

UPDATED STRATEGIC PLAN

Under the updated strategic development plan of the Norilsk Nickel Group for 2016, the key tasks of the Operations Function were as follows:

- redefinition of the upstream project portfolio;
- operating efficiency improvement;
- portfolio assessment of the Group's production assets.

The redefined base strategic portfolio of Polar Division's Upstream is aimed at building a strong production profile to ensure efficiency improvements going forward. The base portfolio was updated to include the most attractive and highly profitable projects. The Company's next step will be to draft comprehensive mine development plans with potential involvement of additional reserves and resources. Current project portfolio is sufficient to ensure sustainable production volumes for the next 5–10 years.

The Company has developed and started implementing the Processing Capacities Reconfiguration Programme seeking to materially improve its upstream and downstream operating efficiency. In 2016, the Company commissioned Stage 2 of Talnakh Concentrator. The facility upgrade is going as planned, with the Nickel Plant shutdown completed by now.

The operating efficiency programme for 2015–2017 seeks to streamline the mining planning process, increase overall recovery rates for nickel, copper, cobalt, and PGM, re-process secondary resources (tailings, copper slags, and nickel bearing pyrrhotite with a low nickel content), and optimise the work-in-progress inventory levels. Other efficiency programmes include upgrade of nickel and cobalt production technologies at Kola MMC (completed), improvement of product quality and optimisation of production costs.

THE RECONFIGURATION OF THE COMPANY'S SMELTING AND REFINING CAPACITIES AIMS AT

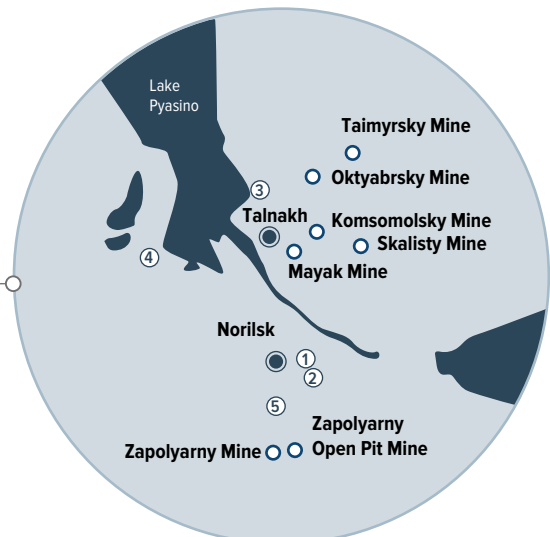
- Improving operating efficiency through a more balanced and fuller utilisation of capacities following the Nickel Plant shutdown (completed in August 2016),
- raming up of pyrometallurgical capacities at Nadezhda Metallurgical Plant (completed),
- reconstruction of nickel refining capacities at Kola MMC (2015–2018).

TAIMYR PENINSULA

(Norilsk Nickel's Polar Division)

Polar Division is located on the Russian Taimyr Peninsula (beyond the Arctic Circle at 69oN). It is linked to other regions by inland waterways (the Yenisey River), the Northern Sea Route and air.

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|--------------------|---|--------------------------------|
| ● Residential Area | ① Copper Plant | ③ Talnakh Concentrator |
| ○ Mines | ② Nickel Plant (shut down in August 2016) | ④ Nadezhda Metallurgical Plant |
| | | ⑤ Norilsk Concentrator |



Polar Division is the Group's flagship subsidiary featuring a full metal production cycle that embraces operations ranging from ore mining to the shipment of end products to consumers. This is where the Company has its largest ore deposits.



Mining

Mining assets

Field/Mine	Mine type	Ores ¹
Oktyabrskoye Field		Copper-nickel sulphide ores
Oktyabrsky Mine	Underground	Rich, cuprous and disseminated
Taimyrsky Mine	Underground	Rich
Talnakhskoye Field		Copper-nickel sulphide ores
Komsomolsky Mine^{2,3}, including		
Komsomolskaya mine ^{2,3,4}	Underground	Cuprous and disseminated
Skalistaya mine ^{2,3}	Underground	Rich
Mayak Mine ^{2,3,5}	Underground	Rich and disseminated
Norilsk-1 Field		Copper-nickel sulphide ores
Zapolyarny Mine⁶, including		
Zapolyarny open pit	Open pit	Disseminated
Zapolyarnaya mine	Underground	Disseminated

Talnakhskoye and Oktyabrskoye Fields are developed by Taimyrsky, Oktyabrsky, Komsomolsky (including Komsomolskaya and Skalistaya mines) and Mayak Mines. Ores are extracted through slicing and chamber mining with flowable backfilling.

Norilsk-1 Field is developed by Zapolyarny Mine through open-pit and underground mining. Underground mining is carried out through sublevel (level) caving using front ore passes and mechanised vehicles.

¹ Rich ores are characterised by a higher content of non-ferrous and precious metals; cuprous ores are characterised by a higher copper content vs nickel; disseminated ores are characterised by a lower metal content.

² In 2010, the Talnakh Mining Administration was transformed into Komsomolsky Mine consisting of Komsomolskaya, Skalistaya and Mayak mines.

³ In 2015, Mayak mine was spun off from Komsomolsky Mine (consisting of Komsomolskaya, Skalistaya and Mayak mines) to become an independent operation, Mayak Mine. Komsomolsky Mine was left with Komsomolskaya and Skalistaya mines.

⁴ Komsomolskaya mine is responsible for the development of Talnakhskoye Field and the eastern part of Oktyabrskoye Field.

⁵ In 2013–2014, part of Komsomolsky Mine.

⁶ In 2010, the Norilsk-1 Mining Administration was transformed into Zapolyarny Mine. Medvezhy Ruchey Mine was integrated into Zapolyarny Mine as Zapolyarny open pit.

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Ore output, t

Field	Ore type	2014	2015	2016
Oktyabrskoye Field				
Oktyabrsky Mine	Rich	1,891,800	1,682,250	1,294,200
	Cuprous	2,938,400	2,982,700	3,038,820
	Disseminated	290,134	457,791	984,762
Taimyrsky Mine	Rich	3,614,544	3,713,600	3,545,686
Talnakhskoye and Oktyabrskoye Fields				
Komsomolsky Mine	Rich	1,041,521	1,112,021	1,314,425
	Cuprous	2,484,095	2,421,055	4,041,807
	Disseminated	2,035,231	1,535,514	0
Talnakhskoye Field				
Mayak Mine	Rich	0	33,670	37,520
	Disseminated	0	898,120	951,240
Norilsk-1 Field				
Zapolyarny Mine	Disseminated	2,748,718	2,490,848	2,035,750
	Rich	6,547,865	6,541,541	6,191,831
	Cuprous	5,422,495	5,403,755	7,080,627
Total	Disseminated	5,074,083	5,382,273	3,971,752
	Total	17,044,443	17,327,569	17,244,210

In 2016, Polar Division's total ore output stood at 17.2 mln t, down 83.4 kt, or 0.5% y-o-y. The production of rich and disseminated ores declined by 15%, whereas the output of cuprous ores spiked by 31% thanks to higher volumes at Oktyabrsky and Komsomolsky Mines. The change in ore output was in line with the annual production plan.

Average metal content in ore, %

Metal	2014	2015	2016
Nickel	1.29	1.27	1.23
Copper	2.08	2.06	2.09
PGM, g/t	6.77	6.85	6.81

Ore production breakdown by metal content in 2016, %

Mines	Ore output	Metal content in ore		
		Nickel	Copper	PGM
Oktyabrsky	30.9	26.5	44.1	39.6
Taimyrsky	20.6	41.0	26.3	17.7
Komsomolsky	31.0	27.4	24.1	29.3
Komsomolskaya mine	23.3	11.4	14.8	20.4
Skalistaya mine	7.7	16.0	9.3	8.9
Mayak	5.7	2.2	2.9	3.6
Zapolyarny	11.8	2.9	2.6	9.8
Total	100	100	100	100

Concentration

Concentration facilities:

- Talnakh Concentrator
- Norilsk Concentrator

Talnakh Concentrator processes rich and cuprous ores from Oktyabrskoye Field to produce nickel, copper and pyrrhotite concentrates. The key processing stages include crushing, breaking, flotation and thickening.

Norilsk Concentrator processes all disseminated and cuprous ores from Talnakhskoye and Oktyabrskoye Fields to produce nickel and copper concentrates. The key processing stages include crushing, breaking, gravitation and flotation enrichment, and thickening.

Thickened concentrates are transported via a pipeline from Talnakh and Norilsk Concentrators to the smelting facilities for further processing.

Metals recovery in concentration, %

Metal	2014	2015	2016
Nickel	82.0	81.3	77.1
Copper	95.8	95.5	94.2
PGM	81.4	79.3	77.7

In 2016, Polar Division's Production Association of Concentrators processed a total of

16.7 mln t

of feedstock (including rich, cuprous and disseminated ores)

In 2016, sulphide ore processing volumes at Talnakh Concentrator were up 0.6 mln t y-o-y (8.6 mln t in 2016 vs 8.0 mln t in 2015). 1H 2016 saw the installation of new flotation machines, a semi-autogenous grinding mill (SAG), and fine grinding mills. From 2H 2016, Talnakh Concentrator has been fine-tuning the new technology, which temporarily reduced the recovery rates for 2016. On the flip side, higher nickel and copper content in the collective flotation concentrate, as a result of the upgrade, improved its overall quality as compared to 2015, with the nickel content growing by 0.6% (5.3% in 2016 vs 4.8% in 2015) and the copper content increasing by 2.2% (10.0% in 2016 vs 7.8% in 2015). In the reporting year, the rate of copper recovery in copper concentrate was up 3.2% y-o-y (82.2% in 2016 vs 78.9% in 2015).

In 2016, the ore processing volumes at Norilsk Concentrator were down 0.7 mln t y-o-y (8.1 mln t in 2016 vs 8.8 mln t in 2015), as cuprous ores from Oktyabrsky Mine were processed at Talnakh Concentrator. In 2H 2016, the disseminated ores branch of Norilsk Concentrator processed Copper Plant's low-grade ores as part of a pilot project, which helped to partially offset the loss of copper volumes from Oktyabrsky Mine. In 2016, nickel content in the collective concentrate produced at Norilsk Concentrator went up by 0.3% y-o-y (3.4% in 2016 vs 3.1% in 2015), while copper content remained almost flat (10.13% in 2016 vs 10.11% in 2015). Copper content in the copper concentrate increased by 0.4% (23.6% in 2016 vs 23.2% in 2015).

Ore processing volumes at Talnakh Concentrator, mln t



Ore processing volumes at Norilsk Concentrator, mln t



/ Business Overview / Production

Smelting

Smelting facilities:

- Nadezhda Metallurgical Plant
- Nickel Plant (shut down in August 2016)
- Copper Plant
- Smelting Shop (part of Copper Plant)

In 2016, the Company's smelting operations continued reconfiguring their production capacities, streamlining production processes and improving maintenance of the core production equipment.

In August 2016, Nickel Plant's Smelting, Roasting, Nickel Electrolysis, and Chlorine and Cobalt Shops were shut down in the Company's Polar Division. Nickel is now being refined at Kola MMC and Norilsk Nickel Harjavalta.

Prior to the Nickel Plant shutdown, Nadezhda Metallurgical Plant processed most of the nickel concentrate, nearly all of the pyrrhotite concentrate from Talnakh Concentrator, part of the nickel concentrate from Norilsk Concentrator, some of the pyrrhotite concentrate previously stored at Kayerkansky Open Pit Coal Mine (KUR-1) to produce converter matte and elemental sulphur. Pyrrhotite concentrate from Talnakh Concentrator and stored pyrrhotite concentrate from Kayerkansky Open Pit Coal Mine is further leached in Hydrometallurgical Shop to produce steam cured sulphide concentrate. Concentrate from Talnakh Concentrator, steam cured sulphide concentrate and stored pyrrhotite concentrate from Kayerkansky Open Pit Coal Mine are delivered to the flash smelting furnaces. The matte is then blown into high-grade converter matte. From 2H 2016, after the Nickel Plant shutdown, Nadezhda Metallurgical Plant's pyrometallurgical capacities have been processing all nickel-pyrrhotite concentrate from Talnakh Concentrator and nickel concentrate from Norilsk Concentrator, while the stored pyrrhotite concentrate from Kayerkansky Open Pit Coal Mine has been delivered for processing to its Hydrometallurgical Shop.

Prior to the shutdown, Nickel Plant processed nearly all of the nickel concentrate from Norilsk Concentrator, some of the pyrrhotite and nickel concentrates from Talnakh Concentrator, part of the pyrrhotite concentrate previously stored at KUR-1 and some of the converter matte from Nadezhda Metallurgical Plant to produce commercial nickel and cobalt.

Metals recovery in smelting, %

Metal	2014	2015	2016
Nickel	92.4	93.1	93.4
Copper	94.7	94.2	94.1
PGM	93.3	93.8	95.0

Metals output

Metal	2014	2015	2016
Nickel, t	122,390	96,916	50,860
Copper, t	297,552	292,632	280,347
Palladium, koz	2,065	1,935	1,703
Platinum, koz	500	488	449

Copper Plant processes all of the copper concentrate from Norilsk and Talnakh Concentrators to obtain commercial copper, elemental sulphur and sulphuric acid for production needs of Polar Division. Smelting Shop (part of Copper Plant) recycles sludge from Copper Electrolysis Shop and Nickel Electrolysis Shop (prior to the Nickel Plant shutdown) to produce concentrates of precious metals, silver metal and selenium.

Precious metals produced by Polar Division are refined at Krasnoyarsk Gulidov Non-Ferrous Metals Plant under a tolling agreement.

At Polar Division, metals are produced from its own raw materials. From Q4 2016, all nickel converter matte from Nadezhda Metallurgical Plant was processed at Kola MMC due to the Nickel Plant shutdown.

In 2016, the output of key metals at Polar Division was down compared to 2015. That was mainly attributable to the reconfiguration of production facilities, including the Nickel Plant shutdown and pre-commissioning operations at Talnakh Concentrator.