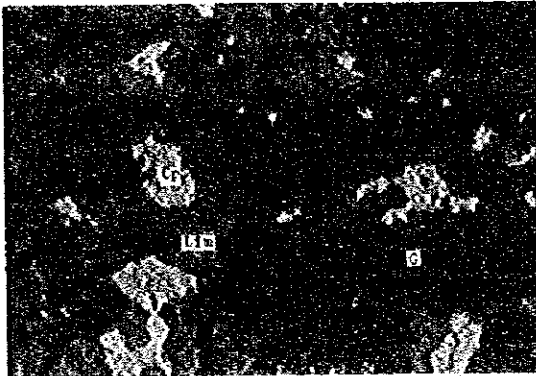
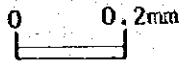


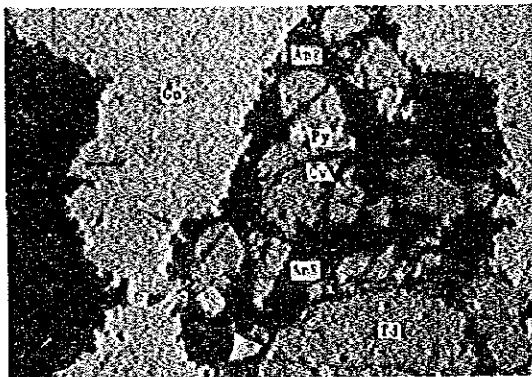
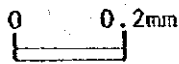
Sample No. : SM-14  
 Ore Name : Chalcopyrite, hematite ore  
 Location : Igudi Mine

(open nicol)



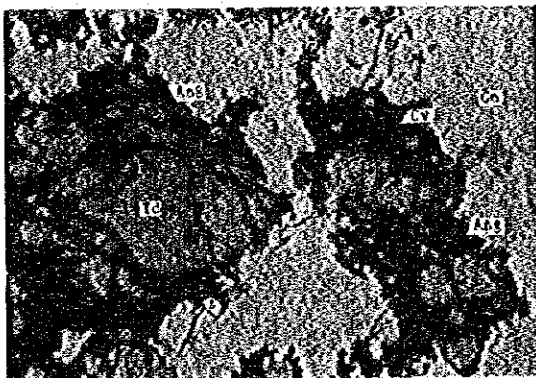
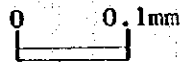
Sample No. : SM-15  
 Ore Name : Chalcopyrite, hematite ore  
 Location : Igudi Mine

(open nicol)



Sample No. : NM-9  
 Ore Name : Galena covellite ore  
 Location : Gundafa Mine

(open nicol)



Sample No. : NM-9  
 Ore Name : Tetrahedrite, covellite ore  
 Location : Gundafa Mine

(open nicol)

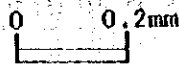
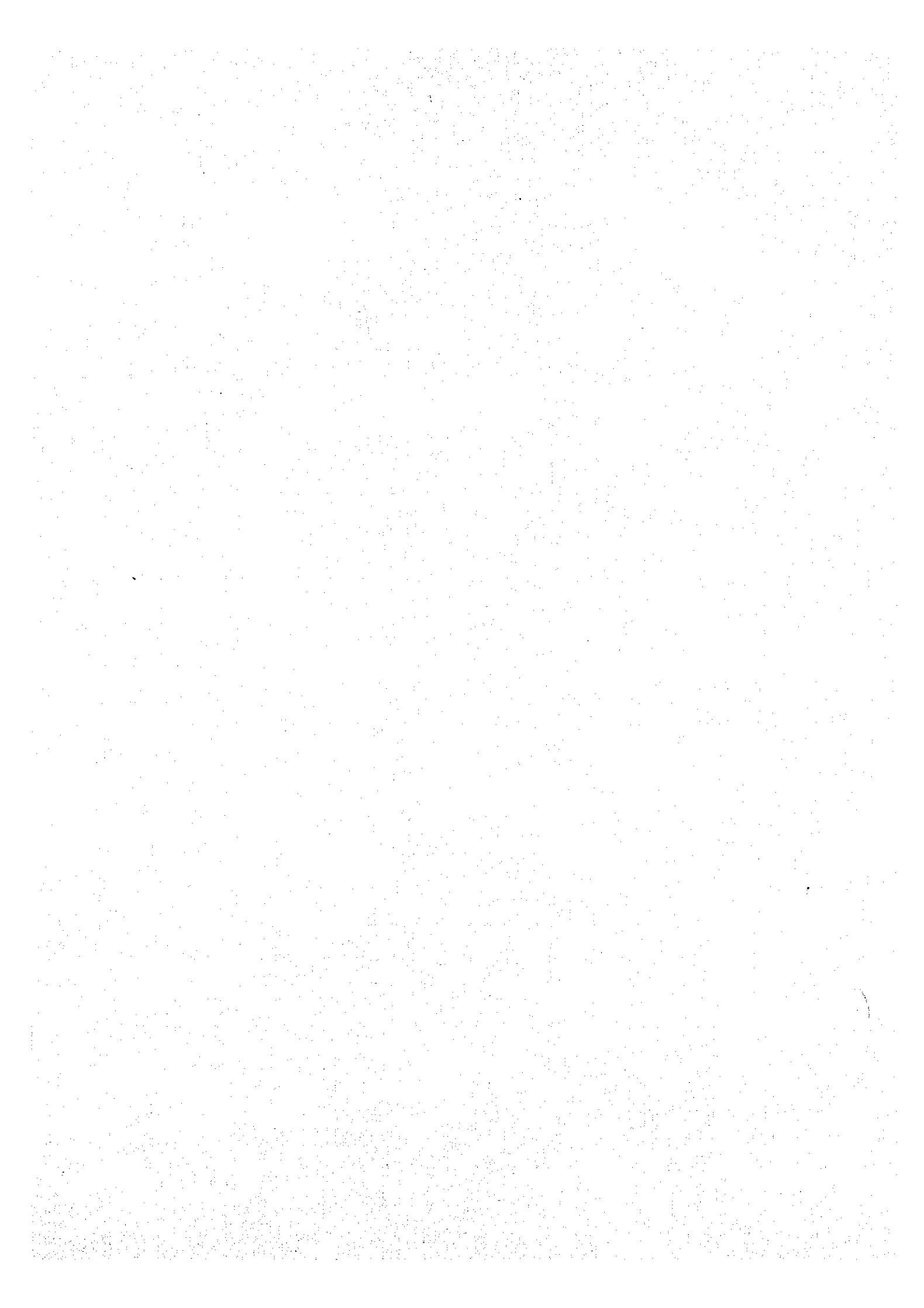
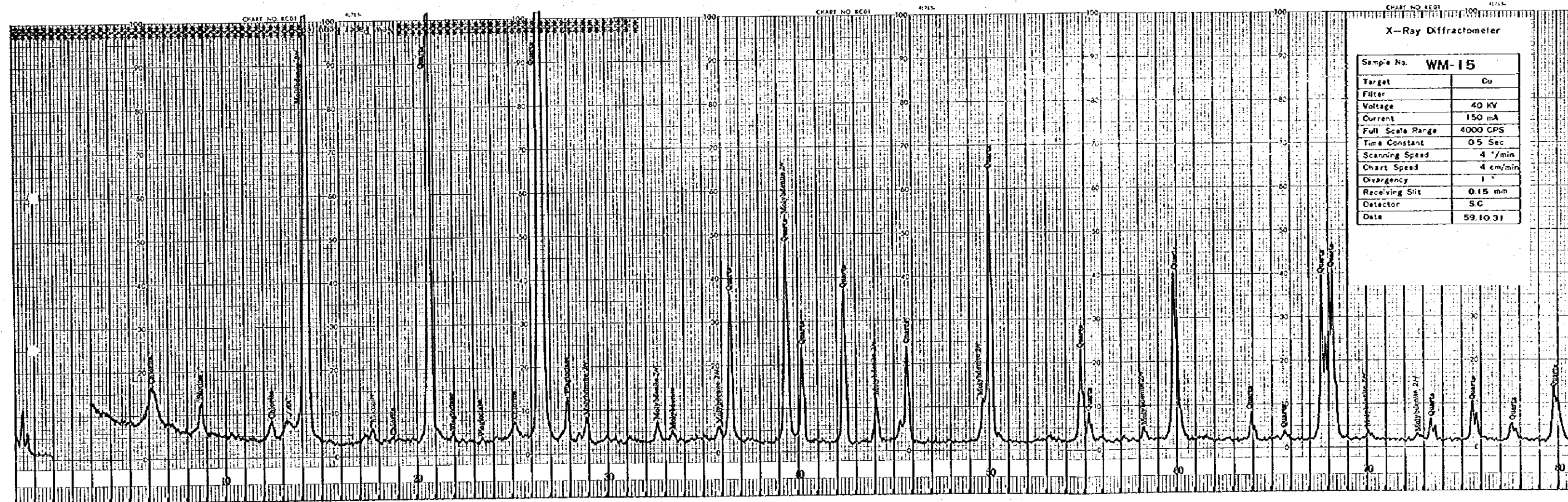
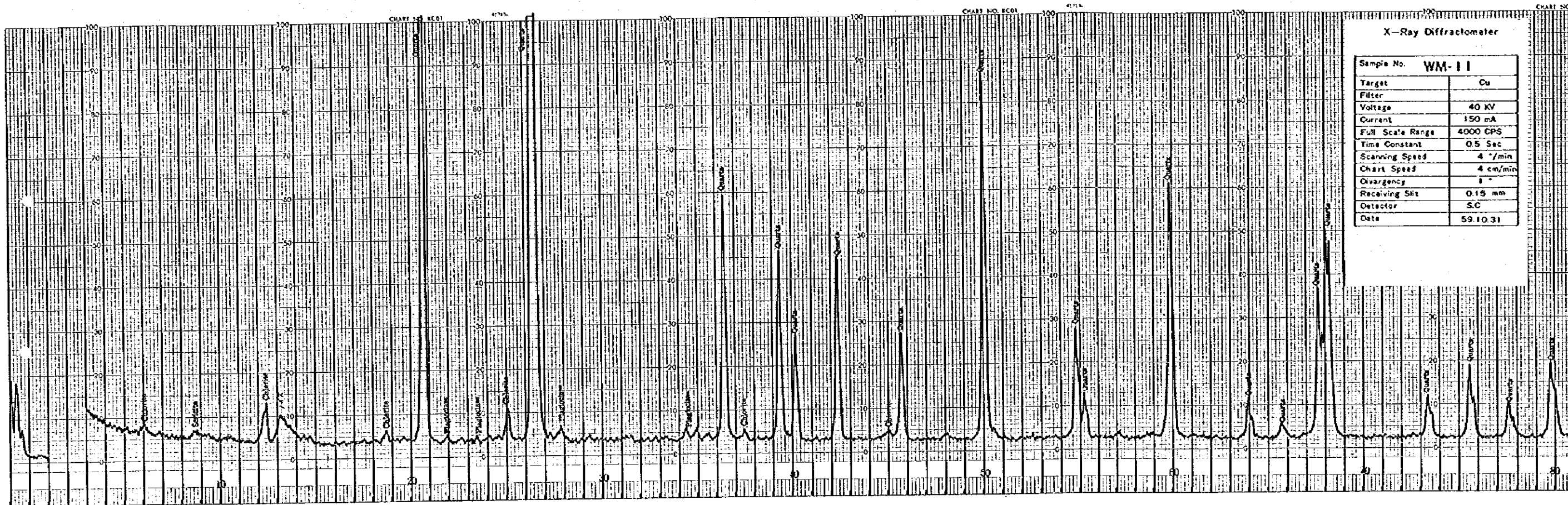


Table A-4 Results and Charts of X-ray Diffractiv Analysis

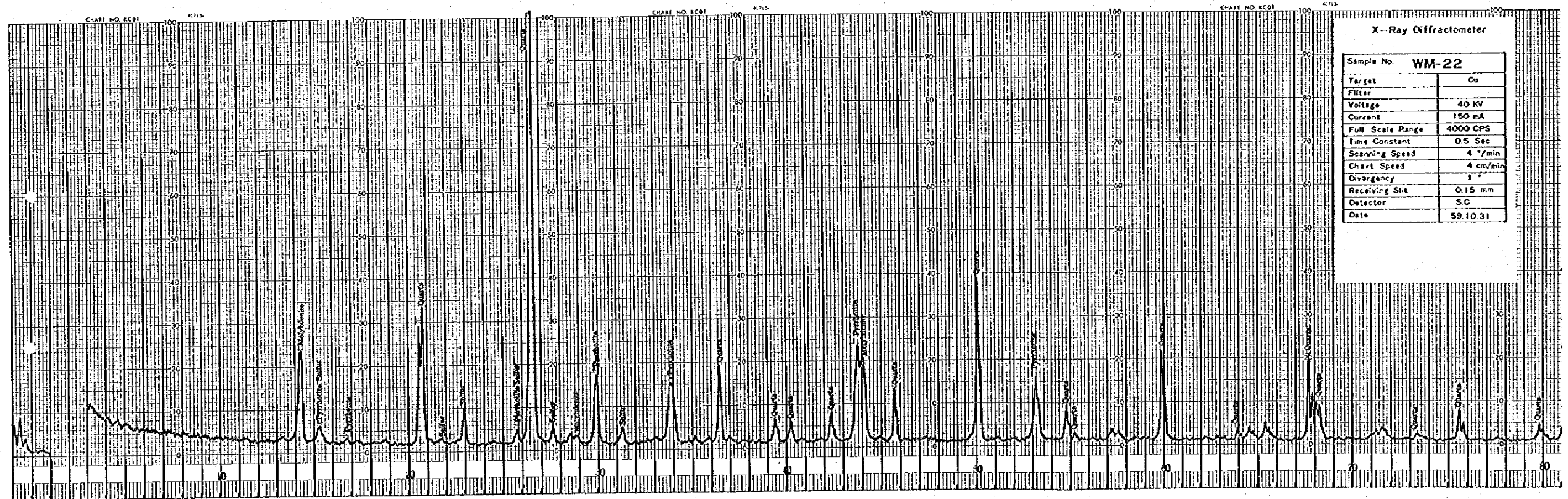
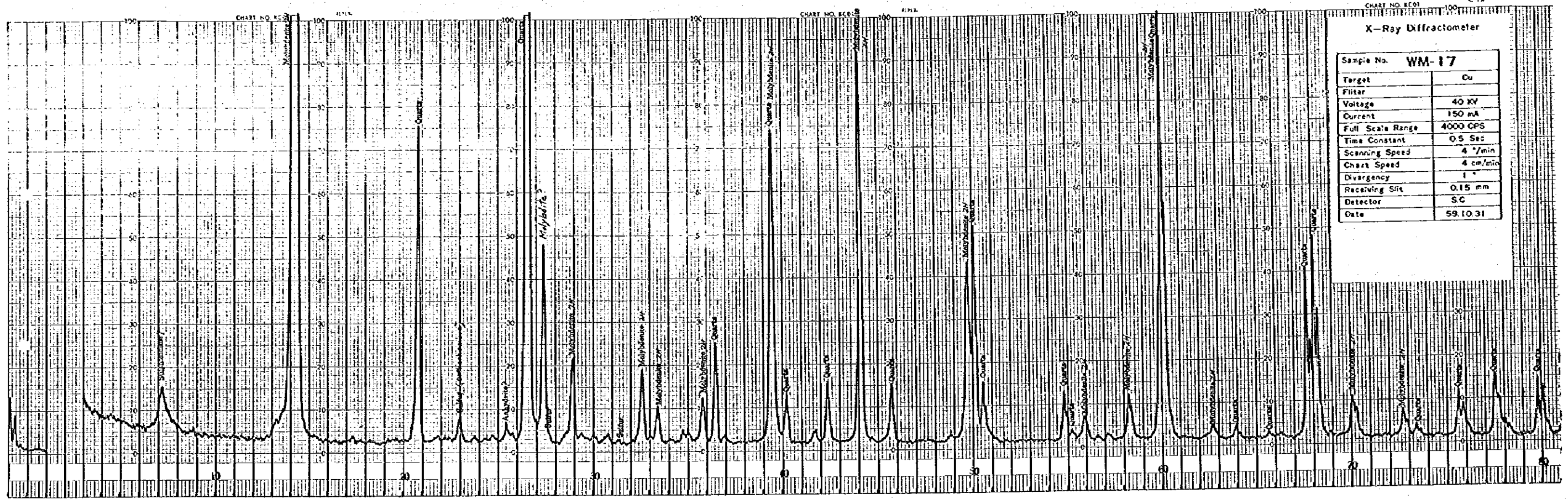
No.	Sample No.	Location	Rock/Ore Name	Quartz	Magogase	Calcite	Ankerite-Dolomite	Hornblende	Ferropargasite	Spessartine	Chlorite	Kaolinite	Sericite	Sulfur (Orthorhombic)	Molybdenite (2H)	Galena	Chalcopyrite	Sphalerite	Anglesite	Malachite	Azurite	Pyrite	Arsenopyrite	Pyrrhotite	Hematite	Scorodite	Biotite	Muscovite	Pyroxene ?	Magnetite	Stibnomelane ?	Anhydrite ?	Molybde ?		
1	WM-11	Taddart Mine	Chalcopyrite pyrite ore	⊙							Δ			⊙	⊙																				
2	WM-15	Ikissan Mine	Molybdenite pyrite ore	⊙	Δ									Δ	⊙																				
3	WM-17	"	Molybdenite ore	⊙										Δ	⊙																				
4	WM-22	"	Pyrrhotite molybdenite ore	⊙										Δ	⊙																				
5	WM-23	"	Pyrrhotite, native blamuth ore	⊙										Δ	⊙																				
6	WM-25	Maouass Indication	Pyrite garnet skarn	⊙										Δ	⊙																				
7	WM-26	"	Hematite ore	⊙											⊙																				
8	WM-28	"	"	⊙											⊙																				
9	WM-31	"	Hematite, magnetite ore	⊙											⊙																				
10	WM-32	Agadir Mine	Garnet skarn	⊙	⊙										⊙																				
11	WM-33	"	Pyrrhotite, chalcopyrite ore	⊙											⊙																				
12	WM-35	"	Tetradymite, native blamuth	⊙											⊙																				
13	WM-62	Tawrit, SE 2.0 km	Bornite, chalcocite ore	⊙											⊙																				
14	WM-63	Tawrit S 0.6km	Malachite ore	⊙											⊙																				
15	SM-1	Taddart NE 2.3 km	Pyrite ore	⊙											⊙																				
16	SM-2	Maouass Indication	Magnetite, hematite ore	⊙											⊙																				
17	SM-5	Tamsout SE 0.7 km	Arsenopyrite ore	⊙											⊙																				
18	SM-9	Achdir Mine	Azurite ore	⊙											⊙																				
19	SM-15	Igudi Mine	Chalcopyrite, hematite ore	⊙											⊙																				
20	NM-9	Quindafa Mine	Galena, covellite ore	⊙											⊙																				
21	NM-22	"	Chalcopyrite ore	⊙											⊙																				

⊙ abundant    ⊙ more    ○ common    Δ less    • scarce











**X-Ray Diffractometer**

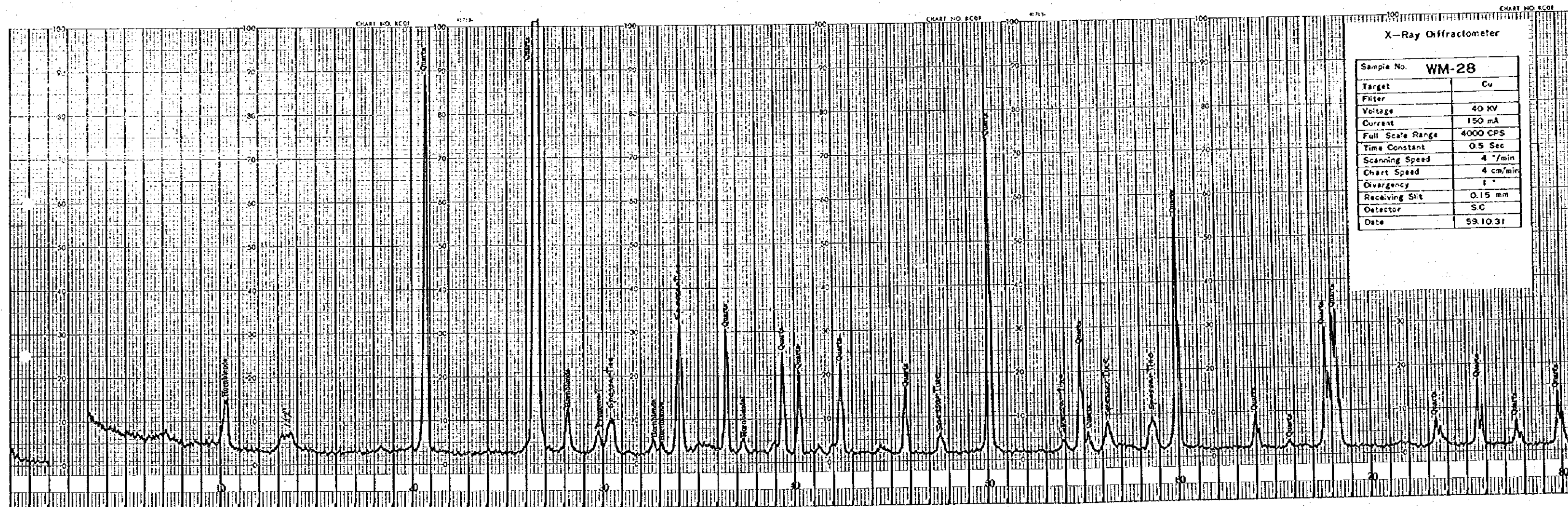
Sample No.	WM-23
Target	Cu
Filter	
Voltage	40 KV
Current	150 mA
Full Scale Range	4000 CPS
Time Constant	0.5 Sec
Scanning Speed	4 °/min
Chart Speed	4 cm/min
Divergency	1 °
Receiving Slit	0.15 mm
Detector	SC
Date	59.10.31

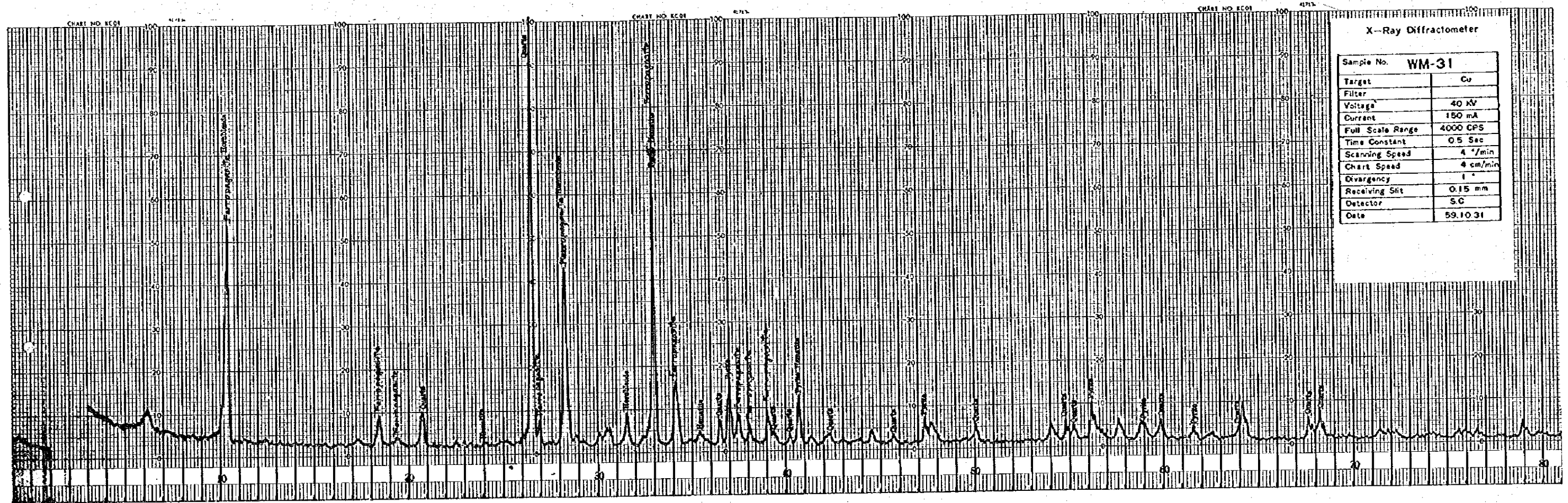


**X-Ray Diffractometer**

Sample No.	WM-25
Target	Cu
Filter	
Voltage	40 KV
Current	150 mA
Full Scale Range	4000 CPS
Time Constant	0.5 Sec
Scanning Speed	4 °/min
Chart Speed	4 cm/min
Divergency	1 °
Receiving Slit	0.15 mm
Detector	SC
Date	59.10.31

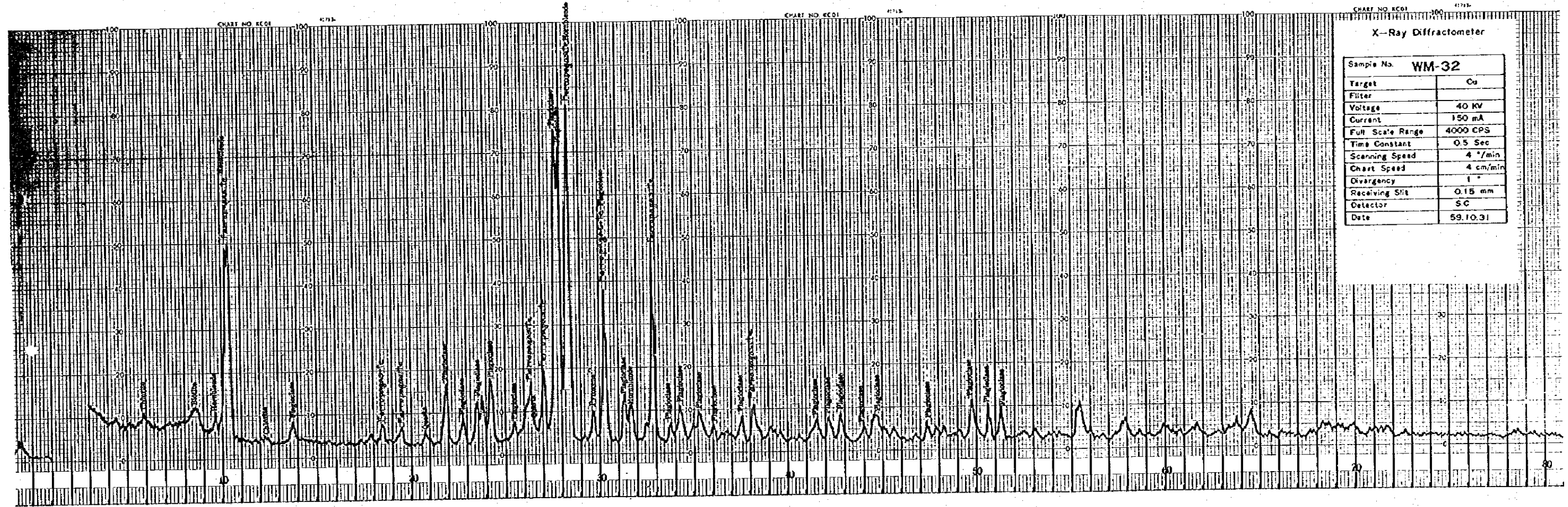






**X-Ray Diffractometer**

Sample No.	WM-31
Target	Cu
Filter	
Voltage	40 KV
Current	150 mA
Full Scale Range	4000 CPS
Time Constant	0.5 Sec
Scanning Speed	4 °/min
Chart Speed	4 cm/min
Divergency	1 °
Receiving Slit	0.15 mm
Detector	SC
Date	59.10.31



**X-Ray Diffractometer**

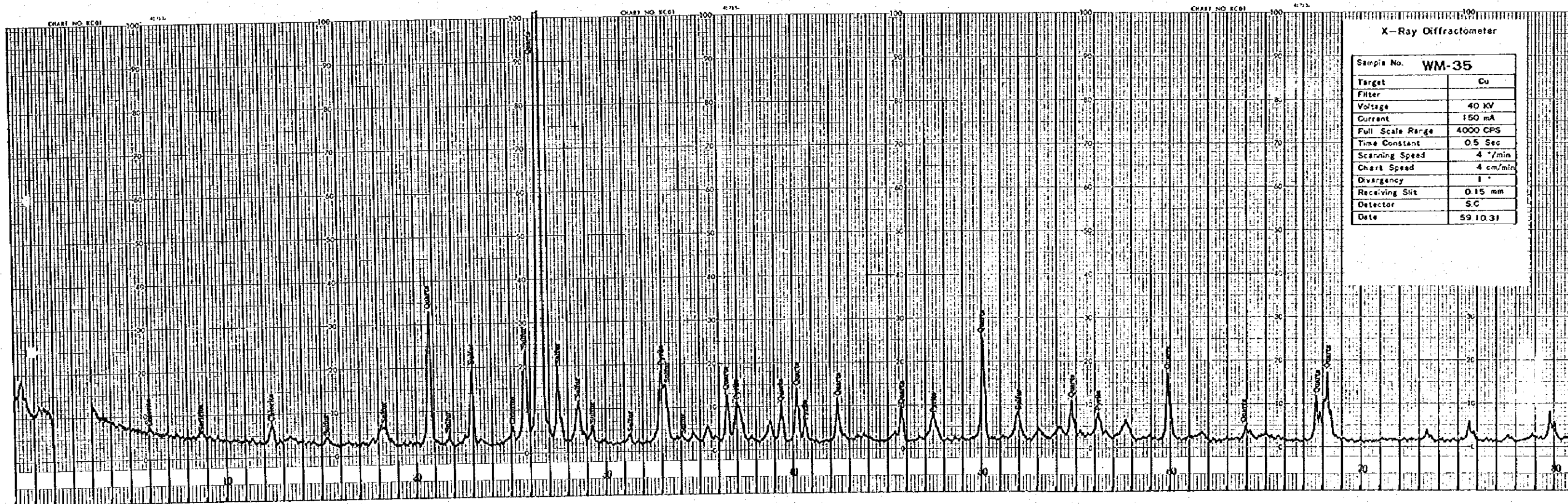
Sample No.	WM-32
Target	Cu
Filter	
Voltage	40 KV
Current	150 mA
Full Scale Range	4000 CPS
Time Constant	0.5 Sec
Scanning Speed	4 °/min
Chart Speed	4 cm/min
Divergency	1 °
Receiving Slit	0.15 mm
Detector	SC
Date	59.10.31





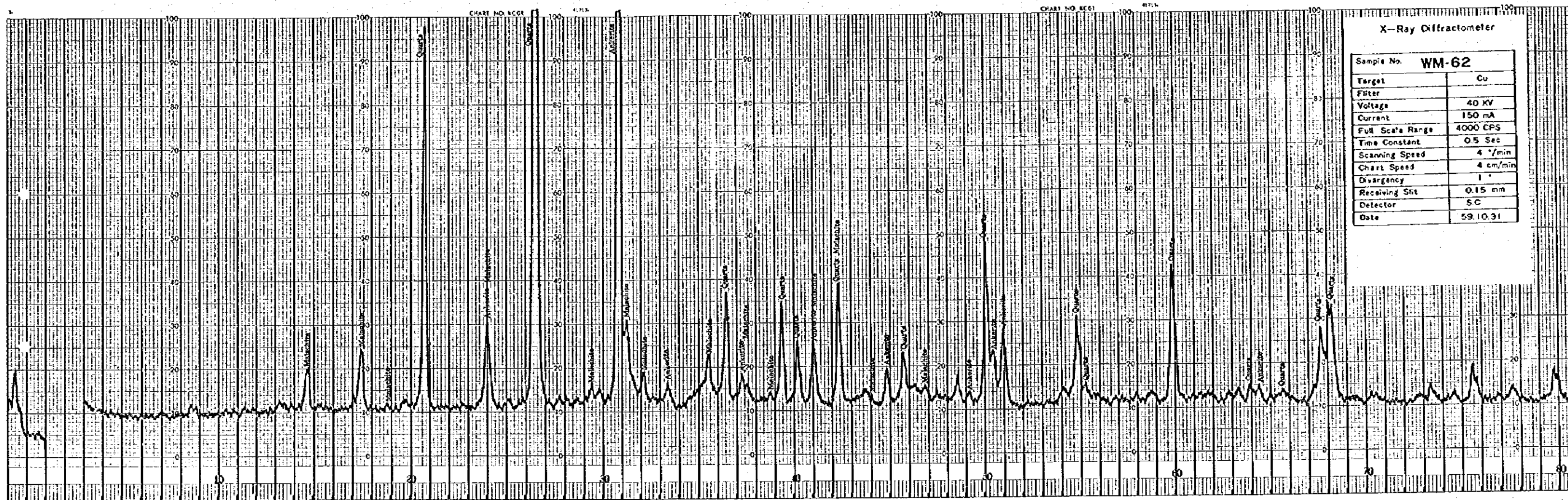
**X-Ray Diffractometer**

Sample No.	WM-33
Target	Cu
Filter	
Voltage	40 KV
Current	150 mA
Full Scale Range	4000 CPS
Time Constant	0.5 Sec
Scanning Speed	4 °/min
Chart Speed	4 cm/min
Divergency	1 °
Receiving Slit	0.15 mm
Detector	S.C
Date	59.10.31

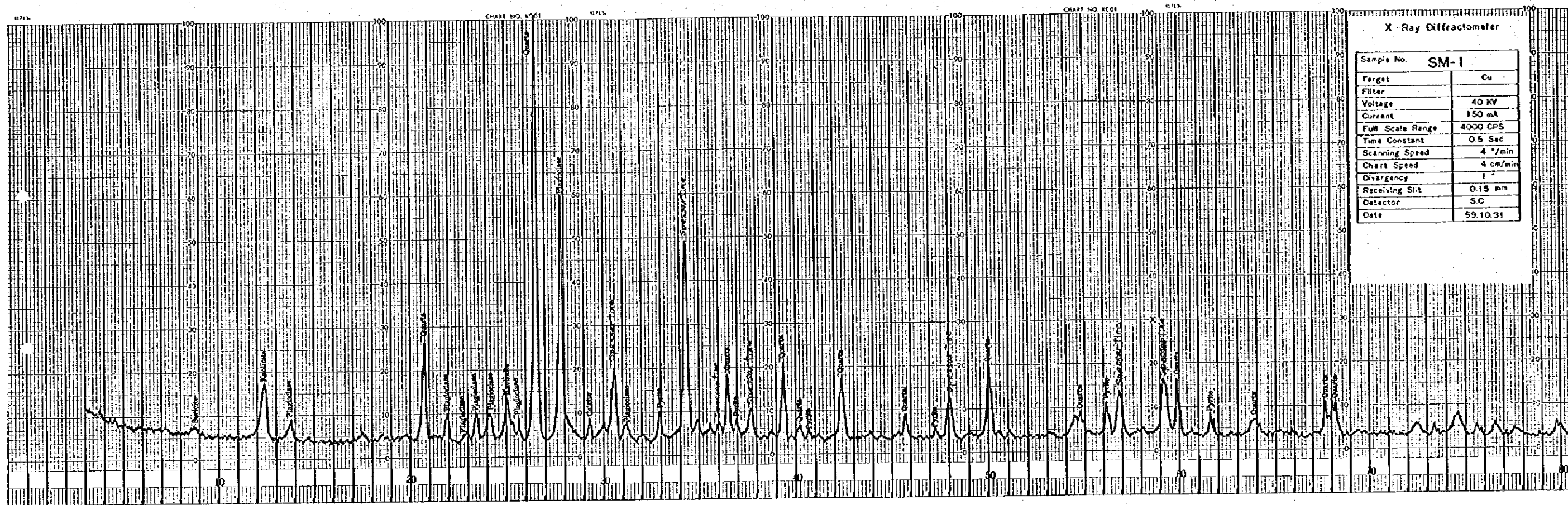


**X-Ray Diffractometer**

Sample No.	WM-35
Target	Cu
Filter	
Voltage	40 KV
Current	150 mA
Full Scale Range	4000 CPS
Time Constant	0.5 Sec
Scanning Speed	4 °/min
Chart Speed	4 cm/min
Divergency	1 °
Receiving Slit	0.15 mm
Detector	S.C
Date	59.10.31

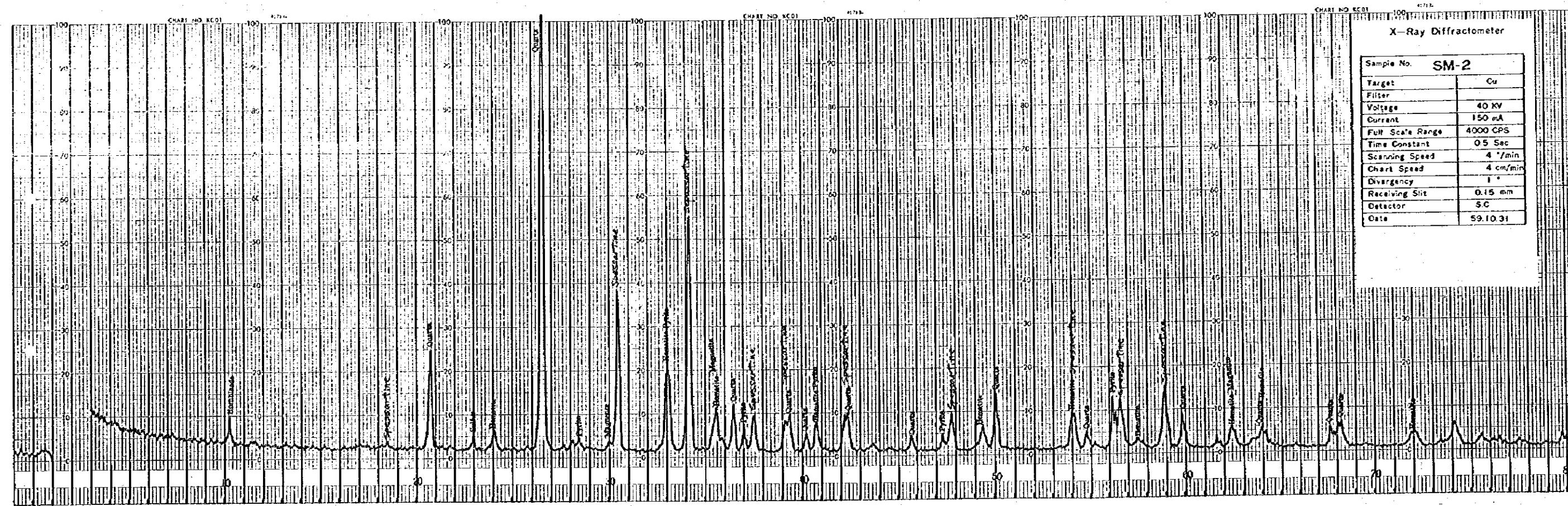






X-Ray Diffractometer

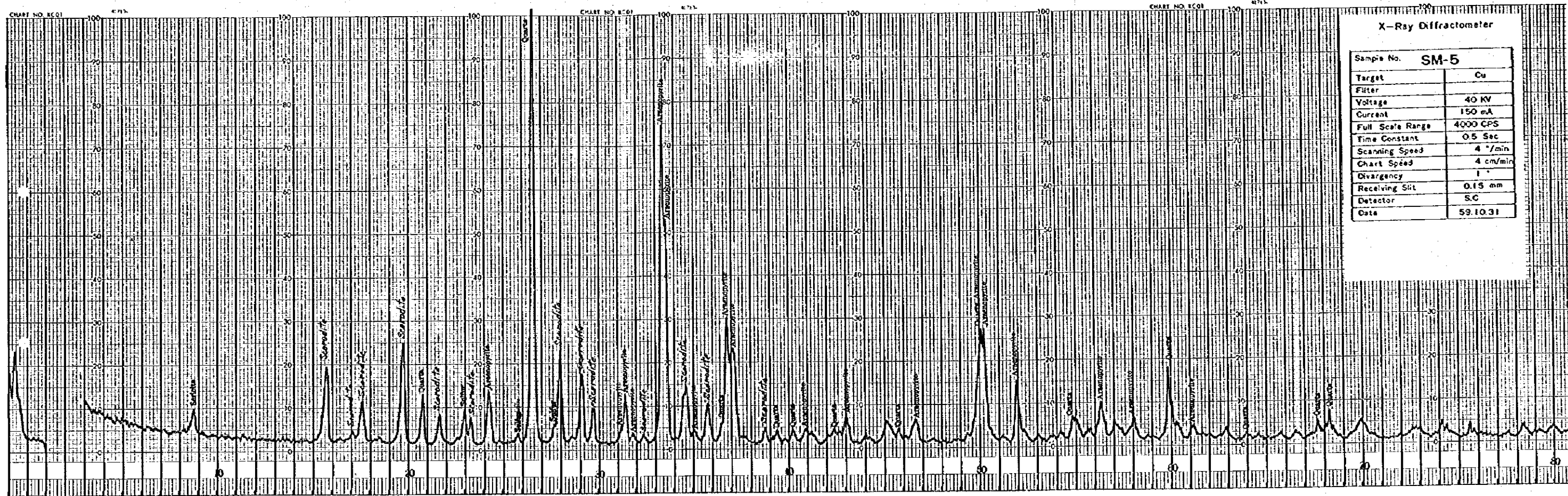
Sample No.	SM-1
Target	Cu
Filter	
Voltage	40 KV
Current	150 mA
Full Scale Range	4000 CPS
Time Constant	0.5 Sec
Scanning Speed	4 °/min
Chart Speed	4 cm/min
Divergency	1 °
Receiving Slit	0.15 mm
Detector	SC
Date	59.10.31



X-Ray Diffractometer

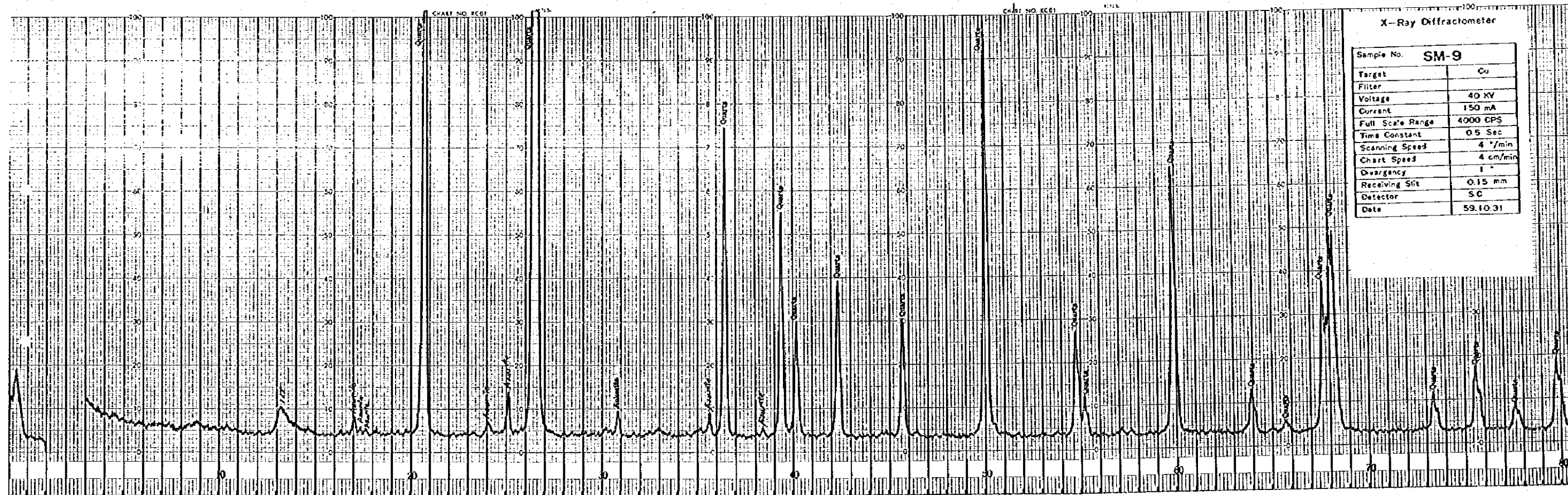
Sample No.	SM-2
Target	Cu
Filter	
Voltage	40 KV
Current	150 mA
Full Scale Range	4000 CPS
Time Constant	0.5 Sec
Scanning Speed	4 °/min
Chart Speed	4 cm/min
Divergency	1 °
Receiving Slit	0.15 mm
Detector	SC
Date	59.10.31





**X-Ray Diffractometer**

Sample No.	SM-5
Target	Cu
Filter	
Voltage	40 KV
Current	150 mA
Full Scale Range	4000 CPS
Time Constant	0.5 Sec
Scanning Speed	4 °/min
Chart Speed	4 cm/min
Divergency	1 °
Receiving Slit	0.15 mm
Detector	SC
Date	59.10.31



**X-Ray Diffractometer**

Sample No.	SM-9
Target	Cu
Filter	
Voltage	40 KV
Current	150 mA
Full Scale Range	4000 CPS
Time Constant	0.5 Sec
Scanning Speed	4 °/min
Chart Speed	4 cm/min
Divergency	1 °
Receiving Slit	0.15 mm
Detector	SC
Date	59.10.31