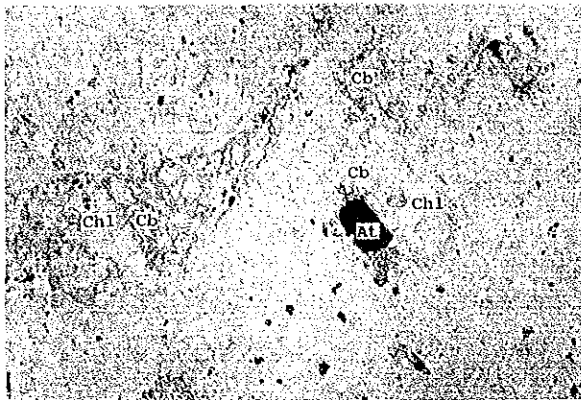


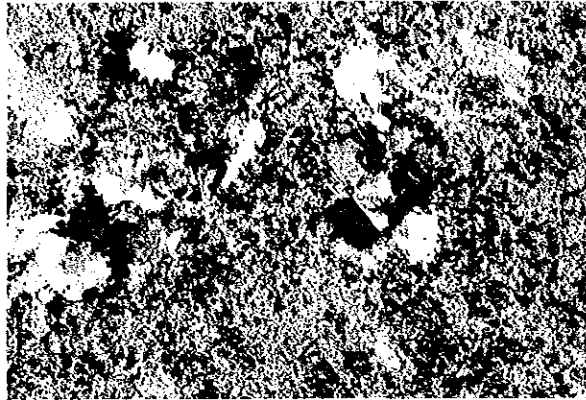
Apx. 2 Microscopic Photographs of Thin Sections

Ap	:	apatite
At	:	anatase
Cal	:	colcite
Cb	:	carbonate
Chl	:	chlorite
Lm	:	limonite
Op	:	opaque
Pl	:	plagioclase
Qz	:	quartz
R	:	rock fragment
Ser	:	sericite
Sp	:	sphalerite
Zr	:	zircon
PPL	:	plain polarized light
XPL	:	crossed polarized light

Sample No. C-1 85.05 Chontali Area, Altered tuff



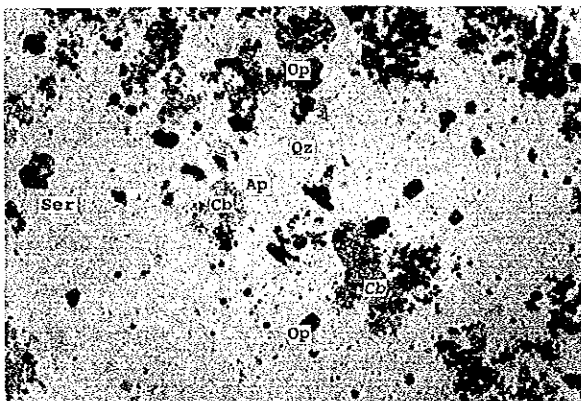
PPL



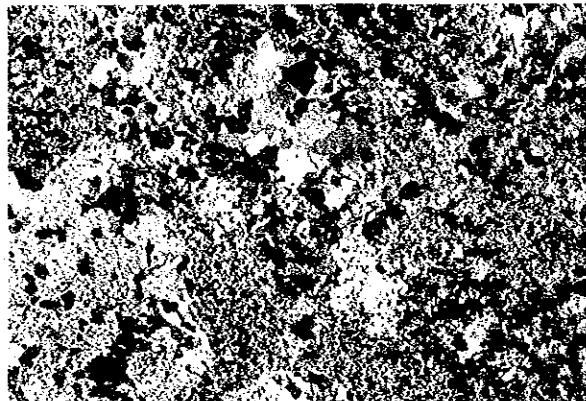
XPL

0 1.0mm

Sample No. C-1 108.55 Chontali Area, Altered tuff with Quartz vein



PPL



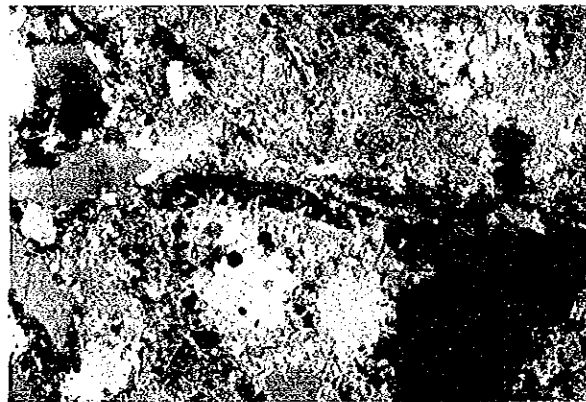
XPL

0 1.0mm

Sample No. C-2 198.10 Chontali Area, Altered tuff with Quartz vein



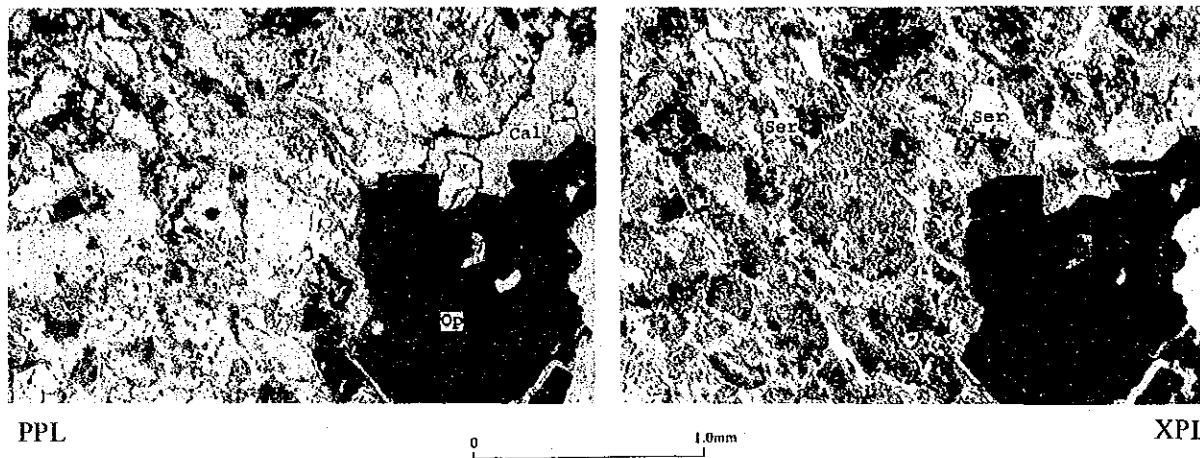
PPL



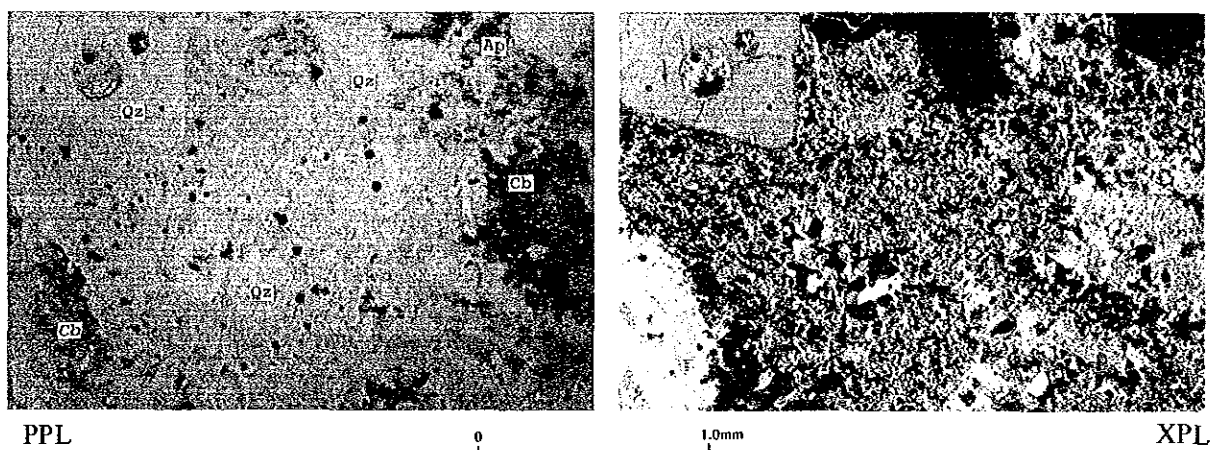
XPL

0 1.0mm

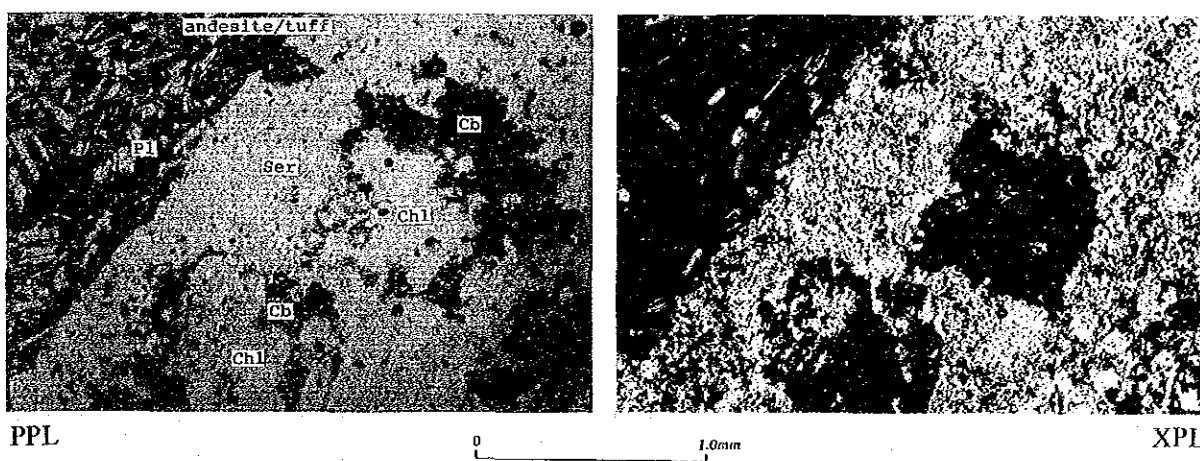
Sample No. C-2 212.40 Chontali Area, Altered tuff with Quartz vein



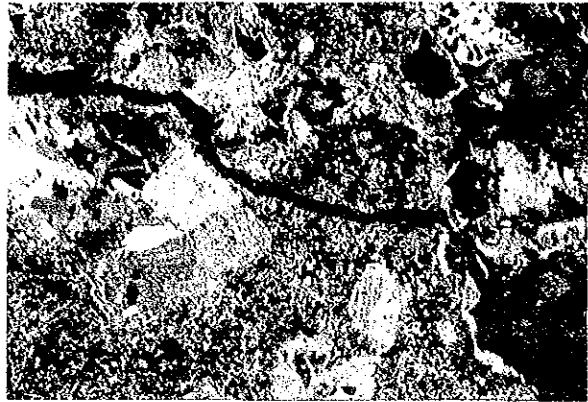
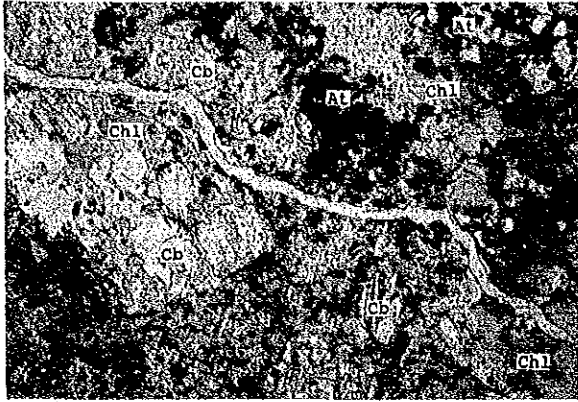
Sample No. C-4 66.53 Chontali Area, Altered tuff



Sample No. C-4 85.40 Chontali Area, Tuff and Andesite

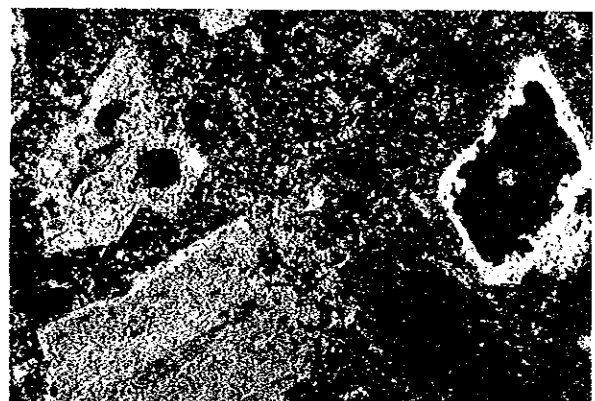
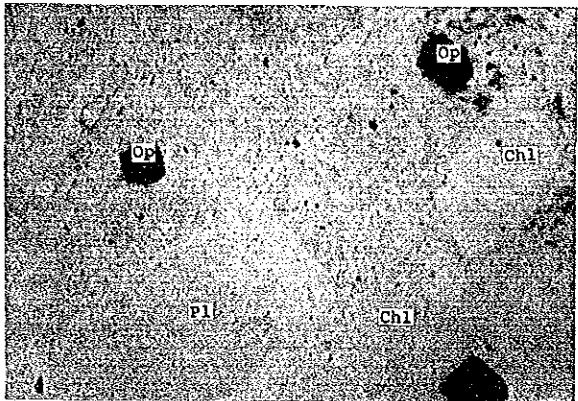


Sample No. C-4 156.70 Chontali Area, Altered tuff



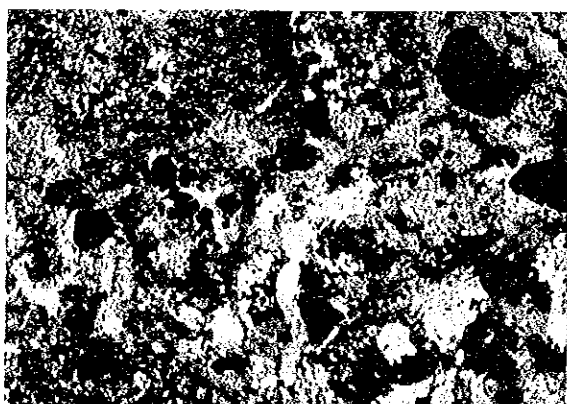
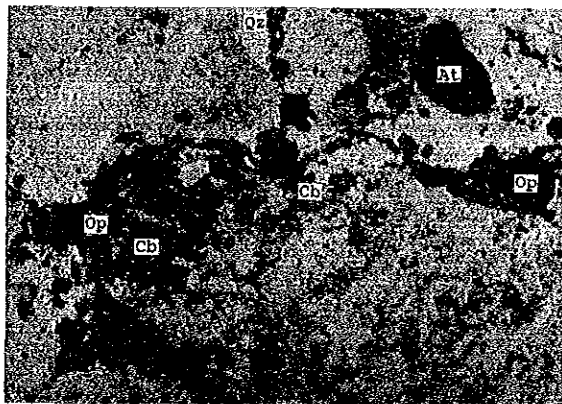
0 1.0mm

Sample No. C-4 181.58 Chontali Area, Altered tuff



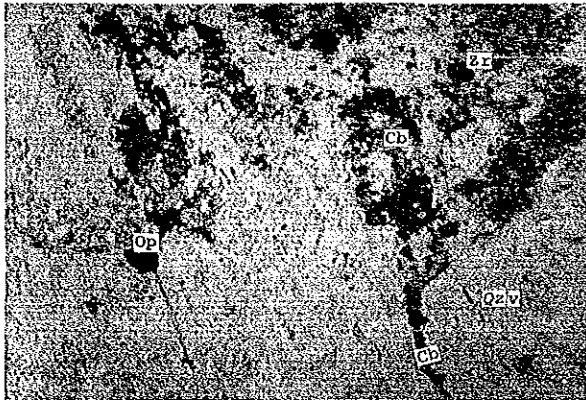
0 1.0mm

Sample No. C-4 196.30 Chontali Area, Altered tuff with Quartz vein



0 1.0mm

Sample No. C-4 268.25 Chontali Area, Altered tuff with Quartz vein

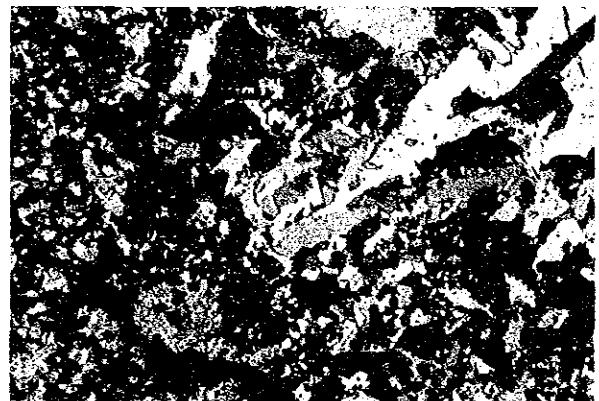
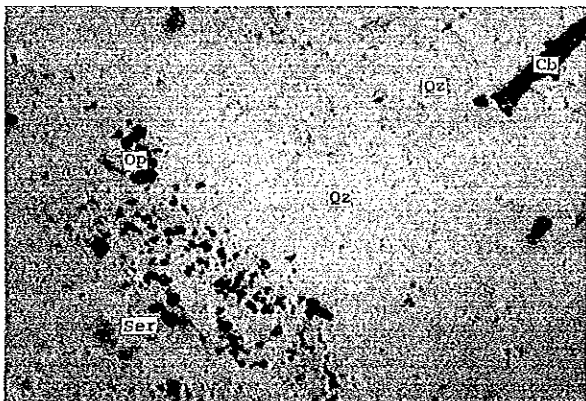


PPL

0 1.0mm

XPL

Sample No. C-5 74.50 Chontali Area, Altered tuff with Quartz vein

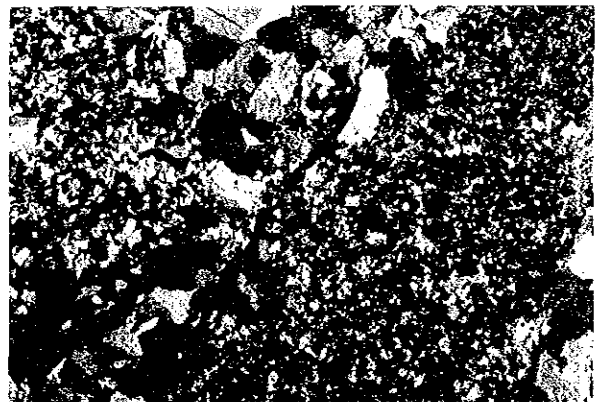
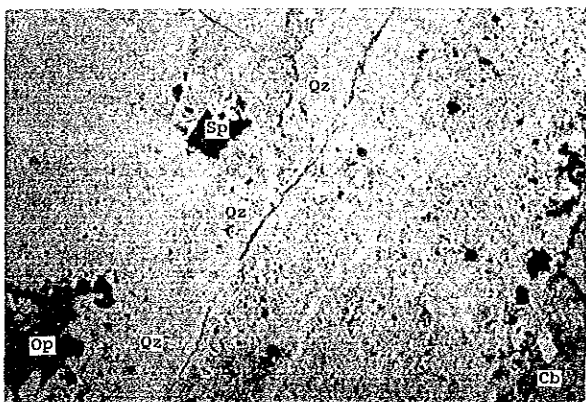


PPL

0 1.0mm

XPL

Sample No. C-6 62.20 Chontali Area, Altered tuff

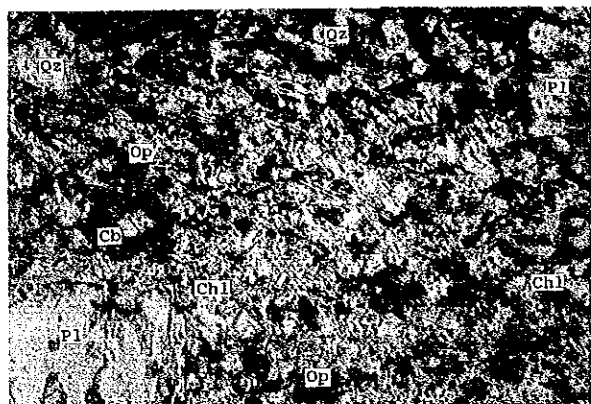


PPL

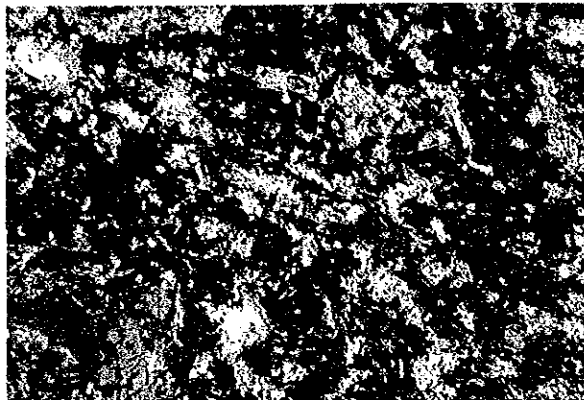
0 1.0mm

XPL

Sample No. C-6 146.30 Chontali Area, Andesite



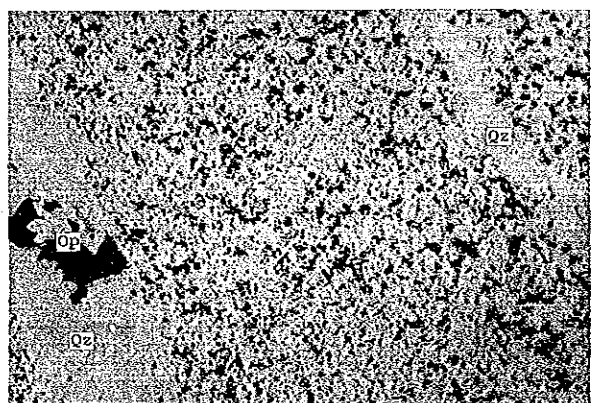
PPL



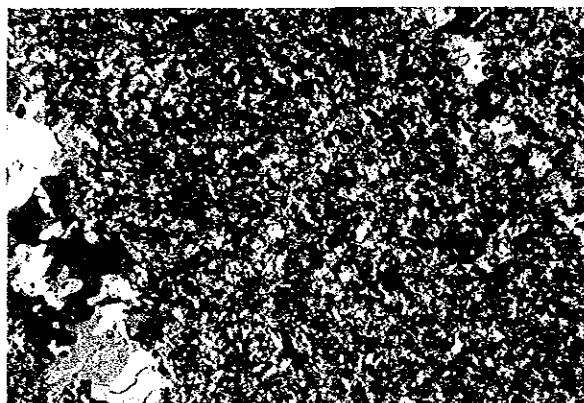
XPL

0 1.0mm

Sample No. C-6 156.60 Chontali Area, Quartzite with Quartz vein

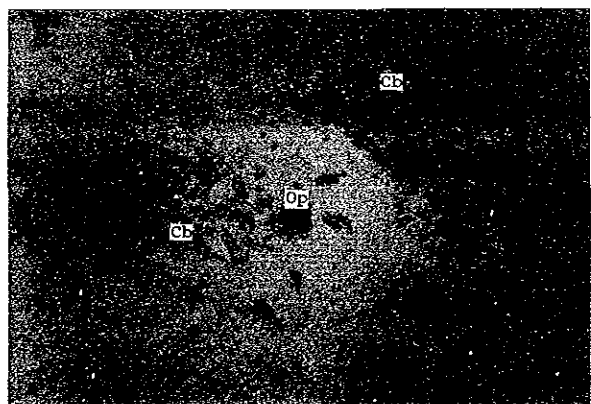


PPL

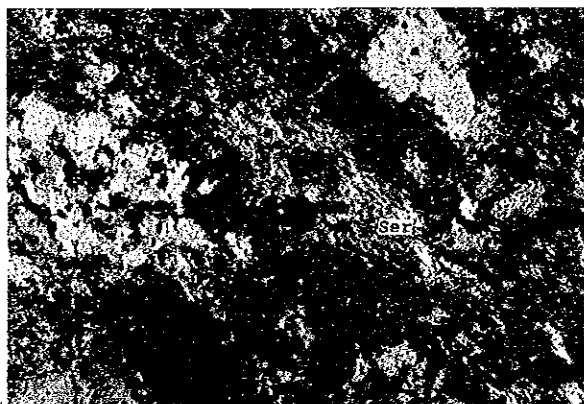


XPL

0 1.0mm



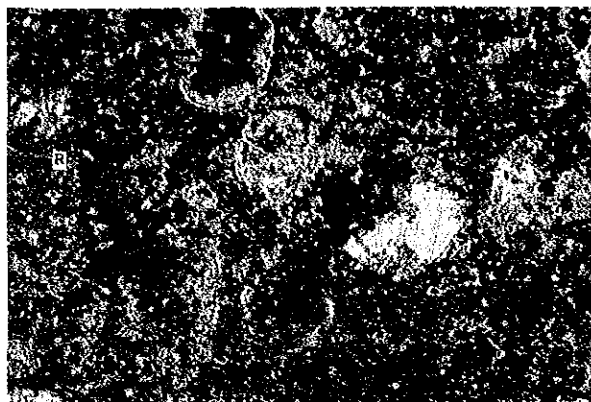
PPL



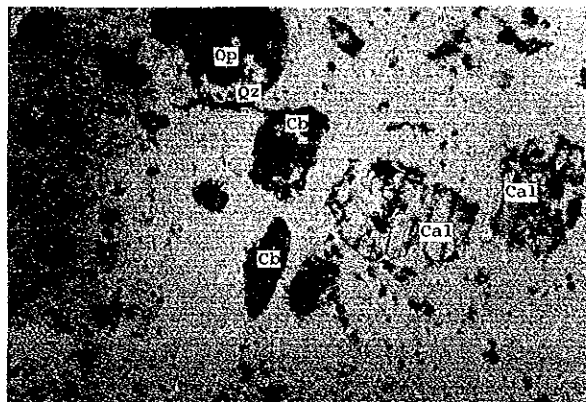
XPL

0 1.0mm

Sample No. C-6 222.06 Chontali Area, Altered tuff



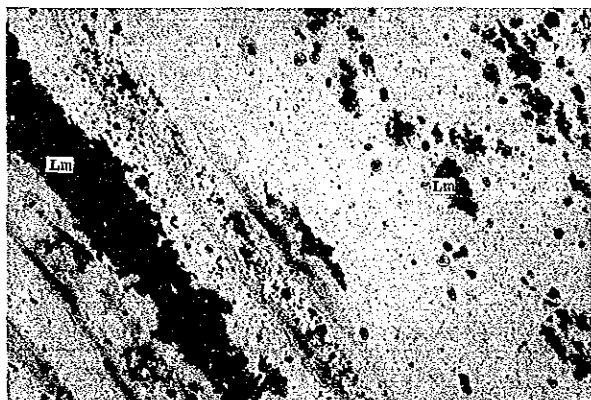
PPL



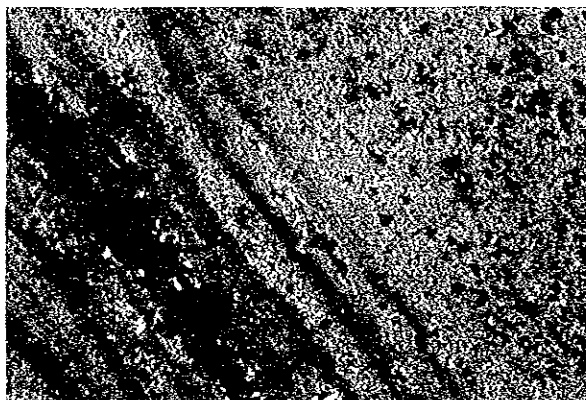
XPL

0 1.0mm

Sample No. J-6 1.55 Jehuamarca Area, Rhyolite



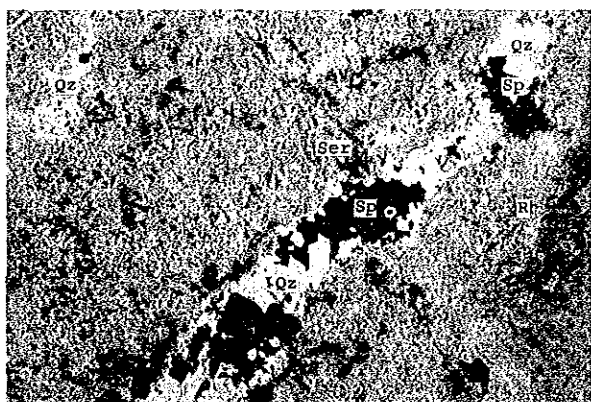
PPL



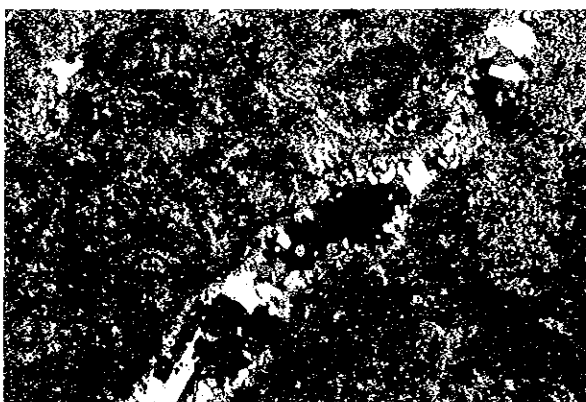
XPL

0 1.0mm

Sample No. J-6 14.85 Jehuamarca Area, Altered tuff



PPL



XPL

0 1.0mm

Sample No. J-11 71.60 Jehuamarca Area, Tuff and Shale



PPL

0 1.0mm



XPL

Sample No. J-12 58.80 Jehuamarca Area, Rhyolite and tuff



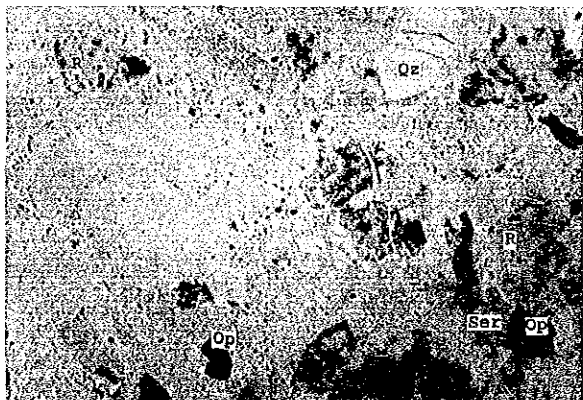
PPL

0 1.0mm



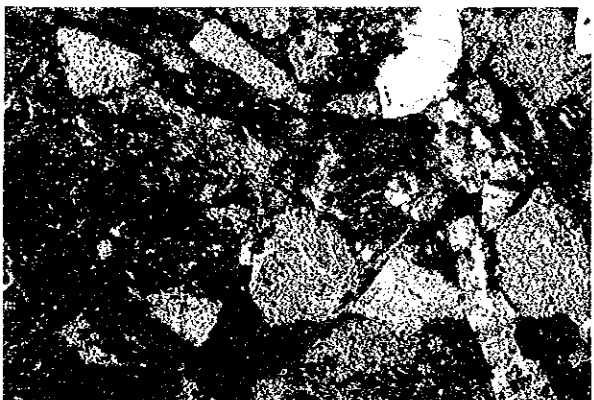
XPL

Sample No. R-72505 Jehuamarca Area, Altered tuff



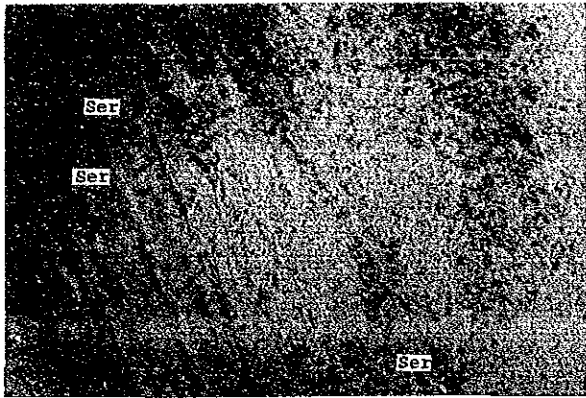
PPL

0 1.0mm

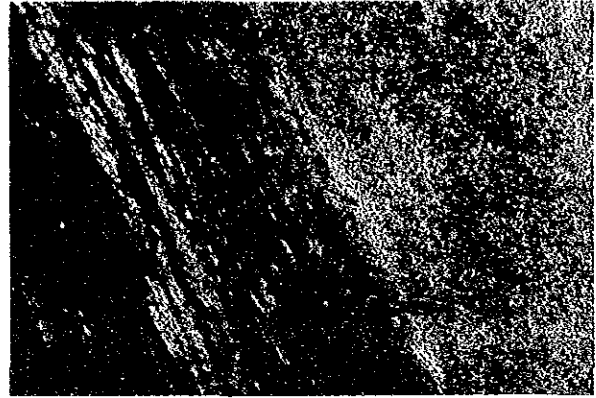


XPL

Sample No. R-72605 Jhuamarca Area, Rhyolite



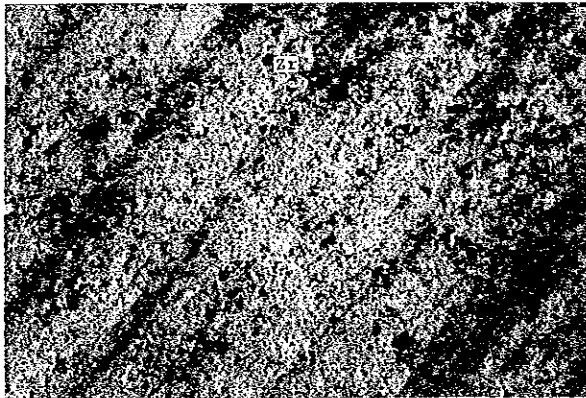
PPL



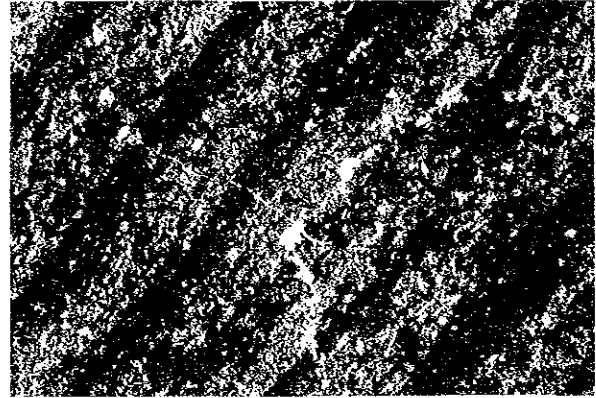
XPL

0 1.0mm

Sample No. R-82302 Jhuamarca Area, Rhyolite



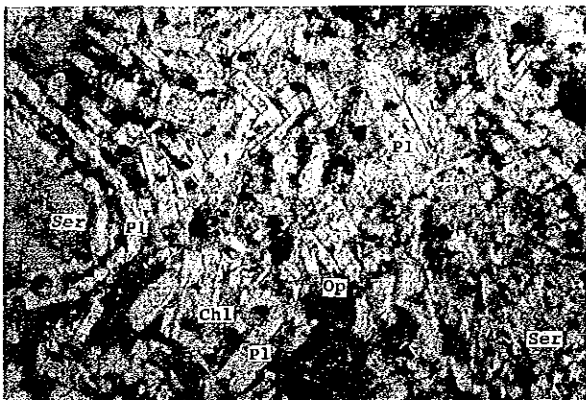
PPL



XPL

0 1.0mm

Sample No. R-82802 Jhuamarca Area, Andesite



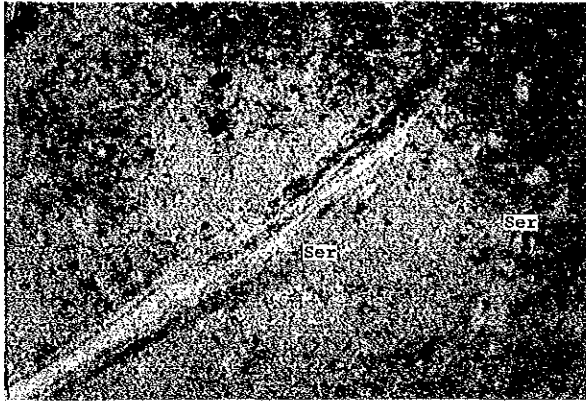
PPL



XPL

0 1.0mm

Sample No. R-102902 Jehuamarca Area, Altered tuff



PPL



XPL

0 1.0mm

Apx. 3 Results of Fluid Inclusion Homogenization Temperature Analysis

ApX.3 Results of Fluid Inclusion Homogenization temperature Analysis

No.	Location	Host mineral	NM	Temperature (°C)			Assay (g/t)		*
				Min.	Max.	Mean	Au	Ag	
1	MJPC-1 103.85	Q	10	75	145	105	2.05	13.5	
2	MJPC-1 131.90	Q	8	110	247	168	2.65	35.0	
3	MJPC-2 59.60	Q	10	91	159	126	1.70	13.5	P
4	MJPC-3 149.70	Q	10	102	146	129	1.20	37.0	X
5	MJPC-3 205.33	Q	10	89	128	102	1.65	20.0	
6	MJPC-4 202.13	Q	20	110	204	144	0.75	13.5	P
7	MJPC-4 244.00	Q	10	125	173	144	0.35	10.5	
8	MJPC-4 278.93	Q	4	120	159	140			
		C	4	110	143	125			
		Average	8	110	159	133	0.10	8.0	
9	MJPC-5 74.50	Q	10	88	158	111	2.30	7.5	P, T
10	MJPC-5 123.45	Q	10	114	231	194	1.25	41.0	P
11	MJPC-6 97.20	Q	10	125	186	147	0.40	12.5	P
12	MJPC-6 159.00	Q	10	136	164	145	1.70	45.5	P

Q: quartz, C: calcite, NM: number of measured fluid inclusions

* P:polished section observed, T:thin section observed, X:x-ray diffraction examined

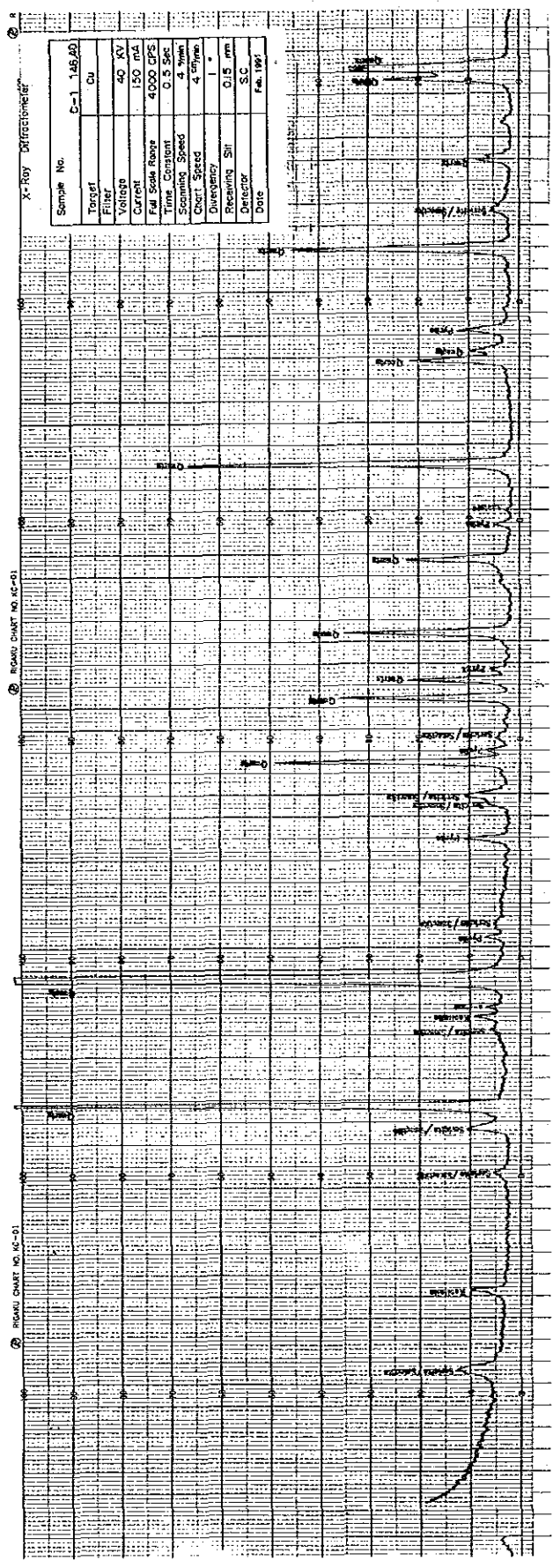
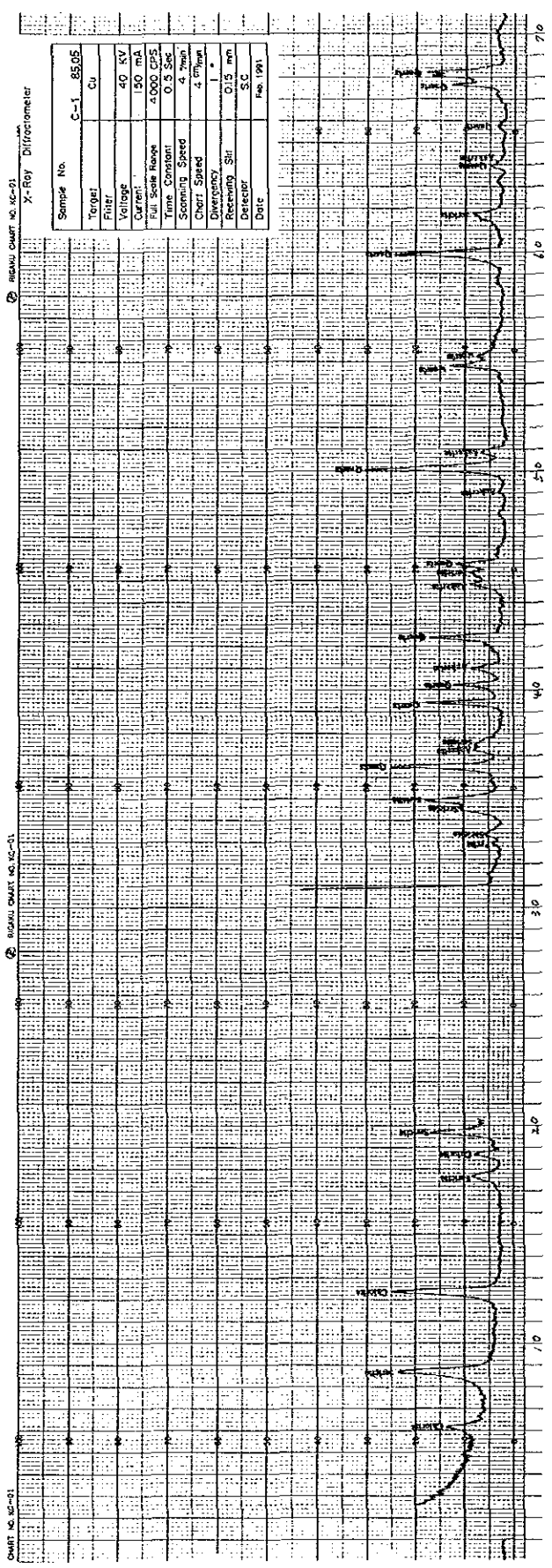
Apx. 4 Results of X-ray diffractive Analysis

Ap. 4 Results of X-ray Diffractive Analysis

Sample No.	Drill Hole	Depth(m)	Rock Name	Silicates										* Carbonates					Sulfides					Oxides, Hydroxide			Remarks
				Clay Minerals					K-feldspar	Halotrichite	Calcite	Ankerite	Dolomite	Siderite	Pyrite	Sphalerite	Galena	Chalcopyrite	Tennantite	Arsenopyrite	Marcasite	Hematite	Goethite	Gibbsite	Anatase		
				Quartz	Kaolinite	Sericite	Chlorite	Smectite: Serpentine Mixed-layer Mineral																		Talc	
Chontali Area Drilling Core Samples																											
C-1	85.05	MJPC-1	85.05	sil arg chl lp tf																						T	
C-1	146.40	"	146.40	qtz v																						P	
C-2	109.30	MJPC-2	109.30	arg sil lp tf																							
C-2	175.75	"	175.75	qtz v																							
C-2	198.10	"	198.10	sil arg tf bre w/qtz net																						T	
C-2	212.40	"	212.40	sil arg tf bre w/hematite																						T	
C-2	244.85	"	244.85	qtz v																							
C-3	55.81	MJPC-3	55.81	carbonate v																							
C-3	149.70	"	149.70	qtz v																						F/I	
C-3	219.95	"	219.95	sheared zone																							
C-4	66.53	MJPC-4	66.53	fault bre w/qtz																						T	
C-4	156.70	"	156.70	sil chl tf bre																						T	
C-4	181.58	"	181.58	sil chl tf bre																						T	
C-4	196.30	"	196.30	sil arg tf bre																						T	
C-4	268.25	"	268.25	fault bre																						T	
C-4	301.70	"	301.70	qtz v																							
C-5	121.70	MJPC-5	121.70	qtz v																							
C-6	62.20	MJPC-6	62.20	fault bre																						T	
C-6	156.60	"	156.60	qtz net v																						P, T	
C-6	201.90	"	201.90	sil arg chl lp tf																						T	
Jhuamarca Area Drilling Core Samples																											
J-5	3.10	MJPJ-5	3.10	sil bre w/sulfides																						P	
J-7	87.40	MJPJ-7	87.40	sil arg lp tf w/qtz v, sp																						P	
J-8	31.05	MJPJ-8	31.05	sil arg tf bre w/chalcocite																						P	
J-8	68.45	"	68.45	sil arg lp tf w/tennantite																						P	
J-13	18.35	MJPJ-13	18.35	sil arg tf bre w/tennantite																						P	
Jhuamarca Area Geochemical Samples																											
R72101				dr sil bre																							
R72104				dr sil bre																							
R72503				arg sil chl tf																							
R72505				arg sil chl lp tf																						T	
R72704				dr sil bre																							
R80102				limo dr qtz v																							
R80103				dr sil rock																							
R80105				limo qtz v																							
R80201				sil bre																							
R80305				med sil bre																							
R80306				med sil bre																							
R80309				qtz v																							
R80402				dr qtz v																							
R80403				sil rock																							
R80605				limo med sil bre																							
R80609				dr sil rock																							
R82302				rhyolite																						T	
R82401				sil chl tf																							
R82403				arg qtz v																							
R72602				dr sil rock																							
R102902				sil arg chl lp tf																						IT	
T101	Trench-1			arg lp tf w/pyrite																							
T112	"			arg lp tf w/pyrite																						P	

◎:many ○:intermediate △:few ·:rare *Sulfate
 Abbreviations arg:argillized, bre:breccia, chl:chloritized, dr:drusy, limo:limonitized, lp:lapilli, med:medium, net:network,
 qtz:quartz, sil:silicified, sp:sphalerite, tf:tuff, v:vein, w:with
 F/I:fluid inclusion examined, P:polished section observed, T:thin section observed

Apx. 5 X-ray Diffraction Chart

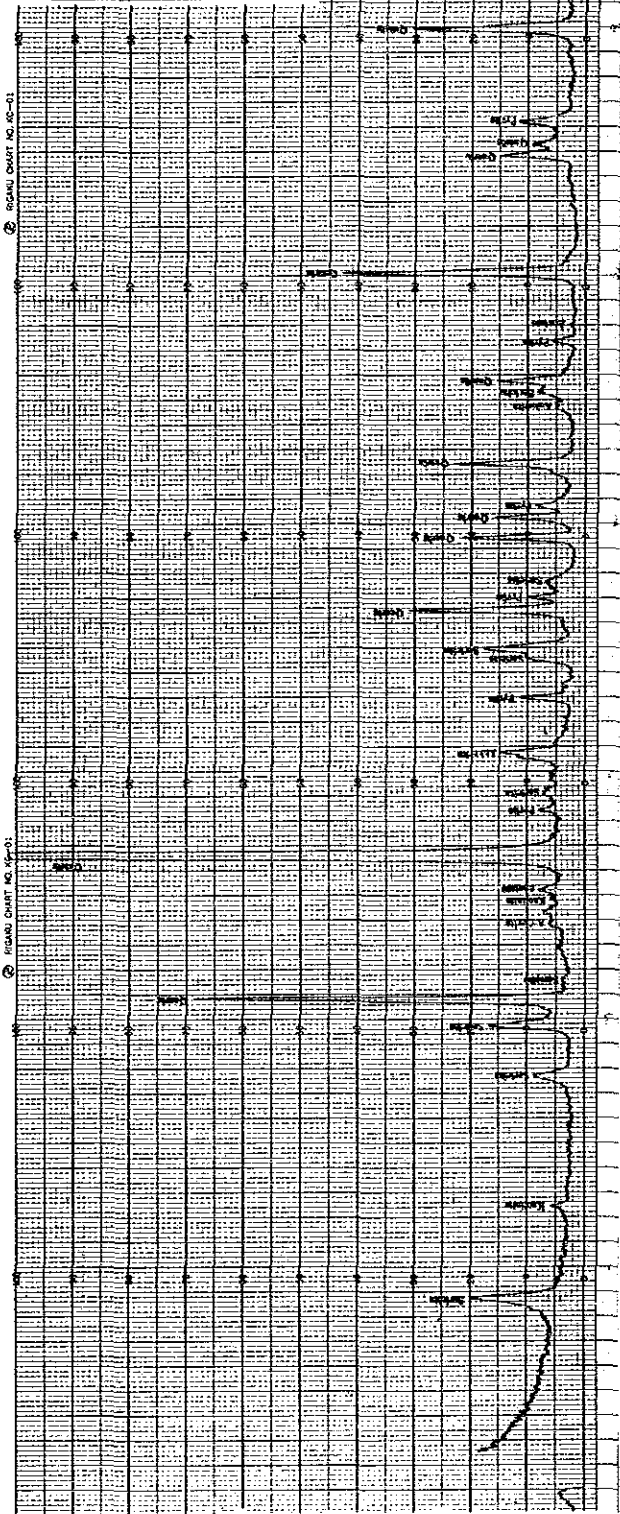


X-Ray Diffraction

RIGAKU CHART NO. RC-01

RIGAKU CHART NO. RC-01

Sample No.	C-2, 10630
Target	Cu
Filter	
Voltage	40 KV
Current	150 mA
Full Scale Range	4000 CPS
Time Constant	0.5 Sec.
Scanning Speed	4 mm
Chart Speed	4 mm/hr
Divergency	1°
Receiving Slit	0.15 mm
Detector	S.C
Date	Feb. 1961

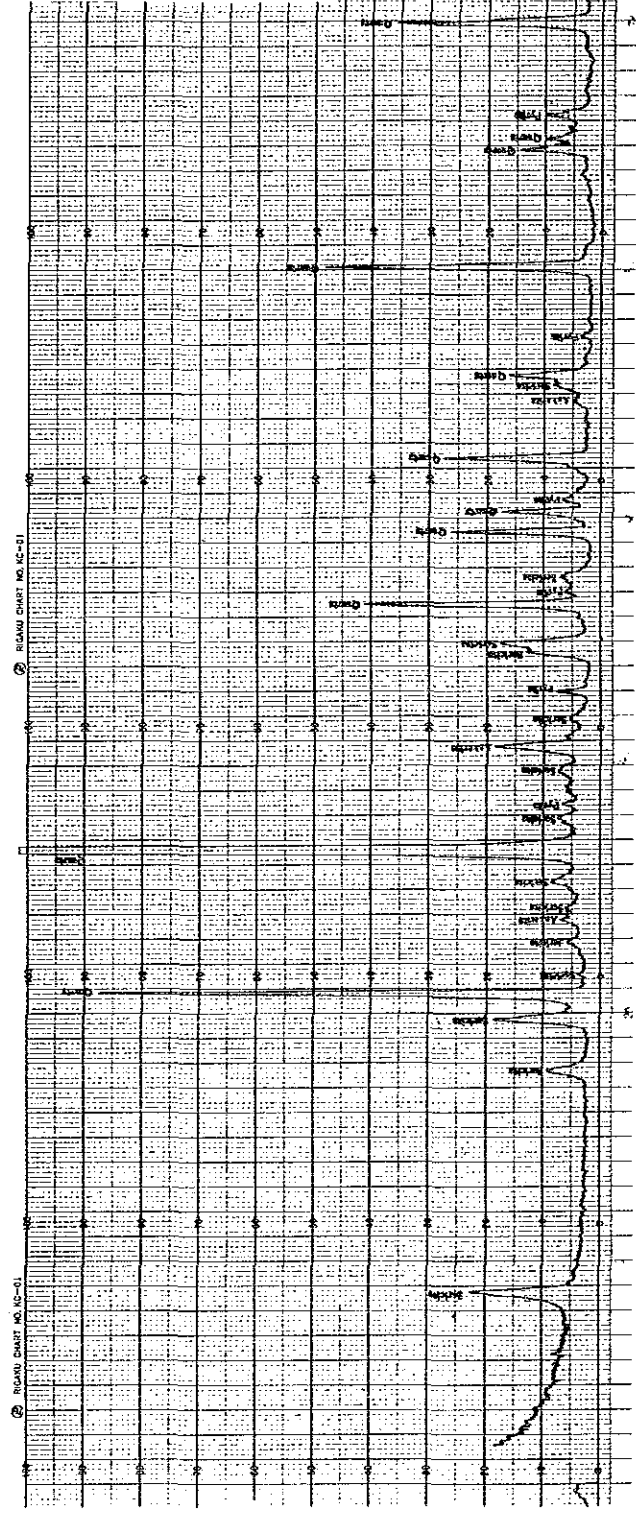


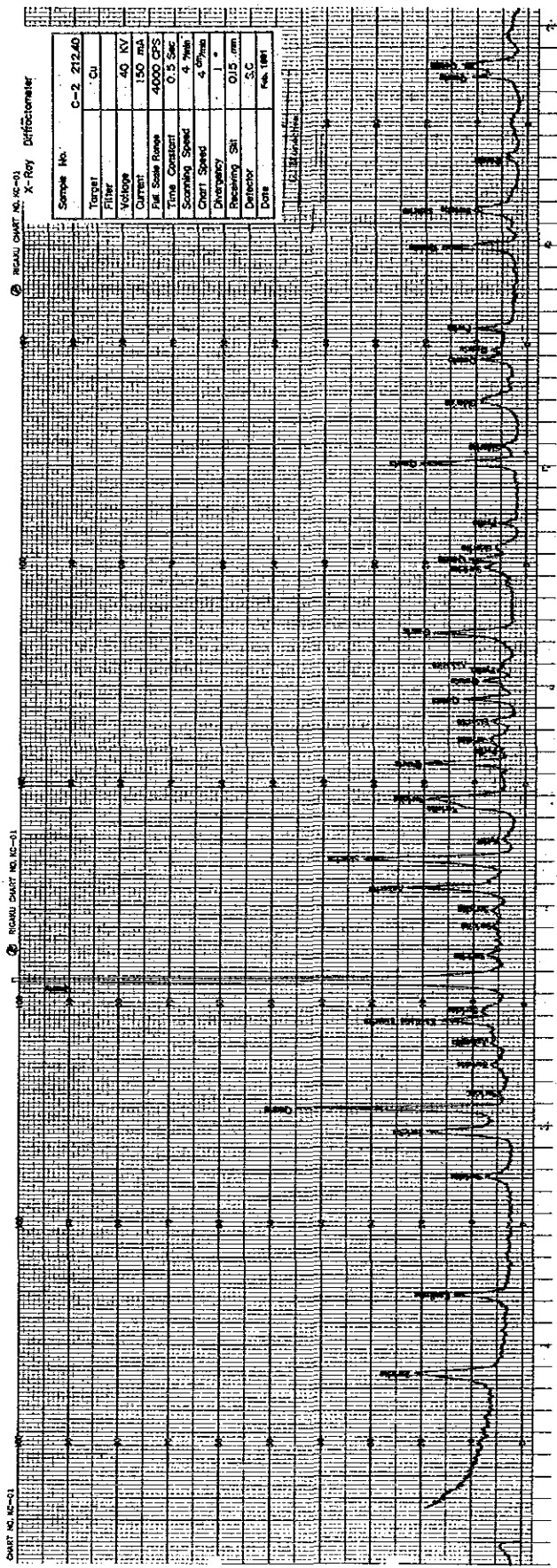
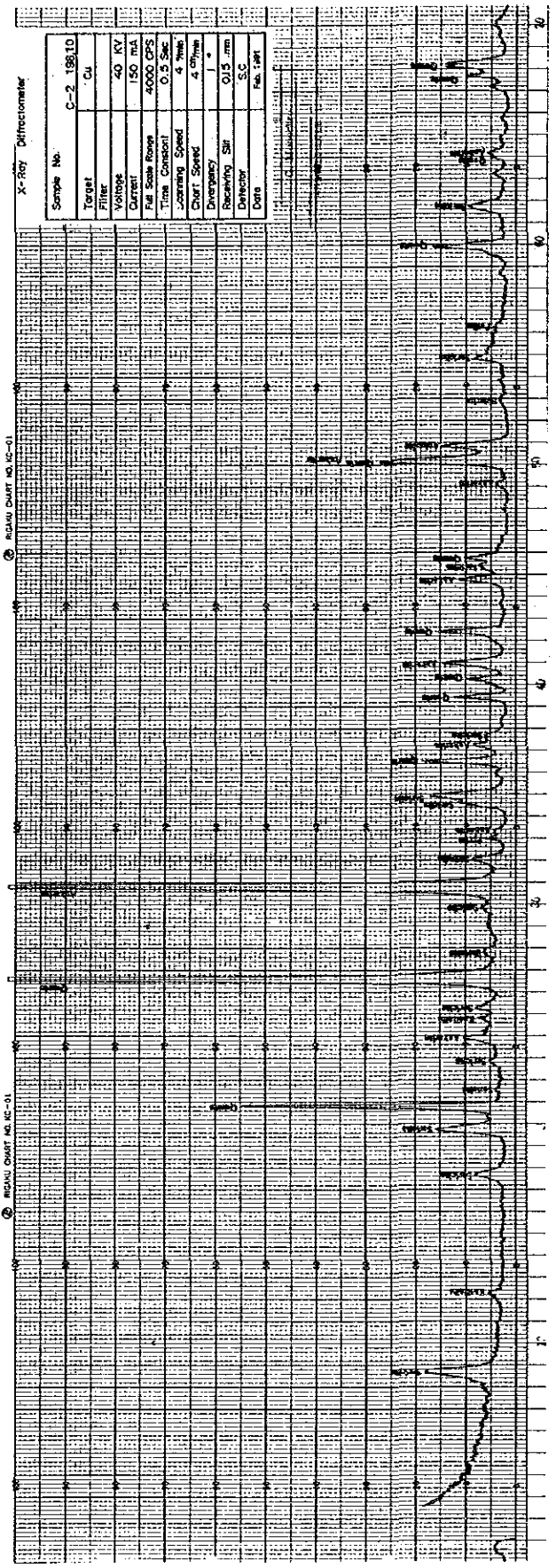
X-Ray Diffraction

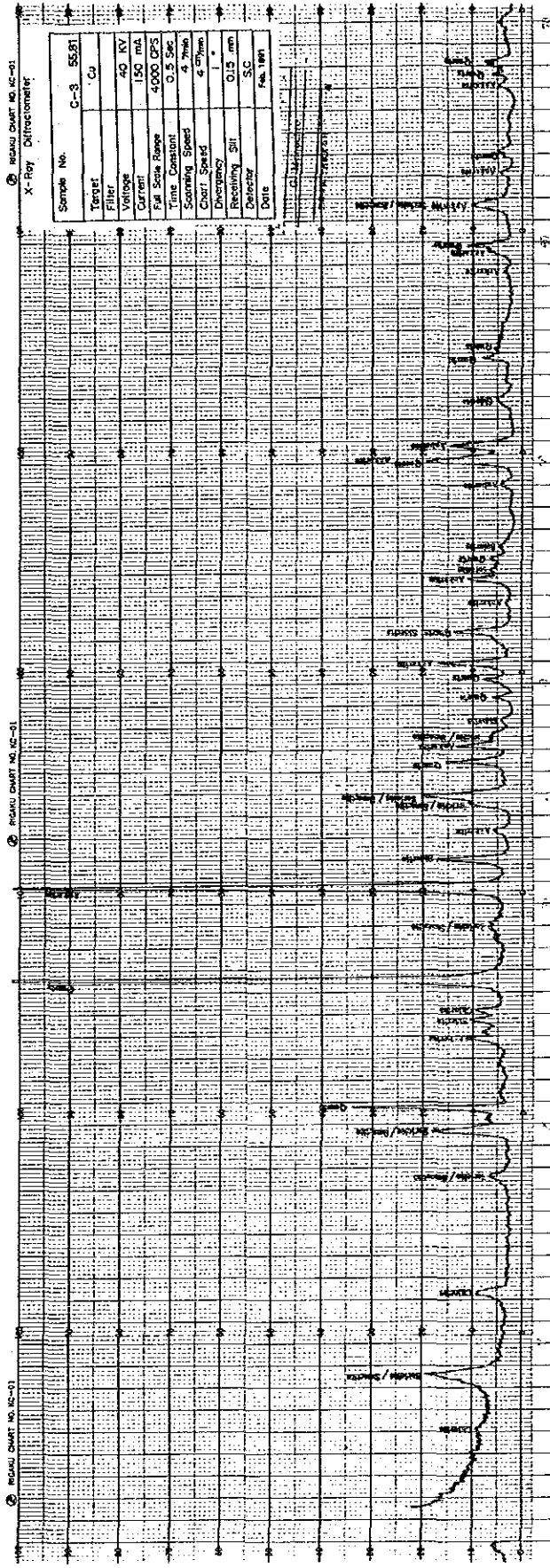
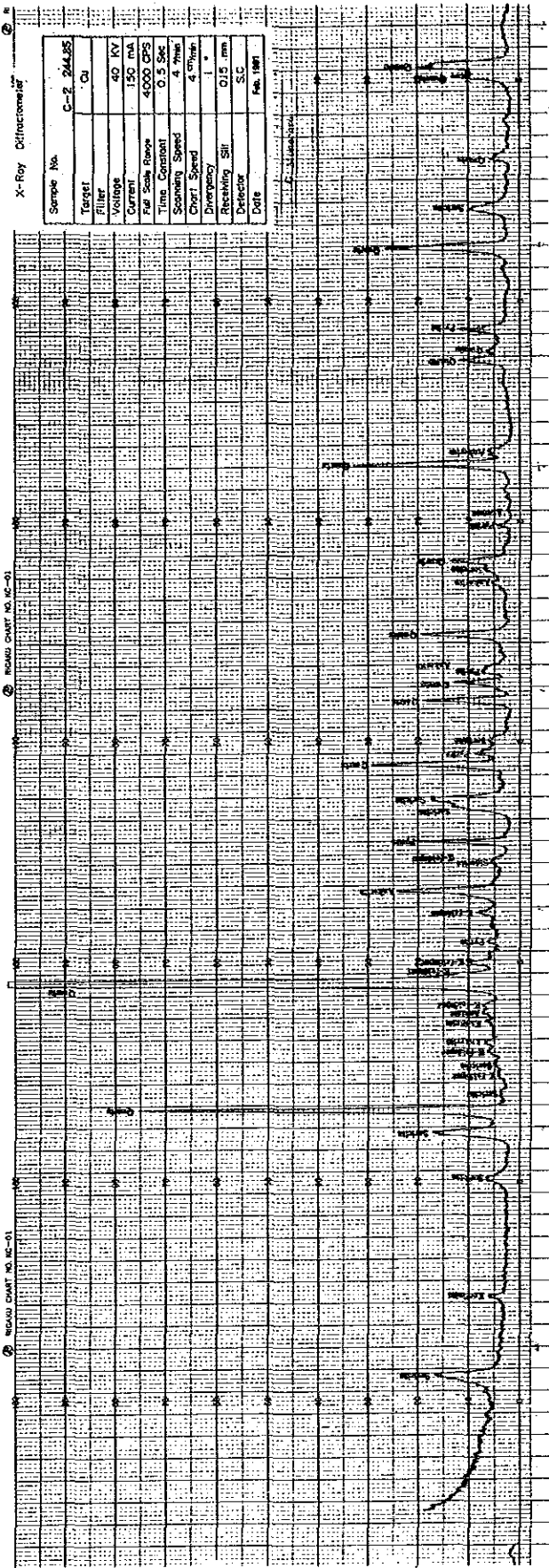
RIGAKU CHART NO. RC-01

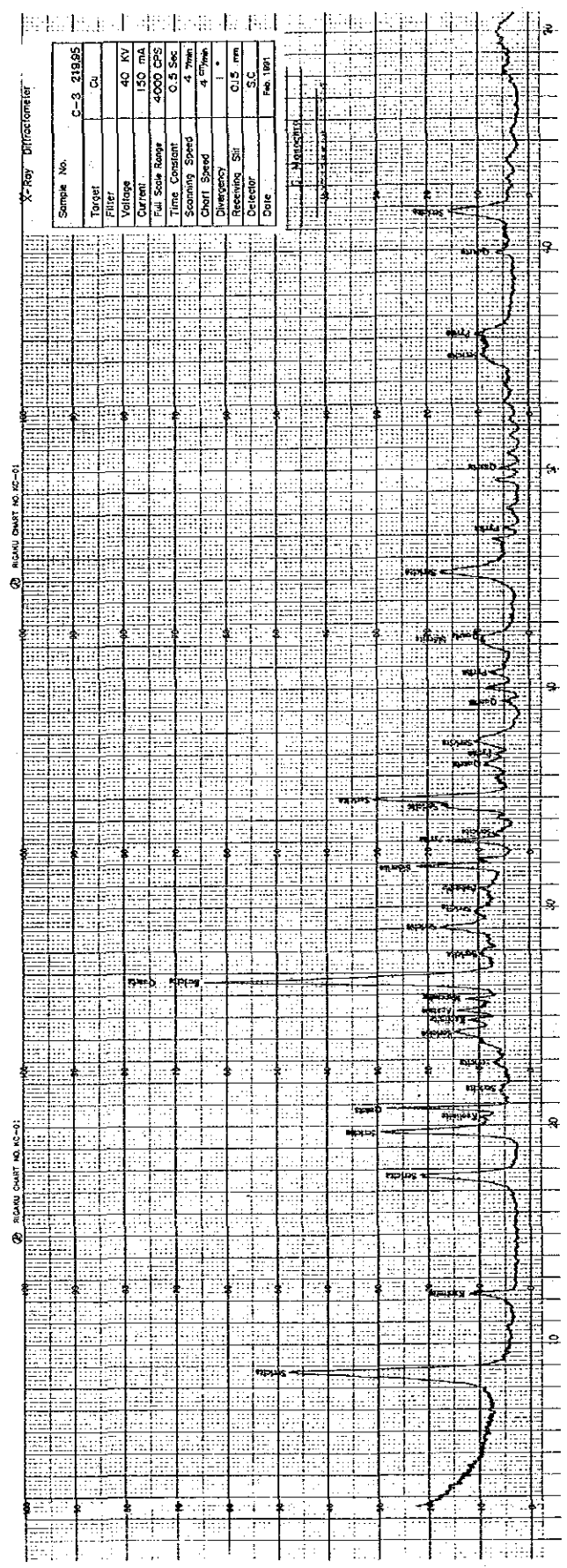
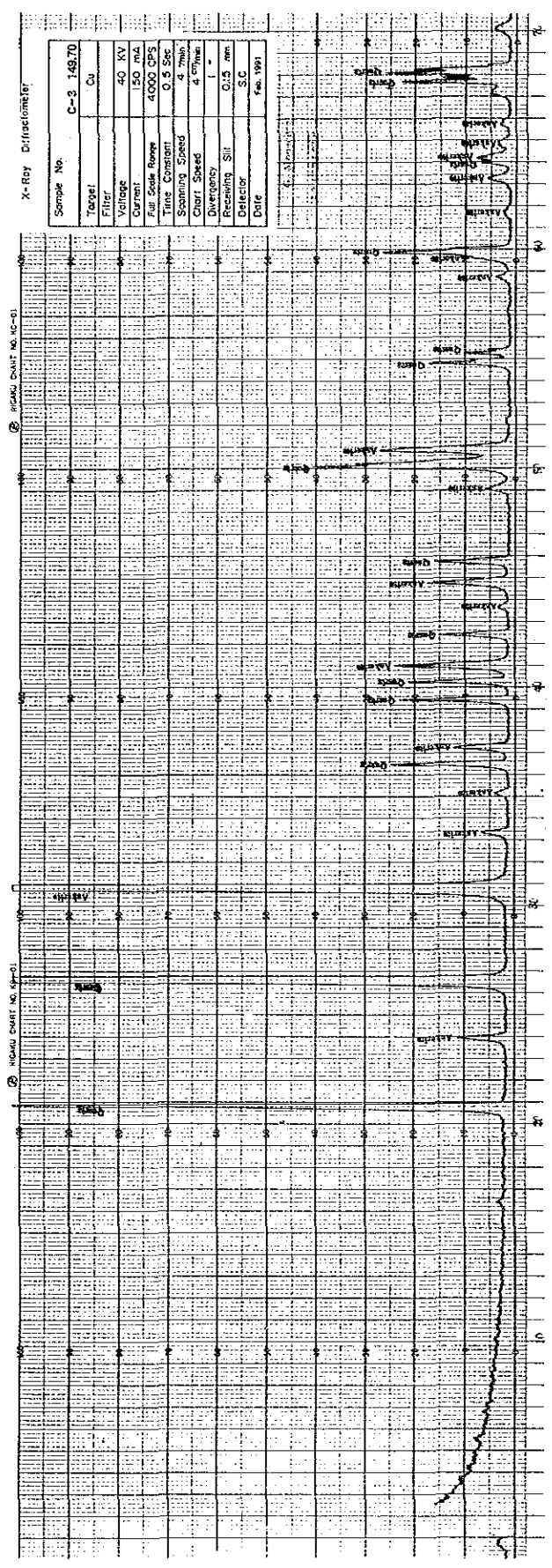
RIGAKU CHART NO. RC-01

Sample No.	C-2, 17515
Target	Cu
Filter	
Voltage	40 KV
Current	150 mA
Full Scale Range	4000 CPS
Time Constant	0.5 Sec.
Scanning Speed	4 mm
Chart Speed	4 mm/hr
Divergency	1°
Receiving Slit	0.15 mm
Detector	S.C
Date	Feb. 1961



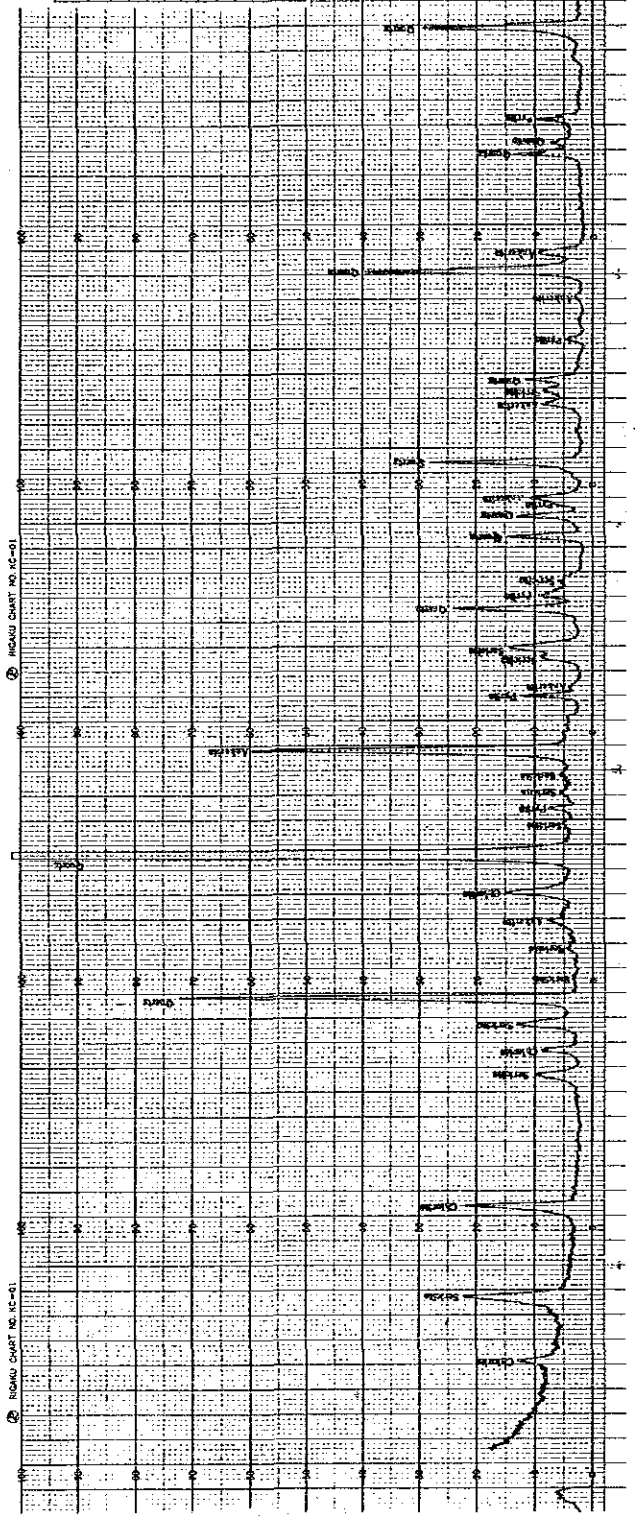






RD-400 CHART NO. 15-41
X-Ray Diffractometer

Sample No.	C-4 85.23
Target	Cu
Filter	
Voltage	40 KV
Current	150 ma
Full Scale Range	4000 CFS
Time Constant	0.5 Sec
Scanning Speed	4 $^{\circ}$ /min
Chart Speed	4 $^{\circ}$ /min
Divergency	1 $^{\circ}$
Receiving Slit	0.15 mm
Detector	S.C.
Date	Feb. 1961



RD-400 CHART NO. 15-70
X-Ray Diffractometer

Sample No.	C-4 156.70
Target	Cu
Filter	
Voltage	40 KV
Current	150 ma
Full Scale Range	4000 CFS
Time Constant	0.3 Sec
Scanning Speed	4 $^{\circ}$ /min
Chart Speed	4 $^{\circ}$ /min
Divergency	1 $^{\circ}$
Receiving Slit	0.15 mm
Detector	S.C.
Date	Feb. 1961

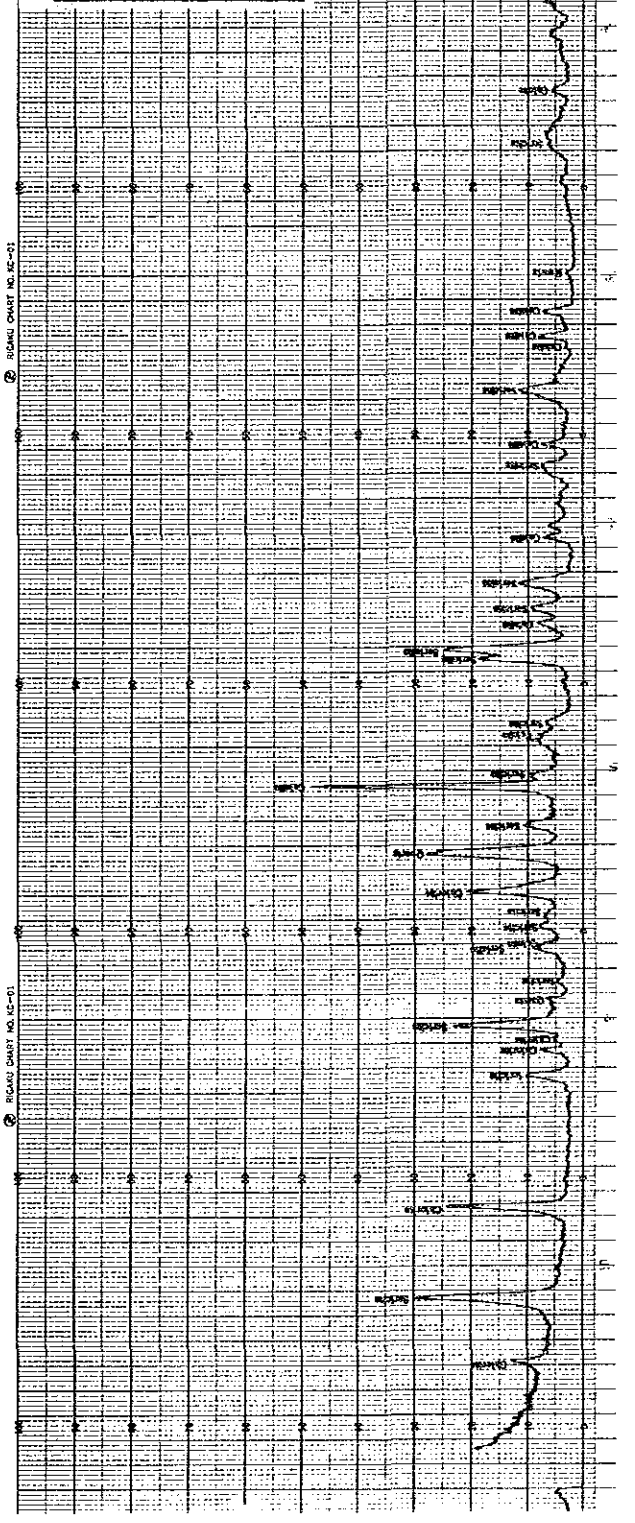


CHART NO. KC-01
RICARDI CHART NO. KC-01
X-Ray Diffractometer

Sample No.	C-4 197.58
Target	Cu
Filter	
Voltage	40 KV
Current	150 mA
Full Scale Range	4000 CPS
Time Constant	0.5 Sec
Scanning Speed	4 $\frac{\text{mm}}{\text{min}}$
Chart Speed	4 $\frac{\text{mm}}{\text{min}}$
Divergency	1 $^{\circ}$
Receiving Slit	0.15 mm
Detector	S.C
Date	Feb. 1981

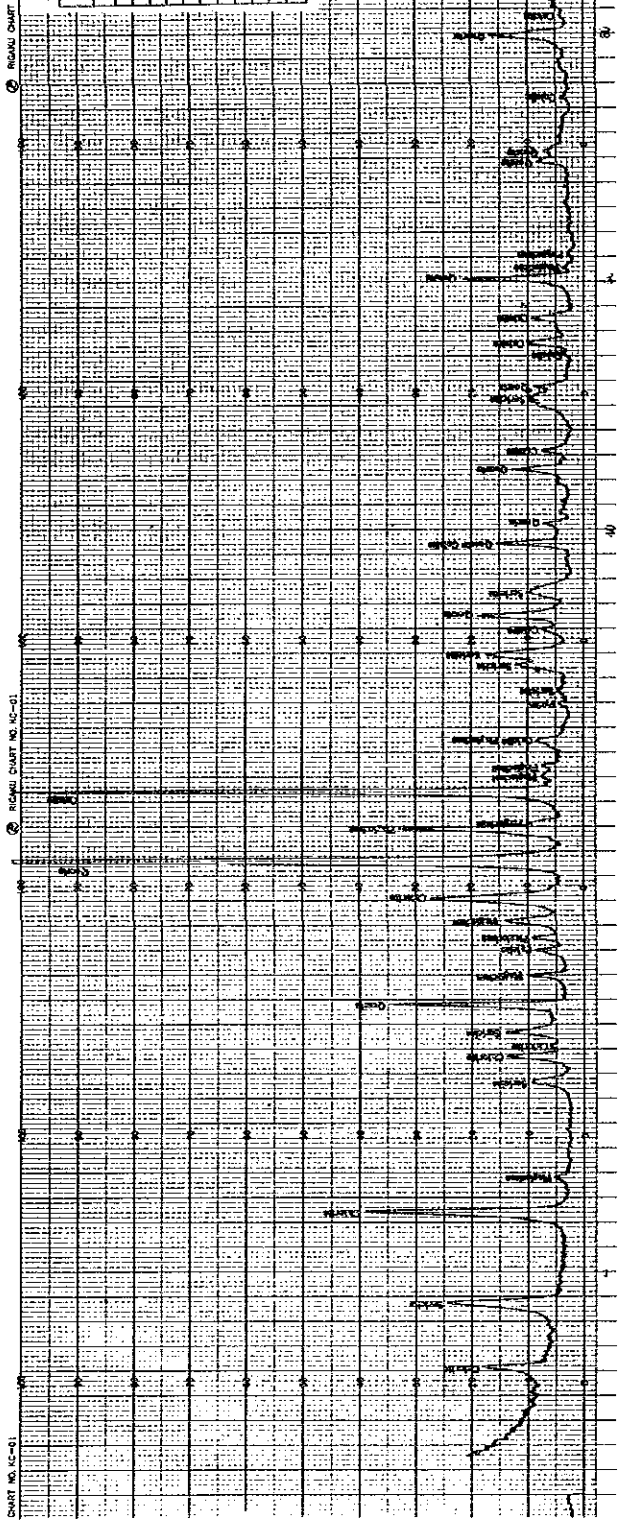


CHART NO. KC-01
RICARDI CHART NO. KC-01
X-Ray Diffractometer

Sample No.	C-4 198.50
Target	Cu
Filter	
Voltage	40 KV
Current	150 mA
Full Scale Range	4000 CPS
Time Constant	0.5 Sec
Scanning Speed	4 $\frac{\text{mm}}{\text{min}}$
Chart Speed	4 $\frac{\text{mm}}{\text{min}}$
Divergency	1 $^{\circ}$
Receiving Slit	0.15 mm
Detector	S.C
Date	Feb. 1981

