

Fig. 2-2-44 (6) Scores of Principal Component Analysis in the Camarones Area (6th Comp.)

Regarding the fifth principal component, eigenvector of Ag is high, and many high principal component score areas agree with the distribution of quartz porphyry and the quartz veins of the Camarones zones. Therefore this component is considered to represent the porphyry copper mineralization and the following epithermal activity.

Regarding the sixth principal component, eigenvectors of Au and Mo are high, and many high principal component score areas agree with the distribution of granitic bodies and the copper mineral showings of the Camarones zones. Therefore this component is considered to represent the porphyry copper mineralization.

2 - 9 Pachica district

A geological map of this area is shown in Figure 2-2-45, schematic geologic columns in Figure 2-2-46, mineral showings in Figure 2-2-47, distribution of altered minerals in Figure 2-2-48, and rock geochemical anomaly distribution in Figure 2-2-49.

The geology of this area is composed of Lower Cretaceous System, Tertiary System, Quaternary System, and intrusive rocks.

The Lower Cretaceous System comprises andesitic lava, small dykes, and pyroclastic rocks. They are intruded by intrusive rocks. The intrusive rocks are granodiorite and diorite, and we placed their intrusive age to be Cretaceous in accordance with existing geological maps. The Lower Cretaceous System and the above intrusive rocks are overlain unconformably by Tertiary System.

The Tertiary System consists of Oligocene~Miocene basalt and conglomerate, and Miocene~Pliocene ignimbrite.

The Quaternary System comprises alluvium and talus deposits.

Propylitization is commonly observed in the Lower Cretaceous System of this area with local sericitization, silicification, and pyrite dissemination, also barite-quartz-limonite veinlets are found. The intrusive rocks are also propylitized, but mineralization is not observed.

The Miocene~Pliocene ignimbrite is not altered nor mineralized, but drilling has been carried out in this rock in the northeastern part of the survey area (southwest of Mocha).

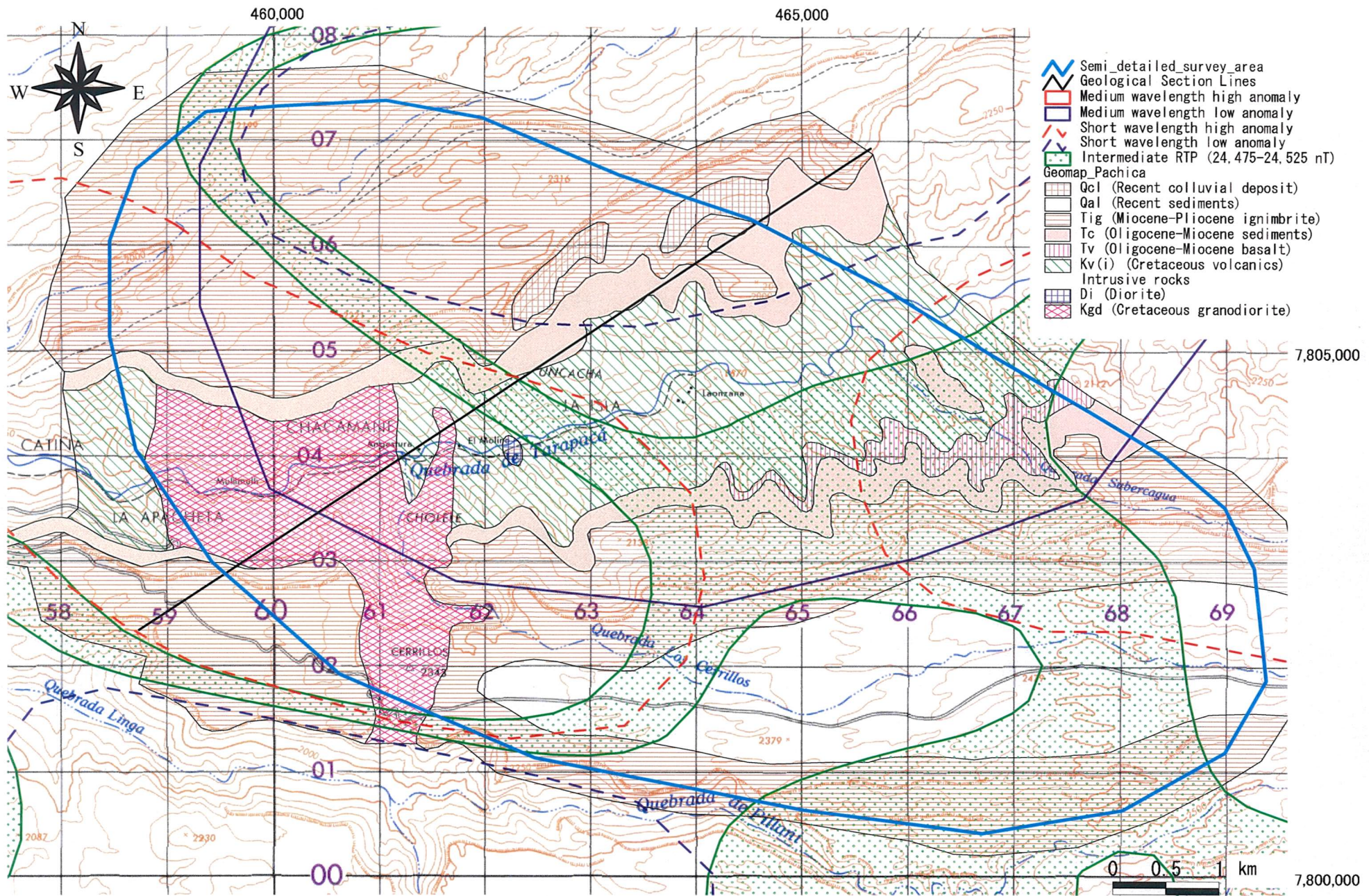
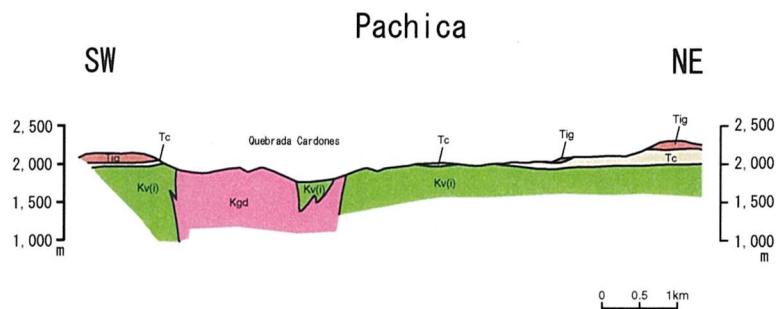


Fig. 2-2-45 Geological Map of the Pachica Area



Geologic Time		Columnar Section	Lithology	Intrusives	Mineralization
CENOZOIC	QUATERNARY	HOLOCENE	Talus Alluvium		
	TERTIARY	PLIOCENE ~ MIOCENE	Welded tuff Pumice tuff		
		MIOCENE ~ OLIGOCENE	Conglomerate Basalt		
		PALEOGENE			
MESOZOIC	CRETACEOUS	LATE		Granodiorite (Kgd) ↑ Diorite (Di) ↑	pyrite, barite
		EARLY	Andesitic lava/ volcaniclastics		

Fig.2-2-46 Schematic Stratigraphic Columns and Profiles of the Pachica Area

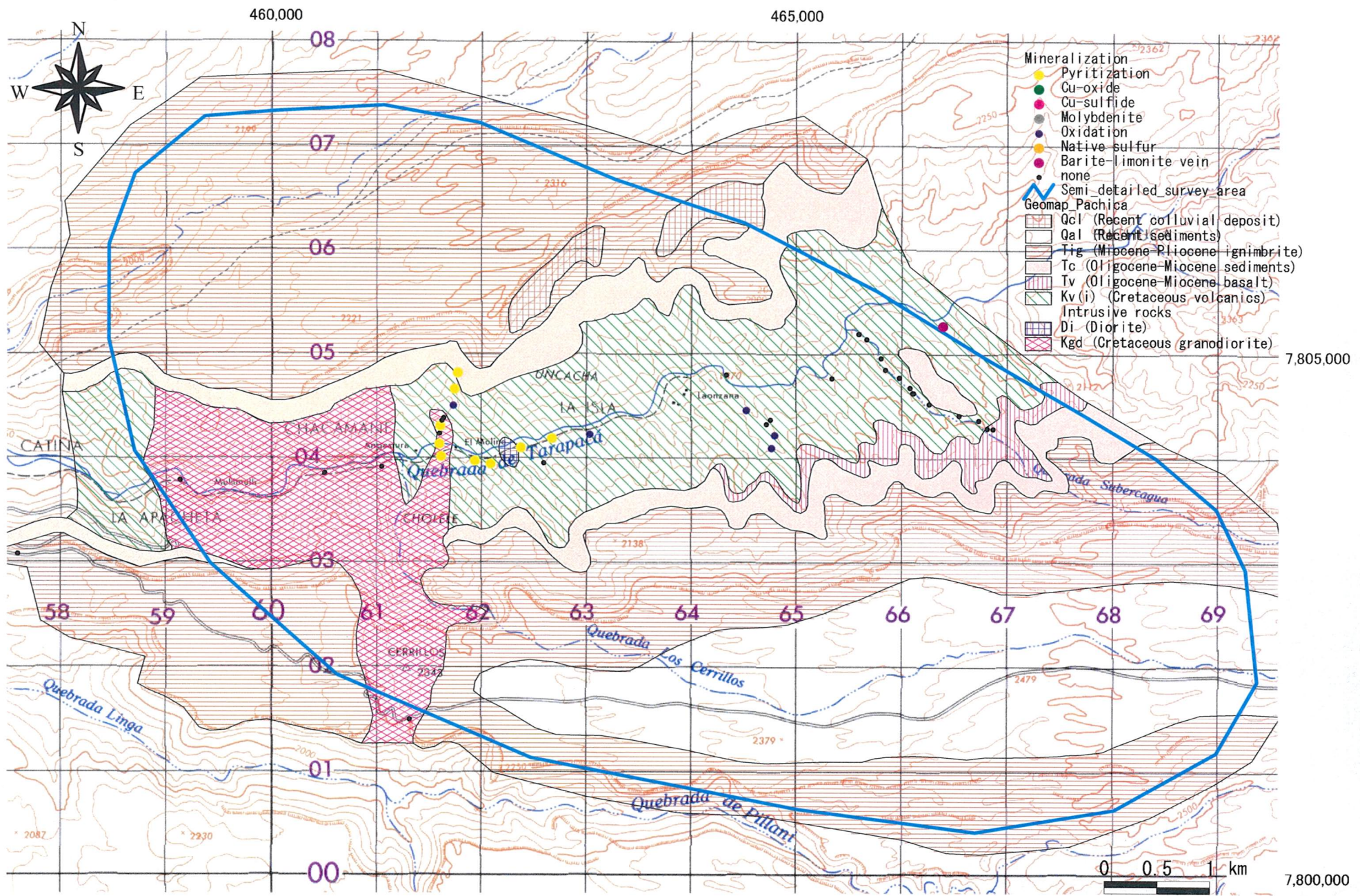


Fig. 2-2-47 Mineralization Map of the Pachica Area

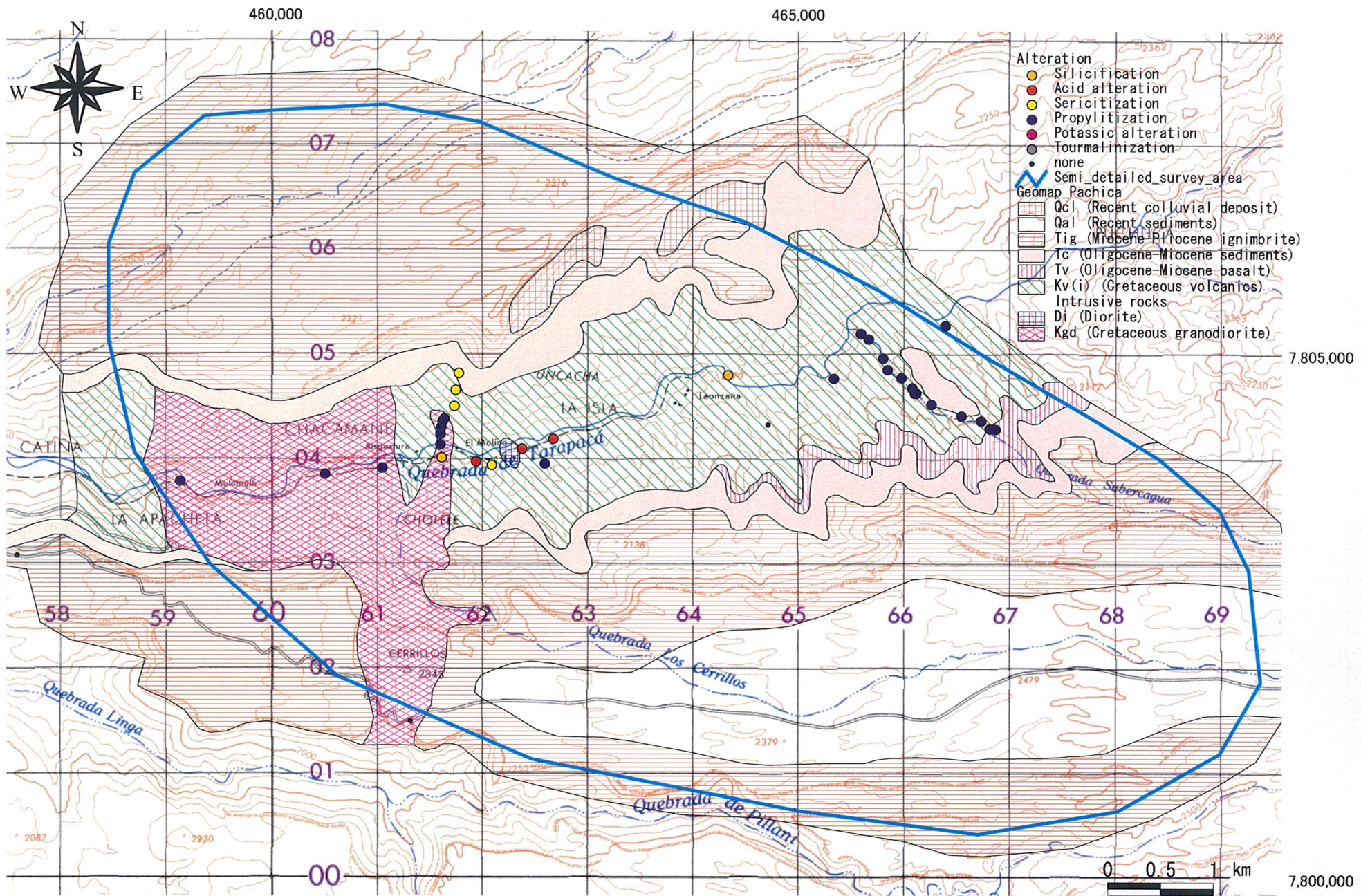


Fig. 2-2-48 Distribution Map of Alteration Minerals at the Pachica Area

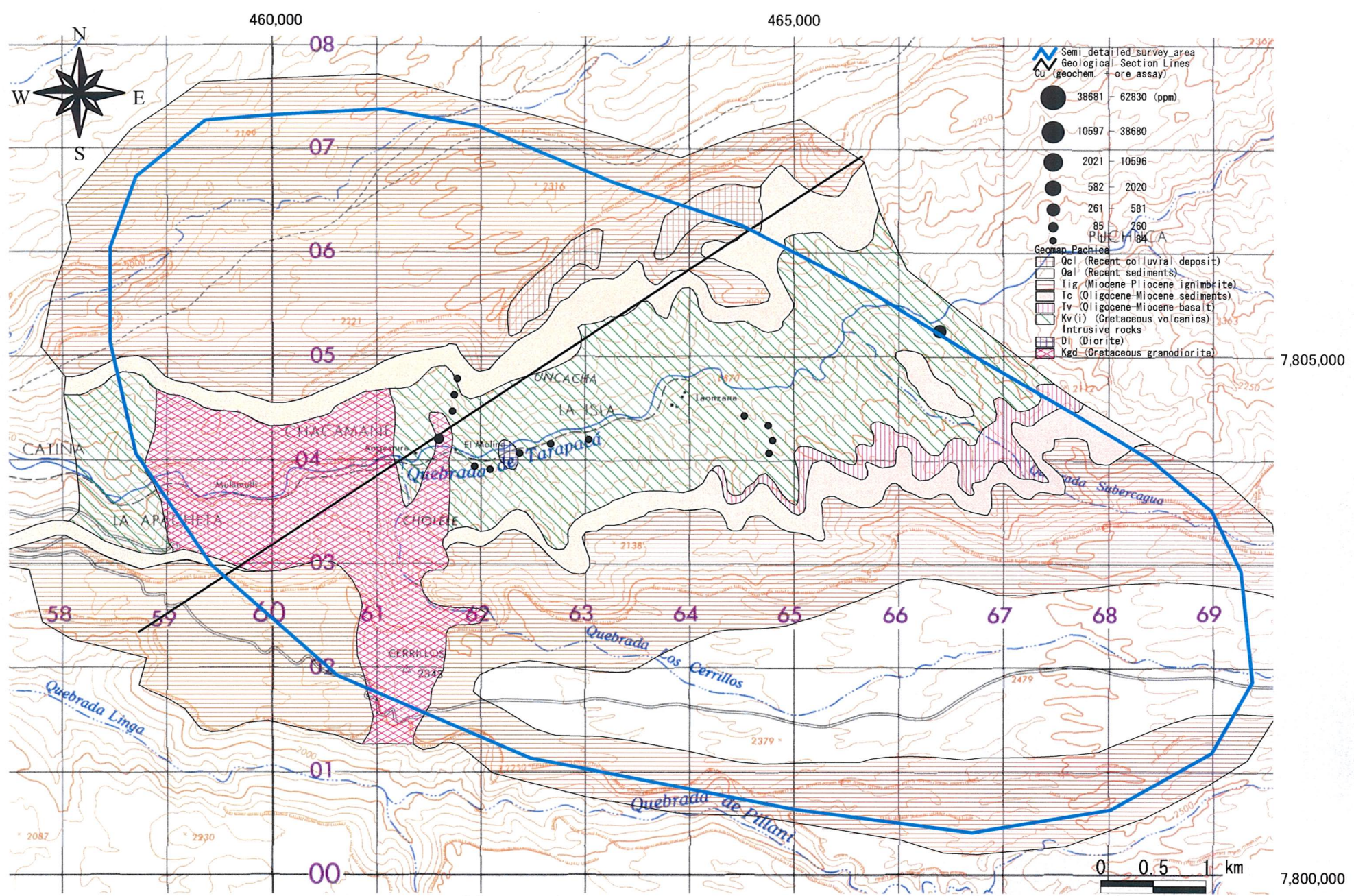


Fig. 2-2-49 (2) Geochemical Anomaly Map in the Pachica Area (Cu)

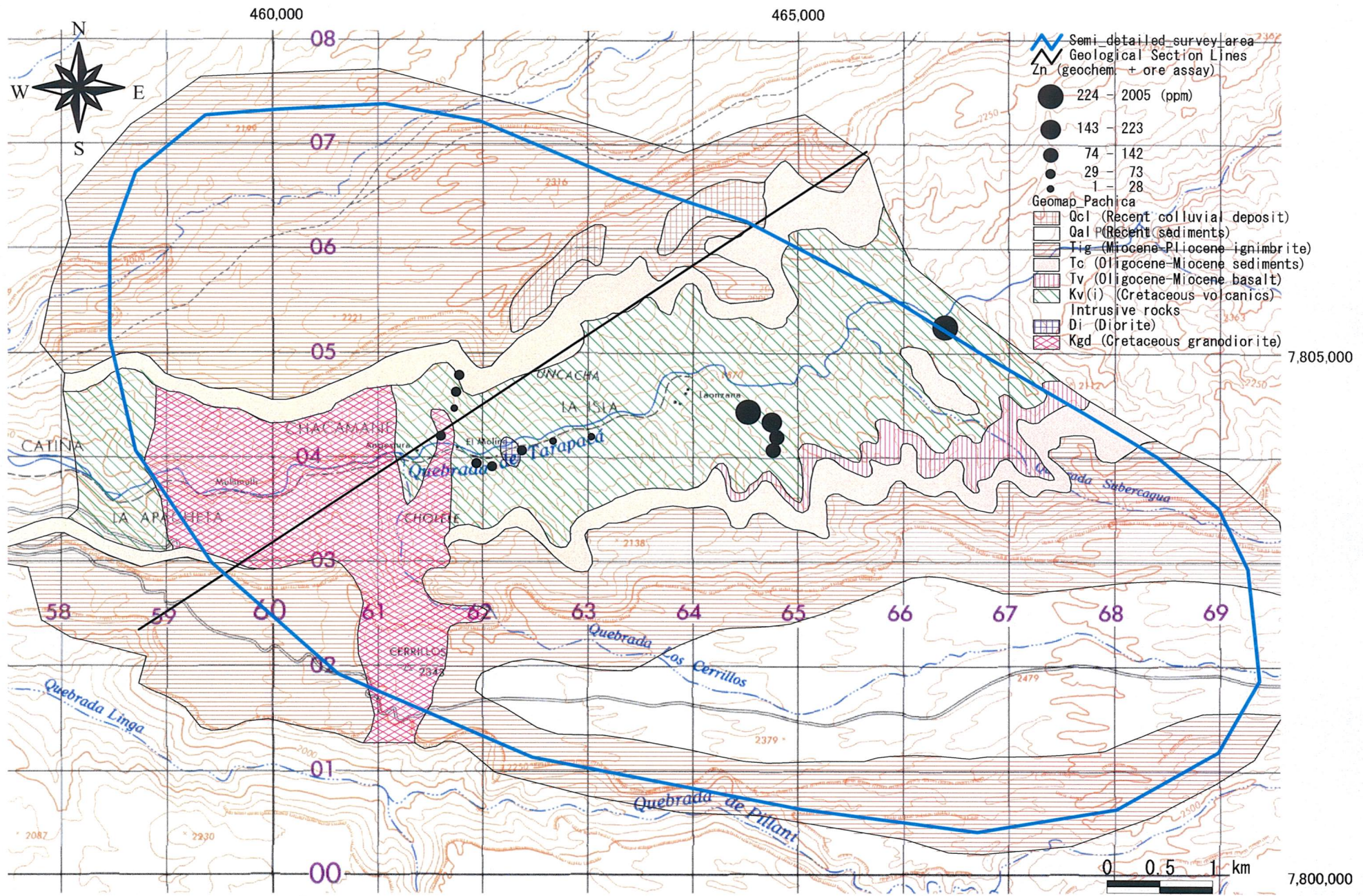


Fig. 2-2-49 (3) Geochemical Anomaly Map in the Pachica Area (Zn)

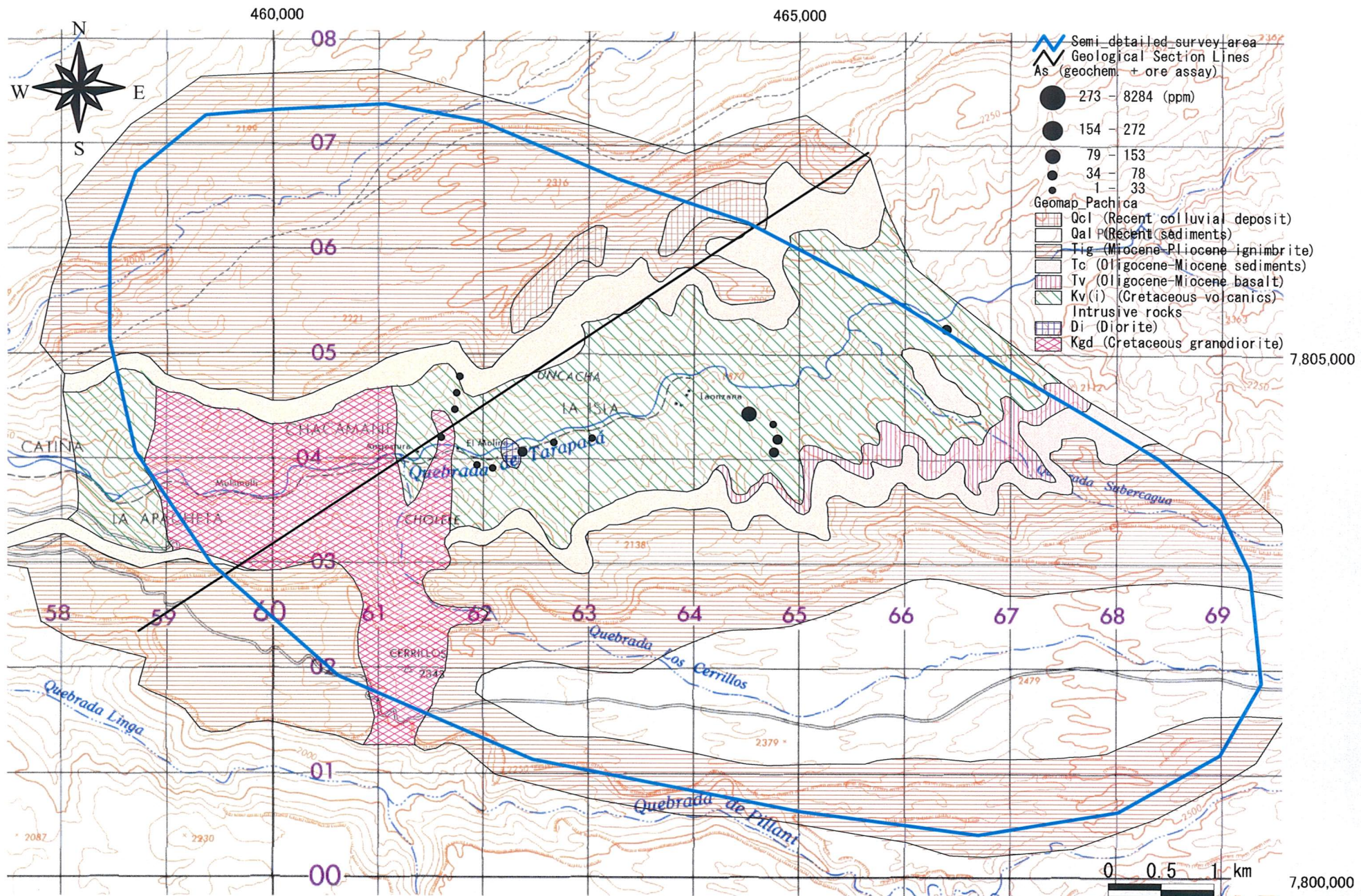


Fig. 2-2-49 (4) Geochemical Anomaly Map in the Pachica Area (As)