Appendix 12 Core logging sheet

Mac	: Sariang	, 1H	ailan	İ		M	J'	r <sub>M</sub>	f- 1					(Scale 1/200) (1/5)	(Depth:	0m -	50m)
	1	П	7					NEW Y				g		Geologic Description	Result	ofLabo	ratory Test
Depth (m)	Geol. Column	Core Shape	Structure	Vein	magnetite	galena	sphalente	Brown Carbo	Fesuiphide	Skamization	Silicitication	Argilization	Rock	Lithology	Sample Number		
	]	Ħ	A TO CO	·*·					Ţ					nsklish brown pisolitic soil			
] .	]					ָ ֡			١					yellowish brown soil		•	
	1				}								700	black shale fragment with limestone		-	
	<u> </u>					ļ			1				Top soil			1	
														brown soil with limestone fragments		ļ	
														limestone boulder and reddish brown cave soil			
9.40	1111	4							1								1
'				ļ								l				ł	Ì
		l L			Į								limestone	light gray~ white argillic limestone			
		I i Л		∠.50										argillic band showing pink to yellow			
		r T										Ì					
17.30		Ĭ	1		1		Ì										
		T 1		1										light gray, massive, cave mud contained			
20		I 1							Ì		Ì		timestone	The gray, the street the street that			
20.90												l				İ	
													calcareous soil	weathered brown earbonate, clayey limestone fragments mixing			ļ
24.50																	1
						1						1		24.50 - 27.50 strongly breediated calcite network voin developing			
1	1	-						ŀ					black	27.50 - 32.60 oxidation remarkable			
		-					Ì	١					shale	29.20 - 29.35 calcite - brown carbonate vein		1	
30				73	"	ĺ								27.20 - 27.33 Calent Commodition Commodition			
					١			l			1					1	
32.60 33.30		;	∠20										timestone	pale green, weak skamized			
									ļ					strongly sheared and oxidized			
					ł		1						black shale	calcite hairline and			
-														calcite-brown carbonate hairline abundant			
38.6			250	,										bluish gray, massive			
40		į											limestone	weak skamized			
40.9	°		7.5				1							light gray, cracky		1	
				K	6- X0					1				41.80 - 44.00 quartz-calcite vein		ļ	
				ļ									shale				
	1		ļ											45.60 - 46.00 quartz-calcite pool with brown a	arbonate		İ
								1						47.10 - 48.60 brocky, strong exidization			
48.6	ν <del> </del>												shale/	amida, yangkaina alam fartur			
50	1,1			$\perp$	$oldsymbol{\perp}$					}	1		limestone	cracky, weathering along fracture			

Mae Sariang, Th	iiland	1		M	JI	'M	[- 1	:				(Scale 1/200) ( 2/5)	(Depth: 50	)m - 100m)
			7	آ		į				٦		Geologic Description	Results o	Laboratory Test
Depth Gool &	Structure	Vem	magnetite	gasters	sphakente	Brown Carbo	Fo-sulphide	Skamization	Silicatication	Argilization	Rock	Lithology	Sample Number	
50.40											shale) calcite-quartz veins	black shale / vertical calcite-quartz veins		
53 75												cracky - clayey core (full zone) shale / limestone / brown carbonate mixing		
60.40					Į	١.	1	١	١	ı	limestone			
61.30			֓֡֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓		1			ı		L	shale	black, breceiated		
62.00					l			ļ		ı	sandstone			į.
			l	ļ				1	1	ı	calcareous	dark brown, weathered brown earbonate		
63.70											brown carbonate material	quartz veins and hairline developing well	TM1-1 64.55 64.70	Co 3ppm Pb 32ppm Zn 116ppm
70 70.30				1	•	1	4	l	ļ	1	black shale	calcite veins rich		
71.20					1		ı	1	Ì	1	br. carbonate	Carent vens nen		1
72.00		∠30 ∠60									dolomite	pinkish gray		
		∠60	`								dolomite	pinkish gray, massive 77.10 - 77.40 wedge-shape brown carbonate		
78.95 79.20 80.80	∠75 80										brown carbonate	dark brown, quart-calcite hairline network	79 30 TM1-2	Cu 16ppm Pb 11ppm Za 46ppm
											dolomite	white, coarse crystalline dark brown hairline along fricture		
90											brown carbonate	well weathered almost turn into soil like material at top part		
93.05		∠7	0								dolomite	dark gray 93.05 - 94.00 massive 94.00 - 94.70 banding with brown carbonate		
											brown carbonate	94.95 - 95.35 white dolornite intercalating	97 6 1M1-3	Cu 21ppm Pb 21ppm
98 35			1			- ['			-	1			98 7	Za 420ppm
188 80										$\bot$	dolomite	brown carbonate spot remarkable	99.1	<u>l</u>

Ma	: Sariang.	Th	ailan	i		M	JI	'M	- 1					(Scale 1/200) ( 3/5)	(Dep	oth: 100n	n - 150m)
<u> </u>	T - 1	П					,	mat				Ę		Geologic Description	I	Results of L	aboratory Test
Depth (m)	Geot. Cotumn	Core Shape	Structure	Vem	magnetite	galena	sphalente	Brown Carbo	Fe-sulplude.	Skarnization	Silicificance	Argilization	Rock	Lithology		Sample Number	
102 55			<b>. 65</b>										dolomite	argilloccous 100.15 - 100.20 brown carbonate intercalating 101.10 - 101.55 random replacement by brown carbona	e		
110			∠75							) 			limy dolomite	white, crystalline chert, shale seam interbedding			
110.10													dolomite	pinkish gray, argittaceous, crystalline			
112.60			∠90					:						pale greenish gray, coarse erystalline shale string abundant, weak skamized? 114.00 - 114.30 spongy brown carbonate vein			
120			∠80										dotomite	pinkish color deeper to bottom			
			∠90 ∠75	∠55				•						123.80 - 124.00 brown carbonate vein and spot 124.50, 124.60 brown carbonate hairling			
128 5			∠90 ∠70 ∠95	∠85 ∠64									dolomite	ocher, occurse crystalline shale strings abundant 129.40 brown carbonate (1 cm) 132.50 brown carbonate vein (1-3 cm) spongy texture distinguish along vei 134.80 brown carbonate vein with dolomite 137.10 brown carbonate vein	n		
139 ( 148 140 (			270										delomite	pale groenish gray, crystalline 139.90 chlorite vein with slickenside			
147.			∠3x ∠5x	27	5 0 0								dolomite	pink and gray banded, crystalline, very coarse shale and chert seam abundant  142.50 chlorite - calcite vein (3 cm)  143.90, 144.60, 144.70  brown carbonate vein(w=5mm)  146.80 brown carbonate vein(w=6 · 10mm)			
150													dolomite				

Moe Sarlang, Thailand	MJTM- 1	Į.		(Scale 1/200) (4/5) (D.	epth: 150m - 200m)
		9	I	Geologic Description	Results of Laboratory Test
Depth Gool agy mpg. 5	magnetite galera sphalerite Bronn Carbonne Fe-sulphide	Skamization Stiticification A redilization	Rock	Lithology	Sample Number
			dolomite	dark gray banded, crystalline  152.10 - 152.15 brown carbonate network with  153.40 - 154.00 broseisted texture  with brown carbonate and fine sulfide	
158.70			black shale	calcite vein along bedding	
			dolomite	pale green, massive 161.80 - 161.90 dark gray recrystalline dolonite vein with pyrite 161.90 - 162.00 ditto vein network	
164.70			black shale	silicification moderate with pyrite calcite - dolomite veins abundant	
167.30			dolomite	silicifed  167.30 - 168.30 quartz - dolomite vein network	
260 1 1 1 260			shaly dolomite	highly contains shafe famina breedisted texture remarkable chloritization common	
172.80			black shale	siticified with pyrite	
174.90				white, massive, fine crystalline tiny of pyrite dissemination	
			dolomite	chlorite strings banding	
230 190 1 1 1 240				dark gray, coarse crystalline chert, chlorite seam common  light gray, fine crystalline	
				193.20 - 194.50 massive	
				194.50 - 197.80 chlorite hairline remarkable	
200				197.80 - 200.50 chert band rich	

Mile Sariang, Thailand	MJTM-1			(Scale 1/200) (-5/5) (De	pth: 200m - 250m)
	I I I I I I I I I I I I I I I I I I I	Ę		Geologic Description	Results of Laboratory Test
Dough Good State Of S	magnetite galeria sphalerite Brown Carbo Fe-sulphide	Skamization Silicification Argillization	Rock	Lithology	Sample Number
			dolomite	dark gray, coarse crystalline	
205.00		:	shaly dolomite	dark gray, fine grain	
206 30 1 1 1 2 38			dolomite	coarse crystalline, massive, weak silicifed and argillized pyrite, pyrthotite clots and strings along weak bodding	
210 211.15 448			black shale	with chert thin bed, weak silicised and pyritization below 208.75 strong crashing and pulverizing dolomite block or layer contains	
		******	dolomite	light gray, weakly to moderately siticified 212.40-212.70 dark brown carbonate and pink dolomite inregularly replacing 213.00-213.65 brown carbonate with breceia texture and fine sulfide	213.25 TM1-4 Cu 10ppm Pb 10ppm 213.65 Za 268ppm
217.90			Pi-may.	216.70-217.50 besceia texture with chlorite-quartz network	
220			limy dolomite	gray, crystalline, massive 218.40-218.60 chert and chlorite strings	
220 20	;	1   1	black shale	breceia texture with quartz-calcite vein, pyrite diss.	221 30
221.30			dolomite/ cherV shale	thin alternation chlorite-calcite vein irregularly developing pyrite dissemination remarkable	TM1-5 Cu 13ppm Pb 70ppm Zn 100ppm
235			dolomite	crystalline with oblorite lamina 224,40-224,45 shale bed pyrite dissemination along bodding	
225 50			ched	greenish gray to purple, with shale and dolomite lamin pyrite and fine sulfide dissemination along bedding	
230	5.0		pelitic homfels	microblastic texture by condiente, gamet  227,40-227,90 strongly crashing  pyrite diss, and quartz hairline network remarkable partly observed sedimentary texture  232,30-232,60 gamet blast remarkable	
238 00				236.20 galena scattering 236.30 pyrite-galena-sphalerite diss, remarkable chlorite-sericite alteration strong	236 30 TM1-6 As 1 2g t Cu 102ppm Pb 316ppm Zi5030ppm 237.40
/m /4	<del>6</del> 6		chert	light gray, with determitic limestone and shale lamina pyrite diss, along bodding 238.50 calcite vein(w=Smm)	
240 10 1 240			dolomite	white to gray, exerse crystalline chert and chlorite strings	
242 05	28		black shale	with delemite bod 242 50-242 60 quartz vein along bodding	]
			dolomite	banding texture by white foe crystalline part and gray coarse crystalline part with graphite coarse grain part offenly accompanied with pyrite dissemination	
250					

Мж	e Sariang,	, Tr	ailan	<u> </u>		M	JI	ľM	<b>1</b> -2	<b>?</b>					epth:	0m - 50m)
Depth (m)	Geot Column	Core Shane	Structure	Ven	magnetite	galena	sphalenic	chalcopyrite	Fo-sulphide	Skamizanon	Silicification	Argilization	Rock	Geologic Description Lithology	Results Number	of Laboratory Test
9.00					I.		5	13	Ĭ.	3	\$	V	Top	reddish brown soil  limestone boulder  brown soil  grayish brown soil  brownish gray soil with limestone boulders  massive, gray, carbon spots scattering  9 00-12 30 chlorite - calcite hairline network		
20				∠80 ∠90± ∠45		#A448#1	*******				2444444444	***************************************		12.70 calcite vein 13.00-13.20 chlorite vein 13.30-13.20 chlorite vein 13.50-13.37 becociated silicified part by €rruginous quarta 13.50 chlorite-smedite-calcite vein 13.75-14.10 becociated silicified part by £rruginous quarta with pyrite, chlorite, sphalerite, galeria 14.60-14.70, 15.00-15.05 ditto  17.00-20.50 breeciated texture remarkable calcite-quartz-fine sulfide committing breeciated matrix  21.60 - 22.80 breeciated texture remarkable for sulfide (pyrite, galeria≥≥sphalerite) comenting	17 00	Ag 81 6g \ Cu 98ppm Ph 1680ppm Zn 1920ppm Ag 6 4g \ Cu 139ppm 26 340ppm Zn 144ppm
30				∠25 ∠5¢									dolomite	26.90 - 30.20 breediated texture remarkable calcite-quartz-sulfde(pyrite, pyrihotite>galena) comenting 28.30 -28.40 calcite-quartz-chlorite vein impure dolomite with weak breediated texture 33.60 foraginous quartz vein with sphalerite, galena	28.7/ TM2-3 30.2	Ag 5 fig v. Cu 243 ppm Pb 223 ppm Zn 72 ppm
40			۷?	210 22 0	0									36.10 calcite-chlorite-pyrite vein  37.70, 37.95 calcite-chlorite-pyrite vein  42.40 famiginous quartz vein (5 mm) with sulfide  47.35 - 48.00 open crack along old quartz vein	391 TM2-4 401	Ng 3-2g % Cu 37ppm 26 895ppm Zn 42ppm

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N	dae Sadang	, H	ailan	j		M	JI	'M	[-2	,						i0m - 100m)
Dept	th Geol (a) Column	Core Shape	Structure	Vem	magnetite	galena	sphalente	chalcopyrite	Fo-sulphide	Skamization	Silicification	Argilization	Rock	Geologic Description Lithology	Sample Number	of Laboratory Test
				∠10						\$	3	/		53.10 - 54.00 calcite-quartz vein weak silicification along vein		
60				∠50 ∠70			411117				1		dolomite	57.80 chlorite-calcite vein (w=5cm)  57.85 - 58.50 brocciated texture with sulfide  58.50 - 59.20 chlorite-quartz-calcite alteration with pyrite-galena (-sphatcrite)  61.50 - 63.30 shale and graphite scam interbolled		
			∠60 ∠50											63,30 - 63,55 breeziated with chlorite 64,20 - 61,40 breeziated with chlorite		
66.			<b>∠60</b>				   						dolomite/ chert	thin alternation 68,70 - 70,70 abundant sulfide disseminate	6920	
69 70							411441404						dotomite	massive, impure, shale sandstone interbeding  72.00 - 73.30 breedia zone with chlorite, pyrite  74.40 - 74.50 calcite-quartz vein with pyrite, chlorite (w=10 cm)	11M2-5 7070	Ag 4 6g 1. Cu 22ppm Pb 728ppm 7n 4500ppm
	160		∠35	∠40						1			calcareous shale			
80							1:							77,00 - 80,20   breceiated texture remarkable   fine sulfide with chlorite		
													dolomíte	dark gray, massive, impure argillic part turned into homEls		
90	650		255 260	,									dolomite			
9	1.00													pale green, coarse crystalline, with some of shale	_	
			41966				•						dolomite	95.50 - 96.70 siticifed with chlorite-pyrite	074	
	### 	1		2.	5		: :			•			dotomito	97.40 - 98.85 chlorite-zoisite alteration 98.85 - 98.95 chlorite-calcite vein	TM2-6	Ag 4 0g% Cu 68ppm Pb 1260ppm Za 980ppm
80 90 91			45		5		1						dolomite	dark gray, massive, impure argillic part turned into homets  much of mudstone and sandstone famina interbedding irregularly chloritized  90.30 - 90.80 pale green, siliceous tulforigin?  pale green, coarse crystaltine, with some of shale  95.50 - 96.70 silicifed with chlorite-pyrite  97.40 - 98.85 chlorite-zoisite alteration 98.85 - 98.95 chlorite-zaleite vein	97.6 TM2-6	Ag 4 (1g% Cu 68ppm Pb 1260ppm Zn 980pp

Mac	Sariang,	Ţŀ	xilan	j		M	JI	'M	-2	•				(Scale 1/200) ( 3/7 ) (1	Septh: 1	00m - 150m)
					_							Ę		Geologic Description	Results o	Laboratory Test
Depth (m)	Geot. Column	Core Shape	Structure	Vein	magnetite	ध्येला	sphaleric	chalcopyrite	Fe-suplude	Skamization	Silication	Argilization	Rock	Lithology	Sample Number	
100 30				∠30									dolomite	pale grown, exams expendation with calculation and pyrite dissemination 100.90 open crack with quartz-calcite vein 104.90 - 106.30 siliceous part, tufforigin?		
107.60 110 110.50			∠28								***************************************	***************************************	chent/ meta calcareous fulf black shale/	purple chert / pale green calcuroous tuff tuff part silicified and chlorite-epidote alteration 109.85 - 110.10 pyrite, zoisite dense disseminate shale turned to hombis		
114 20 114 80 115 25 115 40				∠15 ∠35 ∠20		1							calcareous tuf	skamized calcite vein with chalcopyrite-galena 114.95 - 115.10 pyrite-pyrthetite-hematite dense diss. skam		
119.00			<b>∠2</b> 5		_				-				tiack shale/ calcareous fulf	with pyrite, galena, chalcopyrite		
120			∠20										limesione	weakly skamized  original texture remained	_	
														green skam with garnet, magnetite, hematite, pyrite, pyrihotite 121.30 - 121.85 garnet skam with pyrite, chalcopyrite 123.20 - 123.55 garnet phenocryst 126.80 - 127.25 garnet skam with magnetite, pyrite		
130														130.40 - 130.55 gamet megacryst 131.05 - 131.10 pyrite disseminate		
			۷1:	5									green skam	133.00 - 135.70 magnetite, pyrite banding along bodding, chalecopyrite scatter		
140														137.40 - 137.50 magnetite band  138.95-139.10, 139.45-139.55 magnetite band 139.70 - 139.85 magnetite band with pyrite 140.60 - 140.75 magnetite with pyrite, 141.20 - 141.30 magnetite with pyrite, pyribotite 142.20 - 142.30 pyrite, chalcopy ite diss. 142.30 - 142.65 magnetite-hematite band		
150														148.10 - 150.60 magnetite-bematite band with fine sulfide	148 5/ TM2-7 150 0	Ag <0.2g% Cu lippot Pa Sppot Za 36ppot

Mae Sariang, Thailand	MJTM	· 2		(Scale 1/200) (4/7) (D	epth: 1	50m - 200m)
			Ţ,	Geologic Description	Results o	Laboratory Test
(w) Corower State October 1 (a) Corower State October 1 (b) Corower State October 1 (c	galene sphalerite chalcopymie	Fo-suppade Skarnization Stiteification Arcillization	Rock	Lithology	Sample Number	
150 60			weathered skarn rock	crashed rock, core shape likely aggregate all rocks stained by limonite  157.60 - 158.40 magnetite-gamet skarn remained		
163.40			magnetrie			
165.30			garnet skam quartz vein	with chalcopyrite, bornite		
166.10			quarte 4 can	with magnetite-hematite band	1	
170			amphitode green skam	166.20 - 166.50 chalcopyrite disseminate		
170.85.3883383 2.80 171.30 2.80			o edz vein	with objectivate		
171.30		7	sandstone	sificified sandstone?, quartzose pale green massive		
175.35			J	so much magnetite-hematite band and gamet band 178.90 - 179.20 strong silicifed		
130			amphibole magnetie skam	181.00-183.20, 181.45-181.65 argillitic alteration (kawlinite-sericite)		
190				187.70 - 188.20, 188.65 - 188.90 gamet rich 190.10 - 191.30 gamet abundant		
192 70 275 80 275 80 210 20 20			gamet skam	dark green, massive calcitecankerite hairline network developing 195.40 - 195.90 strong silicifed		
200			green siam	breed desture remarkable with pyrite dissemination quarta vein and hairline network developing moderate silicification		

Moe Sariang, Theiland	$MJTM \cdot 2$		(Scale 1/200) ( 5/7 ) (F	Septh: 200m - 250m)
	8		Geologic Description	Results of Laboratory Yest
Depth Goot S S S	negretuc galena sphaketite echalcopymte Fe-sulphide Skamization Silienfeation Argillization	Rock	Lithology	Sample Number
250 260 260 210 280 285 230		green skam	202.25 - 204.50 breeds texture remarkable pyrite dense dissemination 202.70 - 202.90 breedsted quartz voin 206.00 - 207.60 quartz-dolomite retwork voin	
209.50		magnetite hematite skam	209.50 - 209.80 shear zone, barite on surface  pyrite hairline and nebulitic dissemination abundant	
216.30		sandstone	arkesie?, strong silicified with pyrite	
218.40			pyritization remarkable	
228 00		magnetile skam	221.90 - 222.50 strong silicified  227.50 - 227.60 strongly chloritized	
230		sticified skam	enished core shape pyrite dissemination moderate skamized part remain like as venolith	
237.20		sandstone	pale green, siticified with pyrite	
250			247.30 - 247.40 large idiomorphic pyrite abundant	

Mo	e Sariung.	TI	xilan	J		M	JI	°M	<b>[-2</b>	?				(Scale 1/200) ( 6/7 ) (I	Septh: 2	250m - 300m)
			Ì									g		Geologic Description		of Laboratory Test
	<u> </u>	Core Shape	Structure	Vein	magnetite	galona	sphalente	chalcopyrite	Fe-sulphide	Skamization	Silicification	Argilitzation	Rock	Lithology	Sample Number	
250 30 252 20				250 275									quartz vein	barren		
260								<u>Çu</u>					sandstone	pale given to given silicification imhomogeneous several quartz veins developing 255.40 native copper dissemination		
263.20			∠10											261.40 - 264.10 coarse idiomorphic pyrite diss.  not clear boundary  quartz vein or highly silicifed rock barren		
20950											?		quartz vein	266.80 - 267.20 green sandstone block like as xenolith with pyrite dissemination		
209.50 266.90 2770		1										1	cavity	silicital	1	
271.30	) V V V V		<b>∠</b> 65				l		۱.			ļ	sandstone	Stricted	-	
280	V V V V V V V V V V V V V V V V V V V												nomblende andeste	dyke? perphyritic texture (homblendel, plageoclase) strong chlorite-smeetite-carbonate alteration with small amount of pyrite		
285.4	V V V V V V V V V V V V V V V V V V V		∠30											281.70 - 289.30 pyrite dense dissemination	282 04 TM2-8 283 00	Ay 0.2g L Cu 6/Ippm Pb 13ppm Zn 24ppm
290	V	×	2.30	Z 20 Z 65 Z 65	i								andesite	aphanitic andesite calcite and dolomite hairline abundant strongly chlorite-smeetite-carbonate altered		
296.8				∠40 ∠60	:[			1	Ц		Ĺ		quantz vein	gearz-calcite-chlorite vein with pyrite	4	1
297.8													green skam	massive, with gamet partly		
300	]				$\perp$			L								<u> </u>

Мх	: Sariang,	The	ilan	J		M	IJĨ	ľW	1-2	3				(Scale 1/200) (7/7)	(Depth: 30	0m - 344.70m)
	<u> </u>	1		~~~~		<u> </u>	ļ				Γ.	ä		Geologic Description		of Laboratory Test
Depth (m)	Geol. Columr.	Core Shape	Structure	Vein	magnetite	galena	sphalerite	chalcopyrite	Fo-sulphide	Skamization	Silicification	Argilization	Rock	Lithology	Sample Number	
304 20											***		green skarn	party week siticifed		
													gamet skam	gamet megacryst rich pyrite disseminate abundant		
300.60					***************************************								silicified skam	316.00 - 316.20 idiomorphic pyrite abundant 316.80 - 316.85 magnetite bard		Ag <03g't Cu l∃ppm Pb 101ppm Zo 92ppm
322.60															321 60	го готрука гл этрра
322.80	7,7,7,7 7,7,7,7				ľ				Ш				quartz vein	with small amount of chaloopyrite		
			25 30										chenV tuff	chert / sandy tuffalternation tuff part slightly replaced by epidete		
329.03 330		4	:50											origin: tuffor sandstone, sedimentary texture remai chlorite rich, slightly silicified	in	
340			:30										epidote skam	335.50 - 337.00 nebulitic pyrite dissemination		
	1	1		_		_		-	╠		$\coprod$	ig				
	344.70															
	]															
					L											

Ma	e Sariong	. The	ila <b>ri</b>			M	JT	ľM	<b>1-</b> 3	}				The second secon	epth:	0m - 50m)
	1											ē		Geologic Description	Results	of Laboratory Test
Depth (m)	Goot Column	Core Shape	Structure	Ven	magnetite	galona	sphalente	chalcopymae	Fe-sulphade	Skamization	Salicification	Argilization	Rock	Lithology	Sample Number	
													Top soil	orange to bown soil		
10													weathered rock	9.10 roddish brown sandy soil pole greenish groy, shale origin?		
10.5		( ) ( ) ( )	∠10 ∠0										dolomitic fimestone	dark gray, argillaceous		
12.7	]												diopside skarn	pale green, calcanous, argillaccous		
15.9													dolomite	dark gray, massive, purple fine grain biotite rich	15 40 TM3-1	Cu 20ppni Pb 14ppm
20			∠15 ∠20		-								diopside skam	pale green, calcareous, argillaceous seam rich	15 00	Za 20ppm
			∠15 ∠10										dolomite	dark gray, banded 20.20 - 20.40 bown carbonate vein along bedding purple fine biotite developing inegular chlorite-calcite vein hairline abundant	TM3-2 21 04	Culippm Pb 18ppm Zn tagen
23.9	90			ŀ		1							sandstone/ shale		]	
30				∠80									dolomite	shale part turn to biotite hombls  dark gray, massive to weak banded  26.70-27.40 calcite-chlorite vein (w=3cm)  with pyrite, drusy, idiomorphic calcite  28.55-29.40 calcite-chlorite vein with pyrite(w=4cm)		
38			∠60 ∠85										calcareous tuff ~ tuffaceous sit	pale green, weak bodding		
38.		7	,_					1	-	•			silicified rocl		7	1
40	, t	4	∠ 20	1									dolomite sandstone	gray banded		1
41.	20		∠25										hornf eis	pare great careacter sandsterior records of our records	<u>'</u>	
i	50												dolomite	dark gray, banded	_	
	38383												sandstone hornfels			
	80 T	T									1		dolomite	dark gray, massive	1	
44. 45			1,	/28	9								sandstone	calcite vein(w=10cm)	7	
46.	臣	I I I	∠20	∠7! 8	-								dolomite	greenish gray calcaroous, missive gray to light gray, crystalline calcite-chlorite hairline well developing	- <b>T</b>	
50 50	30	$\mathbb{Z}$				$\perp$	$\perp$	$\perp$							1	<u> </u>

	Mac Sari	ng Ih	ilant			M	J'	TN.	1-3	3				(Scale 1/200) (2/3) (I	epth:	50m - 100m)
	1						<u> </u>	Γ	Γ	<u></u>		ڇ		Geologic Description		of Laboratory Test
D	epth Ge (m) Cok	Ol. None	Structure	Vein	такиете	galena	sphaleme	chalcopynic	Fesulphide	Skarnization	Silicification	(Argulization	Rock	Lithology	Sample Number	
													silicified rock	fne pyrite disseminate		
	54.50 55.20 22.22	<b>#</b>										1	dolomite	pyrite dissentirate		
													000000000000000000000000000000000000000	the pyrite disseminate		
<u>60</u>						1		1		:			slicified	59.30 - 59.70 chalcopyrite-galera dissemination 60.60 - 60.85 quartz pool with chalcopyrite	:	
													rock	63.10 - 64.20 Targe idiomorphic pyrite abundant		
															T3./2.2	
			∠50 ∠40				Ì			L			oreen skarn	68.90 - 69.05 pyrite-chalcopyrite dissemination	TM3-3 68 90 59 00	Cu 1 64%, Pb 12ppm
.71				ļ		Ì		1					greenskam apile greenskam	dyke with quartz vein massive, abundant pyrite disseminate	1	<u>∤Zn 32ppm</u>
	70.90					,0000							magnetite skarn	massive, abundant pyrite disseminate partly accompanied with galena	73 00 TM3-4 74 00	Cu 351ppm, Pb 3ppm Za 38ppm
			-											massive, with large idiomorphic pyrite		
٥												. :		75.65-75.80, 76.60-76.80, 76.90-77.30, 78.50-79.00 magnetite band with small amount of galena		
8										***************************************			siticified rock (skam)	81.00 - 84.00 pyrite dense disseminate	82 00 TM3-5 83 00	Cu 564gpm Fb 60ppm Zn 28H0ppm
9				}						0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0				88.50, 88.80 pyrite pool		
	92 30												magnetite -gamet	dark green, parly original bedding remains pyrite dissemination strong 92.80-93.00, 93.50-93.90, 94.90-95.00, 95.90-96.00 chalcopyrite spot scattering	93 00 TM3-6 94 00	Cu 611ppm Pb Xppm Zn 52ppm
	- #		∠50										skam	97.30 - 102.50 large pyrite spot with chalcopyrite	98 16	Cu 1420ppm Pb S2ppm
11	ω													99.30 - 102.30 strongly foliated	TM3-7	Zn 240ppm

Mine Sorriang, Theirland	MJTM-3		(Scale 1/200) (3/3) (Dep	th: 100	m • 145.00m)
		Ī	Geologic Description	Results	of Laboratory Test
	magnetite galena sphaterie chaloopynie Fe-sulplude Skamization Silicification Arcollization	Rock	Lithology	Sample Number	
265 Left		magnetite -gamet skam	104 50-165.70 pyrite-chalcopyrite dissemination in mote-sandstone  breceisted and clayey core, Sult zero?	104 50 TM3-8 195 70	Си 8330ррия РЬ 88рров 7и 500ррия
113.60			dark green with much of magnetite Ediation remarkable	113.60 TM3-9	Cu 889ppm Pb 33ppm Zn 280ppm
120	1	green skam	113.60 - 117.00 pyrite strongly diss.	165 50	
122.70			121.50 - 122.70 strong pyritization	121.50 TM3-10 122.70	Cu 947ppm Pb Hppm Zn 270ppm
122.95		quartz vein aplitic	pyrite abundant fine grained biotite aplite with small amount of pyrite	TM3-11	Cu 48ppm Pb 120ppm Zn 22ppm
125 20 ++++ ++++ ++++ ++++ ++++ ++++ ++++ ++++ ++++ ++++ ++++ ++++ ++++ ++++ ++++		granite	potach Eldspar porphyritic biotite granite with small amount of pyrite potach Eldspar max. 4×2cm chloritization and kaolinitization remarkable  130.60 - 131.50 quartz vein with pyrite (w=30cm)	123 95	
140 +++ ++++ ++++ ++++ ++++ ++++ ++++ ++++ ++++ ++++ ++++ ++++ ++++ ++++ ++++ ++++ ++++ ++++		granite	130.00 - 131.30 quarz veni wim pynie (w - 300m)		
145 00					
150					Cu E420ppm Pb 52ppm Zn 240ppm

Mae Saria	ng Th	ม่ใชกไ			M	JI	ľW	1.4	ĺ				(Scale 1/200) (1/5) (D	epth:	0m - 50m)
	T										υo	,	Geologic Description	Results	of Laboratory Test
Depth Geo		Structure	Vein	magnetite	galena	sphalerite	chalcopymic	Fe-sulphide	Skamization	Silicification	Argilization	Rock	Lithology	Sample Number	
0.0												Alluvium deposite	boulder to granule, sand		
13 10	ž Ž	∠67	∠66 ∠80 ∠82									black shale	black shale and gray shale alternation pyrite hairline along bodding and cleavage  11.65 quartz vein with pyrite-arsenopyrite-chlorite-smeetite		
13.10			∠60 ∠66									chert	jasperoid vein with chlorite-epidote-pyrite abundant		
20		∠45											18.80 - 21.90 pyrite, arsenopyrite diss. abundant	21 50	Au 100gph As 1 Do 1
21.90 22.50 24.10		∠62 ∠30					1 1					black shale silicified rock	drusy texture, abundant sulfide dissemination with smeetite	TM4-1	Au 160ppb. Ag 1 Pg 1 Cu 146ppm Pb 927ppm Za 84ppm
25.70		∠10 ∠60	∠40,5 ∠80 ∠35					-	4			black shale sandstone	25.20 - 25.60 pyrite hardine	26 06	Au 45aph, Ag 23 6g/t,
27.10 28.20 29.20			215 225 215 215	.	:	J						shale sandstone	pyrite, galono(± sphalorite, chalcopyrite) silicified	TM4-2 28-20	Cu 3195pm, Pb 2 554 Zn 700ppm, Sn 430ppm
30 <sup>29-50</sup>		∠35 ∠40,£										quartz vein shale/ sandstone		31.40	
33.35	/// //// ////											sandy tuff	greenish gray, weak silicifed with smeetite pyrite vein network developing	TM4-3	Au 10ppb, Ag 15 Kg/L Cu 335ppm Pb 8850ppm Zo 66ppm, Sn>1000ppm
		∠46	∠45 ∠80 ∠10									black shale	interbedded sandstone layer 33.35 - 34.80 calcite-quartz vein network with pyrite 35.50 calcite-chlorite vein with pyrite, pyrrhotite		
40		∠56 ∠36	∠65		•					t		shale/ sandstone	37.80 chlorite-pyrite on slickenside 37.80 - 38.10 weak silicified with galera diss. 39.00 calcite vein(w=lon) 40.00 - 41.00 calcite hairline network		
									47			black shale	45.00 - 46.00 calcite hairline network		
50			∠20, ∠60	1									48.90 - 48.10 calcite vein with pyrrhotite 48.90 - 49.00 calcite vein with pyrrhotite, pyrite		

Mac	Sariang.	Tha	ilent			M	JI	ľM	T- 4	ţ				(Scale 1/200) ( 2/5 ) (I	epth:	50m - 100m)
									<u> </u>			g		Geologic Description	Results	of Laboratory Test
Depth (m)	Geol Column	Core Shape	Structure	Vein	magnetite	galena	sphalente	chalcopynic	Fersuphide	Skamization	Silicification	Argillization	Rock	Lithology	Sample Number	
				475									i	51.10 - 51.30 catcite vein(w=3cm)		
			∠55 ∠85 ∙90	∠80 -85							·			52.40 - 52.55 interboded sandstone 52.40 - 53.80 calcite veins(w=5 - 15mm)		
-				∠85									***************************************	\$4.50 - \$4.70 calcite vein(w=3cm)		
			∠30 ∠50	∠45 •80										56.40 calcite vein hairline network		
													black shale	58.30 - 58.45 sandstone interbedding 58.90 - 60.70 crash and pulverized zone		3
<b>60</b>			∠10	∠10									Silare	60.70 - 61.90 sandstone / shale alternation 60.70 - 60.85 calcite-quartz vein with pyrihotite		
				<b>∠75</b>					-					63.60 - 63.70 quartz-pyrrhotite vein(w≃1cm) 64.00 - 64.10 pyrite hairline network to dissemination		
70				∠80 ∠85					i			1		68.70 - 69.70 calcite veins abundant(w=1 - 10mm)		
70.90			∠30			!							sandstone	gray, massive, with small amount of shale seam		
74.00 76.30	}===		<b>∠45</b>	∠45 ∠10 -4	5				-				chert	pale green banded 74.50 calcite-quartz-pyrite-pyrrhetite vein(w=3cm) 74.90 - 75.10 quartz vein with pyrite		
			∠ <b>25</b>	!									shale! sandstone	small amount of calcite vein along bedding 78.90 pyrite-quartz vein(w=5mm)		
79.1 80 81.1		-		∠65 ∠5					-				chert	pale geen, massive 7950-79.70 pyrite-pyrrhotite dis 79.65, 7985 pyrite-pyrrhotite-quartz 80.95 pyrite-hairling on crack	s	
01.1		1	∠30										siticeous	weakly banded 81.80 - 82.40 quartz vein hairline with pyrite		
			£27						-				shale	83.90 quartz vein with pyrite		
85.4	<b>Y</b>			∠20										interbedding small amount of chert bed 85.85 quartz vein with pyrite(w=8mm)		
90			∠30	∠83									black shale	88.15 quartz vein with pyrite(w=3mm)		
														89.95 - 90.05 calcite vein (w=10cm)		
91.9	)5		∠25 ∠20	1-"	,					-				gray and black alternation slumpiung texture remarkable		
													shale	93.10 pyrite-quartz vein(w=7mm) 93.90 pyrite-quartz vein(w=1 - 7mm)		
99.4 100	10													97.30 - 97.50 calcite pool  98.40 - 98.50 quartz vein hairline with pyrrhotite(w=1 -3mm)		
100	$\bot$	1	┸	┸_	上		┸	⊥	丄					<u> </u>		

Ma	r Sariang, i	litet	leel			M	J'I	ΓM	[-4	ļ				(Scale 1/200) ( 3/5 ) (E	epth: 1	.00m - 150m)
		1				-				<u> </u>		uo		Geologic Description	Results	of Laboratory Test
Depth (m)	Geol. Column	Core Shane	Structure	Venn	magachte	galena	sphalente	снавооруте	Fe-sulphide	Skamization	Sticification	Argillization	Rock	Lithology	Sample Number	
100.90			<b>425</b>	Z20,70									Nack shale	100.40 - 100.70 quartz vein with chlorite-pyrite		
102.4			∠20										shate/ sandstone		i	Ì
102.4			∠50 ∠50	∠55,70 ∠70 ∠45					ı				sandstone	with shale famina 102 80 - 103 00 quartz vein with pyrite(w=2nm) 103 40 103 60 quartz-calcite vein with pyrite-light brown mineral, pyrite diss. renurkable around this vein 104 90 - 105 00 two calcite veins(w=3cm)	103 00 EM4-4 104 00	Ag 0 2g t Cu 90ppm Ph 371ppm Zn 640ppm
100.0			∠20	∠60 ∠50					:				black shale quartz vein	107.40 - 107.50 pyrite hairline and dissemination 107.80 quartz vein with pyrite(w=8mm) breeciated texture with abundant pyrite-other sulfide	TM4-5 / 128.83	
109.1 110	Ö		∠20	250		-		1		1			shale/	afternation with calcite vein hairline	109 10	Ag 1 2g't Cu 22ppm Pb 3730ppm Zn 1 22%
110.4	0		İ	∠80-8x	ı	1		•			1		sandstone	110.10 chalcopyrite-brown mineral clot		1
			∠40 ∠20	2 30-40 2										weak banded to massive 110.40-111-30 abundant calcite vein network 111.40 pyribotite clot(with sphalerite?) 111.90 quarte-cakite veintw=1cm) with gyrite-pyribotite-magnetic 112.90-113-40 abundant calcite vein network 113.40-113.70 sandstone interbed 114.20-114.75 strongly filiated, pyrite diss, and veinlets along filiation, strong chloritization	114.00 TM4-6 115.00	Са 1837рт РЬ 224ррт Zo 140ррт
	1				ĺ			H	i			l		116.30-117.80 dense pyrite dissemination with calcite	115 50	Cu Milyana Ph LH Zunny
120				∠63 ∠70 ∠65 ∠80				**************************************						118.00 calcite vein with pyrite(w=2mm) 118.10 calcite vein with pyrite(w=3mm) 119.00-119.90 pyrite clot scattering and calcite-pyrite hairline 121.20-121.50 calcite vein(w=10-15mm)	TM4-7	Cu Vilypan Pb 1#7ypan Za #30ppan
:				∠70 ∠65										124.30 quartz-calcite vein(n=8mm) 124.80-125.10 quartz vein with pyrite-chlorite (n=5-15mm)		
130			∠30 ∠10 ∠20 ∠17						•				black shale	127.30 quartz-calcite vein with pyrite pyrite dissemination around vein 129.10 calcite vein, both side 2cm, strongly pyrite diss. 131.20, 131.35 pyrite-quartz vein along bedding		
			∠40	∠¥0-÷ ∠80-÷	1									134.00-134.30 calcite voin network with pyrite diss.  135.30-135.60 quartz-calcite voin network with pyrite diss.  136.10-140.00 pyrite efet scattering		
140			∠15	1	ţ									140.15-140.20 calcite-quartz vein hairline network 142.00-142.40 pyrite dissemination with quartz vein		
143.	60	1		∠25	:					1			1	143.00 pyrite voin		1
143.	臣		∠45										argillitic dolomite	mud seam abundant		
146													shale	reddish brown, with fine limestone bed		
149	40		∠20	∠20, ) ∠15,									shale/ firmestone	reddish brown shafe, dolomitic limestone fine alternational calcite vein network remarkable	N1	
130						ㅗ						ᅩ		<u> </u>		

Mr	Suring.	Tha	ilanl			M	JT	ľΝ	<b>[-4</b>	ţ				(Scale 1/200) ( 4/5 )	Depth:	150m - 200m)
	Γ					Ĭ	[ · · · · ·	· ·				G		Geologic Description	1	of Laboratory Test
Depth (m)	Geol Column	Core Shane	Structure	Vein	magnetite	galena	sphalente	chalcopymte	Fe-sulphide	Skamizanos	Silicification	Argilization	Rock	Lithology	Sample Number	
154.60			∠15	<b>264</b>	i						č		chert	reddish brown and gray, banding well calcite vein network abundant		
160			∠20 ∠23 ∠20										cherl/ dolomite	determite dominating to fewer part		
163 00 163.40	enni.										-		şilolfedrook	silicited dolonite? pyrite abundant		
		}	Z 15					l						impure, interbedded shale and chert seam		ļ
			∠20						-		T		dolomite	165.85-166.00 Eviated, silicified zone with pyrite		1
			∠20											lower part slightly silicifed		
169.6	}===		<b>220</b>										dolomitic shale	silicified, original texture remained abundant pyrite dissemination		
172 2			∠10 ∠20 ∠70	∠60										172.40 calcite-quartz vein with pyrite(w=1cm) 172.80 pyrite vein with calcite quartz(w=6mm) 173.50-197.00 abundant pyrite dissemination some slickerside with remarkable obloc	ite	
180			∠17 ∠20	∠60									black	182.00 calcite vein		
			∠15	∠60									shale	185.70 dolomite vein (w=20cm)		
190				∠66 ∠80								•		188.95-189.40 dolomite vein with pyrite(w=3em) 189.00-190.00 slightly silicifed 190.40 dolomite-pyrite vein cutting pyrite vein(w=3er) 190.95-191.10 dolomite-quartz pool with pyrite, pyrite chlorite rich		
			230	2 20 2 45 2 65	5									193.90 Edding axis, plain angle 0 degree  196.00 quarte vein with pyrite(w=1cm)		
197.0 198.0													siliatedrack	state origin? chlorite-smootite alteration, abundant parite, parhotite weak stilicifed and argiffized		
200		-		<b>2</b> *	)								shale/ chert	pyrite, pyrihotite scattering 19900-19910 quartz vein with pyrite, pyrihotite		<u> </u>

Ma	e Sariang,	Ղ <b>ի</b> ։ ե	ilant			M	JI	ľΜ	[-4	!					Epth:	200m - 250m)
Depth (m)	Geol Column	Core Share	Structure	Vein	magnetite	galena	sphalerite	chalcopyrtic	Fe-sulphide	Skamization	Silicification	Argilization	Rock	Geologic Description	Sample Substance	of Laboratory Test
	01111			Z20,50				13		S	S	Ĭ	shale/ chert silioifedrock		<del></del>	Cu 63.ppm Pb 16ppm Za 54.ppm
205.70													shale/ dolomite	sificifed and argiffized 203.10-203.20 quartz vein network with pyrite, pyrihotite 203.45-203.60 quartz vein network with pyrite, pyrihotite	203 19	
210			∠25	28,50					•				cherl/ shale	sificification and argillization weaker toward bottom 207.35-207.65 quartz vein with pyrite, pyrihotite (w=8-15mm)		
	210 20								-	-	•					
220				}												
					- WG-1											
																# A A A A A A A A A A A A A A A A A A A
230																
	1		1												<u> </u>	
240																
															<u> </u>	
250	1					ļ							•			

Mie Swing, Thailand	MJTM-5		(Scale 1/200) ( 1/2 ) (D	epth:	0m - 50m)
			Geologic Description	r	of Laboratory Test
Depth Geot. Column of Depth Co	magnetite salena sphaleme chalcopynic Fersulplade Skamization Shierfication	Rock	Lithology	Sample Number	
0 30		galena ore	galeria in silicided rock	IMS 1	
3 85 77777		weathered soil	orange brown green skarn boulder with galena, magnetite(10-40 cm) skarn origin?	165	Ag 224g% Cu 2666ppm Pb 24.9% Zn 247ppm
8 40		silicified rock	white, massive, cracky tiny amount of pyrite, galeria scattering		
10 250		weathered rock	alors turning to clay shale origin?		
11.10 ± 1.11 ± 2.00 ± 2.00 ± 2.00		l sheared	greenish gray, Eliated broccia and sheared texture very remarkable chloritization strong magnetite-pyrite-galena-chalcopyrite diss, abundant	12 00 TM5-2 12 50	Ag 46.4g% Cu 1 30% Pb 4440ppm Zw 958ppm
		dolomite	12.00-12.50 cracky core, much of malachite 14.40, 14.95 chalcopyrite clot	TM5-3	Ag 19 8g % Cu 2480ppm Pb 874ppn; Zn 560ppm
				16 00	-
17.45	5.	dolomite	dark gray, so much argillaceous bands broccia and sheared texture remarkable chloritization strong along shear argillaceous band strongly replaced by magnetite fine sulfide diss, along shear and in breecia matrix 20.30, 20.40-20.45 sulfide vein 20.60-20.70 pyrite-chalcopyrite dissemiration 22.50 chalcopyrite dot in calcite-quartz vein 23.50 open crack with abundant pyrite-quartz 25.95-26.55 breecia texture with magnetite, fine sulfide 26.60-26.70 silicified fine sandstone lamina 27.00-27.80 crashing and chloritized core along quartz-calcite-chlorite vein(w=tem) dark gray, massive, magnetitized famina remarkable breecia and sheared disappearing to below 28.00-32.00 many calcite-quartz veins hairline  33.50-35.00 open crack and calcite network vein with pyrite, pyrrhotite, strongly chloritized	31 00 TMS-5 32 00	Ag I 4g t. Cu 708ppm Pb 194ppm Zn 378ppm Pb 194ppm Zn 378ppm Ag 0 4g t. Cu 703ppm Pb 26ppm Zn R0ppm
		<u>'</u>	35.70-36.30 breeds texture with much of fine sulfide and magnetite	35 50	Ag 0 2g4 Cu 352ppm
36 30 ∠15 ∠10		magnetite skam	black, massive, limy, origin: limy shale pyrite, pyritotite, chalcopyrite, galena(?) diss. interbedding brecciated delomite	37 60	Pb 43ppm Za 129ppm
40 [1-1]		dolomite	banded structure, broccia texture and chloritization strong pyrite, pyrthotite, chalcopyrite diss. in breccia matrix shale lamina replaced by magnetite 42.90-43.50 magnetite abundant with idiomorphic pyrit		
44.00		magnetite	limy, interbookling skamized defemite		
46 00		skam	Inc sulide disseminate coarse, crystalline, banded	-	
		dolomite	homfdsic shale seams with much of disseminated magnetite 48.10-48.80 breecia texture, much of sulfde		
50		magnetite skam			

Mae Swiang, Thailand	MJTM-5	(Scale 1/200) (2/2) (f)	epth: 50m - 100m)
	5 5 5	Geologic Description	Results of Laboratory Test
Depth Geol & Ambutta N	galena spaleric chalcopynie Fosulphde Stamization Argillization Argillization	Lithology	Sample Number
245 240 240 240 230 230		alternation of magnetite skam and skamized dolemite original sedimentary texture well remains to 59.00 calcite-quartz-chlorite vein abundant 48.80-62.40 pyrite-pyrihotite diss, moderate to weak 54.75-54.98 homelsic layer	53 56 TNIS 7 Ag 0 1-y 1: Cu 410ppm 52 00 Pb 55ppm Za 66ppm
220	magneti skam	62.40-62.70 calcite-quartz-chlorite vein 62.70-75.20 pyrite-pyrrhotite diss, with chalcopyrite	62 50 TMS-8 Ag 0 4g t. Cu 767ppm pb 3nppm 7n 32ppm 64 00
70 		73.00-73.60 calcite-quartz-chlorite vein with barite (w=1-3 cm) 75.20-77.35 dolomite dominant, breezia texture tiny amount of pyrite, pyrrhotite dissemination	79 00
80.50	skamiz dolomi		TM5-10 Ag-0.2g t Cu 237ppm ps 23ppm Zn 27ppm 80 50
87.50	magnet	85.50-86.60 breecia feature remarkable chloritization strong, pyrite-chalcopyrite rich	TRAC 11 Ag <0 2g t Cu 25 appor
\$8.60	skamiz dolom		
96 20 97.50 98 70	magne skarn epidot skarn magne skarn	97.00-97.50 chalcopyrite rich  deep green, magnetite-pyrite-chalcopyrite diss	97.20 TMS-12 Ag 2.2g-t. Cu 1685ppni Pb 16ppmi Za 22ppmi 98.60

# Appendix 13 Sketch of Trenching survey

(Scale 1/200)

## **LEGEND**

Soil

Limestone

Dolomite

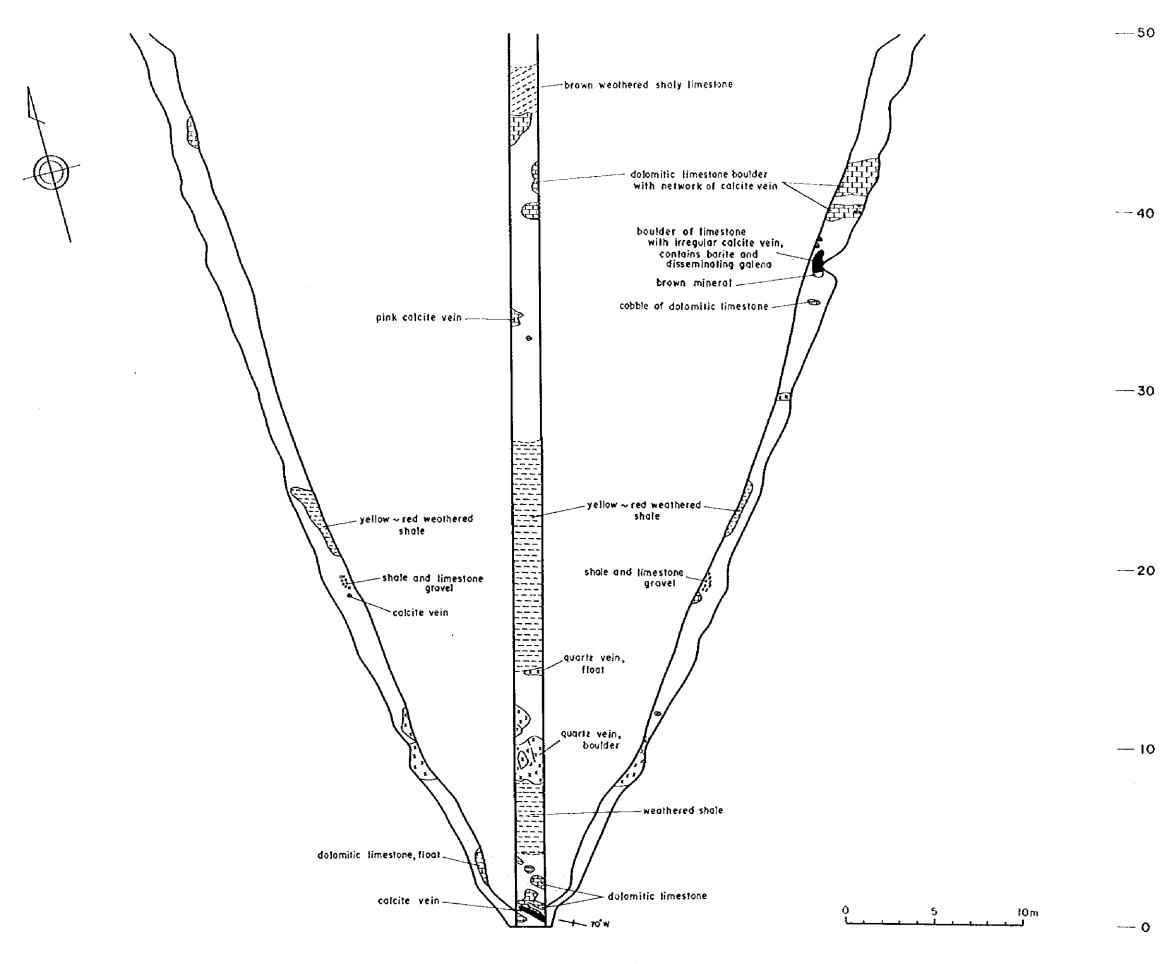
Shale

Shaly limestone

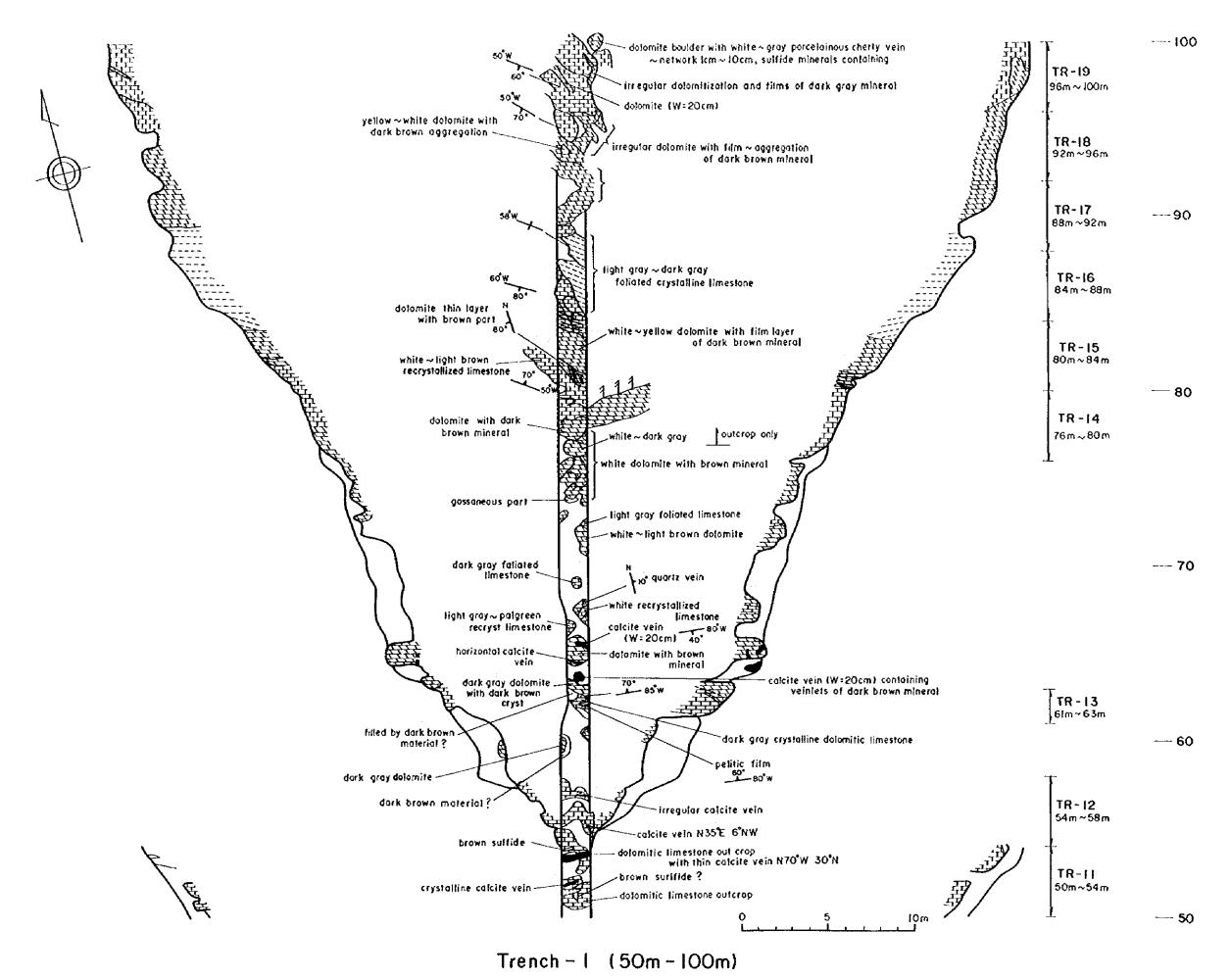
Quartz vein

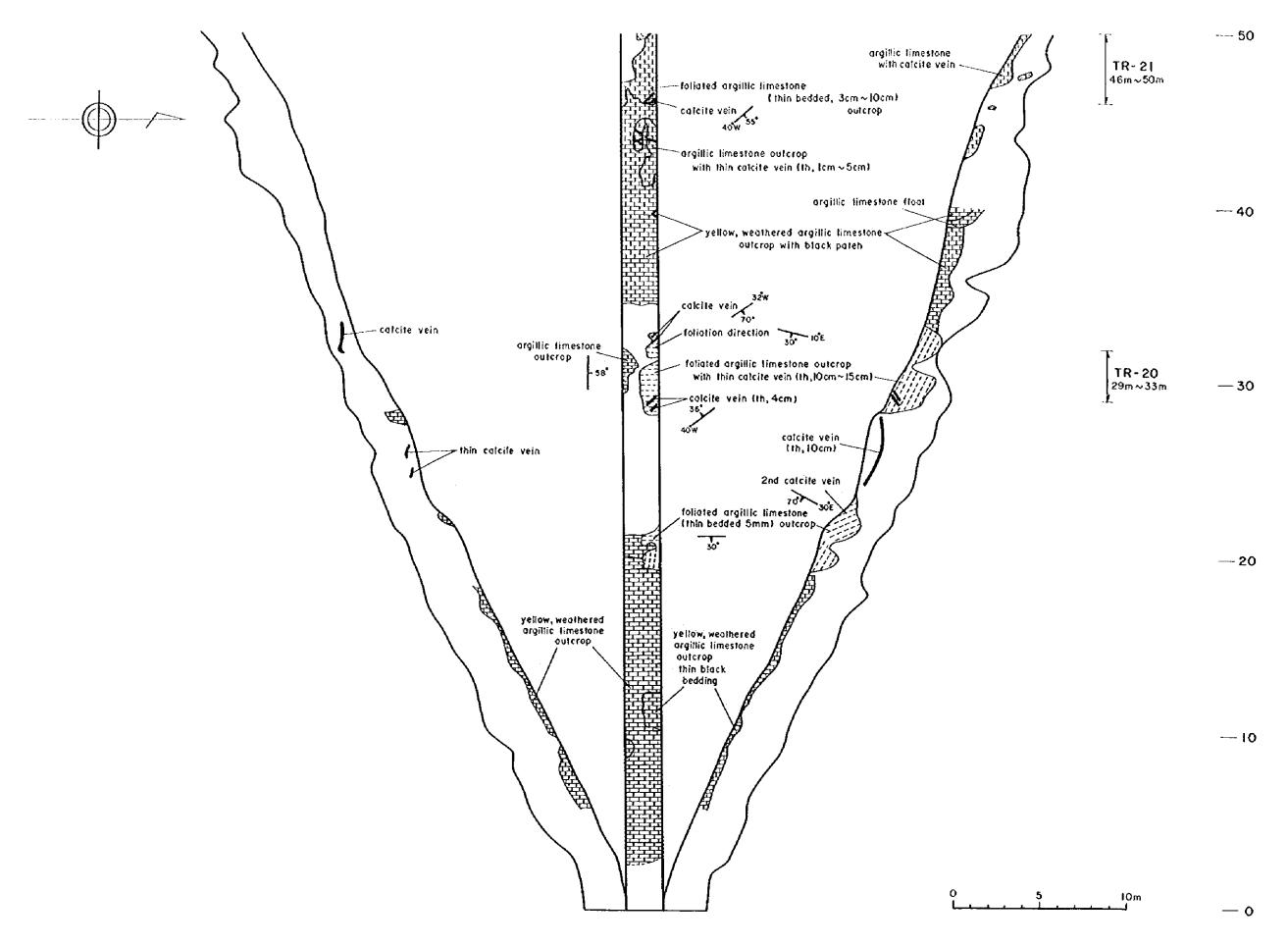
Calcite vein

TR-11 50m~54m Channel sample

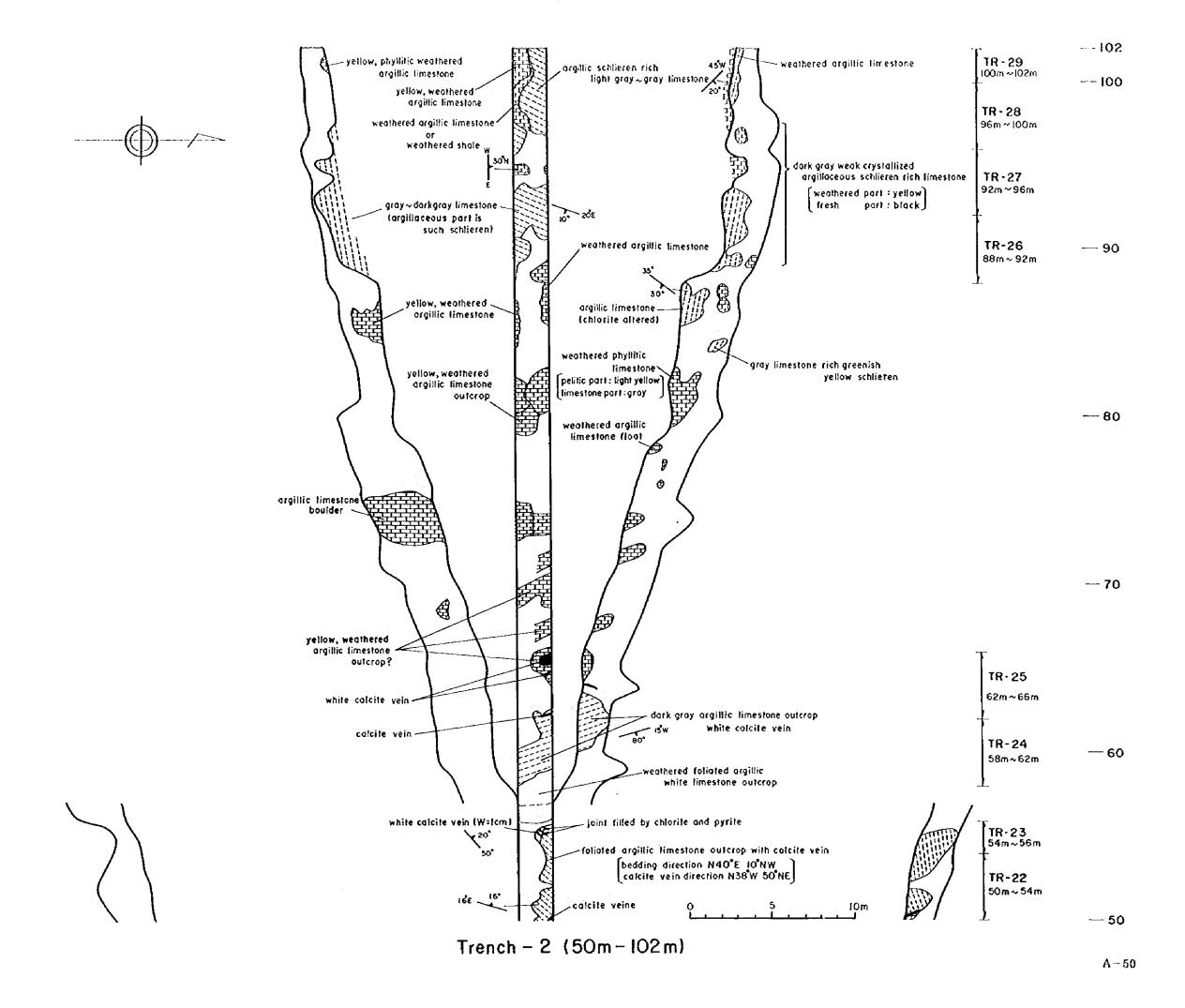


Trench -1 (Om -50m)





Trench -2 (Om -50m)



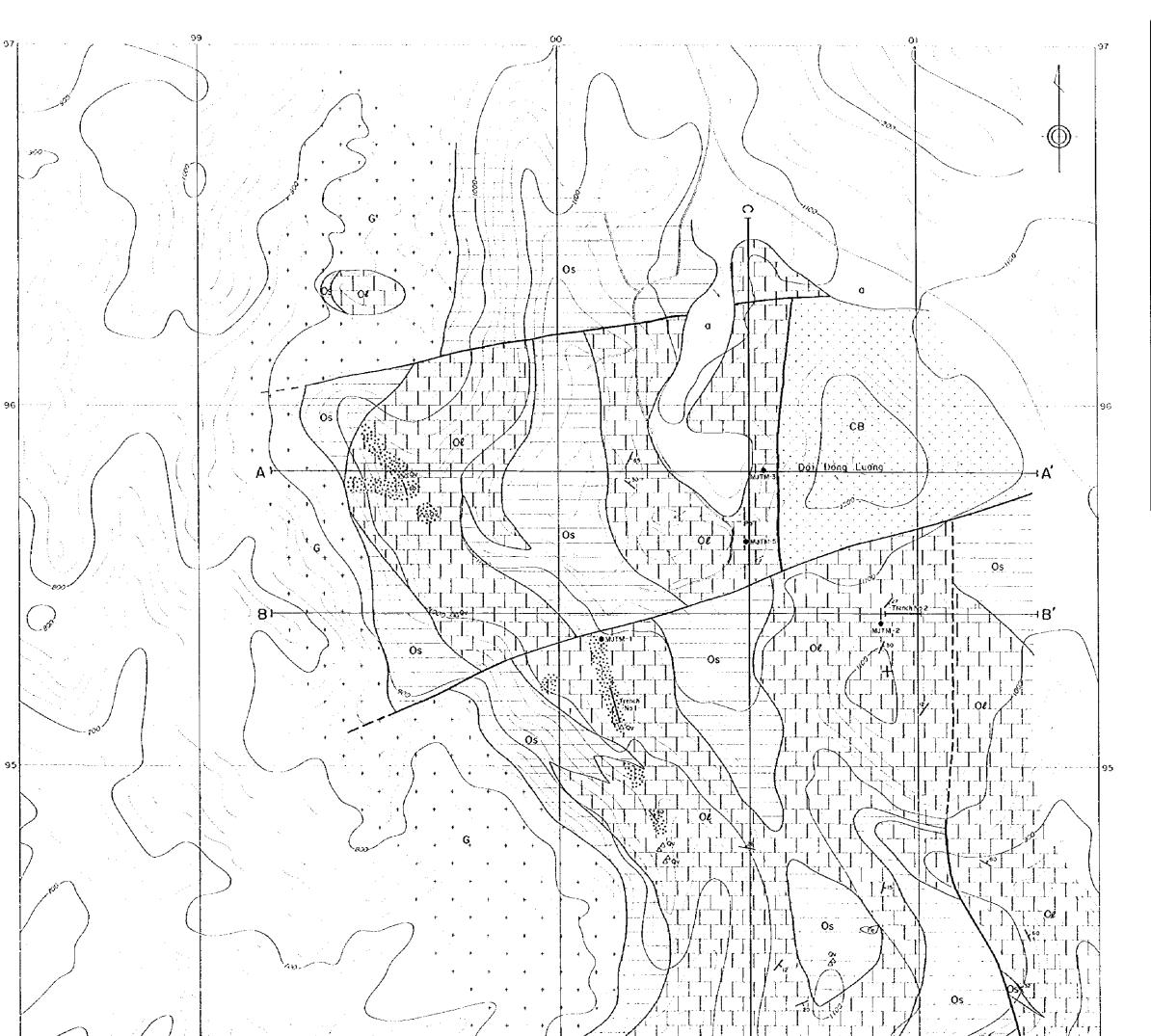
Appendix 14 Homogenized Temperature and Salinity of Fluid Inclusion

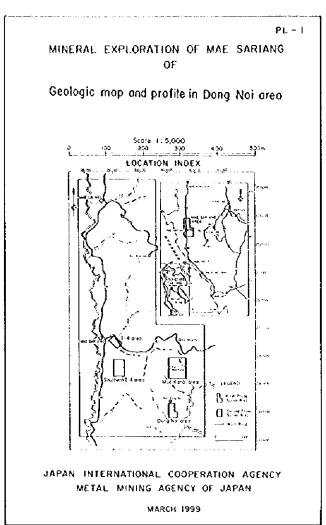
Marches Residence   Leading   Lead				<u></u>				Т				t			~ 7	····· 1	1	
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Samole No.         Locality         Description         Mineral         155           MJTM-1 68.60-08.65         Dong Noi area         Ouartz         122           MJTM-2 28.30-28.40         Dong Noi area         Ouartz         173           MJTM-2 252.30-252.40         Dong Noi area         Ouartz         173           MJTM-3 122.80-122.91         Dong Noi area         Ouartz         173           MJTM-4 103.40-103.49         1-4 area         Ouartz         174           MJTM-4 103.40-103.49         1-4 area         Ouartz         174           MJTM-5 31.15-31.20         Dong Noi area         Ouartz         176           MJTM-5 73.00-73.50         Dong Noi area         Couartz         176           MJTM-9 73.00-73.50         Dong Noi area         Couartz         176           MJTM-01         Souchern 1-4         Ouartz         122           MM-02         Husi Wair         Ouartz         182           MM-06         Husi Wair         Ouartz         188           Ouartz         103         177	$\vdash$		ļ	<del> </del>		<del></del>				,					I		<b></b> _	
Samole No.         Locality         Description         Mineral           MJTM-1 66.60-06.65         Dong Noi area         Quartz           MJTM-2 28.30-28.40         Dong Noi area         Quartz           MJTM-2 252.30-28.240         Dong Noi area         Quartz           MJTM-3 122.80-122.91         Dong Noi area         Quartz           MJTM-4 103.40-103.45         I-4 area         Quartz           MJTM-4 202.10-202.30         I-4 area         Quartz           MJTM-4 202.10-202.30         I-4 area         Quartz           MJTM-5 31.15-31.20         Dong Noi area         Quartz           MJTM-6 31.15-31.20         Dong Noi area         Quartz           MJTM-7 32.00-73.50         Dong Noi area         Quartz           MJTM-9 31.15-31.20         Dong Noi area         Quartz           Dong Noi area         Quartz         Quartz           MM-001         Dong Noi area         Quartz           MM-001         Dong Noi area	-			<del> </del>	<b></b> —				<b>!</b>				ł –		<del>                                     </del>			
Samole No. Locality Describion MJTM-1 68.60-68.65 Dong Not area MJTM-2 28.30-28.40 Dong Not area MJTM-2 252.30-252.40 Dong Not area MJTM-3 122.80-122.91 Dong Not area MJTM-3 122.80-122.91 Dong Not area MJTM-3 122.80-122.91 Dong Not area MJTM-4 103.40-103.43 1-4 area MJTM-5 31.15-31.20 Dong Not area DJ-13 Dong Not area DMR-01 Southern 1-4  MM-02 Huel Wek  MM-06 Dong Not area  Dong Not area  Dong Not area  Dong Not area  Dong Not area  Dong Not area  Dong Not area  Dong Not area  Dong Not area  Dong Not area  Dong Not area  Dong Not area  Dong Not area  Dong Not area  Dong Not area	ļ	<b> </b> -		<del> </del>	<del></del>	<del>                                     </del>		<del>                                     </del>				<del></del> _	ļ				<b></b>	ł
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Samole No.  MJTM-1 68,60-68.65  MJTM-2 28,30-28.40  MJTM-3 122,80-122.91  MJTM-3 122,80-122.91  MJTM-4 202,10-202,30  MJTM-5 31,15-31.20  MJTM-5 31,15-31.20  MJTM-5 73,00-73.50  MM-06  MM-06  MM-07  TR1-97	Description																	
No Samole No.  1 MJTM-1 68,60-68.65  2 MJTM-2 28,30-28.40  3 MJTM-2 28,30-28.40  4 MJTM-3 122,80-122.91  5 MJTM-3 122,80-122.91  7 MJTM-4 202,10-202.30  10 MJTM-5 31,15-31.20  11 DJ-13  12 DKR-01  13 JR-001  14 MM-06  16 TR1-97	Locality	Dong Noi area	Dong No. area	Dong Noi area	Dong No. gree	Dong Not area	Dong Noi area		ĺ	Dong Nai area	Dong Noi eree	Dong Noi area	Dong Noi area	Southern 1-4	HUS. Wek	Hue: Wek	Dong Noi area	
\$ 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Sample No.	JTM-1 68.60-68.65	1	JTM-2 252,30-252.40	JTM-3 60.6C-60.70	JTM-3 122,80+122,91	UTM-3 122.80-122.91	i		LUTM-5 31,15-31.20	UTM-5 73.00-73.50	£1-70	DKR-01	JR-001	MM-62	90-жм	TR1-97	
	ş	<u> </u>	2	P	2	<u>\$</u>	φ Σ	7.	<u> </u>	<u></u>	<u>∑</u>	<u>† = </u>	Ž.	2	<u> </u>	ç	ē	_

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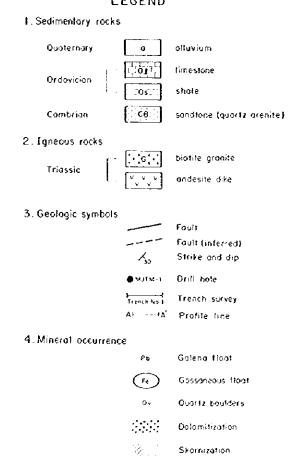
Appendix 15 Result of Stable Isotope Analysis

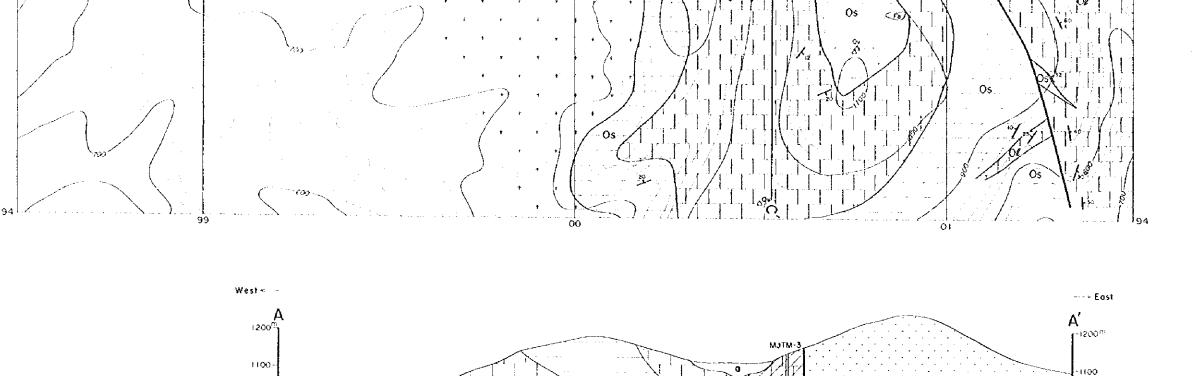
	Sp. No.	Description	Locality	δ <sup>13</sup> C <sub>PDB</sub> (‰)	δ <sup>18</sup> Ο <sub>PDB</sub> (9%)	8 18 OSMOW (960)
-	AR-011	muddy limstone, honfelsic	Pha Deang, Mae Sod mine	+1,4	-12.3	+18.2
2	AR-013	muddy limstone	Pha Deang, Hua Long mine	+0.9	-10.0	+20.6
ဗ	AR-015	AR-015 grey recrystalline limestone	Tak Mining	+2.0	-6.2	+24.5
4	AR-009	AR-009 beside of barite vein, white massive limestone	Chamrat barite mine	-2.1	-22.0	+8.2
C)	AR-033	AR-033 grey recrystalline massive limestone	Dong Noi area	-1,3	-14.1	+16.3
9	BR-032	BR-032 light green banded marble	Dong Noi area	+1.0	-15.3	+15.1
7	AR-041	AR-041 recrystallized calcite in cavity	I-4 area	-4.1	-5.8	+24.9
- ω	BR-047	BR-047 dark grey banded limestone	I-4 area	-2.5	-13.0	+17.5
6		DR-028 light brown banded marble	I-4 area	-2.9	-11.1	+19.4
2	10 07-09	muddy dolomitic limestone	Dong Noi area	-2.7	-10.3	+20.3
-	11 DM-12	crystalline limestone	Dong Noi area	-0.4	-14.0	+16.4
12	12 MJ-04	muddy dolomitic limestone	Mae Kanai area	1.8	-12.3	+18.2
<u> </u>	MMR-04	13 MMR-04 calc-silicate rock	Mae Kanai area	-14.7	-19.8	+10.4
4	MMR-13	14 MMR-13 muddy limstone	Mae Kanai area	-0.8	-23.9	+6.3
ਨ	MJTM-1	15 MJTM-1 crystalline dolomite	MJTM-1 60.40-60.45	-4.1	-23.3	6.9+
16	MJTM-2D	16 MJTM-2D impure dolomite	MJTM-2 18.00-18.10	-2.1	-11.6	+19.0
7	MJTM-2S	17 MJTM-2S skarnized dolomite	MJTM-2 130.00-130.10	-4.4	-20.7	9.6+
80	MJTM-3	18 MJTM-3 impure dolomite with hornfelsic seam	MJTM-3 15.00-15.20	-3.4	-15.7	+14.7
19	MJTM-4	19 MJTM-4 massive dolomite	MJTM-4 104.50-104.60	-2.3	-18.5	+11.8



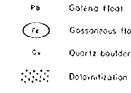


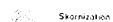
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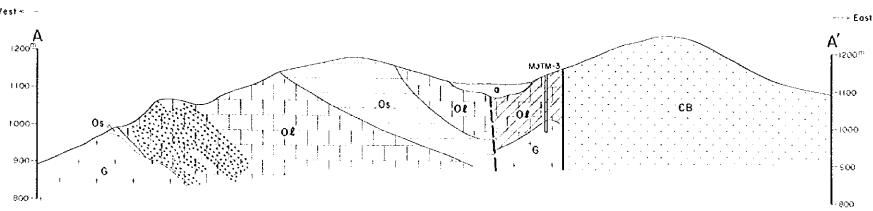


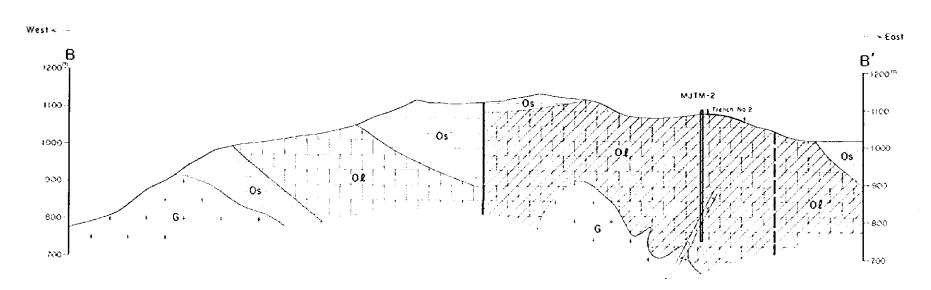


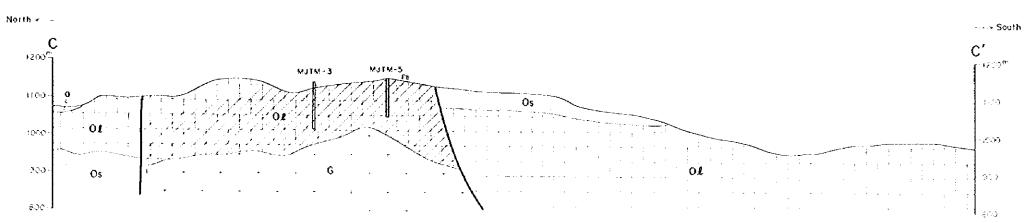
## 4. Mineral occurrence

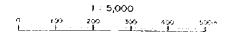


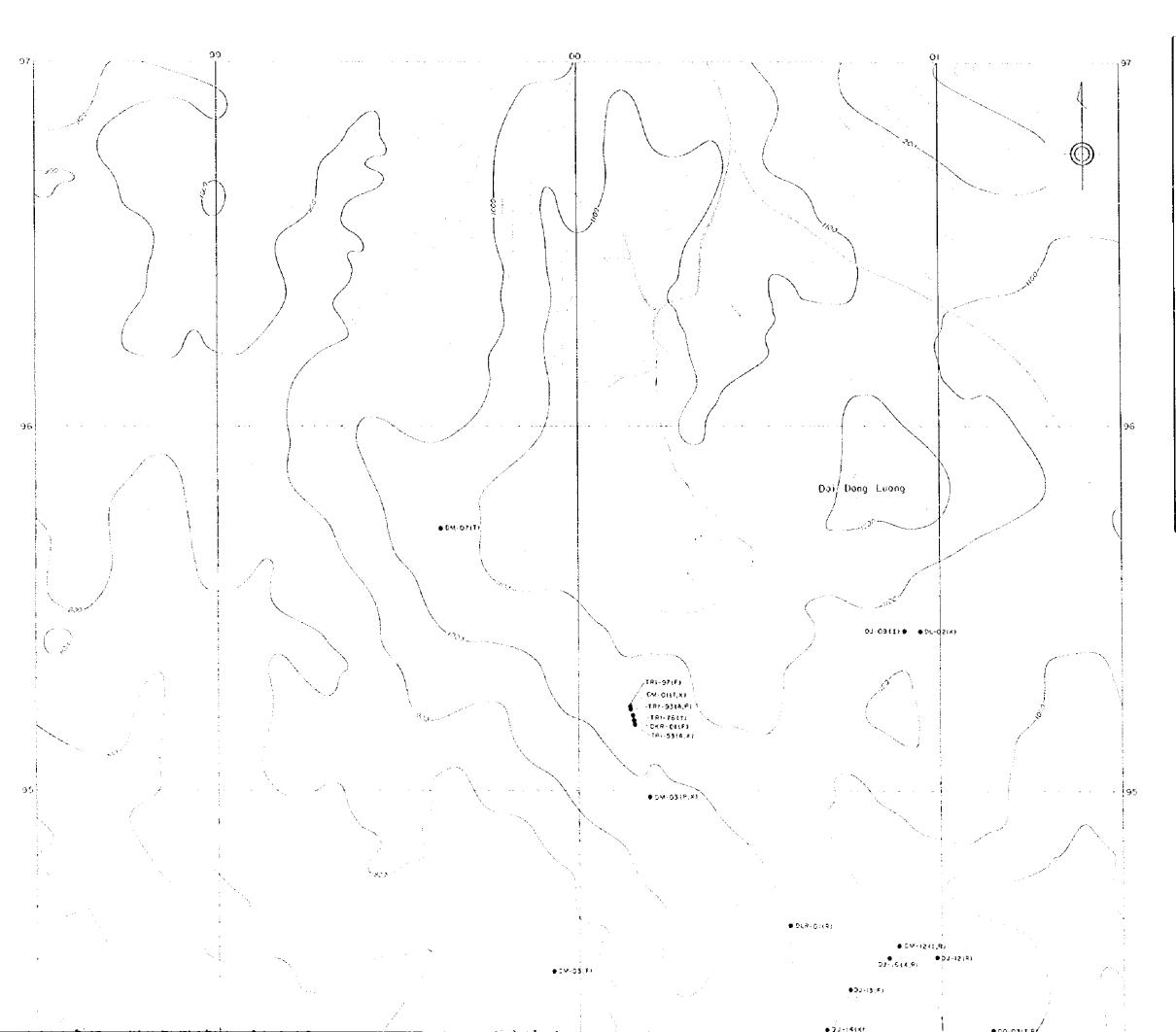


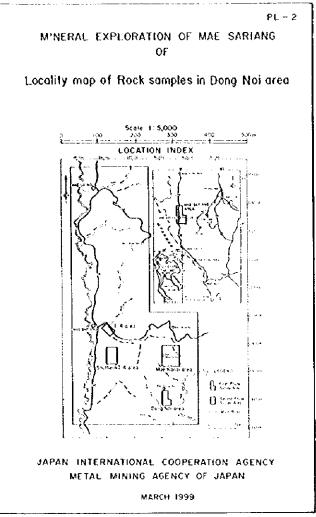




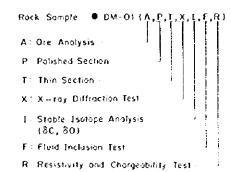


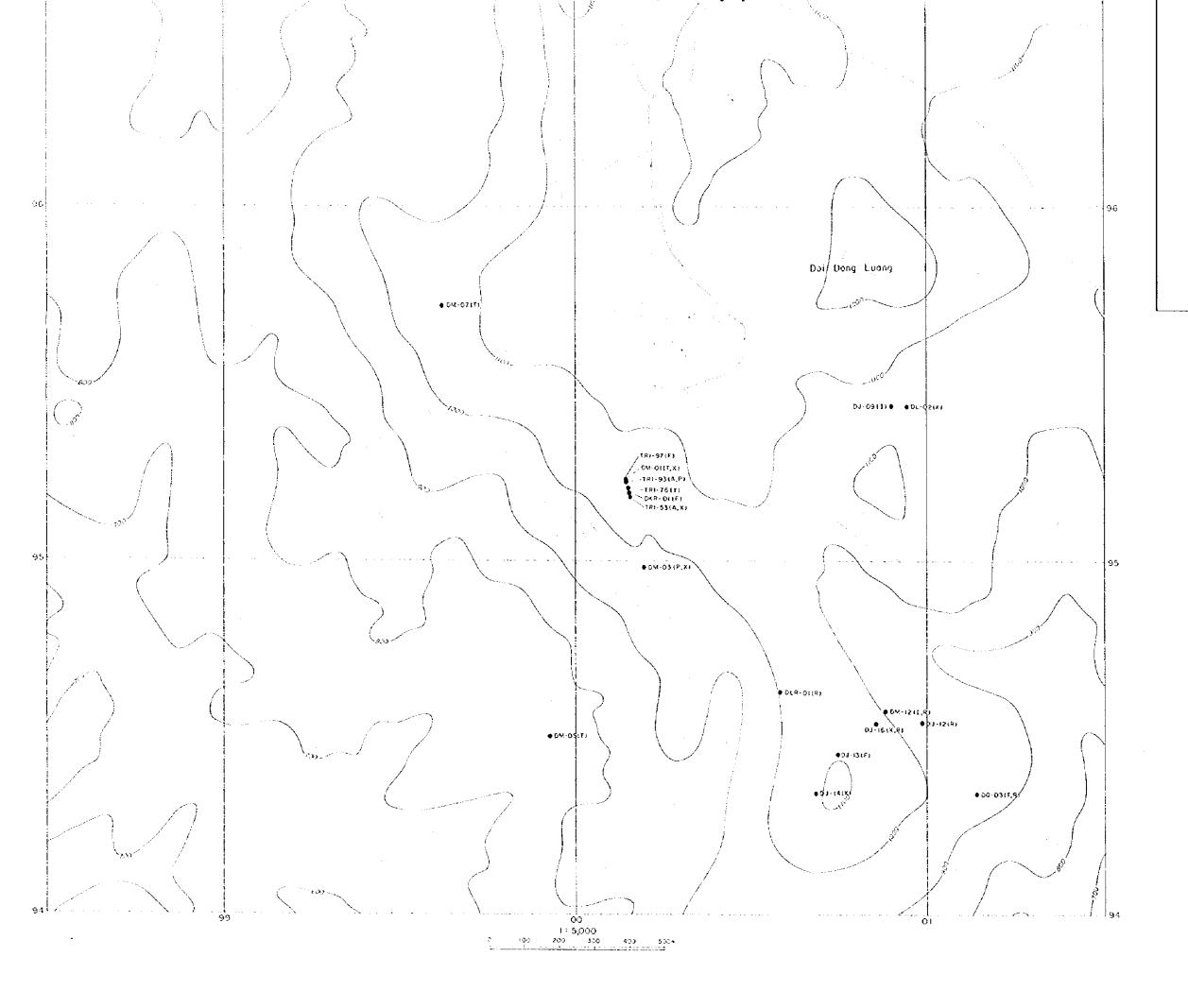


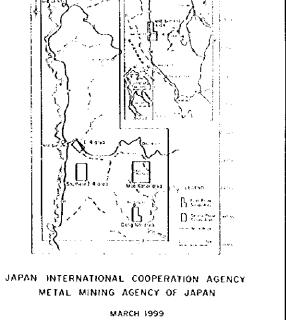




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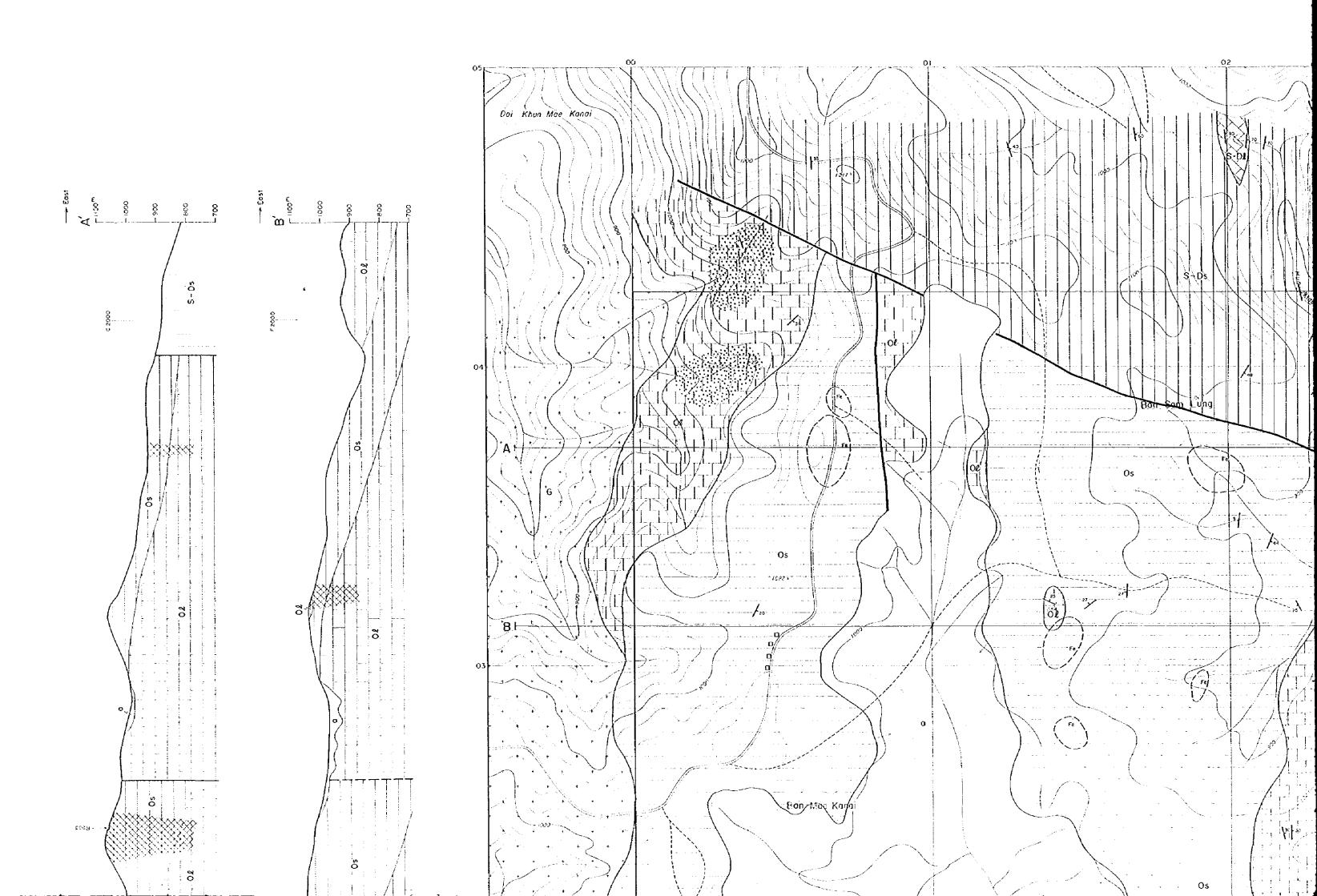


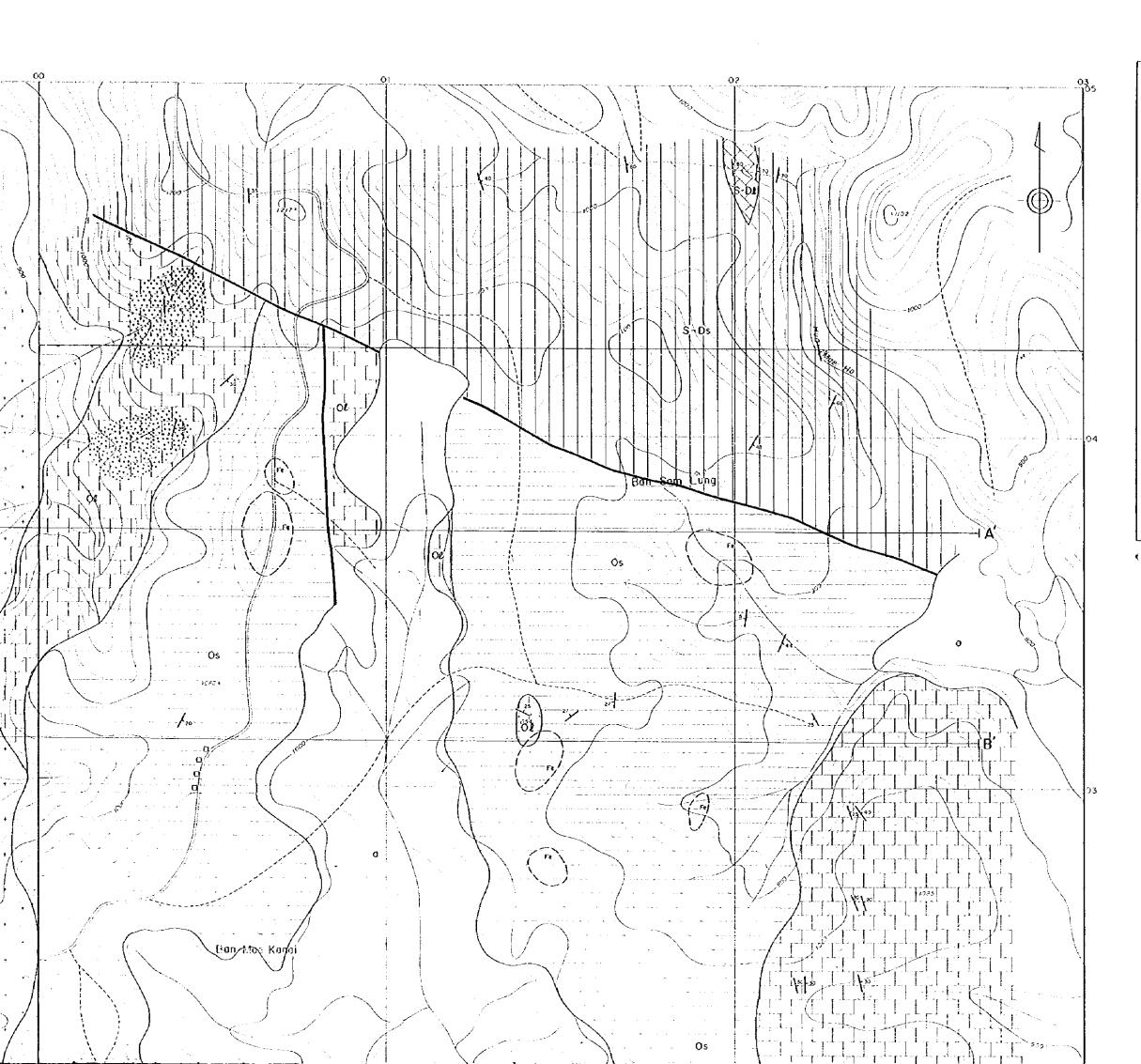


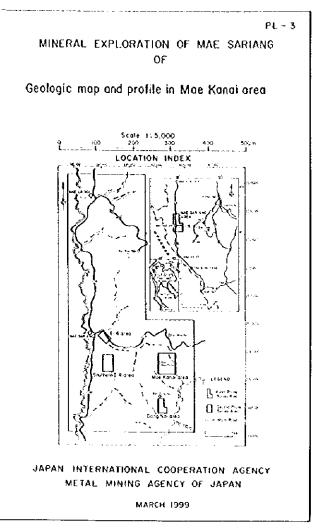


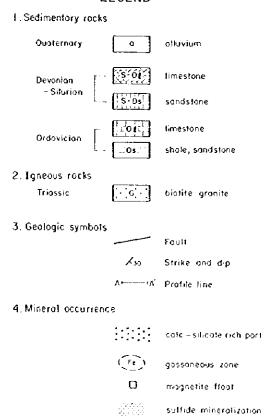
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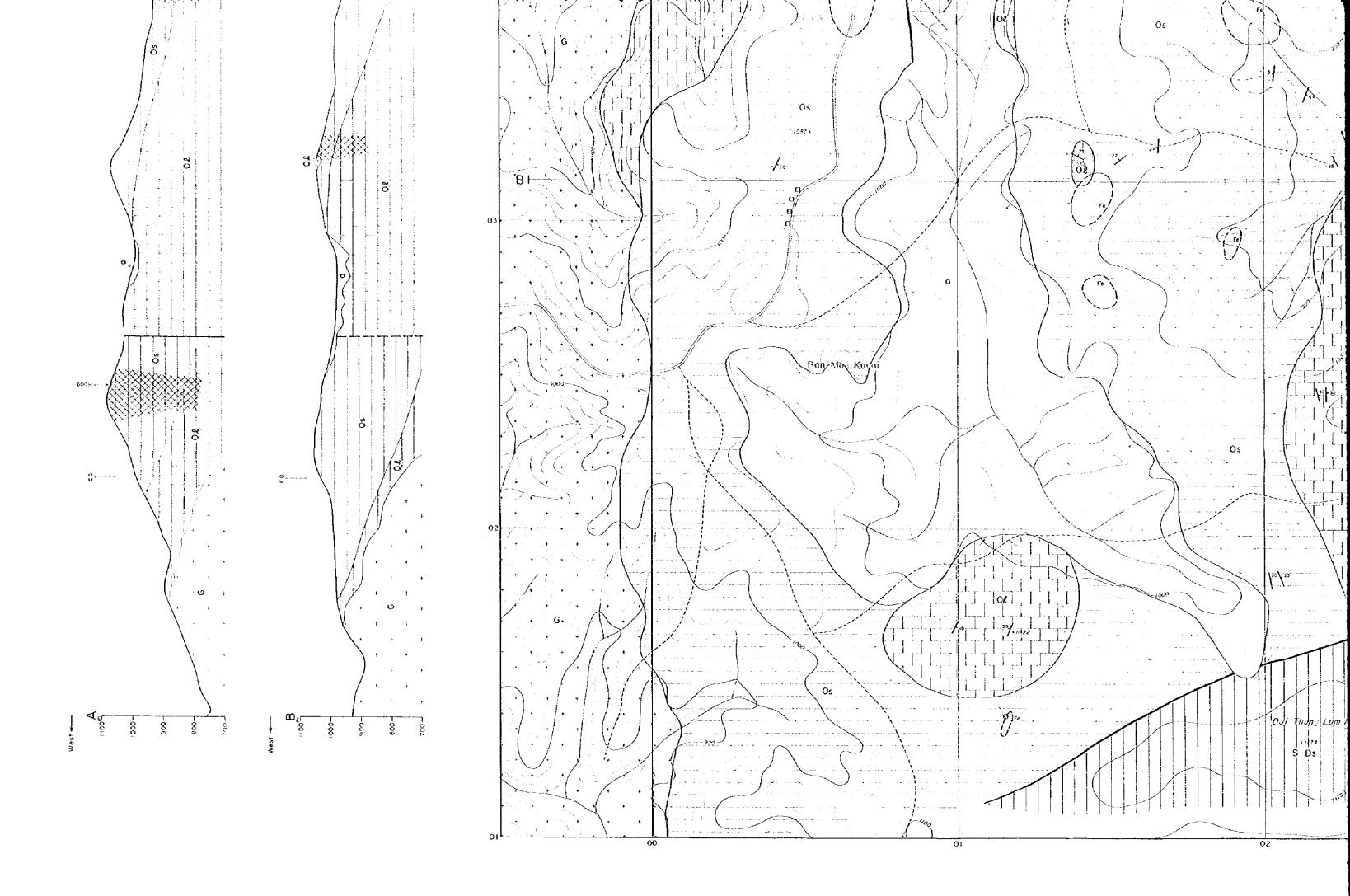
Rock Sample $\bullet$ DM-OI (A,P,T,X,I,F,R)
A: Ore Analysis
P: Polished Section -
T: Thin Section
X: X—ray Diffraction Test
1. Stable Isotope Analysis
F: Fluid Inclusion Test
R: Resistivity and Chargeability Test

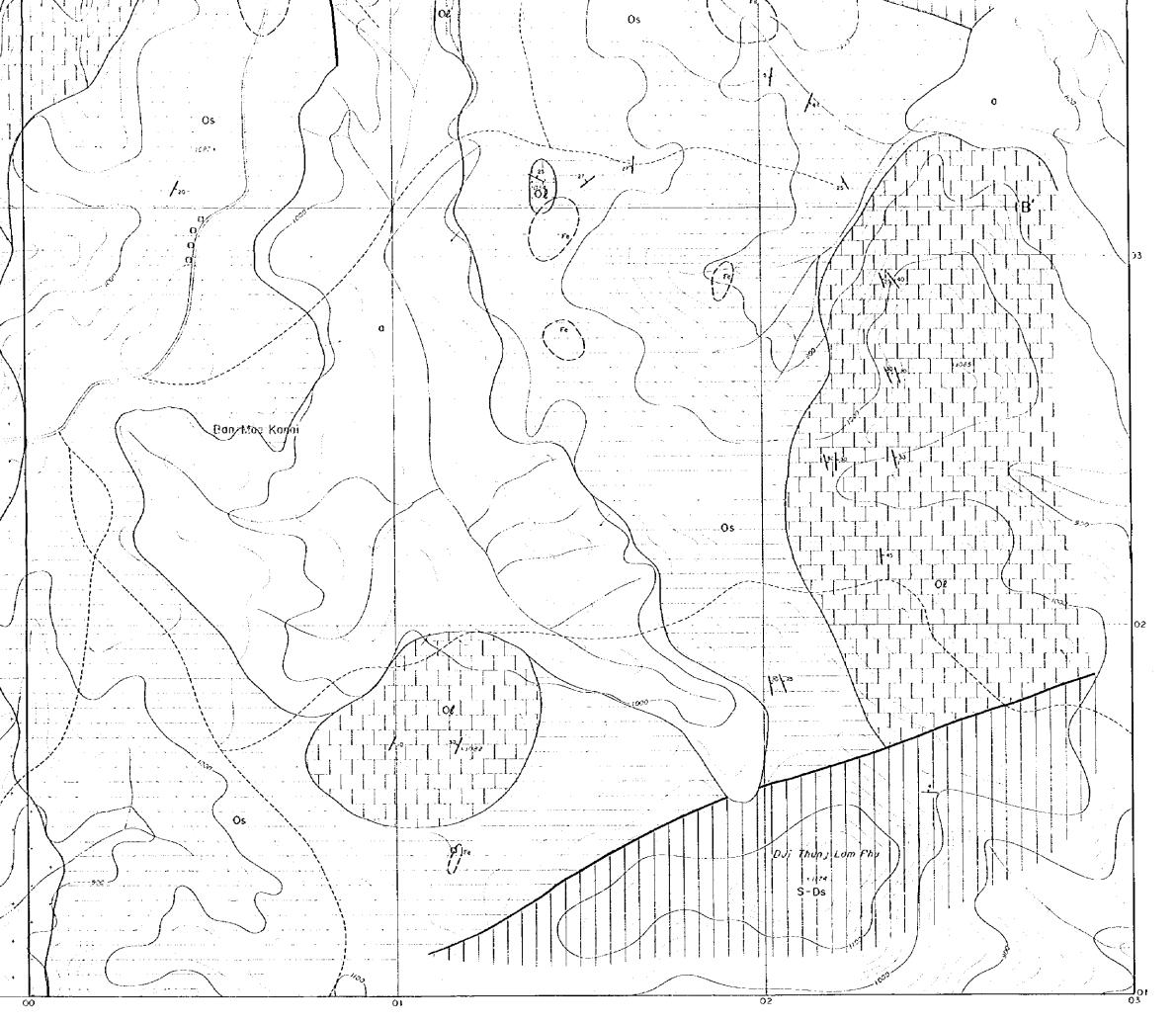








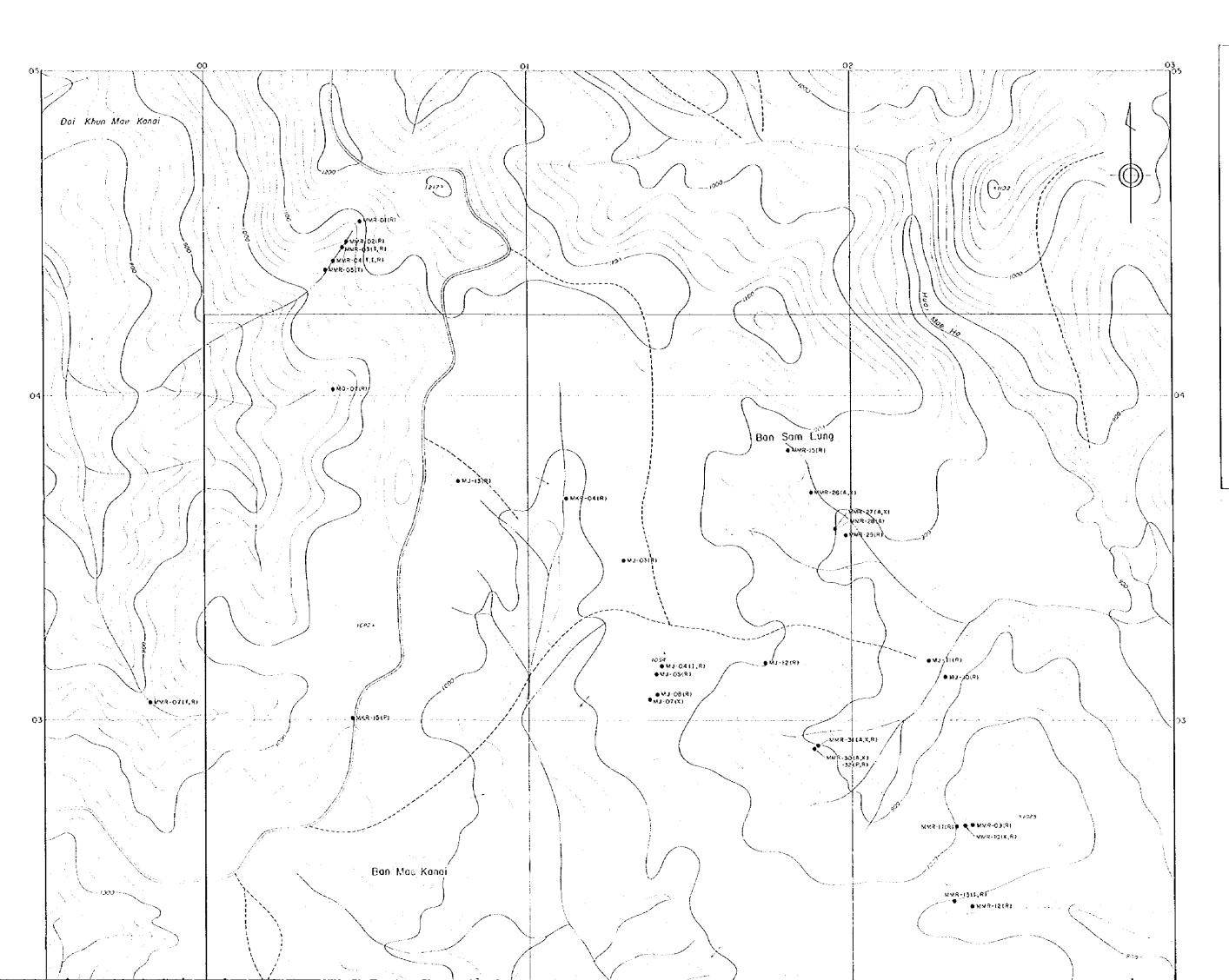




LEGEND L. Sedimentary rocks muivetto o Quaternary Devonion - Siturian - S-Ds sondstone  $\begin{bmatrix} 1 & 0 & 1 \\ 1 & 0 & 2 \end{bmatrix}$  timestone Ordovicion . Os . shale, sandstone 2. Igneous rocks biotite granite Triassic 3. Geologic symbols Aso Strike and dip 4. Mineral occurrence cate - silicate rich part (Fe) gossaneous zone magnetite floot

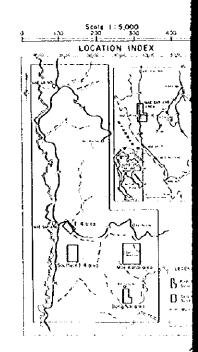
> 1:5,000 100 200 300 400 500 m

sulfide mineralization



MINERAL EXPLORATION OF MAE

Locality map of Rock samples in Mae



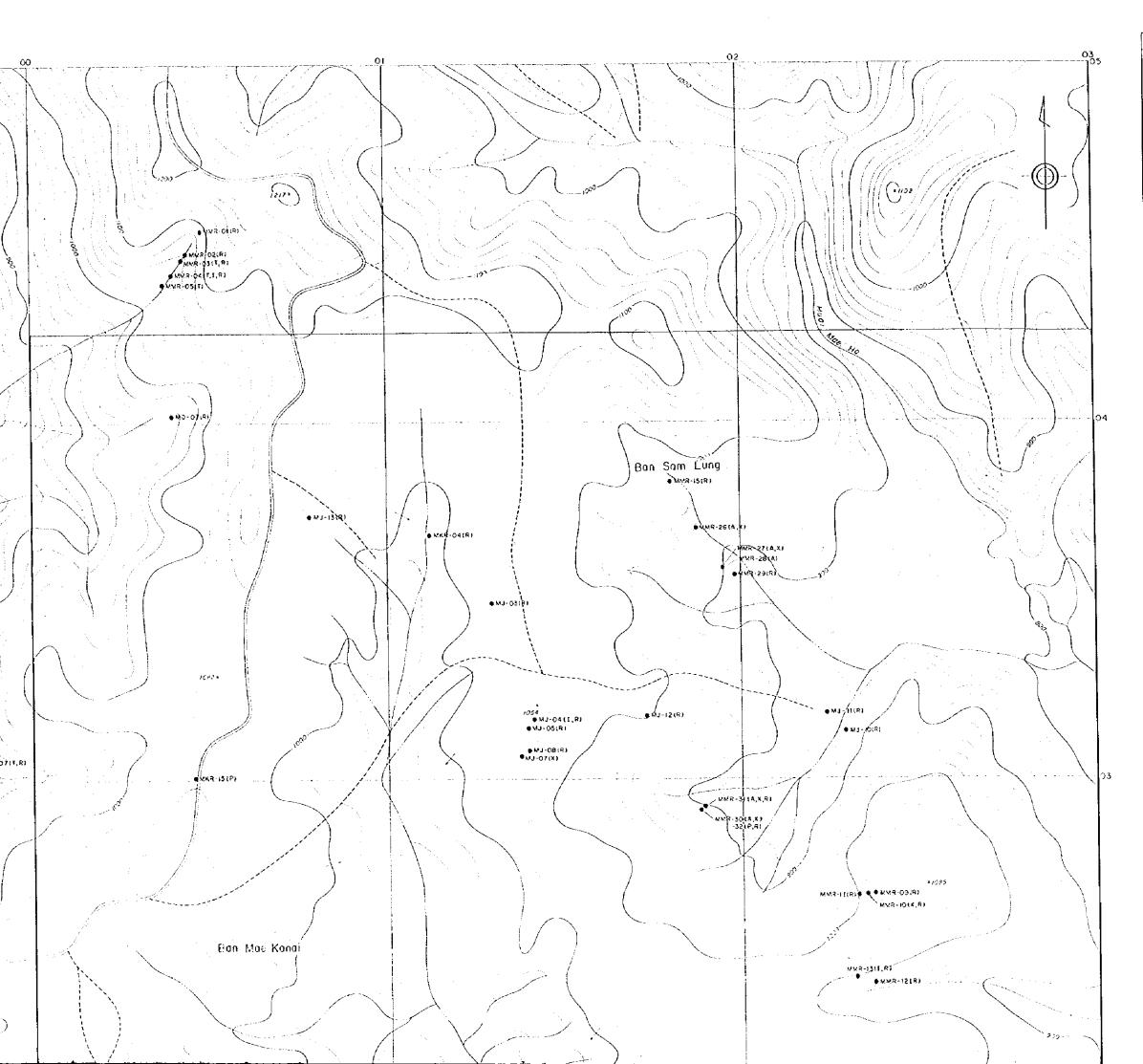
JAPAN INTERNATIONAL COOPERATION
METAL MINING AGENCY OF JAP

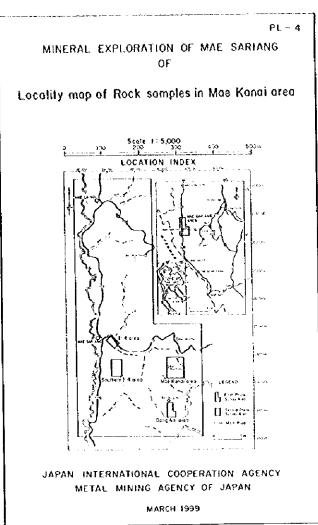
MARCH 1999

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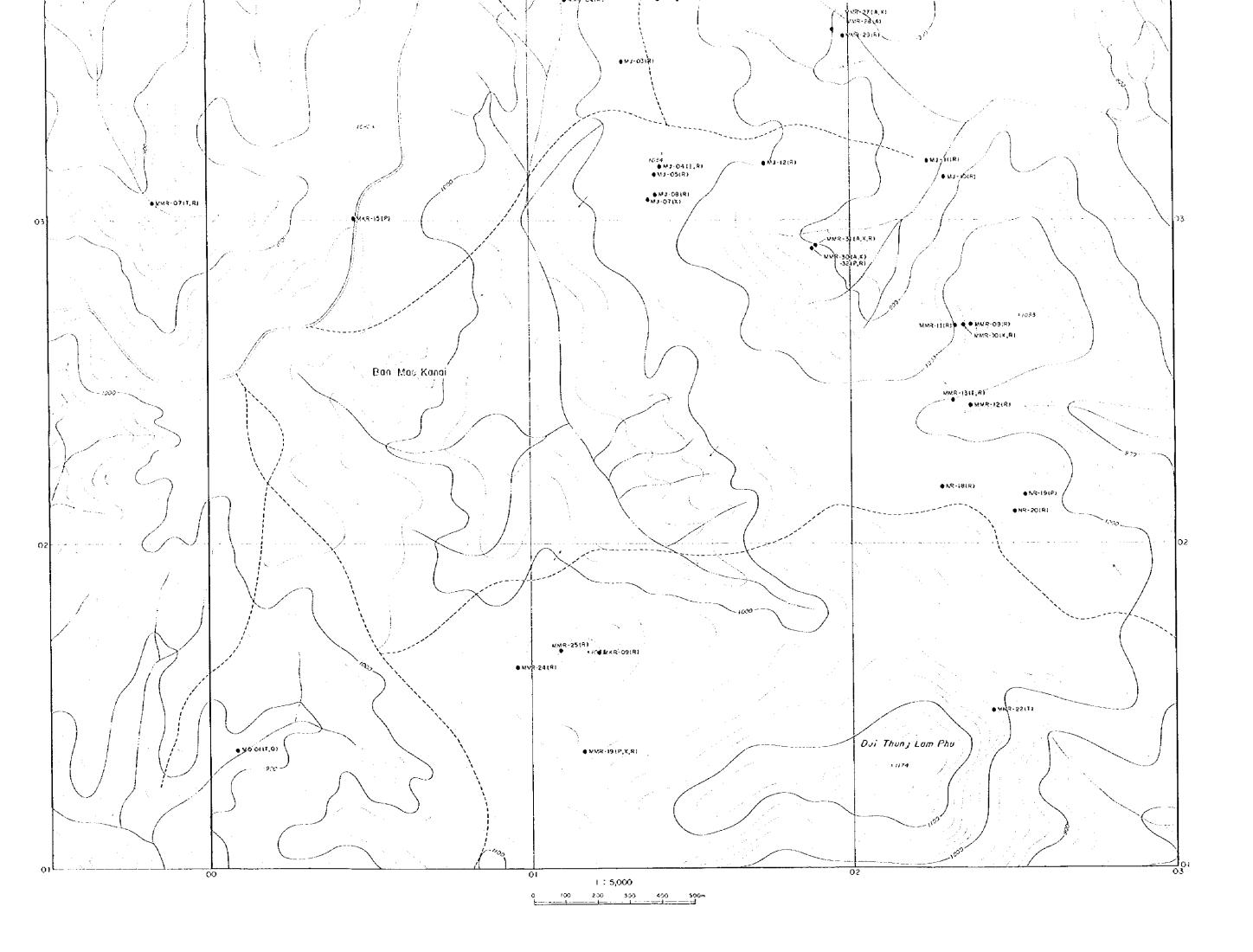
Rock Sample • MMR-OI(A,P,I,X,I,

- A: Ore Analysis
- P: Potished Section
- T: Thin Section
- X: X-ray Diffraction Test
- 1: Stable Isotope Analysis (80,80)
- F: Fluid Inclusion Test
- R: Resistivity and Chargeability Test-



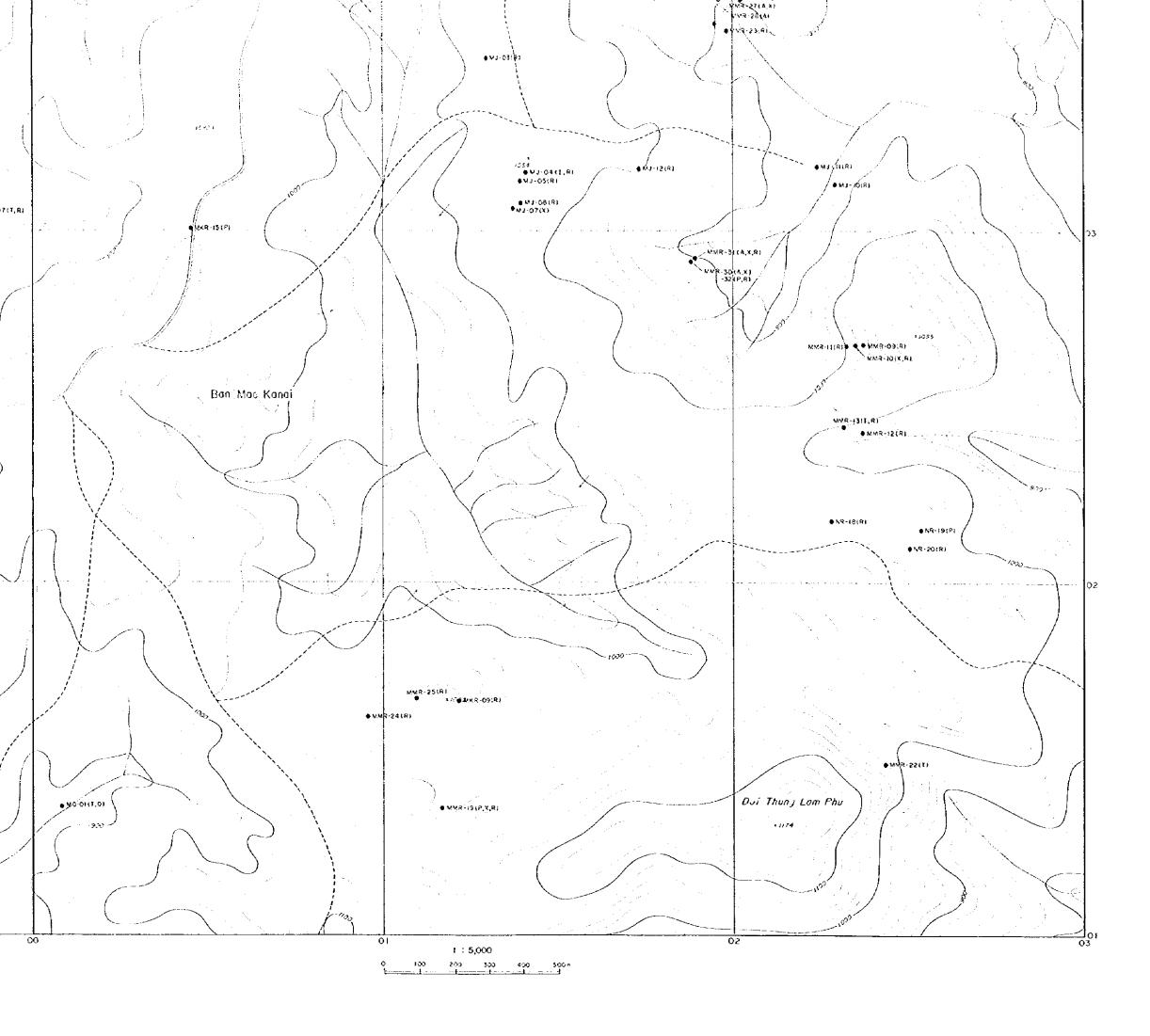


Reck Sample ◆ MMR-O!(A,P,T,X,[,F,R)
A: Ore Analysis
P: Polished Section
T: Thin Section =
X: X—ray Diffraction Test
1 : Stable Isotope Analysis (8C,80)
F: Fluid Inclusion Test
R: Resistivity and Chargeability Test

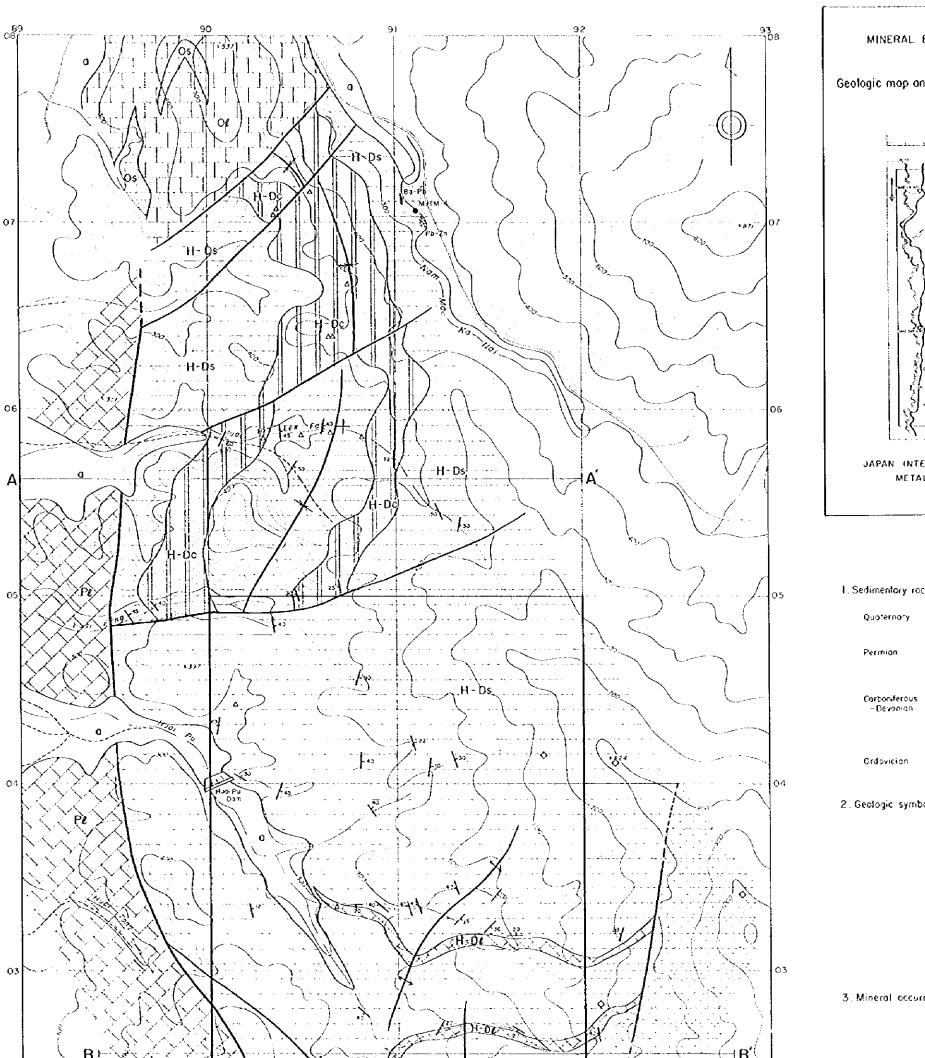


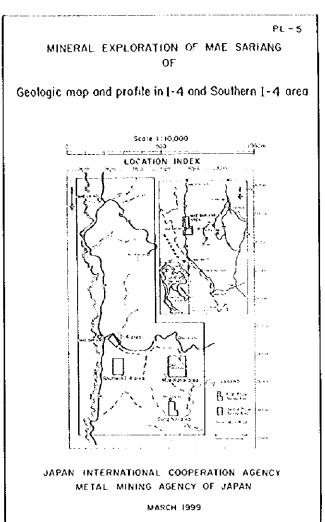
Rock Sample • MMR-QIIA, P.T. X, I,

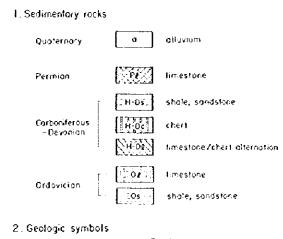
- A Ore Analysis
- P: Potished Section -
- T: Thin Section
- $X: X ray \ Diffraction \ Yest$
- 1: Stable Isotope Analysis: (80,801
- F: Fluid Inclusion Test -
- R: Resistivity and Chargeability Test

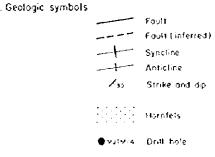


Rock Sample • MMR-DI(A,P,T,	X,1,5,R)
A: Ore Analysis	
P: Polished Section	
I: Thin Section	
X: X-ray Diffraction Test	
[: Stable Isotope Analysis (80,80)	
F: Fluid Inclusion Test	j
R: Resistivity and Chargeability To	est







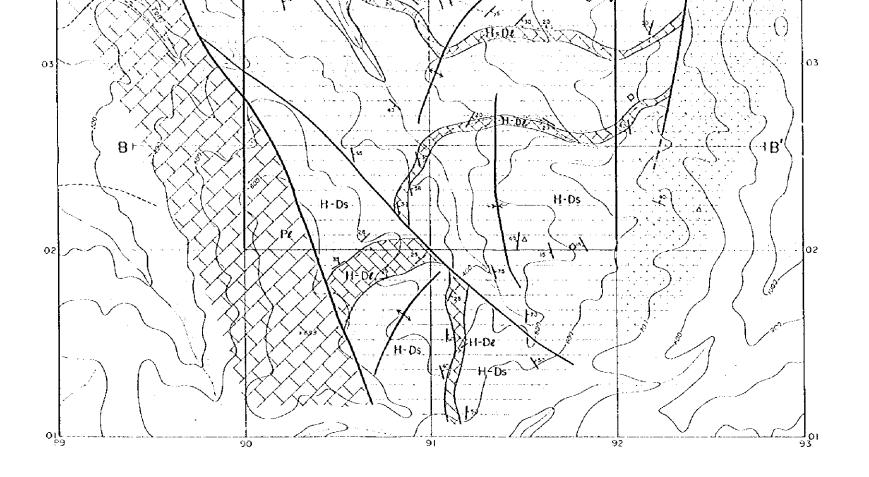


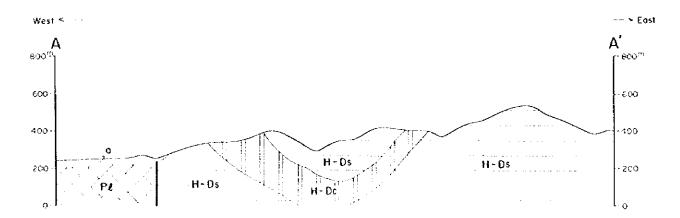
3. Mineral occurrence

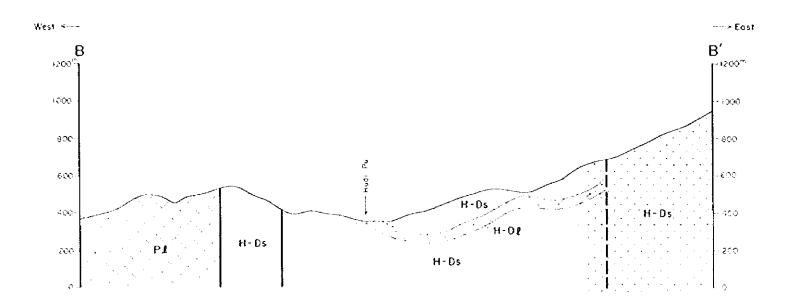
Pb-Zn -151- gatenal-sphalerite outcrop ∆ bande ± galeria float

quartz veintets

Al-----a' Profile line







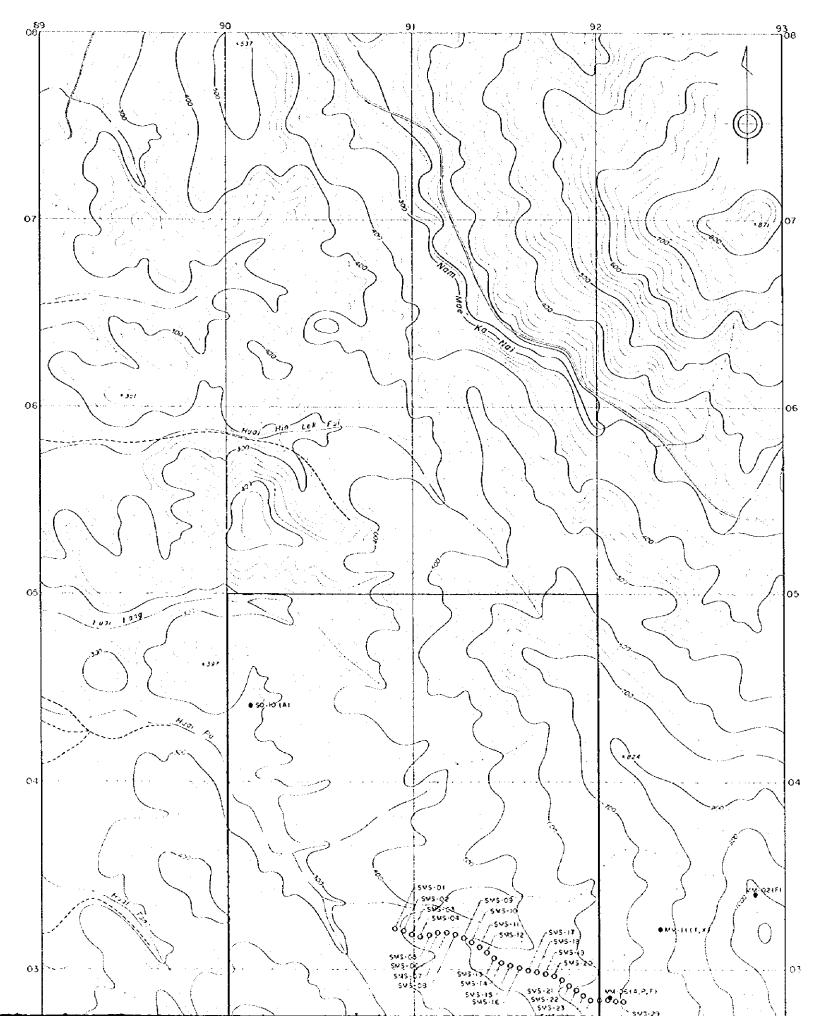
3. Mineral occurrence

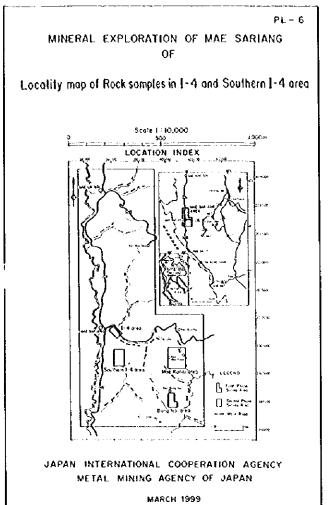
Pb-2n gatena-sphalarite outcrop

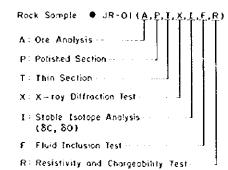
△ barite±gatena floot

◇ quartz veintets

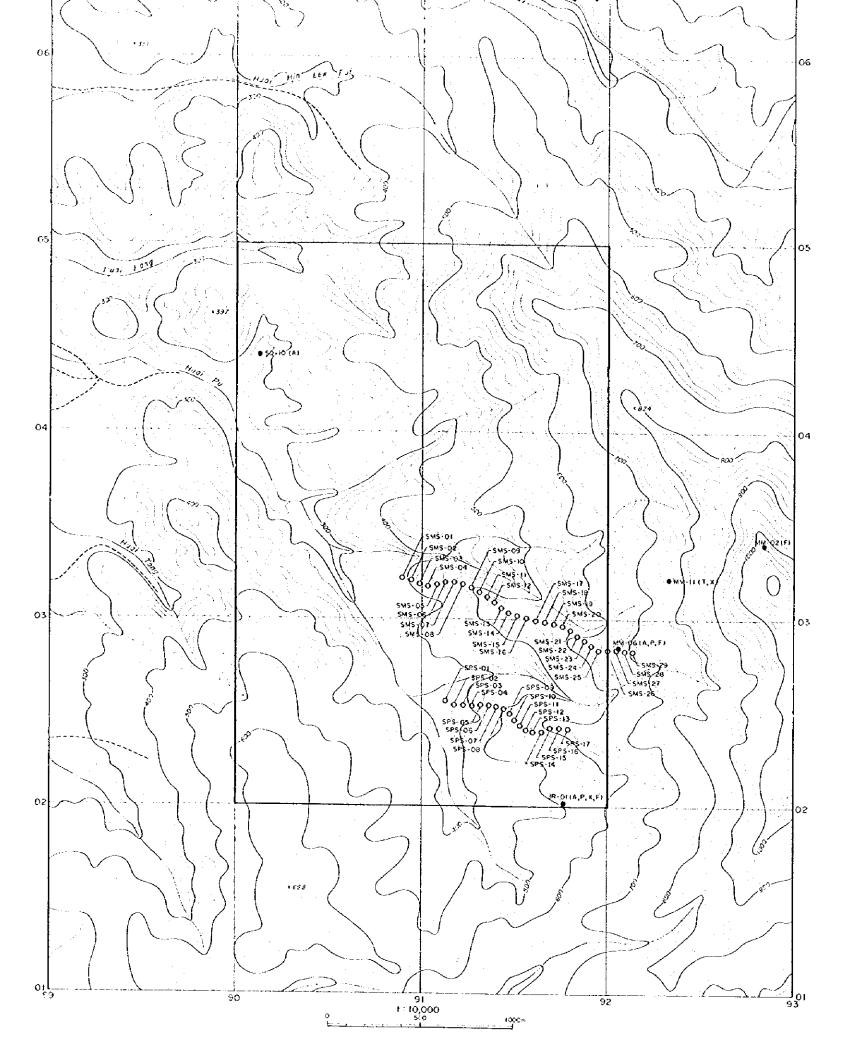
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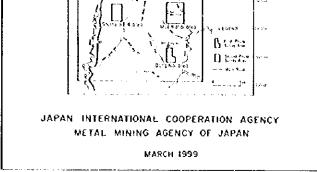


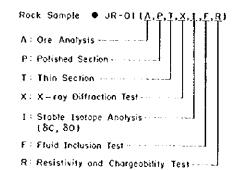




Soil Sample O SMS-01







Soil Sample O SMS-01

