

## **A NEW DISCOVERY OF PGE MINERALIZATION IN THE LAYERED PANSKY INTRUSION, KOLA PENINSULA, NW RUSSIA**

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A new occurrence of PGE mineralization has been discovered at the Peshempahk locality, in the central part of the Pansky Tundra Massif, 300m away from the massif base. The low-grade sulphide PGE mineralization is confined to a layer of petrographically inhomogeneous, rhythmically laminated rocks at the bottom of the gabbro-norite zone. The PGE-bearing layer is composed predominantly of gabbro-norite (pabC, paCB, pbCA) and contains gabbro (paC), norite (pbC) and anorthosite (pCa). The interlayers of norite range from 1 to 15m in thickness, and of leucogabbro, from 0.1 to 10 m. The anorthosite forms persistent interlayers 5 to 10m thick.

The PGE mineralization is closely associated with the low-grade nickel-copper sulphide ores and can be traced for over 1 km along strike. The total PGE content is 10-14 ppm with the Pt/Pd ratio ~0.2, and it does not change along strike. The average contents of other metals are: Au 0.5 ppm, Ni 0.2 %, Cu 0.3 %.

The PGE mineralization is related to the sulphide dissemination of pyrrhotite, chalcopyrite and pentlandite. The predominating platinum group minerals are kotulskite, merenskyite, moncheite, sperrylite and cooperite. The platinum metals are typically closely associated with PGE-bearing minerals of the cobaltite-gersdorffite series. The average grain size of the platinum group minerals in this layer is higher than in other ore occurrences of the Pansky massif and this makes the new occurrence favourable in technological respects.