

APPENDICES

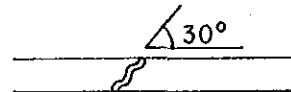
LEGEND

am : amphibolite
 bi : biotite
 brn : brown
 c : coarse
 cal : calcite Cb : cubanite
 chl : chlorite Cp : chalcopyrite
 d, dissem : dissemination
 dk : dark Epi : epidote
 f : fine
 Fd : folding
 ga : galena
 gn : garnet
 grn : green
 lim : limonite
 lt : light
 m : medium
 mass: massive
 ms : muscovite
 n : network
 pl : plagioclase
 pr : pyrrhotite
 py : pyrite
 qt : quartz
 sch : schist Sp : Sphene
 sph : sphalerite
 st : staurolite
 str : stringer
 v : vein
 vc : very coarse
 w : width
 yell : yellow

⊙ : prominent
 ⊗ : abundant
 ○ : common
 ◦ : a little
 • : rare

⊙ : sample for ore analysis
 ⊕ : sample for polished section
 ⊔ : sample for thin section
 ⊓ : sample for physical property

$\angle 30^\circ$: angle between the
 drilling core and the target



Numbers in "schistosity" column
 are the angle formed between the
 drilling core and schistosity

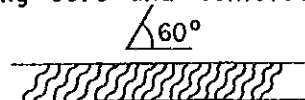
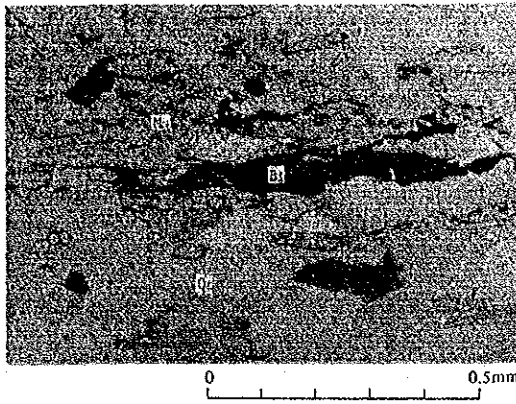


Photo A-1

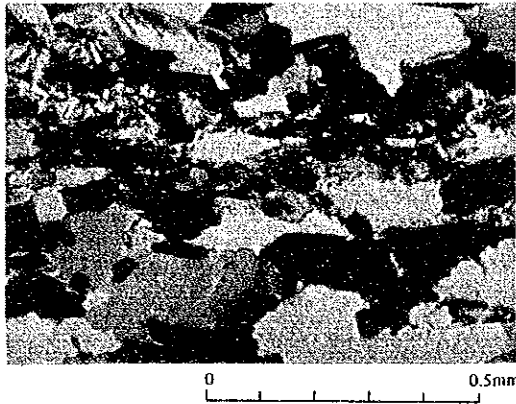
Microphotograph of Thin Section

Thin Section



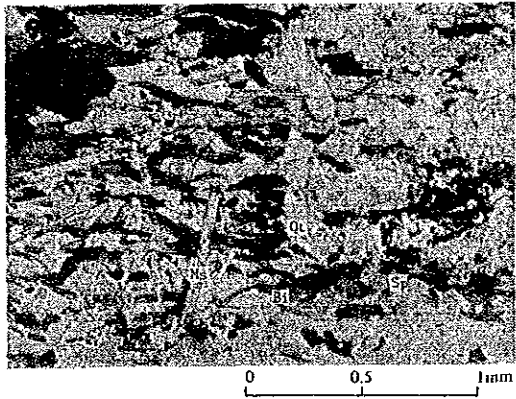
Sample, Depth: MBP-4, 30.00m
Rock Name : Ms-Bi-Qt Sch
Texture : schistose

(only lower polar)



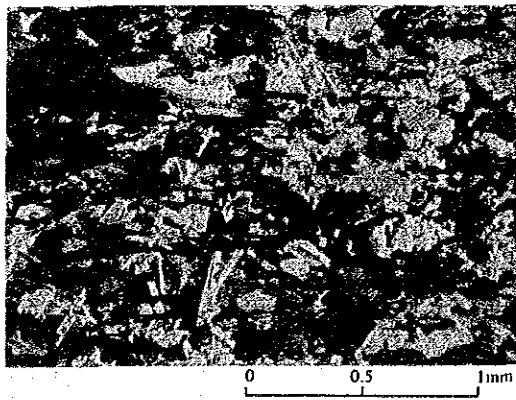
ditto

(crossed polars)



Sample, Depth : MBP-4, 72.15m
Rock Name : Bi-Ms Sch (Sphene in Bi)
Texture : schistose

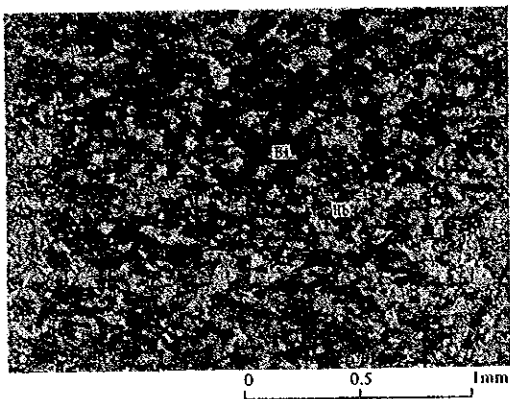
(only lower polar)



ditto

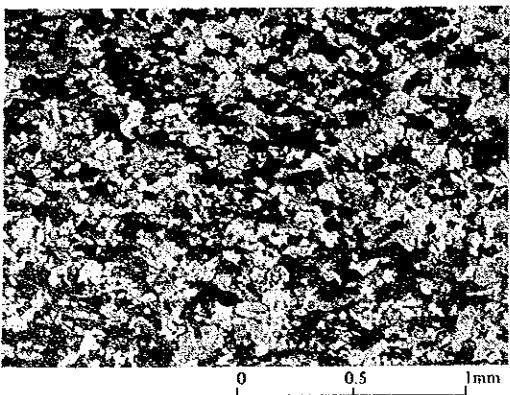
(crossed polars)

Thin Section



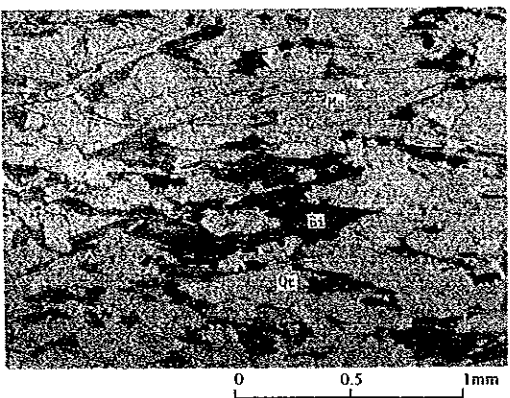
Sample, Depth: MBP-4, 290.55m
Rock Name : Hb Sch (Bi included)
Texture : schistose

(only lower polar)



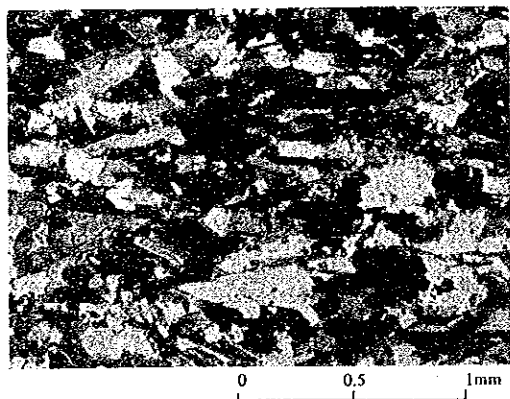
ditto

(crossed polars)



Sample, Depth: MBP-5, 218.00m
Rock Name : Bi-Ms-Qt Sch
Texture : schistose

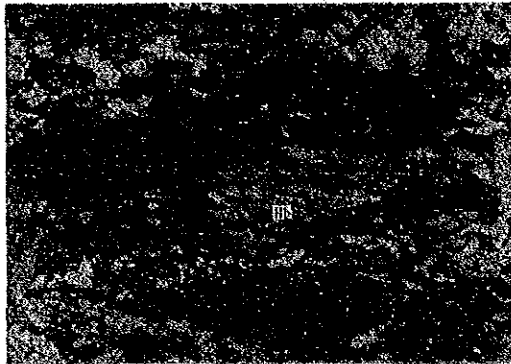
(only lower polar)



ditto

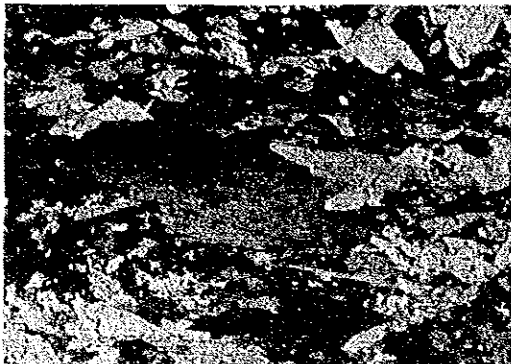
(crossed polars)

Thin Section



Sample, Depth: MBP-5, 249.55m
Rock Name : Hb Sch
Texture : schistose

(only lower polar)



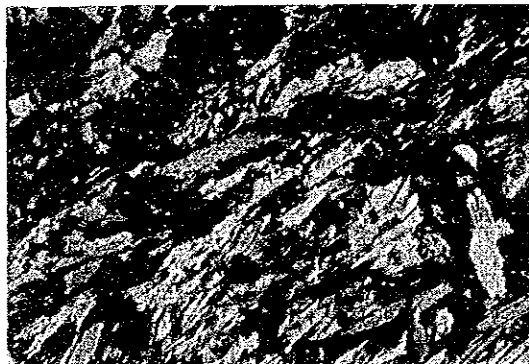
ditto

(crossed polars)



Sample, Depth: MBP-6, 220.00m
Rock Name : Chl-Ms Sch (Epidote include
Texture : schistose

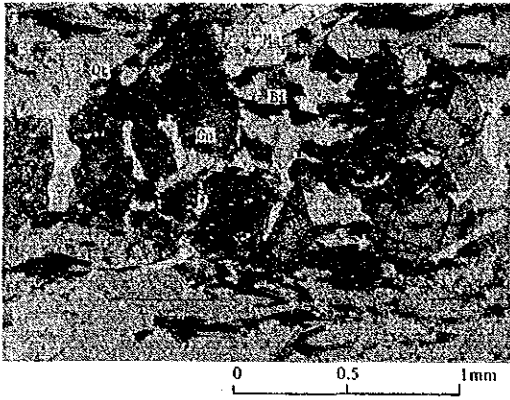
(only lower polar)



ditto

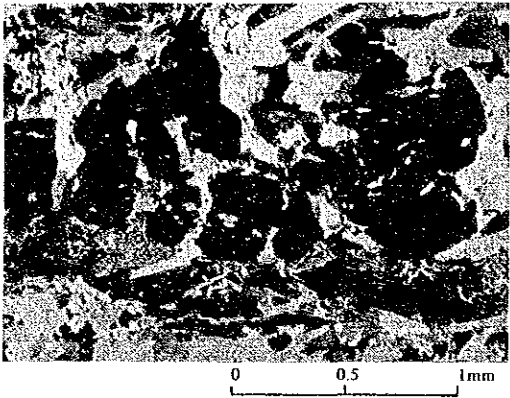
(crossed polars)

Thin Section



Sample, Depth : MBP-6, 395.75m
Rock Name : Gn-Bi-Ms-Qt Sch
Texture : schistose

(only lower polar)

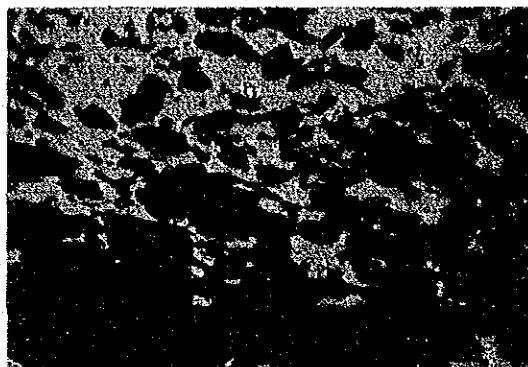


ditto

(crossed polars)

Photo A-2 Microphotograph of Polished Section

Polished Section



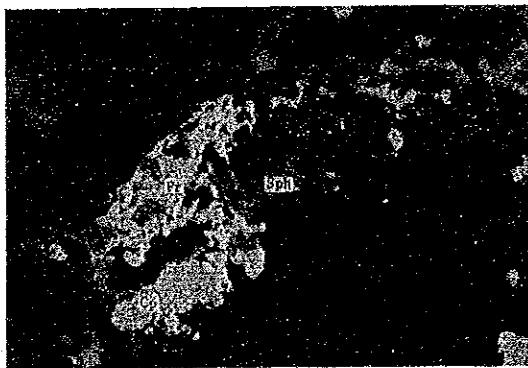
Sample, Depth : MBP-4, 287.10m
Occurrence : laminated
Minerals : Pr >> Cp > Sph



Sample, Depth : MBP-5, 210.30m
Occurrence : irregular veinlet
Minerals : Cp · Sph > Py · Cubanite

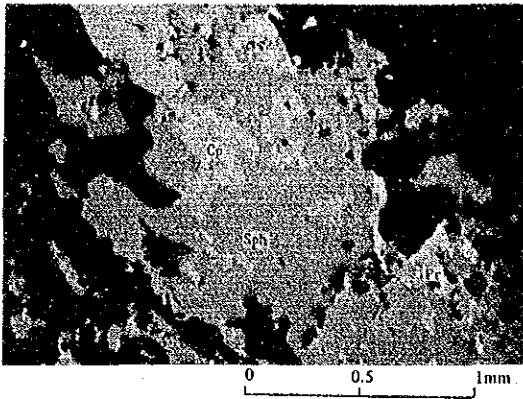


ditto

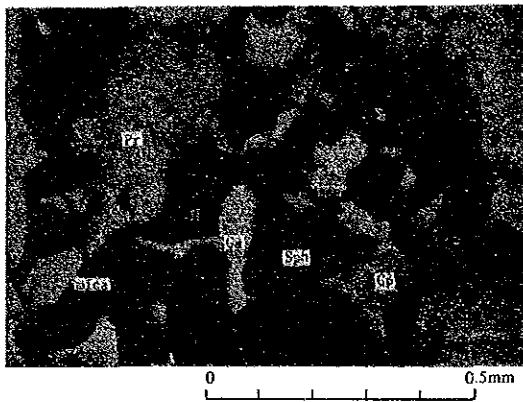


Sample, Depth: MBP-6, 370.40m
Occurrence : irregular veinlet
Minerals : Cp · Sph > Ga · Py

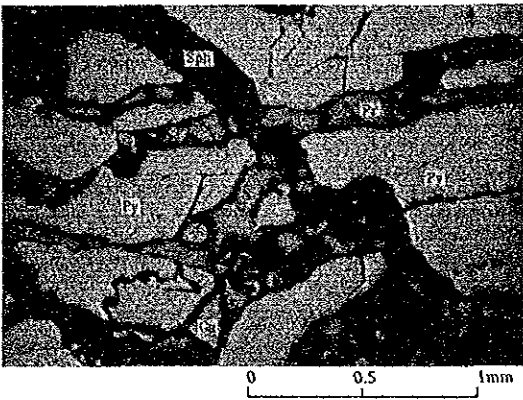
Polished Section



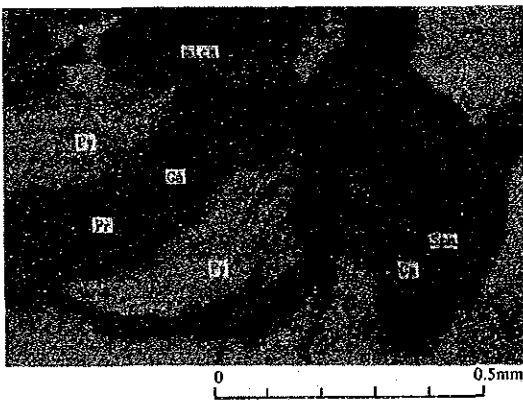
ditto



Sample, Depth : PM-138-GO, 183.20m
 Occurrence : massive polymetallic
 Minerals : Pr · Sph > Cp · Ga >> Py

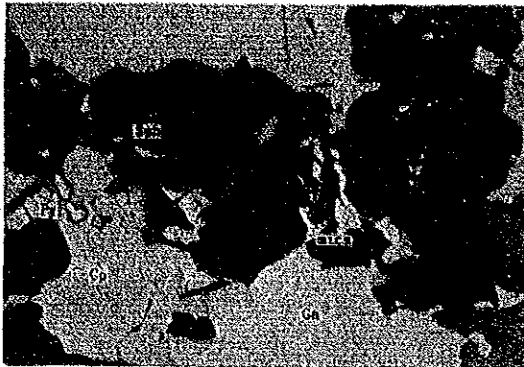


Sample, Depth : PM-138-GO, 194.70m
 Occurrence : massive polymetallic
 Minerals : Sph · Py > Pr > Cp · Ga

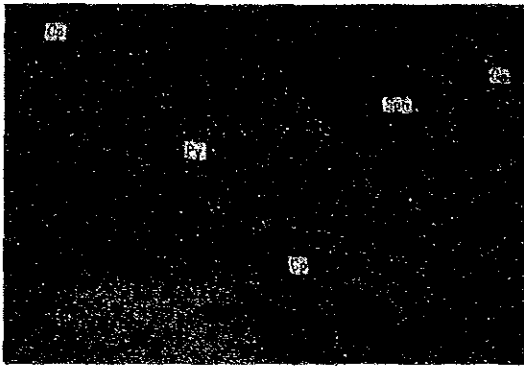


ditto

Polished Section



Sample, Depth: MBP-4, 43.65m
Occurrence : irregular veinlet
Minerals : Sph > Cp · Ga · Py



ditto

TableA-2 Microscopic Observations (Polished Section)

No.	Sample Depth	Occurrence	Minerals						
			Chalcopyrite	Sphalerite	Galena	Pyrrhotite	Pyrite	Cubanite	Gangue Minerals
1	MBP-4 ; 43.65m	irregular veinlet	○	○	○		○*		◎
2	MBP-4 ; 287.10m	laminated pyrrhotite ore	○	•		◎			○
3	MBP-5 ; 210.30m	irregular veinlet	○	○			•	•	◎
4	MBP-6 ; 370.40m	irregular veinlet	○	○	•	•			◎
5	PM-138 ; 183.20m	massive polymetallic ore	○	◎	○	◎	•		○
6	PM-138 ; 194.70m	massive polymetallic ore	○	◎	○	○	◎		○

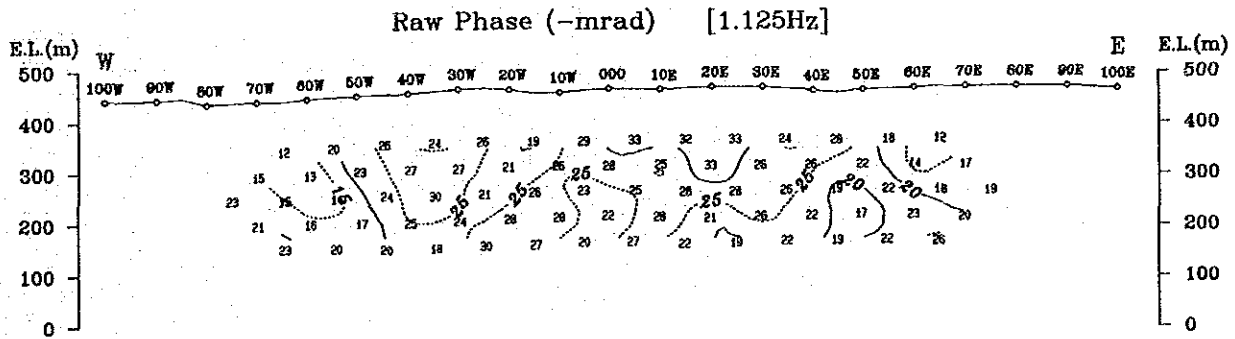
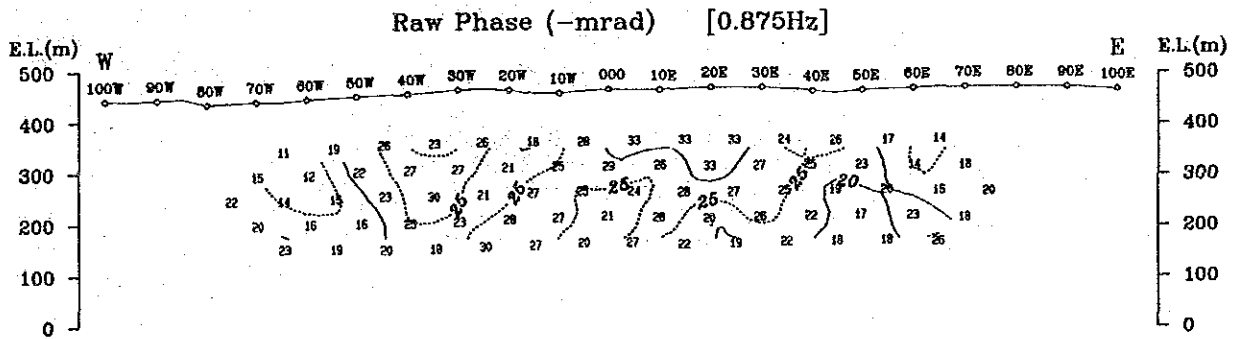
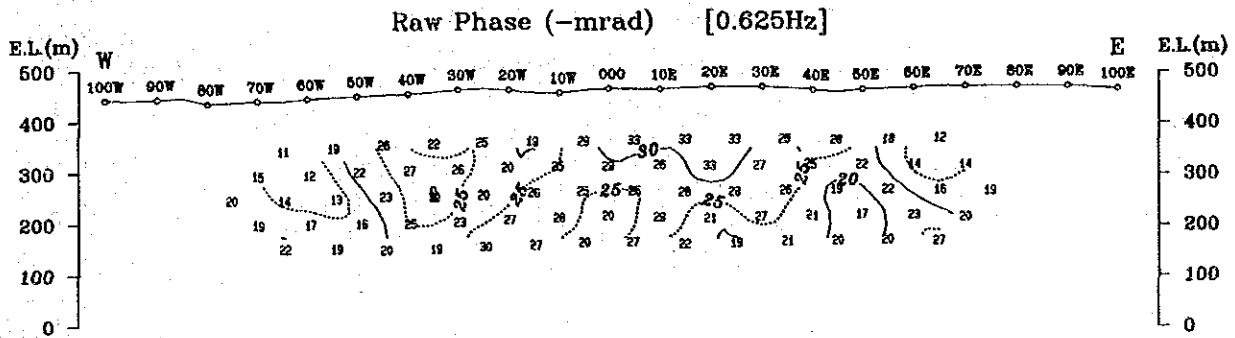
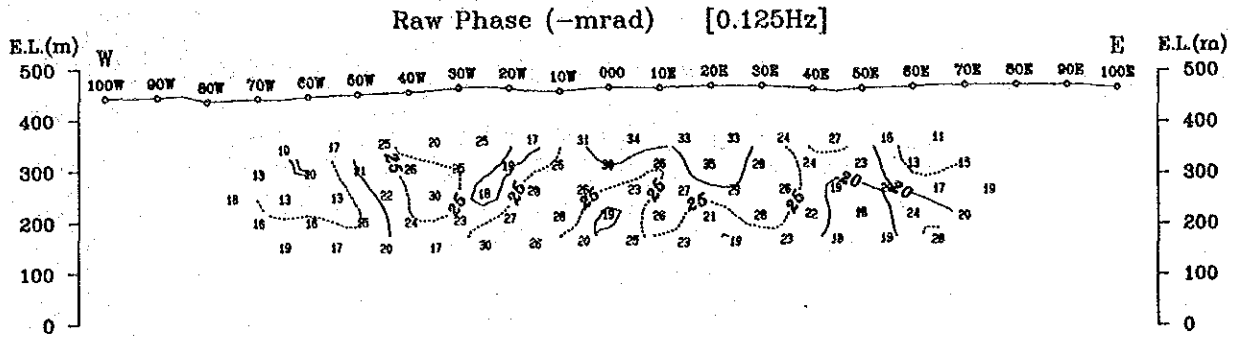
* brecciated

Fig. A-1

Phase Pseudo-Section

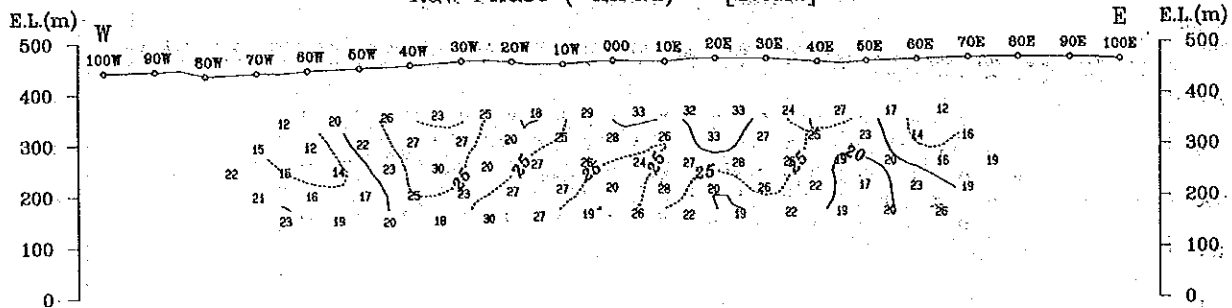
Line-1345S	[0.125Hz - 7.0Hz]
Line-1375S	[0.125Hz - 7.0Hz]
Line-1405S	[0.125Hz - 7.0Hz]
Line-1420S	[0.125Hz - 7.0Hz]
Line-1430S	[0.125Hz - 7.0Hz]
Line-1450S	[0.125Hz - 7.0Hz]
Line-20E	[0.125Hz - 7.0Hz]

Line-1345S

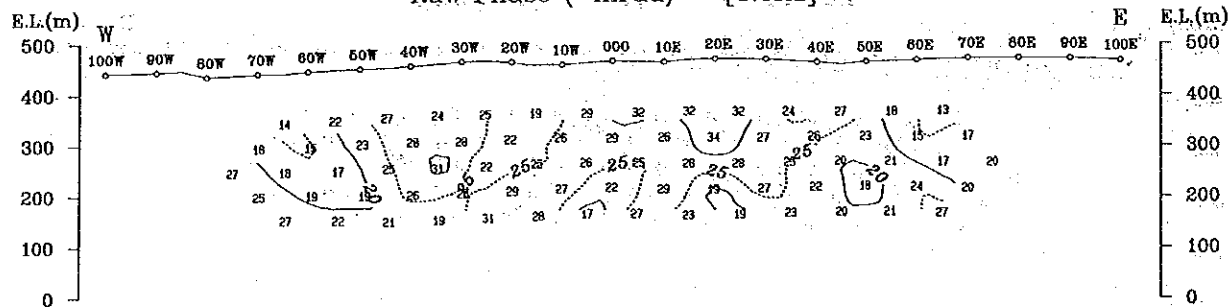


Line-1345S

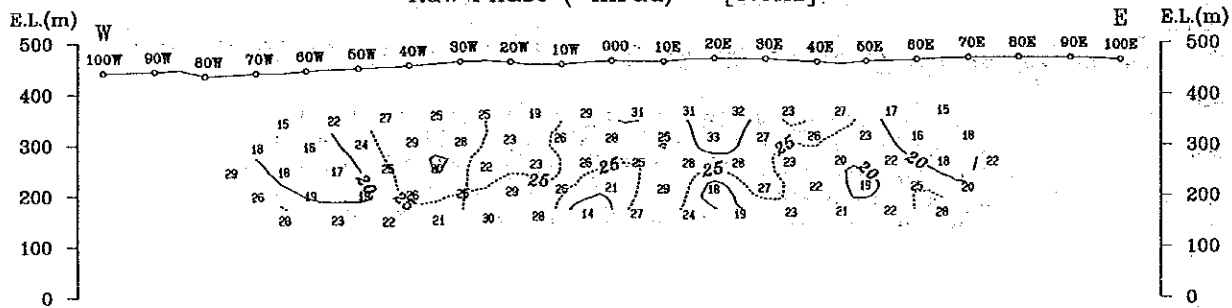
Raw Phase (-mrad) [1.0Hz]



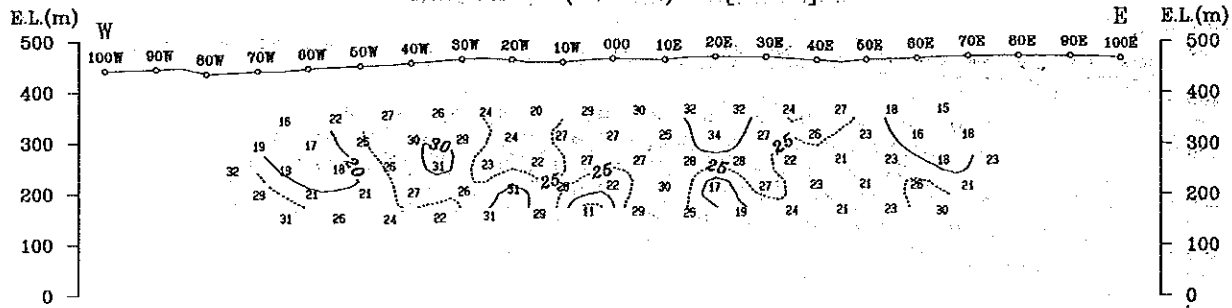
Raw Phase (-mrad) [3.0Hz]



Raw Phase (-mrad) [5.0Hz]

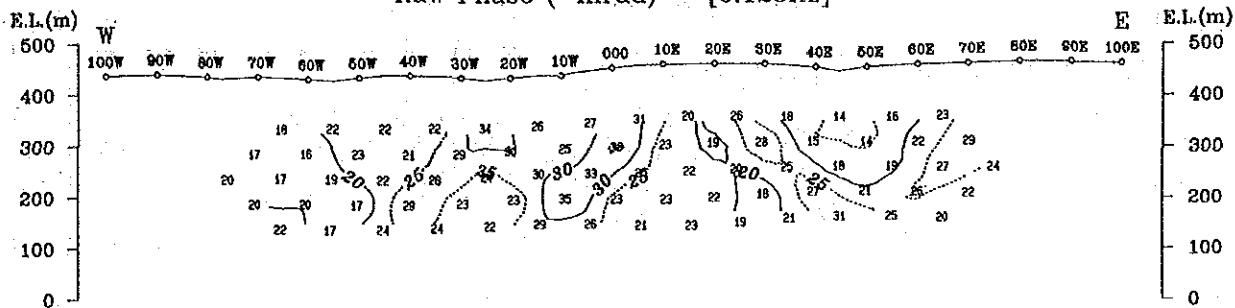


Raw Phase (-mrad) [7.0Hz]

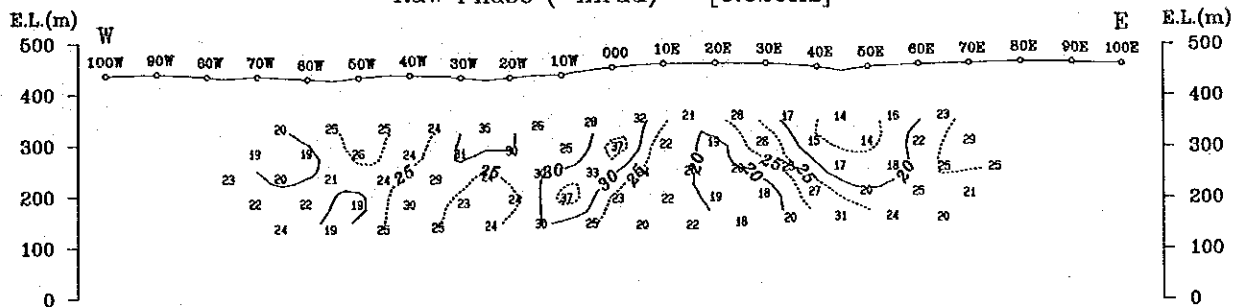


Line-1375S

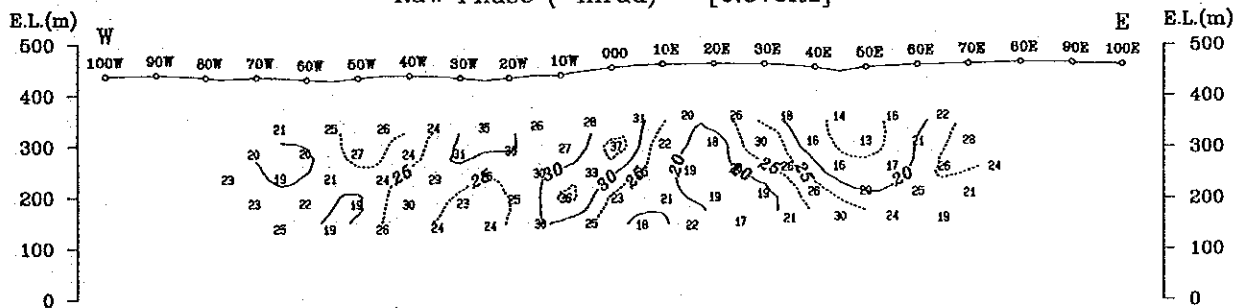
Raw Phase (-mrad) [0.125Hz]



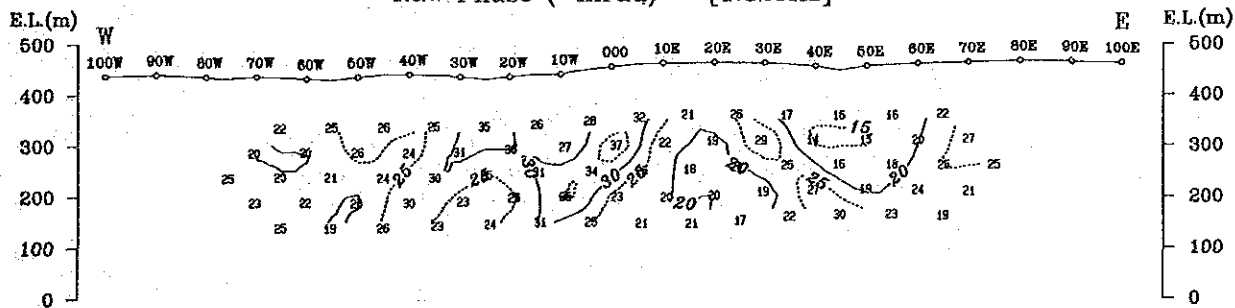
Raw Phase (-mrad) [0.625Hz]



Raw Phase (-mrad) [0.875Hz]

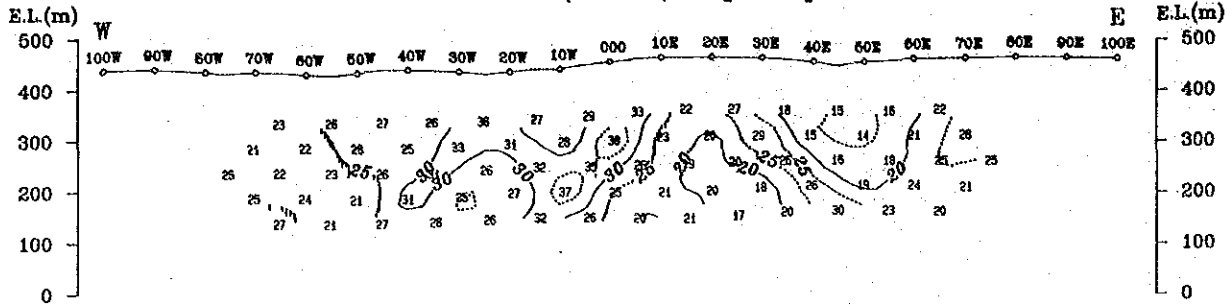


Raw Phase (-mrad) [1.125Hz]

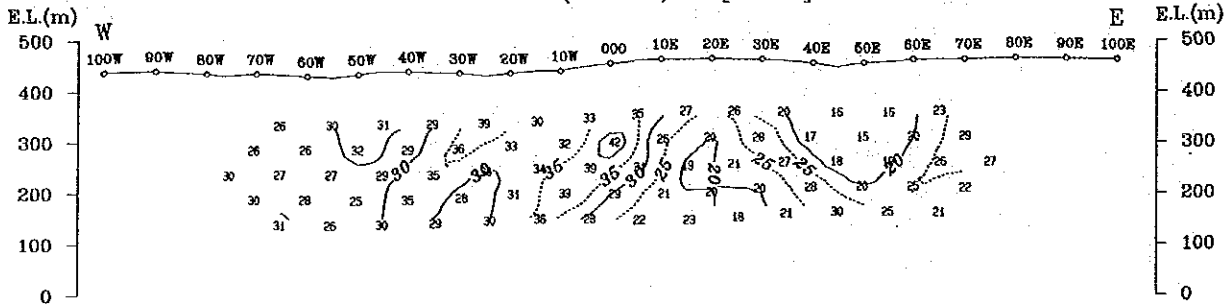


Line-1375S

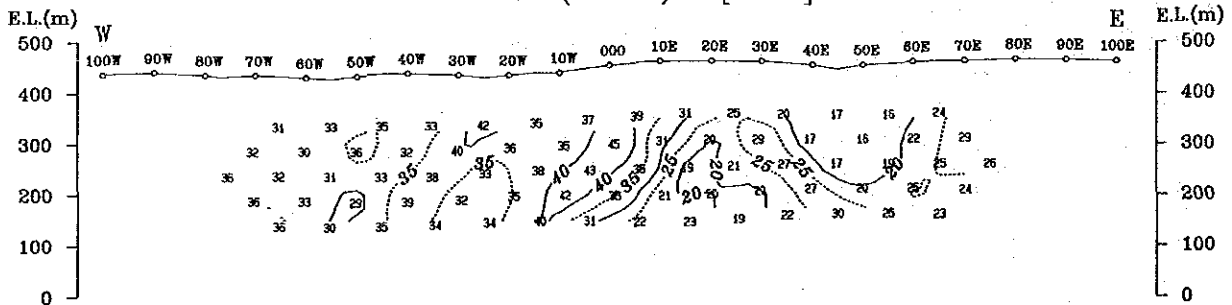
Raw Phase (-mrad) [1.0Hz]



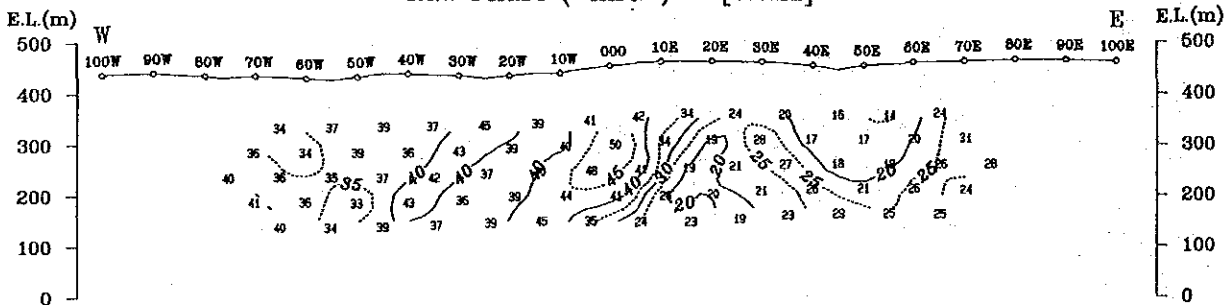
Raw Phase (-mrad) [3.0Hz]



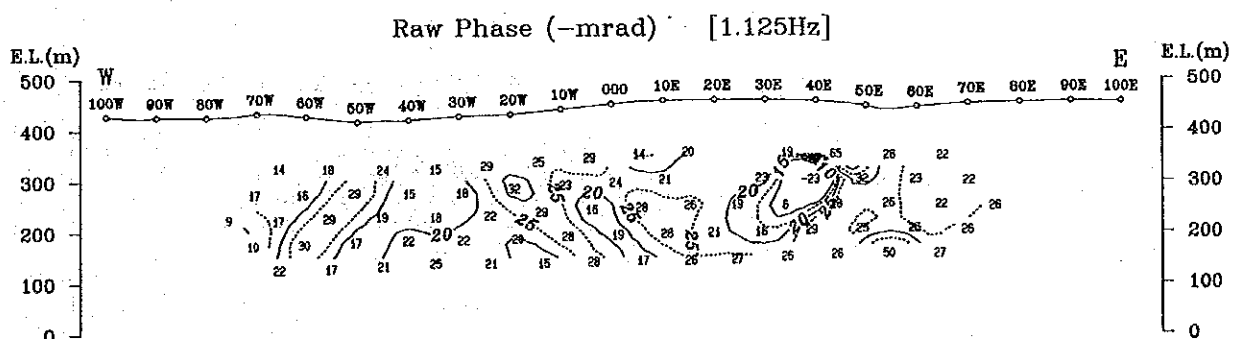
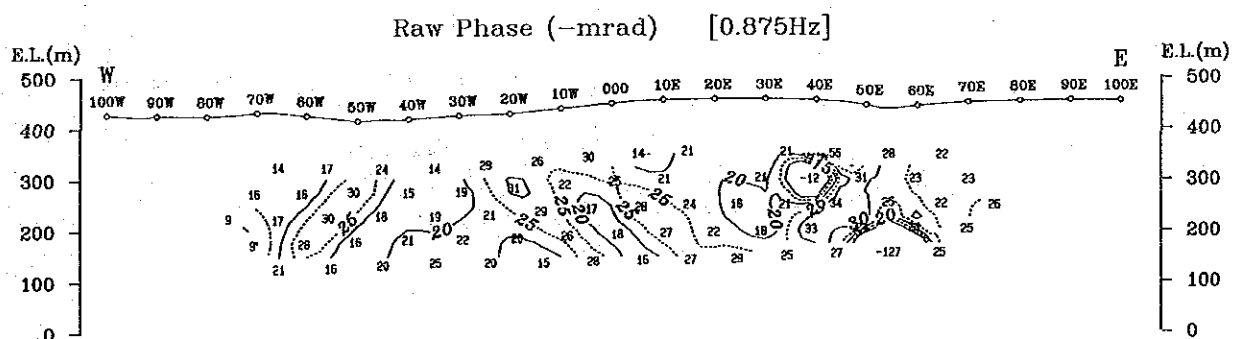
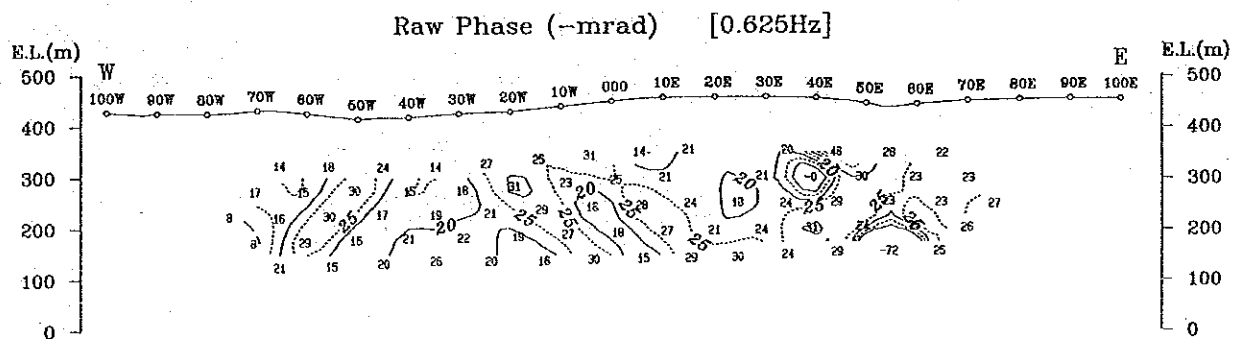
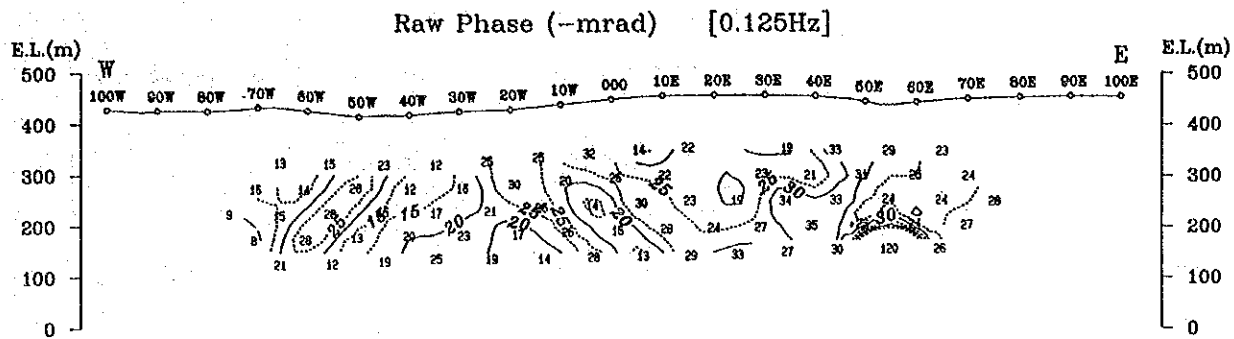
Raw Phase (-mrad) [5.0Hz]



Raw Phase (-mrad) [7.0Hz]

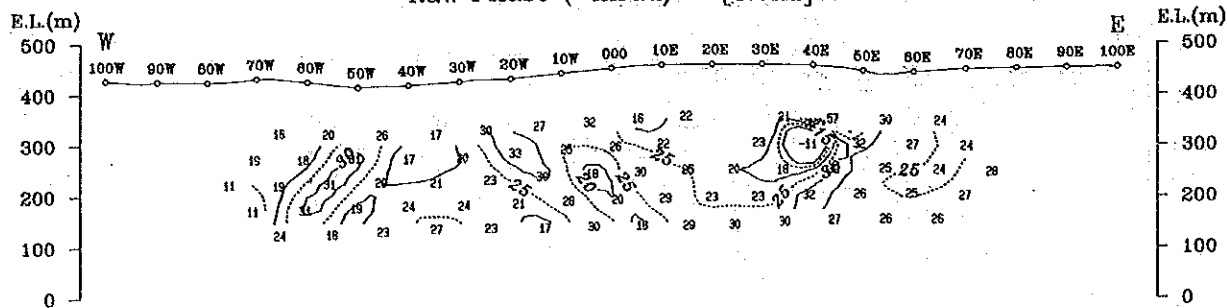


Line-1405S

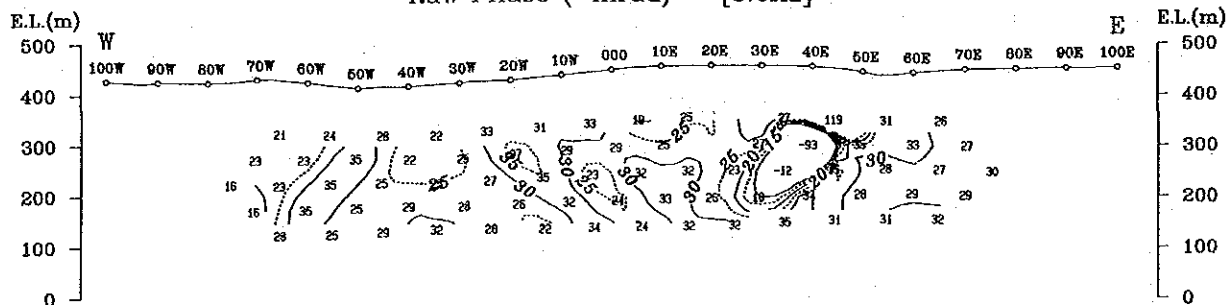


Line-1405S

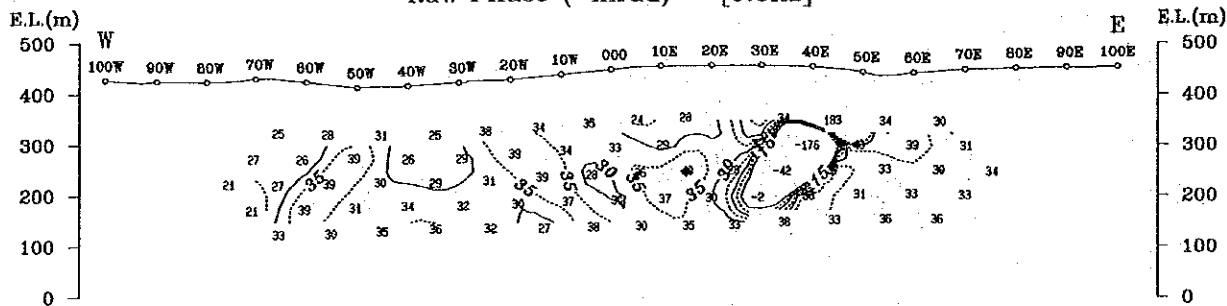
Raw Phase (-mrad) [1.0Hz]



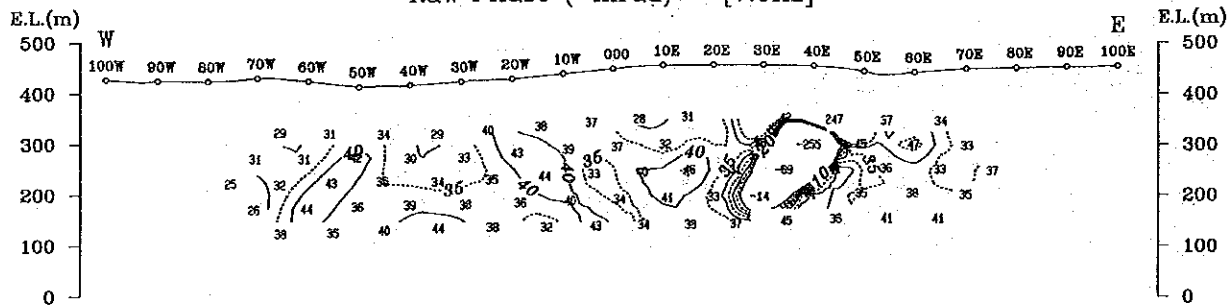
Raw Phase (-mrad) [3.0Hz]



Raw Phase (-mrad) [5.0Hz]

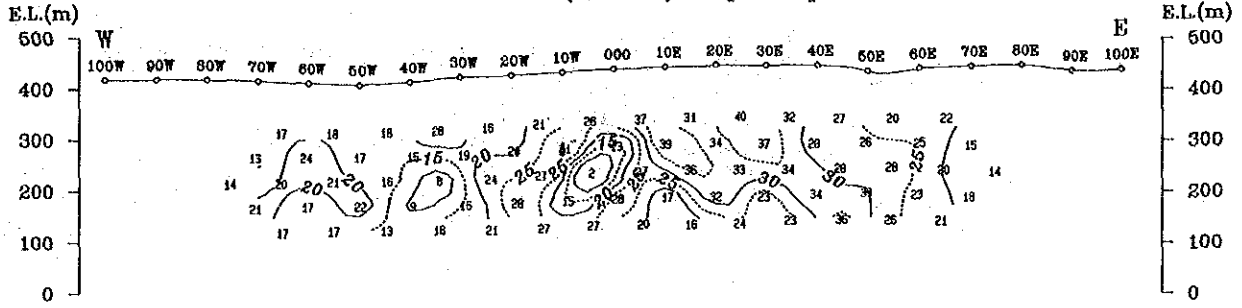


Raw Phase (-mrad) [7.0Hz]

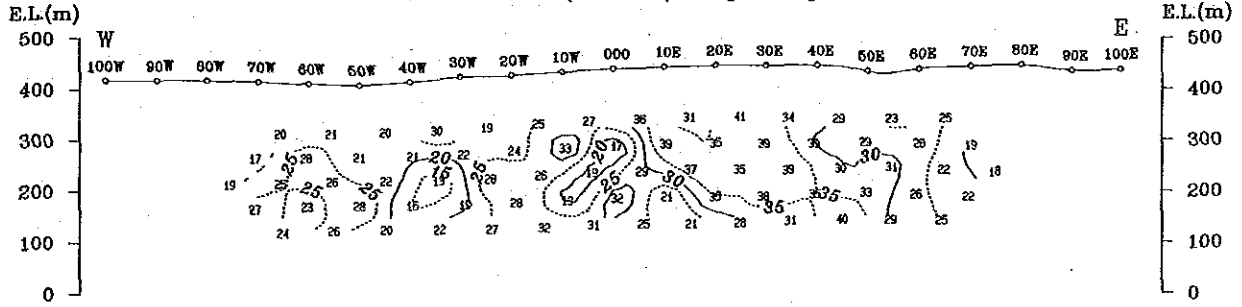


Line-1430S

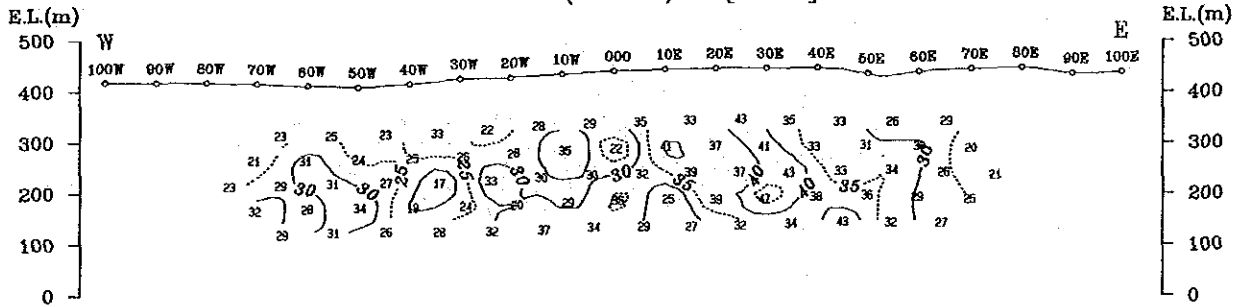
Raw Phase (-mrad) [1.0Hz]



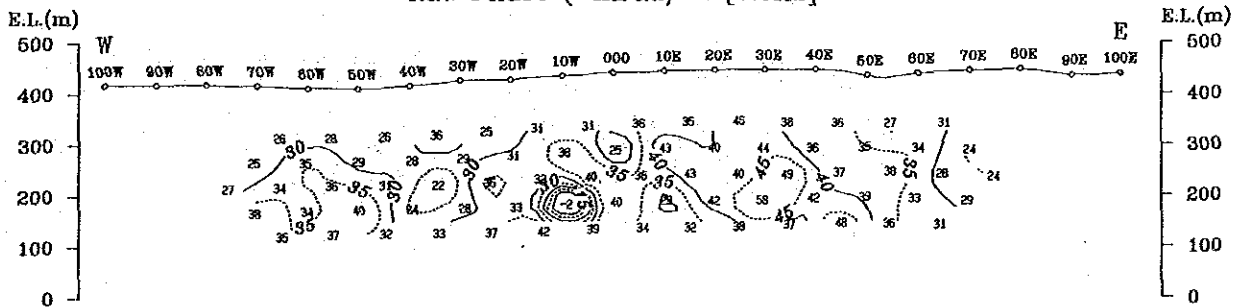
Raw Phase (-mrad) [3.0Hz]



Raw Phase (-mrad) [5.0Hz]

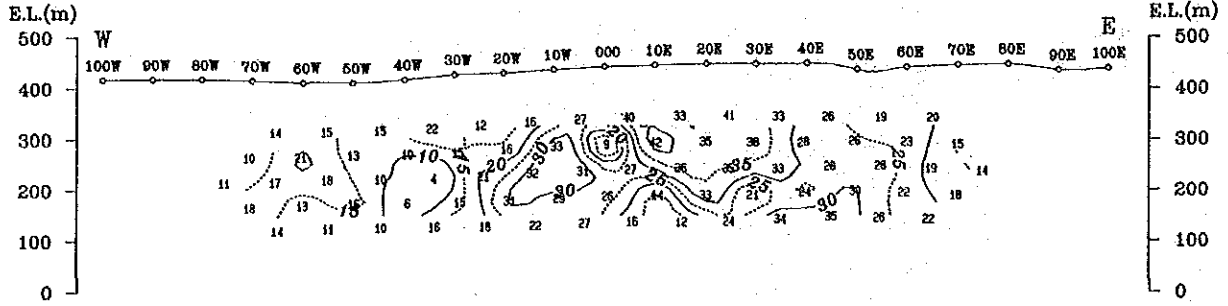


Raw Phase (-mrad) [7.0Hz]

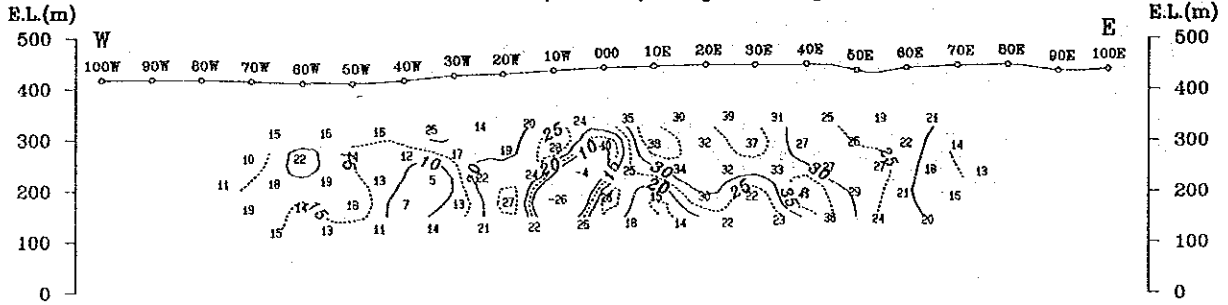


Line-1430S

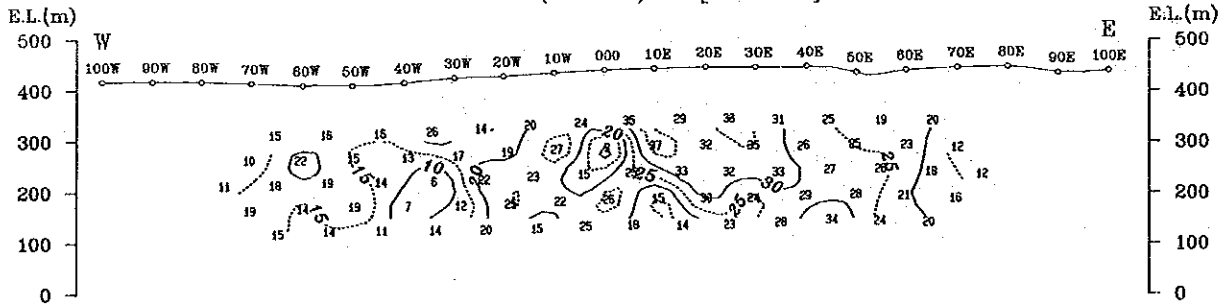
Raw Phase (-mrad) [0.125Hz]



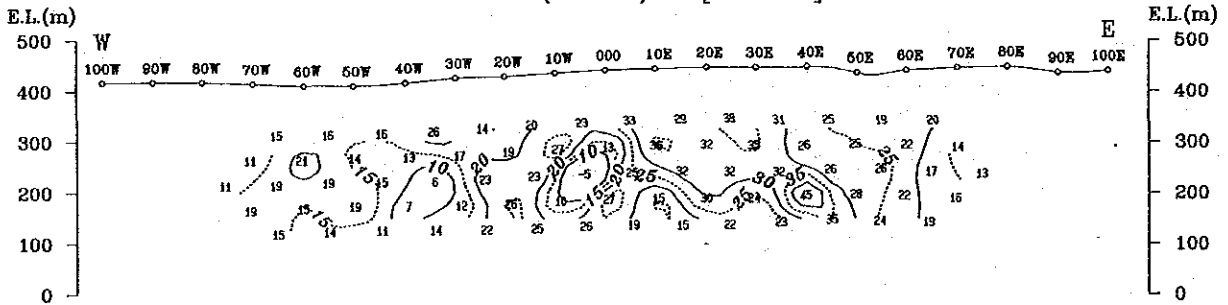
Raw Phase (-mrad) [0.625Hz]



Raw Phase (-mrad) [0.875Hz]

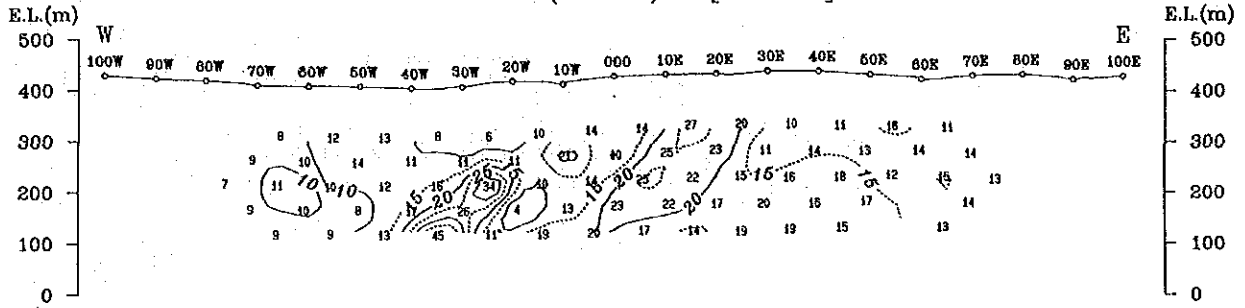


Raw Phase (-mrad) [1.125Hz]

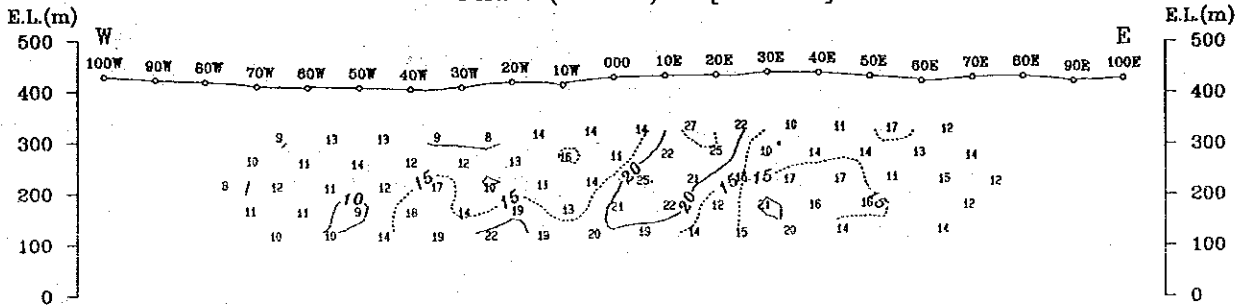


Line-1450S

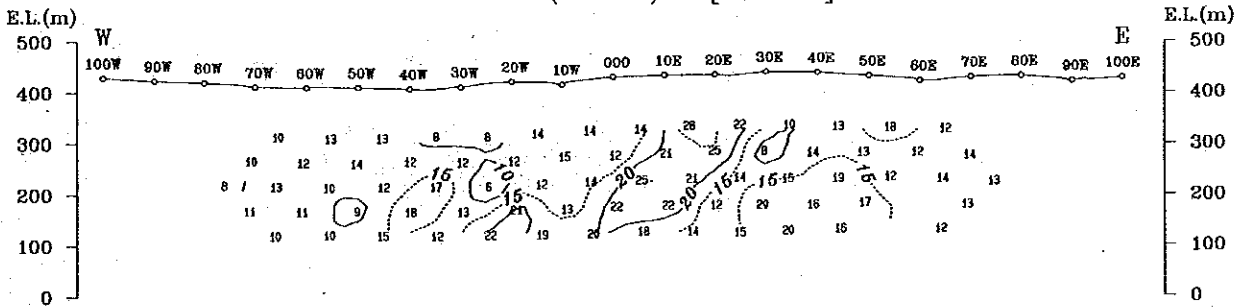
Raw Phase (-mrad) [0.125Hz]



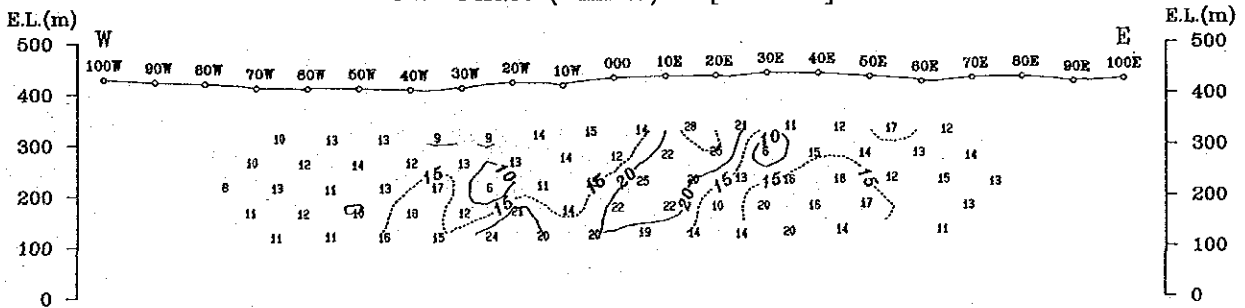
Raw Phase (-mrad) [0.625Hz]



Raw Phase (-mrad) [0.875Hz]

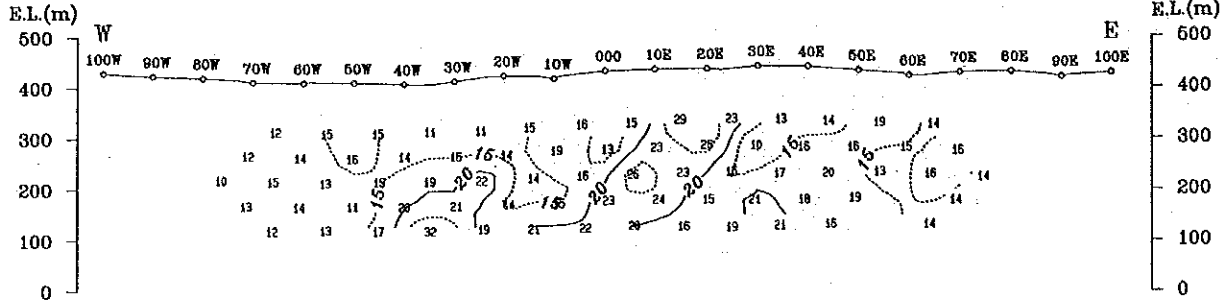


Raw Phase (-mrad) [1.125Hz]

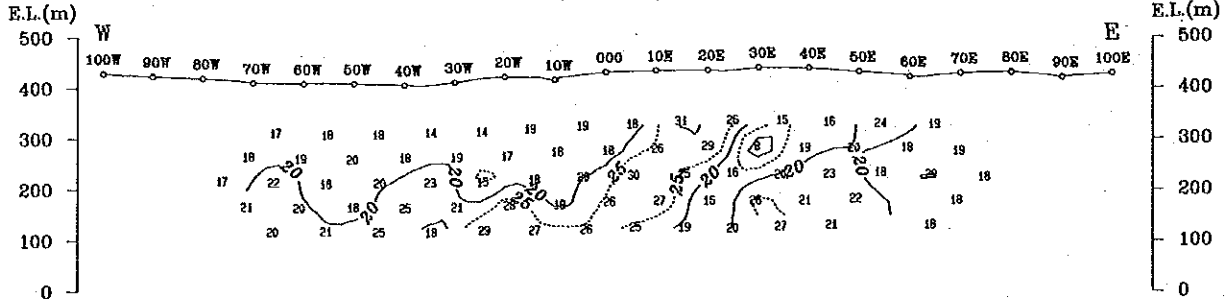


Line-1450S

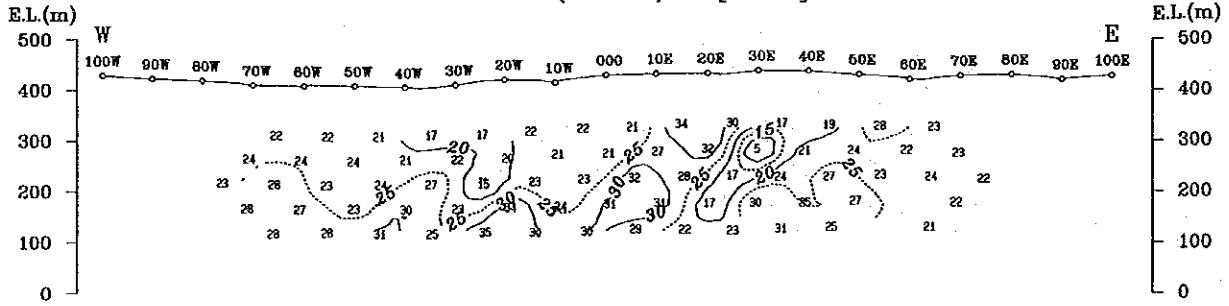
Raw Phase (-mrad) [1.0Hz]



Raw Phase (-mrad) [3.0Hz]



Raw Phase (-mrad) [5.0Hz]



Raw Phase (-mrad) [7.0Hz]

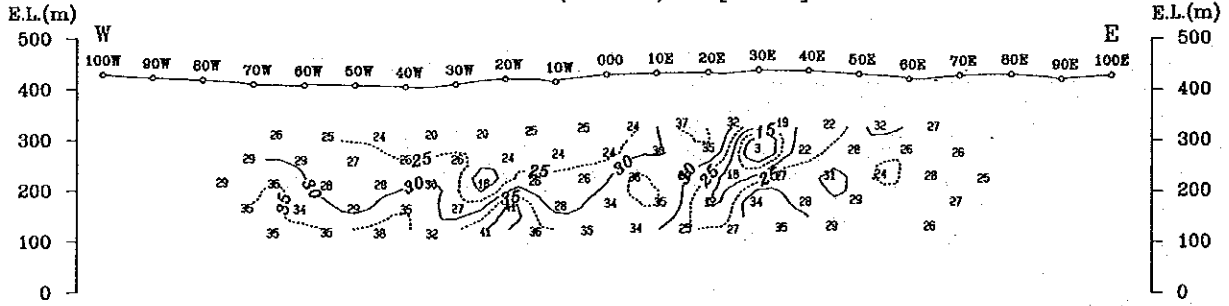
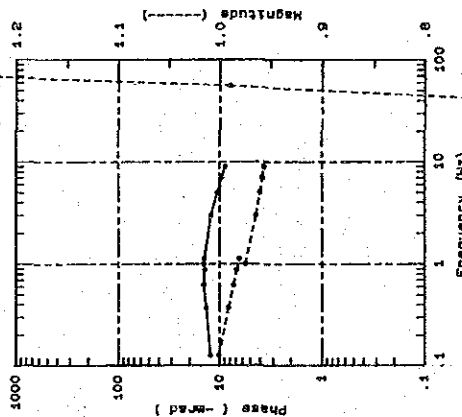


Fig. A-2 Spectra of Drilling Cores (26 Samples)

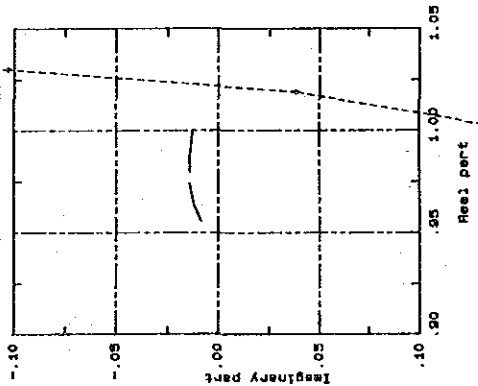
Ms-Ot Schist

MBP-4 (15.80-16.85)
 Rho : 1030 [Ohm-m]
 P.F.E. : 1.9 [%]
 Phase : 12 [-mrad]
 3-PT.P.: 12 [-mrad]

PHASE AND MAGNITUDE SPECTRUM



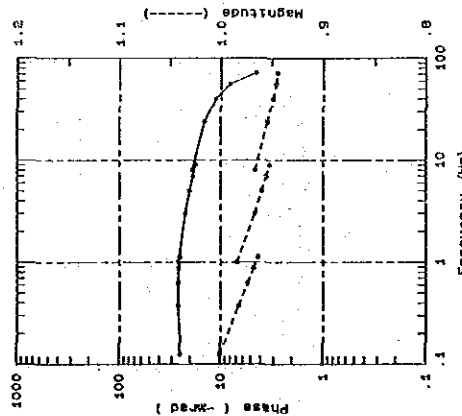
Cole-Cole DIAGRAM



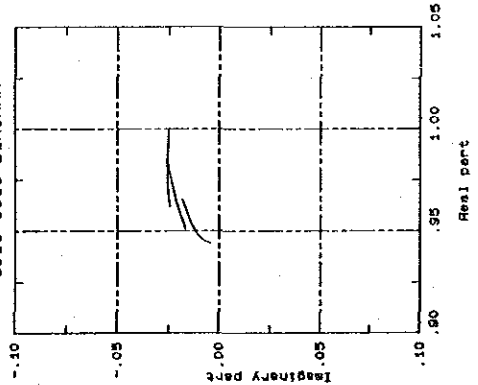
Ms-Bi-Ot Schist

MBP-4 (24.40-24.45)
 Rho : 723 [Ohm-m]
 P.F.E. : 3.7 [%]
 Phase : 25 [-mrad]
 3-PT.P.: 23 [-mrad]

PHASE AND MAGNITUDE SPECTRUM



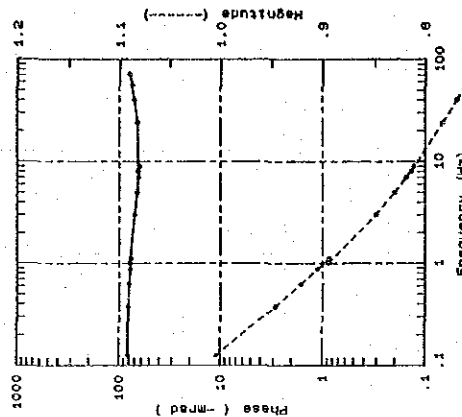
Cole-Cole DIAGRAM



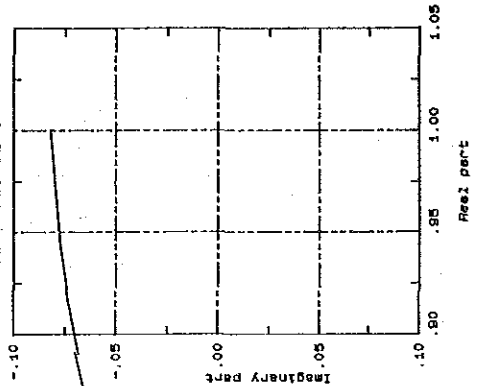
Bi-MS-Ot Schist

MBP-4 (42.90-42.95)
 Rho : 6316 [Ohm-m]
 P.F.E. : 11.7 [%]
 Phase : 81 [-mrad]
 3-PT.P.: 81 [-mrad]

PHASE AND MAGNITUDE SPECTRUM



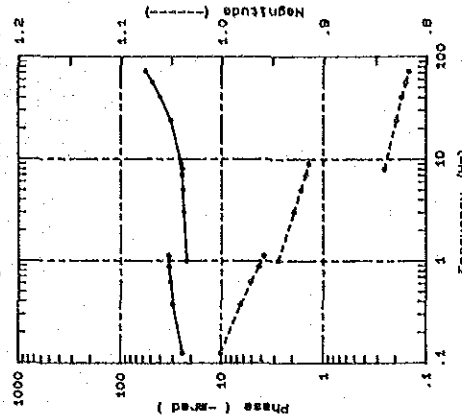
Cole-Cole DIAGRAM



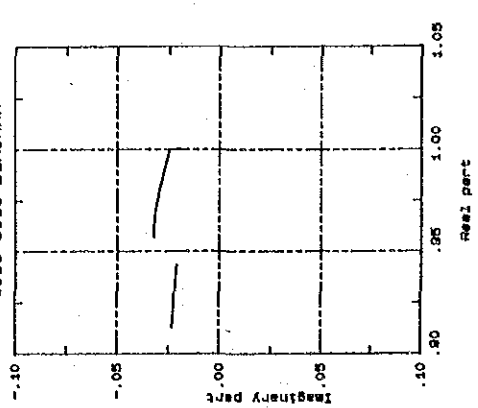
Bi-MS-Ot Schist

MBP-4 (45.70-45.75)
 Rho : 12410 [Ohm-m]
 P.F.E. : 4.2 [%]
 Phase : 24 [-mrad]
 3-PT.P.: 20 [-mrad]

PHASE AND MAGNITUDE SPECTRUM



Cole-Cole DIAGRAM

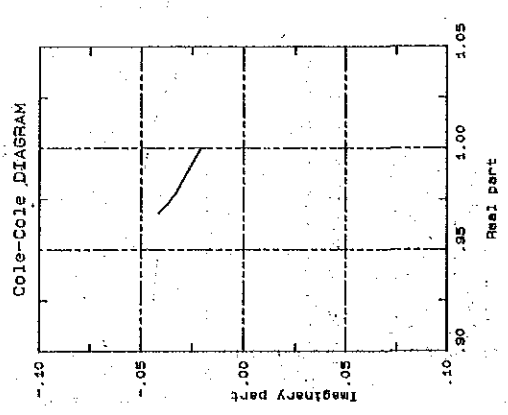
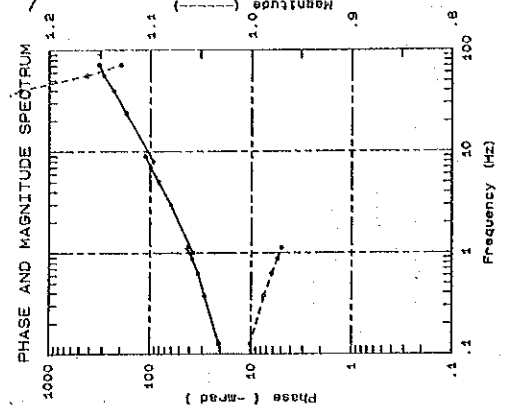
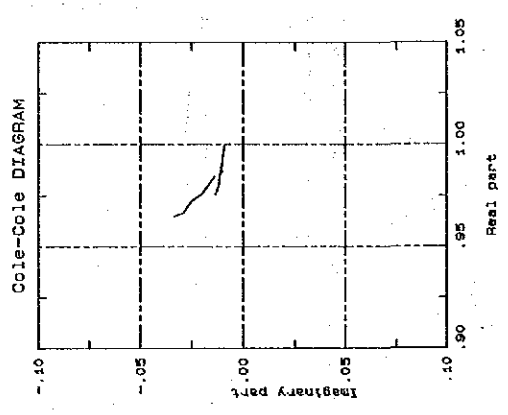
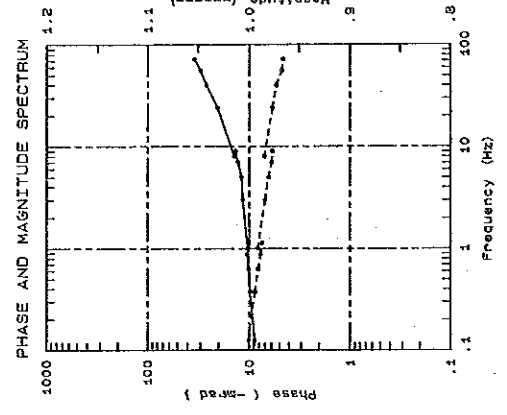
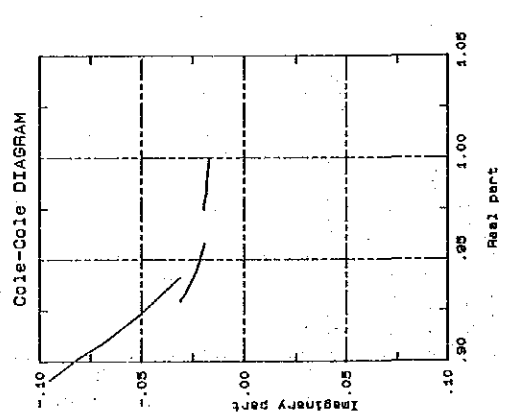
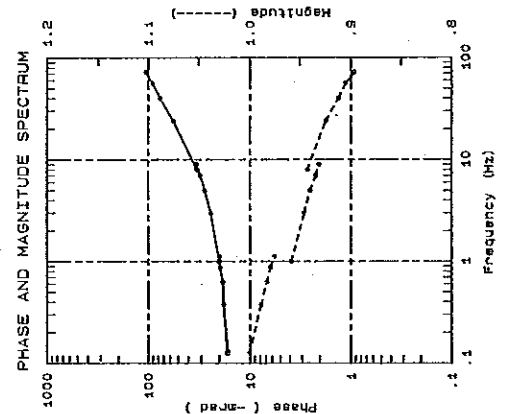
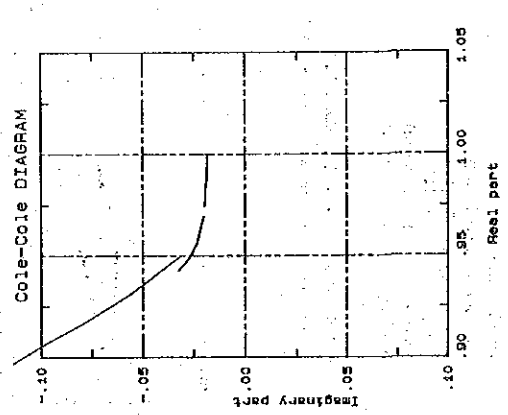
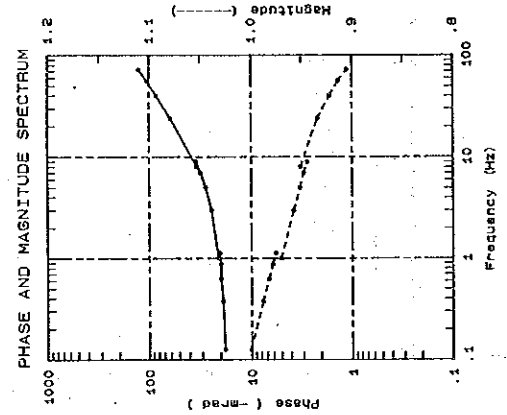


Pl-Bi-Ot Schist
 MBP-4 (85.50-85.95)
 Rho : 12561 [Ohm-m]
 P.F.E. : 2.4 [%]
 Phase : 18 [-mrad]
 3-PT.P.: 17 [-mrad]

Am-Bi-Ot Schist
 MBP-4 (90.40-90.45)
 Rho : 11081 [Ohm-m]
 P.F.E. : 2.4 [%]
 Phase : 17 [-mrad]
 3-PT.P.: 16 [-mrad]

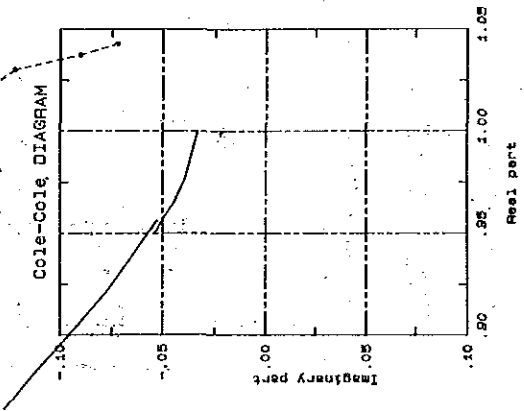
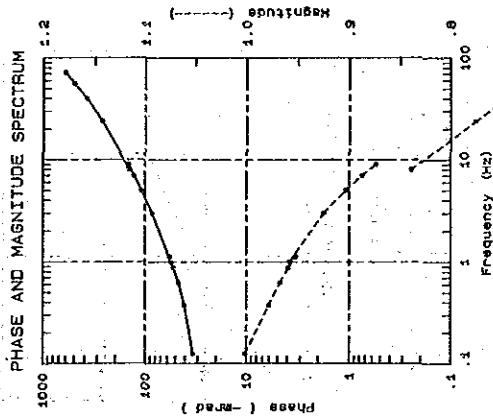
Pl-Gn-Bi-Ot Schist
 MBP-4 (121.40-121.45)
 Rho : 4301 [Ohm-m]
 P.F.E. : 1.3 [%]
 Phase : 9 [-mrad]
 3-PT.P.: 8 [-mrad]

Pl-Bi-Ot Schist
 MBP-4 (163.95-164.00)
 Rho : 18000 [Ohm-m]
 P.F.E. : 3.0 [%]
 Phase : 21 [-mrad]
 3-PT.P.: 15 [-mrad]



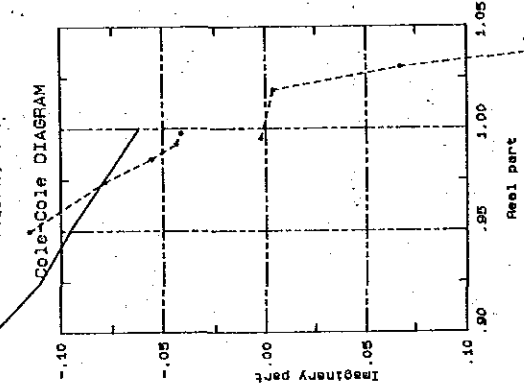
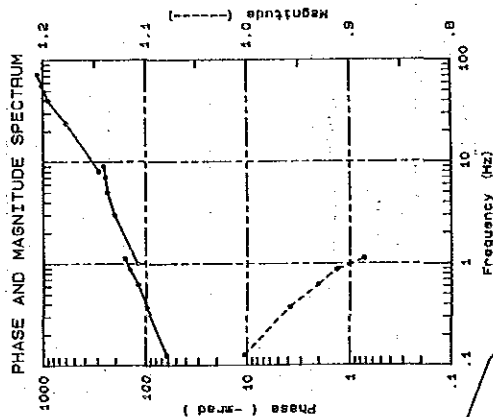
Gn-Ms-Bi-Ot Schist

MBP-4 (203.70-203.75)
Rho : 35100 [Ohm-m]
P.F.E. : 4.8 [%]
Phase : 33 [-mrad]
3-PT.P.: 29 [-mrad]



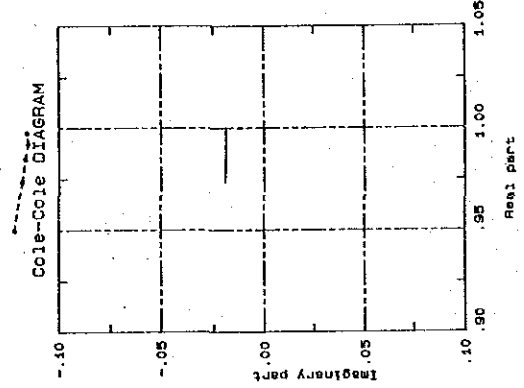
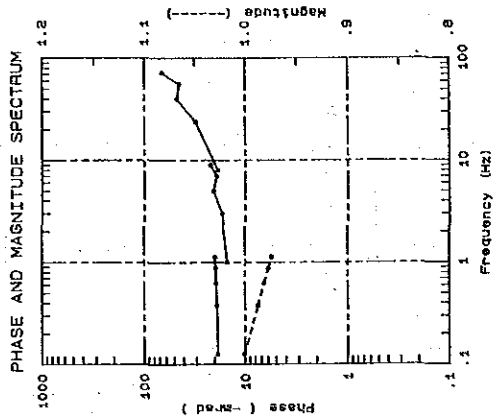
Gn-Pl-Bi-Ot Schist

MBP-4 (245.20-245.25)
Rho : 43500 [Ohm-m]
P.F.E. : 11.5 [%]
Phase : 62 [-mrad]
3-PT.P.: 38 [-mrad]



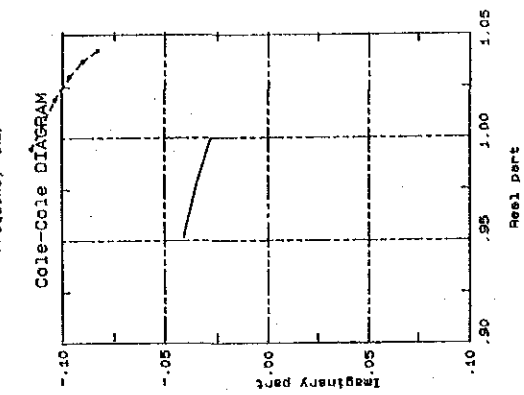
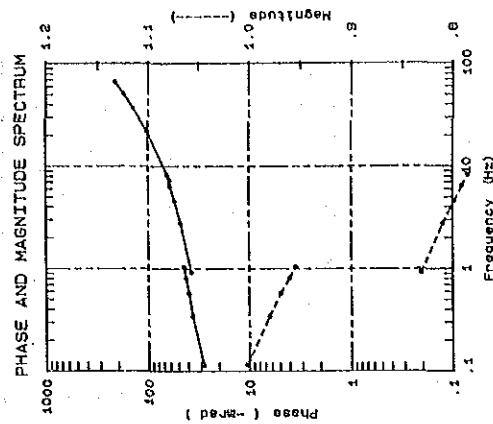
Gn-Pl-Bi-Ot Schist

MBP-4 (286.40-286.45)
Rho : 3281 [Ohm-m]
P.F.E. : 2.6 [%]
Phase : 18 [-mrad]
3-PT.P.: 18 [-mrad]

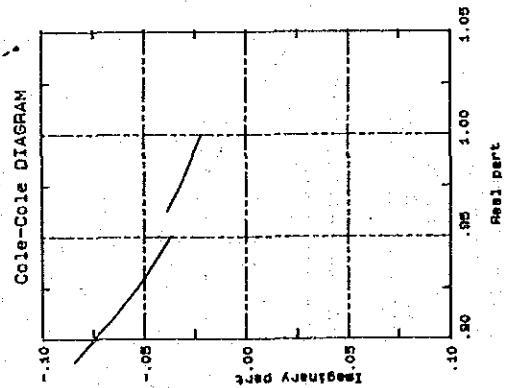
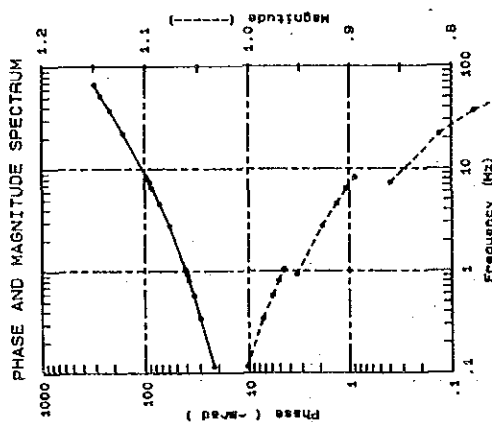


Amphibolite

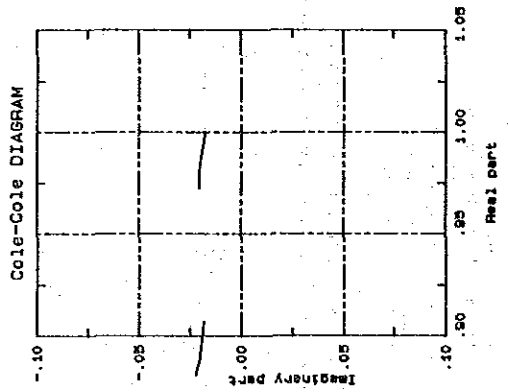
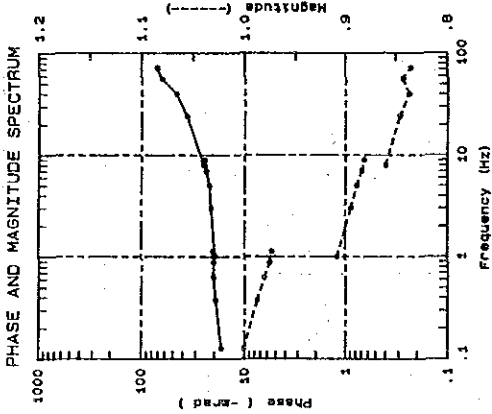
MBP-4 (295.45-295.50)
Rho : 9491 [Ohm-m]
P.F.E. : 4.7 [%]
Phase : 27 [-mrad]
3-PT.P.: 22 [-mrad]



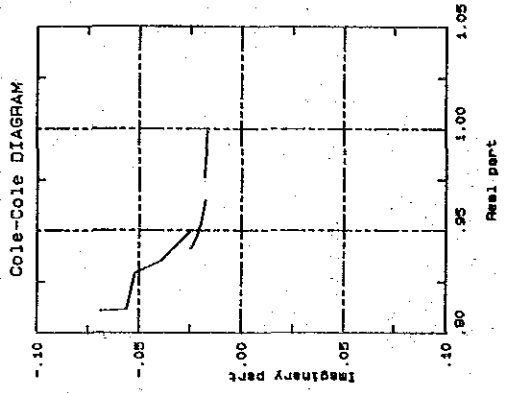
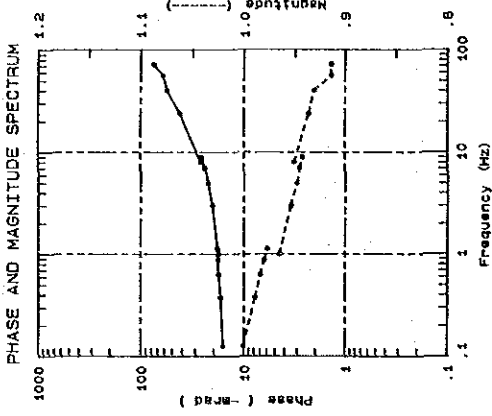
Bi-Ot Schist
 MBP-4 (313.80-313.85)
 Rho : 12480 [Ohm-m]
 P.F.E. : 3.5 [%]
 Phase : 21 [-mrad]
 3-PT.P.: 16 [-mrad]



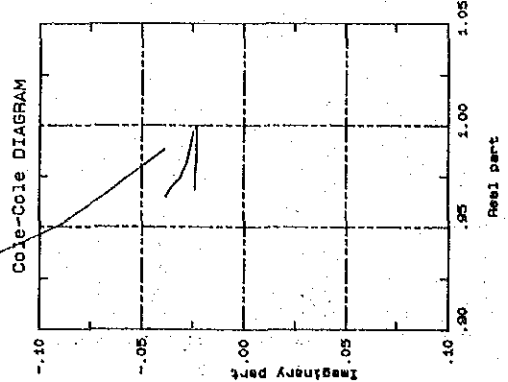
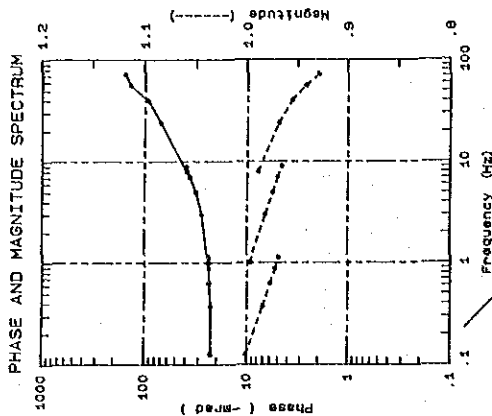
Amphibolite
 MBP-4 (348.10-348.15)
 Rho : 9500 [Ohm-m]
 P.F.E. : 2.7 [%]
 Phase : 17 [-mrad]
 3-PT.P.: 15 [-mrad]



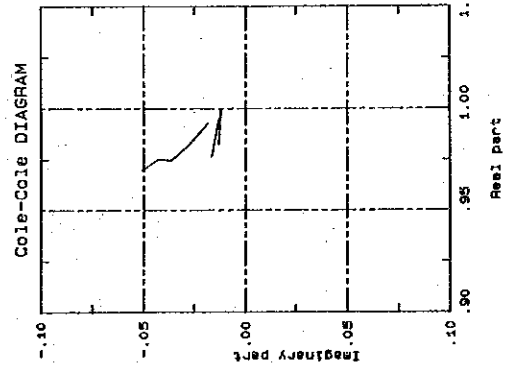
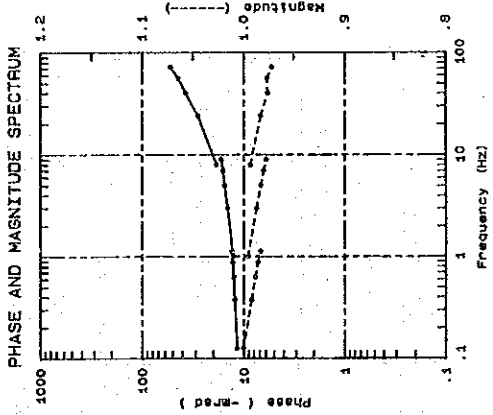
Gn-MS-Bi-Ot Schist
 MBP-4 (358.35-358.40)
 Rho : 8061 [Ohm-m]
 P.F.E. : 2.9 [%]
 Phase : 16 [-mrad]
 3-PT.P.: 15 [-mrad]



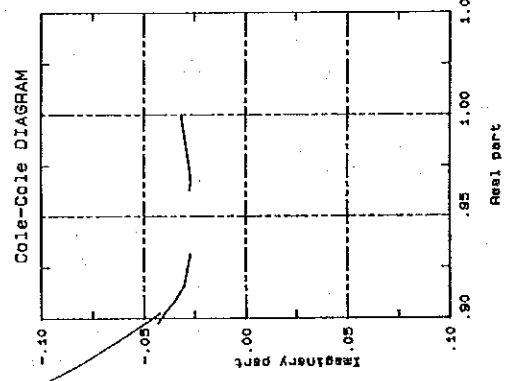
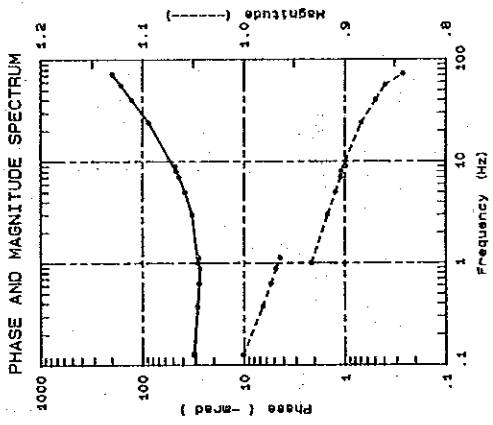
Bi-Ot Schist
 MBP-4 (381.10-381.15)
 Rho : 19000 [Ohm-m]
 P.F.E. : 3.1 [%]
 Phase : 23 [-mrad]
 3-PT.P.: 23 [-mrad]



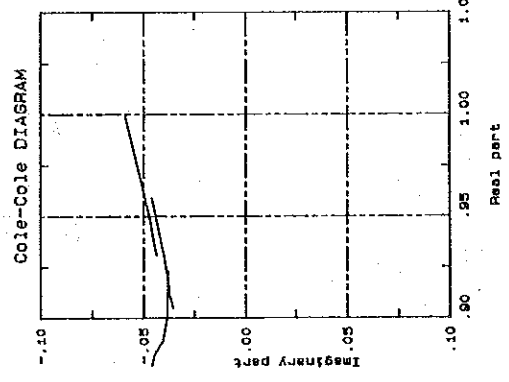
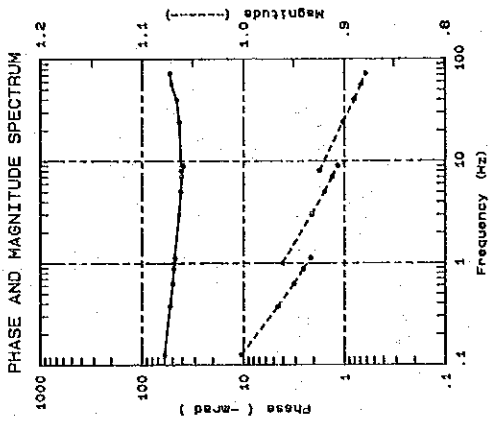
(Ms-Bi)-Qt Schist
 MBP-5 (79.55-79.60)
 Rho : 5900 [Ohm-m]
 P.F.E. : 1.6 [%]
 Rhase : 11 [-mrad]
 3-PT.P.: 11 [-mrad]



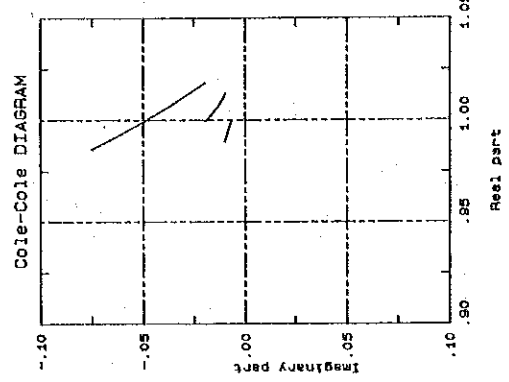
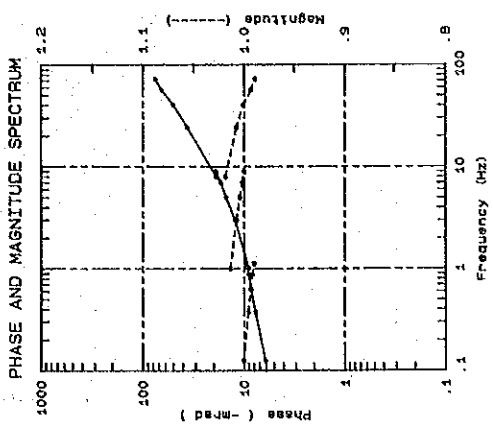
Pl-Bi-Qt Schist
 MBP-5 (120.90-120.95)
 Rho : 7581 [Ohm-m]
 P.F.E. : 3.6 [%]
 Rhase : 31 [-mrad]
 3-PT.P.: 33 [-mrad]



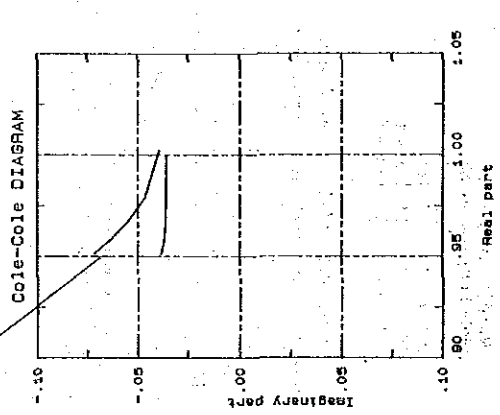
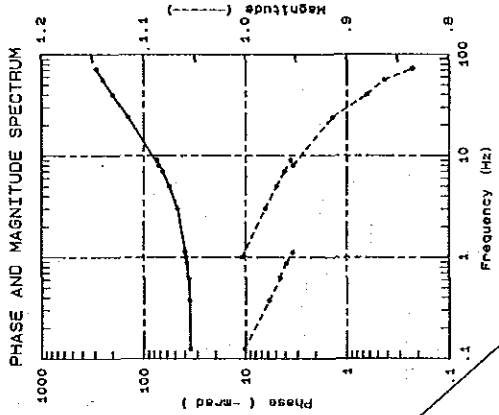
Ms-Bi-Qt Schist
 MBP-5 (217.95-218.00)
 Rho : 2710 [Ohm-m]
 P.F.E. : 7.1 [%]
 Rhase : 59 [-mrad]
 3-PT.P.: 64 [-mrad]



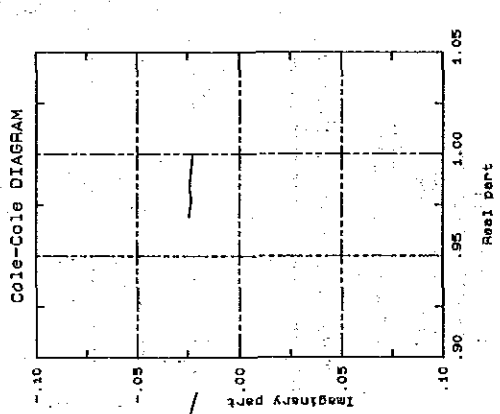
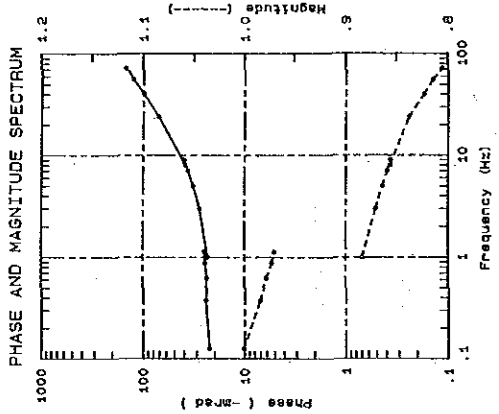
Amphibolite
 MBP-5 (249.65-249.70)
 Rho : 7160 [Ohm-m]
 P.F.E. : 1.0 [%]
 Rhase : 6 [-mrad]
 3-PT.P.: 5 [-mrad]



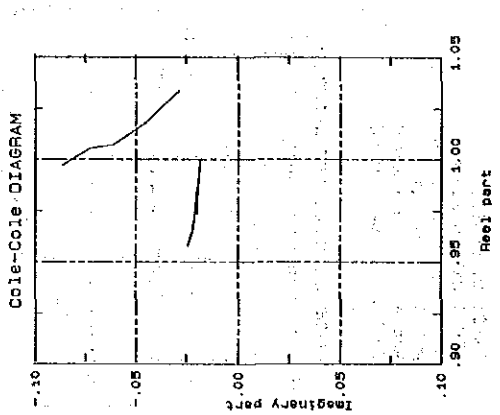
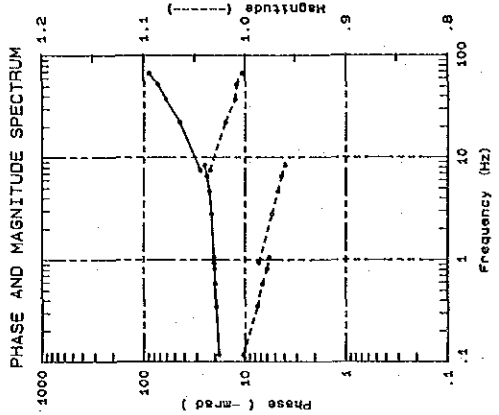
Pl-(Bi-Ms)-Qt Schist
 MBP-6 (72.95-79.00)
 Rho : 11361 [Ohm-m]
 P.F.E. : 4.8 [%]
 Phase : 35 [-mrad]
 3-PT.P.: 34 [-mrad]



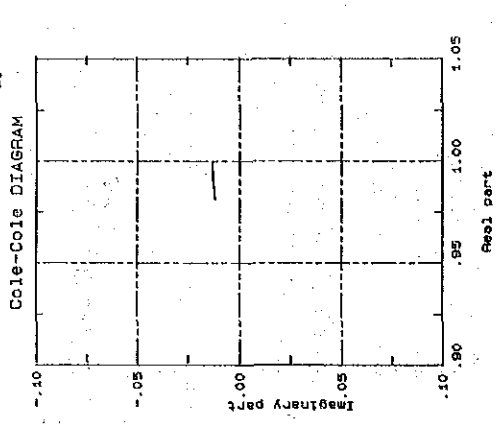
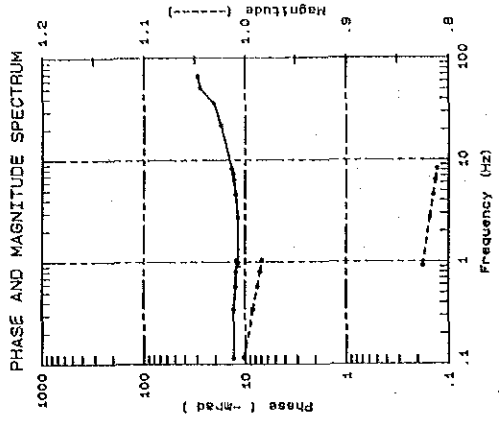
Gn-(Ms-Bi)-Qt Schist
 MBP-6 (155.10-155.15)
 Rho : 5151 [Ohm-m]
 P.F.E. : 3.0 [%]
 Phase : 22 [-mrad]
 3-PT.P.: 20 [-mrad]



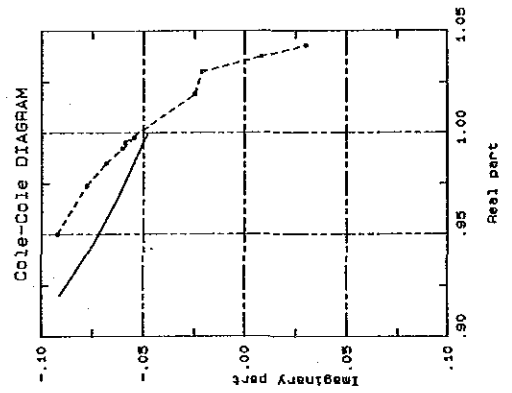
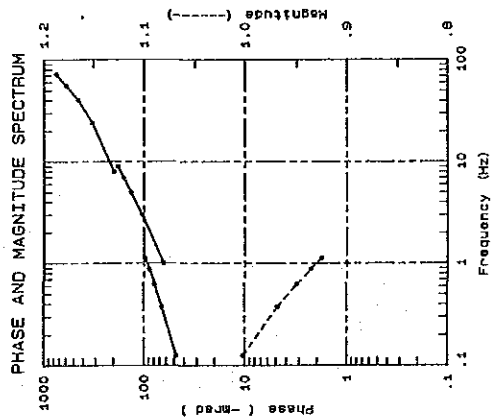
Gn-(Ms-Bi)-Qt Schist
 MBP-6 (200.05-200.10)
 Rho : 5200 [Ohm-m]
 P.F.E. : 2.6 [%]
 Phase : 18 [-mrad]
 3-PT.P.: 17 [-mrad]



Ms-Bi-Qt Schist
 MBP-6 (218.95-219.00)
 Rho : 4910 [Ohm-m]
 P.F.E. : 1.6 [%]
 Phase : 13 [-mrad]
 3-PT.P.: 13 [-mrad]



P1-Gn-Ms-Bi-Ot Schist
 MBP-6 (250.00-250.05)
 Rho : 19131 [Ohm-m]
 P.F.E. : 7.6 [%]
 Rhase : 48 [-mrad]
 3-PT.P.: 35 [-mrad]



Gn-Ms-Bi-Ot Schist
 MBP-6 (387.45-387.50)
 Rho : 5120 [Ohm-m]
 P.F.E. : 4.0 [%]
 Rhase : 30 [-mrad]
 3-PT.P.: 30 [-mrad]

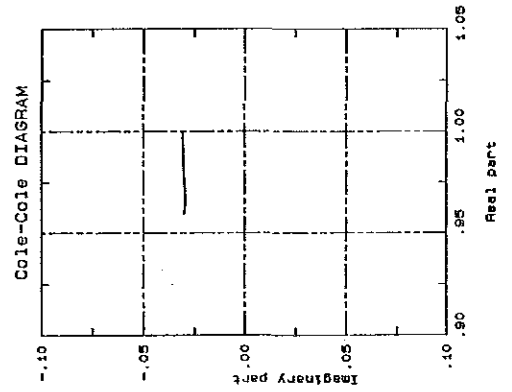
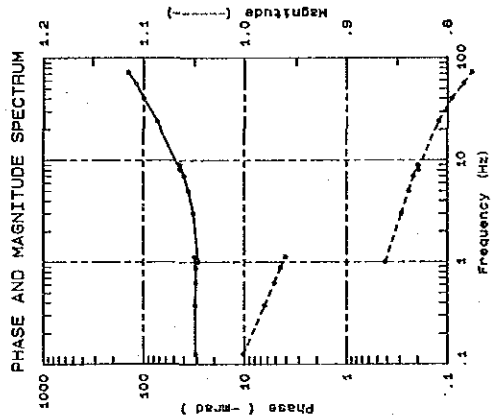


Fig. A-3 **Lithologic Logs of Drilling Cores (1 : 200)**

LITHOLOGIC LOG

HOLE NO. MBP-4 (1)

LOCATION : Palmeiropolis area
 DIRECTION : 0
 FINAL DEPTH : 400.00 m

COORDINATES : E792.62 , N854836
 INCLINATION : -90°

DEPTH (m)	COLUMN	ROCK	PRINCIPAL CONSTITUENTS					PORPHYRO BLAST		OTHER		ORE MINERAL					REMARKS			
			quartz	plagioclase	K-feldspar	biotite	muscovite	amphibole	garnet	staurolite	plagioclase	calcite	chlorite	pyrrhotite	pyrite	chalcopyrite		galena	sphalerite	schistosity
0-1.50		Soil																		0-1.50 dk brn-lt brn soil
1.50-14.50		Soil																		1.50-14.50 brn~lt brn strong weathered
7.90			o			o											80 m			
8.05			o			o											80 m			
9.30			o			o											70 m			
10.1			o			o														
10.65			o			o														
11.00																				
12.25			o			o											70 m		14.50-14.70 mass qt	
12.38																				
14.50			o			o											70 m		14.70-22.70 weathered zone lim in schistosity	
14.70			o			o											70 m			
		Ms-Ot-Sch	o			o											80 m		17.50-17.62 qt , L40°	
			o			o											65 m			
			o			o											70 m			
20			o			o											70 m			
			o			o											70 m			
			o			o											70 m		25.73-26.43 26.50-26.55 Biotitite	
22.70			o			o											70 m			
			o			o											70 m		28.10-28.20 qt	
			o			o											70 m			
25.73			o			o											80 m		27.00~ py dissem	
26.43			o			o											40 m	d		
26.50		Ms-Bi-Ot-Sch	o			o											50 m	d	29.25-30.05 minearalized network, py>sph>ga	
26.55			o			o											70 m	n		
			o			o											80 m	d	30.50-30.60 qt , py in fracture	
28.80			o			o											80 m	d		
30		MBP4-1-3	o			o											80 m	d		
			o			o											80 m	d		
			o			o											80 f	d		
		Bi-Ms-Ot-Sch	o			o											80 f	d	py in schistosity	
			o			o											80 f	d		
			o			o											80 f	d		
			o			o											80 f	d		
			o			o											80 f	d		
			o			o											80 f	d		
39.20			o			o											80 f	d	39.20-39.25 biotitite	
39.25			o			o											80 f	d		
40			o			o											80 f	d		

LITHOLOGIC LOG

HOLE NO. MBP-4

(3)

LOCATION : Palmeiropolis area

COORDINATES : E792.62 , N8548.36

DIRECTION : o

INCLINATION : -90°

FINAL DEPTH : 400.00 m

DEPTH (m)	COLUMN	ROCK	PRINCIPAL CONSTITUENTS					PORPHYRO BLAST		OTHER			ORE MINERAL					REMARKS			
			quartz	plagioclase	K-feldspar	biotite	muscovite	amphibole	garnet	staurolite	plagioclase	calcite	chlorite	pyrrhotite	pyrite	chalcopyrite	galena		sphalerite	schistosity	grain size
80.40	~	Pl-Bi-Qt-Sch	○			•			○		○		•					80	f	d	75.20-80.40 } 80.90-81.25 } 81.70-82.20 } strong chloritization hydrothermally
	~		○			○					○		•					80	f	d	
	~		○			○					○		•					80	f	d	
	~		⊙			○					○		•					85	f	d	
86.00	~	Ⓢ	⊙			•			○		•		•					85	m	d	
87.50	~	Bi-Qt-Sch	○			⊙					•		•					Fd	f	d	
	~	Am-Bi-Sch	○			⊙	•			•		•						85	f	d	87.50-97.00 epidote occurs as stringers
90	~		○			⊙				•		•						80	f	d	
	~	Ⓢ	○			⊙	•		•		•		•					80	f	d	87.50-92.50 amphiboles occurs as lenticular shape
92.60	~		○			⊙		○			•		○					65	m	d	
	~	(Pl)-Bi-Qt-Sch	○			⊙	•					•						70	m	d	92.50-92.60 mass qt with py 93.40-93.55 mass qt 94.60-94.87 mass qt with py
	~		○			⊙						•		•				80	m	d	
	~		○			⊙						•		•				80	m	d	
	~		○			⊙						•		•				70	m	d	
	~		○			⊙						•		•				70	m	d	
	~		○			⊙						•		•				70	m	d	
	~		○			⊙						•		•				75	m	d _{fr}	
100	~		○			⊙						•		•				55	m	d	
	~		○			○					•		•						f	d	99.30 slickenside L55°, rake 65°
102.50	~	(Gn)-Pl-Bi-Qt-Sch	○			⊙			•		•		•					85	f	d	102.30-102.32 } 102.35-102.40 } qt, mass 103.75-103.95 qt, with py L55°
	~		○			⊙						•		•				80	f	d	
	~		○			⊙	•					•		•				80	f	d	
	~		○			⊙						•		•				80	m	d	
	~		○			⊙						•		•				85	m	d	
	~		○			⊙						•		•				80	m	d	
	~		○			⊙						•		•				80	m	d	
	~		○			⊙						•		•				85	m	d	
	~		○			⊙	•					•		•				85	m	d	
	~		○			○						•		•				80	m	d	
	~		○			○					•		•				80	m	d	112.40-112.47 K-fed in qt	
	~		○			○					•		•				80	m	d	113.90-114.00 more siliceous	
	~		○			⊙					•		•				80	m	d	117.40-119.00 fracture zone, upper boundary L35° rake L70° lower boundary L40° rake L35°	
	~		○			⊙					•		•				85	m	d		
	~		○			⊙	•				•		•				85	m	d		
	~		○			⊙					•		•				85	m	d		
117.40	~	Fracture Zone									•		•					85	m	d	119.80-120.05 qt, mass irregular shape
119.00	~			○			⊙					•		•				40	m	d	
120	~		○			⊙					•		•					40	m	d	

LITHOLOGIC LOG

HOLE NO. MBP-4

(5)

LOCATION : Palmeiropolis area
 DIRECTION : 0
 FINAL DEPTH : 400.00m

COORDINATES : E792.62 , N8548.36
 INCLINATION : -90°

DEPTH (m)	COLUMN	ROCK	PRINCIPAL CONSTITUENTS					PORPHYRO BLAST		OTHER		ORE MINERAL					REMARKS				
			quartz	plagioclase	K-feldspar	biotite	muscovite	amphibole	garnet	staurolite	plagioclase	calcite	chlorite	pyrrhotite	pyrite	chalcopyrite		galena	sphalerite	schistosity	grain size
170	~	PI-Bi-Qt-Sch	○			⊙				•								85	m	160.50-161.50 wh clay mineral in fracture	
			○			⊙				•									80		m
			○			⊙				•					•				85		m d
			○			⊙				•		•							75		m
			○			⊙				•		•							80		m
			○			⊙				•		•							80		m
			○			○	•	⊙			•								75		m
			○			○		⊙			•								Fd		m
			○			○		⊙			•								70		m
			○			○	•	⊙			•								85		m
173.50	~	PI-Gn-Bi-Qt-Sch	○			⊙			•		•						80	m			
			○			⊙			•		•						Fd	m			
			○			⊙			•		•							85	m		
			○			⊙			•		•							80	f		
177.50	~	PI-Gn-Bi-Qt-Sch	○			⊙			•		○						80	f			
			○			⊙			•		○						75	f			
180	~	(PI)-Gn-Ms-Bi-Qt-Sch	○			⊙			•		○						80	m			
			○			⊙			•		○						70	m			
186.90	~	(PI)-Gn-Ms-Bi-Qt-Sch	○			○	•				○						70	m			
			○			⊙			•		○							70	m		
187.50	~	Fracture Zone	○			⊙			•								70	m			
			○			⊙			○									65	m		
190	~	(PI)-Gn-Ms-Bi-Qt-Sch	○			⊙			○								75	m			
			○			⊙			•									60	m		
193.95	~	(PI)-Gn-Ms-Bi-Qt-Sch	○			⊙			•								65	m			
			○			⊙			•									50	m		
194.70	~	(PI)-Gn-Ms-Bi-Qt-Sch	○			⊙			•								60	m			
			○			⊙			•									55	m		
196.80	~	(PI)-Gn-Ms-Bi-Qt-Sch	○			⊙			•								50	m			
			○			⊙			•		○							65	m d		
200	~	(PI)-Gn-Ms-Bi-Qt-Sch	○			⊙			•		○						Fd	m			
			○			⊙			•		○							60	m		

LITHOLOGIC LOG

HOLE NO. MBP-4

(6)

LOCATION : Palmeiropolis area
 DIRECTION : o
 FINAL DEPTH : 400.00m

COORDINATES : E792.62 , N8548.36
 INCLINATION : -90°

DEPTH (m)	COLUMN	ROCK	PRINCIPAL CONSTITUENTS					PORPHYRO BLAST		OTHER			ORE MINERAL			REMARKS						
			quartz	plagioclase	K-feldspar	biotite	muscovite	amphibole	garner	staurolite	plagioclase	calcite	chlorite	pyrrhotite	pyrite		chalcocopyrite	galena	sphalerite	schistosity	grain size	mineral type (ore)
200.70	~	⑤	○			●				○	•		•					70	m	fr	200.70-201.05 biotite	
201.05	~		○			●		•		○	•								70	f		py in fracture
201.80	~		○			●													65	f		201.80-202.00 am . bi schist
202.00	~		○			●			•		•								55	f		
	○		○			●			•		•			•					Fd	f	d	209.10-209.20 } 209.35-209.50 }
	○		○			●			•		•			•					Fd	f	d	rich in bi
	○		○			●			•		•			•					50	f		209.05-209.15 } 209.40-209.50 }
	○		○			●			•		•			•					Fd	f		214.55-214.66 }
	○		○			●	•		•		•			•					65	m	d	qt mass, irregul shape
210	○		○			●			•		•			•					70	m		
	○	(Pl)-Gn-Ms	○			●			•		•							60	m		216.90-217.30 6 qt mass sub-	
	○	-Bi-Qt-Sch	○			●			•		•							Fd	m		parrallel to schistosity, max w=6cm, ms around qt	
	○		○			●			•		•			•				70	m	d		
	○		○			●	•			•								80	m		217.75-217.90 2 qt mass	
	○		○			●		•		•								70	m		sub-porrallal to schistosity, ms	
	○		○			●	•		•									70	f		around qt	
	○		○			●		•		•								70	m		219.40-219.75 qt mass, irregular shape	
220	○		○			●		•		•			•					65	m	d	cal, occur mainly as str	
	○		○			●	•		•		•							70	m		219.55-219.65 epi, cut schist	
	○		○			●		•		•								80	m		22000-220.75 wh clay mineral in fissure L15°	
224.00	○		○			●		•		•		○						65	m			
	○		○			○	•		•		•							75	m		222.90-223.15 } 223.40-223.60 }	
	○		○			○	•		•		•							80	m		qt mass, irregular shape	
	○		○			○	•		•		•		•					70	m	d	226.10 qt mass w=3cm py in fissure fissure cuts qt a schistosity	
	○		○			○	•		•		•							75	m			
230	○		○			○	•		•		•		•					65	m			
	○	Pl-Ms-Bi	○			○	•		•		•		•					75	m	d	233.50-233.90 qt mass, irregular shape	
	○	-Qt-Sch	○			○	•		•		•		•					70	m			
	○		○			○	•		•		•							75	m		232.50-232.60 strong chloritization by hydrothermal alteration	
	○		○			○	•		•		•							80	m	fr		
	○		○			○	•		•		•							80	m			
	○		○			○	•		•		•							80	m			
	○		○			○	•		•		•							65	f	d	236.40-237.70 ditto	
	○		○			○	•		•		•							45	f			
	○		○			○	•		•		•							Fd	f	fr		
240	○		○			○	•		•		•							75	m	fr		

LITHOLOGIC LOG

HOLE NO. MBP-4

(7)

LOCATION : Palmeiropolis area
 DIRECTION : o
 FINAL DEPTH : 400.00 m

COORDINATES : E792.62 , N8548.36
 INCLINATION : -90°

DEPTH (m)	COLUMN	ROCK	PRINCIPAL CONSTITUENTS					PORPHYRO BLAST		OTHER		ORE MINERAL			REMARKS						
			quartz	plagioclase	K-feldspar	biotite	muscovite	amphibole	garnet	staurolite	plagioclase	calcite	chlorite	pyrrhotite		pyrite	chalcopyrite	galena	sphalerite	schistosity	grain size
244.00	~	PI-Ms-Bi -Qt-Sch	●			•			•	•	•							70	m	fr	243.70-244.05 qt mass irregular shape
	~		●			•			•	•	•							80	f		243.00-272.00 more siliceous
	~	Ⓢ	●			•		•	•	•	•							80	f		245.65-246.05 cal v. lets L40°
	~		●			•		•	•	•	•								m		244.20-244.80 many qt mass irregul shape
250	~		●			•		•	•	•	•								f	d	246.50-247.50 cal str
	~		●			•		•	•	•	•							60	f	d	247.15-24740 } 250.00-250.25 } many qt mass
	~		●			•		•	•	•	•							60	f	d	247.95-24840 qt mass irregular shape cut schistosity
	~		●			•		•	•	•	•							80	f	d	253.85-254.30 qt mass
	~		●			•		•	•	•	•							80	f	d	261.30-261.70 chloritization hydrothermal alteration
260	~	Gn-PI-Bi -Qt-Sch	●			•		•	•	•	•							80	f		262.05-262.30 qt mass L60°
262.90	~		●			•		•	•	•	•							80	f	d	262.90-263.65 bi-am schist (bi>am) include cal str
263.65	~		●			•		•	•	•	•							75	m	d	265.20-265.55 ditto
265.20	~	(intercalate) Am - Bi-Sch	●			•		•	•	•	•							80	f		268.70-269.15 ditto
265.55	~		●			•		•	•	•	•							m			272.40-272.50 cal str
	~		●			•		•	•	•	•							65	m	d	272.70-273.00 am bi schist
268.70	~		●			•		•	•	•	•							60	f	d	269.15-272.70 many qt mass irregular shape
269.15	~		●			•		•	•	•	•							65	m		279.40-279.55 rich in bi
270	~		●			•		•	•	•	•							55	m	d	
	~		●			•		•	•	•	•							70	f	d	
	~		●			•		•	•	•	•							75	m		
272.70	~		●			•		•	•	•	•							70	m		
273.00	~		●			•		•	•	•	•							70	m		
	~		●			•		•	•	•	•							80	m		
	~		●			•		•	•	•	•							70	m		
	~		●			•		•	•	•	•							65	m		
	~		●			•		•	•	•	•							70	f		
280	~		●			•		•	•	•	•							70	m		

LITHOLOGIC LOG

HOLE NO. MBP-4

(9)

LOCATION : Palmeiropolis area
 DIRECTION : o
 FINAL DEPTH : 400.00 m

COORDINATES : E792.62 , N8548.36
 INCLINATION : -90 o

DEPTH (m)	COLUMN	ROCK	PRINCIPAL CONSTITUENTS					PORPHYRO BLAST		OTHER			ORE MINERAL			REMARKS					
			quartz	plagioclase	K-feldspar	biotite	muscovite	amphibole	garnet	staurolite	plagioclase	calcite	chlorite	pyrrhotite	pyrite		chalcocopyrite	galena	sphalerite	schistosity	grain size
	✓	Amphibolite				•	●			•	•	•					80	f	d	322.90-322.95	
						•	●			•	•	•						65	f	d	qt mass
	✓						●			○	•	•						75	f	d	323.40
	✓						●			○	•	•							f	d	qt w=3cm
	✓						●			•	•	•							f	d	324.80
	✓						●			•	•	•							f	d	qt w=7cm
	✓						●			•	•	•							f	d	324.90-325.30
	✓			○			●			•	•	•						m	d	spotted cal β = 1mm	
330	✓			○			●			•	•	•						45	m	d	328.50-329.30
	✓			○			○			•	•	•						40	m	d	banded structure of qt & am
	✓						●			•	•	•						90	f		333.70-335.30
	✓						○			•	•	•							f	d	fine banded structure of qt & am
	✓						●			•	•	•						60	m	d	338.10-339.00
	✓			•			●			•	•	•							m	d	banded structure of qt , cal & am
	✓			○			●			•	•	•							f	d	
	✓				•	●			•	•	•						55	m	d		
340	✓					●			•	•	•						60	f	d		
	✓				•	●			•	•	•						50	f	d		
	✓					●			•	•	•						50	f	d		
	✓					●			•	•	•						60	f	d		
	✓					●			•	•	•						60	f	d		
	✓				○	●			•	•	•						60	m	d		
	✓					●			•	•	•						70	m	d		
	✓					●			•	•	•						70	m	d		
	✓	Ⓢ				●			•	•	•						65	m	d	349.40-350.10	
350	✓				○	●			•	•	•						70	m		irregular banded strudure of qt & am	
350.10	~	Ms-Bi-Qt-Sch	○		○	•			•	•	•						70	m		350.10-350.60	
	~		○		○	•				•	•	•						75	m		rich in qt seg- regations
	~		○		○	•				•	•	•						70	m		
353.50	~	Gn- Ms- Bi -Qt- Sch	○		○	•			•	•	•						70	m			
	~		○		○	•				•	•	•						70	m		
	○		○		○	•			○	•	•	•						60	m		
	~		○		○	•			○	•	•	•						65	m		
	~		○		○	•			○	•	•	•						50	m		
360	~	Ⓢ	○		○	•			•	•	•						55	m			
	~		○		○	•			•	•	•						45	m			

LITHOLOGIC LOG

HOLE NO. MBP-4

(10)

LOCATION : Palmeiropolis area
 DIRECTION : o
 FINAL DEPTH : 400.00 m

COORDINATES : E792.62 , N8548.36
 INCLINATION : -90 o

DEPTH (m)	COLUMN	ROCK	PRINCIPAL CONSTITUENTS					PORPHYRO BLAST		OTHER		ORE MINERAL					REMARKS						
			quartz	plagioclase	K-feldspar	biotite	muscovite	amphibole	garnet	staurolite	plagioclase	calcite	chlorite	pyrrhotite	pyrite	chalcocopyrite		galena	sphalerite	schistosity	grain size	mineral type (ore)	
	~	Gn - Ms - Bi - Qt - Sch	o			o	o				o	o						55	f	d	360.60-360.95		
	~		o			o	o												60	m		rich in chl	
	~		o			o	o						o						65	m	d	361.05-361.25	
	~		o			o	o						o						60	m	d	many irregular qt mass, sub parrallel to the schistosity	
	~		o			o	o					o							60	m			
	~		o			o	o					o							65	m	d	363.65-364.50 } 366.85-367.30 } more siliceous	
367.80	o	Bi-Am - Sch	o			o	o				o	o						70	f	d	367.80-369.15		
369.15	o		o			o	o					o	o									bi-am schist	
370	o	(Gn) - Bi - Qt - Sch	o			o	o					o									367.90-368.00		
	o		o			o	o				o								60	f		qt segregation v. accompanied by, pr cp	
	o		o			o	o				o												
	o		o			o	o				o											370.40-371.00	
	o		o			o	o				o											spotted pl φ max = 5mm	
	o		o			o	o				o											373.00-374.70	
	o		o			o	o				o											rich in chl in schistosity	
	o		o			o	o				o											373.40	
	o		o			o	o				o											sph with qt	
	o		o			o	o				o											377.90-378.00 } 379.25-379.50 }	
380	o	Ⓢ Bi-Qt-Sch	o			o	o				o	o									co-gr am		
	o		o			o	o				o	o										379.65-379.80	
	o		o			o	o				o	o										rich in chl	
	o		o			o	o				o	o										384.45-385.00	
	o		o			o	o				o	o										qt mass irregular shape	
	o		o			o	o				o	o										386.20-387.50	
	o		o			o	o				o	o										many qt mass	
	o		o			o	o				o	o										387.50-389.40	
	o		o			o	o				o	o										rich in chl altered products	
	o		o			o	o				o	o										389.20-389.80	
	o	Bi-Am - Sch	o			o	o				o	o									many qt. mass		
	o		o			o	o				o	o										394.70-394.80	
	o		o			o	o				o	o										mostly bi include qt , pr	
	o		o			o	o				o	o										394.80-395.45	
	o		o			o	o				o	o										bi am schist	
	o		Amphibolite	o			o	o				o	o									399.85-400.00	
	o			o			o	o				o	o										bi am qt schist with pr in schistositities
	o			o			o	o				o	o										
	o			o			o	o				o	o										
394.70	o		Bi-Am - Sch	o			o	o				o	o									394.80-395.45	
395.45	o	o				o	o				o	o										bi am schist	
	o	Amphibolite	o			o	o				o	o									399.85-400.00		
	o		o			o	o				o	o										bi am qt schist with pr in schistositities	
399.85	o	Bi-Am - Qt - Sch	o			o	o				o	o											
400	o		o			o	o				o	o											

LITHOLOGIC LOG

HOLE NO. MBP-5

(2)

LOCATION : Palmeiropolis area
 DIRECTION : o
 FINAL DEPTH : 400.45 m

COORDINATES : E792.95 , N8548.46
 INCLINATION : -90°

DEPTH (m)	COLUMN	ROCK	PRINCIPAL CONSTITUENTS					PORPHYRO BLAST		OTHER		ORE MINERAL					REMARKS				
			quartz	plagioclase	K-feldspar	biotite	muscovite	amphibole	garnet	staurolite	plagioclase	calcite	chlorite	pyrrhotite	pyrite	chalcocopyrite		galena	sphalerite	schistosity	gram size
42.40	~	(St)-Gn-Ms-Bi-Qt-Sch	⊙			o	o										Fd	m		42.40-42.60	
42.60	~		⊙			o	o											Fd	m		bi-am schist
	~		o			o	o		o									50	f		42.70-42.28
	~		o			o	o		o									70	f		qt mass
	~		⊙			o	o		o									Fd	m		44.50-44.55
	~		o			o	o		o									70	m		qt include py
47.00	~		o			o	o		o					o				Fd	c d		45.85-45.90
	~		o			o	⊙							⊙				70	c d		qt include py
	~		o			o	o							o				Fd	m d		46.90-48.00
	~		o			o	o							o				Fd	m d		py following schistosity
50	~	o			o	o							o				Fd	f d		48.00-48.10	
	~	o			o	o							o				Fd	f d		qt include py	
	~	o			o	o							o				Fd	m		49.60-49.70	
	~	o			o	o							o				Fd	f d		py in schistosity	
	~	o			o	o							o				Fd	m		35.00-	
	~	o			o	o							o				Fd	m		strong microfolding	
	~	o			o	o							o				Fd	m		49.90-50.00	
	~	o			o	⊙							o				Fd	m d		py in schistosity	
	~	o			o	o							o				Fd	m		50.50-50.75	
	~	o			o	o							o				Fd	m		qt	
	~	o			o	o							o				Fd	m			
60	~	o			o	o							o				60	m d		61.65-61.73	
	~	⊙ MBP5-1			o	o							o		o	o	Fd	m d		sph > ga > py	
	~	o			o	o							o				Fd	m d		dissem following schistosity	
	~	o			o	o							o				Fd	m		64.98-65.03	
	~	o			o	o							o				Fd	m d		qt, L60°	
	~	o			o	o							o				Fd	m		67.70-68.55	
	~	(Ms-Bi)-Qt-Sch			o	o							o				Fd	f d		siliceous, include py	
	~	⊙			o	o							o				70	d		66.65	
	~	⊙			o	o							o				Fd	d		secondary chl, L60°	
70	~	o			o	o							o				Fd	f		67.05-67.15	
	~	o			o	o							o				Fd	f d		silicified, include py	
	~	o			o	o							o				Fd	f d		72.80-72.82	
	~	o			o	o							o				Fd	m d		am, garn, qt	
	~	o			o	o							o				80	f d		74.70-74.80	
	~	⊙			o	o							o				75	m		bleached, py	
	~	⊙			o	o							o				Fd	f d		73.38-73.40	
	~	⊙			o	o							o				70	f d		lenticular, qt, am	
	~	o			o	o							o				75	f d			
	~	o			o	o							o				70	m			
80	~	⊙			o	o							o				70	m d			
	~	o			o	o							o				70	m			

LITHOLOGIC LOG

HOLE NO. MBP-5

(3)

LOCATION : Palmeiropolis area

COORDINATES : E792.95 , N8548.46

DIRECTION : 0

INCLINATION : -90°

FINAL DEPTH : 400.45 m

DEPTH (m)	COLUMN	ROCK	PRINCIPAL CONSTITUENTS					PORPHYRO BLAST		OTHER		ORE MINERAL					REMARKS					
			quartz	plagioclase	K-feldspar	biotite	muscovite	amphibole	garnet	staurolite	plagioclase	calcite	chlorite	pyrrhotite	pyrite	chalcocopyrite		galena	sphalerite	schistosity	grain size	mineral type (ore)
80.00-80.10	~	(Ms-Bi)-Qt -Sch	○			○	○							•				75	m	d	80.00-80.10 qt mass, L40° include py	
84.55-85.20	~		○			○	○							•					70	f		84.55-85.20 almost bi
84.85-84.94	~		○			⊙	○							•					Fd	c	d	84.85-84.94 qt
85.20-85.50	~		○			○	○							•					80	m		85.20-85.50 4 irreg qt mass
90.60-91.30	~		○			○	○							•					Fd	m	d	90.60-91.30 weak alteration weak chl, py included
91.40-91.65	~		○			⊙	○	⊙						•					70	m	d	91.40-91.65 am · bi-schist, L60°
92.50-92.55	~		○			○	○							•					80	m	d	92.50-92.55 chl secondary
92.70-94.20	~		○			○	○							•					Fd	m	d	92.70-94.20 silicified accompanied by py
95.05-95.25	~		○			○	○							•					Fd	m	d	95.05-95.25 weak silicified
97.25-97.55	~		○			⊙	○	⊙						•					Fd	m	d	97.25-97.55 bi-am schist, folded
98.40-99.70	~	Ms-Bi-Qt-Sch	○			○	○			○			•					65	m	d	98.40-99.70 qt fragments, irregular shape	
101.10-101.70	~		○			○	○						•						75	f	c	101.10-101.70 silicified, py
101.70-102.05	~		○			○	○						•						70	f		101.70-102.05 am · bi schist qt, cal included
102.10-102.15	~		○			○	○						•						80	f		102.10-102.15 secondary chl
103.28	~		○			○	○	•						•					80	f		103.28 w=2cm chl. garnet
103.85	~		○			○	○							•					75	f		103.85 garnet in qt
105.60-106.20	~		○			○	○							•					80	f		105.60-106.20 secondary chl, L80°90° with Py
118.45-165.00	~		○			○	○							•					70	f	d	118.45-165.00 gry wh alternation with width of few mm to 2cm
118.50	~		○			○	○							•					75	f		
120	~		PI-Bi-Qt-Sch	⊙			○	○						•					80	f	c	

LITHOLOGIC LOG

HOLE NO. MBP-5

(4)

LOCATION : Palmeiropolis area
 DIRECTION : o
 FINAL DEPTH : 400.45m

COORDINATES : E792.95 , N8548.46
 INCLINATION : -90°

DEPTH (m)	COLUMN	ROCK	PRINCIPAL CONSTITUENTS						PORPHYRO BLAST		OTHER		ORE MINERAL					REMARKS				
			quartz	plagioclase	K-feldspar	biotite	muscovite	amphibole	garnet	staurolite	plagioclase	calcite	chlorite	pyrrhotite	pyrite	chalcopyrite	galena		sphalerite	schistosity	grain size	mineral type (ore)
130	~	PI-Bi-Qt-Sch	⊙			○		•			○		○					80	f	d	120.25 w=5cm qt, include am	
	~		⊙			○					○		○						80	f	d	120.80-121.30 chloritization accompanied by v. little cal, py
	~		⊙			○					○								80	f	d	126.45-126.50 qt
	~		⊙			○	•				○	•		•					80	f	d	127.90-127.93 qt, lenticular
	~		⊙			○					○			○					80	f	d	128.65-128.70 qt irregular shape
	~		⊙			○					○								85	f	d	132.20 py in fissure
	~		⊙			○					○								80	f	d	132.60-132.63 qt irregular shape with py & ms
	~		⊙			○					○				•				80	f	d	135.65 qt, cal, py, ms chlorite w=2cm, L60°
	~		⊙			○					○	•		○					75	f	d	145.60-145.65 qt, chl, py w=3cm, L45°
	~		⊙			○	○				○								85	m		149.90-150.30 rich in bi
	~		⊙			○					○								85	f	d	151.90 w=3cm qt, am
	~		⊙			○					○				•				80	f	d	151.90-152.65 qt frags
	~		⊙			○					○				•				80	f	d	152.05-154.15 am, bi schist include qt, cal str
	~		⊙			○					○				•				70	f	d	154.25-154.35 am, bi ballshape 7x15cm upper part: am
150	~			○					○				•				85	m	d	154.10-154.15 ditto 5x2cm		
152.05	~			○					○				•				80	m	d	154.70-154.95 rich in bi, include amph upper part: qt, irregular shape		
154.15	~	Amph-Bi-Sch				⊙		⊙				○	•				70	f	d			
~	~	(PI)-Bi-Qt-Sch	⊙			○		○					•						m	d		
~	~		⊙			○	○				•		•					Fd	m	d	158.55-158.70 bi > am, am lenticular, in bi	
~	~		⊙			○	•				•		•					Fd	m	d	158.80 bi, qt, am w=2cm	
158.55 158.70	~					○		○										Fd	f		159.50 w=3cm rich in bi, include chl	
160	~				○												70	f				

LITHOLOGIC LOG

HOLE NO. MBP-5

(5)

LOCATION : Palmeiropolis area
 DIRECTION : o
 FINAL DEPTH : 400.45 m

COORDINATES : E792.95 , N8548.46
 INCLINATION : -90 °

DEPTH (m)	COLUMN	ROCK	PRINCIPAL CONSTITUENTS					PORPHYRO BLAST		OTHER			ORE MINERAL					REMARKS					
			quartz	plagioclase	K-feldspar	biotite	muscovite	amphibole	garnet	staurolite	plagioclase	calcite	chlorite	pyrrhotite	pyrite	chalcocopyrite	galena		sphalerite	schistosity	grain size	mineral type (ore)	
160.10	~	(Pl)-Bi-Qt -Sch	●			○					•	•	•					70	f	d	160.10 secondary chl L90° crosses schist		
163.85-163.95	~		○			○			○										70	f	d	163.85-163.95 cogr. am < bi	
164.02-164.05	~		○			○			○										60	f	d	164.02-164.05 am < bi	
164.73-165.05	~		○			○			○										Fd	f	d	164.73-165.05 am in schist, schst changes gradually in am	
170	~	(Gn)-Amphibolite				●							•						60	f	d	168.75-169.00 cal str (network) a chl	
	~					●								•						f	d	168.75-169.00 cal str (network) a chl	
	~					●								•						f	d	168.75-169.00 cal str (network) a chl	
	~					●								•						f	d	168.75-169.00 cal str (network) a chl	
	~					●								•						f	d	168.75-169.00 cal str (network) a chl	
176.00	~	Bi-Qt-Sch	○			○													70	f		176.00-176.40 qt, Bi, amph	
	~		○			○														80	f	d	176.70-177.25 bi am schist
	~		○			○														80	f		177.35-177.55 ditto
	~		○			○														85	f	d	177.65-177.80 ditto
180	~	Bi-Amph-Sch	○			○													85	f	d	177.97-178.15 ditto	
	~		○			○														Fd	m	d	178.30-178.40 ditto
	~	Ms-Bi-Qt-Sch	○			○													40	f	d	178.10-179.10 cal. chl, w=0.5cm	
	~		○			○														40	f	d	178.10-179.10 cal. chl, w=0.5cm
	~		○			○														85	f	d	178.85-179.10 siliceous
	~		○			○														85	f	d	180.00-180.30 include am < bi
187.70	~	Ms-Bi-Qt-Sch	○			○														f	d	181.90-183.20 include am < bi	
	~		○			○														Fd	m	d	184.60-187.70 qt < bi < am schist
	~		○			○														Fd	m	d	188.00-188.20 am < bi schist
	~		○			○														Fd	m	d	190.15-190.35 bleached alteration with chl
	~	Ms-Bi-Qt-Sch	○			○														Fd	m	d	191.30-192.10 bi < am included
	~		○			○														Fd	m	d	191.30-192.10 bi < am included
	~		○			○														Fd	m	d	122.45-122.80 qt, irregular masses
	~		○			○														Fd	m	d	192.95-193.05 chl, epid, infissure
200	~	Ms-Bi-Qt-Sch	○			○													Fd	m	d		

LITHOLOGIC LOG

HOLE NO. MBP-5

(6)

LOCATION : Palmeiropolis area
 DIRECTION : o
 FINAL DEPTH : 400.45 m

COORDINATES : E792.95 , N8548.46
 INCLINATION : -90 o

DEPTH (m)	COLUMN	ROCK	PRINCIPAL CONSTITUENTS					PORPHYRO BLAST		OTHER		ORE MINERAL					REMARKS				
			quartz	plagioclase	K-feldspar	biotite	muscovite	amphibole	garnet	staurolite	plagioclase	calcite	chlorite	pyrrhotite	pyrite	chalcopyrite		galena	sphalerite	schistosity	grain size
205.45	~	Ms-Bi-Qt-Sch	o			o	.						o					m	d	205.45 - 205.58	
	~		o			o	.							o					m	d	sph > py little
	~		o			o								o				Fd	m	d	with qt
	~		o			o								o				Fd	m	d	205.00 - 205.58
	~		o			o								o				Fd	m	d	silicified
	~		o			o								o				Fd	m	d	top is chloritized
	~		o			o								o			.	Fd	f	d	203.25 - 203.35
	~		o			o								o			.	Fd	f	d	204.15 - 204.25
	~		o			o								o				Fd	f		weak chloritized
	~		o			o	o							o			.	80	f	d	204.20 - 205.00
	~		o			o	o							o				80	m		weak bleached
	~		o			o	o							o							cal network veinlets
210	~		o			o	o							o					m		208.12
	~		o			o	o							o			.		m	d	208.40 - 208.80
	~		o			o	o							o			.	Fd	m	d	sph > py
	~	o			o	o							o			.	Fd	m	d	very litte, network	
	~	o			o	o							o			.	Fd	m	d	dissem	
	~	o			o	o							o			.	Fd	f	d	208.40 - 208.50	
	~	o			o	o							o			.	Fd	f	d	secondary chl in fissures	
	~	o			o	o							o			.	80	f	d	210.35	
	~	o			o	o							o			.	75	m	d	sph > py very little	
	~	o			o	o							o			.	70	m	d	211.60 - 211.70	
	~	o			o	o							o			.	Fd	m	d	rich in bi with qt	
220	~	o			o	o							o			.	Fd	f	d	212.95 - 213.00	
	~	o			o	o							o			.	Fd	d		sph in schist	
	~	o			o	o							o			.	Fd	d		216.60 - 216.70	
	~	o			o	o							o			.	Fd	d		sph > py, very little	
	~	o			o	o							o			.	Fd	d		217.20 sph	
223.15	~	o	.		o	o							o		.	.		d		219.85 - 223.15	
	~	o	.		o	o							o		.	.		d		silicified	
	~	o	.		o	o							o		.	.		d		sph < py, very little	
225.93	~	o	.		o	o							o		.	.		d		chl in fissures	
226.15	~	o	o		o	o							o		.	.		d		223.15 - 223.93	
	~	o	o		o	o							o		.	.		d		strong silicified	
	~	o	o		o	o							o		.	.		d		k-feld included	
	~	o	o		o	o							o		.	.		d		sph > ga, very little	
230	~	o	o		o	o							o		.	.		d		224.45 - 224.50	
	~	o	o		o	o							o		.	.		d		sph in fissures	
	~	o	o	.	o	o							o		.	.		d		226.65 - 239.10	
	~	o	o	.	o	o							o		.	.		d		strong altered	
	~	o	o	.	o	o							o		.	.		d		dotted k-feld	
	~	o	o	.	o	o							o		.	.		d		with py, cal veinlets	
	~	o	o	.	o	o							o		.	.		d		229.30 - 231.40	
	~	o	o	.	o	o							o		.	.		d		cal v. with py	
	~	o	o	.	o	o							o		.	.		d		230.90 - 231.40	
	~	o	o	.	o	o							o		.	.		d		cal with py	
	~	o	o	.	o	o							o		.	.		d		230.95 - 231.70	
	~	o	o	.	o	o							o		.	.		d		originally brecciated	
239.10	~	o	o	.	o	o							o		.	.		d		231.00 - 236.30	
240	~	o	o	.	o	o							o		.	.		d		limonite in fissures	

LITHOLOGIC LOG

HOLE NO. MBP-5

(7)

LOCATION : Palmeiropolis area

COORDINATES : E792.95 , N8548.46

DIRECTION : 0

INCLINATION : -90°

FINAL DEPTH : 400.45 m

DEPTH (m)	COLUMN	ROCK	PRINCIPAL CONSTITUENTS					PORPHYRO BLAST		OTHER		ORE MINERAL					REMARKS					
			quartz	plagioclase	K-feldspar	biotite	muscovite	amphibole	garnet	staurolite	plagioclase	calcite	chlorite	pyrrhotite	pyrite	chalcopyrite		galena	sphalerite	schistosity	grain size	mineral type (ore)
240.85	∇ ∇	← Amphibolite					●				*								c	240.85-242.95 strong altered k-feld, cal veinlets		
242.95	∇ ∇	Altered Rock	○	○	○													Fd	f			
	∇ ∇	Amphibolite ①②					●				*							Fd	c	242.60-242.95 cal, chl, qt brecciated		
	∇ ∇						●				*								Fd	c	250.40-250.80 cal with chl w = 0.5cm	
	∇ ∇						●				*		*						60	c		
	∇ ∇						●				*		*						60	c	250.55-250.60 secondary chl in fissures	
250	∇ ∇						●				*		*						Fd	c		
	∇ ∇						●				*		*						55	c		
	∇ ∇						●				*		*						60	c	252.25-253.00 cal, chl veinlet w = 1.5cm	
	∇ ∇						●				*		*						50	c		
	∇ ∇						●				*		*						50	c		
	∇ ∇						●				*		*							c		
	∇ ∇						●				*		*						Fd	c		
	∇ ∇						●				*		*						70	c	258.80-259.00 bi ≫ am > cal weak argillized	
	∇ ∇					○	●				*		*							80	m	
260	∇ ∇		Amphibolite				○	●			*		*						70	m	261.05-261.55 rich in bi	
	∇ ∇						○	●			*		*						70	c		
	∇ ∇					○	●			*		*						65	c	265.40-265.80 rich in bi		
	∇ ∇					○	●			*		*						65	c			
	∇ ∇					○	●			*		*						70	c			
	∇ ∇					○	●			*		*						55	Vc	268.30-268.85 rich in bi includ qt		
	∇ ∇					○	●			*		*						60	Vc			
	∇ ∇					○	●			*		*						40	Vc			
	∇ ∇					○	●			*		*							Vc			
	∇ ∇					○	●			*		*							Fd			
270	∇ ∇					○	●			*		*							Vc			
	∇ ∇					○	●			*		*							Vc			
	∇ ∇					○	●			*		*							Vc			
	∇ ∇					○	●			*		*							Vc			
	∇ ∇					○	●			*		*							Vc			
	∇ ∇					○	●			*		*							Vc			
	∇ ∇					○	●			*		*							Vc			
	∇ ∇					○	●			*		*							Vc			
276.85	∇ ∇					○	●			*		*							Vc			
277.60	∇ ∇					○	○												f			
	∇ ∇					○	●			*		*							c			
280	∇					○	●			*		*							Vc			

LITHOLOGIC LOG

HOLE NO. MBP-5

(8)

LOCATION : Palmeiropolis area
 DIRECTION : o
 FINAL DEPTH : 400.45 m

COORDINATES : E792.95 , N854846
 INCLINATION : -90°

DEPTH (m)	COLUMN	ROCK	PRINCIPAL CONSTITUENTS					PORPHYRO BLAST		OTHER		ORE MINERAL					REMARKS						
			quartz	plagioclase	K-feldspar	biotite	muscovite	amphibole	garnet	staurolite	plagioclase	calcite	chlorite	pyrrhotite	pyrite	chalcopyrite		galena	sphalerite	schistosity	grain size	mineral type (ore)	
280.43	~ ~ ~					o												Fd	Vc	d	280.43-281.33 qt, am, chl, bi schist		
281.33	~ ~ ~				o													Fd	m				
	~ ~ ~																		Vc				
	~ ~ ~																		70	Vc			
	~ ~ ~																			Vc			
	~ ~ ~																			Vc	d		
	~ ~ ~																			55	c		
	~ ~ ~																			40	Vc		
288.70	~ ~ ~																			70	c		
289.60	~ ~ ~																						
290	~ ~ ~																			65	m		
	~ ~ ~	Qt - Sch	o		o						o									60	f	d	
291.05	~ ~ ~				o																55	m	d
292.00	~ ~ ~	Bi-Am - Sch				o															50	m	d
292.15	~ ~ ~																						
292.90	~ ~ ~																						
	~ ~ ~		o		o						o		o								70	m	d
	~ ~ ~		o		o						o		o								75	f	d
	~ ~ ~		o		o						o		o								80	f	d
	~ ~ ~		o		o						o		o								85	f	d
	~ ~ ~		o		o						o		o								80	f	d
	~ ~ ~		o		o						o		o								75	f	d
300	~ ~ ~	(Pl)-(Ms-Bi) -Qt-Sch	o		o						o		o								60	f	d
	~ ~ ~		o		o						o		o								65	f	d
	~ ~ ~		o		o						o		o								65	f	d
	~ ~ ~		o		o						o		o								75	f	d
303.20	~ ~ ~				o																Fd	f	
304.30	~ ~ ~		o		o																55	f	d
	~ ~ ~		o		o																55	f	d
306.70	~ ~ ~	Bi-Am - Sch	o		o																Fd	c	d
307.80	~ ~ ~		o		o																		
309.00	~ ~ ~		o		o																Fd	f	d
310	~ ~ ~		o		o																Fd	m	d
310.30	~ ~ ~		o		o																Fd	m	d
310.60	~ ~ ~		o		o																Fd	m	d
310.95	~ ~ ~		o		o																Fd	m	d
	~ ~ ~		o		o																Fd	m	d
	~ ~ ~		o		o																Fd	m	d
	~ ~ ~		o		o																Fd	m	d
	~ ~ ~		o		o																Fd	m	d
	~ ~ ~		o		o																80	m	d
	~ ~ ~		o		o																85	m	d
	~ ~ ~		o		o																75	m	d
320	~ ~ ~		o		o																85	m	d

LITHOLOGIC LOG

HOLE NO. MBP-5

(10)

LOCATION : Palmeiropolis area

COORDINATES : E792.95 , N854846

DIRECTION : o

INCLINATION : -90°

FINAL DEPTH : 400.45 m

DEPTH (m)	COLUMN	ROCK	PRINCIPAL CONSTITUENTS					PORPHYRO BLAST		OTHER			ORE MINERAL					REMARKS				
			quartz	plagioclase	K-feldspar	biotite	muscovite	amphibole	garnet	staurolite	plagioclase	calcite	chlorite	pyrrhorite	pyrite	chalcopyrite	galena		sphalerite	schistosity	grain size	mineral type (ore)
370	~	(PI)-(Ms-Bi) -Qt-Sch	⊙			o	o											75	f	d	360.55-360.80 bleached with py	
	~		⊙			o	o												85	m		d
	~		o			o	o												85	m	d	361.10-361.45 rich in bi
	~		o			o	o												80	m	d	
	~		o			o	o												85	m		361.45-362.10 chloritized with py.
	~		⊙			o	o			o									Fd	m	d	
	~		⊙			o	o												Fd	m	d	
	~		o			o	o												85	m	d	367.70-368.00 weak chloritized with py
	~		o			o	o												85	m	d	
	~		o			o	o												85	m	d	372.45-372.50 rich in bi with qt mass
~	o				o	o												80	m	d		
380	~			o			o	o											80	m	d	387.20-387.25 chloritized
	~		o			o	o												75	f	d	
	~		o			o	o												70	f		387.85-389.90 chloritized at intervals
	~		o			o	o												75	f	d	
	~		o			o	o												70	m	d	389.05-389.10 qt. mass with ms & py
	~		o			o	o												70	f	d	
	~		o			o	o												70	f	d	396.70-397.00 limonite stained
	~		o			o	o												70	f	d	
	~		o			o	o												75	m	d	399.05-399.20 qt. mass with ms & py
	~	o			o	o												Fd	m	d		
~	o			o	o												75	m	d	399.05-399.20 qt. mass with ms & py		
~	o			o	o												Fd	m	d			
~	o			o	o												70	m	d	399.05-399.20 qt. mass with ms & py		
~	o			o	o												70	m	d			
~	o			o	o												65	m	d	396.70-397.00 limonite stained		
~	o			o	o												60	m	d			

400.45

LITHOLOGIC LOG															HOLE NO. MBP-6		(1)					
LOCATION		Palmeiropolis area					COORDINATES : E792.93 , N8549.215															
DIRECTION		°					INCLINATION : -90°															
FINAL DEPTH		401.32 m																				
DEPTH (m)	COLUMN	ROCK	PRINCIPAL CONSTITUENTS					PORPHYRO BLAST		OTHER		ORE MINERAL					REMARKS					
			quartz	plagioclase	K-feldspar	biotite	muscovite	amphibole	garnet	staurolite	plagioclase	calcite	chlorite	pyrrhotite	pyrite	chalcopyrite		galena	sphalerite	schistosity	grain size	mineral type (ore)
0-1.60		Soil																		0-1.60 dark brown ~ brown soil		
1.60-8.50		Soil																		1.60-8.50 strong weathered rock, f, grained & argillized, very soft only mica is defined		
8.50-19.10		Soil																		8.50-19.10 strong weathered & argillized rock, very soft, f-m grained, ms, bi, qt are defined		
19.10-18.00		Soil																		18.00-19.10 same structure with underlying lithology		
19.10-20.00	~	(Pl) - Gn - Ms - Bi - Qt - Sch	o			o		o									45	m		19.10 - 27.50 limonite in schistosity		
20.00-21.00	o		o		o		o		o									Fd	m		19.10 - 24.30 garnet, $\phi < 1mm$	
21.00-22.00	o		o		o		o		o										Fd	m		25.65 - 27.40 strong limonitization partly argillized
22.00-23.00	o		o		o		o		o										70	m		26.20 - 26.50 brecciated
23.00-24.30	o	Ms - Bi - Qt - Sch	o			o		o										70	m		28.20 - 28.50 wh massive qt L65°	
24.30-25.65	o		o		o		o		o									75	m		29.00 - 29.10 strong limonitization with clay, in contact slickenside	
25.65-26.20	o		o		o		o		o									Fd	m	d	32.90 - 34.00 cal str: w=1-2mm L5°	
26.20-27.40	o		o		o		o		o										Fd	m	d	35.50 - 37.20 mostly bi include am
27.40-28.20	o		o		o		o		o										60	f	d	39.25 - 40.85 silicified
28.20-29.00	o		o		o		o		o										65	m	d	
29.00-30.00	o		o		o		o		o										75	m	d	
30.00-32.90	o		o		o		o		o										75	f	d	
32.90-35.50	o		o		o		o		o										60	f	d	
35.50-39.25	o		o		o		o		o										65	m	d	
37.20-39.25	o	o		o		o		o										70	f	d		
39.25-40.85	o	o		o		o		o										75	m	d		
40.85-41.32	o	o		o		o		o										65	f	d		

LITHOLOGIC LOG

HOLE NO. MBP-6

(2)

LOCATION : Palmeiropolis area
 DIRECTION : o
 FINAL DEPTH : 401.32 m

COORDINATES : E792.93, N8549.215
 INCLINATION : -90°

DEPTH (m)	COLUMN	ROCK	PRINCIPAL CONSTITUENTS					PORPHYRO BLAST		OTHER		ORE MINERAL					REMARKS						
			quartz	plagioclase	K-feldspar	biotite	muscovite	amphibole	garnet	staurolite	plagioclase	calcite	chlorite	pyrrhotite	pyrite	chalcopyrite		galena	sphalerite	schistosity	grain size	mineral type (ore)	
40.85	~	*Am - Bi-Sch	●			•							o				80	f	d	40.85-42.20 am < bi sch			
42.20	V ~ V		o			●								•				Fd	m		43.00-43.25 am < bi sch		
43.00	~		o			●								•					Fd	m	d	am is spherical	
43.25	~		o			●								•					80	m	d	43.80-45.00 fracture, L5° filled with clayapy	
	~	Ms-Bi-Qt-Sch	o			○												75	m				
	~		o			○													70	m			
	~		o			○								•					60	m	d	47.10-47.30 3 qt masses irregular shape ms surrounding qt	
	~		o			○													60	m			
50	~	(Pl)-Gn-(Ms-Bi) -Qt-Sch	○			○												65	m		51.15-51.30 silicified		
50.50	~		○			○			•					•					70	m	d	50.50-51.50 garnet, ϕ < 1mm	
	~		○			•			○					○					55	f		51.50-59.30 garnet, ϕ ≤ 3mm pink	
	~		○			•			○											f			
	~		○			•			○											f		56.70-56.75 chloritized	
	~		○			•			○											f		58.80-59.15 cal.v, w ≤ 5mm, L20° with py	
	~		○			•			•											f			
60	~		○			•			•											80	f	d	61.05-61.90 bi<am sch, upperpart: bit qt
61.05	V ~ V		○			○														Fd	m	d	61.90-63.25 rich in qt mass
61.90	~		○			○														Fd	m	d	66.30-66.40 qt mass irregular shape
	~	○			○														Fd	m	d	75.60-75.90 rich in bi, with qt mass	
	~	○			○														Fd	m		75.90-76.85 pr dissem. medium	
70	~	(Pl)-(Bi-Ms) -Qt-Sch	○			○													Fd	f	d	76.85-77.40 qt mass	
	~	○			○														85	f	d		
	~	○			○								○						Fd	f	d	77.50-77.57 qt mass	
	~	○			○								○						Fd	m	d	78.00-78.13 bi<am sch f,gr, with py	
	~	○			○								○						70	m	d		
	~	○			○								○						90	f	d	78.75-78.84 include bi, am	
78.00	~	○			○								○						75	f	d		
78.13	~	○			○								○						70	f	d		
80	~	○			○								○						Fd	m	d		

LITHOLOGIC LOG

HOLE NO. MBP-6

(3)

LOCATION : Palmeiropolis area
 DIRECTION : o
 FINAL DEPTH : 401.32 m

COORDINATES : E792.93 , N8549.215
 INCLINATION : -90°

DEPTH (m)	COLUMN	ROCK	PRINCIPAL CONSTITUENTS					PORPHYRO BLAST		OTHER		ORE MINERAL					REMARKS					
			quartz	plagioclase	K-feldspar	biotite	muscovite	amphibole	garnet	staurolite	plagioclase	calcite	chlorite	pyrrhotite	pyrite	chalcopyrite		galena	sphalerite	schistosity	grain size	mineral type (ore)
86.25	~	(Pl)-(Bi-Ms)-Qt-Sch	o			⊙	o											Fd	m	d	86.25-92.35 amphibolite with very few bi	
	~		o			⊙	o											Fd	m	d		
	~		o			o												70	f	d	86.25-86.50 } 89.30-90.60 } very co gr.	
	~		o			o												70	f			
	~		o			o												Fd	f		87.60-87.85 qt mass in amphibolite	
	~		o			o												75	f	d		
90	∨	Amphibolite				⊙													v	c	d	87.60-87.85 qt mass in amphibolite
	∨					⊙														m	d	
	∨					⊙														m	d	87.60-87.85 qt mass in amphibolite
	∨					⊙														m	d	
92.35	~		o			o												90	v	c	d	87.60-87.85 qt mass in amphibolite
	~		o			o												90	c	d		
	~		o			o												70	m	d	87.60-87.85 qt mass in amphibolite	
	~		o			o												80	f			
	~		o			o												85	f		99.75-99.85 chlorite networky str.	
	~		o			o												85	f			
	~		o			o												85	f	d	101.00-116.00 scattered micaceous mineral, wh metallic luster crossing schistosity	
	~		o			o												85	f			
100	⊙		o			o												85	f		101.00-116.00 scattered micaceous mineral, wh metallic luster crossing schistosity	
	~		o			o												85	f			
	~		o			o												85	f	d	107.75-107.90 chl, str. secondary L20°	
	~		o			o												85	f	d		
	~		o			o												85	f	d	107.75-107.90 chl, str. secondary L20°	
	~		o			o												85	f			
	~		o			o												90	f		111.35-112.00 chl, str. secondary at intervals	
	~		o			o												85	f	d		
	~		o			o												85	f		113.60-114.30 strong chloritized with cal str	
	~		o			o												85	f			
110	~		o			o												85	f		113.60-114.30 strong chloritized with cal str	
	~		o			o												85	f			
	~		o			o												80	f		114.30-114.65 chl, str. secondary at intervals	
	~		o			o												70	f			
	~		o			o												65	f		114.65-114.80 mostly bi	
	~		o			o													f	d		
	~		o			o												Fd	m	d	115.75-115.85 cal, str. L30° with chl	
	~		o			o												Fd	f	d		
116.80	~		o			o												80	f	d	116.80-120.40 garnet, ϕ < 1mm	
	~		o			o												80	f	d		
	~		o			o												75	f	d	118.65-120.00 silicified, chl ?	
	~		o			o												70	f	d		
120	o	Gn-Bi-Qt-Sch	o			o												70	f	d		

LITHOLOGIC LOG

HOLE NO. MBP-6

(4)

LOCATION : Palmeirópolis area
 DIRECTION :
 FINAL DEPTH : 401.32 m

COORDINATES : E792.93, N8549.215
 INCLINATION : -90°

DEPTH (m)	COLUMN	ROCK	PRINCIPAL CONSTITUENTS					PORPHYRO BLAST		OTHER		ORE MINERAL					REMARKS				
			quartz	plagioclase	K-feldspar	biotite	muscovite	amphibole	garnet	staurolite	plagioclase	calcite	chlorite	pyrrhotite	pyrite	chalcopyrite		galena	sphalerite	schistosity	grain size
123.70	~	Gn-Bi-Qt-Sch	○			○												Fd	f		121.10-121.45 silicified, chloritized
	○		○			○												Fd	f		123.20-123.50 rich in bi
	~	Qt	○			○												Fd	f		123.70-125.05 wh. qt : meta chert ?
125.05	○		○			○												Fd	m	d	126.25-125.40 qt
	~		○			○												75	m	d	127.00
	○		○			○												80	m	d	very few amphibole leuticular
130	~		○			○												75	f		120.00-132.00 garnet, # ≤ 0.5mm
	○		○			○												80	f		131.20-131.70 } 132.30-132.60 } 133.15-133.45 }
	~		○			○												Fd	f	d	rich in bi with cal, chl
	○		○			○												Fd	f	d	134.35-136.00 silicified, strong chloritized
	~		○			○												80	f		136.30-136.40 cal str. w/ glmm L30°
	○	Gn-(Ms-Bi)- Qt-Sch	○			○												85	f	d	136.60-136.75 cal. druse
140	~		○			○												70	f		136.75-139.00 chloritized at intervals
	○		○			○												Fd	m		[138.75-138.90 strong chloritized]
	~		○			○												Fd	m	d	139.10-139.50 rich in bi, cal, chl
	○		○			○												Fd	f	d	
	~		○			○												Fd	m	d	141.65-141.85 rich in bi, chl
	○		○			○												Fd	m		143.00-144.77 chl at intervals
	~		○			○												Fd	f	d	144.12-144.27 silicified, chloritized
150	○		○			○												Fd	f	d	
	~		○			○												Fd	m	d	145.00-158.50 qt, bedded like w < 1cm at intervals mostly folding within core, crossing schistosity lower contact: at qt upper: gradually
	○		○			○												Fd	m	d	
	~		○			○												Fd	m	d	
	○		○			○												Fd	f		147.75-147.95 rich in bi
	~		○			○												Fd	m	d	
	○		○			○												Fd	f	d	158.50-158.63 light brownish wh. qt. old faultplane ?
160	~		○			○												85	f	d	

LITHOLOGIC LOG

HOLE NO. MBP-6

(5)

LOCATION : Palmeiropolis area
 DIRECTION : o
 FINAL DEPTH : 401.32 m

COORDINATES : E792.93 , N8549.215
 INCLINATION : -90°

DEPTH (m)	COLUMN	ROCK	PRINCIPAL CONSTITUENTS					PORPHYRO BLAST		OTHER		ORE MINERAL					REMARKS			
			quartz	plagioclase	K-feldspar	biotite	muscovite	amphibole	garnet	staurolite	plagioclase	calcite	chlorite	pyrrhotite	pyrite	chalcopyrite		galena	sphalerite	schistosity
	~		○			○	•										85	f	d	
	~		○			○	•										85	f	d	
	~		⊙			○	•		•								85	f		168.15-168.45
	~		⊙			○	•		•								85	f		168.60-168.75
	~		○			○	•										85	f		169.10-169.20
	~		○			○	•		•								85	m		rich in qt mass bedded like
	~		⊙			○	•						•				Fd	m	d	168.30-168.45
	~		⊙			○	•						•				80	m	d	bi > amph, qt
168.30 168.45	~		⊙			○	•						•				80	m	d	169.70-169.80
170	~		⊙			○	•						•				50	m	d	pole brown qt
170.60 170.85	~		⊙			○	•	•									Fd	f		170.00-170.30
	~		⊙			○	•	•					•				Fd	f	d	brecciated slickenside on breccia
	~		⊙			○	•	•									Fd	f		170.60-170.85
173.92 174.00 174.55	~		⊙			○	•	•									80	f		am < bi sch irregular contact
	~		○			⊙	•						•				Fd	f	d	173.92-174.00
175.85	~	← Am - Bi -Sch	○			⊙	•	○									Fd	m		am < bi schist
	~		○			○	•						•				Fd	f	d	174.55-175.85
	~		⊙			○	•						•				Fd	m	d	ditto
	~		⊙			○	•						•				Fd	f	d	175.85-176.10
180	~		⊙			○	•										Fd	f		rich in bi, qt
180.25 180.50	~		○			○	•						•				Fd	f	d	176.25-176.35
	~		⊙			○	•						•				Fd	m	d	qt mass
	~		⊙			○	•						•				Fd	m	d	180.25-180.50
	~	Gn-(Ms-Bi)- Qt-Sch	⊙			○	•										55	m		bi, qt (lower half) include amph
	~		⊙			○	•	○									Fd	m		180.80-181.36
	~		⊙			○	•	○									Fd	f		qt mass, ms in it
	~		⊙			○	•						•				80	f		182.05-182.42
	~		⊙			○	•					○					Fd	f	d	qt mass
	~		⊙			○	•										85	f		186.45-186.60
	~		⊙			○	•										Fd	f		qt, L 15°
	~		⊙			○	•										70	f		ms around qt
190	~		⊙			○	•										Fd	f	d	186.75-186.85
	~		⊙			○	•						•				Fd	f	d	qt mass, L 65°
	~		⊙			○	•										85	f		186.55-186.70
	~		⊙			○	•	•									90	f		chloritized with py
	~		⊙			○	•	•									Fd	f		194.55-194.75
	~		⊙			○	•					○					80	f		strong chloritized
	~		○			○	•										75	f		
	~		⊙			○	•						•				Fd	f	d	
	~		⊙			○	•										Fd	m		
	~		⊙			○	•						•				85	f	d	
200	~		⊙			○	•										Fd	f		

LITHOLOGIC LOG

HOLE NO. MBP-6

(7)

LOCATION : Palmeiropolis area
 DIRECTION : o
 FINAL DEPTH : 401.32 m

COORDINATES : E792.93 , N8549.215
 INCLINATION : -90°

DEPTH (m)	COLUMN	ROCK	PRINCIPAL CONSTITUENTS					PORPHYRO BLAST		OTHER		ORE MINERAL					REMARKS						
			quartz	plagioclase	K-feldspar	biotite	muscovite	amphibole	garnet	staurolite	plagioclase	calcite	chlorite	pyrrhotite	pyrite	chalcopyrite		galena	sphalerite	schistosity	grain size	mineral type (ore)	
250	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	PI-Gn-Ms-Bi -Qt-Sch	o			o			o		o		o					Fd	f	d	247.10-247.20 wh qt translucent		
			o			o			o		o		o		o				Fd	f		d	
			o			o			o		o		o		o					Fd		f	d
			o			o			o		o		o		o					Fd		f	d
			o			o			o		o		o		o					Fd		f	d
			o			o			o		o		o		o					Fd		f	d
			o			o			o		o		o		o					Fd		f	d
			o			o			o		o		o		o					Fd		f	d
			o			o			o		o		o		o					Fd		f	d
			o			o			o		o		o		o					Fd		f	d
			o			o			o		o		o		o					Fd		f	d
			o			o			o		o		o		o					Fd		f	d
			o			o			o		o		o		o					Fd		f	d
			o			o			o		o		o		o					Fd		f	d
			o			o			o		o		o		o					Fd		f	d
260	~ ~ ~ ~ ~ ~ ~ ~ ~ ~	PI-Gn-Ms-Bi -Qt-Sch	o			o			o		o		o					70	f	d	252.10-252.25 mostly bi		
			o			o			o		o		o		o				80	f		d	
			o			o			o		o		o		o				Fd	f		d	
			o			o			o		o		o		o				Fd	f		d	
			o			o			o		o		o		o				Fd	f		d	
			o			o			o		o		o		o				65	f		d	
			o			o			o		o		o		o				55	f		d	
			o			o			o		o		o		o				50	f		d	
			o			o			o		o		o		o				60	f		d	
			o			o			o		o		o		o				65	f		d	
263.00	~ ~ ~ ~ ~ ~ ~ ~ ~ ~	(Gn)-PI-Ms -Bi-Qt-Sch	o			o			o		o		o					60	f	d	261.60-261.70 qt, mass, wh. irregular shape with garnet, translucent		
			o			o			o		o		o		o				Fd	f		d	
			o			o			o		o		o		o				Fd	f		d	
			o			o			o		o		o		o				Fd	f		d	
			o			o			o		o		o		o				Fd	f		d	
			o			o			o		o		o		o				Fd	f		d	
			o			o			o		o		o		o				Fd	f		d	
			o			o			o		o		o		o				Fd	f		d	
			o			o			o		o		o		o				Fd	f		d	
			o			o			o		o		o		o				Fd	f		d	
270	~ ~ ~ ~ ~ ~ ~ ~ ~ ~	(Gn)-PI-Ms -Bi-Qt-Sch	o			o			o		o		o					60	f	d	270.40-271.15 silicified, weak chloritized		
			o			o			o		o		o		o				45	f		d	
			o			o			o		o		o		o				40	f		d	
			o			o			o		o		o		o				Fd	f		d	
			o			o			o		o		o		o				Fd	f		d	
			o			o			o		o		o		o				Fd	f		d	
			o			o			o		o		o		o				Fd	f		d	
			o			o			o		o		o		o				Fd	f		d	
			o			o			o		o		o		o				Fd	f		d	
			o			o			o		o		o		o				Fd	f		d	
280	~ ~ ~ ~ ~ ~ ~ ~ ~ ~	(Gn)-PI-Ms -Bi-Qt-Sch	o			o			o		o		o					50	f	d	272.00-272.25 wh. qt mass translucent upper contact L40° lower contact L80°		
			o			o			o		o		o		o				Fd	m		d	
			o			o			o		o		o		o				Fd	f		d	
			o			o			o		o		o		o				Fd	f		d	
			o			o			o		o		o		o				Fd	f		d	
			o			o			o		o		o		o				Fd	f		d	
			o			o			o		o		o		o				Fd	f		d	
			o			o			o		o		o		o				Fd	f		d	
			o			o			o		o		o		o				Fd	f		d	
			o			o			o		o		o		o				Fd	f		d	

LITHOLOGIC LOG

HOLE NO. MBP-6

(9)

LOCATION : Palmeiropolis area

COORDINATES : E792.93, N8549.215

DIRECTION : 0

INCLINATION : -90°

FINAL DEPTH : 401.32 m

DEPTH (m)	COLUMN	ROCK	PRINCIPAL CONSTITUENTS					PORPHYRO BLAST		OTHER		ORE MINERAL					REMARKS				
			quartz	plagioclase	K-feldspar	biotite	muscovite	amphibole	garnet	staurolite	plagioclase	calcite	chlorite	pyrrhotite	pyrite	chalcopyrite		galena	sphalerite	schistosity	grain size
322.50	~	Am - Bi - Sch	⊙		○								•				Fd	f	d	322.50-322.75 bi < am, qt, sch	
322.75	~		⊙		○	•			•					•				Fd	f	d	324.25-324.30 bi < am sch
324.25	~		⊙		○				•					•				Fd	f	d	325.50-325.65 bi < am sch
324.30	~		⊙		○				•					•				Fd	f	d	327.63-328.50 am < bi, qt, sch with garnet, folded pale yell grn mineral with qt
325.50	~		⊙		○	○			•					•				Fd	f	d	328.75-328.80 am < bi sch
325.65	~		⊙		○				•					•				Fd	f	d	327.05-327.10 weak chloritized
327.63	~		⊙		⊙				•		○			•				Fd	f	d	331.00-331.05 am < bi sch with garnet
328.50	~		⊙		○				•					•				Fd	m	d	331.70-332.30 chl, K-feld, py
330	~		⊙		○				•					•				Fd	f	d	332.70-333.30 chloritized at intervals
334.80	~		(Gn)-Pl-Bi - Qt-Sch	○	?	○			○	○				•				70	f	d	332.75-332.85 qt v. w=2cm, L30°
335.10	~	○		?	○				○					•			70	f	d	334.70-334.80 weak chl	
	~	○		?	○				○		○			•				70	f	d	334.80-335.10 am < bi sch
	~	○		?	○				•	•				•				70	f	d	335.70-335.90 wh, qt translucent chl in fissures
	~	○			○						○			•				75	f	d	337.90-337.95 qt, am, chl, bi
	~	○			○						○			•				70	f	d	335.60-342.10 chloritized at intervals
	~	○			○				○	○				•				70	f	d	343.40-343.60 qt with chl, py L80~70°
	~	○			○				•	•				•				60	f	d	344.10-346.10 silicified, chloritized
	~	○			○				•		○			•				65	f	d	346.10-347.85 ditto, at intervals
	~	○			○					○	○			•				85	f	d	347.85-349.40 silicified, chloritized
340	~	○		○					○	○			•				85	f	d	352.40-353.50 chloritized at intervals	
	~	○		○					○	○			•				70	f	d	353.50~ weak chloritized silicified	
	~	○		○					○	○			•				85	f	d		
350	~	○		○					○	○			•				90	f	d		
360	~	○		○					○	○			•				90	f	d		

LITHOLOGIC LOG

HOLE NO. MBP-6

(10)

LOCATION : Palmeiropolis area
 DIRECTION : o
 FINAL DEPTH : 401.32 m

COORDINATES : E792.93 , N8549.215
 INCLINATION : -90°

DEPTH (m)	COLUMN	ROCK	PRINCIPAL CONSTITUENTS						PORPHYRO BLAST		OTHER		ORE MINERAL					REMARKS		
			quartz	plagioclase	K-feldspar	biotite	muscovite	amphibole	garnet	staurolite	plagioclase	calcite	chlorite	pyrrhotite	pyrite	chalcocopyrite	galena		sphalerite	schistosity
362.52	~	(Gn)-Pl-Bi	⊙			?					⊙							60	f	
362.77	~		⊙			?		⊙				⊙		•					f	d
	~	-Qt-Sch	⊙			?					⊙		•					60	f	d
	~		⊙			?						⊙		•				75	f	d
367.00	~		⊙			•	○			•	○		•					70	f	d
	~		⊙			•	○			•	○		•					Fd	f	d
370	~	Ⓟ Ⓣ Ⓞ MBP-10-12	○			•	○		•	○		•						65	f	d
	~		○			•	○		•	○		•	○					70	f	d
	~		○			•	○		•	○		•						75	f	d
	~		○			•	○		•	○		•						80	f	d
	~		○			•	○		•	○		•						80	f	d
	~		○			•	○		•	○		•						80	f	d
	~		○			•	○		•	○		•						75	f	d
	~		○			•	○		•	○		•						70	f	d
	~		○			•	○		•	○		•						75	f	d
	~		○			•	○		•	○		•						80	f	d
380	~	Gn-MS-Bi	⊙			•	○		•	○		•						85	f	d
	~		⊙			•	○		•	○		•						85	f	d
	~	-Qt-Sch	⊙			•	○		•	○		•						80	f	d
	~		⊙			•	○		•	○		•						80	f	d
	~		⊙			•	○		•	○		•						85	f	d
	~		⊙			•	○		•	○		•						85	f	d
	~	Ⓞ MBP-13-15	⊙			•	○		•	○		•						85	f	d
	~		⊙			•	○		•	○		•						90	f	d
390	~		○			•	○		•	○		•						85	f	d
	~		○			•	○		•	○		•						75	f	d
	~		○			•	○		•	○		•						75	f	d
	~		○			•	○		•	○		•						80	f	d
393.25	~	Ⓞ MBP-16-17	○			•	○		•	○		•						80	f	d
393.52	~		○			•	○		•	○		•						80	f	d
	~	Ⓣ	○			•	○		•	○		•						85	f	d
	~		○			•	○		•	○		•						90	f	d
	~		○			•	○		•	○		•						85	f	d
	~		○			•	○		•	○		•						80	f	d
400	~		○			•	○		•	○		•						70	f	d
	~		○			•	○		•	○		•						80	f	d
	~		○			•	○		•	○		•						80	f	d
	~		○			•	○		•	○		•						80	f	d
401.32	~		○			•	○		•	○		•						80	f	d

