

Appendix 13 Data Sheet of Mineral Prospects

Appendix

Figure 3, Data sheet for Mineral Prospects(I)

Survey area	Palawan III (Puerto)		Mineral Prospects No.		Atlas Mine No.1			
Locality *	1/50,000 Topographic map No.	Bobosawen 2648I	X Coordinates	17,500	Y * Coordinates	14950	Altitude (m) *	80
Survey date *	Feb. 4 1986		Surveyer *	Shida, Nozawa et.al.				
Compiling data (file No.)	Atlas Mining Co. (ACMDC)							
Metalogenic province			Type of Ore Deposits *	Float Chromite Deposit		Country rock of Ore Deposits *		Laterite Soil
One mineral Assemblage	by field observation.*				by micro-scope			
Gangue mineral Assemblage	by field observation.*		Serpentine, Chlorite		by micro-scope			by x-Ray diffraction
Alteration mineral Assemblage	by field observation.*		Serpentinization and Chloritization		by micro-scope			by x-Ray diffraction
Composition of country rocks *	Ultramafic Rocks							

Figure 3, Data sheet for Mineral Prospects (II)

Age Determination	K- Ar Method	Other Method							
Investigation of Fossils	Radioaria	Manno-Plankton		Other Fossils					
	Necessity of follow up survey is highest	B	Necessity of follow up survey is high	C	Possibility of follow up survey is reliable	D	Necessity of follow up survey is low	E	Follow up survey is needless
Evaluation for Ore Prospects	Spot Investigation	A	B	C	"	D	"	E	"
	Results of Geochemical & other analysis	A	B	C	"	D	"	E	"
	Summarized Evaluation	A	B	C	"	D	"	E	"
<p>Other specially Mentions</p> <p>Mining operation started at Dec. 27. '85 and now carrying on. Mined ores are hauled to Maindang stock yard along beach side by back pack or carabeos. Up to Jan. 29, '86, 1,147 tons of chromite ore were hauled to Quezon by boat.</p>									

Appendix

Figure 3, Data sheet for Mineral Prospects(I)

Survey area	Palawan III (Puerto)		Mineral Prospects No.		Richman Mine NO. 2	
	1/50,000 Topographic map No.	Bobosawen 26481	X Coordinates	Y Coordinates	13600	Altitud
Locality *						650 (m) *
Survey date *	Feb.5, '86		Surveier *	Shida, Nozawa et. al.		
Geopiling save (file No.)			Owner of mining right	Rich Mineral Resources		
Metalogenic province			Type of Ore Deposits *	Massive chromite Deposit	Country rock of Ore Deposits *	Peridotite
One mineral assemblage	by field observation.* Chromite		by micro-scope		by x-Ray diffraction	
Gangue mineral Assemblage	by field observation.* Serpentine chlorite		by micro-scope		by x-Ray diffraction	
Alteration mineral Assemblage	by field observation.* Serpentinization and Chloritization		by micro-scope		by x-Ray diffraction	
Combination of country rocks *	Ultramafic Rocks					

Figure 3, Data sheet for Mineral Prospects (II)

Age Determination	K- Ar Method	Other Method						
Investigation of Fossils	Radioaria	Manno-Plankton		Other Fossils				
	Necessity of follow up survey is highest	Necessity of follow up survey is high	Necessity of follow up survey is low	Possibility of follow up survey is reliable	Possibility of follow up survey is low	Follow up survey is E need less		
Spot Investigation	A	B	high	C	D	E		
Results of Geochemical & other analysis	"	B	"	C	"	E	"	
Summarized Evaluation	A	B	"	C	"	E	"	
Evaluation for Ore Prospects								
Other specially Mentions	<p>Chromite ores spotted Leopard type. Seems to be intimately related with intrusive diabase dyke.</p>							

Appendix

Figure 3, Data sheet for Mineral Prospects(L)

Survey area	Palawan III (Puerto)		Mineral Prospects No.		Boyo Mine No.3		
	1/50,000 Topographic map No.	Totobaen 2649III	X Coordinates	Y Coordinates	Altitude	Altitude	(m)
Locality *					26,000	2,750	320
Survey date *	Feb. 17, '86.		Surveyer *	Shida, Nozawa et, al,			
Compiling data (file No.)			Owner of mining right	CAMUS Engineering Co. (not declared)			
Metalogenic province			Type of Ore Deposits	Massive Chromite Deposit	Country rock of Ore Deposits	Peridotite and gabbro	
One mineral Assemblage	by field observation.*	Chromite			by x-Ray diffraction		
Gangue mineral Assemblage	by field observation.*	Serpentine Chlorite			by x-Ray diffraction		
Alteration mineral Assemblage	by field observation.*	Serpentinization and Chloritization			by x-Ray diffraction		
Concination of country rocks *		Ultramafic Rocks					

Figure 3, Data sheet for Mineral Prospects (II)

Age Determination	K- Ar Method	Other Method	
Investigation of Fossils	Radiolaria	Nanno-Plankton	Other Fossils
	Necessity of follow up survey is highest	Necessity of follow up survey is high	Necessity of follow up survey is low
	Spot Investigation	B	D
Evaluation for Ore Prospects	A	C	E
	Results of Geochemical & other analysis	"	"
	Summarized Evaluation	"	"
Other specially Mentions	<p>Mined from Jan. 10 to 25, '86 by 7 workers. Open pit were collapsed by land slide and ore not observed on the pit wall. Chromite ore stocked about 25 tons. Not declared, according to the information from BMG Puerto Office.</p>		

Appendix

figure 3, Data sheet for Mineral Prospects(I)

Survey area	Palawan IV (Narra)		Mineral Prospects			No.1 Romarao		
	1/50,000 Topographic map No.	N-1 2648I C-1 2648III C-2 2648II	X* Coordinates	Y* Coordinates	4,000 27,300 400	1,200 17,200 18,300	Altitud	105 180 320 (m)
Locality*								
Survey date*	Feb. 16, '86.				H. Takahashi U. Palaganas			
Compiling data (file No.)					Owner of mining right			
Metallogenic province					Type of Ore Deposits	N-1 Ni-laterite C-1 Chromite C-2 Chromite	Country rock of Ore Deposits	Harzburgite Dunite in Harzburgite mass
One mineral	by field observation*				by micro-scope		by x-Ray diffraction	
Assemblage	N-1 Nickel laterite C-1 Chromite C-2							
Gangue mineral	by field observation*				by micro-scope		by x-Ray diffraction	
Assemblage	N-1 C-1, C-2, Olivine							
Alteration mineral	by field observation*				by micro-scope		by x-Ray diffraction	
Assemblage	N-1 Lateritization C-1, C-2, Serpentinization							
Combination of country rocks*								C-1, C-2, Dunite and Harzburgite

Figure 3. Data sheet for Mineral Prospects (II)

Age Determination		K- Ar Method		Other Method			
Investigation of Fossils		Radiolaria		Nanno-Plankton		Other Fossils	
Ore Prospects for Evaluation		Necessity of follow up survey is highest		Necessity of follow up survey is high		Necessity of follow up survey is low	
Spot Investigation	A	B	C	D	E	Follow up survey is needless	
Results of Geochemical & other analysis	A	B	C	"	E	"	
Summarized Evaluation	A	B	C	"	E	"	
Other specially Mentions							

Laterite in this area is laterally wide with a maximum thickness of about 3 meters in several test pit. No saprolite was found.

C-1, The chromite deposit is located directly 2 km east of Barangay Catuagan and is found midway along the Romarao Creek. The chromite body is exposed by site-cutting, and observed within an intensely sheared dunite generally trending N45 E within a harzburgite mass. The chromite body is lensoidal that pinches at its ends. It ranges about 60 cm to 1.5 m thick and about 6 m in length. The chromite is soft and friable and is densely disseminated to massive type.

C-2, The chromite deposited isolated directly 1.5 km NE of C-1, it occurs as boulders. Also it was observed that small outcrops of emplaced chromite bodies overlain by laterite soil, having a general NE trend dipping 40 Nw. The chromite is of sparsely to densely disseminated and massive type, usually with garnierite. The emplaced deposits is hosted by serpentized dunite.

Appendix

Figure 3, Data sheet for Mineral Prospects(I)

Survey area	Palawan IV (Narra)		Mineral Prospects No.		No. 2 Berong		
	1/50,000 Topographic map No.	N-2 2648III N-3 2648II C-3 2648II	X Coordinates	25,500 550 2,400	Y * Coordinates	9,100 13,300 11,400	Altitude 280 120 540 (m)
* Survey date	Feb. 14, '86		* Surveyer	H. Takahashi U. Palaganas			
Geological data (file No.)	Owner of mining right						
Metallogenic province			Type of Ore Deposits	K- , Harzburgite C-3 Chromite		Country rock of Ore Deposits N- , Harzburgite C-3 Dunite	
One mineral assemblage	by field observation* N-2,3, Red soil/ sapprolite with garnierite		by micro-scope		by x-Ray diffraction		
Genue mineral Assemblage	by field observation* C-3 Olivine		by micro-scope		by x-Ray diffraction		
Alteration mineral Assemblage	by field observation* C-3 Serpentine		by micro-scope		by x-Ray diffraction		
Concination of country rocks	*						

Figure 3, Data sheet for Mineral Prospects (II)

Age Determination		K- Ar Method	Other Method								
Investigation of Fossils	Radiolaria	Necessity of follow up survey is highest	Necessity of follow up survey is high	Possibility of follow up survey is reliable	Other Fossils	Follow up survey is E need less					
							Spot Investigation	Necessity of follow up survey is B	C	D	E
Summarized Evaluation	A	"	"	"	"	"					
Ore Prospects		<p>Laterite in M-2 area is exposed a long benched side cut laterally about 160 m and height of about 100 m, Both laterite and saprolite in this area, where laterite has a maximum thickness of about 3 m while the saprolite is 3m plus. Garnierite is extensively present in the saprolite horizon.</p> <p>Laterite in M-3 area is located near Tagbolante River, A single test pit was observed and laterite has maximum thickness of about 4m. Although laterite is present in the area, this test pit might also been used to determine chromite sands associated in this laterite.</p> <p>The deposit of C-3 is located at the upper stream of a tributary of Berong River. It is exposed along about 5m down up in the about one meter of moderately sheared-dunite in a Harzburgite mass. the chromite body, having a general trend of N 70° E, 53 NE, is of desely disseminated type.</p>									
Other specially Mentions											

Appendix

Figure 3. Data sheet for Mineral Prospects(I)

Survey area	Palawan IV (Narra)		Mineral Prospects No.		No.3 Ibatong, Aramaywan		
Locality *	1/50,000 Topographic map No.	2648III	X * Coordinates	9°13'00 9°25'00	Y * Coordinates	118°10' 118°22'	Altitud 450-470 (m) *
Survey date *	Feb. 15, '86.		Surveyer *	A. Matos			
Compiling data (file No.)			Owner of mining right	Soriano Corp.			
Metallogenic province			Type of Ore Deposits	Mi-Laterite	Country rock of Ore Deposits *		Harzburgite/ Dunite.
One mineral assemblage	by field observation.* Mi-Fe rich Red soil		by micro-scope		by x-Ray diffraction		
Gangue mineral Assemblage	by field observation.*		by micro-scope		by x-Ray diffraction		
Alteration mineral Assemblage	by field observation.*		by micro-scope		by x-Ray diffraction		
Composition of country rocks *	Harzburgite, Dunite, Pyroxenite.						

Figure 3, Data sheet for Mineral Prospects (II)

Age Determination		K- Ar Method	Other Method			
Ore Prospects for Evaluation	Investigation of Fossils	Radiolaria	Nanno-Plankton	Other Fossils		
		Spot Investigation	Necessity of follow up survey is highest	Possibility of follow up survey is reliable	Necessity of follow up survey is low	
		Results of Geochemical & other analysis	B	C	D	E
		Summarized Evaluation	A	C	D	E
Other specially Mentions						

Appendix

Figure 3, Data sheet for Mineral Prospects(I)

Survey area	Palawan IV (Narra)		Mineral Prospects No.		No.4 Malasgao Prospect	
Locality *	1/50,000 Topographic map No.	2648II	X * Coordinates	16,000	Y * Coordinates	7,800 Altitud 320 (m) *
Survey date *	Feb. 3, '86.		Surveyer *	A. Matos		
Compiling date (file No.)			Owner of mining right	Navairo & Ceruanan Surveying Co.		
Metallogenic province			Type of Ore Deposits *	Ni-Laterite	Country rock of Ore Deposits *	Harzburgite
One mineral Assemblage	by field observation.* Fe-Ni rich red soil		by micro-scope		by x-Ray diffraction	
Gangue mineral Assemblage	by field observation.*		by micro-scope		by x-Ray diffraction	
Alteration mineral Assemblage	by field observation.*		by micro-scope		by x-Ray diffraction	
Consination of country rocks *	Harzburgite and minor Pyroxinite.					

Figure 3, Data sheet for Mineral Prospects (II)

Age Determination		K- Ar Method	Other Method		
Investigation of Fossils		Radiolaria	Nanno-Plankton	Other Fossils	
Evaluation for Ore Prospects	Spot Investigation	Necessity of follow up survey is highest	Necessity of follow up survey is high	Necessity of follow up survey is low	Follow up survey is needless
	Results of Geochemical & other analysis	A	B	C	D
	Summarized Evaluation	A	B	C	D
Other specially Mentions					

Appendix

Figure 3. Data sheet for Mineral Prospects(I)

Survey area	Palawan IV (Narra)		Mineral Prospects No.		No.5 Bethlehem		
	1/50,000 Topographic map No.	2467I	X Coordinates	6,750	Y Coordinates	15,550	Altitude 410 (m) *
Locality *							
Survey date *	Jan. 29, '86.		Surveier *		H. Takahashi.		
Compiling data (file No.)			Owner of mining right				
Metallogenic province			Type of Ore Deposits *	Ni-Laterite/ Chromite		Country rock of Ore Deposits *	Harzburgite/ Dunite
One mineral Assemblage	by field observation.* Ni-Fe rich red soil Chromite disseminated in dunite.					by x-Ray diffraction	
One mineral Assemblage	by field observation.*					by x-Ray diffraction	
Alternation mineral Assemblage	by field observation*					by x-Ray diffraction	
Combination of country rocks *							Harzburgite / Dunite

Figure 3, Data sheet for Mineral Prospects (II)

Age Determination		K- Ar Method		Other Method		
Investigation of Fossils	Radiolaria	Nanno-Plankton		Other Fossils		
		Necessity of follow up survey is highest	Necessity of follow up survey is high	Possibility of follow up survey is reliable	Necessity of follow up survey is low	Follow up survey is needless
		A	B	C	D	E
Ore Prospects Evaluation for	Spot Investigation	"	"	"	"	
	Results of Geochemical & other analysis	A	B	C	D	
	Summarized Evaluation	A	B	C	D	
<p>This laterite area covers 7 km² or more, occurring with in an altitude of 200 m to 600 m. topography is the vicinity is ragged and might have implication to the thickness of the laterite which is to a maximum of 5 m. Chromite mineralization is present in this area, occurring within the dunite. The dunite body which host chromite mineralization which is assumed to have a continuation of the dunite body in Trident mine area.</p>						
Other specially Mentions						

Appendix

Figure 3, Data sheet for Mineral Prospects(I)

Survey area	Palawan IV (Narra)		Mineral Prospects No.		No.6 Bethlehem West	
	1/50,000 Topographic map No.	X Coordinates	Y Coordinates	Altitud	* 400 (m)	
Locality *	2647I		2,550	13800		
Survey date *		Surveier *	H. Takahashi			
Geopling data (file No.)		Owner of mining right				
Metallogenic province		Type of Ore Deposits *	Ni-Laterite	Country rock of Ore Deposits	Harzburgite	
One mineral Assemblage	by field observation.* Red soil		by micro-scope	by x-Ray diffraction		
Gangue mineral Assemblage	by field observation.*		by micro-scope	by x-Ray diffraction		
Alternation mineral Assemblage	by field observation.*		by micro-scope	by x-Ray diffraction		
Combination of country rocks *	Harzburgite					

Figure 3, Data sheet for Mineral Prospects (II)

Age Determination		K- Ar Method		Other Method		
Investigation of Fossils	Radiolaria	Nanno-Plankton		Other Fossils		
		Necessity of follow up survey is highest	Necessity of follow up survey is high	Possibility of follow up survey is reliable	Necessity of follow up survey is low	Follow up survey is needless
		A	B	D	E	E
Ore Prospects Evaluation for	Spot Investigation	Necessity of follow up survey is C		Follow up survey is E		
	Results of Geochemical & other analysis	C		D		
	Summerized Evaluation	C		D		
Other specially Mentions		<p>This area is located between the Bethlehem (No.5) and Olympic (M-8) area, Topography is also rugged and the maximum thickness of laterite is about 5m along test pit wall. Although laterite exposure in the area is not so widespread, still it is encouraging being between two laterite potential areas.</p>				

Appendix

Figure 3, Data sheet for Mineral Prospects(I)

Survey area	Palawan IV (Narra)		Mineral Prospects		NO. 8 Olympic Mine		
	1/50,000 Topographic map No.	2647I	X* Coordinates	2,100	Y* Coordinates	5,900	Altitud 400 (m)*
Locality	Feb. 2nd, '86		Surveier*	H. Takahashi			
Survey date			Owner of mining right				
Compiling data (file No.)			Type of Ore Deposits*	Ni-laterite / saprolite Cromite		Country rock of Ore Deposits Harzburgite	
Metallogenic province	by field observation.*			by x-Ray diffraction			
One mineral Assemblage	Ni-laterite/ saprolite/ garniellite. Chromite.			by micro-scope			
Conque mineral Assemblage	by field observation.*			by x-Ray diffraction			
Alternation mineral Assemblage	by field observation*			by micro-scope			
Combination of country rocks				Harzburgite			

Figure 3, Data sheet for Mineral Prospects (II)

Age Determination	K- Ar Method	Other Method			
Investigation of Fossils	Radiolaria	Nanno-Plankton	Other Fossils		
	Necessity of follow up survey is highest	Necessity of follow up survey is high	Necessity of follow up survey is low		
	Follow up survey is highest	Follow up survey is high	Follow up survey is low		
Spot Investigation	A	B	C	D	E
Results of Geochemical & other analysis	"	"	"	"	"
Summerized Evaluation	A	B	C	D	E
Other specially Mentions	<p>Olympic Mine area- Laterite in this area occurs within an area of more or less 3 km². Both laterite and saprolite are present, laterite has a maximum thickness of 4 m thin followed by saprolite having a zone of about 30m below. The presence of abundant garnierite in the saprolite may result to high Nickel values.</p> <p>Within the surroundings of the area of it is possible laterite and saprolite may be present promising.</p>				

Appendix

Figure 3, Data sheet for Mineral Prospects(I)

Survey area	Palawan IV (Narra)		Mineral Prospects No.		No.9 Santa Monica		
Locality *	1/50,000 Topographic map No.	2647IV	X * Coordinates	5,500	Y * Coordinates	25,400	Altitude * (m) 400
Survey date *	Feb. 4. '86.		Surveier *		H. Takahashi		
Compiling date (file No.)	Owner of mining right						
Metallogenic province			Type of Ore Deposits *	Ni- laterite Chromite dissemination		Country rock of Ore Deposits Harzburgite	
One mineral Assemblage	by field observation.* Red soil Chromite				by micro-scope		
Gangue mineral Assemblage	by field observation.*				by micro-scope		
Alteration mineral Assemblage	by field observation.*				by micro-scope		
Combination of country rocks *	Harzburgite						

Figure 3, Data sheet for Mineral Prospects (II)

Age Determination	K- Ar Method	Other Method				
Investigation of Fossils	Radioxaria		Manno-Plankton	Other Fossils		
	Spot Investigation	Necessity of follow up survey is highest	Necessity of follow up survey is high	Possibility of follow up survey is reliable	Necessity of follow up survey is low	Follow up survey is needless
	Results of Geochemical & other analysis Sumnerized Evaluation	A	B	C	D	E
Evaluation for Ore Prospects	"	"	"	"	"	"
	"	"	"	"	"	"
	"	"	"	"	"	"
<p>The laterite area is located about 5km west of Olympic Mine Area (NC.8), covering an area of almost 2 km²; test pit that were observed show that the laterite zone is 15 km and a lower saprolite zone of almost 15m; outcrop of chromite deposits were observed within the area. The chromite mineralized zone is about 6m and is of densely disseminated chromite hosted by harzburgite. Small irregular chromite bodies in the dunite were also observed.</p>						
Other specially Mentions						

Appendix

Figure 3, Data sheet for Mineral Prospects(I)

Survey area	Palawan IV (Narra)		Mineral Prospects No.		No. 11 Trident Mine		
	1/50,000 Topographic map No.	2647I	X * Coordinates	11,300	Y * Coordinates	16,000 Altitud	420 (m) *
Locality *							
Survey date *	Feb. 20, '86.		Surveyer *	H. Fuchimoto			
Compiling date (file No.)			Owner of mining right				
Metalogenic province			Type of Ore Deposits *	Layered chromite	Country rock of Ore Deposits	Dunite	
One mineral assemblage	by field observation.*	Chromite		by micro-scope	by x-Ray diffraction		
Gangue mineral assemblage	by field observation.*	Serpentine, calcite		by micro-scope	by x-Ray diffraction		
Alteration mineral assemblage	by field observation*	Serpentine		by micro-scope	by x-Ray diffraction		
Combination of country rocks *		Harzburgite, Dunite, Gabbro, Pyroxinite					

Figure 3, Data sheet for Mineral Prospects (II)

Age Determination		K- Ar Method	Other Method						
Investigation of Fossils		Radioraria	Nanno-Plankton	Other Fossils					
Evaluation for Ore Prospects	Spot Investigation	A	Necessity of follow up survey is high	B	Possibility of follow up survey is reliable	D	Necessity of follow up survey is low	E	Follow up survey is needless
	Results of Geochemical & other analysis	A	"	B	"	C	"	E	"
	Summarized Evaluation	A	"	B	"	C	"	E	"
Other specially Mentions		<p>Area-1; Massive chromite in sheared zone. Pit is filled with water. Area-5; In the lowest pit a massive and disseminated chromite (w;9m) ore body is cut by fault (N50°E, 30° S). In other two pits ore cannot be seen. Area-6; To look for the origin of chromite floats, two areas were bulldozed but no explanted outcrops. Chromite sand associated in laterite (thickness about 5m) was once collected. According the guide who was a foreman before, some drill holes hit chromite bodies but data collection seems to be very difficult.</p>							

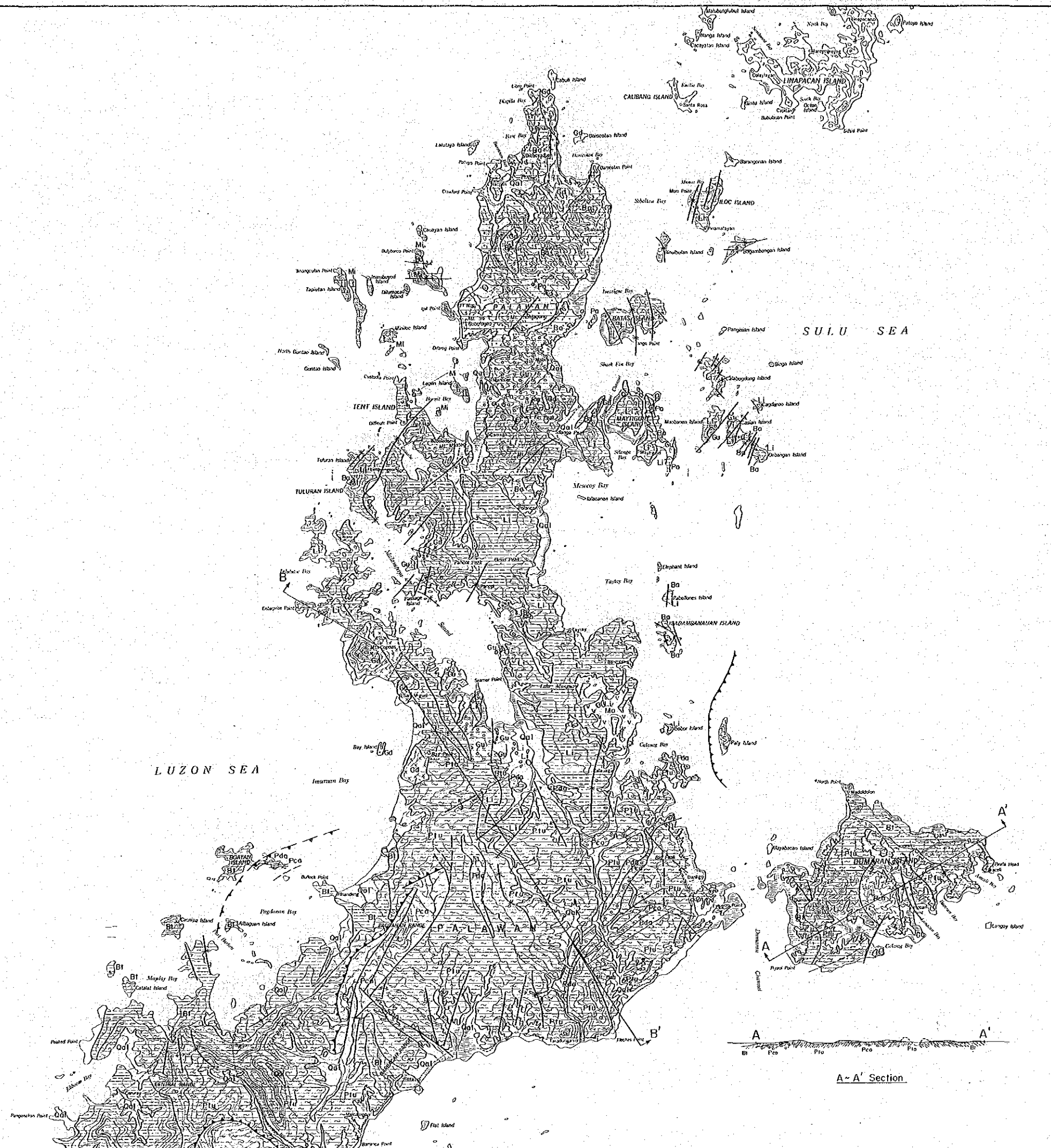
Appendix

Figure 3. Data sheet for Mineral Prospects(I)

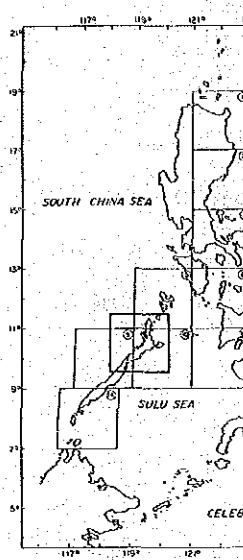
Survey area	Palawan IV (Narra)		Mineral Prospects No.		No. 12 Abu-Abu Rock Phosphate Prospect	
Locality *	1/50,000 Topographic map No.	2647IV	X * Coordinates	118°06'24"	Y * Coordinates	9°12' 57" Altitud
Survey date *		Feb.17, '86	Surveier *	A. Matos L. Morales A. Cacedac		195 (m) *
Compiling date (file No.)			Owner of mining right			
Metallogenic province			Type of Ore Deposits *	Carbonate hosted Guano-derived phosphatic deposits	Country rock of Ore Deposits *	Limestone
One mineral Assemblage	by field observation.*	Apatite (?) Amorphous Phosphate		by micro-scope		by x-Ray diffraction
Conque mineral Assemblage	by field observation.*	Limestone		by micro-scope		by x-Ray diffraction
Alternation mineral Assemblage	by field observation.*			by micro-scope		by x-Ray diffraction
Combination of country rocks *	Limestone, interbedded sedimentary rocks.					

Figure 3, Data sheet for Mineral Prospects (II)

Age Determination		K-Ar Method	Other Method	
Investigation of Fossils		Radiolaria	Nanno-Plankton	Other Fossils
Ore Prospects for Evaluation	Spot Investigation	Necessity of follow up survey is highest	Necessity of follow up survey is high	Necessity of follow up survey is low
	Results of Geochemical & other analysis	A	B	D
	Summarized Evaluation	A	B	D
<p>The area investigated was found to be in a collapsed limestone cave occurring as carbonate host Guano derived phosphate deposit veneering a high weathered limestone area. The area was found to have been applied for cually permit by a certain Mr. Paredor but has not yet been approved at the time of the survey.</p>				
Other specially Mentions				



THE MINERAL EXP
 - MINERAL DEPOSITS AND T
 CONTRASTING GEOLOGIC
 IN
 THE REPUBLIC OF THE
 PHASE III
 GEOLOGICAL MAP A
 PALAWAN AREA

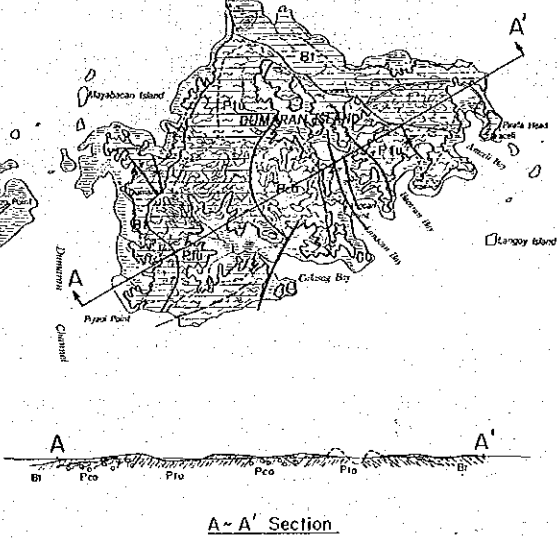


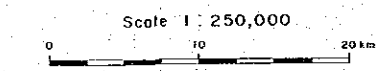
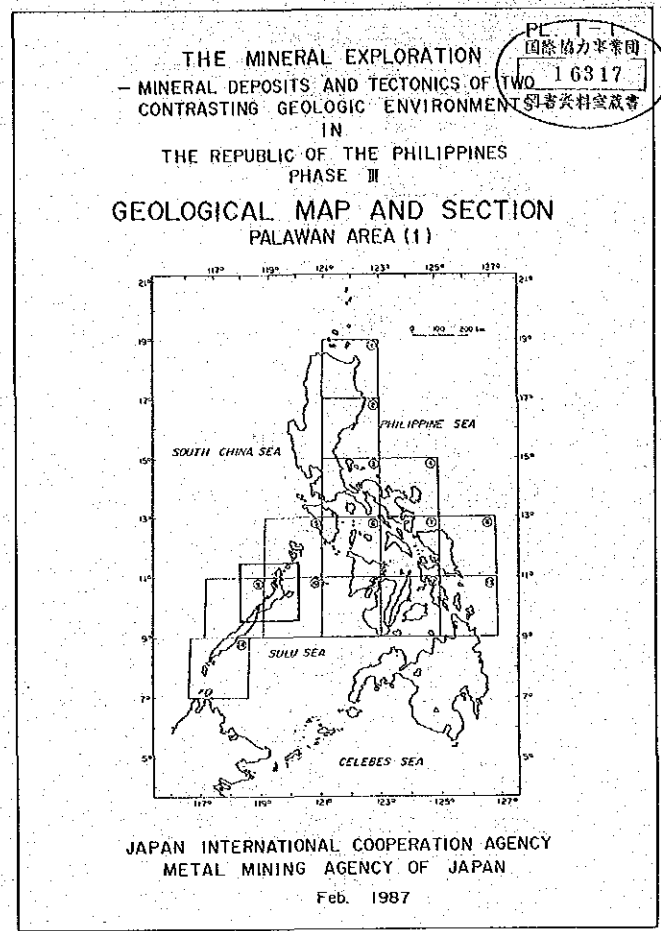
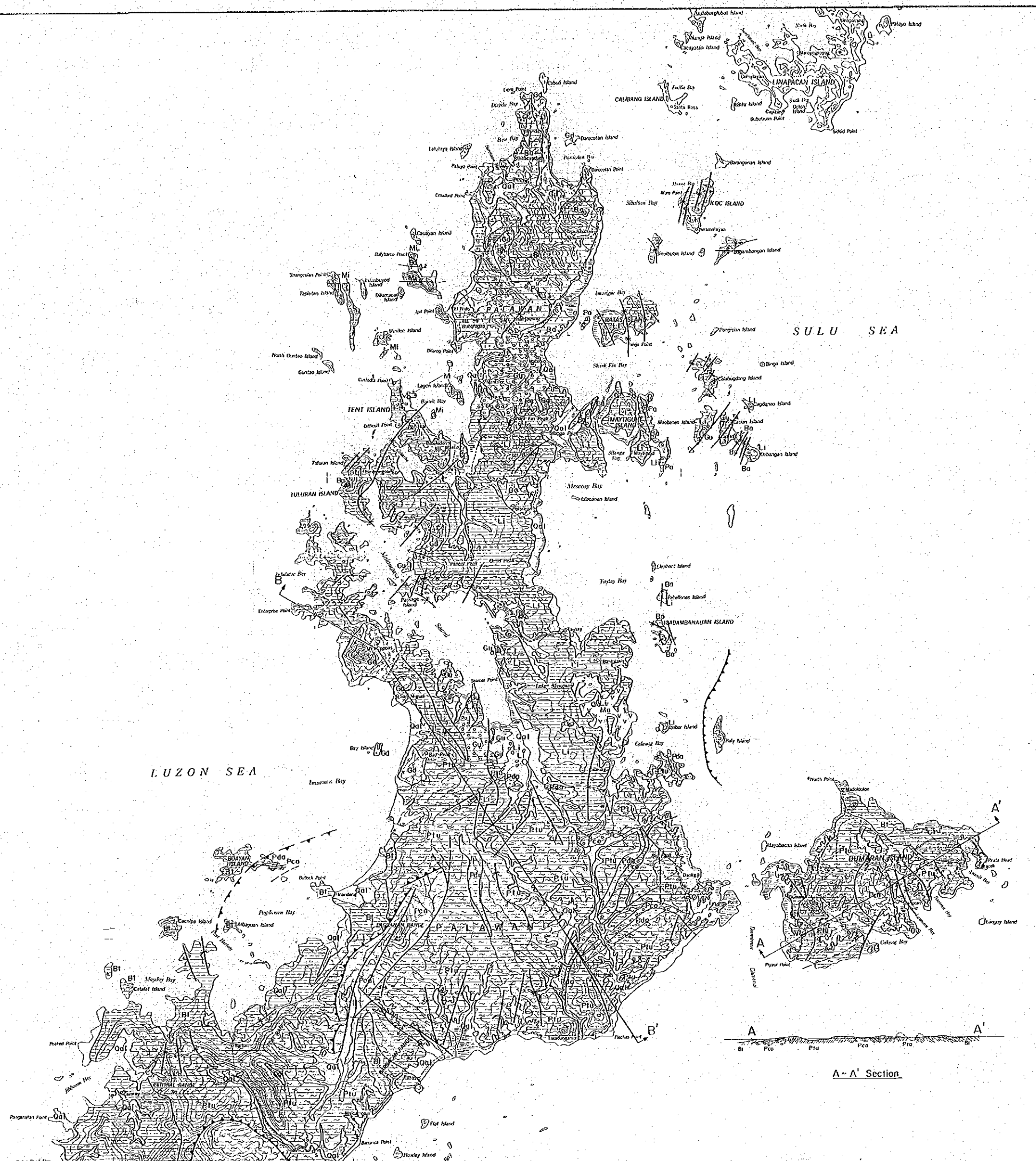
JAPAN INTERNATIONAL CO
 METAL MINING AGENC
 Feb. 19

Scale 1 : 25
 0 10

LEGE

Quaternary	Alluvium	Ool	Alluvium, Coral reef
	Deltivium	Mo	Basaltic lava
Tertiary	Miocene	Sp	St. Pauls Is
	Oligocene	Sp	
Tertiary	Eocene	Po	Pobellion Is
Cretaceous		S	Serpentine gabbro
Jurassic	Middle	Gu	Guinlo Formation
	Lower		
Triassic	Upper	Li	Liminacang Formati
	Middle		
Permian	Upper	Mi	Minilog Formation
	Middle		
Permian	Middle	Bo	Bocull Formation
Pre Permian		CS	Conception Pebbly Phyllite
		Pco	Caramoy Schist
			Fault
			Fault (assumed)
			Thrust
			Anticline Axis

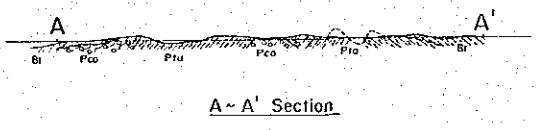


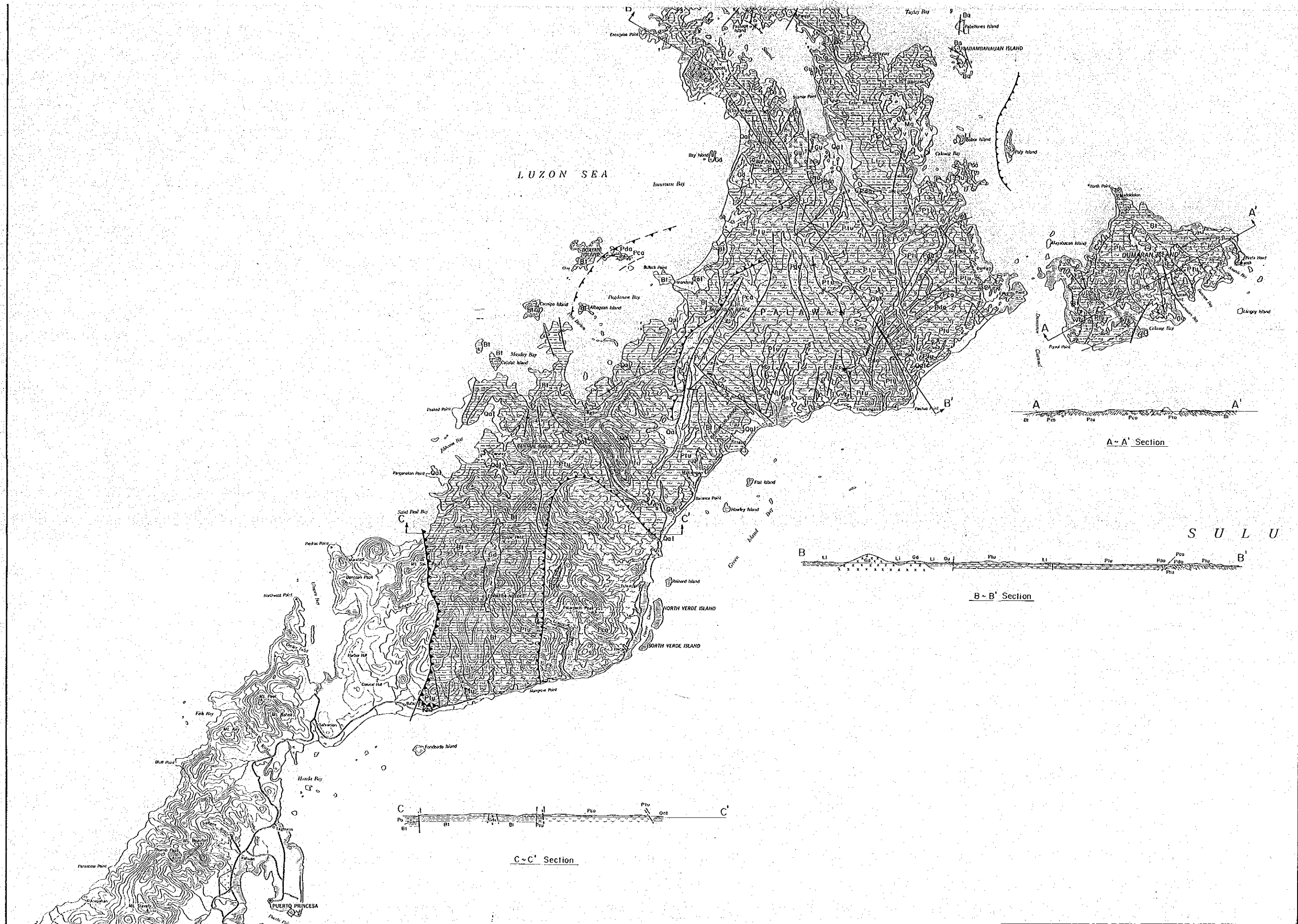


LEGEND

Quaternary	Alluvium	Ool	Alluvium, Coral reef, Beach Sand
	Dellivium	Ma	Basaltic Iava
Tertiary	Miocene	Sp	St. Pauls Is
	Oligocene	Gd	Coppos and Strip Peak Granite
	Eocene	Pp	Pabelion Is
Cretaceous		S	Serpentine gabbro
		Gd	Daracton Granite
Jurassic	Middle	Gu	Guilo Formation
	Lower		
Triassic	Upper	L	Limnancong Formation
	Middle		
Permian	Upper	M	Minitog Formation
	Middle	B	Bacuit Formation
Pre Permian		C	Conception Pebbly Phyllite
		P	Danteg Sandstone
		S	Tumorbong Semi Schist
		C	Caramay Schist

- Fault
- Fault (assumed)
- Thrust
- Anticline Axis
- Syncline Axis





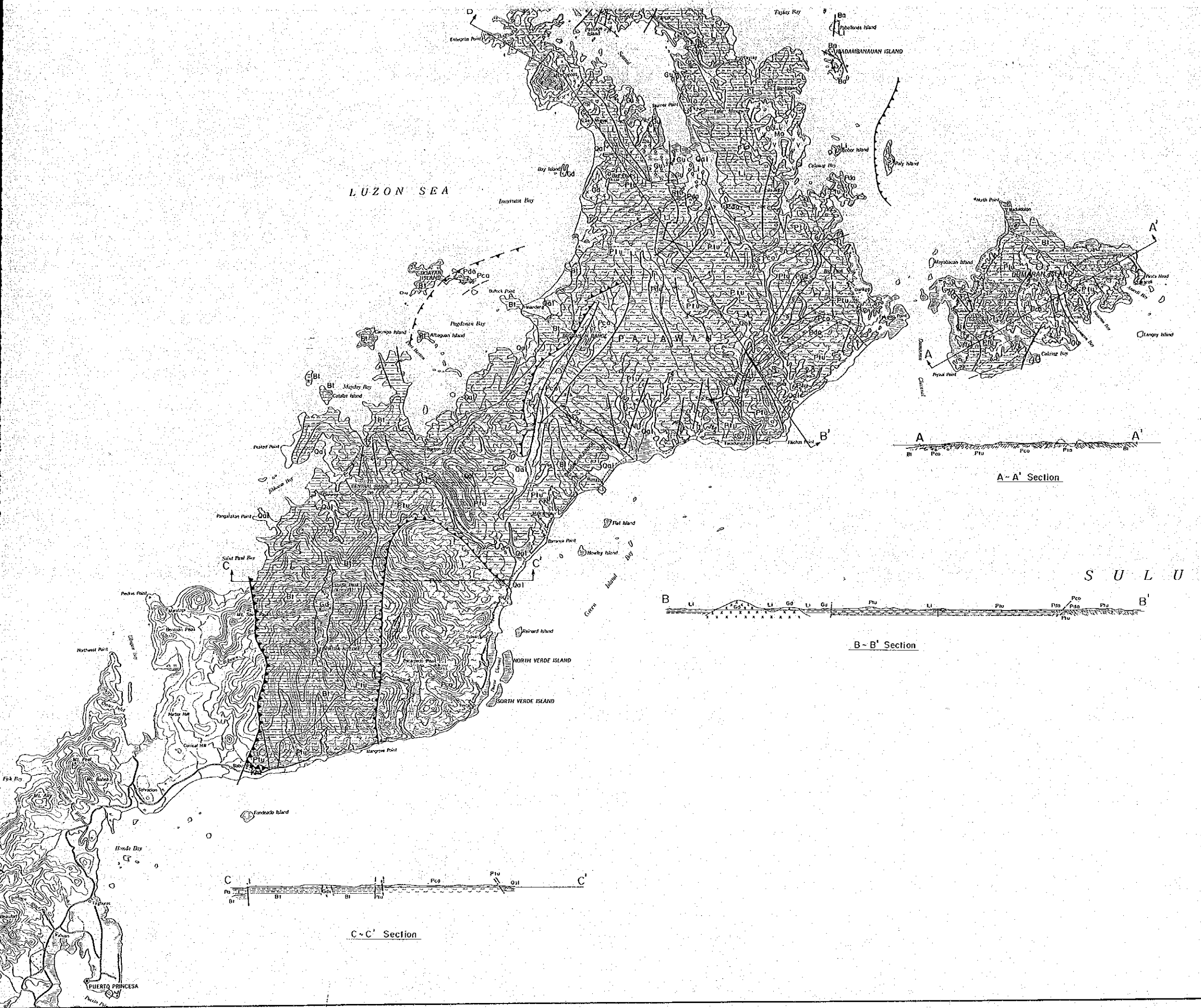
Quaternary	Alluvium	Oa1	Alluvium
	Delluvium	No1	Basaltic
Tertiary	Miocene	Sp1	St. Pauls
	Oligocene	Sp2	St. Pauls
Eocene		Po1	Pubellian
		Po2	Pubellian
Cretaceous		S1	Serpentic
Jurassic	Middle	Gu1	Guinlo Fo
	Lower	Gu2	Guinlo Fo
Triassic	Upper	Li1	Limnonic
	Middle	Li2	Limnonic
Permian	Upper	Mi1	Minitog
	Middle	Mi2	Minitog
Pre Permian		Ba1	Bacuit f
		Ba2	Bacuit f
Pre Permian		Co1	Conceptic Phyllite
		Co2	Coramay

- Fault
- Fault (Thrust)
- Thrust
- Anticline
- Syncline

A - A' Section

B - B' Section

C - C' Section



LEGEND

Quaternary	Alluvium	Qal	Alluvium, Coral reef, Beach Sand
	Detritium	Qd	Basaltic lava
Tertiary	Miocene	Sp	St. Pauls Is
	Oligocene	Sp	Piodras Point Andesite
	Eocene	Pa	Pabelitan Is
Cretaceous		S	Serpentine gabbro
		Gd	Daroclan Granite
Jurassic	Middle	Gu	Guindo Formation
	Lower	Gu	Guindo Formation
Triassic	Upper	Li	Limancong Formation
	Middle	Li	Limancong Formation
Permian	Upper	Mf	Minitog Formation
	Middle	Ba	Bacuit Formation
Pre Permian		PCo	Conception Pebbly Phyllite
		PCo	Coramay Schist
		Ds	Danleg Sandstone
		Plu	Tumarbong Semi Schist

- Fault
- Fault (assumed)
- Thrust
- Anticline Axis
- Syncline Axis

A-A' Section

B-B' Section

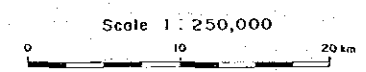
C-C' Section



PL 1-2
16317

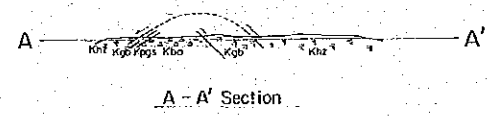
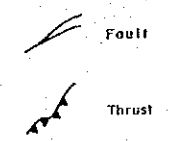
THE MINERAL EXPLORATION
- MINERAL DEPOSITS AND TECTONICS OF
CONTRASTING GEOLOGIC ENVIRONMENTS
IN
THE REPUBLIC OF THE PHILIPPINES
PHASE III
GEOLOGICAL MAP AND SECTION
PALAWAN AREA (2)

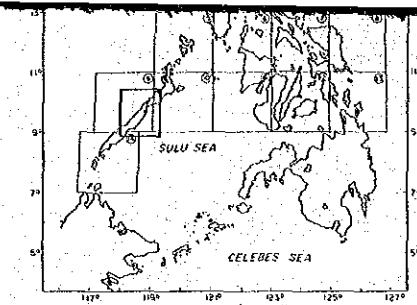
JAPAN INTERNATIONAL COOPERATION AGENCY
METAL MINING AGENCY OF JAPAN
Feb. 1987



LEGEND

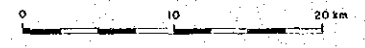
Quaternary	Qal	Alluvial	
Miocene	N2	Sandstone and Mudstone	
	N1	Limestone	
EGGSE	Pgl	Pabellion Limestone	B1
			Babuyan River Turbidites
Tertiary	Kbd	Basalt	
	Kgb	Diabase	
	Kg	Gabbro	
	Kgd	Gabbro dyke	
Paleogene Cretaceous	Kdu	Dunite	MMS
	Khz	Harzbergite	Sagasa Point Tectonic Complex
	Kgs	Sandstone and Shale ~ Quartz Sericite Schist	
	Kgb	Basalt ~ Green Schist	
	Ptu	Tumalong Semi Schist	





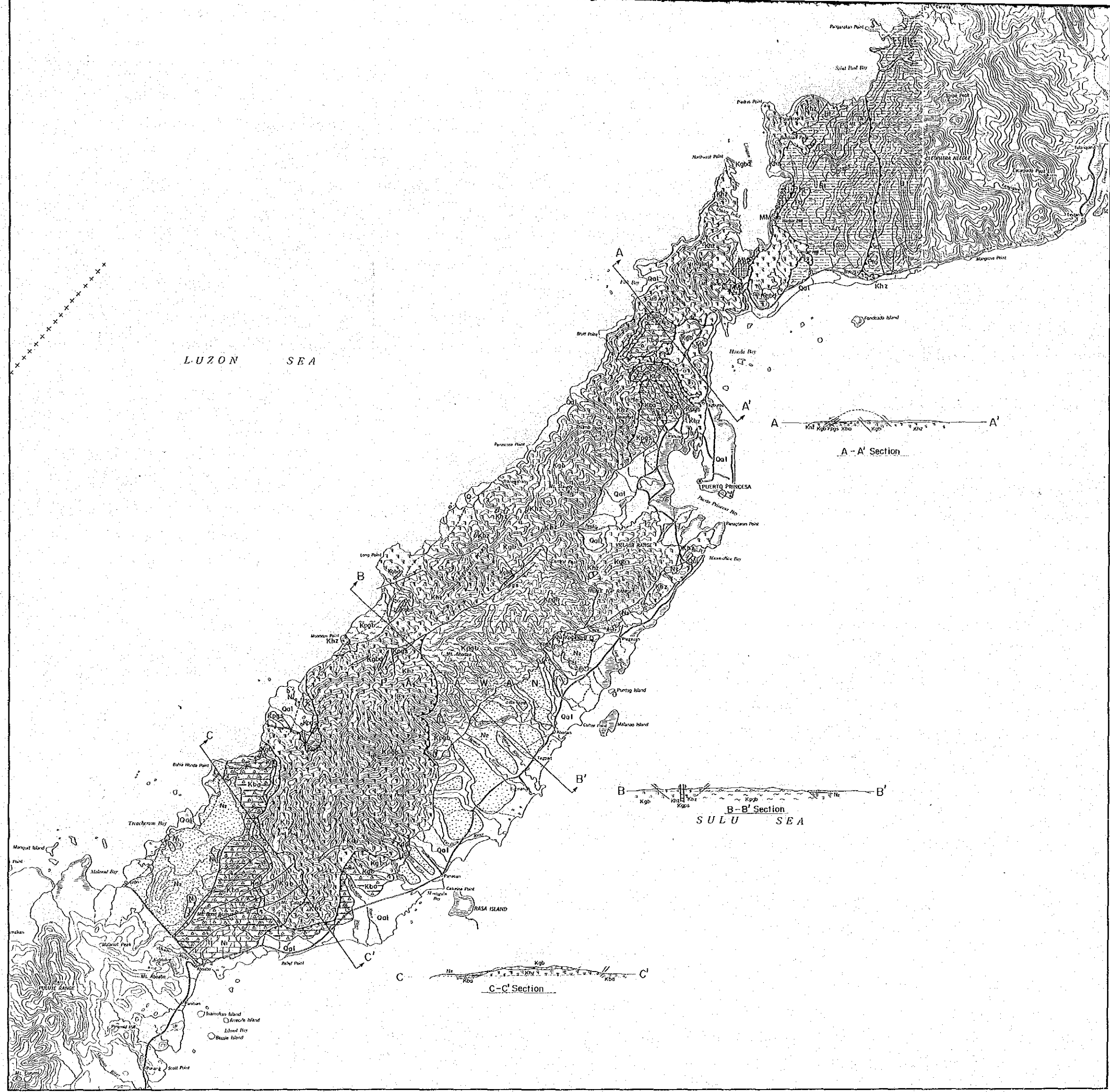
JAPAN INTERNATIONAL COOPERATION AGENCY
 METAL MINING AGENCY OF JAPAN
 Feb. 1987

Scale 1 : 250,000



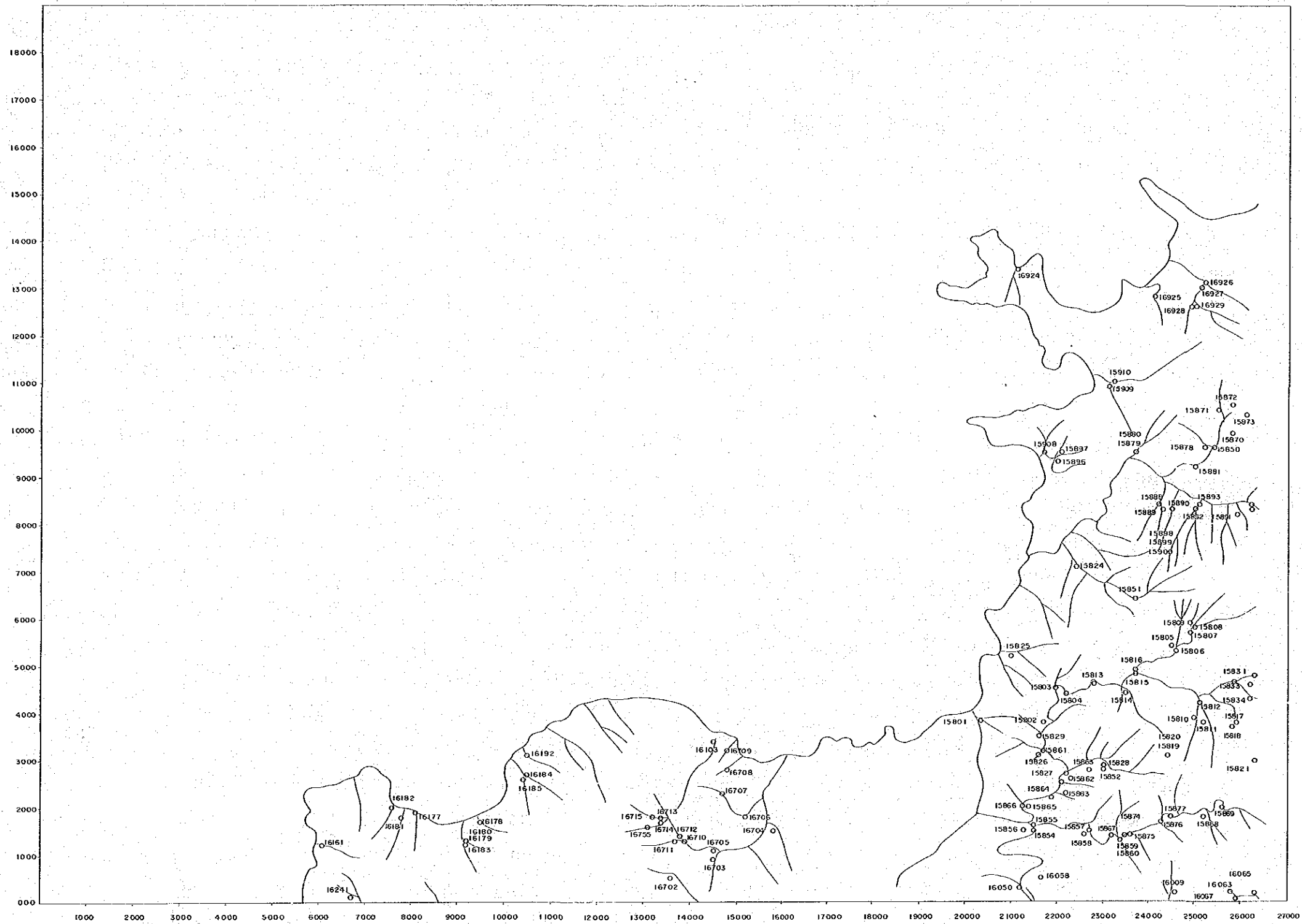
LEGEND

Quaternary	Qal	Alluvial	
Miocene	Nz	Sandstone and Mudstone	
	Nl	Limestone	
Eocene	P4	Pabellon limestone	BI Babuyan River Turbidites
Tertiary	Kb2	Basalt	
	Kgb2	Diorite	
	Kgb1	Gabbro	
	Kgd	Gabbro dyke	
	Kdu1	Dunite	SP Sagayo Point Tectonic Complex
	Kbz1	Harzbergite	
Paleogene	Kgs	Sandstone and Shale	
	Kgb	Basalt	
Cretaceous	Kptu	Tumalong Semi Schist	
		Fault	
		Thrust	
		Anticline Axis	
		Syncline Axis	



CARURAY

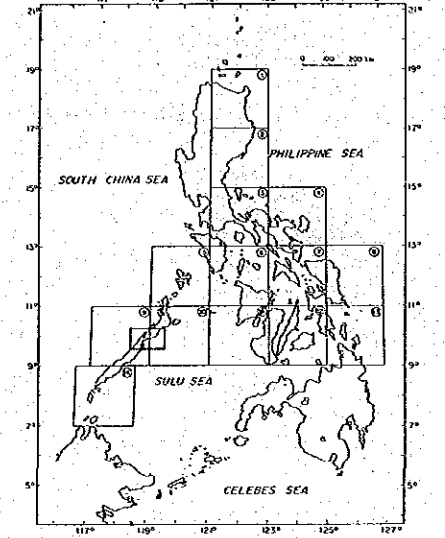
SHEET NO 2750 I



PL. 2
 國際協力事業団
 TWO 16317
 資源庁資源調査所

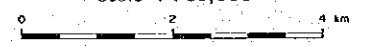
THE MINERAL EXPLORATION
 -- MINERAL DEPOSITS AND TECTONICS OF
 CONTRASTING GEOLOGIC ENVIRONMENTS
 IN
 THE REPUBLIC OF THE PHILIPPINES
 PHASE III
 SAMPLING POINT (UNDP AREA)

PALAWAN AREA

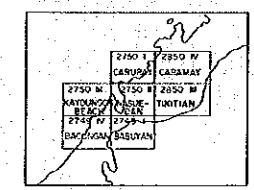


JAPAN INTERNATIONAL COOPERATION AGENCY
 METAL MINING AGENCY OF JAPAN
 Feb. 1987

Scale 1:50,000



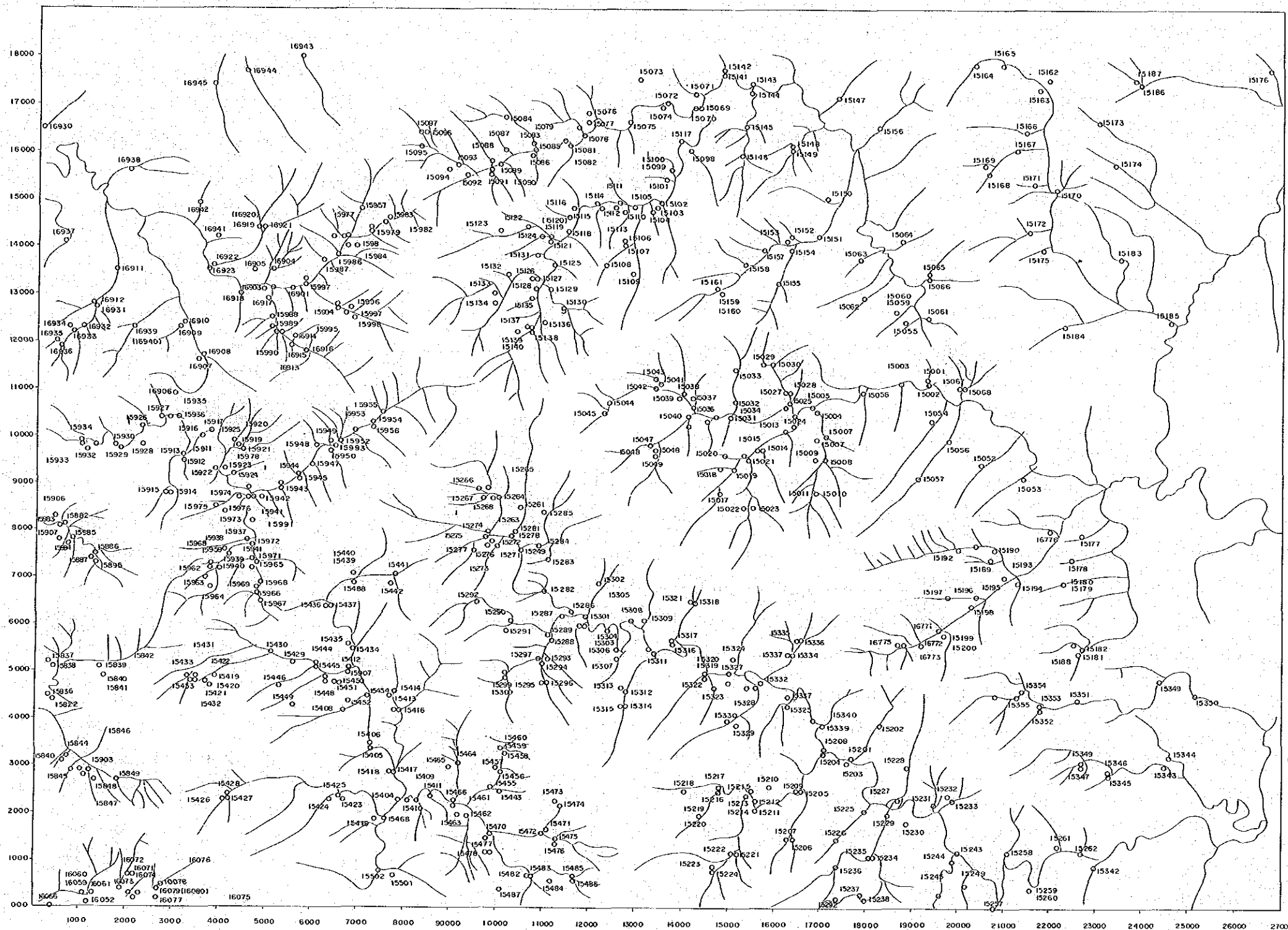
LEGEND



- : Sampling point (Stream sediment, heavy mineral)
- (7.0) : pH
- 280 : Electric conductivity (μs/cm)
- ⓑ-4ⓑ : Sampling point (for laboratory work)
- ① : Thin Section ② : Polished Section
- ⊗ : X-Ray Analysis ④ : Whole Rock Analysis
- ⊙ : Ore Assay ⊕ : K-Ar Dating

CARAMAY

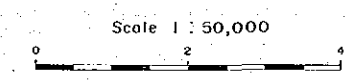
SHEET 2850IX



PL. 2-2
16317

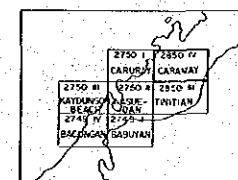
THE MINERAL EXPLORATION
- MINERAL DEPOSITS AND TECTONICS OF TWO
CONTRASTING GEOLOGIC ENVIRONMENTS
IN
THE REPUBLIC OF THE PHILIPPINES
PHASE II
SAMPLING POINT (UNDP AREA)
PALAWAN AREA

JAPAN INTERNATIONAL COOPERATION AGENCY
METAL MINING AGENCY OF JAPAN
Feb. 1987



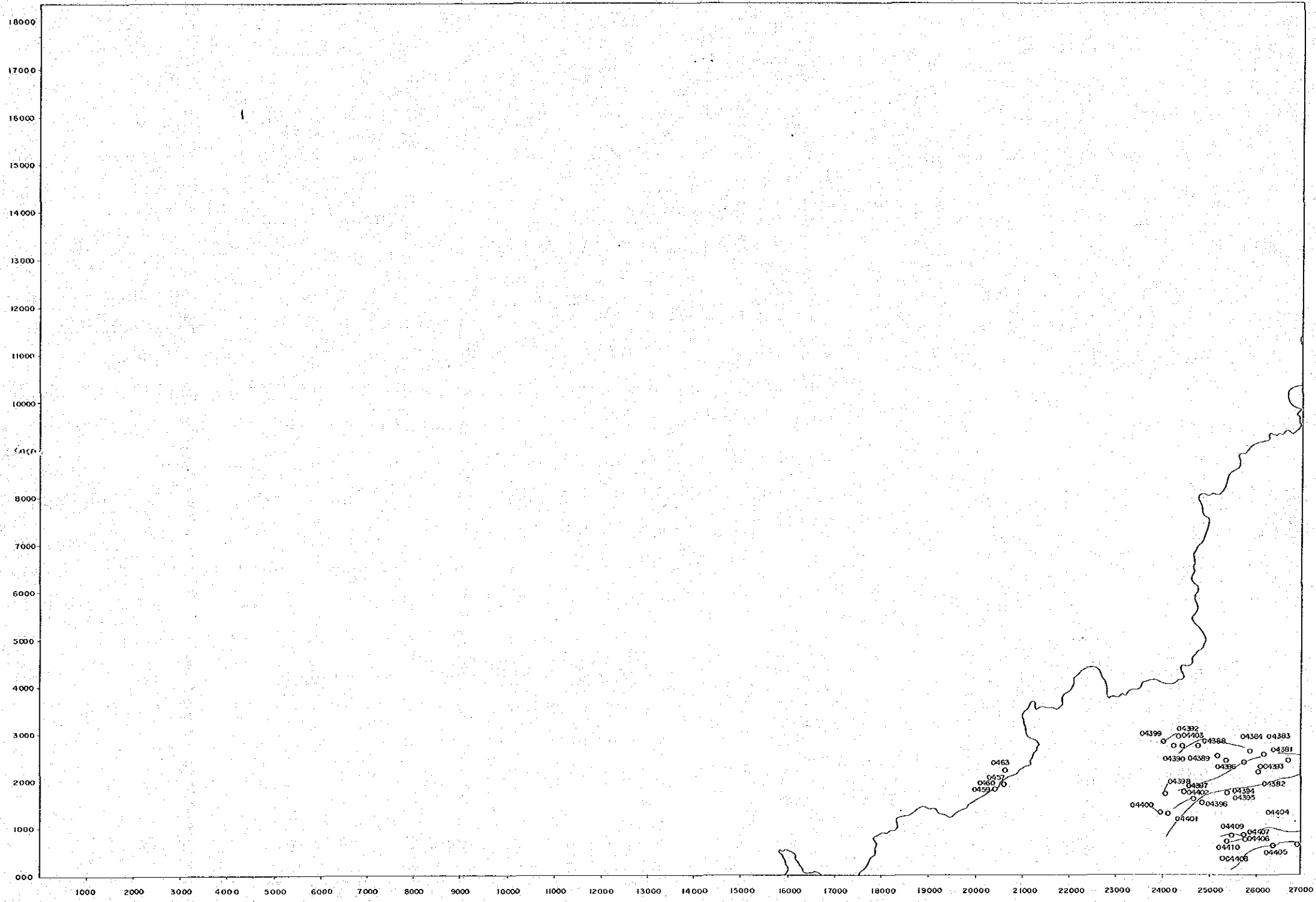
LEGEND

- : Sampling point (Stream sediment, heavy mineral)
- (7.0) : pH
- 280 : Electric conductivity (μs/cm)
- [B-48] : Sampling point (for laboratory work)
- ① : Thin Section ② : Polished Section
- ⊗ : X-Ray Analysis ⊕ : Whole Rock Analysis
- ⊙ : Ore Assay ⊕ : K-An Dating

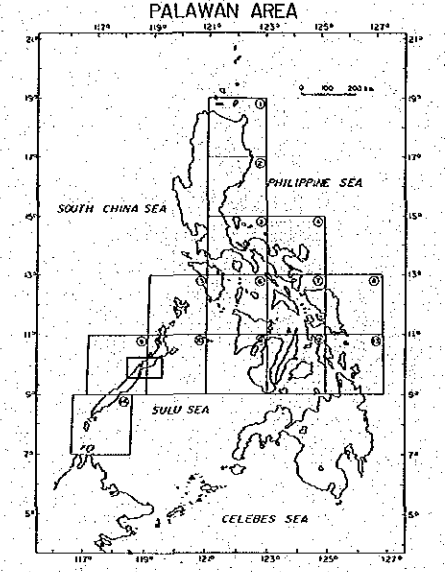


KAYDUNGON BEACH

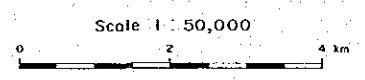
SHEET 2750 III



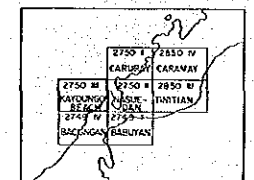
PL-2-3
 國際協力事業団
 TWO 16317
 中央研究院
 THE MINERAL EXPLORATION
 - MINERAL DEPOSITS AND TECTONICS OF
 CONTRASTING GEOLOGIC ENVIRONMENTS
 IN
 THE REPUBLIC OF THE PHILIPPINES
 PHASE III
 SAMPLING POINT (UNDP AREA)



JAPAN INTERNATIONAL COOPERATION AGENCY
 METAL MINING AGENCY OF JAPAN
 Feb. 1987



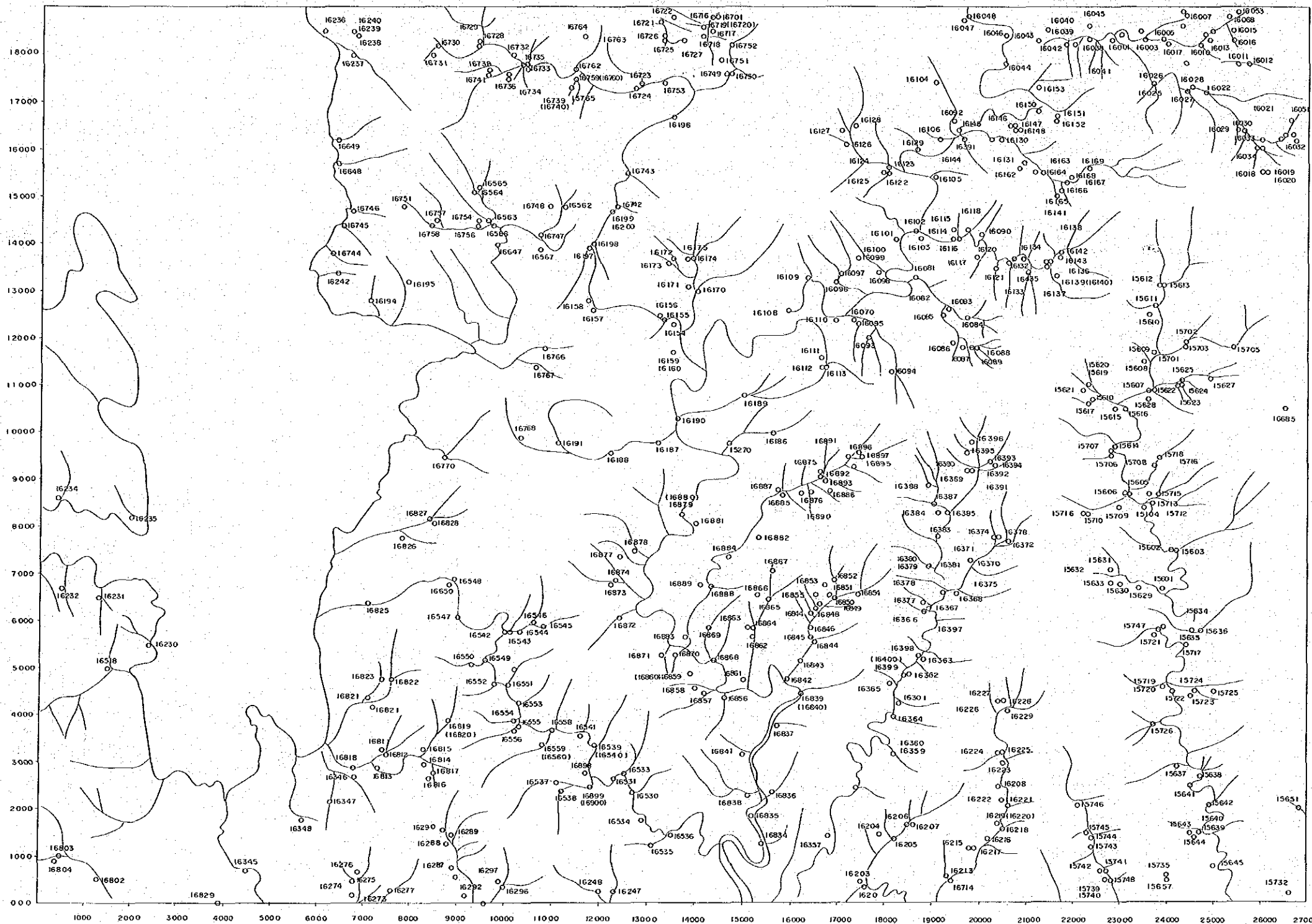
LEGEND



- : Sampling point (Stream sediment, heavy mineral)
- (7.0) : pH
- 280 : Electric conductivity (μs/cm)
- [B-4B] : Sampling point (for laboratory work)
- ① : Thin Section ② : Polished Section
- ⊗ : X-Ray Analysis ⊕ : Whole Rock Analysis
- ⊙ : Ore Assay ⊛ : K-An Dating

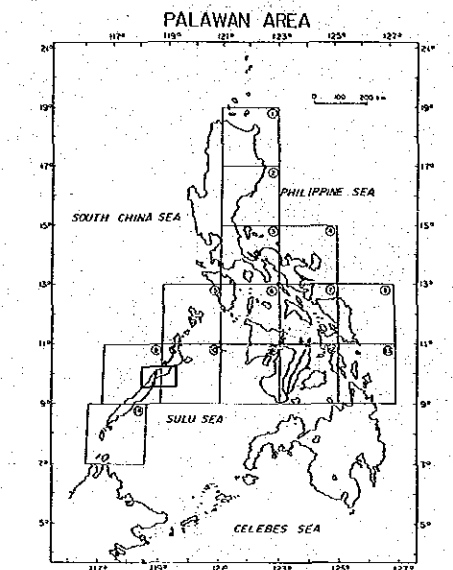
NASUEDAN

SHEET 2750 II



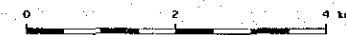
PL-2-4
 國際協力事業団
 TWO 163-17
 国際協力事業団
 THE MINERAL EXPLORATION
 - MINERAL DEPOSITS AND TECTONICS OF
 CONTRASTING GEOLOGIC ENVIRONMENTS
 IN
 THE REPUBLIC OF THE PHILIPPINES
 PHASE III

SAMPLING POINT (UNDP AREA)

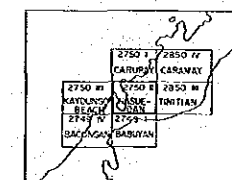


JAPAN INTERNATIONAL COOPERATION AGENCY
 METAL MINING AGENCY OF JAPAN
 Feb. 1987

Scale 1 : 50,000



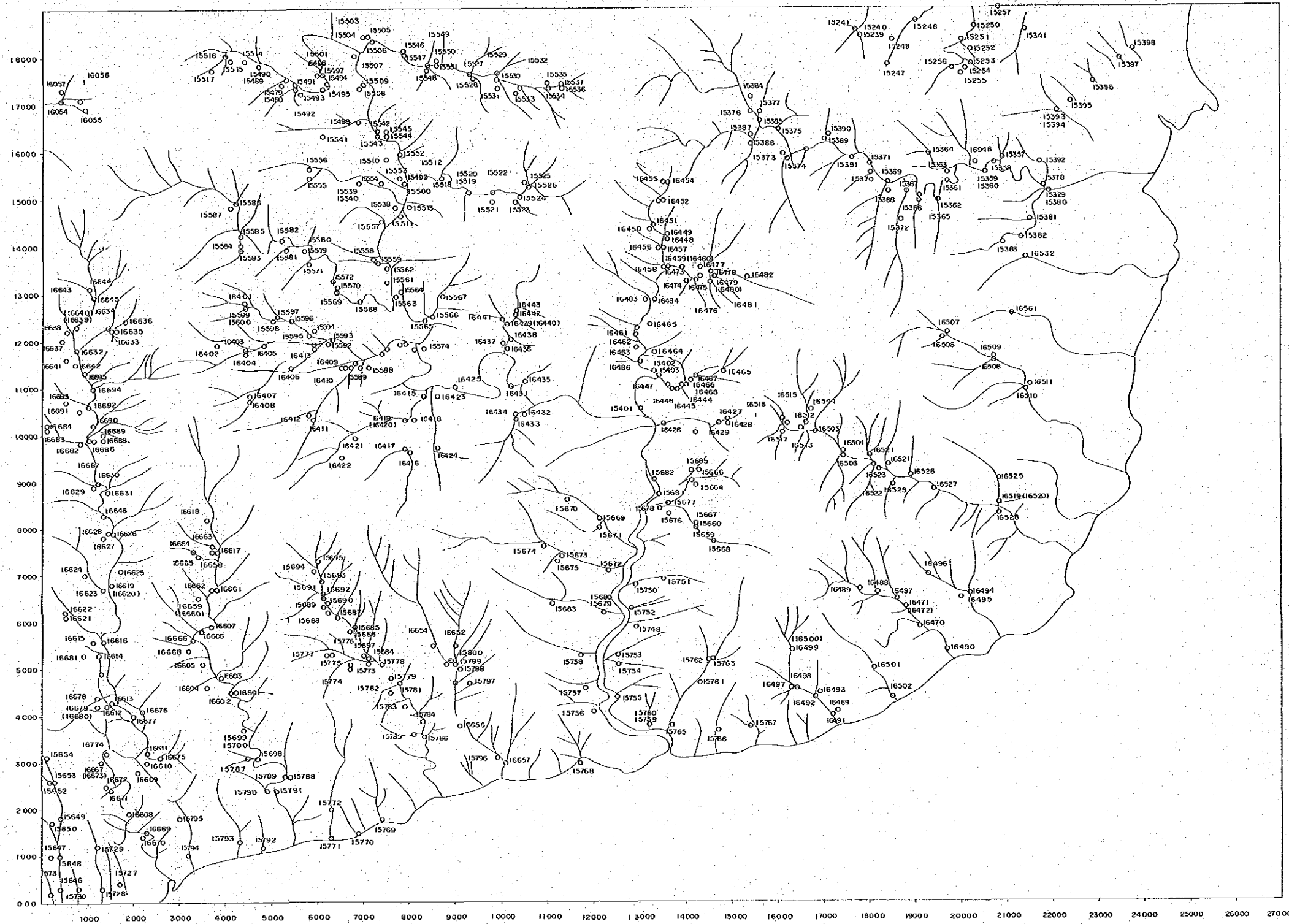
LEGEND



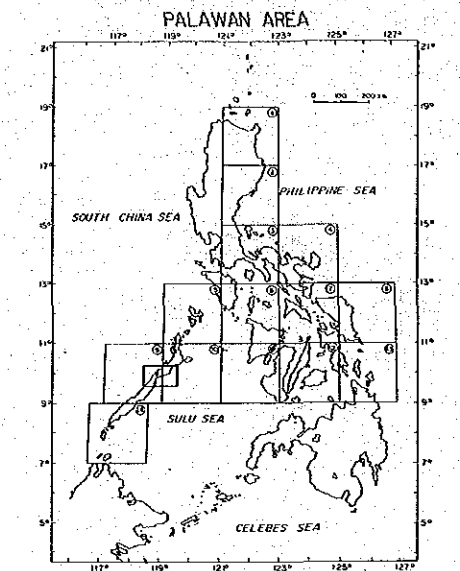
- : Sampling point (Stream sediment, heavy mineral)
- (7.0) : pH
- 280 : Electric conductivity (μs/cm)
- [B-48] : Sampling point (for laboratory work)
- ⊖ : Thin Section ⊕ : Polished Section
- ⊗ : X-Ray Analysis ⊗ : Whole Rock Analysis
- ⊙ : Ore Assay ⊗ : K-An Dating

TINITIAN

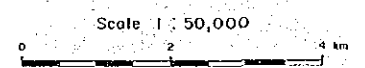
SHEET 2850 II



PL. 2-5
 國際協力事業団
 TWO 16317
 国際協力事業団
 THE MINERAL EXPLORATION
 - MINERAL DEPOSITS AND TECTONICS OF
 CONTRASTING GEOLOGIC ENVIRONMENT
 IN
 THE REPUBLIC OF THE PHILIPPINES
 PHASE III
 SAMPLING POINT (UNDP AREA)

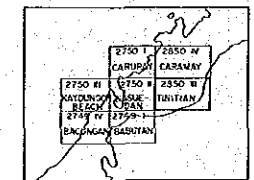


JAPAN INTERNATIONAL COOPERATION AGENCY
 METAL MINING AGENCY OF JAPAN
 Feb. 1987



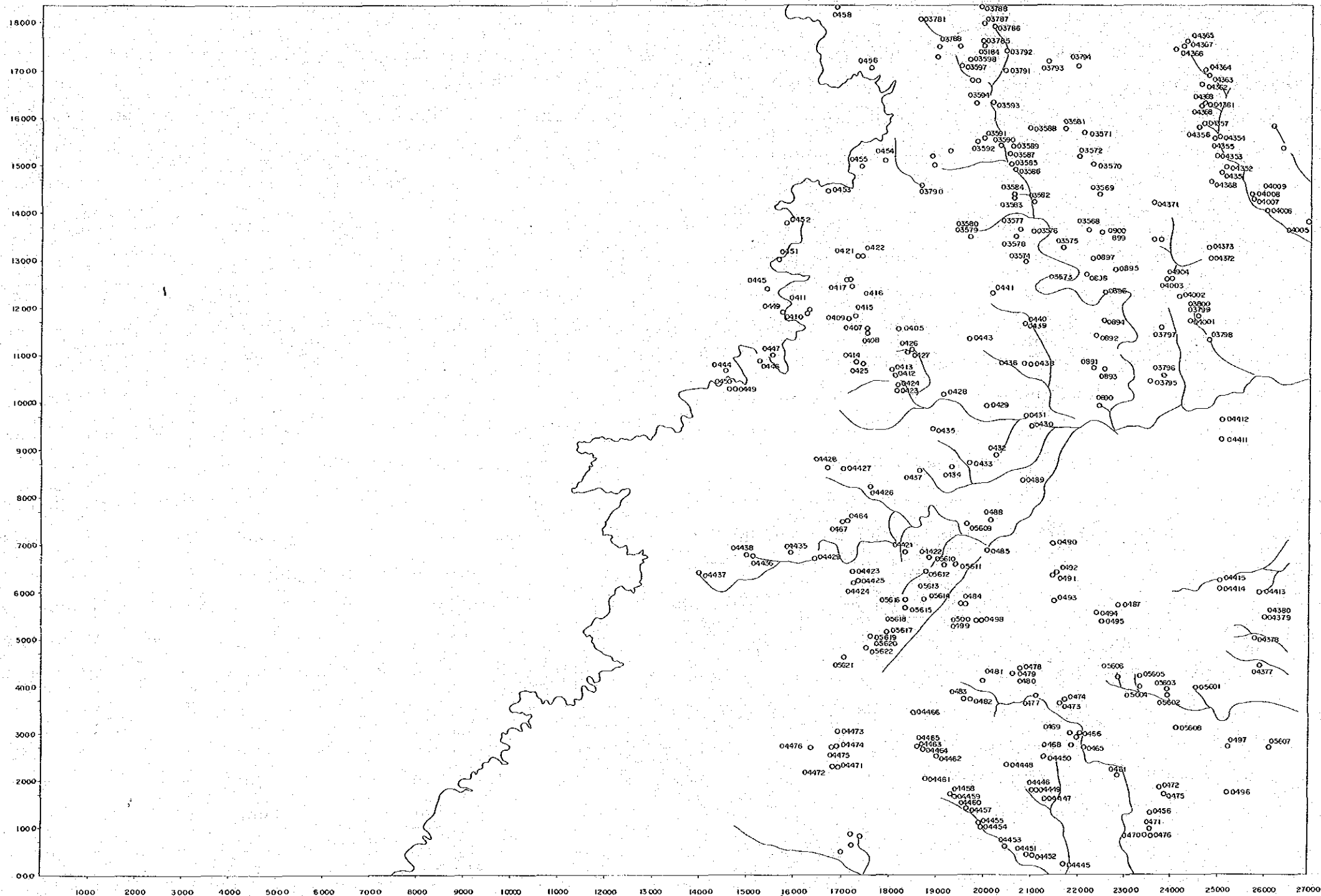
LEGEND

- : Sampling point (Stream sediment, heavy mineral)
- (7.0) : pH
- 280 : Electric conductivity (μs/cm)
- B-48 : Sampling point (for laboratory work)
- ① : Thin Section ② : Polished Section
- ⊗ : X-Ray Analysis ⊕ : Whole Rock Analysis
- ⊙ : Ore Assay ⊕ : K-Ar Dating

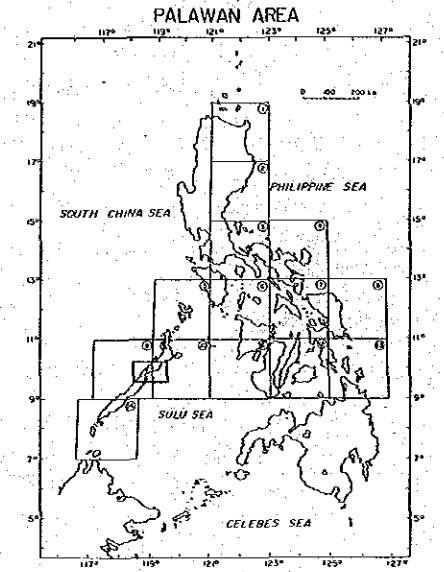


BACUNGAN

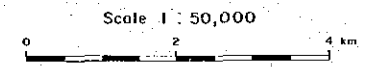
SHEET 2749 IV



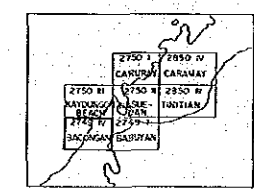
PL-2-6
 国際協力事業団
 THE MINERAL EXPLORATION - MINERAL DEPOSITS AND TECTONICS OF TWO 16317
 CONTRASTING GEOLOGIC ENVIRONMENTS
 IN THE REPUBLIC OF THE PHILIPPINES
 PHASE II
 SAMPLING POINT (UNDP AREA)



JAPAN INTERNATIONAL COOPERATION AGENCY
 METAL MINING AGENCY OF JAPAN
 Feb. 1987



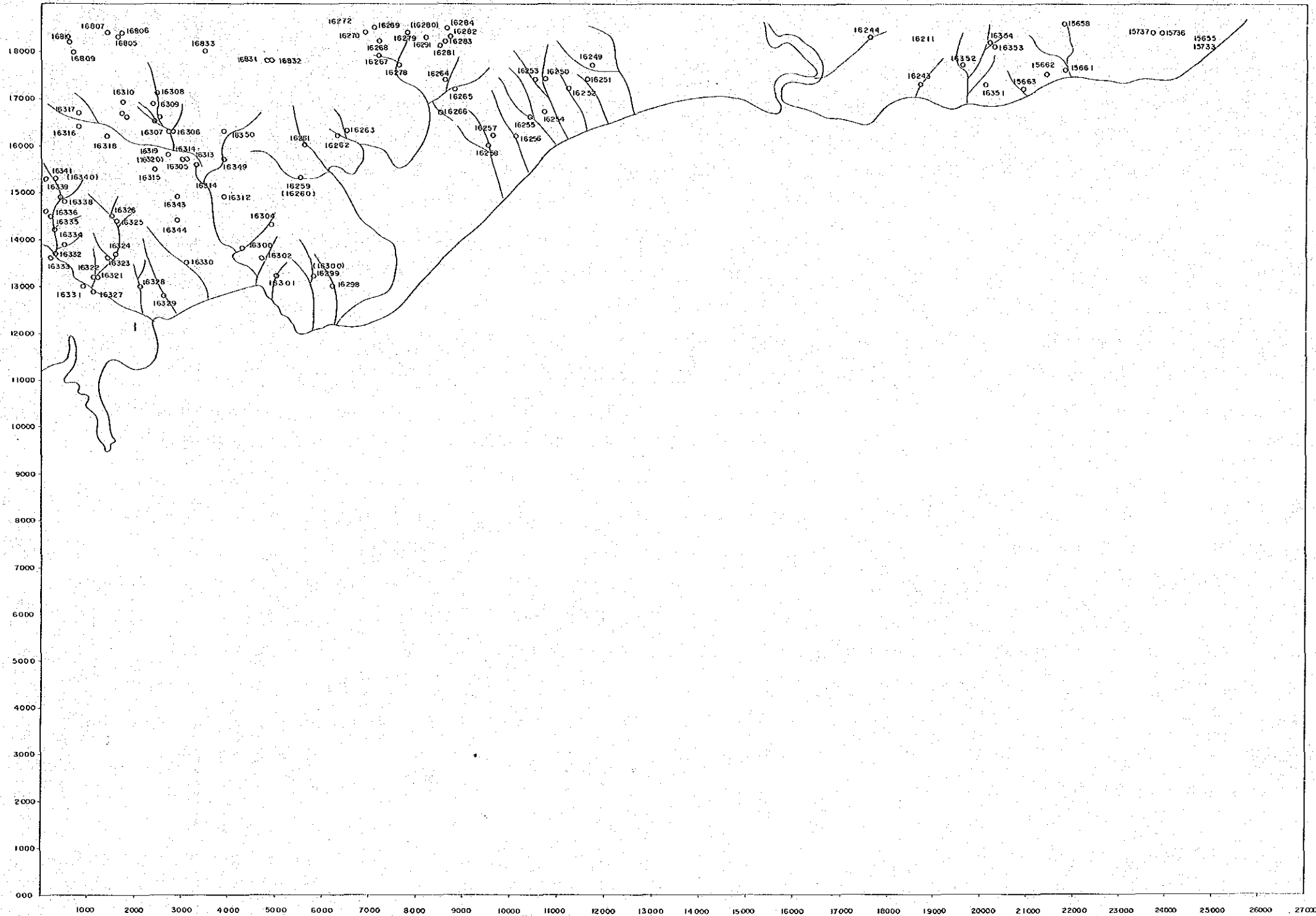
LEGEND.



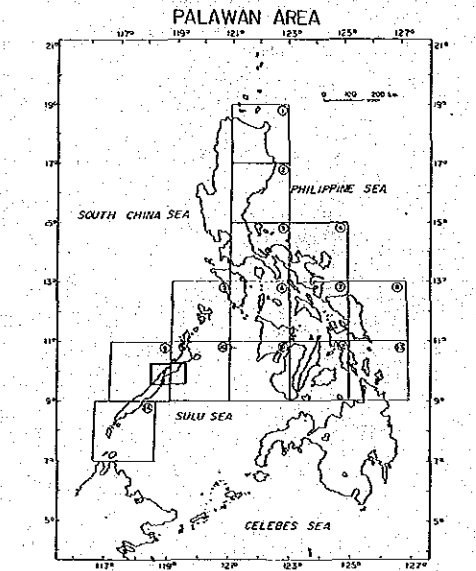
- : Sampling point (Stream sediment, heavy mineral)
- (7.0) : pH
- 280 : Electric conductivity ($\mu\text{s}/\text{cm}$)
- [B-4B] : Sampling point (for laboratory work)
- ⊖ : Thin Section ⊕ : Polished Section
- ⊗ : X-Ray Analysis ⊗ : Whole Rock Analysis
- ⊙ : Ore Assay ⊕ : K-Ar Dating

BABUYAN

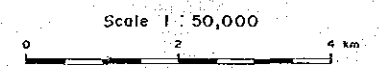
SHEET 2749I



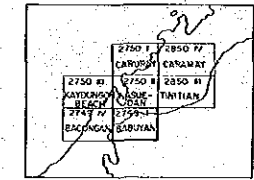
PL-2-7
 THE MINERAL EXPLORATION
 - MINERAL DEPOSITS AND TECTONICS OF TWO 16317
 CONTRASTING GEOLOGIC ENVIRONMENT
 IN
 THE REPUBLIC OF THE PHILIPPINES
 PHASE III
 SAMPLING POINT (UNDP AREA)



JAPAN INTERNATIONAL COOPERATION AGENCY
 METAL MINING AGENCY OF JAPAN
 Feb. 1987



LEGEND



- O : Sampling point (Stream sediment, heavy mineral)
- (7.0) : pH
- 280 : Electric conductivity ($\mu\text{s}/\text{cm}$)
- [B-48] : Sampling point (for laboratory work)
- ① : Thin Section ② : Polished Section
- ⊗ : X-Ray Analysis ⊕ : Whole Rock Analysis
- ⊙ : Ore Assay ⊗ : K-Ar Dating