

Conceptual Approaches to Development of Gas Fields on Russian Arctic Shelf

Prof. Rudolf Ter-Sarkisov,

First Deputy General Director -
Chief Project Manager

‘Gazprom Dobycha Shelf LLC’

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Patron



Host

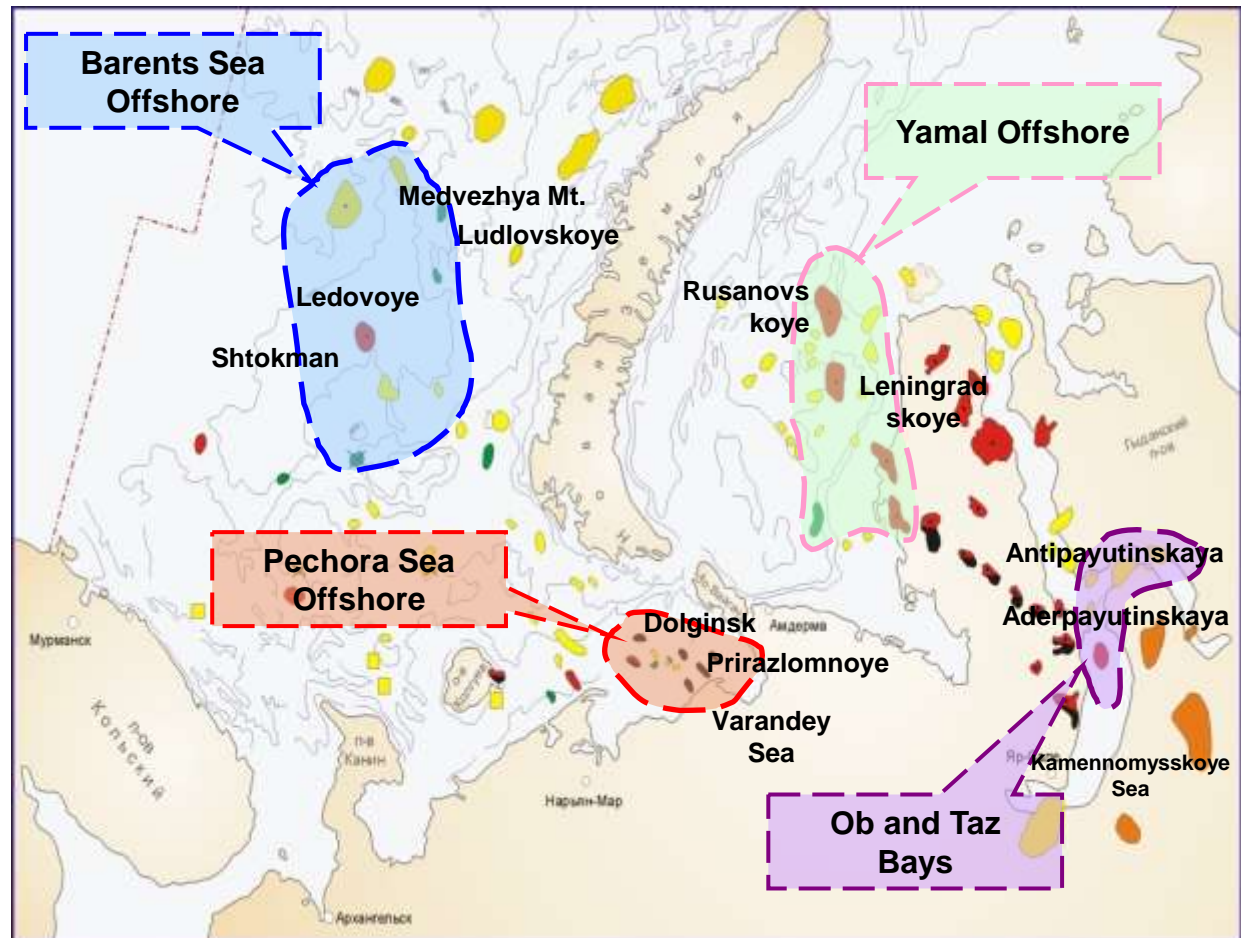


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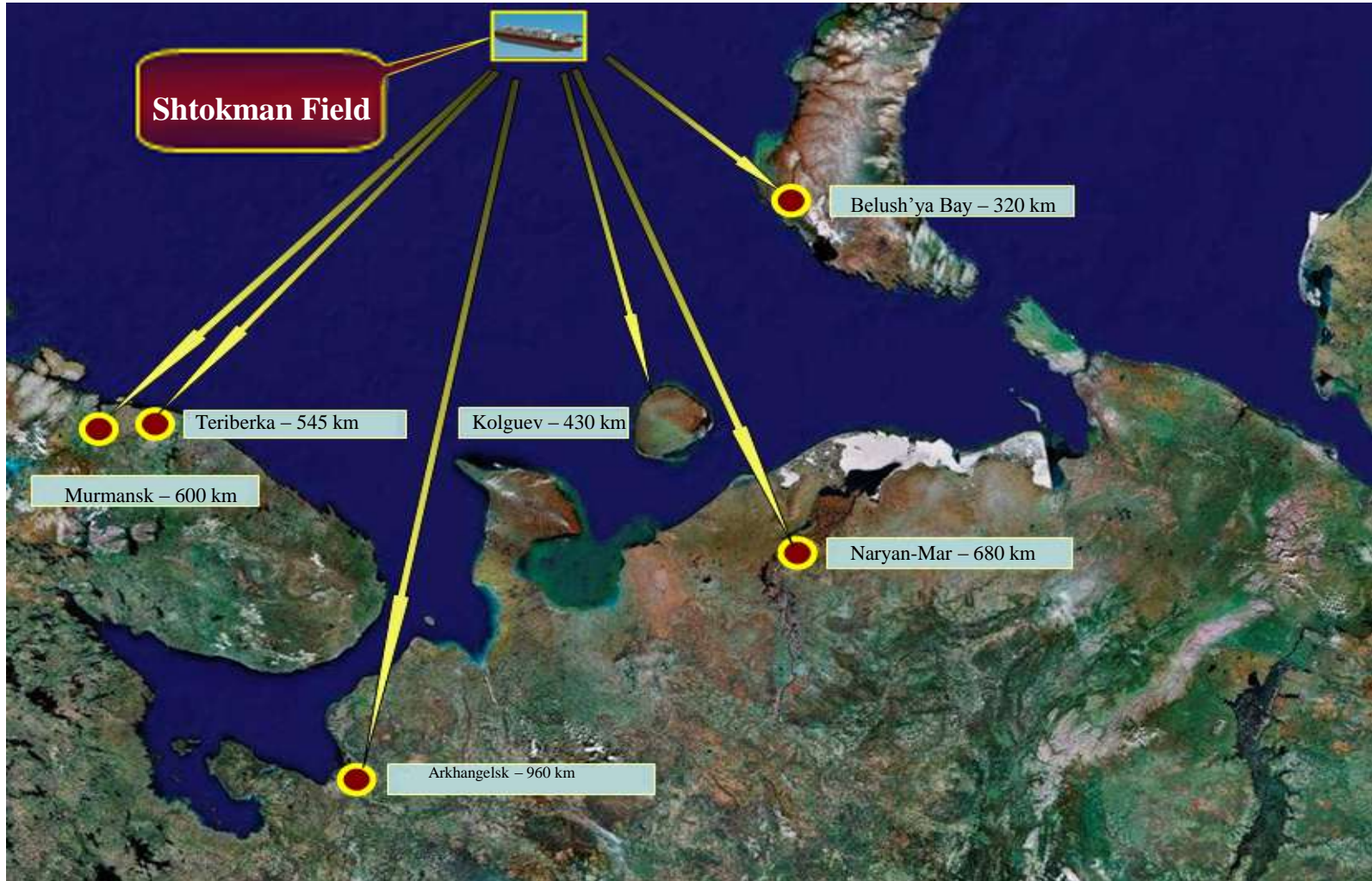


By this time unique and major hydrocarbon fields have been discovered:

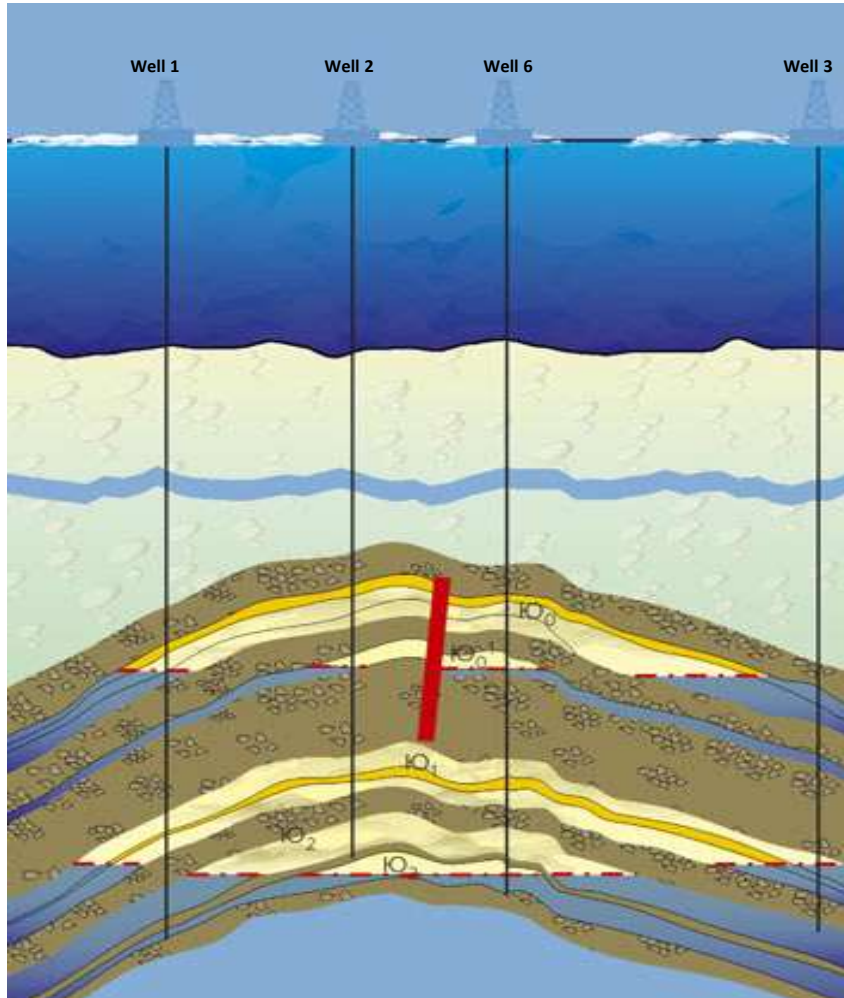
- Shtokman
- Ledovoye
- Ludlovskoye
- Rusanovskoye
- Leningradskoye
- Prirazlomnoye
- Varandey
- Dolginskoye



Distance between Shtokman Field and the existing onshore infrastructure

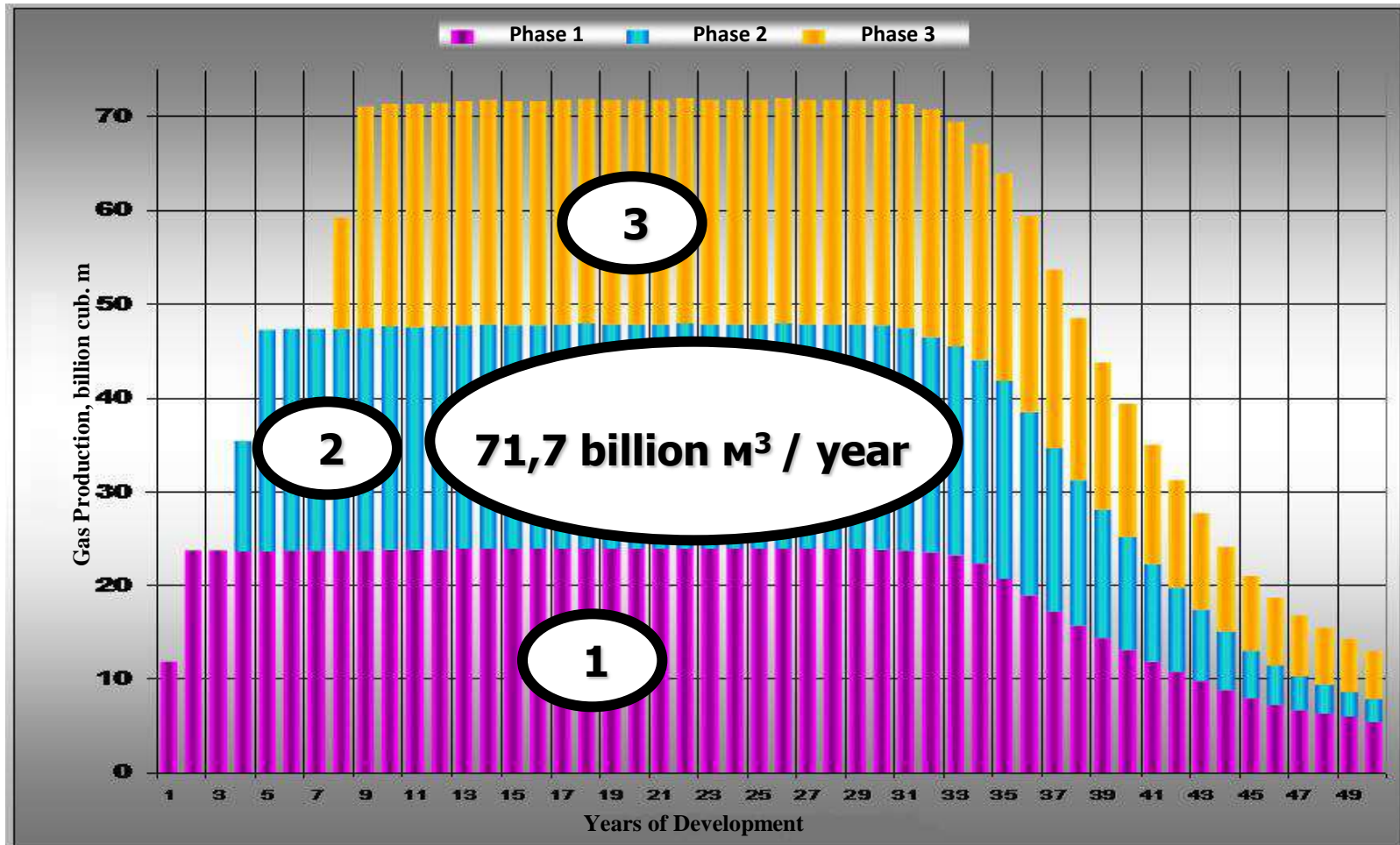


Schematic geological cross-section



- Full complex of geophysical survey and logging while drilling operations have been performed
- 7 exploration wells have been drilled
- Reserves:
 - Gas – 3,9 trillion cub. m
 - Condensate ~ 52 million tons

Design Gas Production Capacity



It is planned to distribute the gas from Shtokman field both to the:

- LNG plant
- Gas pipeline system

In 2008 '**Shtokman Development AG**', a special purpose company, was founded as the Operator for the first phase of Shtokman Project

'**Gazprom Dobycha Shelf LLC**' was created in 2008 by decision of OAO Gazprom:

- That is a 100% owned subsidiary company of OAO Gazprom
- The company was created to specialize in development of offshore gas and gas condensate fields
- OAO Gazprom appointed Gazprom Dobycha Shelf LLC as the Operator for the second and the third phases of the Shtokman Project

The following technical and technological solutions will be applied to realise the Shtokman Project:

- Subsea production complexes
- Major well flow rates
- Offshore ice-resistant platforms
- Long subsea pipelines to transport well production
- LNG plant with high efficiency lines
- Realisation of the above solutions will require implementation of up-to-date technologies

There are the following basis for successful realization of the Shtokman field project:

- Major gas resources ensure stable and long-term supply
- There is a possibility for diversification of supply (pipeline gas and LNG)
- There is a possibility for significant expansion of gas production depending on the market environment
- The favourable composition of the gas allows to reduce expenses on gas treatment and conditioning
- Low temperatures at the field area allow reduction of power consumption connected with gas liquefaction
- Comparatively small distances from the field area to the markets (Europe, USA, etc.)

Thank you for your attention!