

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	Pyrolyusite	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. KC01

CHART NO. KC01

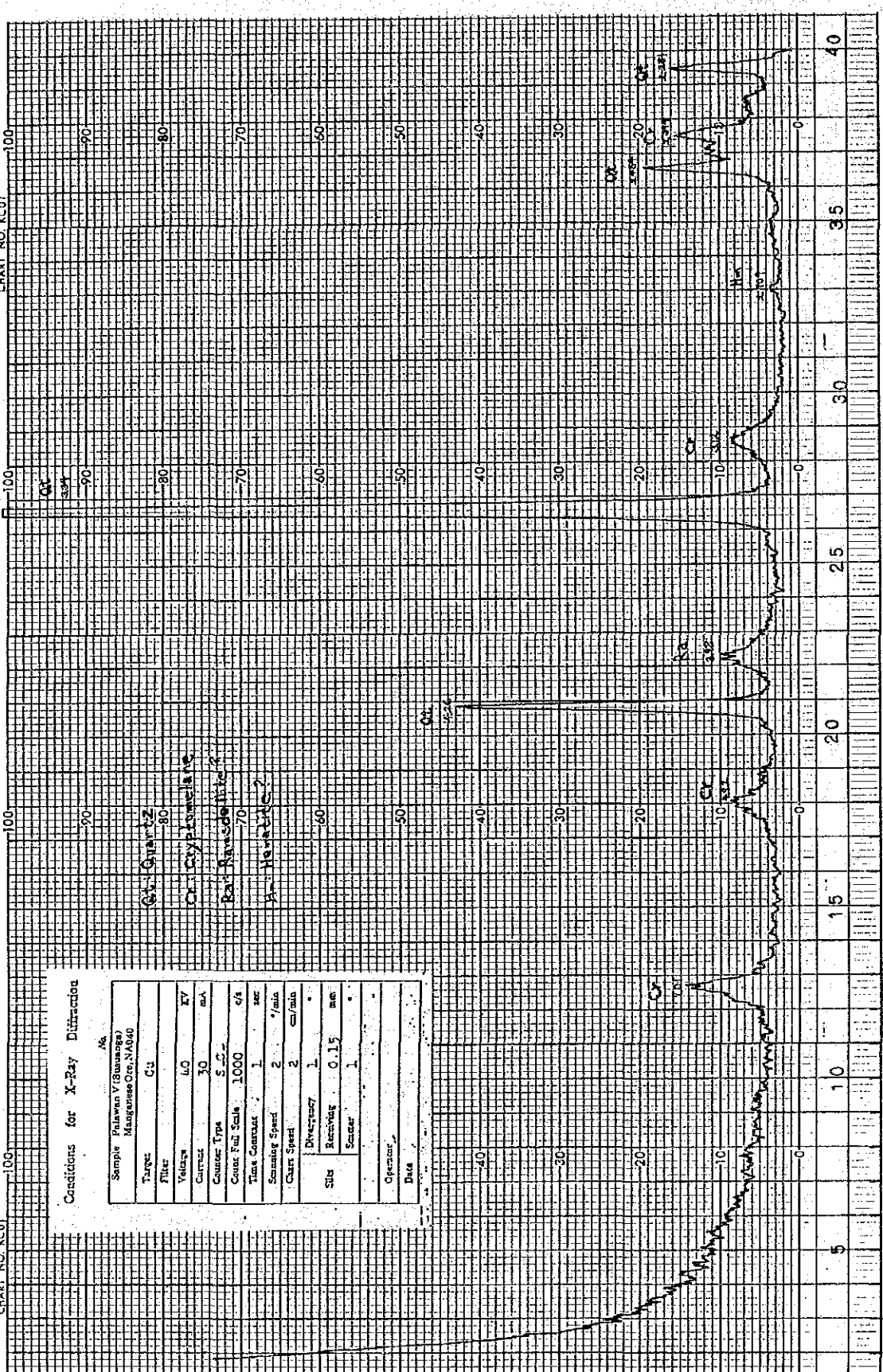
CHART NO. KC01

CHART NO. KC01

Conditions for X-Ray Diffraction

Sample	Pulawan V (Bananga)	
	Manganese Ore, NANO	
Target	Cu	
Filter	Ni	
Voltage	40	KV
Current	30	mA
Counter Type	S ₂	
Counter Full Scale	1000	cts
Flux Control	1	sec
Scanning Speed	2	°/min
Chart Speed	2	cm/min
	Diverter	1
Slit	Receiving	0.15 mm
	Scatter	1
Operator		
Date		

Q₁ Quartz
 Q₂ Crystalline
 P₁ Manganese Ore
 A₁ Manganese



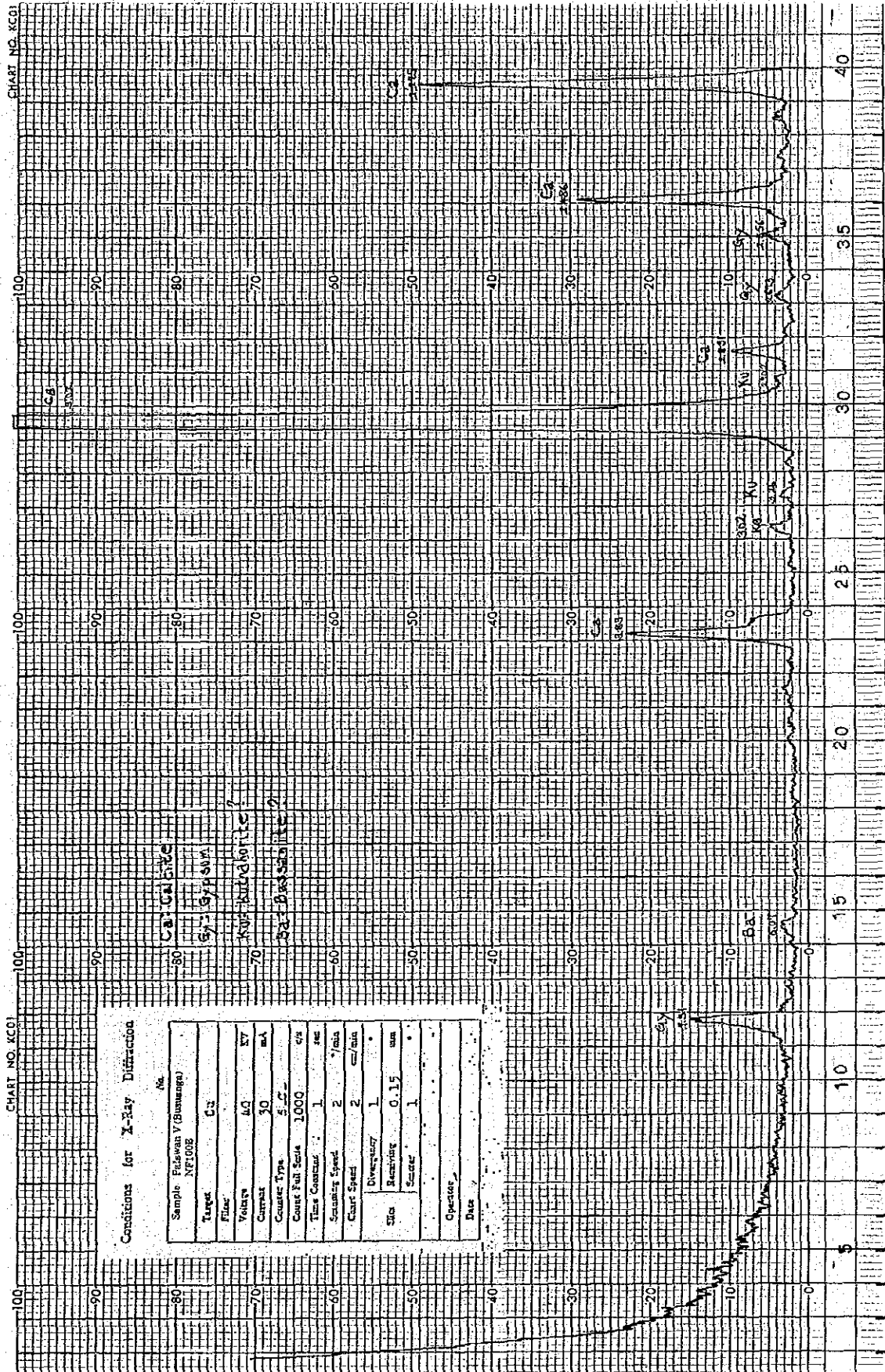
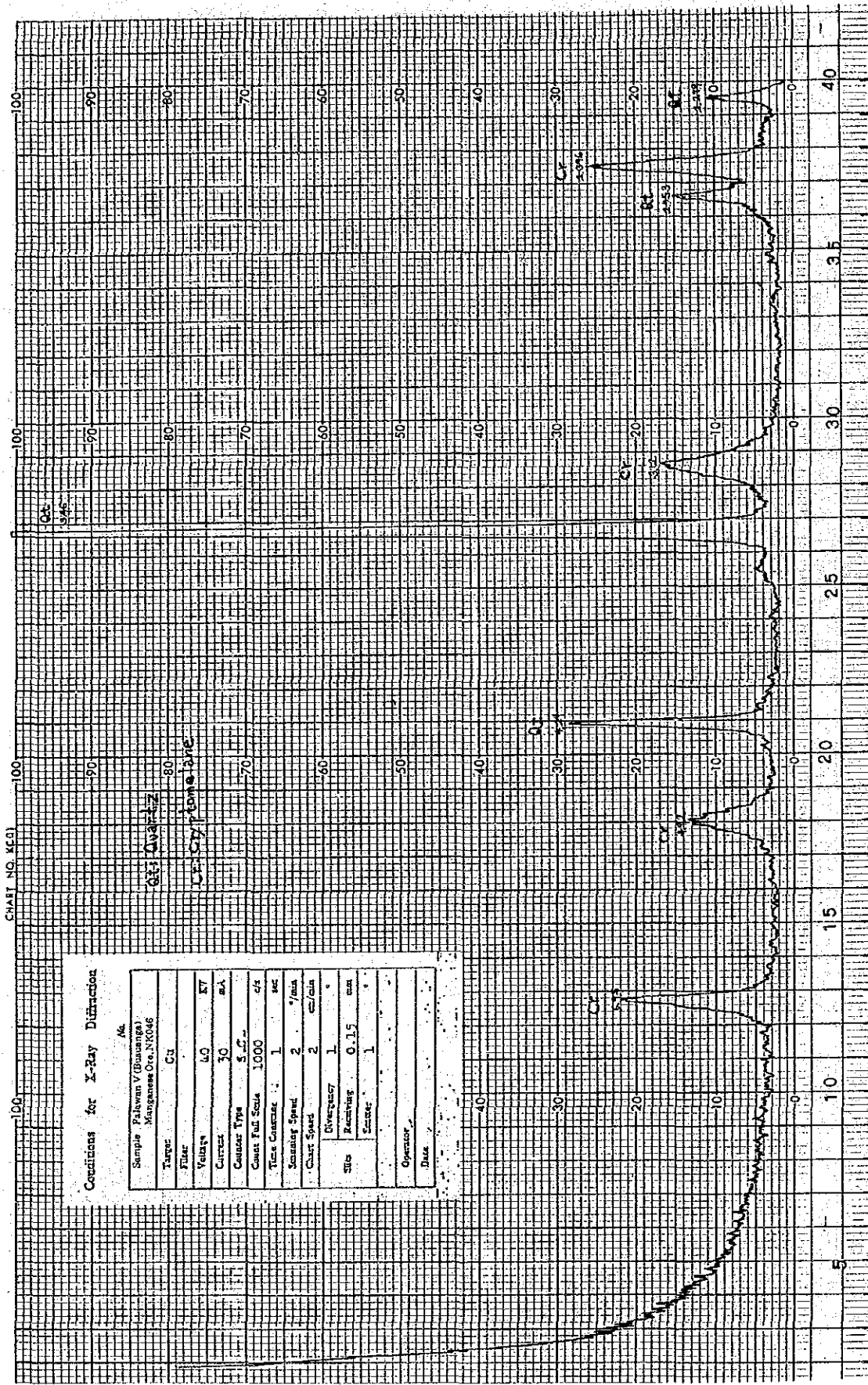


CHART NO. KC01



Conditions for X-Ray Diffraction

Sample	Mn ₂ O ₃
Reference	JCPDS 08-0667
Target	Cu
Filter	
Voltage	40 kV
Current	30 mA
Counter Type	Scintillation
Count Full Scale	1000 c/s
Time Constant	1 sec
Scanning Speed	2 °/min
Chart Speed	2 cm/min
Slits	
Divergency	1 °
Receiving	0.15 mm
Sample	1 °
Operator	
Date	

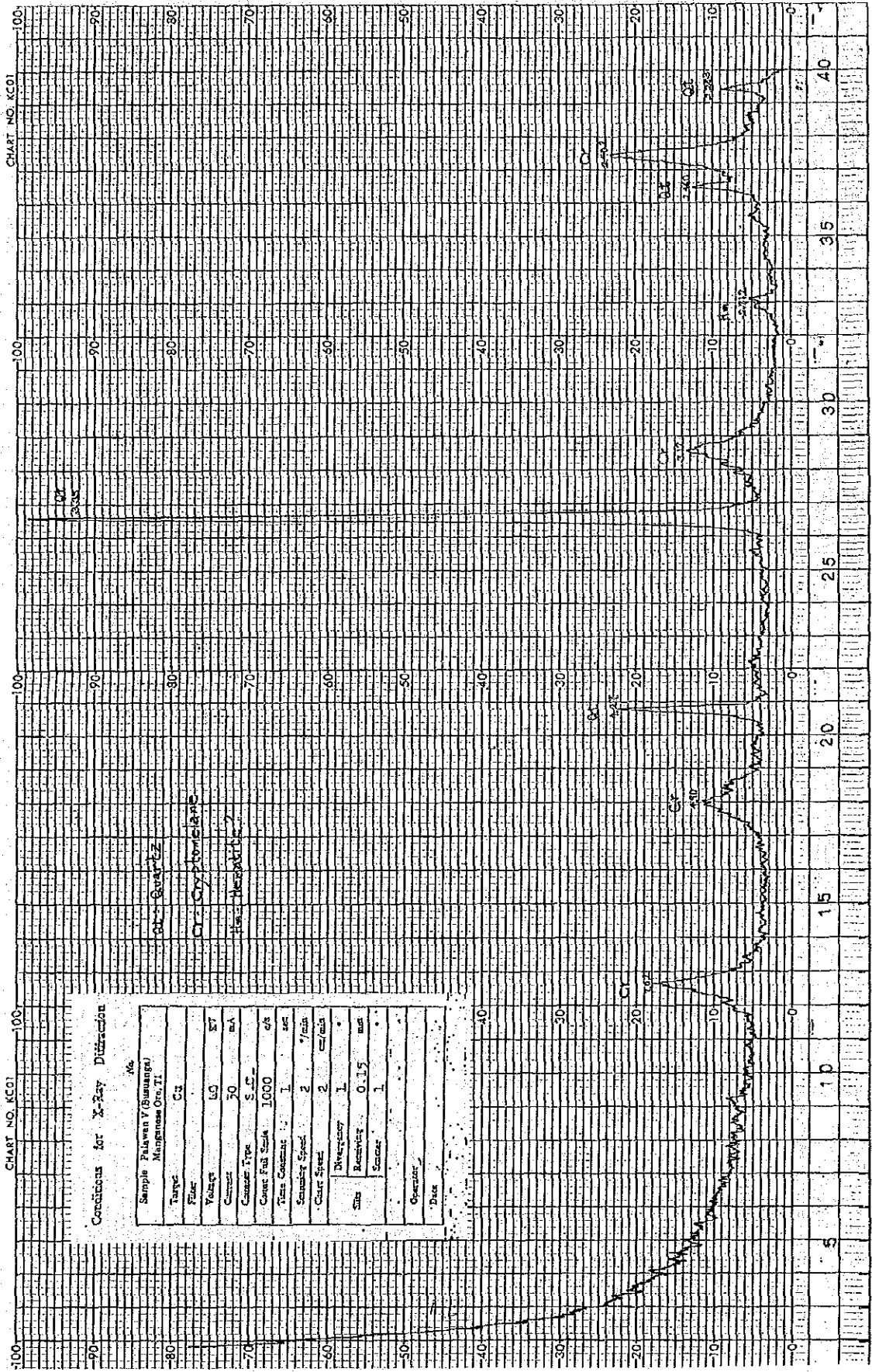


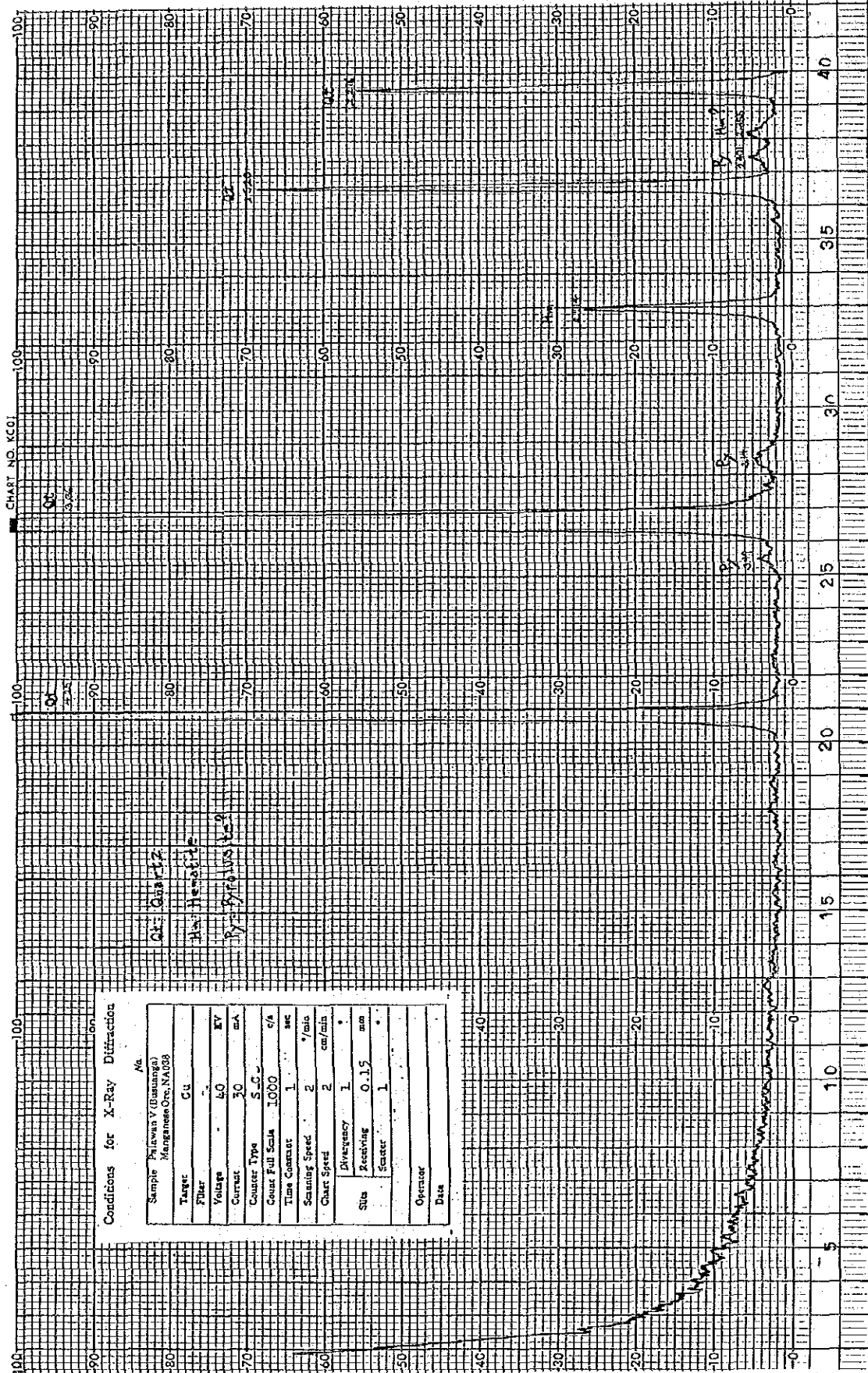
CHART NO. KCO1

CHART NO. KCO1

Conditions for X-Ray Diffraction

Sample	Palawan Y (Bunanga)
Material	Manganese Ore, II
Type	Cr
Filter	
Voltage	40 KV
Current	30 mA
Camera Type	S.C.C.
Camera Film Stock	1000
Time Constant	1 sec
Scanning Speed	2 °/min
Chart Speed	2 cm/min
Divergency	1°
Slit	0.15 mm
Receiving Slit	1
Operator	
Date	

100 300
 010
 Cr-Cryptomelane
 Hex. Melophite?



Conditions for X-Ray Diffraction

Sample	Fe
Fairview V (Bunanga)	
Manganese Ore, NA038	
Target	Cu
Filter	
Voltage	40 KV
Current	30 mA
Counter Type	S.C.
Counter Full Scale	1000 c/a
Time Constant	1 sec
Scanning Speed	2 °/min
Chart Speed	2 cm/min
Divergency	1 °
Slit Receiving	0.15 mm
Scatter	1 °
Operator	
Date	

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 : 20-2 θ -50°

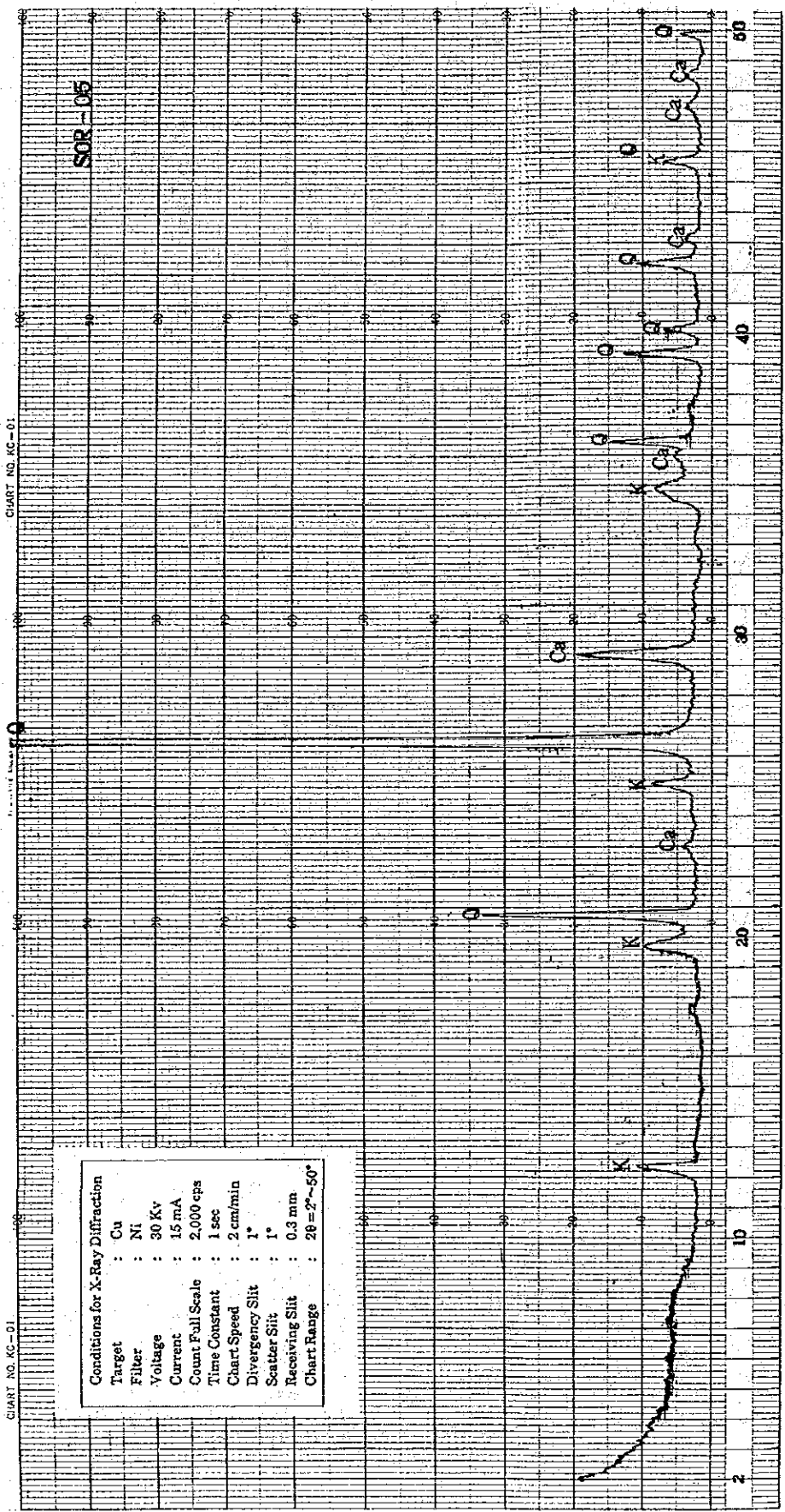


CHART NO. NC-01

SOR-19

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	: $2\theta = 2^\circ - 50^\circ$

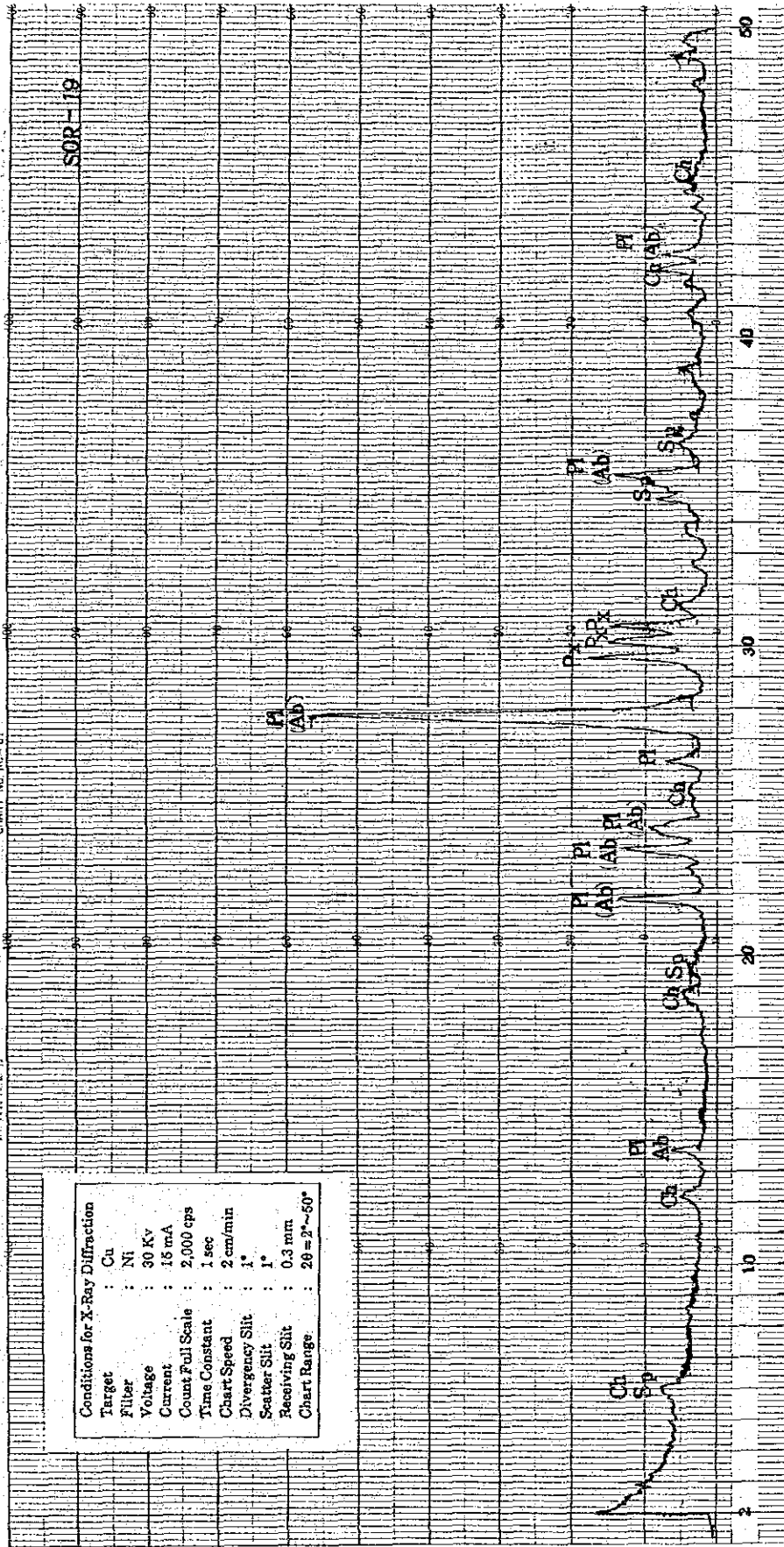


CHART NO. KC-01

CHART NO. KC-01

SOR-15

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. KC-01

CHART NO. KC-01

SIR-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°

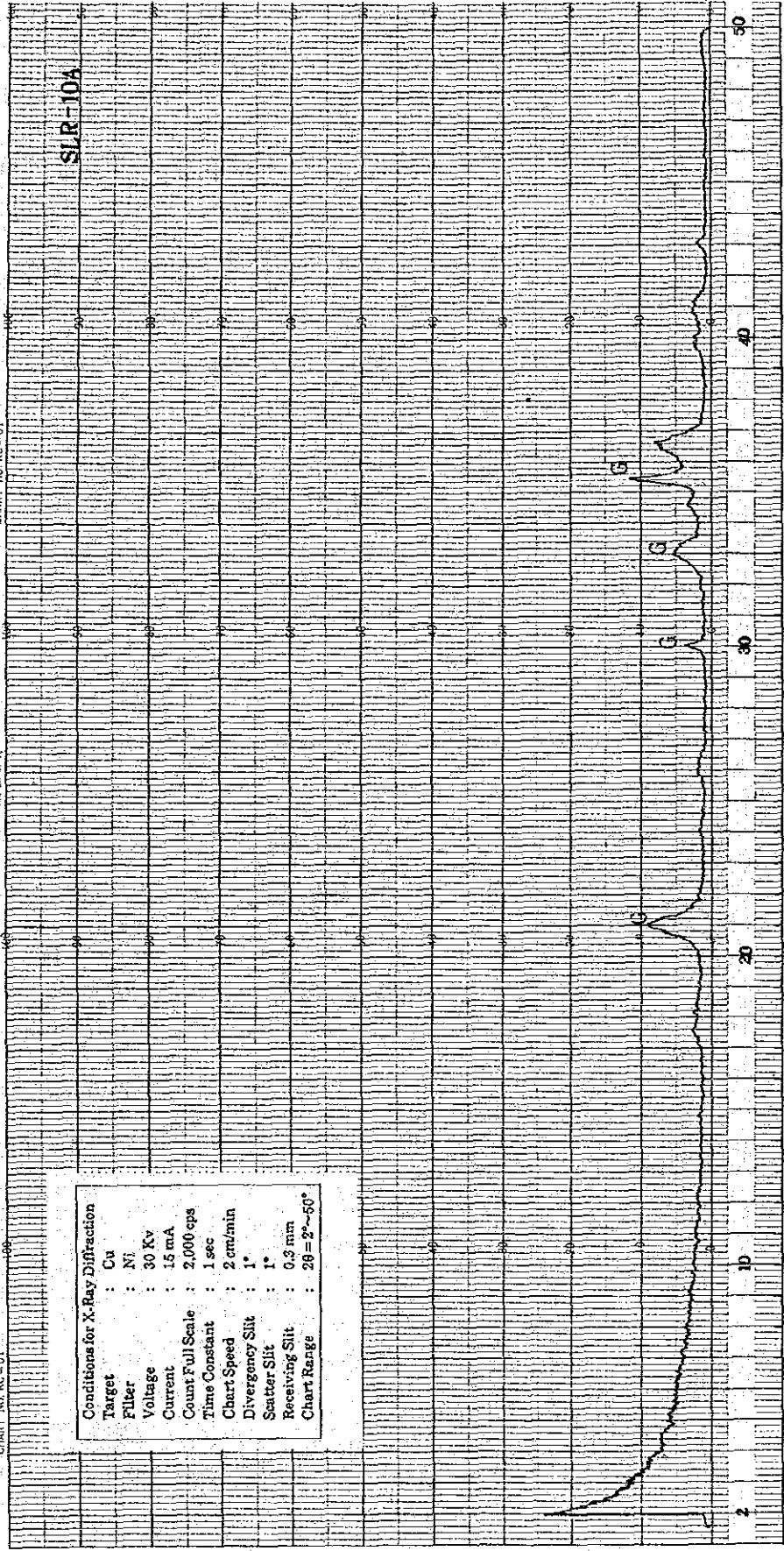


CHART NO. KC-D1

SLP-108

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 : $2\theta = 2^{\circ}-50^{\circ}$

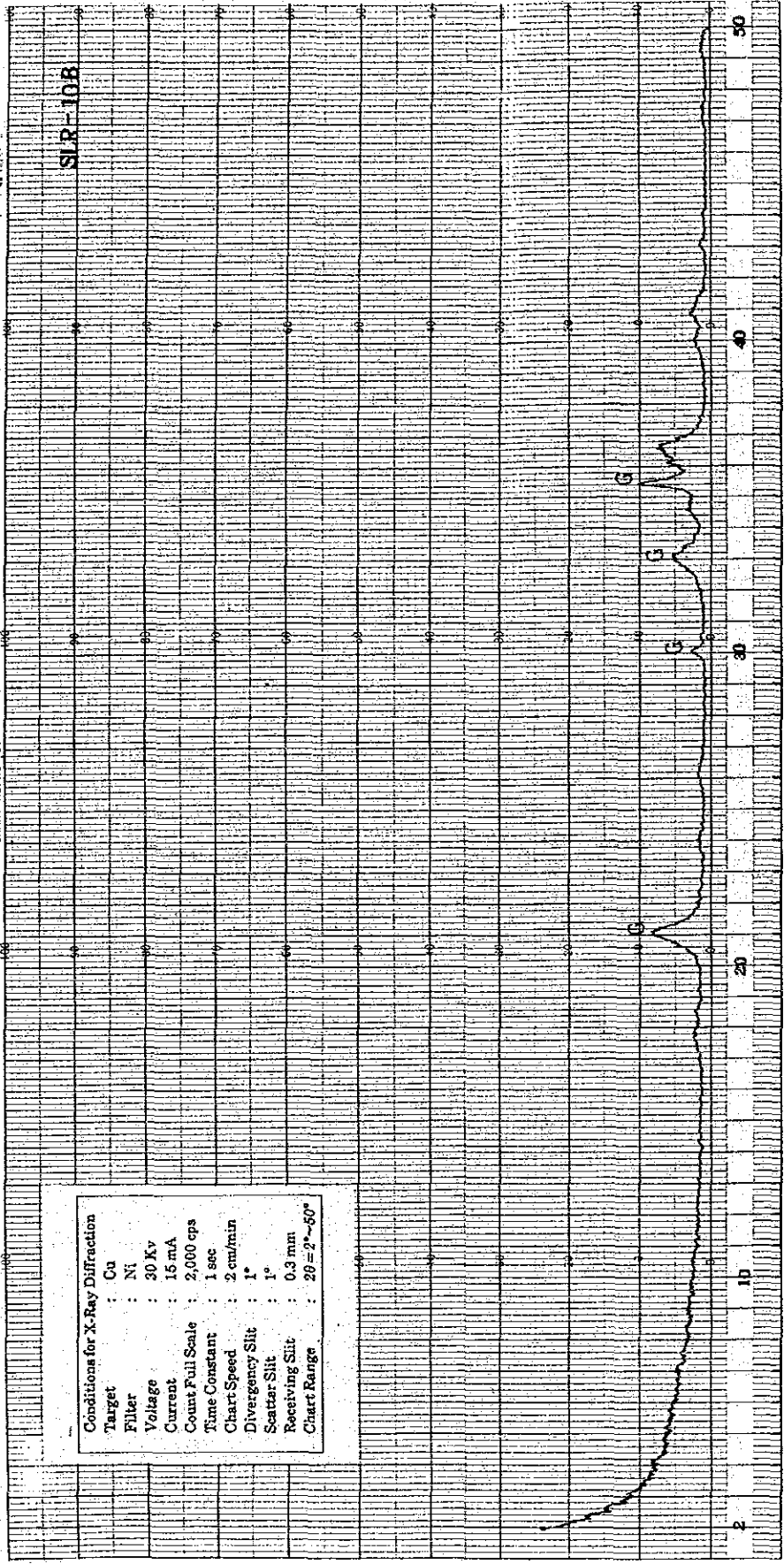


CHART NO. KC-DI

CHART NO. KC-DI

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°



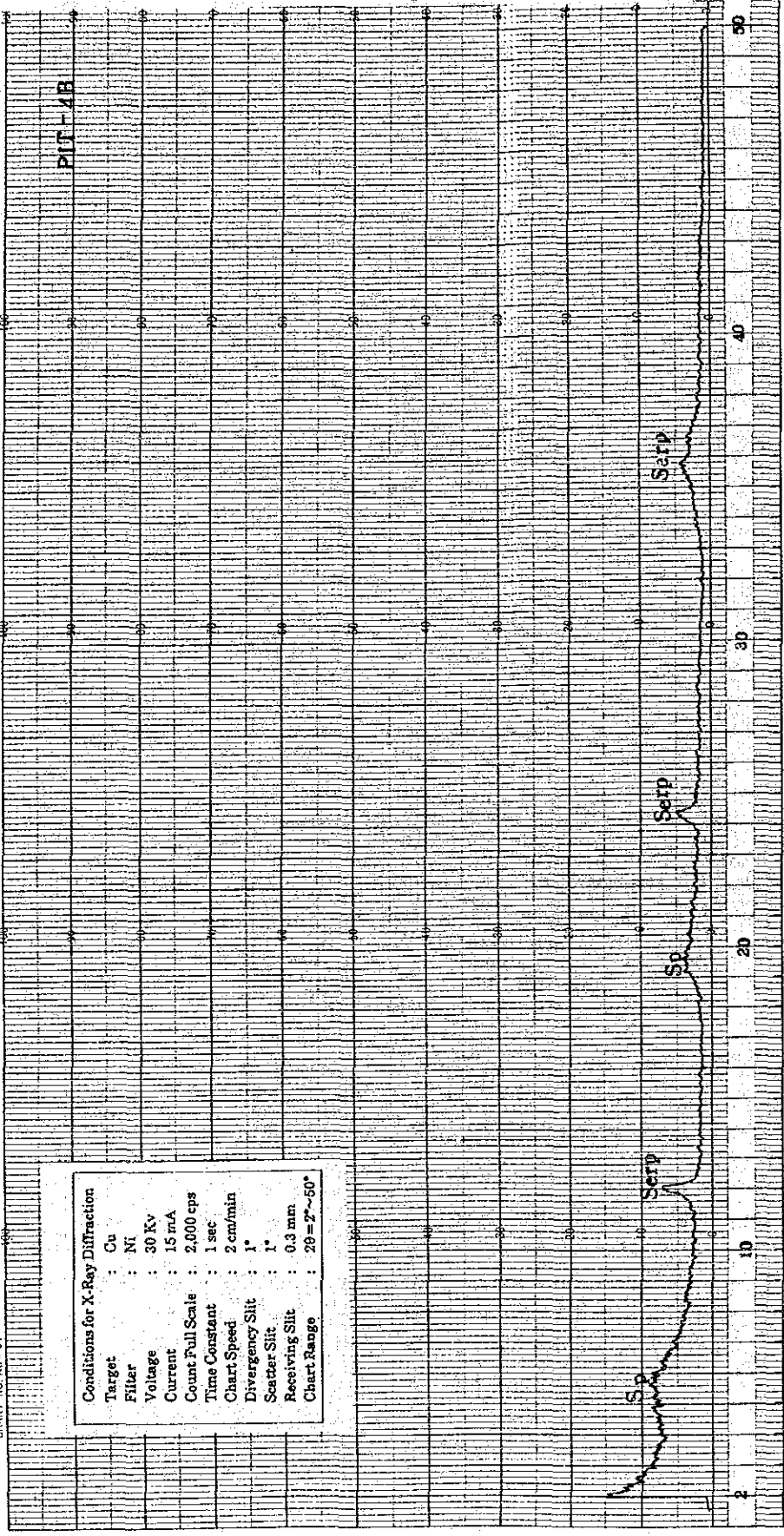
CHART NO. KC-01

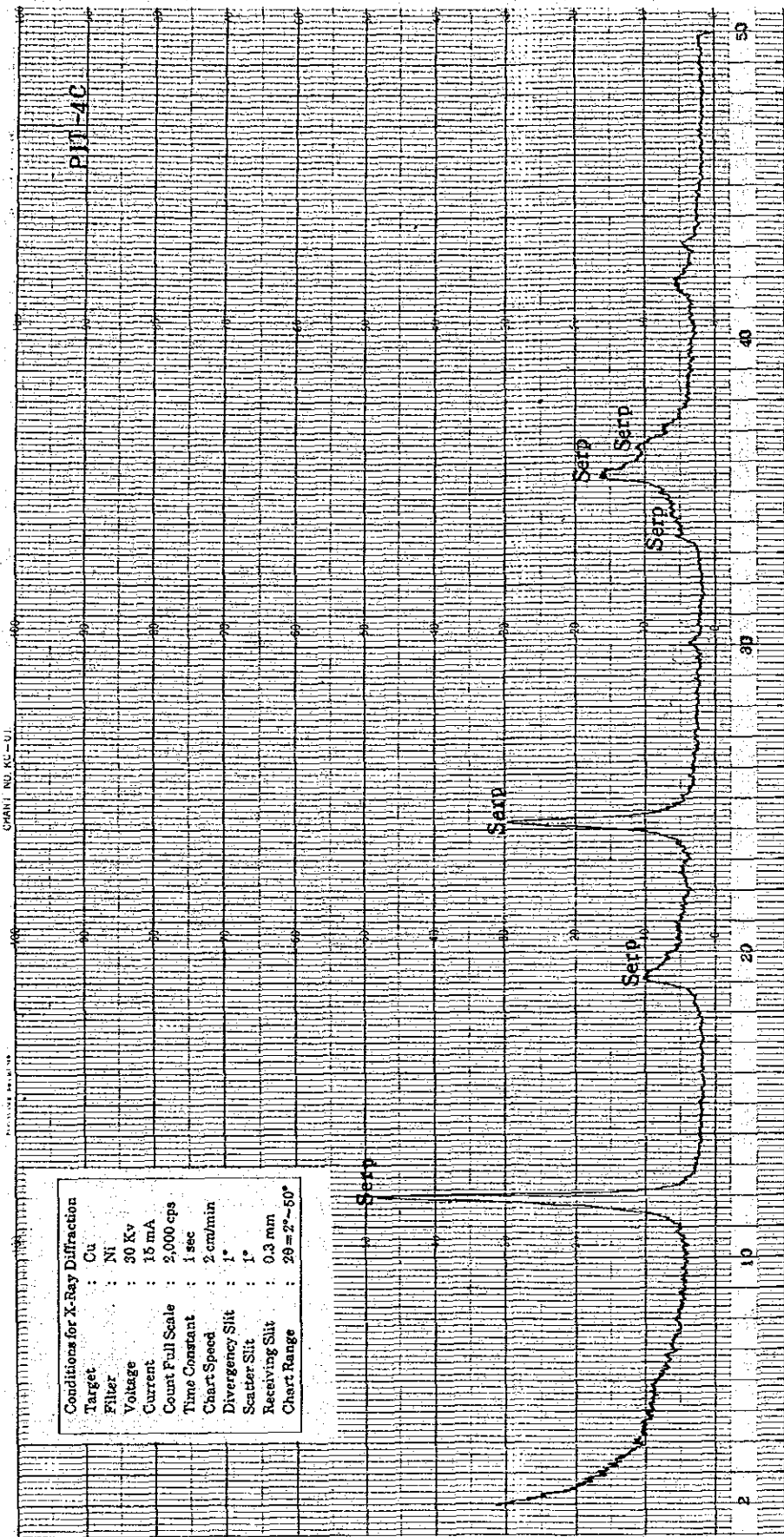
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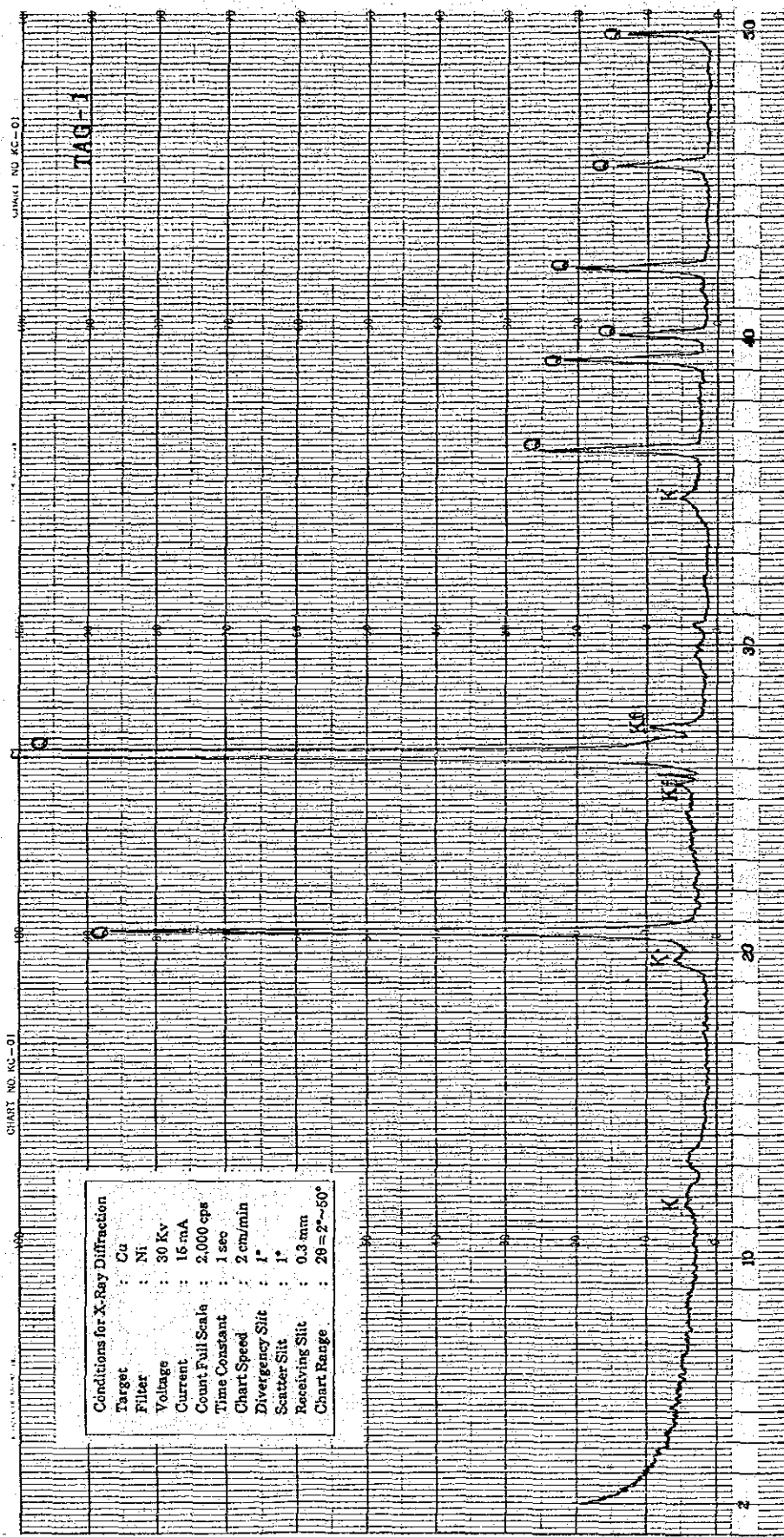
PIT-1B

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°







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°

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°



