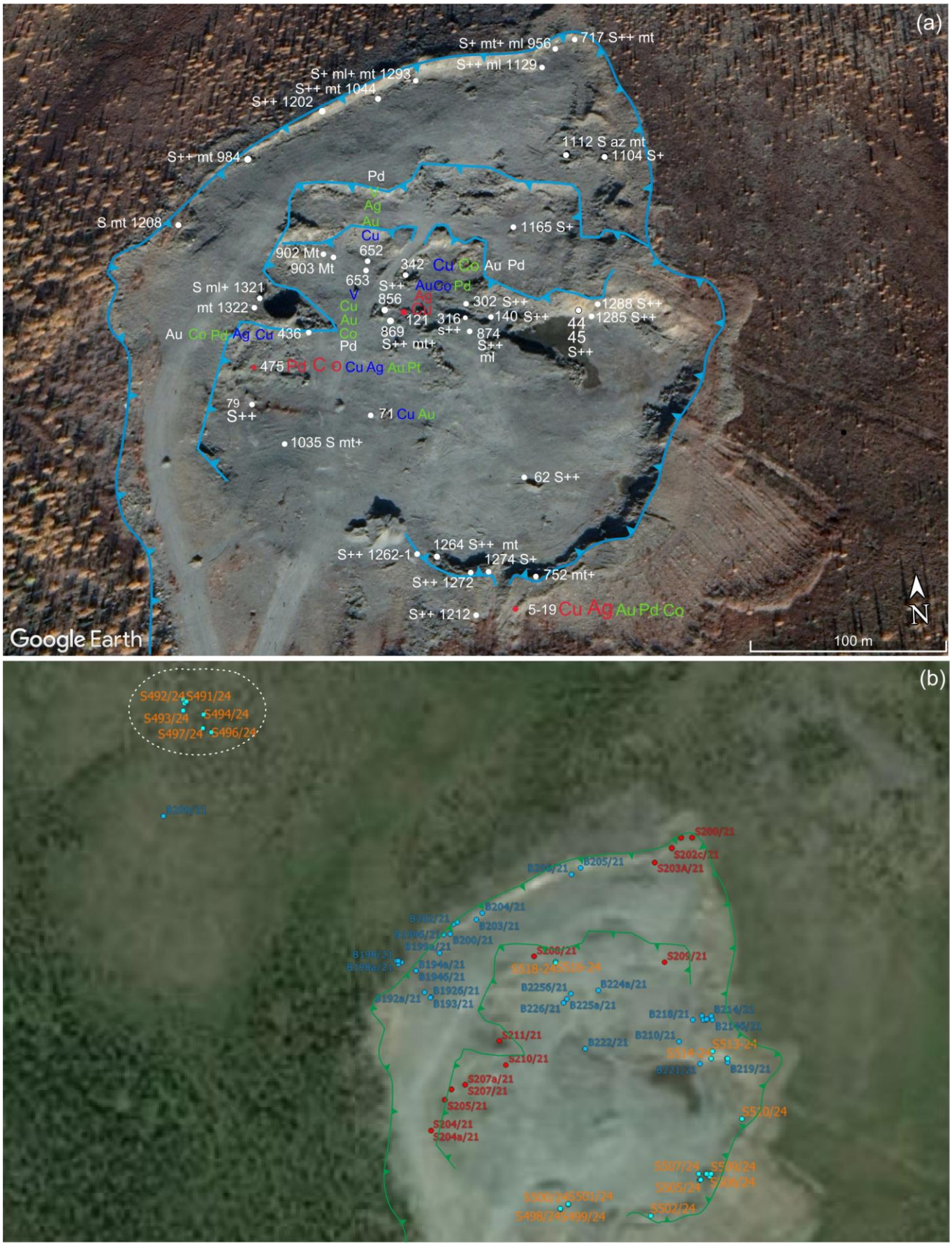

Fig. ESM-4. Scheme of sampling at the Amphibolite quarry (the Vasilinovskoe ore occurrence) in 2018–2020 (a) (Vikentyev et al., 2024) and in 2021–2024 (b). The satellite image (a) shows sampling points and their generalized mineralogical and geochemical characteristics. Legend: presence of magnetite impregnation in the rocks by concentration levels: poor (mt), elevated (mt+), and anomalous (mt++). Mt is the magnetite ore; the sulfide impurity level observed visually in lumps in the rocks: poor (S), elevated (S+), anomalous (S++); presence of azurite (az) and malachite (ml) smears and nests: malachite (ml+) in elevated quantity; white symbols of Au and Pd elements show the position of the samples with finds of their minerals. Colored symbols of the Cu, Co, Au, Ag, Pd, and Pt chemical elements indicate the metal content levels in the core and specimen samples, according to the spectroscopy and fire assay analysis (the increasing font size corresponds to the growth of the relative content): ore level (red font); highly anomalous (ore caused) level (blue); medium anomalous level of copper (>0.3, >0.1, and >0.04 wt %), cobalt (>0.06, >0.02, and >0.01 wt %), gold (>1, >0.3, and >0.07 ppm), silver (>3.5, >0.7, and >0.15 ppm), and palladium and platinum (>1.2, >0.4, and >0.1 ppm) (green). Red dots show three samples with the anomalous enrichment in Pd and Pt ± Au (they contain the main findings of the Pd, Au, and Pt minerals). The dotted line on (b) outlines samples from the new quarry.