83-#766 – 11806

APPENDICES

Samim Canada Ltd.

SPILLIMACHEEN PROJECT

GEOLOGY, GEOCHEMISTRY, GEOPHYSICS AND DIAMOND DRILLING ON THE DEB CLAIMS

NTS 82 N/2, 3
82 K/14, 15

Golden Mining Division

Latitude 51°00'N
Longitude 117°00'W

by

T.J. Bottrill, S.D. Robinson and J.A. McCance

November, 1983

Part 2
013

APPENDICES

A. Review of 1982 Field-Data from the DEB Claims (Rock Geochemistry)

B. Analytical Results - Geochemistry, Soils and Silts

C. Analytical Results - Geochemistry and Assays, Rocks

D. Soil Sample Lines, Results by Line

E. Analysis of Individual Samples that were Composited in 1982

F. Rock-chip and Grab Samples, Descriptions and Analyses

G. Report on Induced Polarization and Resistivity Survey

H. Geophysical Survey Instrument Specification Data

I. Polished-Section Mineral Identification and Textural Interpretation

J. Thin Section Interpretations

K. Diamond Drill Logs

L. Statements of Qualifications

M. List of Days Worked in Field

N. Cost Statements

APPENDIX A

Review of 1982 Field Data from the DEB Claims Southeastern British Columbia

G.J. Dickie

MineQuest Exploration Associates Ltd.

March 1983

Summary of statistical analysis of rock geochemical data
Samples separated according to stratigraphic unit and dominant lithology
Samples from a weakly mineralized trench were identified as a separate group "M"
Strongly mineralized samples were not included
All values are in ppm

	UNITS B,D, F,G		UNIT M		UNIT B		UNIT D		UNIT F		UNIT G	
	MAIN POPULATION Mean	ANOMALOUS	MAIN POPULATION Mean	ANOMALOUS	MAIN POPULATION Mean	ANOMALOUS	MAIN POPULATION Mean	ANOMALOUS	MAIN POPULATION Mean	ANOMALOUS	MAIN POPULATION Mean	ANOMALOUS
Pb	20-25	>70	50-70	>240	21	>70	23	>100	32 23	>70	25	?>64
Zn	100	>132	130	>275	100	None	97	?>150	110	?>145	100	None
Cu	40	>55	NO ANALYSES		42	None	30	None	37	None	42	?>58
Mn	600	>1300	NO ANALYSES		530	>700	750 450	> 1250	630	>1120	880 600	?>1350

	SHALE		LIMESTONE		SILTSTONE		SANDSTONE	
	MAIN POPULATION Mean	ANOMALOUS	MAIN POPULATION Mean	ANOMALOUS	MAIN POPULATION Mean	ANOMALOUS	MAIN POPULATION Mean	ANOMALOUS
Pb	22	>72	34	?>48	22	None	22	?>40
Zn	105	>130	45	?>85	110	None	105	None
Cu	40	>57	15	None	?	None	35	None
Mn	700 550	>1200	570	?	600	None	1000	None

Further to the northwest in Unit B above Sunday Lake, the coincidence of the Pb soil anomaly at the end of Soil Line P-2 and anomalous Pb in GGD-006 (82ppm) suggests potential in this direction.

In the lower elevations of the Crown Point and Silent Lake map sheets the anomalies on Soil Lines P-8 to P-11 and rock samples PRB-027B and GGD-027 indicate elevated Pb and Zn content in Unit B and possibly A.

	Pb ppm	Zn ppm
PRB-027B	2250	1730
GGD-027	470	450

A more controlled series of soil lines with stratigraphic mapping and prospecting would evaluate the significance of these encouraging results.

In Unit D, along strike to the north from the Cliff showing, prospecting samples such as PLA-019, -020 contain anomalous Pb and Zn values suggesting that mineralization might continue in that direction, although rock-chip sections showed no anomalies.

	Pb ppm	Zn ppm
PLA-019	268	276
PLA-020	265	199

On the ridge above Sunday Lake, the geological sample GGD-005 taken from black pyritic shale has anomalous Pb and Zn and while there are no coincident soil anomalies, the unit should be prospected and mapped.

	Pb ppm	Zn ppm
GGD-005	131	146

These results point to the necessity to continue the exploration to the north into the Silent Lake map sheet. It would be preferable to do this exploration first, then define areas for detailed follow-up so that the detailed stage could be combined for the Crown Point and Silent Lake areas.

Decision Creek

In the Decision Creek cirque, the facies changes in Unit F from limestone to shale and calcareous sandstone are accompanied by scattered high prospecting samples (PLA-025, -026, -047) and anomalous Pb in Soil Lines D-3, -4 and -6.

	Pb ppm	Zn ppm
PLA-025	100	171
PLA-026	45	398
PLA-047	galena & sphalerite	

The 1982 prospecting and rock chip sampling produced rather negative results but the geological setting remains interesting. Further prospecting and soil and rock geochemistry is a low priority. Unit D remains slightly prospective near the Burns showing and the Zn anomalies on Soil Lines D-4. Neither should be pursued at this time.

Carbonate Mountain

The area southeast of Carbonate Mountain which joins with the Malachite Creek area stands out as being prospective. Soil Line C-5 has relatively strong anomalies in Pb and Zn over Units D and F shales and limestones. No bedrock explanations for these anomalies were obtained from the geological chip samples except for a high Pb (103ppm) in GGD-013. Prospecting did locate some mineral in bedrock (PRB-046, -047) so more extensive prospecting is warranted.

	Pb ppm	Zn ppm
PRB-046	211	188
PRB-047	2750	2270

A small grid for mapping and sampling seems necessary to focus the next prospecting stage.

Malachite Creek

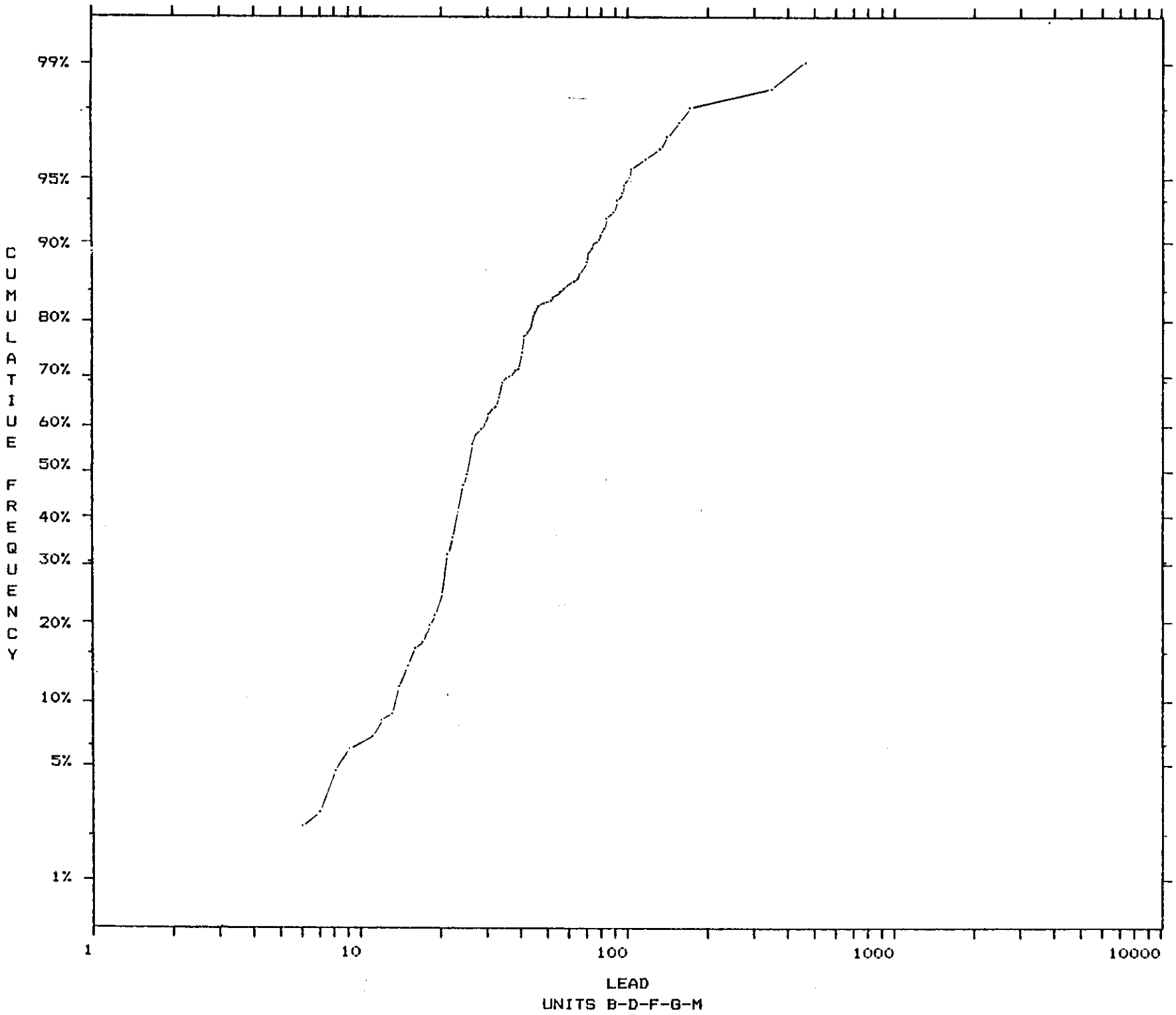
Chip samples from mineralized trenches are obviously anomalously high and were therefore excluded from the statistical analyses. Unit M in the statistical summary table refers to the results from Mineralized Chip Section M3 which had no obvious mineralization. It is clear from the Unit M statistics, from the high metal content of samples from Mineralized Chip Sections M1, M2, M4, M5 and from geological samples GGD-009 and GGD-012 that Units D and F are generally anomalously high in Pb, Zn and Ag in the Malachite Creek - Carbonate Mountain South area.

	Pb ppm	Zn ppm	
GGD-009	63	148	Unit F
GGD-012	140	124	Unit D

At this time, drill locations could be spotted to test the down-dip and along-strike continuations of the mineralized units. It would be preferable first to run an I.P. - EM survey over a 2.2 x 0.9km grid covering the subcrop of Units D and F to try to identify sulphide concentrations (Ruth-Vermont has abundant pyrite) which together with the stratigraphy would provide more specific targets for drilling.

The strong anomaly in Pb and Zn over 250-300 metres of Soil Line M2 occurs beneath a major quartzite bluff where there are known Pb and Zn showings in quartz veins. The anomaly could be derived from these showings or it might be derived from some of the shale units upslope. Further prospecting, mapping and sampling is warranted.

G.J. Dickie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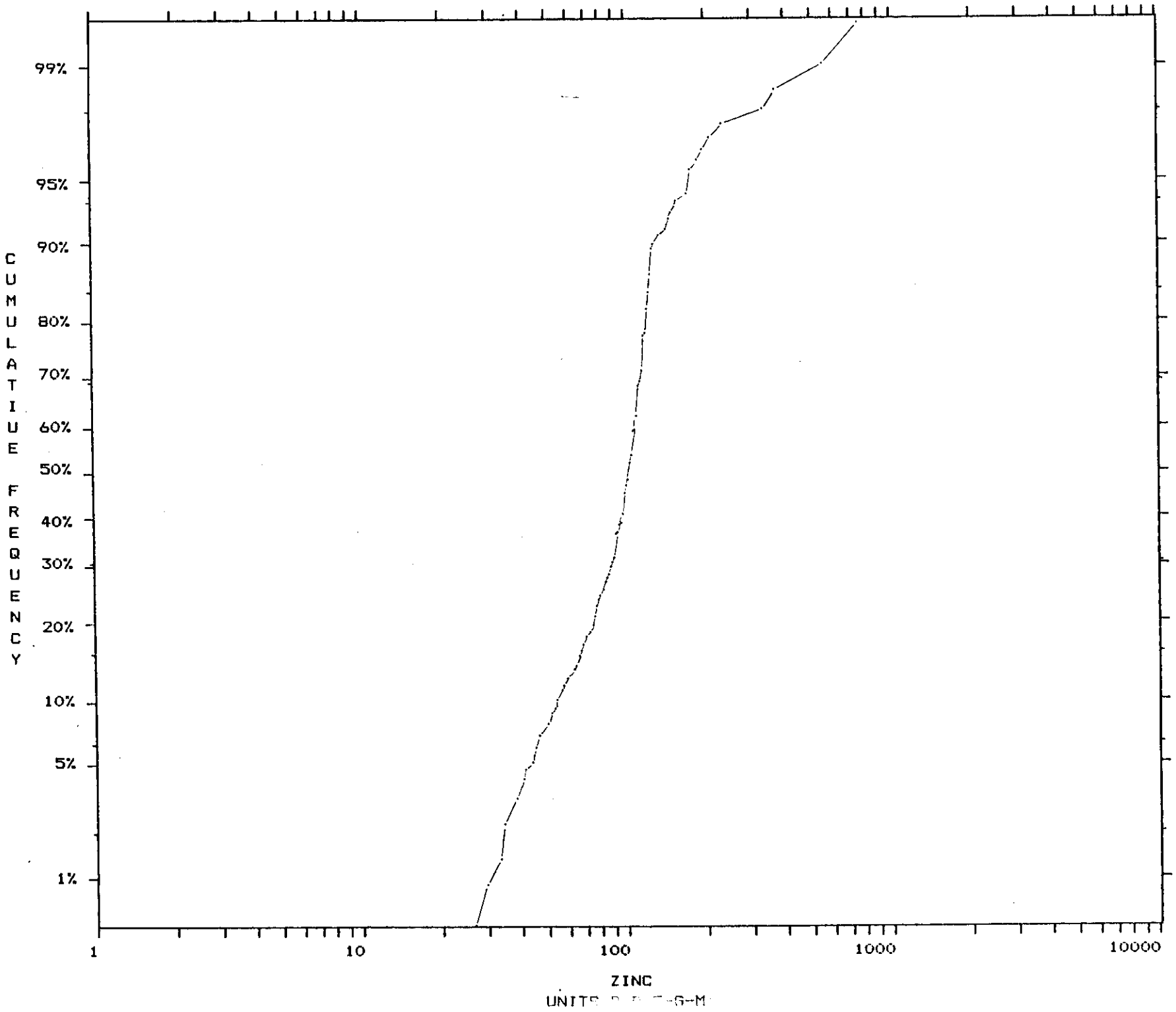
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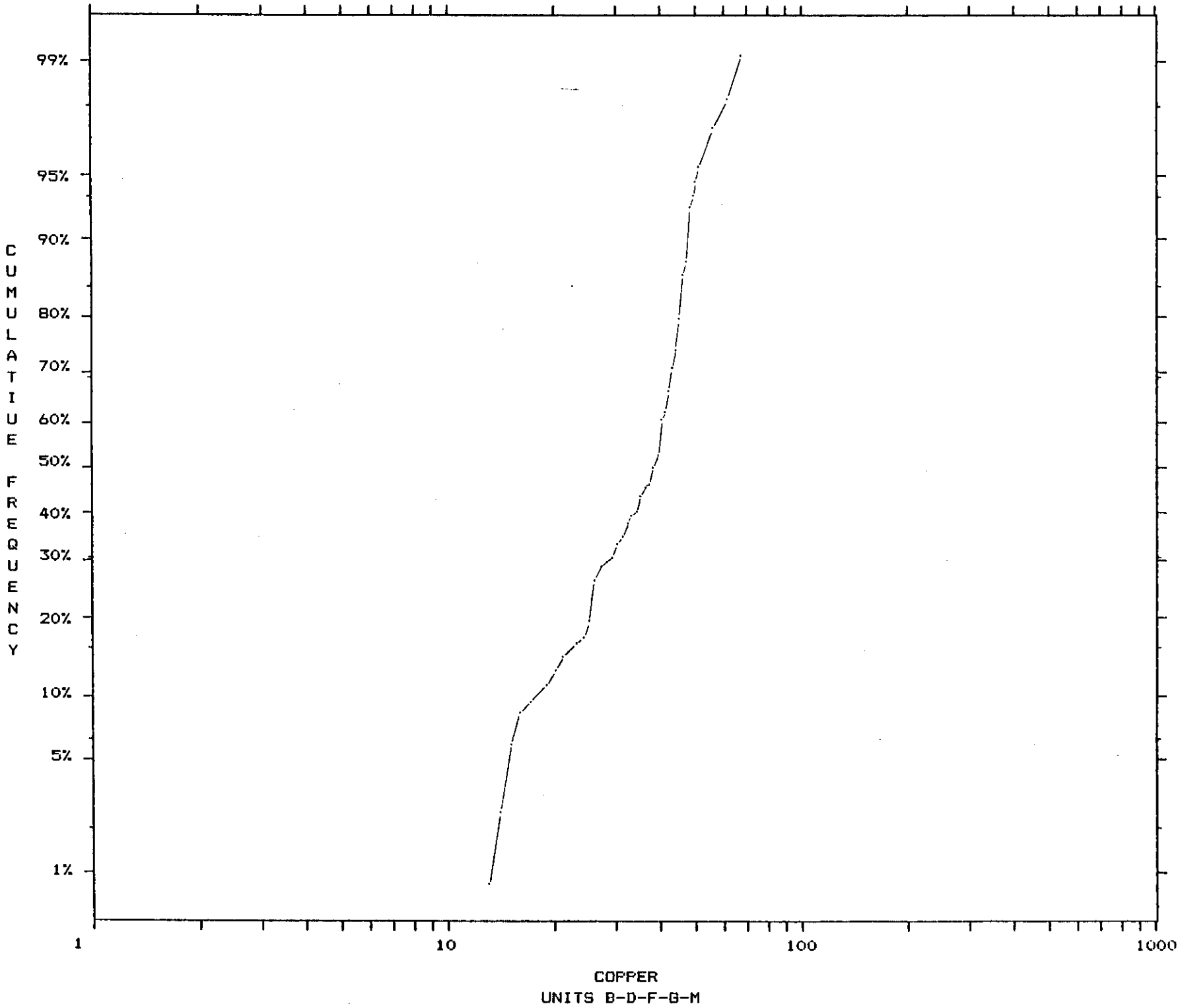
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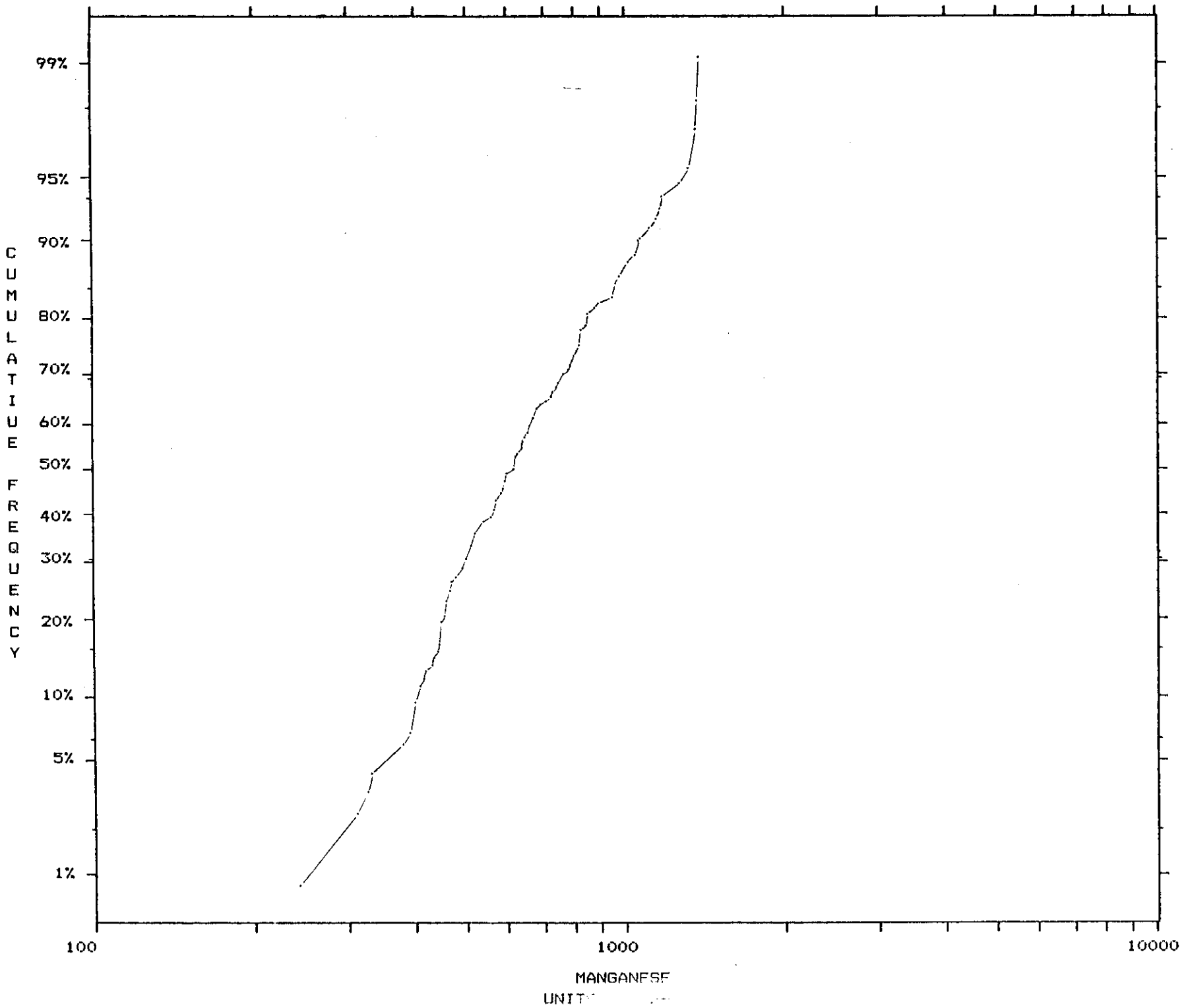
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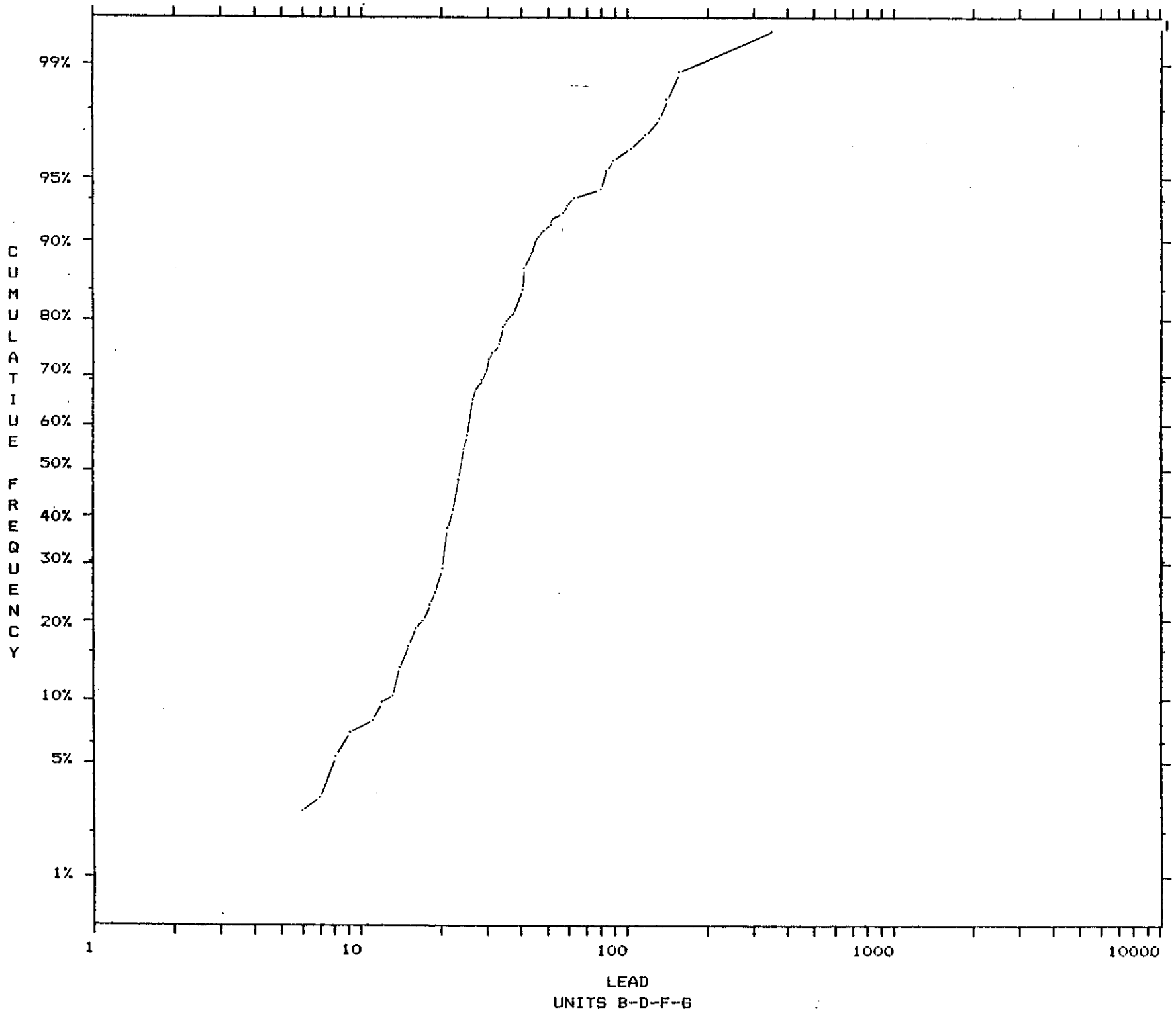
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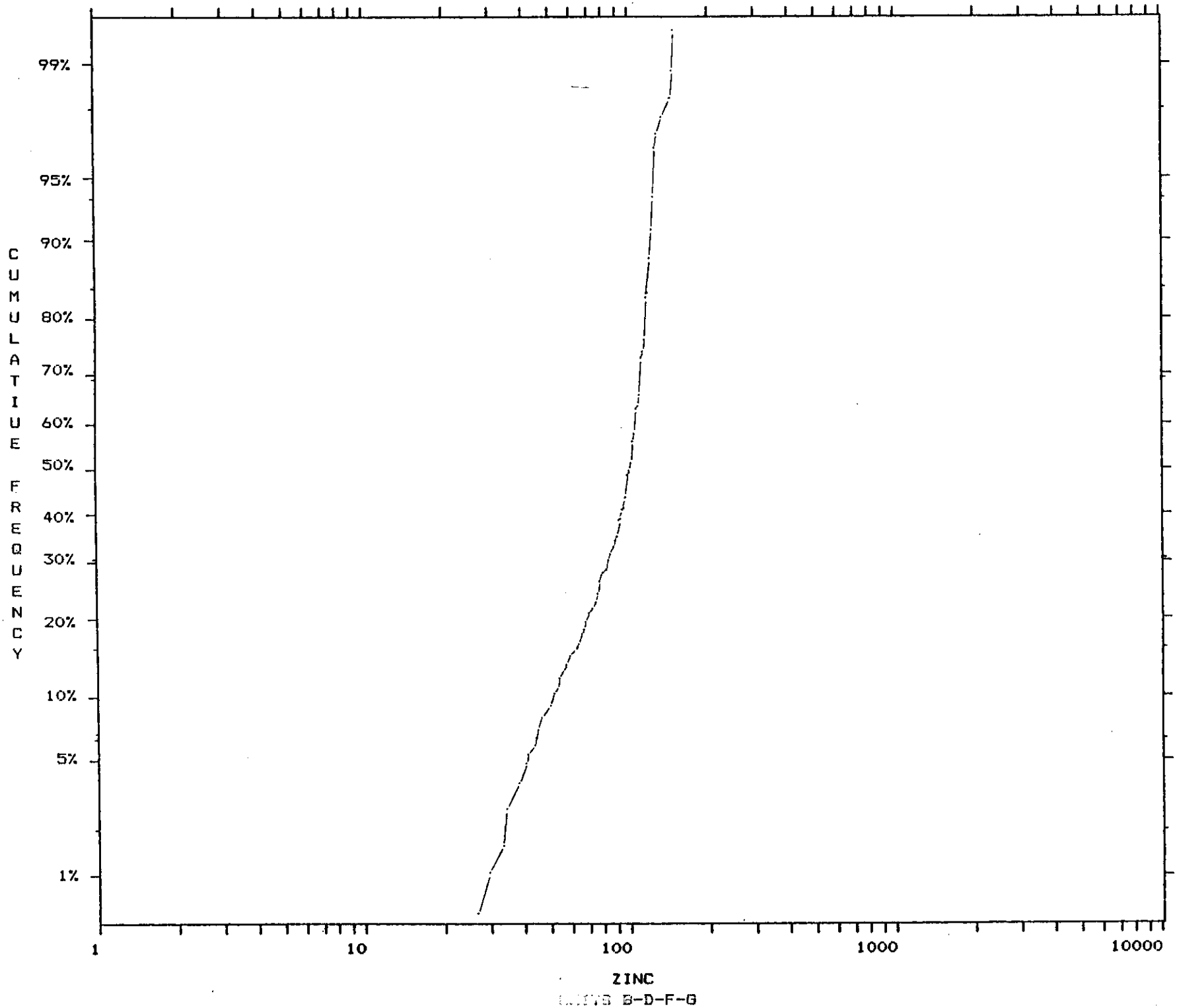
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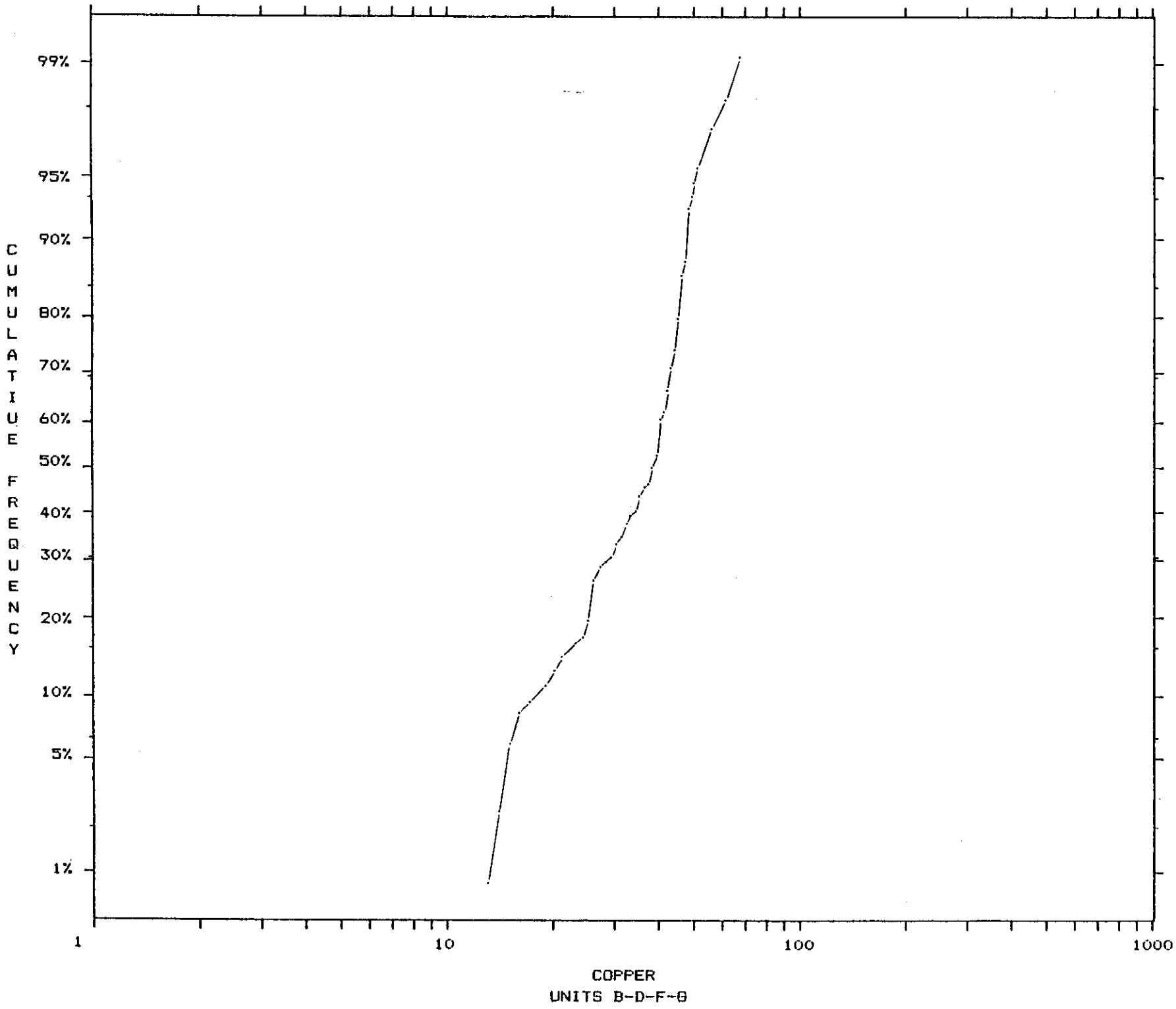
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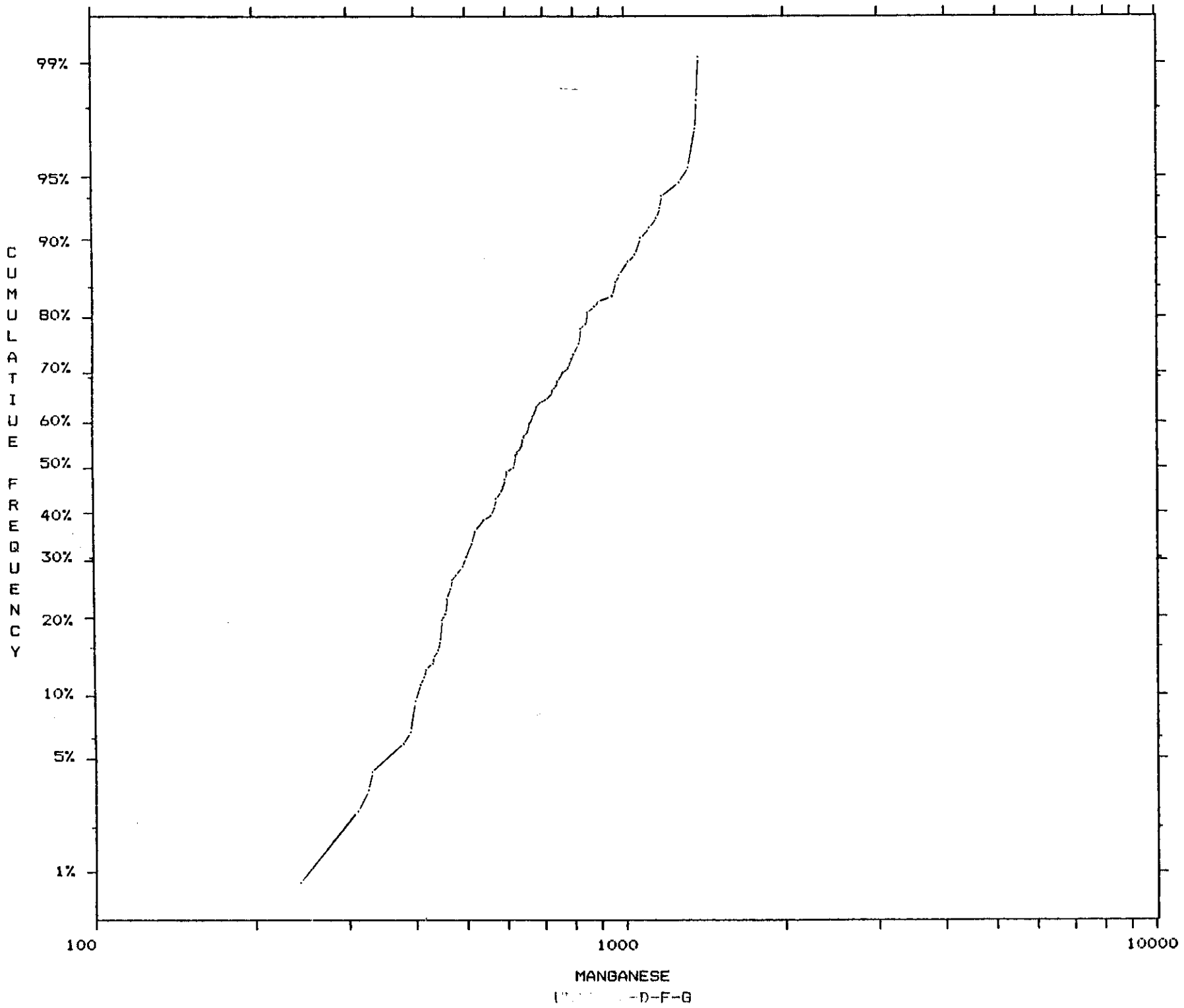
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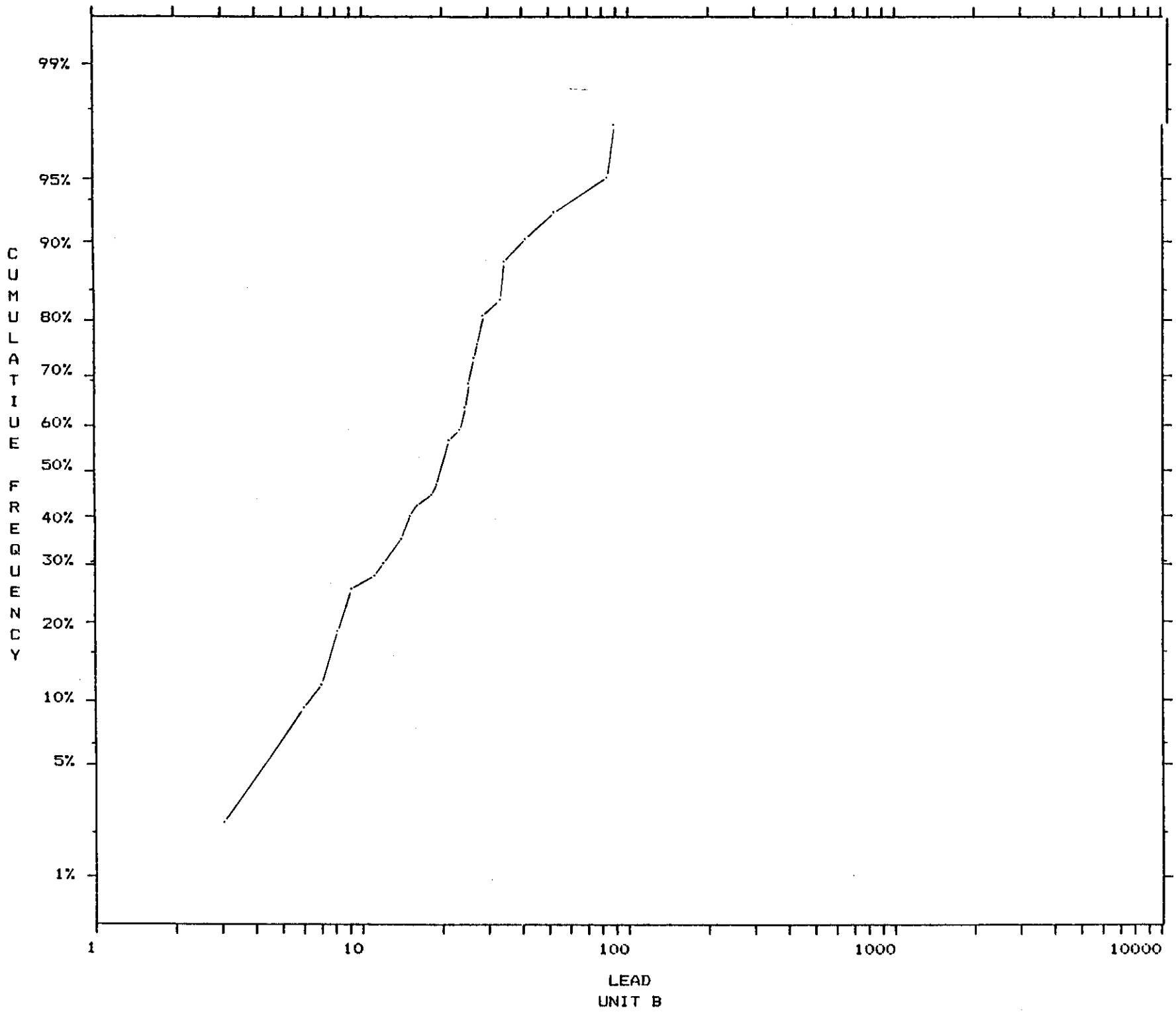
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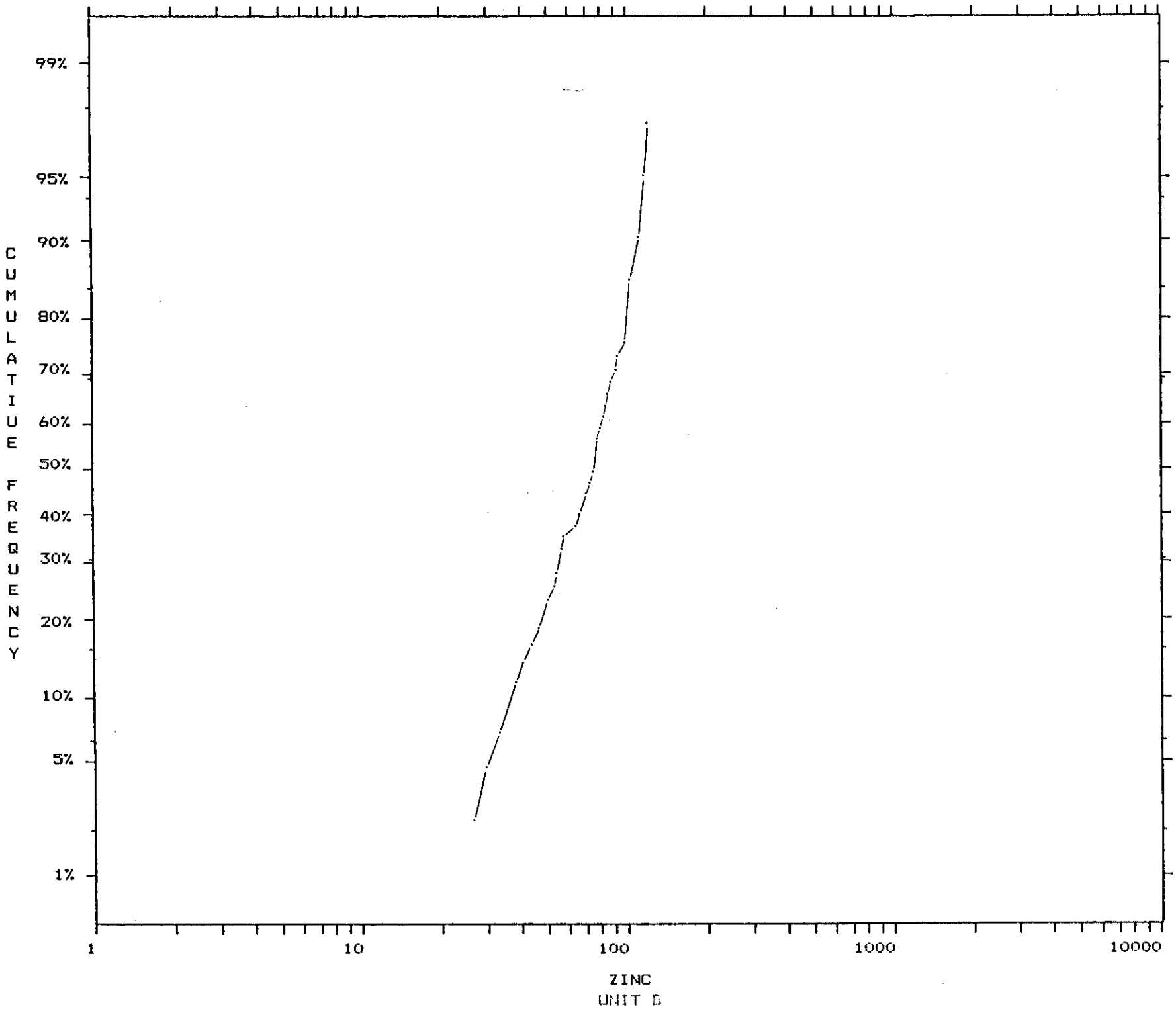
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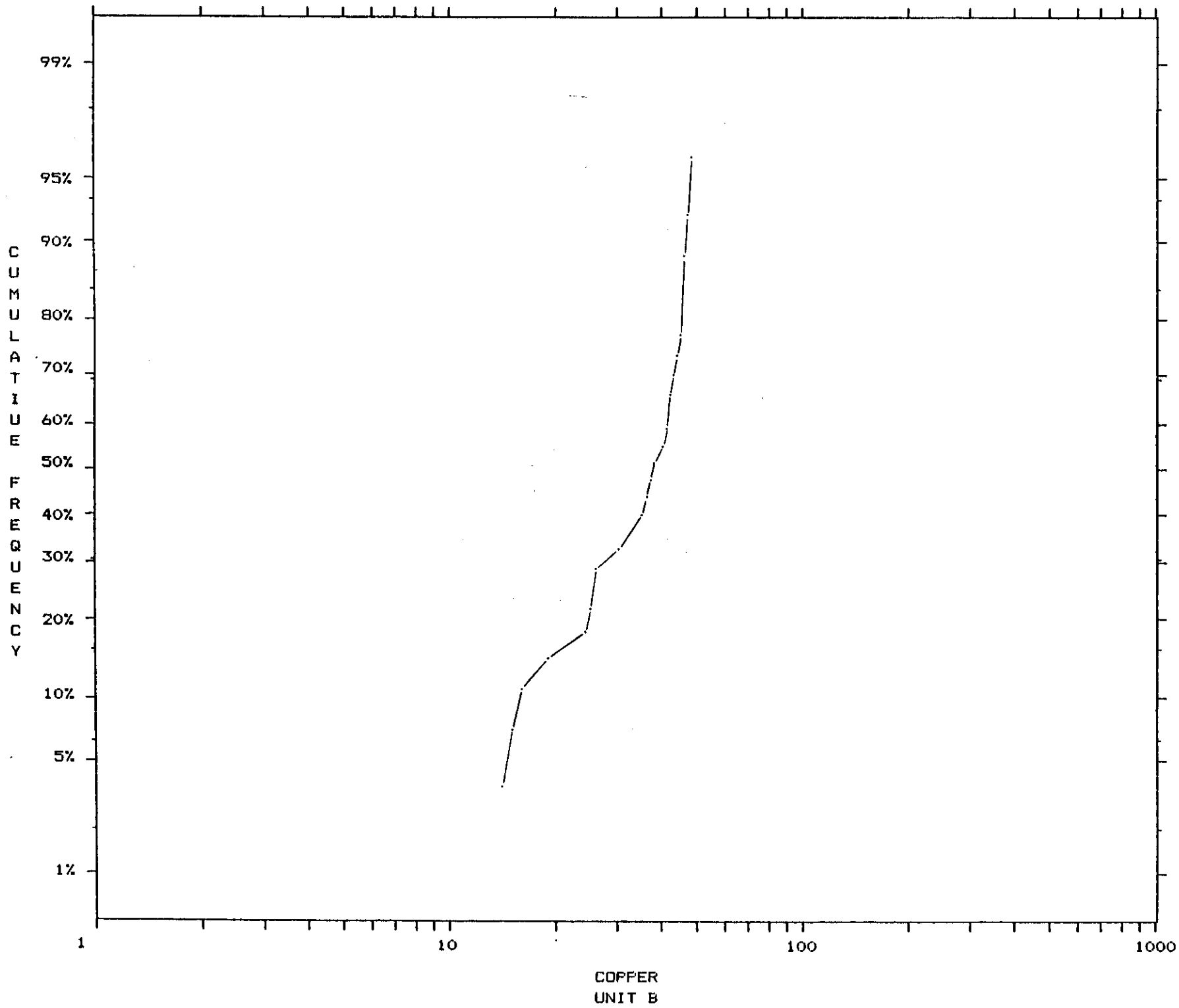
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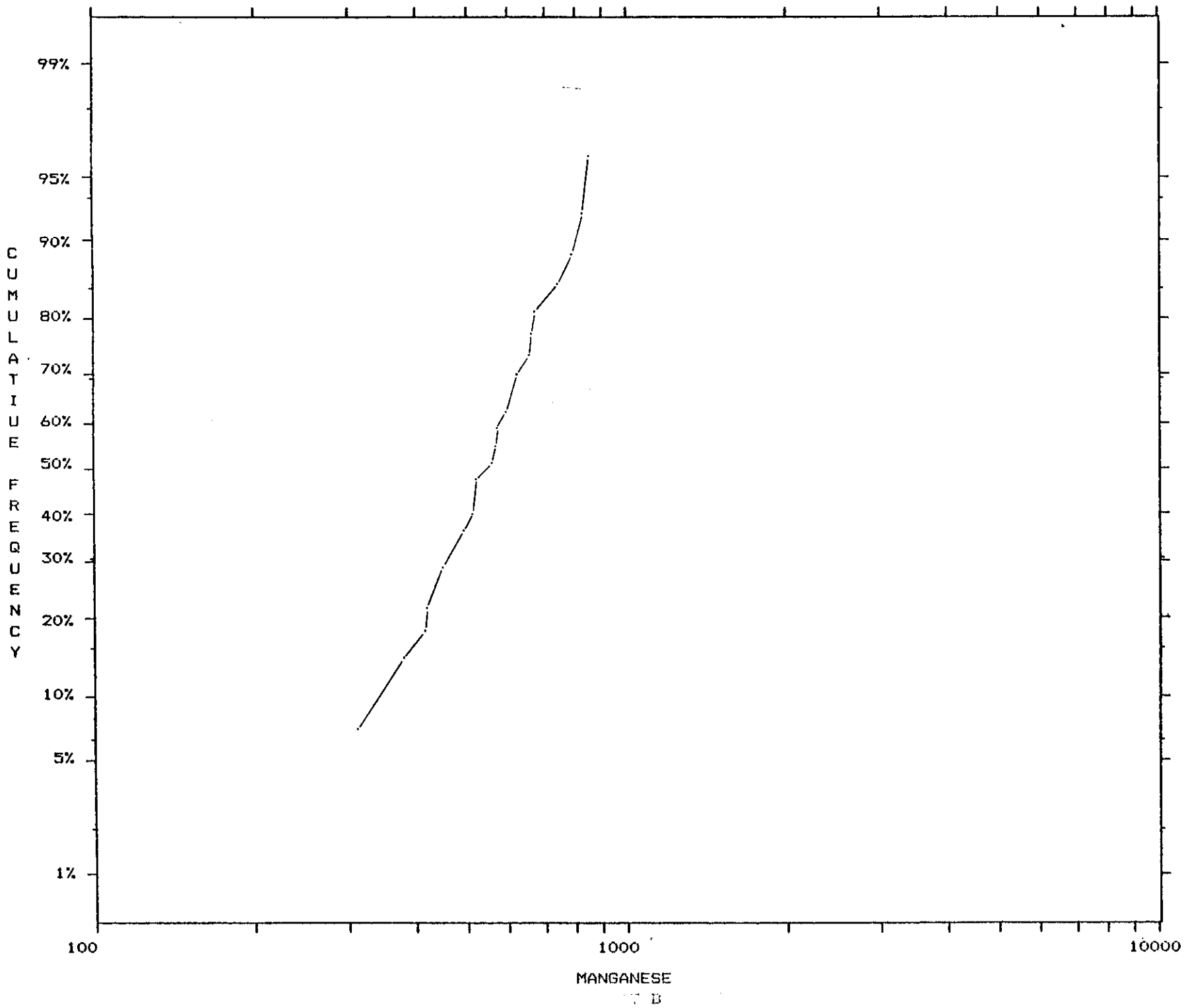
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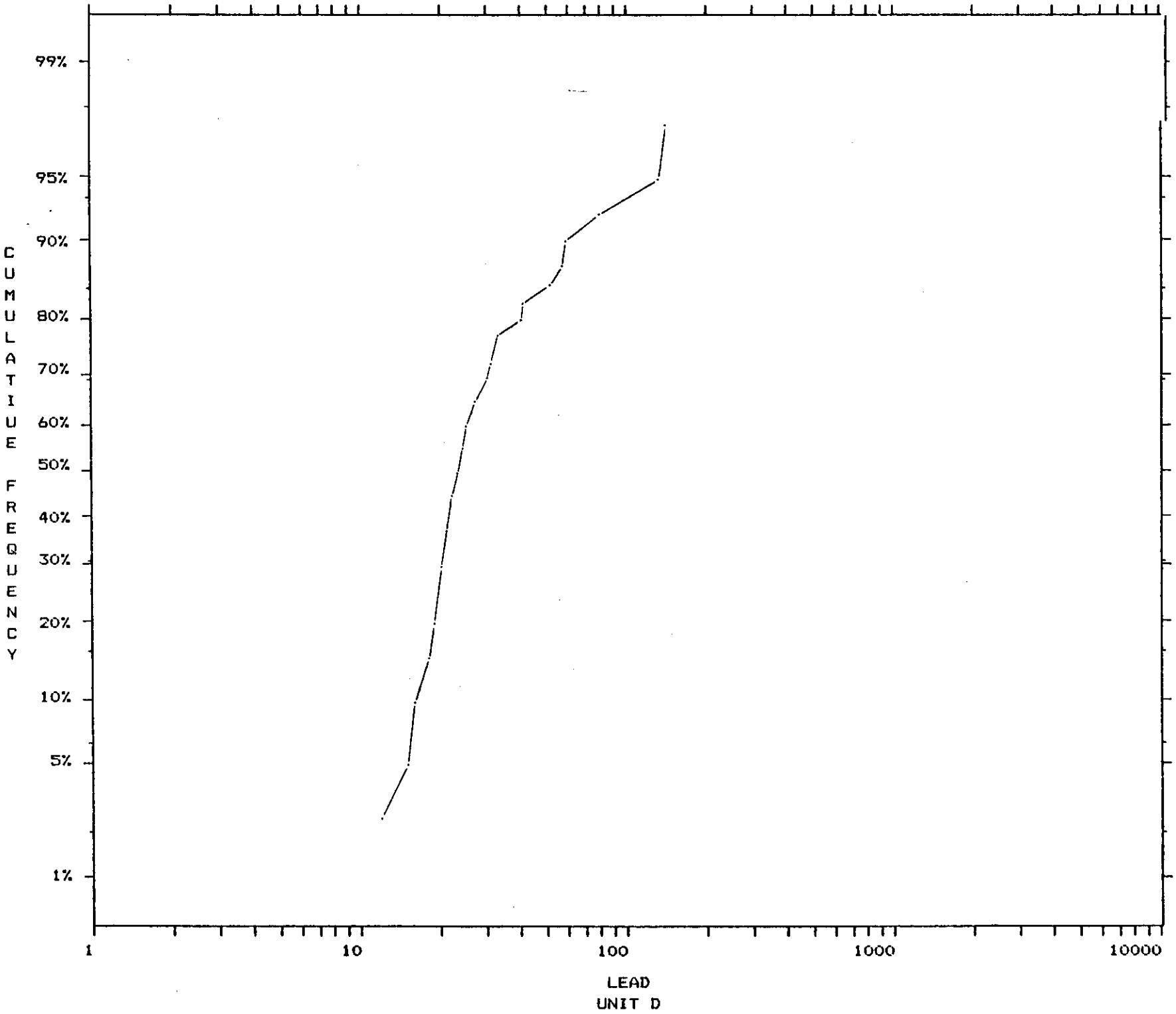
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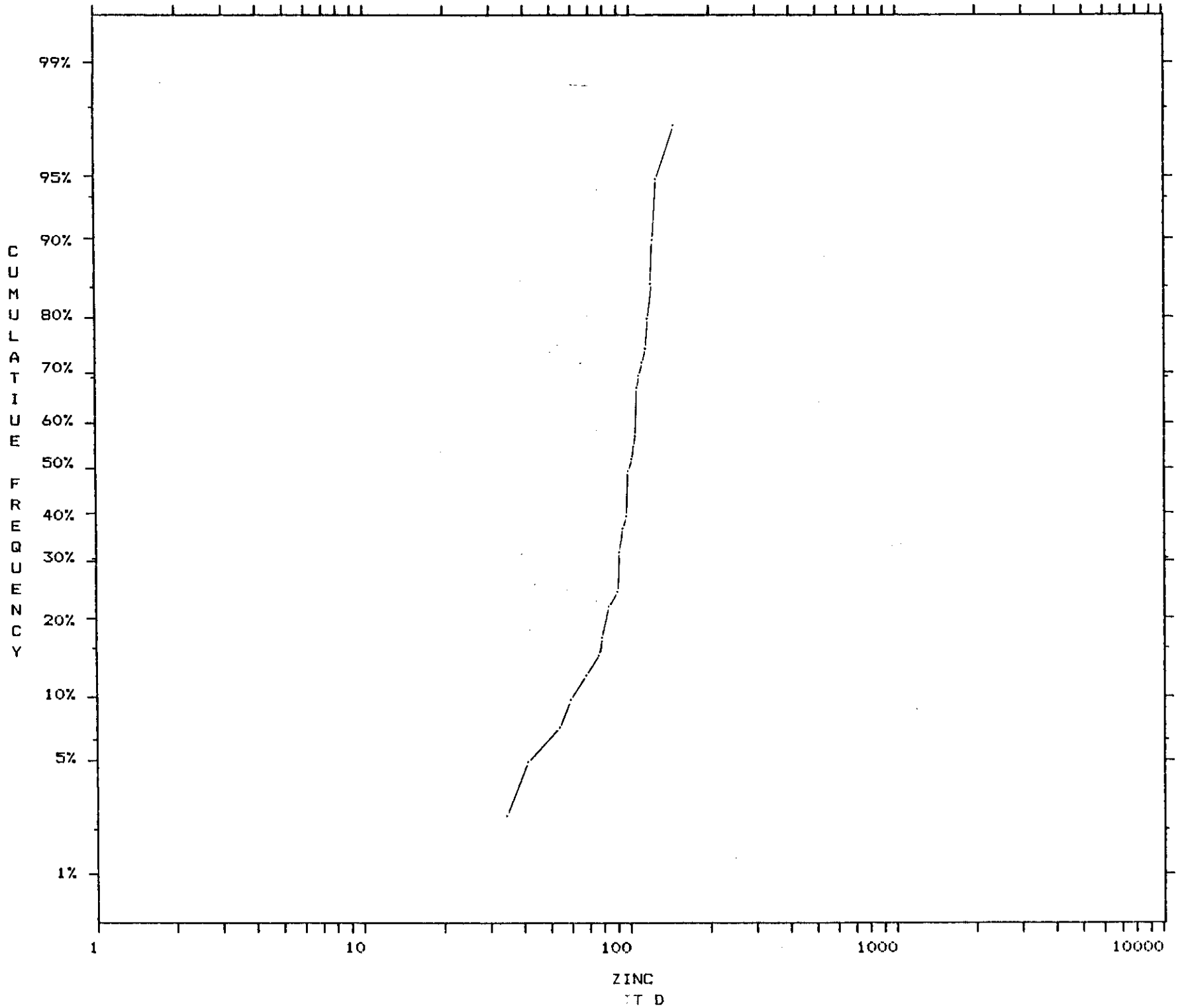
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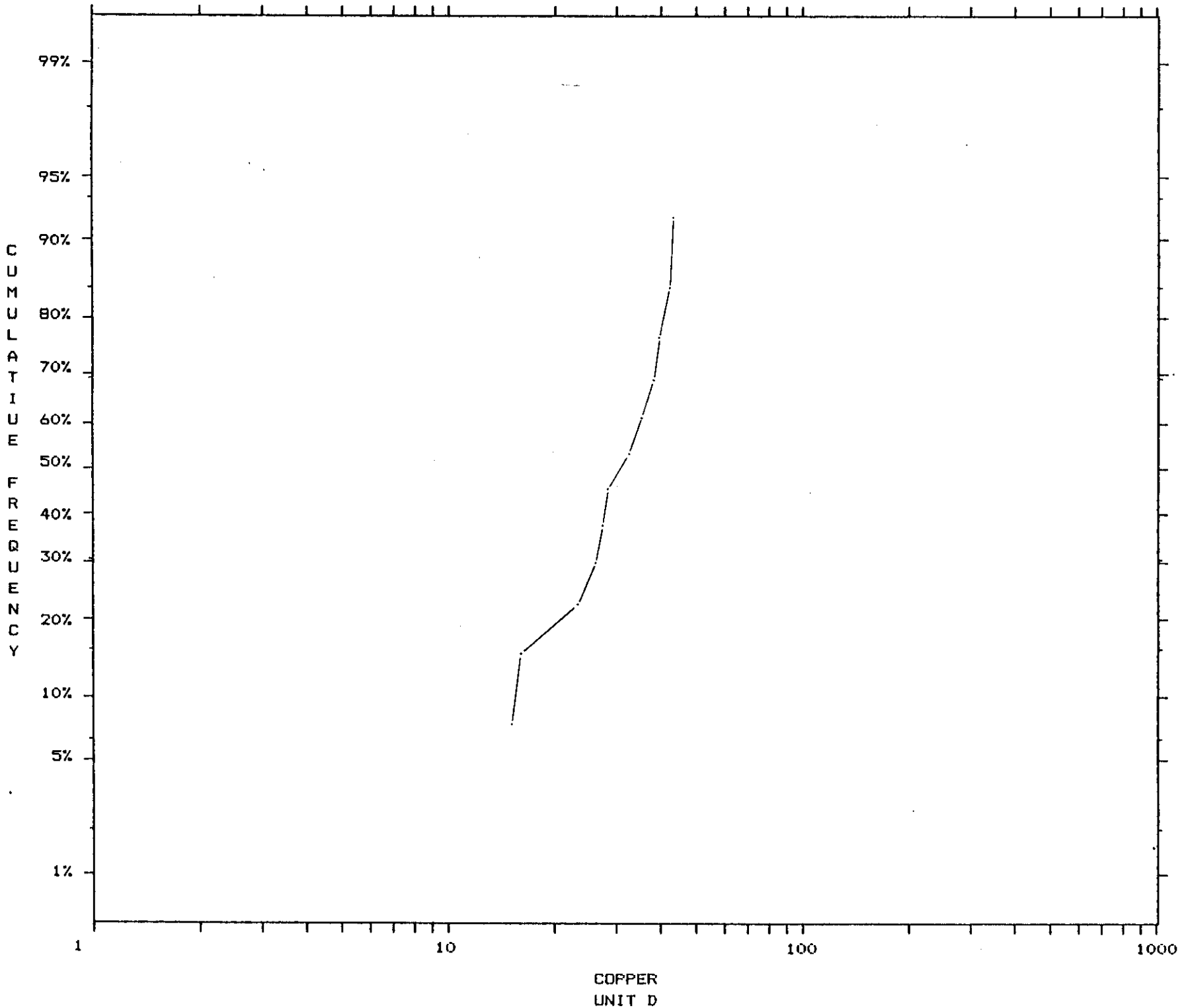
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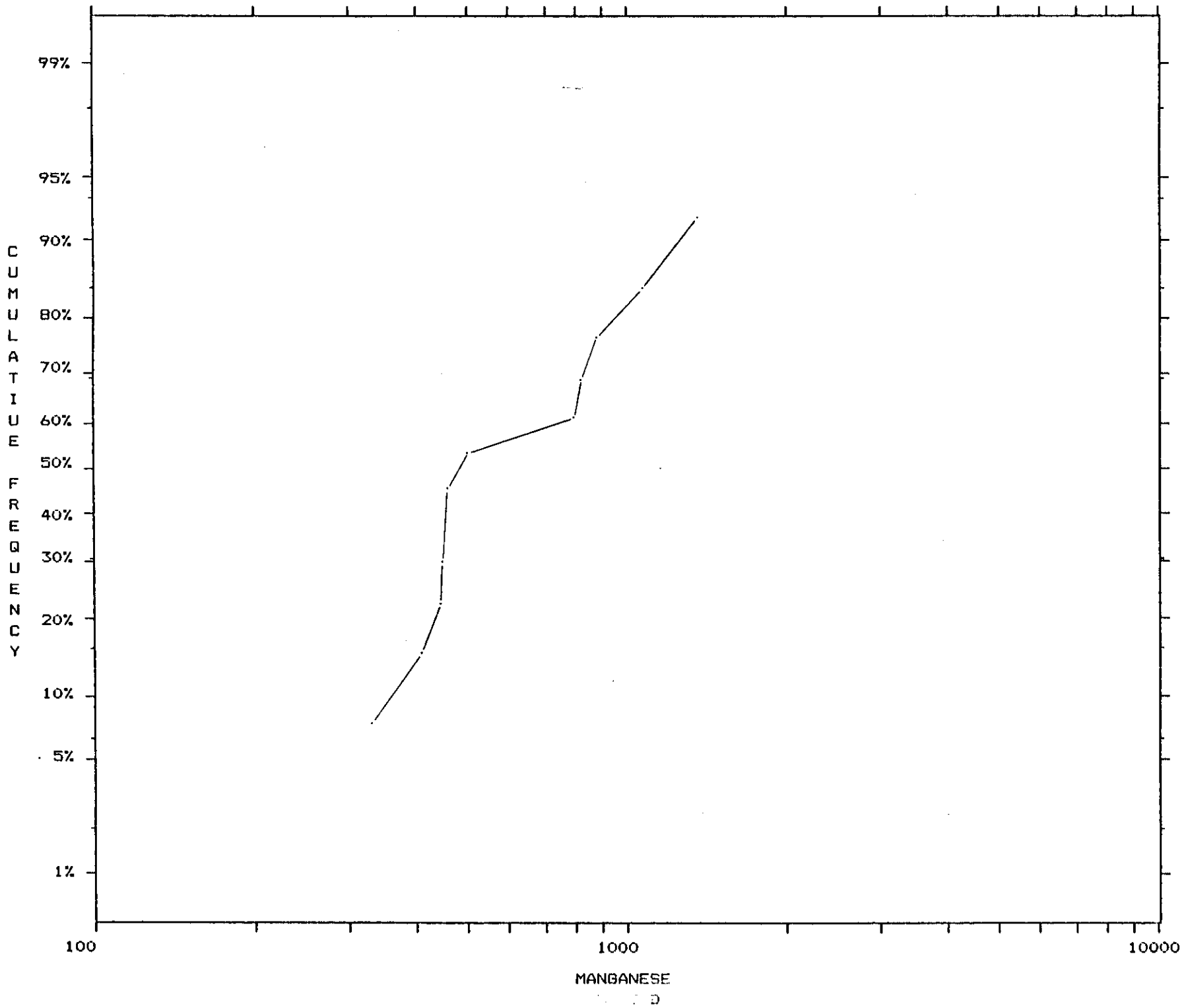
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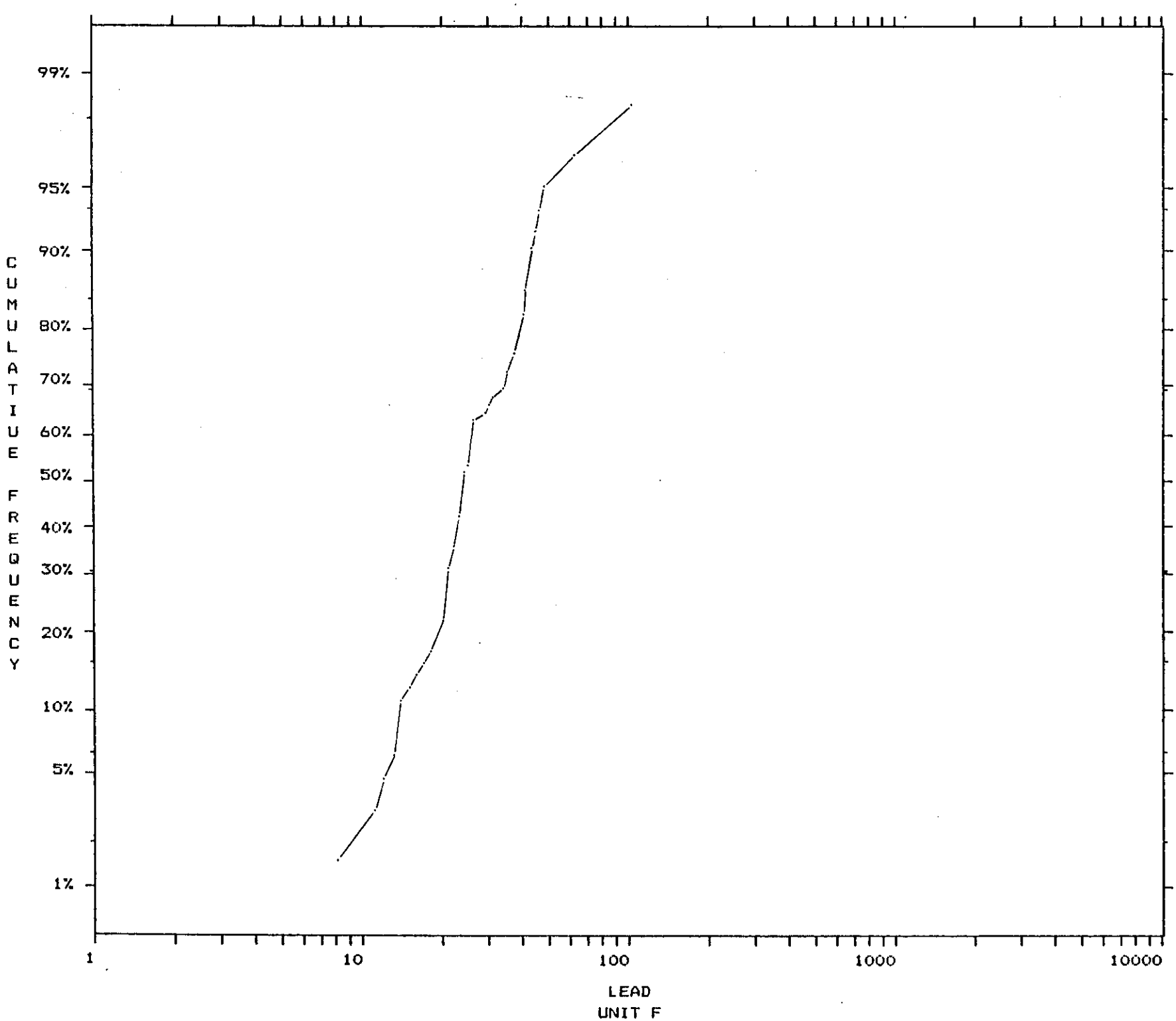
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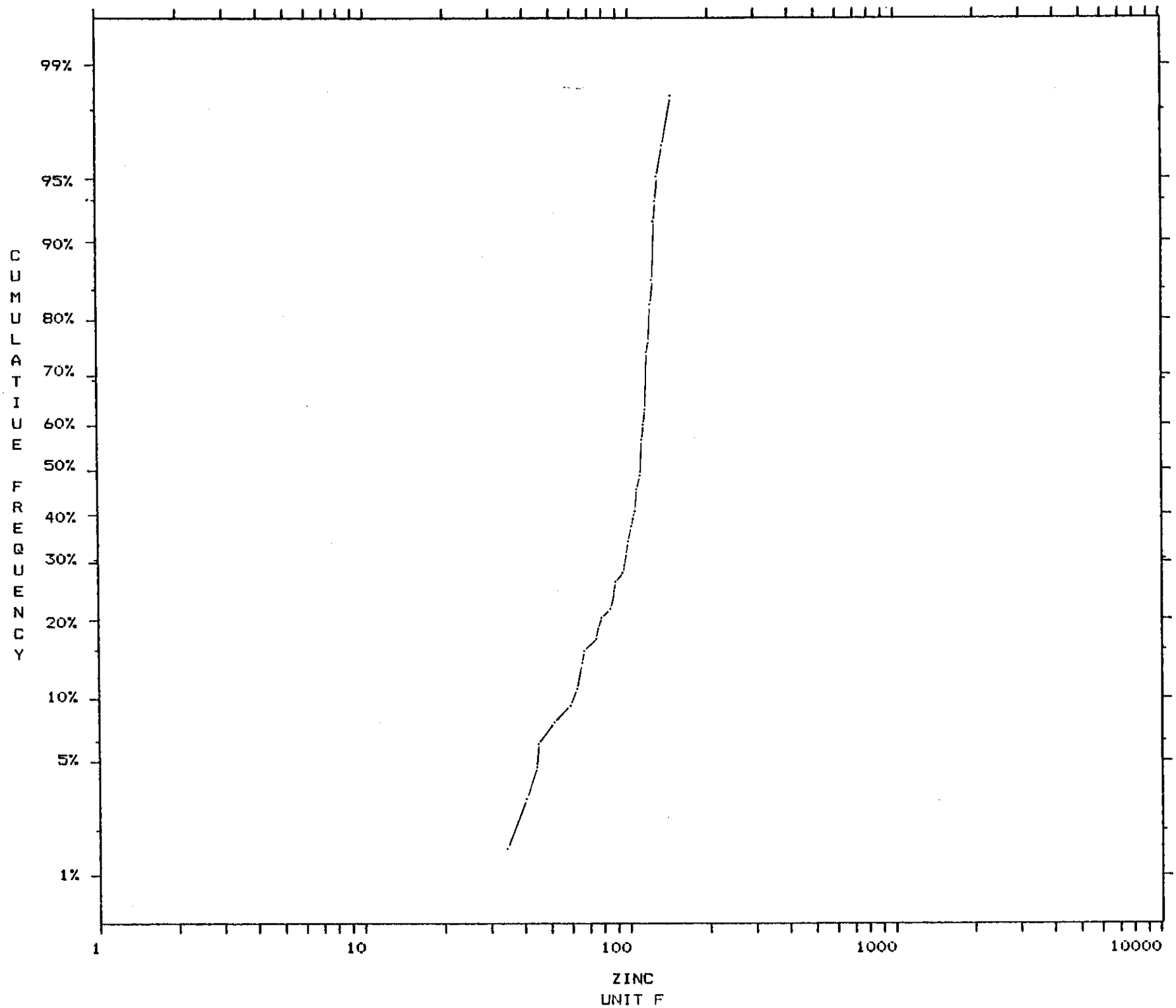
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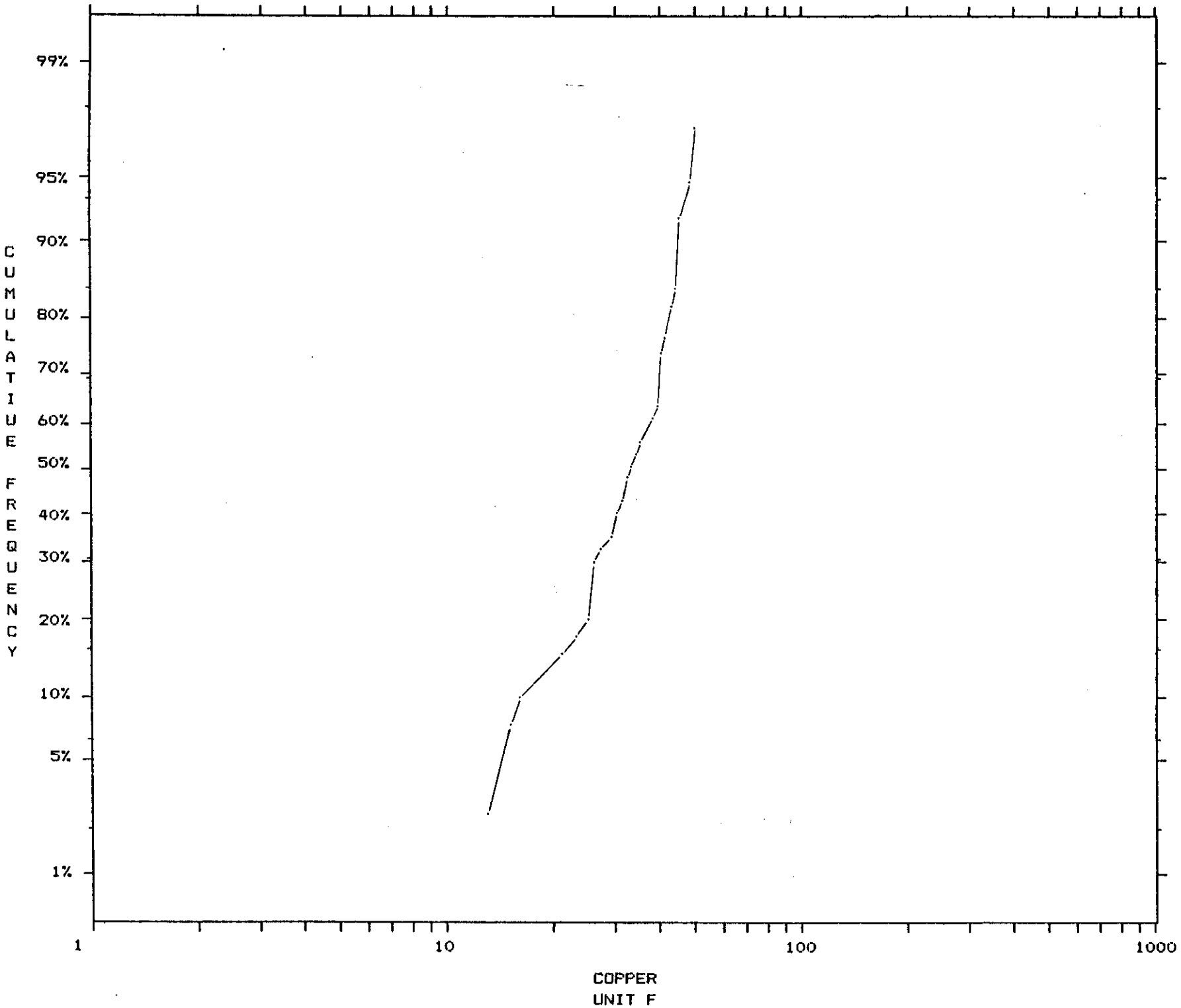
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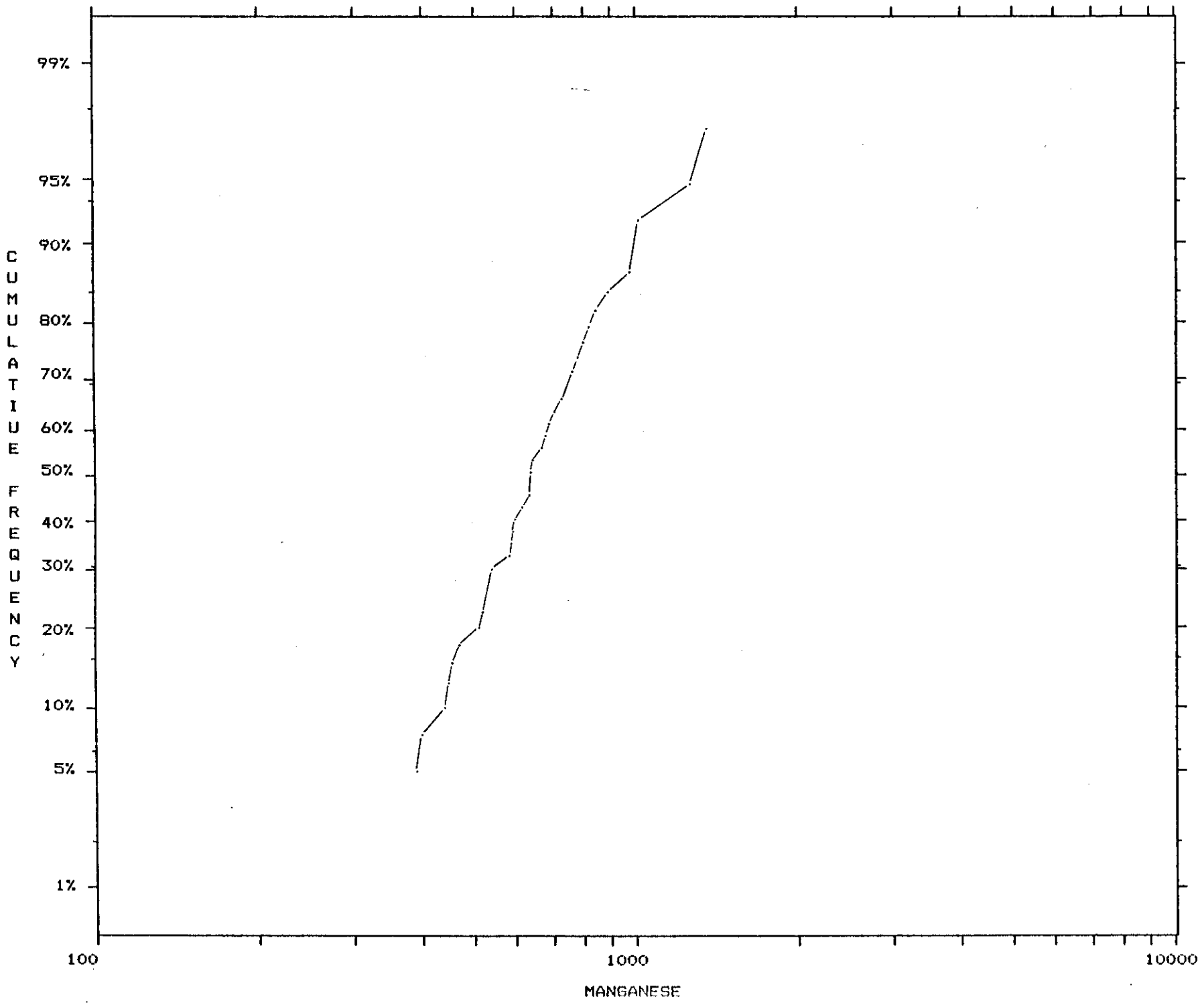
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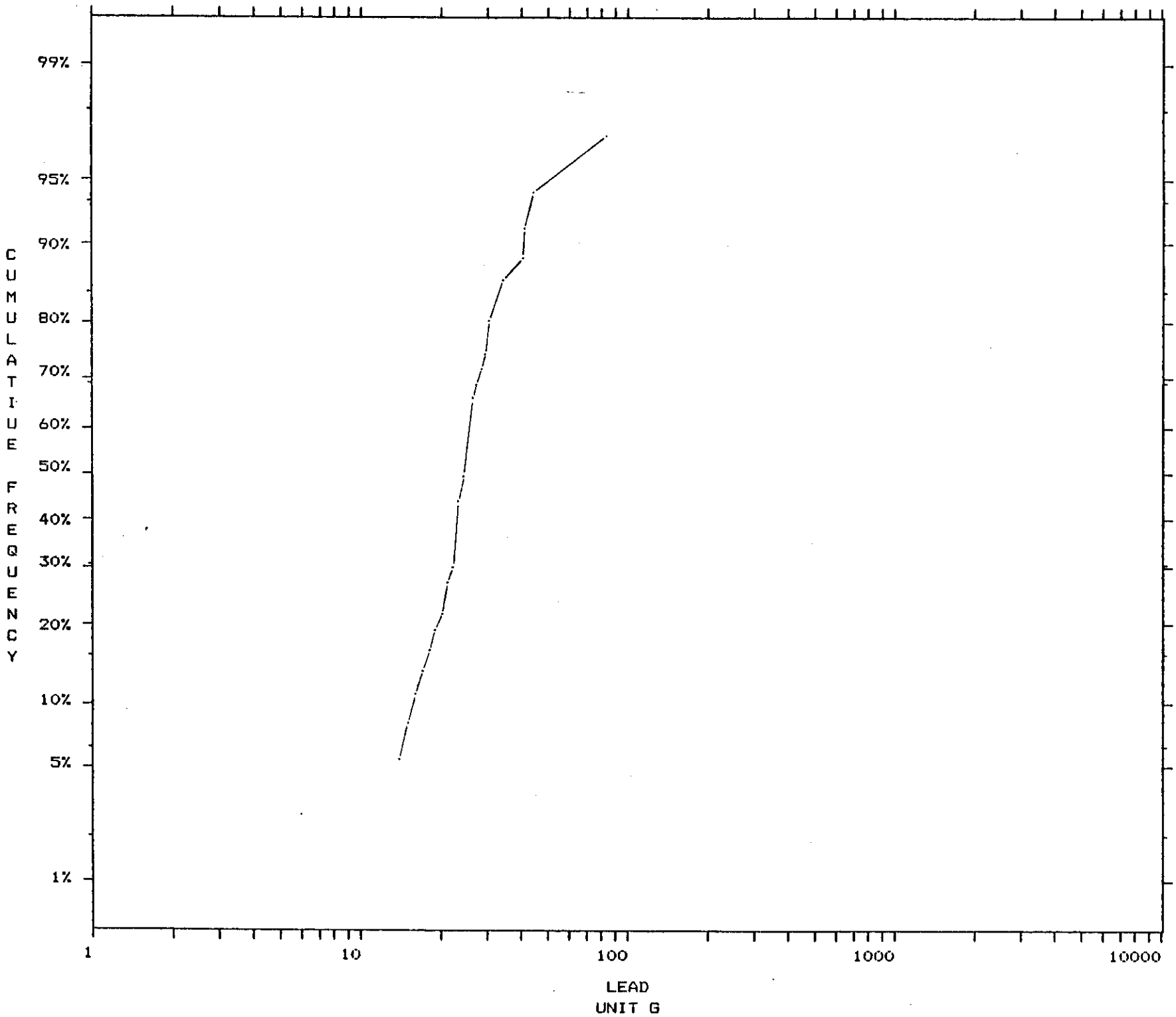
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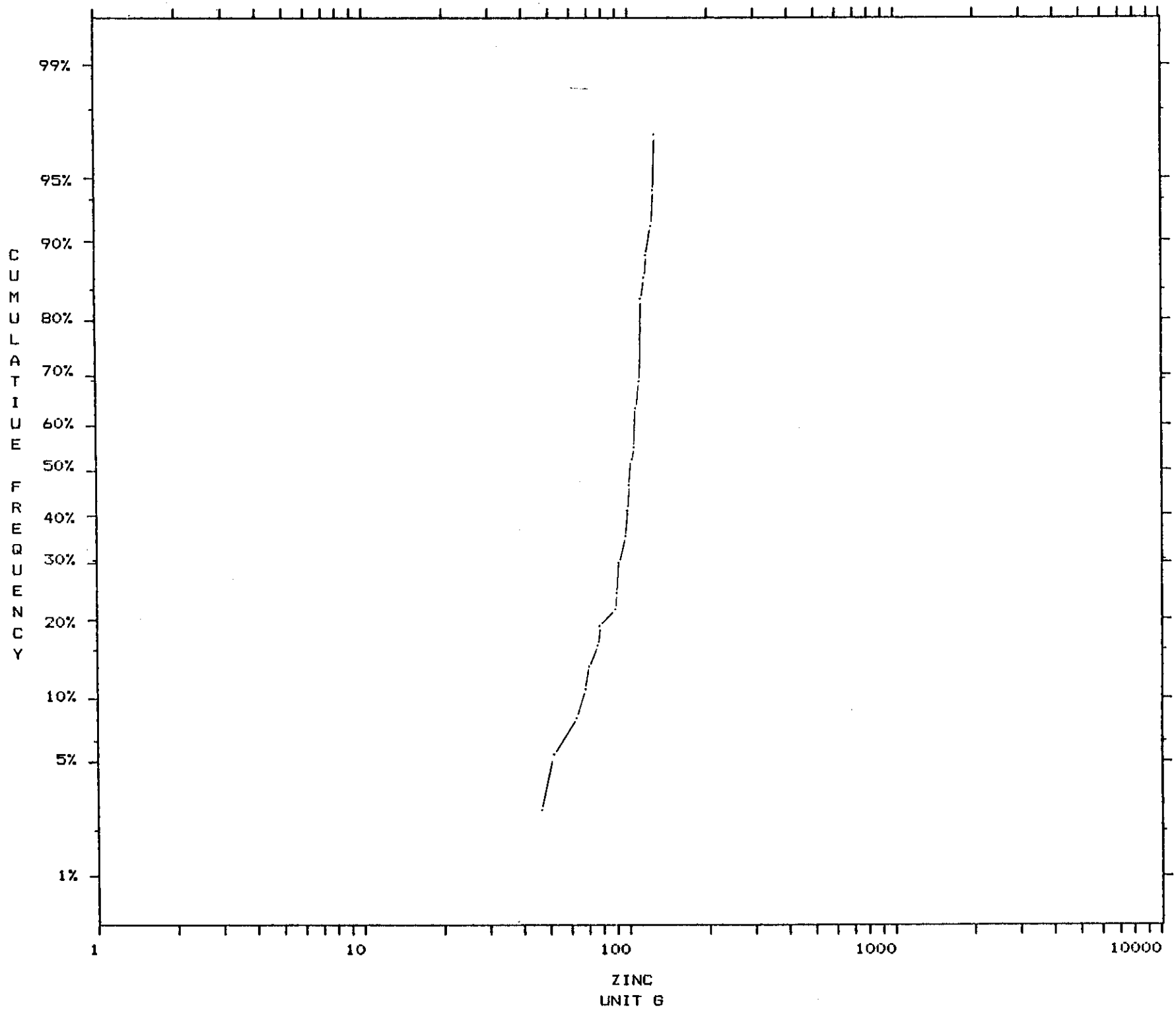
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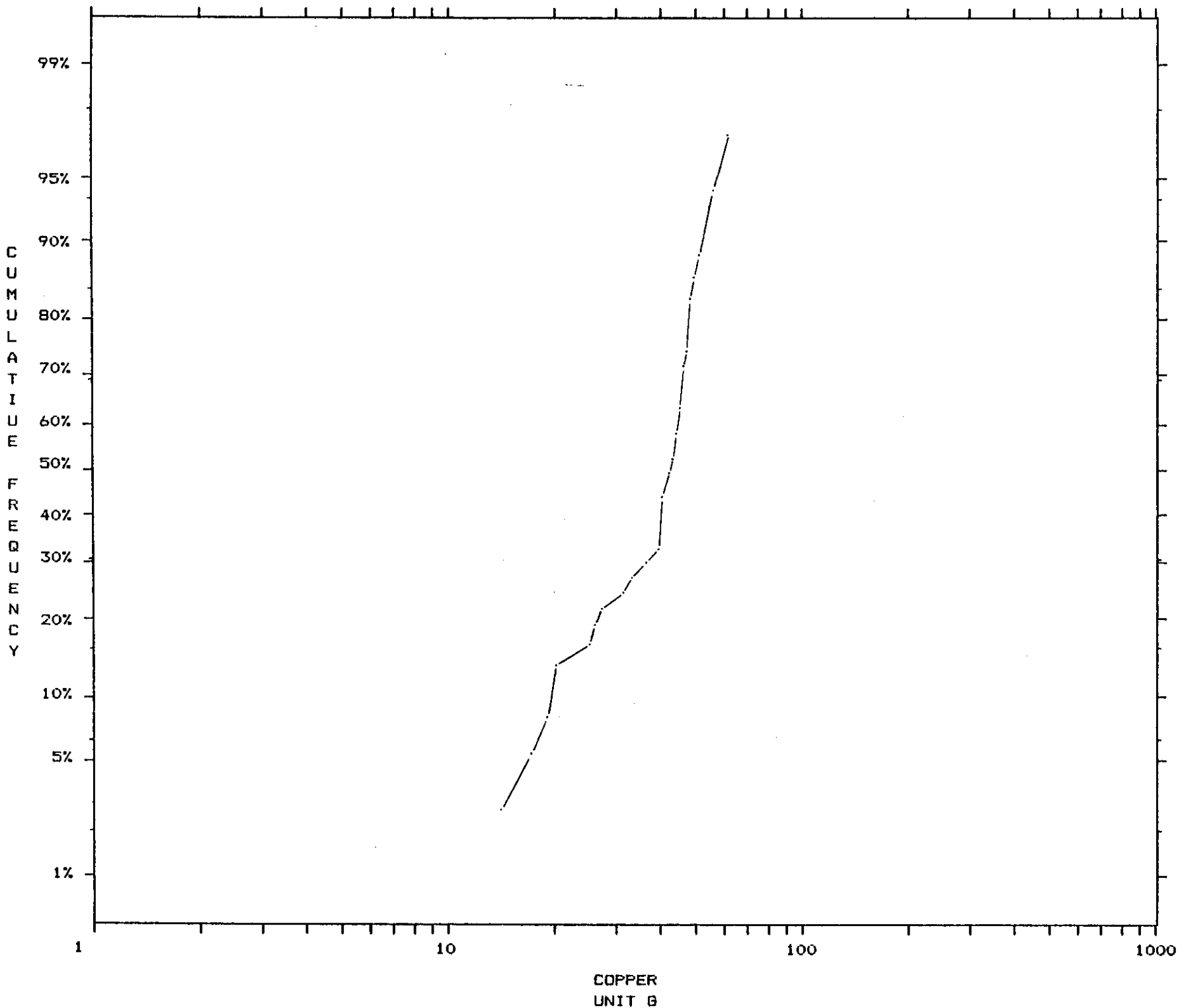
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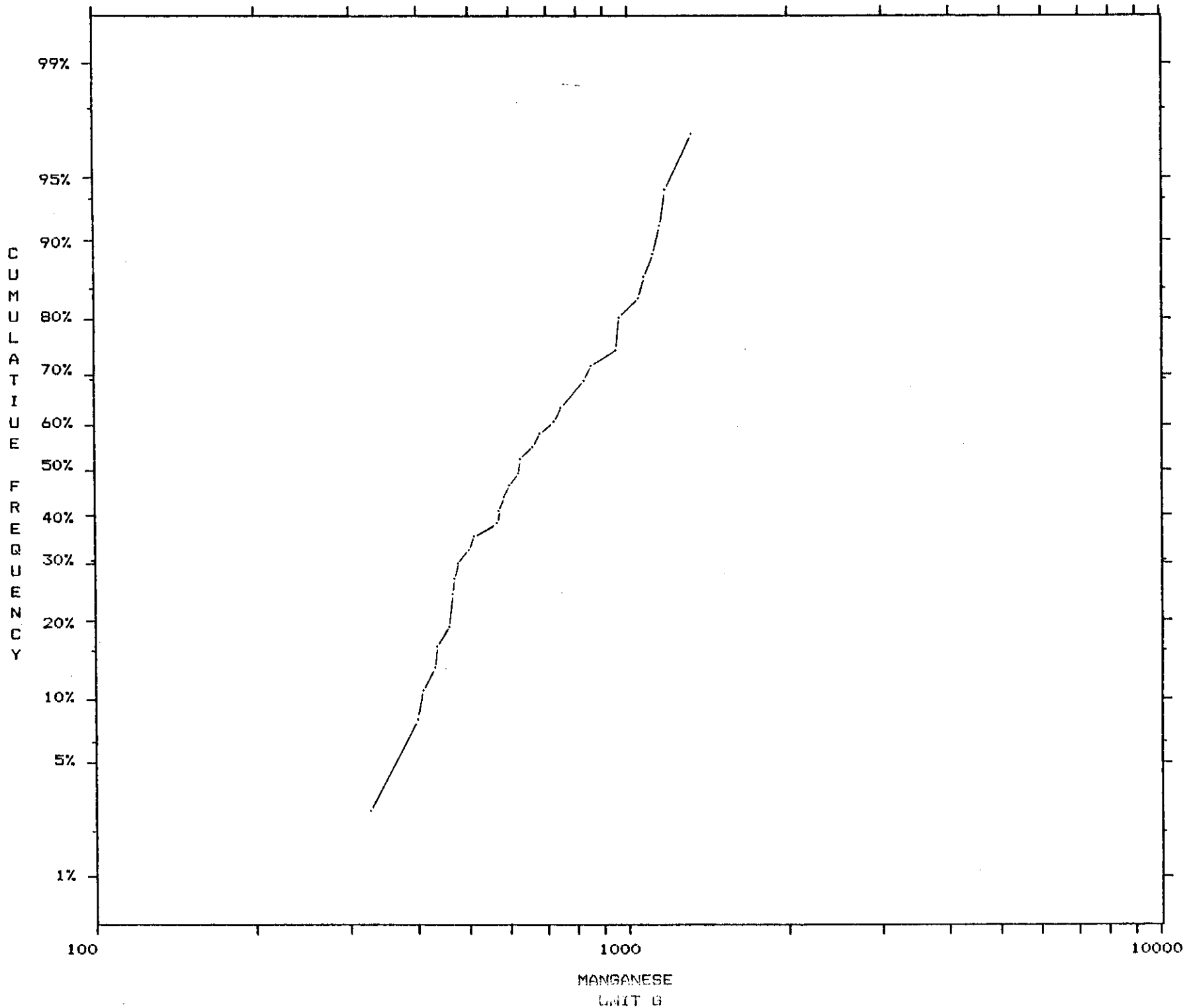
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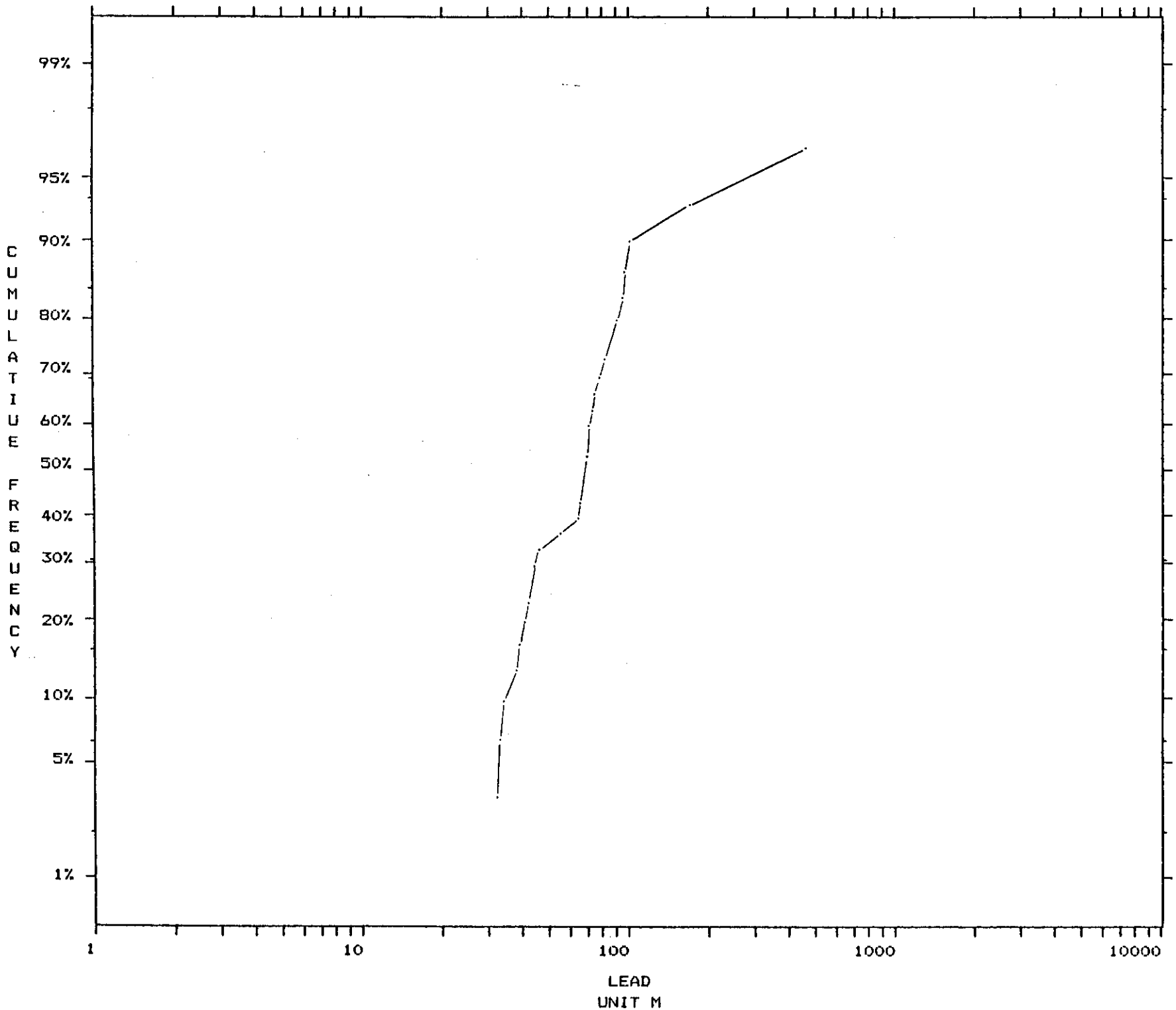
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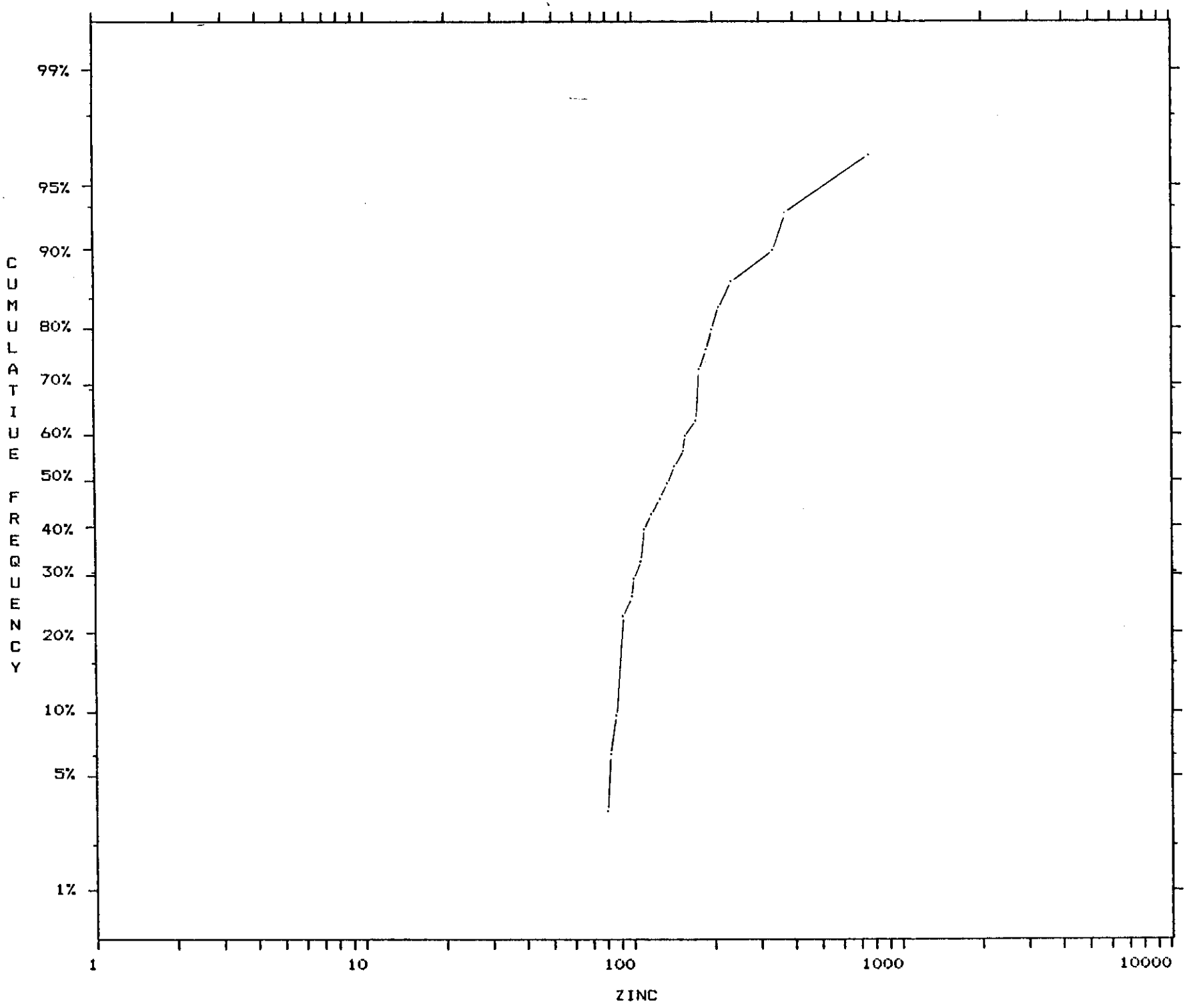
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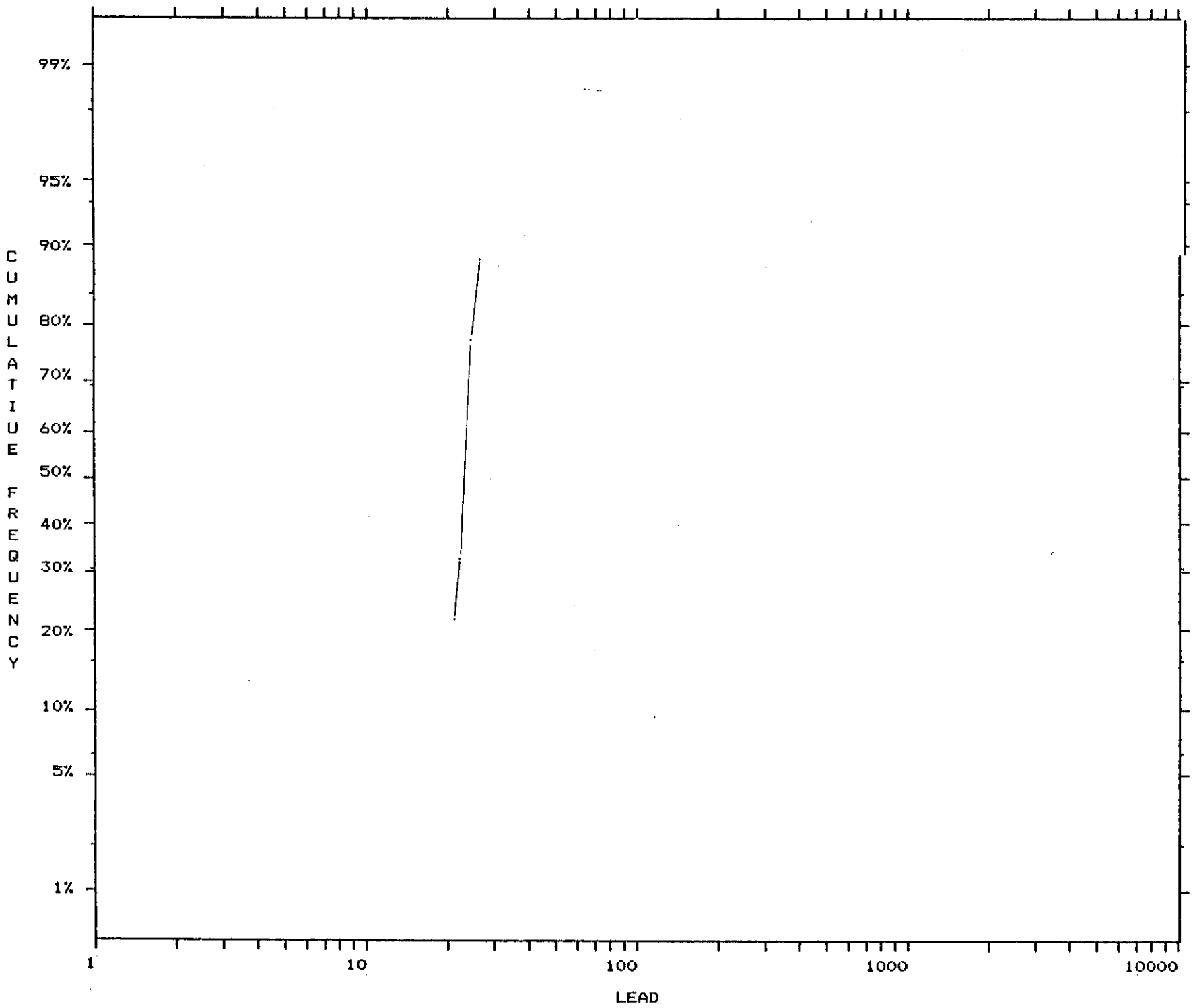
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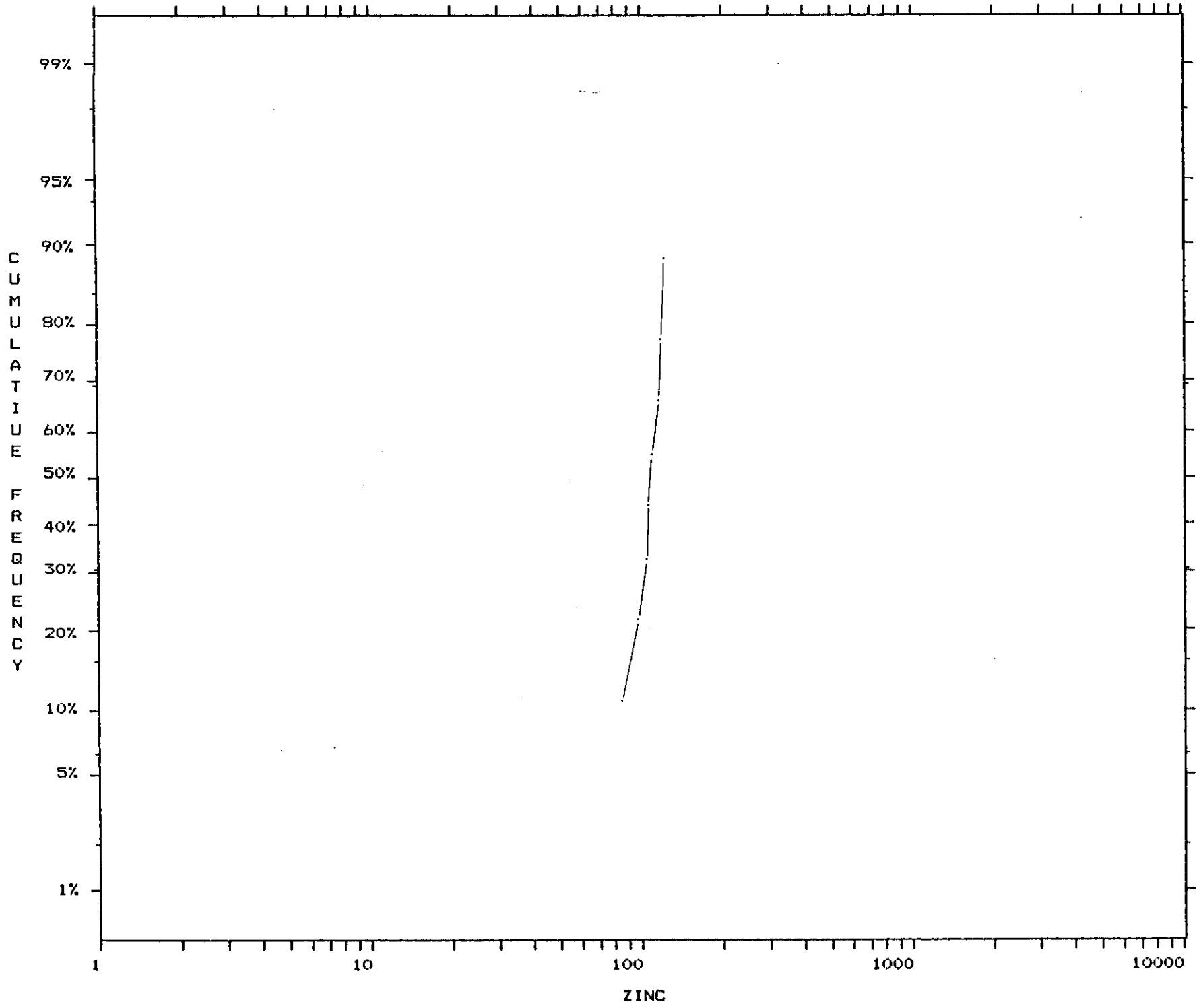
UNITS B-D-F-G-M LITH. SLSN-SLSH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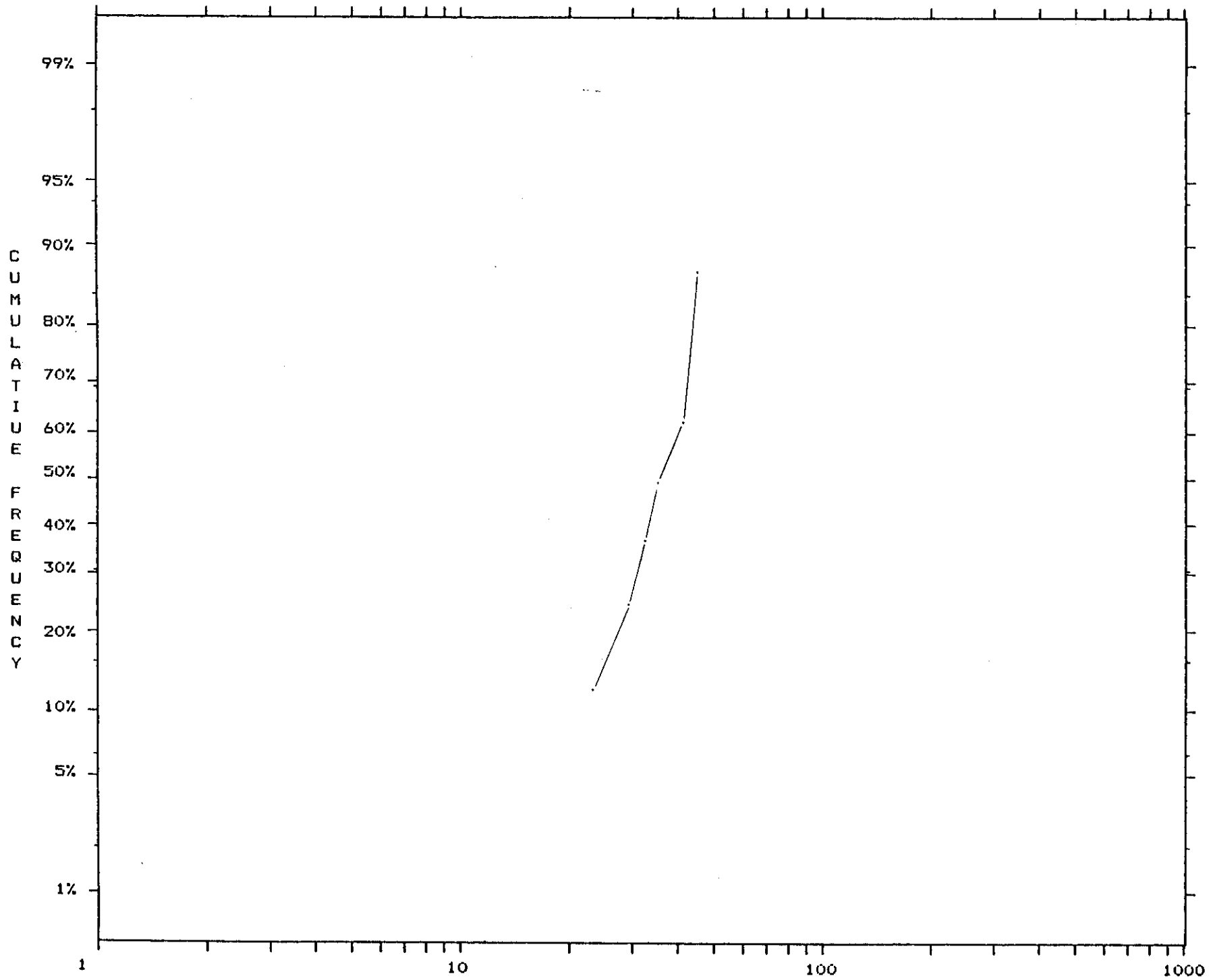
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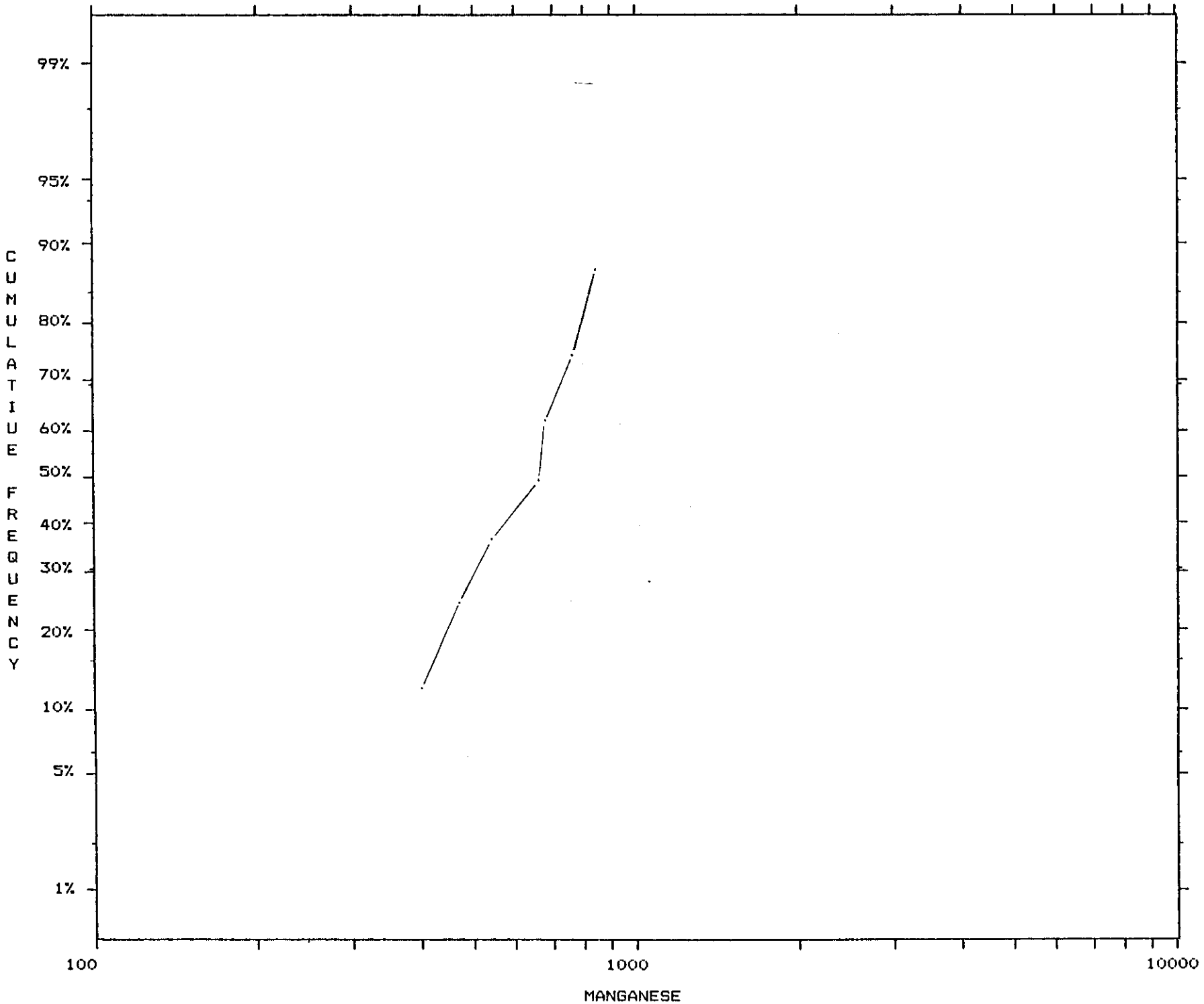
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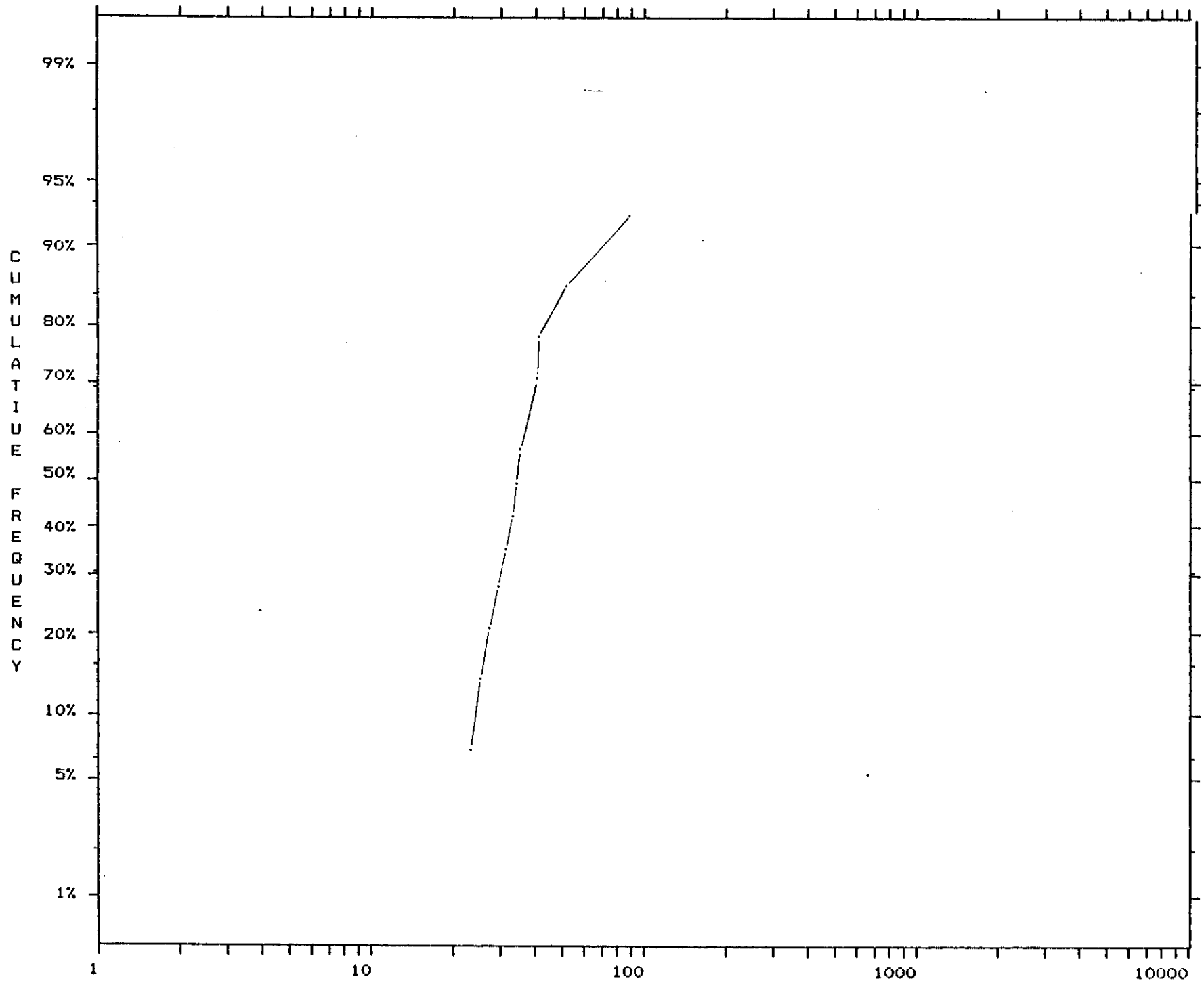
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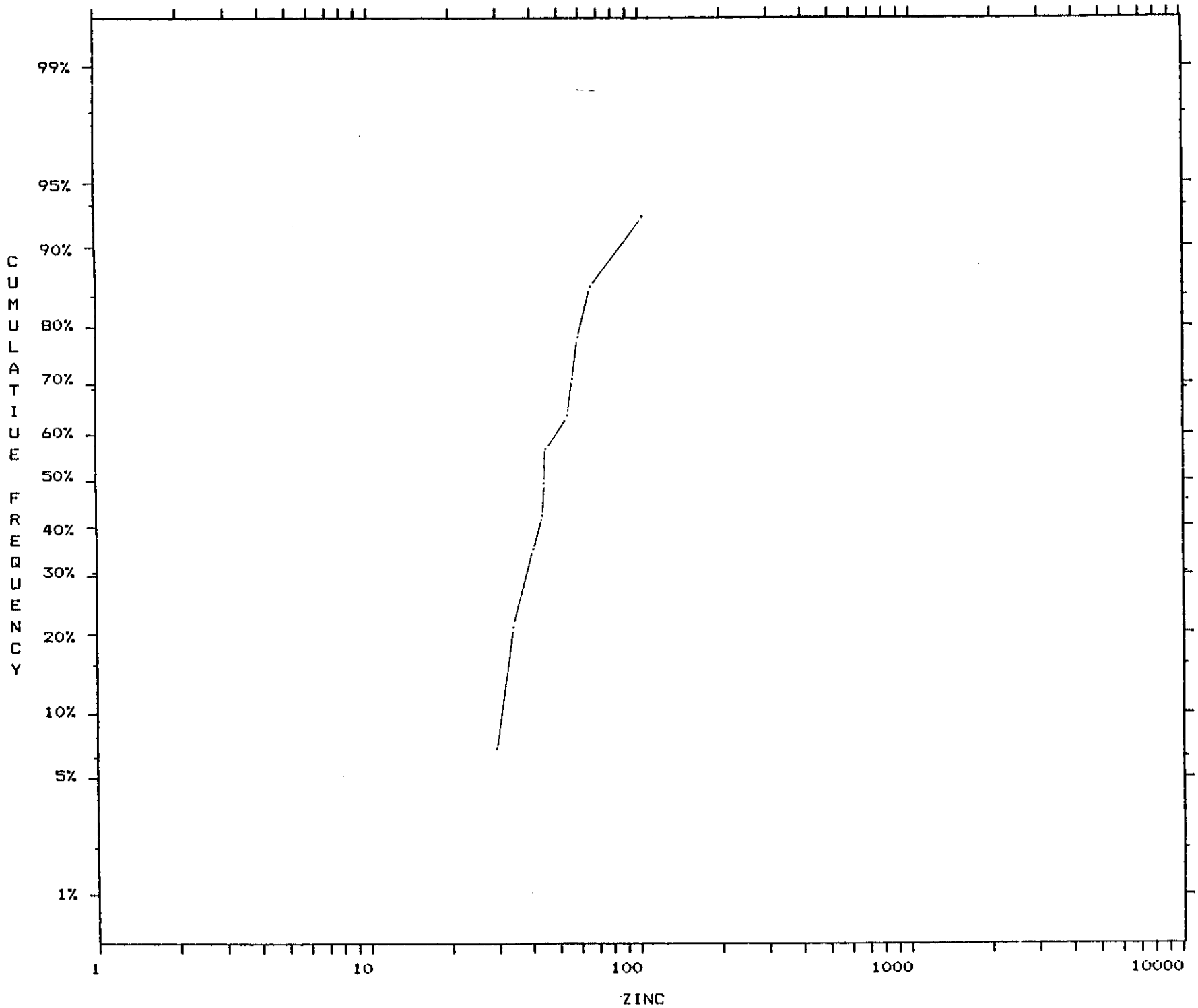
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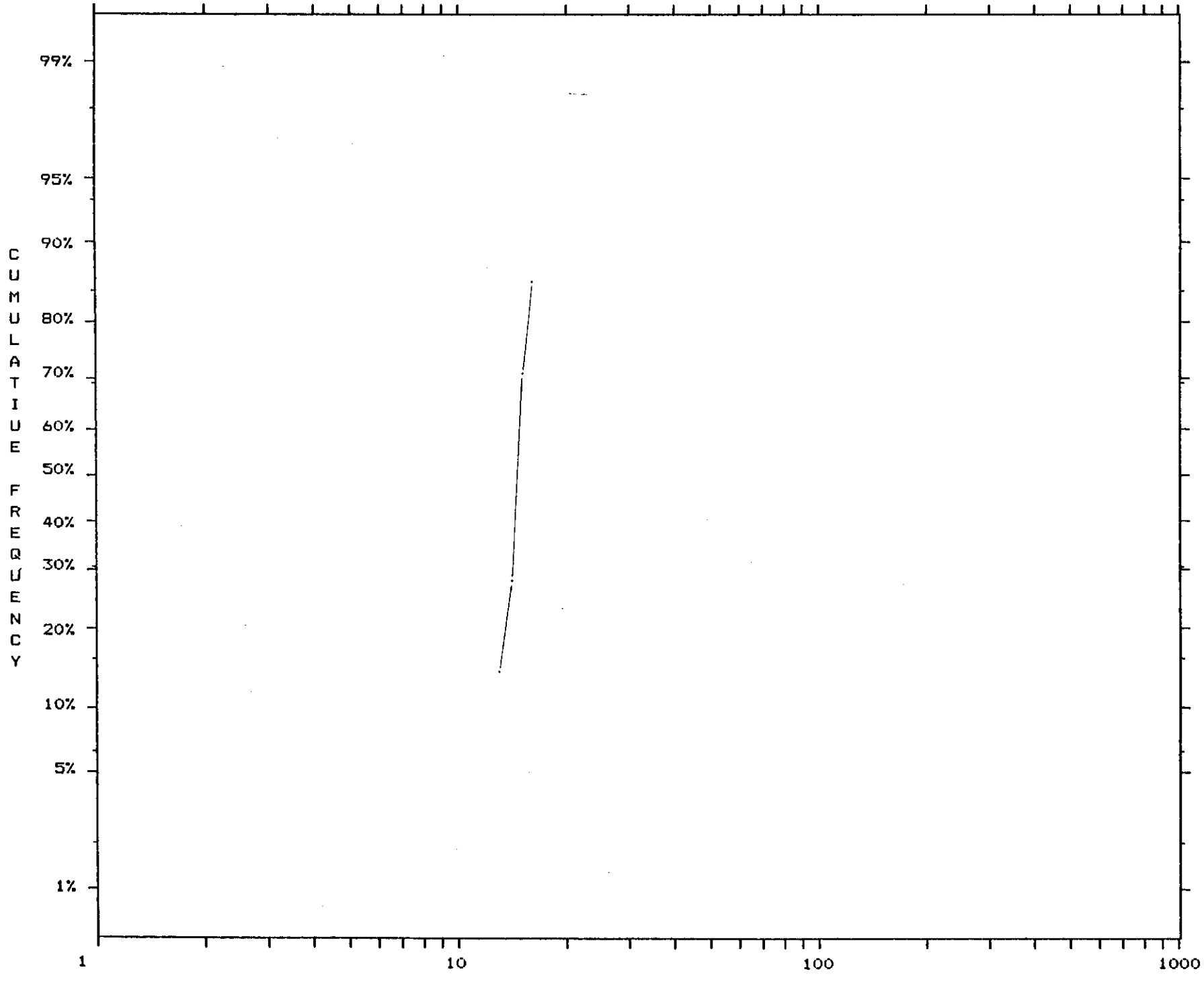
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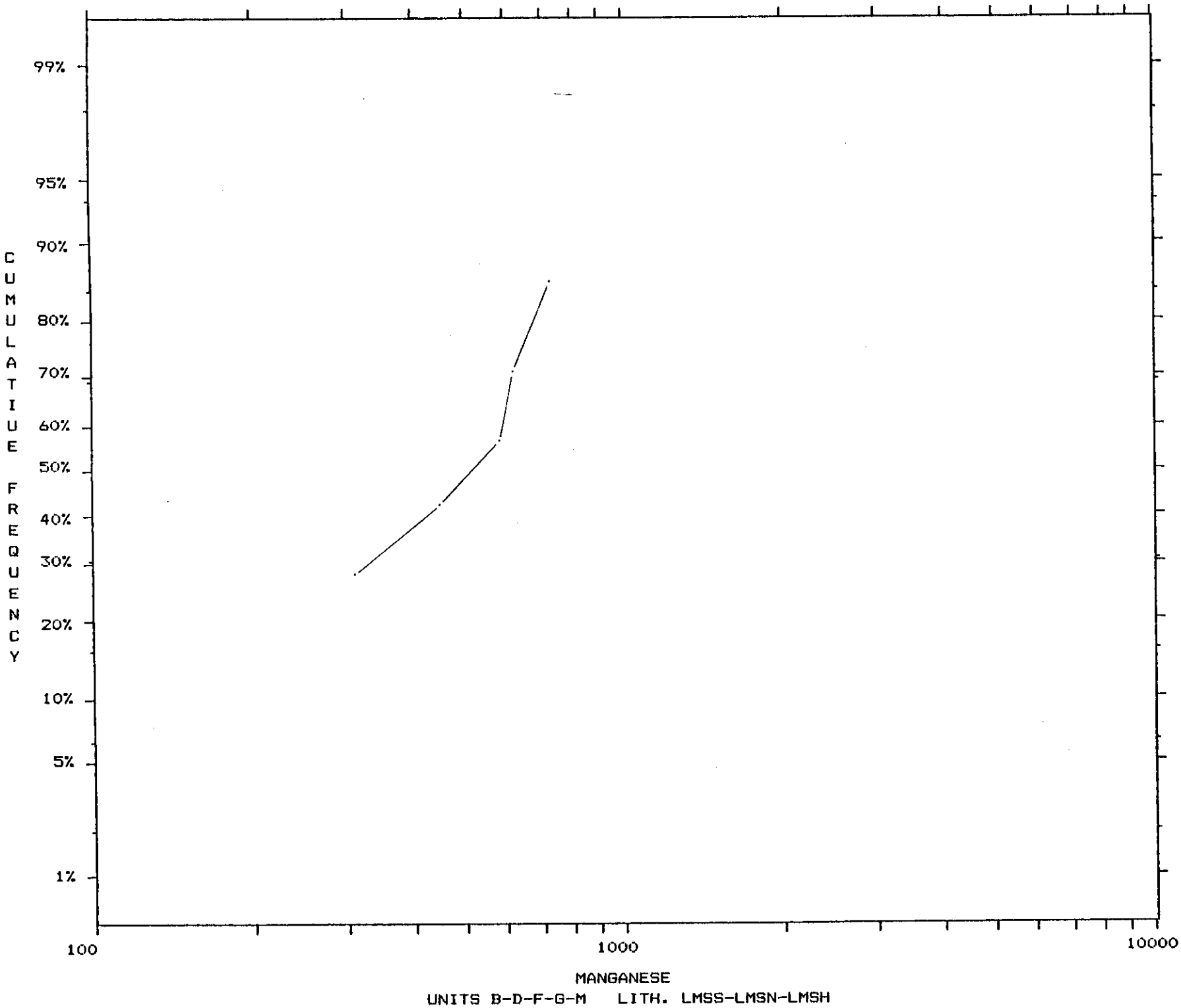
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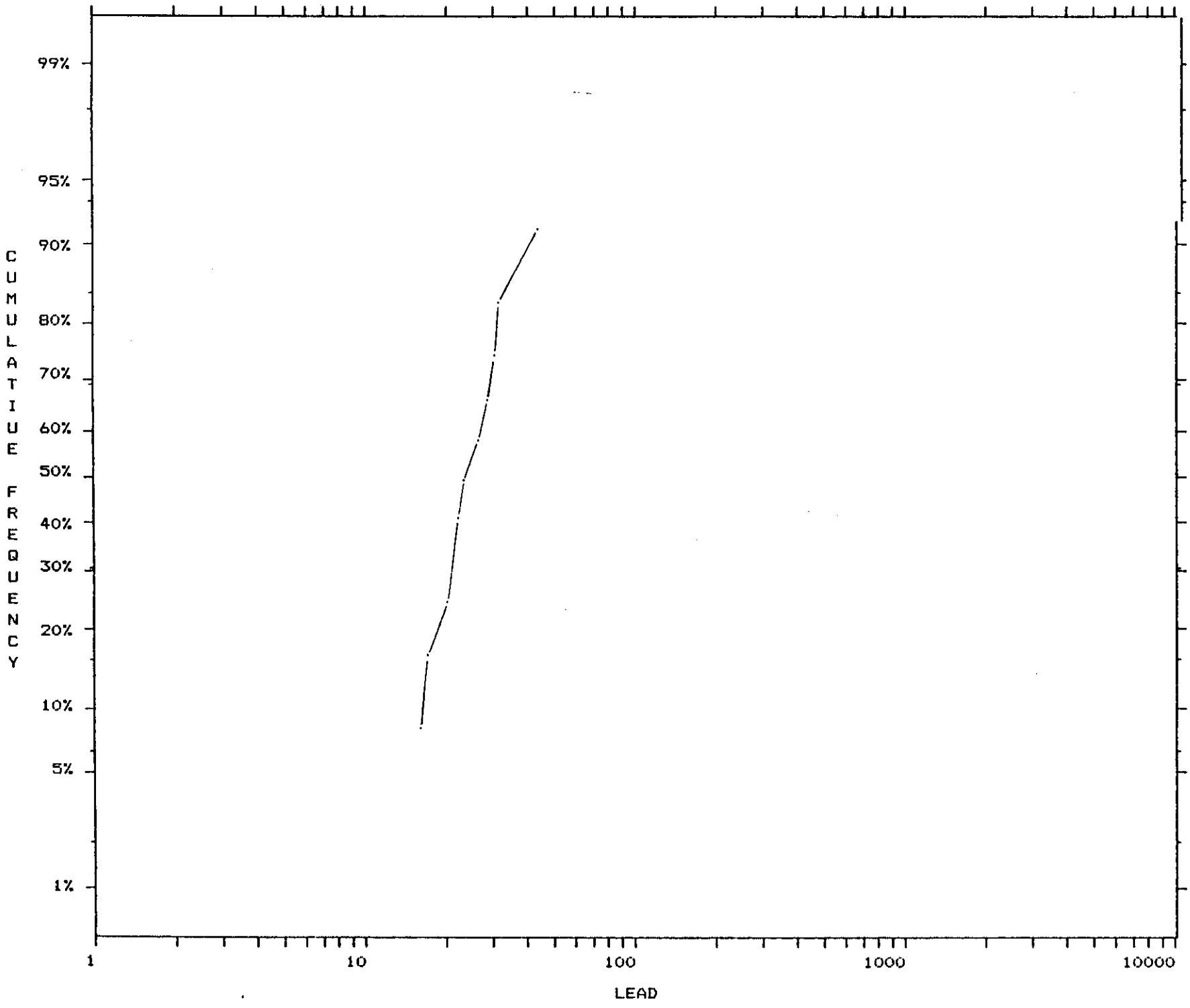
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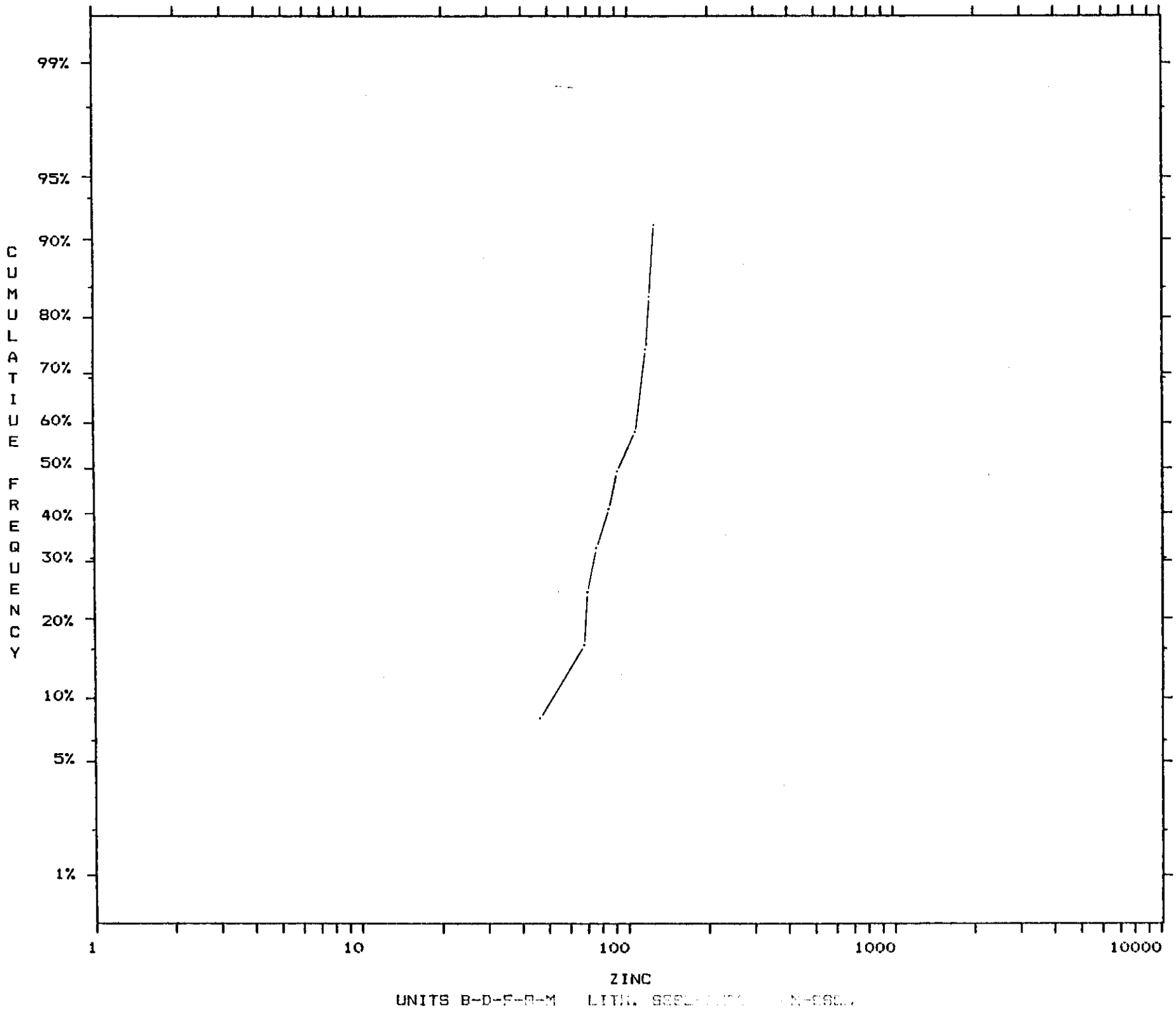
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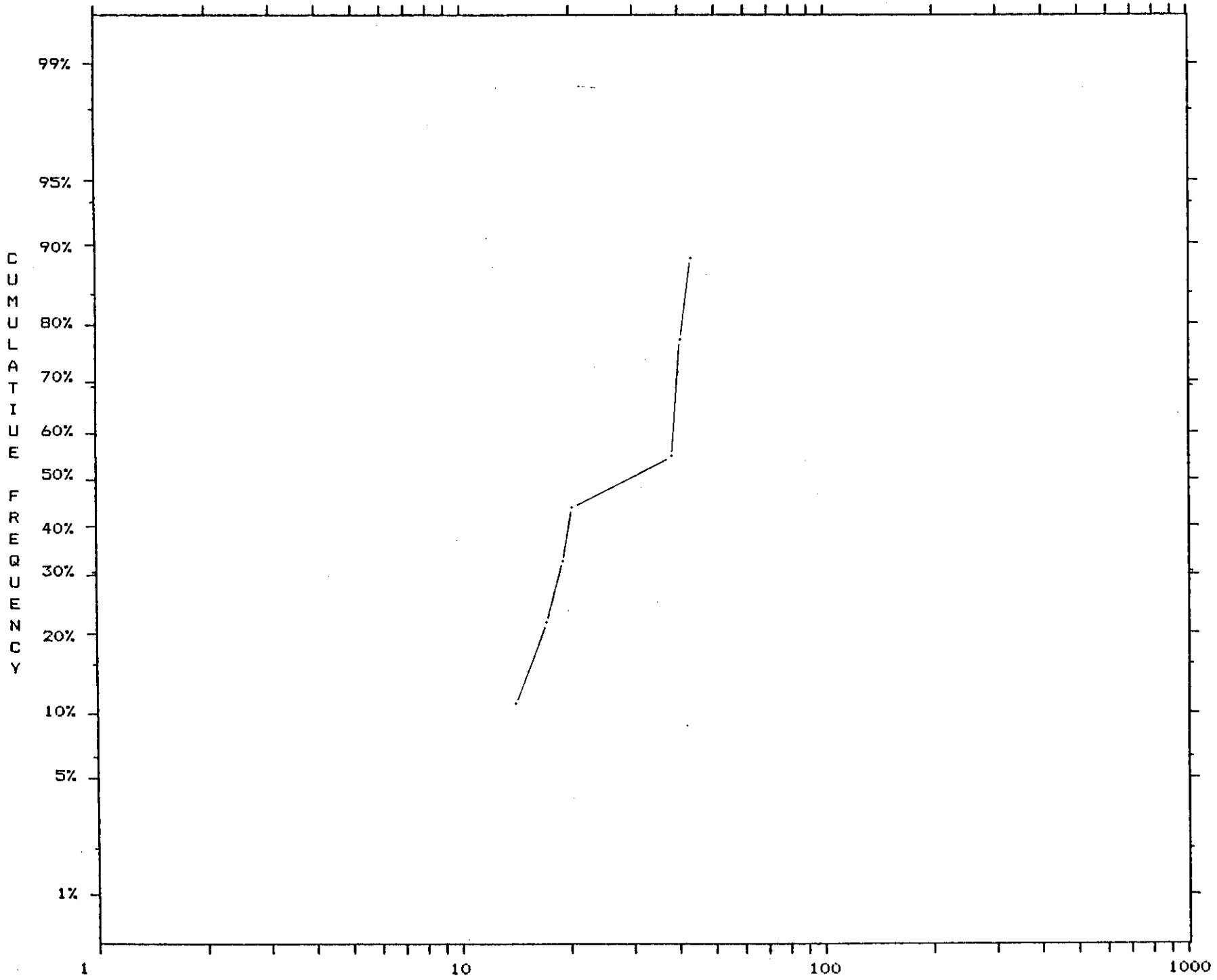
UNITS B-D-F-D-M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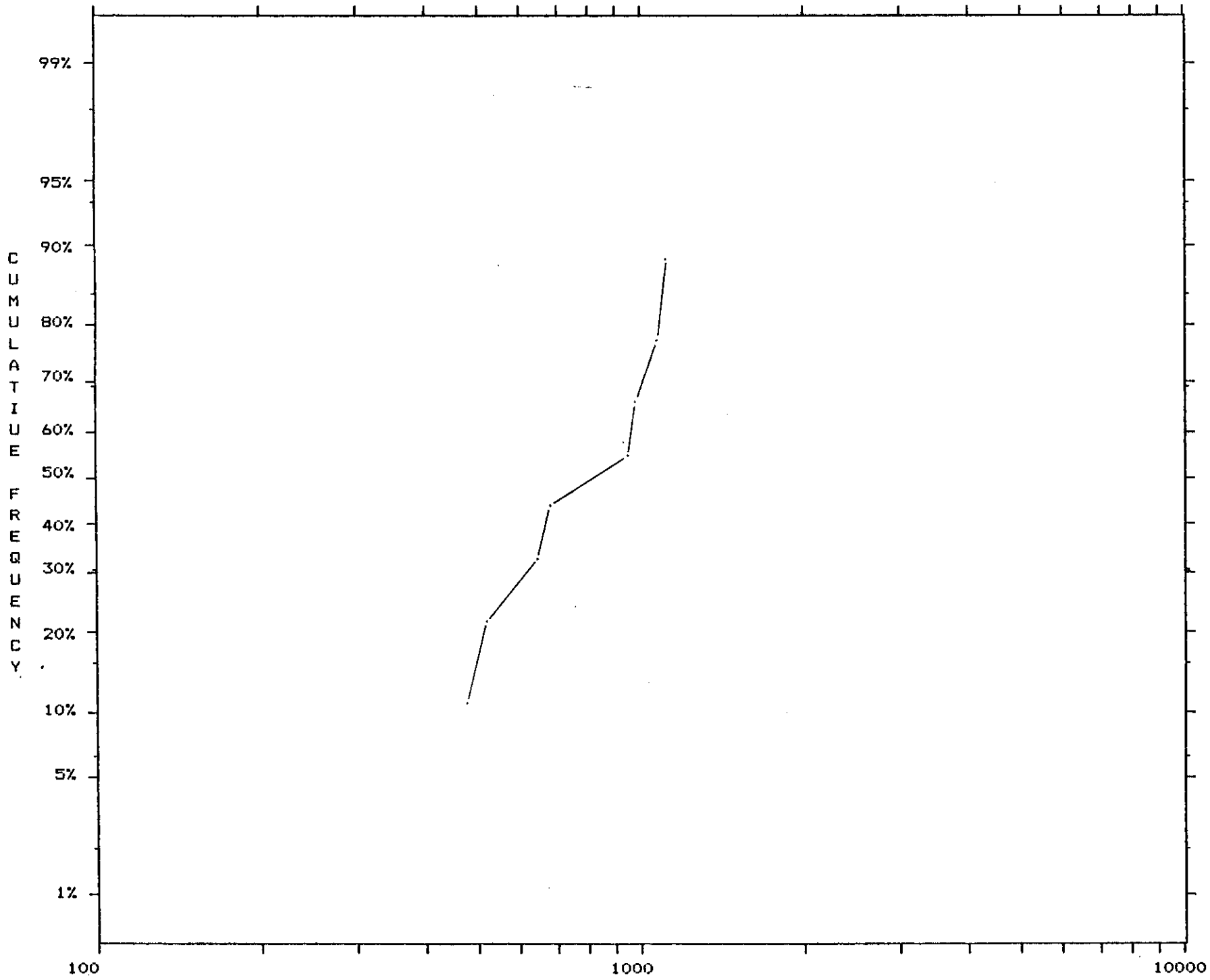
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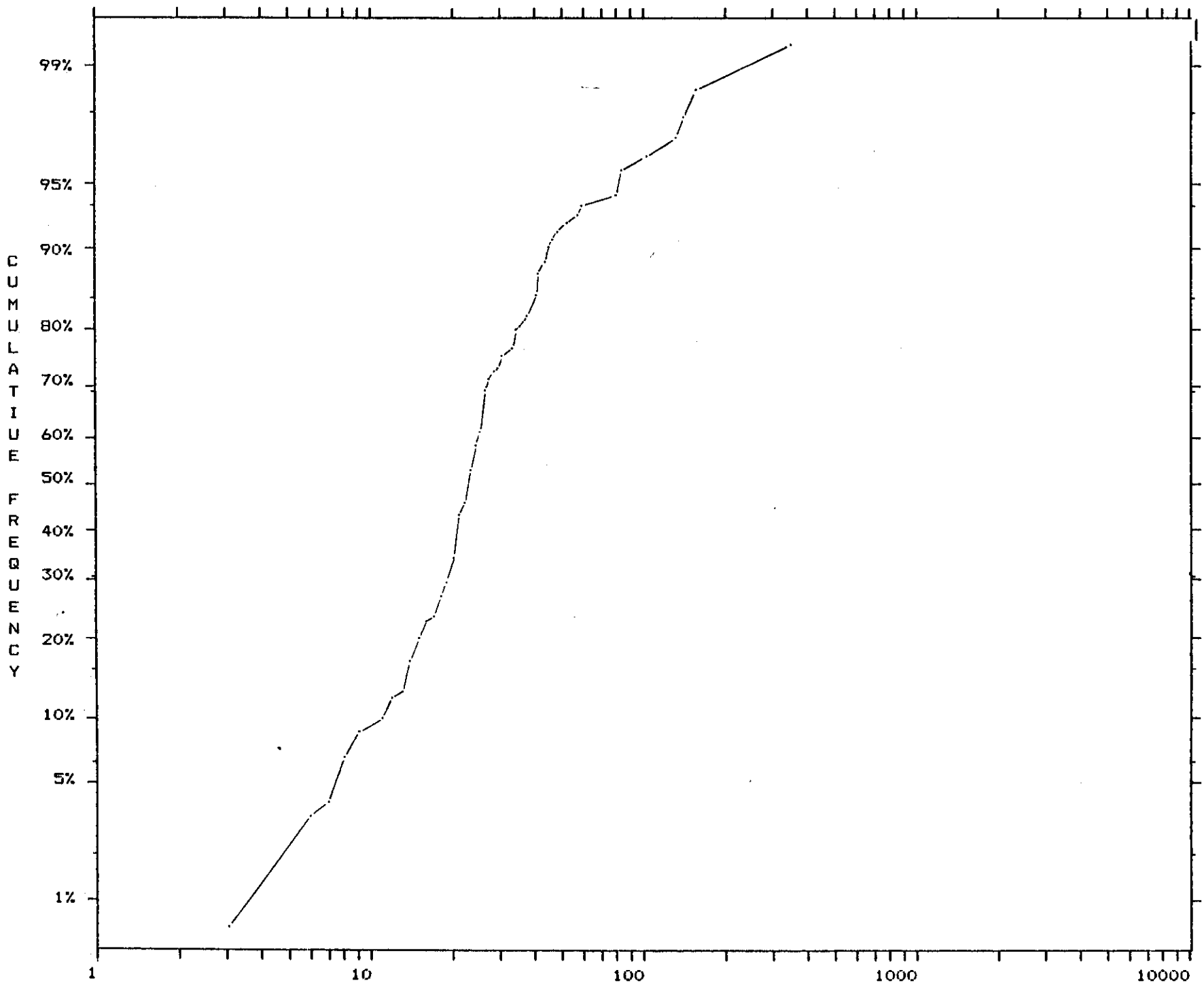
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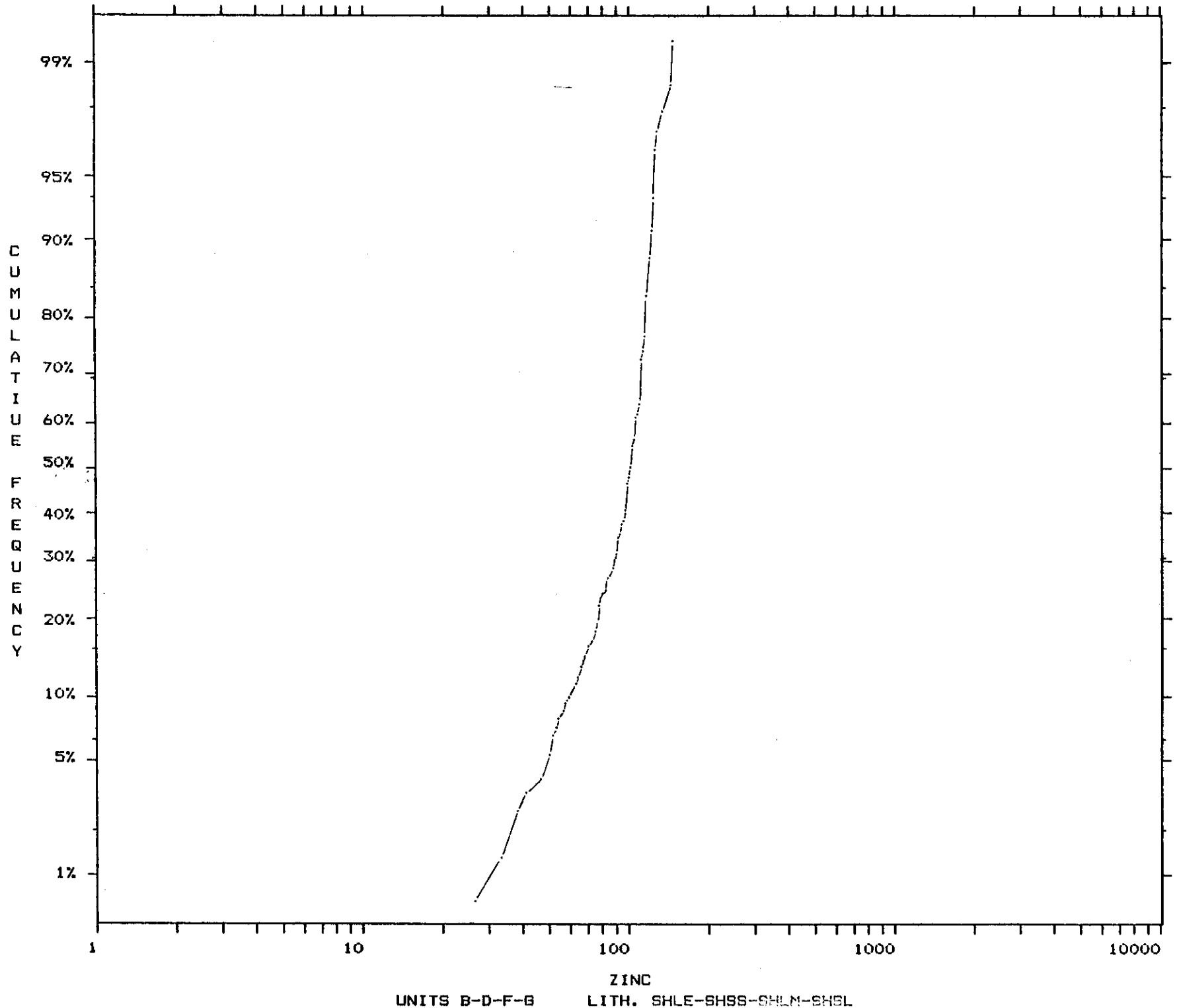
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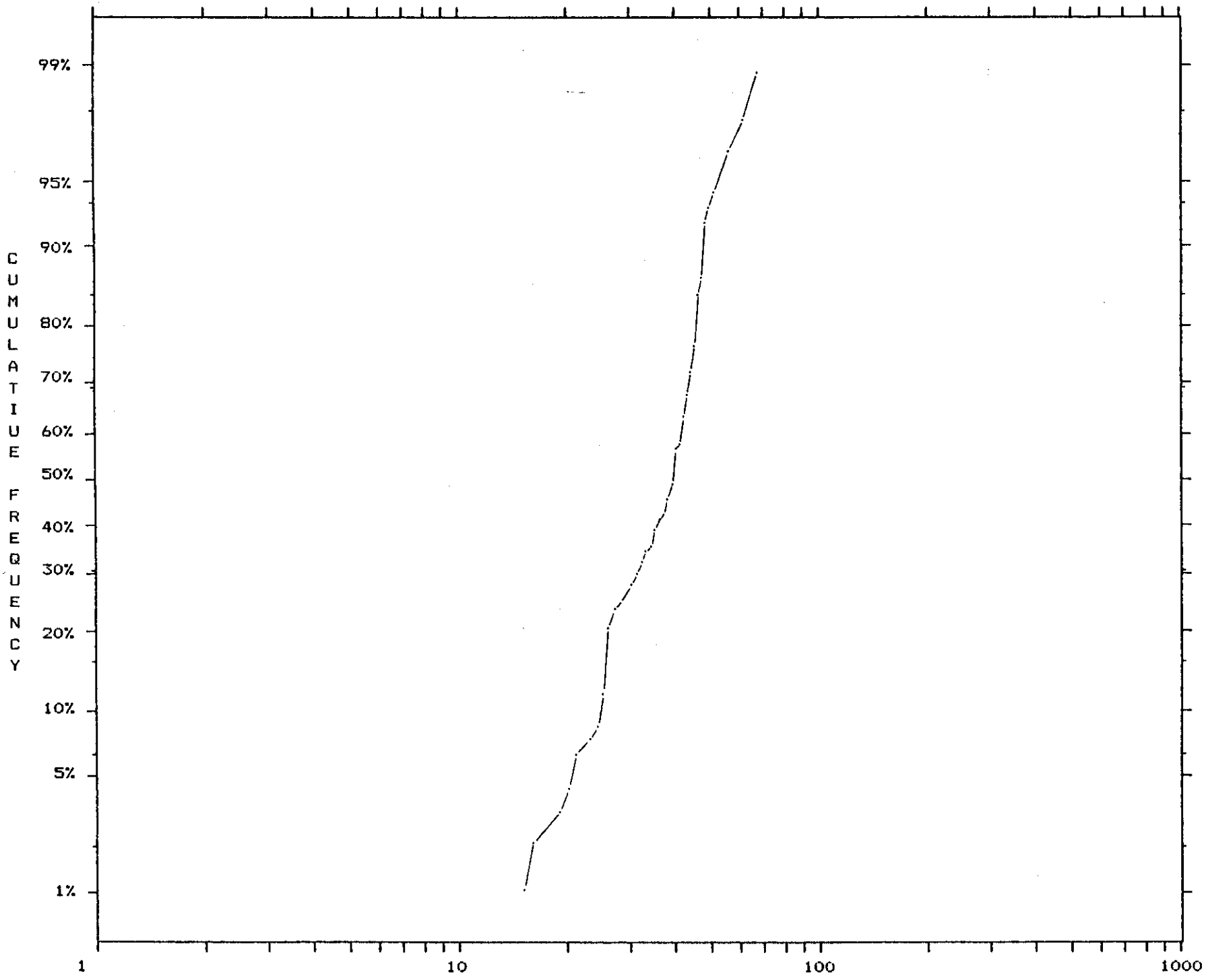
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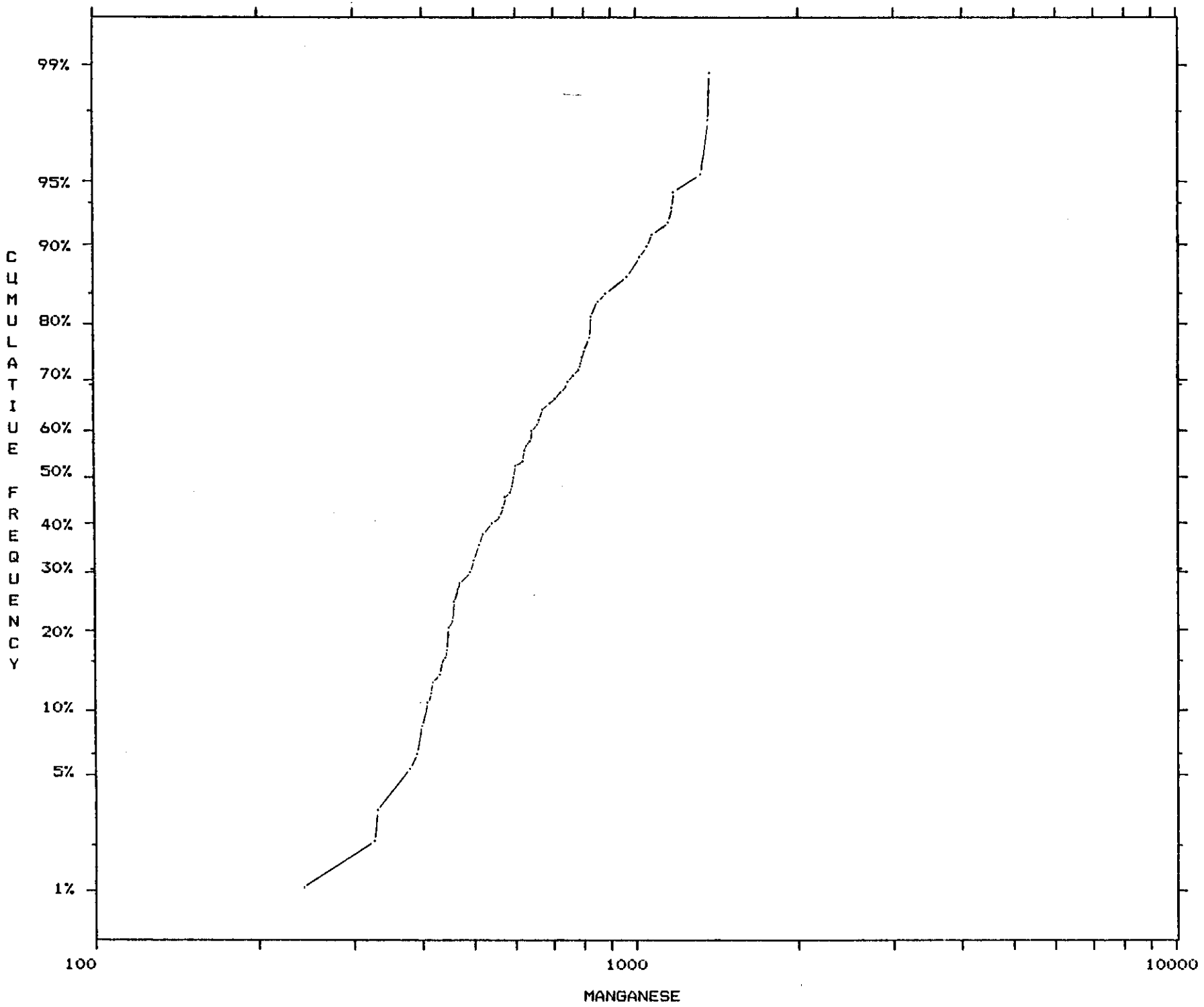
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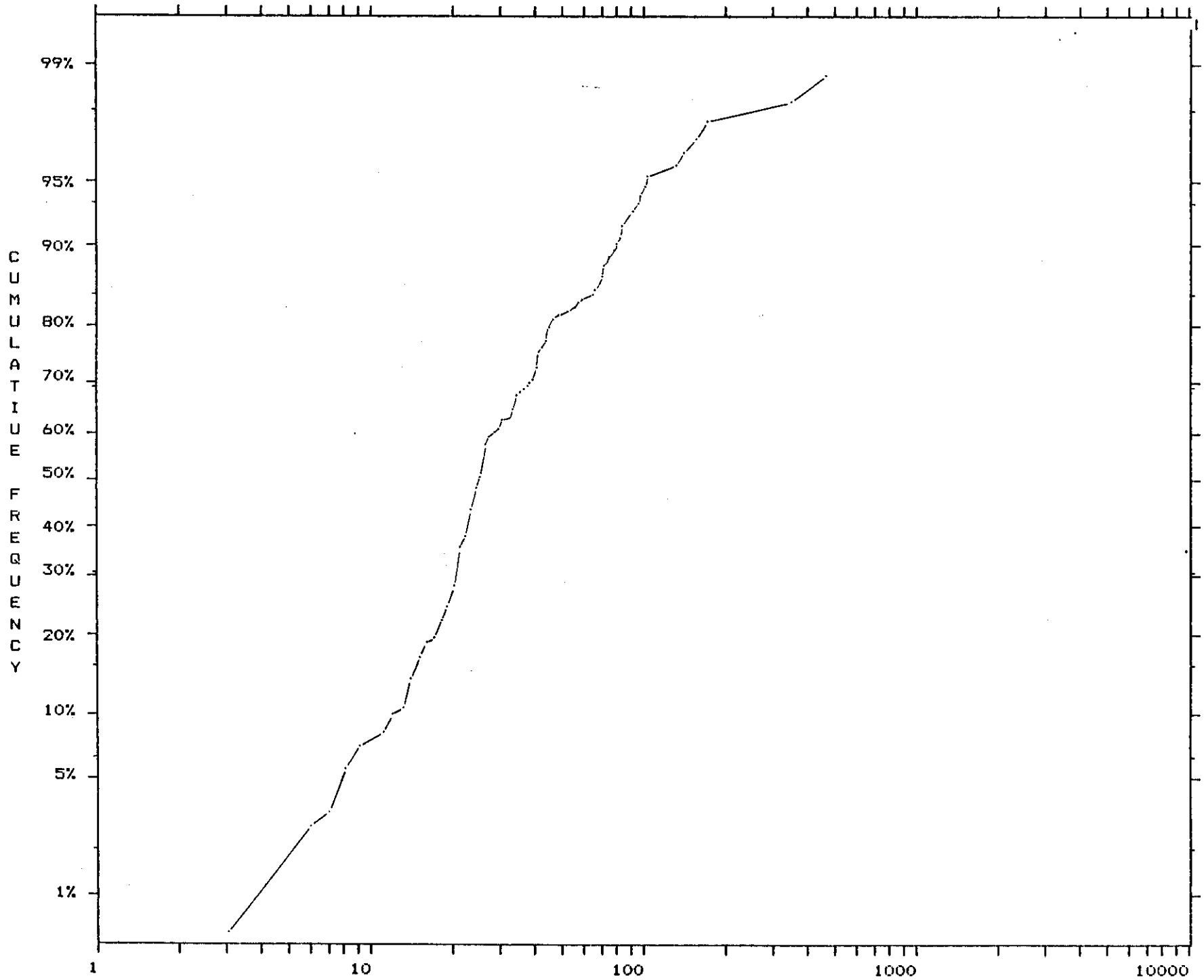
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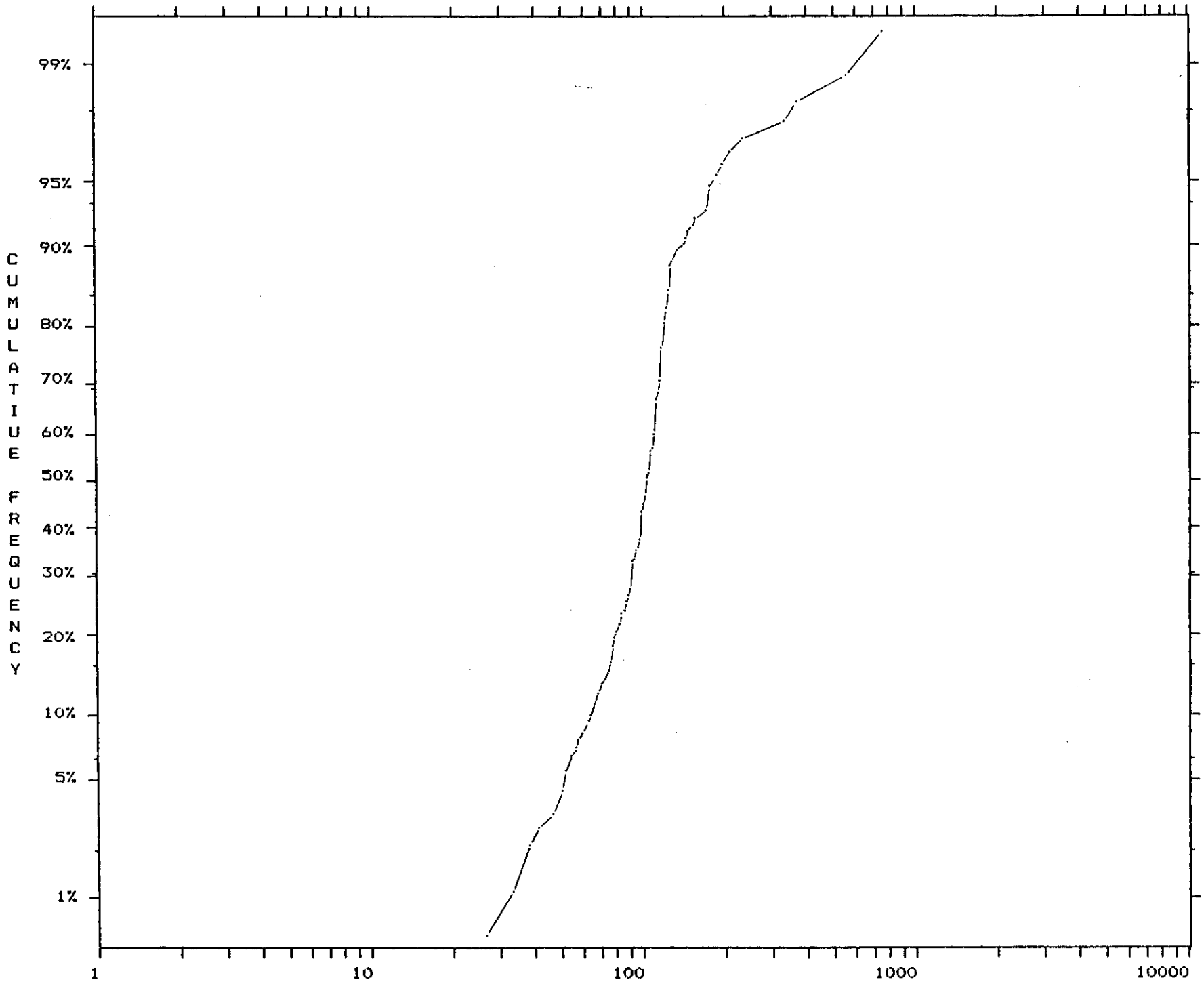
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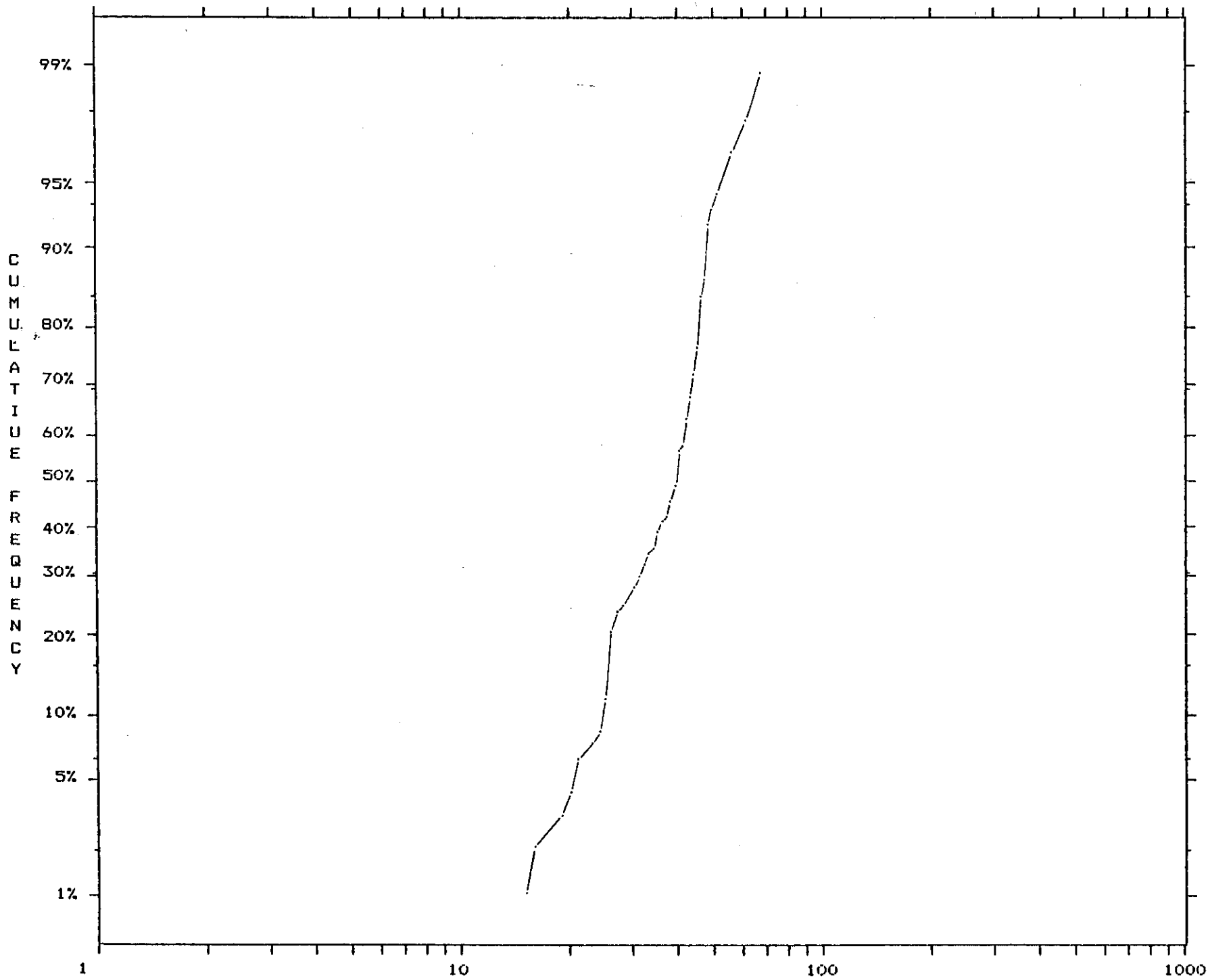
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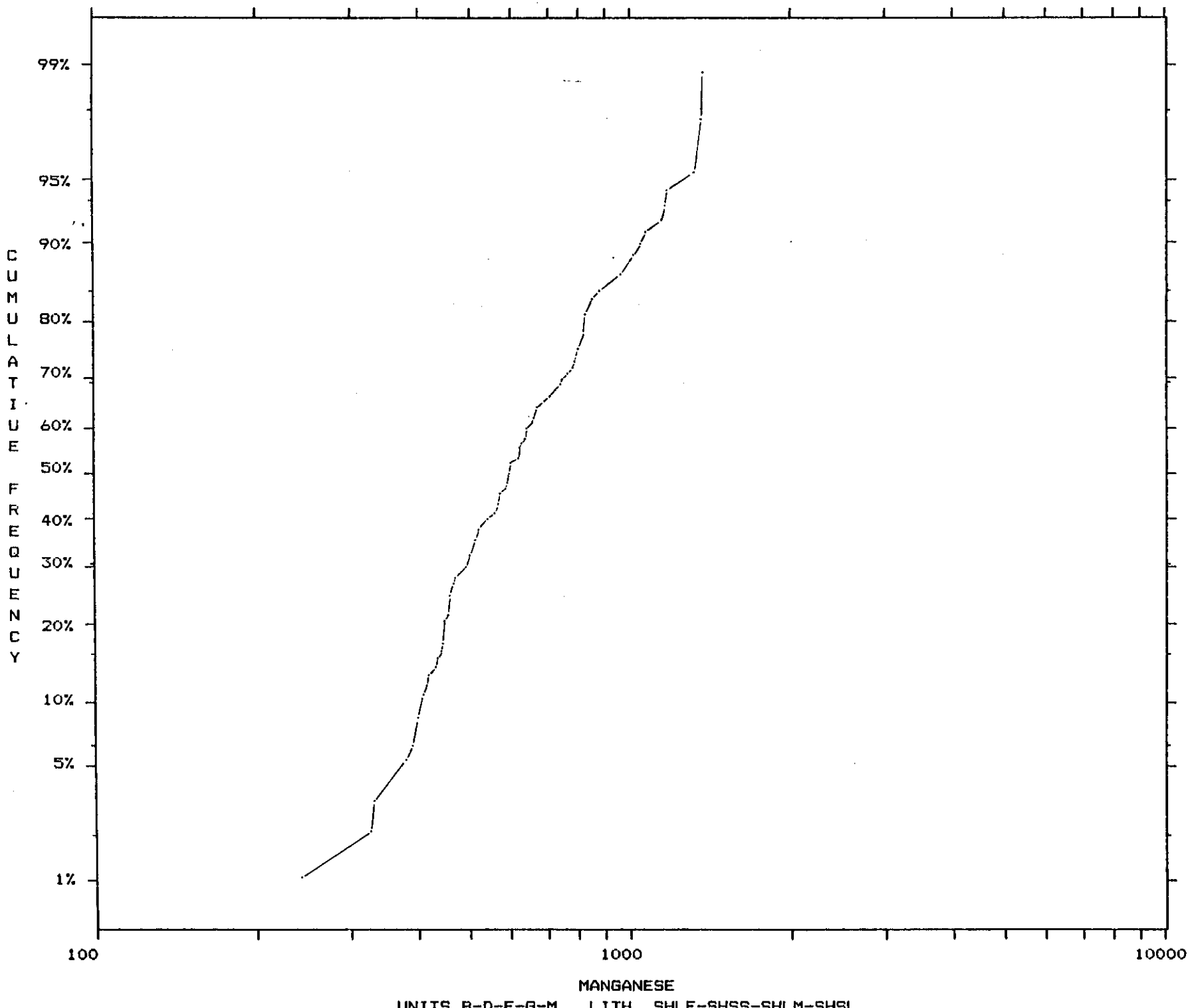
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MANGANESE
UNITS B-D-E-B-M LITH. SHLE-SHSS-SHLM-SHSL

APPENDIX B

Analytical Results

Geochemistry, Soils and Silts

VANGEOCHEM LAB LTD.
1521 PEMBERTON AVE.,
NORTH VANCOUVER, B.C.,
CANADA V7P 2S3

TELEPHONE: 986 5211
AREA CODE: 604

Certificate of Geochemical Analyses

• Specialising in Trace Elements Analyses •

–IN ACCOUNT WITH–

Samim Canada Ltd.
130 Adelaide St. W.
Suite 2116, P.O. Box 7
Attention: Toronto, Canada M5H 3P5
~~Mr. Terence J. Bottrill~~

Report No: 83-01-017 Page 1 of 5
Samples Arrived: May 19, 1983
Report Completed: May 25, 1983
For Project:
Analyst: D. Chiu

Job No. 83-046
Invoice No. 7175

Geochem

Sample Marking	Pb ppm	Zn ppm				
SMH 1116	30	85				
1117	35	100			samples are retrieved from	
1118	35	90			Minequest 1982 files.	
1119	35	70				
1120	50	80				
SPP 1121	35	65				
1122	45	75				
1123	50	60				
1124	45	90				
1125	35	80				
SMH 1126	25	75				
1127	20	75				
1128	25	70				
1129	40	60				
1130	20	70				
SPP 1131	25	65				
1132	15	50				
1133	125	65				
1134	20	60				
1135	20	65				
SMH 1136	25	75				
1137	40	85				
1138	45	75				
1139 *	300 ✓	70 ✓				
1140	75	100				
SPP 1141	70	80				
1142	70	110				
1143	85	100				
1144	30	70				
1145	30	75				
SMH 1146	30	80				
1147	30	75				
1148	50	95				
1149	35	95				
1150	40	105				
SPP 1151	35	110				
1152	50	120				
1153	40	105				
SMH 1154	20 ,	70 ✓				

REMARKS: * sample repeated for analyses for checked Cu.

~~Registered Provincial Assayer~~

Signed:

data stored in computer

% MnO x 1.6083 = % MnO2 oz./ton = 34.28 ppm 1 ppm = 0.0001% nd = none detected ppm = parts per million

All values are believed to be correct to the best knowledge of the analyst based on the method and instruments used.

VANGEOCHEM LAB LTD.
1521 PEMBERTON AVE.,
NORTH VANCOUVER, B.C.,
CANADA V7P 2S3

TELEPHONE: 986-5211
AREA CODE: 604

• *Specialising in Trace Elements Analyses* •

Certificate of Geochemical Analyses

–IN ACCOUNT WITH–
Samim Canada Ltd.

Attention:

Report No: 83-01-017 Page 2 of 5
Samples Arrived:
Report Completed:
For Project: Job No.
Analyst: Invoice No.

Sample Marking	Pb ppm	Zn ppm				
SMH 1155	45	95				
SRS 652	45	70				
SMP 653	45	80				
SMH 654	60	95				
SMH 655	40	80				
SPM 656	65	80				
SRS 657	50	95				
SMH 722	10	15				
SMH 723	65	60				
SRS 724	30	45				
725	45	55				
726	25	50				
SPM 727	20	100				
728	20	95				
729	25	75				
730	25	70				
731	10	30				
743	15	70				
744	10	40				
745	35	65				
746	30	70				
747	25	80				
748	35	80				
771	25	70				
772	25	75				
773	20	65				
774	15	70				
775	10	20				
SMH 974	25	110				
975	35	350				
976	20	100				
SRS 977	55	225				
978	55	120				
SMH 979	75	150				
980	75	145				
981	50	135				
SRS 982	60	125				
983	70	110				
SMH 984	55	80				

REMARKS:

~~Registered Provincial Assayer~~

Signed:

% Mo x 1.6683 = % MoO_3 1 Troy oz./ton = 34.28 ppm 1 ppm = 0.0001% nd = none detected ppm = parts per million

All values are believed to be correct to the best knowledge of the analyst based on the method and instruments used.

VANGEOCHEM LAB LTD.
1521 PEMBERTON AVE.,
NORTH VANCOUVER, B.C.,
CANADA V7P 2S3

TELEPHONE: 986 5211
AREA CODE: 604

Certificate of Geochemical Analyses

Specialising in Trace Elements Analyses

–IN ACCOUNT WITH–
Samim Canada Ltd.

Attention:

Report No: 83-01-017
Samples Arrived:
Report Completed:
For Project:
Analyst:

Job No.
Invoice No.

Sample Marking	Pb ppm	Zn ppm				
SMH 985	85	85				
986	60	90				
SRS 987	40	55				
988	15	35				
SPM 1208	30	30				
1209	25	75				
1210	35	90				
1211	35	100				
1212	30	130				
SRS 1213	65	85				
1214	40	85				
1215	45	90				
1216	70	110				
1217	70	120				
SPM 1218	50	80				
1219	50	55				
1220	45	65				
1221	75	85				
1222	40	80				
SRS 1257	50	55				
1258	65	120				
1259	40	90				
1260	150	300				
1261	150	400				
SPP 1262	225 ✓	500 ✓				
1263	625 ✓	1350 ✓				
1264	575 ✓	1300 ✓				
1265	370 ✓	950 ✓				
1266	170 ✓	450 ✓				
SRS 1267	120 ✓	400 ✓				
1268	80	215				
1269	70	200				
1270	70	190				
1271	60	200				
SPP 1272	100	210				
1273	100	225				
1274	130	190				
1275	75	95				
SPP 1276	40	85				

REMARKS: ✓ Sample repeated for accuracy - checked OK

~~Registered Provincial Assayer~~

Signed:

% Mo x 1.6683 = % MoS_2 1 Troy oz./ton = 34.28 ppm 1 ppm = 0.0001% nd = none detected ppm = parts per million

All values are believed to be correct to the best knowledge of the analyst based on the method and instruments used.

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CANADA V7P 2S3

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AREA CODE: 604

Certificate of Geochemical Analyses

• *Specialising in Trace Elements Analyses* •

–IN ACCOUNT WITH–

Samim Canada Ltd.

Attention:

Report No: 83-01-017 Page 4 of 5
Samples Arrived:
Report Completed:
For Project: Job No.
Analyst: Invoice No.

Sample Marking	Pb ppm	Zn ppm				
SPM 1328	30	50				
1329	30	45				
SRS 1330	45	95				
1331	45	95				
SPP 1332	45	95				
SPM 1333	70	110				
SPM 1334	50	85				
SRS 1335	40	95				
1336	35	85				
1337	25	30				
SMH 1404	180	80				
1405	15	10				
1406	5	15				
SRS 1407	20	75				
1408	35	60				
SRS 1425	10	15				
1426	45	80				
1427	25	90				
SMH 1428	25	60				
SRS 1429	25	75				
SMH 1441	10	10				
SRS 1442	25	85				
1443	30	100				
1444	30	85				
SMH 1445	85	80				
SRS 1446	80	75				
SMH 1448	50	80				
SMH 1449	5	5				
SRS 1450	5	5				
SMH 1451	15	75				
1452	35	95				
1453	75	120				
SRS 1454	40	55				
SPP 1469	25	75				
SPM 1470	25	85				
SPM 1471	35	85				
SPP 1472	35	85				
1473	35	85				
Spp 1513	45	80				

REMARKS:

Registered Provincial Assayer.

Signed:

% Mo x 1.668 = % MoS_2 1 Troy oz./ton = 34.28 ppm 1 ppm = 0.0001% nd = none detected ppm = parts per million

All values are believed to be correct to the best knowledge of the analyst based on the method and instruments used.

VANGEOCHEM LAB LTD.
1521 PEMBERTON AVE.,
NORTH VANCOUVER, B.C.,
CANADA V7P 2S3

TELEPHONE: 986-5211
AREA CODE: 604

Certificate of Geochemical Analyses

• *Specialising in Trace Elements Analyses* •

–IN ACCOUNT WITH–

Samim Canada Ltd.

Attention:

Report No: **83-01-017** Page 5 of 5
Samples Arrived:
Report Completed:
For Project: **Job No.**
Analyst: **Invoice No.**

Sample Marking	Pb ppm	Zn ppm				
SPP 1514	15	115				
SPM 1515	10	350				
1516	75	15				
SPM 1517,	95,	25,				

REMARKS:

~~Registered Provincial Assayer~~

Signed:

% Mo x 1.6683 = % MoS_2 1 Troy oz./ton = 34.28 ppm 1 ppm = 0.0001% nd = none detected ppm = parts per million

All values are believed to be correct to the best knowledge of the analyst based on the method and instruments used.

VANGEOCHEM LAB LIMITED

1521 Pemberton Ave.
North Vancouver B.C. V7P 2S3
(604)986-5211 Telex: 04-352578

GEOCHEMICAL ANALYTICAL REPORT

CLIENT: SAMIM CANADA LTD. DATE: September 7 1983
ADDRESS: 2116-130 Adelaide St. W. P.O.
: Box 7 Toronto Ont. **REPORT#: 83-81-001**
: M5H 3P5

PROJECT#: DEB JOB#: 83247
COPY SENT TO: SAMIM CANADA LTD. INVOICE#: 7433
SAMPLES ARRIVED: Aug 24 1983 TOTAL SAMPLES: 1004
REPORT COMPLETED: September 7 1983 SAMPLE TYPE: SOIL AND SILT
ANALYSED FOR: Pb Zn Ag REJECTS: SAVED

PREPARED FOR: MR. T. J. BOTTRILL

ANALYSED BY: VGC Staff

SIGNED:

GENERAL REMARK: None

VANGEOCHEM LAB LIMITED
1521 Pemberton Avenue
North Vancouver B.C. V7P 2S3
(604) 986-5211 Telex: 04-352578

PREPARED FOR: SAMIM CANADA LTD.
NOTES: nd = none detected
: -- = not analysed
: is = insufficient sample

REPORT NUMBER: 83-81-001 JOB NUMBER: 83247

SAMPLE #	Pb ppm	Zn ppm	Ag ppm
C11-1204	54	112	.3
C11-1205	86	66	.9
C11-1206	53	139	.4
C11-1207	90	101	.4
C11-1208	44	89	.1
C11-1209	46	102	.3
C11-1210	88	114	.2
C11-1211	49	106	.4
C11-1212	80	104	.4
C11-1213	44	97	.3
C11-1214	66	105	nd
C11-1215	73	89	.4
C11-1216	41	94	.1
C11-1217	44	76	nd
C11-1218	35	84	nd
C11-1219	25	58	.5
C11-1220	31	67	.2
C11-1221	48	96	.3
C11-1222	40	113	.4
C11-1223	45	110	.2
C11-1224	84	81	.4
C11-1225	58	111	.2
C11-1226	31	70	.5
C11-1227	35	89	.6
C11-1228	58	116	.4
C11-1229	62	114	.6
C11-1230	40	84	.4
C12-1101	35	77	.1
C12-1102	43	65	.6
C12-1103	52	82	.6
C12-1104	48	113	.4
C12-1105	12	36	.2
C12-1106	41	77	.1
C12-1107	27	81	.4
C12-1108	16	47	.3
C12-1109	26	20	.8
C12-1110	15	31	.3
C12-1111	28	44	.3
C12-1112	53	89	.4
DETECTION LIMIT	2	1	0.1

VANGEOCHEM LAB LIMITED
1521 Pemberton Avenue
North Vancouver B.C. V7P 2S3
(604) 986-5211 Telex: 04-352578

PREPARED FOR: SAMIM CANADA LTD.
NOTES: nd = none detected
: — = not analysed
: is = insufficient sample

REPORT NUMBER: 83-81-001 JOB NUMBER: 83247

SAMPLE #	Pb ppm	Zn ppm	Ag ppm
C12-1113	43	90	.5
C12-1114	106	104	.4
C12-1115	94	89	.3
C12-1116	75	108	.2
C12-1117	80	103	.5
C12-1118	30	49	.3
C12-1119	23	64	.5
C12-1120	65	116	.2
M1-1001	is	is	is
M1-1002	92	79	.3
M1-1003	61	71	.4
M1-1004	78	102	.2
M1-1005	102	104	.3
M1-1006	77	98	.3
M1-1007	41	86	.7
M1-1008	29	25	.2
M1-1009	40	16	.3
M1-1010	32	34	.4
M1-1011	27	39	.2
M1-1012	28	40	.5
M1-1013	47	56	.1
M1-1014	52	64	.4
M1-1015	48	51	.4
M3-1041	47	49	.2
M3-1042	19	29	.4
M3-1043	25	46	.4
M3-1044	30	51	.1
M3-1045	15	17	.6
M3-1046	27	53	.1
M3-1047	60	660	.1
M3-1048	63	375	.7
M3-1049	73	144	.1
M3-1050	35	84	nd
M3-1051	180	125	.7
M3-1052	102	167	.6
M3-1053	43	91	nd
M3-1054	23	44	.4
M3-1055	45	83	.1
M3-1056	45	89	.5
DETECTION LIMIT	2	1	0.1

VANGEOCHEM LAB LIMITED
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North Vancouver B.C. V7P 2S3
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NOTES: nd = none detected
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REPORT NUMBER: 83-81-001 JOB NUMBER: 83247

SAMPLE #	Pb ppm	Zn ppm	Ag ppm
M3-1057	650	510	2.9
M3-1058	165	303	1.5
M3-1059	50	86	.1
M3-1060	48	99	.7
M3-1061	16	37	.3
M3-1062	20	24	.5
M3-1063	21	17	1.0
M3-1064	48	63	.4
M3-1065	43	34	.4
M3-1066	21	45	.6
M3-1067	19	13	.4
M3-1068	42	65	.2
M3-1069	39	54	.6
M3-1070	35	49	1.7
M3-1071	31	19	.6
M3-1072	34	34	1.1
M3-1073	17	16	.1
M3-1074	52	56	.4
M3-1075	107	101	.9
M3-1076	15	41	.2
M3-1077	890	1030	4.4
M3-1078	25	46	.4
M3-1079	40	152	.2
M3-1080	158	313	1.1
M3-1081	50	920	.8
M3-1082	47	141	.3
M3-1083	68	140	.5
M3-1084	48	119	.4
M3-1085	73	199	.3
M3-1086	92	185	.2
M3-1087	73	192	.2
M3-1088	63	155	.4
M3-1089	30	38	.4
M3-1090	180	29	1.3
M3-1091	30	87	.4
M3-1092	15	29	.2
M3-1093	53	93	.2
M3-1094	18	56	.2
M3-1095	8	12	nd
DETECTION LIMIT	2	1	0.1

VANGEOCHEM LAB LIMITED
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SAMPLE #	Pb ppm	Zn ppm	Ag ppm
M3-1096	78	56	.5
M3-1097	34	42	.9
M3-1098	20	9	.4
M3-1099	35	35	1.5
M3-1100	5	3	.3
M4-1021	85	79	.4
M4-1022	58	74	.3
M4-1023	36	56	.7
M4-1024	48	81	.3
M4-1025	92	75	.4
M4-1026	21	36	.4
M4-1027	50	26	.1
M4-1028	49	30	.5
M4-1029	50	44	.3
M4-1030	33	31	.6
M4-1031	30	49	.5
M4-1032	82	116	.6
M4-1033	55	95	.4
M4-1034	98	146	nd
M4-1035	67	119	.4
M4-1036	59	101	.1
M4-1037	60	109	.2
M4-1038	71	164	.3
M4-1039	82	118	.3
M4-1040	53	92	nd
P13-0841	30	51	.5
P13-0842	25	83	nd
P13-0843	27	64	.4
P13-0844	22	67	nd
P13-0845	37	79	.2
P13-0846	36	56	.4
P13-0847	35	79	.1
P13-0848	33	72	.2
P13-0849	68	122	.4
P13-0850	27	69	.3
P13-0851	26	35	.6
P13-0852	23	51	nd
P13-0853	24	43	.9
P13-0854	18	56	.3
DETECTION LIMIT	2	1	0.1

VANGEOCHEM LAB LIMITED
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SAMPLE #	Pb ppm	Zn ppm	Ag ppm
P13-0855	24	44	.6
P13-0856	15	26	.3
P13-0857	27	19	.8
P13-0858	34	42	.7
P13-0859	47	78	.3
P13-0860	26	59	.3
P13-0861	23	44	.3
P13-0862	29	65	.2
P13-0863	22	46	.3
P13-0864	30	53	.1
P13-0865	16	58	.2
P13-0866	29	72	.3
P13-0867	18	74	.3
P13-0868	30	65	.5
P13-0869	34	86	.3
P13-0870	29	71	.4
P13-0871	23	83	.6
P13-0872	26	59	.6
P13-0873	23	84	.2
P13-0874	31	87	nd
P13-0875	28	92	.2
P13-0876	42	61	.6
P13-0877	40	64	.5
P13-0878	34	98	.2
P13-0879	33	89	nd
P13-0880	22	68	.2
P13-0881	30	102	nd
P13-0882	31	98	.4
P13-0883	25	77	.2
P13-0884	23	60	.3
P13-0885	24	66	.5
P13-0886	23	79	.4
P13-0887	24	60	.3
P13-0888	28	61	.8
P13-0889	27	60	.3
P13-0890	23	63	.5
P13-0891	21	79	nd
P13-0892	21	83	.2
P13-0893	20	64	.2
DETECTION LIMIT	2	1	0.1

VANGEOCHEM LAB LIMITED
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SAMPLE #	Pb ppm	Zn ppm	Ag ppm
P13-0894	23	81	.5
P13-0895	30	96	.7
P13-0896	29	71	.4
P13-0897	48	102	.7
P13-0898	21	56	.4
P13-0899	27	79	.3
P13-0900	19	83	.2
P13-0901	21	45	.2
P13-0902	18	56	.4
P13-0903	15	64	.3
P13-0904	19	32	.5
P13-0905	46	109	.8
P13-0906	13	41	.3
P13-0907	14	62	.4
P13-0908	15	89	.2
P13-0909	22	78	.1
P13-0910	14	72	.2
P13-0911	7	40	nd
P13-0912	13	77	.1
P13-0913	19	67	.2
P13-0914	49	81	.1
P13-0915	15	58	.3
P13-0916	18	84	.1
P13-0917	23	80	.3
P13-0918	35	89	.1
P13-0919	49	76	.1
P13-0920	18	61	.1
P13-0921	39	69	nd
P13-0922	35	74	.1
P13-0923	15	62	.4
P13-0924	16	73	nd
P13-0925	11	49	.1
P13-0926	19	58	.1
P13-0927	19	116	.7
P13-0928	9	61	.1
P13-0929	6	29	.2
P13-0930	17	77	.5
P13-0931	18	34	.4
P13-0932	8	14	.1
DETECTION LIMIT	2	1	0.1

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SAMPLE #	Pb ppm	Zn ppm	Ag ppm
P13-0933	32	85	.4
P13-0934	24	48	.2
P13-0935	28	45	.2
P13-0936	45	80	.3
P13-0937	36	78	.4
P13-0938	48	83	.7
P13-0939	27	48	.2
P13-0940	23	40	.3
P13-0941	54	110	.4
P13-0942	14	31	nd
P13-0943	12	15	.2
P13-0944	23	60	.1
P13-0945	31	41	.5
S2-0501	39	113	.3
S2-0502	is	is	is
S2-0503	49	148	.2
S2-0504	48	140	.4
S2-0505	46	118	.3
S2-0506	49	134	.1
S2-0507	55	124	.8
S2-0508	34	110	.1
S2-0509	37	127	.4
S2-0510	38	102	.1
S2-0521	18	42	.3
S2-0522	48	98	.5
S2-0523	44	74	.7
S2-0524	37	55	.3
S2-0525	40	77	.6
S2-0526	34	58	.6
S2-0527	32	68	.4
S2-0528	42	68	.3
S2-0529	20	48	.5
S2-0530	34	48	.4
S2-0531	39	52	.4
S2-0532	34	60	.6
S2-0533	25	18	.8
S2-0534	38	58	.2
S2-0535	32	59	.1
S2-0536	33	61	.2
DETECTION LIMIT	2	1	0.1

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SAMPLE #	Pb ppm	Zn ppm	Ag ppm
S2-0537	45	53	.6
S2-0538	38	91	.3
S2-0539	26	69	.7
S2-0540	36	41	.5
S2-0541	56	74	.7
S2-0542	42	85	.8
S2-0543	40	87	.5
S2-0544	43	73	.5
S2-0545	35	82	.7
S2-0546	29	80	.6
S2-0547	29	61	.4
S2-0548	40	48	.6
S2-0549	48	98	.9
S2-0550	30	52	.5
S2-0551	28	16	.8
S2-0552	50	63	.4
S2-0553	44	63	.6
S2-0554	36	48	.6
S2-0555	51	95	.5
S2-0556	34	80	.5
S2-0557	75	51	.6
S2-0558	43	44	.4
S2-0559	48	80	.5
S2-0560	44	74	.5
S2-0561	44	81	.6
S2-0562	45	74	.7
S2-0563	31	48	.8
S2-0564	32	60	.5
S2-0565	29	35	.6
S2-0566	28	25	.4
S2-0567	36	44	.4
S2-0568	24	14	.6
S2-0569	31	46	.6
S2-0570	40	38	.7
S2-0571	51	49	1.3
S2-0572	52	52	1.4
S2-0573	31	31	.9
S2-0574	44	27	.7
S2-0575	23	33	.7
DETECTION LIMIT	2	1	0.1

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SAMPLE #	Pb ppm	Zn ppm	Ag ppm
S2-0576	48	55	.5
S2-0577	23	30	.4
S2-0578	24	29	nd
S2-0579	32	52	.4
S2-0580	31	66	.5
S2-0581	33	26	.4
S2-0582	23	45	.3
S2-0583	23	15	.1
S2-0584	31	41	.2
S2-0585	31	42	.4
S2-0586	25	48	.3
S2-0587	23	32	nd
S2-0588	20	11	1.0
S2-0589	24	62	.4
S2-0590	32	36	.6
S2-0591	35	102	.5
S2-0592	33	91	.5
S2-0593	25	12	.3
S2-0594	37	98	nd
S2-0595	35	47	.2
S2-0596	28	87	.3
S2-0597	30	59	nd
S2-0598	26	86	.2
S2-0599	21	65	.4
S2-0600	30	48	.5
S2-0601	58	50	.2
S2-0602	37	64	.2
S2-0603	46	65	.3
S2-0604	27	56	.1
S2-0605	24	95	.1
S2-0606	54	209	.3
S2-0607	51	118	.1
S2-0608	58	102	.4
S2-0609	34	51	.3
S2-0610	33	98	.2
S2-0611	48	91	.7
S2-0612	50	118	.1
S2-0613	28	67	.6
S2-0614	20	62	.2
DETECTION LIMIT	2	1	0.1

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SAMPLE #	Pb ppm	Zn ppm	Ag ppm
S2-0615	28	42	.6
S2-0616	39	67	.1
S2-0617	44	88	.4
S2-0618	43	74	.5
S2-0619	31	44	.8
S2-0620	32	74	.7
S2-0621	30	63	.6
S2-0622	24	68	.8
S2-0623	44	62	.3
S2-0624	26	41	.5
S2-0625	25	39	.6
S2-0626	22	48	.4
S2-0627	26	35	1.2
S2-0628	23	36	.9
S2-0629	30	44	.7
S2-0630	33	78	.5
S2-0631	44	108	.7
S2-0632	37	112	.3
S2-0633	39	92	.4
S2-0634	34	83	.5
S2-0635	29	56	.6
S2-0636	33	91	.6
S2-0637	32	88	1.0
S2-0638	40	83	.5
S2-0639	41	105	.6
S2-0640	49	70	.7
S2-0641	43	113	.3
S2-0642	34	123	.5
S2-0643	25	32	.6
S2-0644	40	103	.4
S2-0645	36	81	.7
S2-0646	37	88	.5
S2-0647	40	98	.6
S2-0648	48	93	.6
S2-0649	47	104	.7
S2-0650	58	115	.4
S2-0651	59	107	.4
S2-0652	57	104	.1
S2-0653	45	73	.5
DETECTION LIMIT	2	1	0.1

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SAMPLE #	Pb ppm	Zn ppm	Ag ppm
S2-0654	46	88	.4
S2-0655	45	85	.3
S2-0656	37	77	.2
S2-0657	97	73	.4
S2-0658	31	31	nd
S2-0659	44	73	.4
S2-0660	86	127	.3
S2-0661	102	198	.4
S2-0662	56	25	1.2
S2-0663	48	50	.5
S2-0664	74	68	.3
S2-0665	46	98	.2
S2-0666	88	173	.4
S2-0667	65	550	.6
S2-0668	48	110	.7
S2-0669	57	98	.4
S2-0670	46	92	.3
S2-0671	38	88	.2
S2-0672	42	85	.4
S2-0673	46	550	.8
S2-0674	48	65	.4
S2-0675	31	45	.3
S2-0676	35	78	.3
S2-0677	58	68	.6
S2-0678	53	98	.3
S2-0679	48	93	.1
S2-0680	23	20	.4
S2-0681	30	43	.4
S2-0682	26	44	.5
S2-0683	25	29	.2
S2-0684	26	30	.4
S2-0685	27	56	.5
S2-0686	28	45	.5
S2-0687	33	52	.4
S2-0688	24	20	1.3
S2-0689	26	23	.7
S2-0690	30	73	.5
S2-0691	28	62	.6
S2-0692	27	40	.5
DETECTION LIMIT	2	1	0.1

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SAMPLE #	Pb ppm	Zn ppm	Ag ppm
S2-0693	19	18	.5
S2-0694	38	68	.3
S2-0695	35	63	.6
S2-0696	46	49	.7
S2-0697	31	28	.7
S2-0698	27	48	.4
S2-0699	41	69	.5
S2-0700	33	76	.5
S2-0701	43	48	.6
S3-0319	59	92	.2
S3-0320	48	102	nd
S3-0321	14	41	.3
S3-0322	16	26	.3
S3-0323	19	55	.2
S3-0324	27	58	.3
S3-0325	19	46	.1
S3-0326	18	16	.6
S3-0327	22	21	.4
S3-0328	19	23	.6
S3-0329	15	30	.3
S3-0330	28	12	.7
S3-0331	37	63	.6
S3-0332	34	63	.6
S3-0333	39	46	.6
S3-0334	38	48	.7
S3-0335	35	40	.9
S3-0336	25	38	.9
S3-0337	24	48	.4
S3-0338	15	25	.5
S3-0339	18	30	.7
S3-0340	24	12	1.3
S3-0341	32	22	1.0
S3-0342	27	19	.9
S3-0343	22	14	1.1
S3-0344	21	8	.6
S3-0345	24	27	.1
S3-0346	28	65	.1
S3-0347	31	63	.2
S3-0348	35	40	.7
DETECTION LIMIT	2	1	0.1

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SAMPLE #	Pb ppm	Zn ppm	Ag ppm
S3-0349	24	85	.4
S3-0350	34	52	.2
S3-0351	28	53	.8
S3-0352	22	36	.4
S3-0353	23	61	.2
S3-0354	16	22	.1
S3-0355	23	58	.2
S3-0356	32	36	1.0
S3-0357	51	74	.7
S3-0358	24	23	.5
S3-0359	20	16	.3
S3-0360	44	730	.6
S3-0361	10	19	.2
S3-0362	33	30	.3
S3-0363	39	23	.2
S3-0364	49	12	.3
S3-0365	23	42	.7
S3-0366	23	57	.3
S3-0367	11	14	.2
S3-0368	29	53	.5
S3-0369	59	18	1.0
S3-0370	23	65	.4
S4-0101	56	128	.5
S4-0102	42	112	.3
S4-0103	34	98	.8
S4-0104	32	108	.3
S4-0105	37	98	.2
S4-0106	23	92	.1
S4-0107	21	80	.2
S4-0108	32	94	.2
S4-0109	37	89	.2
S4-0110	23	104	.1
S4-0111	29	83	.1
S4-0112	39	111	.4
S4-0121	27	28	.4
S4-0122	19	35	.8
S4-0123	18	27	.6
S4-0124	16	28	.8
S4-0125	8	16	.2
DETECTION LIMIT	2	1	0.1

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North Vancouver B.C. V7P 2S3
(604) 986-5211 Telex: 04-352578

PREPARED FOR: SAMIM CANADA LTD.
NOTES: nd = none detected
: -- = not analysed
: is = insufficient sample

REPORT NUMBER: 83-81-001 JOB NUMBER: 83247

SAMPLE #	Pb ppm	Zn ppm	Ag ppm
S4-0125	11	23	.4
S4-0127	16	42	.2
S4-0128	32	92	.2
S4-0129	24	48	1.4
S4-0130	26	56	.9
S4-0131	19	88	.2
S4-0132	32	56	.3
S4-0133	33	45	.6
S4-0134	55	19	.8
S4-0135	34	46	.5
S4-0136	38	59	.2
S4-0137	44	59	.5
S4-0138	31	64	.3
S4-0139	36	73	nd
S4-0140	29	31	.4
S4-0141	27	20	nd
S4-0142	22	44	.3
S4-0143	27	53	.2
S4-0144	13	20	.1
S4-0145	24	17	.5
S4-0146	39	38	.3
S4-0147	39	72	.3
S4-0148	50	69	.2
S4-0149	43	71	.3
S4-0150	52	54	.5
S4-0151	54	96	.1
S4-0152	51	81	.4
S4-0153	59	124	.3
S4-0154	47	81	.2
S4-0155	49	74	.2
S4-0156	42	73	.5
S4-0157	38	74	.1
S4-0158	48	65	nd
S4-0159	29	53	nd
S4-0160	47	82	nd
S4-0161	66	104	.3
S4-0162	53	74	.2
S4-0163	34	69	.4
S4-0164	34	87	.3
DETECTION LIMIT	2	1	0.1

VANGEOCHEM LAB LIMITED
1521 Pemberton Avenue
North Vancouver B.C. V7P 2S3
(604) 986-5211 Telex: 04-352578

PREPARED FOR: SAMIM CANADA LTD.
NOTES: nd = none detected
: — = not analysed
: is = insufficient sample

REPORT NUMBER: 83-81-001 JOB NUMBER: 83247

SAMPLE #	Pb ppm	Zn ppm	Ag ppm
S4-0165	49	77	.1
S4-0166	67	83	nd
S4-0167	58	77	.2
S4-0168	45	66	.4
S4-0169	45	62	.4
S4-0170	31	64	nd
S4-0171	36	74	.1
S4-0172	42	71	.2
S4-0173	37	70	.2
S4-0174	29	79	nd
S4-0175	21	47	.1
S4-0176	44	74	.1
S4-0177	36	95	.1
S4-0178	45	87	.4
S4-0179	39	68	.4
S4-0180	36	86	.2
S4-0181	18	91	.2
S4-0182	41	79	.1
S4-0183	35	69	.3
S4-0184	62	80	.1
S4-0185	56	98	nd
S4-0186	33	78	.2
S4-0187	43	86	nd
S4-0188	55	69	nd
S4-0189	29	70	nd
S4-0190	30	116	.3
S4-0191	42	143	.6
S4-0192	46	125	nd
S4-0193	24	79	.1
S4-0194	62	122	.1
S4-0195	61	131	.3
S4-0196	44	88	.1
S4-0197	25	74	.1
S4-0198	26	62	.2
S4-0199	19	56	.1
S4-0200	24	66	.1
S4-0201	31	79	nd
S4-0202	24	70	.2
S4-0203	24	34	.1
DETECTION LIMIT	2	1	0.1

VANGEOCHEM LAB LIMITED
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NOTES: nd = none detected
: -- = not analysed
: is = insufficient sample

REPORT NUMBER: 83-81-001 JOB NUMBER: 83247

SAMPLE #	Pb ppm	Zn ppm	Ag ppm
S4-0204	14	23	nd
S4-0205	49	76	nd
S4-0206	146	147	nd
S4-0207	52	98	nd
S4-0208	26	49	nd
S4-0209	39	64	nd
S4-0210	26	63	.1
S4-0211	24	64	nd
S4-0212	35	74	.2
S4-0213	16	27	.3
S4-0214	21	45	.3
S4-0215	32	56	.2
S4-0216	41	56	nd
S4-0217	66	79	nd
S4-0218	55	96	nd
S4-0219	69	99	.2
S4-0220	70	86	.2
S4-0221	56	69	.2
S4-0222	34	49	.1
S4-0223	45	65	.2
S4-0224	34	62	nd
S4-0225	34	71	.2
S4-0226	45	84	.1
S4-0227	36	71	.2
S4-0228	56	70	.1
S4-0229	42	75	.2
S4-0230	49	78	.1
S4-0231	35	67	.4
S4-0232	33	70	.1
S4-0233	34	74	.2
S4-0234	29	43	.2
S4-0235	29	49	.7
S4-0236	19	23	.4
S4-0237	23	56	.3
S4-0238	27	62	.3
S4-0239	34	77	.1
S4-0240	35	98	nd
S4-0241	34	51	nd
S4-0242	42	82	nd
DETECTION LIMIT	2	1	0.1

VANGEOCHEM LAB LIMITED
1521 Pemberton Avenue
North Vancouver B.C. V7P 2S3
(604) 986-5211 Telex: 04-352578

PREPARED FOR: SAMIM CANADA LTD.
NOTES: nd = none detected
: -- = not analysed
: is = insufficient sample

REPORT NUMBER: 83-81-001 JOB NUMBER: 83247

SAMPLE #	Pb ppm	Zn ppm	Ag ppm
S4-0243	33	79	.2
S4-0244	41	56	.7
S4-0245	38	56	.7
S4-0246	39	85	.2
S4-0247	44	71	.9
S4-0248	32	29	.1
S4-0249	29	64	.2
S4-0250	26	59	nd
S4-0251	29	50	.1
S4-0252	30	53	nd
S4-0253	32	74	nd
S4-0254	25	48	.3
S4-0255	39	53	.7
S4-0256	34	60	.3
S4-0257	22	44	.4
S4-0258	29	65	.2
S4-0259	31	45	.5
S4-0260	24	27	.1
S4-0261	20	30	.1
S4-0262	26	44	.4
S4-0263	37	61	.7
S4-0264	34	67	nd
S4-0265	35	93	nd
S4-0266	37	94	nd
S4-0267	33	84	nd
S4-0268	34	88	nd
S4-0269	29	81	nd
S4-0270	26	74	nd
S4-0271	25	77	nd
S4-0272	36	84	nd
S4-0273	36	89	.2
S4-0274	44	79	nd
S4-0275	57	89	nd
S4-0276	46	94	nd
S4-0277	29	86	nd
S4-0278	21	74	nd
S4-0279	27	85	nd
S4-0280	16	24	.3
S4-0281	12	43	.4
DETECTION LIMIT	2	1	0.1

VANGEOCHEM LAB LIMITED
1521 Pemberton Avenue
North Vancouver B.C. V7P 2S3
(604) 986-5211 Telex: 04-352578

PREPARED FOR: SAMIM CANADA LTD.
NOTES: nd = none detected
: -- = not analysed
: is = insufficient sample

REPORT NUMBER: 83-81-001 JOB NUMBER: 83247

SAMPLE #	Pb ppm	Zn ppm	Ag ppm
S4-0282	31	92	.7
S4-0283	38	81	.6
S4-0284	31	84	.4
S4-0285	44	93	.5
S4-0286	44	97	.5
S4-0287	36	86	.3
S4-0288	42	74	.3
S4-0289	25	42	.4
S4-0290	29	61	.4
S4-0291	29	69	.5
S4-0292	32	41	1.0
S4-0293	38	87	.5
S4-0294	38	85	.7
S4-0295	42	73	.5
S4-0296	36	58	1.0
S4-0297	32	72	.7
S4-0298	30	70	.6
S4-0299	33	74	.5
S4-0300	26	46	.7
S4-0301	33	68	.7
S4-0302	40	44	.9
S4-0303	30	56	1.0
S4-0304	40	91	.6
S4-0305	33	75	.8
S4-0306	34	86	.7
S4-0307	33	89	.5
S4-0308	36	85	.4
S4-0309	32	89	.1
S4-0310	40	99	.2
S4-0311	33	81	.2
S4-0312	37	50	.3
S4-0313	35	66	.4
S4-0314	38	34	.7
S4-0315	31	47	.5
S5-001	74	106	.4
S5-002	55	103	.4
S5-003	50	94	.1
S5-004	72	110	.2
S5-010	26	72	.4
DETECTION LIMIT	2	1	0.1

VANGEOCHEM LAB LIMITED
1521 Pemberton Avenue
North Vancouver B.C. V7P 2S3
(604) 986-5211 Telex: 04-352578

PREPARED FOR: SAYIM CANADA LTD.
NOTES: nd = none detected
: -- = not analysed
: is = insufficient sample

REPORT NUMBER: 83-81-001 JOB NUMBER: 83247

SAMPLE #	Pb ppm	Zn ppm	Ag ppm
S5-011	39	73	.5
S5-012	32	46	.4
S5-013	52	79	.4
S5-014	43	102	.3
S5-015	44	74	.4
S5-016	61	91	.3
S5-017	48	83	.2
S5-018	55	110	.4
S5-019	67	81	.3
S5-020	32	31	.7
S5-021	37	26	.4
S5-022	55	69	.4
S5-023	63	93	.5
S5-024	76	146	.4
S5-025	63	82	.5
S5-026	52	51	.7
S5-027	48	65	.6
S5-028	48	63	.2
S5-029	49	49	.3
S5-030	63	100	.3
S5-031	52	65	.5
S5-032	24	92	.4
S5-033	73	114	.4
S5-034	70	115	.4
S5-035	44	96	.4
S5-036	48	110	.5
S5-037	61	111	.4
S5-038	56	93	.3
S5-039	66	124	.1
S5-040	72	119	.3
S5-041	69	103	.2
S5-042	63	101	.3
S5-043	16	105	.4
S5-044	43	77	.3
S5-045	50	89	.4
S5-046	59	95	.2
S5-047	38	88	.1
S5-048	47	82	.1
S5-049	48	91	.2
DETECTION LIMIT	2	1	0.1

VANGEOCHEM LAB LIMITED
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North Vancouver B.C. V7P 2S3
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PREPARED FOR: SAMIM CANADA LTD.
NOTES: nd = none detected
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: is = insufficient sample

REPORT NUMBER: 83-81-001 JOB NUMBER: 83247

SAMPLE #	Pb ppm	Zn ppm	Ag ppm
S5-050	60	107	.3
S5-051	55	119	.1
S5-052	63	95	.4
S5-053	45	84	.1
S5-054	46	86	.4
S5-055	42	67	.6
S5-056	40	95	.4
S5-057	21	64	.3
S5-058	45	145	.2
S5-059	34	43	.2
S5-060	14	25	.2
S5-061	32	56	.1
S5-062	39	74	.4
S5-063	56	86	.4
S5-064	60	53	.3
S5-065	69	129	.3
S5-066	57	74	.4
S5-067	37	70	.1
S5-068	40	96	.2
S5-069	58	62	.3
S5-070	32	61	.3
S5-071	55	105	.3
S5-072	52	93	.3
S5-073	40	92	.4
S5-074	42	88	.2
S5-075	38	91	.7
S5-076	56	99	.4
S5-077	85	110	.3
S5-078	27	101	.3
S5-079	44	96	.3
S5-080	56	105	.5
S5-081	52	117	.2
S5-082	60	92	.2
S5-083	52	105	.4
S5-084	44	102	.3
S5-085	56	98	.4
S5-086	44	86	.3
S5-087	39	73	.3
S5-088	13	32	.2
DETECTION LIMIT	2	1	0.1

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PREPARED FOR: SAMIM CANADA LTD.
NOTES: nd = none detected
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: is = insufficient sample

REPORT NUMBER: 83-81-001 JOB NUMBER: 83247

SAMPLE #	Pb ppm	Zn ppm	Ag ppm
S5-089	36	74	.4
S5-090	52	96	.2
S5-091	40	85	.2
S5-092	59	110	.3
S5-093	59	119	.2
S5-094	48	101	.4
S5-095	59	110	.4
S5-096	54	87	.2
S5-097	31	64	.3
S5-098	39	70	.6
S5-099	44	85	.4
S5-100	55	107	.5
S6-400	75	72	.6
S6-401	37	86	.5
S6-402	40	74	.2
S6-403	42	56	.4
S6-404	43	88	nd
S6-405	31	67	.3
S6-406	29	61	.3
S6-407	23	59	.3
S6-408	39	51	.6
S6-409	42	64	.3
S6-410	28	24	.5
S6-411	32	46	.3
S6-412	50	50	.4
S6-413	65	83	.3
S6-414	52	75	.2
S6-415	27	41	.2
S6-416	28	39	.2
S6-417	40	32	.3
S6-418	44	64	.4
S6-419	32	58	.5
S6-420	29	59	.2
S6-421	49	52	.5
S6-422	29	39	.2
S6-423	26	39	nd
S6-424	49	46	.1
S6-425	42	85	.3
S6-426	30	33	.4
DETECTION LIMIT	2	1	0.1

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NOTES: nd = none detected
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SAMPLE #	Pb ppm	Zn ppm	Ag ppm
S6-427	37	91	.4
S6-428	51	94	.2
S6-429	32	62	.2
S6-430	31	51	.7
S6-431	37	64	.6
S6-432	27	53	.6
S6-433	36	75	.4
S6-434	31	69	.3
S6-435	31	55	.2
S6-436	34	62	.2
S6-437	31	66	.1
S6-438	39	47	.3
S6-439	29	34	.7
S6-440	44	38	.8
S6-441	34	39	.7
S6-442	43	75	.5
S6-443	33	46	.6
S6-444	31	60	.6
S6-445	34	54	1.0
S6-446	32	74	.3
S6-447	26	45	.3
S6-448	30	22	.5
S6-449	34	49	.4
S6-450	58	92	.3
S6-500	39	106	.4
4+50N 0721	59	24	.4
4+50N 0722	9	5	.2
4+50N 0723	7	6	.2
4+50N 0724	19	8	.5
4+50N 0725	75	66	1.5
4+50N 0726	38	72	.1
4+50N 0727	48	55	.1
4+50N 0728	41	69	.3
4+50N 0729	163	110	.3
4+50N 0730	108	93	.5
4+50N 0731	100	82	.1
4+50N 0732	77	91	.5
4+50N 0733	36	94	.2
6+25N 0741	10	15	.3
DETECTION LIMIT	2	1	0.1

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PREPARED FOR: SAMIM CANADA LTD.
NOTES: nd = none detected
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REPORT NUMBER: 83-81-001 JOB NUMBER: 83247

SAMPLE #	Pb ppm	Zn ppm	Ag ppm
6+25N 0742	35	31	.3
6+25N 0743	23	21	.3
6+25N 0744	19	14	.2
6+25N 0745	14	19	.2
6+25N 0746	10	8	.2
6+25N 0747	16	15	.2
6+25N 0748	38	12	.5
6+25N 0749	68	84	.1
6+25N 0750	61	96	.1
6+25N 0751	58	66	.3
6+25N 0752	23	44	.5
6+25N 0753	13	21	.2
6+25N 0754	14	15	.3
6+25N 0755	37	89	nd
6+25N 0756	42	102	.1
6+25N 0757	38	98	.3
6+25N 0758	38	99	.1
8+25N 0761	11	14	.2
8+25N 0762	8	5	.2
8+25N 0763	10	6	.1
8+25N 0764	16	26	.4
8+25N 0765	11	5	nd
8+25N 0766	28	61	.2
8+25N 0767	24	65	.1
8+25N 0768	26	72	.3
8+25N 0769	68	86	.4
8+25N 0770	49	69	.1
8+25N 0771	24	49	.2
8+25N 0772	12	12	.4
8+25N 0773	18	44	.1
8+25N 0774	25	59	nd
8+25N 0775	21	36	.1
8+25N 0776	44	102	.1
8+25N 0777	41	75	.2
8+25N 0778	36	73	.1
10+25N 0781	62	87	.2
10+25N 0782	86	82	.2
10+25N 0783	112	85	.4
10+25N 0784	86	79	.2
DETECTION LIMIT	2	1	0.1

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PREPARED FOR: SAMIM CANADA LTD.
NOTES: nd = none detected
: -- = not analysed
: is = insufficient sample

REPORT NUMBER: 83-81-001 JOB NUMBER: 83247

SAMPLE #	Pb ppm	Zn ppm	Ag ppm
10+25N 0785	126	107	.3
10+25N 0786	124	104	.5
10+25N 0787	318	132	.9
10+25N 0788	63	69	.3
10+25N 0789	57	98	.2
10+25N 0790	73	93	.3
10+25N 0791	73	100	.3
10+25N 0792	74	99	.2
10+25N 0793	43	104	.1
10+25N 0794	38	82	.1
10+25N 0795	53	29	.4
10+25N 0796	61	51	.5
10+25N 0797	22	14	.3
10+25N 0798	56	61	.3
16+00N 0801	is	is	is
16+00N 0802	70	111	.3
16+00N 0803	61	95	.2
16+00N 0804	73	84	.1
16+00N 0805	57	73	.2
16+00N 0806	49	86	nd
16+00N 0807	36	95	nd
16+00N 0808	36	99	.5
16+00N 0809	45	85	.6
16+00N 0810	11	17	.6
16+00N 0811	16	14	.6
16+00N 0812	24	56	.1
16+00N 0813	42	79	.3
16+00N 0814	24	48	.4
16+00N 0815	45	59	.4
DETECTION LIMIT	2	1	0.1

VANGEOCHEM LAB LIMITED

1521 Pemberton Ave.
North Vancouver B.C. V7P 2S3
(604)986-5211 Telex: 04-352578

GEOCHEMICAL ANALYTICAL REPORT

CLIENT: SAMIM CANADA LTD.
ADDRESS: 2116-130 Adelaide St. W. P.O.
: Box 7 Toronto Ont.
: M5H 3P5

DATE: September 16 1983
REPORT#: 83-81-004

PROJECT#: DEB
COPY SENT TO: SAMIM CANADA LTD.
SAMPLES ARRIVED: September 2 1983
REPORT COMPLETED: September 16 1983
ANALYSED FOR: Pb Zn Ag

JOB#: 83277
INVOICE#: 7458
TOTAL SAMPLES: 92
SAMPLE TYPE: 92 SOIL
REJECTS: SAVED

PREPARED FOR: T. J. BOTTRILL

ANALYSED BY: VGC STAFF

SIGNED: _____

GENERAL REMARK: NONE

VANGEOCHEM LAB LIMITED
1521 Pemberton Avenue
North Vancouver B.C. V7P 2S3
(604) 986-5211 Telex: 04-352578

PREPARED FOR: SAMIM CANADA LTD.
NOTES: nd = none detected
: — = not analysed
: is = insufficient sample

REPORT NUMBER: 83-81-004 JOB NUMBER: 83277

SAMPLE #	Pb ppm	Zn ppm	Ag ppm
P 13 C - 20	38	61	.2
P 13 C - 30	34	72	.1
P 13 C - 40	31	39	.8
P 13 C - 50	30	64	.4
P 13 C - 60	26	56	.2
P 13 C - 70	26	68	.1
P 13 C - 80	20	41	nd
P 13 C - 90	23	30	.5
P 13 C - 100	25	31	nd
P 13 C - 110	34	4	.2
P 13 C - 120	37	49	.5
P 13 C - 130	32	39	.4
P 13 C - 140	19	32	nd
P 13 C - 150	27	58	.4
P 13 C - 160	26	70	.2
P 13 C - 170	20	42	.2
P 13 C - 180	43	79	nd
P 13 C - 190	39	73	.3
P 13 C - 200	37	68	nd
P 13 C - 210	42	65	.1
P 13 C - 220	59	100	.1
L9 - 6+00E	43	91	.1
L9 - 6+10E	36	78	nd
L9 - 6+20E	44	84	.1
L9 - 6+30E	49	81	.2
L9 - 6+40E	37	83	.1
L9 - 6+50E	34	69	nd
L9 - 6+60E	38	64	.1
L9 - 6+70E	36	57	.3
L9 - 6+80E	64	98	.2
L9 - 6+90E	45	61	.2
L9 - 7+00E	44	64	nd
L9 - 7+20E	113	85	nd
L9 - 7+30E	61	86	.2
L9 - 7+40E	47	85	nd
L9 - 7+50E	41	96	.1
L9 - 7+60E	31	61	nd
L9 - 7+70E	23	34	.4
L9 - 7+80E	23	14	nd
DETECTION LIMIT	2	1	0.1

VANGEOCHEM LAB LIMITED
1521 Pemberton Avenue
North Vancouver B.C. V7P 2S3
(604) 986-5211 Telex: 04-352578

PREPARED FOR: SAMIM CANADA LTD.
NOTES: nd = none detected
: -- = not analysed
: is = insufficient sample

REPORT NUMBER: 83-81-004 JOB NUMBER: 83277

SAMPLE #	Pb ppm	Zn ppm	Ag ppm
L9 - 7+90E	42	126	.1
L9 - 8+00E	57	48	.2
L9 - 8+10E	63	54	.1
L9 - 8+20E	46	35	nd
L9 - 8+30E	55	73	nd
L9 - 8+40E	33	29	.4
L9 - 8+50E	38	65	.2
L9 - 8+60E	24	62	.4
L9 - 8+70E	23	24	.2
L9 - 8+80E	54	111	nd
L9 - 8+90E	23	24	nd
L9 - 9+00E	16	17	nd
L9 - 9+10E	26	36	.2
L9 - 9+20E	24	64	.4
L9 - 9+30E	40	89	.3
L9 - 9+40E	58	103	.2
L9 - 9+50E	39	66	.2
L9 - 9+70E	34	52	nd
L9 - 9+80E	27	77	nd
L9 - 9+90E	30	21	.3
L9 - 10+00E	26	39	.1
L9 - 10+10E	24	31	.2
L9 - 10+20E	29	46	.4
L9 - 10+30E	29	45	nd
L9 - 10+40E	33	62	.2
L9 - 10+50E	60	158	.2
L9 - 10+60E	36	56	.3
L9 - 10+70E	52	72	.3
L9 - 10+80E	35	77	.3
L9 - 10+90E	29	58	.1
L9 - 11+00E	35	56	.2
L9 - 11+10E	40	59	.3
L9 - 11+20E	60	96	nd
L9 - 11+30E	28	44	.1
L9 - 11+40E	27	39	nd
L9 - 11+50E	28	42	nd
L9 - 11+60E	35	65	.1
L9 - 11+70E	56	87	nd
L9 - 11+80E	35	84	.3
DETECTION LIMIT	2	1	0.1

VANGEOCHEM LAB LIMITED
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PREPARED FOR: SAMIM CANADA LTD.
NOTES: nd = none detected
: -- = not analysed
: is = insufficient sample

REPORT NUMBER: 83-81-004 JOB NUMBER: 83277

SAMPLE #	Pb ppm	Zn ppm	Ag ppm
L9 - 11+90E	56	114	nd
L9 - 12+00E	28	44	.1
L9 - 12+10E	39	62	.2
L9 - 12+20E	44	74	.2
L9 - 12+30E	52	70	.3
L9 - 12+40E	26	48	nd
L9 - 12+50E	34	46	.2
L9 - 12+60E	33	27	.3
L9 - 12+70E	44	49	nd
L9 - 12+80E	50	76	.1
L9 - 12+90E	26	29	nd
L9 - 13+00E	34	59	.1
L9 - 13+10E	35	56	nd
L9 - 13+25E	43	86	.4
DETECTION LIMIT	2	1	0.1

APPENDIX C

Analytical Results

Geochemistry and Assays, Rocks

VANGEOCHEM LAB LIMITED
1521 Pemberton Ave.
North Vancouver B.C. V7P 2S3
(604)986-5211 Telex: 04-352578

GEOCHEMICAL ANALYTICAL REPORT

CLIENT: SAMIM CANADA LTD.
ADDRESS: 2116-130 Adelaide St. W. P.O.
: Box 7 Toronto Ont.
: M5H 3P5

DATE: September 12 1983
REPORT#: 83-81-002

PROJECT#: DEB
COPY SENT TO: SAMIM CANADA LTD.
SAMPLES ARRIVED: September 2 1983
REPORT COMPLETED: September 9 1983
ANALYSED FOR: Pb Zn Ag

JOB#: 83278
INVOICE#: 7440
TOTAL SAMPLES: 20
SAMPLE TYPE: 20 ROCK
REJECTS: SAVED

PREPARED FOR: MR. STANLEY ROBINSON

ANALYSED BY: VGC Staff

SIGNED: _____

GENERAL REMARK: None

VANGEOCHEM LAB LIMITED
1521 Pemberton Avenue
North Vancouver B.C. V7P 2S3
(604) 986-5211 Telex: 04-352578

PREPARED FOR: SAMIM CANADA LTD.
NOTES: nd = none detected
: -- = not analysed
: is = insufficient sample

REPORT NUMBER: 83-81-002 JOB NUMBER: 83278

SAMPLE #	Pb ppm	Zn ppm	Ag ppm
RC - 16 - 01	23	3180	.7
RC - 16 - 02	28	620	nd
RC - 16 - 03	121	670	.1
RC - 16 - 04	45	2130	.1
RC - 16 - 05	33	379	nd
RC - 16 - 06	21	222	nd
RC - 16 - 07	26	650	nd
RC - 16 - 08	20	331	nd
RC - 16 - 09	12	74	nd
RC - 16 - 10	15	124	nd
RC - 16 - 11	20	86	nd
G - TB - 9 - 1	57	103	.1
G - TB - 9 - 2	105	27	nd
G - TB - 9 - 3	212	56	nd
G - TB - 9 - 4	50	22	nd
G - SR - 4 - 1	155	101	1.5
G - SR - 4 - 2	23	12	nd
G - SR - 4 - 3	500	54	1.0
G - SR - 10 - 1	55	51	nd
G - SR - 13 - 6	16	27	nd
DETECTION LIMIT	2	1	0.1

VANGEOCHEM LAB LIMITED

1521 Pemberton Ave.
North Vancouver B.C. V7P 2S3
(604)986-5211 Telex: 04-352578

ASSAY ANALYTICAL REPORT

CLIENT: SAMIM CANADA LTD. DATE: September 13 1983
ADDRESS: 2116-130 Adelaide St. W. P.O.
: Box 7 Toronto Ont. **REPORT#: 83-81-003**
: M5H 3P5

PROJECT#: DEB
COPY SENT TO: SAMIM CANADA LTD.
SAMPLES ARRIVED: September 2 1983
REPORT COMPLETED: September 13 1983
ANALYSED FOR: Cu Pb Zn Ag Au

JOB#: 83279
INVOICE#: 7448
TOTAL SAMPLES: 2
REJECTS: SAVED FOR 3 MONTHS
PULPS: SAVED FOR 1 YEAR
SAMPLE TYPE: 2 Rock

PREPARED FOR: MR. STANLEY ROBINSON

ANALYSED BY: David Chiu

SIGNED: _____
Registered Provincial Assayer

GENERAL REMARK: None

VANGEOCHEM LAB LIMITED
1521 Pemberton Avenue
North Vancouver B.C. V7P 2S3
(604) 986-5211 Telex: 04-352578

PREPARED FOR: SAMIM CANADA LTD.
NOTES: nd = none detected
: -- = not analysed
: is = insufficient sample

REPORT NUMBER: 83-81-003 JOB NUMBER: 83279

SAMPLE #	Cu %	Pb %	Zn %	Ag oz/st	Au oz/st
G - TB - 16 - 1	.41	27.57	.85	42.54	.253
S - SR - 16 - 1	.38	42.13	.66	47.98	.141
DETECTION LIMIT	.01	.01	.01	.01	.005

! Troy oz/short ton = 34.28 opm 1 ppm = 0.0001% ppm = parts per million

signed: _____

VANGEOCHEM LAB LIMITED

1521 Pemberton Ave.
North Vancouver B.C. V7P 2S3
(604)986-5211 Telex: 04-352578

GEOCHEMICAL ANALYTICAL REPORT

CLIENT: SAMIM CANADA LTD. DATE: Sept 20 1983
ADDRESS: 2116-130 Adelaide St. W. P.O.
: Box 7 Toronto Ont. **REPORT#: 83-81-005**
: M5H 3P5

PROJECT#: DEB JOB#: 83323
COPY SENT TO: SAMIM CANADA LTD. INVOICE#: 7484
SAMPLES ARRIVED: Sept 14 1983 TOTAL SAMPLES: 12
REPORT COMPLETED: Sept 20 1983 SAMPLE TYPE: 12 rock
ANALYSED FOR: Pb Zn Ag Au REJECTS: SAVED

PREPARED FOR: T.J. BOTTRILL

ANALYSED BY: D.C.

SIGNED: _____

GENERAL REMARK: None

VANGEOCHEM LAB LIMITED
1521 Pemberton Avenue
North Vancouver B.C. V7P 2S3
(604) 986-5211 Telex: 04-352578

PREPARED FOR: SAMIM CANADA LTD.
NOTES: nd = none detected
: -- = not analysed
: is = insufficient sample

REPORT NUMBER: 83-81-005 JOB NUMBER: 83323

SAMPLE #	Pb ppm	Zn ppm	Ag ppm	Au ppb	
G-TB-4-1	4100	223	7.0	--	
G-TB-5-1	102	42	.6	--	
G-TB-5-2	31	80	nd	--	
G-TB-5-3	23	78	.2	--	
G-TB-5-4	100	18	nd	--	
G-TB-5-5	400	123	1.1	10	
G-TB-5-6	47	100	.1	--	
G-TB-6-1	54	26	nd	--	
G-TB-6-2	50	94	.2	--	
G-TB-6-3	62	48	nd	--	
G-TB-13-1	6800	490	9.6	--	Follow-up
G-SR-29-1	39	24	nd	--	
DETECTION LIMIT	2	1	0.1	5	

VANGEOCHEM LAB LIMITED

1521 Pemberton Ave.
North Vancouver B.C. V7P 2S3
(604)986-5211 Telex: 04-352578

GEOCHEMICAL ANALYTICAL REPORT

CLIENT: SAMIM CANADA LTD. DATE: September 26 1983
ADDRESS: 2116-130 Adelaide St. W. P.O.
: Box 7 Toronto Ont. REPORT#: 83-81-006
: M5H 3P5

PROJECT#: DEB JOB#: 83342
COPY SENT TO: SAMIM CANADA LTD. INVOICE#: 7512
SAMPLES ARRIVED: September 16 1983 TOTAL SAMPLES: 193
REPORT COMPLETED: September 24 1983 SAMPLE TYPE: 193 DRILL CORE
ANALYSED FOR: Pb Zn Ag REJECTS: SAVED

PREPARED FOR: MR. STANLEY ROBINSON

ANALYSED BY: VGC STAFF

SIGNED:

GENERAL REMARK: NONE

VANGEOCHEM LAB LIMITED
1521 Perberton Avenue
North Vancouver B.C. V7P 2S3
(604) 986-5211 Telex: 24-352578

PREPARED FOR: SAKIM CANADA LTD.
NOTES: nd = none detected
: -- = not analysed
: is = insufficient sample

REPORT NUMBER: 83-81-005 JOB NUMBER: 83342

SAMPLE #	Pb ppm	Zn ppm	Ag ppm
001001	24	109	.6
001002	23	66	.3
001003	24	49	.4
001004	27	80	.3
001005	189	162	.8
001006	36	119	nd
001007	24	81	nd
001008	34	88	.1
001009	32	79	.1
001010	67	63	.5
001011	16	68	.2
001012	25	95	.2
001013	22	91	.2
001014	30	94	.5
001015	2490	3380	8.6
001016	204	730	.8
001017	56	51	.5
001018	149	11	.5
001019	99	30	1.5
001020	51	49	.5
001021	31	111	.4
001022	24	86	.3
001023	35	85	.3
001024	35	93	.4
001025	35	104	nd
001026	32	101	nd
001027	39	95	.2
001028	31	89	.1
001029	37	101	.3
001030	24	89	.2
001031	29	91	.1
001032	27	92	nd
001033	36	88	.4
001034	31	104	.1
001035	29	82	.1
001036	44	143	.3
001037	47	111	.1
001038	43	86	.1
001039	58	67	nd
DETECTION LIMIT	2	1	0.1

VANGEOCHEM LAB LIMITED
1521 Pemberton Avenue
North Vancouver B.C. V7P 2S3
(604) 986-5211 Telex: 04-352578

PREPARED FOR: SAXIM CANADA LTD.

NOTES: nd = none detected
: -- = not analysed
: is = insufficient sample

REPORT NUMBER: 83-81-005 JOB NUMBER: 83342

SAMPLE #	Pb ppm	Zn ppm	Ag ppm
001040	25	43	.2
001041	24	136	.2
001042	52	79	.3
001043	18	130	.1
001044	13	93	.4
001045	16	58	.5
001046	19	63	.8
001047	25	32	1.6
001048	63	81	.3
001049	3040	84	7.7
001050	31	43	.4
001051	100	177	.7
001052	29	173	.4
001053	36	74	.8
001054	331	2930	3.4
001055	44	52	.9
001056	84	28	nd
001057	38	89	nd
001058	16	119	.4
001059	16	112	.3
001060	17	116	.2
001061	25	63	.4
001062	26	61	.3
001063	14	76	.4
001064	15	95	.3
001065	24	94	nd
001066	35	82	nd
001066A	63	80	nd
001067	23	54	.3
001068	66	56	.1
001069	21	86	.1
001070	19	85	.1
001071	25	79	.4
001072	38	230	.8
001073	15	61	nd
001074	12	95	.3
001075	22	131	nd
001076	15	97	nd
001077	26	64	.2
DETECTION LIMIT	2	1	0.1

VANGEOCHEM LAB LIMITED
1521 Pemberton Avenue
North Vancouver B.C. V7P 2S3
(604) 986-5211 Telex: 04-352578

PREPARED FOR: SAMIM CANADA LTD.
NOTES: nd = none detected
: -- = not analysed
: is = insufficient sample

REPORT NUMBER: 83-81-005 JOB NUMBER: 83342

SAMPLE #	Pb ppm	Zn ppm	Ag ppm
021078	23	107	.1
021079	39	151	nd
021080	41	109	nd
021081	45	91	.1
021082	36	80	nd
021083	47	84	nd
021084	29	129	nd
021085	23	89	.3
021086	24	103	nd
021087	29	69	nd
021088	26	145	.2
021089	78	80	.1
021090	26	112	.2
021091	54	64	.6
021092	71	53	.9
021093	35	107	.2
021094	17	126	nd
021095	22	100	.3
021096	19	76	.2
021097	18	119	.6
021098	21	101	.2
021099	33	86	nd
021100	37	76	.1
021101	24	107	nd
021102	520	2610	1.2
021103	1180	1930	4.8
021104	30	112	.2
021105	24	79	.3
021106	62	32	.8
021107	45	219	.6
021108	54	69	.8
021109	46	45	1.1
021110	55	51	2.0
021111	35	45	.4
021112	19	79	.4
021113	39	131	.2
021114	70	162	.5
021115	238	860	.5
021116	97	224	.1
DETECTION LIMIT	2	1	0.1

VANGEOCHEM LAB LIMITED
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(604) 986-5211 Telex: 04-352578

PREPARED FOR: SAMIM CANADA LTD.
NOTES: nd = none detected
: -- = not analysed
: is = insufficient sample

REPORT NUMBER: 83-81-006 JOB NUMBER: 83342

SAMPLE #	Pb ppm	Zn ppm	Ag ppm
001117	36	121	.4
001118	29	31	nd
001119	35	56	.2
001120	76	112	nd
001121	45	90	.1
001122	38	69	nd
001123	44	76	.1
001124	42	75	.3
001125	30	92	.1
001126	14	106	.2
001127	22	119	nd
001128	30	112	nd
001129	39	116	nd
001130	35	111	nd
001131	44	118	nd
001132	25	97	nd
001133	58	136	.1
001134	26	110	nd
001135	34	101	.1
001136	35	89	nd
001137	49	37	nd
001138	44	39	.3
001139	43	61	nd
001140	61	57	nd
001141	55	49	.1
001142	24	121	nd
001143	24	63	.2
001144	45	109	nd
001145	31	122	nd
001146	29	133	.1
001147	57	81	.1
001148	58	79	nd
001149	86	148	nd
001150	55	87	nd
001151	99	62	nd
001152	65	89	.1
001153	31	113	nd
001154	30	100	nd
001155	16	81	nd
DETECTION LIMIT	2	1	0.1

VANGEOCHEM LAB LIMITED
1521 Pemberton Avenue
North Vancouver B.C. V7P 2S3
(604) 986-5211 Telex: 04-352578

PREPARED FOR: SAMIM CANADA LTD.

NOTES: nd = none detected
: -- = not analysed
: is = insufficient sample

REPORT NUMBER: 83-01-005 JOB NUMBER: 83342

SAMPLE #	Pb ppm	Zn ppm	Ag ppm
001117	36	121	.4
001118	29	31	nd
001119	35	56	.2
001120	76	112	nd
001121	45	90	.1
001122	38	69	nd
001123	44	76	.1
001124	42	75	.3
001125	30	92	.1
001126	14	106	.2
001127	22	119	nd
001128	30	112	nd
001129	39	116	nd
001130	35	111	nd
001131	44	118	nd
001132	25	97	nd
001133	68	136	.1
001134	26	110	nd
001135	34	101	.1
001136	35	89	nd
001137	49	37	nd
001138	44	39	.3
001139	43	61	nd
001140	61	57	nd
001141	55	49	.1
001142	24	121	nd
001143	24	63	.2
001144	45	109	nd
001145	31	122	nd
001146	29	133	.1
001147	57	81	.1
001148	58	79	nd
001149	65	148	nd
001150	55	67	nd
001151	99	62	nd
001152	65	89	.1
001153	31	113	nd
001154	30	100	nd
001155	16	81	nd
DETECTION LIMIT	2	1	0.1

VANGEOCHEM LAB LIMITED
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North Vancouver B.C. V7P 2S3
(604) 986-5211 Telex: 04-352578

PREPARED FOR: SAMIM CANADA LTD.
NOTES: nd = none detected
: -- = not analysed
: is = insufficient sample

REPORT NUMBER: 83-01-005 JOB NUMBER: 83342

SAMPLE #	Pb ppm	Zn ppm	Ag ppm
001155	2090	1140	5.3
001157	32	98	nd
001158	39	134	nd
001159	33	123	nd
001160	35	109	nd
001161	79	119	.2
001162	48	36	nd
001163	41	135	nd
001164	41	96	nd
001165	49	51	.1
001166	25	89	.1
001167	34	165	.1
001168	340	860	.9
001169	26	105	nd
001170	23	118	nd
001171	45	92	nd
001172	41	16	nd
001173	34	94	nd
001174	48	45	nd
001175	46	52	nd
001176	56	61	nd
001177	39	72	nd
001178	25	125	.1
001179	25	103	nd
001180	24	74	nd
001181	22	121	nd
001182	79	50	nd
001183	16	76	.2
001184	15	59	.6
001185	19	134	nd
001186	20	1150	nd
001187	31	1920	.4
001188	16	1440	nd
001189	13	1230	.2
001190	22	135	nd
001191	19	97	nd
001192	20	760	nd
DETECTION LIMIT	2	1	0.1

X-RAY ASSAY LABORATORIES LIMITED

1885 LESLIE STREET, DON MILLS, ONTARIO M3B 3J4

PHONE 416-445-5755 TELEX 06-986947

CERTIFICATE OF ANALYSIS

TO: SAMIM CANADA LIMITED
ATTN: S. ROBINSON
P.O. BOX 7
130 ADELAIDE STREET WEST, SUITE 2116
TORONTO, ONTARIO M5H 3P5

CUSTOMER NO. 874

DATE SUBMITTED
19-SEP-83

REPORT 19166

REF. FILE 14945-T3

8 S.CORES

WERE ANALYSED AS FOLLOWS:

	METHOD	DETECTION LIMIT
AU PPB	FADCP	2.000
AU OZ/TON	FA	0.001
WRMAJ %	WR	0.010
CU PPM	DCP	0.500
CU %	XRF	0.010
ZN PPM	DCP	0.500
ZN %	XRF	0.010
WRMIN PPM	WR	10.000
AG PPM	DCP	0.500
AG OZ/TON	FA	0.100
PB PPM	DCP	2.000
PB %	XRF	0.010
30 ELEMENT	EMS	

X-RAY ASSAY LABORATORIES LIMITED

DATE 04-OCT-83

CERTIFIED BY S. Moore per MG

*** UNLESS INSTRUCTED OTHERWISE WE WILL DISCARD PULPS 180 DAYS ***
AND REJECTS 90 DAYS FROM DATE OF THIS REPORT

NOTE: SAMPLES WITH LOW SUMS
HAVE BEEN REPEATED WITH
NO CHANGE. OTHER ELEMENTS
LIKELY PRESENT.

SAMPLE	AU PPB	AU OZ/TON	CU PPM	CU %
001193	16	--	13.0	--
001194	5	--	10.0	--
001195	--	0.230	--	0.09
001196	560	--	92.0	--
001197	14	--	8.0	--
001198	31	--	7.0	--
001199	--	0.089	--	0.02
001200	23	--	130.	--

SAMPLE	ZN PPM	ZN %	AG PPM	AG OZ/TON	PB PPM	PB %
001193	380.	--	5.5	--	1300	--
001194	110.	--	1.0	--	50	--
001195	--	16.7	--	15.90	--	16.4
001196	>4000.	--	33.0	--	>4000	--
001197	610.	--	2.0	--	260	--
001198	310.	--	3.0	--	990	--
001199	--	2.43	--	0.32	--	0.20
001200	>4000.	--	17.0	--	>4000	--

X-RAY ASSAY LABORATORIES LIMITED

1885 LESLIE STREET, DON MILLS, ONTARIO M3B 3J4

PHONE 416-445-5755 TELEX 06-986947

CERTIFICATE OF ANALYSIS

REPORT 19166 REF. FILE 14945-T3 04-OCT-83

TO: SAMIM CANADA LIMITED
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P.O. BOX 7
130 ADELAIDE STREET WEST, SUITE 2116
TORONTO, ONTARIO M5H 3P5
8 S.CORES

CUSTOMER NO. 874

DATE SUBMITTED
19-SEP-83

ELEMENT	SENS*	001193	001194	ELEMENT	SENS*	001193	001194
ANTIMONY	(4)	ND	ND	MANGANESE	(1)	L	L
ARSENIC	(4)	ND	ND	MERCURY	(4)	ND	ND
BERYLLIUM	(2)	ND	ND	MOLYBDENUM	(3)	FT	FT
BISMUTH	(2)	ND	ND	NICKEL	(1)	FT	FT
CADMIUM	(4)	ND	ND	SILVER	(1)	FT	ND
CERIUM	(5)	T	ND	TANTALUM	(5)	ND	ND
NIOBIUM	(4)	ND	ND	THORIUM	(3)	ND	ND
CHROMIUM	(4)	T	T	TIN	(2)	FT	FT
COBALT	(3)	ND	ND	TITANIUM	(2)	TL	LM
COPPER	(1)	FT	FT	TUNGSTEN	(4)	ND	ND
GALLIUM	(2)	FT	FT	URANIUM	(3)	ND	ND
GERMANIUM	(1)	ND	ND	VANADIUM	(2)	FT	FT
IRON	(2)	MH	MH	YTTRIUM	(3)	T	T
LEAD	(2)	LM	FT	ZINC	(4)	TL	T
LITHIUM	(4)	ND	ND	ZIRCONIUM	(4)	T	TL

LEGEND

KEY TO SYMBOLS

H - 10% PLUS	L - 0.1-1%	
MH - 5-15%	TL - 0.05-0.5%	
M - 1-10%	T - 0.01-0.1%	
LM - 0.5-5%	FT - 0.01% OR LESS	
	ND - NOT DETECTED	

*SENSITIVITY (LIMIT OF DETECTION)

1 - 0.0005-0.001%
2 - 0.001-0.005%
3 - 0.005-0.01%
4 - 0.01-0.05%
5 - 0.05-0.1%

NOTE: BETTER SENSITIVITIES CAN BE OBTAINED WITH SPECIAL TECHNIQUES, IF AND WHEN REQUIRED.

X-RAY ASSAY LABORATORIES LIMITED

1885 LESLIE STREET, DON MILLS, ONTARIO M3B 3J4

PHONE 416-445-5755 TELEX 06-986947

CERTIFICATE OF ANALYSIS

REPORT 19166 REF. FILE 14945-T3 04-OCT-83

TO: SAMIM CANADA LIMITED
ATTN: S. ROBINSON
P.O. BOX 7
130 ADELAIDE STREET WEST, SUITE 2116
TORONTO, ONTARIO M5H 3P5
8 S.CORES

CUSTOMER NO. 874

DATE SUBMITTED
19-SEP-83

ELEMENT	SENS*	001195	001196	ELEMENT	SENS*	001195	001196
ANTIMONY	(4)	TL	ND	MANGANESE	(1)	T	TL
ARSENIC	(4)	TL	ND	MERCURY	(4)	ND	ND
BERYLLIUM	(2)	ND	ND	MOLYBDENUM	(3)	FT	FT
BISMUTH	(2)	ND	ND	NICKEL	(1)	FT	FT
CADMIUM	(4)	TL	TL	SILVER	(1)	T	FT
CERIUM	(5)	ND	ND	TANTALUM	(5)	ND	ND
NIOBIUM	(4)	ND	ND	THORIUM	(3)	ND	ND
CHROMIUM	(4)	T	T	TIN	(2)	T	FT
COBALT	(3)	ND	ND	TITANIUM	(2)	T	L
COPPER	(1)	T	T	TUNGSTEN	(4)	ND	ND
GALLIUM	(2)	FT	FT	URANIUM	(3)	ND	ND
GERMANIUM	(1)	ND	ND	VANADIUM	(2)	FT	FT
IRON	(2)	H	H	YTTRIUM	(3)	ND	ND
LEAD	(2)	H	M	ZINC	(4)	H	H
LITHIUM	(4)	ND	ND	ZIRCONIUM	(4)	T	T

LEGEND

KEY TO SYMBOLS

H - 10% PLUS	L - 0.1-1%	
MH - 5-15%	TL - 0.05-0.5%	
M - 1-10%	T - 0.01-0.1%	
LM - 0.5-5%	FT - 0.01% OR LESS	
	ND - NOT DETECTED	

*SENSITIVITY (LIMIT OF DETECTION)

1 - 0.0005-0.001%
2 - 0.001-0.005%
3 - 0.005-0.01%
4 - 0.01-0.05%
5 - 0.05-0.1%

NOTE: BETTER SENSITIVITIES CAN BE OBTAINED WITH SPECIAL TECHNIQUES, IF AND WHEN REQUIRED.

X-RAY ASSAY LABORATORIES LIMITED

1885 LESLIE STREET, DON MILLS, ONTARIO M3B 3J4

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TORONTO, ONTARIO M5H 3P5
8 S.CORES

CUSTOMER NO. 874

DATE SUBMITTED
19-SEP-83

ELEMENT	SENS*	001197	001199	ELEMENT	SENS*	001197	001199
ANTIMONY	(4)	ND	ND	MANGANESE	(1)	L	TL
ARSENIC	(4)	ND	(M)	MERCURY	(4)	ND	ND
BERYLLIUM	(2)	ND	ND	MOLYBDENUM	(3)	FT	FT
BISMUTH	(2)	ND	ND	NICKEL	(1)	T	FT
CADMIUM	(4)	ND	T	SILVER	(1)	ND	FT
CERIUM	(5)	ND	ND	TANTALUM	(5)	ND	ND
NIOBIUM	(4)	ND	ND	THORIUM	(3)	ND	ND
CHROMIUM	(4)	TL	T	TIN	(2)	FT	FT
COBALT	(3)	FT	ND	TITANIUM	(2)	LM	T
COPPER	(1)	FT	T	TUNGSTEN	(4)	ND	ND
GALLIUM	(2)	FT	FT	URANIUM	(3)	ND	ND
GERMANIUM	(1)	ND	ND	VANADIUM	(2)	FT	FT
IRON	(2)	MH	(H)	YTTRIUM	(3)	T	ND
LEAD	(2)	T	TL	ZINC	(4)	TL	LM
LITHIUM	(4)	ND	ND	ZIRCONIUM	(4)	TL	ND

LEGEND

KEY TO SYMBOLS

H - 10% PLUS
MH - 5-15%
M - 1-10%
LM - 0.5-5%
L - 0.1-1%
TL - 0.05-0.5%
T - 0.01-0.1%
FT - 0.01% OR LESS
ND - NOT DETECTED

*SENSITIVITY (LIMIT OF DETECTION)

1 - 0.0005-0.001%
2 - 0.001-0.005%
3 - 0.005-0.01%
4 - 0.01-0.05%
5 - 0.05-0.1%

NOTE: BETTER SENSITIVITIES CAN BE OBTAINED WITH SPECIAL TECHNIQUES, IF AND WHEN REQUIRED.

X-RAY ASSAY LABORATORIES LIMITED

1885 LESLIE STREET, DON MILLS, ONTARIO M3B 3J4

PHONE 416-445-5755 TELEX 06-986947

CERTIFICATE OF ANALYSIS

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TO: SAMIM CANADA LIMITED
ATTN: S. ROBINSON
P.O. BOX 7
130 ADELAIDE STREET WEST, SUITE 2116
TORONTO, ONTARIO M5H 3P5
8 S.CORES

CUSTOMER NO. 874

DATE SUBMITTED
19-SEP-83

ELEMENT	SENS*	001200	ELEMENT	SENS*	001200
ANTIMONY	(4)	ND	MANGANESE	(1)	TL
ARSENIC	(4)	ND	MERCURY	(4)	ND
BERYLLIUM	(2)	ND	MOLYBDENUM	(3)	ND
BISMUTH	(2)	ND	NICKEL	(1)	FT
CADMIUM	(4)	T	SILVER	(1)	FT
CERIUM	(5)	ND	TANTALUM	(5)	ND
NIOBIUM	(4)	ND	THORIUM	(3)	ND
CHROMIUM	(4)	ND	TIN	(2)	FT
COBALT	(3)	ND	TITANIUM	(2)	T
COPPER	(1)	T	TUNGSTEN	(4)	ND
GALLIUM	(2)	FT	URANIUM	(3)	ND
GERMANIUM	(1)	ND	VANADIUM	(2)	FT
IRON	(2)	M	YTTRIUM	(3)	ND
LEAD	(2)	M	ZINC	(4)	H
LITHIUM	(4)	ND	ZIRCONIUM	(4)	ND

LEGEND

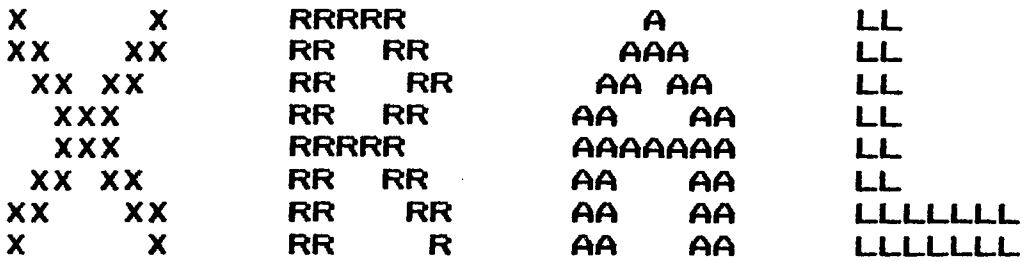
KEY TO SYMBOLS

H - 10% PLUS	L - 0.1-1%
MH - 5-15%	TL - 0.05-0.5%
M - 1-10%	T - 0.01-0.1%
LM - 0.5-5%	FT - 0.01% OR LESS
	ND - NOT DETECTED

*SENSITIVITY (LIMIT OF DETECTION)

1 - 0.0005-0.001%
2 - 0.001-0.005%
3 - 0.005-0.01%
4 - 0.01-0.05%
5 - 0.05-0.1%

NOTE: BETTER SENSITIVITIES CAN BE OBTAINED WITH SPECIAL TECHNIQUES, IF AND WHEN REQUIRED.



XRF - WHOLE ROCK ANALYSIS

SAMIM CANADA LIMITED
Attn: S. ROBINSON
P.O. BOX 7
130 ADELAIDE STREET WEST, SUITE 2116
TORONTO, ONTARIO M5H 3P5

CUSTOMER No. 874

DATE SUBMITTED
19-SEP-83

REPORT 19166 REF. FILE 14945 DATE REPORTED 04-OCT-83

XRF W.R.A. SUMS INCLUDE ALL ELEMENTS DETERMINED.
FOR SUMMATION ELEMENTS ARE CALCULATED AS OXIDES.

X-RAY ASSAY LABORATORIES 04-OCT-83 REPORT 19166 REFERENCE FILE 14945 PAGE 1

SAMPLE	SIO2	AL203	CAO	MGO	NA20	K20	FE203	MNO	TIO2	P205	CR203	LOI	SUM
001193	69.4	4.24	7.17	2.44	0.29	0.90	4.82	0.23	0.15	0.19	0.01	7.47	97.3
001194	39.5	7.38	11.9	6.57	0.55	1.04	9.47	0.37	2.92	0.80	0.05	17.8	98.5
001196	43.4	12.3	2.36	1.31	1.51	2.46	8.37	0.10	0.41	0.08	0.01	8.85	81.2
001197	22.8	10.4	16.4	6.74	0.61	1.93	8.99	0.37	4.31	1.19	0.06	22.3	96.3
001200	37.9	9.61	8.26	2.97	1.59	1.56	6.35	0.20	0.27	0.05	<0.01	8.00	76.8

X-RAY ASSAY LABURATORIES 04-OCT-83 REPORT 19166 REFERENCE FILE 14945 PAGE 2

SAMPLE	RB	SR	ZR
001193	50	80	40
001194	70	320	600
001196	80	20	80
001197	90	410	850
001200	30	90	60

X-RAY ASSAY LABORATORIES LIMITED

1885 LESLIE STREET, DON MILLS, ONTARIO M3B 3J4

PHONE 416-445-5755 TELEX 06-986947

CERTIFICATE OF ANALYSIS

TO: SAMIM CANADA LIMITED
ATTN: S. ROBINSON
P.O. BOX 7
130 ADELAIDE STREET WEST, SUITE 2116
TORONTO, ONTARIO M5H 3P5

CUSTOMER NO. 874

DATE SUBMITTED
30-SEP-83

REPORT 19323

REF. FILE 15062-T3

3 PULPS

WERE ANALYSED AS FOLLOWS:

	METHOD	DETECTION LIMIT
ZN %	XRF	0.010
PB %	XRF	0.010

6230-43-

X-RAY ASSAY LABORATORIES LIMITED

DATE 19-OCT-83

CERTIFIED BY .....

SAMPLE	ZN %	PB %
1196	6.09	2.23
1199	--	--
1200	5.05	2.47

REPORT #19323 - W.O. #15062

X-RAY DIFFRACTION REPORT ON SAMPLE NO. 1199

A GENERAL DIFFRACTOGRAM WAS RUN ON SAMPLE 1199 AND THE FOLLOWING MINERALS WERE DETERMINED:

MAJOR QUARTZ
MAJOR ARSENOPYRITE
MINOR SPHALERITE
TRACE MICA
NO GALENA HAS BEEN DETECTED.

APPENDIX D

Soil Sample Lines,

Results by Line

Samim Canada Ltd.

SOIL LINE S2

MAP AREA: SILENT PASS

ELEVATION: 6750 - 7400 feet

POINT OF ORIGIN: "Heliport" on northwest shore of Silent Lake, Line follows major stream entering lake from N.W.

SAMPLED BY: M. Hislop, K. Legard, S. Syroishko

DATE(S): August 10th, 1983

SAMPLE INTERVAL: 20 metres

NUMBER OF SOIL SAMPLES: 181 FROM: S2/0521 TO: S2/0701

(LISTED ON FORM 2)

NUMBER OF SILT SAMPLES (SUPPLEMENTARY TO SOIL LINE). 10
S2/0501 to S2/0510

COMMENT: Good soil quality, mostly over alpine meadow with minor coniferous forested ridges. Criss-crosses mostly "F" shales at north, uncertain shales ("F", "G") at south.

FORM 2

SOIL LINE S2

LIST OF SAMPLES IN (IN ORDER COLLECTED), AND COMMENTS

Soil Hrzn.	Init.	Sample Number	ppm Pb	ppm Zn	ppm Ag	Comments
AB	KJL	0521	18	42	.3	
B	KJL	0522	48	98	.5	
B	KJL	0523	44	74	.7	
B	KJL	0524	37	55	.3	
B	SJS	0525	40	77	.6	
B	SJS	0526	34	58	.6	
B	SJS	0527	32	68	.4	
B	SJS	0528	42	68	.3	
B	SJS	0529	20	48	.5	
B	SJS	0530	34	48	.4	
B	SJS	0530	39	52	.4	
B	SJS	0532	34	60	.6	
AB	SJS	0533	26	18	.8	
B	SJS	0534	38	58	.2	
B	SJS	0535	32	59	.1	
B	SJS	0536	33	61	.2	
B	SJS	0537	45	53	.6	
B	SJS	0538	38	91	.3	
B	SJS	0539	26	69	.7	
B	SJS	0540	36	41	.5	
B	KJL	0541	56	74	.7	
B	KJL	0542	42	85	.8	
B	KJL	0543	40	87	.5	
B	KJL	0544	43	73	.5	
B	KJL	0545	35	82	.7	
B	KJL	0546	29	80	.6	
B	KJL	0547	29	61	.4	
B	KJL	0548	40	48	.6	
B	KJL	0549	48	98	.9	
B	KJL	0550	30	52	.5	
B	SJS	0551	28	16	.8	
B	SJS	0552	50	63	.4	
AB	SJS	0553	44	63	.6	
B	SJS	0554	36	48	.6	
BC	SJS	0555	51	95	.5	
B	SJS	0556	34	80	.5	
BC	SJS	0557	75	51	.6	Probable Pb anomaly.
BC	SJS	0558	43	44	.4	
B	SJS	0559	48	80	.5	
BC	SJS	0560	44	74	.5	

FORM 2

SOIL LINE S2

LIST OF SAMPLES IN (IN ORDER COLLECTED), AND COMMENTS

Soil Hrzn.	Init.	Sample Number	ppm			Comments
			Pb	Zn	Ag	
B	KJL	0561	44	81	.6	
B	KJL	0562	46	74	.7	
B	KJL	0563	31	48	.8	
B	KJL	0564	32	60	.5	
B	KJL	0565	29	35	.6	
B	KJL	0566	28	25	.4	
B	KJL	0567	36	44	.4	
B	KJL	0568	24	14	.6	
B	KJL	0569	31	46	.6	
B	KJL	0570	40	38	.7	
B	SJS	0571	51	49	1.3	
BC	SJS	0572	52	52	1.4	
B	SJS	0573	31	31	.9	
B	SJS	0574	44	27	.7	
B	SJS	0575	23	33	.7	
B	SJS	0576	48	55	.5	
B	SJS	0577	23	30	.4	
B	SJS	0578	24	29	n.d.	
B	SJS	0579	32	52	.4	
B	SJS	0580	31	66	.5	
B	KJL	0581	33	26	.4	
B	KJL	0582	23	45	.3	
B	KJL	0583	23	15	.1	
B	KJL	0584	31	41	.2	
B	KJL	0585	31	42	.4	
B	KJL	0586	25	48	.3	
B	KJL	0587	23	32	n.d.	
B	KJL	0588	20	11	1.0	
B	KJL	0589	24	62	.4	
B	KJL	0590	32	36	.6	
BC	SJS	0591	35	102	.5	
BC	SJS	0592	33	91	.5	
B	SJS	0593	25	12	.3	
BC	SJS	0594	37	98	n.d.	
B	SJS	0595	35	47	.2	
B	SJS	0596	28	87	.3	
B	SJS	0597	30	59	n.d.	
BC	SJS	0598	26	86	.2	
B	SJS	0599	21	65	.9	
B	SJS	0600	30	48	.5	

FORM 2

SOIL LINE S2

LIST OF SAMPLES IN (IN ORDER COLLECTED), AND COMMENTS

Soil Hrzn.	Init.	Sample Number	ppm Pb	ppm Zn	ppm Ag	Comments
B	KJL	0601	58	50	.2	
B	KJL	0602	37	64	.2	
B	KJL	0603	46	65	.3	
B	KJL	0604	27	56	.1	
B	KJL	0605	24	95	.1	
BC	KJL	0606	54	209	.3	Probable Zn anomaly
B	KJL	0607	51	118	.1	Probable Zn anomaly
B	KJL	0608	58	102	.4	
B	KJL	0609	34	51	.3	
B	KJL	0610	33	98	.2	
B	SJS	0611	48	91	.7	
B	SJS	0612	50	118	.1	Probable Zn anomaly
B	SJS	0613	28	67	.6	
B	SJS	0614	20	62	.2	
B	SJS	0615	28	42	.6	
B	SJS	0616	39	67	.1	
B	SJS	0617	44	88	.4	
B	SJS	0618	43	74	.5	
B	SJS	0619	31	44	.8	
B	SJS	0620	32	74	.7	
B	KJL	0621	30	63	.6	
B	KJL	0622	24	68	.8	
B	KJL	0623	44	62	.3	
B	KJL	0624	26	41	.5	
B	KJL	0625	25	39	.6	
B	KJL	0626	22	48	.4	
B	KJL	0627	26	35	1.2	
B	KJL	0628	23	36	.9	
B	KJL	0629	30	44	.7	
B	KJL	0630	33	78	.5	
B	SJS	0631	44	108	.7	
BC	SJS	0632	37	112	.3	
B	SJS	0633	39	92	.4	
B	SJS	0634	34	83	.5	
B	SJS	0635	29	56	.6	
B	SJS	0636	33	91	.6	
B	SJS	0637	32	88	1.0	
B	SJS	0638	40	83	.5	
B	SJS	0639	41	105	.6	
B	SJS	0640	49	70	.7	

FORM 2

SOIL LINE S2

LIST OF SAMPLES IN (IN ORDER COLLECTED), AND COMMENTS

Soil Hrzn.	Init.	Sample Number	ppm Pb	ppm Zn	ppm Ag	Comments
B	KJL	0641	43	113	.3	Possible Zn anomaly
B	KJL	0642	34	123	.5	Possible Zn anomaly
AB	KJL	0643	25	32	.6	
B	KJL	0644	40	103	.4	
B	KJL	0645	36	81	.7	
B	KJL	0646	37	88	.5	
B	KJL	0647	40	98	.6	
B	KJL	0648	48	93	.6	
BC	KJL	0649	47	104	.7	
BC	KJL	0650	58	115	.4	Possible Zn anomaly
B	SJS	0651	59	107	.4	
B	SJS	0652	57	104	.1	
AB	SJS	0653	45	73	.5	
AB	SJS	0654	46	88	.4	
AB	SJS	0655	45	85	.3	
B	SJS	0656	37	77	.2	
B	SJS	0657	97	73	.4	Probable Pb anomaly
B	SJS	0658	31	31	n.d.	
B	SJS	0659	44	73	.4	
B	SJS	0660	86	127	.3	Probable Pb anomaly; Possible Zn anomaly;
B	KJL	0661	102	198	.4	Probable Pb,Zn anomalies
B	KJL	0662	56	25	1.2	
B	KJL	0663	48	50	.5	
B	KJL	0664	74	68	.3	Probable Pb anomaly
B	KJL	0665	46	98	.2	
B	KJL	0666	88	173	.4	Probable Pb, Zn anomalies
B	KJL	0667	65	550	.6	Probable Zn anomaly;Possible Pb anom
AB	KJL	0668	48	110	.7	Possible Zn anomaly
B	KJL	0669	57	98	.4	
BC	KJL	0670	46	92	.3	
AB	SJS	0671	38	88	.2	
B	SJS	0672	42	85	.4	
AB	SJS	0673	46	550	.8	Probable Zn anomaly
B	SJS	0674	48	65	.4	
B	SJS	0675	31	45	.3	
B	SJS	0676	35	78	.3	
B	SJS	0677	58	88	.6	
B	SJS	0678	53	98	.3	
B	SJS	0679	48	93	.1	
B	SJS	0680	23	20	.4	

SOIL LINE S2

LIST OF SAMPLES IN (IN ORDER COLLECTED), AND COMMENTS

Soil Hrzn.	Init.	Sample Number	ppm			Comments
			Pb	Zn	Ag	
B	KJL	0681	30	43	.4	
B	KJL	0682	26	44	.5	
B	KJL	0683	25	29	.2	
B	KJL	0684	26	30	.4	
B	KJL	0685	27	56	.5	
B	KJL	0686	28	45	.5	
B	KJL	0687	33	52	.4	
B	KJL	0688	24	20	1.3	
B	KJL	0689	26	23	.7	
B	JMM	0690	30	73	.5	
B	JMM	0691	28	62	.6	
B	JMM	0692	27	48	.5	
B	JMM	0693	19	18	.5	
B	JMM	0694	38	68	.3	
B	JMM	0695	35	63	.6	
B	JMM	0696	46	49	.7	
B	JMM	0697	31	28	.7	
B	JMM	0698	27	48	.4	
B	JMM	0699	41	69	.5	
B	JMM	0700	33	76	.5	
B	JMM	0701	43	48	.6	

FORM 3

Samim Canada Ltd.

GEOLOGICAL SAMPLES — SILENT LAKE

- not analysed for

SAMPLE NUMBER	MAP AREA	SAMPLES DATE	SAMPLES BY	ROCK UNIT	PURPOSE	TYPE OF SAMPLE	LITHOLOGY	ANALYTICAL RESULTS Pb	Zn	Ag	Cu	Mn		
G-SR-4-1	Silent Lake	4/8/83	SDR	"F"	Check for mineralization	Rock grab	Slate with minor surface oxidation	155	101	1.5	-	-		
G-SR-4-2	Silent Lake	4/8/83	SDR	"F"	Check for mineralization	Rock grab	Limestone minor py	23	12	n.d.	-	-		
G-SR-4-3	Silent Lake	4/8/83	SDR	"F"	Check for mineralization	Rock grab	Limestone weak reaction with HCL	500	54	1.0	-	-		

Samim Canada Ltd.

SOIL LINE S3

MAP AREA: SILENT LAKE

ELEVATION: 6750 - 6590 feet

POINT OF ORIGIN:
"Heliport" on shore of Silent Lake. Line lies downslope of Silent Lake and adjacent lakes.

SAMPLED BY: K. Legard, M. Hislop, T. James

DATE(S): August 9th, 1983

SAMPLE INTERVAL: 20 metres

NUMBER OF SOIL SAMPLES: 50 FROM: S3/0321 TO: S3/0370

(LISTED ON FORM 2)

NUMBER OF SILT SAMPLES (SUPPLEMENTARY TO SOIL LINE). 2
S3/0319, 0320

COMMENT: Generally good soil quality, some in low, swampy areas.

Listed from west to east in order collected.

FORM 2

SOIL LINE S3

LIST OF SAMPLES IN (IN ORDER COLLECTED), AND COMMENTS

Soil Hrzn.	Init.	Sample Number	ppm			Comments
			Pb	Zn	Ag	
B	KJL	0321	14	41	.3	
B	TSJ	0322	16	26	.3	
B	KJL	0323	19	55	.2	
B	TSJ	0324	27	58	.3	
B	KJL	0325	19	46	.1	
B	TSJ	0326	18	16	.6	
B	KJL	0327	22	21	.4	
B	TSJ	0328	19	23	.6	
B	KJL	0329	15	30	.3	
B	TSJ	0330	28	12	.7	
B	KJL	0331	37	63	.6	
B	KJL	0332	34	63	.6	
B	KJL	0333	39	46	.6	
B	KJL	0334	38	48	.7	
B	KJL	0335	35	40	.9	
B	TSJ	0336	25	38	.9	
B	TSJ	0337	24	48	.4	
B	TSJ	0338	15	25	.5	
B	TSJ	0339	18	30	.7	
B	TSJ	0340	24	12	1.3	
B	KJL	0341	32	22	1.0	
B	KJL	0342	27	19	.9	
B	KJL	0343	22	14	1.1	
B	KJL	0344	21	8	.6	
B	KJL	0345	24	27	.1	
B	TSJ	0346	28	65	.1	
B	TSJ	0347	31	63	.2	
B	TSJ	0348	35	40	.7	
B	TSJ	0349	24	85	.4	
B	TSJ	0350	34	52	.2	
AB	TSJ	0351	28	53	.8	
B	TSJ	0352	22	36	.4	
B	TSJ	0353	23	61	.2	
B	TSJ	0354	16	22	.1	
B	TSJ	0355	23	58	.2	
B	TSJ	0356	32	58	.2	
B	TSJ	0357	51	74	.7	Local high Pb Zn background
B	TSJ	0358	24	23	.5	
B	TSJ	0359	20	16	.3	
B	TSJ	0360	44	730	.6	Probable Zn anomaly

FORM 2

SOIL LINE S3

LIST OF SAMPLES IN (IN ORDER COLLECTED), AND COMMENTS

Soil Hrzn.	Init.	Sample Number	ppm			Comments
			Pb	Zn	Ag	
B	KJL	0361	10	19	.2	
B	KJL	0362	33	30	.3	
B	KJL	0363	39	23	.2	
B	KJL	0364	49	12	.3	
B	KJL	0365	23	42	.7	
B	KJL	0366	23	57	.3	
B	KJL	0367	11	14	.2	
AB	KJL	0368	29	53	.5	Organics
B	KJL	0369	59	18	1.0	High Pb, Ag background
B	KJL	0370	23	65	.4	

Samim Canada Ltd.

SOIL LINE S4

MAP AREA: Silent Lake

ELEVATION: 6580 - 7120 feet

POINT OF ORIGIN:
Northwest of Silent Lake, Line along foot of cliffs in "B" shale - "A" grit.

SAMPLED BY: T. James, M. Hislop, S. Syroishko, K. Ligard

DATE(S): August 8th-9th, 1983

SAMPLE INTERVAL: 20 metres

NUMBER OF SOIL SAMPLES: 195 FROM: S4/0121 TO: S4/0315

(LISTED ON FORM 2)

NUMBER OF SILT SAMPLES (SUPPLEMENTARY TO SOIL LINE). 10
S4/0101-0110

COMMENT: Soil quality fair to good, scattered areas of scree.

Listed from south to north as collected.

FORM 2

SOIL LINE S4

LIST OF SAMPLES IN (IN ORDER COLLECTED), AND COMMENTS

Soil Hrzn.	Init.	Sample Number	ppm Pb	ppm Zn	ppm Ag	Comments
B	SJS	0121	27	28	.4	
B	SJS	0122	19	35	.8	
B	SJS	0123	18	27	.6	
B	SJS	0124	16	28	.8	
B	SJS	0125	8	16	.2	
B	TSJ	0126	11	23	.4	
B	TSJ	0127	16	42	.2	
B	TSJ	0128	32	92	.2	
AB	TSJ	0129	24	48	1.4	
AB	TSJ	0130	26	56	.9	
BC	SJS	0131	19	88	.2	
AB	SJS	0132	32	56	.3	
AB	SJS	0133	33	45	.6	
A	SJS	0134	55	19	.8	
B	SJS	0135	34	46	.5	
AB	TSJ	0136	38	59	.2	
B	TSJ	0137	44	59	.2	
B	TSJ	0138	31	64	.3	
B	TSJ	0139	36	73	n.d.	
B	TSJ	0140	29	31	.4	
B	SJS	0141	27	20	n.d.	
B	SJS	0142	22	44	.3	
B	SJS	0143	27	53	.2	
B	SJS	0144	13	20	.1	
B	SJS	0145	24	17	.5	
B	TSJ	0146	39	38	.3	
B	TSJ	0147	39	72	.3	
B	TSJ	0148	50	69	.2	
B	TSJ	0149	43	71	.3	
B	TSJ	0150	52	54	.5	
B	SJS	0151	54	96	.1	
B	SJS	0152	51	81	.4	
B	SJS	0153	69	124	.3	Possible Pb,Zn anomalies
CB	SJS	0154	47	81	.2	
B	SJS	0155	49	74	.2	
B	TSJ	0156	42	73	.5	
B	TSJ	0157	38	74	.1	
B	TSJ	0158	48	65	n.d.	
B	TSJ	0159	29	53	n.d.	
B	TSJ	0160	47	82	n.d.	

SOIL LINE S4

LIST OF SAMPLES IN (IN ORDER COLLECTED), AND COMMENTS

Soil Hrzn.	Init.	Sample Number	ppm Pb	ppm Zn	ppm Ag	Comments
B	SJS	0161	66	104	.3	Possible Pb anomaly
B	SJS	0162	53	74	.2	
B	SJS	0163	34	69	.4	
B	SJS	0164	34	87	.3	
B	SJS	0165	49	77	.1	
B	TSJ	0166	67	83	n.d.	Possible Pb anomaly
B	TSJ	0167	58	77	.2	
AB	TSJ	0168	45	66	.4	
AB	TSJ	0169	45	62	.4	
B	TSJ	0170	31	64	n.d.	
B	TSJ	0171	36	74	.1	
B	TSJ	0172	42	71	.2	
B	TSJ	0173	37	70	.2	
B	SJS	0174	29	79	n.d.	
B	SJS	0175	21	47	.1	
B	TSJ	0176	44	74	.1	
AB	TSJ	0177	36	95	.1	
B	TSJ	0178	45	87	.4	
B	TSJ	0179	39	68	.4	
B	TSJ	0180	36	86	.2	
CB	SJS	0181	18	91	.2	
B	SJS	0182	41	79	.1	
B	SJS	0183	35	69	.3	
B	SJS	0184	62	80	.1	
B	SJS	0185	56	98	n.d.	
B	TSJ	0186	33	78	.2	
B	TSJ	0187	43	86	n.d.	
BC	TSJ	0188	56	69	n.d.	
B	TSJ	0189	29	70	n.d.	
B	TSJ	0190	30	116	.3	Possible Zn anomaly
B	SJS	0191	42	143	.6	Probable Zn anomaly
B	SJS	0192	46	125	n.d.	Possible Zn anomaly
B	SJS	0193	24	79	.1	
B	SJS	0194	62	122	.1	Possible Pb, Zn anomaly
B	SJS	0195	61	131	.3	Possible Pb, Zn anomaly
B	TSJ	0196	44	88	.1	
B	TSJ	0197	25	74	.1	
B	TSJ	0198	26	62	.2	
B	TSJ	0199	19	56	.1	
B	TSJ	0200	24	66	.1	

FORM 2

SOIL LINE S4

LIST OF SAMPLES IN (IN ORDER COLLECTED), AND COMMENTS

Soil Hrzn.	Init.	Sample Number	ppm Pb	ppm Zn	ppm Ag	Comments
B	STS	0201	31	79	n.d.	
B	STS	0202	24	70	.2	
B	STS	0203	24	34	.1	
B	STS	0204	14	23	n.d.	
B	SJS	0205	49	76	n.d.	
B	TSJ	0206	146	147	n.d.	Probable Pb,Zn anomaly
B	TSJ	0207	52	98	n.d.	
BC	TSJ	0208	26	49	n.d.	
B	TSJ	0209	39	64	n.d.	
B	TSJ	0210	26	63	.1	
B	SJS	0211	24	64	n.d.	
B	SJS	0212	35	74	.2	
B	SJS	0213	16	27	.3	
B	SJS	0214	21	45	.3	
B	SJS	0215	32	56	.2	
B	TSJ	0216	41	56	n.d.	
B	TSJ	0217	66	79	n.d.	Possible Pb anomaly
B	TSJ	0218	55	96	n.d.	
B	TSJ	0219	69	99	.2	Possible Pb anomaly
B	TSJ	0220	70	86	.2	Probable Pb anomaly
B	SJS	0221	56	69	.2	
B	SJS	0222	34	49	.1	
B	SJS	0223	45	65	.2	
B	SJS	0224	34	62	n.d.	
B	SJS	0225	34	71	.2	
B	KJL	0226	45	84	.1	
B	KJL	0227	36	71	.2	
B	KJL	0228	56	70	.1	
B	KJL	0229	42	75	.2	
B	KJL	0230	49	78	.1	
B	KJL	0231	35	67	.4	
B	KJL	0232	33	70	.1	
B	KJL	0233	34	74	.2	
B	KJL	0234	29	43	.2	
B	KJL	0235	29	49	.7	
B	KJL	0236	19	23	.4	
B	KJL	0237	23	56	.3	
B	KJL	0238	27	62	.3	
B	KJL	0239	34	77	.1	
B	KJL	0240	35	98	n.d.	

FORM 2

SOIL LINE S4

LIST OF SAMPLES IN (IN ORDER COLLECTED), AND COMMENTS

Soil Hrzn.	Init.	Sample Number	ppm			Comments
			Pb	Zn	Ag	
BC	JMM	0241	34	51	n.d.	
BC	JMM	0242	42	82	n.d.	
B	JMM	0243	33	79	.2	
B	JMM	0244	41	56	.7	
B	JMM	0245	38	56	.7	
B	JMM	0246	39	85	.2	
B	JMM	0247	44	71	.9	
B	JMM	0248	32	29	.1	
B	JMM	0249	29	64	.2	
B	JMM	0250	26	59	n.d.	
B	KJL	0251	29	50	.1	
B	KJL	0252	30	53	n.d.	
B	KJL	0253	32	74	n.d.	
B	KJL	0254	25	48	.3	
B	KJL	0255	39	53	.7	
B	KJL	0256	34	60	.3	
B	KJL	0257	22	44	.4	
B	KJL	0258	29	65	.2	
B	KJL	0259	31	45	.5	
B	KJL	0260	24	27	.1	
B	KJL	0261	20	30	.1	
B	KJL	0262	26	44	.4	
B	KJL	0263	37	61	.7	
B	KJL	0264	34	67	n.d.	
B	KJL	0265	35	93	n.d.	
B	KJL	0266	37	94	n.d.	
B	KJL	0267	33	84	n.d.	
B	KJL	0268	34	88	n.d.	
B	KJL	0269	29	81	n.d.	
B	KJL	0270	26	74	n.d.	
B	KJL	0271	25	77	n.d.	
B	KJL	0272	36	84	n.d.	
B	KJL	0273	36	89	.2	
B	KJL	0274	44	79	n.d.	
B	KJL	0275	57	89	n.d.	
B	KJL	0276	46	94	n.d.	
B	KJL	0277	29	86	n.d.	
B	KJL	0278	21	74	n.d.	
B	KJL	0279	27	85	n.d.	
B	KJL	0280	16	24	.3	

FORM 2

SOIL LINE S4

LIST OF SAMPLES IN (IN ORDER COLLECTED), AND COMMENTS

Soil Hrzn.	Init.	Sample Number	ppm			Comments
			Pb	Zn	Ag	
B	KJL	0281	12	43	.4	
B	KJL	0282	31	92	.7	
B	KJL	0283	38	81	.6	
B	KJL	0284	31	84	.4	
B	KJL	0285	44	93	.5	
B	JMH	0286	44	97	.5	
B	JMH	0287	36	86	.3	
B	JMH	0288	42	74	.3	
B	JMH	0289	25	42	.4	
B	JMH	0290	29	61	.4	
BC	JMH	0291	29	69	.5	
B	JMH	0292	32	41	1.0	
B	JMH	0293	38	87	.5	
B	JMH	0294	38	85	.7	
B	JMH	0295	42	73	.5	
B	JMH	0296	36	58	1.0	
B	JMH	0297	32	72	.7	
B	JMH	0298	30	70	.6	
B	JMH	0299	33	74	.5	
B	JMH	0300	26	46	.7	
B	JMH	0301	33	68	.7	
BC	JMH	0302	40	44	.9	
BC	JMH	0303	30	56	1.0	
BC	JMH	0304	40	91	.6	
BC	JMH	0305	33	75	.8	
BC	JMH	0306	34	86	.7	
BC	JMH	0307	33	89	.5	
BC	JMH	0308	36	85	.4	
BC	JMH	0309	32	89	.1	
BC	JMH	0310	40	99	.2	
BC	JMH	0311	33	81	.2	
B	JMH	0312	37	50	.3	
B	JMH	0313	35	66	.4	
B	JMH	0314	38	34	.7	
B	JMH	0315	31	47	.5	

FORM 1

Samim Canada Ltd.

SOIL LINE S5

MAP AREA: SILENT LAKE

ELEVATION: 6870 - 7450 feet

POINT OF ORIGIN: Stream, soil line S-2, station #1564, east of "upper heliport" NW of Silent Lake.

SAMPLED BY: T.S. James, K.S. Legard, P.D. McCarthy

DATE(S): August 8th, 1983

SAMPLE INTERVAL: 20 metres

NUMBER OF SOIL SAMPLES: 91 FROM: S5/010 TO: S5/0100

(LISTED ON FORM 2)

NUMBER OF SILT SAMPLES (SUPPLEMENTARY TO SOIL LINE). 4

S5/001-004

COMMENT: Good soil quality except across limited extent of scree and boulders on ridge (line was originally misplotted and recovered by S.D. Robinson in September, 1983), covers first, and part of second cirque north of Silent Lake on west side of McMurdo Creek, above cliff formed by "C" grit. Listed from south to north as collected.

FORM 2

SOIL LINE S5

LIST OF SAMPLES IN (IN ORDER COLLECTED), AND COMMENTS

Soil Hrzn.	Init.	Sample Number	ppm Pb	ppm Zn	ppm Ag	Comments
B	TSJ	0010	26	72	.4	
B	KJL	0011	39	73	.5	
B	TSJ	0012	32	46	.4	
B	KJL	0013	52	79	.4	
B	TSJ	0014	43	102	.3	
B	KJL	0015	44	74	.4	
B	TSJ	0016	61	91	.3	Possible Pb anomaly
B	KJL	0017	48	83	.2	
B	TSJ	0018	55	110	.4	Possible Zn anomaly
B	KSL	0019	67	81	.7	Possible Pb anomaly
B	TSJ	0020	32	31	.7	
B	KSL	0021	37	26	.4	
B	KSL	0022	55	69	.4	
B	TSJ	0023	63	93	.5	Possible Pb anomaly
B	KJL	0024	76	146	.4	Probable Pb,Zn anomaly
B	TSJ	0025	63	82	.5	
B	TSJ	0026	52	51	.7	
B	TSJ	0027	48	65	.6	
B	TSJ	0028	48	63	.2	
B	TSJ	0029	49	49	.3	
B	TSJ	0030	63	100	.3	Possible Pb anomaly
B	KJL	0031	52	65	.5	
B	KJL	0032	24	92	.4	
B	KJL	0033	73	114	.4	Probable Pb,possible Zn anomaly
B	KJL	0034	70	115	.4	Probable Pb,possible Zn anomaly
B	KJL	0035	44	96	.4	
B	TSJ	0036	48	110	.5	Possible Zn anomaly
B	TSJ	0037	61	111	.4	Possible Pb,Zn anomaly
B	TSJ	0038	56	93	.3	
B	KJL	0039	66	124	.1	Possible Pb,Zn anomaly
B	TSJ	0040	72	119	.3	Probable Pb,possible Zn anomaly
B	KJL	0041	69	103	.2	Possible Pb anomaly
B	KJL	0042	63	101	.3	Possible Pb anomaly
B	KJL	0043	16	106	.4	
B	KJL	0044	49	77	.3	
B	KJL	0045	50	89	.4	
B	TSJ	0046	59	95	.2	
B	TSJ	0047	38	88	.1	
B	TSJ	0048	47	80	.1	
B	TSJ	0049	48	91	.2	

FORM 2

SOIL LINE S5

LIST OF SAMPLES IN (IN ORDER COLLECTED), AND COMMENTS

Soil Hrzn.	Init.	Sample Number	ppm			Comments
			Pb	Zn	Ag	
B	TSJ	0050	60	107	.3	Possible Pb anomaly
B	KJL	0051	55	119	.1	Possible Zn anomaly
B	KJL	0052	63	95	.4	Possible Pb anomaly
B	KJL	0053	45	84	.1	
B	KJL	0054	46	86	.4	
B	KJL	0055	42	67	.6	
B	TSJ	0056	40	95	.4	
B	TSJ	0057	21	64	.3	
B	TSJ	0058	45	145	.2	Probable Zn anomaly
B	TSJ	0059	34	43	.2	
B	TSJ	0060	14	25	.2	
B	KJL	0061	32	56	.1	
B	KJL	0062	39	74	.4	
B	KJL	0063	56	86	.4	
B	KJL	0064	60	53	.3	Possible Pb anomaly
B	KJL	0065	69	129	.3	Possible Pb,Zn anomaly
B	KJL	0066	57	74	.4	
B	KJL	0067	37	70	.1	
B	KJL	0068	40	96	.2	
BC	KJL	0069	58	62	.3	
B	KJL	0070	32	61	.3	
B	KJL	0071	55	105	.3	
B	KJL	0072	52	93	.3	
B	KJL	0073	40	92	.4	
BC	KJL	0074	42	88	.2	
BC	KJL	0075	36	91	.7	
B	TSJ	0076	56	99	.4	
BC	TSJ	0077	85	110	.3	Probable Pb,possible Zn anomaly
BC	TSJ	0078	27	101	.3	
BC	TSJ	0079	44	96	.3	
B	TSJ	0080	56	105	.5	
B	KJL	0081	52	117	.2	Possible Zn anomaly
B	KJL	0082	60	92	.2	Possible Pb anomaly
B	KJL	0083	52	105	.4	
B	KJL	0084	44	102	.3	
B	KJL	0085	56	98	.4	
B	TSJ	0086	44	86	.3	
B	TSJ	0087	39	73	.3	
B	TSJ	0088	13	32	.2	
B	TSJ	0089	36	74	.4	
B	TSJ	0090	52	96	.2	

FORM 2

SOIL LINE S5

LIST OF SAMPLES IN (IN ORDER COLLECTED), AND COMMENTS

Soil Hrzn.	Init.	Sample Number	ppm			Comments
			Pb	Zn	Ag	
B	KJL	0091	40	85	.2	
B	KJL	0092	59	110	.3	Possible Zn anomaly
B	KJL	0093	59	119	.2	Possible Zn anomaly
B	KJL	0094	48	101	.4	
B	KJL	0095	59	110	.4	Possible Zn anomaly
BC	KJL	0096	54	87	.2	
B	KJL	0097	31	64	.3	
B	TSJ	0098	39	70	.6	
B	TSJ	0099	44	85	.4	
B	TSJ	0100	55	107	.5	

FORM 1

Samim Canada Ltd.

SOIL LINE S6

MAP AREA: SILENT LAKE

ELEVATION: 6770 - 7300 feet

POINT OF ORIGIN: Middle of second cirque north of Silent Pass, extension of line S-5.

SAMPLED BY: T. James

DATE(S): August 10th, 1983

SAMPLE INTERVAL: 20 metres

NUMBER OF SOIL SAMPLES: 50 FROM: S6/0401 TO: S6/0450

(LISTED ON FORM 2)

NUMBER OF SILT SAMPLES (SUPPLEMENTARY TO SOIL LINE). 2

S6/0400, 0500

COMMENT: Good soil quality, one sample on scree.Covers area of second major cirque north of Silent Lake on west side of McMurdo Creek above cliff topped by "C" grit.

FORM 2

SOIL LINE S6

LIST OF SAMPLES IN (IN ORDER COLLECTED), AND COMMENTS

Soil Hrzn.	Init.	Sample Number	ppm Pb	ppm Zn	ppm Ag	Comments
B	TSJ	0401	37	86	.5	
B	TSJ	0402	40	74	.2	
B	TSJ	0403	42	56	.4	
B	TSJ	0404	43	88	n.d.	
B	TSJ	0405	31	67	.3	
B	TSJ	0406	29	61	.3	
B	TSJ	0407	23	59	.3	
B	TSJ	0408	39	51	.6	
B	TSJ	0409	42	64	.3	
B	TSJ	0410	28	24	.5	
B	TSJ	0411	32	46	.3	
B	TSJ	0412	50	50	.4	
B	TSJ	0413	65	83	.3	Possible Pb anomaly
B	TSJ	0414	52	75	.2	
B	TSJ	0415	27	41	.2	
B	TSJ	0416	28	39	.2	
B	TSJ	0417	40	32	.3	
B	TSJ	0418	44	64	.4	
B	TSJ	0419	32	58	.4	
B	TSJ	0420	29	59	.2	
B	TSJ	0421	49	52	.5	
B	TSJ	0422	29	39	.2	
B	TSJ	0423	26	39	n.d.	
B	TSJ	0424	49	46	.1	
B	TSJ	0425	42	85	.3	
B	TSJ	0426	30	33	.4	
B	TSJ	0427	37	91	.4	
B	TSJ	0428	51	94	.2	
B	TSJ	0429	32	62	.2	
B	TSJ	0430	31	51	.7	
B	TSJ	0431	37	64	.6	
B	TSJ	0432	27	53	.6	
B	TSJ	0433	36	75	.4	
B	TSJ	0434	31	69	.3	
B	TSJ	0435	31	55	.2	
B	TSJ	0436	34	62	.2	
B	TSJ	0437	31	66	.1	
B	TSJ	0438	39	47	.3	
B	TSJ	0439	29	34	.7	
B	TSJ	0440	44	38	.8	

FORM 2

SOIL LINE S6

LIST OF SAMPLES IN (IN ORDER COLLECTED), AND COMMENTS

Soil Hrzn.	Init.	Sample Number	ppm			Comments
			Pb	Zn	Ag	
B	TSJ	0441	34	39	.7	
B	TSJ	0442	43	75	.5	
B	TSJ	0443	33	46	.6	
B	TSJ	0444	31	60	.6	
B	TSJ	0445	34	54	1.0	
B	TSJ	0446	32	74	.3	
B	TSJ	0447	26	45	.3	
B	TSJ	0448	30	22	.5	
B	TSJ	0049	34	49	.4	
BC	TSJ	0450	58	92	.3	

FORM 1

Samim Canada Ltd.

SOIL LINE P13

MAP AREA: SILENT LAKE/CROWN POINT

ELEVATION: 5250 - 5950 feet

POINT OF ORIGIN:
South end of new road on east side of McMurdo Creek, north of Cabins.

SAMPLED BY: T. James, S. Syroishko

DATE(S): August 12th, 1983

SAMPLE INTERVAL: 20 metres

NUMBER OF SOIL SAMPLES: 105 FROM: P13/0841 TO: P13/0945

(LISTED ON FORM 2)

NUMBER OF SILT SAMPLES (SUPPLEMENTARY TO SOIL LINE). None

COMMENT: Soil quality good. Some scattered rock areas at northern 400 m of the line. Samples taken east (uphill) of road.

FORM 2

SOIL LINE P13

LIST OF SAMPLES IN (IN ORDER COLLECTED), AND COMMENTS

Soil Hrzn.	Init.	Sample Number	ppm Pb	ppm Zn	ppm Ag	Comments
B	SJS	0841	30	51	.5	
B	SJS	0842	25	83	n.d.	
BC	SJS	0843	27	64	.4	
B	SJS	0844	22	67	n.d.	
B	SJS	0845	37	79	.2	
B	SJS	0846	36	56	.4	
B	SJS	0847	35	79	.1	
B	SJS	0848	33	72	.2	
B	SJS	0849	68	122	.4	Possible Pb and Zn anomalies
B	SJS	0850	27	69	.3	
B	SJS	0851	26	35	.6	
B	SJS	0852	23	51	n.d.	
B	SJS	0853	24	43	.9	
B	SJS	0854	18	56	.3	
B	SJS	0855	24	44	.6	
BC	SJS	0856	15	26	.3	
B	SJS	0857	27	19	.8	
B	SJS	0858	34	42	.7	
B	SJS	0859	47	78	.3	High background Pb
BC	SJS	0860	26	59	.3	
B	SJS	0861	23	44	.3	
B	SJS	0862	29	65	.2	
B	SJS	0863	22	46	.3	
B	SJS	0864	30	53	.1	
B	SJS	0865	16	58	.2	
B	SJS	0866	29	72	.3	
BC	SJS	0867	18	74	.3	
B	SJS	0868	30	65	.5	
B	SJS	0869	34	86	.3	
B	SJS	0870	29	71	.4	
B	SJS	0871	23	83	.6	
B	SJS	0872	26	59	.6	
B	SJS	0873	23	84	.2	
BC	SJS	0874	31	87	n.d.	
B	SJS	0875	28	92	.2	
B	SJS	0876	42	61	.6	
B	SJS	0877	40	64	.5	
B	SJS	0878	34	98	.2	
B	SJS	0879	33	89	n.d.	
B	SJS	0880	22	68	.2	

FORM 2

SOIL LINE P13

LIST OF SAMPLES IN (IN ORDER COLLECTED), AND COMMENTS

Soil Hrzn.	Init.	Sample Number	ppm Pb	ppm Zn	ppm Ag	Comments
B	SJS	0881	30	102	n.d.	
B	SJS	0882	31	98	.4	
B	SJS	0883	25	77	.2	
B	SJS	0884	23	60	.3	
B	SJS	0885	24	66	.5	
B	SJS	0886	23	79	.4	
B	SJS	0887	24	60	.3	
B	SJS	0888	28	61	.8	
B	SJS	0889	27	60	.3	
B	SJS	0890	23	63	.5	
B	SJS	0891	21	79	n.d.	
B	SJS	0892	21	83	.2	
B	SJS	0893	20	64	.2	
B	SJS	0894	23	81	.5	
B	SJS	0895	30	96	.7	
B	SJS	0896	29	71	.4	
B	SJS	0897	48	102	.7	High background Pb+Zn
B	SJS	0898	21	56	.4	
B	SJS	0899	27	79	.3	
B	SJS	0900	19	83	.2	
B	SJS	0901	21	45	.2	
B	SJS	0902	18	56	.4	
B	SJS	0903	15	64	.3	
B	SJS	0904	19	32	.5	
B	SJS	0905	46	109	.8	High background Pb+Zn
B	SJS	0906	13	41	.3	
B	SJS	0907	14	62	.4	
B	SJS	0908	15	89	.2	
B	SJS	0909	22	78	.1	
B	SJS	0910	14	72	.2	
B	SJS	0911	07	40	n.d.	
B	TSJ	0912	13	77	.1	
B	TSJ	0913	19	67	.2	
B	TSJ	0914	49	81	.1	High background Pb
B	TSJ	0915	15	58	.3	
B	TSJ	0916	18	84	.1	
B	TSJ	0917	23	80	.3	
B	TSJ	0918	35	89	.1	
B	TSJ	0919	49	76	.1	High background Pb
B	TSJ	0920	18	61	.1	

FORM 2

SOIL LINE P13

LIST OF SAMPLES IN (IN ORDER COLLECTED), AND COMMENTS

Soil Hrzn.	Init.	Sample Number	ppm Pb	ppm Zn	ppm Ag	Comments
B	TSJ	0921	39	69	n.d.	
B	TSJ	0922	35	74	.1	
B	TSJ	0923	15	62	.4	
B	TSJ	0924	16	73	n.d.	
B	TSJ	0925	11	49	.1	
B	TSJ	0926	19	58	.1	
B	TSJ	0927	19	116	.7	Possible Zn anomaly
B	TSJ	0928	09	61	.1	
B	TSJ	0929	06	29	.2	
B	TSJ	0930	17	77	.5	
B	TSJ	0931	18	34	.4	
B	TSJ	0932	08	14	.1	
B	TSJ	0933	32	85	.4	
B	TSJ	0934	24	48	.2	
AC	TSJ	0935	28	46	.2	
B	TSJ	0936	45	80	.3	
AB	TSJ	0937	36	78	.4	
B	TSJ	0938	48	83	.7	High background Pb
B	TSJ	0939	27	48	.2	
B	TSJ	0940	23	40	.3	
B	TSJ	0941	54	110	.4	Possibly anomalous Zn, High bkgrnd.Pb
B	TSJ	0942	14	31	n.d.	
B	TSJ	0943	12	15	.2	
B	TSJ	0944	23	60	.1	
B	TSJ	0945	31	41	.5	

FORM 1

Samim Canada Ltd.

SOIL LINE P 4+50N

MAP AREA: SILENT LAKE - CROWN POINT (CABINS GRID)

ELEVATION: 6050 - 6250

POINT OF ORIGIN:
Flagged line through Crown Point Cabins.

SAMPLED BY: K.J. Legard

DATE(S): August 12th, 1983

SAMPLE INTERVAL: 20 metres

NUMBER OF SOIL SAMPLES: 13 FROM: 0721 TO: 0733

(LISTED ON FORM 2)

NUMBER OF SILT SAMPLES (SUPPLEMENTARY TO SOIL LINE). None

COMMENT: Line intended to extend "Crown Point Cabins" anomaly from 1982 programme. Soil quality poor on west half, good on east half of line.

FORM 2

SOIL LINE P 4+50N

LIST OF SAMPLES IN (IN ORDER COLLECTED), AND COMMENTS

Soil Hrzn.	Init.	Sample Number	ppm Pb	ppm Zn	ppm Ag	Comments
B	KJL	0721	59	24	.4	
B	KJL	0722	09	05	.2	
B	KJL	0723	07	06	.2	
AB	KJL	0724	19	18	.5	
AB	KJL	0725	75	66	1.5	Probable Pb anomaly
B	KJL	0726	38	72	.1	
CB	KJL	0727	48	55	.1	
B	KJL	0728	41	69	.3	
B	KJL	0729	163	110	.3	Probable Pb,Possible Zn anomaly
CB	KJL	0730	108	93	.5	Probable Pb anomaly
B	KJL	0731	100	82	.1	Probable Pb anomaly
B (SAND)	KJL	0732	77	91	.5	Probable Pb anomaly
B	KJL	0733	36	94	.2	

Samim Canada Ltd.

SOIL LINE P 6+25N

MAP AREA: SILENT LAKE - CROWN POINT (CABINS GRID)

ELEVATION: 5950 - 6050

POINT OF ORIGIN:
Flagged line through Crown Point Cabins.

SAMPLED BY: K. Legard

DATE(S): August 12th, 1983

SAMPLE INTERVAL: 20 metres

NUMBER OF SOIL SAMPLES: 18 FROM: 0741 TO: 0758

(LISTED ON FORM 2)

NUMBER OF SILT SAMPLES (SUPPLEMENTARY TO SOIL LINE). None

COMMENT: Line intended to detail "Crown Point Cabins" anomaly from 1982 programme. Soil quality poor on western portion of line, good on eastern portion.

FORM 2

SOIL LINE P 6+25N

LIST OF SAMPLES IN (IN ORDER COLLECTED), AND COMMENTS

Soil Hrzn.	Init.	Sample Number	ppm Pb	ppm Zn	ppm Ag	Comments
AB	KJL	0741	10	15	.3	
A	KJL	0742	35	31	.3	
B	KJL	0743	23	21	.3	
A	KJL	0744	19	14	.2	
B	KJL	0745	14	19	.2	
A	KJL	0746	10	08	.2	
B	KJL	0747	16	15	.2	
B	KJL	0748	38	12	.5	
B	KJL	0749	68	84	.1	Possible Pb anomaly
B	KJL	0750	61	96	.1	Possible Pb anomaly
B	KJL	0751	58	66	.3	
B	KJL	0752	23	44	.5	
B	KJL	0753	13	21	.2	
B	KJL	0754	14	15	.3	
B	KJL	0755	37	89	n.d.	
SILT	KJL	0756	42	102	.1	
C-B	KJL	0757	38	98	.3	
B	KJL	0758	38	99	.1	

Samim Canada Ltd.

SOIL LINE P 8+25N

MAP AREA: SILENT LAKE - CROWN POINT (CABINS GRID)

ELEVATION: 5800 - 5900 feet

POINT OF ORIGIN: Flagged base line through Crown Point Cabins.

SAMPLED BY: K. Legard

DATE(S): August 12th, 1983

SAMPLE INTERVAL: 20 metres

NUMBER OF SOIL SAMPLES: 18 FROM: 0761 TO: 0778

(LISTED ON FORM 2)

NUMBER OF SILT SAMPLES (SUPPLEMENTARY TO SOIL LINE). None

COMMENT: Line intended to detail "Crown Point Cabins" anomaly from 1982 programme. Soil quality poor on western portion of line, good on eastern.

FORM 2

SOIL LINE P 8+25N

LIST OF SAMPLES IN (IN ORDER COLLECTED), AND COMMENTS

Soil Hrzn.	Init.	Sample Number	ppm Pb	ppm Zn	ppm Ag	Comments
B	KJL	0761	11	14	.2	
B	KJL	0762	08	05	.2	
B	KJL	0763	10	06	.1	
CB	KJL	0764	16	26	.4	
CB	KJL	0765	11	05	n.d.	
B	KJL	0766	28	61	.2	
B	KJL	0767	24	65	.1	
B	KJL	0768	26	72	.3	
B	KJL	0769	68	86	.4	Possible Pb anomaly
B	KJL	0770	49	69	.1	
B	KJL	0771	24	49	.2	
B	KJL	0772	12	12	.4	
B	KJL	0773	18	44	.1	
B	KJL	0774	25	59	n.d.	
B	KJL	0775	21	36	.1	
SILT	KJL	0776	44	102	.1	
B	KJL	0777	41	75	.2	
B	KJL	0778	36	73	.1	

FORM 1

Samim Canada Ltd.

SOIL LINE P 10+25N

MAP AREA: SILENT LAKE - CROWN POINT (CABINS GRID)

ELEVATION: 5750 - 5900

POINT OF ORIGIN: Flagged base line through Crown Point Cabins.

SAMPLED BY: M. Hislop

DATE(S): August 12th, 1983

SAMPLE INTERVAL: 20 metres

NUMBER OF SOIL SAMPLES: 18 FROM: 0781 TO: 0798

(LISTED ON FORM 2)

NUMBER OF SILT SAMPLES (SUPPLEMENTARY TO SOIL LINE). None

COMMENT: Line intended to detail "Crown Point Cabins" anomaly from 1982 programme. Soil quality poor on western portion of line, good on eastern portion.

FORM 2

SOIL LINE P 10+25N

LIST OF SAMPLES IN (IN ORDER COLLECTED), AND COMMENTS

Soil Hrzn.	Init.	Sample Number	ppm Pb	ppm Zn	ppm Ag	Comments
B	JMH	0781	62	87	.2	Possible Pb anomaly
BC	JMH	0782	86	82	.2	Probable Pb anomaly
BC	JMH	0783	112	85	.4	Probable Pb anomaly
B	JMH	0784	86	79	.2	Probable Pb anomaly
B	JMH	0785	126	107	.3	Probable Pb anomaly
BC	JMH	0786	124	104	.5	Probable Pb anomaly
BC	JMH	0787	318	132	.9	Probable Pb, Possible Zn anomaly
B	JMH	0788	63	69	.3	Possible Pb anomaly
B	JMH	0789	57	98	.2	
B	JMH	0790	73	93	.3	Probable Pb anomaly
BC	JMH	0791	73	100	.3	Probable Pb anomaly
BC	JMH	0792	74	99	.2	Probable Pb anomaly
C	JMH	0793	43	104	.1	
B	JMH	0794	38	82	.1	
B	JMH	0795	53	29	.4	
B	JMH	0796	61	51	.5	Possible Pb anomaly
B	JMH	0797	22	14	.3	
B	JMH	0798	56	61	.3	

Samim Canada Ltd.

SOIL LINE P 16+00N

MAP AREA: SILENT LAKE - CROWN POINT (CABINS GRID)

ELEVATION: 5750 - 5820 feet

POINT OF ORIGIN:
New forest road, on east side of McMurdo Creek.
Line P13, station 847, line extends down to creek.

SAMPLED BY: K. Legard, M. Hislop

DATE(S): August 12th, 1983

SAMPLE INTERVAL: 20 metres

NUMBER OF SOIL SAMPLES: 15 FROM: 0801 TO: 0815

(LISTED ON FORM 2)

NUMBER OF SILT SAMPLES (SUPPLEMENTARY TO SOIL LINE). None

COMMENT: Line planned to cover anomaly on 1982 line P 10, on west side of river, was probably not extended far enough west. Soil quality poor on western portion of line, good on eastern portion.

FORM 2

SOIL LINE P 16+00N

LIST OF SAMPLES IN (IN ORDER COLLECTED), AND COMMENTS

Soil Hrzn.	Init.	Sample Number	ppm			Comments
			Pb	Zn	Ag	
B	KJL	0815	45	59	.4	
AB	KJL	0814	24	48	.4	
B	KJL	0813	42	79	.3	
B	KJL	0812	24	56	.1	
A	KJL	0811	16	14	.6	
A	KJL	0810	11	17	.6	
AB	KJL	0809	45	85	.6	
AB	KJL	0808	36	99	.5	
SILT	KJL	0807	36	95	n.d.	
B	KJL	0806	49	86	n.d.	
CB	KJL	0805	57	73	.2	
B	JMH	0804	73	84	.1	Probable Pb anomaly
BC	JMH	0803	61	95	.2	Possible Pb anomaly
C	JMH	0802	70	111	.3	Probable Pb anomaly
SWAMP	JMH	0801	i.s.	i.s.	i.s.	Insufficient sample

Samim Canada Ltd.

SOIL LINE P-13-C

MAP AREA: SILENT LAKE (CROWN POINT)

ELEVATION: 5640 - 5950 feet

POINT OF ORIGIN: Line P13 at station 0867 on new road; line extends downhill to east branch of McMurdo Creek.

SAMPLED BY: M. Cook

DATE(S): August 23rd, 1983

SAMPLE INTERVAL: 10 metres

NUMBER OF SOIL SAMPLES: 21 FROM: 20 m TO: 220 m

(LISTED ON FORM 2)

NUMBER OF SILT SAMPLES (SUPPLEMENTARY TO SOIL LINE). None

COMMENT: Line intended to bracket anomaly on 1982 line "P-10" was not extended far enough west - i.e., across river.

FORM 2

SOIL LINE P-13-C

LIST OF SAMPLES IN (IN ORDER COLLECTED), AND COMMENTS

Soil Hrzn.	Init.	Sample Number	ppm			Comments
			Pb	Zn	Ag	
B	MC	+20	38	61	.2	
B-C	MC	+30	34	72	.1	
B	MC	+40	31	39	.8	
B	MC	+50	30	64	.4	
B	MC	+60	26	56	.2	
B	MC	+70	26	68	.1	
B	MC	+80	20	41	n.d.	
BC	MC	+90	23	30	.5	
B	MC	+100	25	31	n.d.	
B	MC	+110	34	04	.2	
B	MC	+120	37	49	.5	
C	MC	+130	32	39	.4	
B	MC	+140	19	32	n.d.	
A	MC	+150	27	58	.4	
B	MC	+160	26	70	.2	
B	MC	+170	20	42	.2	
A	MC	+180	43	79	n.d.	
A	MC	+190	39	73	.3	
A	MC	+200	37	68	n.d.	
A	MC	+210	42	65	.1	
A (SILT)	MC	+220	59	100	.1	

Samim Canada Ltd.

SOIL LINE C10

MAP AREA: CARBONATE MOUNTAIN (MALACHITE CREEK)

ELEVATION: 2130 to 2160 m

POINT OF ORIGIN:
Approximate southwest end of 1982 line C-5 - extended southwest to cover "F" shale.

SAMPLED BY: S. Syroishko

DATE(S): August 13th, 1983

SAMPLE INTERVAL: 10 metres

NUMBER OF SOIL SAMPLES: 35 FROM: C10/1121 TO: C10/1155

(LISTED ON FORM 2)

NUMBER OF SILT SAMPLES (SUPPLEMENTARY TO SOIL LINE). None

COMMENT: Soil quality generally good, locally poor. Line crosses grassy meadows with minor open forest stands.

FORM 2

SOIL LINE C10

LIST OF SAMPLES IN (IN ORDER COLLECTED), AND COMMENTS

Soil Hrzn.	Init.	Sample Number	ppm			Comments
			Pb	Zn	Ag	
B	SJS	1121	39	78	.3	
B	SJS	1122	27	74	.3	
AB	SJS	1123	56	79	.5	
B	SJS	1124	35	99	.4	
B	SJS	1125	44	94	.3	
B	SJS	1126	25	113	.4	
B	SJS	1127	42	80	.5	
B	SJS	1128	30	69	.4	
B	SJS	1129	35	81	.5	
B	SJS	1130	31	80	.4	
B	SJS	1131	39	87	.2	
B	SJS	1132	39	85	.5	
B	SJS	1133	42	86	.6	
B	SJS	1134	44	100	.6	
B	SJS	1135	44	101	.4	
B	SJS	1136	50	94	.3	
B	SJS	1137	56	118	.4	Possible Zn anomaly
B	SJS	1138	43	89	.4	
B	SJS	1139	34	74	n.d.	
B	SJS	1140	34	73	n.d.	
B	SJS	1141	24	66	.2	
B	SJS	1142	38	61	.1	
B	SJS	1143	49	86	.3	
B	SJS	1144	46	70	.1	
B	SJS	1145	53	58	.1	
B	SJS	1146	50	77	.2	
BC	SJS	1147	46	76	.4	
BC	SJS	1148	34	73	.2	
AB	SJS	1149	24	66	n.d.	
B	SJS	1150	32	74	n.d.	
B	SJS	1151	38	69	.3	
B	SJS	1152	39	62	.1	
B	SJS	1153	45	95	.3	
B	SJS	1154	46	93	.2	
B	SJS	1155	54	124	.4	Possible Zn anomaly

Samim Canada Ltd.

SOIL LINE C11

MAP AREA: CARBONATE MOUNTAIN - MALACHITE CREEK

ELEVATION: 2000 to 2100 m

POINT OF ORIGIN: Edge of large land-slip scar, southwest side of Carbonate Mountain anticline - Line crosses anticline to northeast.

SAMPLED BY: T. James, S. Syroishko

DATE(S): August 13th, 1983

SAMPLE INTERVAL: 20 metres

NUMBER OF SOIL SAMPLES: 70 FROM: C11/1161 TO: C11/1230

(LISTED ON FORM 2)

NUMBER OF SILT SAMPLES (SUPPLEMENTARY TO SOIL LINE). None

COMMENT: Soil quality generally good. Line at top of scree, base of lowest outcrops, generally in trees.

FORM 2

SOIL LINE C11

LIST OF SAMPLES IN (IN ORDER COLLECTED), AND COMMENTS

Soil Hrzn.	Init.	Sample Number	ppm			Comments
			Pb	Zn	Ag	
B	SJS	1161	38	61	.2	
B	SJS	1162	45	85	.4	
B	SJS	1163	04	92	.5	
AB	SJS	1164	50	79	n.d.	
B	SJS	1165	49	59	.6	
B	SJS	1166	62	76	.5	Possible Pb anomaly
B	SJS	1167	34	79	.4	
BC	SJS	1168	10	44	.6	
B	SJS	1169	08	25	.4	
B	SJS	1170	39	64	.5	
B	SJS	1171	24	35	.5	
AC	SJS	1172	31	69	.5	
BC	SJS	1173	46	68	.3	
B	SJS	1174	32	49	.3	
B	SJS	1175	43	58	.4	
B	SJS	1176	26	50	.6	
B	SJS	1177	21	53	.4	
B	SJS	1178	32	74	.4	
B	SJS	1179	31	71	.3	
B	SJS	1180	39	80	.3	
B	SJS	1181	39	95	.3	
B	SJS	1182	86	94	.4	Probable Pb anomaly
B	SJS	1183	41	86	.6	
AB	SJS	1184	45	74	.6	
B	SJS	1185	32	75	1.3	
B	SJS	1186	31	86	.8	
B	SJS	1187	50	95	1.9	
BC	SJS	1188	13	37	.6	
B	SJS	1189	21	54	.4	
B	SJS	1190	37	79	1.7	
B	SJS	1191	35	70	.7	
BC	SJS	1192	72	111	.5	Probable Pb anomaly
B	SJS	1193	43	74	.4	
B	SJS	1194	49	86	.1	
B	SJS	1195	39	73	1.0	
B	SJS	1196	88	98	.3	Probable Pb anomaly
B	SJS	1197	98	103	.2	Probable Pb anomaly
B	SJS	1198	80	69	.2	Probable Pb anomaly
B	SJS	1199	48	96	.5	
B	SJS	1200	42	99	.1	

FORM 2

SOIL LINE C11

LIST OF SAMPLES IN (IN ORDER COLLECTED), AND COMMENTS

Soil Hrzn.	Init.	Sample Number	ppm Pb	ppm Zn	ppm Ag	Comments
B	TSJ	1201	30	81	.7	
B	TSJ	1202	05	19	.5	
B	TSJ	1203	46	125	.1	Possible Zn anomaly
B	TSJ	1204	54	112	.3	
B	TSJ	1205	86	66	.9	Probable Pb anomaly
B	TSJ	1206	53	139	.4	Possible Zn anomaly
B	TSJ	1207	90	101	.4	Probable Pb anomaly
B	TSJ	1208	44	89	.1	
BC	TSJ	1209	46	102	.3	
B	TSJ	1210	88	114	.2	Probable Pb anomaly
B	TSJ	1211	49	106	.4	
B	TSJ	1212	80	104	.4	Probable Pb anomaly
B	TSJ	1213	44	97	.3	
B	TSJ	1214	66	105	n.d.	Possible Pb anomaly
BC	TSJ	1215	73	89	.4	Probable Pb anomaly
BC	TSJ	1216	41	94	.1	
B	TSJ	1217	44	76	n.d.	
B	TSJ	1218	35	84	n.d.	
B	TSJ	1219	25	58	.5	
B	TSJ	1220	31	67	.2	
B	TSJ	1221	48	96	.3	
B	TSJ	1222	40	113	.4	
B	TSJ	1223	45	110	.2	
B	TSJ	1224	84	81	.4	Probable Pb anomaly
AB	TSJ	1225	58	111	.2	
B	TSJ	1226	31	70	.5	
B	TSJ	1227	35	89	.6	
B	TSJ	1228	58	116	.4	
B	TSJ	1229	62	114	.6	Possible Pb, Zn anomaly
BC	TSJ	1230	40	84	.4	

Samim Canada Ltd.

SOIL LINE C12

MAP AREA: CARBONATE MOUNTAIN - MALACHITE CREEK

ELEVATION: 1950 to 1970 m

POINT OF ORIGIN:
Edge of covered tree-slide scar. Line covers predicted position of "B-shale" at lowest elevations.

SAMPLED BY: M. Hislop, K. Ligard

DATE(S): August 13th, 1983

SAMPLE INTERVAL: 20 metres

NUMBER OF SOIL SAMPLES: 20 FROM: C12/1101 TO: C12/1120

(LISTED ON FORM 2)

NUMBER OF SILT SAMPLES (SUPPLEMENTARY TO SOIL LINE). None

COMMENT: Good soil quality. Line along meadow at base of trees, or just inside forest.

FORM 2

SOIL LINE C12

LIST OF SAMPLES IN (IN ORDER COLLECTED), AND COMMENTS

Soil Hrzn.	Init.	Sample Number	ppm			Comments
			Pb	Zn	Ag	
B	JMH	1101	35	77	.1	
B	JMH	1102	43	65	.6	
B	JMH	1103	52	82	.6	
B	JMH	1104	48	113	.4	
B	JMH	1105	12	36	.2	
B	KJL	1106	41	77	.1	
B	KJL	1107	27	81	.4	
B	KJL	1108	16	47	.3	
B	KJL	1109	26	20	.8	
B	KJL	1110	15	31	.3	
B	KJL	1111	28	44	.3	
B	KJL	1112	53	89	.4	
B	KJL	1113	43	90	.5	
B	KJL	1114	106	104	.4	Probable Pb anomaly
BC	KJL	1115	94	89	.3	Probable Pb anomaly
B	KJL	1116	75	108	.2	Probable Pb anomaly
B	KJL	1117	80	103	.5	Probable Pb anomaly
B	KJL	1118	30	49	.3	
BC	KJL	1119	23	64	.5	
BC	KJL	1120	65	116	.2	Possible Pb anomaly

Samim Canada Ltd.

SOIL LINE CARBONATE IP #9

MAP AREA: CARBONATE MOUNTAIN - MALACHITE CREEK

ELEVATION: 2275 m to 2400 m

POINT OF ORIGIN: IP line #9, centered on main stream draining Carbonate Mountain Cirque to Malachite Creek, above large outcrop cliff.

SAMPLED BY: M. Cook, S. Blair

DATE(S): August 19th, 1983

SAMPLE INTERVAL: 10 metres

NUMBER OF SOIL SAMPLES: 71 FROM: 6+00E TO: 13+25E

(LISTED ON FORM 2)

NUMBER OF SILT SAMPLES (SUPPLEMENTARY TO SOIL LINE). NONE

COMMENT: Soil quality variable, including areas of scree.

FORM 2

SOIL LINE C-IP-#9

LIST OF SAMPLES IN (IN ORDER COLLECTED), AND COMMENTS

Soil Hrzn.	Init.	Sample Number	ppm			Comments
			Pb	Zn	Ag	
A	MC	6+00E	43	91	.1	
A	MC	6+10E	36	78	n.d.	
A	MC	6+20E	44	84	.1	
A	MC	6+30E	49	81	.2	
A	MC	6+40E	37	83	.1	
A	MC	6+50E	34	69	n.d.	
A	MC	6+60E	38	64	.1	
A	MC	6+70E	36	57	.3	
A	MC	6+80E	64	98	.2	
B	MC	6+90E	45	61	.2	
A	MC	7+00E	44	64	n.d.	
-	MC	7+10E	-	-	-	No sample, rocks
A	MC	7+20E	113	85	n.d.	Probable Pb anomaly
A	MC	7+30E	61	86	.2	
A	MC	7+40E	47	85	n.d.	
A	MC	7+50E	41	96	.1	
A	MC	7+60E	31	61	n.d.	
B	MC	7+70E	23	34	.4	
A	MC	7+80E	23	14	n.d.	
A	MC	7+90E	42	126	.1	Possible Zn anomaly
B	MC	8+00E	57	48	.2	
B	MC	8+10E	63	54	.1	Possible Pb anomaly
B	MC	8+20E	46	35	n.d.	
A	MC	8+30E	55	73	n.d.	
B	MC	8+40E	33	29	.4	
A	MC	8+50E	38	65	.2	
A	MC	8+60E	24	62	.4	
A	MC	8+70E	23	24	.2	
AB	MC	8+80E	54	111	n.d.	Possible Zn anomaly
A	MC	8+90E	23	24	n.d.	
A	MC	9+00E	16	17	n.d.	
A	MC	9+10E	26	36	.2	
A	MC	9+20E	24	64	.4	
A	MC	9+30E	40	89	.3	
B	MC	9+40E	58	103	.2	
B	MC	9+50E	39	66	.2	
-	MC	9+60E	-	-	-	No sample, rocks
B	MC	9+70E	34	52	n.d.	
B	MC	9+80E	27	77	n.d.	
B	MC	9+90E	30	21	.3	

FORM 2

SOIL LINE C-IP-#9

LIST OF SAMPLES IN (IN ORDER COLLECTED), AND COMMENTS

Soil Hrzn.	Init.	Sample Number	ppm Pb	ppm Zn	ppm Ag	Comments
B	MC	10+00E	26	39	.1	
B	MC	10+10E	24	31	.2	
B	MC	10+20E	29	46	.4	
B	MC	10+30E	29	45	n.d.	
A	MC	10+40E	33	62	.2	
A	MC	10+50E	60	158	.2	Possible Pb,Probably Zn anomaly
A	MC	10+60E	36	56	.3	
A	MC	10+70E	52	72	.3	
A	MC	10+80E	35	77	.3	
B	MC	10+90E	29	58	.1	
A	MC	11+00E	35	56	.2	
A	MC	11+10E	40	59	.3	
A	MC	11+20E	60	96	n.d.	Possible Pb anomaly
A	MC	11+30E	28	44	.1	
A	MC	11+40E	27	39	n.d.	
A	MC	11+50E	28	42	n.d.	
A	MC	11+60E	35	65	.1	
A	MC	11+70E	56	87	n.d.	
B	MC	11+80E	35	84	.3	
A	MC	11+90E	56	114	n.d.	
B	MC	12+00E	28	44	.1	
B	MC	12+10E	39	62	.2	
A	MC	12+20E	44	74	.2	
A	MC	12+30E	52	70	.3	
A	MC	12+40E	26	48	n.d.	
A	MC	12+50E	34	46	.2	
A	MC	12+60E	33	27	.3	
A	MC	12+70E	44	49	n.d.	
A	MC	12+80E	50	76	.1	
A	MC	12+90E	26	29	n.d.	
A	MC	13+00E	34	59	.1	
A	MC	13+10E	35	56	n.d.	
A	MC	13+20E	43	86	.4	

Samim Canada Ltd.

SOIL LINE CARBONATE IP #10

MAP AREA: CARBONATE MOUNTAIN - MALACHITE CREEK

ELEVATION: 2340 m to 2500 m

POINT OF ORIGIN:
IP line #10 5+00E to 7+50E, as extension of 1982 line "C6".

SAMPLED BY: M. Cook, S. Blair

DATE(S): August 18th, 1983

SAMPLE INTERVAL: 10 metres

NUMBER OF SOIL SAMPLES: 12 FROM: 6+40E TO: 7+50E

(LISTED ON FORM 2)

NUMBER OF SILT SAMPLES (SUPPLEMENTARY TO SOIL LINE). None

COMMENT: Samples were not analysed.

FORM 2

SOIL LINE C-IP-#10

LIST OF SAMPLES IN (IN ORDER COLLECTED), AND COMMENTS

Soil Hrzn.	Init.	Sample Number	ppm			Comments
			Pb	Zn	Ag	
B	MC	6+40E				Not analysed
A	MC	6+50E				" "
A	MC	6+60E				" "
A	MC	6+70E				" "
A	MC	6+80E				" "
A	MC	6+90E				" "
B	MC	7+00E				" "
B	MC	7+10E				" "
A	MC	7+20E				" "
A	MC	7+30E				" "
A	MC	7+40E				" "
A	MC	7+50E				" "

Samim Canada Ltd.

SOIL LINE M1

MAP AREA: MALACHITE CREEK

ELEVATION: 2160 to 2210 m

POINT OF ORIGIN: Extension of 1982 line M1; southwest edge of scree beneath "Malachite-Ridge" showing - line covers ridge above "Malachite-Adit" showing.

SAMPLED BY: K. Legard

DATE(S): August 13th, 1983

SAMPLE INTERVAL: 10 metres

NUMBER OF SOIL SAMPLES: 15 FROM: M1/1001 TO: M1/1015

(LISTED ON FORM 2)

NUMBER OF SILT SAMPLES (SUPPLEMENTARY TO SOIL LINE). None

COMMENT: Soil quality generally poor. Line on open meadow developed on narrow ledge on ridge.

FORM 2

SOIL LINE M1

LIST OF SAMPLES IN (IN ORDER COLLECTED), AND COMMENTS

Soil Hrzn.	Init.	Sample Number	ppm Pb	ppm Zn	ppm Ag	Comments
	KJL	1001	i.s.	i.s.	i.s.	Insufficient sample
BC	KJL	1002	92	79	.3	Probable Pb anomaly
BC	KJL	1003	61	71	.4	Possible Pb anomaly
BC	KJL	1004	78	102	.2	Probable Pb anomaly
BC	KJL	1005	102	104	.3	Probable Pb anomaly
BC	KJL	1006	77	98	.3	Probable Pb anomaly
AB	KJL	1007	41	86	.7	
B	KJL	1008	29	25	.2	
B	KJL	1009	40	16	.3	
B	KJL	1010	32	34	.4	
B	KJL	1011	27	39	.2	
B	KJL	1012	28	40	.5	
B	KJL	1013	47	56	.1	
BC	KJL	1014	52	64	.4	
B	KJL	1015	48	51	.4	

Samim Canada Ltd.

SOIL LINE M3

MAP AREA: MALACHITE CREEK

ELEVATION: 2040 m - 1920 m

POINT OF ORIGIN: Edge of large scree field to southwest of Malachite Ridge - Line below "Adit Showing".

SAMPLED BY: K. Legard, M. Hislop

DATE(S): August 13th, 1983

SAMPLE INTERVAL: 20 metres

NUMBER OF SOIL SAMPLES: 60 FROM: M3/1041 TO: M3/1100

(LISTED ON FORM 2)

NUMBER OF SILT SAMPLES (SUPPLEMENTARY TO SOIL LINE). None

COMMENT: Generally poor soil quality, numerous samples with rock chips included. Line crosses scree slopes below lowest outcrops of entire Malachite Creek anticline.

FORM 2

SOIL LINE M3

LIST OF SAMPLES IN (IN ORDER COLLECTED), AND COMMENTS

Soil Hrzn.	Init.	Sample Number	ppm Pb	ppm Zn	ppm Ag	Comments
CB	KJL	1041	47	49	.2	
B	KJL	1042	19	29	.4	
B	KJL	1043	25	46	.4	
B	KJL	1044	30	51	.1	
CB	KJL	1045	15	17	.6	
AB	KJL	1046	27	53	.1	
CB	KJL	1047	60	660	.1	Possible Pb, Probable Zn
CB	KJL	1048	63	376	.7	Possible Pb, Probable Zn
CB	KJL	1049	73	144	.1	Probable Pb, Zn
B	KJL	1050	35	84	n.d.	
B	KJL	1051	180	125	.7	Probable Pb, Possible Zn
CB	KJL	1052	102	167	.6	Probable Pb, Zn
B	KJL	1053	43	91	n.d.	
B	KJL	1054	23	44	.4	
B	KJL	1055	45	83	.1	
AB	KJL	1056	45	89	.5	
CB	KJL	1057	650	510	2.9	Probable Pb, Zn
B	KJL	1058	165	303	1.5	Probable Pb, Zn
B	KJL	1059	50	86	.1	
CB	KJL	1060	48	99	.7	
B	KJL	1061	16	37	.3	
B	KJL	1062	20	24	.5	
B	KJL	1063	21	17	1.0	
B	KJL	1064	48	63	.4	
B	KJL	1065	43	34	.4	
B	KJL	1066	21	45	.6	
B	KJL	1067	19	13	.4	
CB	KJL	1068	42	65	.2	
B	KJL	1069	39	54	.6	
B	KJL	1070	35	49	1.7	
B	KJL	1071	31	19	.6	
A	KJL	1072	34	34	1.1	
CB	KJL	1073	17	16	.1	
CB	KJL	1074	52	56	.4	
B	KJL	1075	107	101	.9	Probable Pb
CB	KJL	1076	15	41	.2	
CB	KJL	1077	890	1090	4.4	Probable Pb, Zn (Ag)
B	KJL	1078	25	46	.4	
B	KJL	1079	40	152	.2	
CB	KJL	1080	158	313	1.1	Probable Pb, Zn

FORM 2

SOIL LINE M3

LIST OF SAMPLES IN (IN ORDER COLLECTED), AND COMMENTS

Soil Hrzn.	Init.	Sample Number	ppm			Comments
			Pb	Zn	Ag	
B	KJL	1081	50	920	.8	Probable Zn
B	KJL	1082	47	141	.3	Probable Zn
B	KJL	1083	68	140	.5	Possible Pb, Probable Zn
B	KJL	1084	48	119	.4	Possible Zn
AB	KJL	1085	73	199	.3	Probable Pb, Zn
B	KJL	1086	92	186	.2	Probable Pb, Zn
B	KJL	1087	73	192	.2	Probable Pb, Zn
B	KJL	1088	63	155	.4	Possible Pb, Probable Zn
B	KJL	1089	30	38	.4	
B	KJL	1090	180	29	1.3	Probable Pb
B	JMH	1091	30	87	.4	
BC	JMH	1092	15	29	.2	
B	JMH	1093	53	93	.2	
AB	JMH	1094	18	56	.2	
AB	JMH	1095	8	12	n.d.	
AB	JMH	1096	78	56	.5	Probable Pb
AB	JMH	1097	34	42	.9	
B	JMH	1098	20	09	.4	
B	JMH	1099	36	35	1.5	
B	JMH	1100	05	03	.3	

Samim Canada Ltd.

SOIL LINE M4

MAP AREA: MALACHITE CREEK

ELEVATION: 2115 to 2160 m

POINT OF ORIGIN: Southwest edge of scree beneath "Malachite-Ridge" showing - Line covers ridge immediately above "Malachite-Adit" showing.

SAMPLED BY: K. Legard

DATE(S): August 13th, 1983

SAMPLE INTERVAL: 10 metres

NUMBER OF SOIL SAMPLES: 20 FROM: M4/1021 TO: M4/1040

(LISTED ON FORM 2)

NUMBER OF SILT SAMPLES (SUPPLEMENTARY TO SOIL LINE). None

COMMENT: Soil quality poor. Line generally on alpine meadow, on ledges developed down ridge (site of DDH DEB-83-10, 11).

FORM 2

SOIL LINE M4

LIST OF SAMPLES IN (IN ORDER COLLECTED), AND COMMENTS

Soil Hrzn.	Init.	Sample Number	ppm Pb	ppm Zn	ppm Ag	Comments
CB	KJL	1021	85	79	.4	Probable Pb
CB	KJL	1022	58	74	.3	
CB	KJL	1023	36	56	.7	
CB	KJL	1024	48	81	.3	
CB	KJL	1025	92	75	.4	Probable Pb
CB	KJL	1026	21	36	.4	
B	KJL	1027	50	26	.1	
B	KJL	1028	49	30	.5	
B	KJL	1029	50	44	.3	
B	KJL	1030	33	31	.6	
CB	KJL	1031	30	49	.5	
CB	KJL	1032	82	116	.6	Probable Pb, Possible Zn
B	KJL	1033	55	95	.4	
CB	KJL	1034	98	146	n.d.	Probable Pb, Zn
CB	KJL	1035	67	119	.4	Possible Pb, Zn
CB	KJL	1036	59	101	.1	
CB	KJL	1037	60	109	.2	Possible Pb
CB	KJL	1038	71	164	.3	Probable Pb, Zn
CB	KJL	1039	82	118	.3	Probable Pb, Possible Zn
B	KJL	1040	53	92	n.d.	

APPENDIX E

Analysis of Individual Samples that were Composited in 1982

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FORM 9

SOIL LINE S1

ANALYSIS OF INDIVIDUAL SAMPLES THAT WERE COMPOSITED IN 1982

COMPOSITE NUMBER	ppm		SAMPLE NUMBER	INIT.	SOIL HRZN.	ppm		COMMENTS
	Pb	Zn				Pb	Zn	
			1328	PM	B	30	50	
			1329	PM	B	30	45	
SC 298	33	79	1330	RS	BC	45	95	
			1331	RS	BC	45	95	
			1332	RS	B	45	95	
			1333	PM	BC	70	110	Probable Pb, Possible Zn anomaly
			1334	PM	B	50	85	
SC 299	41	84	1335	RS	B	40	95	
			1336	RS	B	35	85	
			1337	PP	B	25	30	

SAMIM CANADA LTD.

FORM 9

SOIL LINE P2

ANALYSIS OF INDIVIDUAL SAMPLES THAT WERE COMPOSITED IN 1982

COMPOSITE NUMBER	ppm		SAMPLE NUMBER	INIT.	SOIL HRZN.	ppm		COMMENTS
	Pb	Zn				Pb	Zn	
			652	RS	B	45	70	
			653	PM	B	45	80	
SC 221	68	94	654	MH	BC	60	95	Possible Pb anomaly
			655	MH	ABC	40	80	
			656	PM	ABC	65	80	Possible Pb anomaly
			657	RS	BC	50	95	

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FORM 9

SOIL LINE P4

ANALYSIS OF INDIVIDUAL SAMPLES THAT WERE COMPOSITED IN 1982

COMPOSITE NUMBER	ppm		SAMPLE NUMBER	INIT.	SOIL HRZN.	ppm		COMMENTS
	Pb	Zn				Pb	Zn	
			727	PM	B	20	100	
			728	PM	B	20	95	
SC 226	26	65	729	PM	BC	25	75	
			730	PM	B	25	70	
			731	PM	B	10	30	

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FORM 9

SOIL LINE P5

ANALYSIS OF INDIVIDUAL SAMPLES THAT WERE COMPOSITED IN 1982

COMPOSITE NUMBER	ppm		SAMPLE NUMBER	INIT.	SOIL HRZN.	ppm		COMMENTS
	Pb	Zn				Pb	Zn	
			743	PM	B	15	70	
			744	PM	B	10	40	
			745	PM	B	35	65	
SC 229	50	70	746	PM	BC	30	70	
			747	PM	BC	25	88	
			748	PM	BC	35	80	

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FORM 9

SOIL LINE P6

ANALYSIS OF INDIVIDUAL SAMPLES THAT WERE COMPOSITED IN 1982

COMPOSITE NUMBER	ppm		SAMPLE NUMBER	INIT.	SOIL HRZN.	ppm		COMMENTS
	Pb	Zn				Pb	Zn	
			771	PM	ABC	25	70	
			772	PM	B	25	75	
SC 232	21	68	773	PM	B	20	65	
			774	PM	B	15	70	
			775	PM	B	10	20	

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FORM 9

SOIL LINE P7

ANALYSIS OF INDIVIDUAL SAMPLES THAT WERE COMPOSITED IN 1982

COMPOSITE NUMBER	ppm		SAMPLE NUMBER	INIT.	SOIL HRZN.	ppm		COMMENTS
	Pb	Zn				Pb	Zn	
			1404	MH	B	180	80	Probable Pb anomaly
			1405	MH	B	15	10	
SC 237	44	44	1406	MH	BC	05	15	
			1407	RS	B	20	75	
			1408	RS	A	35	60	

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FORM 9

SOIL LINE P8

ANALYSIS OF INDIVIDUAL SAMPLES THAT WERE COMPOSITED IN 1982

COMPOSITE NUMBER	ppm		SAMPLE NUMBER	INIT.	SOIL HRZN.	ppm		COMMENTS
	Pb	Zn				Pb	Zn	
			1425	RS	B	10	15	
			1426	RS	B	45	80	
SC 241	58	72	1427	RS	B	25	90	
			1428	MH	B	25	60	
			1429	MH	AB	25	75	

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FORM 9

SOIL LINE P9

ANALYSIS OF INDIVIDUAL SAMPLES THAT WERE COMPOSITED IN 1982

COMPOSITE NUMBER	ppm		SAMPLE NUMBER	INIT.	SOIL HRZN.	ppm		COMMENTS
	Pb	Zn				Pb	Zn	
			1441	MH	B	10	10	
			1442	RS	B	25	85	
SC 244	66	91	1443	RS	BC	30	100	
			1444	RS	B	30	85	
			1445	MH	B	85	80	Probable Pb anomaly
			1446	RS	B	80	75	Probable Pb anomaly
			1447	RS	SILT	-	-	
SC 245	18	23	1448	MH	B	50	80	
			1449	MH	AB	05	05	
			1450	RS	B	05	05	
			1451	MH	B	15	75	
			1452	MH	B	35	95	
SC 246	52	92	1453	MH	B	75	120	Probable Pb, Possible Zn anomaly
			1454	RS	B	40	55	
			1455	RS	N/S	-	-	

SAMIM CANADA LTD.

FORM 9

SOIL LINE P 10

ANALYSIS OF INDIVIDUAL SAMPLES THAT WERE COMPOSITED IN 1982

COMPOSITE NUMBER	ppm Pb	ppm Zn	SAMPLE NUMBER	INIT.	SOIL HRZN.	ppm Pb	ppm Zn	COMMENTS
			1513	PP	B	45	80	
			1514	PP	B	15	115	Possible Zn anomaly
SC 251	68	164	1515	PM	B	10	350	Probable Zn anomaly
			1516	PM	B	75	15	Probable Pb anomaly
			1517	PM	B	95	25	Probable Pb anomaly

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FORM 9

SOIL LINE P11

ANALYSIS OF INDIVIDUAL SAMPLES THAT WERE COMPOSITED IN 1982

COMPOSITE NUMBER	ppm		SAMPLE NUMBER	INIT.	SOIL HRZN.	ppm		COMMENTS
	Pb	Zn				Pb	Zn	
			1469	PP	B	25	75	
			1470	PM	B	25	85	
SC 254	20	96	1471	PM	B	35	85	
			1472	PP	B	35	85	
			1473	PP	B	35	85	

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FORM 9

SOIL LINE P12

ANALYSIS OF INDIVIDUAL SAMPLES THAT WERE COMPOSITED IN 1982

COMPOSITE NUMBER	ppm		SAMPLE NUMBER	INIT.	SOIL HRZN.	ppm		COMMENTS
	Pb	Zn				Pb	Zn	
			722	MH	B	10	15	
			723	MH	B	65	60	Possible Pb anomaly
SC 225	40	51	724	RS	B	30	45	
			725	RS	B	45	55	
			726	RS	B	25	50	

SAMIM CANADA LTD.

FORM 9

SOIL LINE C5

ANALYSIS OF INDIVIDUAL SAMPLES THAT WERE COMPOSITED IN 1982

COMPOSITE NUMBER	ppm Pb	ppm Zn	SAMPLE NUMBER	INIT.	SOIL HRZN.	ppm Pb	ppm Zn	COMMENTS
			1116	MH	B	30	85	
			1117	MH	B	35	100	
SC 165	43	98	1118	MH	BC	35	90	
			1119	MH	B	35	70	
			1120	MH	B	50	80	
			1121	PP	B	35	65	
			1122	PP	B	45	75	
SC 164	45	79	1123	PP	B	50	60	
			1124	PP	B	45	90	
			1125	PP	B	35	80	
			1126	MH	B	25	75	
			1127	MH	B	20	75	
SC 163	32	77	1128	MH	B	25	70	
			1129	MH	B	40	60	
			1130	MH	B	20	70	
			1131	PP	B	25	65	
			1132	PP	B	15	50	
SC 162	49	61	1133	PP	B	125	65	Probable Pb anomaly
			1134	PP	B	20	60	
			1135	PP	B	20	65	
			1136	MH	B	25	75	
			1137	MH	B	40	85	
SC 161	118	95	1138	MH	B	45	75	
			1139	MH	B	300	70	Probable Pb anomaly
			1140	MH	B	75	100	Probable Pb anomaly
			1141	PP	B	70	80	Probable Pb anomaly
			1142	PP	B	70	110	Probable Pb anomaly
SC 160	63	99	1143	PP	B	85	100	Probable Pb anomaly
			1144	PP	B	30	70	
			1145	PP	B	30	75	
			1146	MH	B	30	80	
			1147	MH	B	30	75	
SC 159	52	104	1148	MH	BC	50	95	
			1149	MH	B	35	95	
			1150	MH	B	40	105	
			1151	PP	B	35	110	Possible Zn anomaly
			1152	PP	B	50	120	Possible Zn anomaly
SC 158	58	116	1153	PP	B	40	105	
			1154	MH	B	20	70	
			1155	MH	B	45	95	

SOIL LINE C6

ANALYSIS OF INDIVIDUAL SAMPLES THAT WERE COMPOSITED IN 1982

COMPOSITE NUMBER	ppm Pb	ppm Zn	SAMPLE NUMBER	INIT.	SOIL HRZN.	ppm Pb	ppm Zn	COMMENTS
			1208	PM	B	30	30	
			1209	PM	B	25	75	
SC 176	38	107	1210	PM	BC	35	90	
			1211	PM	ABC	35	100	
			1212	PM	B	30	130	Possible Zn anomaly
			1213	RS	BC	65	85	Possible Pb anomaly
			1214	RS	B	40	85	
SC 177	51	115	1215	RS	B	45	90	
			1216	RS	B	70	110	Probable Pb, Possible Zn anomaly
			1217	RS	BC	70	120	Probable Pb, Possible Zn anomaly
			1218	PM	B	50	80	
			1219	PM	B	50	55	
SC 178	47	72	1220	PM	B	45	65	
			1221	PM	B	75	85	Probable Pb anomaly
			1222	PM	B	40	80	

SAMIM CANADA LTD.

FORM 9

SOIL LINE M1

ANALYSIS OF INDIVIDUAL SAMPLES THAT WERE COMPOSITED IN 1982

COMPOSITE NUMBER	ppm Pb	ppm Zn	SAMPLE NUMBER	INIT.	SOIL HRZN.	ppm Pb	ppm Zn	COMMENTS
			1257	RS	B	50	55	
			1258	RS	BC	65	120	Possible Pb,Zn anomaly
SC 272	119	216	1259	RS	BC	40	90	
			1260	RS	BC	150	300	Probable Pb,Zn anomaly
			1261	RS	BC	150	400	Probable Pb,Zn anomaly
			1262	PP	B	225	500	Probable Pb,Zn anomaly
			1263	PP	B	625	1350	Probable Pb,Zn anomaly
SC 273	490	1000	1264	PP	B	575	1300	Probable Pb,Zn anomaly
			1265	PP	B	370	950	Probable Pb,Zn anomaly
			1266	PP	B	170	450	Probable Pb,Zn anomaly
			1267	RS	BC	120	400	Probable Pb,Zn anomaly
			1268	RS	BC	80	215	Probable Pb,Zn anomaly
SC 274	101	260	1269	RS	BC	70	200	Probable Pb,Zn anomaly
			1270	RS	BC	70	190	Probable Pb,Zn anomaly
			1271	RS	BC	60	200	Possible Pb,Probable Zn anomaly
			1272	PP	B	100	210	Probable Pb,Zn anomaly
			1273	PP	B	100	225	Probable Pb,Zn anomaly
SC 275	98	185	1274	PP	B	130	190	Probable Pb,Zn anomaly
			1275	PP	B	75	95	Probable Pb anomaly
			1276	PP	B	40	85	

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FORM 9

SOIL LINE M2

ANALYSIS OF INDIVIDUAL SAMPLES THAT WERE COMPOSITED IN 1982

COMPOSITE NUMBER	ppm Pb	ppm Zn	SAMPLE NUMBER	INIT.	SOIL HRZN.	ppm Pb	ppm Zn	COMMENTS
			974	MH	B	25	110	Possible Zn anomaly
			975	MH	B	35	250	Probable Zn anomaly
SC 289	46	196	976	MH	B	20	100	
			977	RS	B	55	225	Probable Zn anomaly
			978	RS	B	55	120	Possible Zn anomaly
			979	MH	B	75	150	Probable Pb,Zn anomaly
			980	MH	B	75	145	Probable Pb,Zn anomaly
SC 288	82	155	981	MH	B	50	135	Probable Zn anomaly
			982	RS	B	60	125	Possible Zn anomaly
			983	RS	B	70	110	Probable Pb,possible Zn anomaly
			984	MH	B	55	80	
			985	MH	B	85	85	Probable Pb anomaly
SC 287	46	71	986	MH	BC	60	90	Possible Pb anomaly
			987	RS	B	40	55	
			988	RS	AB	15	35	

APPENDIX F

Rock-chip and Grab Samples, Descriptions and Analyses

Samim Canada Ltd.

GEOLOGICAL SAMPLES — SILENT LAKE

- not analysed for

SAMPLE NUMBER	MAP AREA	SAMPLES DATE	SAMPLES BY	ROCK UNIT	PURPOSE	TYPE OF SAMPLE	LITHOLOGY	ANALYTICAL RESULTS Pb	Zn	Ag	Cu	Mn		
G-SR-4-1	Silent Lake	4/8/83	SDR	"F"	Check for mineralization	Rock grab	Slate with minor surface oxidation	155	101	1.5	-	-		
G-SR-4-2	Silent Lake	4/8/83	SDR	"F"	Check for mineralization	Rock grab	Limestone minor py	23	12	n.d.	-	-		
G-SR-4-3	Silent Lake	4/8/83	SDR	"F"	Check for mineralization	Rock grab	Limestone weak reaction with HCL	500	54	1.0	-	-		

Samim Canada Ltd.

GEOLOGICAL SAMPLES — SILENT LAKE

- not analysed for

SAMPLE NUMBER	MAP AREA	SAMPLES DATE	SAMPLES BY	ROCK UNIT	PURPOSE	TYPE OF SAMPLE	LITHOLOGY	ANALYTICAL RESULTS Pb	Zn	Ag	Cu	Mn		
G-TB-4-1	Silent Lake	4/8/83	TJB	Near "F" carbonate	Gossan for mineralization	Grab from float	Red gossanous carbonate	4100	223	7.0	-	-		
G-TB-5-1	Silent Lake	5/8/83	TJB	"F" carbonate	Check for mineralization	Grab	Rusty shale patch from limestone	102	42	0.6	-	-		
G-TB-5-2	Silent Lake	3/8/83	TJB	"F" carbonate	Check for mineralization	Grab	Rusty shale patch from limestone	31	80	n.d.	-	-		
G-TB-5-3	Silent Lake	5/8/83	TJB	"F" carbonate	Check for mineralization	Grab	Limestone (wavy-banded)	23	78	0.2	-	-		
G-TB-5-4	Silent Lake	5/8/83	TJB	"F" carbonate	Check for mineralization	Grab	Massive grey, gritty, limestone	100	18	n.d.	-	-		
G-TB-5-5	Silent Lake	5/8/83	TJB	"F" carbonate	Check for mineralization	Grab	Quartz-ankerite vein from scree	400	123	1.1	-	-		

Samim Canada Ltd.

GEOLOGICAL SAMPLES

SILENT LAKE

- not analysed for

SAMPLE NUMBER	MAP AREA	SAMPLES DATE	SAMPLES BY	ROCK UNIT	PURPOSE	TYPE OF SAMPLE	LITHOLOGY	ANALYTICAL RESULTS Pb	Zn	Ag	Cu	Mn		
G-TB-5-6	Silent Lake	5/8/83	TJB	"F"shale	Check for mineralization	Grab from float(scree)	Rusty shale	47	100	0.1	-	-		
G-TB-6-1	Silent Lake	6/8/83	TJB	"A" shale-carbonate	Check 1982 anomalous result(PRB-026)	Chip	Massive black limestone	54	26	n.d.	-	-		
G-TB-6-2	Silent Lake	6/8/83	TJB	"A" shale-carbonate	Check 1982 anomalous result(PRB-026)	Chip	Finely laminated black limestone and shale	50	94	0.2	-	-		
G-TB-6-3	Silent Lake	6/8/83	TJB	"A"shale-carbonate	Check 1982 anomalous result(PRB-026)	Chip	Finely laminated limestone	62	48	n.d.	-	-		
G-SR-29-1	Silent Lake	29/8/83	TJB				Limestone	39	24	n.d.				

Samim Canada Ltd.

GEOLOGICAL SAMPLES

CARBONATE DETAIL

- not analysed for

SAMPLE NUMBER	MAP AREA	SAMPLES DATE	SAMPLES BY	ROCK UNIT	PURPOSE	TYPE OF SAMPLE	LITHOLOGY	ANALYTICAL RESULTS Pb	Zn	Ag	Cu	Mn		
G-TB-9-1	Carb. Detail	9/8/83	TJB	"F" carbonate	Check for mineralization	Grab	Black shale	57	103	0.1	-	-		
G-TB-9-2	Carb. Detail	9/8/83	TJB	"F" carbonate	Check for mineralization	Grab	Black limestone	105	27	n.d.	-	-		
G-TB-9-3	Carb. Detail	9/8/83	TJB	"F" carbonate	Check for mineralization	Grab	Limestone, quartz-siderite veins	212	56	n.d.	-	-		
G-TB-9-4	Carb. Detail	9/8/83	TJB	"F" carbonate	Check for mineralization	Grab	Limestone	50	22	n.d.	-	-		

Samim Canada Ltd.

GEOLOGICAL SAMPLES

MALACHITE DETAIL

- not analysed for

SAMPLE NUMBER	MAP AREA	SAMPLES DATE	SAMPLES BY	ROCK UNIT	PURPOSE	TYPE OF SAMPLE	LITHOLOGY	ANALYTICAL RESULTS Pb	Zn	Ag	Cu	Mn		
G-SR-10-1	Malach. Detail	10/8/83	SDR	"F" carbonate	Check for mineralization	Grab	Limestone, weathered gossan	55	51	n.d.	-	-		
G-TB-13-1	Malach. Detail	13/8/83	TJB	"D" carbonate	Check mineralization (visible galena)	Grab	Gritty limestone, py., galena, graphite, red-brown oxidized	6800	490	9.6	-	-		
G-SR-13-6	Malach. Detail	13/8/83	SDR	"F" carbonate	Check for mineralization	Grab	Limestone within "F" shale	16	27	n.d.	-	-		

APPENDIX G

Report on Induced Polarization and Resistivity Survey of the DEB Claims, Golden Mining Division Southeastern British Columbia

Paul A. Cartwright

Phoenix Geophysics Limited

October 1983

PHOENIX GEOPHYSICS LIMITED

REPORT ON THE

INDUCED POLARIZATION AND RESISTIVITY SURVEY

OF THE

DEB CLAIMS
GOLDEN MINING DIVISION
BRITISH COLUMBIA

FOR

SAMIM CANADA LIMITED

Latitude 51°02'N Longitude 117°05'W
NTS 82K/14

OPERATOR: SAMIM CANADA LIMITED

BY

PAUL A. CARTWRIGHT, B.Sc.
Geophysicst

DATED

OCTOBER 31, 1983

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1. INTRODUCTION

An Induced Polarization and Resistivity Survey has been completed on the Deb Claims, Golden Mining Division, British Columbia, on behalf of Samim Canada Ltd.

The property is located approximately 30 kilometers south-southwest of Golden, B.C. Access is via helicopter from Golden.

The following geological description of the project area has been provided by the staff of Samim Canada Ltd.:

"Proterozoic sediments include shales, limestones, siltstones, sandstones and grits which can be broadly divided into 7 units.

Within these units the lithology varies laterally, indicating that depositional environment was not uniform.

The iron content (expressed as siderite, ankerite, or pyrite) of these shale-limestone sequences is high but variable. Certain sections (over 50 meters thick) of iron-rich black shale indicate that quiet, reducing conditions existed.

Nine showings of Pb-Zn sulphides conformable with lithologic bedding planes at one of three stratigraphic levels near the contact between shale and overlying limestone attest to the primary stratigraphic control of the Pb-Zn mineral occurrences."

Objective of the present IP and Resistivity survey was to outline other similar mineralization possibly present on the property, as well as mapping changes in lithology.

Samim Canada Ltd.

SPILLIMACHEEN PROJECT
DEB CLAIMS

1:50,000

Metres 1000 0 1000 2000

GEOLOGICAL BRANCH
ASSESSMENT REPORT

11,806
part 2
of 3

FOREST

SPILLIMACHEEN

RANGE

CARBONATE RANGE

TREE FARM LICENCE 18

Spillimacheen Glacier

Spillimacheen Mountain

Beverly Peak

Carbonate Mountain

International Basin

International Mountain

Mount Sibbald

Strutt Peak

Sandilands Peak

Richards Peak

Malachite Spire

Horseman Spire

David Peak

Twin Towers Peak

Cony Peak

Icefield

Silent Lake

Silent Mountain

Silent Pass

Burns Creek

Bernard Creek

Tp 23 R 22

South Limit of Railway Belt

A Phoenix Model IPV-1 IP and Resistivity receiver unit was used in conjunction with a Phoenix Model IPT-1 IP and Resistivity transmitter powered by a 1.0 kw motor generator. IP effect is recorded directly as Percent Frequency Effect (P.F.E.) at operating frequencies of 4.0 Hz and 0.25 Hz. Apparent resistivity values are normalized in unit of ohm-meters, while metal factor values are calculated according to the formula: M.F. = (P.F.E. x 1000) : Apparent Resistivity.

Dipole-dipole array was utilized to make the all of the measurements, with a basic interelectrode distance of 50 meters. Detailed surveying was also completed using 10 meter dipole lengths. Six dipole separations were recorded in every case. Number of line kilometers surveyed during the present survey was 7.67 line kilometers.

Field work was carried out during August, 1983, under the supervision of David Daggett, geophysical crew leader. His certificate of qualification is included with this report. The author was also on the site for 3 days during the course of the survey.

2. PRESENTATION OF DATA

The Induced Polarization and Resistivity results are shown on the following data plots.

LINE	ELECTRODE INTERVAL	DWG. NO.
Malachite Grid		
19+50 N	50 meters	I.P.-5833- 1
16+00 N	50 meters	5833- 2
13+00 N	10 meters	5833- 3
13+00 N	50 meters	5833- 4
11+50 N	10 meters	5833- 5
10+00 N	10 meters	5833- 6
10+00 N	50 meters	5833- 7
7+50 N	50 meters	5833- 8

Carborate Grid

10+00 N	50 meters	I.P.-5833- 9
9+00 N	50 meters	5833-10

Crown Point Grid

7+25 N	50 meters	I.P.-5833-11

Note: Psuedo sections 13+00N and 10+00N, measured using 10 meter dipole lengths, each show two different co-ordinate systems. The lower numbers represent the station position relative to the grid positions used to make the 50 meter measurements.

Also enclosed with this report is Dwg. I.P.P.-B-4028, a plan map of the Malachite and Carbonate Grids at a scale of 1:5,000. The definite, probable and possible Induced Polarization anomalies are indicated by bars, in the manner shown on the legend on this plan map, as well as on the data plots. These bars represent the surface projection of the anomalous zones as interpreted from the location of the transmitter and receiver electrodes when the anomalous values were measured.

Since the Induced Polarization measurement is essentially an averaging process, as are all potential methods, it is frequently difficult to exactly pinpoint the source of an anomaly. Certainly no anomaly can be located with more accuracy than the electrode interval length; i.e., when using 50 meter electrode intervals the position of a narrow sulphide body can only be determined to lie between two stations 50 meters apart. In order to definitely locate, and fully evaluate a narrow, shallow source, it is necessary to use shorter electrode intervals. In order to locate sources at some depth, larger electrode intervals must be used, with a corresponding increase in the uncertainties of location.

Therefore, while the center of the indicated anomaly probably corresponds fairly well with source, the length of the indicated anomaly along the line should not be taken to represent the exact edges of the anomalous material.

The topographic and grid information shown on Dwg. I.P.P.-B-4028 has been taken from maps made available by the staff of Samim Canada Ltd.

3. DESCRIPTION OF RESULTS

The Induced Polarization and Resistivity data recorded over three different grids on the Deb Claims all show generally high background P.F.E. readings, together with moderately high apparent resistivity values. This appears to be consistent with the geology of the area, which notes that several of the rock units present carry substantial amounts of pyrite, largely in disseminated form. It is further understood, by the author, that Samim Canada Ltd. personnel have noted good correlation between the mangitude of the P.F.E. values and the various rock types mapped on the property, while the correlation between the apparent resistivity data and the geology is more ambiguous.

As a known showing of Pb, Zn and Ag mineralization on the Malachite Grid was evaluated using both 10 meter dipole lengths and 50 meter dipole lengths, these results have been used to establish the relative "anomaly threshold" for all of the data.

The results from each grid area are discussed separately below.

A) Malachite Grid

Four anomalous zones are interpreted in the data recorded over this grid area, and are shown on Dwg. No. I.P.P.-B-4028.

The data obtained using 10 meter dipole lengths distinctly outlines a very narrow (probably less than 10 meters wide), very shallow, and conductive source, coincident with known Pb-Zn-Ag mineralization. P.F.E. readings associated with the zone (Zone A) are the highest magnitude values recorded by the survey.

The presence of similar target (Zone B) is also interpreted in the 10 meter data to lie approximately 35 meters southwest of and parallel to Zone A. However, in this case, the depth to the top of the source is in the order of 20 meters sub-surface.

A third, much less anomalous zone (Zone C) is evident 100 meters further southwest of Zone B and striking parallel to the other anomalous features. This trend is primarily marked by lower than background apparent resistivity values except in the case of 10 meter data recorded over the southwestern end of Line 13+00 N, where the zone is characterised mainly by quite anomalous P.F.E. values.

All three of the anomalous I.P. zones discussed above are hosted by rocks which exhibit higher than normal background P.F.E. values; i.e., the host rock appears to be generally sulphide-rich (Unit D?).

Zone A, Zone B and Zone C are all seen as separate trends in the 10 meter data, but are averaged into a single zone when evaluated using 50 meter dipole lengths. Therefore, uncertainty exists in the interpretation shown on Dwg. No. I.P.P.-B-4028 where only 50 meter data is available.

Zone D is noted in the 50 meter data recorded on Line 7+50N and Line 10+00N in the vicinity of the baseline. This feature is less anomalous than the 50 meter response seen over the known mineralization, and detailed mesurements using a shorter dipole length would be reguired to better evaluate the true electrical properties of the source of Zone D. As was the case of the other zones, depth to the top of the polarizable and conductive material is less than 50 meters below the surface.

B. **Carbonate Grid**

Only two lines were surveyed in this area during the 1983 program. In both cases, 50 meter dipole lengths were utilized.

At least one zone (Zone A), and possibly two (Zone B), are interpreted to be of similar magnitude to the anomalies recorded on the 50 meter data in the vicinity of the known mineralizaton on the Malachite Grid. In both cases there appears to be a relatively narrow region of enhanced conductivity set within a much wider zone of generally high mangitude P.F.E. values. Depths to the tops of the sources are indicated to be less than 50 meters.

An additional two anomalous IP zones (Zone C, Zone D) are interpreted in the Carbonate Grid data. Zone C is the more anomalous.

C. Crown Point Grid

Line 7+25 N is the only line surveyed on the Crown Point Grid, using the IP and Resistivity method, and 50 meters dipole lengths. The limited amount of data recorded does, however, exhibit some of the most anomalous results seen in the entire survey, particularly in the interval to the west of Station 8+50 E, where a very conductive source may be present. The anomaly is open towards the west.

4. SUMMARY AND RECOMMENDATIONS

The 10 meter dipole length IP and Resistivity data recorded over a showing of known Pb, Zn and Ag mineralization on the Malachite grid area revealed a very narrow, shallow and conductive source, coincident with the showing, and set within a highly polarizable rock type of higher resistivity. At least two other narrow zones of possibly similar electrical conductivity and polarizability are evident in the 10 meter data, striking parallel to the first anomalous zone. All three zones are averaged into one single wide response when measured using 50 meter dipole lengths.

It is the author's understanding that the showing has been drill-tested with inconclusive results. Testing the drill core for IP and Resistivity response is recommended to aid in determining if the source of the surface IP zone was actually intersected by the drill.

A number of other anomalous IP zones are interpreted in the 50 meter data recorded over the Malchite Grid, the Carbonate Grid, and the Crown Point Grid. Detailed IP work, using shorter dipole lengths, is required to further evaluate the existing zones before drill testing is considered, as it appears the most likely target will be a relatively narrow conductive zone of economic mineralization implaced within a generally polarizable rock type.

It is also understood that the P.F.E. data can be used as a mapping aid as different rock units display discernable variations in the magnitude of the polarizability values. However, many of the units in question are less than 50 meters wide; therefore, dipole lengths of less than 50 meters must be used at the reconnaissance stage if one wishes to resolve these units on the first pass.

PHOENIX GEOPHYSICS LTD.

Paul A. Cartwright

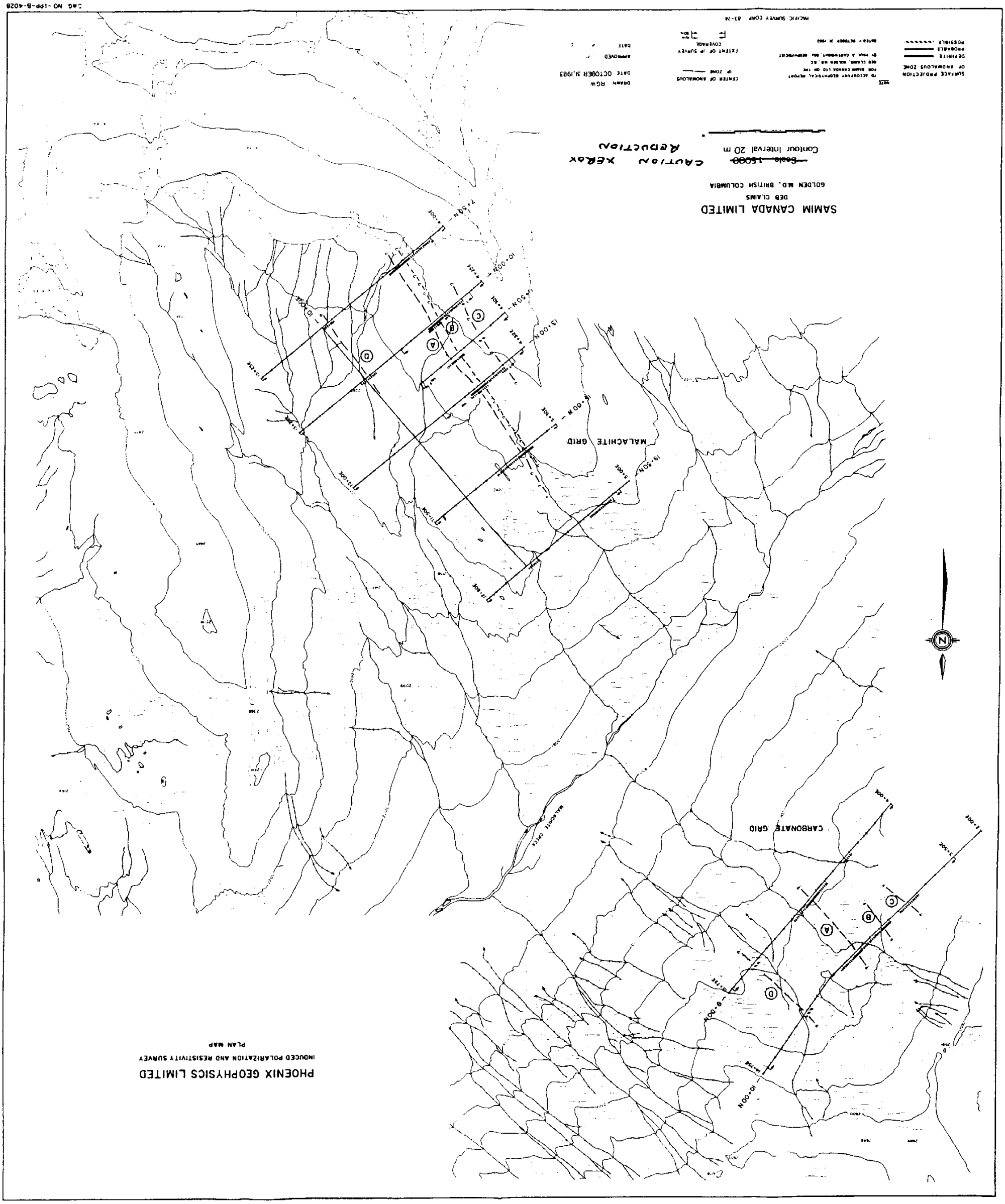
Paul A. Cartwright, B.Sc.,
Geophysicist.

Dated October 31, 1983.

GEOLOGICAL BRANCH
ASSESSMENT REPORT

11,806

Part 2 of 3



ASSESSMENT DETAILS

PROPERTY Deb Claims

MINING DIVISION: Golden

SPONSOR: Samim Canada Ltd.

PROVINCE: British Columbia

LOCATION: 30 km SSW of Golden, B.C.

TYPE OF SURVEY: Induced Polarization and Resistivity

OPERATING MAN DAYS: 36

DATED STARTED: August 3, 1983

EQUIVALENT 8 HR.MAN DAYS: 54

DATE FINISHED: August 16, 1983

CONSULTING MAN DAYS: 10

NUMBER OF STATIONS: 254

DRAFTING MAN DAYS: 8

NUMBER OF READINGS: 2122

TOTAL MAN DAYS: 72

KILOMETERS OF LINE SURVEYED: 7.67

CONSULTANTS:

Paul A. Cartwright, 4238 W. 11th Avenue, Vancouver, B.C.

FIELD TECHNICIANS:

D. DAGGETT, 35 Falcon Crescent, Chelmsford, Ontario

K. WYLIE, 200 Yorkland Blvd., WIllowdale, Ontario

K. CORMAN, 10891 Bromley Place, Richmond, B.C.

DRAUGHTSMEN:

R. WAKALUK, 7886 Vivian Drive, Vancouver, B.C.

PHOENIX GEOPHYSICS LIMITED

Paul A. Cartwright

Paul A. Cartwright, B.Sc.,
Geophysicist.

DATED: October 31, 1983

STATEMENT OF COSTS

Samim Canada Limited,
DEB Claims, Golden Mining Division, B.C.
Induced Polarization and Resistivity Survey

Crew: D. Daggett, K. Wylie, K. Corman

Period: August 3, 1983 to August 16, 1983

12 Operating Days @ $ 640/day	$ 7,680.00
1 Bad Weather Day @ $395/day	395.00
1 Day Off @ N.C.	NC
Mobilization - Demobilization	1,850.00
P.A. Cartwright Consulting - Aug. 11-14, 1983	
3 days @ $ 175/day	525.00
Air Fare, Bus Fare, Taxis, baggage	179.95
Meals	10.00
Telephone charges re computer use	222.32
	$ 10,862.27
Less: Freight charges paid by Samim	195.83
Report preparation, 12 days @ $125/day	1,500.00
	$ 12,166.44

PHOENIX GEOPHYSICS LTD.

Paul A. Cartwright

Paul A. Cartwright, B.Sc.,
Geophysicist.

DATED: October 31, 1983

CERTIFICATE

I, Paul A. Cartwright, of the City of Vancouver, Province of British Columbia, do hereby certify:

1. I am a geophysicist residing at 4238 W. 11th Avenue, Vancouver, B.C.

2. I am a graduate of the University of British Columbia, B.C. with a B.Sc. Degree.

3. I am a member of the Society of Exploration Geophysicists and the European Association of Exploration Geophysicsts.

4. I have been practising my profession for 13 years.

5. I have no direct or indirect interest, nor do I expect to receive any interest directly or indirectly, in the property or securites of Samim Canada Limited, or any affiliate.

6. The statements made in this report are based on a study of published geological literature and unpublished private reports.

7. Permission is granted to use in whole or in part for assessment and qualification requirements but not for advertising purposes.

DATED AT VANCOUVER, B.C. this 31st day of October 1983.

Paul A. Cartwright, B.Sc.

CERTIFICATE

I, David Daggett, of the City of Chemsford, Province of Ontario, do hereby certify that:

1. I am a geophysical crew leader residing at 35 Falcon Crescent, Chelmsford, Ontario.

2. I am a graduate of Cambrian College in Geological Technology.

3. I have been practising my vocation about five years.

4. I am presently employed as a geophysical crew leader by Phoenix Geophysics Limited of 200 Yorkland Blvd., Willowdale, Ontario.

DATED AT VANCOUVER, B.C. THIS 31st day of October 1983.

David Daggett per PAC

David Daggett

APPENDIX H

Geophysical Survey

Instrument Specification Data

IPV-1

Variable Frequency IP Receiver

- **Backed by twenty years experience in the manufacture and worldwide distribution of variable frequency induced polarization equipment**
- **Simple design and operation, extremely high reliability**
- **High sensitivity, yet high tolerance to natural and cultural electrical noise**
- **Rugged, lightweight, low power drain, excellent temperature specifications**
- **Low cost**

A completely new line of induced polarization and resistivity equipment has been designed by the people who pioneered the variable frequency induced polarization method twenty years ago. In 1956 the professional staff of McPhar Geophysics Ltd., under the direction of Dr. P.G. Hallof and Mr. J. Sevenhuysen, developed the first variable frequency induced polarization field system. From then, until March, 1975 (when the owners elected to terminate the business of McPhar Geophysics), these variable frequency IP systems set the standard around the world for reliability and dependable field data. During this period, almost two hundred and fifty systems were manufactured and put into service on a world-wide basis. In April 1975, the senior geophysicists and engineers from the former company, organized Phoenix Geophysics Limited in order to continue to provide the mining industry with the very best geophysical instrumentation available. These new IP systems have been designed to be the easiest to operate, the lowest in price and the most reliable in the industry.

Specifications

Input Impedance : 2 Megohms

Input Protection : The input is protected from excessive voltages by a 10,000 ohm fuse resistor.

Operating Frequencies : ± DC, 0.156, 0.313, 1.25, 2.5, and 5.0 Hz are standard. ± DC, 0.125, 0.25, 1.0, 2.0 and 4.0 Hz are optionally available.

Frequency Selection : A front panel switch is used to select F1 or F2. These two frequencies may be set internally to any of the six available frequencies.

Voltage Ranges : 1mv, 10mv, 100mv, 1v, and 10v full scale.

Voltage Display : A ten-turn precision dial potentiometer is used to balance the input signal. Since the readability of the dial is 0.025% of full scale, adequate resolution is maintained with voltage levels as low as a few microvolts.

Polarizability Display : After the input voltage is balanced, the transmitter and receiver are switched to low frequency. The meter used for balancing now automatically displays FE in percent. Resolution is 0.1% over the range -5.0 to +20%. The same meter is used as a battery test.

Filters : A double pole notch filter attenuates 50-60 Hz by 60 db. A low pass filter attenuates frequencies above the selected operating frequency by 18 db per octave. A telluric filter attenuates all frequencies below 0.125 Hz by 12 db per octave.

Damping : Minimum damping is used for the high frequency voltage level adjustment. The damping for the FE measurement is continuously selectable.

Calibration : An internal 0.05 ohm ±1.0% resistor allows precise calibration of the system under all conditions.

Instrument Noise : 0.1% of reading for 1mv and all higher voltage levels. 0.2% of reading for 100 microvolt voltage level. 1.0% of reading for 10 microvolt voltage level.

Operating Temperature : -40°C to +60°C.

Temperature Drift : The voltage drift is less than 2.0% and the FE drift is less than 0.1% over the entire operating temperature range.

Batteries : Any 12V to 27 DC power supply may be used. Two 9V transistor radio batteries connected in series will provide one month normal field operation (battery drain is 4.5 mA).

Case : Non-conductive, high impact resistant plastic.

Dimensions : With cover - 10 x 13 x 22 cm (4 x 5 x 9 in).

Weight : 1.1 kg (2.5 lb) including cover, batteries and carrying strap.

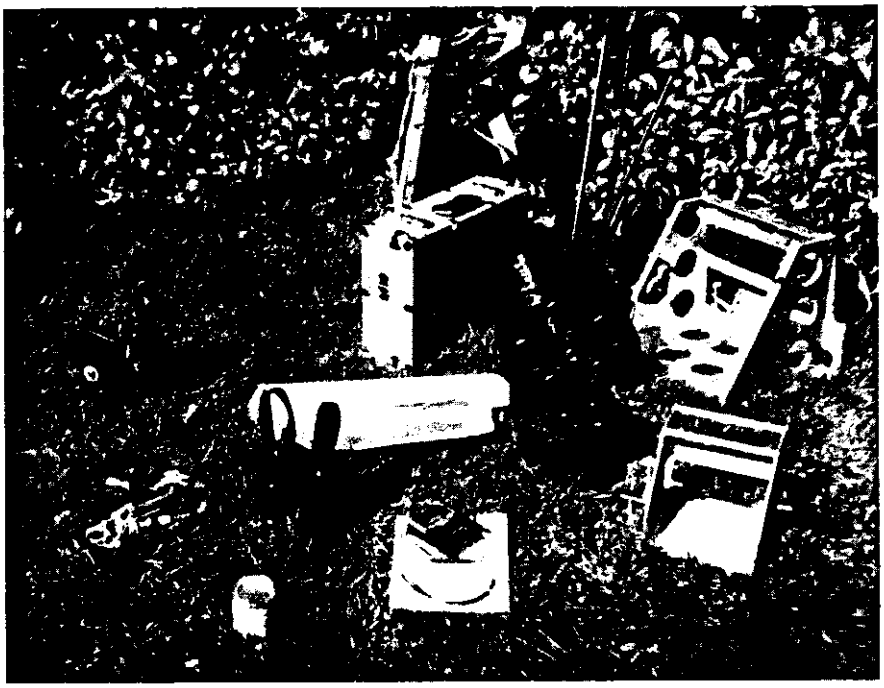
PHOENIX

PHOENIX GEOPHYSICS LIMITED

Geophysical Consulting and Contracting, Instrument Manufacture, Sale and Lease.

Head Office: 200 Yorkland Blvd. Willowdale, Ont., Canada, M2J 1R6. Tel: (416) 493-6350
1424 - 355 Burrard St. Vancouver, B.C., Canada, V6C 2G8. Tel: (604) 684-2285
2430 N. Huachuca Dr., Tucson, Arizona, U.S.A. 85705. Tel: (602) 884-8542

Survey Accessories

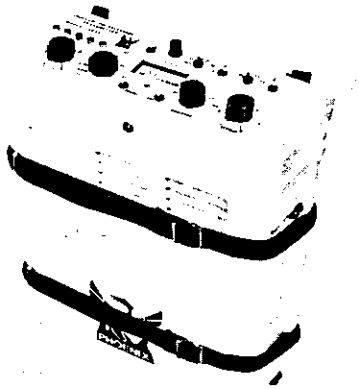


Accessory Packsack	:	Trapper Nelson #3 packboard with packsack.
Receiver Transport Case	:	Aluminum, foam lined, 13 x 32 x 44 cm (5 x 13 x 17 in).
Stake Electrodes	:	Mild steel rods with hard tapered end, 1.6 cm (5/8 in) diameter, 75 cm or 120 cm (30 or 48 in) long.
Foil Electrode Material	:	Heavy duty industrial aluminum foil, 0.0025 cm x 46 cm x 137 m (0.001 in x 18 in x 450 ft).
Field Wire	:	Black, low friction, polyethylene plus nylon jacket. Four copper plus three steel strands. Tensile strength 40 kg (90 lb). Total resistance 66 ohm/km (20 ohm/ 1000 ft). External diameter 0.213 cm (0.083 in).
Geo Reel	:	Two speed aluminum winder with packstraps, 35 x 40 x 50 cm (14 x 16 x 20 in).
Geo Reel Spool	:	Capacity for 3000m (10,000 ft) of field wire.
Speedwinder	:	Aluminum winder, 20 x 25 x 30 cm (8 x 10 x 12 in).
Speedwinder Spool	:	Capacity for 600m (2000 ft) of field wire.
Porous Pots	:	Plastic with porous asbestos bottom. Coiled copper wire makes contact with saturated copper sulfate solution.
Copper Sulfate	:	450 g (1 lb).
Clip Leads	:	15 cm (6 in).
Multimeter	:	Resistance, voltage and current.
Tool Kit	:	Soldering iron, wrenches, screwdrivers.
Radios	:	Transmitter-receivers (3 watts).

IPT-1

Variable Frequency, Time Domain and Phase IP Transmitter

- **Reliable: Backed by twenty years experience in the design and worldwide operation of induced polarization and resistivity equipment**
- **Versatile: Can be used for resistivity, variable frequency IP, time domain IP or phase angle IP measurements**
- **Stable: Excellent current regulation**
- **Lightweight, portable**
- **Wide selection of power sources**
- **Low cost**



Specifications

Power Sources : Internal DC power module containing 8 45V dry cell batteries, or internal AC power module with external 1 KVA, 2 KVA or 3 KVA motor generator.

Ammeter Ranges : 30 mA, 100 mA, 300 mA, 1A, 3A and 10A full scale.

Meter Display : A meter function switch selects the display of current level, regulation status, input frequency, output voltage, control battery voltage or line voltage.

Current Regulation : The change in output current is less than 0.2% for a 10% change in input voltage or electrode impedance.

Output Waveform : Either DC, single frequency, two frequencies simultaneously, or time domain (50% duty cycle). Frequencies of 0.078, 0.156, 0.313, 1.25, 2.5, and 5.0 Hz are standard, whereas 0.062, 0.125, 0.25, 1.0, 2.0, and 4.0 Hz are optionally available. The simultaneous transmission mode has 0.313 and 5.0 Hz as standard, whereas 0.156 and 2.5 Hz are optional.

Frequency Stability : $\pm$ 1% from -40° to +60°C is standard. A precision time base is optionally available for coherent detection and phase IP measurements.

Protection : Current is turned off automatically if it exceeds 150% full scale or is less than 5% full scale.

Case : Non-conductive, high impact resistant plastic.

Dimensions : 20 x 40 x 55 cm (9 x 16 x 22 inches).

Weight : 14 kg (31 lb) with DC power module.
16 kg (35 lb) with AC power module.

Standard Accessories : Pack frame, manual. At least one of the two possible power modules is required. The AC power module in turn requires one of the external 1KVA, 2KVA or 3KVA motor generators and a connecting cable.

DC POWER MODULE (BPS-1)

Output Voltage : 8 x 45V dry cell batteries (Eveready 482, Mallory 202 or equivalent) are switched in series or parallel to provide output voltages of 90V, 180V, and 360V.

Output Power : Recommended maximum output power is 30 watts. Absolute maximum output power is 100 watts.

Battery Life : Normal field operation, with low output power results in an average battery life expectancy of one month. Operation with the absolute maximum output power results in much shorter battery life.

Control Supply : 4 x 6V lantern batteries (Eveready 409, Mallory 908 or equivalent) connected in series/parallel are used to provide the 40 to 70 mA required for the control circuitry. Average battery life expectancy is six months.

Operating Temperature : 0°C to +60°C.

AC POWER MODULE (AC-3)

Output Voltage : 0V, 75V, 150V, 300V, 600V and 1200V.

Output Power : Maximum continuous output power is 3 kw. This requires the 3KVA motor generator.

Input Power : 350 to 1000 Hz, 60V (45V to 78V) 3 phase is standard. 120V (90V to 156V) and/or single phase may be link selected inside the module.

Current Regulation : Achieved by feedback to the alternator of the motor generator unit.

Operating Temperature : -40°C to +60°C.

Thermal Protection : Thermostat turns off at 65°C and turns back on at 55°C internal temperature.

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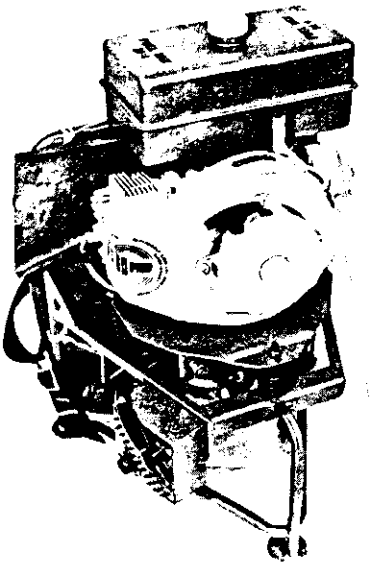
lotor Generators

.G - 1A & B :

1 KVA motor generator. This lightweight unit is designed for easy portability in areas of moderately high resistivity. It is well suited for massive sulfide exploration in northern Canada, Europe and Asia, as well as general IP and resistivity surveys in rugged, mountainous areas around the world. There are two choices of motor: either a 2-cycle Tecumseh or a 4-cycle Briggs and Stratton. Both engines produce 3 Hp at 3600 rpm, are mounted on a packframe, and have approximate dimensions 40 x 45 x 60 cm (16 x 18 x 24 in). The total weight of the 2-cycle motor generator unit (MG-1A) is 20 kg (45 lb), whereas that of the 4-cycle unit (MG-1B) is 25 kg (55 lb).



APPENDIX I

SAMIM CANADA LTD.

SPILLIMACHEEN PROJECT - MALACHITE CREEK AREA

POLISHED SECTION MINERAL IDENTIFICATION AND TEXTURAL INTERPRETATION

L. Taras Bryndzia

October 1983

MALACHITE ADIT SHOWING

Samples DEB-TB-83A (1 and 2) (Hand specimen from outcrop)

Minerals

Fe-poor sphalerite
Galena
Chalcopyrite
Pyrite
Rutile
Tetrahedrite
Argentite

Petrography

Of all the sections examined as part of this project, these two are clearly examples of sedimentary hosted Pb-Zn mineralization. Banding (apparently conformable with bedding) is defined by well developed layers on the scale of a millimetre or less, of predominantly sphalerite mineralization, with occasional centimetre sized grains of pyrite entrained within the sphalerite mineralization. Bands of sulfide vary in relative proportions of sphalerite, galena, and chalcopyrite with some bands being distinctly enriched in galena relative to others, while most consist of sphalerite with abundant chalcopyrite.

The most unusual textural feature concerning sphalerite in these sections is the fact that without exception, all of the sphalerite masses have well developed "alteration" rims. These are interpreted as being simply due to oxidation of Fe in sphalerite. Evidence for this is circumstantial only, and is based on the following observations:

(1) The matrix to sulfide mineralization consists of abundant Fe-hydroxy/oxides, imparting typical rust-coloured hues to these samples (possibly due to surficial oxidation?).

(2) The sphalerite in these samples is very Fe-poor relative to other sphalerites encountered, and is typically quite transluscent with well developed internal reflections.

(3) There is abundant accessory rutile in the groundmass gangue material closely associated with both the "alteration" rims on sphalerite as well as Fe-hydroxy/oxides, suggesting that prior to oxidation of this sample, the precursor mineral to rutile may have been ilmeno-magnetite.

Chalcopyrite as inclusions up to approximately 1 millimetre in diameter is characteristically concentrated in sphalerite, up to 20 vol. % in some cases, and occurs as blebs as well as rods along cleavage traces. The other most abundant phases in sphalerite are tetrahedrite, and the typical association of chalcopyrite, tetrahedrite, galena and argentite. Silver sulfosalts also occur beyond the grain boundaries of sphalerite, typically associated with pyrite.

MALACHITE ADIT AREA

Sample D.D.H. 83-10 (1)
109.2 ft. - 111 ft.

Minerals

Arsenopyrite	85%
Pyrite	15%
Chalcopyrite	Trace

Petrography

The bulk of this section consists of a mass of interlocking prismatic grains of arsenopyrite, which display typical lozenge-shaped morphology. Pyrite occurs both as large single grains and as aggregates within the arsenopyrite masses. The arsenopyrite shares both mutually distinct grain boundary contacts with pyrite as well as appearing to be a replacement phase of pyrite. Chalcopyrite occurs as an interstitial phase to both arsenopyrite and pyrite.

Texturally, the arsenopyrite in this section possesses a "vein-like" morphology with well terminated arsenopyrite grains apparently having grown inward from the walls of the vein (i.e., at right angles to the orientation of mineralization). Some movement along the vein due to faulting has resulted in minor comminution of the brittle arsenopyrite grains.

Pyrite is common as large (up to 1 cm) cubes, apparently distributed conformable with banding, and without exception appear highly corroded. Pyrite has been replaced most commonly by sphalerite + galena + chalcopyrite, often with abundant and accessory tetrahedrite and argentite. Replacement textures of pyrite are complicated by the fact that pyrite appears to have undergone an initial dissolution and replacement by galena, sphalerite and chalcopyrite, which was then overgrown by pyrite, after which resorption and continued replacement of pyrite occurred.

Sample D.D.H. 83-10 (2)
109.2 ft. - 111 ft.

Minerals

Arsenopyrite	60%
Pyrite	30%
Galena	~10%

Petrography

This section is essentially identical to 83-10 (1). One notable exception is the presence of galena which occurs as an interstitial phase within the arsenopyrite-pyrite masses, and appears to be associated with fractures and brittle deformation of the other sulfides. The galena in this section appears to have been introduced after pyrite-arsenopyrite formation, and may be syntectonic, associated with brittle deformation of the other sulfide phases.

Sample D.D.H. 83-10 (3)
109.2 ft. - 111 ft.

Minerals

Arsenopyrite
Pyrite
Galena

Petrography

Identical to section 83-10 (2)

Sample D.D.H. 83-10 (4)
109.2 ft. - 111 ft.

Minerals

Arsenopyrite
Pyrite
Sphalerite
Chalcopyrite
Galena
Tetrahedrite

Petrography

Essentially identical to previous samples. In this section, arsenopyrite displays distinct growth zoning (not observed in other sections), with inclusions of galena in the cores of many arsenopyrite grains. Sphalerite occurs as an interstitial

matrix phase to arsenopyrite and pyrite. Grains of pyrite, chalcopyrite,galena, arsenopyrite and rare tetrahedrite all occur as inclusions within sphalerite. Chalcopyrite occurs as an obundant phase in sphalerite, principally as crystallographically oriented rods and as disseminated microscopic grains, which may indicate recrystallization and annealing of chalcopyrite (as chalcopyrite disease?), out of the sphalerite structure.

MALACHITE TRENCH AREA

Sample D.D.H. 83-6 (1)
74.5 ft. - 75 ft.

Minerals

Sphalerite
Pyrite
Galena
Tetrahedrite
Argentite
Arsenopolybasite (?)

Petrography

The bulk of this section consists of near massive sphalerite, typically with numerous inclusions of chalcopyrite [as documented for sample 83-10 (3)]. The two other most abundant phases are pyrite and galena.

Pyrite occurs as massive aggregates and as individual grains, many of which show clear evidence of having undergone brittle deformation and replacement. Fractured pyrite grains have rounded and embayed grain boundaries with galena clearly encroaching on the pyrite. Both sphalerite and galena also display brittle deformation features. Within galena particularly, triangular cleavage pits define curvilinear arrays, presumably as a result of deformation.

Tetrahedrite occurs as inclusions within galena and sphalerite, but in this section appears to occur preferentially along grain boundary contacts of sphalerite and galena. A typical mineral/ textural association for tetrahedrite in this section is its

close association with chalcopyrite and galena in the deformed matrix sphalerite. The textural relationship between the fractured matrix sphalerite and tetrahedrite + galena + chalcopyrite could be indicative of introduction of these minerals post-brittle deformation of the matrix sphalerite.

Argentite occurs in trace amounts in this section, being intimately associated with galena and tetrahedrite. An unusual silver-sulfosalt in this section occurs as irregular inclusions in galena and sphalerite. It is not bireflectant, is strongly anisotropic, with well developed lamellar twinning, lacks internal reflections (which are strong in polybasite poor in Cu), and has the same hardness as tetrahedrite.

Arsenopolybasite (possibly Cu-rich), would be consistent for the identity of this mineral based on the fact that it occurs with other silver-sulfosalts which are intimately associated with chalcopyrite, galena and arsenopyrite.

Sample D.D.H. 83-6 (2)
74.5 ft. - 75 ft.

Minerals

Pyrite
Arsenopyrite
Sphalerite
Galena
Chalcopyrite
Argentite
Tetrahedrite

Petrography

Mineralogically, this section is essentially identical to section 83-6 (1), however, these are distinct textural features in this section not observed in 83-6 (1).

Massive sphalerite forms the bulk of this section, it has been subject to brittle deformation (as previously documented). Matrix sphalerite together with other sulfides in this section are strikingly zoned, with sphalerite being rimmed by arsenopyrite and gangue, with pyrite overgrowths on arsenopyrite [opposite to the textures observed in sample 83-10 (1)]. These textural relationships appear to define a "vein-like" symmetry, with arsenopyrite developing on the vein walls and pyrite with gangue growing in towards the centre of the vein.

The other striking textural feature in this section involves the intergrowths of pyrite of pyrite-arsenopyrite, coarse grained galena, sphalerite and silver-sulfosalts (tetrahedrite and argentite). Argentite occurs typically with galena, chalcopyrite and pyrite as inclusions in sphalerite.

Silver mineralization appears to be related to fracturing (brittle deformation) and remobilization of elements such as Pb, Cu, Ag, and S. In this section, sphalerite, arsenopyrite and pyrite clearly preceded the silver mineralization which occurs intimately associated with galena, as interstitial phases in the matrix host sphalerite.

"S.R." SHOWING

Sample DEB-TB-83B (Hand specimen from outcrop)

Minerals

Galena
Pyrite
Sphalerite
Chalcopyrite
Tetrahedrite
Argentite
Native gold

Petrography

The bulk of this section consists of massive, generally featureless galena which hosts most of the other phases. The most abundant of which is tetrahedrite, which in addition to occurring as a randomly distributed phase within galena is also quite abundant along galena grain boundaries.

Pyrite is not an abundant phase in this section, occurring predominantly as inclusions in galena where it hosts inclusions of chalcopyrite, argentite, and native gold. The native gold occurs as a single large (approximately 20 micron) inclusion enclosed within pyrite.

In this section, as documented in section 83-6 (2), pyrite has been replaced by silver sulfosalts, notably argentite.

APPENDIX J

Thin Section Interpretations

K. Hedjran

November 1983

No: 83-4-73.5-76.1 (4 samples)

Name: Meta sandstone -Calcareous sandstone

The Minerals: Quartz(86%),carbonate(8%),opaque(pyrite)(5%),sericite(1%),

Description: This rock is composed of coarse grained quartz(angular),with strongly undulose extinction, which is set in abundant recrystallized quartz ,partly showing quartzite texture, carbonate (calcite),opaque(pyrite),and minor amounts of very fine-grained sericite matrix.

The rock is partly cut by recrystallized quartz veinlets.

Note: ALL 4 thin sections have almost the same mineralogy composition, but the proportion of carbonate varies between (4%-20%), and the quartz matrix between(69%-81%), other minerals are about the same. Pyrite grains occur in very good cubic shape.

No: 83-4-79.6

Name: Calcareous shale

The Minerals: Muscovite,and sericite(60%), carbonate(29%),quartz(10%),algae- and opaque(1%),

Description: This rock is composed of very fine-grained sericite (clay-sized) showing extreme parallelism(indicated by uniform birefringence) and laminations, accompanied by recrystallized fine-grains and rods of quartz, very fine-grained recrystallized carbonate (calcite), partly with algal oncolite texture,which is sometimes chertified.

Minor amounts of opaque(pyrite) have "pressure shadow" filled with recrystallized quartz.

There are also minor amounts of intraclstic material retaining some primary carbonate textures.

Solution thinning has produced dark seams of compressed sericite,(+clays?).

No: 83-4-93.6

Name: Highly deformed argillaceous rock

The Minerals: sericite(60%),quartz(33%),carbonate(15%),opaque(2¢%),

Description: This rock is composed of very fine-grained(clay-sized) sericite showing extreme parallelism(indicated by uniform birefringence) and laminations, accompanied by very fine(silt-sized) recrystallized quartz grains.

Quartz also occurs in deformed fractures as veinlets, with some carbonate(calcite),and pyrite. These show some boudinage structures.

Carbonate(calcite),occurs as metacrystic grains which are scattered in the rock.

Opaque minerals(pyrite) associated with quartz, in the veinlets.

Macroscopically the thin section exhibite an "unconformity" probably a deformation feature.

No: 83-4-99.7-100

Name: Altered basic volcanic rock

The Minerals:

Description: This rock is much the same as (83-4-100.5-102) except that it shows more deformation and recrystallized quartz in veinlet and lenses. The phenocrysts are much less identifiable as such and are smeared out.

No: 83-4-100.5-102

Name: Altered basic volcanic rock

The Minerals: carbonate(71%),opaques(15%),muscovite(10%), serpentine/clorite?(3%) quartz(1%)

Description: This rock is composed of altered phenocrysts set in a highly altered matrix. It has a definite lineation which could be primary or due to deformation.
some "phenocrysts" could be original vesicles. some of the phenocrysts clearly were original olivine, others may not have been Phenocrysts are altered to fine-grained carbonate,muscovite,and to a macroscopically light greenish mineral which is waxy when probed with a needle. In thin section it is very dark, almost opaque in places(caused by fine grained magnetite?),shows blue-brown pleochroism and low birefringence,it is believed to be serpentine or possibly chlorite. There is no regularity to the phenocrysts alteration. some are now mostly carbonate, some muscovite and some are mixtures, but there are textures indicating that muscovite is replacing an earlier serpentine alteration. The matrix is very fine - grained mainly composed of carbonate, sericite. Muscovite laths apparently replace plagioclase microlites. Opaques are common in the matrix, both very fine-grained magnetite(?) and large pyrite cubes.

No: 83-4-169

Name: shale

The Minerals: sericite(73%),carbonate(20%),quartz(5%),opaque(2%),

Description: This rock is mainly composed of very fine-grained(clay-sized) sericite, showing extreme parallelism(indicated by uniform birefringence)and laminations, carbonate(calcite), occur as metacrystic grains, and minor amounts of very fine-grained quartz.

The coarse grained opaques(pyrite) are disseminated in quartz rich part.

Solution thinning has produced dark seams of sericite,(+clays?)

There are some lenses filled with recrystallized quartz, carbonate(calcite), and muscovite, which have more or less a consistent orientation with respect to each other.

No: 83-6-72.5

Name: Shale

The Minerals: Sericite(60%),carbonate(30%),quartz(9%),opaques(1%),

Description: The rock is mainly composed of very fine-grained (clay-sized) sericite, showing extreme parallelism(indicated by uniform birefringence) and laminations, accompanied by carbonate(calcite), and lesser amounts of very fine-grained quartz.

Minor amounts of opaques(pyrite), are also present.

Solution thinning has produced dark seams of compressed sericite(+clays?).

There are some lenses filled by fine grained recrystallized quartz and calcite showing a consistent orientation with respect to each other.

No: 83-6-74.5-75

Name: Highly deformed and folded shale

The Minerals: Sericite(75%),carbonate(15%),quartz(8%),opaques and garnet(2%)

Description: This rock is highly defomed and folded, destroying original textures. It is mainly composed of very fine-grained (clay-sized)sericite, accompanied by some carbonate(calcite), and very fine-grained quartz.
Minor amounts of opaques(pyrite), and garnet are also present.
Solution thinning has produced dark seams of compressed sericite, (clays?).
A fracture is filled by recrystallized quartz,calcite and opaques in places, Here quartz shows a typical void filling morphology with equant crystals increasing in size from the fracture walls to the center of the void.

No: 83-6-90.6-91.7

Name: Altered basic volcanic rock

The Minerals:

Description: This rock is similar to (83-4-99.7-100) but shows fewer phenocrysts. Pyrite grains are larger and better crystallized.

No: 83-6-95

Name: Slightly folded calcareous shale

The Minerals: Sericite(60%),carbonate(30%),quartz(9%),algae,and opaques(1%)

Description: The rock is composed of very fine-grained sericite,(clay-sized) showing extreme parallelism(indicated by uniform birefringence) and laminations, accompanied by recrystallized fine quartz grains and rods, and also recrystallized carbonate(calcite).
Within the carbonate fraction are algal oncolites (very-fine-grained carbonate,+ algae) enclosed in lenses.
Solution thinning has produced dark seams of compressed sericite,(+clays?).
Minor amounts of opaques(pyrite) are also present.
A 5 mm layer rich in sericite extends across the section.

No: 83-7-11

Name: Slightly Meta calcareous quartz sandstone

The Mineral: quartz(75%),carbonate(16%),sericite,andmuscovite(8%),opaque,and tourmaline(1%)

Description: This rock is composed of angular to subangular fine-grained quartz, partly with undulose extinction,which is set in abundant very fine-grained quartz(interlocking grains),very fine-grained sericite, and some flakes of muscovite,and carbonate(calcite), matrix.

A few opaque grains(pyrite),rarely with "pressure shadow" filled with recrystallized quartz . . Minor amounts of tourmaline are also present.

No: 83-7-70

Name: calcareous quartz sandstone

The Minerals: Quartz(65%),carbonate(34%),sericite,opaque,and zircon(1%),

Description: This rock is composed of fine to medium angular to subrounded, quartz, partly with undulose extinction, which is set in a calcareous sandy matrix; consisting of very fine-grained quartz (interlocked grains), carbonate(calcite), minor amounts of very fine-grained sericite,and opaques.

Minor amounts of very fine-grained zircon as accessories minerals are also present.

The rock is cut by recrystallized deformed fine-grained quartz veinlets.

No: 83-7-91.9

Name: shaly limestone

The Minerals: carbonate(52%),sericite(40%),quartz(7%),opaque(1%),

Description: This rock is composed of very fine-grained(clay-sized) sericite, with some muscovite flakes , showing extreme parallelism(indicated by uniform birefrigence) and laminations, accompanied by very fine-grained quartz, and abundant carbonate(calcite).

Pyrite grains showing "pressure shadow" filled with recrystallized quartz, and calcite.

Solution thinning has caused compression of sericite into opaque laminations.

No: 83-7-114

Name: Quartz bearing limestone

The Minerals: carbonate(88%),quartz(10%),sericite,and opaque(2%),

Description: This rock contains some coarse-grained(up to 2mm) quartz partly with undulose entinction, which appears to be corroded by abundant carbonate(calcite) in which it is distributed. Carbonate in matrix is mostly recrystallized(calcite), in some places showing oolitic texture, associated with very fine to fine grained recrystallized quartz.
Minor amounts of very fine grained sericite and opaques are also present.

No: 83-7-118

Name: Oolitic limestone

The Minerals: carbonate(96%),quartz(3%),opaque(1%),

Description: The rock is mainly composed of recrystallized carbonate (calcite), with oolitic texture. These are associated with some fine quartz grains (corroded by carbonate) and minor amounts of opaque grains (pyrite),showing "pressure-shadow" filled with recrystallized calcite.
This rock contains some very fine-grained limestone and shale fragments.

No: 83-7-122

Name: Highly calcareous shale

The minerals: carbonate(65%),quartz(8%),sericite(25%),opaque(2%)

Description: The rock is composed of very fine-grained sericite bands, showing extreme parallelism(indicated by uniform birefringence) and laminations, alternating with highly calcareous bands composed of mainly carbonate(calcite), very fine-grained sericite, quartz, and minor amounts of opaque grains.
There is a large single opaque(pyrite),enclosed in eye-shaped "pressure shadow" filled with recrystallized calcite,and quartz.

No: 83-8-41

Name: Deformed Meta calcareous shale

The Minerals: carbonate(60%),muscovite,and sericite(30%), quartz(5%),opaque(5%),

Description: This rock has been metamorphosed and deformed.
It consists of mainly carbonate(calcite), partly recrystallized, accompanied by muscovite flakes,and very fine grained (clay-sized) sericite, which in part shows extreme parallelism (indicated by uniform birefringence),and laminations.
opaque minerals (pyrite), occur as coarse single crystals enclosed in an eye-shaped "pressure shadow" filled with recrystallized quartz, and carbonate.
some recrystallized quartz also occurs in thin veinlet and patches.
solution thinning has produced dark seams of compressed sericite, (+clays?).

No: 83-8-51.5

Name: Meta calcareous shale

The Minerals: sericite(51%),carbonate(40%),quartz(8%),opaque(1%),

Description: This rock is mainly composed of very fine-grained(clay-sized) sericite, showing extreme parallelism (indicated by uniform birefringence),and laminations, which is accompanied by very fine-grained quartz grains and rods, carbonate(calcite),partly with algal oncolite laminated textures.

Single pyrite grains are enclosed in eye-shaped "pressure shadow" filled with recrystallized quartz, and calcite.

Some layers are richer in sericite, and others are richer in carbonate.

No: 83-8-114

Name: shale

The Minerals: sericite(60%),carbonate(24%),quartz(15%),(opaque,zircon,tourmaline)(1%),

Texture: banded

Description: This rock is mainly composed of very fine-grained(clay-sized) sericite, showing extreme parallelism (indicated by uniform birefringence), and laminations, accompanied by very fine-grained quartz, partly recrystallized, carbonate(calcite),which occurs as metacrystic grains

Minor amounts of tourmaline very fine-grained zircon, and opaque(pyrite) are also present.

Solution thinning has produced dark seams of compressed sericite (+clays?).

No: 83-9-73

Name: "white specks" banded shale with "unconformity" of calcareous siltstone

The Minerals: sericite,carbonate,quartz,chlorite,opaque

Texture: banded

Description: Two types of rock are separated by an "unconformity" (defomation-feature).

1. Shale: it is mainly composed of very fine-grained (clay-sized) sericite(88%),showing extreme parallelism(indicated by uniform-birefringence),and laminations,accompanied by very fine-grained quartz(10%)partly as quartz rods,which contain some metacrystic carbonate(Calcite)(5%)grains"white specks",and also a few lensoid chlorite fragments.

Visible banding is caused by sericite rich layers of variable thickness.

2. Calcareous siltstone mainly composed of fine-grained angular quartz(40%),and some lensoid chlorite sometimes associated with muscovite(4%),are set in an argillaceous(20%),and carbonate (calcite)(35%),matrix.

opaque(pyrite), forms about1%.

Solution thinning has produced dark seams of compressed sericite.

No: 83-9-92

Name: Calcareous shale

The Minerals: sericite(60%),carbonate(30%),quartz(8%),opaques(2%),

Texture: banded (probably bedding)

Description: The rock is mainly composed of very fine-grained(clay-sized) sericite,showing extreme parallelism(indicated by uniform birefringence) and laminations,(some coarse-grained muscovite is embedded in the sericite matrix),which is accompanied by very fine-grained quartz,and carbonate(calcite).
Opaque minerals(pyrite)(with some sericite inclusion) are quite coarse and are enclosed in eye-shaped "pressure shadow" filled with recrystallized quartz,and calcite.
Two thin bands(few mm) are macroscopically visible. These are different only in the mineral proportions, being almost all sericite.

No: 83-9-103

Name: Shale enclosing calcareous siltstone

The Minerals: Carbonate(45%),quartz(30%),sericite,and chlorite(24%),opaques(1%)

Texture: Banded

Description: Two thin "white specks" shale layers which have almost the same composition as sample: No:(83-9-73), enclose a thick (about 2 cm) layer of calcareous siltstone, which is composed of fine-grained angular quartz, accompanied by very fine-grained sericite,and chlorite with parallel orientation, which are cemented in carbonate(calcite),material.
A few coarse opaques(pyrite) occur enclosed in eye-shaped "pressure shadow" filled with recrystallized quartz, calcite, and mica.

No: 83-9-103

Name: Shale enclosing calcareous siltstone

The Minerals: Carbonate(45%),quartz(30%),sericite,and chlorite(24%),opaques(1%)

Texture: Banded

Description: Two thin "white specks" shale layers which have almost the same composition as sample: No:(83-9-73), enclose a thick (about 2 cm) layer of calcareous siltstone, which is composed of fine-grained angular quartz, accompanied by very fine-grained sericite,and chlorite with parallel orientation, which are cemented in carbonate(calcite),material.
A few coarse opaques(pyrite) occur enclosed in eye-shaped "pressure shadow" filled with recrystallized quartz, calcite, and mica.

No: 83-9-111

Name: Sandy limestone

The Minerals: carbonate(69%),quartz(25%),plagioclase(5%),sericite,and opaque(1%)

Description: This rock is composed of fine to medium grained (0.5 mm) angular quartz, with slightly undulose extinction ,lesser amounts of coarse grained feldspar (plagioclase)(5%) partly altered to carbonate,minor amounts of muscovite,and opaques(1%) which are set in the abundant (partly recrystallized) carbonate (calcite)(69%),matrix.

No: 83-9-138

Name: Meta sandy limestone

The Minerals: carbonate(70%),quartz(25%),muscovite,and opaque(5%),

Description: This rock is composed of fine to coarse grained angular quartz partly with slightly undulose extinction, some flakes of muscovite(5%)with parallel orientation, which are set in the abundant carbonate(calcite),(partly recrystallized) matrix. There are minor amounts of opaques.
Oriented muscovite gives rock a distinct schistosity.

No: 83-9-153

Name: Meta shaly limestone

The Mineral: carbonate(55%),quartz,andopaque(25%),muscovite,andsericite(20%),

Description: The rock is mainly composed of recrystallized carbonate,(calcite), accompanied by lesser amounts of muscovite flakes with parallel orientation, and very fine grained quartz, which is accompanied by very fine grained sericite.
There is a single pyrite crystal enclosed in an eye-shaped "pressure shadow" filled with recrystallized quartz.
some solution thinning has produced dark seams of compressed sericite (+ clay?).

No: 83-9-154

Name: Meta impure limestone

The Minerals: carbonate(70%),muscovite,quartz,and opaque(30%)

Description: This rock is mainly compossed of carbonate(calcite) partly recrystallized, accompanied by some flakes of muscovite with parallel orientation which gives rock a distinct schistosity. This rock contains minor amounts of very fine-grained recrystallized quartz, scattered and also filling tiny fissures. Solution thinning has produced dark seams of compressed sericite,(+Clay?).

No: 83-11-157.2-158.0 (A)

Name: Quartzite,band in metamorphosed shale

The Minerals: Quartz(85%),carbonate(5%),garnet(9%),opaque,and sericite(1%).

Description: This sample is mainly composed of recrystallized fine-grained quartz, which is associated with some recrystallized sparry carbonate(calcite), garnet,(associated with opaque(pyrite)) and minor amounts of sericite.
Solution thinning has produced dark seams of sericite,(+clays?).
Above and below the quartzite band is sericite-rich rock.

No: 83-11-158.0 (B)

Name: Deformed calcareous shale

The Minerals: Sericite(60%),carbonate(30%),quartz(8%),garnet,and opaque(2%),

Description: This rock is deformed and mainly composed of very fine-grained sericite,showing extreme parallelism(indicated by uniform birefringence) and laminations, fine-grained carbonate(calcite) associated with minor amounts of very fine-grained quartz, and opaques(pyrite),with"pressure shadow" filled with recrystallized quartz.

There are some veinlets and fractures which are filled with recrystallized coarse-grained quartz, calcite,opaque(pyrite) and garnet.

No: 83-11-157.2-158.0 (C ,D)

Name: Highly crushed and silicified impure limestone

The Minerals: carbonate(50%),sericite(30%),quartz(19%),opaque,and apatite(1%)

Description: These two thin sections (C , D) are almost identical. Both are highly deformed, with destruction of original texturrs. They contain mostly fine-frained carbonare(calcite), some very fine-grained sericite, fine to medium grained recrystallized quartz, mostly filled in lenses and patches, associated with minor amounts of coarse grained apatite and opaques. Solution thinning has produced dark seams of compressed sericite (+clay?).

No: DEB-TB-83A(1,2)

Name: Garnet rich Meta calcareous sandstone

The Minerals: garnet,carbonate,quartz,opaque,sericite,

Description: These two samples are almost identical. Both are interbedded (metamorphosed) shale,and sandstone,
The shale portion are rich in garnet(35%), mostly associated with opaques(pyrite)(10%), accompanied by very fine grained sericite(40%)(sometimes in folded bands),very fine grained quartz, and some carbonate(15%).
some solution thinning has produced dark seams of compressed sericite,(+clays?).
The sandstone portion are also rich in garnet(25%), associated with opaques(pyrite)(10%), accompanied by fine grained angular quartz grains(30%), carbonate(25%), and very fine grained sericite (10%).

No: DEB-TB-83-C

Name: Highly altered intermediate-basic volcanic rock

The Minerals: carbonate(70%),quartz(10%),opaques(15%),muscovite(5%),

Description: Abundant altered phenocrysts and lenses (possibly original vesicles) are set in a fine grained altered matrix.
The lenses and phenocrysts are aligned in more or less parallel orientation.
the phenocrysts are now composed of calcite,quartz,and muscovite, while the lenses are dominantly calcite with very minor quartz.
The matrix is dominantly carbonate and opaques, with minor quartz and sericite.

No: DEB-TB-83-D

Name: Quartz bearing recrystallized limestone-- Marble

The Minerals: carbonate(92%),quartz(4%),ironoxide(2%),opaque(2%),muacovite(1%).

Description: The rock is composed of recrystallized fine to coarse grained quartz,a few flakes of muscovite and opaque grains, which are set in abundant recrystallized carbonate(calcite),matrix.(partly stained by iron oxide).

APPENDIX K

DIAMOND DRILL LOGS

Samim Canada Ltd.

DIAMOND DRILL RECORD

HOLE NO.	S-DEB-83-1
PROPERTY	DEB
PROJECT	SPILLIMACHEEN
DISTRICT/ TOWNSHIP	GOLDEN / B.C.
CLAIM NO./ NAME	5 / DEB
GRID NAME	MALACHITE
ELEVATION	
LINE	8+30N
STATION	5+22E

DRILLING CONTRACTOR	DRILCOR
CORE SIZE	BQ
COMMENCED	AUGUST 20th, 1983
COMPLETED	AUGUST 21st, 1983
CASING LEFT IN HOLE	NIL
LENGTH- PROPOSED	
LENGTH- ACHIEVED	19.81 m
BEARING	045°
DIP AT COLLAR	-44°

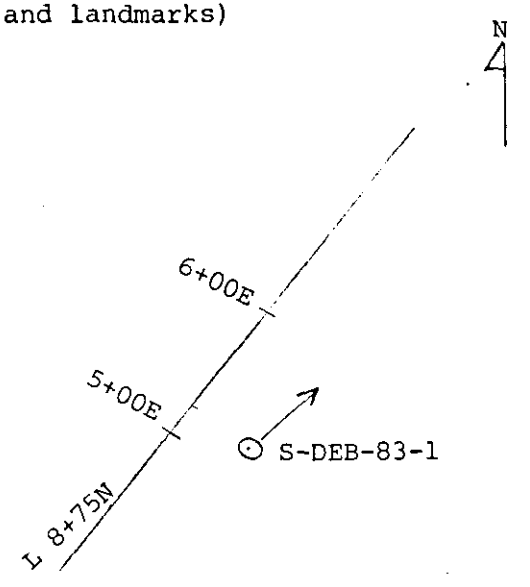
ANGLE TESTS

Technique Acid

Depth	Bearing	Dip	Dip, True

LOCATION SKETCH

(North arrow, scale, claim posts and numbers, distance to post and landmarks)



Scale 1:500

COMMENTS (1. Reason for hole; depth of target; 2. Contractors performance; 3. Technical performance, recovery etc.; 4. Conclusion on objective; 5. Core location)

1. To undercut a massive galena showing.
2. Good.
3. Good.
4. Mineralization was not intersected.
5. Okanagan helicopter's base at Golden, B.C.

PROPERTY DEB PAGES: 1 of 5 HOLE NO. S-DEB-83-1

Logged by: S.D. ROBINSON Checked by: _____ No. of Pages: 5 Hole No. S-DEB-83-1

Samim Canada Ltd. DIAMOND DRILL RECORD

Hole No. : S-DEB-83-1
Page : 2 of 5

METERAGE FROM	METERAGE TO	DESCRIPTION	SAMPLE NUMBER	FROM	TO	LENGTH
0	1.83	Overburden, and ground-up bedrock.				
1.83	19.81	Slate				
		The slate consists of light gray bands	001182	1.83	3.05	1.22
		generally about 5-10 cm thick, interbedded with	001183	3.05	4.60	1.55
		black bands several millimetres to about 1/2 cm	001184	4.60	6.10	1.50
		thick. The occasional pyrite cube occurs at	001185	6.10	7.60	1.50
		random.	001186	7.60	10.20	2.60
		1.83-4.57m. Rusty alteration most probably due	001187	10.21	12.19	1.98
		to siderite.	001188	12.19	13.11	0.92
		2.13m. Bedding C.A. 60°	001189	13.11	15.24	2.13
		2.59m. Bedding C.A. 70°	001190	15.24	16.76	1.52
		3.05-4.57m. 0.76m ground core. Some clay	001191	16.76	18.28	1.52
		was recovered - fault gouge.	001192	18.28	19.81	1.53
		4.57-5.49m. Several siderite-rich bands are present.				
		4.88m. Bedding C.A. 60°				
		5.48m. Bedding C.A. 30°				
		5.49-5.64m. Finely laminated black and white slate bands up to				
		about 3 mm thick.				
		5.94m. Bedding C.A. 45°				
		6.09-6.16m. Siderite-rich band.				
		6.40m. Bedding C.A. 25°				
		6.55m. Bedding C.A. 60°				
		7.32m. Bedding C.A. 60°				

METERAGE FROM	METERAGE TO	DESCRIPTION	SAMPLE NUMBER	FROM	TO	LENGTH
		7.92-7.99m. Siderite-rich band.				
		7.92m. Bedding C.A. 55°				
		8.32-8.38m. Siderite-rich band.				
		8.23m. Bedding C.A. 60°				
		8.99m. Bedding C.A. 40°				
		9.45m. Bedding C.A. 20°				
		9.75-15.54m. About 10% of the section consists of a white mineral				
		in grains 1-2mm across. It is most probably siderite.				
		10.06m. Bedding C.A. 30°				
		10.36m. Bedding C.A. 45°				
		10.67-11.58m. Highly oxidized zone. A possible fault occurs at				
		about 11.13m. Siderite-rich bands about 3mm wide are common.				
		11.28m. Bedding C.A. 30°				
		12.04-12.13m. Highly oxidized zone.				
		12.19m. Bedding C.A. 10°				
		12.22-13.11m. The occasional barren quartz-siderite vein about				
		3mm - 1.5cm wide is present.				
		13.11-13.41m. The rock is folded.				
		13.26m. Bedding C.A. 80° then 0° then 30° the opposite direction.				
		13.41-14.33m. Drilled down dip.				
		13.72m. Bedding C.A. 0°				
		14.33m. Bedding C.A. 5°				
		15.18m. Bedding C.A. 50°				
		15.39m. Bedding C.A. 20°				

METERAGE FROM	METERAGE TO	DESCRIPTION	SAMPLE NUMBER	FROM	TO	LENGTH
		15.54-16.46m. Drilled down dip in finely laminated 1-3mm thick				
		black and gray slate bands. A crenulation cleavage about 90° to				
		bedding is present.				
		15.85m. Bedding C.A. 20° }				
		16.15m. Bedding C.A. 0° } in opposite directions				
		16.46m. Bedding C.A. 20° }				
		16.46-19.8m. Light gray slate bands about 5-10cm thick occur				
		interbedded with black bands up to 1/2cm thick.				
		17.07m. Bedding C.A. 20°				
		17.68m. Bedding C.A. 20°				
		18.29m. Bedding C.A. 25°				
		18.90m. Bedding C.A. 30°				
		19.50m. Bedding C.A. 30°				
19.81		END OF HOLE				

Samim Canada Ltd.

DIAMOND DRILL ANALYSIS RECORD

Hole No. : S-DEB-83-1

SAMPLE NUMBER	FROM	TO	LENGTH	Pb ppm	Zn ppm	Ag ppm
001182	1.83	3.05	1.22	79	50	nd
001183	3.05	4.60	1.55	16	76	.2
001184	4.60	6.10	1.50	15	69	.6
001185	6.10	7.60	1.50	19	134	nd
001186	7.60	10.20	2.60	20	1150	nd
001187	10.21	12.19	1.98	31	1920	.4
001188	12.19	13.11	0.92	16	1440	nd
001189	13.11	15.24	2.13	13	1230	.2
001190	15.24	16.76	1.52	22	136	nd
001191	16.76	18.28	1.52	19	97	nd
001192	18.28	19.81	1.53	20	760	nd

Samim Canada Ltd.

DIAMOND DRILL RECORD

HOLE NO.	S-DEB-83-2
PROPERTY	DEB
PROJECT	SPILLIMACHEEN
DISTRICT/ TOWNSHIP	GOLDEN / B.C.
CLAIM NO./ NAME	5 / DEB
GRID NAME	MALACHITE
ELEVATION	
LINE	8+31N
STATION	5+21E

DRILLING CONTRACTOR	DRILCOR
CORE SIZE	BQ
COMMENCED	AUGUST 21st, 1983
COMPLETED	AUGUST 21st, 1983
CASING LEFT IN HOLE	NIL
LENGTH- PROPOSED	
LENGTH- ACHIEVED	21.34 m
BEARING	015°
DIP AT COLLAR	-44°

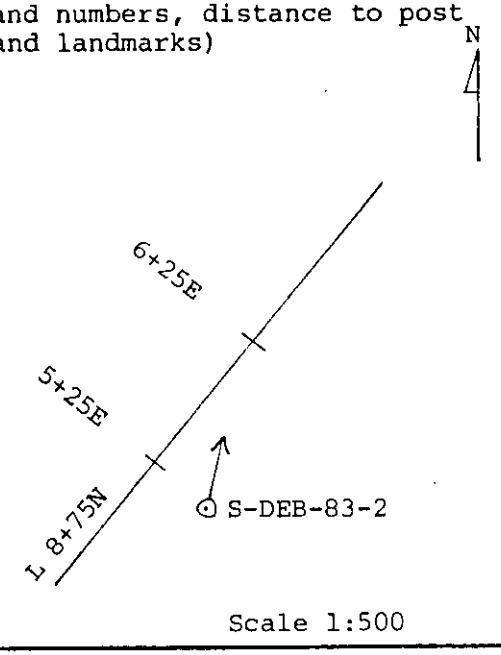
ANGLE TESTS

Technique Acid

Depth	Bearing	Dip	Dip, True

LOCATION SKETCH

(North arrow, scale, claim posts and numbers, distance to post and landmarks)



COMMENTS (1. Reason for hole; depth of target; 2. Contractors performance; 3. Technical performance, recovery etc.; 4. Conclusion on objective; 5. Core location)

1. To undercut a massive galena showing.
2. Good.
3. Good.
4. Mineralization was not intersected.
5. Okanagan helicopter's base at Golden, B.C.

PROPERTY DEB PAGES: 1 of 4 HOLE NO. S-DEB-83-2

Logged by: S.D. ROBINSON Checked by: _____ No. of Pages: 4 Hole No. S-DEB-83-2

Samim Canada Ltd.

DIAMOND DRILL RECORD

Hole No. : S-DEB-83-2
Page : 2 of 4

METERAGE FROM	METERAGE TO	DESCRIPTION	SAMPLE NUMBER	FROM	TO	LENGTH
0	0.30	Overburden				
0.30	21.34	Slate				
		0.30-1.07m. Light gray massive with the occasional black fine				
		grained band about 3mm thick. About 5-10% siderite blebs is				
		present. The occasional pyrite cube occurs at random.				
		0.91m. Bedding C.A. 60°				
		1.07-1.52m. Fault gouge.				
		1.52-3.05m. Only 0.30m recovered, unconsolidated fault gouge.				
		3.05-4.57m. 0.46m recovered; 0.15m is unconsolidated fault				
		gouge; 0.30m of slate chips with 15-20% oxidized siderite. A				
		4mm wide quartz-siderite vein is present.				
		4.57-6.09m. Only 0.91m of core was recovered. Light gray slate				
		bands 5-10cm thick interbedded with black bands 3-5mm thick.				
		10-15% siderite occurs mainly as white specks.				
		5.79m. Bedding C.A. 50°				
		6.09-17.31m. Light gray slate bands 5-10cm thick with black bands				
		1-5mm thick interbedded. Occasionally it is finely laminated, e.g.				
		6.80-6.86m and 10.88-10.94m.				
		Less than 5% white siderite blebs are present.				
		6.40m. Bedding C.A. 60°				
		7.62m. Bedding C.A. 60°				
		7.62-10.67m. Oxidized fractures occur at random.				
		8.23m. Bedding C.A. 40°				
		8.53m. Bedding C.A. 20°				

METERAGE FROM	METERAGE TO	DESCRIPTION	SAMPLE NUMBER	FROM	TO	LENGTH
		9.14m. Bedding C.A. 20°				
		10.06m. Bedding C.A. 45°				
		10.67m. Bedding C.A. 60°				
		10.67-14.33m. Localized brownish colour due to oxidized siderite.				
		11.28m. Bedding C.A. 40°				
		11.58m. Bedding C.A. 50°				
		13.26m. Bedding C.A. 20°				
		14.33-17.31m. The slate has a silvery sheen and it is phyllitic.				
		A crenulation cleavage (second phase of deformation) is very				
		pronounced.				
		15.25m. Bedding C.A. 10° - flat bedding drill down dip				
		16.46m. Bedding C.A. 25°				
		16.98-17.31m. Quartz-siderite vein - barren.				
		16.98m. Contact C.A. 10°				
		17.31m. Contact C.A. unknown.				
		17.31-17.83m. Finely laminated light and dark gray, wavy banded				
		slate bands up to 3mm thick. 1-3% disseminated pyrite is present.				
		17.37m. Bedding C.A. 0°				
		17.83m. Bedding C.A. 35°				
		18.29-18.59m. Oxidized siderite bands.				
		18.59m. Bedding C.A. 40°				
		18.89-19.51m. Several short sections similar to 17.31-17.83m.				
		18.90m. Bedding C.A. 15°				
		19.51m. Bedding C.A. 20°				
		19.81m. Bedding C.A. 10°				

Samim Canada Ltd.

DIAMOND DRILL RECORD

Hole No. : S-DEB-83-2
Page : 4 of 4

METERAGE FROM	METERAGE TO	DESCRIPTION	SAMPLE NUMBER	FROM	TO	LENGTH
		19.66-21.34m. 15-20% white specks, most probably siderite, occur				
		throughout.				
		20.42m. Bedding C.A. 17°				
		20.73m. Bedding C.A. 10°				
		21.03m. Bedding C.A. 25°				
21.34		END OF HOLE				

Samim Canada Ltd.

DIAMOND DRILL RECORD

HOLE NO.	S-DEB-83-3	DRILLING CONTRACTOR	DRILCOR
PROPERTY	DEB	CORE SIZE	BQ
PROJECT	SPILLIMACHEEN	COMMENCED	August 21st, 1983
DISTRICT/ TOWNSHIP	GOLDEN / B.C.	COMPLETED	August 21st, 1983
CLAIM NO./ NAME	5 / DEB	CASING LEFT IN HOLE	NIL
GRID NAME	MALACHITE	LENGTH- PROPOSED	
ELEVATION		LENGTH- ACHIEVED	21.34 m
LINE	8+25N	BEARING	225°
STATION	5+49E	DIP AT COLLAR	-44°

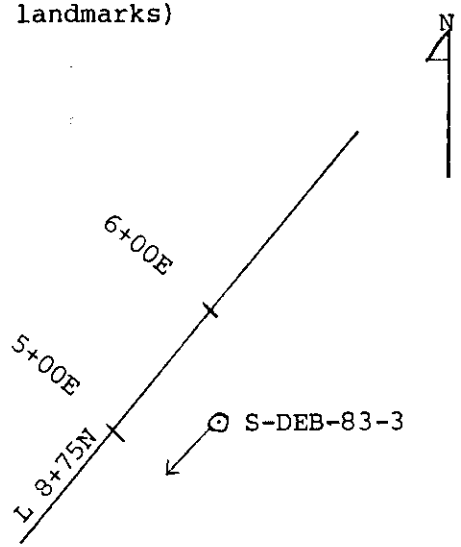
ANGLE TESTS

Technique: Acid

Depth	Bearing	Dip	Dip, True
			-44°

LOCATION SKETCH

(North arrow, scale, claim posts and numbers, distance to post and landmarks)



Scale 1:500

COMMENTS (1. Reason for hole; depth of target; 2. Contractors performance; 3. Technical performance, recovery etc.; 4. Conclusion on objective; 5. Core location)

1. To undercut a massive galena showing.
2. Good.
3. Good.
4. Mineralization was not intersected.
5. Okanagan helicopter's base at Golden, B.C.

PROPERTY DEB PAGES: 1 of 3 HOLE NO. S-DEB-83-3

Logged by: S.D. ROBINSON Checked by: _____ No. of Pages: 3 Hole No. S-DEB-83-3

Samim Canada Ltd.

DIAMOND DRILL RECORD

Hole No. : S-DEB-83-3
Page : 2 of 3

METERAGE FROM	METERAGE TO	DESCRIPTION	SAMPLE NUMBER	FROM	TO	LENGTH
0	0.70	Overburden				
0.70	21.34	Shale				
		Light gray shale bands 1cm to 10cm thick occur interbedded with				
		black beds 2mm to 5mm thick. A few wavy banded sections consist-				
		ing of black and light gray shale bands up to 1/2cm wide with				
		lensoid quartz particles and associated pressure shadows are				
		present, for example 1.70-1.75m; 2.60-2.80m; 4.80-4.90m; 9.35-				
		9.45m; 10.30-10.50m; 12.60-12.70m.				
		About 5 to 10% disseminated siderite in the form of white specks				
		occurs throughout.				
		The occasional pyrite cube occurs at random.				
		The following are bedding core axis angles:				
		0.80m - 25° 0.95m - 70° 1.50m - 75°				
		2.00m - 90° 2.50m - 40° 2.90m - 60°				
		3.25m - 80° 4.45m - 85° 5.00m - 75°				
		6.30m - 80° 6.50m - 80°				
		2.70-2.80m. Siderite oxidation is common.				
		6.65-9.00m. Siderite oxidation is common.				
		7.62-9.45m. 1.30m of core was recovered.				
		10.70-11.00m. Quartzite.				
		White to light gray, fine grained, massive with a few 1 mm thick				
		black shale bands occurring at random.				
		Contact 10.70m - 65°. Contact at 11.00m - 50°				

Samim Canada Ltd.

DIAMOND DRILL RECORD

Hole No. : S-DEB-83-3
Page : 3 of 3

METERAGE FROM	METERAGE TO	DESCRIPTION	SAMPLE NUMBER	FROM	TO	LENGTH
		13.05-13.10m. 1/2 length of section is quartz-carbonate.				
		13.10-21.34m. The occasional quartz-carbonate vein occurs at				
		random.				
		The following are bedding core axis angles:				
		9.35m - 80° 11.05m - 70° 12.15m - 80°				
		12.25m - 85° 14.10m - 60° 14.98m - 70°				
		16.80m - 80° 17.24m - 75° 18.76m - 80°				
		19.21m - 85° 20.91m - 75°				
21.34		END OF HOLE				

Samim Canada Ltd.

DIAMOND DRILL RECORD

HOLE NO.	S-DEB-83-4
PROPERTY	DEB
PROJECT	SPILLIMACHEEN
DISTRICT/ TOWNSHIP	GOLDEN / B.C.
CLAIM NO./ NAME	5 / DEB
GRID NAME	MALACHITE
ELEVATION	
LINE	10 + 15 N
STATION	6 + 68 E

DRILLING CONTRACTOR	DRILCOR
CORE SIZE	BQ
COMMENCED	AUGUST 22nd, 1983
COMPLETED	AUGUST 22nd, 1983
CASING LEFT IN HOLE	NIL
LENGTH- PROPOSED	
LENGTH- ACHIEVED	54.86 m
BEARING	040°
DIP AT COLLAR	-50°

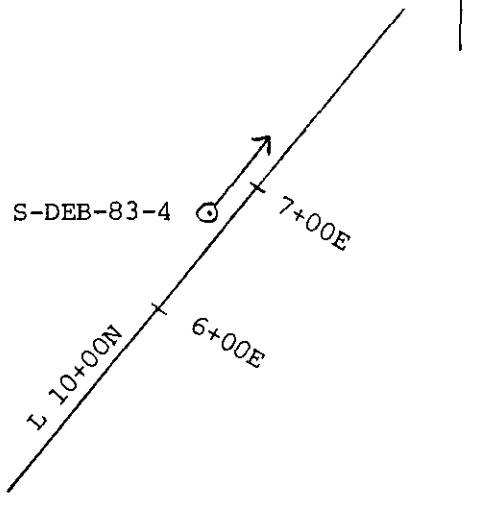
ANGLE TESTS

Technique: Acid

Depth	Bearing	Dip	Dip, True
45.72m			-50°

LOCATION SKETCH

(North arrow, scale, claim posts and numbers, distance to post and landmarks)



Scale 1:500

COMMENTS (1. Reason for hole; depth of target; 2. Contractors performance; 3. Technical performance, recovery etc.; 4. Conclusion on objective; 5. Core location)

1. To undercut a Pb-Zn showing.
2. Good.
3. Good.
4. A minor amount of disseminated Pb mineralization was intersected.
5. Okanagan helicopter's base at Golden, B.C.

PROPERTY DEB PAGES: 1 of 9 HOLE NO. S-DEB-83-4

Logged by: S.D. ROBINSON Checked by: _____ No. of Pages: 9 Hole No. S-DEB-83-4

Samim Canada Ltd.

DIAMOND DRILL RECORD

Hole No. : S-DEB-83-4
Page : 2 of 9

METERAGE FROM	METERAGE TO	DESCRIPTION	SAMPLE NUMBER	FROM	TO	LENGTH
0	1.07	Overburden				
1.07	18.20	Shale				
		1.07-7.01m. Brown due to oxidized siderite	001078	1.07	3.09	2.02
		The occasional quartz-carbonate veinlet	001079	3.09	4.57	1.48
		occurs at random.	001080	4.57	6.10	1.53
		1-3% disseminated pyrite occurs throughout.	001081	6.10	7.62	1.52
		7.01-18.20. Dark gray fine grained, massive	001082	7.62	9.14	1.52
		shale in beds 1cm-5cm thick and occasionally	001083	9.14	10.67	1.53
		up to 10cm thick occur interbedded with thin	001084	10.67	12.19	1.52
		black beds 3mm to 1/2cm thick.	001085	12.19	13.72	1.53
		Quartz-carbonate veinlets up to 1cm wide	001086	13.72	15.24	1.52
		occur rarely.	001087	15.24	16.76	1.52
		10-20% white siderite blebs occur throughout.	001088	16.76	18.57	1.81
		About 1% pyrite occurs disseminated as cubes.				
		15.70-16.15m. The rock is oxidized and fractured. The following				
		are bedding core axis angles and the bedding cleavage angle				
		indicates the beds have steep dips.				
		5.79m - 45° 8.23m - 90° 10.67m - 80°				
		12.19m - 90° 15.54m - 75° 17.07m - 75°				
18.20	19.32	Limestone				
		White to light gray, medium to coarse grained, massive.				
		The occasional graphite bleb is present.	001089	18.57	19.34	0.77

METERAGE FROM	METERAGE TO	DESCRIPTION	SAMPLE NUMBER	FROM	TO	LENGTH
		Contact at 18.20m 90°				
		Contact at 19.32m 40°				
19.32	20.85	Shale				
		Dark gray to black, fine grained, massive. It is very	001090	19.34	20.86	1.52
		consistent. Quartz-carbonate veinlets are rarely present. 1%				
		pyrite occurs disseminated as cubes up to 1/2cm across.				
20.85	23.01	Limestone				
		As 18.20-19.32m.	001091	20.86	22.40	1.40
		22.56-22.86m. 5% and locally up to 10% disseminated galena is				
		present.				
		22.01-22.25m. 80% shale with 20% limestone in bands. About 10%				
		pyrite is present.	001193	22.40	23.20	0.80
23.01	25.91	Shale				
		Black, fine grained massive with a few quartz	001092	23.20	24.08	1.82
		grains and associated pressure shadows. The	001093	24.08	25.71	1.63
		occasional light coloured bed up to 1cm thick is present.				
		10% siderite occurs as disseminated white blebs.				
		1-3% disseminated pyrite occurs throughout.				
		Bedding core axis 23.62m 50°				
25.91	28.96	Shale				
		Interbedded black and gray fine grained massive	001094	25.71	27.31	1.60

METERAGE FROM	METERAGE TO	DESCRIPTION	SAMPLE NUMBER	FROM	TO	LENGTH
		shale beds generally less than 2cm thick.	001095	27.31	28.90	1.59
		10-15% siderite occurs as disseminated white blebs.				
		Quartz-carbonate occurs in veinlets which are often discontinuous.				
		1-3% disseminated pyrite is present and it often occurs along				
		parallel planes.				
		Bedding core axis 25.91m - 75°				
		Bedding core axis 27.40m - 55°				
28.96	30.39	Shale				
		Gray, fine grained massive shale beds 2cm thick occur	001096	28.90	30.39	1.49
		interbedded with dark gray, fine grained shale beds about 1cm				
		thick.				
		Quartz-carbonate veins are rare. Pyrite is rare. Siderite was				
		not observed.				
		Bedding core axis 30.33m - 55°				
30.39	30.48	Rock				
		Pale green to gray fine to medium grained, massive with about				
		10-15% unidentified pale green mineral.				
30.48	30.60	Shale	(Part of) 001097	30.48	30.60	0.12
		As 28.96-30.39m.				

METERAGE FROM	METERAGE TO	DESCRIPTION	SAMPLE NUMBER	FROM	TO	LENGTH
30.60	31.06	Rock				
		As 30.39-30.48m but with quartz-carbonate veinlets and a 2cm	001194	30.63	31.09	0.46
		thick vein.				
31.06	32.31	Shale				
		Black, fine grained, massive shale with the occasional	(Part of) 001097	31.06	32.92	1.86
		lighter gray shale bed up to 1cm thick. A few quartz-carbonate				
		veinlets are present. Oxidation is common on fracture planes.				
		10-20% siderite occurs as white blebs in sections up to 15cm long.				
32.31	36.58	Shale				
		Dark and light gray, fine grained, massive shale beds 1-3cm thick	001098	32.92	34.45	1.53
		occur interbedded. About 10% siderite occurs as white blebs in				
		the dark gray shale. Quartz-carbonate veins occur at random.				
		Less than 1% disseminated pyrite is present.				
		Bedding core axis 32.92m - 65°				
36.58	43.13	Shale				
		Medium gray, fine grained, massive shale beds 2cm to 10cm thick				
		occur interbedded with light gray, fine grained, massive beds				
		1cm to locally 10cm thick, but generally less than 5cm thick.				
		About 10-20% siderite occurs as white blebs in the dark gray				
		shale. It is not apparent in the lighter gray shale.				
		Bedding core axis 36.61m 90°				
		Bedding core axis 40.08m 85°				

METERAGE FROM	METERAGE TO	DESCRIPTION	SAMPLE NUMBER	FROM	TO	LENGTH
43.13	45.02	Quartz-Carbonate Vein				
		White, one half the vein is highly oxidized paralled to the core				
		axis. The occasional galena cube occurs locally.				
		44.56-44.65m Shale, medium gray, fine grained massive. 10%				
		disseminated pyrite is present.				
45.02	47.21	Shale				
		Dark gray, fine grained, massive shale beds 1 to 10cm thick occur				
		interbedded with lighter gray fine grained shale beds 1 to 2cm				
		thick but occasionally up to 10cm thick. Quartz-carbonate veins				
		up to 1/2cm wide occur locally. 1 to 3% disseminated pyrite is				
		present.				
		Bedding core axis 45.72m - 60°				
47.21	47.40	Quartz-Carbonate Vein				
		White, massive, barren. It seems to be heavy?				
47.40	48.89	Shale				
		As 45.02-47.21m.				
48.89	49.38	Quartz-Carbonate Vein				
		White, massive, barren.				
49.38	53.22	Shale				

Samim Canada Ltd. DIAMOND DRILL RECORD

Hole No. : S-DEB-83-4
Page : 7 of 9

METERAGE FROM	METERAGE TO	DESCRIPTION	SAMPLE NUMBER	FROM	TO	LENGTH
		Black, fine grained, massive, very homogeneous sections up to				
		1m thick. The occasional lighter coloured bed up to 1.5cm thick				
		is present. About 10% siderite occurs as locally disseminated				
		white blebs. 3-5% disseminated pyrite occurs locally.				
		Bedding core axis 50.90m - 30°				
		50.14-50.38m. Shale with a discontinuous quartz veinlet.				
		Bedding core axis 52.12m - 60°				
53.22	54.86	Shale				
		Medium gray, fine grained, massive shale beds several millimetres				
		to 4cm thick occurs interbedded with black very fine grained				
		massive shale beds 2mm to 1/2cm thick.				
		Bedding core axis 53.46 m - 70°.				
54.86		END OF HOLE				

Samim Canada Ltd.

DIAMOND DRILL ANALYSIS RECORD

Hole No. : S-DEB-83-4
Page : 8 of 9

SAMPLE NUMBER	FROM	TO	LENGTH	Pb ppm	Zn ppm	Ag ppm
001078	1.07	3.09	2.02	23	107	.1
001079	3.09	4.57	1.48	39	151	nd
001080	4.57	6.10	1.53	41	109	nd
001081	6.10	7.62	1.52	45	91	.1
001082	7.62	9.14	1.52	36	80	nd
001083	9.14	10.67	1.53	47	84	nd
001084	10.67	12.19	1.52	29	129	nd
001085	12.19	13.72	1.53	23	89	.3
001086	13.72	15.24	1.52	24	103	nd
001087	15.24	16.76	1.52	29	69	nd
001088	16.76	18.57	1.81	26	145	.2
001089	18.57	19.34	0.77	78	80	.1
001090	19.34	20.86	1.52	26	112	.2
001091	20.86	22.40	1.40	54	64	.6
001193	22.40	23.20	0.80			
001092	23.20	24.08	1.82	71	53	.9
001093	24.08	25.71	1.63	35	107	.2
001094	25.71	27.31	1.60	17	126	nd
001095	27.31	28.90	1.59	22	100	.3
001096	28.90	30.39	1.49	19	76	.2
001097	30.48	30.60	0.12	18	19	.6
001194	**30.63**	**31.09**	**0.46**			
001097	31.06	32.92	1.86			
001098	32.92	34.45	1.53	21	101	.2

Samim Canada Ltd.

DIAMOND DRILL ANALYSIS RECORD

Hole No. : S-DEB-83-4
Page : 9 of 9

SAMPLE NUMBER	FROM	TO	LENGTH	Au	Au	Cu	Cu	Zn	Zn	Ag	Ag	Pb	Pb		
				ppb	oz/t	ppm	%	ppm	%	ppm	oz/t	ppm	%		
001193	22.40	23.20	0.80	16.0	-	13.0	-	380	-	5.5	-	1300	-		
				Sb	As	Ga	Hg	Mo	Sn	W					SUM
				ND	ND	FT	ND	FT	FT	ND					97.3
				SiO_2	Al_2O_3	CaO	MgO	Na_2O	K_2O	Fe_2O_3	MnO	TiO_2	P_2O_5	Cr_2O_3	LOI
				69.4	4.24	7.17	2.44	0.29	0.90	4.82	0.23	0.15	0.19	0.01	7.47
				Au	Au	Cu	Cu	Zn	Zn	Ag	Ag	Pb	Pb		
				ppb	oz/t	ppm	%	ppm	%	ppm	oz/t	ppm	%		
001194	30.63	31.09	0.46	5.0	-	10.0	-	110	-	1.0	-	50	-		
				Sb	As	Ga	Hg	Mo	Sn	W					SUM
				ND	ND	FT	ND	FT	FT	ND					98.5
				SiO_2	Al_2O_3	CaO	MgO	Na_2O	K_2O	Fe_2O_3	MnO	TiO_2	P_2O_5	Cr_2O_3	LOI
				39.5	7.38	1.19	6.57	0.55	1.04	9.47	0.37	2.92	0.80	0.05	17.8

Samim Canada Ltd.

DIAMOND DRILL RECORD

HOLE NO.	S-DEB-83-5	DRILLING CONTRACTOR	DRILCOR
PROPERTY	DEB	CORE SIZE	BQ
PROJECT	SPILLIMACHEEN	COMMENCED	AUGUST 23rd, 1983
DISTRICT/ TOWNSHIP	GOLDEN / B.C.	COMPLETED	AUGUST 23rd, 1983
CLAIM NO./ NAME	5 / DEB	CASING LEFT IN HOLE	NIL
GRID NAME	MALACHITE	LENGTH- PROPOSED	
ELEVATION		LENGTH- ACHIEVED	61.26 m
LINE	10 + 15 N	BEARING	040°
STATION	6 + 68 E	DIP AT COLLAR	-75°

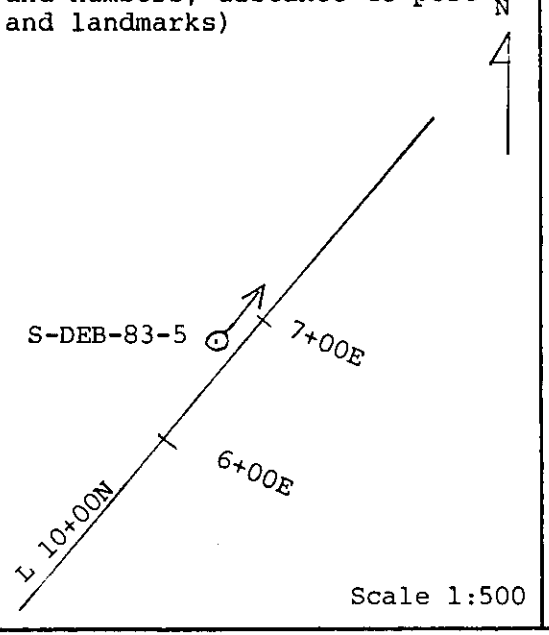
ANGLE TESTS

Technique: Acid

Depth	Bearing	Dip	Dip, True
53.34m			-75°

LOCATION SKETCH

(North arrow, scale, claim posts and numbers, distance to post and landmarks)



COMMENTS (1. Reason for hole; depth of target; 2. Contractors performance; 3. Technical performance, recovery etc.; 4. Conclusion on objective; 5. Core location)

1. To undercut the minor Pb mineralization intersected in hole S-DEB-83-4.
2. Good.
3. Good.
4. No significant mineralization was intersected.
5. Okanagan helicopter's base at Golden, B.C.

PROPERTY DEB PAGES: 1 of 6 HOLE NO. S-DEB-83-5

Logged by: S.D. ROBINSON Checked by: No. of Pages: 6 Hole No. S-DEB-83-5

Samim Canada Ltd. DIAMOND DRILL RECORD

Hole No. : S-DEB-83-5
Page : 2 of 6

METERAGE FROM	METERAGE TO	DESCRIPTION	SAMPLE NUMBER	FROM	TO	LENGTH
0	0.61	Overburden				
0.61	8.08	Shale				
		Gray, fine grained. The occasional black section	001034	0.61	2.74	2.13
		up to 10cm thick is not readily visible due to the	001035	2.74	4.51	1.77
		presence of highly oxidized siderite.	001036	4.61	6.10	1.49
		The following are bedding core axis	001037	6.10	7.56	1.46
		2.29m - 55°; 2.74m - 60°; 3.96m - 50°				
		6.71m - 50°; 7.71m - 60°				
8.08	26.46	Shale				
		Gray shale bands 1cm to generally 5 to 10cm thick	001038	7.56	9.15	1.59
		occurs interbedded with black bands 2mm to 1/2cm	001039	9.15	9.45	0.30
		thick. Gray phyllitic shale sections up to 0.5m	001040	9.45	10.02	0.57
		long occur at random to about 13.72m.	001041	10.02	10.97	0.95
		The occasional quartz-carbonate vein occurs at	001042	10.97	12.50	1.53
		random throughout.	001043	12.50	14.02	1.52
		1-3% disseminated pyrite cubes occur	001044	14.02	15.54	1.52
		throughout.	001045	15.54	16.76	1.22
		9.30-10.12m. Quartzite; light gray, fine grained	001046	16.76	18.20	1.44
		massive, with about 3-5% disseminated	001047	18.20	18.93	0.73
		pyrite.	001048	18.93	19.96	1.03
		15.85-16.15m. Highly oxidized.	001049	19.96	21.49	1.53
		17.53-19.51m. Broken core with oxidized fractures.	001050	21.49	23.10	1.61
		18.99-19.02m. Quartz-carbonate vein	001051	23.10	23.61	0.51

METERAGE FROM	METERAGE TO	DESCRIPTION	SAMPLE NUMBER	FROM	TO	LENGTH
		20.97-21.09m. Quartz-carbonate vein.	001052	23.61	24.69	1.08
		21.18-21.95m. Highly fractured and broken core	001053	24.69	26.45	1.76
		21.95-22.10m. Quartzite as 9.30-10.12 m				
		23.07-23.22m. Quartzite as 9.30-10.12 m				
		23.21-23.23m. Quartz-carbonate vein				
		23.47-26.46m. Increase in the frequency of quartz-carbonate veins.				
		The following are bedding core axis:				
		8.99m - 65° 10.09m - 80° 10.67m - 60°				
		12.80m - 65° 13.72m - 60° 15.24m - 45°				
		16.86m - 65°				
		20.30m - 80° } in opposite directions				
		20.48m - 80° }				
		21.95m - 80° 24.60m - 80° 25.30m - 70°				
		26.46m - 80°				
26.46	28.93	Limestone				
		Light gray, medium to coarse grained, massive	001054	26.45	26.92	0.47
		About 1-3% finely disseminated pyrite occurs	001055	26.92	27.46	0.54
		throughout.	001056	27.46	29.26	1.80
		Black graphite blebs up to 1/2cm across occur locally.				
		27.01-27.16m. Phyllitic slate occurs banded within the limestone.				
		27.16-27.28m. Barren-quartz-carbonate vein.				
		Bedding core axis 28.90m - 45°.				
28.93	61.26	Shale				

Samim Canada Ltd. DIAMOND DRILL RECORD

Hole No. : S-DEB-83-5
Page : 4 of 6

METERAGE FROM	METERAGE TO	DESCRIPTION	SAMPLE NUMBER	FROM	TO	LENGTH
		Gray, fine grained bands 1 to 5cm and occasionally	001057	29.26	30.81	1.55
		10cm thick occur interbedded with black bands	001058	30.81	32.31	1.50
		2mm - 1/2cm thick.	001059	32.31	33.83	1.52
		10-15% white siderite blebs occur throughout.	001060	33.83	35.36	1.53
		1-3% pyrite occurs as disseminated cubes	001061	35.36	36.88	1.52
		up to 1cm across.	001062	36.88	38.40	1.52
		28.93-32.92m. The shale is phyllitic.	001063	38.40	39.93	1.53
		Elsewhere short phyllitic sections are locally	001064	39.93	41.45	1.52
		present.	001065	41.45	42.93	1.48
		28.93-46.63m. Quartz-carbonate veinlets 2mm to	001066	42.93	44.50	1.57
		1cm wide occur at random.	001066A	44.50	46.07	1.57
		46.63-57.30m. Quartz-carbonate veins up to	001067	46.07	46.94	0.87
		8cm wide occur at random.	001068	46.94	48.46	1.52
		57.76-57.91m. Quartz-carbonate vein	001069	48.46	49.99	1.53
		58.52-58.83m. Quartz-carbonate vein	001070	49.99	51.66	1.67
		The following are bedding core axis.	001071	51.66	53.19	1.53
		31.70m - 80° 33.38m - 75° 34.75m - 50°	001072	53.19	55.47	2.28
		36.58m - 55° 37.37m - 50° 40.23m - 60°	001073	55.47	57.23	1.76
		43.43m - 50° 44.59m - 55° 46.02m - 40°	001074	57.23	57.52	0.29
		48.62m - 60° 50.29m - 45° 51.51m - 60°	001075	57.52	59.07	1.55
		53.04m - 50° 56.39m - 60° 59.44m - 60°	001076	59.07	60.35	1.28
		60.66m - 55°	001077	60.35	61.26	0.91
61.26		END OF HOLE				

Samim Canada Ltd.

DIAMOND DRILL ANALYSIS RECORD

Hole No. : S-DEB-83-5
Page : 5 of 6

SAMPLE NUMBER	FROM	TO	LENGTH	Pb	Zn	Ag									
				ppm	ppm	ppm									
001034	0.61	2.74	2.13	31	104	.1									
001035	2.74	4.51	1.77	29	80	.1									
001036	4.61	6.10	1.49	44	149	.3									
001037	6.10	7.56	1.46	47	111	.1									
001038	7.56	9.15	1.59	43	86	.1									
001039	9.15	9.45	0.30	58	67	nd									
001040	9.45	10.02	0.57	25	43	.2									
001041	10.02	10.97	0.95	24	136	.2									
001042	10.97	12.50	1.53	52	79	.3									
001043	12.50	14.02	1.52	18	130	.1									
001044	14.02	15.54	1.52	13	93	.4									
001045	15.54	16.76	1.22	16	58	.5									
001046	16.76	18.20	1.44	19	63	.8									
001047	18.20	18.93	0.73	25	32	1.6									
001048	18.93	19.96	1.03	63	81	.3									
001049	19.96	21.49	1.53	3040	84	7.7									
001050	21.49	23.10	1.61	31	43	.4									
001051	23.10	23.61	0.51	100	177	.7									
001052	23.61	24.69	1.08	29	173	.4									
001053	24.69	26.45	1.76	36	74	.8									
001054	26.45	26.92	0.47	331	2930	3.4									
001055	26.92	27.46	0.54	44	52	.9									
001056	27.46	29.26	1.80	84	28	nd									
001057	29.26	30.81	1.55	38	89	nd									

Samim Canada Ltd.

DIAMOND DRILL ANALYSIS RECORD

Hole No. : S-DEB-83-5
Page : 6 of 6

SAMPLE NUMBER	FROM	TO	LENGTH	Pb ppm	Zn ppm	Ag ppm
001058	30.81	32.31	1.50	16	119	.4
001059	32.31	33.83	1.52	16	112	.3
001060	33.83	35.36	1.53	17	116	.2
001061	35.36	36.88	1.52	25	63	.4
001062	36.88	38.40	1.52	26	61	.3
001063	38.40	39.93	1.53	14	76	.4
001064	39.93	41.45	1.52	15	95	.3
001065	41.45	42.93	1.48	24	94	nd
001066	42.93	44.50	1.57	35	82	nd
001066A	44.50	46.07	1.57	63	80	nd
001067	46.07	46.94	0.87	23	54	.3
001068	46.94	48.46	1.52	66	56	.1
001069	48.46	49.99	1.53	21	86	.1
001070	49.99	51.66	1.67	19	85	.1
001071	51.66	53.19	1.53	25	79	.4
001072	53.19	55.47	2.28	38	230	.8
001073	55.47	57.23	1.76	15	61	nd
001074	57.23	57.52	0.29	12	95	.3
001075	57.52	59.07	1.55	22	131	nd
001076	59.07	60.35	1.28	16	97	nd
001077	60.35	61.26	0.91	26	64	.2

Samim Canada Ltd.

DIAMOND DRILL RECORD

HOLE NO.	S-DEB-83-6
PROPERTY	DEB
PROJECT	SPILLIMACHEEN
DISTRICT/ TOWNSHIP	GOLDEN / B.C.
CLAIM NO./ NAME	5 / DEB
GRID NAME	MALACHITE
ELEVATION	
LINE	11 + 50 N
STATION	6 + 80 E

DRILLING CONTRACTOR	DRILCOR
CORE SIZE	BQ
COMMENCED	AUGUST 24th, 1983
COMPLETED	AUGUST 24th, 1983
CASING LEFT IN HOLE	NIL
LENGTH- PROPOSED	
LENGTH- ACHIEVED	49.98 m
BEARING	040°
DIP AT COLLAR	-45°

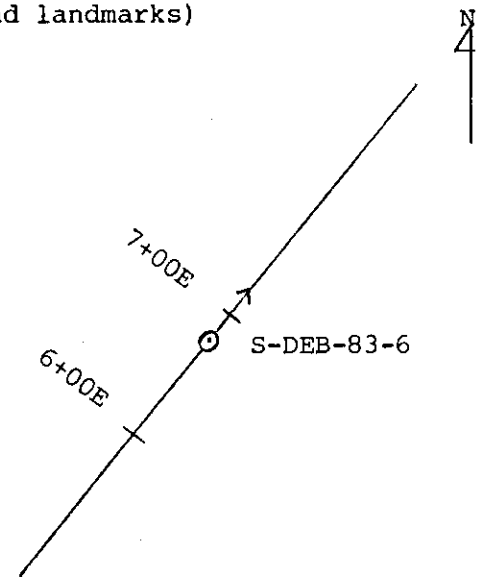
ANGLE TESTS

Technique: Acid

Depth	Bearing	Dip	Dip, True
45.72m			-45°

LOCATION SKETCH

(North arrow, scale, claim posts and numbers, distance to post and landmarks)



Scale 1:500

COMMENTS (1. Reason for hole; depth of target; 2. Contractors performance; 3. Technical performance, recovery etc.; 4. Conclusion on objective; 5. Core location)

1. To test an IP response.
2. Good.
3. Good.
4. A quartz-carbonate vein with Zn mineralization was intersected.
5. Okanagan helicopter's base at Golden, B.C.

PROPERTY DEB PAGES: 1 of 8 HOLE NO. S-DEB-83-6

Logged by: S.D. ROBINSON Checked by: _____ No. of Pages: 8 Hole No. S-DEB-83-6

METERAGE FROM	METERAGE TO	DESCRIPTION	SAMPLE NUMBER	FROM	TO	LENGTH
0	0.15	Overburden				
0.15	8.69	Grit - Quartzite				
		Gray with brown due to the oxidation of about 20% siderite, fine				
		to medium grained, massive. 1-3% disseminated pyrite occurs				
		throughout, occasionally in cubes up to 1/2cm across.				
		3.96m Bedding? core axis 50°.				
8.69	12.71	Shale				
		Black, fine grained, massive with about 15% white siderite blebs.				
		Rarely a lighter gray shale band about 1cm thick is present.				
		Oxidized fractures are common. 1-3% disseminated pyrite occurs				
		mainly in large cubes up to 1/2cm across.				
		Bedding core axis 11.28m - 80°				
		Bedding core axis 12.44m - 85°				
12.71	17.07	Shale				
		Dark gray, fine grained, shale bands 1/2cm to 1/2 metre thick				
		occur interbedded with lighter medium gray fine grained shale				
		beds 3 mm to 2 cm thick. About 10-15% white siderite blebs occur				
		mainly throughout.				
		The following are bedding core axis angles:				
		12.80m - 80° 14.08m - 70° 14.63m - 80°				
17.07	18.59	Shale				

Samim Canada Ltd. DIAMOND DRILL RECORD

Hole No. : S-DEB-83-6
Page : 3 of 8

METERAGE FROM	METERAGE TO	DESCRIPTION	SAMPLE NUMBER	FROM	TO	LENGTH
		Interbedded black and medium gray, fine grained shale beds	001099	17.50	18.58	1.08
		generally less than 1/2cm thick, but occasionally up to about				
		5cm thick. 15-20% white siderite blebs are common throughout.				
		Bedding core axis 17.22m - 75°.				
18.59	25.18	Shale				
		Medium grey, fine grained shale beds 3mm to				
		5cm thick occurs interbedded with black shale beds	001100	18.58	19.51	0.93
		2mm to generally less than 1/2cm thick.	001101	19.51	21.03	1.52
		1-2% disseminated pyrite is present.	001102	21.03	22.65	1.62
		Quartz-carbonate blebs and veinlets occur at	001195	22.65	22.83	0.18
		random.	001196	22.83	22.92	0.09
		22.65-22.83m. Quartz carbonate vein with about 40% sphalerite				
		and 15% galena.	001103	22.92	24.08	1.16
		Contact 22.65m 85°, Contact 22.83m 70°	001104	24.08	26.10	2.02
		22.83-22.92m. Shale and quartz carbonate. 10% pyrite, 5% galena.				
		Sphalerite was not observed.				
		Contact 25.18m 70°.				
25.18	25.91	Quartzite?				
		Light gray, fine grained, massive. It does not react with dilute				
		HCL. The occasional coarse grains are present. The unit may				
		possibly have a dolomitic matrix. About 5% pyrite occurs				
		disseminated throughout.				

METERAGE FROM	METERAGE TO	DESCRIPTION	SAMPLE NUMBER	FROM	TO	LENGTH
25.91	26.76	Shale				
		As 18.59-25.18m.	001105	26.10	26.78	0.68
26.76	27.16	Limestone				
		White to light gray, medium grained, massive. A quartz-carbonate	001106	26.78	27.18	0.40
		vein about 4mm wide is present.				
		Contact 26.76m - 70°. Contact 27.16m - 60°.				
27.16	27.58	Shale				
		Black, fine grained shale with finely banded black and white	(Part of) 001107	27.18	27.74	0.56
		bands each 1 to 2mm thick forming sections up to 2cm thick.				
		Bedding core axis 27.28m - 60°.				
27.58	27.74	Quartz-Carbonate Vein				
		A greenish gray section about 2cm long is present.				
27.74	27.89	Green Rock				
		Greenish-gray, fine to medium grained, massive	001197	27.74	27.89	0.15
		rock with about 10% unidentified green minerals.	001198	27.74	27.89	0.15
		Contact 27.89m - 50°.				
27.89	34.44	Shale	(Part of) 001107	27.89	29.01	1.12
		Black, fine grained shale with about 15% quartz-eyes	001108	29.01	29.72	0.71
		with pressure shadows parallel to bedding.	001109	29.72	30.88	1.16
		About 1-3% pyrite occurs disseminated in cubes	001110	30.88	31.77	0.89

METERAGE FROM	METERAGE TO	DESCRIPTION	SAMPLE NUMBER	FROM	TO	LENGTH
		about 1/2cm across.	001111	31.77	33.22	1.45
		Bedding is occasionally visible.				
		Bedding core axis 31.67m - 60°.				
34.44	49.99	Shale				
		Dark gray shale in beds 1/2cm to 5cm thick occurs interbedded with				
		lighter gray highly contorted shale beds about 1/4cm to 1.5cm but				
		occasionally up to 2.5cm thick.				
		34.44-37.49m. 5-10% brown oxidized siderite. The bedding is				
		starting to become wavy and crenulated. Quartz carbonate veinlets				
		have been crenulated into the foliation.				
		35.97-36.88m. Highly broken shale with oxidized fractures.				
		36.88-37.34m. Fractured and oxidized.				
		37.49-49.99m. Siderite is virtually non-existent. The beds are				
		wavy and crenulated.				
		37.95-38.16m. Broken oxidized shale.				
		49.96-49.99m. Quartz-Carbonate Vein.				
		The following are bedding core axis angles:				
		39.01m - 30° 40.23m - 90° 41.15m - Fold				
		42.06m - 70° 42.98m - 50° 46.48m - 80°				
		47.24m - 60° 48.16m - 50° 49.07m - 60°				
		49.68m - 80°.				
49.99		END OF HOLE				

Samim Canada Ltd.

DIAMOND DRILL ANALYSIS RECORD

Hole No. : S-DEB-83-6
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SAMPLE NUMBER	FROM	TO	LENGTH	Pb	Zn	Ag
				ppm	ppm	ppm
001099	17.50	18.58	1.08	33	88	nd
001100	18.58	19.51	0.93	37	76	.1
001101	19.51	21.03	1.52	24	107	nd
001102	21.03	22.65	1.62	520	2610	1.2
001195	22.65	22.83	0.18			
001196	22.83	22.92	0.09			
001103	22.92	24.08	1.16	1180	1930	4.8
001104	24.08	26.10	2.02	30	112	.2
001105	26.10	26.78	0.68	24	79	.3
001106	26.78	27.18	0.40	62	32	.8
(Part of) 001107	27.18	27.74	0.56	45	219	.8
001197	27.74	27.89	0.15			
001198	27.74	27.89	0.15			
(Part of) 001107	27.89	29.01	1.12			
001108	29.01	29.72	0.71	54	69	.8
001109	29.72	30.88	1.16	46	45	1.1
001110	30.88	31.77	0.89	55	51	2.0
001111	31.77	33.22	1.45	36	46	.4

Samim Canada Ltd.

DIAMOND DRILL ANALYSIS RECORD

Hole No. : S-DEB-83-6
Page : 7 of 8

SAMPLE NUMBER	FROM	TO	LENGTH	Au	Au	Cu	Cu	Zn	Zn	Ag	Ag	Pb	Pb		
				ppb	oz/t	ppm	%	ppm	%	ppm	oz/t	ppm	%		
001195	22.65	22.83	0.18	-	0.230	-	0.09	-	16.7	-	15.90	-	16.4		
				Sb	As	Ga	Hg	Mo	Sn	W					
				TL	TL	FT	ND	FT	T	ND					
				Au	Au	Cu	Cu	Zn	Zn	Ag	Ag	Pb	Pb		
				ppb	oz/t	ppm	%	ppm	%	ppm	oz/t	ppm	%		
001196	22.83	22.92	0.09	560	-	92.0	-	>4000	6.09	33.0	-	>4000	2.23		
				Sb	As	Ga	Hg	Mo	Sn	W					SUM
				ND	ND	FT	ND	FT	FT	ND					81.2
				SiO_2	Al_2O_3	CaO	MgO	Na_2O	K_2O	Fe_2O_3	MnO	TiO_2	P_2O_5	Cr_2O_3	LOI
				43.4	12.3	2.36	1.31	1.51	2.46	8.37	0.10	0.41	0.08	0.01	8.85

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DIAMOND DRILL ANALYSIS RECORD

Hole No. : S-DEB-83-6
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SAMPLE NUMBER	FROM	TO	LENGTH	Au	Au	Cu	Cu	Zn	Zn	Ag	Ag	Pb	Pb		
				ppb	oz/t	ppm	%	ppm	%	ppm	oz/t	ppm	%		
001197	27.74	27.89	0.15	14.0	-	8.0	-	610	-	2.0	-	260	-		
				Sb	As	Ga	Hg	Mo	Sn	W					SUM
				ND	ND	FT	ND	FT	FT	ND					96.3
				SiO_2	Al_2O_3	CaO	MgO	Na_2O	K_2O	Fe_2O_3	MnO	TiO_2	P_2O_5	Cr_2O_3	LOI
				22.8	10.4	16.4	6.74	0.61	1.93	8.99	0.37	4.31	1.19	0.06	22.3
				Au	Au	Cu	Cu	Zn	Zn	Ag	Ag	Pb	Pb		
				ppb	oz/t	ppm	%	ppm	%	ppm	oz/t	ppm	%		
001198	27.74	27.89	0.15	31	-	7.0	-	310	-	3.0	-	990			

Samim Canada Ltd.

DIAMOND DRILL RECORD

HOLE NO.	S-DEB-83-7
PROPERTY	DEB
PROJECT	SPILLIMACHEEN
DISTRICT/ TOWNSHIP	GOLDEN / B.C.
CLAIM NO./ NAME	5 / DEB
GRID NAME	MALACHITE
ELEVATION	
LINE	11 + 50 N
STATION	6 + 80 E

DRILLING CONTRACTOR	DRILCOR
CORE SIZE	BQ
COMMENCED	AUGUST 25th, 1983
COMPLETED	AUGUST 25th, 1983
CASING LEFT IN HOLE	NIL
LENGTH- PROPOSED	
LENGTH- ACHIEVED	58.52 m
BEARING	040°
DIP AT COLLAR	-70°

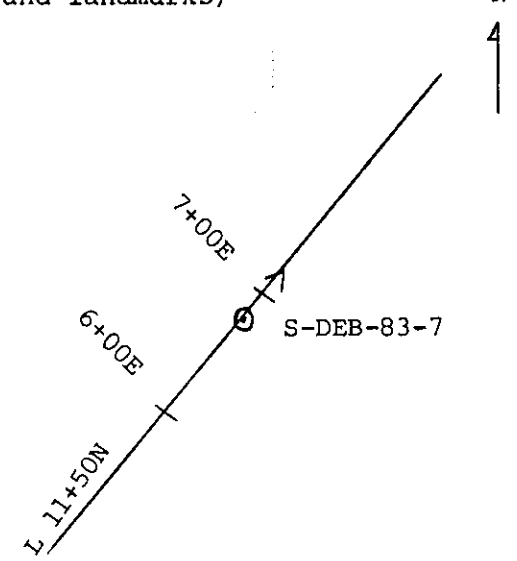
ANGLE TESTS

Technique Acid

Depth	Bearing	Dip	Dip, True
45.72m			-70°

LOCATION SKETCH

(North arrow, scale, claim posts and numbers, distance to post and landmarks)



COMMENTS (1. Reason for hole; depth of target; 2. Contractors performance; 3. Technical performance, recovery etc.; 4. Conclusion on objective; 5. Core location)

1. To undercut Zn mineralization intersected in hole S-DEB-83-6.
2. Good.
3. Good.
4. No significant mineralization was intersected.
5. Okanagan helicopter's base at Golden, B.C.

PROPERTY DEB PAGES: 1 of 8 HOLE NO. S-DEB-83-7

Logged by: S.D. ROBINSON Checked by: _____ No. of Pages: 8 Hole No. S-DEB-83-7

Samim Canada Ltd.

DIAMOND DRILL RECORD

Hole No. : S-DEB-83-7
Page : 2 of 8

METERAGE FROM	METERAGE TO	DESCRIPTION	SAMPLE NUMBER	FROM	TO	LENGTH
0	0.15	Overburden				
0.15	4.45	Quartzite				
		White to light gray very fine grained, massive. The bedding is				
		not apparent. About 15-20% oxidized siderite is present through-				
		out.				
4.45	5.79	Shale				
		Silvery gray beds from 1/2cm to 5cm thick occur interbedded				
		with darker gray to black beds 1 to 2mm	001001	4.54	5.64	1.10
		thick to 1/2cm thick. Locally the rock is finely banded.				
		Crenulation cleavage is dominant in the finely banded sections.				
		Siderite occurs oxidized as well as white specks throughout.				
		A few pyrite cubes occur scattered throughout. Contact at 4.45m -				
		70°.				
		Bedding core axis at 4.88m - 80°; 5.33m - 60°				
		5.61m - 25°.				
5.79	7.62	Quartzite and Shale				
		Light gray, fine grained, massive quartzite with	001002	5.64	7.51	1.87
		0.15m long shale (as 4.45-5.79m) bands. Oxidized siderite occurs				
		throughout. A trace of disseminated pyrite is present.				
		6.55-6,86m. Quartz-carbonate veins, highly broken core.				
7.62	9.81	Quartzite				

Samim Canada Ltd. DIAMOND DRILL RECORD

Hole No. : S-DEB-83-7
Page : 3 of 8

METERAGE FROM	METERAGE TO	DESCRIPTION	SAMPLE NUMBER	FROM	TO	LENGTH
		Light gray, fine grained, massive.	001003	7.51	9.84	2.33
		About 15% oxidized siderite occurs from 7.62-8.53. Bedding is not				
		apparent.				
		Bedding core axis 9.91m - 60°.				
9.81	20.88	Shale				
		Black, fine grained, massive beds often 0.61-0.91m	001004	9.84	11.73	1.89
		thick interbedded darker black bands up to 1/2cm	001005	11.73	14.78	3.05
		thick. About 10-15% disseminated siderite occurs	001006	14.78	16.31	1.53
		as white specks throughout.	001007	16.31	17.83	1.52
		About 1-3% pyrite occurs as disseminated	001008	17.83	19.35	1.52
		cubes 2mm to 5mm across.	001009	19.35	20.95	1.60
		Oxidized fractures are locally present.				
		Bedding C.A. 11.89m - 80°				
		Bedding C.A. 13.72m - 70°				
		14.78-16.31m 0.91m core recovered.				
		14.94-20.88m. The occasional quartz-carbonate vein up to 1/2cm				
		wide is present.				
		16.31-20.88m. Light gray beds 3mm - 1cm wide occur 1cm to 15cm				
		apart in the black shale.				
		Bedding C.A.16.46m - 70°; 17.07m - 60°				
		17.37m - 50°; 20.42m - 85°				
20.88	21.64	Quartzite				
		Light gray, fine grained, massive.	001010	20.95	21.55	0.60

METERAGE FROM	METERAGE TO	DESCRIPTION	SAMPLE NUMBER	FROM	TO	LENGTH
		About 1% disseminated pyrite is present.				
		Bedding C.A. 20.88m - 55°; 21.64m - 60°				
21.64	32.83	Shale				
		Gray shale bands 1cm to 15cm thick occur	001011	21.55	23.35	1.80
		interbedded with black bands 2mm to 1/2cm thick.	001012	23.35	24.90	1.55
		Quartz-siderite blebs and veins up to 1cm	001013	24.90	26.46	1.56
		wide occur at random. The rock is finely	001014	26.46	28.01	1.55
		banded white and dark; over the following intervals	001015	28.01	29.68	1.67
		24.32-24.51m : 24.69-24.78m	001016	29.68	31.21	1.53
		19.05-25.30m : 25.54-25.66m	001017	31.21	32.80	1.59
		1% pyrite occurs as large disseminated cubes.				
		The following are bedding core axis.				
		22.10m - 60° 22.56m - 70°				
		23.32m - 80° 23.77m - 80°				
		25.15m - 75° 25.91m - 70°				
		27.04m - 70° 27.74m - 70°				
		29.72m - 60° 30.91m - 60°				
		31.58m - 50°.				
		31.85-32.83m. Several quartzite beds up to 0.20m long occur with-				
		in the slates.				
32.83	36.18	Limestone				
		Gray, medium to coarse grained, massive.	001018	32.80	34.41	1.61
		1% finely disseminated pyrite occurs throughout.	001019	34.41	36.16	1.75

METERAGE FROM	METERAGE TO	DESCRIPTION	SAMPLE NUMBER	FROM	TO	LENGTH
		The occasional quartz vein 1/2cm wide is present.				
		33.83m. 3mm vein of massive galena occurs in a quartz vein.				
		35.66-35.87m. Shale as 21.64-32.83m.				
		35.87-36.18m. Limestone breccia. Gray, medium grained oolitic				
		limestone with about 20% shale fragments up to 1cm across.				
36.18	42.67	Shale				
		Very dark gray shale occurs in bands from	001020	36.16	37.61	1.45
		1cm to 5cm thick interbedded with black	001021	37.61	40.75	3.14
		bands 2mm to 1/2cm thick. The occasional quartz-carbonate vein	001022	40.75	42.21	1.46
		up to 4mm thick is present. About 1% pyrite occurs as disseminat-				
		ed cubes up to 1cm across is present.				
		36.18-37.8m. Limestone oolites occur in a finely banded				
		calcareous shale. It reacts weakly to moderately with dilute HCL.				
		The following are bedding core-axis angles:				
		38.86m - 70° 39.62m - 70°				
		41.15m - 65° 42.37m - 65°				
42.67	58.52	Shale				
		Silvery gray phyllitic shale occurs in bands	001023	42.21	43.74	1.53
		1/2cm to 5cm thick interbedded with black bands	001024	43.74	45.20	1.46
		2mm to 1/2cm thick. About 10% siderite is	001025	45.20	46.78	1.58
		present as small white blebs.	001026	46.78	48.31	1.53
		The occasional shale section, similar	001027	48.31	49.83	1.52
		to 36.18-42.67m, 0.20m long occurs at random.	001028	49.83	51.35	1.52

METERAGE FROM	METERAGE TO	DESCRIPTION	SAMPLE NUMBER	FROM	TO	LENGTH
		These sections contain about 15%	001029	51.35	52.88	1.53
		white siderite blebs.	001030	52.88	54.40	1.52
		Barren quartz-carbonate veins up to 0.75cm	001031	54.40	55.92	1.52
		wide occur at random.	001032	55.92	56.84	0.92
		The following are bedding core axis angles:	001033	56.84	58.50	1.66
		43.89m - 70° 44.81m - 60° 46.63m - 70°				
		47.85m - 60° 49.38m - 60° 50.60m - 85°				
		52.12m - 80° 53.04m - 65° 54.25m - 70°				
		55.78m - 65° 56.99m - 80° 58.22m - 60°				
58.52		END OF HOLE				

Samim Canada Ltd.

DIAMOND DRILL ANALYSIS RECORD

Hole No. : S-DEB-83-7

SAMPLE NUMBER	FROM	TO	LENGTH	Pb ppm	Zn ppm	Ag ppm
001001	4.54	5.64	1.10	24	109	.6
001002	5.64	7.51	1.87	23	66	.3
001003	7.51	9.84	2.33	24	49	.4
001004	9.84	11.73	1.89	27	80	.3
001005	11.73	14.78	3.05	189	162	.8
001006	14.78	16.31	1.53	36	119	nd
001007	16.31	17.83	1.52	24	81	nd
001008	17.83	19.35	1.52	34	88	.1
001009	19.35	20.95	1.60	32	79	.1
001010	20.95	21.55	0.60	67	63	.5
001011	21.55	23.35	1.80	16	68	.2
001012	23.35	24.90	1.55	25	95	.2
001013	24.90	26.46	1.56	22	91	.2
001014	26.46	28.01	1.55	30	94	.5
001015	28.01	29.68	1.67	2490	3380	8.6
001016	29.68	31.21	1.53	204	730	.8
001017	31.21	32.80	1.59	56	51	.5
001018	32.80	34.41	1.61	149	11	.5
001019	34.41	36.16	1.75	99	30	1.5
001020	36.16	37.61	1.45	51	49	.5
001021	37.61	40.75	3.14	31	111	.4
001022	40.75	42.21	1.46	24	86	.3
001023	42.21	43.74	1.53	35	85	.3
001024	43.74	45.20	1.46	36	99	.4

Samim Canada Ltd.

DIAMOND DRILL ANALYSIS RECORD

Hole No. : S-DEB-83-7
Page : 8 of 8

SAMPLE NUMBER	FROM	TO	LENGTH	Pb	Zn	Ag
				ppm	ppm	ppm
001025	45.20	46.78	1.58	35	104	nd
001026	46.78	48.31	1.53	32	101	nd
001027	48.31	49.83	1.52	39	95	.2
001028	49.83	51.35	1.52	31	89	.1
001029	51.35	52.88	1.53	37	101	.3
001030	52.88	54.40	1.52	24	89	.2
001031	54.40	55.92	1.52	29	91	.1
001032	55.92	56.84	0.92	27	92	nd
001033	56.84	58.50	1.66	36	88	.4

Samim Canada Ltd.

DIAMOND DRILL RECORD

HOLE NO.	S-DEB-83-8
PROPERTY	DEB
PROJECT	SPILLIMACHEEN
DISTRICT/ TOWNSHIP	GOLDEN / B.C.
CLAIM NO./ NAME	5 / DEB
GRID NAME	MALACHITE
ELEVATION	
LINE	12 + 63 N
STATION	6 + 90 E

DRILLING CONTRACTOR	DRILCOR
CORE SIZE	BQ
COMMENCED	AUGUST 26th, 1983
COMPLETED	AUGUST 26th, 1983
CASING LEFT IN HOLE	NIL
LENGTH- PROPOSED	
LENGTH- ACHIEVED	49.53 m
BEARING	040°
DIP AT COLLAR	-55°

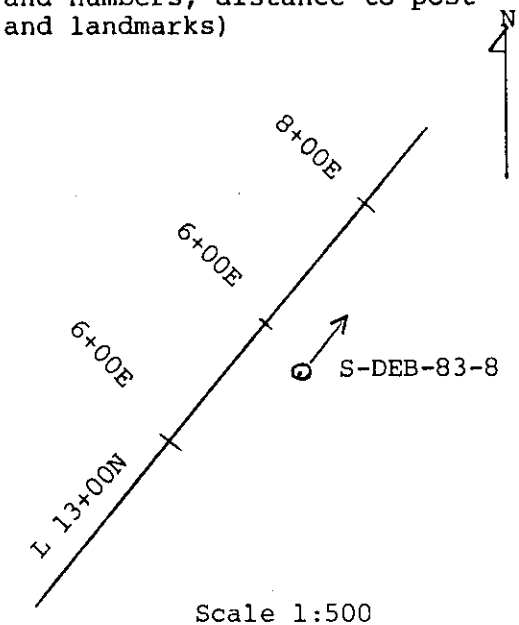
ANGLE TESTS

Technique: Acid

Depth	Bearing	Dip	Dip, True
45.72m			-55°

LOCATION SKETCH

(North arrow, scale, claim posts and numbers, distance to post and landmarks)



COMMENTS (1. Reason for hole; depth of target; 2. Contractors performance; 3. Technical performance, recovery etc.; 4. Conclusion on objective; 5. Core location)

1. To test a Pb, Zn showing.
2. Good.
3. Good.
4. No significant mineralization was intersected.
5. Okanagan helicopter's base at Golden, B.C.

PROPERTY DEB PAGES: 1 of 6 HOLE NO. S-DEB-83-8

Logged by: S.D. ROBINSON Checked by: No. of Pages: 6 Hole No. S-DEB-83-8

Samim Canada Ltd. DIAMOND DRILL RECORD

Hole No. : S-DEB-83-8
Page : 2 of 6

METERAGE FROM	METERAGE TO	DESCRIPTION	SAMPLE NUMBER	FROM	TO	LENGTH
0	2.13	Overburden				
2.13	7.01	Shale				
		Dark gray, fine grained massive beds of	001112	2.13	3.96	1.83
		uncertain thickness due to oxidation and weathering.	001113	3.96	4.97	1.01
		It is interbedded with black beds 2mm to 1/2cm thick.	001114	4.97	6.49	1.52
			001115	6.49	7.90	1.41
7.01	10.30	Shale-Quartzite-Limestone				
		7.01-7.92m. Gray shale in beds up to 5cm	001116	7.90	8.37	0.47
		thick occurs interbedded with black beds	001117	8.37	9.54	1.17
		up to 1/2cm thick.	001118	9.54	9.91	0.37
		7.35-7.44m. Oxidized calcareous grit.	001119	9.91	10.34	0.43
		7.92-8.53m. Shale and limestone.				
		The shale is gray fine grained massive. The limestone is gray				
		microcrystalline massive. They occur interbedded and are oxidized.				
		8.53-9.57m. Shale. A section of fine grained massive shale with				
		quartz particles and associated pressure shadows occurs within a				
		section of interbedded light and dark shale beds 4mm to 1.5cm thick.				
		7.92-9.57m. 1-3% pyrite occurs disseminated in cubes up to 1cm				
		across.				
		9.57-9.85m. Quartzite (Grit)				
		Light gray, fine to medium grained, massive quartzitic grit. It is				
		calcareous and reacts weakly with dilute HCL. About 2% siderite is				
		present.				

METERAGE FROM	METERAGE TO	DESCRIPTION	SAMPLE NUMBER	FROM	TO	LENGTH
		Contact at 9.85m is flat with a core axis of 45°.				
		9.85-10.30m. Quartzite, grit.				
		White, medium grained massive with some interbedded shale.				
10.30	18.75	Shale				
		Gray, fine grained massive beds 1/2cm to locally	001120	10.34	11.98	1.64
		10cm thick occur interbedded with black beds	001121	11.98	13.78	1.80
		up to 1cm long.	001122	13.78	15.05	1.27
		The shale has sections 1 metre thick with	001123	15.05	16.15	1.10
		about 5% quartz particles and associated pressure	001124	16.15	17.28	1.13
		shadows as well as interbedded discontinuous	001125	17.28	18.90	1.62
		black beds up to 3/4cm thick. Locally 50% quartz particles occur				
		in bands up to 2cm thick. 3-5% pyrite occurs disseminated through-				
		out. 10-20% siderite is present.				
		13.78-18.75m. A few calcareous fragments occur in the shale. The				
		following bedding core axis angles when compared with cleavage				
		indicate shallow dipping beds:				
		12.50m - 40° 16.15m - 45°.				
18.75	31.09	Shale				
		Medium gray shale in bands generally not over	001126	18.90	20.42	1.52
		2cm thick occur interbedded with lighter gray shale	001127	20.42	22.50	2.08
		beds up to 1/2cm thick. Black beds up to 3mm	001128	22.50	23.35	0.85
		thick are present in the medium gray shale. The beds are wavy and				
		highly contorted and crenulated. The following bedding core axis				

METERAGE FROM	METERAGE TO	DESCRIPTION	SAMPLE NUMBER	FROM	TO	LENGTH
		angles when compared with the cleavage indicate shallow dipping				
		beds:				
		18.90m - 80° 20.27m - 80° 20.88m - 70°				
		21.18m - 65° 21.76m - 85° 21.95m - 50°				
		22.10m - 75° 22.86m - 60° 24.08m - 60°				
		24.38m - 85° 24.69m - 40° to 70° 24.99m - 75°				
		24.91m - 85° 26.52m - 65° 27.43m - 65°				
		28.19m - 50° 29.41m - 60° 29.72m - 70°				
		29.87m -small fold 30.02m - 60°				
31.09	32.83	Shale and Grit (quartzite)				
		Gray, medium grained massive quartzite (grit) with wispy black				
		shale laminae.				
32.83	49.53	Shale				
		Medium to dark gray shale in beds less than 1cm up to 0.46m thick				
		but generally less than 0.30m thick occurs interbedded with light				
		gray shale beds 2mm up to 5cm thick but generally less than 3cm				
		thick. The beds are wavy, highly contorted and crenulated.				
		Quartz-carbonate blebs and veinlets generally less than 3mm but				
		occasionally up to 1cm thick occur at random throughout.				
		The occasional pyrite cube up to 1cm across is present. The				
		following bedding core axis angles when related to the cleavage				
		core axis angle indicate shallow dipping beds:				

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DIAMOND DRILL RECORD

Hole No. : S-DEB-83-8
Page : 5 of 6

METERAGE FROM	METERAGE TO	DESCRIPTION	SAMPLE NUMBER	FROM	TO	LENGTH
		35.05m - 45° 35.36m - 60° 36.58m - 40°				
		36.88m - 40° 38.40m - 55° 39.62m - 40°				
		40.39m - 50° 42.00m - 45° 43.28m - 50°				
		45.42m - 0° to 90° 48.16m - 60° 49.38m - 40°				
49.53		END OF HOLE				

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DIAMOND DRILL ANALYSIS RECORD

Hole No. : S-DEB-83-8
Page : 6 of 6

SAMPLE NUMBER	FROM	TO	LENGTH	Pb ppm	Zn ppm	Ag ppm									
001112	2.13	3.96	1.83	19	79	.4									
001113	3.96	4.97	1.01	39	131	.2									
001114	4.97	6.49	1.52	70	162	.5									
001115	6.49	7.90	1.41	238	860	.5									
001116	7.90	8.37	0.47	97	204	.1									
001117	8.37	9.54	1.17	36	121	.4									
001118	9.54	9.91	0.37	29	31	nd									
001119	9.91	10.34	0.43	35	56	.2									
001120	10.34	11.98	1.64	76	112	nd									
001121	11.98	13.78	1.80	45	90	.1									
001122	13.78	15.05	1.27	38	69	nd									
001123	15.05	16.15	1.10	44	76	.1									
001124	16.15	17.28	1.13	42	75	.3									
001125	17.28	18.90	1.62	30	92	.1									
001126	18.90	20.42	1.52	14	106	.2									
001127	20.42	22.50	2.08	22	119	nd									
001128	22.50	23.35	0.85	30	112	nd									

Samim Canada Ltd.

DIAMOND DRILL RECORD

HOLE NO.	S-DEB-83-9
PROPERTY	DEB
PROJECT	SPILLIMACHEEN
DISTRICT/ TOWNSHIP	GOLDEN / B.C.
CLAIM NO./ NAME	5 / DEB
GRID NAME	MALACHITE
ELEVATION	
LINE	21+40N
STATION	5+10E

DRILLING CONTRACTOR	DRILCOR
CORE SIZE	BQ
COMMENCED	AUGUST 27th, 1983
COMPLETED	AUGUST 27th, 1983
CASING LEFT IN HOLE	NIL
LENGTH- PROPOSED	
LENGTH- ACHIEVED	48.46 m
BEARING	040°
DIP AT COLLAR	-50°

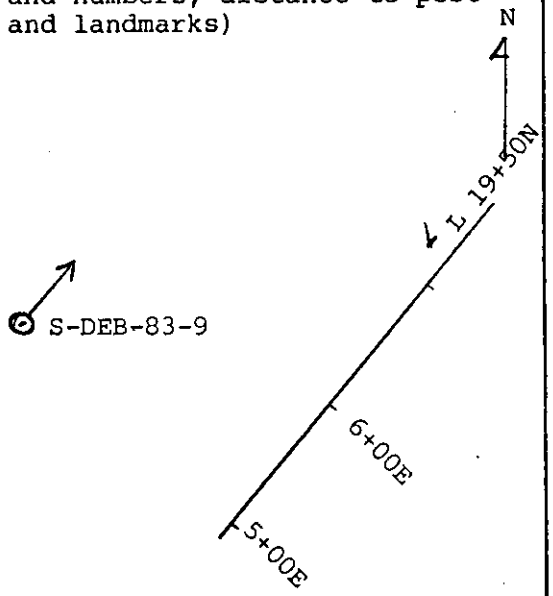
ANGLE TESTS

Technique: Acid

Depth	Bearing	Dip	Dip, True
45.72m			-50°

LOCATION SKETCH

(North arrow, scale, claim posts and numbers, distance to post and landmarks)



COMMENTS (1. Reason for hole; depth of target; 2. Contractors performance; 3. Technical performance, recovery etc.; 4. Conclusion on objective; 5. Core location)

1. To test the adit showing.

2. Good.

3. Good.

4. No significant mineralization was intersected.

5. Okanagan helicopter's base at Golden, B.C.

PROPERTY DEB PAGES: 1 of 6 HOLE NO. S-DEB-83-9

Logged by: S.D. ROBINSON Checked by: _____ No. of Pages: 6 Hole No. S-DEB-83-9

METERAGE FROM	METERAGE TO	DESCRIPTION	SAMPLE NUMBER	FROM	TO	LENGTH
0	1.07	Overburden				
1.07	21.34	Shale				
		Medium gray shale in bands less than 1cm to 5cm (average about				
		1-3cm) thick occurs interbedded with black shale bands several				
		millimetres to 1/2cm thick. The rock is characterized with a very				
		monotonous planar bedding.				
		1 to 2cm thick bands of lighter gray calcareous rock occurs at				
		random in the shale. About 5% disseminated siderite occurs				
		locally as white blebs.				
		1.68-1.83m. Oxidized section 40-60% brown siderite.				
		10.85-11.89m. 0.76m of core was recovered.				
		The following are bedding core axis angles:				
		1.83m - 70° 2.44m - 65° 3.51m - 70°				
		4.57m - 70° 5.70m - 70° 8.05m - 65°				
		9.20m - 65° 10.36m - 70° 12.34m - 70°				
		14.17m - 70° 15.64m - 65° 16.61m - 65°				
		18.14m - 60° 19.81m - 70° 20.73m - 70°				
21.34	25.91	Shale				
		Very dark gray shale bands 1cm to 10cm (generally				
		5cm or less) thick occur interbedded with	001129	21.34	22.55	1.21
		thin black bands 2mm to 1/2cm thick.	001130	22.55	24.08	1.53
		15-20% white siderite blebs occur throughout.	001131	24.08	25.60	1.52

METERAGE FROM	METERAGE TO	DESCRIPTION	SAMPLE NUMBER	FROM	TO	LENGTH
		Quartz-carbonate veinlets occur rarely. The occasional calcareous				
		band up to 2cm this is present. Less than 1% disseminated pyrite				
		is present throughout.				
		The following are bedding core axis angles:				
		22.46m - 70° 24.08m - 70° 25.79m - 70°				
25.91	29.02	Shale				
		As 1.07-21.34m.	001132	25.60	27.13	1.53
		27.28-27.43m. Highly oxidized	001133	27.13	28.65	1.52
			001134	28.65	30.18	1.53
29.02	32.46	Shale				
		As 21.34-25.91m.				
		29.93-30.18m and 31.55-32.46m. These	001135	30.18	31.70	1.52
		intervals contain several medium gray bands about 15cm long of	001136	31.70	32.42	0.72
		fine to medium grained massive slaty limestone. It reacts weakly				
		to moderately with dilute HCL.				
		The following are bedding core axis angles:				
		29.26m - 70° 30.48m - 70° 31.85m - 60°				
32.46	38.53	Limestone				
		32.46-38.90m. Light to medium gray, fine to	001137	32.42	33.22	0.80
		medium grained, massive. It reacts strongly	001138	33.22	34.15	0.93
		with dilute HCL.	001139	34.15	34.75	0.60

METERAGE FROM	METERAGE TO	DESCRIPTION	SAMPLE NUMBER	FROM	TO	LENGTH
		Bedding core axis 32.77m - 60°	001140	34.75	36.30	1.55
		34.14-34.59m. About 30% shale occurs	001141	36.30	37.80	1.50
		interbedded with the limestone.	001142	37.80	39.20	1.40
		34.90-38.53m. Black very fine grained limestone. It reacts				
		strongly with dilute HCL. Interbedded are 2 to 5cm thick bands of				
		wavy banded limestone containing about 40 to 70% white calcite				
		fragments up to 5mm across. Less than 1% disseminated pyrite is				
		present.				
		The following are bedding core axis angles:				
		34.99m - 70° 36.52m - 70° 37.76m - 70°				
		37.89-38.19m. Highly oxidized section.				
38.53	43.37	Shale				
		Light gray, fine grained, massive, very homogeneous	001143	39.20	40.84	1.64
			001144	40.84	42.37	1.53
43.37	44.20	Shale	001145	42.37	43.42	1.05
		Interbedded medium gray and black shale beds	001146	43.42	44.07	0.65
		each about 5cm thick. 5% white siderite blebs are present locally.				
44.20	48.46	Shale and Limestone				
		Black very fine grained massive limestone beds	001147	44.07	45.42	1.35
		0.30 to 0.61m thick containing less than 1% disseminated	001148	45.42	45.77	0.35
		pyrite occur interbedded with black non-calcareous	001149	45.77	46.70	0.93
		nearly phyllitic shale beds 15cm to 0.46m thick	001150	46.70	46.94	0.24

Samim Canada Ltd. DIAMOND DRILL RECORD

Hole No. : S-DEB-83-9
Page : 5 of 6

METERAGE FROM	METERAGE TO	DESCRIPTION	SAMPLE NUMBER	FROM	TO	LENGTH
		containing 50% white quartz particles up to 5mm	001151	46.94	47.30	0.36
		by 3mm (generally about 2mm x 2mm) and 1 to 3%	001152	47.30	48.46	1.16
		disseminated pyrite in cubes up to 1/2cm across.				
		47.18-47.30m. Quartz-carbonate veins up to 4cm thick are present.				
		The following are bedding core axis angles:				
		45.26m - 60° 46.94m - 70° 47.61m - 70°				
48.46		END OF HOLE				

Samim Canada Ltd.

DIAMOND DRILL ANALYSIS RECORD

Hole No. : S-DEB-83-9
Page : 6 of 6

SAMPLE NUMBER	FROM	TO	LENGTH	Pb	Zn	Ag
				ppm	ppm	ppm
001129	21.34	22.55	1.21	39	116	nd
001130	22.55	24.08	1.53	35	111	nd
001131	24.08	25.60	1.52	44	118	nd
001132	25.60	27.13	1.53	25	97	nd
001133	27.13	28.65	1.52	68	136	.1
001134	28.65	30.18	1.53	26	110	nd
001135	30.18	31.70	1.52	34	101	.1
001136	31.70	32.42	0.72	35	89	nd
001137	32.42	33.22	0.80	49	37	nd
001138	33.22	34.15	0.93	44	39	.3
001139	34.15	34.75	0.60	43	61	nd
001140	34.75	36.30	1.55	61	57	nd
001141	36.30	37.80	1.50	55	49	.1
001142	37.80	39.20	1.40	24	121	nd
001143	39.20	40.84	1.64	24	63	.2
001144	40.84	42.37	1.53	45	109	nd
001145	42.37	43.42	1.05	31	122	nd
001146	43.42	44.07	0.65	29	133	.1
001147	44.07	45.42	1.35	57	81	.1
001148	45.42	45.77	0.35	58	79	nd
001149	45.77	46.70	0.93	86	148	nd
001150	46.70	46.94	0.24	55	87	nd
001151	46.94	47.30	0.36	99	62	nd
001152	47.30	48.46	1.16	65	89	.1

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DIAMOND DRILL RECORD

HOLE NO.	S-DEB-83-10	DRILLING CONTRACTOR	DRILCOR
PROPERTY	DEB	CORE SIZE	BQ
PROJECT	SPILLIMACHEEN	COMMENCED	AUGUST 28th, 1983
DISTRICT/ TOWNSHIP	GOLDEN / B.C.	COMPLETED	AUGUST 28th, 1983
CLAIM NO./ NAME	5 / DEB	CASING LEFT IN HOLE	NIL
GRID NAME	MALACHITE	LENGTH- PROPOSED	
ELEVATION		LENGTH- ACHIEVED	50.29 m
LINE	21+10N	BEARING	040°
STATION	5+10E	DIP AT COLLAR	-50°

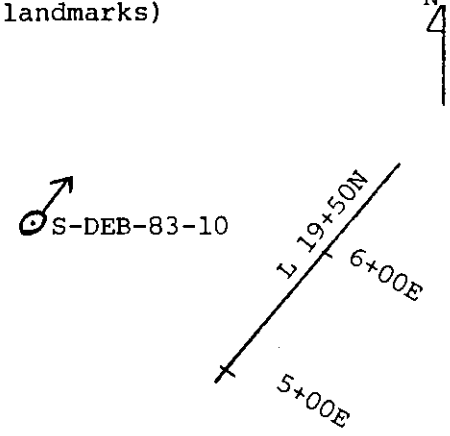
ANGLE TESTS

Technique Acid

Depth	Bearing	Dip	Dip, True
45.72m			-50°

LOCATION SKETCH

(North arrow, scale, claim posts and numbers, distance to post and landmarks)



Scale 1:500

COMMENTS (1. Reason for hole; depth of target; 2. Contractors performance; 3. Technical performance, recovery etc.; 4. Conclusion on objective; 5. Core location)

1. To intersect the adit showing along strike.
2. Good.
3. Good.
4. Mineralized Quartz-carbonate vein was intersected.
5. Okanagan helicopter's base at Golden, B.C.

PROPERTY DEB PAGES: 1 of 7 HOLE NO. S-DEB-83-10

Logged by: S.D. ROBINSON Checked by: _____ No. of Pages: 7 Hole No. S-DEB-83-10

METERAGE FROM	METERAGE TO	DESCRIPTION	SAMPLE NUMBER	FROM	TO	LENGTH
0	0.91	Overburden				
0.91	33.28	Shale				
		Gray shale, in bands 3mm to 5cm thick (generally less than 4cm				
		thick) occurs interbedded with thin black beds 2mm to 1/2cm thick.				
		Quartz-carbonate veinlets and blebs occur locally. 10-20% siderite				
		occurs as white blebs throughout, locally giving the rock a mottled				
		appearance. 1-3% disseminated pyrite is present.				
		0.91-7.32m. Localized oxidation is common.				
		17.86-18.01m. Quartz-carbonate vein.				
		17.62-18.07m. Oxidized section associated with the quartz-				
		carbonate vein.				
		Based on bedding-cleavage relationships the following bedding-core				
		axis angles indicate steeply dipping beds.				
		2.96m - 75° 4.75m - 70° 6.34m - 70°				
		7.92m - 70° 9.14m - 65° 10.39m - 60°	001166	30.48	32.00	1.52
		11.89m - 70° 12.80m - 70° 13.72m - 65°	001167	32.00	33.28	1.28
		14.94m - 65° 16.46m - 65° 18.29m - 65°				
		19.51m - 60° 21.02m - 65° 22.55m - 70°				
		24.08m - 70° 27.13m - 70° 28.35m - 70°				
		30.18m - 70° 31.70m - 70° 32.77m - 70°				
33.28	33.59	Quartz-Carbonate				
		Vein containing about 15% arsenopyrite and 10% galena				

Samim Canada Ltd. DIAMOND DRILL RECORD

Hole No. : S-DEB-83-10
Page : 3 of 7

METERAGE FROM	METERAGE TO	DESCRIPTION	SAMPLE NUMBER	FROM	TO	LENGTH
33.59	33.86	Massive Sulphide	001199	33.28	33.86	0.58
		50% arsenopyrite and 20% galena occur within 30% shale and quartz-				
		carbonate.				
33.86	37.64	Shale				
		As 0.91-33.22m.				
		Pyrite occurs in veins 1-3mm wide at intervals	001168	33.86	34.83	0.97
		of 1 to 10cm apart.	001169	34.83	36.58	1.75
		33.86-34.90m. Oxidized fractures.	001170	36.58	37.49	0.91
		The following bedding-core axis are of steeply dipping beds:				
		34.75m - 65° 36.27m - 70° 37.19m - 60°				
37.64	38.86	Quartzite and Shale				
		The quartzite is light gray, fine to medium	001171	37.49	39.00	1.51
		grained and massive. It may possibly be a dolomite(?).				
		38.34-38.47m. Shale As 0.91-33.22m.				
38.86	39.68	Limestone				
		Light gray, microcrystalline, massive. It reacts	001172	39.00	39.67	0.67
		strongly with dilute HCL.				
39.68	40.08	Shale				
		Dark, fine grained shale. Quartz particles and	001173	39.67	40.05	0.38
		associated pressure shadows occur throughout. Several light gray				

METERAGE FROM	METERAGE TO	DESCRIPTION	SAMPLE NUMBER	FROM	TO	LENGTH
		shale bands 1 to 1.5cm wide are present. 1-3% disseminated pyrite				
		cubes are present.				
40.08	44.87	Limestone				
		40.08-40.48m. As 38.86-39.68m.				
		40.48-40.99m. Light-medium gray fine grained	001174	40.05	41.15	1.10
		(microcrystalline) massive limestone with the occasional 5cm long	001175	41.15	42.67	1.52
		section of light gray, coarse grained, wavy	001176	42.67	44.20	1.53
		banded limestone that reacts strongly with dilute HCL.	001177	44.20	44.82	0.62
		1-3% disseminated pyrite is present. Bedding C.A. 40.48m - 70°.				
		40.99-42.67m Interbedded medium gray, fine to medium grained				
		massive limestone beds 10 to 20cm thick and beds 4cm thick of light				
		gray coarse grained wavy banded limestone. 1-3% disseminated				
		pyrite occurs throughout.				
		42.67-44.87m. Black very fine grained massive limestone with a few				
		quartz grains and associated pressure shadows. About 1%				
		disseminated pyrite occurs in elongated cubes associated with				
		pressure shadows. The occasional grit section, consisting of				
		quartz with a calcareous matrix, about 4cm long is present.				
		43.13-43.19m. Quartz-carbonate vein.				
		Bedding C.A. 43.59m - 75°				
		Bedding C.A. 43.92m - 75°				

Samim Canada Ltd.

DIAMOND DRILL RECORD

Hole No. : S-DEB-83-10
Page : 5 of 7

METERAGE FROM	METERAGE TO	DESCRIPTION	SAMPLE NUMBER	FROM	TO	LENGTH
44.87	50.29	Quartzitic Shale				
		Medium gray, fine grained quartzite with a	001178	44.82	45.72	0.90
		slaty cleavage. Black, fine grained shale beds	001179	45.72	47.24	1.52
		1/2 - 2cm thick occur very rarely.	001180	47.24	48.77	1.53
		Bedding C.A. 49.0m - 70°	001181	48.77	50.29	1.52
		49.99 -50.02m. Quartz-carbonate vein.				
50.29		END OF HOLE				

Samim Canada Ltd.

DIAMOND DRILL ANALYSIS RECORD

Hole No. : S-DEB-83-10
Page : 6 of 7

SAMPLE NUMBER	FROM	TO	LENGTH	Pb	Zn	Ag									
				ppm	ppm	ppm									
001166	30.48	32.00	1.52	25	89	.1									
001167	32.00	33.28	1.28	34	165	.1									
001199	33.28	33.86	0.58												
001168	33.86	34.83	0.97	340	860	.9									
001169	34.83	36.58	1.75	26	105	nd									
001170	36.58	37.49	0.91	23	118	nd									
001171	37.49	39.00	1.51	45	92	nd									
001172	39.00	39.67	0.67	41	16	nd									
001173	39.67	40.05	0.38	34	94	nd									
001174	40.05	41.15	1.10	48	45	nd									
001175	41.15	42.67	1.52	46	52	nd									
001176	42.67	44.20	1.53	56	61	nd									
001177	44.20	44.82	0.62	39	72	nd									
001178	44.82	45.72	0.90	25	125	.1									
001179	45.72	47.24	1.52	25	103	nd									
001180	47.24	48.77	1.53	24	74	nd									
001181	48.77	50.29	1.52	22	121	nd									

Samim Canada Ltd.

DIAMOND DRILL ANALYSIS RECORD

Hole No. : S-DEB-83-10
Page : 7 of 7

SAMPLE NUMBER	FROM	TO	LENGTH	Au	Au	Cu	Cu	Zn	Zn	Ag	Ag	Pb	Pb		
				ppb	oz/t	ppm	%	ppm	%	ppm	oz/t	ppm	%		
001199	33.28	33.86	0.58	-	0.089	-	0.02	-	2.43	-	0.32	-	0.20		
				Sb	As	Ga	Hg	Mo	Sn	W					
				ND	M	FT	ND	FT	FT	ND					

Samim Canada Ltd.

DIAMOND DRILL RECORD

HOLE NO.	S-DEB-83-11
PROPERTY	DEB
PROJECT	SPILLIMACHEEN
DISTRICT/ TOWNSHIP	GOLDEN / B.C.
CLAIM NO./ NAME	5 / DEB
GRID NAME	MALACHITE
ELEVATION	
LINE	21+10N
STATION	5+10E

DRILLING CONTRACTOR	DRILCOR
CORE SIZE	BQ
COMMENCED	AUGUST 29th, 1983
COMPLETED	AUGUST 29th, 1983
CASING LEFT IN HOLE	NIL
LENGTH- PROPOSED	
LENGTH- ACHIEVED	58.22 m
BEARING	040°
DIP AT COLLAR	-70°

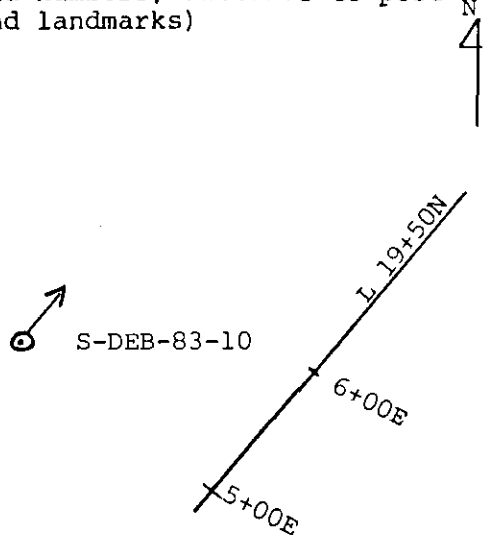
ANGLE TESTS

Technique Acid

Depth	Bearing	Dip	Dip, True
45.72m			-70°

LOCATION SKETCH

(North arrow, scale, claim posts and numbers, distance to post and landmarks)



Scale 1:500

COMMENTS (1. Reason for hole; depth of target; 2. Contractors performance; 3. Technical performance, recovery etc.; 4. Conclusion on objective; 5. Core location)

1. To undercut the mineralized quartz-carbonate vein intersected in hole S-DEB-83-10.
2. Good.
3. Good.
4. No significant mineralization was intersected.
5. Okanagan helicopter's base at Golden, B.C.

PROPERTY DEB PAGES: 1 of 6 HOLE NO. S-DEB-83-11

Logged by: S.D. ROBINSON Checked by: _____ No. of Pages: 6 Hole No. S-DEB-83-11

METERAGE FROM	METERAGE TO	DESCRIPTION	SAMPLE NUMBER	FROM	TO	LENGTH
0	0.91	Overburden				
0.91	39.62	Shale				
		Gray, fine grained beds 1cm to 10cm thick (generally 1-3cm thick)				
		occur interbedded with thin black beds 3mm - 1/2cm thick. The				
		beds are very planar. Calcareous bands up to 2cm wide occur at				
		random throughout. 10-20% siderite occurs as white blebs through-				
		out giving the rock a mottled appearance locally.				
		0.91-7.32m. 20% oxidized siderite occurs throughout.				
		The following bedding-core axis angles indicate that the beds				
		have a steep dip.				
		3.2m - 50° 5.49m - 50° 7.92m - 50°				
		8.84m - 45° 10.61m - 40° 11.89m - 50°				
		16.46m - 40° 19.05m - 50° 21.95m - 40°				
		24.68m - 45° 26.21m - 45° 28.86m - 45°				
		31.39m - 40° 32.92m - 45° 35.66m - 45°				
		38.71m - 45°.				
		12.50m-16.73m. Only 1.19m of core are present. The rock does not				
		appear to have been ground . Possibly a marking error exists, and				
		if so all subsequent meterage notations are 3.05m too high.				
39.62	53.74	Shale				
		The shale is similar to that of 0.91-39.62m	001153	42.98	44.50	1.52
		but darker in colour and 15-20% siderite blebs	001154	44.50	46.02	1.52
		are very evident.	001155	46.02	46.90	0.88

METERAGE FROM	METERAGE TO	DESCRIPTION	SAMPLE NUMBER	FROM	TO	LENGTH
		47.91-48.16m. Quartz-carbonate veins about 1cm thick with blebs				
		of galena are present.				
		The following bedding-core axis indicate	001156	46.90	47.91	1.01
		that the beds have a steep dip, when	001200	47.91	48.16	0.25
		related to observed bedding/cleavage relationships	001157	48.16	49.94	1.78
		41.15m - 40° 43.07m - 45° 44.44m - 40°	001158	49.94	51.45	1.51
		48.46m - 45° 49.68m - 40° 51.51m - 50°	001159	51.45	53.03	1.58
		52.73m - 50°.	001160	53.03	54.24	1.21
53.74	53.89	Limestone				
		Gray, microcrystalline, massive.				
53.89	54.13	Shale				
		As 39.62-53.74m.				
		53.95m - Bedding core axis - 45°.				
54.13	56.39	Limestone				
		As 53.74-53.89m.	001161	54.24	54.61	0.37
		1-3% finely disseminated pyrite occurs throughout.	001162	54.61	55.17	0.56
		The rock is foliated. C.A. 56.39 - 40°.	001163	55.17	56.40	1.23
56.39	57.61	Limestone				
		Gray foliated slaty limestone beds 5-10cm	001164	56.40	57.53	1.13
		thick occur interbedded with light gray medium grained wavy banded				

METERAGE FROM	METERAGE TO	DESCRIPTION	SAMPLE NUMBER	FROM	TO	LENGTH
		limestone beds about 2-5cm thick. About 1% pyrite occurs as				
		disseminated cubes throughout.				
57.61	58.22	Limestone				
		Dark gray to black foliated limestone with the	001165	57.53	58.21	0.68
		occasional calcite crystal at random. Pressure shadows are				
		commonly associated with the calcite crystals. About 1% dissemin-				
		ated pyrite occurs throughout.				
		57.91m. Bedding core axis 35°.				
58.22		END OF HOLE				

Samim Canada Ltd.

DIAMOND DRILL ANALYSIS RECORD

Hole No. : S-DEB-83-11
Page : 5 of 6

SAMPLE NUMBER	FROM	TO	LENGTH	Pb ppm	Zn ppm	Ag ppm									
001153	42.98	44.50	1.52	31	113	nd									
001154	44.50	46.02	1.52	30	100	nd									
001155	46.02	46.90	0.88	16	81	nd									
001156	46.90	47.91	1.01	2090	1140	5.3									
001200	47.91	48.16	0.25												
001157	48.16	49.94	1.78	32	98	nd									
001158	49.94	51.45	1.51	39	134	nd									
001159	51.45	53.03	1.58	33	123	nd									
001160	53.03	54.24	1.21	35	109	nd									
001161	54.24	54.61	0.37	79	119	.2									
001162	54.61	55.17	0.56	48	36	nd									
001163	55.17	56.40	1.23	41	135	nd									
001164	56.40	57.53	1.13	41	96	nd									
001165	57.53	58.21	0.68	49	51	.1									

DIAMOND DRILL ANALYSIS RECORD

SAMPLE NUMBER	FROM	TO	LENGTH	Au	Au	Cu	Cu	Zn	Zn	Ag	Ag	Pb	Pb		
				ppb	oz/t	ppm	%	ppm	%	ppm	oz/t	ppm	%		
001200	47.91	48.16	0.25	23	-	130	-	>4000	5.05	17.0	-	>4000	2.47		
				Sb	As	Ga	Hg	Mo	Sn	W					SUM
				ND	ND	FT	ND	ND	FT	ND					76.8
				SiO_2	Al_2O_3	CaO	MgO	Na_2O	K_2O	Fe_2O_3	MnO	TiO_2	P_2O_5	Cr_2O_3	LOI
				37.9	9.61	8.26	2.97	1.59	1.56	6.35	0.20	0.27	0.05	<0.01	8.00

APPENDIX L

Statements of Qualifications

CERTIFICATE OF QUALIFICATIONS

I, T.J. Bottrill, hereby certify that:

1. I am a consulting geologist, residing at 192 Weldon Avenue, Oakville, Ontario L6K 2H8.

2. During completion of the 1983 program of Samim Canada Ltd. on the DEB Claims, I was employed by Samim Canada Ltd. as Chief Geologist.

3. I am a graduate of Leicester University (B.Sc. Hons. Combined Sciences, Upper 2nd Class Honours, 1968).

4. I am a Fellow of the Geological Association of Canada, and a Member of the Canadian Institute of Mining and Metallurgy. I am a Registered Professional Engineer of the Province of Ontario.

5. I have practised my profession as a geologist for 15 years.

6. The information, opinions and recommendations in the attached report are based on personal familiarity with the property and direction of the program described in this report.

Signed _____
T.J. Bottrill

Dated at Toronto, this 15th day of December, 1983

ATTESTATION OF QUALIFICATIONS

I, JOHN A. McCANCE of the Borough of North York, Metropolitan Toronto, Province of Ontario do hereby certify:

1. That I am a geophysicist and reside at 113 Hendon Avenue, Willowdale, Ontario.

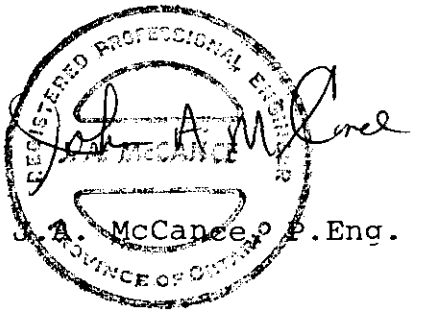
2. That I graduated from Queen's University at Kingston in 1970 with a Bachelor of Science degree, Faculty of Applied Science and have completed post-graduate training at the University of Western Ontario, London.

3. That I am a member of the Association of Professional Engineers of the Province of Ontario (Mining Branch) and the British Columbia Geophysical Society.

4. That I have been practising my profession for a period of eleven years.

5. That I am employed by Samim Canada Ltd. as a Chief Geophysicist.

6. That the statements made in this report are based upon direct field supervisory activities and a study of unpublished private reports.



December 15th, 1983

J.A. McCance, P.Eng.

ATTESTATION OF QUALIFICATION

I, Stanley D. Robinson of North York, Metropolitan Toronto, Province of Ontario hereby certify that:

1. I am a geologist and reside at 29 Silverton Ave., Downsview, Ontario.

2. I graduated from Sir George Williams University at Montreal in 1971 with a B.Sc. degree in geology and then I graduated from the University of Ottawa in 1974 with a M.Sc. degree in geology.

3. I have worked as a geologist continuously since 1974.

4. I am a member of the Geological Association of Canada, the Canadian Institute of Mining and Metallurgy and the Prospectors and Developers Association.

5. I am employed by Samim Canada Ltd. as project geologist.

6. I supervised as well as carried out geological mapping of the claims pertinent to this report.

7. I do not presently hold or expect to receive any interests in the project area.

Signed Stanley D. Robinson

Stanley D. Robinson

Dated at Toronto, this 15th day of December, 1983

APPENDIX M

List of Days Worked in Field

LIST OF DAYS WORKED IN FIELD

	JULY														AUGUST																								SEPTEMBER													
	29	30	31	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4	5	6	7	8	9	10	11	12	13
SAMIM																																																
T.J. Bottrill	T	G	G	S	S	G	G	G	G	A	S	G	G	A	G	G	A	G	G	A	G	T												T	D	D	T												
S. Robinson	T	G	G	S	S	G	G	G	G	A	S	G	G	A	G	G	A	G	G	A	G	A	D	D	C	G	D	D	D	D	D	G	D	D	D	D	D	D	A	A	A	T	T	-	A	T
J. McCance	T	G	G	A	A	P	P	P	P	A	P	P	P	A	P	P	P	P	P	A	G	T																										
M. Cook	T	A	A	S	S	G	G	G	G	-	S	S	S	W	G	G	S	S	S	C	C	C	-	-	C	C	D	D	D	D	D	G	D	D	D	D	D	-	D	D	D	T	T			
S. Blair		T	A	S	S	G	G	G	G	-	S	S	S	W	G	G	S	S	S	C	C	C	T																								
PHOENIX																																															
P. Cartwright															T	P	P	P	T																												
D. Daggett				T	P	P	P	P	-	P	P	P	W	P	P	P	P	P	T																												
K. Wylie				T	P	P	P	P	-	P	P	P	W	P	P	P	P	P	T																												
K. Corman				T	P	P	P	P	-	P	P	P	W	P	P	P	P	P	T																												
MINEQUEST																																															
J.M. Hislop										T	C	C	C	W	C	C	T																													
T. James										T	C	C	C	W	C	C	T																													
K. Legard										T	C	C	C	W	C	C	T																													
K. Corman										T	C	C	C	W	C	C	T																													
G. Dickie	T	G	G	T																																										

S - Survey Grids
G - Geological Mapping
C - Geochemistry
P - Geophysics
A - Drafting, Plotting, Administration
T - Travel
W - Weather Day
D - Diamond Drill Supervision

APPENDIX N

Cost Statements

SAMIM CANADA LTD.

STATEMENT OF ACCOUNT

January 1983 - November 1983

Salaries, Wages and Benefits		
Samim Staff (as per attachment)	$ 30,633.26	
Temporary Samim Employees	4,114.19	
MineQuest Sub-Contract Employees	2,925.00	
		$ 37,672.45
Consultants		
MineQuest Exploration Associates	2,948.00	
T. Bryndzia	315.00	
C. Hedjran	925.00	
		4,188.00
Travel, Transport		
Airfares	3,867.80	
Rental Vehicles, Casual (Taxis)	463.48	
Rental Vehicles, Term	3,924.18	
Charter, Air, Helicopter	34,275.40	
		42,530.86
Meals, Accommodation		
Hotel Accommodation	6,580.35	
Meals	4,917.69	
Miscellaneous	169.98	
		11,668.02
Materials, Supplies		
Safety	96.54	
Hardware	375.41	
Lumber	240.62	
General Equipment	2,294.91	
Groceries	1,717.66	
Geophysical	186.86	
Field Equipment	1,067.10	
Gasoline	623.92	
Miscellaneous	690.43	
		7,193.45
Analyses		
Geochemical	5,729.63	
Assays	1,588.40	
Supplies	250.91	
		7,568.94
	Page Total	$110,821.72

Licences, Fees		
Claims Recorded	$ 180.00	
Radio License	26.00	
		$ 206.00
Outside Contracts		
Diamond Drilling - Drilcor Industries	43,199.27	
Geophysical Survey - Phoenix	12,251.32	
		55,450.59
Communications		
Telephone, Telex, Courier, Freight	1,544.26	
		1,544.26
Drafting Reprographics, Reporting		
Base Maps - Pacific Survey Corp.	6,158.10	
Drafting & Supplies	1,331.46	
Photographic Supplies and Processing	388.23	
Stationery, Maps, etc.	307.41	
Thin-Section Preparation	548.06	
		8,733.26
General Office Expenses		
Pro-rata proportion of rent, light, telephone, secretarial services, publications, bank charges, etc. Chargeable against project (does not include executive personnel)		39,551.23
TOTAL		$216,307.06
Recording Fees		
B.C. Government	15,820.00	15,820.00
TOTAL		$232,127.06
Samim Canada Ltd., Management Fee		
10% of costs on $160856.47 = $16,085.65		
5% of contracts, recording fees, etc. on $71,270.59 = $3,563.53		
		$ 19,649.18
TOTAL		$251,776.24

PERSONNEL, TIME AND SALARY PLUS BENEFITS

T.J. Bottrill	February	9 hrs.				
	April	1 hr.				
	May	54 hrs.				
	June	15 hrs.				
	July	56 hrs.				
	August	252 hrs.				
	September	52 hrs.				
	October	2 hrs.				
	November	24 hrs.				
		465 hrs.	@	$20.6/hr.	=	$ 9,583.95
J.A. McCance	April	2 hrs.				
	June	56 hrs.				
	July	42 hrs.				
	August	222 hrs.				
	October	60 hrs.				
	November	54 hrs.				
		436 hrs.	@	$20.0/hr.	=	$ 8,739.50
S.D. Robinson	April	6 hrs.				
	June	14 hrs.				
	July	54 hrs.				
	August	366 hrs.				
	September	210 hrs.				
	October	4 hrs.				
	November	52 hrs.				
		706 hrs.	@	$13.67/hr.	=	$9,647.98
M. Cook	July	4 hrs.				
	August	336 hrs.				
	September	144 hrs.				
		484 hrs.	@	$5.67/hr.	=	$2,745.94
S. Blair	August	240 hrs.				
		240 hrs.	@	$5.70/hr.	=	$1,368.25
E. Ducci	March	8 hrs.				
	October	12 hrs.				
	November	24 hrs.				
		44 hrs.	@	$60.50/hr.	=	$2,661.83
J.M. Hislop*)		84 hrs.			=	892.50
T. James*)		72 hrs.			=	765.00
K. Legard*)	August	84 hrs.			=	682.50
S. Syroishko*)		72 hrs.			=	585.00

* subcontract from MineQuest Exploration Associates Ltd.