

Appendix 5

X-Ray Diffraction Chart

Appendix 5-1

Result of X-Ray Diffraction Analysis (Palawan V Area)

Sample No.	Mine Name	Kinds of Ore	Quartz	Cryptomelane	Pyrolusite	Ramsdellite	Hematite	Calcite	Gypsum	Kutnahorite	Bassanite
NA038	Lanka Mine	Low grade Manganese Ore	⊙		?		○				
NA040	Lanka Mine	Maganese Ore	⊙	○		?	?				
NA046	Kobol Kobol Mine	Maganese Ore	⊙	○							
T1	Dapdan Mine	Maganese Ore	⊙	○			?				
NF100B	Coron Is.	White color vein in Limestone						⊙	○	?	?

⊙ Abundant ○ Medium ◦ Small • Rare

CHART NO. KCD1

100

90

80

70

60

50

40

30

20

10

0

100

90

80

70

60

50

40

30

20

10

0

100

90

80

70

60

50

40

30

20

10

0

100

90

80

70

60

Conditions for X-Ray Diffraction

Sample	Palawan V (Bunawaga)
Target	Cu
Filter	
Voltage	40 KV
Current	30 mA
Counter Type	S.C.
Count Full Scale	1000 c/s
Tube Current	1 sec
Scanning Speed	2 °/min
Chart Speed	2 cm/min
Divergency	1 °
Slit	Receiving 0.15 mm
Scatter	1 °
Operator	
Date	

Cu Spinel
 Cu Crystalline
 Bad Reference line?
 Fe-Hematite?

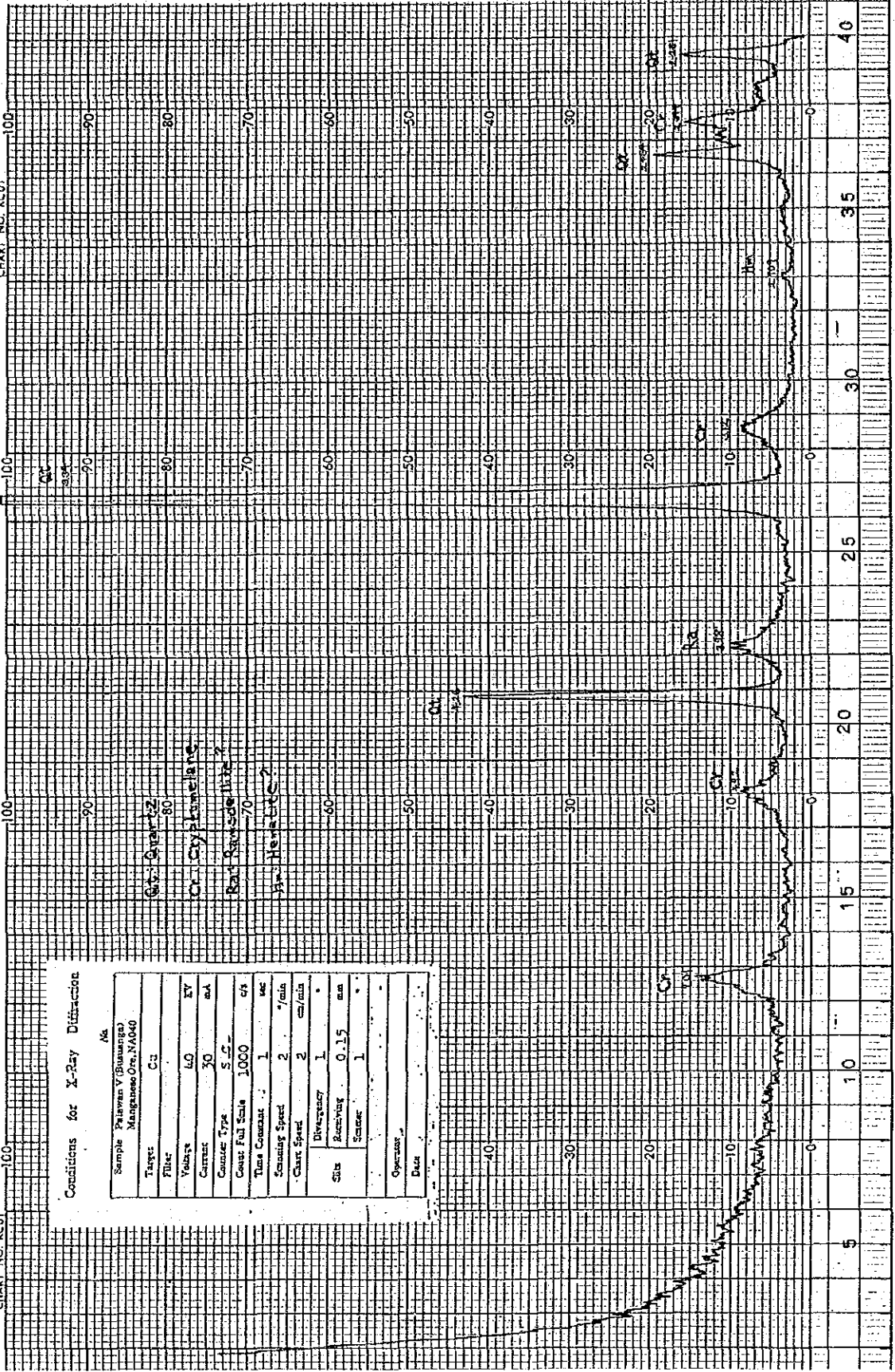
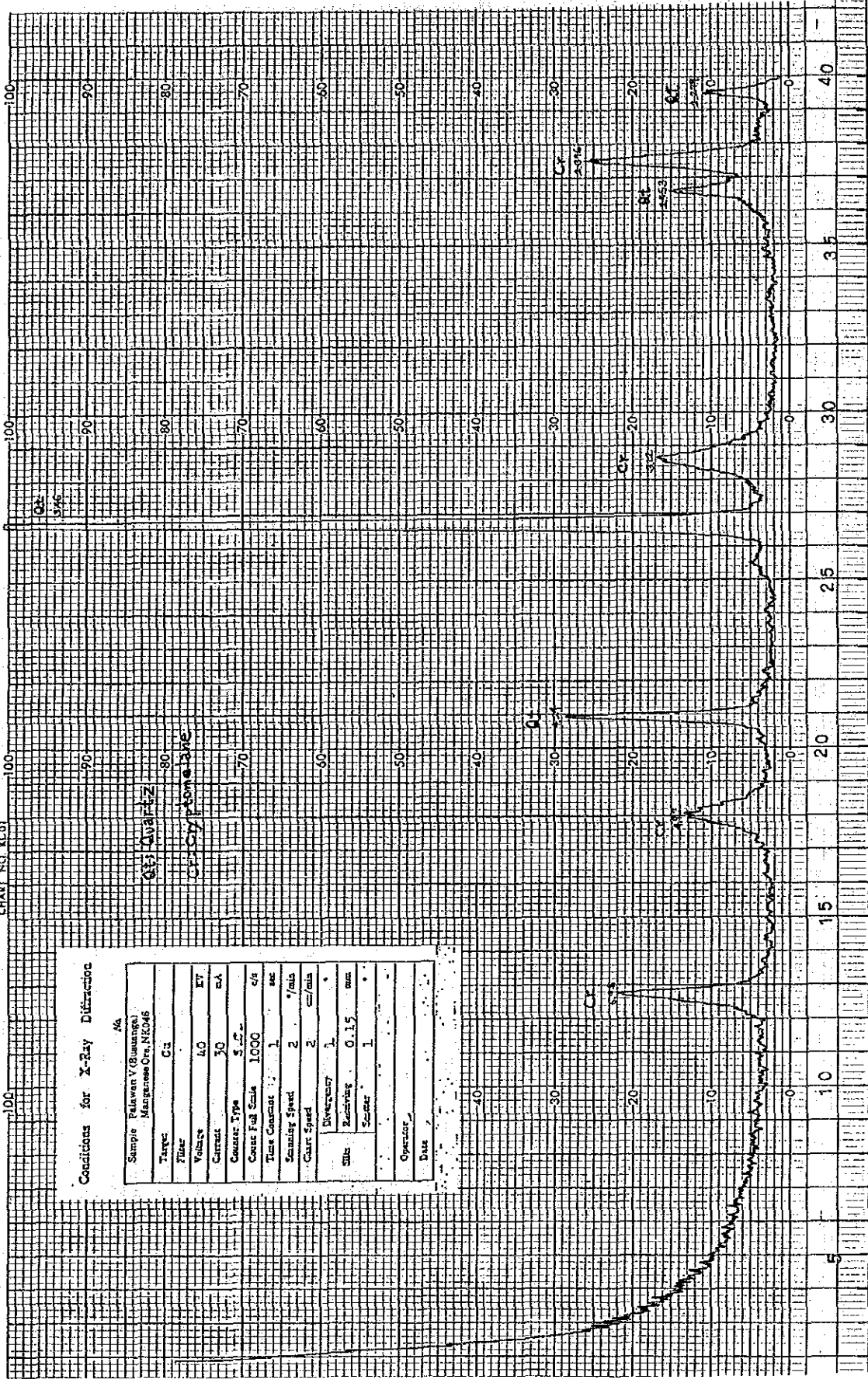


CHART NO. KCO1



Conditions for X-Ray Diffraction

Sample	Pelawan (Batuanga)
	Manganese Ore, NED06
Target	Cu
Filter	
Voltage	40 KV
Current	30 mA
Counter Type	S.C.
Counter Full Scale	1000 c/s
Time Constant	1 sec
Scanning Speed	2 °/min
Chart Speed	2 cm/min
Divergency	1 °
Slit	0.15 mm
Scatter	1 °
Operator	
Date	

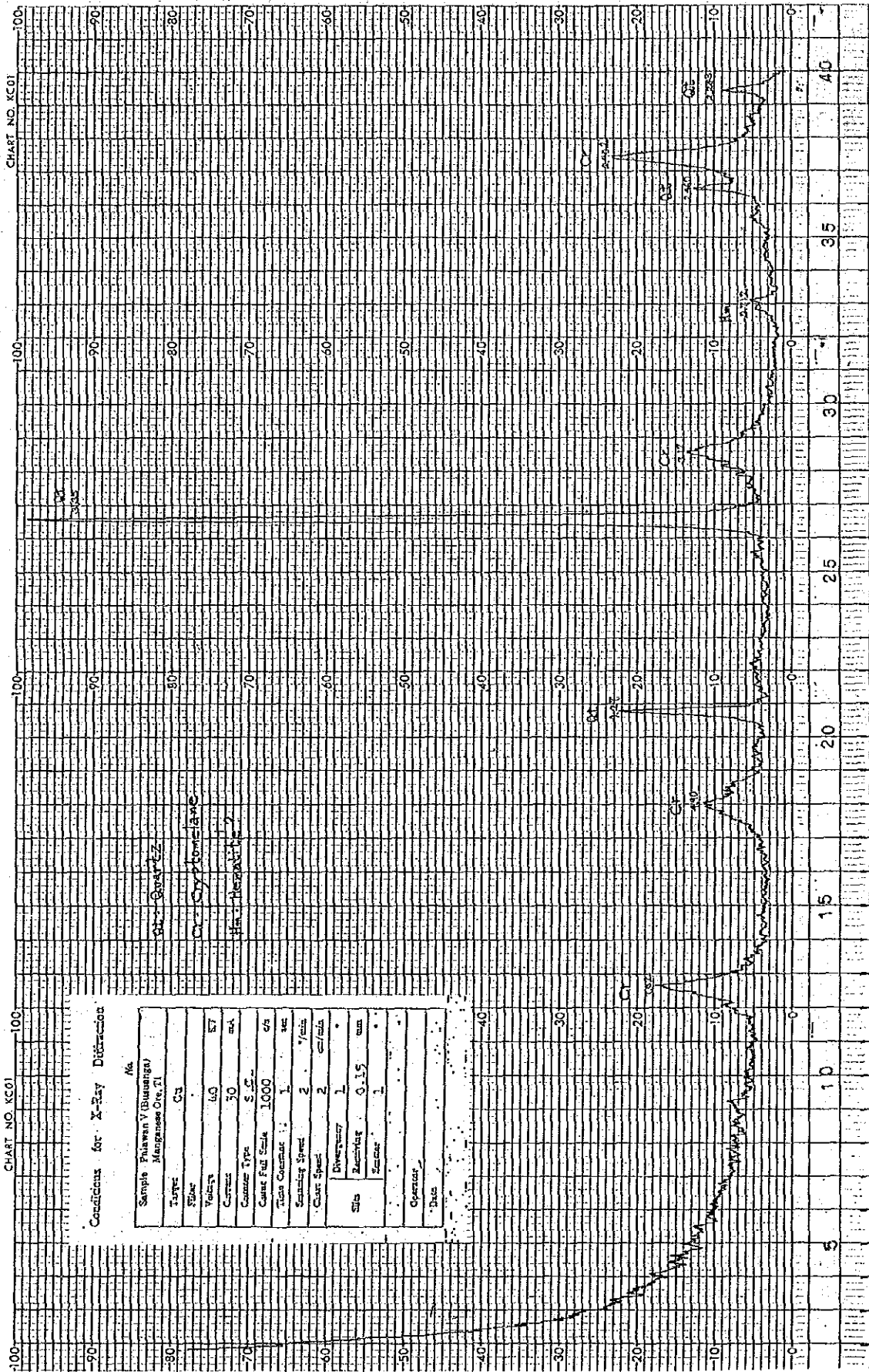
CHART NO. KC01

CHART NO. KC01

Conditions for X-Ray Diffraction

Sample	Phawan V (Bunanga)
Location	Mangrove Ore, TI
Type	CS
Filter	
Voltage	60
Current	50 ma
Counter Type	S.C.
Counter Full Scale	1000
Turn Counter	1 rev
Scanning Speed	2 °/min
Chart Speed	2 cm/min
Divergency	1
Slit	
Recording	0.15 um
Scale	1
Operator	
Date	

SiO₂ Quartz
 Ca Systematic
 Mn Residual



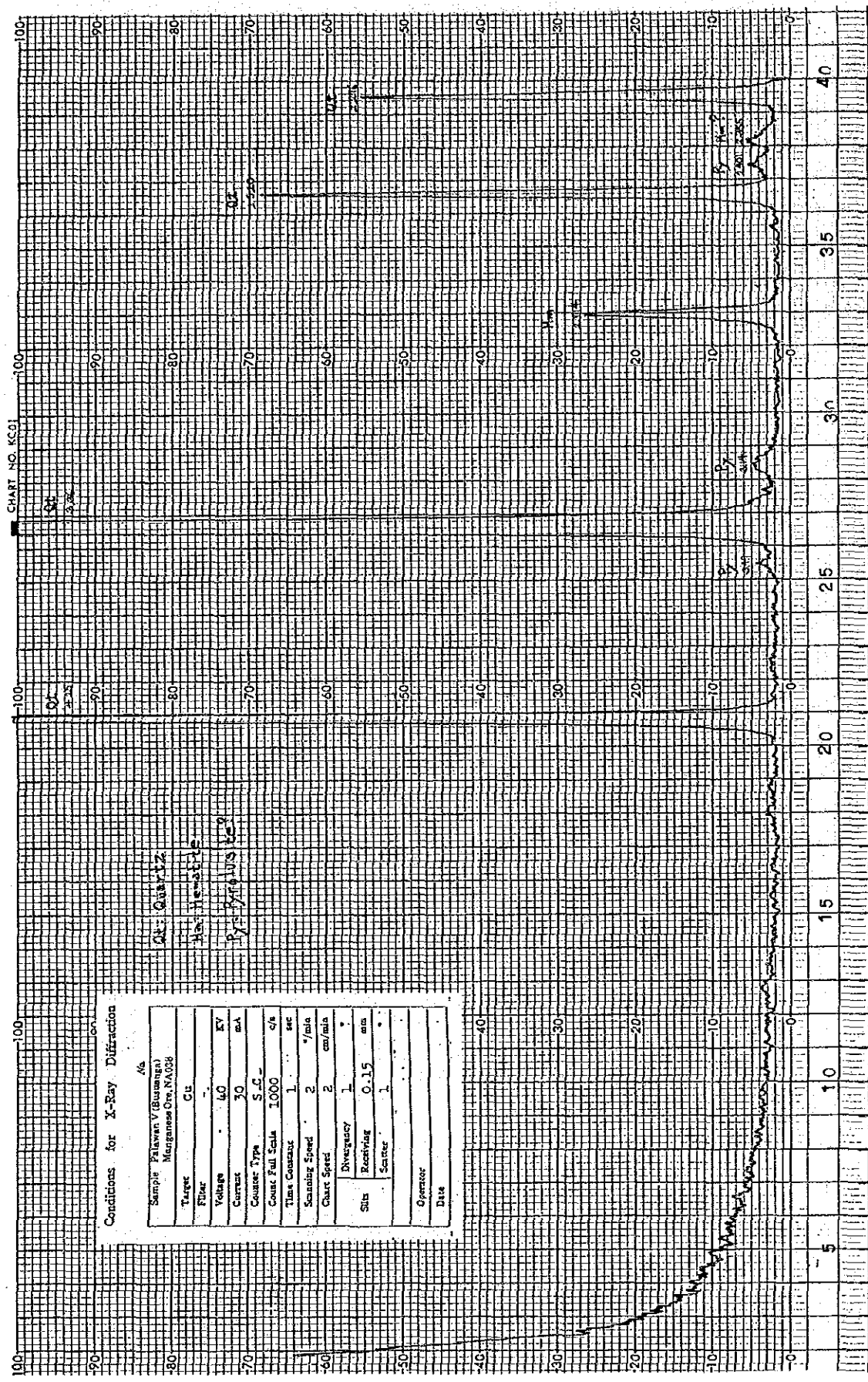


CHART NO. KCO1

Conditions for X-Ray Diffraction

Sample	Palawan V (Bismaya)	As
	Marginesa Ore, NA038	
Target	Cu	
Filter		
Voltage	40	KV
Current	30	mA
Counter Type	S.C.	
Count Full Scale	1000	c/s
Time Constant	1	sec
Scanning Speed	2	°/min
Chart Speed	2	cm/min
Divergency	1	°
Sits	0.15	mm
Receiving		
Slit	1	
Operator		
Date		

Q: Quartz
As
Marginesa Ore

Appendix 5-2

Result of X-Ray Diffraction Analysis (Palawan VI area)

Estimated Mineral Sample No.	Quartz	Calcite	Plagioclase	K-feldspar	Clinopyroxene	Saponite	Chlorite	Serpentine	Kaolinite	Talc	Magnetite	Goethite	Pyrite
	Q	Ca	Pl	Kf	Px	Sp	Ch	Serp	K	T	Mg	G	Py
SOR-05	⊙	△							△				
SOR-19			○		△	•	•						
SOR-15			○		△		△						
SLR-10A												△	
SLR-10B												△	
PIT-4A	•									•?		△	
PIT-4B						•		•					
PIT-4C								⊙					
TAG-1	⊙			•					•				
SOR-38A	⊙										△		△

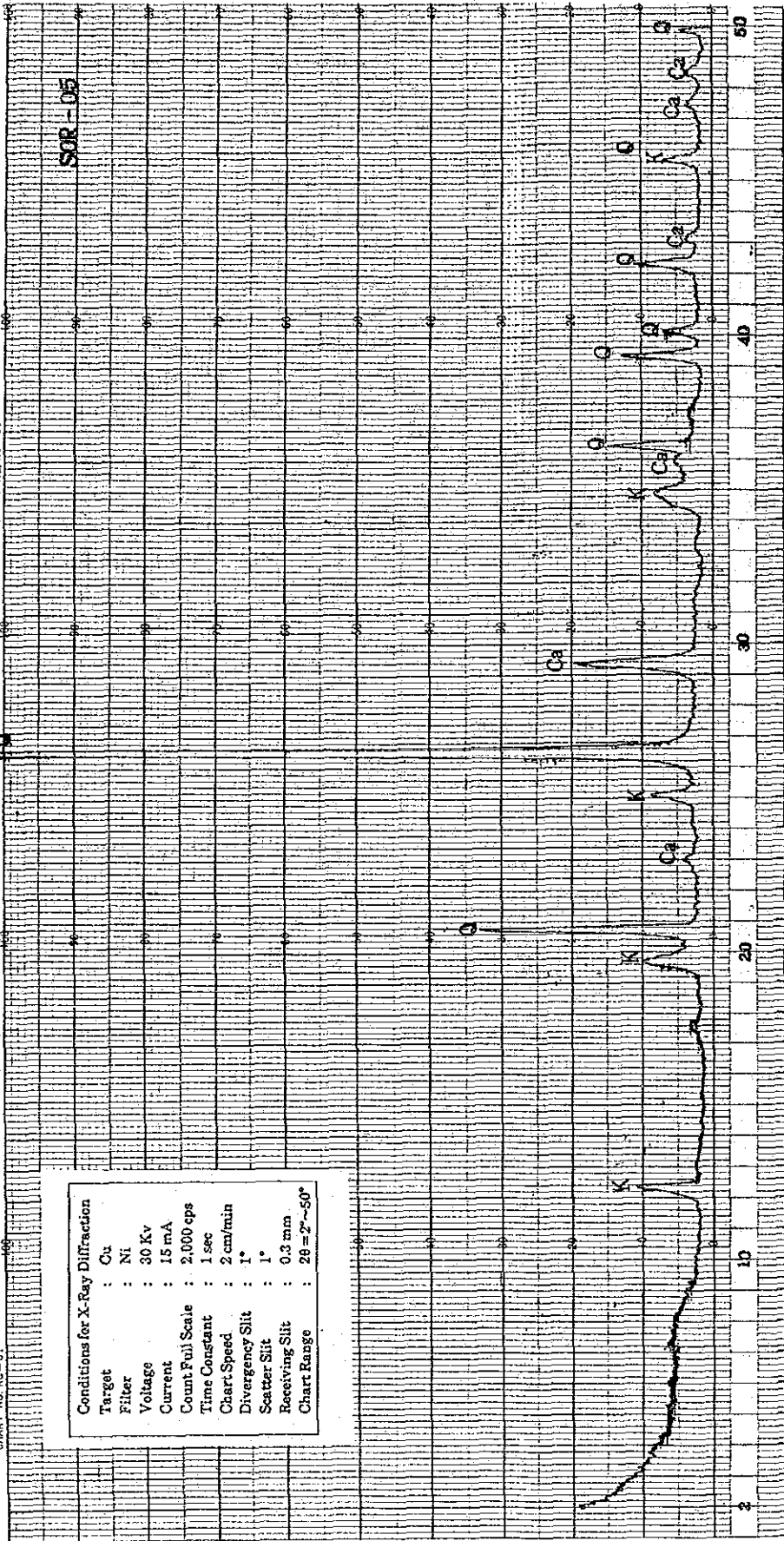
⊙ Abundant ○ Medium △ Small • Rare

CHART NO. KC-01

CHART NO. KC-01

SOR-05

Conditions for X-Ray Diffraction
Target : Cu
Filter : Ni
Voltage : 30 Kv
Current : 15 mA
Count Full Scale : 2,000 cps
Time Constant : 1 sec
Chart Speed : 2 cm/min
Divergency Slit : 1°
Scatter Slit : 1°
Receiving Slit : 0.3 mm
Chart Range : 2θ = 2°-50°



SOR-18

Conditions for X-Ray Diffraction
 Target : Cu
 Filter : Ni
 Voltage : 30 Kv
 Current : 15 mA
 Count Full Scale : 2,000 cps
 Time Constant : 1 sec
 Chart Speed : 2 cm/min
 Divergency Slit : 1°
 Scatter Slit : 1°
 Receiving Slit : 0.3 mm
 Chart Range : 2θ = 2°-50°

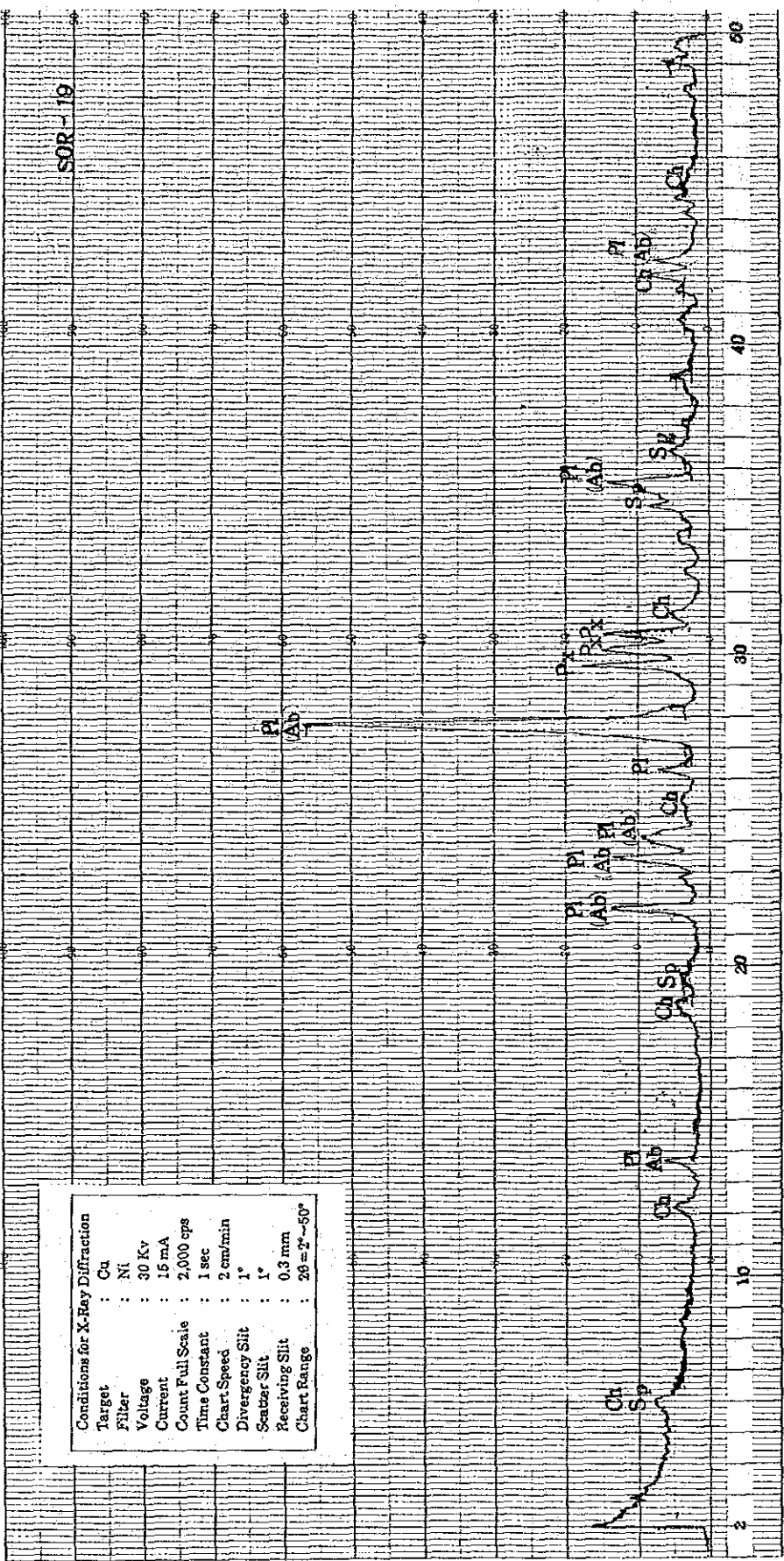


CHART NO. KC-01

SOR-15

CHART NO. KC-01

Conditions for X-Ray Diffraction

Target	: Cu
Filter	: Ni
Voltage	: 30 Kv
Current	: 15 mA
Count Full Scale	: 2,000 cps
Time Constant	: 1 sec
Chart Speed	: 2 cm/min
Divergency Slit	: 1°
Scatter Slit	: 1°
Receiving Slit	: 0.3 mm
Chart Range	: $2\theta = 2^\circ - 50^\circ$

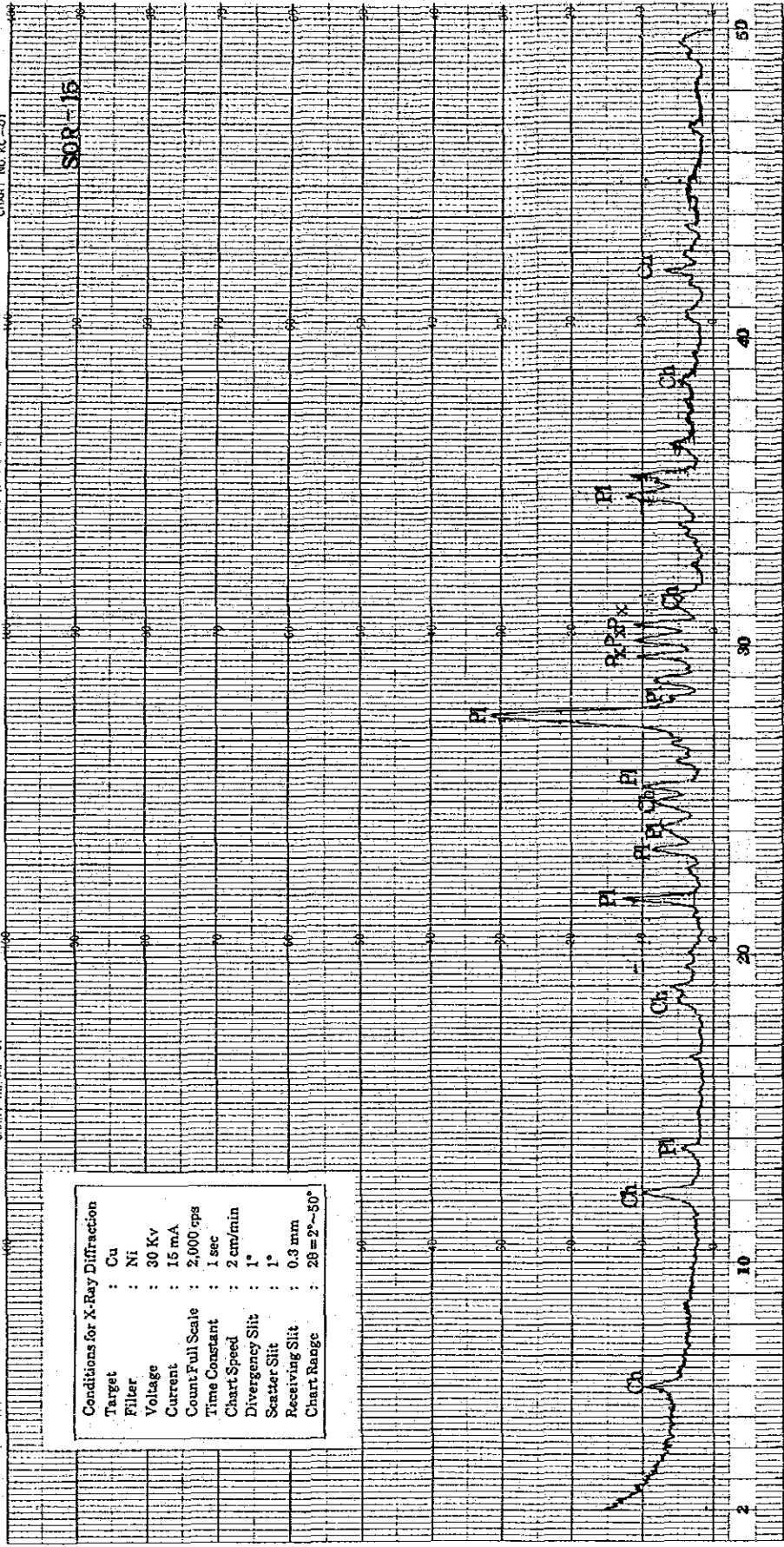


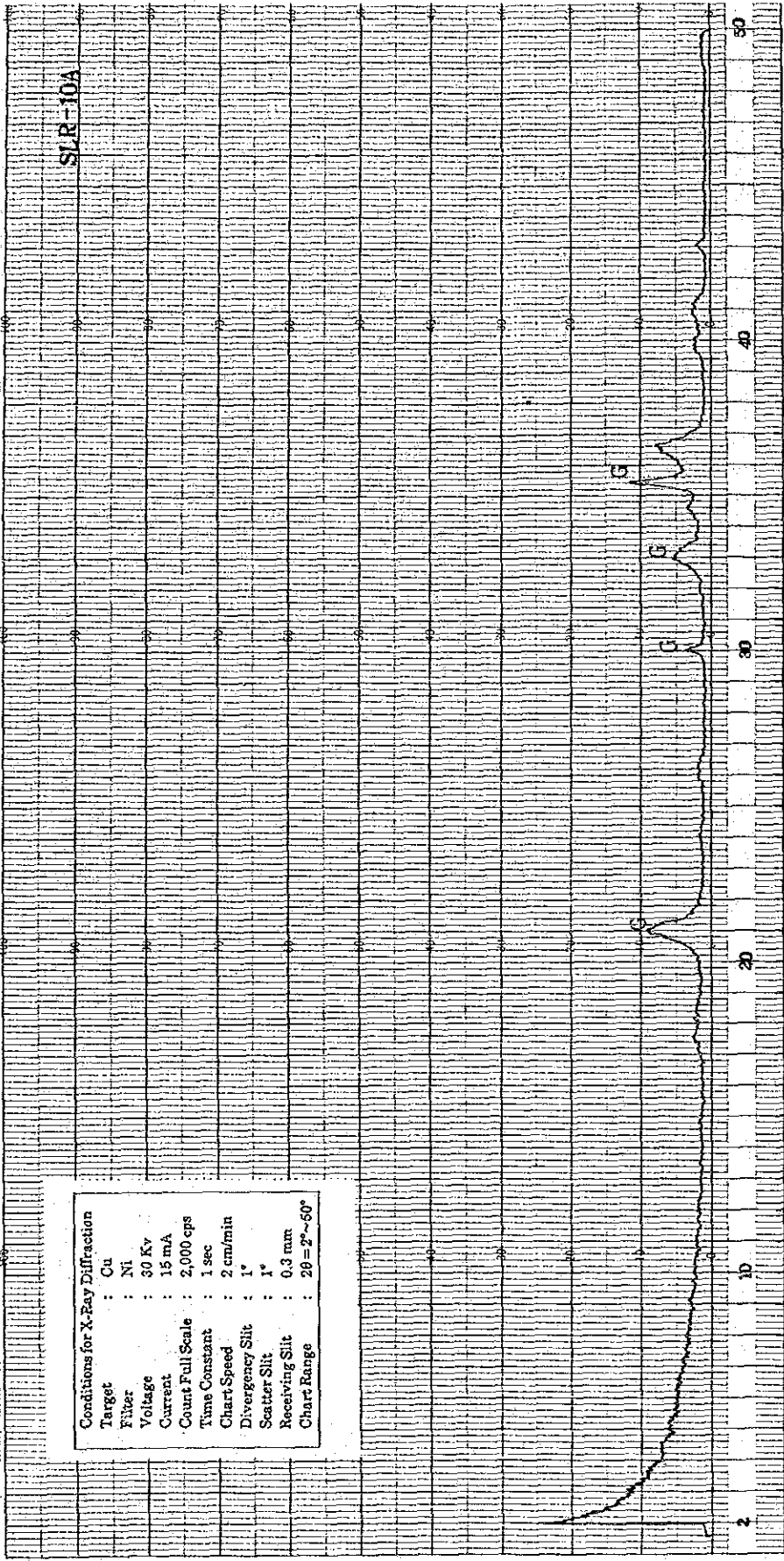
CHART NO. AC-01

CHART NO. AC-01

SLR-10A

Conditions for X-Ray Diffraction

Target	: Cu
Filter	: Ni
Voltage	: 30 Kv
Current	: 15 mA
Count Full Scale	: 2,000 cps
Time Constant	: 1 sec
Chart Speed	: 2 cm/min
Divergency Slit	: 1°
Scatter Slit	: 1°
Receiving Slit	: 0.3 mm
Chart Range	: 2θ = 2°-50°



SLR-10B

Conditions for X-Ray Diffraction
 Target : Cu
 Filter : Ni
 Voltage : 30 Kv
 Current : 15 mA
 Count Full Scale : 2,000 cps
 Time Constant : 1 sec
 Chart Speed : 2 cm/min
 Divergency Slit : 1°
 Scatter Slit : 1°
 Receiving Slit : 0.3 mm
 Chart Range : $2\theta = 2^\circ \sim 50^\circ$

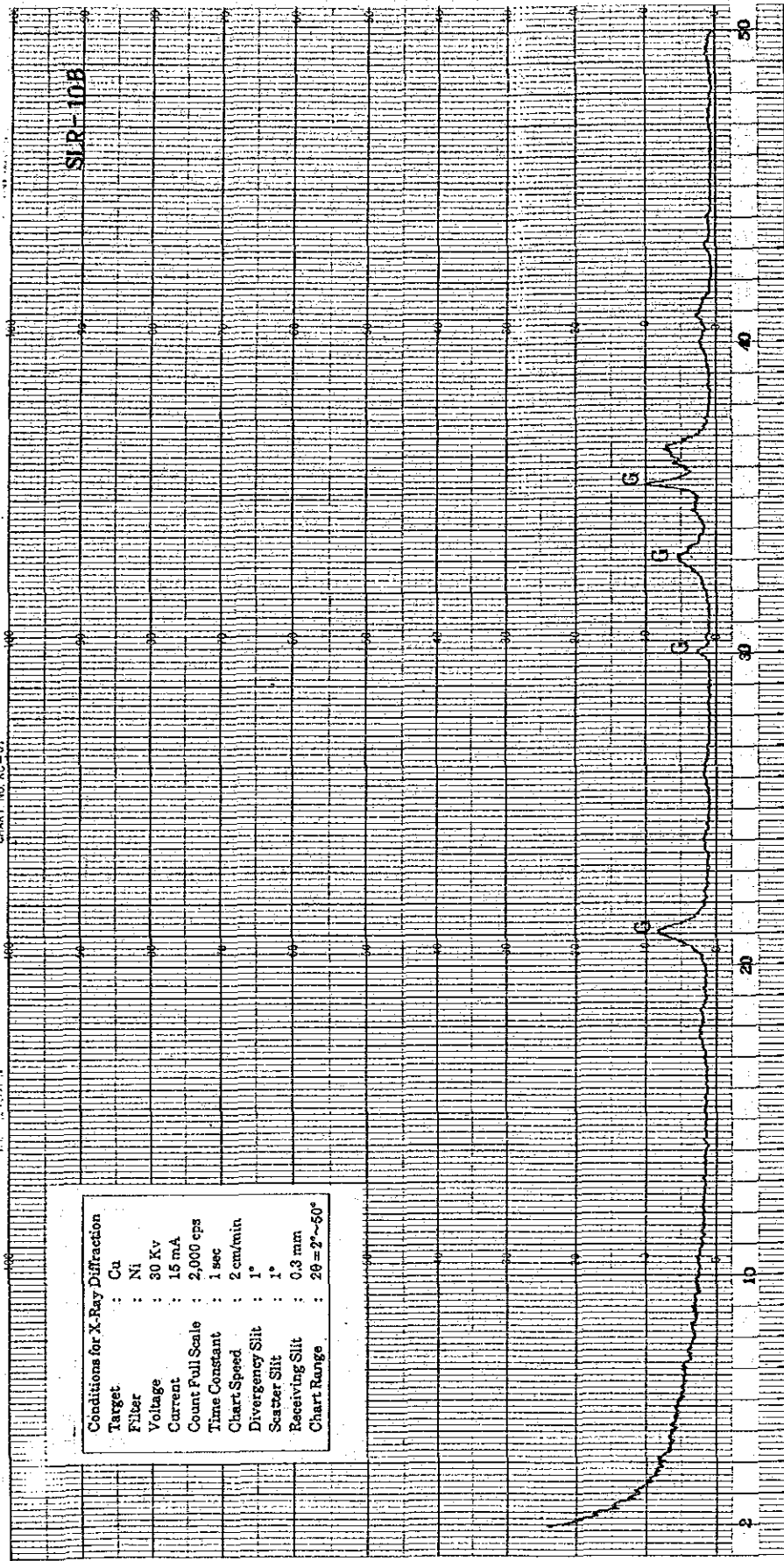


CHART NO. KC-01

CHART NO. KC-01

PIT-4A

Conditions for X-Ray Diffraction

Target	: Cu
Filter	: Ni
Voltage	: 30 Kv
Current	: 15 mA
Count Full Scale	: 2,000 cps
Time Constant	: 1 sec
Chart Speed	: 2 cm/min
Divergency Slit	: 1°
Scatter Slit	: 1°
Receiving Slit	: 0.3 mm
Chart Range	: 2θ = 2°-50°

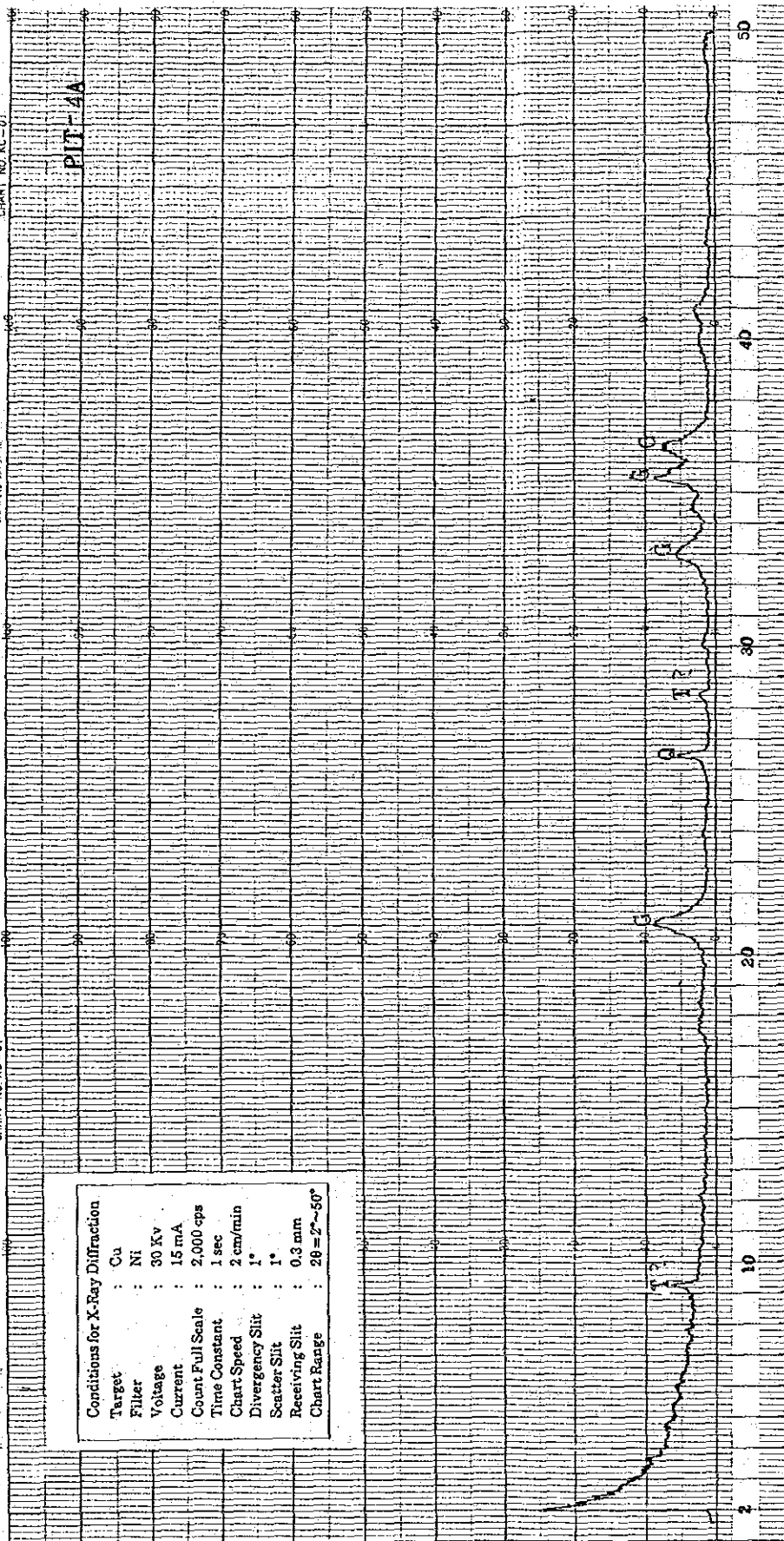


CHART NO. KC-01

CHART NO. KC-01

PIT-4B

Conditions for X-Ray Diffraction

Target : Cu
Filter : Ni
Voltage : 30 Kv
Current : 15 mA
Count Full Scale : 2,000 cps
Time Constant : 1 sec
Chart Speed : 2 cm/min
Divergency Slit : 1°
Scatter Slit : 1°
Receiving Slit : 0.3 mm
Chart Range : 2θ = 2°~50°



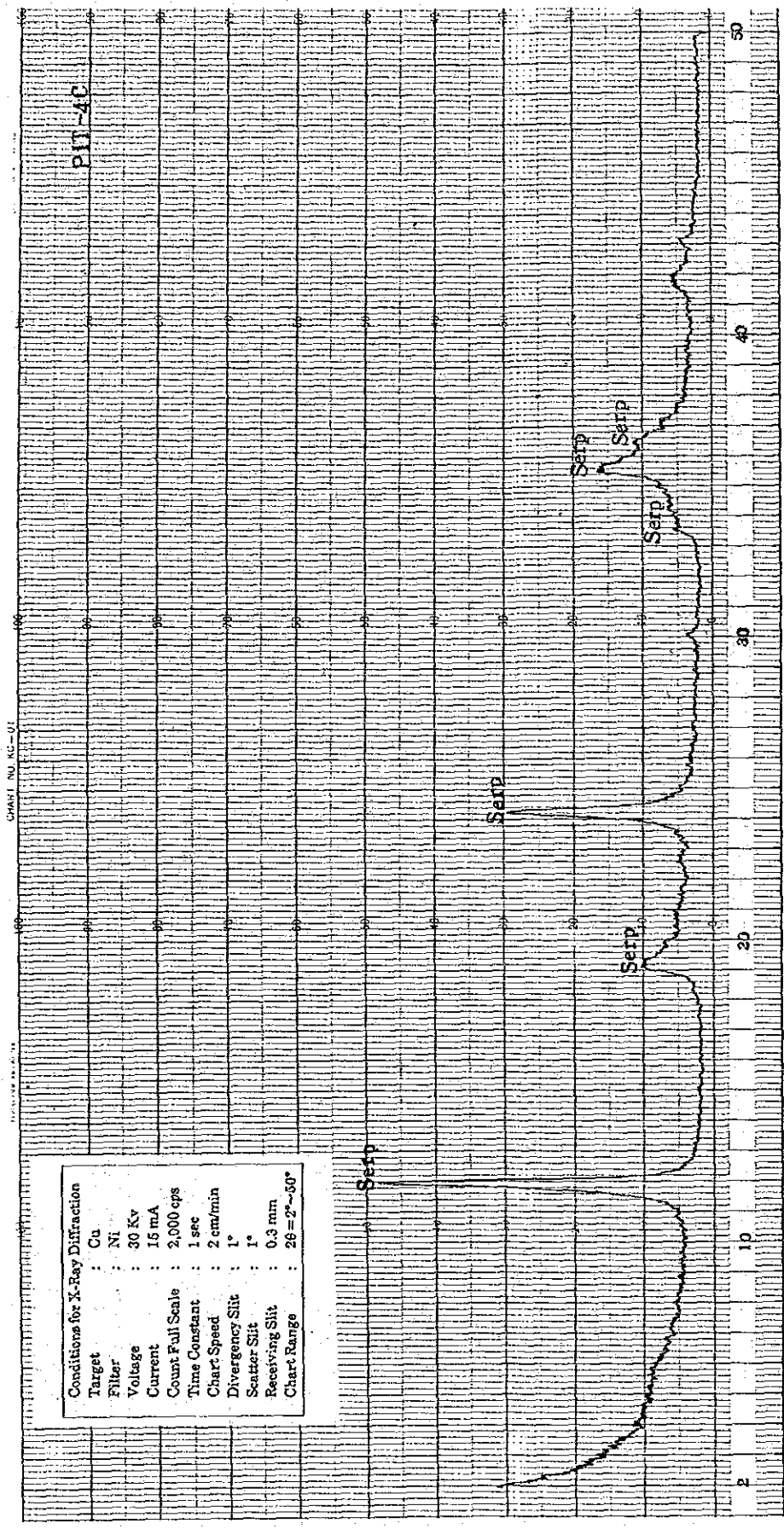


CHART NO. KC-01

CHART NO. KC-01

TAG-1

Conditions for X-Ray Diffraction

Target	: Cu
Filter	: Ni
Voltage	: 30 Kv
Current	: 15 mA
Count Full Scale	: 2,000 cps
Time Constant	: 1 sec
Chart Speed	: 2 cm/min
Divergency Slit	: 1°
Scatter Slit	: 1°
Receiving Slit	: 0.3 mm
Chart Range	: 2θ = 2°-50°



CHART NO. SP-01

CHART NO. KC-01

SDR-38A

Conditions for X-Ray Diffraction

Target : Cu
 Filter : Ni
 Voltage : 30 Kv
 Current : 15 mA
 Count Full Scale : 2,000 cps
 Time Constant : 1 sec
 Chart Speed : 2 cm/min
 Divergency Slit : 1°
 Scatter Slit : 1°
 Receiving Slit : 0.3 mm
 Chart Range : 2θ = 2°-50°

