TRENCH SKETCH

(Shows some sketch of presentative veins)

(K-47 : canal No. of old east German survey)

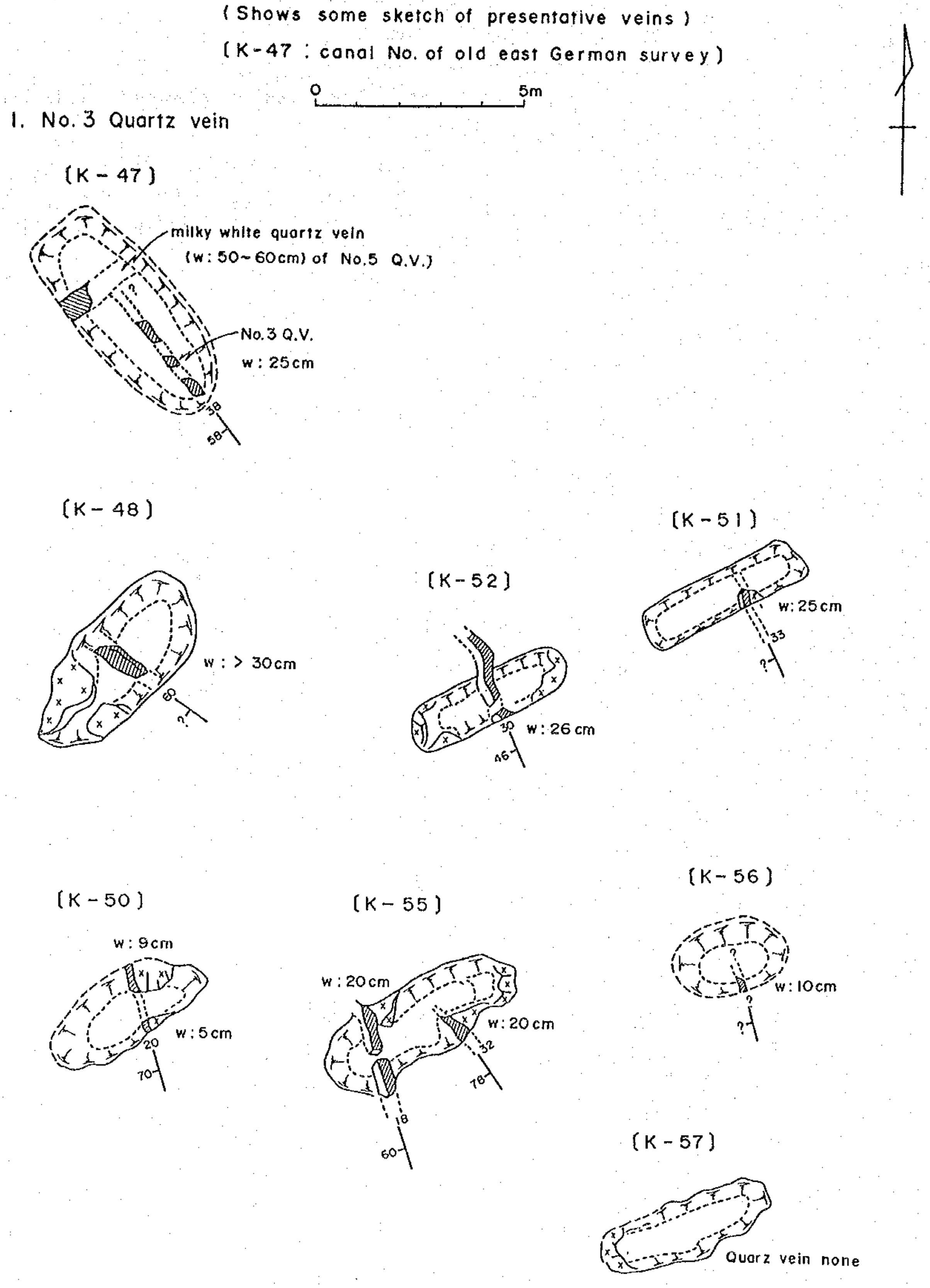


Fig. II-3-2 TRENCH SKETCH (I)

2. No.2 Quartz vein

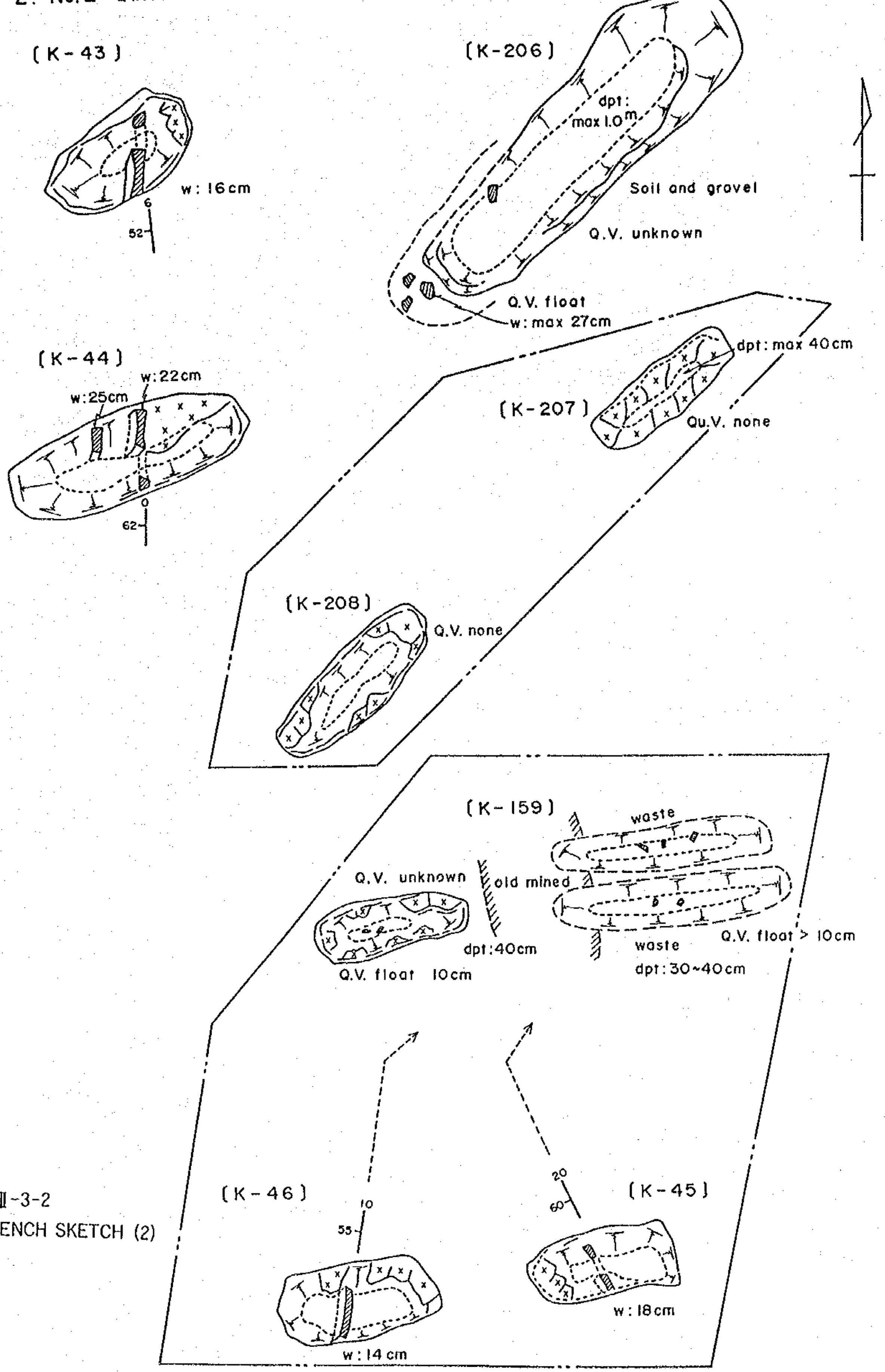


Fig. II-3-2
TRENCH SKETCH (2)

3. No. I Quartz vein

No. 9

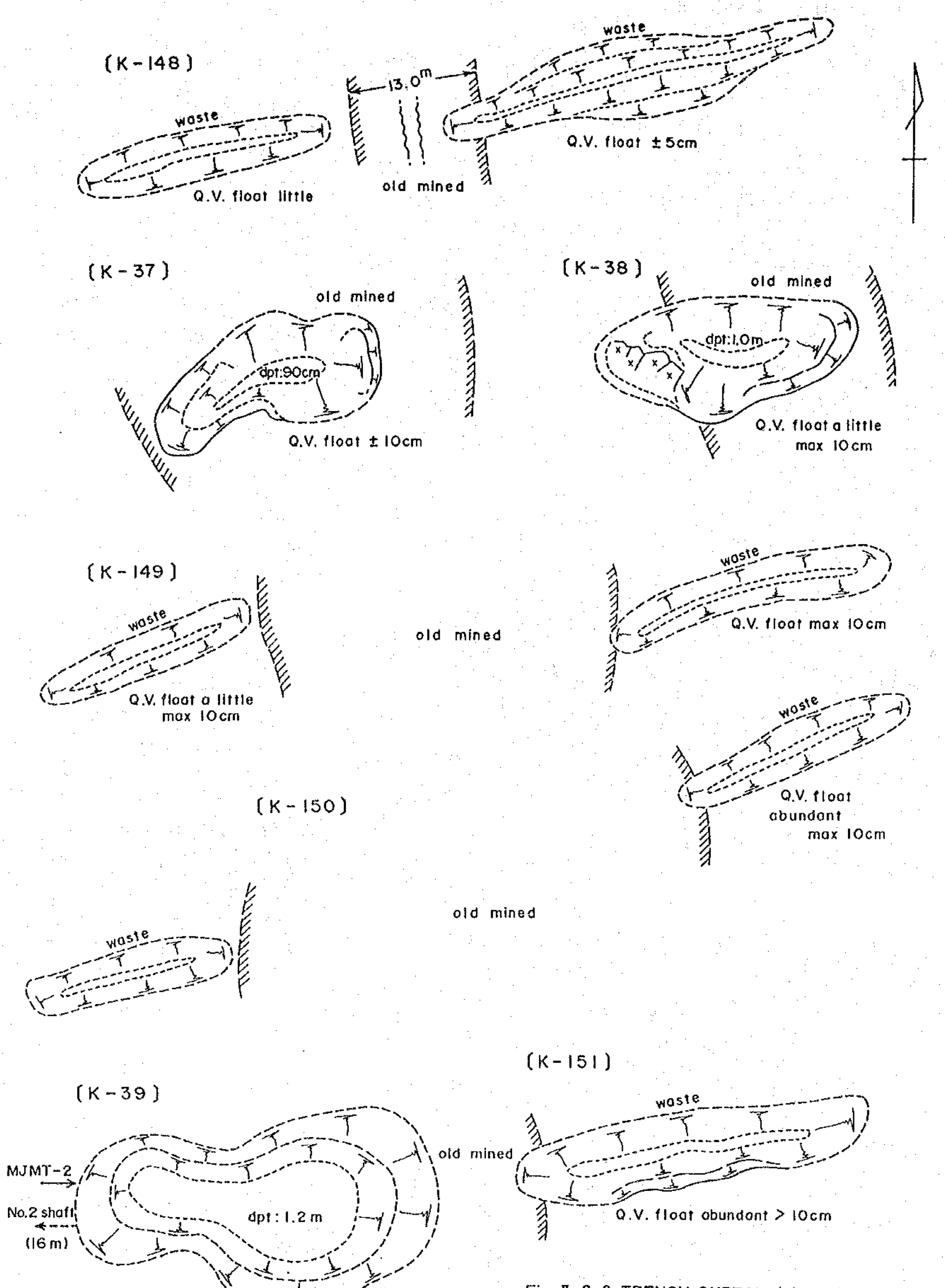


Fig. II-3-2 TRENCH SKETCH (3)

4. No. 6 Quartz vein

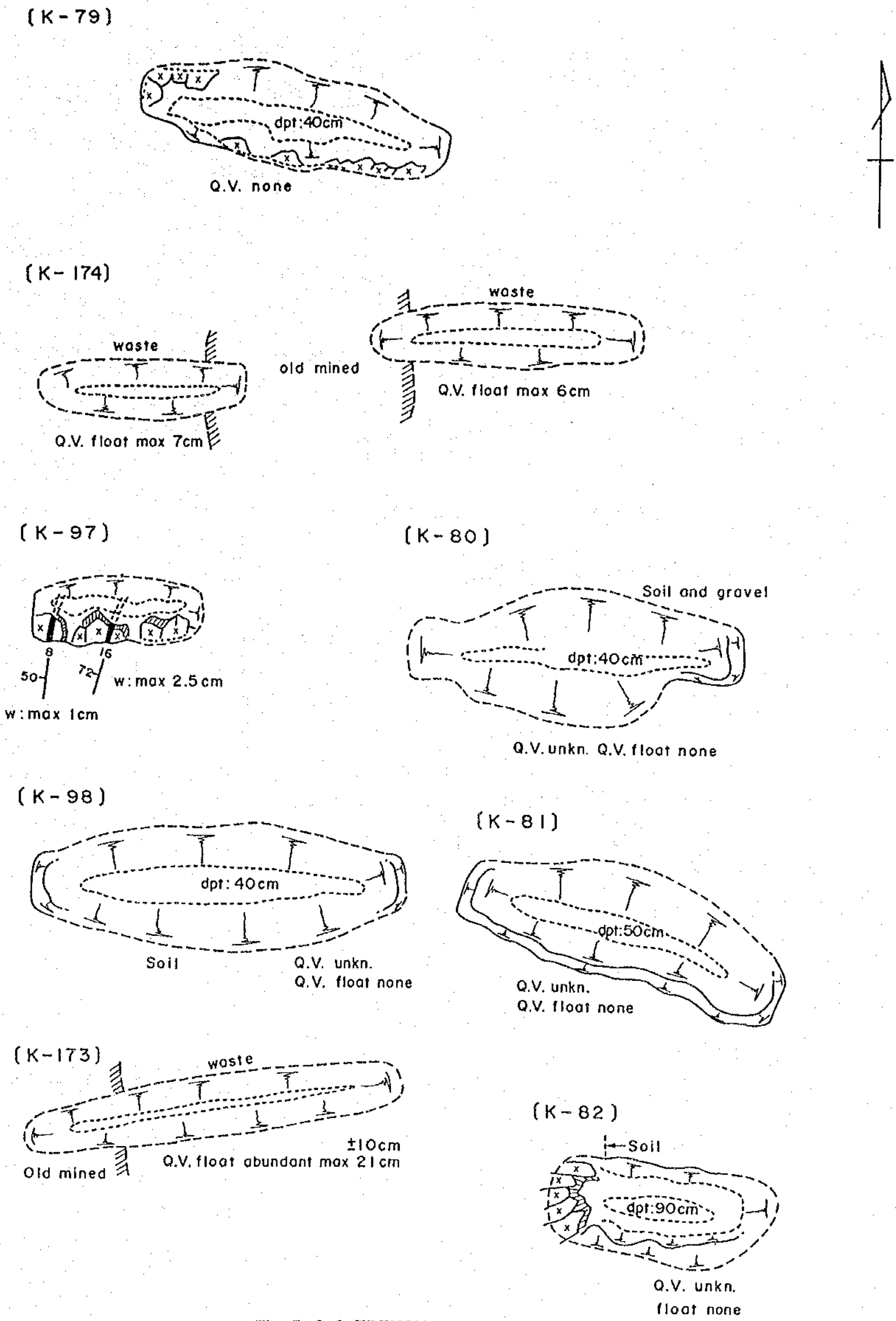


Fig. II-3-2 TRENCH SKETCH (4)

No.20

5. No.10 Quartz vein

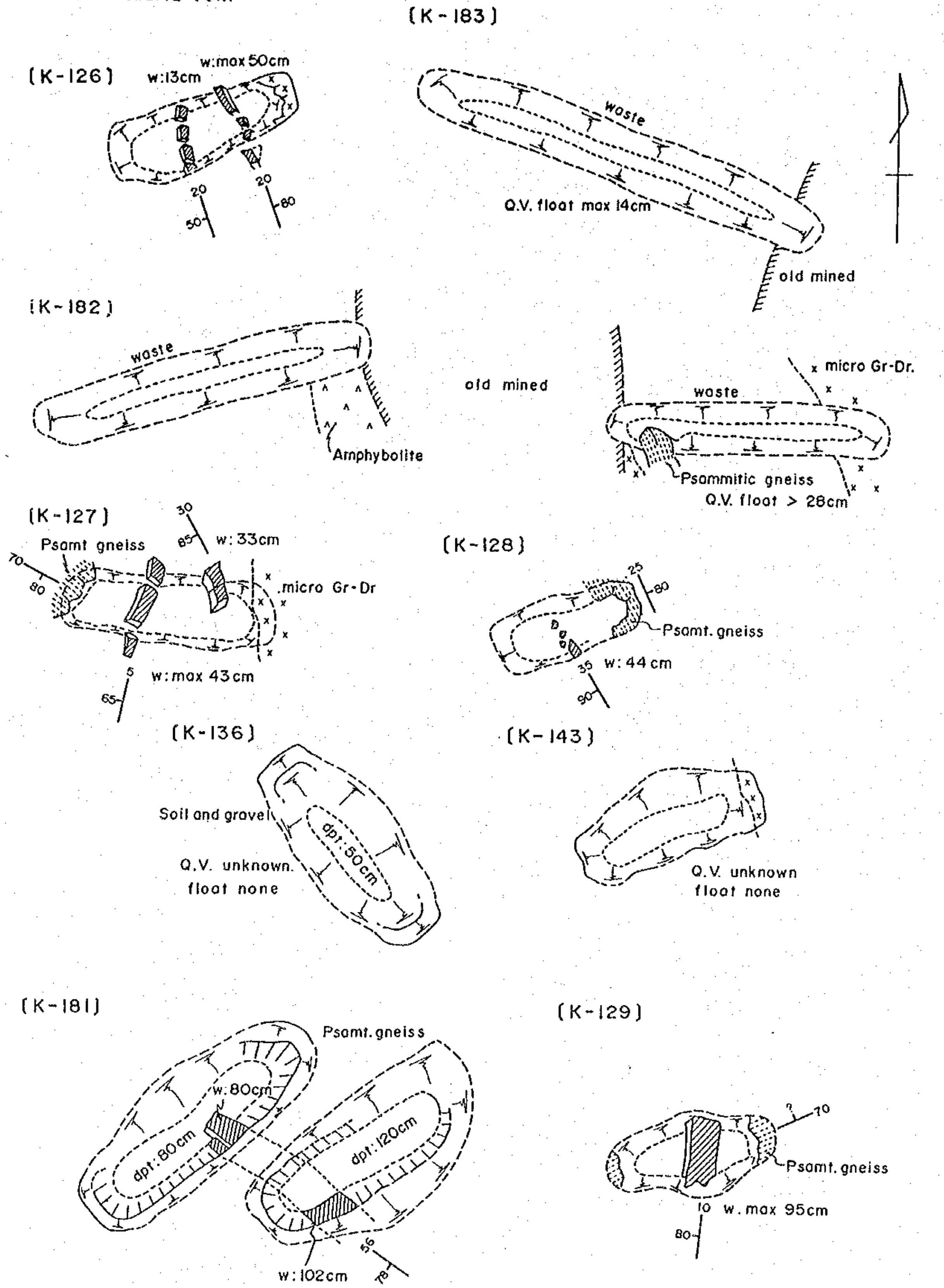


Fig. II-3-2 TRENCH SKETCH (5)

6. No. 9 Quartz vein

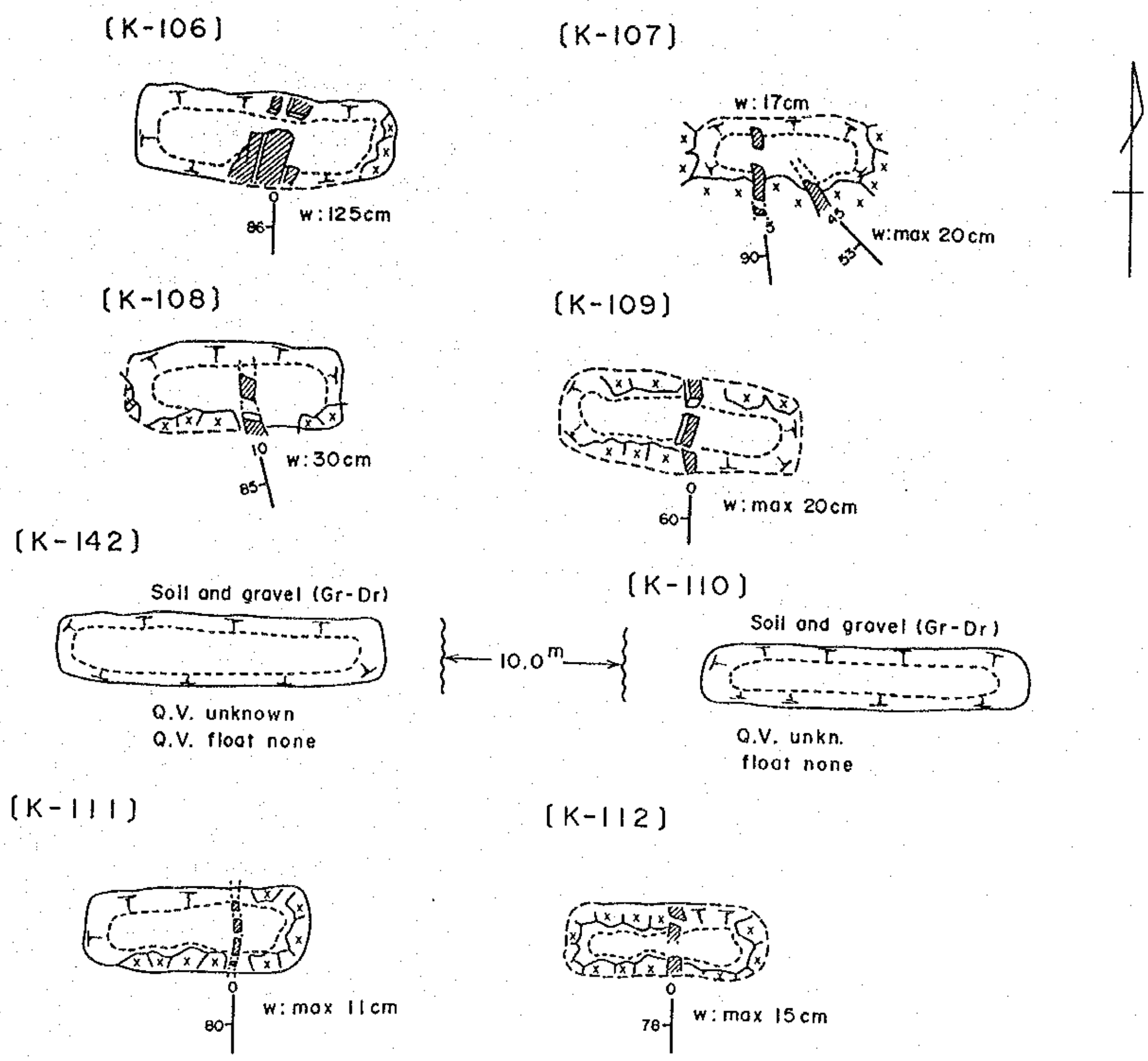


Fig. II-3-2 TRENCH SKETCH (6)

7. No. 8 Quartz vein

No.24

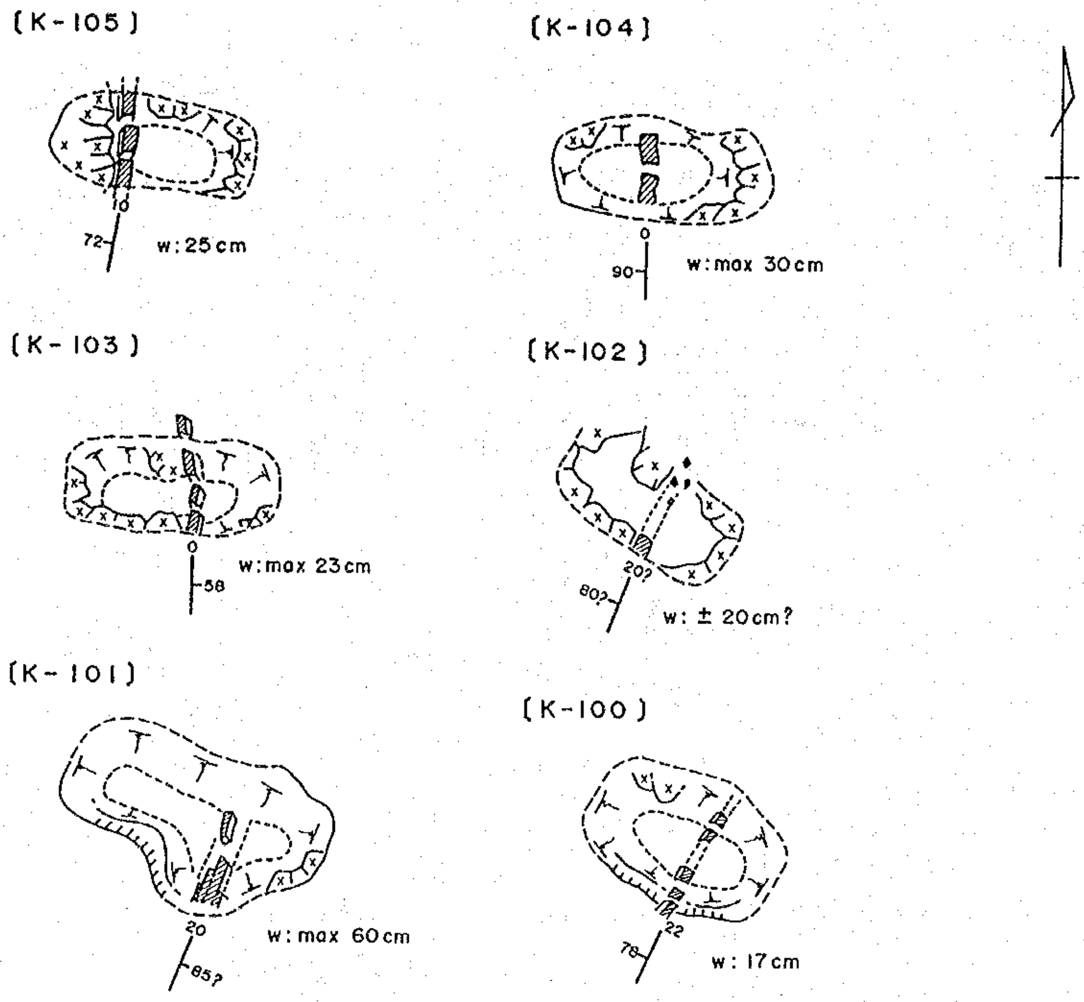


Fig. Ⅱ-3-2 TRENCH SKETCH (7)

No. 25

8. No. 7 Quartz vein

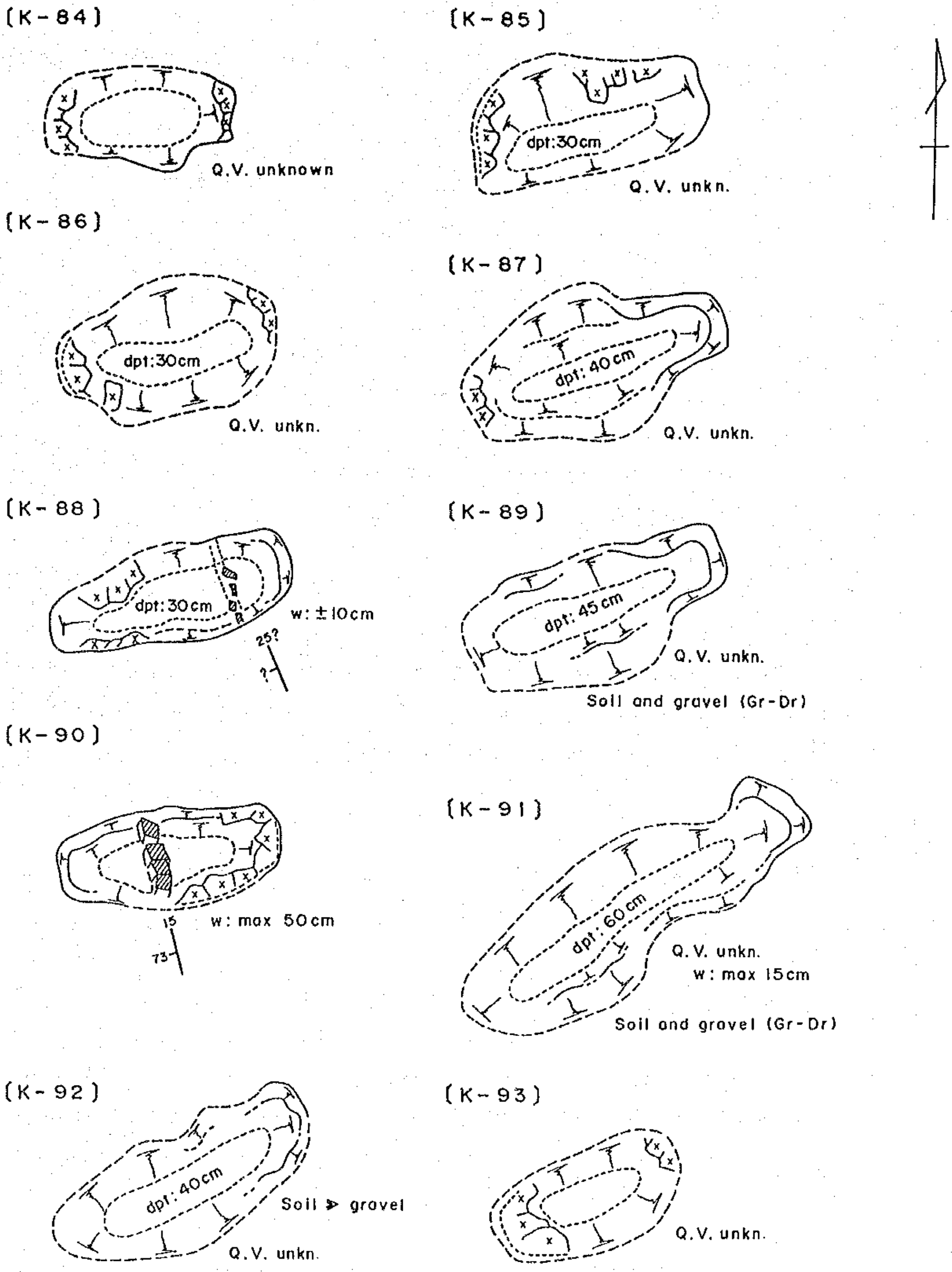


Fig. II-3-2 TRENCH SKETCH (8)

Chapter 4　Drilling survey

Drilling surveys were carried out for the lower parts of the quartz vein No. 10 and No. 1 for 1 hole each.　They are as　follows.

No.	Vein	Direction/inclination	Total depth
MJMT-1	No. 10	S72 °　W/-55 °	301.00m
MJMT-2	No. 1	S82 °　E/-74 °	301.70m

Fig. II-4-1 shows these locations.　The list of equipment used, the list of supplies, consumable, the result of drilling and the time table of drilling survey are shown in Table II-4-1, II-4-2, II-4-3 and II-4-4.

The geology is described below.　Geological columns for the 2 holes are shown in Fig. II-4-2 and II-4-3 and the geological profile of drilling is shown in Fig. II-4-4.

4-1　MJMT-1

1.　General geology

This hole located in the metamorphic rocks distribution area.　Geology of this hole is mainly composed of psammitic gneiss and tuffaceous-basic gneiss, accompanied small bodies ～ dikes such as biotite adamellite, amphibolite and pegmatite.

1) Psammitic gneiss

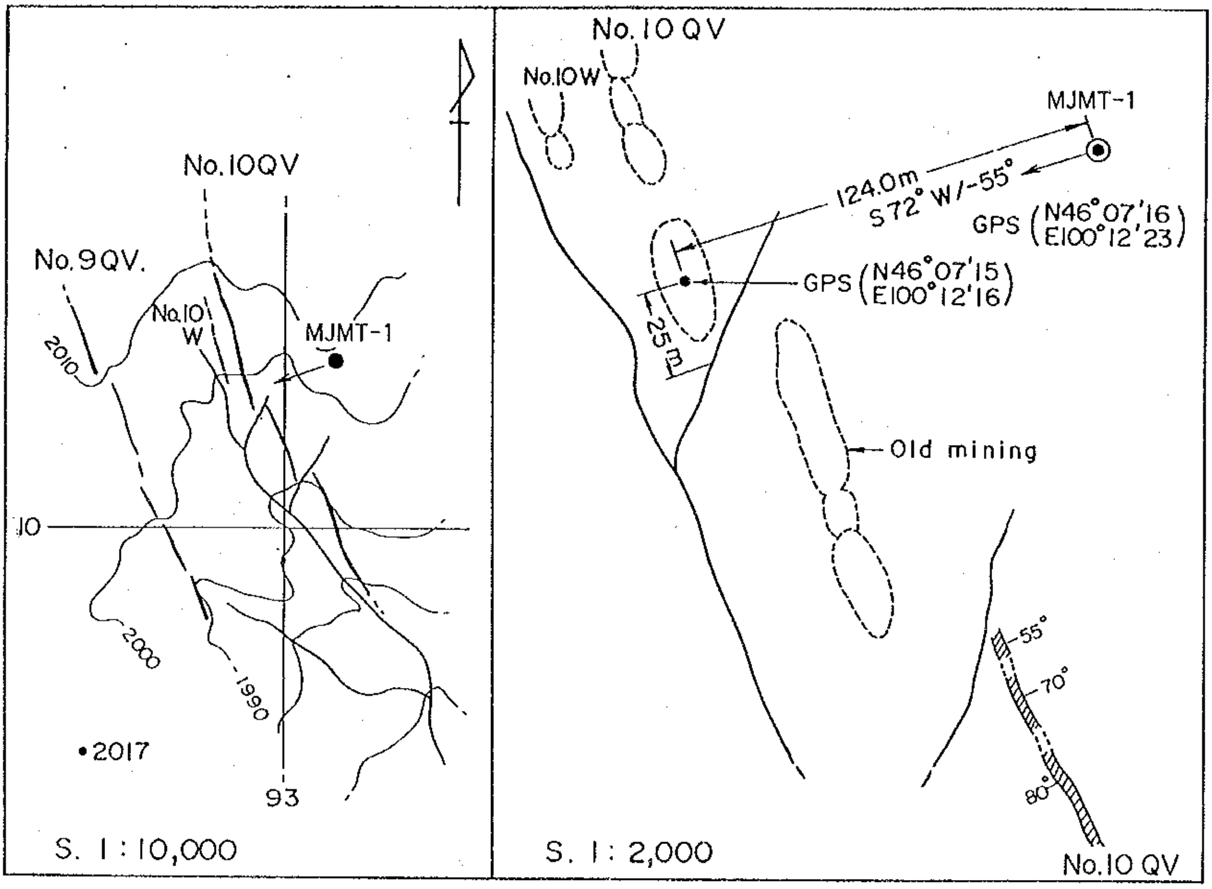
This rock occurred in all depths.　And have gray ～ dark gray and bright brown colors, medium grained equigranular's texture and have banded structure common.　The inclination of banded structure is 20 to 60 degrees to the core.　As a consideration of inclination of the hole, it's estimated to be the steep inclination of 60 to 90 degrees which is almost samely with surface structure.

According to microscopic observation of thin section (No.4, 8, see Table II-4-5) this rock have gneissose structure and consists mainly quartz and accompanied of small amount of augite, plagioclase, calcite, sphene(?), muscovite, biotite and opaque minerals.　The degree of alteration is high and plagioclases are selectively altered.

2) tuffaceous to basic gneiss

This rock occurs in the depth of 200 to 250m presenting various colors such as bright green and brown gray, and have somewhat heterogeneous texture, laminar structure and banded

MJMT-1



MJMT-2

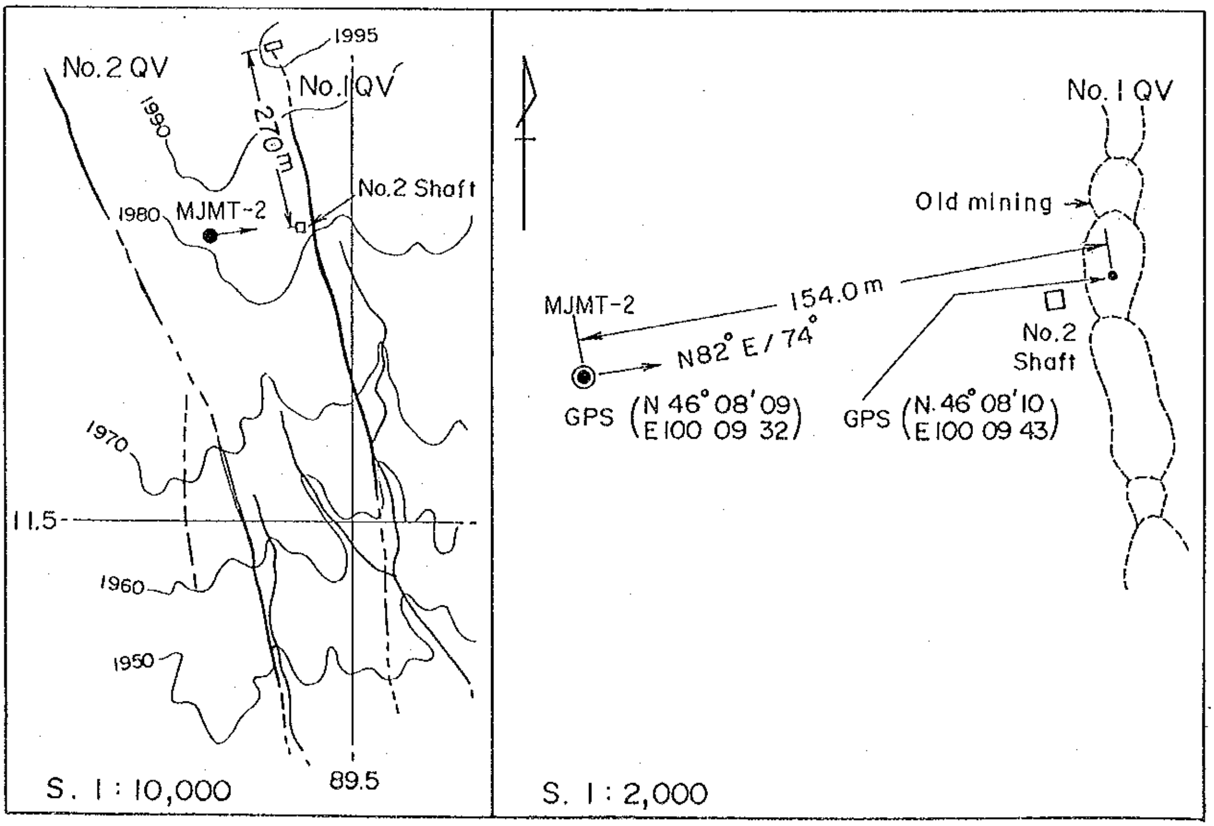


Fig. II-4-1 Location of drilling holes

Table Ⅱ-4-1 List of equipment used

Iitem	Specification	Quantity
Drilling machine	Longyear 38	2pcs
Ddrilling mast		2pcs
Generator	DCA-90SPH	2pcs
Mud pomp	NAS-3	2pcs
Mixer		2pcs
Wire line hoist		2sets
Core barrel assembly	NQ	2sets
Core barrel assembly	BQ	2sets
Inner tube assembly	NQ	2sets
Inner tube assembly	BQ	2sets
Drilling rod	NQ-WL 159 x 3m	477m
Drilling rod	BQ-WL 240 x 3m	720m
Casing pipe	114.3mm 10 x 3m	30m
Casing pipe	88.9mm 30 x 3m	90m
Casing pipe	73.0mm 140 x 3m	420m

Table Ⅱ-4-2 List of suplies and consumables

Item	Specification	Quantity
Diamond bit	NQ (impregnated)	4pcs
Diamond bit	BQ (impregnated)	2pcs
Metal crown		2pcs
Reaming shells	NQ	3PCS
Reaming shells	BQ	1PCS
Core lifter	NQ	6PCS
Core lifter	BQ	4PCS
Stabilizer	NQ	1PCS
Stabilizer	BQ	4PCS
Bearing	every kind	11pcs
Telcerose	TE-D 8 x 20kg	160kg
Polimer	TK-60B 3 x 20kg	60kg
Libonite	25x 20kg	500kg
Cement	20x 40kg	800kg
Diesel		4,910Litles
Engine oil		120Litles

Table II-4-3 Result of drilling

(MJMT-1)

Class	Working Period	Total Working Days: Day	Total Working Days: Shift	Day Off: Day	Day Off: Shift	True Working Days: Day	True Working Days: Shift	True Working Days: Drilling Shift	True Working Days: Worker	Rem.
Preparation	96/09/08~96/09/13	6	6	0	0	6	6	0	12	8h/shift
Drilling	96/09/14~96/10/02	19	38	0	1	19	37	37	38	12h/shift
Withdraw	96/10/03~96/10/08	6	6	0	0	6	6	0	12	8h/shift
Inspection, Safekeeping	96/10/09~96/10/13	5	5	0	0	5	5	0	10	8h/shift
Total	96/09/08~96/09/13	36	55	0	1	36	54	37	72	

Drilling Depth

Planned Depth	300.00m		
Additional Depth	1.00m	Core Length	300.00m
Total Depth	301.00m	Recovery	99.67%

Core Recovery par each 100m

Depth(m)	Core Length and Core Recovery		Cumulative Total
0.00m~ 3.50m	2.50m	71.43%	71.43%
3.50m~100.30m	96.80m	100.00%	99.00%
100.30m~194.50m	94.20m	100.00%	99.48%
194.50m~301.00m	106.50m	100.00%	99.67%

Working Time

Drilling	301.0h	63.8%	49.5%
Without Drilling	133.0h	28.2%	21.9%
Accident Recovery	0.0h	0.0%	0.0%
Water Transportation	38.0h	8.0%	6.3%
Others	0.0h	0.0%	0.0%
Sub-total	472.0h	100.0%	

Moved Out and In

Rig Up	51.0h		8.4%
Tear Down	45.0h		7.4%
Inspection, Safekeeping	40.0h		6.6%
Total	608.0h		100.0%

Drilling Efficiency

Drilling Depth(m)/Total Working Days	8.36m/day
Drilling Depth(m)/Total Shift	5.47m/shift
Drilling Depth(m)/True Working Days	15.84m/day
Drilling Depth(m)/Drilling Shift	8.14m/shift
Drilling Depth(m)/Total Workers	4.18m/worker
Drilling Depth(m)/Actual Drilling Workers	7.92m/worker
Total Workers/Total Depth(m)	0.24 worker/m
Actual Drilling Workers/Total Depth(m)	0.13 worker/m

Casing

Casing Depth and Size (m)		Casing Ratio (%)	Casing Pipe Recovery (%)
114.3mm	7.5m	2.5%	100%
88.9mm	7.5m	2.5%	100%
73.0mm	152.9m	50.8%	100%

(MJMT-2)

Class	Working Period	Total Working Days: Day	Total Working Days: Shift	Day Off: Day	Day Off: Shift	True Working Days: Day	True Working Days: Shift	True Working Days: Drilling Shift	True Working Days: Worker	Rem.
Preparation	96/09/08~96/09/13	6	6	0	0	6	6	0	12	8h/shift
Drilling	96/09/14~96/10/04	21	42	0	1	21	41	41	42	12h/shift
Withdraw	96/10/05~96/10/09	5	5	0	0	5	5	0	10	8h/shift
Inspection, Safekeeping	96/10/10~96/10/13	4	4	0	0	4	4	0	8	8h/shift
Total	96/09/08~96/09/13	36	57	0	1	36	56	41	72	

Drilling Depth

Planned Depth	300.00m		
Additional Depth	1.00m	Core Length	300.50m
Total Depth	301.00m	Recovery	99.83%

Core Recovery par each 100m

Depth(m)	Core Length and Core Recovery		Cumulative Total
0.00m~ 99.30m	98.80m	99.50%	99.50%
99.30m~200.20m	100.90m	100.00%	99.75%
200.20m~301.00m	100.80m	100.00%	99.83%

Working Time

Drilling	349.0h	67.1%	53.2%
Without Drilling	124.0h	23.8%	18.9%
Accident Recovery	0.0h	0.0%	0.0%
Water Transportation	47.0h	9.0%	7.2%
Others	0.0h	0.0%	0.0%
Sub-total	520.0h		

Moved Out and In

Rig Up	51.0h		7.8%
Tear Down	45.0h		6.9%
Inspection, Safekeeping	40.0h		6.1%
Total	656.0h		100.0%

Drilling Efficiency

Drilling Depth(m)/Total Working Days	8.36 m/day
Drilling Depth(m)/Total Shift	5.28 m/shift
Drilling Depth(m)/True Working Days	14.33 m/day
Drilling Depth(m)/Drilling Shift	5.28 m/shift
Drilling Depth(m)/Total Workers	4.18 m/worker
Drilling Depth(m)/Actual Drilling Workers	7.17 m/worker
Total Workers/Total Depth(m)	0.24 worker/m
Actual Drilling Workers/Total Depth(m)	0.14 worker/m

Casing

Casing Depth and Size (m)		Casing Ratio (%)	Casing Pipe Recovery (%)
114.3mm	3.0m	1.0%	100%
88.9mm	3.0m	1.0%	100%

Table Ⅱ-4-4 Time table of drillings

Drilling No.	Works	September , 1996 (10, 20)	October, 1966 (10, 20)	Remark: Dir.	Inc.	Depth	Recovery
MJMT-1	Set up	8—13		S57° W	-55°	301.0m	99.67%
	Drilling	14—	—2				
	Withdraw		3—8				
	Safe keeping		9—13				
MJMT-2	Set up	8—13		N82° E	-74°	301.7m	99.83%
	Drilling	14—	—4				
	Withdraw		5-9				
	Safe keeping		10-13				

MJMT−1 (1) 0m ~ 100m

Depth (m)	Geologic Column	Rock Name	Description	Vein	Alteration	Sample No.	From (m)	To (m)	Length (m)	Chemical Analysis Au (g/t)	Ag (g/t)	As (ppm)	Sb (ppm)	ρ
		soil												
1.00		Psammitic Gneiss	pale grey, medium grain, recrystalline, banded structure : 30°											
3.90		Fault breccia	dark gray, brittle											
5.50		Psammitic Gneiss												
7.50		Pegmatite dyke	Pegmatite : plagioclase or orthoclase crystal, φ ± 1cm											
7.90														
10.20		Adamellite	pale grey, medium grain, biotite contain, muscovite none?											
12.40														
12.70														
14.70		Psammitic Gneiss												
15.70		Adamellite												
18.10		Psammitic Gneiss	banded structure : 20°											
19.10														
20.00		Adamellite	medium grain											
25.90		Psammitic Gneiss	medium grain, banded structure : 15°	27.9m~Q.V. width :0.5~1.0cm										
30.00														
32.70		Adamellite												
36.00		Amphibolite (dyke)	dark green, ultrabasic?, massive, week banded structure : ±30°											
38.50		Adamellite												
40.40		Pegmatite dyke												
		Amphibolite	dark green~black, ultrabasic tuff? week banded structure : ±30°	43.0m~Q.V. width:1.0cm 46.5m~Q.V. width:1.5cm		1 A 1 T 2 A	43.00 44.50 46.50	43.05 44.58 46.55	0.05 0.08 0.05	< 0.1 < 0.1	0.2 0.1	< 1 2	< 1 < 1	44.60
47.50		Psammitic Gneiss												
51.50		Adamellite	midium grain			2 T	55.90	55.94	0.04					
56.80		Pegmatite dyke	contain large orthoclase or plagioclase crystals, max φ1.5cm											56.00
57.60		Adamellite	meduum grain											
60.00														
63.30		Psammitic Gneiss	63.37m~63.50m Pegmatite + Quartz.			3 A 4 A 5 A	63.37 65.20 66.80	63.50 65.25 66.87	0.13 0.05 0.07	< 0.1 < 0.1 < 0.1	< 0.1 0.2 0.3	< 1 < 1 < 1	< 1 < 1 < 1	
65.70		Adamellite		65.2m~Q.V. width:2.0cm 66.8m~Q.V.										
68.50														68.50
70.00		Tuffaceous Gneiss	dark green~black, ultrabasic, biotite abundaut banded structure : 45°~60°											
74.60		Adamellite												
75.70		Psammitic Gneiss	pale~dark grey, medium grain, hollo crystalline(recryst). contain biotite common banded structure : 15°~30°			3 T	75.20	75.25	0.05					75.25 77.90
80.00			75.7m~111.0m many fine grain Adamellite (dyke~sheet) intercalated											87.20
90.00			93.2m~width:4.0cm, 97.2m~width:5.0cm, 98.8m~width:2.0cm } Pegmatite dyke	94.58m~Q.V. width:2.0cm		6 A 7 A 8 A 9 A	93.20 94.58 97.20 98.80	93.28 94.75 97.40 98.85	0.08 0.17 0.20 0.05	< 0.1 < 0.1 < 0.1 < 0.1	< 0.1 0.2 0.1 0.2	< 1 < 1 < 1 < 1	< 1 < 1 < 1 < 1	

Sample (A-Chemical Analysis; P-Polish Section; T-Thin Section; X-X-ray; F-Fluid Inclusion) ρ :Physical property test

Fig Ⅱ-4-2 Column of MJMT-1(I)

MJMT−1 (2) 100m ~ 200m

Depth (m)	Geologic Column	Rock Name	Description	Vein	Alteration	Sample No.	Sample From (m)	Sample To (m)	Sample Length (m)	Chemical Analysis Au (g/t)	Chemical Analysis Ag (g/t)	Chemical Analysis As (ppm)	Chemical Analysis Sb (ppm)	ρ
		Psammitic Gneiss	ditto to 75.7~100m 100.1m~width:5.0cm ┬ Pegmatite dyke 102.5m~width:4.0cm ┘			10 A	100.10	100.20	0.10	< 0.1	< 0.1	< 1	< 1	
110.00														
111.00		Adamellite	pale grey, medium grain											
113.00		Psammitic Gneiss	medium grain, banded struvture : 15°, partly massive			4 T	115.60	115.65	0.05					115.00
116.00		Adamellite	grey, coarse grain, biotite many, muscovite none?											
120.00														120.40
125.65		Psammitic Gneiss	brownish, source : basic rock origin											
127.50		Adamellite	grey cource, mafic % (biotite, horblende) abundant											127.00
130.00														
133.70 134.20		Pegmatite dyke												
135.35		Psammitic Gneiss	dark grey, banded structure : 40°											
140.00		Adamellite												140.00
142.60		Pegmatite dyke >Psammitic Gneiss	Pegmatite // Psammitic Gneiss alternation like banded structure : 15°			5 T	146.00	146.04	0.04					146.04
148.70														
150.00		Psammitic Gneiss	pale brown, fin grain, banded structure : 15° banded structure : 30° banded structure : 60°											
160.00			banded structure : 65° banded structure : 45°											
164.70		Adamellite	grey, fin~medium											164.30
167.45		Psammitic Gneiss				1 X	169.50	169.75	0.25					
170.00 171.35 172.00		Pegmatite dyke												
173.90		Adamellite												
174.90		Psammitic Gneiss												175.90
176.65		Pegmatite dyke												
176.90		Pegmatite// Psammitic Gneiss	migmatite like											
180.00														
181.50		Pegmatite dyke												
181.95		Adamellite	grey, fin~medium											
184.60		Psammitic Gneiss	grey, fin											
185.90		Adamellite	grey, midium biotite rich											
190.00														
192.70		Psammitic Gneiss	brown, basicrock origin, banded structure : 45°~60°											
194.60		Adamellite	grey, fin~medium	199.1m~Q.V. width:6.0cm										
196.40		Tuffaceous Gneiss	pale green, basic tuff origin	199.57m~Q.V. width:10.5cm		11 A	199.10	199.25	0.15	< 0.1	0.3	10	4	
				199.98m~Q.V. width:4.0cm		12 A	199.57	199.70	0.13	< 0.1	0.2	< 1	< 1	
						13 A	199.98	200.20	0.22	< 0.1	0.2	< 1	< 1	

Sample (A-, Chemical Analysis; P-, Polish Section; T-, Thin Section; X-, X-ray; F-, Fluid Inclusion)

ρ :Physical property test

Fig Ⅱ-4-2 Column of MJMT-1(2)

MJMT－1 (3) 200m ～ 300m

Depth (m)	Geologic Column	Rock Name	Description	Vein	Alteration	Sample No.	From (m)	To (m)	Length (m)	Au (g/t)	Ag (g/t)	As (ppm)	Sb (ppm)	ρ
		Tuffaceous Gneiss	pale green, basic, banded structure : 45°～60°	200.1m～Q.V., width:8.0cm	Chloritization?	14 A	200.10	200.20	0.10	< 0.1	0.1	< 1	< 1	
						2 X	200.30	200.35	0.05					
				200.86m～Q.V., width:2.5cm		3 X	200.90	200.95	0.05					
						4 X	201.50	201.55	0.05					203.60
204.20		Tuffaceous Gneiss	dark brown～black, basic, amphybolitic, banded structure : 40° be cutted by Grano diorite and Pegmatite dyke(width:5～20cm)	201.6m～Q.V., width:14.0cm		15 A	201.60	201.74	0.14	< 0.1	0.2	< 1	< 1	
						16 A	201.94	202.05	0.11	< 0.1	< 0.1	< 1	< 1	
				201.83m～Q.V., width:1.5cm		5 X	202.40	202.43	0.03					
						17 A	202.46	202.58	0.12	< 0.1	0.6	< 1	< 1	
				201.94m～Q.V., width:11.0cm		18 A	202.58	202.68	0.10	< 0.1	0.9	< 1	< 1	
						19 A	202.68	202.78	0.10	< 0.1	0.1	< 1	< 1	
210.00				202.48m～Q.V., width:74.0cm		20 A	202.78	202.88	0.10	< 0.1	0.3	< 1	< 1	
						1 F	202.78	202.88	0.10					
212.60						21 A	202.88	202.98	0.10	< 0.1	0.2	< 1	< 1	
		Adamellite	grey, medium, mafic M(biotite) common			22 A	202.98	203.08	0.10	< 0.1	2.1	< 1	< 1	
214.90						1 P	202.98	203.08	0.10					
		Tuffaceous Gneiss	dark brown～pale green(altered?), basic laminated → banded structure : 55°～60° coloured dark brown part → amphybolite like			23 A	203.08	203.20	0.12	< 0.1	0.4	1	< 1	
						2 F	203.08	203.20	0.12					
						6 X	203.30	203.35	0.05					
						6 T	209.20	209.25	0.05					
220.00														
221.50		Adamellite	grey, medium grain											
224.60		Pegmatite dyke												
225.10		Adamellite	grey, fin～medium grain											
227.30		Pegmatite dyke	contain large orthoclase crystals augen gneiss like											
228.50		Tuffaceous Gneiss	dark brown～pale green, fin grain, basic			7 T	229.20	229.23	0.03					
230.00			banded structure : 30°～60° Pegmatite, Adamellite (width:10～40cm) intercalated											
240.00														
240.30		Adamellite	grey, medium, mafic M common											
242.00		Psammitic Gneiss	grey psammitic gneiss / dark brown psammitic, tuffaceous gneiss alternated, laminated, 40°～80° bended amphybolite like											245.30
250.00		Psammitic Tuffaceous Gneiss Alternation												
260.00						8 T	260.70	260.75	0.05					
262.70		Pegmatite dyke												
263.35														
263.70		Adamellite	grey, medium											
266.15		Tuffaceous～Psammitic Gneiss	grey～brown	266.05m～Q.V., width:8.0cm 268.3m～Q.V., width:2.5cm		24 A	266.05	266.15	0.10	< 0.1	< 0.1	2	< 1	
270.00				270.85m～Q.V., width:2.5cm										
271.50		Adamellite												273.00
276.20		Amphibolite Gneiss	dark green, banded, homogeneous. tuffaceous gneiss like (partly)											
280.40		Pegmatite dyke												
		Amphibolite Gneiss	ditto											
289.40														
290.00		Tuffaceous Gneiss	dark green, basic, homogeneous banded structure : ±40°			9 T	290.00	290.04	0.04					
						7 X	298.50	298.55	0.05					
						25 A	298.66	298.84	0.18	< 0.1	< 0.1	2	< 1	
						2 P	298.66	298.84	0.18					
						26 A	298.84	299.04	0.20	< 0.1	5.4	1	< 1	
						3 P	298.84	299.04	0.20					
						3 F	298.84	299.04	0.20					296.00
297.50		Pegmatite dyke	Quartz vein, contain very small amount of Pyrite > galena > Zincblende			27 A	299.04	299.24	0.20	< 0.1	10.9	1	< 1	
298.10				298.66m～Q.V., width:58cm		4 P	299.04	299.24	0.20					
301.00		Adamellite	green, medium			8 X	299.30	299.35	0.05					

Sample (A-,Chemical Analysis; P-,Polish Section; T-,Thin Section; X-,X-ray; F-,Fluid Inclusion)   ρ :Physical property test

Fig Ⅱ-4-2 Column of MJMT-1(3)

MJMT−2 (1)

0m ～ 100m

Depth (m)	Geologic Column	Rock Name	Description	Vein	Alteration	Sample No.	Sample From (m)	Sample To (m)	Sample Length (m)	Chemical Analysis Au (g/t)	Chemical Analysis Ag (g/t)	Chemical Analysis As (ppm)	Chemical Analysis Sb (ppm)	ρ
0.30		Soil												
2.70			oxided crack dominant, brittle brokened core											
		Two mica Grano diorite	gray(gry), medium(med)～coarse(crs) grain hollo crystalline, homogeneus(homog) phenocryst : quatrz, biotite, muscovite, plagioclase, hornblende, ironmineral											
10.90														
12.40			oxided crack dominant, core brokened.											
20.00			25.1m～25.45m, width:35cm		Argillized	9 X	25.10	25.45	0.35					
			25.9m～26.05m, width:15cm		Argillized	28 A	25.90	26.05	0.15	< 0.1	0.2	13	< 1	
						10 A	25.90	26.05	0.15					
30.00			85°	30.86m～Q.V. width:0.8cm										
			80° 37.55m～37.7m, width:15cm	36.84m～Q.V. width:0.5cm	Argillized	11 X	37.55	37.70	0.15					
40.00						10 T	40.50	40.53	0.03					40.53
			40°	43.9m～Q.V. width:1cm		29 A	43.90	43.95	0.05	< 0.1	< 0.1	10	< 1	
						12 X	43.90	43.95	0.05					
			60°	46.7m～Q.V. width:2.5cm		30 A	46.70	46.75	0.05	< 0.1	< 0.1	2	< 1	
49.10		clay vein	width:1.0cm, 55°			13 X	49.10	49.15	0.05					
50.00			25°	59.1～Q.V. width:0.5cm										
60.00														
63.50			63.5m～74.0m oxide crack abundant RQD 20～30%											
70.00			71.3m～71.6m, width:30cm	71.9m～Q.V. width: 0.5～2.0cm	Argillized	14 X	71.30	71.60	0.30					
						31 A	71.90	71.95	0.05	< 0.1	0.2	11	< 1	
74.00						15 X	71.90	71.95	0.05					
80.00			81.5m～82.6m, width:0.5cm, veinlike		Argillized	16 X	81.50	82.60	1.10					
90.00			92.55m～93.05m, clay vein width:0.5～2.0cm			17 X	92.55	93.05	0.50					
				93.03m～Q.V. width:1.5cm	Argillized	32 A	93.03	93.08	0.05	< 0.1	< 0.1	4	< 1	
						18 X	93.03	93.08	0.05					
				97.3m～Q.V. width:1.5cm 99.3m～Q.V. width:0.5cm		33 A	97.30	97.35	0.05	0.6	< 0.1	113	< 1	

Sample (A-,Chemical Analysis; P-,Polish Section; T-,Thin Section; X-,X-ray; F-,Fluid Inclusion)

ρ :Physical property test

Fig Ⅱ-4-3 Column of MJMT-2(1)

MJMT－2 (2)　　　100m ～ 200m

Depth (m)	Geologic Column	Rock Name	Description	Vein	Alteration	Sample No.	From (m)	To (m)	Length (m)	Au (g/t)	Ag (g/t)	As (ppm)	Sb (ppm)	ρ
					101.0m～101.4m Argillized veinlet like	19 X	101.00	101.40	0.40					
		Two mica Grano diorite	ditto											
				106.4m～Q.V. width:1.5cm		34 A	106.40	106.55	0.15	< 0.1	< 0.1	2	< 1	
			30°											
107.60			oxided crack dominant core mainly brokened											
110.00														
112.40														
			oxided crack abundant											
			45°	118.23m～Q.V. width:0.5cm										
119.90														
120.00			oxided crack dominant			35 A	121.85	122.20	0.35	< 0.1	< 0.1	15	5	
					121.85m～123.2m	20 X	121.85	122.20	0.35					
					Argil strong	21 X	122.50	123.20	0.70					
125.60														
127.75			oxided crack dominant											
129.00		Fault breccia			Fault breccia	36 A	129.00	129.60	0.60	< 0.1	< 0.1	4	< 1	
129.60					Argil	22 X	129.00	129.60	0.60					
130.00														
131.35														
132.30		Fault breccia	oxided crack abundant	132.0m～Q.V.	Fault breccia	37 A	132.05	132.10	0.05	0.6	< 0.1	82	< 1	
			Q.V. 60°	width:1.5cm	Argil	23 X	132.30	132.55	0.25					
134.00		Fault breccia		134m～Q.V.	Fault breccia	24 X	134.00	134.20	0.20					
			?	width:2.0cm	Argil	38 A	135.40	135.45	0.05	0.5	< 0.1	147	2	
			20°	135.65m～Q.V.		39 A	135.65	135.70	0.05	0.3	< 0.1	57	2	
137.20				width:2.0cm										
140.00														141.60
143.10			brokened core		Argil	25 X	143.10	144.00	0.90					
144.00						26 X	144.80	151.00	6.20					
144.80			oxided crack dominant											
150.00						27 X	152.50	152.55	0.05					
151.00						40 A	152.60	152.70	0.10	0.3	< 0.1	68	< 1	
152.60		Fault breccia			Fault breccia	5 P	152.60	152.70	0.10					
		(NO.1)	Quzrtz vein brokened		Argil	4 F	152.60	152.70	0.10					
						28 X	152.70	152.80	0.10					
155.70			oxided crack dominant, core brokened			29 X	152.80	152.95	0.15					
156.50						41 A	152.95	153.09	0.14	< 0.1	< 0.7	3	< 1	
157.25		Fault breccia			Fault breccia	6 P	152.95	153.09	0.14					
158.00					Argil	5 F	152.95	153.09	0.14					
159.40						42 A	153.50	153.55	0.05	0.2	0.7	18	< 1	
160.00						7 P	153.50	153.55	0.05					
160.60						6 F	153.50	153.55	0.05					
						30 X	157.25	157.35	0.10					
163.00			Argillized vein (width:0.2～0.3cm)		163.0m～165.8m	31 X	159.95	160.55	0.60					
			dominant=network, brokend core		argillized vein	32 X	163.00	165.80	2.80					
165.80					(≒clay)abundant	33 X	167.50	168.40	0.90					
167.50					Argil									
168.40														
170.00														
175.80						34 X	175.80	177.10	1.30					
			brokened core	176.1m～Q.V.		43 A	176.10	176.35	0.25	< 0.1	0.1	2	< 1	
177.10				width:3.5cm		44 A	176.40	176.50	0.10	< 0.1	< 0.1	4	< 1	
				176.4m～Q.V. width:1.5cm										
180.00														181.00
186.20			fine grained facies of Grano diorite,											
188.00			partly aphyric											
188.90						45 A	189.10	189.40	0.30	< 0.1	0.3	12	2	
189.10		Fault breccia	188.9m～200.4m oxided crack abundant			35 X	189.10	189.40	0.30					
190.00						46 A	191.10	191.40	0.30	< 0.1	0.2	1	< 1	
191.10		Fault breccia				36 X	191.10	191.40	0.30					
192.40		Fault breccia			Fault breccia	47 A	192.40	192.60	0.20	< 0.1	0.1	1	< 1	
193.80					Argil.strong	37 X	192.40	192.60	0.20					
		Fault breccia	dislocation may be not so large		Fault breccia	48 A	193.80	195.40	1.60	< 0.1	< 0.1	3	< 1	
195.40					Argillized	38 X	193.80	195.40	1.60					
					weak～strong	49 A	196.60	197.00	0.40	< 0.1	0.2	28	< 1	
						39 X	196.60	197.00	0.40					

Sample (A-, Chemical Analysis; P-, Polish Section; T-, Thin Section; X-, X-ray; F-, Fluid Inclusion)　　ρ : Physical property test

Fig Ⅱ-4-3 Column of MJMT-2(2)

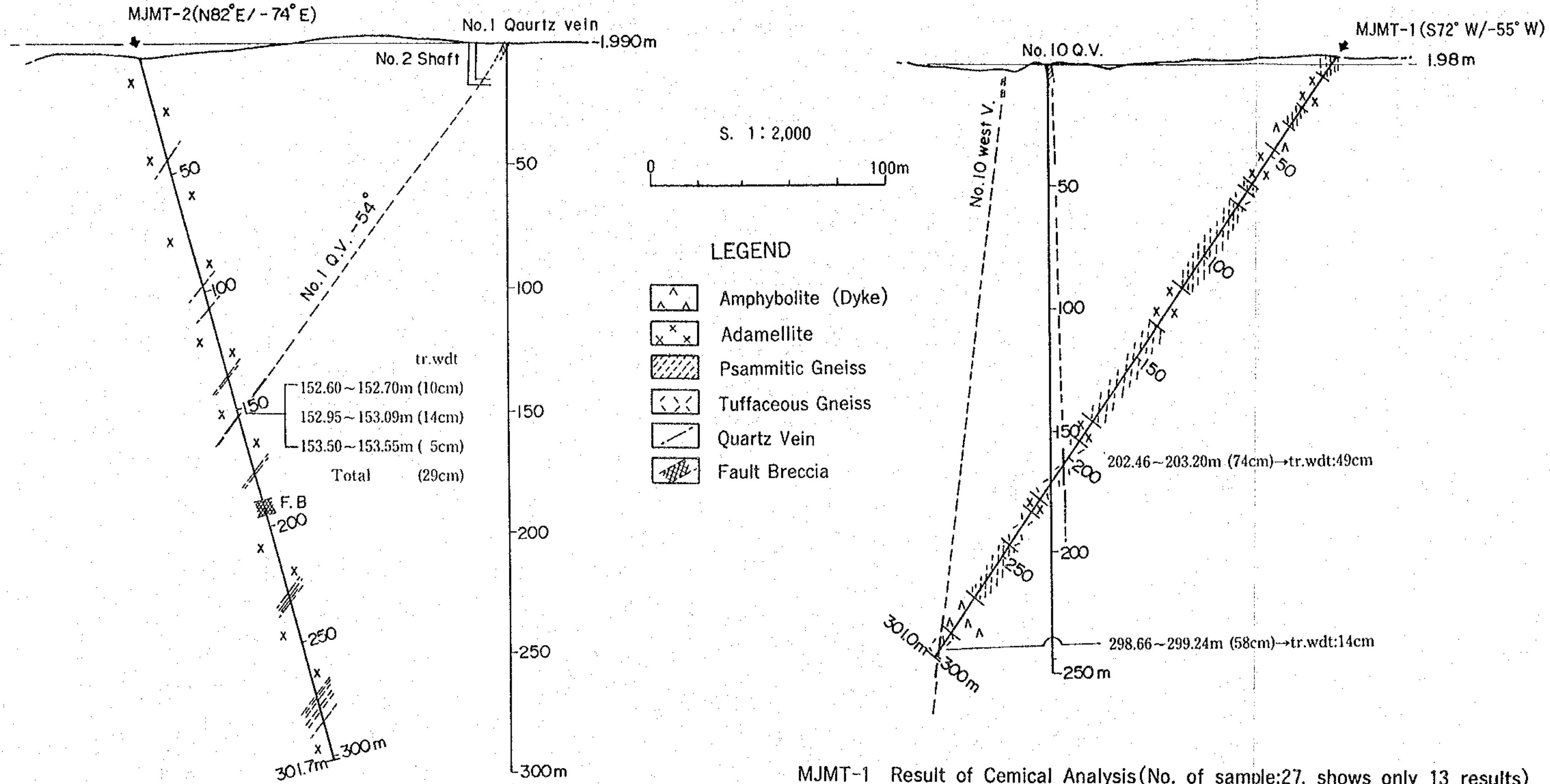
MJMT−2 (3) 200m ～ 300m

Depth (m)	Geologic Column	Rock Name	Description	Vein	Alteration	Sample No.	Sample From (m)	Sample To (m)	Sample Length (m)	Chemical Analysis Au (g/t)	Chemical Analysis Ag (g/t)	Chemical Analysis As (ppm)	Chemical Analysis Sb (ppm)	φ
		Two mica Grano diorite	ditto oxided crack abundaut											
		Fault breccia	207.65m		Argillized	40 X	207.65	207.70	0.05					
209.40		Fault breccia	207.85m		Argillized	41 X	207.85	208.00	0.15					
210.00														
212.00		Quartz+clay vein	212.0m, width:20cm		Argil	50 A	212.00	212.20	0.20	< 0.1	0.4	4	< 1	
						42 X	212.00	212.20	0.20					216.40
220.00			0～10° 0～10°	222.9m～Q.V. width:0.5cm 224.4m～Q.V. width:0.5cm 228.8m～Q.V. width:1.0cm										
			15°	229.2m～Q.V.		51 A	228.80	229.18	0.38	< 0.1	< 0.1	49	< 1	
			10°	width:0.7cm		52 A	229.23	229.40	0.17	< 0.4	< 0.1	25	< 1	
230.00			10～40°	230.0m～Q.V.		53 A	230.00	230.10	0.10	< 0.1	< 0.1	2	< 1	
				width:0.6cm		54 A	230.30	230.40	0.10	< 0.1	0.2	3	< 1	
				230.3m～Q.V.		55 A	231.20	231.40	0.20	< 0.1	0.2	2	< 1	
				width:1.5cm		56 A	232.20	232.35	0.15	< 0.1	< 0.1	< 1	< 1	
				230.8m～Q.V. width:0.5cm 231.0m～Q.V. width:0.5cm 231.2m～Q.V. width:0.5cm		43 X	232.45	233.35	0.90					
240.00				232.2m～Q.V. width:0.8cm		44 X 45 X	242.95 246.45	243.15 246.55	0.20 0.10					
243.00		clay vein	243.0m, 30°, width:1cm	235.2m～Q.V. width:0.5cm	Argil									
246.50		clay vein	246.5m, 60°, width:1cm		Argil									
247.00			247.0m～267.0m oxided crack none, pale grey colored, very fresh											
250.00						11 T	255.50	255.56	0.06					255.56
				267.6m～Q.V. width:0.6cm 268.5m～Q.V. width:0.8cm										
260.00				268.8m～Q.V. width:0.8cm 273.3m～Q.V. width:0.5cm										
		Quartz+clay vein	45°, width:1～2cm	273.8m～Q.V. width:0.5cm	Argil	46 X	264.75	264.80	0.05					
267.00			15° 30°, 45°	274.1m～Q.V. width:0.5cm 275.1m～Q.V. width:1.5cm										
270.00				276.5m～Q.V.										
			width:0.3cm	width:0.5cm	Argil	47 X	271.00	271.30	0.30					
			width:0.3cm	277.6m～Q.V.	Argil	48 X	271.90	272.05	0.15					
			40°～45°	width:0.4cm		57 A	273.25	273.30	0.05	< 0.1	0.2	46	7	
				278.1m～Q.V.		58 A	273.40	273.50	0.10	< 0.1	< 0.1	28	10	
				width:0.3cm		59 A	274.10	274.17	0.07	< 0.1	< 0.1	7	< 1	
				280.0m～Q.V.		60 A	275.10	275.15	0.05	< 0.1	< 0.1	8	< 1	
			60°	width:1.5cm		61 A	276.45	276.50	0.05	< 0.1	< 0.1	13	< 1	
			70° 50°	280.2m～Q.V. width:0.3cm										
280.00			80°	280.4m～Q.V.		62 A	280.00	280.02	0.02	< 0.1	< 0.1	4	< 1	
			60°	width:0.5cm		63 A	281.95	282.00	0.05	< 0.1	< 0.1	2	< 1	
			30°	280.6m～Q.V.		64 A	286.00	286.05	0.05	< 0.1	< 0.1	1	< 1	
			35°	width:0.3cm		65 A	286.15	286.20	0.05	< 0.1	< 0.1	1	< 1	
				281.1m～Q.V.		49 X	287.70	289.20	1.50					
287.70				width:0.3cm 282.0m～Q.V. width:0.4cm										
289.20		Clay veinlet net	core brokened	283.0m～Q.V. width:0.4cm	Argil									
290.00				284.0m～Q.V. width:1.5cm 285.3m～Q.V. width:1.0cm										
294.10			294.1m～301.7m plagioclase (or orthoclase) pinkish colored	286.0m～Q.V. width:3.0cm 286.2m～Q.V.										
				width:1.5cm		12 T	299.30	299.36	0.06					299.36
				300.5m～Q.V.		66 A	300.50	300.70	0.20	< 0.1	< 0.1	4	< 1	
301.70				width:0.8cm		50 X	301.40	301.70	0.30					

Sample (A-,Chemical Analysis; P-,Polish Section; T-,Thin Section; X-,X-ray; F-,Fluid Inclusion)

φ :Physical property test

Fig Ⅱ-4-3 Column of MJMT-2(3)



MJMT-2 Result of Cemical Analysis (No. of sample:39, shows only 20 results)

Spl No.	Depth (m)	tr. wd (cm)	Name	Au (ppm)	Ag (ppm)	As (ppm)	Sb (ppm)	Hg (10ppb)	Bi (ppm)	Te (ppm)	Se (ppm)	Mo (ppm)	
29	43.95~	1.0	Q.V.	< 0.1	< 0.1	10	< 1	< 10	1	< 5	< 5	23	
31	71.90~	1.0	Q.V.	< 0.1	0.2	11	< 1	< 10	< 1	< 5	< 5	< 5	
33	97.30~	1.5	Q.V.	0.6	< 0.1	113	< 1	< 10	< 1	5	< 5	< 5	
34	106.40~	2.5	Q.V.	< 0.1	< 0.1	2	< 1	< 10	< 1	< 5	< 5	124	
37	132.05~	1.0	Q.V.	0.6	< 0.1	82	< 1	< 10	< 1	< 5	< 5	< 5	
38	135.40~	2.0	Q.V.	0.5	< 0.1	147	2	< 10	1	6	< 5	< 5	
39	135.65~	2.0	Q.V.	0.3	< 0.1	57	2	< 10	< 1	< 5	< 5	< 5	
40	152.60~	10.0	Q.V.	0.3	< 0.1	66	< 1	< 10	< 1	7	< 5	7	No. 1 Q.V.
41	152.95~	14.0	Q.V.	< 0.1	0.7	3	< 1	< 10	< 1	< 5	< 5	< 5	
42	153.50~	5.0	Q.V.	0.2	0.7	18	< 1	< 10	< 1	< 5	< 5	< 5	
50	212.00~	20.0	Cly>QV	< 0.1	0.4	4	< 1	< 10	< 1	< 5	< 5	< 5	
51	228.80~	1.0	Q.V.	< 0.1	< 0.1	49	< 1	< 10	1	< 5	< 5	< 5	
52	229.23~	0.7	Q.V.	0.4	< 0.1	25	< 1	< 10	< 1	< 5	< 5	< 5	
54	230.30~	1.5	Q.V.	< 0.1	0.2	3	< 1	< 10	< 1	< 5	< 5	< 5	
57	273.25~	1.0	Q.V.	< 0.1	0.2	46	7	< 10	< 1	< 5	< 5	< 5	
58	273.40~	0.7	Q.V.	< 0.1	< 0.1	28	10	< 10	< 1	< 5	< 5	< 5	
60	275.10~	1.5	QV+Cly	< 0.1	< 0.1	8	< 0.1	< 10	< 1	8	< 5	< 5	
61	276.45~	0.5	Q.V.	< 0.1	< 0.1	13	< 0.1	< 10	< 1	8	< 5	< 5	
62	280.00~	1.5	Q.V.	< 0.1	< 0.1	4	< 0.1	< 10	< 1	< 5	< 5	< 5	
65	286.15~	1.3	Q.V.	< 0.1	< 0.1	1	< 0.1	< 10	< 1	10	< 5	< 5	

MJMT-1 Result of Cemical Analysis(No. of sample:27, shows only 13 results)

Spl No.	Depth (m)	tr. wd (cm)	Name	Au (ppm)	Ag (ppm)	As (ppm)	Sb (ppm)	Hg (10ppb)	Bi (ppm)	Te (ppm)	Se (ppm)	Mo (ppm)	
5	66.80~	2.5	Q.V.	<0.1	0.3	< 1	< 1	<10	< 1	< 5	< 5	< 5	
11	199.10~	6.0	Q.V.	<0.1	0.3	10	4	<10	< 1	7	< 5	< 5	
17	202.46~	6.7	Q.V.	<0.1	0.6	< 1	< 1	<10	< 1	< 5	< 5	23	
18	202.58~	6.7	Q.V.	<0.1	0.9	1	< 1	<10	< 1	< 5	< 5	< 5	
19	202.68~	6.7	Q.V.	<0.1	0.1	1	< 1	<10	< 1	5	< 5	< 5	
20	202.78~	6.7	Q.V.	<0.1	0.3	1	< 1	<10	< 1	< 5	< 5	< 5	No. 10 Q.V.
21	202.88~	6.7	Q.V.	<0.1	0.2	1	< 1	<10	< 1	< 5	< 5	< 5	
22	202.98~	6.7	Q.V.	<0.1	2.1	1	< 1	<10	< 1	6	< 5	< 5	
23	203.08~	6.7	Q.V.	<0.1	0.4	1	< 1	<10	< 1	< 5	< 5	43	
24	266.05~	10.0	Q.V.	<0.1	< 0.1	2	< 1	<10	< 1	8	< 5	< 5	
25	298.66~	4.0	Q.V.	<0.1	< 0.1	2	< 1	<10	< 1	< 5	< 5	< 5	
26	298.84~	5.0	Q.V.	<0.1	5.4	1	< 1	<10	10	< 5	< 5	< 5	No. 10 west V.
27	299.04~	5.0	Q.V.	<0.1	10.9	1	< 1	<10	22	8	< 5	< 5	

Fig. Ⅱ-4-4 Geological Profile of Drilling structure with the similar inclination as that of psammitic gneiss.

The microscopic observation (No. 7) revealed schistose structure and mainly composed of biotite, potassium feldspar and plagioclase accompanied by small or minute amount of quartz, augite and apatite.

The original rock, considering to combination of minerals, such as rich in kali and alumina, poor with silica, is estimated to be special igneous rocks including tuffs or the alteration rocks.

3) Biotite adamellite

Seventeen rock bodies of several meters to several 10 meters in size occur in all depths. This is considered to be irregular dikes or sheets from the field observation.

They are medium grained, gray colored holocrystalline rocks with no banded structure. They seem to be apparently the same rocks body with granularity different from that of two mica granodiorite that is distributed widely in the west side of the drilling location. Under the microscopic (No. 2, 3) these are garnet bearing biotite adamellite having equigranular texture and usually consisting of quartz, potassium feldspar, plagioclase, biotite and accompanied by minute amount of garnet, apatite and muscovite. Part of the plagioclase and biotite had been altered.

4) Amphibolite

This is the dike 10m in thickness occurs at two places both shallow and deep underground. And have green in color with occasionally weak banded structure and have homogeneous texture mostly of the amphibole.

The microscopic observation (No. 1) reveals the schistose structure and contained a large amount of amphibole followed by less amount of biotite, plagioclase, opaque minerals, quartz and sphene(?). The original rock is estimated the basic igneous rock.

5) Pegmatite

The pegmatites occur frequently in all depths. They are of small scale several 10 cm in thickness. Thay are the leucocratic rocks comprising of the quartz and the feldspar around 1 cm in diameter. Under the microscopic obsersation (No.5), it contains the potassium feldspar that is most abundant and large in size occupying the greater part together with the quartz and hornblende. In addition, it is accompanied by medium - small amounmt of the plagioclase, muscovite and biotite. The plagioclase and the biotite are relectively altered.

6) Faults

There are the fault-like brecciated zone at the depth of 3.5m to 5.5 m. Others are all hard and compact.

7) Alteration

No alteration was observed in the basic gneiss and biotite adamellite that are in contact with the quartz vein.

2. Quartz vein

The quartz vein No.10 and the western vein parallel to No.10 are intersected at the following depths.

Quartz vein No.	Depth of ore intersection	Length	Width
10	202.46m-203.20m	74cm	49cm
10W	298.66m-299.24m	58cm	14cm

The width on the surface is assumed to be 40 to 50cm ±30cm. Both are narrow in the width compared with those of surface veins.

As for the mineralization sign an aggregate of the pyrite > the galenite > the sphalerite was confirmed at the depth of 298.84m, around 1mm in diameter of the vein No.10W.

In addition to the above, 12 veins, ±1cm in width were confirmed.

The result of the chemical analysis will be discussed later.

4-2 MJMT-2

1. General geology

All is two-mica granodiorite and no dikes were found. Totally oxidation cracks partially fault breccias and the accompanied clay alteration were found.

1) Two-mica granodiorite

Many oxidation cracks developed in various places down to the depth of 247m and slight alteration were observed to the depth beyond that with slightly altered feldspars.

The specimens for the microscopic observation (thin sections No.9,10 and 11) were collected from the depth of comparatively fresh place. They comprise the quartz, plagioclase, potassium feldspar accompanied by very small amount of muscovite, biotite, very small amount of sphene(?), opaque minerals and apatite. The degree of alteration is comparatively high and the plagioclase and the biotite are selectively altered.

2) Oxidation cracks

There are the iron oxide stuck to the surface of cracks closely adhead. Sometimes the clay is caught inside the open cracks.

The oxidation cracks particularly cluster together between 107m and 209m. The core is collected in crushed gravel of several cm in diameter.

3) Fault breccia zone

The Fault breccia zone were observed in three places at 130 meters, two at 150 meters, four at 190 meters and two at 210 meters in approximate depth respectively. These width is several 10 centimeters except for 1.6 meters between 193.8 meters and 195.4 meters in depth. The dislocation caused by the faults is not knowing whether it exists or not, is assumed to be several meters if any. The brecciated zone are generally altered by strong to weak argillization.

4) Alteration

In addition to the above argillization of the fault breccia zones there are frequently the clay veins one to two cm in width. The granodiorites are sometimes argillized into the shape of a vein 10cm to 30cm in length. The distribution of these are at random and have no direct relation with the quartz veins.

2. Quartz vein

The ore intersection were formed in the quartz vein No.1 at following three points adjacent each other.

Depth of ore intersection	Length	Width
152.60m - 152.70m	10cm	10cm
152.95m - 153.09m	14cm	14cm
153.50m - 153.55m	5cm	5cm
Total		29cm

The oxidation cracks are developed in the vicinity of the ore intersection. The quartz veins were collected in the shape of pillar core, partly of crushed core. However, even the pillar cores are crushed at boundaries. Therefore, the width is used as the length of the ore intersection.

The width of the vein at the surface is assumed to be ±20 cm. They are of the same size although they were branched out into three veins.

There were 47 thin veins in addition to the above. The width of the vein is about ±1cm. Thin veins are crowded at the depth between 223m and 235m and between 267m and 286m. There are 10 and 21 veins respectively in these sections.

4-3 Analysis and test

1. Thin sections of rocks

Number of samples prepared: 12

The result of the appraisal is shown in Table II-4-5. Sine the description of each result has already been given, the explanation is omitted here.

2. X-ray diffraction

Number of specimens: 50

The result of the X-ray diffraction test is given in Table II-4-6.

1) MJMT-1

The result of the analysis of the specimens collected at the intervals of 60 to 90 cm from the basic gneiss, the host rock of the quartz vein No. 10 which are in contact with the vein reveals, they are the combination of chlorite and sericite. The quartz index of those that are in contact with the vein could not be deemed as high for the gneiss. In case of the chlorite, the quartz index is rather low. In addition to above results, since these combination of minerals are generally formed in the metamorphic rocks, it is assumed to be the result of the widely distributed alteration, not caused by the quartz veins.

2) MJMT-2

The argillization alteration of the present holes discussed in the previous section are almost without exception the combination of chlorite, sericite, smectite and calcite including the argillization of the fault breccias, clay veins, and the host rocks in contact with No. 1 quartz vein.

As described earlier, the Rb-Sr radioisotopic dating of the alteration clay of the present holes (three sets of speciemens) are already acquired as 208.3±136.5 Ma. Although it is doubtful whether the isotope equilibrium had been attained or not between the speciemens, the alteration is assumed to be related to the formations of the quartz veins comparing with other measurements of dating.

Table Ⅱ-4-5 Result of microscopic observation of thin section (Drilling core)

No.	Drilling No.	Depth	Remark	Rock name (determined)	Qz	Pl	Kf	Bi	Hs	Ho	Au	Hy	Ol	Cc	Ser	Chl	Ep	Gt	Sph	Apt	Opq	Texture	Alteration
1	MJMT-1	44.5m	side cross	Ampblt	△	○		○		◎									·		△	Schistose	±: Metamorphism
2	MJMT-1	55.9m	side cross	Bi-Adamlt	◎	○	○	○										·		·		Equigranular	−: Argillization
3	MJMT-1	75.2m	side cross	Bi-Adamlt	◎	○	○	○	·									·		·		Equigranular	−: Argillization
4	MJMT-1	115.6m	side cross	Psamt-Gneiss	◎	·		·	·	○				·					·		·	Gneissose	+: Argillization
4	MJMT-1	115.6m	height cross	Psamt-Gneiss	◎	·		·	·	○				·					·		·	Gneissose week	+: Argillization
5	MJMT-1	146.0m	side cross	Pegmt	◎	○	◎	△	△														−: Argillization
6	MJMT-1	209.2m	side cross	Ampblt	·	○				◎									·		·	Schistose	+: Argilliz. metam.
7	MJMT-1	229.2m	side cross	Bi-Schist	·	◎	◎	◎		·										·		Schistose	−: Argillization
8	MJMT-1	260.7m	side cross	Psamt-Gneiss	◎	○		·		○									·		·		+: Argillization
9	MJMT-1	290.8m	side cross	Au-Gneiss	◎	○					○			·					△			Gneissose	+: Metamorph'sm
10	MJMT-2	40.5m	side cross	Bi-Ms-Gr-Dr	◎	◎	○	△	△													Equigranular	−: Argillization
11	MJMT-2	255.5m	side cross	Bi-Ms-Gr-Dr	◎	◎	○	△	△											·		Equigranular	−: Argillization
12	MJMT-2	299.3m	side cross	Bi-Ms-Gr-Dr	◎	◎	○	·	△										·	·	·	Equigranular	+: Argillization

*◎: abundance ○: common △: minor ·: rare +: strong ±: medium −: weak

Abbreviation of rock and mineral name

Adamlt:adamellite Gr-Dr:granodiorite Hobdt:hornblendite Ampblt:amphibolite Pegmt:pegmatite Porphrt:porphyrite Porpry:porphyry Psamt:psammitic Pelit:pelitic
Bi:biotite Ms:muscovite Qz:quartz Gt:garnet Au:augite Hy:hypersthene Pl:plagioclase Kf:potassium feldspar Ho:hornblende Ol:olivine Cc:calcite Ser:sericite
Chl:chlorite Ep:epidote Sph:sphene Apt:apatite Opq:opaque mineral metam.:metamorphism

Table Ⅱ-4-6 Result of X-ray diffraction of drilling core (1)

No.	Drilling No.	Depth(m)	Thickness(m)	Rock name (determined)	Mineral assemblages											
					Ch	Se	Sm	K	Lau	Ca	Qz	Ab	Kf	Hb	Py	Heu
1	HJMT-1	169.50	0.25	clay	5	1	4			2	14	5	7		<1	
2	HJMT-1	200.30	0.05	Basic gneiss(host rock of Qz-vein)	2	3					36	9	13			
3	HJMT-1	200.90	0.05	Basic gneiss(host rock of Qz-vein)	3	1					39	13	16	<1		
4	HJMT-1	201.50	0.05	Basic gneiss(host rock of Qz-vein)	2	1					38	13	12			
5	HJMT-1	202.40	0.05	Basic gneiss(host rock of Qz-vein)	<1	1				<1	28	15	20	<1		
6	HJMT-1	203.30	0.05	Basic gneiss(host rock of Qz-vein)	1					1	65	2		1		
7	HJMT-1	298.50	0.05	Bi-Adamellite	1	2		<1			32	20	13			
8	HJMT-1	299.30	0.05	Bi-Adamellite	11						29	6	9		<1	
9	HJMT-2	25.10	0.35	Arg-Bi-Hs-Gr-Dr		5	2		1	3	33	12				
10	HJMT-2	25.90	0.15	Arg-Bi-Hs-Gr-Dr		3	1		<1	1	55	12	2			
11	HJMT-2	37.55	0.15	Arg-Bi-Hs-Gr-Dr		8	<1			1	36	20				
12	HJMT-2	43.97	0.01	Qz+clay	<1	2	3	<1		13	19	5	1			
13	HJMT-2	49.10	0.01	clay	4	3	4	<1		2	27	7	1			
14	HJMT-2	71.30	0.13	clay	2	3	2	<1		3	21	11	4			
15	HJMT-2	71.90	0.01	Qz+clay	1	3	1	<1		1	31	15	6			
16	HJMT-2	81.50	0.005	clay	4	4	4	<1		4	11	11	3			
17	HJMT-2	92.55	0.013	clay	1	5				1	30	14	3			
18	HJMT-2	93.03	0.015	Qz+clay	1	3	1			<1	27	12	4			
19	HJMT-2	101.00	0.01	clay	2	3	1			<1	45	20	9			
20	HJMT-2	121.85	0.35	Arg-Bi-Hs-Gr-Dr	2	3	2			4	26	14	6			
21	HJMT-2	122.50	0.70	Arg-Bi-Hs-Gr-Dr	5	2	5	<1		1	29	8	3			
22	HJMT-2	129.00	0.60	Arg-Fault Breccia	1	4	1			<1	30	20				
23	HJMT-2	132.30	0.25	Arg-Fault Breccia		5	1				25	4				
24	HJMT-2	134.00	0.20	Arg-Fault Breccia	<1	3	2			1	20	11				
25	HJMT-2	143.10	0.90	Arg-Breccia	1	2	1	<1		1	19	20				
26	HJMT-2	144.80	0.20	Arg-Breccia	2	2				2	24	20				
27	HJMT-2	152.50	0.05	Arg-Fault Breccia		8				4	8					
28	HJMT-2	152.70	0.10	Dark clay	<1	3	3				16					
29	HJMT-2	152.80	0.15	Grey clay		9				2	37					
30	HJMT-2	157.25	0.10	Arg-Fault Breccia	1	5	1		<1	6	27	12				
31	HJMT-2	159.95	0.01	clay vein	2	6			<1		32	20				
32	HJMT-2	163.00	0.003	clay vein	5	1	5			1	25	6	3			
33	HJMT-2	167.50	0.05	Arg-Breccia	2	3	2			1	21	20				
34	HJMT-2	175.80	1.30	Arg-Breccia	2	6				1	23	20				
35	HJMT-2	189.10	0.30	Fault clay	2	5	2			1	26	13				
36	HJMT-2	191.10	0.30	Fault clay	2	6	2			3	21	10				
37	HJMT-2	192.40	0.20	Fault clay	2	2	2			2	27	11				
38	HJMT-2	193.80	1.60	Fault clay	1	2	1			2	24	12				
39	HJMT-2	196.60	0.20	clay vein	2	3	2			3	24	10			<1	
40	HJMT-2	207.65	0.05	Arg-Fault Breccia	<1	5	2	<1		<1	24	11				
41	HJMT-2	207.85	0.15	Arg-Fault Breccia	<1	3	3			<1	30	8	2			
42	HJMT-2	212.00	0.20	Qz+clay	<1	2	2	<1		2	10	16	4		<1	
43	HJMT-2	232.45	0.001	clay vein	1	5	1	<1		<1	38	13	3			

Arg:argillization Gr-Dr:granodiorite Hs:muscovite Ch:chlorite Se:sericite K:kaolin-Mineral Ca:calcite Qz:Quartz Ab:Albite Kf:potassium feldsper
Hb:hornblende Sm:Smectite Py:pyrite Lau:laumontite Heu:heulandite

Table Ⅱ-4-6 Result of X-ray diffraction of drilling core (2)

No.	Drilling No.	Depth(m)	Thickness(m)	Rock name (determined)	Mineral assemblages											
					Ch	Se	Sm	K	Lau	Ca	Qz	Ab	Kf	Hb	Py	Heu
44	MJMT-2	242.95	0.01	clay vein	<1	3	2			5	28	9	3		<1	
45	MJMT-2	246.45	0.01	clay vein	3	1	3			1	16	5	2			
46	MJMT-2	264.75	0.015	Qz+clay		2	6			9	4					4
47	MJMT-2	271.00	0.015	clay net work	2	2	1			2	24	20	5			
48	MJMT-2	271.90	0.015	clay net work	1	1	1	<1		<1	100	2			<1	
49	MJMT-2	287.70	0.001	clay net work	2	4	2			<1	25	16	4			
50	MJMT-2	301.40	0.001	clay net work	<1	4	1	<1		9	27	7				

Arg:argillization Gr-Dr:granodiorite Ms:muscovite Ch:chlorite Se:sericite K:kaolin-Mineral Ca:calcite Qz:Quartz Ab:Albite Kf:potassium feldspar
Hb:hornblende Sm:Smectite Py:pyrite Lau:laumontite Heu:heulandite

3. Analysis of ores

The results of the chemical analysis of the quartz vein and clay vein of these two holes are shown in Table II-4-7. The summary of the results of analysis is as follows:

	MJMT-1	MJMT-2
Au :	1 ppm or less	1 ppm or less
Ag :	11ppm or less	1 ppm or less
As :	10ppm or less	Max. 147ppm
Sb :	4 ppm or less	10ppm or less
Hg :	10ppb or less	10ppb or less
Bi :	22ppm or less	1 ppm or less
Te :	8 ppm or less	10ppm or less
Se :	5 ppm or less	5 ppm or less
Mo :	Max. 43ppm	Max. 124ppm

The speciemens of which the mineralized portion has been confirmed in MJMT-1 (depth of 10W vein: 298.84m, length of core: 5 cm, and the mineralized portion itself is used for the preparation of the polished sections) contained 2ppm or less of Au and 5ppm of Ag.

4. Physical test of the core

Number of specimens: 23

The results will be given in the Chapter 5.

Tabie Ⅱ-4-7 Result of chemical analysis of drilling core (1)

1) MJMT-1

No.	From (m)	To (m)	True W. (m)	Rock name	Au (ppm)	Ag (ppm)	As (ppm)	Sp (ppm)	Hg (10ppb)	Bi (ppm)	Te (ppm)	Se (ppm)	Mo (ppm)
1	43.00	43.05	0.01	Q.V.	<0.1	0.2	<1	<1	<10	<1	<5	<5	<5
2	46.50	46.55	0.015	Pgmt.+Q.	<0.1	0.1	2	<1	<10	<1	<5	<5	<5
3	63.37	63.50	0.035	Q.V.	<0.1	<0.1	<1	<1	<10	<1	<5	<5	<5
4	65.20	65.25	0.02	Q.V.	<0.1	0.2	<1	<1	<10	<1	<5	<5	<5
5	66.80	66.87	0.025	Q.V.	<0.1	0.3	<1	<1	<10	<1	<5	<5	<5
6	93.20	93.28	0.04	Pgmt.+Q.	<0.1	<0.1	<1	<1	<10	<1	<5	<5	<5
7	94.58	94.75	0.02	Q.V.	<0.1	0.2	<1	<1	<10	<1	<5	<5	<5
8	97.20	97.40	0.07	pgmt.+Q.	<0.1	0.1	<1	<1	<10	<1	<5	<5	<5
9	98.80	98.85	0.02	pgmt.+Q.	<0.1	0.2	<1	<1	<10	<1	<5	<5	<5
10	100.10	100.20	0.05	pgmt.+Q.	<0.1	<0.1	<1	<1	<10	<1	<5	<5	<5
11	199.10	199.25	0.06	Q.V.	<0.1	0.3	10	4	<10	<1	7	<5	<5
12	199.57	199.70	0.105	Q.V.	<0.1	0.2	<1	<1	<10	<1	<5	<5	<5
13	199.98	200.05	0.04	Q.V.	<0.1	0.2	<1	<1	<10	<1	<5	<5	<5
14	200.10	200.20	0.06	Q.V.	<0.1	0.1	<1	<1	<10	<1	<5	<5	<5
15	201.60	201.74	0.14	Q.V.	<0.1	0.2	<1	<1	<10	<1	<5	<5	<5
16	201.94	202.05	0.11	Q.V.	<0.1	<0.1	<1	<1	<10	<1	<5	<5	<5
17	202.46	202.58	0.067	Q.V.	<0.1	0.6	<1	<1	<10	<1	<5	<5	23
18	202.58	202.68	0.067	Q.V.	<0.1	0.9	<1	<1	<10	<1	<5	<5	<5
19	202.68	202.78	0.067	Q.V.	<0.1	0.1	<1	<1	<10	<1	5	<5	<5
20	202.78	202.88	0.067	Q.V.	<0.1	0.3	<1	<1	<10	<1	<5	<5	<5
21	202.88	202.98	0.067	Q.V.	<0.1	0.2	<1	<1	<10	<1	<5	<5	<5
22	202.98	203.08	0.067	Q.V.	<0.1	2.1	<1	<1	<10	<1	6	<5	<5
23	203.08	203.20	0.067	Q.V.	<0.1	0.4	1	<1	<10	<1	<5	<5	43
24	266.05	266.15	0.10	Q.V.	<0.1	<0.1	2	<1	<10	<1	8	<5	<5
25	298.66	298.84	0.04	Q.V.	<0.1	<0.1	2	<1	<10	<1	<5	<5	<5
26	298.84	299.04	0.05	Q.V.	<0.1	5.4	1	<1	<10	10	<5	<5	<5
27	299.04	299.24	0.05	Q.V.	<0.1	10.9	1	<1	<10	22	8	<5	<5

2) MJMT-2 (1)

No.	From (m)	To (m)	True W. (m)	Rock name	Au (ppm)	Ag (ppm)	As (ppm)	Sp (ppm)	Hg (10ppb)	Bi (ppm)	Te (ppm)	Se (ppm)	Mo (ppm)
28	25.90	26.05	0.15	Arg-Gr-Dr	<0.1	0.2	13	<1	<10	1	<5	<5	5
29	43.90	43.95	0.01	Q.V+Clay	<0.1	<0.1	10	<1	<10	1	<5	<5	23
30	46.70	46.75	0.025	Q.V.	<0.1	<0.1	2	<1	<10	<1	<5	<5	<5
31	71.90	71.95	0.01	Q.V+Clay	<0.1	0.2	11	<1	<10	<1	<5	<5	<5
32	93.03	93.08	0.015	Q.V+Clay	<0.1	<0.1	4	<1	<10	<1	<5	<5	<5
33	97.30	97.35	0.015	Q.V.	0.6	<0.1	113	<1	<10	<1	5	<5	<5
34	106.40	106.55	0.025	Q.V.	<0.1	<0.1	2	<1	<10	<1	<5	<5	124
35	121.85	122.20	0.35	Arg-Gr-Dr	<0.1	<0.1	15	5	<10	<1	7	<5	<5
36	129.00	129.60	0.60	Arg-F.Brc	<0.1	<0.1	4	<1	<10	<1	<5	<5	<5
37	132.05	132.10	0.01	Q.V.	0.6	<0.1	82	<1	<10	<1	<5	<5	<5
38	135.40	135.45	0.02	Q.V.	0.5	<0.1	147	2	<10	1	6	<5	<5
39	135.65	135.70	0.02	Q.V.	0.3	<0.1	57	2	<10	<1	<5	<5	<5
40	152.60	152.70	0.10	Q.V.	0.3	<0.1	66	<1	<10	<1	7	<5	7
41	152.95	153.09	0.14	Q.V.	<0.1	0.7	3	<1	<10	<1	<5	<5	<5
42	153.50	153.55	0.05	Q.V.	0.2	0.7	18	<1	<10	<1	<5	<5	<5
43	176.10	176.35	0.035	Q.V.	<0.1	0.1	2	<1	<10	<1	<5	<5	<5
44	176.40	176.50	0.015	Q.V.	<0.1	<0.1	4	<1	<10	<1	<5	<5	<5
45	189.10	189.40	0.30	Fault clay	<0.1	0.3	12	2	<10	<1	<5	<5	<5
46	191.10	191.40	0.30	Fault clay	<0.1	0.2	1	<1	<10	<1	<5	<5	<5
47	192.40	192.60	0.20	Fault clay	<0.1	0.1	1	<1	<10	<1	<5	<5	<5
48	193.80	195.40	1.60	Fault clay	<0.1	<0.1	3	<1	<10	<1	<5	<5	<5
49	196.60	197.00	0.20	Clayvein	<0.1	0.2	28	<1	<10	<1	<5	<5	<5

W.:width Q.V.:quartz vein Pgmt:pegmatite

Tabie Ⅱ-4-7 Result of chemical analysis of drilling core (2)

2) MJMT-2 (2)

No.	From (m)	To (m)	True W. (m)	Rock name	Au (ppm)	Ag (ppm)	As (ppm)	Sp (ppm)	Hg (10ppb)	Bi (ppm)	Te (ppm)	Se (ppm)	Mo (ppm)
50	212.00	212.20	0.20	Q.V+clay	<0.1	0.4	4	<1	<10	<1	<5	<5	<5
51	228.80	229.18	0.01	Q.V.	<0.1	<0.1	49	<1	<10	1	<5	<5	<5
52	229.23	229.40	0.007	Q.V.	0.4	<0.1	25	<1	<10	<1	<5	<5	<5
53	230.00	230.10	0.006	Q.V.	<0.1	<0.1	2	<1	<10	<1	5	<5	<5
54	230.30	230.40	0.015	Q.V.	<0.1	0.2	3	<1	<10	<1	<5	<5	<5
55	231.20	231.40	0.005	Q.V.	<0.1	0.2	2	<1	<10	<1	<5	<5	<5
56	232.20	232.35	0.008	Q.V.	<0.1	<0.1	<1	<1	<10	<1	<5	<5	<5
57	273.25	273.30	0.01	Q.V.	<0.1	0.2	46	7	<10	<1	<5	<5	<5
58	273.40	273.50	0.07	Q.V.	<0.1	<0.1	28	10	<10	<1	<5	<5	<5
59	274.10	274.17	0.005	Q.V.	<0.1	<0.1	7	<1	<10	<1	<5	<5	<5
60	275.10	275.15	0.015	Q.V+clay	<0.1	<0.1	8	<1	<10	<1	8	<5	<5
61	276.45	276.50	0.005	Q.V.	<0.1	<0.1	13	<1	<10	<1	8	<5	<5
62	280.00	280.02	0.015	Q.V.	<0.1	<0.1	4	<1	<10	<1	<5	<5	<5
63	281.95	282.00	0.035	Q.V.	<0.1	<0.1	2	<1	<10	<1	<5	<5	<5
64	286.00	286.05	0.03	Fault clay	<0.1	<0.1	1	<1	<10	<1	<5	<5	<5
65	286.15	286.20	0.013	Q.V.	<0.1	<0.1	1	<1	<10	<1	10	<5	<5
66	300.50	300.70	0.008	Q.V.	<0.1	<0.1	4	<1	<10	<1	<5	<5	<5

W.:width Q.V.:quartz vein Arg:argillization F.Br:fault breccia

Chapter 5 Geophysical Survey

In our geophysical survey, Array CSAMT survey was performed to clarify the relationship between the geological structure and vein structure of the area extracted to be covered by a detailed survey based on the results of our geological semi-detailed survey.

5-1 Survey method

1. Survey in detail

Fig.II-5-1 shows the location where geophysical survey was conducted and Table II-5-1 indicates specification of the geophysical survey.

Table II-5-1 Specification of the geophysical survey

Method No. of survey line Length of survey line No. of Measuring points Direction of line	array CSAMT method Area I : 23 lines、Area II : 8 lines、Total 31 lines Area I : 36.8km、Area II : 12.8km、Total 49.6km Area I : 368 points、Area II : 128 points、Total 496 points Area I : N77° E、Area II : N72° E
Physical property (Laboratory test)	Resistivity measurement : 68 pcs

2. Setting of lines and measurement

In view of the geological conditions, survey lines were set in the direction approximately perpendicular to the strike of quartz veins (Area I: N77° E; Area II: N72° E). Starting point of line surveying was set up on the peak (Area I) whose location was known in the map and the end of quartz vein (Area II) whose existence was known. Measurement was performed using transit and esron tape.

The location of survey lines is shown in Fig. II-5-2.

3. Method of measurement

CSAMT Method (Controlled Source Audio Frequency Magneto-telluric Method) is a kind of MT Method. While MT Method is a depth sounding method with natural electro-magnetic field as its signal source, CSAMT method is a MT method using artificial signal source which is often adopted for vertical sounding which sounding depth is less than 1 km.

This survey was performed by letting periodic (harmonic) electric current over a range of audio frequency (2.5, 5, 10, 20, 40, 80, 160, 320, 640, 1,280, 2,560, 5,120 Hz) run continuously through a wire of about 2 km long whose both ends were grounded, and magnetic field

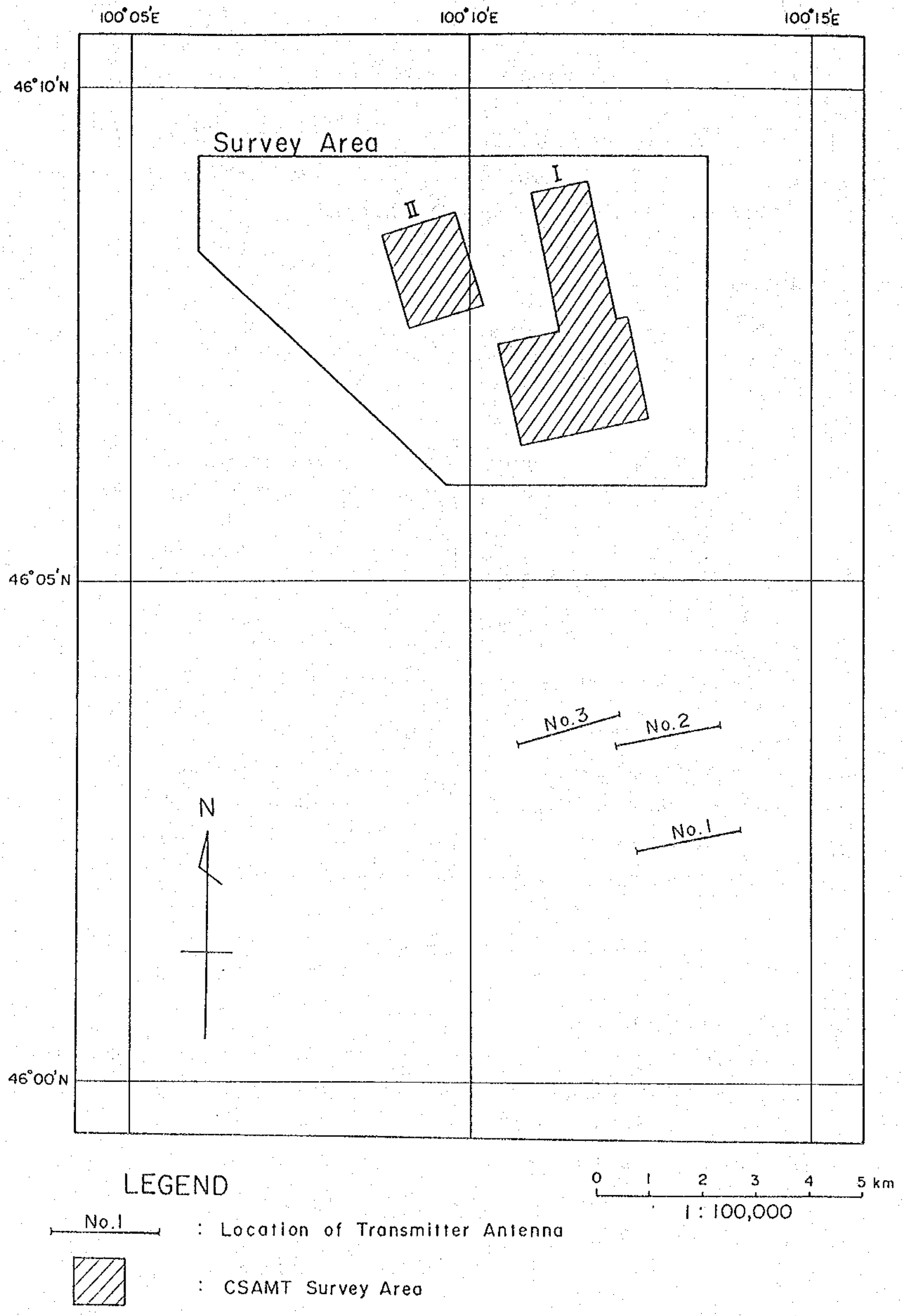


Fig. II-5-1 Location Map of Geophysical Survey Area

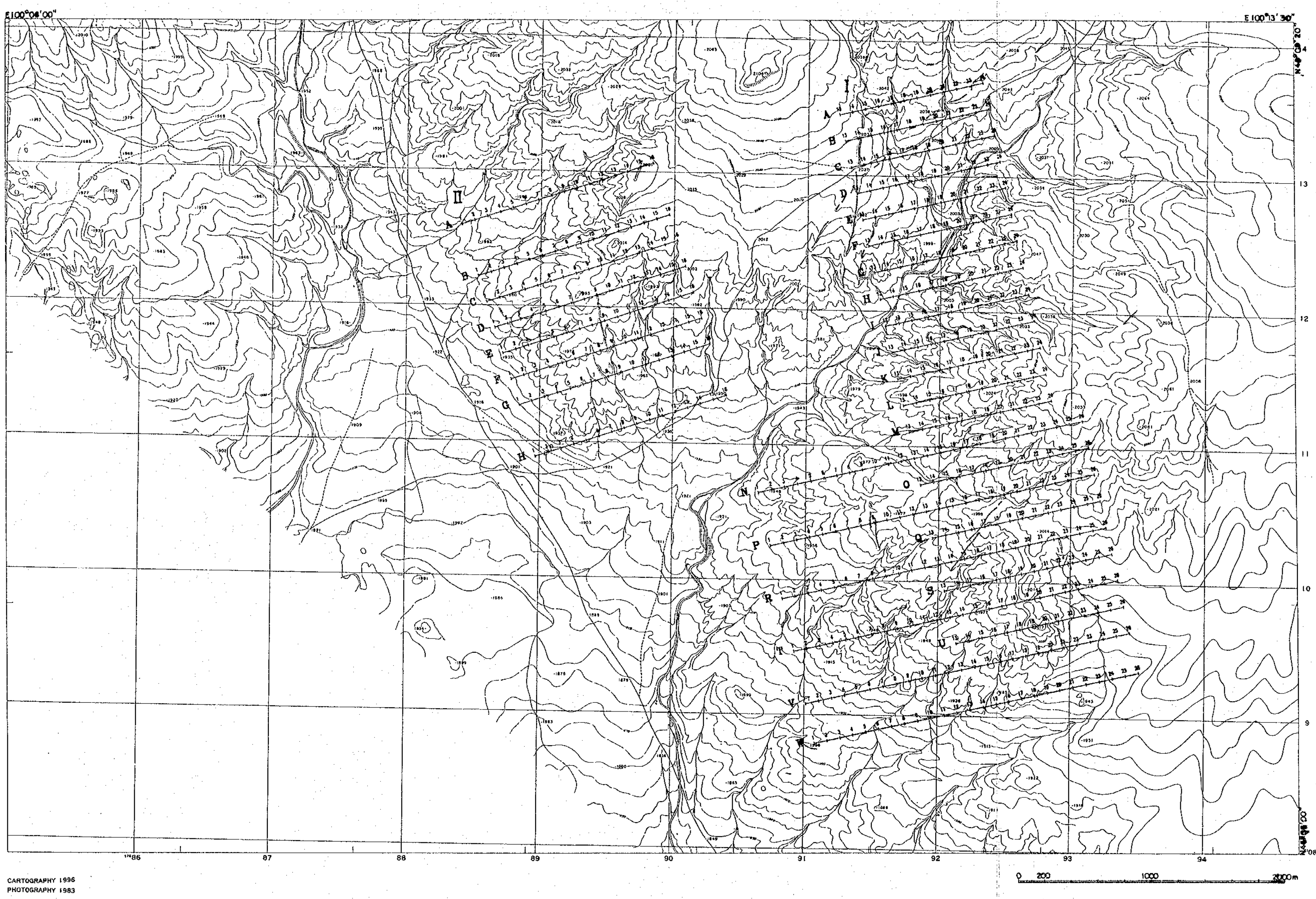


Fig. Ⅱ-5-2 Location Map of Geophysical Survey Line and Survey Points.

perpendicular to the electric field and the electric field parallel to the direction of signal source (grounded wire) were measured at survey points. The distance between survey points and the signal source are from 8 to 10 km.

Fig. II-5-3 shows configuration of Array CSAMT measurement. In measuring electric fields, copper electrodes were used as potential electrodes and electrode spacing was 100 m. For measuring magnetic fields, induction coil magnetic antenna was used. The distance between the signal source and a measuring point should be three times (3 δ) or more as large as the skin depth (δ) where the signal (electromagnetic wave) was regarded as plane wave. In the area nearer than 3 δ (called "near field") the assumption of the plane wave cannot be made and it is difficult to analyze the data.

Skin depth is the depth to which the electro-magnetic wave entered to homogeneous earth (resistivity: ρ) decays to 1/e (approx. 37%), and this depth is used as a aim of sounding depth. Skin depth can be obtained by applying the following formula and approx. 70% to the skin depth is considered as the sounding depth:

$$\delta = 503\sqrt{\rho / f} \quad \cdots\cdots\cdots \quad (1)$$

δ : Skin depth (m)

ρ : Resistivity of homogeneous medium (Ω.m)

f : Frequency (Hz)

As it is clear from the above formula (1), skin depth is a function between frequency and resistivity. In the area of high resistivity, it is necessary to leave enough distance between transmitter and receiver in order to minimize the effect of near field. In this survey, because of granodiorite predominate in this area, high resistivity distribution was presumed. Therefore, transmission sources at two points (Nos. 1 & 2) for Area I and at one point (No. 3) for Area II, totaling three points of transmission sources were set up so that the distance between measuring points and the signal source might be 8 to 10 km.(See Fig. II-5-1 for the relation between the locations of transmission sources and the scope of survey.)

4. Physical property test of rocks and drill cores

In order to collect basic data of electric features of rocks, resistivity was measured for representative rocks of land surface (45 from the area covered by our geophysical survey) and drill cores (23 from MJMT-1 and MJMT-2). After shaping of four surfaces (two surfaces for drill core), rock sample were soaked in tap water for a day so that its condition might be similar to natural condition, and then resistivity was measured.

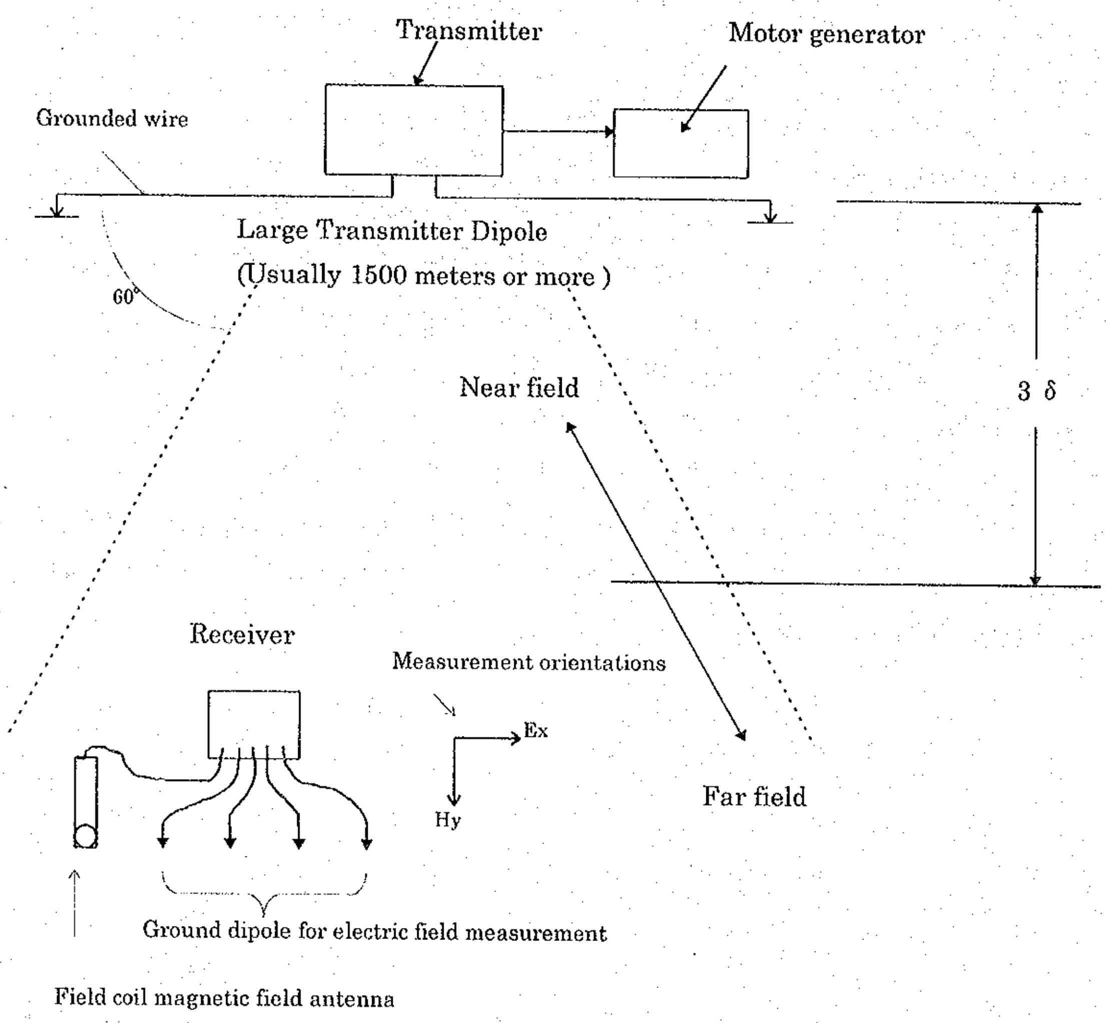


Fig.II-5-3 CSAMT geometry

5. Equipment and materials for measurement

Table II-5-2 indicates the equipment and materials used for measurement.

6. Data processing method

The signals received in electric and magnetic fields are processed in the receiver. By applying a statistical technique the data with poor repeatability were removed from 9 to 32 measured values for each frequency, and intensity of electric field, intensity of magnetic field, the average of the phase difference between electric fields and magnetic fields and apparent resistivity value are calculated. The formula below which is usually adopted in MT Method was used for calculating apparent resistivity value.

Table II-5-2 List of geophysical survey equipment

System	Equipment	Specification	Qty.
Transmitter System	CH-95T Transmitter	Output Voltage : 800V max Output Current : 9A max Output Wave Form : Rectangulat Output Current Frequency : 0.625Hz～5,120Hz Weight : 15Kg	1
Motor Generator System	ET4500 Motor Generater	Max. Output Power : 4.0KW(50Hz) 4.5KW(60Hz) Output Voltage : 200V(50Hz/60Hz) Engine : 4 cycle OHV	1
Receiver System	CH-95R	Input Signal : 4 channels Receiving Frequency : 2.5～5,120Hz Receiving Voltage Sensitivity : 0.02 μ V Weight : 4.5Kg Power Source : CH-95D	1
	CH-95D A/D Converter	Weight : 8.5Kg Power Source : DC 12V	1
	Induction Coil	Weight : 0.625～5,120Hz Size : φ 75×1,040mm	1
	CPU	Main Chip : Intel486DX RAM : 640kB	1
Electrode	Current Electrode	Stainless Rod : φ 16mm Length : 50cm	20
	Potential Electrode	Cupper Rod : φ 10mm Length : 30cm	8
Electric Wire	for Transmitter	VSF(1.25mm ^{2}) Vinyl Wire	2,500m
	for Receiver	RG-58C/V Co-axial Cable (75Ω)	200m
Survey Equipment	Pocket Compass		2
	Measuring Tape	100m Eslon Tape	2
Transceiver	KENWOOD TH-42	Output Power : 5 W	5

$$\rho = \frac{1}{5\ f}\sqrt{\frac{Ex}{Hy}} \qquad \cdots\cdots\cdots\cdots\cdots \quad (2)$$

ρ : Apparent resistivity of earth (Ω.m)

f : Frequency (HZ)

Ex: Electric field (mV/km)

Hy: Magnetic field (γ)

Using the apparent resistivity value obtained by the formula (2), plan of apparent resistivity for each frequency and the section of apparent resistivity for each survey line were prepared.

The apparent resistivity value observed is considered to contain information on resistivity toward the skin depth.

5-2 Results of geophysical survey

1. Section of apparent resistivity

Section of apparent resistivity was prepared for the survey lines where distribution of quartz veins was recognized (Area I: Lines C, J, N and R, Area II: Lines E and G). (See Figs. II-5-4 through II-5-6.)

The outline of each section is as follows:

1) Area I

(Line C)

Relatively low resistivity value of 100 to 1,000 Ω.m is noted in high frequency range, while relatively high resistivity value of 1,000 to 10,000 Ω.m is noted in low frequency range. At station No.14 through 17, relatively low resistivity value of 2,000 Ω.m or less is noted as compared with those in the surrounding points. On the land surface near station No.19 and 20, outcrops of quartz vein are recognized. However, no characteristic distribution of resistivity is noted to reveal this fact.

(Line J)

Like thisase of Line C, relatively low resistivity value was noted in high frequency range. In particular, station No.21 shows low resistivity of 50 Ω.m or less. On the land surface station No.16 through 19, outcrops of quartz vein are noted relatively in a large quantity. In these points values of resistivity are rather high compared with those of surrounding points. In particular,

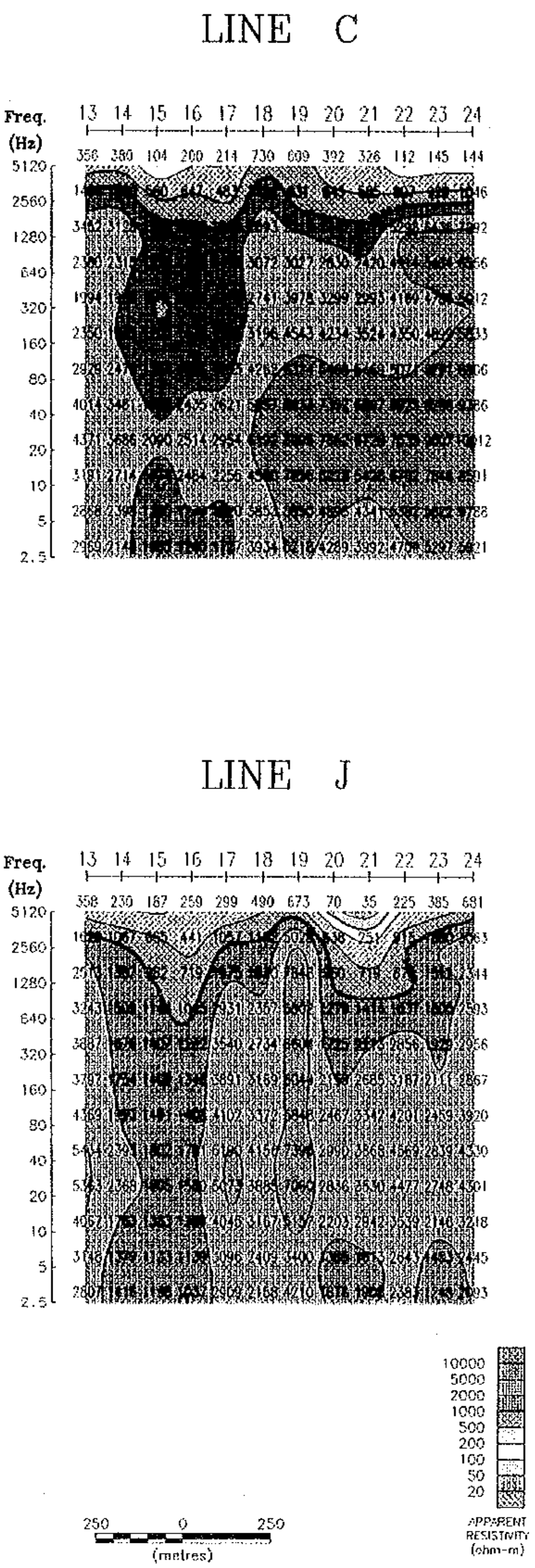


Fig. II-5-4 Section of Apparent Resistivity(Area I, Line C, J)

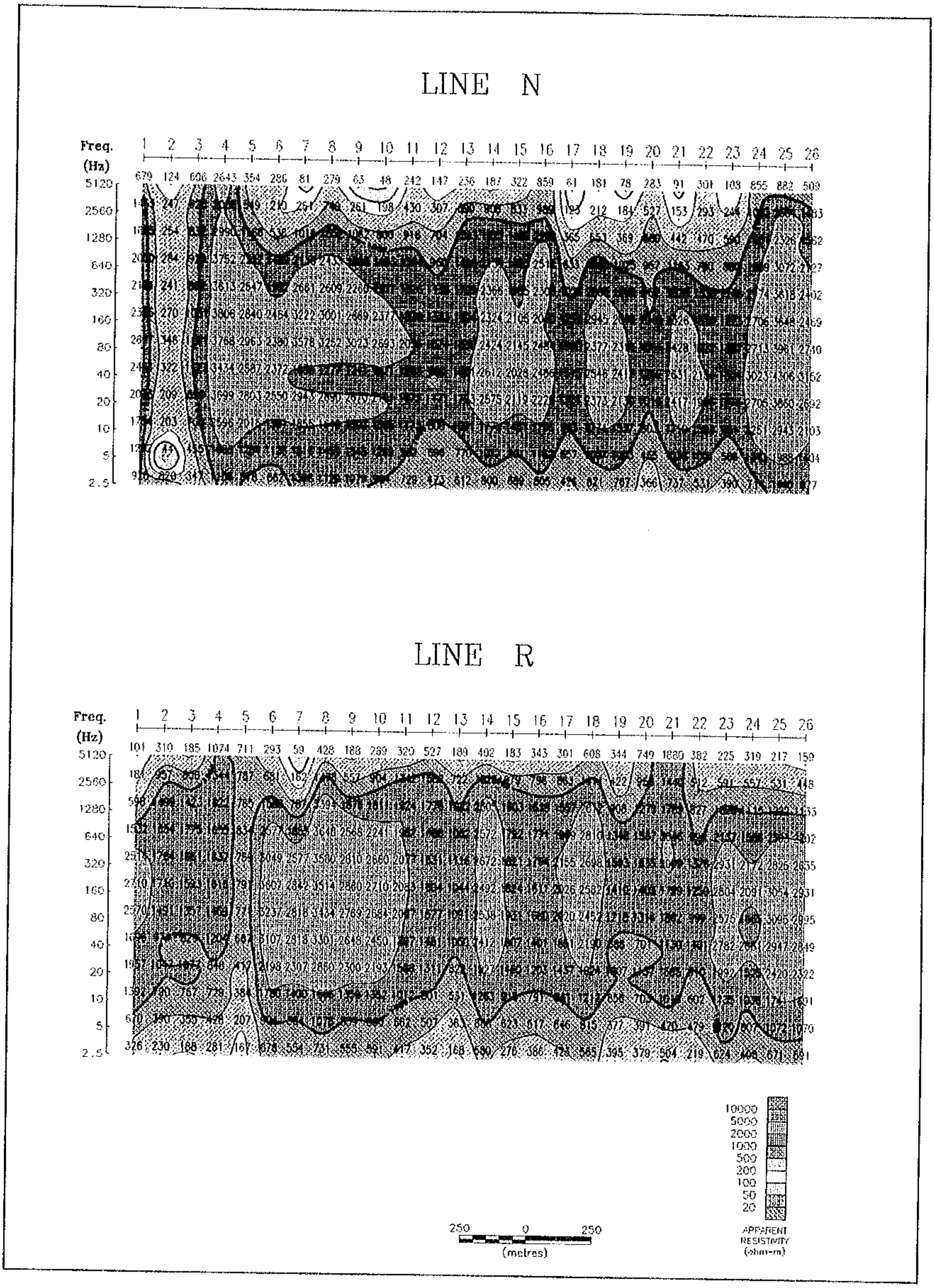


Fig. II-5-5 Section of Apparent Resistivity(Area I, Line N, R)

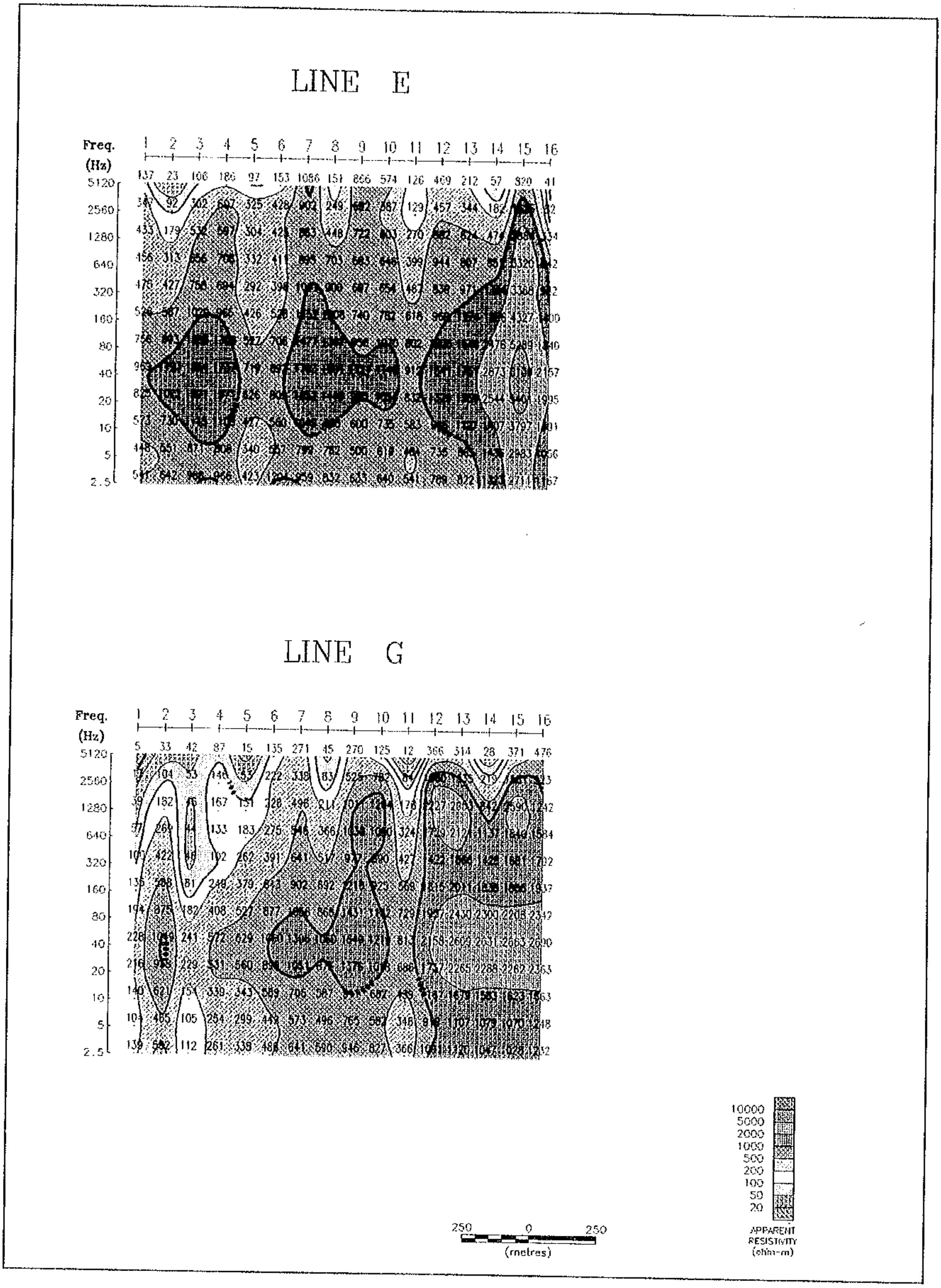


Fig. II-5-6 Section of Apparent Resistivity(Area II, Line E, G)

station No.19 shows this tendency more distinctively. It is interesting to note the relation between quartz veins and distribution of high resistivity.

(Line N)

A tendency is noted to show low resistivity in high frequency range, while high resistivity and low resistivity are noted in medium frequency range and low frequency range respectively. In the area of high resistivity distribution in medium frequency, a tendency is noted where resistivity values varied along the direction of survey lines.

(Line R)

Similar distribution of resistivity to that of Line N is noted. Also in this section, vertical distribution of resistivity is noted in medium frequency band.

2) Area II

(Line E)

In the distribution of resistivity of 1,000 Ω.m or less, distribution of resistivity of 1,000 to 2,000 Ω.m is noted locally. In particular, high resistivity value of 5,000 Ω.m or more is noted at station No.15 on the northern extension of quartz vein (6).

(Line G)

High resistivity is noted at stations No. 13 through 16. Quartz vein (6) is noted near station No. 13. Low resistivity zone of 100 Ω.m or less is distributed in high frequency range of stations Nos. 1 through 5. Relatively high resistivity value of 1,000 Ω.m or more is noted in medium frequency range at stations Nos. 7 through 10.

2. Plan of apparent resistivity

Figs. II-5-7 through II-5-12 indicate Plans of apparent resistivity representing plan distributions of apparent resistivity value of the same frequency.

1) Area I

(1,280 Hz)

Distribution of resistivity is noted having the strike in the south to north direction. The characteristics of the distribution of resistivity of 1,000 Ω.m or less are: (1) Continuous distribution from the vicinity of M13 through M16 to northern Line F., (2) Distribution in the direction of south to north centering on the vicinity of M20 through M22, and (3) Distribution in the north from W1

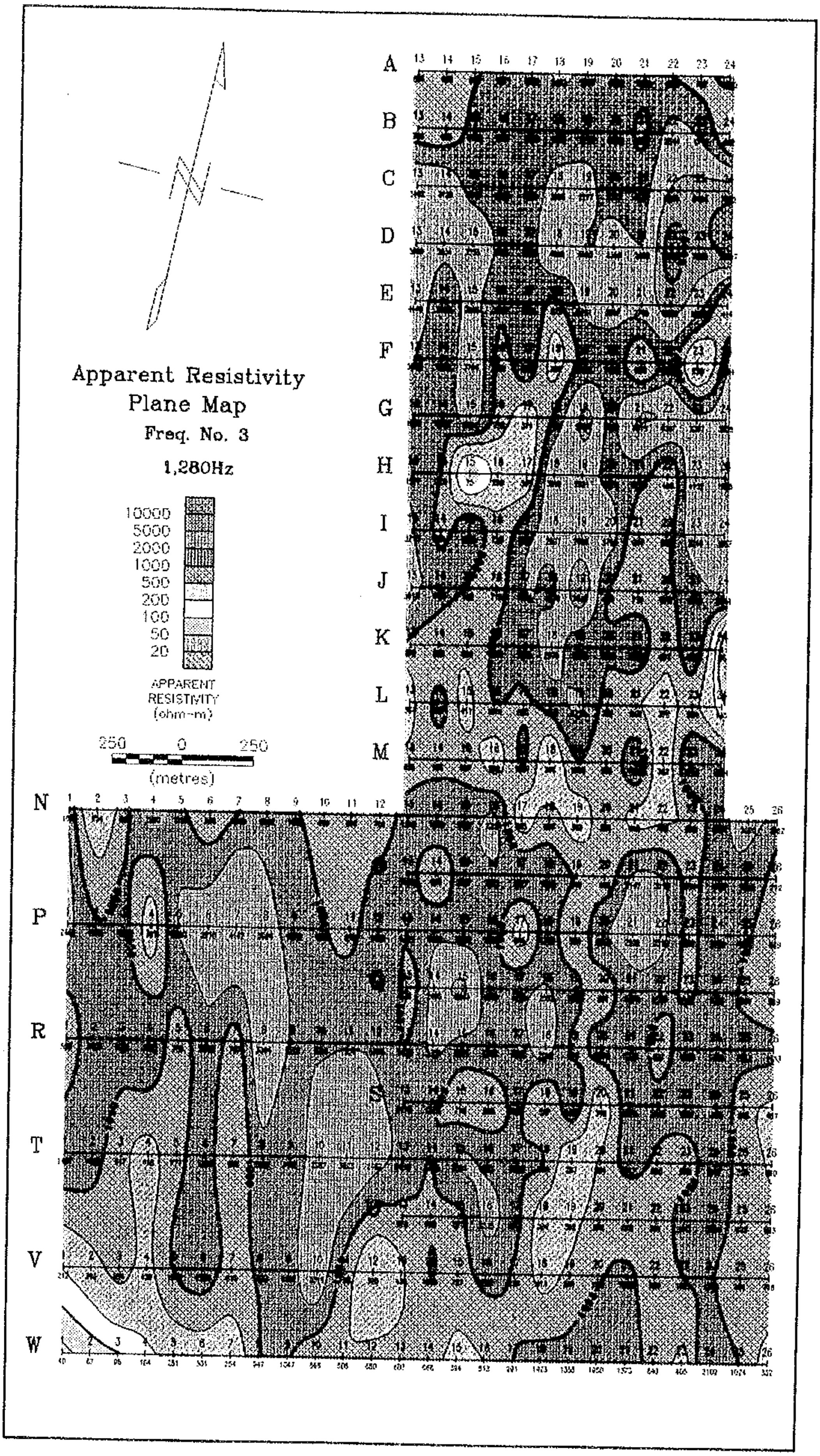


Fig. II-5-7 Plan of Apparent Resistivity (Area I, 1,280Hz)

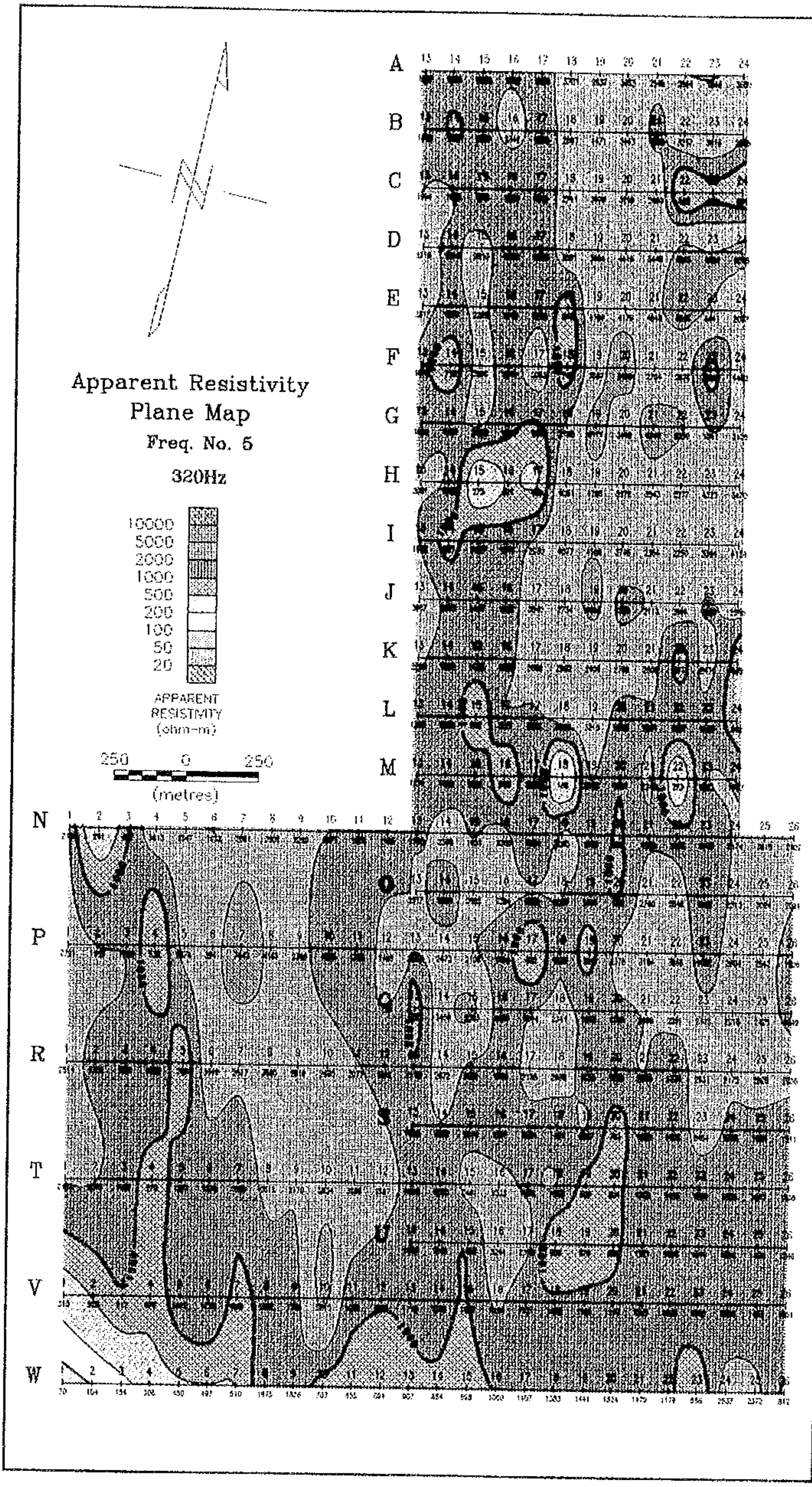


Fig. II-5-8 Plan of Apparent Resistivity (Area I, 320Hz)

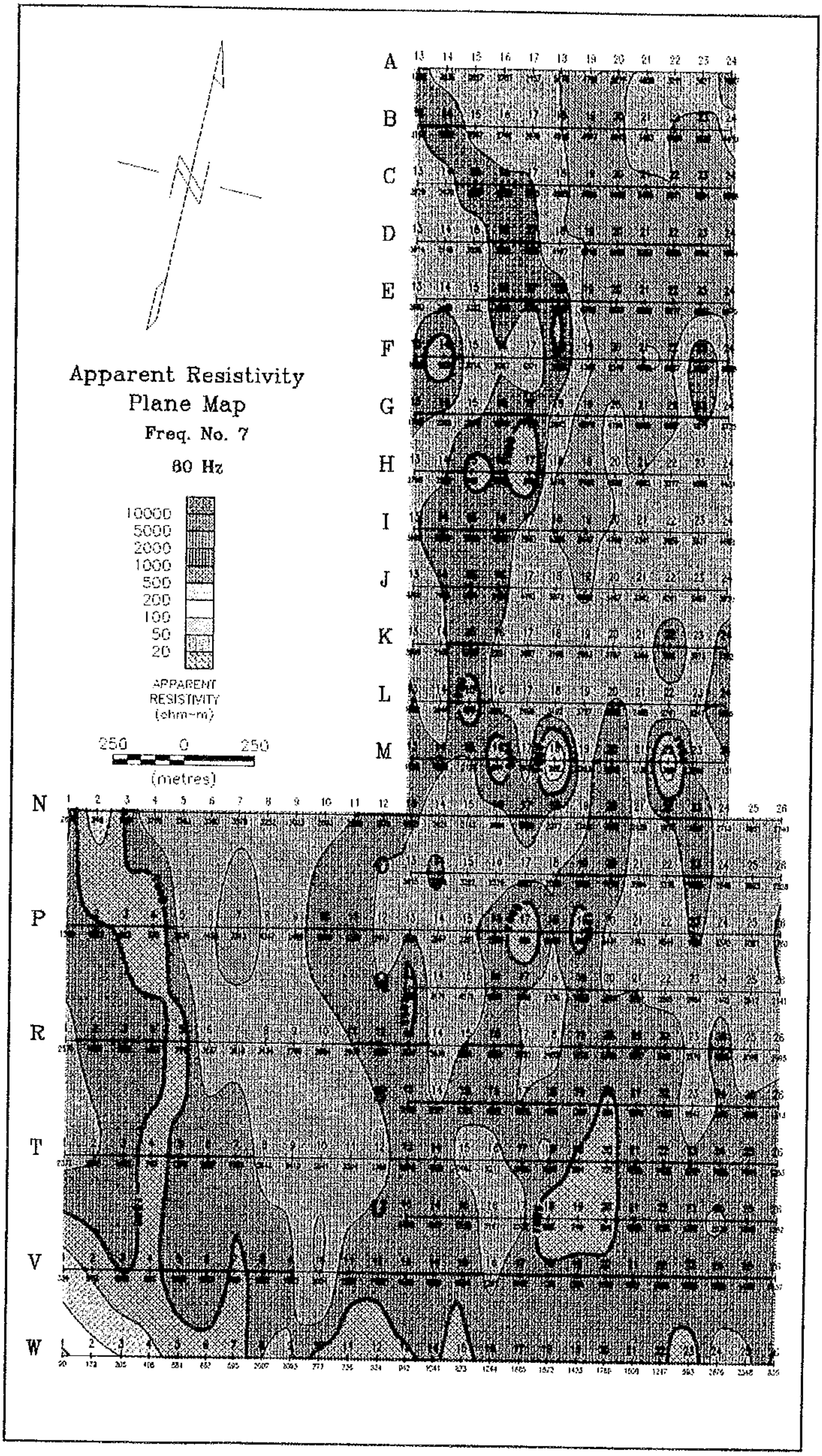


Fig. II-5-9　　Plan of Apparent Resistivity (Area I. 80Hz)

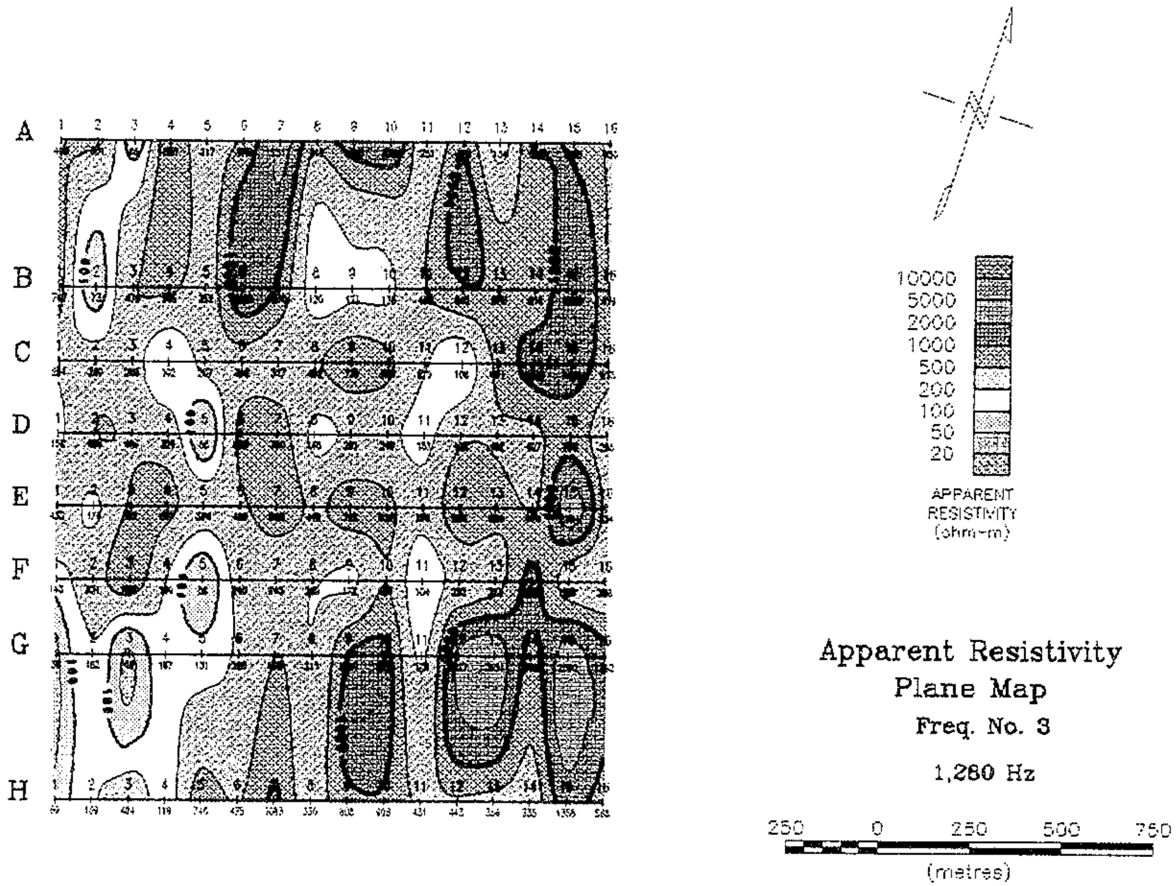


Fig. II-5-10 Plan of Apparent Resistivity (Area II, 1,280Hz)

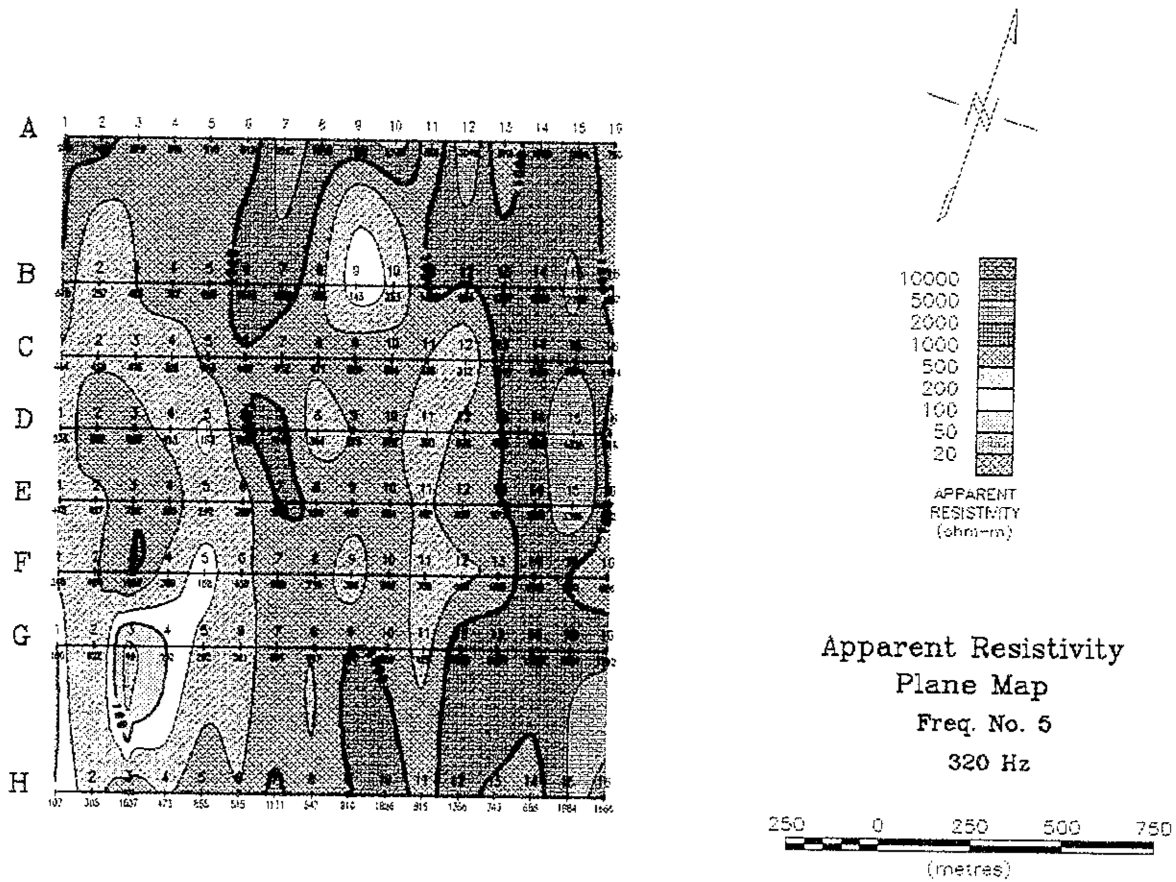


Fig. II-5-11 Plan of Apparent Resistivity (Area II. 320Hz)

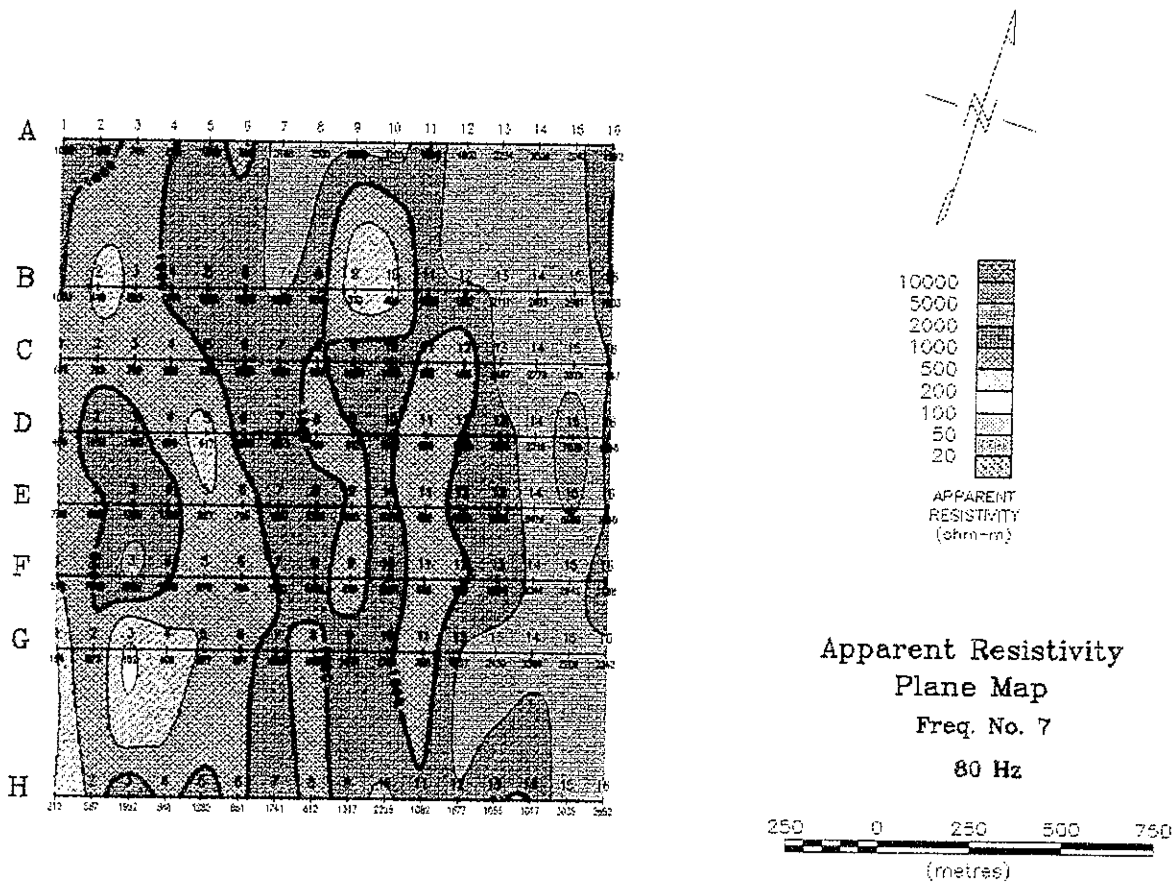


Fig. II-5-12 Plan of Apparent Resistivity (Area II, 80Hz)

through W8 of the south-west end of the area. Case (2) extend in the direction to the south to reach Line W. On the other hand, distribution of high resistivity of 2,000 Ω.m or more predominate in the south to north direction in most of the surveyed area. Among them high resistivity area which is distributed in G19 through K18 correspond to the spots where quartz veins are densely distributed. The high resistivity area noted in O21, 22 through P21, 22 might be related to quartz vein (10) which is distributed in the same location.

(320 Hz)

The area of low resistivity of 1,000 Ω.m or less is reduced and the area of high resistivity of 1,000 Ω.m or more is distributed in all most entire surveyed area, and the area of high resistivity of 2,000 Ω.m or more is distributed in a wide range in the eastern side of lines A through L. In the vicinity of lines N through V distribution in the south to north direction is also noted.

(80 Hz)

Distribution of resistivity similar to that of 320 Hz is noted. In the eastern side of lines A through J, the range of high resistivity area of 5,000 Ω.m or more has been enlarged.

2) Area II

(1,280 Hz)

Resistivity value of 2,000 Ω.m or less is noted in almost the entire area, and the area of low resistivity of 500 Ω.m or less account for approximately 60% to the total area. In the western side of the area, low resistivity zone of 200 Ω.m or less is noted. However, no high resistivity zone is noted to correspond to quartz vein.

(320 Hz)

In the eastern side of the area, an area of resistivity of 1,000 Ω.m or more is distributed with the direction of the south to north. The resistivity value of the central part is 2,000 Ω.m or more. On the other hand, in the western side of the area, an area of low resistivity of 1,000 Ω.m or less is distributed. In particular, in the south-west end a low resistivity area is noted.

(80 Hz)

In the high resistivity area in the eastern side of the area as indicated in the plan of apparent resistivity of 320 Hz, the values of resistivity are further raised to become from 2,000 Ω.m or more to the maximum value of 7,000 Ω.m. The distribution of resistivity and the strike of