

Rick Carlson and Dmitri Ionov visited a number of mantle xenolith localities within a 50 km radius of Khorgo in Central Mongolia. Significant collections of mantle peridotite were obtained from 5 different localities. One (Shavaryn Tsaram) provided abundant xenoliths, some to 0.5 m size, that ranged from very fertile lherzolites to pyroxene-poor harzburgites. Most localities also yielded sanidine xenocrysts (to 3 cm) that could be useful in the dating of these young volcanic centers. A suite of lower crustal xenoliths was collected from Shavaryn Tsaram that could provide useful information on the evolution of lower crustal pressures and temperatures with time that might reflect the cause of the uplift of the Hangay Plateau. Besides the xenoliths, basalts were collected from several localities along the Chuluut River and its tributaries, a stratigraphic section from along the Gichigin River, and at the end of the Gichigan River Valley from a newly discovered volcanic center. Overall, slightly more than 300 kg of xenolith and basalt were shipped back to DTM for chemical and isotopic analysis.