MINERAL BASE

Nornickel boasts a unique mineral resource base of Tier 1 assets in Russia, on the Taimyr and Kola Peninsulas and in the Zabaykalsky Region. Nornickel's continued focus on expanding its resource base is essential to its long-term development.



EXISTING DEPOSITS

Nornickel is well-positioned to maintain a high level of economic ore reserves given the significant mineral resources within the existing deposits. The depleted ore reserves at the existing mines are replaced through resource development. The Company plans to ramp up its production by tapping into new rich ore deposits and gradually developing disseminated and cuprous ore horizons.



years of resources at the current production rate

For more details on mineral resources and ore reserves, please see p. 326

1/ Data on mineral resources and ore reserves are based on the data on ore and metal balance reserves from the Russian divisions (reported in Form No. 5-gr under the Russian classification), analysed and converted as necessary to estimates under the Australasian Code for Reporting of Mineral Resources and Ore Reserves (the JORC Code). The estimates are JORC-compliant, use the terms recommended by the Russian Code for the Public Reporting of Exploration Results, Mineral Resources and Mineral Reserves (the NAEN Code), and are based on the rules and regulations developed by Micon International Limited which conducts regular audits of the Group's reserves in Russia. The reserves and resources include wholly owned international assets (the Honeymoon Well project), net of GRK Bystrinkoye's deposits. Platinum group metals (PGMs) are platinum, palladium, ruthenium, osmium, and iridium.



TALNAKH ORE CLUSTER

Location and profile

The Talnakh ore cluster is located in the Norilsk Industrial District, on the right bank of the Norilskaya River. It includes the world's largest Oktyabrskoye and Talnakhskoye copper-nickel deposits located on the north-western margin of the Siberian Craton. In the early 1960s, multiple ore bodies of high-grade cuprous and disseminated ores were discovered within the area. Nornickel is still well supplied with base and noble metals from the uniquely rich and vast resource base of the Talnakh ore cluster developed through mining operations of its Polar Division.

Balance reserves growth in 2019

Ni — 109 kt **Cu** — 123 kt **PGMs** — 1 Moz

Balance metal reserves involved in 2019

14 mln t of ore

Ni – 259 kt Cu – 448 kt PGMs – 4 Moz

Average metal content Ni - 3.0%, Cu - 3.3%, PGMs - 8.6 g/t Proven and probable reserves 631 mln t of ore

Ni – 6 mln t **Cu** – 11 mln t **PGMs** – 112 Moz

Measured and indicated resources

mln t of ore

Ni – 11 mln t **Cu** – 22 mln t **PGMs** – 234 Moz

Balance reserves

Ni — 15 mln t **Cu** — 29 mln t **PGMs** — 312 Moz

66

Balance reserves growth in 2019

1 mln t of ore

Ni – 2 kt **Cu** – 3 kt **PGMs** – 0.1 Moz metal reserves involved in 2019

Average metal content Ni - 3.0%, Cu - 0.5%, PGMs - 2.3 g/t

2

mln t of ore

Ni – 7 kt **Cu** – 10 kt **PGMs** – 0.4 Moz

Balance

overview

Sustainable development

Proven

Ni – 0.1 mln t

Cu – 0.2 mln t

PGMs – 8 Moz

Measured

Ni – 0.4 mln t **Cu** – 0.5 mln t **PGMs** – 25 Moz

and probable reserves

and indicated resources

mln t of ore

Balance reserves

mln t of ore

Ni – 0.4 mln t

Cu – 0.6 mln t

PGMs – 25 Moz

mln t of ore

Corporate governance



NORILSK ORE CLUSTER

Location and profile

Company overview

The Norilsk ore cluster (NID) is located in the Norilsk Industrial District. Brownfields include the northern part of the Norilsk-1 deposit producing disseminated sulphide ores since the 1930s.

Strategic report

To finance brownfield expansion in the northern part of the Norilsk-1 deposit, Nornickel launched the South Cluster project. A licence to develop Norilsk-1 and also some of the Polar Division's assets were transferred to Medvezhy Ruchey, a wholly owned subsidiary established specifically to implement the expansion project. Medvezhy Ruchey includes Norilsk Concentrator, an open pit and an underground mine at Zapolyarny Mine, and tailing dumps No.1 and Lebyazhye.



KOLA MMC DEPOSITS

Location and profile

Kola MMC develops deposits located within a 25 km stretch between Nickel and Zapolyarny in the west of the Murmansk Region, and grouped into two ore clusters: Western (Kotselvaara and Semiletka deposits) and Eastern (Zhdanovskoye, Zapolyarnoye, Bystrinskoye, Tundrovoye, Sputnik, and Verkhneye deposits). The deposits in the Western and Eastern clusters have been developed since the 1930s and 1960s, respectively.

Balance metal reserves involved in 2019

// mln t of ore

Ni – 47 kt **Cu** – 21 kt and probable reserves **35 mlnt of ore Ni** – 0.5 mln t **Cu** – 0.3 mln t

Measured and indicated resources

mln t of ore

Ni − 2 mln t **Cu** − 1 mln t

Proven



Ni − 3 mln t **Cu** − 1.5 mln t

Company overview	Strategic report	Commodity market overview	Business overview	Sustainable development	Corporate governance
	Shelopugino	Gazimursky Zavod		Bystrinskoye Deposit X (Cu, Au, Fe, Ag)	
; ; ;	Shakhtaminskaya Area Cu, Au, Ag, Mo)			Bystrinsko-Shirinskoye Deposit	(Au)
		Chingitayska Ar	ya X ea X (Fe)		

BYSTRINSKOYE DEPOSIT

Location and profile

The Bystrinskoye deposit is located in the Zabaykalsky Region, 16 km east of Gazimursky Zavod. Nornickel owns 50.01% of GRK Bystrinskoye which develops gold-iron-copper ores of the Bystrinskoye deposit. The Bystrinskoye deposit and Bystrinsky GOK came online in 2019.



Balance reserves involved in 2019

10 mln t of ore

Cu – 61 kt **Au** – 317 koz **Ag** – 823 koz **Fe** – 2 mln t



NKOMATI DEPOSIT

Location and profile

The Nkomati disseminated copper-nickel sulphide ore deposit is part of the Bushveld Complex in South Africa. The deposit consists of several ore bodies. The major ones are a solid sulphide ore body (highgrade nickel ore) and the main mineralisation zone (MMZ ore). It also includes a peridotite chromite mineralisation zone (PCMZ) with a lower metal content vs the main mineralisation zone. The deposit is developed by Nkomati (50%-owned by Nornickel). In 2019, the Group and its operating partner, African Rainbow Minerals, reached an agreement to scale down production at Nkomati Nickel Mine during 2020. As part of this process, the partners will elaborate in due course a plan contemplating the cessation of the mining operations and the placing of the mine in care and maintenance.

Proven and probable reserves

Ni – 22 kt Cu – 8 kt Co – 1 kt PGMs – 0.2 Moz

Measured and indicated resources 1773 **mln t of ore**

Ni – 602 kt Cu – 236 kt Co – 32 kt PGMs – 5.2 Moz