

BLOCK 6

KNIAZHYNKA LICENSE

LOCATION

Kniazhynska block is located in Nova Vodolaga district of Kharkiv region, in Mashivka-Shebelynka petroleum province of the Dnipro-Donets basin. The area of the block is 75.32 km<sup>2</sup>.

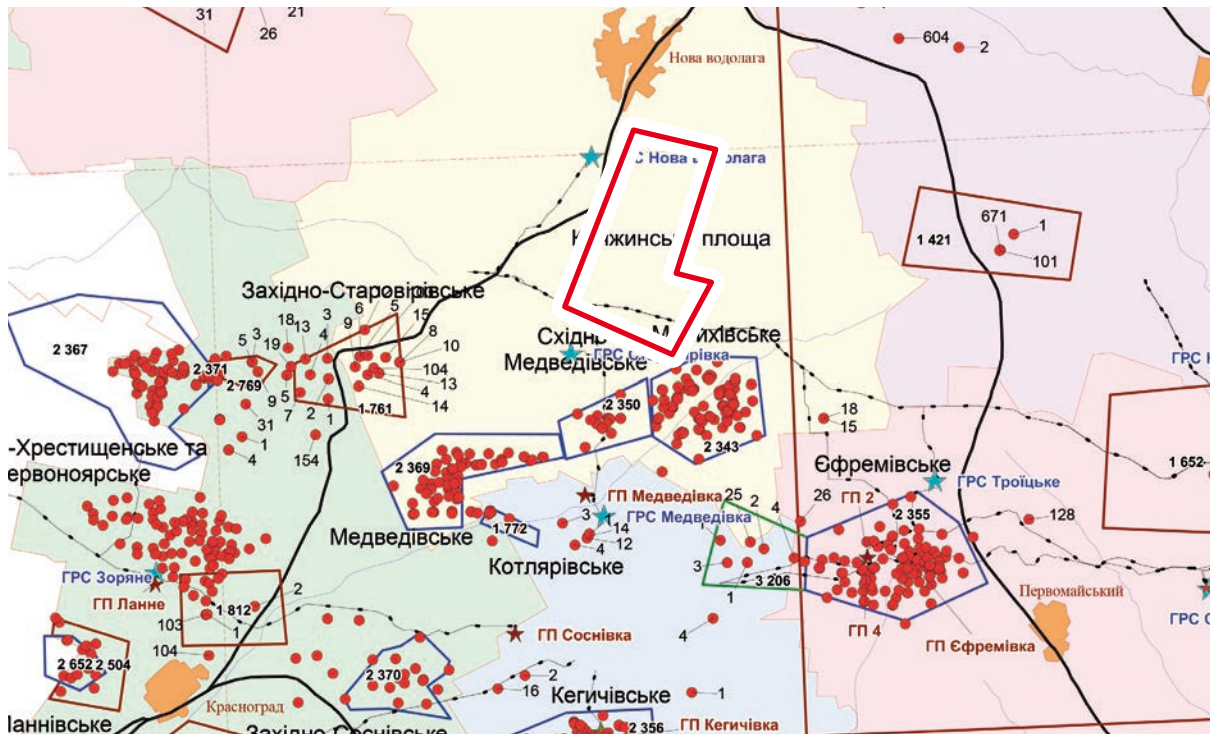
CONCESSION TYPE

Combined license for geological exploration with pilot and commercial development, and production of hydrocarbons. Duration - 20 years.

DEPOSITS DISCOVERED IN THE AREA

Melykhivske, Kehichivske, West-Starovirivske, Efremivske, Bezpaliivske, Shurynske, Ryabukhinsko-North Golubivske hydrocarbons fields.

Map of Kniazhynska block



MAP SYMBOLS

Point Number	USK 2000, E			USK 2000, N			SK-42, E			SK-42, N		
	deg.	min.	sec.	deg.	min.	sec.	deg.	min.	sec.	deg.	min.	sec.
1	35	52	11.30	49	40	38.09	35	52	17.23	49	40	38.40
2	35	56	20.41	49	39	53.77	35	56	26.34	49	39	54.07
3	35	54	5.42	49	35	51.76	35	54	11.34	49	35	52.07
4	35	55	51.77	49	35	31.36	35	55	57.69	49	35	31.66
5	35	53	43.85	49	33	11.28	35	53	49.76	49	33	11.59
6	35	48	21.46	49	34	53.96	35	48	27.38	49	34	54.27
7	35	52	11.30	49	40	38.09	35	52	17.23	49	40	38.40

- well
- gas-distribution plant
- gas pipeline
- KNIAZHYNKA BLOCK

## GEOLOGICAL CHARACTERISTICS

Production horizons are expected in the deposits of the Lower Permian, Upper Carboniferous and Moscovian Stage of the Middle Carboniferous period in the range of 3400 to 5800 meters.

Reservoir rock of the Mykytivska and Slavic suits are predominantly limestones and dolomites. Slavic suite gas is mainly associated with carbonate reservoir rock. The porosity varies from 6.0% to 19.0%. The saturation of gas varies widely from 60% to 95%.

Reservoir rocks of the Cartamysh suite of the Lower Permian and the Araucarite suite of the Upper Carboniferous are represented by irregular beds of sandstones and siltstones separated by layers of clay. The effective thickness of gas-saturated layers varies from 0.6 to 10.0-20.0 meters. The porosity of reservoir layers varies from 12.0% to 18.0%, the saturation of gas varies from 45-50% to 80-85%.

## SURVEY INFORMATION AVAILABLE

### Assessment of hydrocarbon resources (Ukrainian classification)

Prospective resources of hydrocarbons are 80.478 million tons of oil equivalent, including 62.158 billion m<sup>3</sup> of natural gas, 14.6 million tons of crude oil, and 3.72 million tons of gas condensate.

Within the block a considerable volume of geological surveys have been carried out, due to the exploration of the geological structure of the south-eastern part of the Dnipro-Donets basin.

### Well data

There has been no drilling in the block.

### Seismic surveys

Year of surveys	Number of lines	Number of linear km	Fold
1975	7	86,1	12
1977	2	13,9	12
1978	3	29,7	12
1979	2	10,8	12
1985	7	93	24
1990	1	6,2	24
1994	3	25,6	48
2015	6		

## EXPLORATION WORK PROGRAM REQUIREMENTS

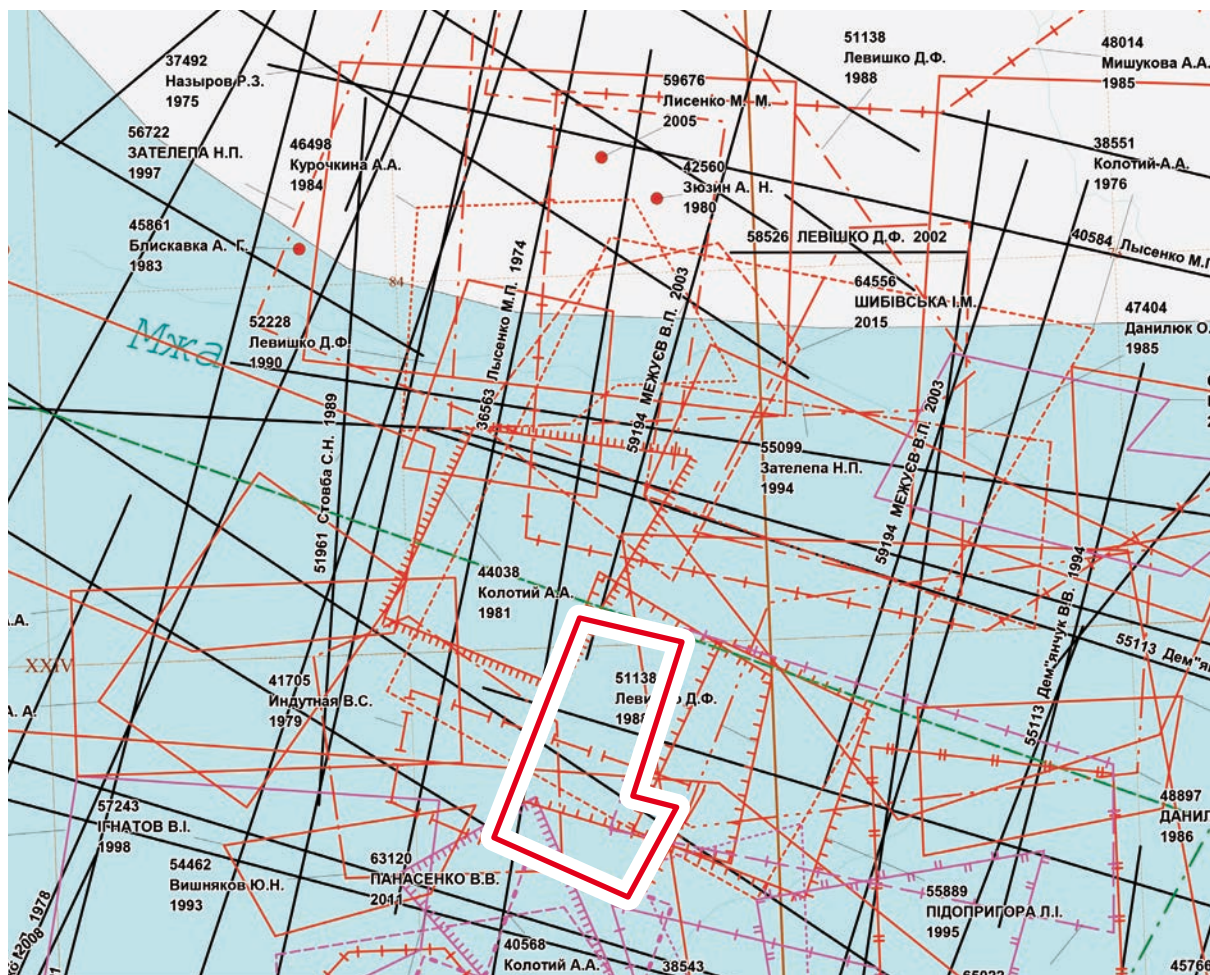
Stage I (12 months) - processing and reinterpretation of 2D seismic data

Stage II (12 months) – acquisition of 2D or 3D seismic data on 1/4 of the block's area

Stage III (24 months) – one productive well drilling

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### Map of geophysical surveys and seismic lines



## MAP SYMBOLS

 1:25 000

 1:50 000

 1:100 000

☐ geophysical survey

— seismic lines



KNIAZHYNska BLOCK



survey with no mapping

45860 report number

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1982 year of the report