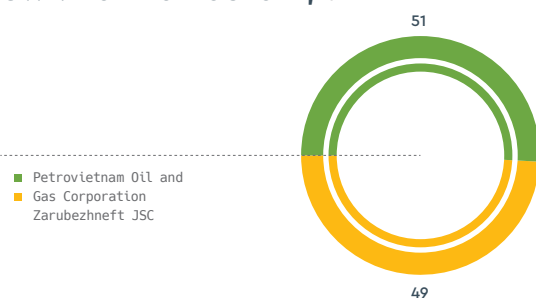
The existence of new work on well flow testing, packer fluid injection, etc. in the 2020 program affected the growth of operating expenses compared with the previous year.

Profitability increased due to growth in sales volumes.

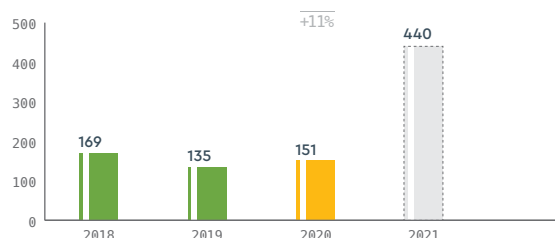
## Development prospects

In 2021, gas production is expected to jump due to the planned commissioning of the Nam Con Shon phase 2 pipeline and the launch of four wells with a planned gas flow rate of 820,000 m<sup>3</sup> per day.

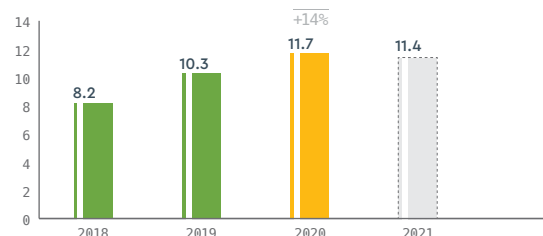
## OWNERSHIP STRUCTURE, %



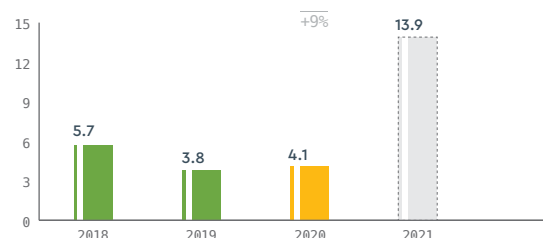
## HYDROCARBON PRODUCTION, thousand toe



## OPERATING EXPENSES, USD million



## PROFITABILITY OF ZARUBEZHNEFT, USD mln



## Block 12/11

Block 12/11 is located within the Nam Con Son gas condensate basin, 350 km southeast of Vũng Tàu.

Its oil and gas potential comes from the Oligocene and Lower Miocene deposits within the Thien Nga-Hai Au structures that have been identified and the group of E structures, whose hydrocarbon resources fall under the P3 category.

The PSA on Block 12/11 was signed on December 19, 2012. The PSA has validity of 25 years for oil and 30 years for gas with a renewal option for five years, including five years of geological exploration work (GEW) with a renewal option for two years. The minimal license obligations call for the drilling of three exploration wells. All the operational obligations of Phase I for the prospecting and exploration stage under the provisions of the PSA have been fulfilled.

On September 27, 2020, Phase II of the GEW stage was completed, which includes the re-processing and interpretation of 1,000 linear km of 2D seismic exploration and the drilling of one exploration well. All the operational obligations of Phase II for the prospecting and exploration stage under the provisions of the PSA have been fulfilled. The parties to the PSA agreed on the transition of the project to Phase III of the GEW stage with the implementation of additional exploration work on the seismic acquisition, processing, and interpretation of 3D seismic survey materials with a minimum volume of 500 km<sup>2</sup> to determine the location before drilling the fifth exploration well in line with the obligations under Phase III of the GEW stage.

Phase III of the GEW stage of the project has been underway since September 28, 2020.

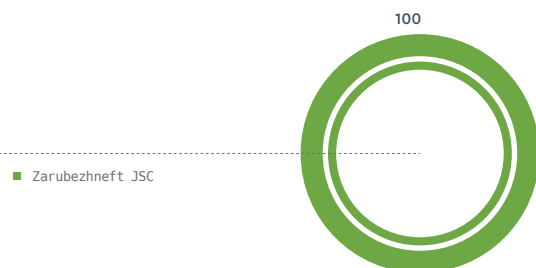
Capital expenses declined in 2020 compared with the previous year due to adjustments to the scope of works during the drilling and testing of the TN-4X well, the suspension of field design work until 2021 due to the update of the overall development plan based on the exploration drilling results, as well as the GEW stage's transition to Phase 3 with additional GEW in the medium term.



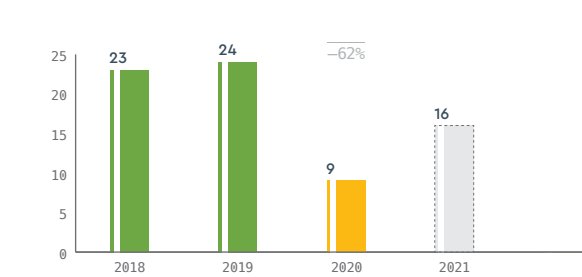
## 2020 results

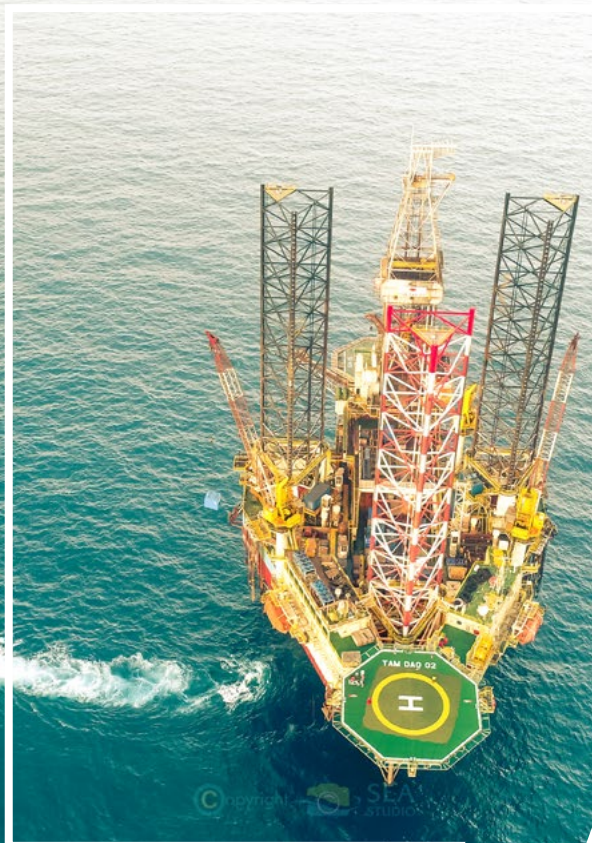
**Geological and geophysical work.** Petrographic and biostratigraphic studies of samples of well 12/11-TN-4X were completed; geochemical studies of samples of well 12/11-TN-4X were completed; laboratory studies of the drill-hole core of well 12/11-TN-4X were completed; lithological-petrographic and petrophysical characteristics of the rocks of well TN-4X were studied; the VSP data of well 12/11-TN-4X were interpreted; laboratory studies of the drill-hole core of well 12/11-TN-4X well were completed to determine the relative permeability of collecting pipes; laboratory analyses of samples of well 12/11-TN-4X (water, oil, gas, and condensate) were completed; a report on the drilling of well 12/11-TN-4X was compiled; the updating of the geological structure and assessment of oil and gas potential after drilling the fourth well of Block 12/11 was completed; the recalculation of the reserves and resources of the TN-HA structure of Block 12/11 based on the drilling of exploration well 12/11—TN-4X was completed, and a report was adopted by the Scientific and Technical Council of JV Vietsovpetro in October 2020 and sent to the public authorities of Vietnam for approval and adoption.

## OWNERSHIP STRUCTURE, %



## CAPITAL EXPENSES, USD mln





**Drilling work.** Testing on the fourth exploration well TN-4X was completed, with industrial hydrocarbon inflows obtained from the Oligocene (gas, condensate) and oil (Miocene) deposits along the ST2 well hole of the Thien Nga structure; the well was abandoned on January 25, 2020.

**Design and infrastructure development.** Work to update the 'ODP of the Thien Nga—Hai Au group of structures for Block 12/11' has started and is progressing according to Zarubezhneft's decision on the need to update the R&D 'ODP of the Thien Nga—Hai Au group of structures for Block 12/11 based on the drilling results of the exploration well TN-4X; the work is being carried out by the VNIIneft Consortium (VPI).

**Other work.** Negotiations with Korea National Oil Corporation on developing the nearby Rong Doi field are ongoing to determine the feasibility of using hydrocarbon transportation facilities to increase the profitability of Block 12/11, including issues on the preparation and transportation tariff of Block 12/11 production, and on the acquisition of a share in the PSA of Block 11–2.

Negotiations with Petrovietnam Oil and Gas Corporation are ongoing concerning the approval of a gas sale price that is sufficient for the profitable development of Block 12/11 before the start of infrastructure development and production.

### Development prospects

In 2021, Zarubezhneft plans to conduct a 3D seismic survey and start processing and 3D interpreting of Pre-Stack Time Migration (PSTM) and Pre-Stack Depth Migration (PSDM), develop a FEED and FDP for the TN-HA structures, and prepare engineering surveys for the construction of WHP (TN-HA) and the TN-HA—Tie-In point pipeline. The TN-HA structure is scheduled to be commissioned in the fourth quarter of 2022.

The medium-term work program includes the infrastructure development of the TN-HA structures, a detailed design for the technical upgrade of Rong Doi, TN-HA off-shore structures, the main gas pipeline to Rong Doi, the fulfillment of obligations under the PSA of Block 12/11 as part of Phase III of the GEW stage, as well as work related to the construction of the fifth exploration well.



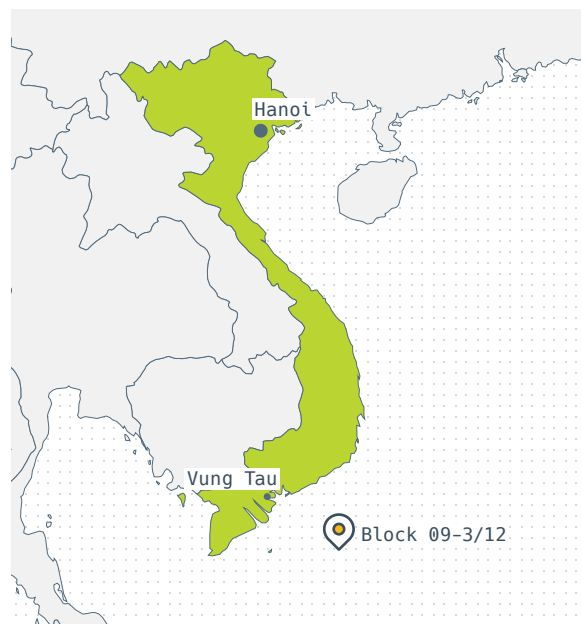
## Block 09-3/12

Block 09-3/12 is located 160 km southeast of Vũng Tàu.

Petrovietnam Oil and Gas Corporation, PVEP, JV Vietsovpetro, and Bitexco Group signed the PSC on Block 09-3/12 on September 12, 2012. JV Vietsovpetro is the project operator. The PSC is valid for 25 years with a renewal option for five years. The minimum work obligations for geological exploration activities under the project include two phases. The minimum work obligations of the two PSC stages have been fulfilled in full.

The Ca Tam (Beluga) oil field was discovered within the block. The discovery took place in 2014 following the drilling of CT-2X and CT-3X exploration wells. The commercial discovery was announced in 2017. In 2018, the CTC-1 WHP support unit was installed and all pipelines were routed.

Zarubezhneft has an effective stake in the project of 26.95%



## Production performance

The Beluga field was commissioned in January 2019. It is being developed in natural conditions with an operating well stock of 12 wells.

## 2020 results

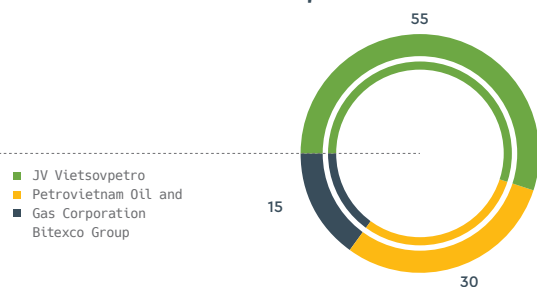
An extensive well-integrity platform has been completed for the field: one exploration well with an actual increase of 107 tons per day has been put back into production, one production well was drilled and put into operation,

two inclusion measures were carried out, and oil production was intensified at two wells.

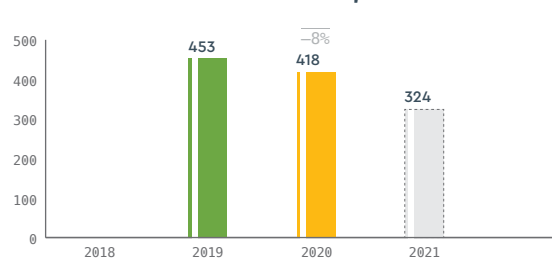
## Development prospects

To increase production levels, in particular, for sand control purpose, formation pressure maintenance (FPM) interventions using Frac Pack technology are planned for Well No. 105 in 2021. After this, the Company plans to consider the feasibility of the pilot testing of Frac Pack technology as a sand control method at the asset.

## OWNERSHIP STRUCTURE, %



## HYDROCARBON PRODUCTION, thousand toe



## Block 09-2/09

Block 09-2/09 belongs to the so-called small blocks of the Vietnamese shelf. The block is located near Blocks 09-1 and 09-3/12. Several structures have been explored at the block site. The best two (KNT and KTN) have potential geological resources of 30 million m<sup>3</sup>.

Petrovietnam Oil and Gas Corporation and PVEP signed the PSA on August 6, 2009.

PVEP and JV Vietsovpetro signed the FoA agreement on May 17, 2019 for the assignment of the stake owned by PVEP, and PVEP and Zarubezhneft signed the agreement on May 22, 2019. The partners invest in the project in accordance with their participating interest. Zarubezhneft's effective share is 49.6%.

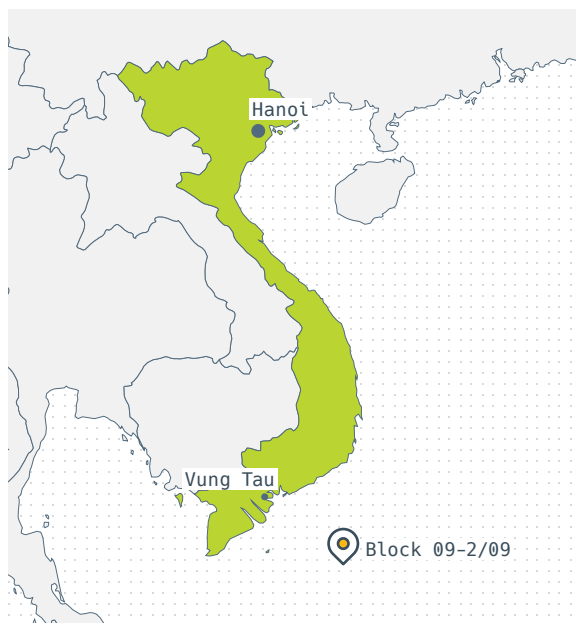
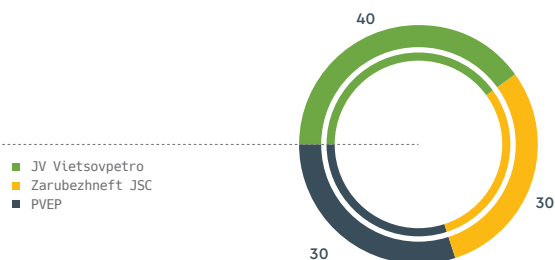
The block is located in an area with existing producing and transport infrastructure with intense oil and gas activity.

The two best structures of the block (KNT, KTN) have potential geological resources of 30 million m<sup>3</sup>. Inflows up to 600 m<sup>3</sup> per day were obtained from the primary horizon at the fields (E70). Extensive exploration work has been completed at the block: 11 exploration wells have been drilled.

### 2020 results

- In July, an amended investment certificate was received and a joint operating agreement was signed; on August 14, the first meeting of the PSA Management Committee of Block 09-2/09 was held to approve the block's work program and budget for 2020; at the end of the year, the second meeting of the PSA Management Committee was held to approve the work program and budget for 2021

### OWNERSHIP STRUCTURE, %



- The ODP of the KNT and KTN fields has been developed, the options for connecting to the Rang Dong field have been studied, and the construction of a geological model, a development model, and the calculation of options for the development of the KNT and KTN fields are in progress.

### Development prospects

The block is located in an area with existing producing and transport infrastructure with intense oil and gas activity. According to the G&G data and exploration drilling, there are 3 exploration targets (COD, KND, SON) with high prospective resources at Block 09-2/09 beyond the two oil and gas discoveries. In the event of commercial oil discoveries, GEW is advantageous to develop these discoveries.

The mid-term budget for Block 09-2/09 calls for the installation of a manned well-head platform (WHP) and an unmanned WHP at the KNT structure. In 2021, the Company plans to summarize the geological and geophysical data, update the geological structure of the block, report on additional exploration, approve the ODP, and develop the FEED and FDP of the KNT and KTN fields.

The planned field commissioning date is 2023. The maximum level of production is projected to be achieved in 2024.



## Block 16-1/15

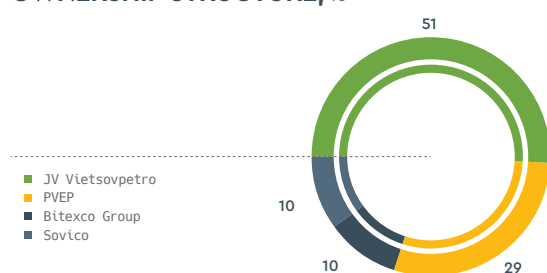
Block 16-1/15 with an area of 3,117 km<sup>2</sup> is located in the western part of the Cuu Long basin of the Vietnamese continental shelf, 80 km southeast of Vũng Tàu. The block's eastern border adjoins Block 09-1.

Petrovietnam Oil and Gas Corporation, JV Vietsovpetro, PVEP, BITECO, and SOVICO signed the PSC on May 16, 2016 as part of the Vietnamese Shelf Block 16-1/15 Exploration and Development project. JV Vietsovpetro was selected to be the project operator, and an investment certificate was obtained. The PSC is valid for 25 years with a renewal option for five years, including five years of exploration work with a renewal option for two years. The minimum work obligations as regards geological exploration activities under the project include two phases. At present, Phase I of the GEW stage is being implemented, which involves seismic surveys and the drilling of two prospecting and exploration wells. The Vietnamese Ministry of Industry and Trade and Petrovietnam Oil and Gas Corporation approved the second extension of Phase I of the GEW stage for one calendar year until June 11, 2021. Project funding for JV Vietsovpetro's stake comes from the JV Production Development Fund. Zarubezhneft's effective share is 24.99%.

### 2020 results

- During the reporting year, work was completed to prepare for drilling, including the development of the site for drilling and well planning; in September, drilling began on the second exploration well 16-1/15-SV-1X at the Soi Vang structure to fulfill the minimum obligations of Phase I of the GEW stage

### OWNERSHIP STRUCTURE, %



- Laboratory studies of sludge and fluids using a petrographic and biostratigraphic analysis of samples from the second exploration well and a geochemical analysis of fluid and sludge samples have started and remain in progress; work on the report on the completion of the first phase of GEW is ongoing

### Development prospects

The 2021 work program provides for the geological and geophysical survey of the second exploration well 16-1/15-SV-1X in the Soi Vang structure.

In the medium term, the Company plans to drill one appraisal well under the minimum conditions of Phase 2 of the GEW stage as part of the PSA for Block 16-1/15.

Zarubezhneft plans to develop the Soi Vang structure and produce hydrocarbons using an unmanned WHP, drill ten development wells, and re-enter two exploration wells.

The main investments in field development are expected in 2022-2024 in order to ensure the start of oil production in 2024.