Kzyl-Kainskoye deposit
Aktobe region

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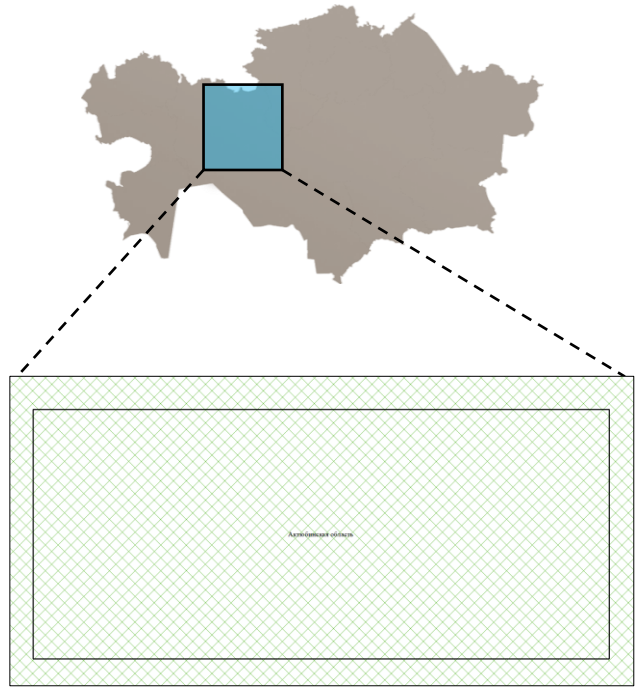
Location: The Kzyl -Kainskoye deposit was discovered in 1935 during geological survey work on a scale of 1:100000. It is located 8 km southeast of the Nikel-Tau railway station in the Aktobe region.

Brief geological characteristics: Industrial concentrations of cobalt and nickel are associated with the weathering crust of serpentinites that make up the Kara -Agash syncline within a gentle watershed upland. The deposit comprises four ore deposits of a sheet-like shape and horizontal occurrence with high variability in thickness and a complex configuration of the roof and base. The length of the ore bodies along the strike is 100-900 m with an average width of 76 m, the thickness from 0.8 to 22.3 m, on average for the deposit is 5.4 m. The depth of the roof of the ore bodies varies within the range of 0.2-15.7 m. The total area of ore bodies on the surface is 396.9 thousand sq. m. In addition, four ore bodies with off-balance reserves of substandard ores with a cut-off nickel content of 0.5% have been identified. Their occurrence pattern is similar to the main industrial deposits.

Nontronite is present in the ore in the amount of 40-90%. It forms fine-flaky aggregates and solid earthy masses. Nickel-containing chlorite (1-40%) occurs in the form of dense massive formations. The amount of kerolite is inconstant and varies within 1-10%. It occurs in the form of white and green veins. Veins, drips and dense crusts of asbolane do not exceed 1-1.5%.

The deposit ores are divided into two technological types: ferrous and magnesian. The first is represented by ochristo -nontronite ores, the second by leached and nontronitized serpentinites. The most effective ore processing is by electric smelting to produce ferronickel. In this case, nickel extraction is 90%, cobalt - 75-80%. The average ore contains (%): nickel - 1.13, cobalt - 0.057, copper - 0.019%, chromium oxide - 4.79%.



- the outline of the Kzyl -Kainskoye deposit, included in the PUGFN for solid mineral extraction, for auction

- license for GIN

Extract from the state inventory records as of 01.01.2024.		
Useful component	**Balance reserves**	**Off-balance sheet reserves**
nickel	C2 – 1.5 thousand tons	6.4 thousand tons
cobalt	C2 – 37 tons	656 tons