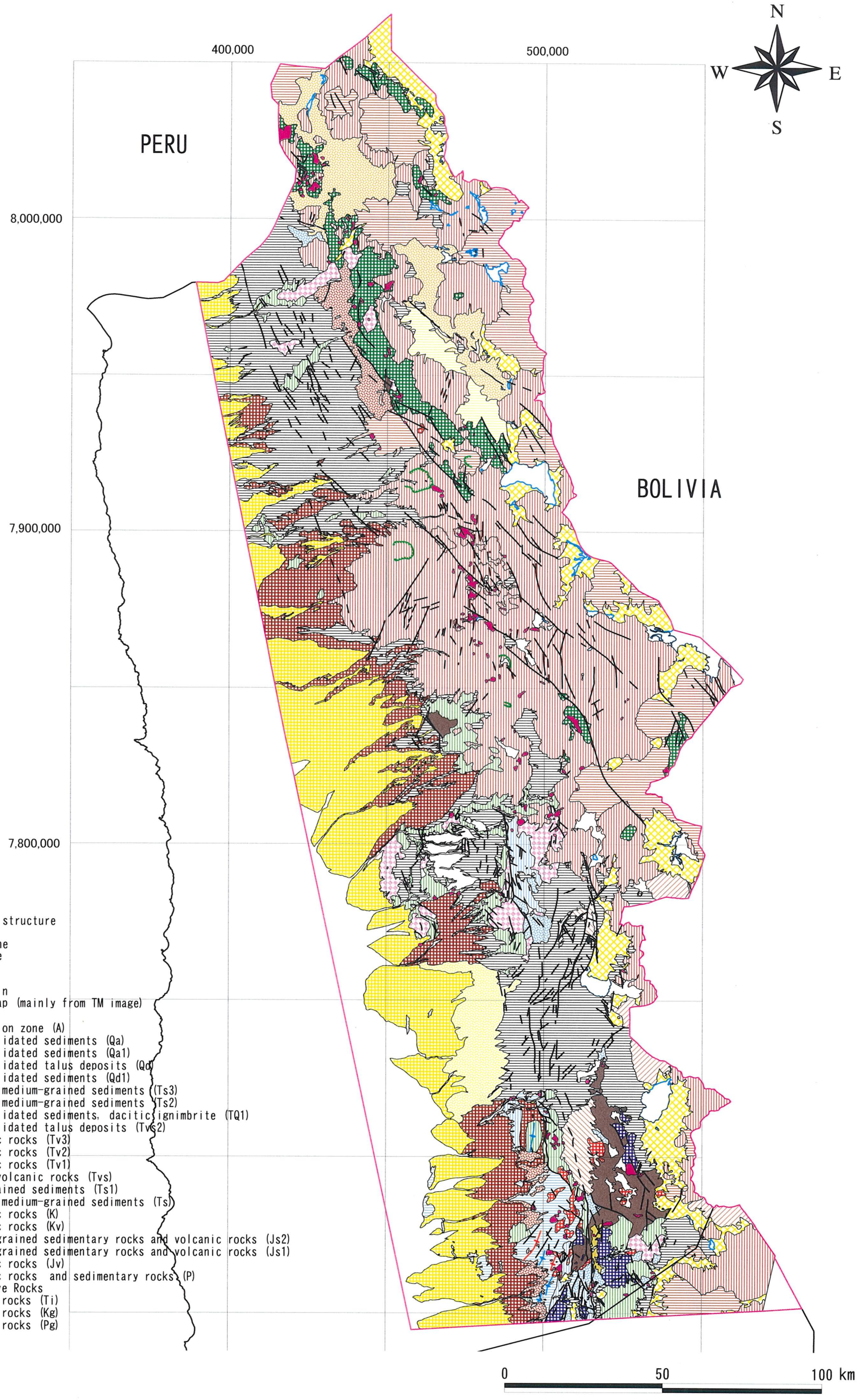


Fig. 2-1-6 Photogeological Interpretation Map of TM Images

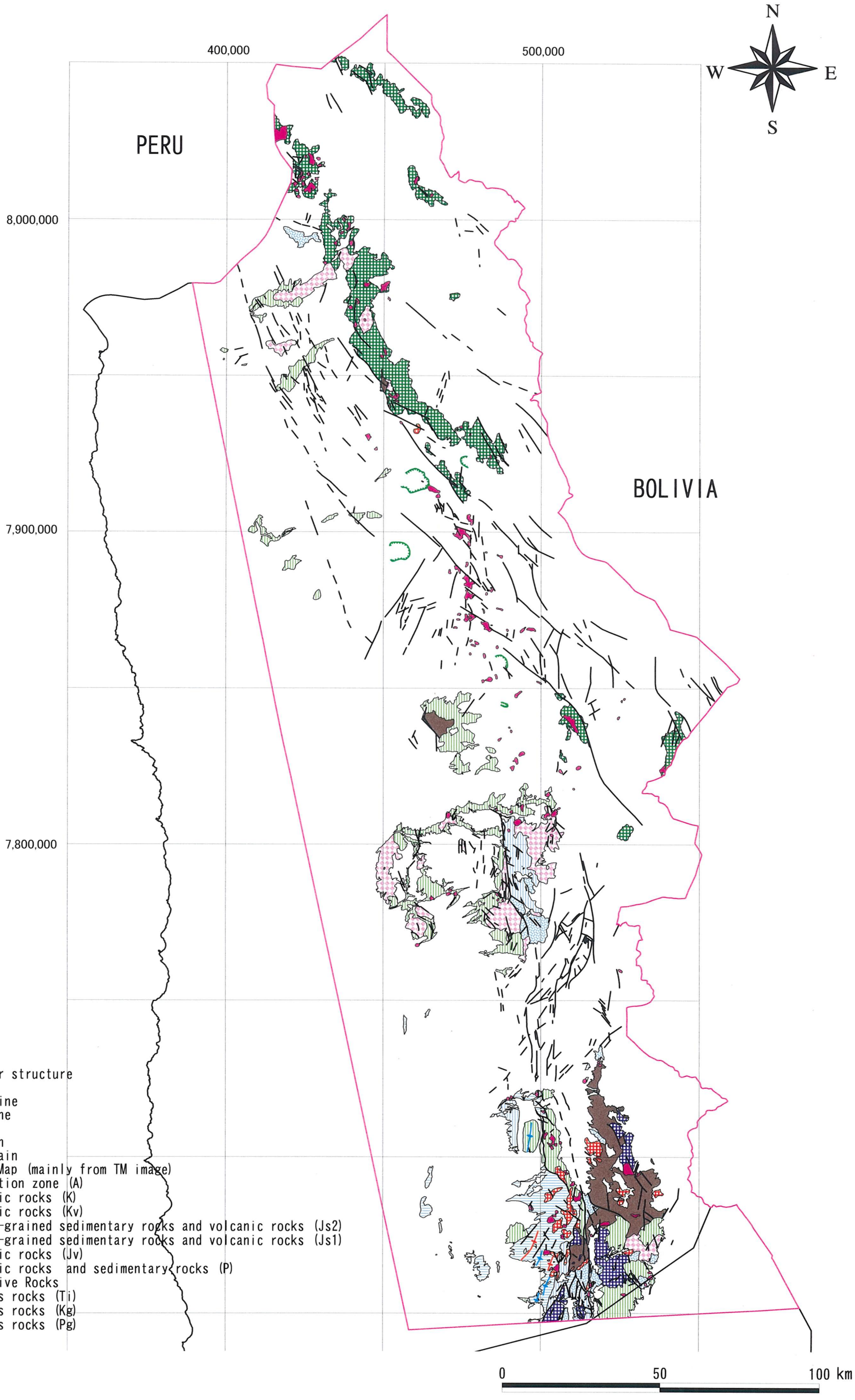


Fig. 2-1-7 Photogeological Structure of the Study Area

97

70° W

69° W

N

W

E

S

PERU

18° S

19° S

20° S

BOLIVIA

Legend

Known Cu,Mo,Au mineral prospects, and within 4km
Alteration zone from TM images, and within 4km
Lineaments, and within 4km
Ore deposits and Prospects
Porphyry-Cu
Porphyry-Cu,Mo
Porphyry-Cu,Au
Vein and Irregular-Cu
Vein-Mo
Vein-Au
Unknown-Cu
Unknown-Au
Alteration zone (from TM images)
Target area
Lineament
certain
uncertain

0 50 100 km

Fig. 2-1-8 Target Areas Plotted from Analysis of Satellite Images and Existing Data

Table 2-2-1 Basic Static Value of Rock Samples in the Survey Area

Mocha-Soledad	Cu (ppm)	Pb (ppm)	Zn (ppm)	Mo (ppm)	As (ppm)	Sb (ppm)	Hg (ppm)	Au (ppb)	Ag (ppm)
Average	1069	22	69	11	56	10	0.008	34	1.1
Median	142	10	67	6	58	10	0.005	12	0.8
Standard deviation	3081	27	56	16	25	0	0.010	69	1.3
Minimum	13	3	8	1	10	10	0.005	3	0.3
Maximum	16260	139	219	70	93	10	0.053	305	6.8
Number of samples	28	28	28	28	25	25	25	28	28

Queen Elizabeth	Cu (ppm)	Pb (ppm)	Zn (ppm)	Mo (ppm)	As (ppm)	Sb (ppm)	Hg (ppm)	Au (ppb)	Ag (ppm)
Average	2913	800	51	25	97	20	0.107	11	6.9
Median	23	30	22	7	73	10	0.014	3	0.2
Standard deviation	10592	5855	87	67	80	72	0.395	38	40.5
Minimum	1	5	3	1	30	10	0.005	3	0.1
Maximum	62830	46517	630	446	430	536	2.081	290	313.5
Number of samples	63	63	63	63	54	54	54	63	63

Diana	Cu (ppm)	Pb (ppm)	Zn (ppm)	Mo (ppm)	As (ppm)	Sb (ppm)	Hg (ppm)	Au (ppb)	Ag (ppm)
Average	105	22	29	14	95	17	0.038	38	0.2
Median	65	9	21	7	85	10	0.016	3	0.2
Standard deviation	152	37	28	16	65	37	0.094	84	0.2
Minimum	12	1	3	1	31	10	0.005	3	0.0
Maximum	870	154	136	70	455	253	0.556	417	1.2
Number of samples	44	44	44	44	43	43	43	44	44

La Planada	Cu (ppm)	Pb (ppm)	Zn (ppm)	Mo (ppm)	As (ppm)	Sb (ppm)	Hg (ppm)	Au (ppb)	Ag (ppm)
Average	9603	29	59	182	119	13	0.005	16	0.9
Median	1074	31	47	89	89	10	0.005	12	0.5
Standard deviation	18730	24	60	394	91	11	0.010	16	0.8
Minimum	123	1	3	10	55	10	0.000	3	0.1
Maximum	62210	86	214	1951	433	52	0.040	71	3.1
Number of samples	23	23	23	23	15	15	15	23	23

Chacarilla	Cu (ppm)	Pb (ppm)	Zn (ppm)	Mo (ppm)	As (ppm)	Sb (ppm)	Hg (ppm)	Au (ppb)	Ag (ppm)
Average	25	7	48	6	34	10	0.064	8	0.2
Median	13	1	10	5	12	10	0.008	3	0.1
Standard deviation	39	15	145	4	55	0	0.219	18	0.2
Minimum	3	1	1	1	2	10	0.005	3	0.1
Maximum	187	67	783	18	203	10	1.210	102	1.0
Number of samples	30	30	30	30	30	30	30	30	30

West Queen Elizabeth	Cu (ppm)	Pb (ppm)	Zn (ppm)	Mo (ppm)	As (ppm)	Sb (ppm)	Hg (ppm)	Au (ppb)	Ag (ppm)
Average	686	12	48	6	23	10	0.018	10	0.3
Median	18	6	22	5	13	10	0.005	3	0.1
Standard deviation	4661	22	100	6	40	0	0.043	23	1.0
Minimum	5	1	1	1	1	10	0.005	3	0.1
Maximum	35992	151	665	36	250	10	0.219	161	5.9
Number of samples	60	60	60	60	59	59	59	60	60

Northern Tignamar	Cu (ppm)	Pb (ppm)	Zn (ppm)	Mo (ppm)	As (ppm)	Sb (ppm)	Hg (ppm)	Au (ppb)	Ag (ppm)
Average	72	24	42	3	56	26	0.332	5	0.6
Median	70	11	13	4	17	10	0.009	4	0.2
Standard deviation	54	52	105	2	140	43	0.873	3	0.9
Minimum	10	1	1	1	5	10	0.005	3	0.1
Maximum	182	204	403	9	540	164	3.077	11	3.6
Number of samples	14	14	14	14	14	14	14	14	14

Southern Tignamar	Cu (ppm)	Pb (ppm)	Zn (ppm)	Mo (ppm)	As (ppm)	Sb (ppm)	Hg (ppm)	Au (ppb)	Ag (ppm)
Average	20	38	23	3	56	10	0.453	4	0.1
Median	14	9	6	3	25	10	0.208	3	0.1
Standard deviation	17	94	35	2	75	0	0.943	2	0.1
Minimum	3	1	1	1	3	10	0.005	3	0.1
Maximum	67	434	152	9	272	10	4.899	9	0.4
Number of samples	26	26	26	26	26	26	26	26	26

Pachica	Cu (ppm)	Pb (ppm)	Zn (ppm)	Mo (ppm)	As (ppm)	Sb (ppm)	Hg (ppm)	Au (ppb)	Ag (ppm)
Average	50	27	107	7	28	2	0.090	14	0.6
Median	24	9	51	5	25	1	0.023	3	0.3
Standard deviation	90	43	125	6	35	1	0.155	37	0.9
Minimum	5	4	24	1	3	1	0.005	3	0.1
Maximum	352	142	404	18	139	4	0.555	142	3.3
Number of samples	14	14	14	14	14	14	14	14	14

Chusmisa	Cu (ppm)	Pb (ppm)	Zn (ppm)	Mo (ppm)	As (ppm)	Sb (ppm)	Hg (ppm)	Au (ppb)	Ag (ppm)
Average	35	344	71	4	15	2	0.075	4	1.0
Median	25	9	64	4	3	1	0.010	3	0.1
Standard deviation	40	1824	50	2	33	1	0.243	8	4.8
Minimum	7	1	10	1	3	1	0.005	3	0.1
Maximum	200	10000	284	8	171	7	1.199	48	26.5
Number of samples	30	30	30	30	29	29	29	30	30

Table 2-2-1 Basic Static Value of Rock Samples in the Survey Area

Chusmisa NE	Cu (ppm)	Pb (ppm)	Zn (ppm)	Mo (ppm)	As (ppm)	Sb (ppm)	Hg (ppm)	Au (ppb)	Ag (ppm)
Average	20	16	20	8	21	2	0.427	3	0.1
Median	12	14	15	3	7	1	0.049	3	0.1
Standard deviation	17	13	13	13	40	3	1.162	3	0.2
Minimum	4	1	2	1	3	1	0.005	3	0.1
Maximum	53	58	42	51	172	12	5.074	13	0.6
Number of samples	21	21	21	21	20	20	20	21	21

Camiña	Cu (ppm)	Pb (ppm)	Zn (ppm)	Mo (ppm)	As (ppm)	Sb (ppm)	Hg (ppm)	Au (ppb)	Ag (ppm)
Average	30	10	46	5	20	1	0.010	3	0.1
Median	26	7	48	4	10	1	0.005	3	0.1
Standard deviation	15	10	30	5	31	0	0.012	0	0.1
Minimum	9	1	6	1	3	1	0.005	3	0.1
Maximum	62	35	108	27	119	1	0.057	3	0.6
Number of samples	27	27	27	27	24	24	24	27	27

Camiña	Cu (ppm)	Pb (ppm)	Zn (ppm)	Mo (ppm)	As (ppm)	Sb (ppm)	Hg (ppm)	Au (ppb)	Ag (ppm)
Average	4598	15	59	2	68	2	0.011	4	0.2
Median	75	8	52	1	40	1	0.008	3	0.1
Standard deviation	15001	29	30	2	75	1	0.008	5	0.5
Minimum	10	1	25	1	3	1	0.005	3	0.1
Maximum	60392	138	162	6	254	6	0.029	24	2.2
Number of samples	22	22	22	22	20	20	20	22	22

Camiña NE	Cu (ppm)	Pb (ppm)	Zn (ppm)	Mo (ppm)	As (ppm)	Sb (ppm)	Hg (ppm)	Au (ppb)	Ag (ppm)
Average	20	13	7	5	54	1	0.027	3	0.1
Median	20	13	7	5	54	1	0.027	3	0.1
Standard deviation	22	6	6	3	72	0	0.012	0	0.0
Minimum	4	8	2	3	3	1	0.018	3	0.1
Maximum	35	17	11	7	105	1	0.035	3	0.1
Number of samples	2	2	2	2	2	2	2	2	2

Tignamar NW	Cu (ppm)	Pb (ppm)	Zn (ppm)	Mo (ppm)	As (ppm)	Sb (ppm)	Hg (ppm)	Au (ppb)	Ag (ppm)
Average	47	1700	54	3	1403	2	0.075	3	0.2
Median	46	45	38	2	30	1	0.052	3	0.2
Standard deviation	28	4066	61	3	3371	1	0.081	0	0.1
Minimum	18	12	2	1	3	1	0.005	3	0.1
Maximum	90	10000	171	8	8284	4	0.232	3	0.3
Number of samples	6	6	6	6	6	6	6	6	6

Tignamar SE	Cu (ppm)	Pb (ppm)	Zn (ppm)	Mo (ppm)	As (ppm)	Sb (ppm)	Hg (ppm)	Au (ppb)	Ag (ppm)
Average	26	70	29	1	532	14	0.087	3	0.2
Median	15	26	31	1	641	1	0.029	3	0.1
Standard deviation	25	86	19	0	484	23	0.121	0	0.1
Minimum	8	15	10	1	3	1	0.005	3	0.1
Maximum	54	170	47	1	951	40	0.226	3	0.3
Number of samples	3	3	3	3	3	3	3	3	3

Putre S	Cu (ppm)	Pb (ppm)	Zn (ppm)	Mo (ppm)	As (ppm)	Sb (ppm)	Hg (ppm)	Au (ppb)	Ag (ppm)
Average	44	17	53	3	18	2	0.031	4	0.3
Median	21	12	16	3	7	1	0.015	3	0.1
Standard deviation	58	15	74	2	24	1	0.053	3	0.8
Minimum	6	1	5	1	3	1	0.005	3	0.1
Maximum	230	62	293	6	87	3	0.212	12	3.2
Number of samples	16	16	16	16	14	14	14	16	16

Putre W	Cu (ppm)	Pb (ppm)	Zn (ppm)	Mo (ppm)	As (ppm)	Sb (ppm)	Hg (ppm)	Au (ppb)	Ag (ppm)
Average	12417	59	184	10	7	2	0.016	32	3.6
Median	2091	14	30	6	4	2	0.010	8	0.8
Standard deviation	15886	101	509	7	8	1	0.015	74	5.3
Minimum	29	3	6	3	3	1	0.005	3	0.1
Maximum	41170	378	2005	28	27	2	0.046	293	17.2
Number of samples	15	15	15	15	10	10	10	15	15

Arica E	Cu (ppm)	Pb (ppm)	Zn (ppm)	Mo (ppm)	As (ppm)	Sb (ppm)	Hg (ppm)	Au (ppb)	Ag (ppm)
Average	2903	231	267	17	149	4	0.086	242	10.9
Median	2903	231	267	17	149	4	0.086	242	10.9
Standard deviation	1803	45	122	18	57	4	0.018	43	0.2
Minimum	1628	199	181	4	108	1	0.073	211	10.7
Maximum	4178	262	353	29	189	6	0.099	272	11.0
Number of samples	2	2	2	2	2	2	2	2	2

thin section microscopy, polished section microscopy, X-ray diffraction analysis, fluid inclusion measurements, ore assay, and analysis for rock geochemical survey are listed in the Appendix.

The threshold values for geochemical anomalies were determined as follows. A total samples including rock geochemical and ore assay samples of the localities where reconnaissance survey was carried out were processed. And the inflection points of the cumulative frequency distribution were taken as the threshold values and were divided into 5~7 steps. The fundamental statistic of each area is shown in Table 2-2-1. Also contents below the limit of detection were treated as half of the detection limit for statistical purposes.

2 - 1 Mocha-Soledad district

The geological map are shown in Figure 2-2-1, schematic geological section in Figure 2-2-2, location of mineral showings in Figure 2-2-3, alteration mineral distribution in Figure 2-2-4, and rock geochemical anomaly distribution in Figure 2-2-5.

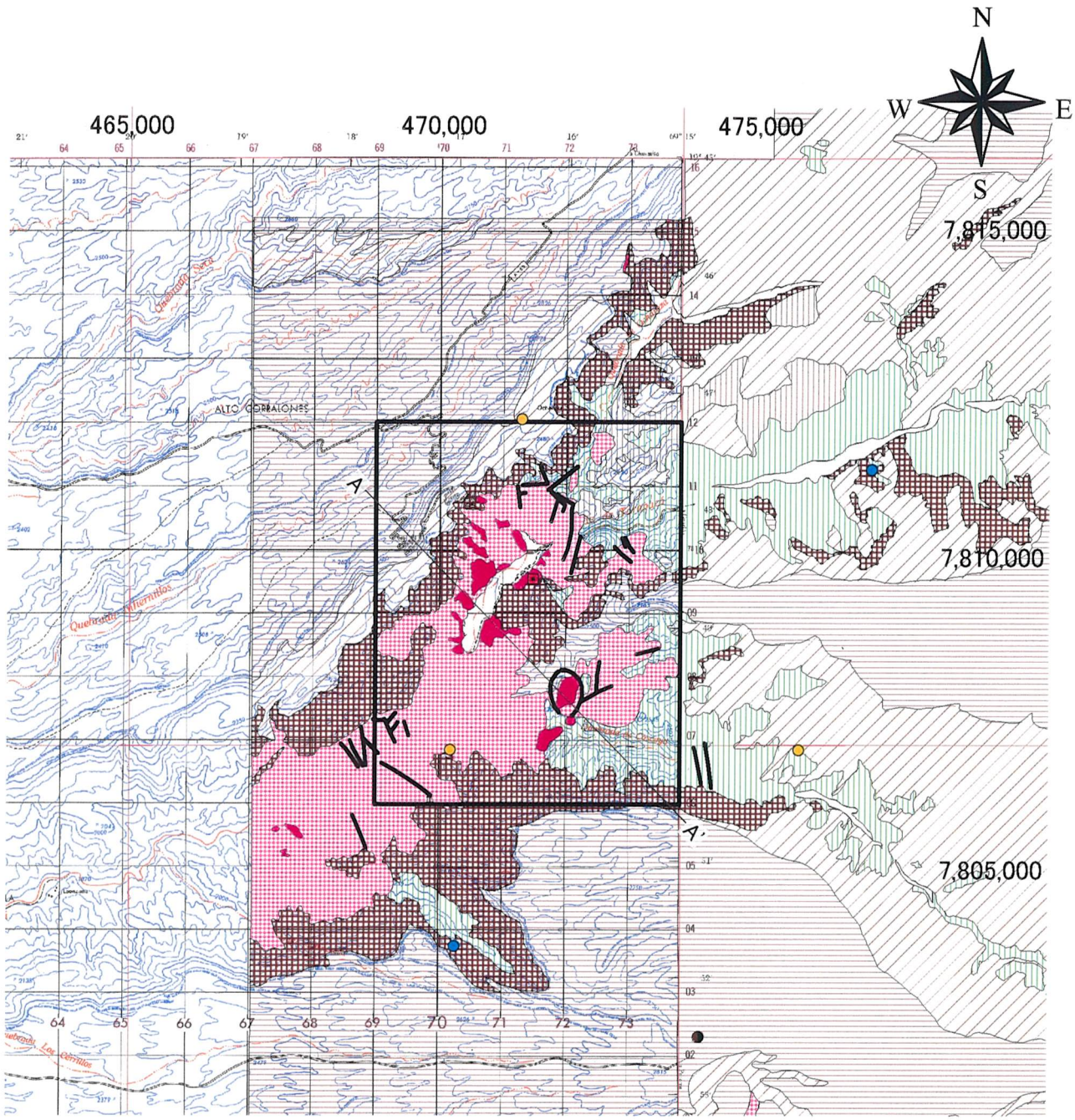
The geology of this district consists of Lower Cretaceous System, The Upper Tertiary System, and Quaternary System.

The Lower Cretaceous System consists of rhyolitic to andesitic lava and pyroclastics and these are intruded by intrusive bodies. The intrusive bodies are composed of quartz diorite, granodiorite, and quartz porphyry, and the latter two rocks intrude the former rock. In this study, Cretaceous was adopted as the age of the quartz diorite intrusion following the data of published geological maps. But that of the granodiorite and quartz porphyry is estimated to be early Eocene from the age of the alteration associated with porphyry-type mineralization, which will be mentioned later. Both the Lower Cretaceous System and the intrusive bodies are unconformably overlain by Upper Tertiary System.

The Upper Tertiary System consists of Miocene・Pliocene rhyolitic~basaltic lava・pyroclastic rocks・ignimbrite, dacitic ignimbrite・tuff, and intercalated terrigenous sediments.

The Quaternary System consists of alluvium and talus deposits.

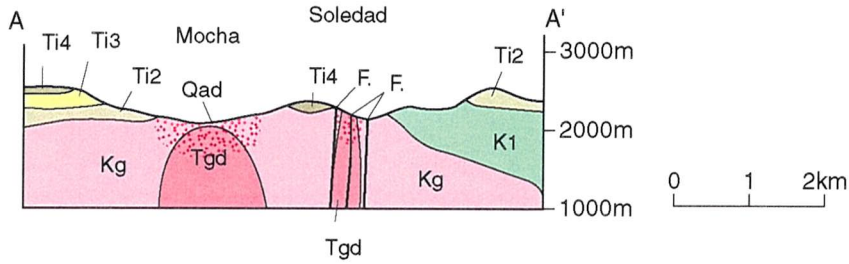
In the Mocha district, oxidized-leached zones consisting of limonite, hematite, jarosite and other altered minerals are widely distributed and these are directly overlain by ignimbrite. In the lower parts of the oxidized-leached zones, network quartz veinlets are developed in the sericite alteration zones in quartz porphyry host rock, and chrysocolla, atacamite, and other



Symbols for geological units refer to Table 1-3-1

Fig. 2-2-1 Geological Map of the Mocha – Soledad Area

Mocha - Soledad



Geologic Time		Columnar Section	Lithology	Intrusives	Mineralization
CENOZOIC	QUATERNARY	Qal, Qtl	Alluvial Talus	Quartz diorite(Kg) → Granodiorite porphyry,Quartz porphyry(Tgd) →	Porphyry copper type →
	LATE TERTIARY	Ti4	Dacitic ignimbrite Tuff,sediments		
		Ti3	Rhyolitic～basatic flow Pyroclastic rock Ignimbrite, Intercalation of continental sediments		
		Ti2			
		Ti1			
	EARLY TERTIARY				
MESOZOIC	LATE CRETACEOUS				
	EARLY CRETACEOUS	Kg, Tgd, Kg, K1	Rhyolitic～andesitic lava/ volcaniclastics		

Fig. 2-2-2 Schematic Stratigraphic Columns and Profiles of the Mocha – Soledad Area

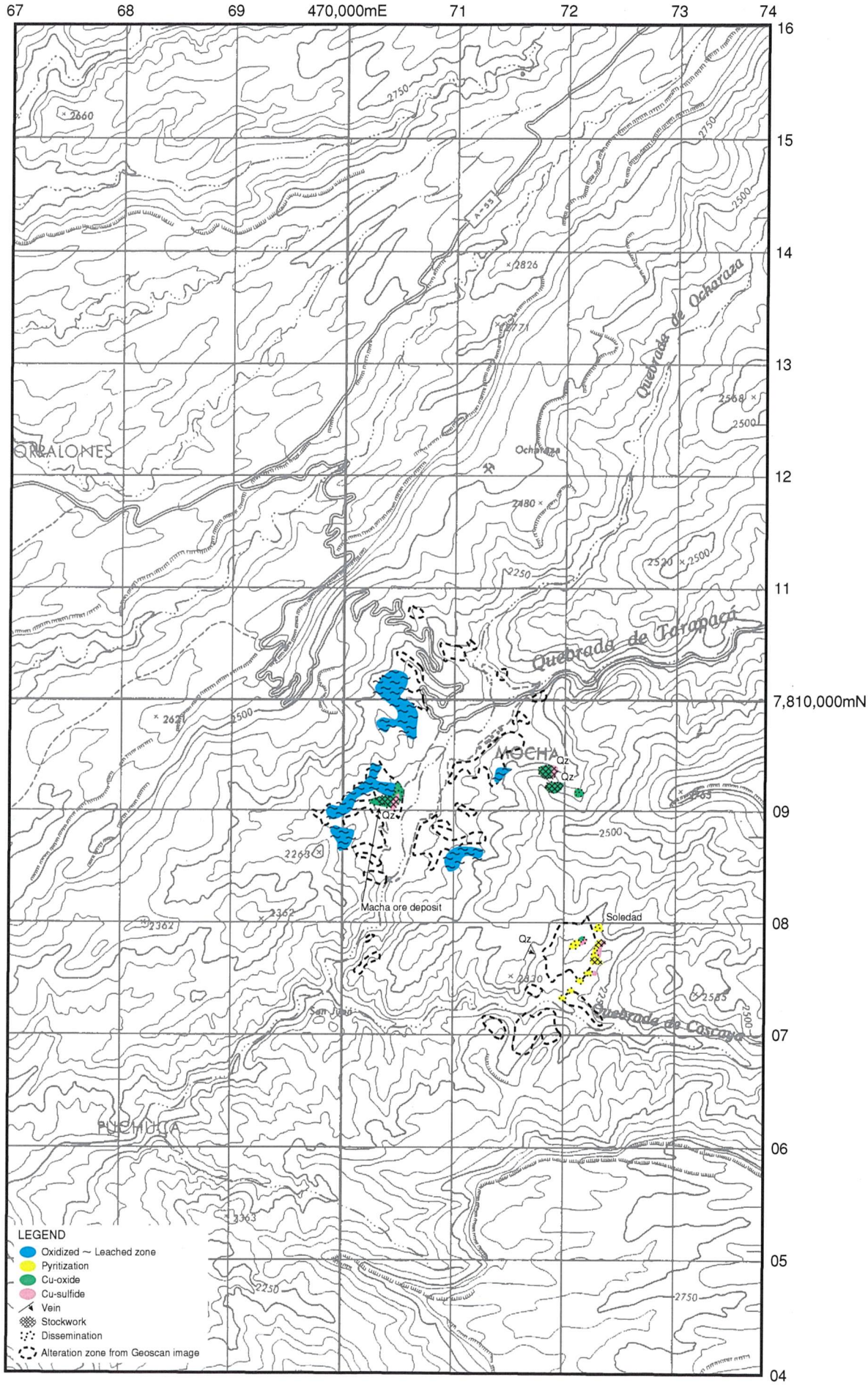


Fig. 2-2-3 Mineralization Map of the Mohca-Soledad Area

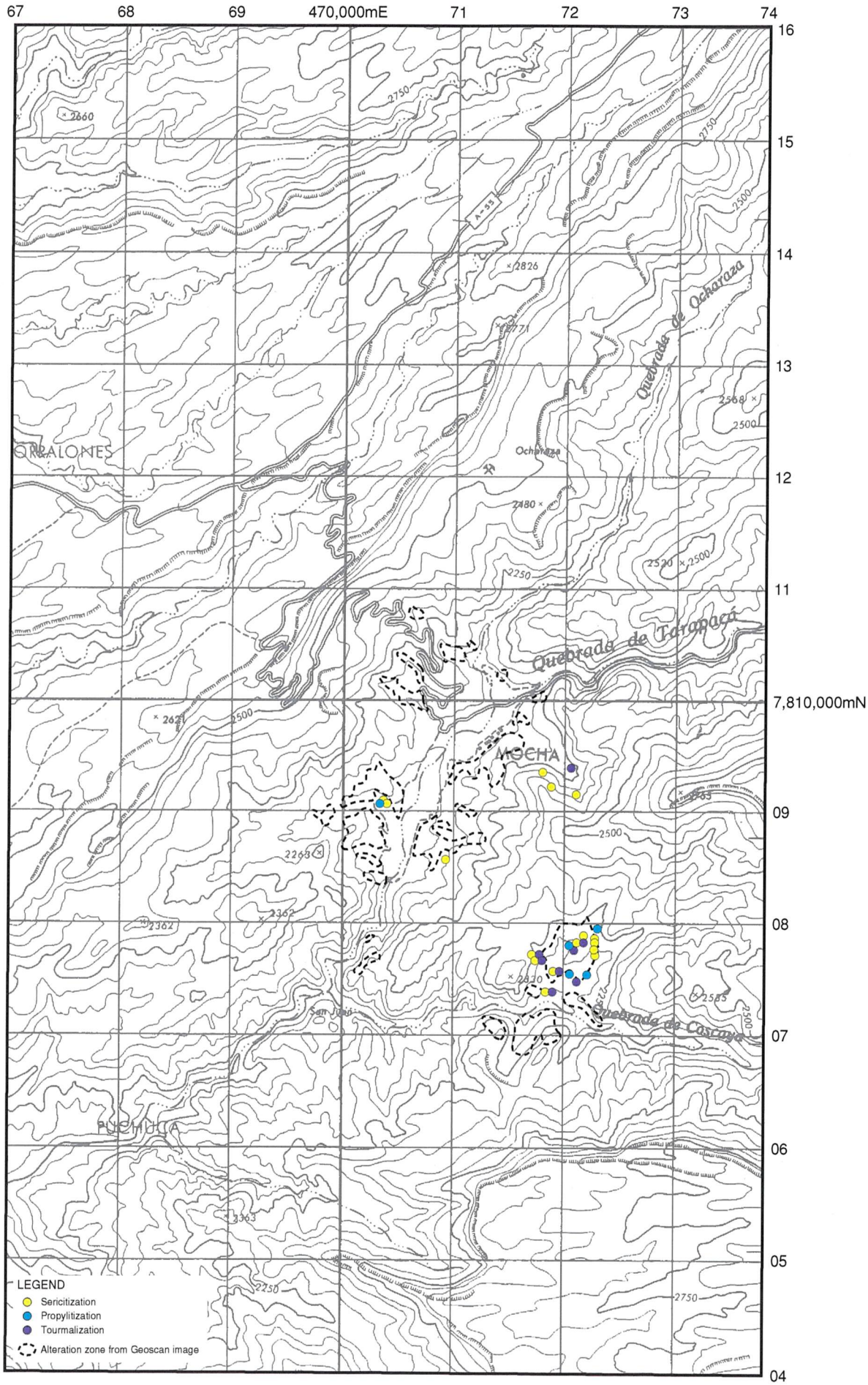


Fig. 2-2-4 Distribution Map of Alteration Minerals at the Mohca-Soledad Area

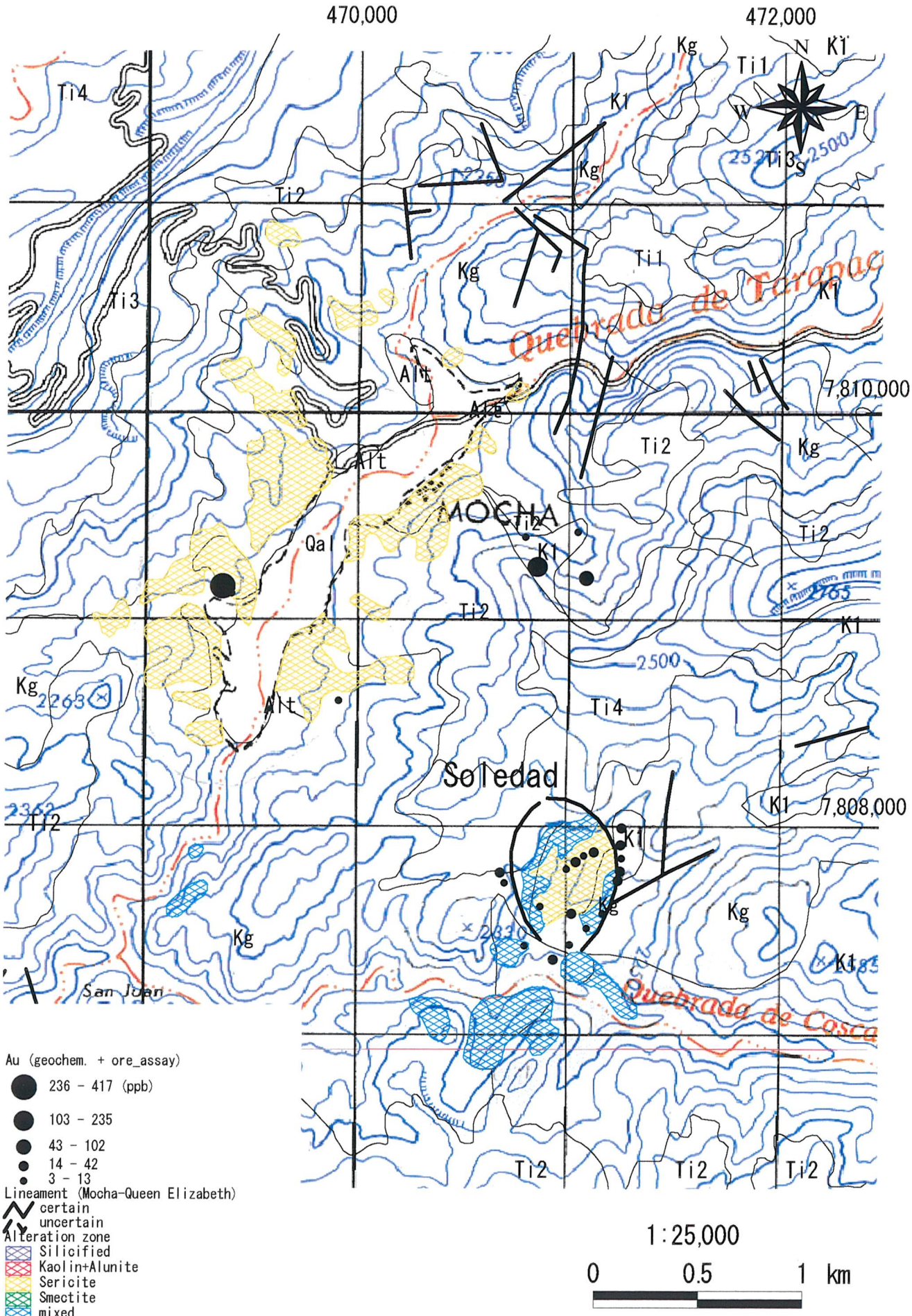


Fig. 2-2-5 (1) Geochemical Anomaly Map in the Mocha – Soledad Area (Au)

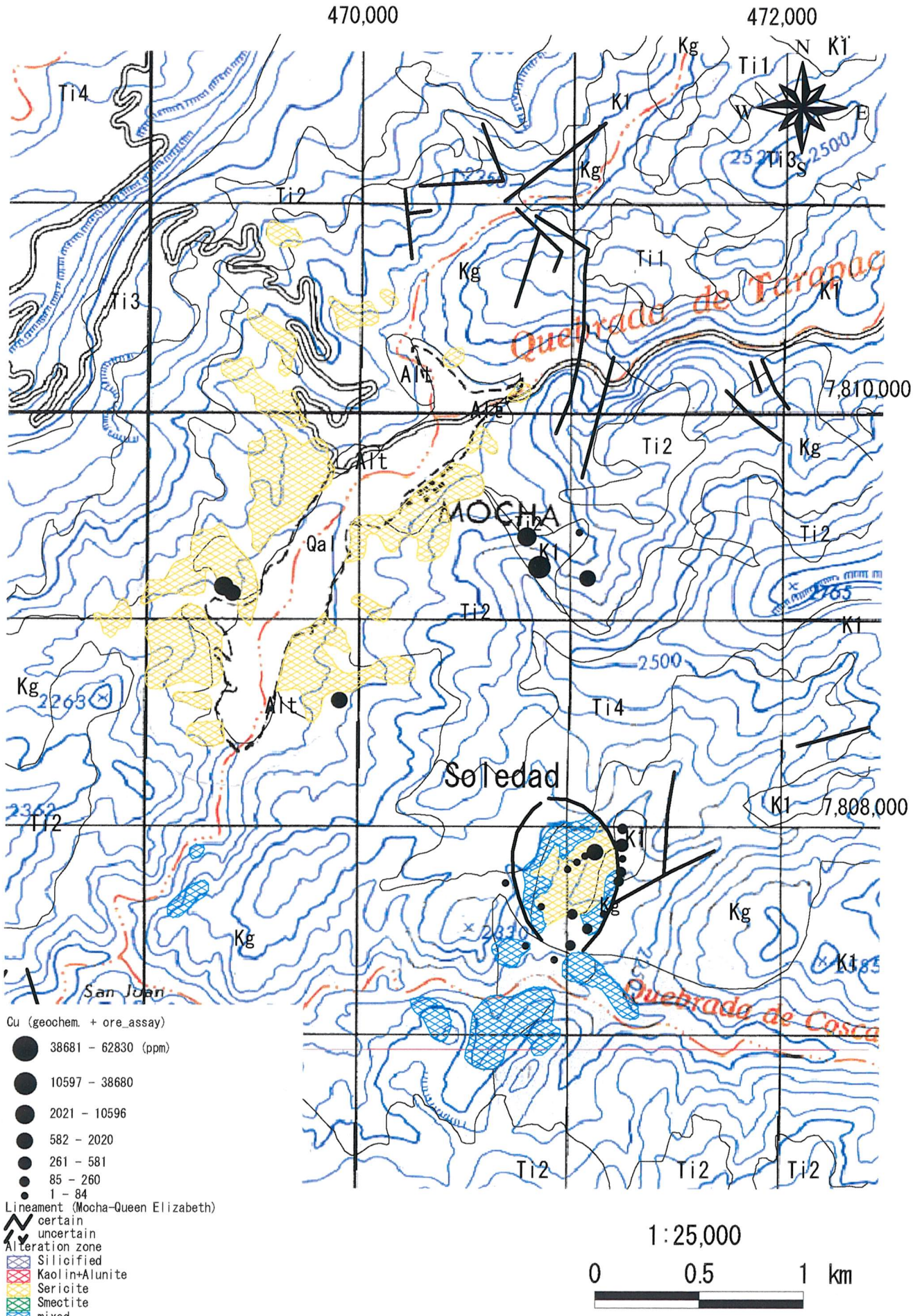


Fig. 2-2-5 (2) Geochemical Anomaly Map in the Mocha – Soledad Area (Cu)

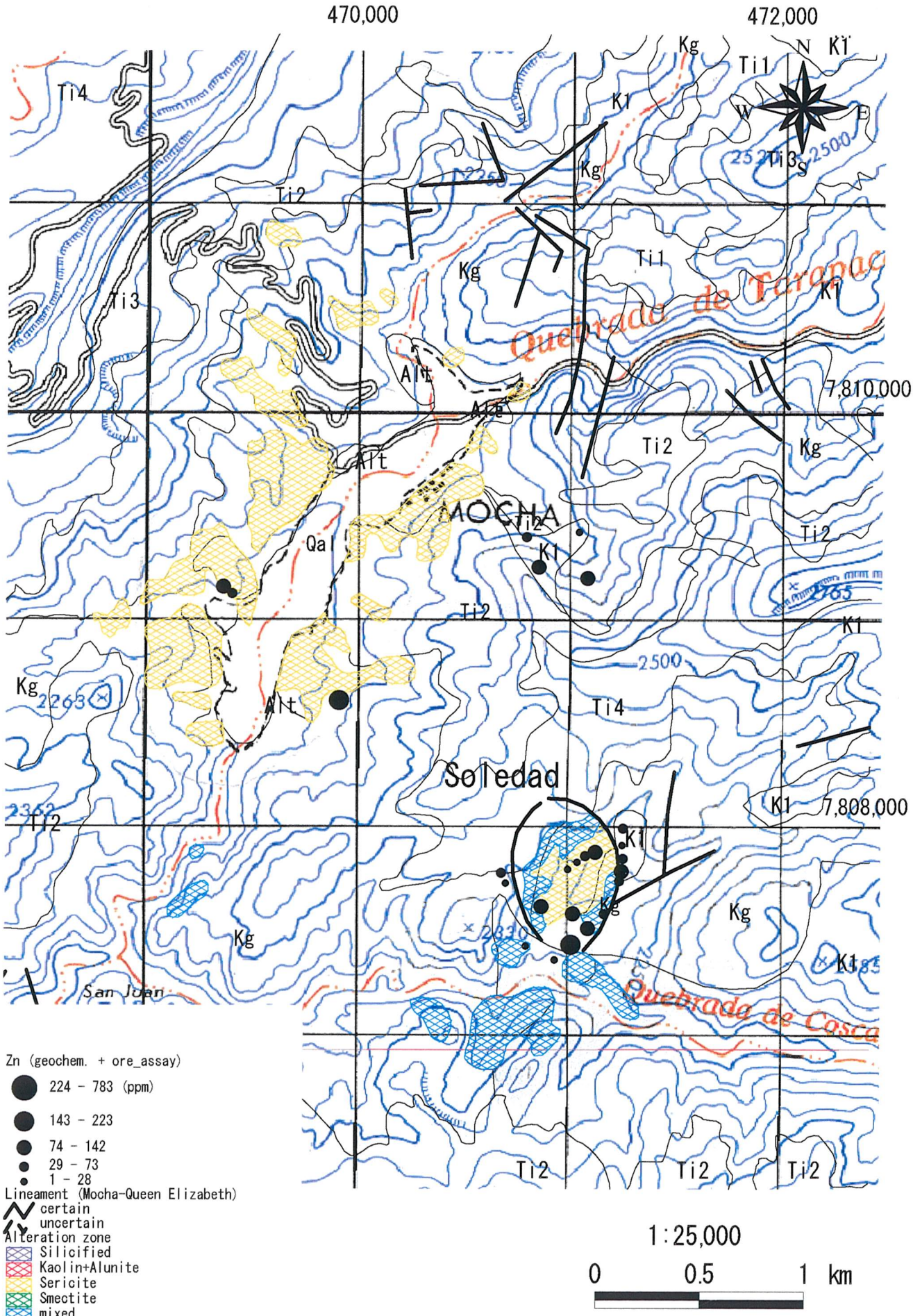
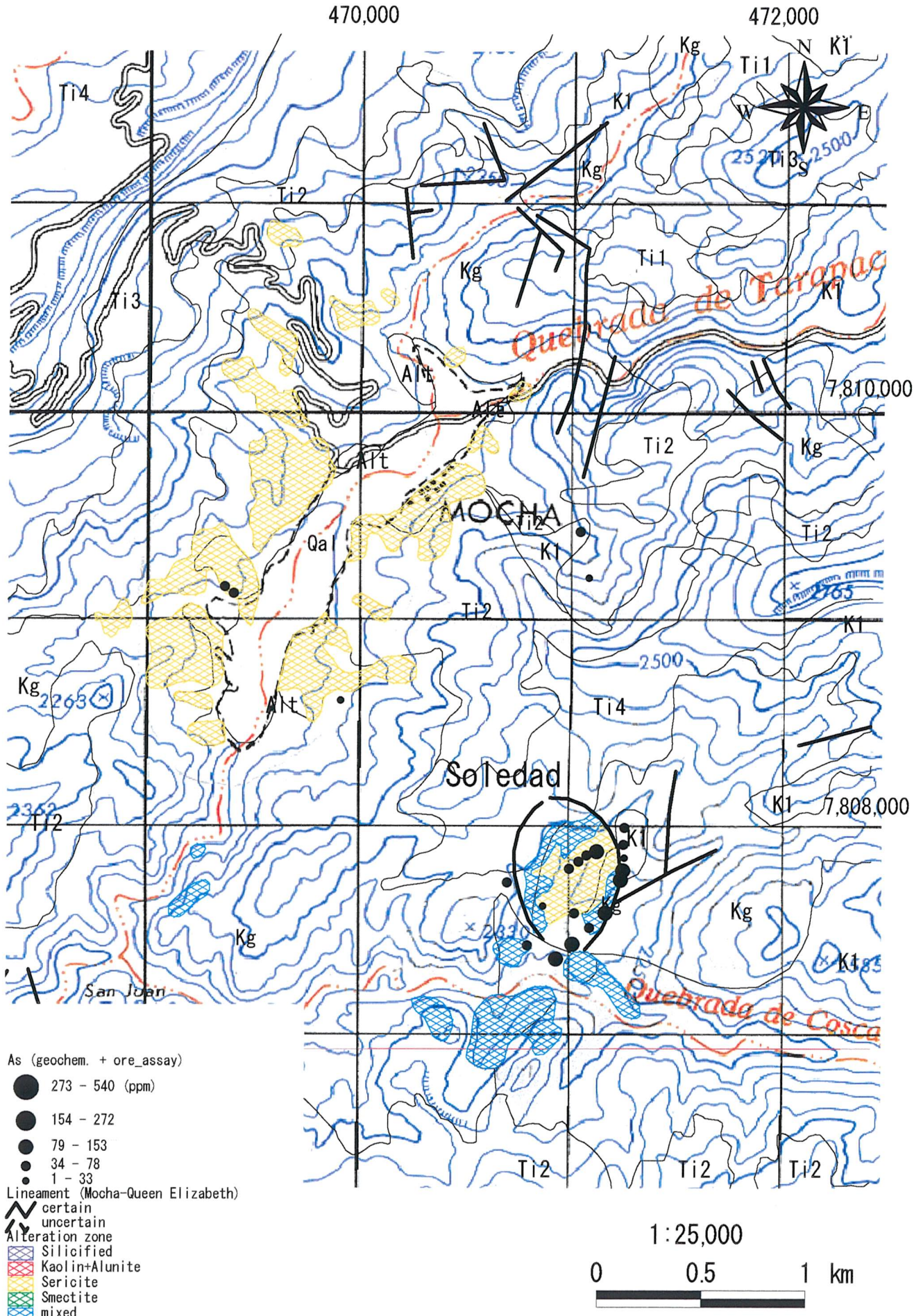


Fig. 2-2-5 (3) Geochemical Anomaly Map in the Mocha – Soledad Area (Zn)



Symbols for geological units refer to Table 1-3-1

Fig. 2-2-5 (4) Geochemical Anomaly Map in the Mocha – Soledad Area (As)