

## GRK BYSTRINKOYE, ZABAYKALSKY REGION

GRK Bystrinskoye (Bystrinsky GOK) is Nornickel's 50.01%-owned subsidiary. Bystrinsky GOK is located in the Gazimuro-Zavodsky District, Zabaykalsky Region, 16 km east of Gazimursky Zavod village, 350 km away from Chita.

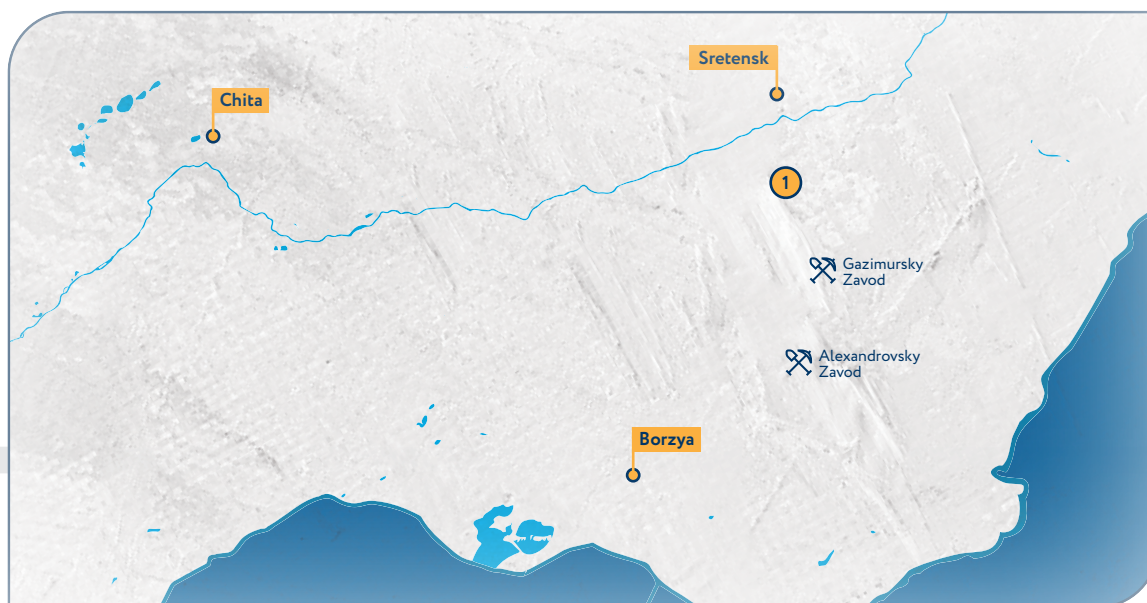
Nornickel's new asset is the largest greenfield project in the Russian metals industry, integrating ore mining, concentration and shipment of end products to customers. The expected volume of ore mined and processed at Bystrinsky GOK is approximately 10 Mtpa.

Nornickel commenced the construction of Bystrinsky GOK in 2013. The construction project includes open-pit mining at the Bystrinskoye deposit, a mining and processing plant (MPP) along with all of the associated infrastructure, including a power

line and a 227-km Borzha–Gazimursky Zavod railway line, and a rotation camp. In October 2017, Nornickel started the pre-commissioning activities, and in September 2019 Bystrinsky GOK was commissioned. The project is expected to ramp up to design capacity by 2021.

In 2019, Bystrinsky GOK accounted for 9% of the Group's total copper end products.

### 1 Bystrinsky GOK



## MINING

Bystrinsky GOK mines gold-iron-copper ores of the Bystrinskoye deposit.

### Ore output (mln t)

Mining asset	Mine type	2018	2019
Total ore		7.86	10.49
Bystrinskoye deposit		7.86	10.49
– Verkhneildikansky open pit mine	Open-pit	7.43	8.60
– Bystrinsky-2 open pit mine	Open-pit	0.43	1.89

## CONCENTRATION

### Concentration facilities

- Concentrator

The concentrator construction commenced in 2015; the facility's purpose is to process ores of the Bystrinskoye deposit into copper, iron ore, and gold concentrates. The key processing stages include crushing, milling, flotation, thickening, filtration and end product packaging. The concentrator has two processing lines. In 2018, Bystrinsky GOK started pre-commissioning of the processing lines, and in 2019 the concentrator was commissioned.

In 2019, it processed 7.5 mln t of ore (2018: 3.8 mln t). The increase was due to scheduled ramp-up to design capacity.

Copper and iron ore concentrates are sold via third parties, while gold concentrates are further processed at the Polar Division.

### Products:

- Copper concentrate
- Gold concentrate
- Iron ore concentrate.

### Production volumes

Product	2018	2019
Ore processing, mln t	3.8	7.5
Copper (in copper concentrate), t	19,417	43,489
– copper content in the concentrate, %	25.4	25.5
Gold (in copper and gold concentrates), koz	89	177
– gold content in the concentrate, g/t	6,218	4,034
Iron ore concentrate, kt	346	1,311
– iron content in the concentrate, %	64.1	64.6