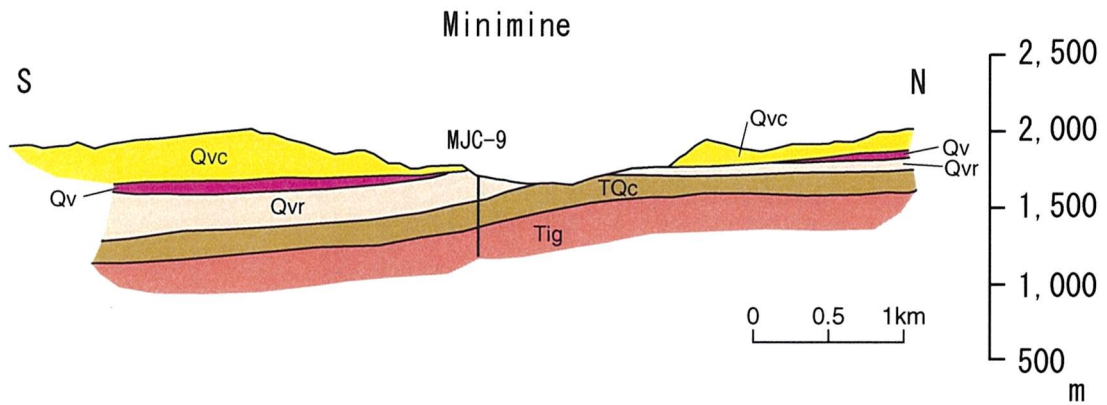


Fig. 2-1-32 Geological Map of the Minimine Area



Geologic Time		Columnar Section	Lithology	Intrusives	Mineralization
CENOZOIC	QUATERNARY		Sand, gravel		
	QUATERNARY ~ TERTIARY		Basalt ~ andesite lava		
			Welded tuff		
			Pumice tuff		
			Conglomerate		
TERTIARY	PLIOCENE ~ MIOCENE		Welded tuff		

Fig. 2-1-33 Schematic Stratigraphic Columns and Profiles of the Minimine Area

Figure 2-1-33.

The geology of this area consists of Upper Neogene-Quaternary System and Quaternary System.

The Upper Neogene-Quaternary System is composed of, in ascending order, conglomerate, ignimbrite (pumiceous tuff • welded tuff with sandstone-conglomerate intercalation), and basalt~andesite lava. These units have unconformable relation with each other.

The Quaternary System consists of gravel and sand.

Alteration and mineralized zones do not occur in this area.

In the vicinity of the overlapping zone of intermediate magnetic intensity zone and the periphery of medium wavelength low anomaly zone extracted by airborne magnetic survey, relatively lower units of the area (Upper Neogene-Quaternary System) occur, but clear correlation of the airborne magnetic anomalies and geologic structure was not observed.

1-2-8 Area to the north of Codpa

A geological map of the area is shown in Figure 2-1-34 and schematic geologic columns in Figure 2-1-35.

The geology of this area consists of Miocene-Pliocene Series, Pleistocene-Holocene Series and intrusive bodies.

The Miocene-Pliocene Series is composed of ignimbrite consisting of, from bottom upward, pebbly tuff, fine-grained tuff • volcanic ash, welded tuff • pumiceous tuff.

Pleistocene-Holocene Series comprises gravel and sand.

The surface of this area is mostly covered by horizontal thick Miocene ignimbrite. The basement of this area is Upper Cretaceous andesitic lava • pyroclastic rocks, and occurs in small scale along the deeply dissected Quebrada Vitor to the south of this area. Quartz diorite stocks intruding into the Upper Cretaceous System are observed in this zone. These Upper Cretaceous System and quartz diorite are unconformably overlain by Lower Miocene polymictic conglomerate, which in turn is overlain unconformably by Miocene-Pliocene

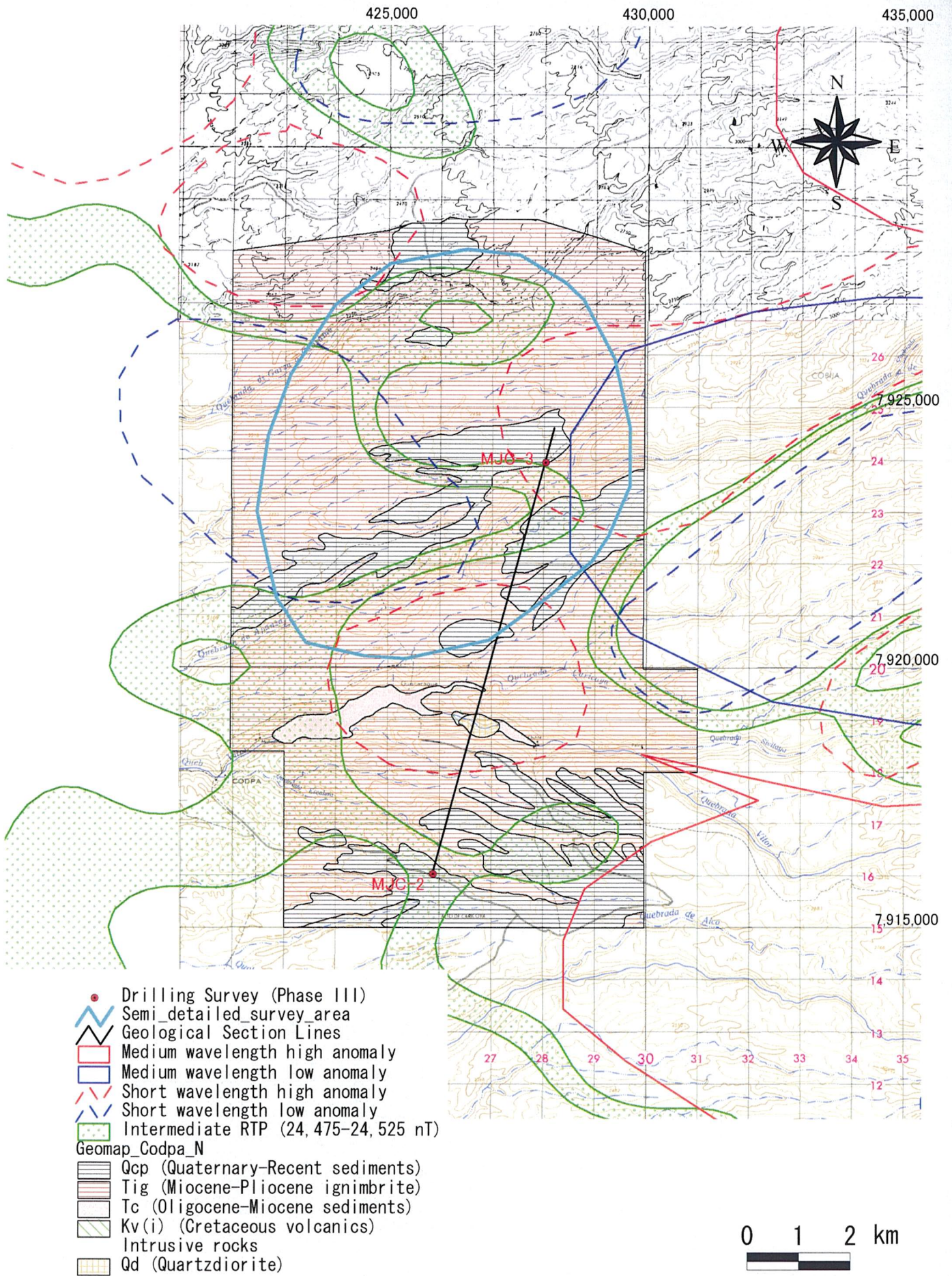
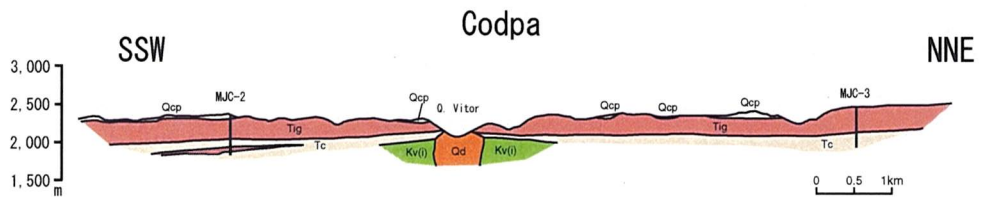


Fig. 2-1-34 Geological Map of the Area to the North of Codpa



Geologic Time		Columnar Section	Lithology	Intrusives	Mineralization
CENOZOIC	QUATERNARY	HOLOCENE ~ PLEISTOCENE	Qcp	Gravel, sand	
	TERTIARY	PLIOCENE ~ MIOCENE	Tg	Welded tuff Pumice tuff Fine tuff Pebbly tuff	
		MIOCENE	Tc	Conglomerate	
		PALEOGENE			Quartz diorite (Qd) ↑
MESOZOIC	CRETACEOUS	LATE	Kv(l) Qd Kv(l)	Andesitic lava/ volcaniclastics	

Fig. 2-1-35 Schematic Stratigraphic Columns and Profiles of the Area to the North of Codpa

ignimbrite.

Alteration and mineralized zones do not occur in this survey area. But quartz veinlet groups accompanied by potassium alteration and sericitization are developed in the quartz diorite in the area to the south of this area.

Geologic structure characteristic to the areas of overlap of intermediate airborne magnetic intensity and the periphery of medium wavelength low magnetic anomaly zone is not observed in this area.

1-2-9 Area to the northwest of Tignamar

The sampling sites of this area are shown in Figure 2-1-36, geological map in Figure 2-1-37, schematic geologic columns in Figure 2-1-38, distribution of altered minerals in Figure 2-1-39, and rock geochemical anomaly distribution in Figure 2-1-40.

Upper Cretaceous-Lower Tertiary System consisting of andesitic~rhyolitic lava • pyroclastic rocks with intercalation of terrigenous sediments occur to the northeast of this area.

The geology of this survey area consists of Neogene System and Upper Tertiary-Quaternary System.

The Neogene System consists of Miocene-Pliocene ignimbrite (rhyolitic welded tuff • pumiceous tuff) and is overlain unconformably by Upper Neogene-Quaternary System.

The Upper Neogene-Quaternary System is composed of lower layer consisting mainly of felsic pumiceous tuff, and upper layer containing basaltic~andesitic lava. The lower layer has intercalation of thin beds of basaltic~andesitic lava, conglomerate, and rhyolite.

Several relatively large white-colored alteration zones extending in the NW-SE~WNW-ESE direction occur in the Upper Neogene-Quaternary basaltic~andesitic lava area. These alteration zones are acidic consisting mainly of kaolinization and limonite dissemination and are often accompanied by silicification.

Notable rock geochemical anomalies are high Pb-Zn-As anomalies.

The above alteration zones are located in the peripheries and vicinity of the intermediate

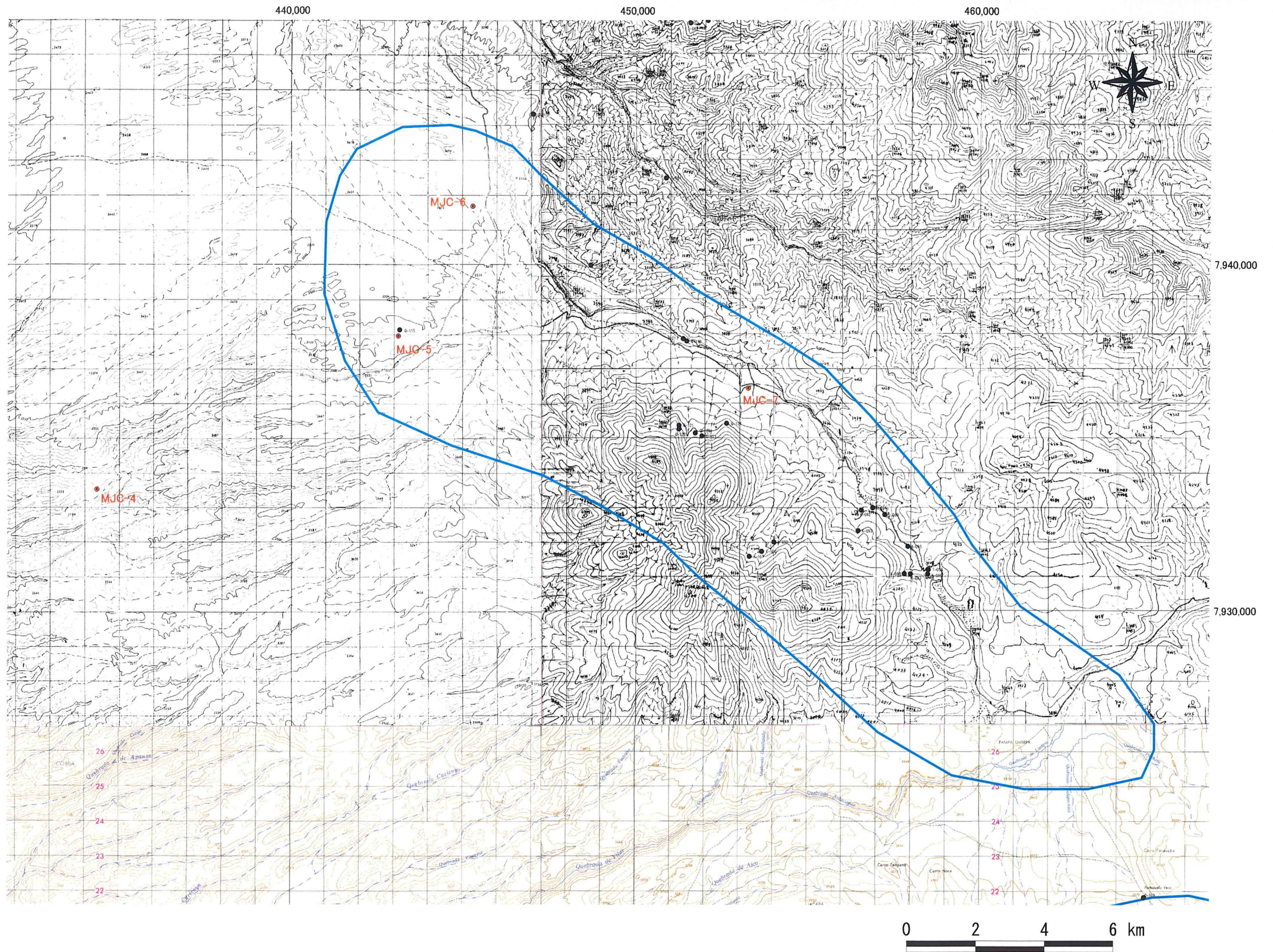


Fig. 2-1-36 Sample Location Map of the Area to the Northwest of Tignamar

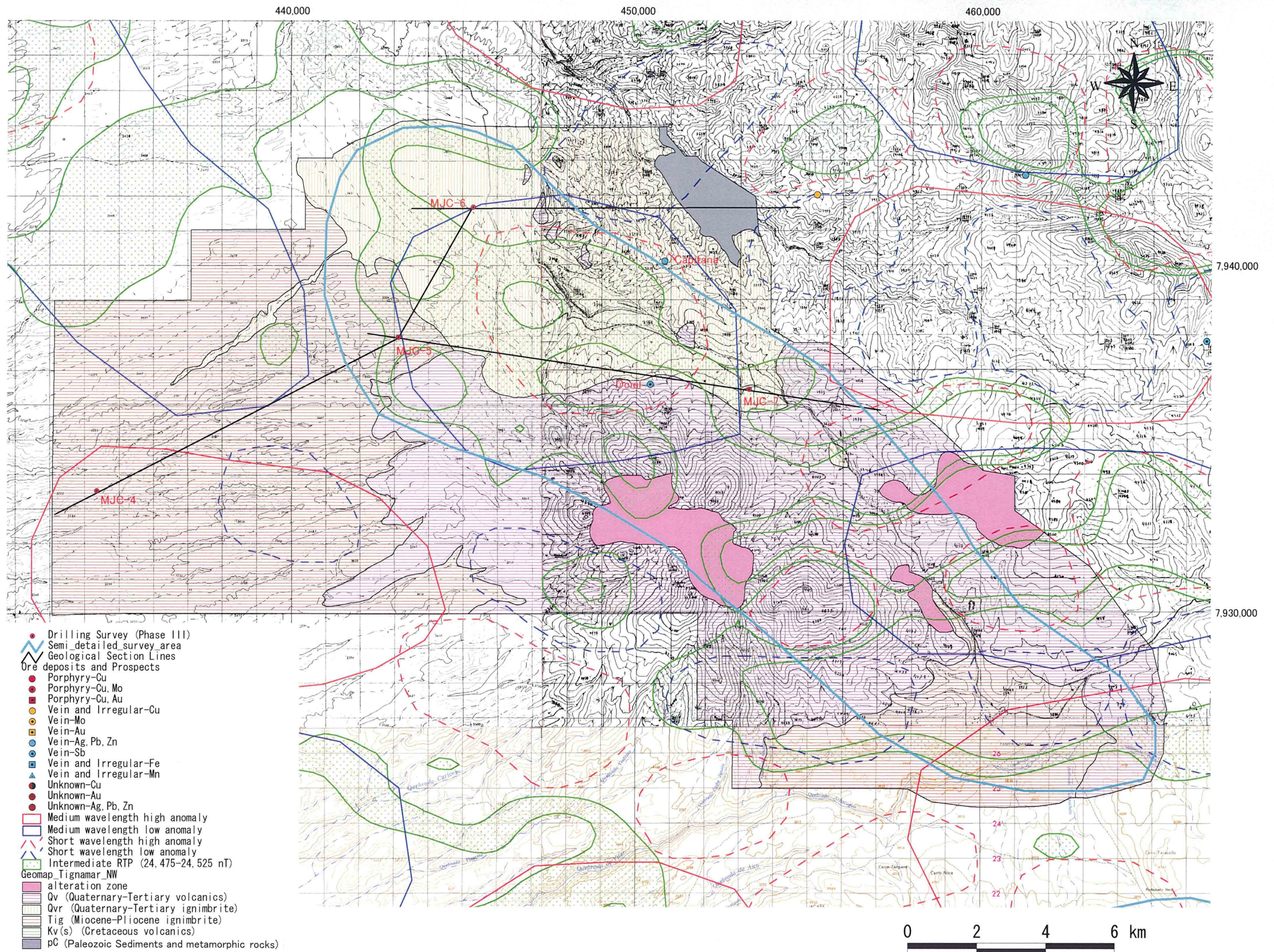
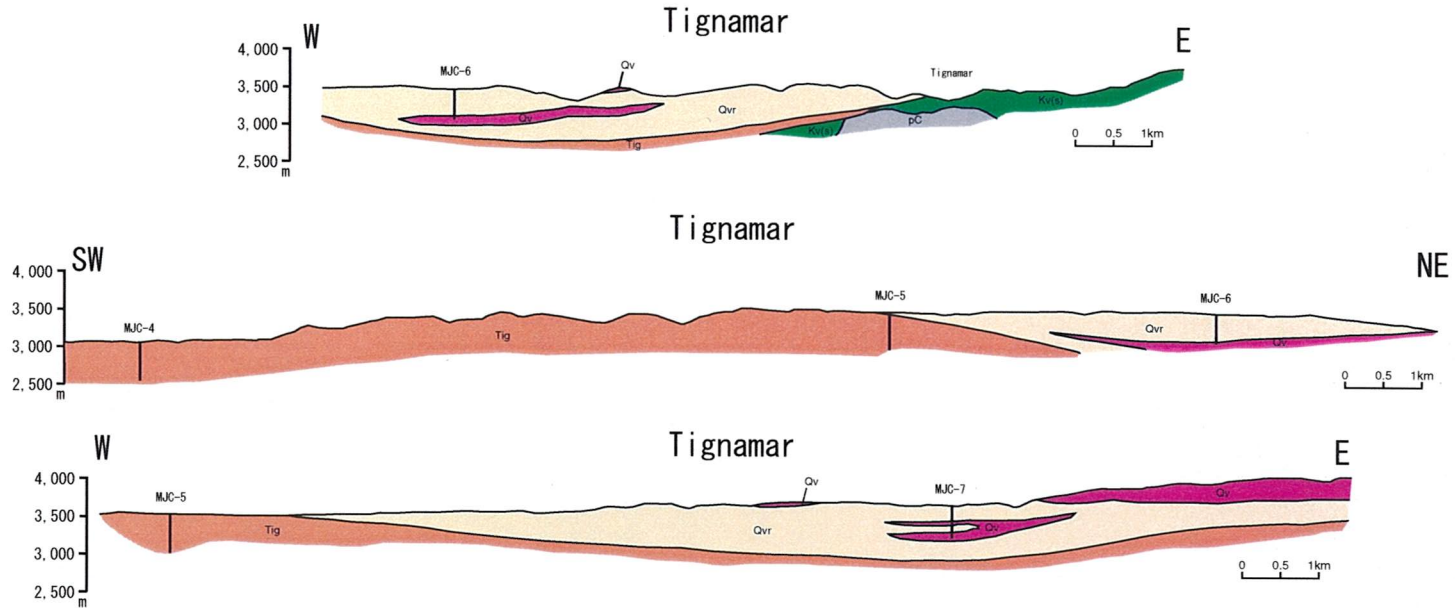


Fig. 2-1-37 Geological Map of the Area to the Northwest of Tignamar



Geologic Time		Columnar Section	Lithology	Intrusives	Mineralization	
CENOZOIC	QUATERNARY ~ TERTIARY	Qv	Basaltic ~ andesitic lava		Epithermal type (kaolin, silica)	
		Qvr	Pumice tuff			
			Rhyolite			
			Conglomerate			
TERTIARY	PLIOCENE ~ MIOCENE	Tig	Basaltic ~ andesitic lava			
			Welded tuff Pumice tuff			
	PALEOGENE					
MESOZOIC	CRETACEOUS	LATE	Kv(sy)	Andesite intercalation of continental sediments		
PALEOZOIC			pc	Gneiss Metamorphosed sedimentary and volcanic rocks		

Fig. 2-1-38 Schematic Stratigraphic Columns and Profiles of the Area to the Northwest of Tignamar

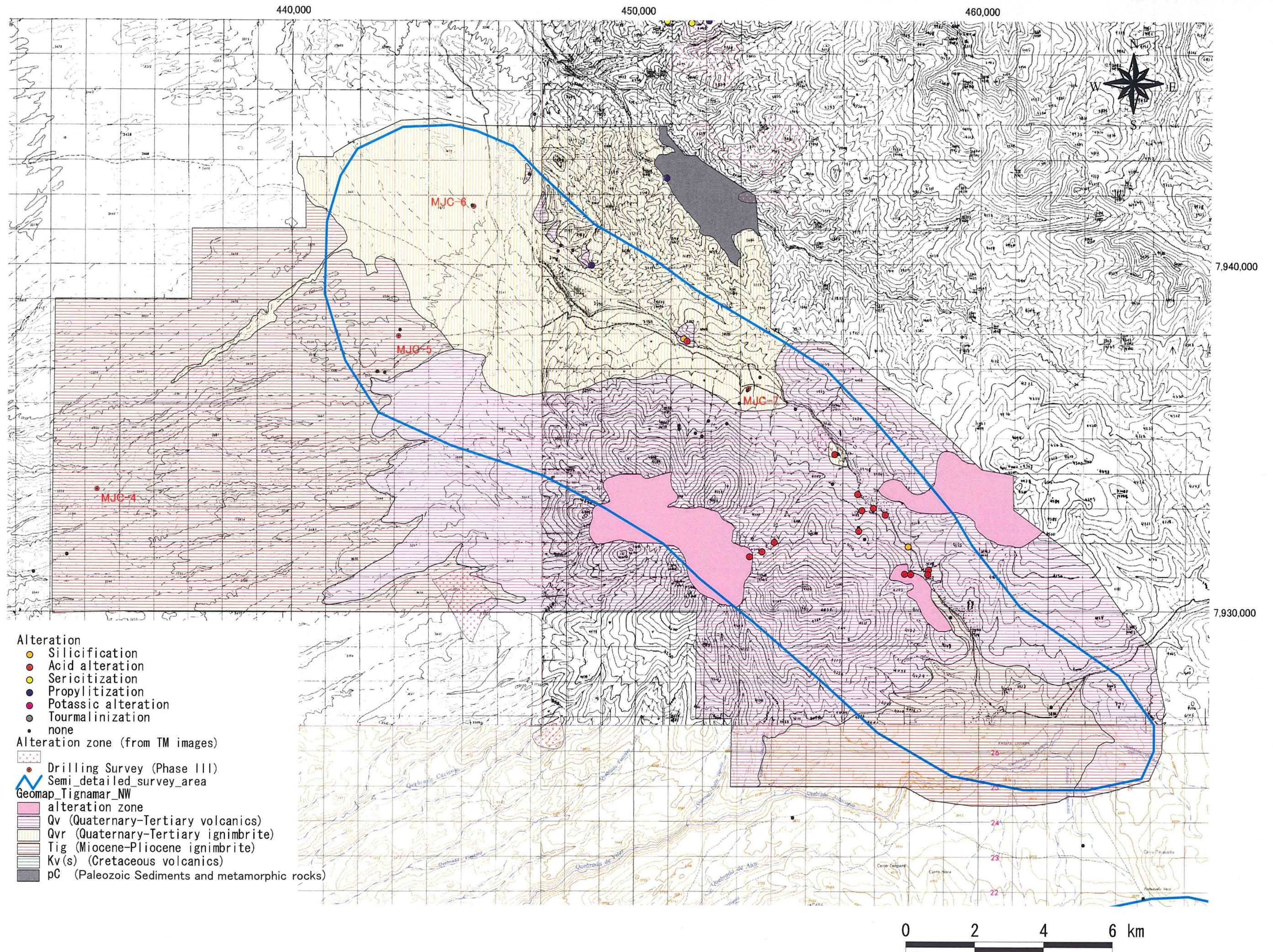
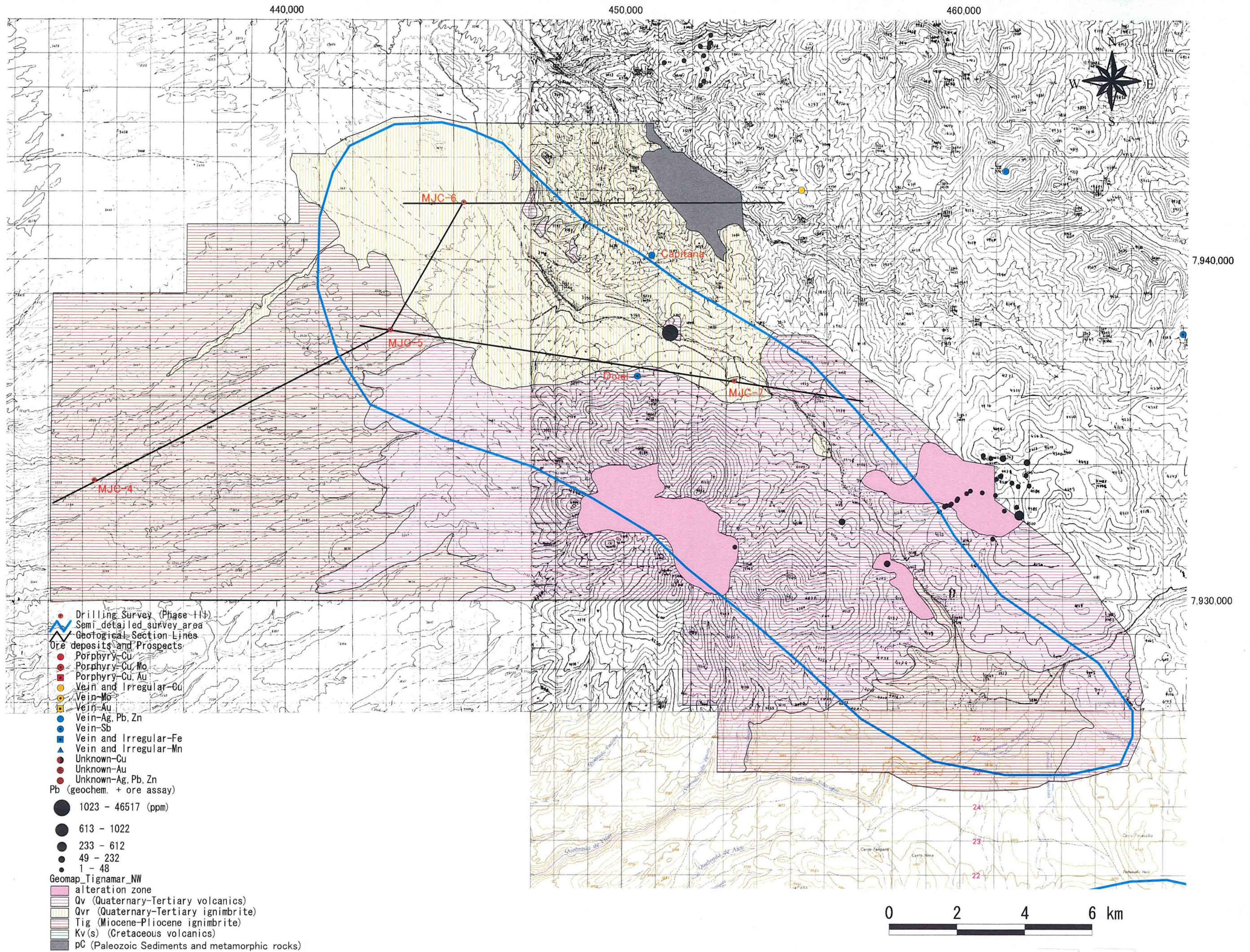


Fig. 2-1-39 Distribution Map of Alteration Minerals at the Area to the Northwest of Tignamar



- Drilling Survey (Phase II)
- Semi detailed survey area
- Geological Section Lines
- Ore deposits and Prospects**
- Porphyry-Cu
- Porphyry-Cu, Mo
- Porphyry-Cu, Au
- Vein and Irregular-Cu
- Vein-Mo
- Vein-Au
- Vein-Ag, Pb, Zn
- Vein-Sb
- Vein and Irregular-Fe
- ▲ Vein and Irregular-Mn
- Unknown-Cu
- Unknown-Au
- Unknown-Ag, Pb, Zn
- Pb (geochem. + ore assay)
- 1023 - 46517 (ppm)
- 613 - 1022
- 233 - 612
- 49 - 232
- 1 - 48
- Geomap_Tignamar_NW**
- alteration zone
- Qv (Quaternary-Tertiary volcanics)
- Qvr (Quaternary-Tertiary ignimbrite)
- Tig (Miocene-Pliocene ignimbrite)
- Kv(s) (Cretaceous volcanics)
- pC (Paleozoic Sediments and metamorphic rocks)