

■ CHAPTER 3.
**UNIQUE PLATINUM PLACER DEPOSITS OF
 THE KONDER AND UORGALAN RIVERS**

3.1. Isoferroplatinum: cubic crystal slightly elongated on [100].
 10 x 8 x 6 mm, 8.4 g.
 Gokhran of Russia.
 Photo: Michael B. Leybov.



3.1

3.2. Isoferroplatinum: interpenetrant twin on (111) with gold crusts and epitactically overgrown cubic crystals of gold.
 9 x 8 x 6 mm, 2.6 g.
 Gokhran of Russia.
 Photo: Michael B. Leybov.



3.2

The area with platinum-group elements (PGE) placer deposit and Konder Massif covers Konder and Uorgalan river drainages. They are tributaries of the Maya River (Fig. 0.1). The Konder ring ridge is a major mountain in this area (Fig. 3.3). Its altitude is 1100–1387.6 m above the sea level (a.s.l.), whereas its branches are 600–900 m a.s.l. The ridge is 400–600 m above the valley bottoms. The Konder River runs north; it does not exceed 3–5 m in width; it is 0.3–1.5 m deep. During spring and fall floods, the water level can rise by up to 1.5 m. In winter, Konder is frozen down to the bottom. The district climate is continental with long harsh winter (7–8 months) and short hot summer (1.5–2 months). Mean temperatures of January, the coldest month, and July, the warmest month, are -36°C and +16°C, respectively. Mean annual temperature is -10°C. This factor produced a widespread permafrost zone.

The thickness of the permafrost on the slopes and waterdivides is more than 100–150 m and ranges from 3 to 30 m in the valleys. Mean annual rainfall is 400 mm, 300 mm of which falls in summer. Rivers freeze in October and open in late May. Frequent gusty winds, reaching 20–30 m/sec, are a typical microclimate feature within the Konder ring ridge. Taiga vegetation covers valleys and lower parts of their slopes. Larch is a dominant tree, while pine, spruce, poplar, asp, birch, alder, and mountain ash also occur. Dwarf pine and dwarf birch cover divides and their slopes. The animal world is quite poor and includes bear, wolf, reindeer, fox, ermine, sable, squir-



3.3

3.3. The Appendix Creek valley, in whose alluvium of which the Aldan Expedition of the All-Union Aerogeological Trust found the first small placer platinum-group minerals deposit in the district in 1958. Outlines of the abandoned channel-fill placer are well seen in the valley bottom (brown-yellow color). At far is the eastern slope of the Konder ring ridge. Photo of 2011.