PART I GENERALITIES

CHAPER 1 INTRODUCTION

1-1 Background and Objectives

In accordance with the Scope of Work signed on 18th May 2001 between the Government of the Mongolia and the Government of Japan, a mineral exploration project of three years duration was carried out from 2001 in the Western Erdenet area (fig. 1).

The purpose of this survey is to clarify the geology and the mineral potential in this area for the future development of mineral resources in Mongolia. The project also includes the transfer of technical knowledge to our Mongolian counterpart.

In this first phase, activities such as compilation of existing data, geological survey and airborne geophysical survey were carried out. Regarding the compilation of previous data, data related to previous geological, geochemical, geophysical and drilling surveys and others owned by the Mongolian counterpart organization, were compiled and analyzed in order to select promising areas. The selection of seven promising areas took also into consideration the previous geological survey performed by MMAJ from 1999 to 2000 that investigated the mineralization and constructed a mineralization model. The airborne survey work was carried out in Western Erdenet areas.

1-2 Coverage and Outline of Phase I

The Western Erdenet area is located in the northern central of Mongolia at 300 km west from the capital of Ulaanbaatar. The survey area, as shown in Fig. 1, consists of area 1 and area 2 delimited by the coordinates 49° 20′ N, 48° 40′ N, 104° 27′ E and 102° 38′ E.

The survey of this phase I included the activities of compilation of existing data, geological survey and geophysical survey. The activities related to the compilation of the existing data consisted in the collection, classification and compilation of the data for each of the seven areas.

The Geological survey in the project area (Fig. 2) was carried out in seven areas located as indicated in the Figs. 3 to 9.

The airborne geophysical survey was carried out in areas indicated in Fig. 2.

The work amounts conducted in this phase are summarized in Table I-1-1 while the laboratory studies for these surveys are shown in Table I-1-2.

Table I-1-1 Content and amount of work

Area and Content	Amount of work
Geological Survey (Zuukhiin gol area, Mogoin gol/Khujiriin gol area, Tsagaan Chuluut area, Erdenet mine area, Danbatsern area, Undrak area and Tsookher mert area)	Reconnaissance survey Area: 340 km^2 Survey route: 109 km Scale: 1 to 50,000 Semi-detailed survey Area: 110 km^2 Survey route: 114 km Scale: 1 to 25,000
Geophysical Survey Airborne magnetic and radiometric survey	Area : 5,500 km^2 Total flight line length: 26,498.8 km

Table I-1-2 Laboratory work

Survey Contents	Laboratory work	
Geological survey	Thin section	62 samples
	Polished thin section	21 samples
	X-ray diffraction analysis	163 samples
	Chemical analysis for whole rock samples	10 samples
	SiO2, Al2O3, TiO2, Cr2O3, Fe2O3, MgO, CaO, K2O, P2O5, MnO	
	LIO, Ba, Nb, Rb, Sr, Y, Zr	
	Chemical analysis for ore samples	41 samples
	Au, Ag, Al, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, K, Mg, Mn, Mo,	
	Na, Ni, Pb, Sr, Ti, V, Zn (23 elements)	
	Chemical analysis for rock samples	217 samples
	Au, As, Sb, Hg, Ag, Al, Ba, Bi, Ca, Cd, Co, Cr, Cu, Fe, K, Mg,	
	Mn, Mo, Na, Ni, P, Pb, Sr, Ti, V, W, Zn (28 elements)	
	Fluid inclusion	4 samples
	Pb/Pb Dating (K-Ar method)	4 samples
	Remanent magnetization in samples	8 samples

1-3 Survey Members of the Project

The members who participated during this phase are as follows:

1-3-1 Project planning and negotiation

Japanese counterpart		Mongolian counterpart	
Toshio Sakasegawa	(MMAJ)	Dashiin BAT-ERDENE	(MITM)
Youichi Nakagawa	(MMAJ)	Dambiisuren BOLD	(MRAM)
Kiyosumi Kurokawa	(MMAJ)		
Hajime Hishida	(MMAJ)		
Tetsuya Honjo	(MMAJ)		

MMAJ: Metal Mining Agency of Japan
MRAM: Mineral Resources Authority of Mongolia
GIC: Geological Information Center

1-3-2 Administration of fieldwork

Japanese counterpart	
Hajime Hishida	(MMAJ)

1-3-3 Field survey

Japanese counterpart		Mongolian counterpart	
Motomu Goto	Team leader	Dambiisuren Bold	Project manager in Mongolia (MRAM)
Jun-ichi Ishikawa	Geologist		
Kazuyasu Tsuda	Geologist	Sengee Muuhkbaatar	Team leader (GIC)
		Damdinjab Sharhuuhen	Geologist (GIC)
		Munkhjargal Nerguin	Geologist (Erdenet Mine)

1-4 Survey Period

Period of the field survey in this phase is as follow:

Geological survey : 26th July 2001 to 17th September 2001
Existing data collection: 18th August 2001 to 25th August 2001
Airborne geophysical survey: 6th October 2001 to 3rd December 20001
Administration of fieldwork: 22nd July 2001 to 24th July 2001

CHAPER 2 GEOLOGRAPHY OF THE SURVEY AREA

2-1 Location and Accessibility

The western Erdenet area is located in Bulgan District and Erdenet city of the northern-central part of Mongolia. The total area of the project area is 5,500 km^2. Mobilization by vehicles to the project area takes approximately 10 hours for 340 km from Capital Ulaanbaatar to the Erdenet city.

2-2 Topography and Drainage System

Elevations in the area range between 1,000m and 2,000m. However the topography is relatively gentle with low altitude mountains sparsely distributed. The land is covered by plain and forest. Outcrops of rocks are very few.

2-3 Climate and Vegetation

The weather consists of a typical continental climate. This area presents few rainfalls and a dry weather. As shown in Table I-2-1, temperature has a great difference between summer and winter, as well as between day and night. In winter, minimum temperature is under –40 ℃. Since difficult conditions are met during snowfalls, the geological survey was designed to be conducted during the season from April to September.

Table I-2-1 Mean monthly Temperature and Precipitation of Bulgan and Ulaanbaatar in Mongolia

Province center	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
Temperature (℃)												
Bulgan	-21.3	-19.2	-9.5	0.8	8.6	14.7	16.3	14.4	7.5	-1.3	-11.4	-19.2
Ulaanbaatar	-26.1	-21.7	-10.8	0.5	8.3	14.9	17.0	15.0	7.6	-1.7	-13.7	-24.0
Precipitation (mm)												
Bulgan	1.4	2.1	3.9	9.4	24.5	57.1	10.1	77.9	30.2	11.4	3.6	1.8
Ulaanbaatar	1.5	1.9	2.2	7.2	15.3	48.8	72.6	47.8	24.4	6.0	3.7	1.6

CHAPER 3 EXISTING GEOLOGICAL INFORMATION

3-1 Outline of the Previous Exploration Works

Previous geological surveys had been carried out from 1913 to 1985. Main survey products were geological maps at the scales of 1: 1,000,000, 1: 200,000, 1: 100,000, 1: 50,000 and 1: 25,000. The periods when the previous geological surveys were carried out are indicated as follows:

1: 1,000,000 geological mapping surveys: 1913 to 1914, 1941, 1947, 1954, 1959
1: 200,000 geological mapping surveys: 1947, 1967, 1971, 1981, 1983, 1981 to 1985
1: 100,000 geological mapping surveys: 1965, 1968
1: 50,000 geological mapping surveys: 1968, 1974, 1970 to 1981, 1981 to 1985
1: 25,000 geological mapping surveys: 1968, 1979 to 1985 (including 1: 10,000 maps)
Geological survey for Mineralization: 1972, 1976, 1981 to 1983, 1981 to 1985
Making a 1: 200,000 structural map: 1972

During these surveys, excellent results were found with the discovery of the porphyry copper-molybdenum mine, called Erdenet mine. In the discovered mineralized areas the following surveys were carried out: geochemical survey including stream water geochemistry and soil geochemistry, geophysical survey including magnetic survey, and IP & SP surveys, and drilling survey.

Fig. I-3-1 shows the existing geological map (1: 100,000 in scale) in and around the project area.

3-2 General Geology of the Surrounding Area

(1) General geology and mineralogy in Mongolia

Geographically, Mongolia is a country located between Russia in the north and China in the south. Geologically, Mongolia is located in the eastern edge of orogenic belt (Central Asia Folded belt) between Angara craton (Siberian Block) in northern side and the Northern China craton in the southern side. The mobile belt of about 2,000km existing from Mongolia to Far East Russia is called Mongol - Okhotsk Fold Belt or Ural - Mongol Fold belt. According to several studies, the geological framework of Mongol is formed by Cordilleran type orogeny or Collision type orogeny (Maruyama et al., 1997). The Cordilleran type orogeny forms accretionary prism – magmatic arc accompanied with subduction surrounding Siberian craton and North-China craton in the Paleo Asia Ocean or Mongolian Seaway. And the Collision type orogeny was formed by the approach of two cratons. Recently it is thought that island arcs and micro-continentals existed in Altaids and that the Mongolian geological formation consists of the assembly of accretionary prism and magmatic arc;

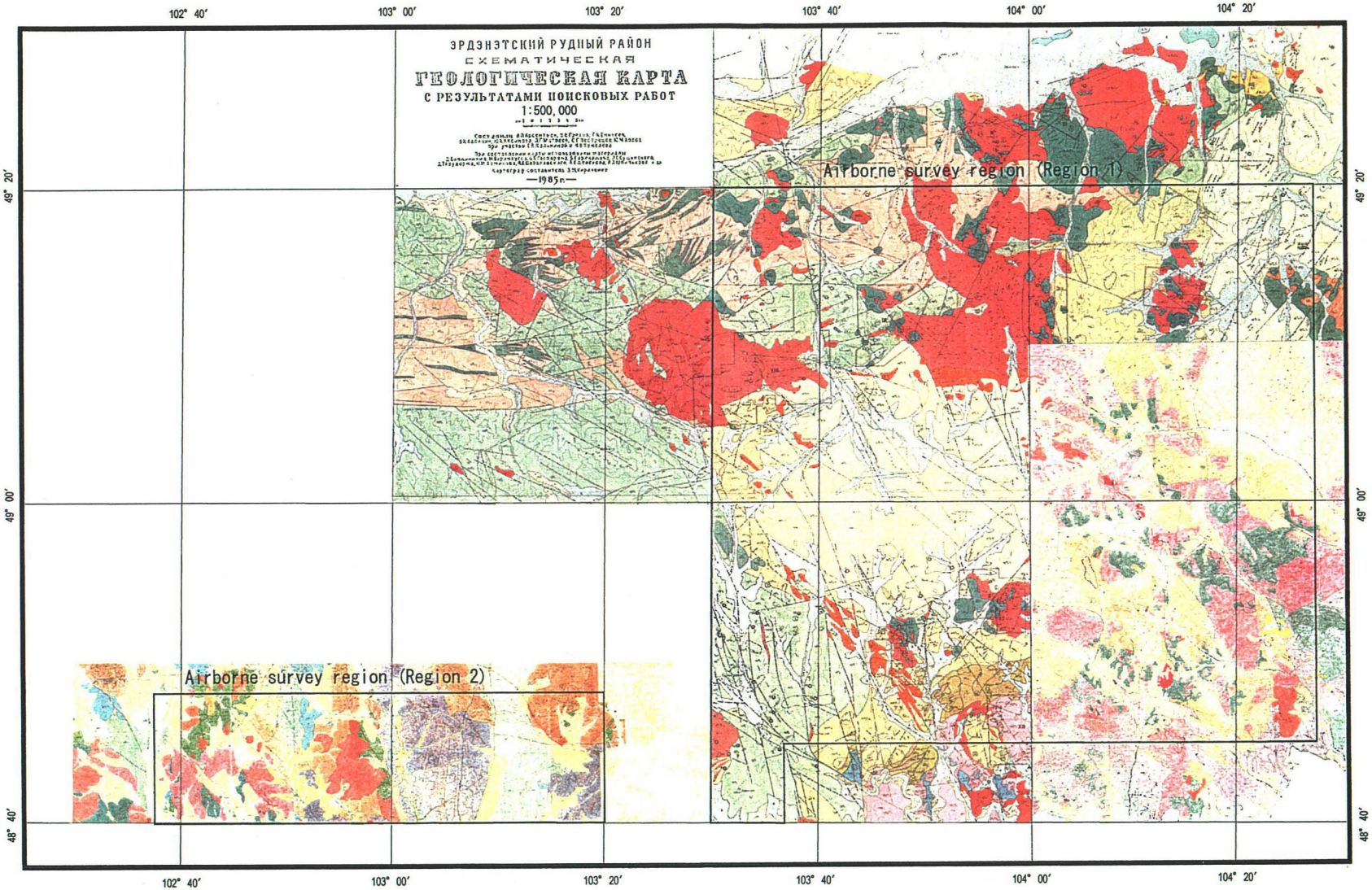


Fig. I-3-1(1) Existing geological map in the project area in Mongolia

L E G E N D

(Central Area)

CENOZOIC SEDIMENTARY AND VOLCANIC ROCKS

βKZ	Cenozoic basalt
Q	Quaternary deposits; loam, silt, sand and gravel

JURASSIC TO CRETACEOUS SEDIMENTARY ROCKS

Jz-K1	conglomerate, gravel stone, sandstone

TRIASSIC TO JURASSIC SEDIMENTARY AND VOLCANIC ROCKS

α β T2-J1	andesite, andesitic basalt, trachy-andesite, trachy-basalt, dacite and tuff-breccia, tuff stone, tuffaceous sandstone
t T2-J1	sedimentary rock: conglomerate, gravel stone

PERMIAN SEDIMENTARY AND VOLCANIC ROCKS

α β P2	andesite-basalt and tuff, trachy-basalt and tuff, tuffaceous conglomerate
t P1-2	tuff, sandy tuff, gravel stone, conglomerate
α γ t P1-2	andesite to liparite, liparite, andesitic tuff, tuffaceous stone, tuff
α P1-2	andesite, andesite to basalt, tuffaceous stone

DEVONIAN

RIPHEAN TO CAMBRIAN

V-Є	Ripheen to Cambrian; limestone

INTRUSIVE ROCKS

Jurassic	λ J	Jurassic subvolcanic rock; liparite, andesite-dacite
	γ3J1s	Third phase: fine to moderate grained, leucocratic granite
	γ ξ2J1s	Second phase: moderate to coarse grained, porphyry, biotite granosyenite
	(δ-γ δ) J1s	First phase; fine to moderate grained, diorite, biotite granodiorite
Triassic to Jurassic	ν β T2-J1	Middle Triassic to Jurassic subvolcanic rocks; gabbro, diabase, diabasic porphyry
Triassic	γ3T1s	Third phase: fine to moderate grained, porphyry, leucocratic granite porphyry, granite porphyry, granodiorite porphyry
	(γ - δ) T1s	Second phase; medium grained, biotite granodiorite, diorite, granite, granosyenite
	(υ - δ) T1s	First phase; medium to coarse grained, gabbro, gabbro to diorite, diorite
	υ β P2	Late Permian; Gabbro-diabase, diabase, diabase porphyry, gabbro
	λ P1-2	Lower to upper Permian subvolcanic rocks
Devonian		
Paleozoic	γ δ PZ1	Second phase; medium to coarse grained, biotite granodiorite, granite
	(υ - δ) PZ1	First phase; medium to coarse grained, pyroxene gabbro, gabbro to diorite, diorite

GEOLOGICAL MARKS AND PATTERNS

- Fine grained type, basic dyke, moderate dyke, acidic dyke, granite to granodiorite porphyry dyke
- granite, granodiorite, granodiorite porphyry, liparite, andesite to dacite
- contact with hornfels
- strike and dip of strata and bed
- folding of strata and bed
- geologic boundary; certain and uncertain
- boundary of massive part
- Faults and fractures; certain, uncertain, expected
- Thrust fault; certain, expected

ALTERATION

Alterated and metasomatic zone

Limits	Mark	Alteration
	mk	potassic alteration
	q	silicification
	tu	tourmaline
	src	sericitization
	py	pyritization

(Southwestern and Southeasteren Area)

cQIV, caQIV, apQIII-IV	Quaternary deposits; loam, silt, sand and gravel
β2QII-III	Cenozoic basalt
J2sh	Jurassic to Cretaceous deposits; conglomerate, gravel stone, sandstone
T3-J1eg	andesite, andesitic basalt, trachy-andesite, trachy-basalt, dacite and tuff-breccia, tuff stone, tuffaceous sandstone
P1uz2	andesite to liparite, liparite, andesitic tuff, tuffaceous stone, tuff
P1uz1	andesite, andesite to basalt, tuffaceous stone
D2bt2	andesite, dacite, it's tuff
ξ J1	syenite
γ3P2-T1sl	Third phase: leucocratic granite porphyry, granite porphyry
ε γ P2-T1sl	Third phase: fine to moderate grained, porphyry, leucocratic granite porphyry, granite porphyry, granodiorite porphyry
γ ξ2P2-T1sl	Second phase; medium grained, biotite granite, granosyenite
ξ δ1P2-T1sl	First phase; medium to coarse grained, granodiorite, syenitic diorite
δ η1P2-T1sl	First phase; medium to coarse grained, gabbro to diorite, diorite
δ1P2-T1sl	First phase; medium to coarse grained, diorite
γ3D2	Third phase; granite, granosyenite and granosyenite.
ι γ3D2	Third phase; leucocratic granite
ε ι γ3D2	Third phase; fine grained leucocratic alaskite granite and aplite
γ2PZ1	Second phase; granite
γ δ2PZ1	Second phase; granodiorite
δ1PZ1	First phase; diorite

MINERALIZATION

Copper mineralization area

Area	Copper showing	Geochemical anomaly	Mineral distribution
I	●: Cu > 0.2 % ○: Cu < 0.2 %	Cu > 0.01% Mo > 0.0005%	cpy: chalcopyrite
I - Nurain	VII - Zuukhiin	Pb > 0.01 % Zn > 0.03 % Ag > 0.0001%	mo: molybdenite
II - Tarimaliin	VIII - Mujirt		ma: malachite
III - Iitiin	IX - Mogoin		gn: galena
IV - Havchugin	X - Zalugiin	Cu, Mo, Pb, Zn, Ag	ce: cerussite
V - Buhain	XI - Danbatseren		cs: cassiterite
VI - Ingetiin	XII - Haliun		sh: scheelite
			au: gold

Fig. I-3-1(2) Legend of existing geological map in the project area in Mongolia

however, the stratigraphic correlations between geologic divisions have not been analyzed yet.

Various mineralization types exist in Mongol due not only to magmatic activity accompanied by a subduction process in the Tuva-Mongol island arc with continental crust existing from early Proterozoic, but also to magmatic activity accompanied by the collision process of Angara craton and North-China craton. The porphyry type copper-molybdenum deposits and the gold deposits related to the plutonic rocks are considered to have considerable economic significance.

(2) General geology and mineralization in the project area.

(a) General geology

The project area is located in the western Tuva-Mongol Unit existing in the Vitim Structure, which is a big scale structural line trending east to west. The geology in the area corresponds to magmatic island arc formed by accretion on subduction system from Vendian of Proterozoic to late Permian.

The general geological map in the project area, shown in the Fig I-3-2, was made based on the existing geological data and on the results of JRS-1 geological interpretation map. The generalized stratigraphic columnar section in the project area is shown Fig. I-3-3.

In the eastern project area, trachybasalt, trachyandesite, tuff and sandstone from Permian to Triassic are exposed. The Selenge complex from Permian to Triassic, consisting of granite, granodiorite, gabbros, etc., and the Triassic granitic rocks of monzonite, granite, granodiorite and syenite were intruded in the sedimentary rocks from Permian to Triassic. The Triassic to Jurassic volcanic rocks cover uncomfortably them. Finally, the Quaternary alluvial deposits are distributed along streams.

Around the western area from Bulgan city in the southwestern project area, granite of Paleozoic and syenitic rhyolite, syenitic dacite, comendite, basalt, volcano clastic rocks and sandstone of Permian are distributed. The Jurassic molasse faces of conglomerate, sandstone and mudstone cover unconformable them.

(i) Stratigraphy

In the project area, Devonian to Jurassic volcanic rocks and sedimentary rocks are widely distributed. Permian to Jurassic plutonic rocks are intruded in the Devonian to Jurassic. Quaternary sedimentary rocks and volcanic rocks cover the Devonian to Jurassic and Permian to Jurassic plutonic rocks.

Devonian: Middle to early Devonian is distributed in western part of the area and is presented by diabasic porphyry, andesite, dacite, rhyolite, and their corresponding tuff.

Permian: Early Permian is widely distributed in and around the Zuukhiin gol area, the Erdenet mine area and the Danbatseren area and consists of trachybasalt, basalt, trachyandesite-basalt,

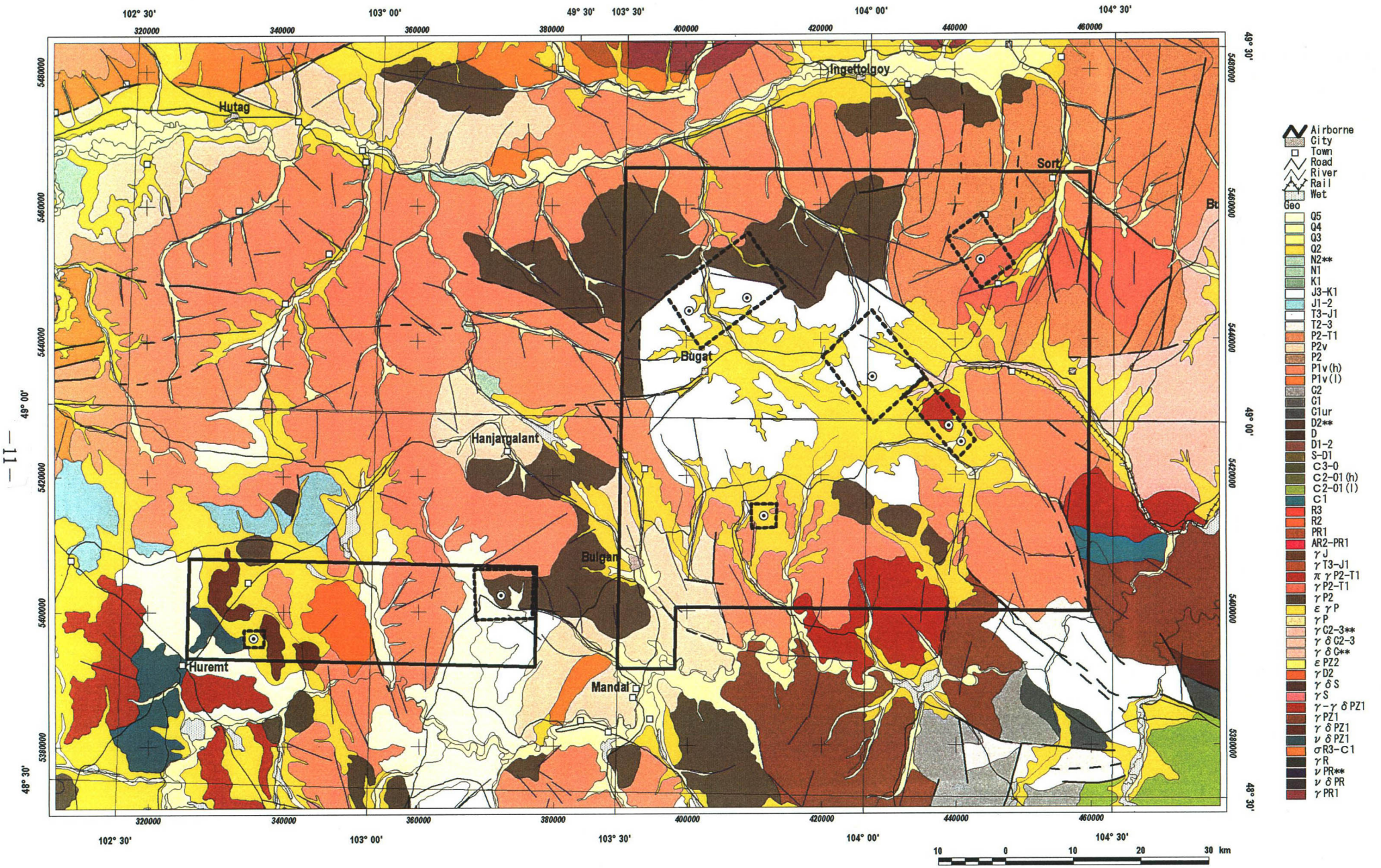


Fig. I-3-2 Geological interpretation map of the Western Erdenet area by JRS-1 images

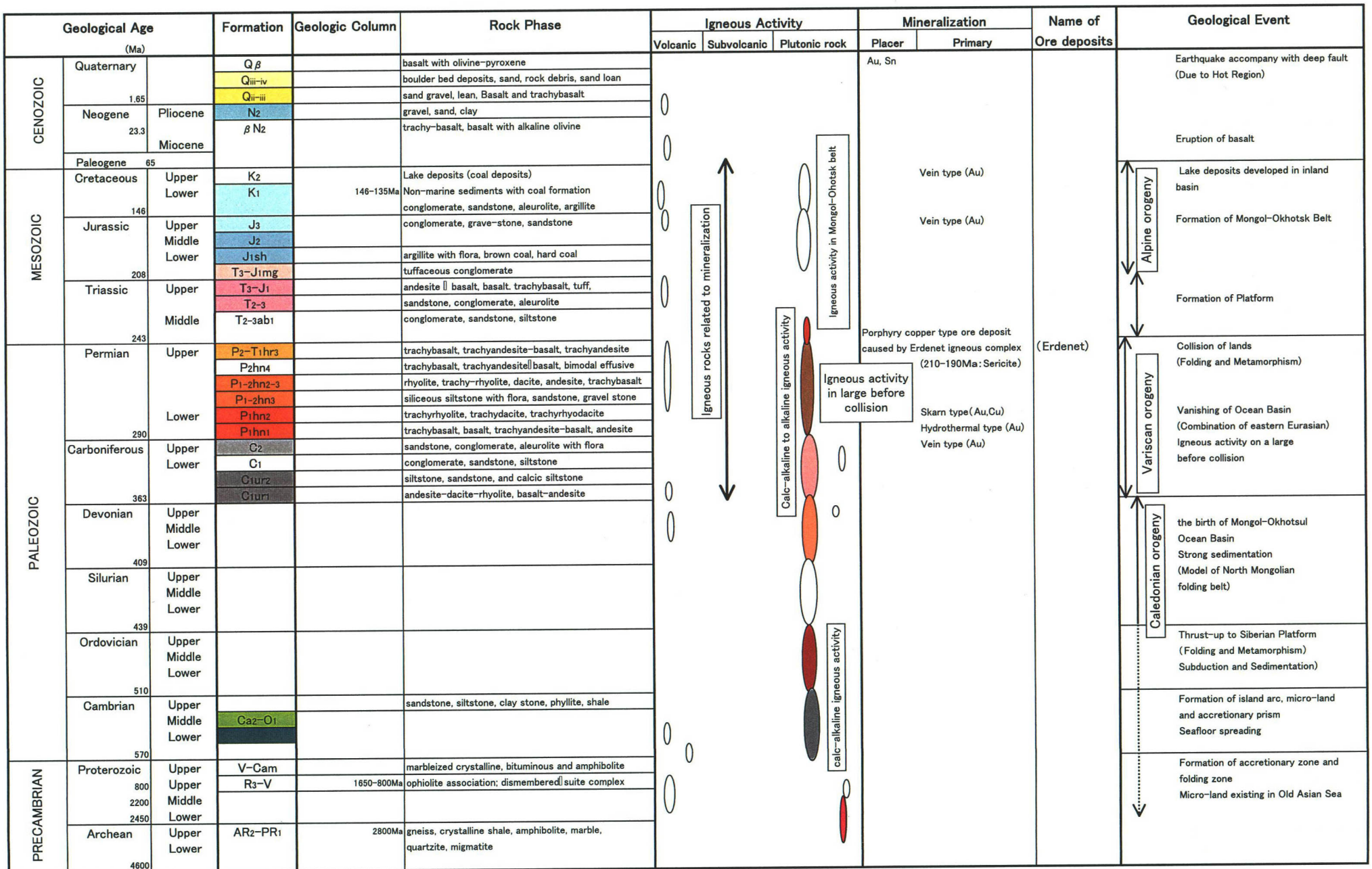


Fig. I-3-3 Generalized stratigraphic columnar section in the project area, Mongolia

andesite-basalt, andesite, tuff, sandstone, gravel stone, conglomerate. Late Permian is distributed from the northeastern part including the Mogoin Gol/Khujiriin Gol area to southern part including the Danbatseren area and composed of rhyolite, trachy-rhyolite, dacite, andesite, trachybasalt, basalt and tuff.

Triassic to Jurassic: Late Triassic to Jurassic is distributed in the central area of the project area from the Erdenet mine area to the Mogoin Gol/Khujiriin Gol area and forming the basin zone. The formation, called as Mogod suite, is composed of andesite–basalt, basalt, trachybasalt, tuff, tuffaceous conglomerate, sandstone and conglomerate.

Quaternary: Quaternary is composed of sedimentary and volcanic rock. The sedimentary are distributed along the streams and rivers. The volcanic rocks are distributed in the western project area.

(ii) Plutonic Rocks

The plutonic rocks are widely distributed in the western and eastern project area and consist of Permian to Jurassic calc-alkaline to alkaline granitic rocks. Permian plutonic rock are called as Selenge Complex and composed of gabbro, gabbro-diorite, diorite, gabbro-syenit, monzonite, monzo-syenit, syenit, and grano-syenit, granodiorite, granite and so on.

In and around the Erdenet mine, the plutonic rocks are divided into Selenge Complex and Erdenet Complex. The Erdenet Complex is composed of granite-porphyry, syenit-porphyry, diorite porphyry and granodiorite porphyry. In the Erdenet mine, the host rock of the porphyry Cu-Mo mineralization is the Selenge Complex and the igneous rock related to the porphyry Cu-Mo mineralization is the Erdenet Complex.

(iii) Dykes

Dyke rocks intruded into the volcanic rocks of Devonian, Permian, Triassic and Jurassic and their corresponding plutonic rocks. The dyke rocks are composed of aplitic granite, liparite, fine-grained diorite, gabbro, diorite porphyry, granodiorite porphyry andesite porphyry basaltic porphyry and others.

(iv) Geological structure

The project area is located in the western Tuva-Mongol Unit existing in the Vitim Structure, which is a big scale structural line trending east to west. The geology in the area corresponds to magmatic island arc formed by accretion on subduction system from Vendian of Proterozoic to late Permian.

In the project area, it can be confirmed the structure of plutonic rocks arrangements, the basin structure, dyke arrangement structure and fault structures.

Plutonic rocks arrangements: Permian to Triassic plutonic rocks are arranged along a NW-SE direction around the Erdenet mine area, The Mogoin gol/Khujiriin gol area and the Danbatseren area.

Basin structure: Late Triassic to early Jurassic Volcanic rock is distributed in the circular area from the Erdenet mine area to the Mogoin gol/Khujiriin gol area. This distribution shows the basin structure with diameters around 40 km in the EW direction and 30 km in NS direction.

Dyke structure: Iparite dyke and stocks are developed surrounding the basin structure including the distribution of the Triassic to Jurassic volcanic rocks. The direction of dikes in the southwestern part of the project area is probably controlled by the existence of deep faults in the area.

Faults structure: Typical Faults can be recognized from the existing geological map of the project area. NW-SE faults system is developed in the western part of the area. In the northeastern part of the area, NE-SW faults are developed. The Erdenet mine exists in the junction of the NW-SE faults and NE-SW faults.

(b) General mineralization

Mineralizations in the project area are indicated in the mineral location map (G. Dejidmaa etc, 2001) shown in Fig. I-3-4 and consist of deposits and occurrences of porphyry Cu-Mo, basaltic Cu and granite related Au. Three types of mineralization exist in the project area.

(1) Porphyry Cu-Mo (Ag, Re) deposits and mineralization hosted in the porphyry and granitic rocks,
(2) Copper mineralization related to the dykes of basalt and
(3) Gold vein type and stockwork type related to granitic rocks.

(1) Porphyry Cu-Mo (Ag, Re) deposits in the porphyry and granitic rocks

Typical ore deposits distributed in the area are the Erdenet NW ore deposit, the Erdenet Central ore deposit, the Erdenet Intermediate ore deposit and the Erdenet SE ore deposit. Other mineralizations are Tourmaline mineral showing, Danbatseren mineral showing and Undrakh mineral showing.

(2) Copper mineralization related to the dykes of basalt

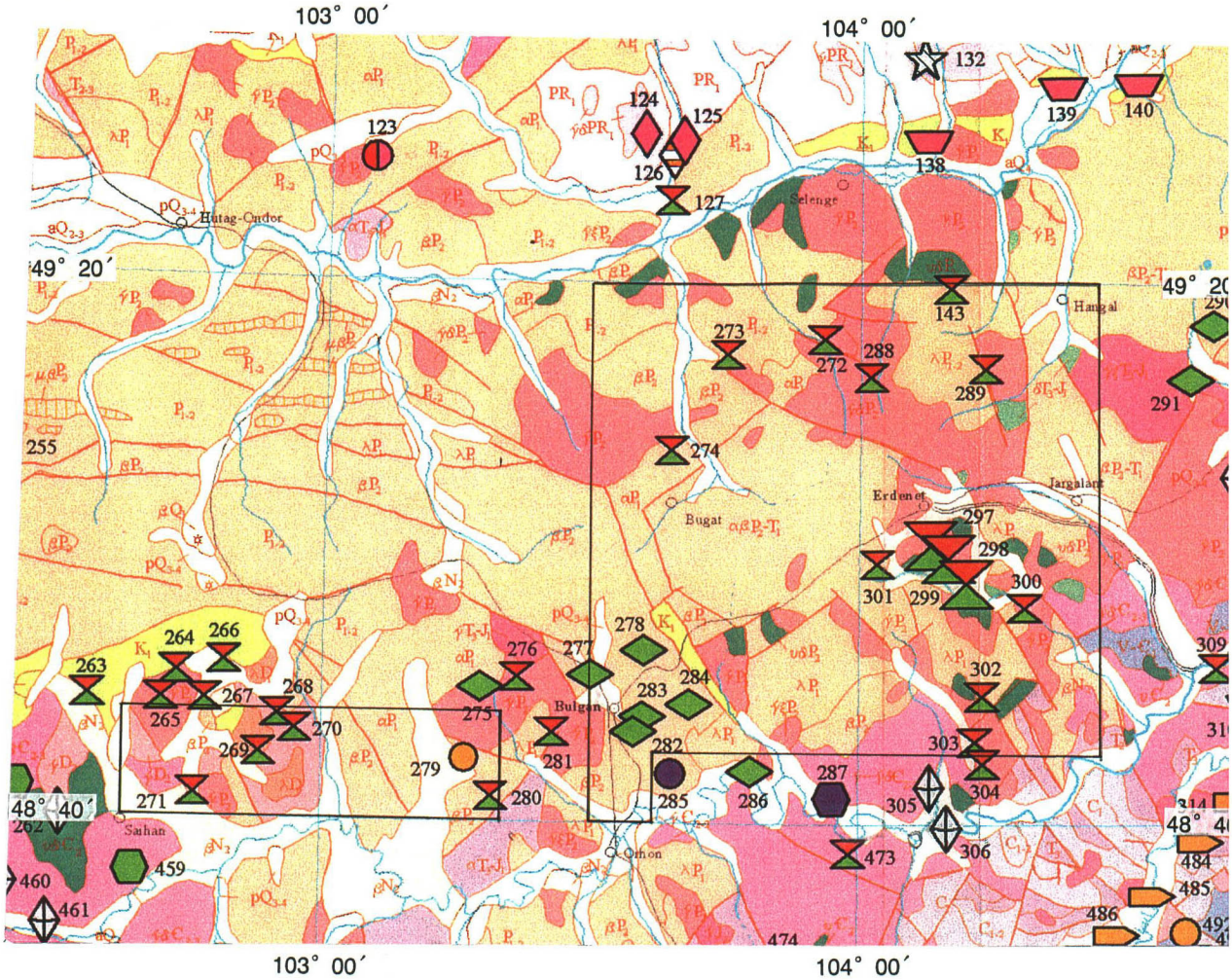
This type of mineralization is distributed in the western parts of Bulgan city.

(3) Gold vein type and stockwork type related to granitic rocks

This type of mineralization is located in the Tsookher mert gold mineral showing.

3-3 Geological Setting and Mineralization

The Erdenet copper deposit in the project area is the biggest porphyry copper-molybdenum deposit in eastern Asia. Many mineral showings related to different types of ore deposits exist in the project area, such as porphyry copper-molybdenum type, high sulphide gold deposit type, oxidized



L E G E N D

: Porphyry Cu-Mo (Ag, Re) deposit

: Porphyry Cu-Mo (Ag, Re) occurrence

: Basaltic Cu Occurrence

: Granitoid related Au occurrence

: Placer Au occurrence

Fig. I-3-4 Generalized mineral location map in Western Erdenet area

copper deposit type, high grade gold vein deposit type, etc.

The mineralizations are controlled by NW-SE trending geological structures. The igneous activity of post-mineralization tends to occur along N-S trending. The mineralized zones in the area, with six known ore bodies and mineralizations including the Erdenet mine, show NW-SE trends elongated approximately 20km. Among the Erdenet ore deposit, which consists of five ore bodies and mineralized zones, the only developed ore body is the Erdenet northwest ore body. The remaining ore bodies present a small scale and low grade. The igneous rock related to the mineralization is thought to correspond to the Erdenet complex consisting of granodiorite porphyry and diorite porphyry.

3-4 Outline of the Mining Activities

The biggest porphyry copper-molybdenum deposit in eastern Asia exists is the Erdenet copper deposit.

In 1941, the area was surveyed by geologists of Soviet Republics who reported about Erdenet ore deposits. In 1964 to 1969, the exploration survey including geological survey, geophysical survey, geochemical survey and drilling survey were performed by a cooperation work between the Czech-Slovakia and Mongolia Governments. Ore reserves were calculated in 512,000,000 tons including copper metals of 4,300,000 tons.

In 1972, it was decided that the Erdenet mine should be developed in cooperation with the Soviet Republic. In 1978, the Erdenet mine started operations with a production of about 4,000,000 ton per year. After that, the production was enlarged 16,000,000 ton per year in 1983 and 20,000,000 ton per year in 1989. Up to 1990, the copper concentrate of Cu 30 % to Cu 32 % produced 350,000 ton.

In 1995, the crude ore have been 20,900,000 ton with ore grade of Cu 0.73 % and Mo 0.02%. The crude ore content was Cu 152,570 ton and Mo 4,180 ton. The production of concentrate was Cu 346,300 ton (ore grade: about 40%) and Mo 3,900 ton.

Up to the present, Erdenet Mining Corporation has operated Erdenet Mine under joint management between Mongolia and Russia. In 2000, the situation of the Erdenet mine was as follows:

Ore grade:

Cut-off grade: Cu 0.25%

Oxide ore is more than 0.70%.

Oxide ores were processed by SX-EW, joint venture project with USA.

Heap leaching: production by Cu 5 to 4 t/day.

Crude ore production: 24,000.000 ton /year (Cu: 0.69%, Mo: 0.02 %)

A breakdown was secondary enriched ore of 40 % and primary ore of 60 %.

Ore production per year: 40,000,000 ton/year

Production of concentrate 400,000 ton per year (Cu: 30%, Mo: 1%):

120,000 ton metal Cu, 2.000 ton metal Mo, 8,000 ton metal Ag.

Ore reserve in 1999: 1,400,000,000 ton (Cu; 7,000,000 ton, Mo: 200,000 ton)

Operating of mine is possible for 35 more years

Secondary sulphide from surface (1,600m in sea level) to 400m in depth.

Oxide ore from surface to 100 to 300m in depth,

Some drilling holes detected the primary ore.

Mining up to 8 levels.

State of the mine and feasibility study

There exist Erdenet NW, Erdenet Central, Erdenet Intermediate and Erdenet SE (Oyut) ore deposits in the area. The Erdenet NW ore deposits were developed by open pit methods. The ore reserves of Erdenet Central, Erdenet Intermediate and Erdenet SE (Oyut) ore deposits have been already calculated.

The ore reserves in the Erdenet Central ore body, Erdenet southeast ore body (Oyut) were severally 1,250,000 ton (Cu: 0.43%, Mo: 0.018 %) and 41,890,000 ton (Cu: 0.40%, Mo: 0.007%).

The mining areas of Erdenet mine is only the Erdenet NW mined by open pit.