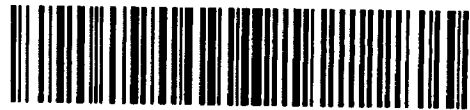


2.  
2. 1042

REPORT ON BIOGEOCHEMICAL  
ON THE LYDON GROUP  
BOMPAS TOWNSHIP  
LARDER LAKE MINING DIVISION  
PROVINCE OF ONTARIO.



010

Introduction:

The following report describes the biogeochemical survey completed during the latter part of July, 1972 on Canadian Johns-Manville Co. Limited claims located in Bompas Township, Larder Lake Mining Division, Province of Ontario.

This survey comprised sampling of second growth stems from birch, spruce, balsam and alder trees. Analyses of all samples was conducted by Bondar-Clegg & Company Limited of Ottawa, Ontario.

Samples were collected by G. Edwards and F. Cook, fieldmen with this Company, during December of 1971 and by P. Brown and J. Goodger, geologists with the Company, during July, 1972.

The Lydon Group of claims are being explored under Provincial Government Financial Assistance Agreement KL-21 in the amount of \$9,900.00.

At the time of this report mapping of outcrops had been completed on the group and the results of this work are discussed under the heading "Geology of the Claims".

Supervision and interpretation of the survey were the joint responsibility of P. Brown and F. J. Eveleigh, Geologist and Regional Geologist respectively, with Canadian Johns-Manville Company Limited. All personnel employed on the project reside in Matheson, Ontario.

Property:

The claims surveyed are situated in Bompas Township, Larder Lake Mining Division, Province of Ontario. This group was staked in 1971 and recorded on February 17<sup>th</sup>. All claims were transferred to Canadian Johns-Manville Company Limited on October 8<sup>th</sup>, 1971.

Due to difficulty of access and adverse weather conditions it was necessary to apply for an "Extension of Time" to complete the first year's assessment requirements. The "Extension" was granted on February 4<sup>th</sup> and extended the time until August 31st, 1972,

These twelve claims are numbered 308410 -11, -12, -13, -14, 281931; 291147; 298287 -88; and 298301 -02, -03 and comprise approximately 480 acres.

Location and Accessibility:

The Canadian Johns-Manville Group is located in the southwest section of Bompas Township. These claims straddle the Huronian sediment - Archean basement contact.

Access to the property is difficult due to lack of bush roads and small size of the lakes in the immediate area. The Englehart Management Road in Burt Township branches off Highway No. 66 approximately eleven miles southwest of Kenogami. This road is suitable for car or truck and was travelled to the north for a distance of six miles. A trapper's trail, suitable for skidoo travel under winter conditions and foot travel the remainder of the year, leads to the claims located four miles to the north.

Lumbering is currently being resumed in the area and this should facilitate access to the group.

Topography:

Relief is relatively gentle with the exception of the Gowganda outcrop area along the east side of the claims. The bush is fairly open, timbered predominantly with poplar and spruce.

Narrow, swampy areas, beaver ponds and one small lake occur between low northerly trending ridges. With the exception of the

central part, outcrops are sparse on the group.

Drainage is to the south where creeks empty into the Englehart River.

Previous Work:

An old base line, grid system, trenches and pits were noted around a large quartz vein on claim 308410. In this respect a study of the assessment work records on file at the Ministry of Natural Resources Resident Geologist's Office in Kirkland Lake disclosed the following data: -

A report by J. W. McBean, Resident Geologist, Kirkland Lake dated October 12<sup>th</sup>, 1945 and entitled "The Biederman Molybdenite Property". This report stated that the showing consisted of two quartz veins, striking N50°E, dipping 35° to the north and ranging in width from 8 to 15 feet. Vein material is pegmatitic with numerous large crystals of pink orthoclase. Mineralization is associated with low angle fractures paralleling the hanging wall and restricted to within 4 feet of same. Seven core holes were drilled on the vein but no assays were reported. However, a 50 pound bulk sample collected from the pits assayed less than 1.0% MoS<sub>2</sub> and contained no Au.

A report by Kirkland Minerals Corporation Ltd. dated January 22nd, 1957 and entitled "The Biederman Molybdenite Property". This report recorded the drilling of two x-ray core holes as well as pitting and trenching. No assay figures were reported.

This Township was mapped for the Ontario Department of Mines by James A. Grant and the results have been published in Geological Report No. 30 entitled "Bompas and Grenfell Townships" and dated 1964. Map No. 2060 on a scale of one inch equals one-half mile

accompanies this Report.

P. Brown, geologist with Canadian Johns-Manville Co. Limited, assisted by F. Cook examined the Molybdenite showing on the claims during November of 1971. A brief report and sketch map were prepared and these were filed with the Ministry of Natural Resources as part of the 1971 - 72 program for the Government Financial Assistance Agreement. Note that pyrite with very minor amounts of molybdenite and chalcopyrite were noted in pits and trenches at this time. Geological mapping of the Lydon Group was conducted by J. H. Morris, geologist with this Company, during the latter part of July and early August, 1972. A copy of his report has been included in the geological section.

Geology of the Claims:

The following excerpt has been taken directly from the Geological Report on the Lydon Group of claims, compiled by J. H. Morris and dated September 13<sup>th</sup>, 1972; -

"Outcrop is very sparse and mainly restricted to the easternmost claims. At least six lithologies are present being from oldest to youngest: - amphibolite gneiss (21, claim 298303), granite 5a, syenite 5b and microgranite, diabase 6 and Gowganda basal conglomerate. The amphibolite gneiss is assumed to be the oldest rock as it appears to be remnant, altered Keewatin volcanic material (a similar inlier is mentioned by Grant to lie one mile to the east of Rib Lake, just to the north of the group). Its mafic content is predominantly hornblende, with a north-south lineation. The granite is medium to coarse grained, with a variably developed mafic mineral lineation (southeasterly trend). The syenite is coarse grained, with pink orthoclase crystals; the mafic content is variable, but usually a

mixture of hornblende and biotite. On claim 298287 an outcrop of syenite contains angular fragments of syenite. The Gowganda conglomerate (claim 298301) contains rounded granitic boulders up to eight inches in diameter; this outcrop occurs on a hill, presumably all Gowganda with an unconformity at the base with the underlying granite.

In the area of the quartz vein on claim 308410, an additional rock type is present, a microgranite dyke. This trends N60°E and has a sharp intrusive contact with the hornblende syenite. Though fine grained, it contains a fair number of anhedral hornblende crystals up to 1/3" long. What appears to be a second generation of small euhedral hornblende laths, create a very noticeable lineation (parallel to a foliation, in turn parallel to the trend of the dyke) cross cutting the earlier more randomly oriented hornblende crystals. Several syenite xenoliths were noticed within the microgranite. In a few instances, pyrite and a few specks of molybdenite occur within the large hornblende crystals. Apart from the quartz vein, all other outcrop in the vicinity is hornblende (with or without biotite) syenite; it contains a mineral lineation trending N24°W. A minor amount of pyrite and sphene was noted.

The quartz vein, approximately twenty feet wide on surface, is massive, white coloured, with fairly abundant pink orthoclase patches. A poorly developed chloritic foliation is present. Molybdenite and pyrite are present (two to three percent) associated with either the chloritic seams or the orthoclase patches. A trace of chalcopryrite is also present."

Biogeochemical Survey:

The biogeochemical survey on the Lydon Group of claims was

carried out in two stages, as described in the following paragraphs; Stage I was conducted by G. Edwards, fieldman with this Company, assisted by F. Cook, Field work was carried out on December 15<sup>th</sup>, 20<sup>th</sup>, 21<sup>st</sup> and 22<sup>nd</sup>, 1971.

Stage II was conducted by P. Brown and J. Goodger, geologists with Canadian Johns-Manville Co. Limited. This work was carried out during the period July 18<sup>th</sup> - 22<sup>nd</sup>, inclusive, 1972.

Note that under both winter and summer conditions field work was extremely slow due to the length of the hike into the property.

In biogeochem sampling second year growth stems have been determined as the best medium giving the highest concentrations most rapidly and economically. Forty-four alders, fifty spruce, one balsam and twenty-three birch trees were sampled during the course of the survey.

For rapid reconnaissance 400 foot centres have been used. These were located on and between claim lines using compass and pacing methods.

The twigs are taken using pruning shears from branches distributed as evenly as possible about the tree and placed in a numbered sample bag. A piece of flagging tape with the sample number is tied to the tree for future reference and data is recorded pertaining to the sample. Field sheet records include date, weather, name of sampler, project number, location, sample number, topography, drainage slope, tree type and size of tree.

To prepare the biogeochem samples the plant material is put through a Wiley Mill and reduced to -1 mm. A 20 cc. crucible is filled with material and total weight recorded to three decimals. Drying in a vented oven for two hours at 105°C followed by a

second weighing is the next step. Another drying for one hour is carried out and if the resulting weight compares with the second weighing then the sample has reached constant weight and is considered dry. This dry weight is also recorded.

Charring is the most important stage and is critical. Resins are burnt off but free carbon must not be produced. This is done in a muffle furnace with the door open for two hours at about 200°C. These conditions are variable depending on the material. The furnace door is now closed and the temperature increased to not more than 450°C. When a clean white or slightly grey ash with no black material remains then the sample is taken out, placed in a desiccator and when cool brushed onto a balance pan. Its weight is recorded to three decimals. The ash is now digested for one-half hour by 1.5 cc. of concentrated nitric acid in a test tube of 90°C, controlled by a water bath. Then 1/2 cc. of concentrated hydrochloric acid is added and digestion continued for one and one-half hours. The tube is then removed and the sample diluted to 10 cc's with de-ionized water. The contents are shaken to mix and allowed to settle. Metal concentrations are read by Atomic Absorption and calculated to ppm based on the original ash weight.

Overall accuracy for Cu, Zn, Pb, Ag and Mo is a maximum of 20% relative standard deviation which is acceptable.

Extraction of essential information is carried out statistically and is best done by graphical representation of the frequency distribution of the data; then the average value (background) degree of variation and the existence of one or more populations is precisely determined.

The distribution pattern which best fits geochemical and

biogeochemical data is the lognormal one. Graphically this gives a bell-shaped curve which when smoothed gives the frequency curve. Then plotting the cumulated frequencies as ordinates the cumulative frequency curve is derived. This is the integral of the frequency curve. By replacing the arithmetic ordinate scale with a probability scale the cumulative frequency curve is represented by one or more straight lines.

Fifteen to twenty-five classes are recommended and as a rule the width of a class, expressed logarithmically, must be kept equal to or smaller than the standard deviation.

One hundred and eighteen samples were collected on the Group giving an average density of 9.8 per claim. Samples from Stage I were analyzed geochemically for Cu, Pb, Zn, Mo and Ag. Samples from Stage II were analyzed for Cu, Mo, Pb and Zn. All laboratory testing was conducted by Bondar-Clegg & Company Limited of Ottawa, Ontario. Copies of the results accompany this report.

Cumulative frequency distribution diagrams have been compiled for Cu, Mo, Pb and Zn in birch, alder and spruce trees, combining results from Stages I and II. The single balsam sample has not been used. A diagram has been plotted for the forty-one spruce samples collected in Stage I and analyzed for Ag.

Contoured Biogeochemical Survey Plans all on a scale of one inch equals 400 feet are attached and show possibly, probably and definitely anomalous areas, where applicable for Cu, Mo, Pb, Zn and Ag.

Statistical analyses of biogeochemical results using the cumulative frequency distribution diagrams are described in the following paragraphs.



1. Copper:

a) in birch. 23 samples were taken and when plotted the population is seen to be lognormal, i.e. lying along a straight line. Background (b) is 267 ppm, standard deviation (b + s) is 345 ppm and the threshold (t) above which any values are anomalous is 445 ppm.

b) in alder. The 44 samples have lognormal distribution with no anomalous values. (b) is 380 ppm, (b + s) 490 ppm and (t) is 640 ppm.

c) in spruce. Fifty samples were taken showing the same lognormal distribution with (b) 246 ppm, (b + s) 355 ppm and (t) 510 ppm.

2. Molybdenum:

a) in birch. A deviation from the normal lognormal population occurs at 19 ppm shown by the positive change in slope above this value. The extension of the main slope is used to determine (t); (b) is 15 ppm, (b + s) 19 ppm and (t) 24 ppm.

b) in alder. An excess of high values is shown by the positive slope change from 80 ppm and above. (b) is 27 ppm, (b + s) 56 ppm and (t) 114 ppm.

c) in spruce. Lognormal distribution with no anomalous values is shown with (b) at 17.6 ppm, (b + s) at 26 ppm and (t) at 37 ppm.

3. Lead:

a) in birch. Deviation from the norm begins at 900 ppm indicating potentially anomalous conditions. (b) is 560 ppm, (b + s) 840 ppm and (t) 1280 ppm.

b) in alder. The positive slope change from 660 ppm marks the deviation from the norm with an excess of high values for this population. (b) is 480 ppm, (b + s) 660 ppm and (t) 900 ppm. Alder does show anomalous lead values.

c) in spruce. A marked excess of high values is shown here with 45% of the population giving the second slope. Sixteen percent of the samples lie in the anomalous category. The deviation of almost half of the population may be due to location of the samples. Spruce are widespread and cover both high ground and swamp. In the swamps organic concentration takes place and in effect creates a different population. Therefore, care must be taken in the map interpretation bearing this in mind.

#### 4. Zinc:

a) in birch. The zinc shows lognormal distribution with no anomalous values. (b) is 13,000 ppm, (b + s) 16,900 ppm and (t) 21,500 ppm.

b) in alder. The first slope of the line representing 20% of the population is caused by too many low values. This is common in zinc distribution. The main slope gives (b) as 2550 ppm, (b + s) 3600 ppm and (t) as 5050 ppm. No anomalous values are present.

c) in spruce. The distribution is lognormal with no anomalous values. (b) is 2330 ppm, (b + s) 3200 ppm and (t) is 4400pppm.

#### 5. Silver:

a) in spruce. Forty-one samples were taken. The cumulative frequency distribution is erratic - 50% of the values fall on one slope and 50% on another. This possibly represents different lithology, but from the contour map this is hardly likely. The trend of highs runs NW-SE and may represent a later Nippissing-type dyke,

but since no outcrops occur this would be difficult to prove.  
(b) is 2 ppm, (b + s) 5.8 ppm and anomalous (t) above 10.6 ppm.

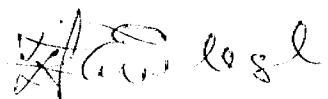
Conclusions:

As indicated by the results of the biogeochemical survey few anomalous values are present for any of the elements. Those above threshold value are not excessively high and constitute minimal percentages of any given population.

Recommendations:

No further exploration work appears warranted for this group of claims at this time.

  
Submitted by: P. A. R. Brown,  
Geologist

  
and: F. J. Eveleigh  
Regional Geologist

October 13<sup>th</sup>, 1972.



## CANADIAN JOHNS-MANVILLE CO. LIMITED

2.

BIGEOCHEMICAL SOIL SURVEY DATACollector: G. Edwards &  
F. Cook

Project: #160

Weather: cloudy - cool

Date: Dec 20, 21, 22, 1971

Area: Bompas Twp

Physiography:

Sample No.	Location	Drainage Slope	Remarks
			All samples are spruce
Y-9051	On trail - 400 S of Y-9047	—	Base of outcrop - high ground between outcrops - jackpine & spruce cover
9052	400'E of 9051	—	High ridge - scattered outcrops open jackpine & spruce cover
9053	800'E "	↑	At base of ridge - low flat land spruce & jackpine
9054	1200'E "	→	Low flat alder swamp - near creek spruce & jackpine
Y-9055	1600'E "	←	Low flat spruce swamp near creek heavy spruce cover
9056	2000'E "	—	Low flat alder swamp spruce cover
9057	2400'E "	↘	Very hilly high ground - open birch and jackpine cover
9058	Post #2 Claim 281931	↘	Hilly high ground - scattered boulders open mixed cover
9059	400'W of Post	←	High flat ridge jackpine cover
Y-9060	800'W "	—	Low flat ground jackpine cover
9061	1200'W "	—	Low flat alder swamp - flooded by beaver dam - spruce
9062	Post #2; claim 308410; 1600'W	—	High flat land - mixed cover
9063	400'W	→	High uneven ground mixed cover
9064	800'W	↘	High flat ground near outcrop jackpine cover
Y-9065	1200'W	↖	Top of outcrop - high uneven ground open jackpine cover
9066	1600'W	—	Low spruce swamp - very flat heavy spruce cover
9067	2000'W	←	Low land - spruce cover
9068	2400'W	↘	Low flat swamp - spruce cover
9069	2800'W	↘	Low flat swamp - partially flooded by beaver dam
Y-9070	3200'W	↓	Low land at edge of small creek spruce cover
Y-9071	3600'W	↘	Low land - near creek - spruce & jackpine cover



BIOGEOCHEMICAL SURVEY SHEET

Group: Lydon Group

Collector: P. Brown &  
J. Goodger

Project No. 163

Township: Bompas		Date: July 18 <sup>th</sup> - 22 <sup>nd</sup> incl, 1972				
Sample #	Location	Tree Type	Diam.	Sample Height	Nature of Terrain	Drain. Direc.
U-692	4+00N of Post #1, al. 308410	B	3"	25'	mainly spruce & jackpine	
693	4+00E of 692	A	1"	6'	1+00W of lake - old trail	
694	4+00N of 693	A	1/2"	4'	spruce & jackpine	Flat
U-695	4+00W of 694	A	2"	16'	centre of flooded area	
696	4+00W of 695	A	1"	10'	just south of beaverdam	S
697	4+00W of 696	A	1/2"	4'	near gneissic outcrop	N
698	4+00W of 697	A	1"	6'	1+50'S of beaver pond	NE
699	4+00W of 698	A	1"	6'	flat jackpine area	SW
699	4+00W of 698	A	3/4"	5'	spruce swamp	
U-700	4+00W of 699	A	1/2"	4'	on small knoll	N
W-1166	4+00W of 699	S	2"	5'	in open spruce swamp	
1167	4+00W of 700	S	1"	3'	as above -100'E of N-S claim line	
1168	4+00N; 0+60E of 1167	A	2"	12'	edge of swamp	
1169	4+00E of 1168	A	1 1/2"	8'	edge of spruce swamp	
W-1170	4+00E of 1169	A	1"	4'	gully between small bumps in swamp	
1171	3+50E of 1170	A	2"	10'	edge of swamp	
1172	4+00E of 1171	A	1/2"	3'	N-S claim line	W
1173	4+30E of 1172	B	2"	20'	E-W claim line	N
1174	4+00E of 1173	B	6"	8'	100'N of beaver pond	S
W-1175	4+00E of 1174	A	1"	10'	20'E of N-S claim line	S
1176	4+00E of 1175	A	3/4"	5'	1+00N of post sub-trail - 2+00E of Lake	SE
W-1466	4+00N of 1176	A	2"	6'	on trail by small creek	E
1467	5+60W of 1466	A	2"	10'	by small swamp	
	5+00W of outcrop - syenite + angular fragments					
	55 paces west of 1467 amphibole gneiss - N-S lineation					
	60 paces west to creek					

BIOGEOCHEMICAL SURVEY SHEET

Group: Lydon Group

Collector: P. Brown &  
J. Goodger

Project No. 163

Township: Bompas		Date: July 18 <sup>th</sup> - 22nd incl, 1972				
Sample #	Location	Tree Type	Diam.	Sample Height	Nature of Terrain	Drain. Direc.
W-1468	3+80W of 1467	A	2"	10'	on creek flowing south	S
1469	4+00W of 1468	A	1/2"	3'		SE
W-1470	4+00W of 1469		2"	12'	south of swamp; 21 paces west of 1470 is N-S claim line	E
1471	4+20W of 1470	A	1 1/2"	6'	south side of swamp	N
1472	4+30W of 1471	Sp	3"	8'	spruce-jackpine ridge E-W	S
1473	4+00W of 1472	A	2"	5'	swamp	
1474	4+00W of 1473	A	1/2"	4'	swamp - claim line in <sup>swamp</sup>	
W-1475	4+00N of 1473	Sp	2"	8'	outcrop - granitic gneiss	
1476	4+50E of 1475	A	1 1/2"	7'	in swamp	
1477	3+80E of 1476	A	2"	12'	swamp	E
1478	4+10E of 1477	A	1"	6'	drainage gently east	
1479	4+00E of 1478	A	1"	7'		E
W-1480	3+80E of 1479	A	3/4"	4'	swamp - north edge of beaver pond	
1481	5+60E of 1480	Ba	6"	5'	400 to 600'W is outcrop - granite	S
	1+50E of W-1481 - Post #1, claim 298303					
1482	3+00S, 2+00E of above claim post.					
		A	2 1/2"	12'	dry - flat - 5'E of granite o.	
1483	4+00E of 1482	A	2"	6'	side of small swamp	E
	1+20E from 1483 hit trail; 4+00N of 1466; 78 paces west N-S cl. line					
1484	4+20E of 1483	A	2"	12'	50'E is lake - approximately 200'N is N end of same.	
W-1485	Post 1, cl 298288					
		Sp	2"	6'	flat spruce area	N
1486	4+00S of 1485	Sp	3"	12'	west side of creek	E
1487	4+00S of 1486	Sp	2"	4'	flat	
1488	5+60W of 1487	A	2"	8'	N-S creek - dry swamp	S
1489	4+00N of 1488	A	1"	6'	as above	S
W-1490	4+00N of 1489	A	2"	12'	on N-S claim line - creek	S
1491	3+60W of 1490	A	3/4"	3'	at post #1, claim 298302; #4 post of 298288 and #2 post of 298301	



BIOGEOCHEMICAL SURVEY SHEET

Group: Lydon Group

Collector: P. Brown &  
J. Goodger

Project No. 163

Township: Bompas		Date: July 18 <sup>th</sup> - 22 <sup>nd</sup> , 1972				
Sample #	Location	Tree Type	Diam.	Sample Height	Nature of Terrain	Drain. Direc.
W-1492	400S of 1491	A	1"	6'		S
1493	400S of 1497	B	2"	15'	Outcrop 200W	E
Y-9271	150'W of trail	A	2"	15'	beside outcrop; 150'E of	N
9272	400'W of 9271	B	2"	15'	Post #1, cl. 298303	W
9273	400'W of 9272	Sp	4"	12'		W
9274	400'W of 9273	A	1"	3'		S
Y-9275	400'W of 9274	A	2"	5'	40'N of claim line; 75'E	
					of Post #1, cl 308414	S
9276	400'W of Post					
	1, cl 308414	A	2"	5'		N
9277	400'W of 9276	B	6"	30'		N
9278	400'W of 9277	A	2"	6'		W
9279	400'W of 9278	A	1"	4'		W
	Post 1, cl 308414					
Y-9280	400'N of Post					
	#1, cl 308414	B	4"	20'		E
9281	400'N of 9280	A	1 1/2"	5'	150'N to Post #3, cl	
					298301	E
9282	400'N of 9281	B	2"	15'		S
9283	400'N of 9282	B	3"	18'		SW
9284	150'N of 9283					
	at claim post	A	2"	5'		SE
Y-9285	400'E of Post					
	#1, cl 298301	B	4"	20'		S
9286	400'S of 9285	A	2"	5'		SW
9287	400'S of 9286	B	4"	20'		S
9288	400'S of 9287	B	3"	14'		N
9289	400'S of 9288	B	3"	15'	Beside outcrop	W
Y-9290	400'E of 9289	B	5"	22'	outcrop between 9289 &	
					9290	E
9291	400'N of 9290	B	4"	15'	outcrop between 9290 &	
					9291	E

BIOGEOCHEMICAL SURVEY SHEET

Group: Lydon Group

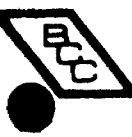
Collector: P. Brown and J. Goodger

Project No. 163

Township: Bompas

Date: July 18<sup>th</sup> - 22<sup>nd</sup>, 1972

Sample #	Location	Tree Type	Diam.	Sample Height	Nature of Terrain	Dir. Disc.
Y-9292	800'N of 9290 B	B	3"	12'		SE
9293	1200'N of 9290 B	B	4"	18'		E
9294	1600'N of 9290 B	B	3"	14'	at claim line	SW
Y-9295	at Post #1; cl 298301	B	3"	18'		S
Y-9296	400'S of #1 Post, cl 298301	B	3"	15'		W
74 samples						
$\begin{array}{r} 44 \\ 74 \\ \hline \end{array}$						
Total 118 samples						



BONDAR-CLEGG & COMPANY LTD.

768A BELFAST ROAD (M.R. 1), OTTAWA 8, ONTARIO  
PHONE: 237-3110 TELEX: 015-3548

GEOCHEMICAL LAB REPORT

No. 16-2

Extraction Cu, Pb, Zn, Mo, Ag - KNO<sub>3</sub>-HCl

From CANADIAN JOHNS-MANYVILLE CO. LIMITED

Method AA

PROJECT: #160 (TREES)  
Date FEBRUARY 21, 19 72

Fraction Used TREES

Analyst AA - R.P.

SAMPLE NO.	Ash Wt. g/g	Cu Ash/ppm	Pb Ash/ppm	Zn Ash/ppm	Mo Ash/ppm	Ag Ash/ppm	REMARKS
Y - 9039	.126	395	1200	3600	28 /	1 /	INSUFFICIENT SAMPLE FOR CHECK Pb
40	.104	365	265	2100	24 /	2 /	<i>Bonpas Toys.</i>
41	.109	395	570	1900	27 /	2 /	<i>P.A.</i>
42	.094	425	695	1700	27 /	2 /	<i>Feb. 21, 72</i>
43	.089	400	1200	2900	34 /	2 /	Check Pb - 1600
44	.127	320	320	2400	23 /	1 /	
45	.081	445	615	4000	31 /	2 /	
46	.107	310	445	3400	19 /	2 /	
47	.125	335	600	3000	16 /	1 /	
48	.084	430	430	3600	30 /	2 /	
49	.136	700	250	1800	18 /	1 /	
50	.126	250	445	2400	20 /	1 /	
51	.120	230	315	2000	21 /	1 /	
52	.123	240	295	2300	24 /	1 /	
53	.109	255	310	2400	28 /	2 /	
54	.138	260	760	2200	22 /	1 /	
55	.085	280	735	2400	34 /	2 /	
56	.095	295	575	2500	26 /	1 /	
57	.082	240	505	1200	24 /	2 /	
58	.077	260	440	1600	6 /	2 /	
59	.081	345	610	3000	19 /	7 /	
60	.067	325	735	3000	15 /	1 /	
61	.129	260	485	2200	14 /	1 /	
62	.065	305	865	4300	15 /	1 /	
63	.072	275	575	1900	14 /	2 /	
64	.101	295	660	3400	15 /	6 /	
65	.105	200	395	1900	10 /	5 /	
66	.078	305	680	3300	13 /	1 /	
67	.095	210	405	1700	16 /	1 /	
68	.091	240	785	2900	16 /	1 /	
69	.052	385	740	4200	19 /	2 /	

*EB*





# BONDAR-CLEGG & COMPANY LTD.

70 BELFAST ROAD, OTTAWA, ONTARIO, K1G 0Z5 PHONE: 237-3110 TELEX: 053-3548

## Geochemical Lab Report

Cu, Pb, Zn, Mo -  $\text{HNO}_3$ -MCL

696-2

Extraction

A.A.

Report

Mr. F. J. Hurlagh

Method

PERMS

From

Canadian Johns - Manville Co. Ltd.

Project # 163

August 15, 1978

Fraction Used

Date

19

SAMPLE NO.	ASH Wt.	Cu	Pb	Zn	Mo	REMARKS
	grams	ppm/ash	ppm/ash	ppm/ash	ppm/ash	
V - 692	.172	275 ✓	280 /	11900 /	64 /	
93	.120	575 ✓	600 /	3900 /	63 /	
94	.135	260 ✓	310 /	900 /	37 /	
95	.194	375 ✓	305 /	3400 /	32 /	
96	.131	370 ✓	495 /	1450 /	45 /	
97	.129	425 ✓	1100 /	3700 /	37 /	
98	.101	315 ✓	435 /	1700 /	44 /	
99	.144	355	310 /	2200 /	20 /	
V - 700	.124	320 ✓	975 /	980 /	24 /	<i>Plotted Aug 22/78</i>
V -1166	.229	130 ✓	390 /	2200 /	13 /	
67	.204	140 ✓	355 /	1950 /	11 /	
68	.144	540 /	325 /	4000 /	28 /	
69	.125	390 /	375 /	2990 /	22 /	
70	.117	310 /	450 /	3100 /	26 /	
71	.177	225 /	250 /	2700 /	62 /	
72	.157	310 /	530 /	2050 /	17 /	
73	.106	330 /	765 /	20900 /	12 /	
74	.155	330 /	360 /	2290 /	16 /	
75	.177	220 /	610 /	2950 /	11 /	
76	.115	340 /	365 /	2800 /	13 /	
V - 1466	.131	375 /	290 /	3690 /	73 /	
67	.115	330 /	375 /	4200 /	43 /	
68	.127	330 /	340 /	2390 /	49 /	
69	.108	324 /	460 /	2900 /	40 /	
70	.078	310 /	630 /	1290 /	55 /	
71	.103	370 /	485 /	2600 /	43 /	
72	.180	155 /	445 /	1390 /	17 /	
73	.124	320 /	320 /	1600 /	31 /	
74	.080	360 /	475 /	4900 /	20 /	
75	.226	115 /	395 /	2900 /	18 /	
76	.104	480 /	345 /	2200 /	148 /	

*[Handwritten signature]*

# BONDAR-CLEGG & COMPANY LTD.

## Geochemical Lab Report

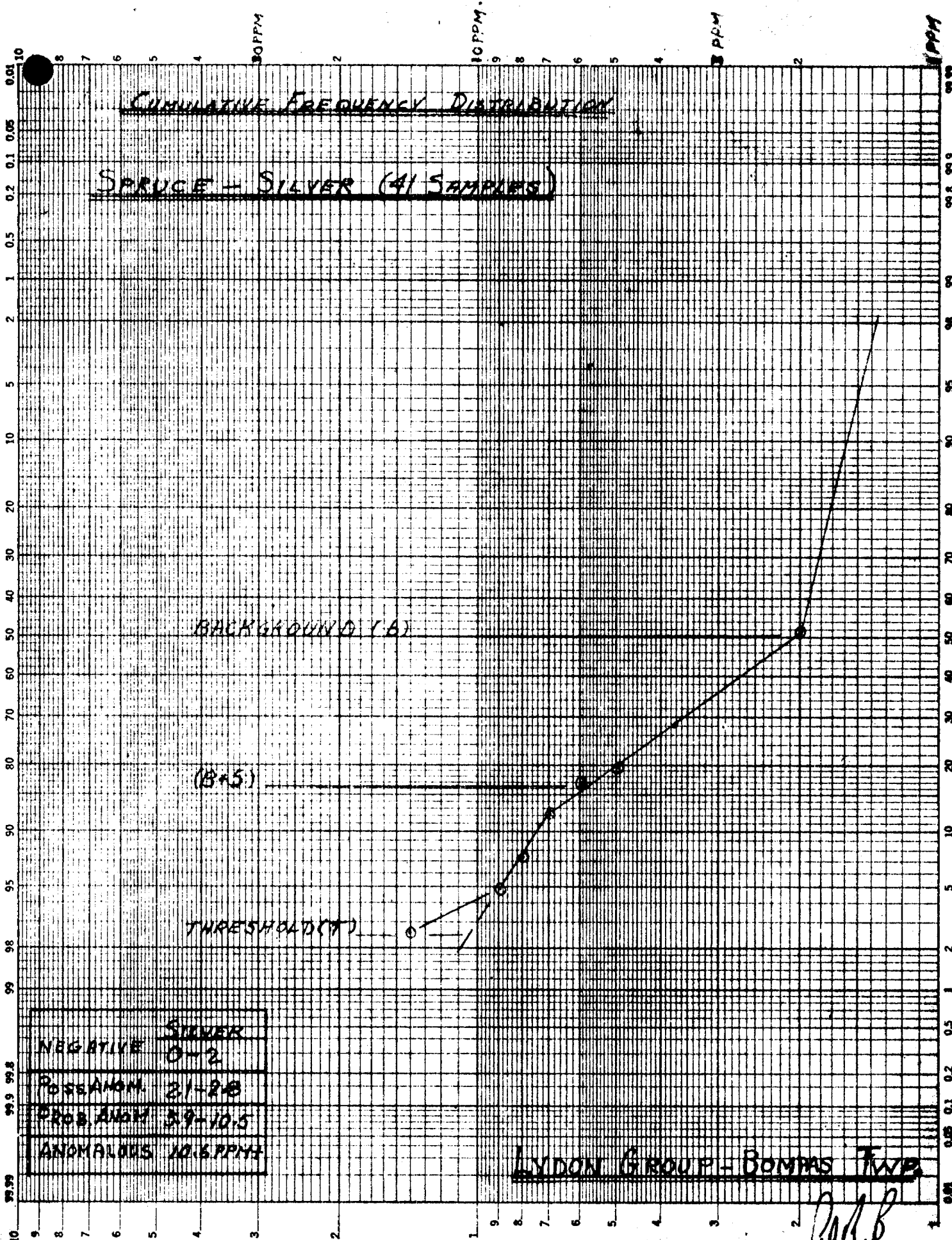
Report No. 096-2

Page No. 2

SAMPLE NO.	ASH WT. grams	Ca ppm/ash	Pb ppm/ash	Mn ppm/ash	Zn ppm/ash			REMARKS
V - 1477	.097	445 /	640 /	3100 /	19			
78	.088	365 /	760 /	1990 /	19			
79	.069	405 /	520 /	1990 /	26			
80	.100	390 /	380 /	2900 /	85			
81	.126	160 /	220 /	1900 /	25			
82	.104	385 /	760 /	2090 /	15			
83	.105	325 /	190 /	2990 /	18			
84	.124	305 /	410 /	1990 /	120			
85	.136	190 /	990 /	1800 /	16			
86	.126	180 /	445 /	1490 /	16			
87	.148	195 /	380 /	1100 /	11			
88	.090	400 /	620 /	2300 /	19			
89	.064	900 /	970 /	3100 /	22			
90	.057	495 /	545 /	2490 /	32			
91	.082	280 /	770 /	3400 /	15			
92	.106	340 /	480 /	1290 /	25			
93	.115	280 /	365 /	16200 /	19			
X - 9271	.135	405 /	460 /	3000 /	15			
72	.095	285 /	685 /	19000 /	20			
73	.139	195 /	365 /	1390 /	9			
74	.119	325 /	385 /	1700 /	17			
75	.213	120 /	315 /	1700 /	13			
76	.124	425 /	360 /	2100 /	48			
77	.149	200 /	975 /	16400 /	9			
78	.119	285 /	380 /	790 /	17			
79	.185	220 /	380 /	2600 /	12 /			
80	.077	300 /	910 /	9850 /	17			
81	.189	280 /	455 /	3900 /	30			
82	.153	195 /	295 /	8890 /	12			
83	.190	205 /	595 /	9890 /	13			
84	.127	340 /	435 /	4400 /	14			
85	.123	245 /	390 /	10400 /	15			
86	.101	415 /	640 /	4790 /	17			
87	.096	290 /	480 /	10200 /	19			
88	.099	260 /	395 /	13100 /	10			
89	.199	165 /	415 /	11700 /	11			



K&E PROBABILITY  
 46 8043  
 X 2 LOG CYCLES  
 MADE IN U.S.A.  
 KEUFFEL & ESSER CO.

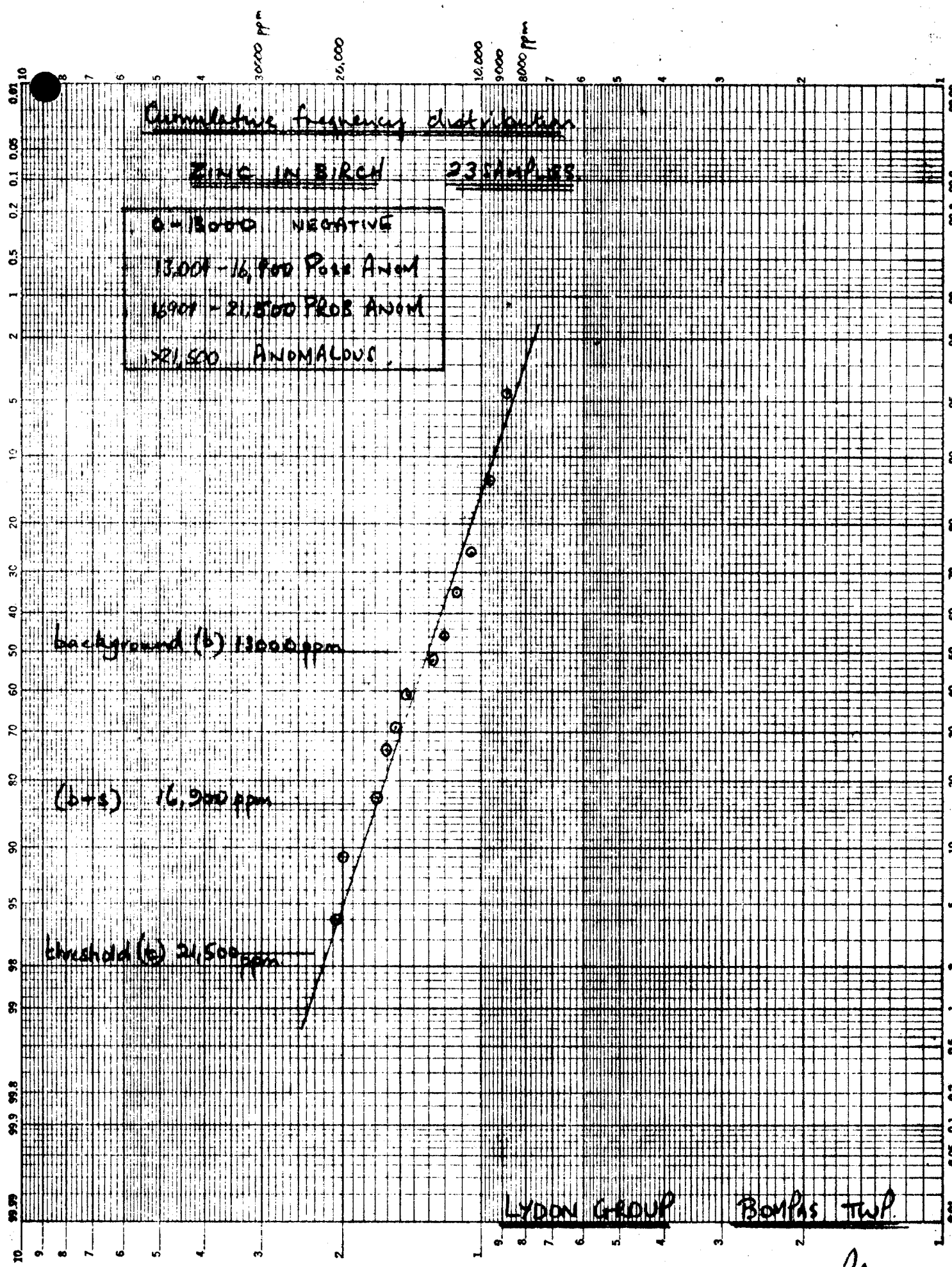


OCT 13 1972

*P.A.B.*



K&E PROBABILITY 46 8043  
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 KEUFFEL & ESSER CO.



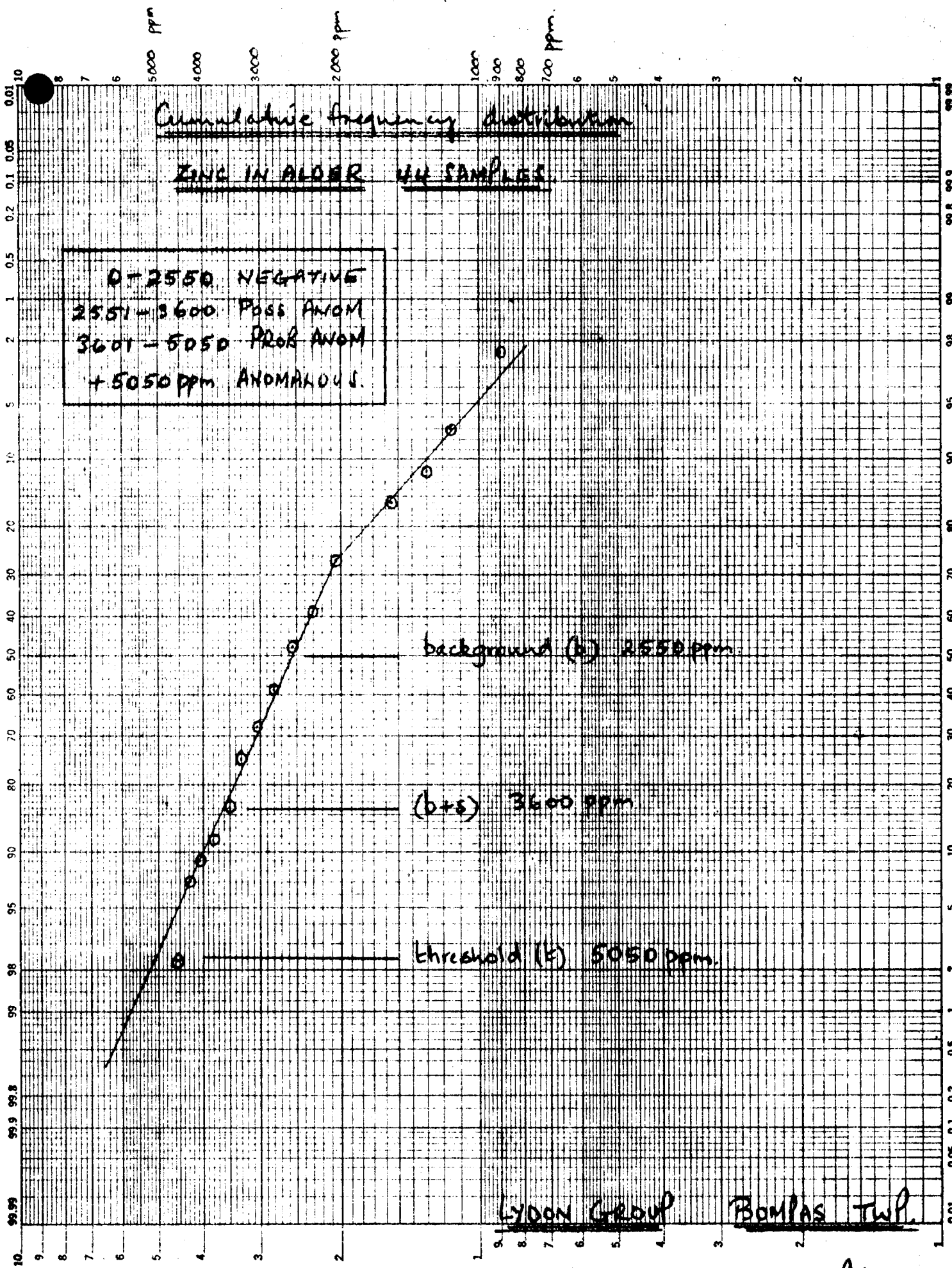
OCT 13 1972

P.B.

Cumulative frequency distribution

ZINC IN ALDER WY SAMPLES

0-2550 NEGATIVE  
2551-3600 POSS ANOM  
3601-5050 PROB ANOM  
+5050 PPM ANOMALOUS.

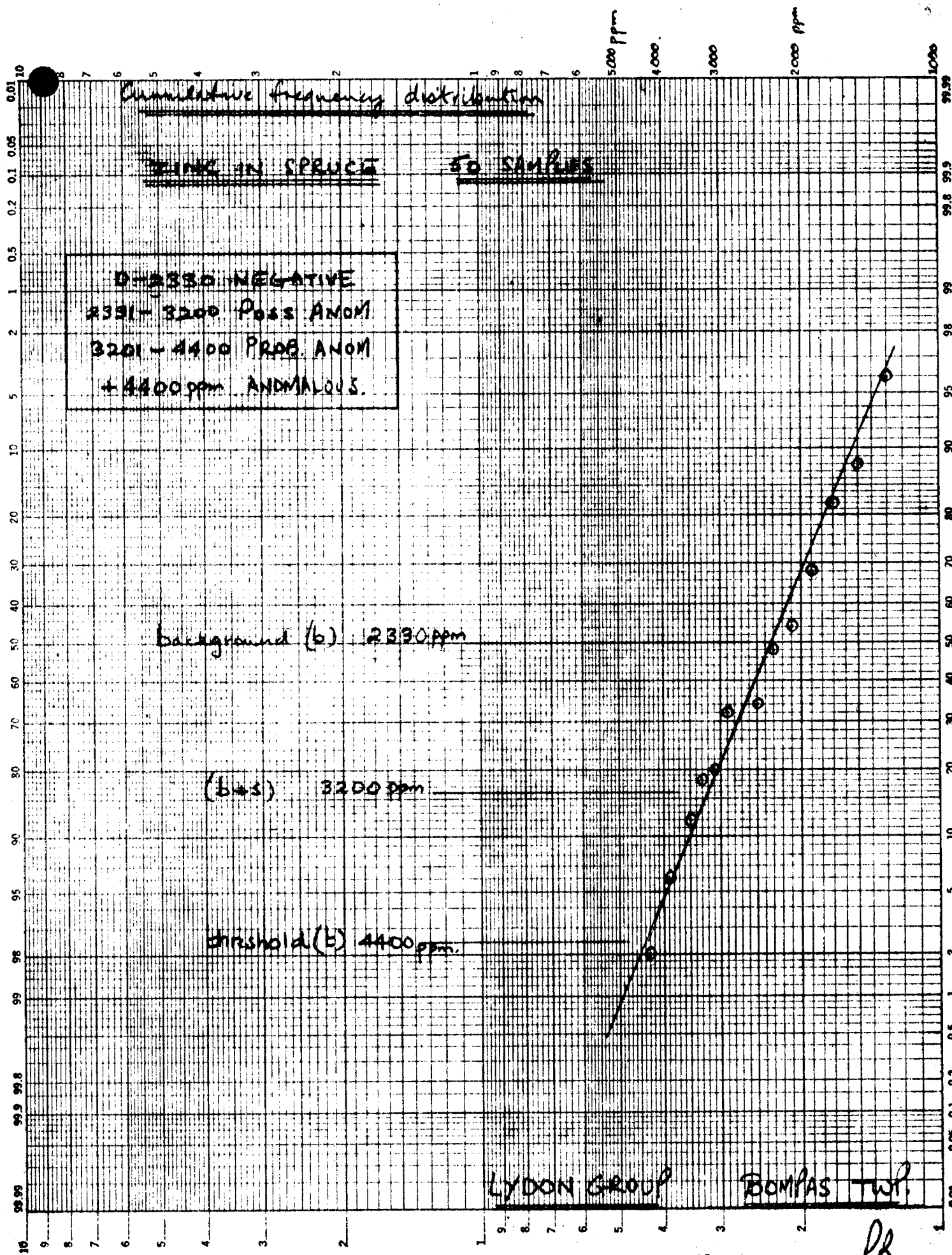


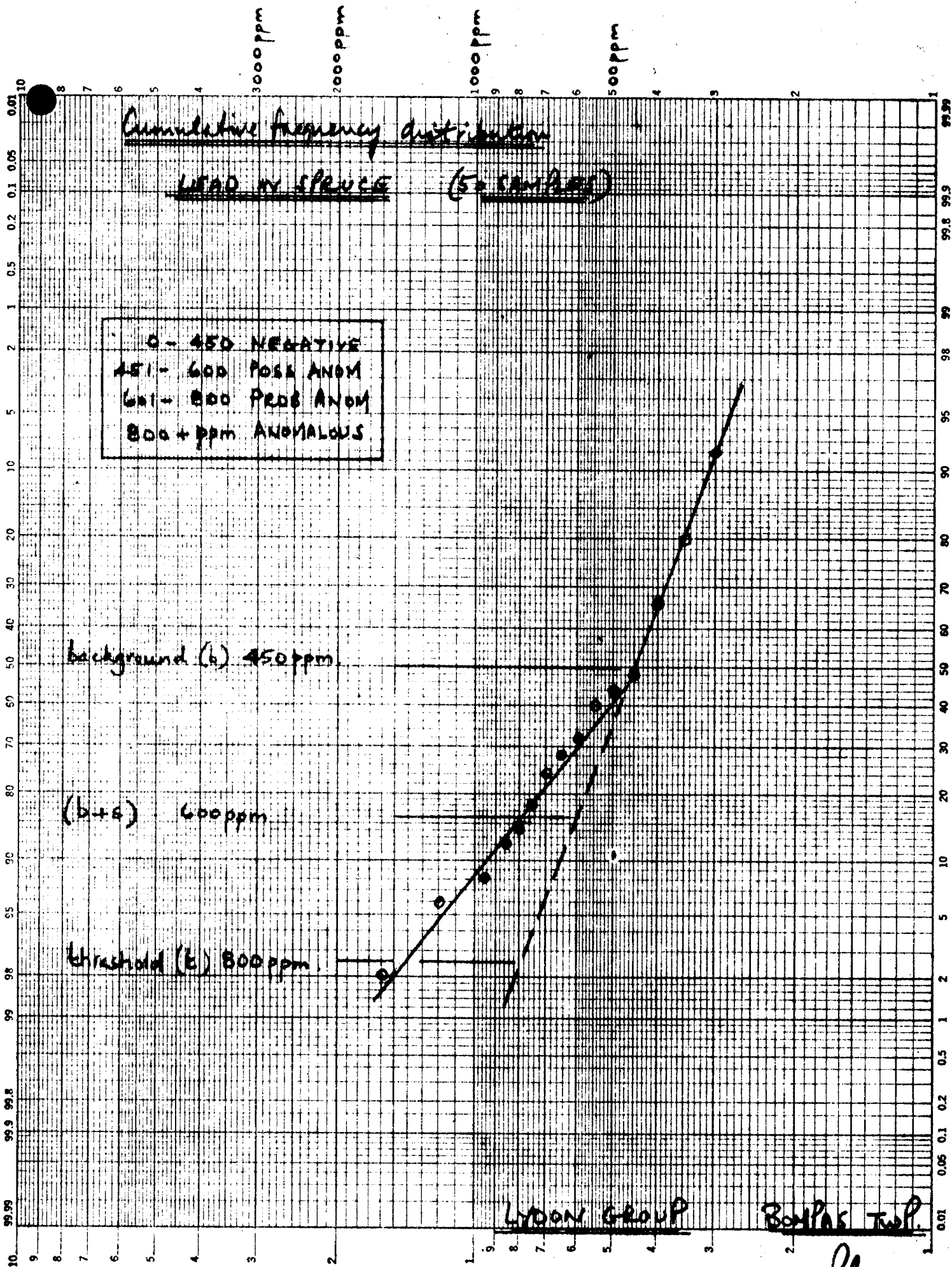
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X 2 LOG CYCLES  
KEUFFEL & ESSER CO.

LYDON GROUP BOMPAS TWP.

OCT 13 1972

P.B.



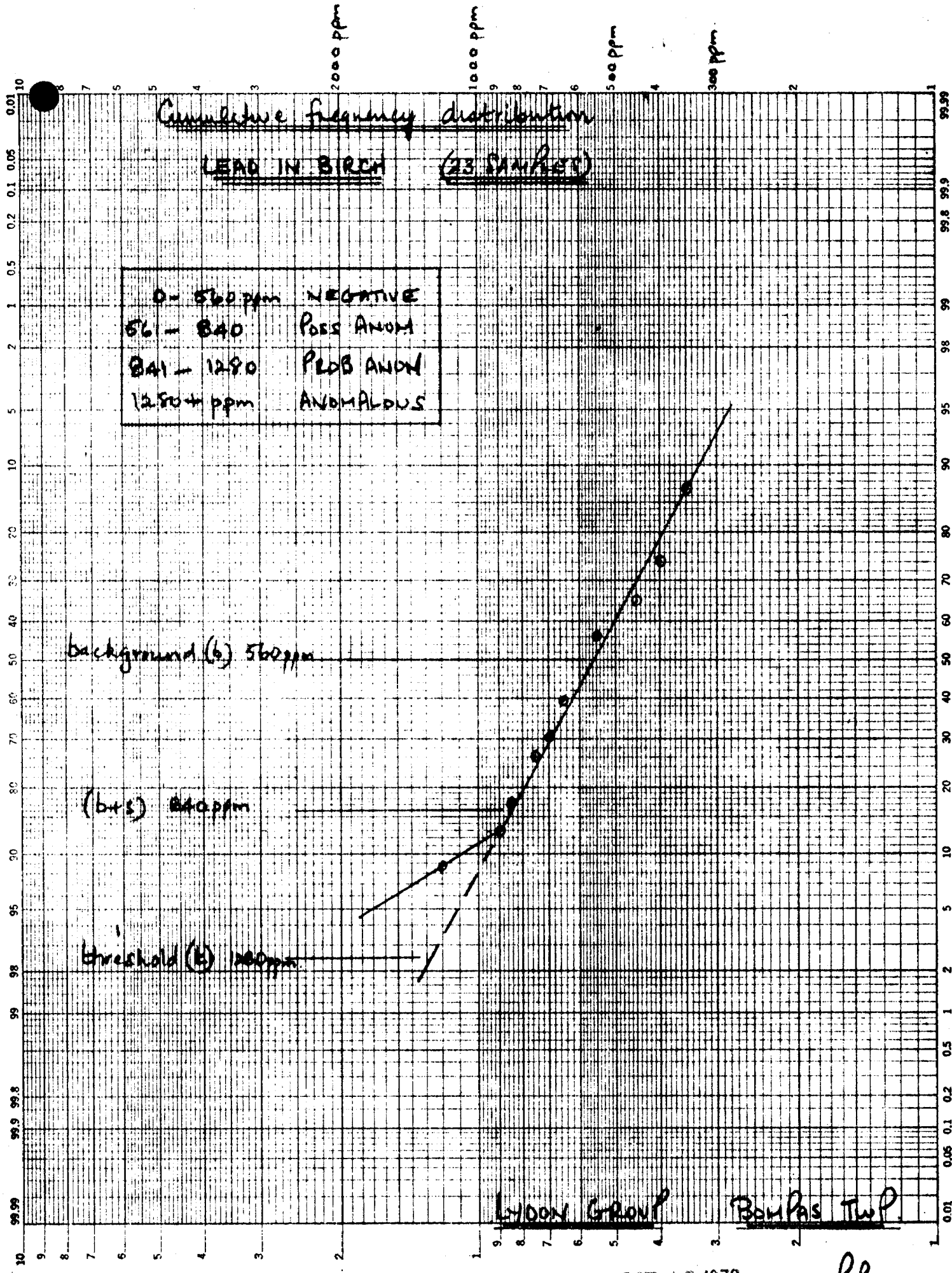


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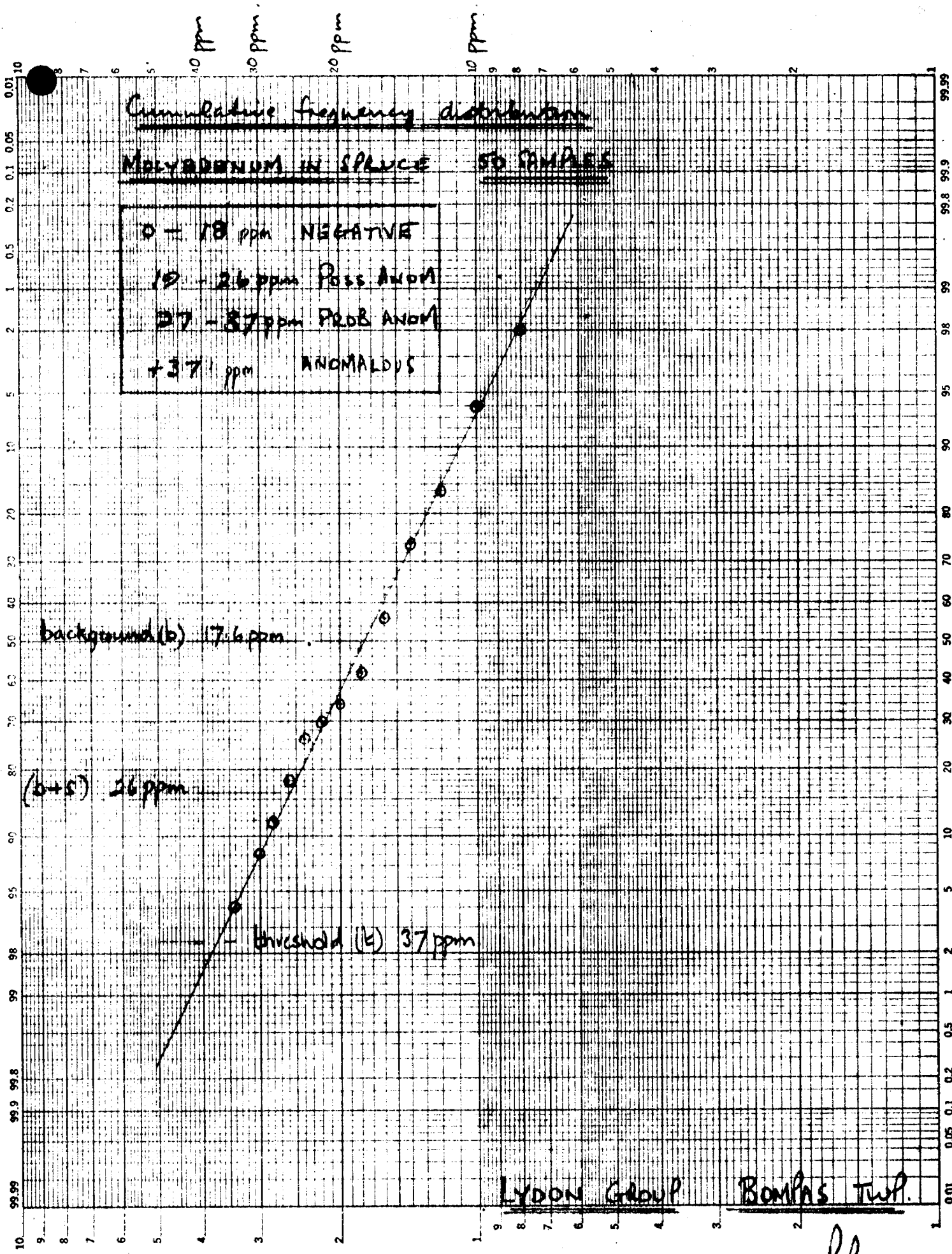




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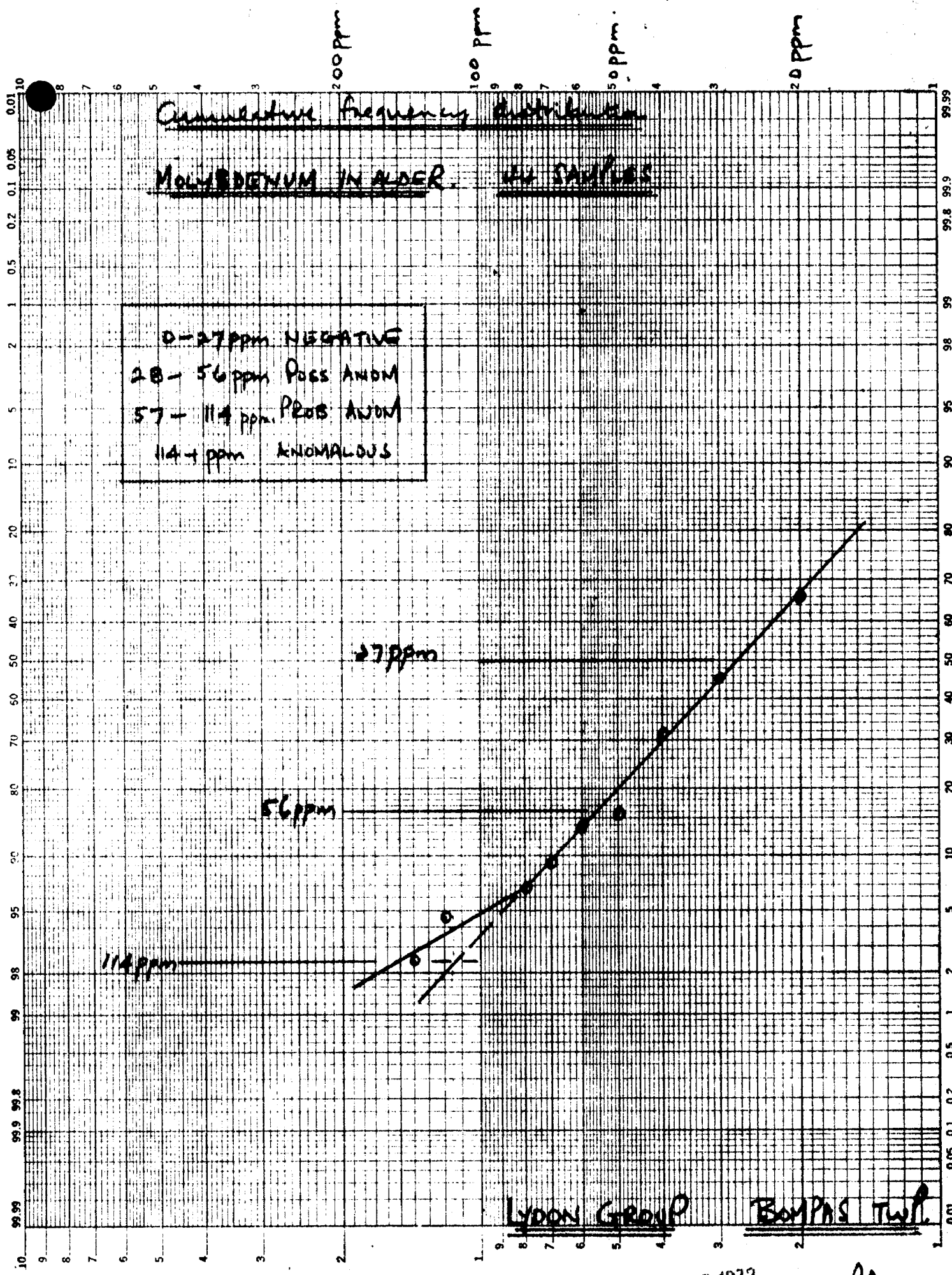
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K&E PROBABILITY 46 8043  
 X 2 LOG CYCLES  
 MADE IN U.S.A.  
 KEUFFEL & ESSNER CO.



OCT 13 1972

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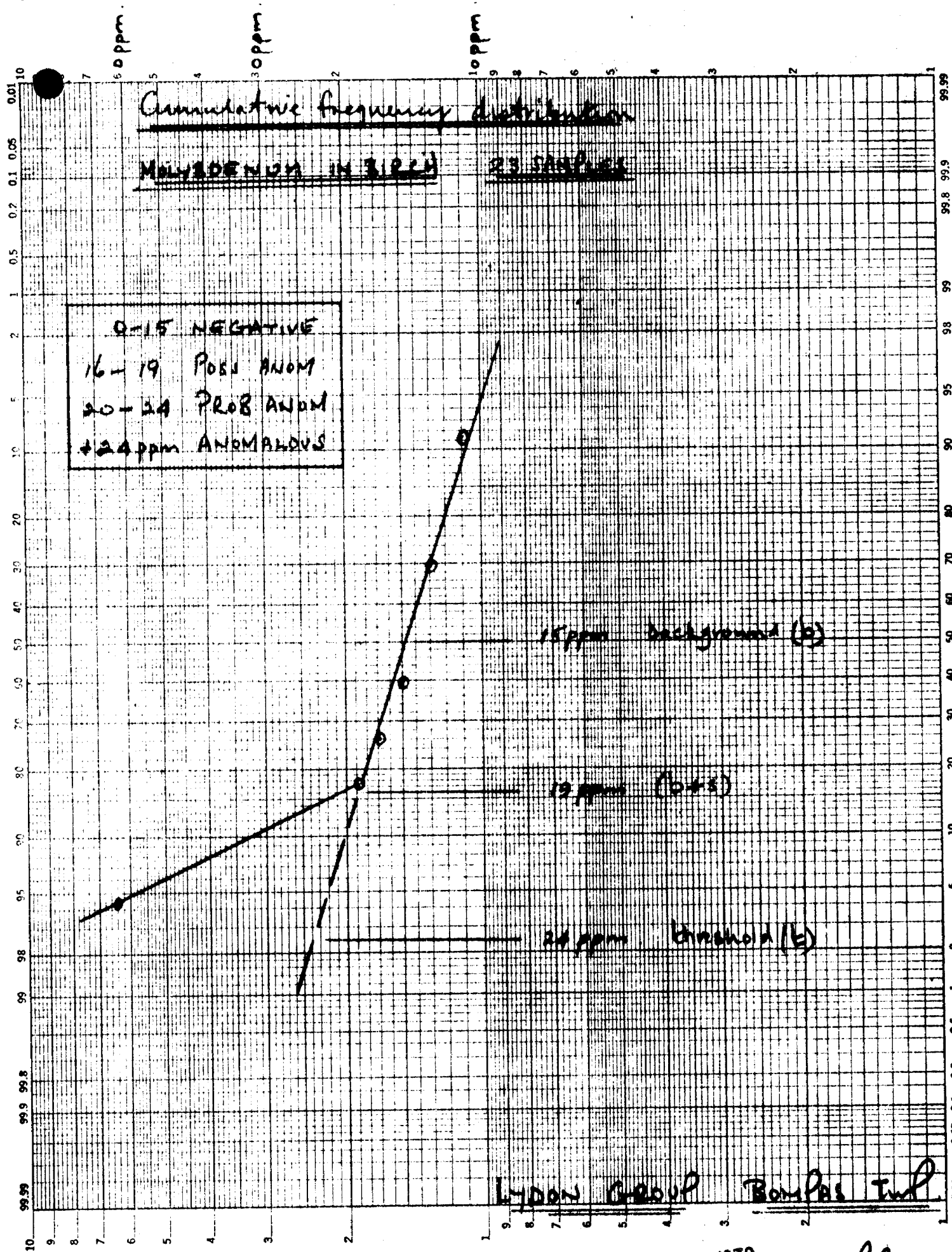


LYDON GROUP BOMPAS TWP.

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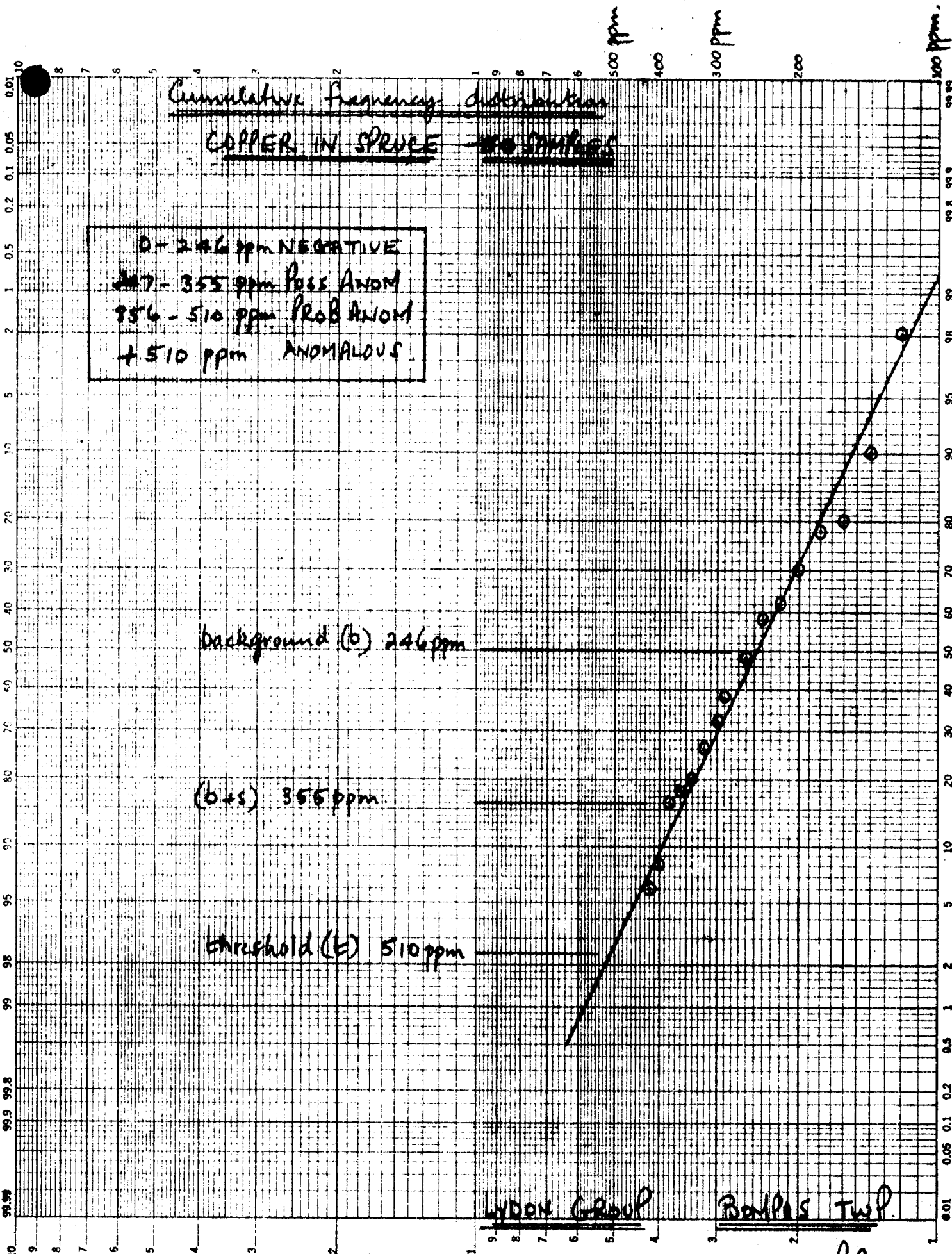
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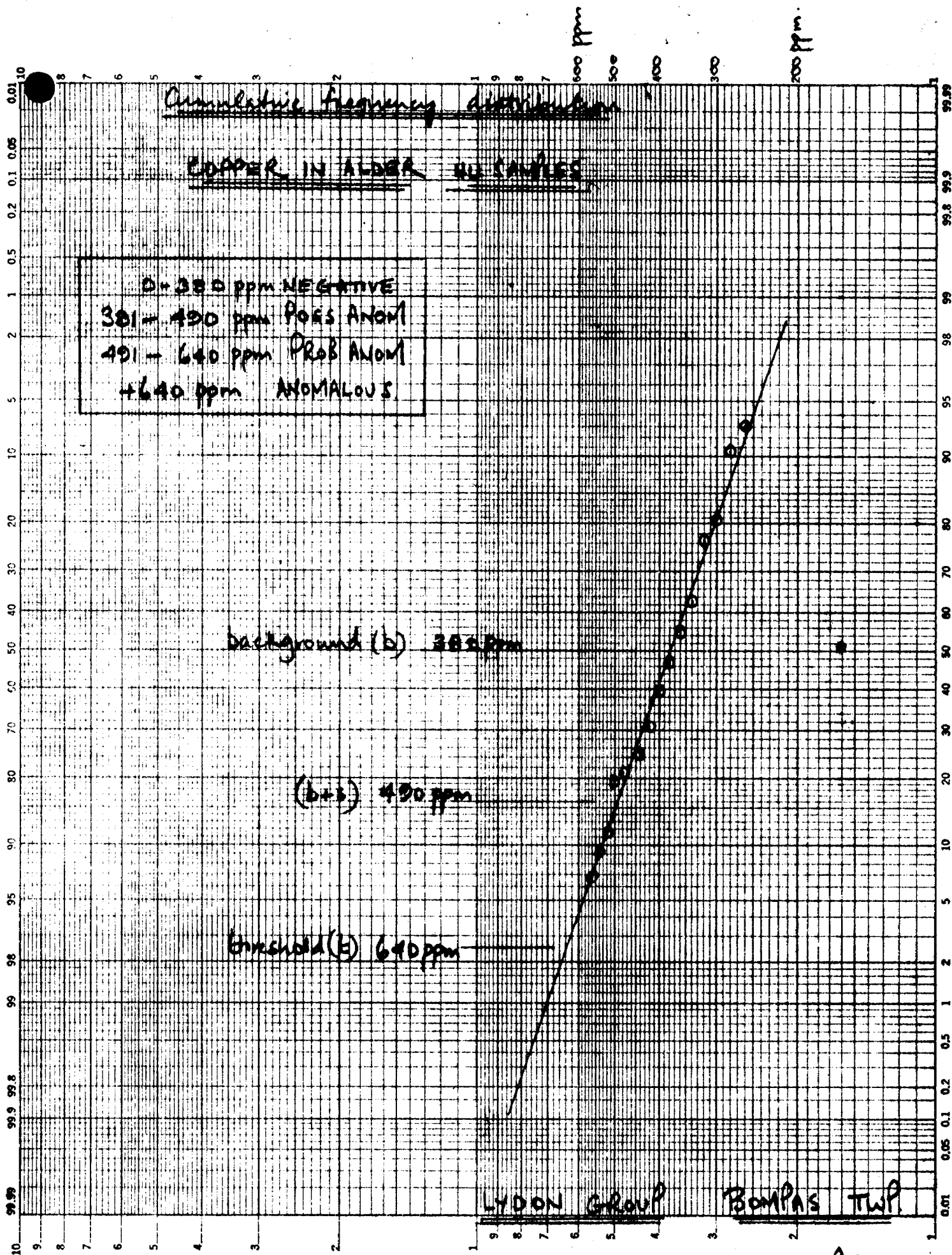
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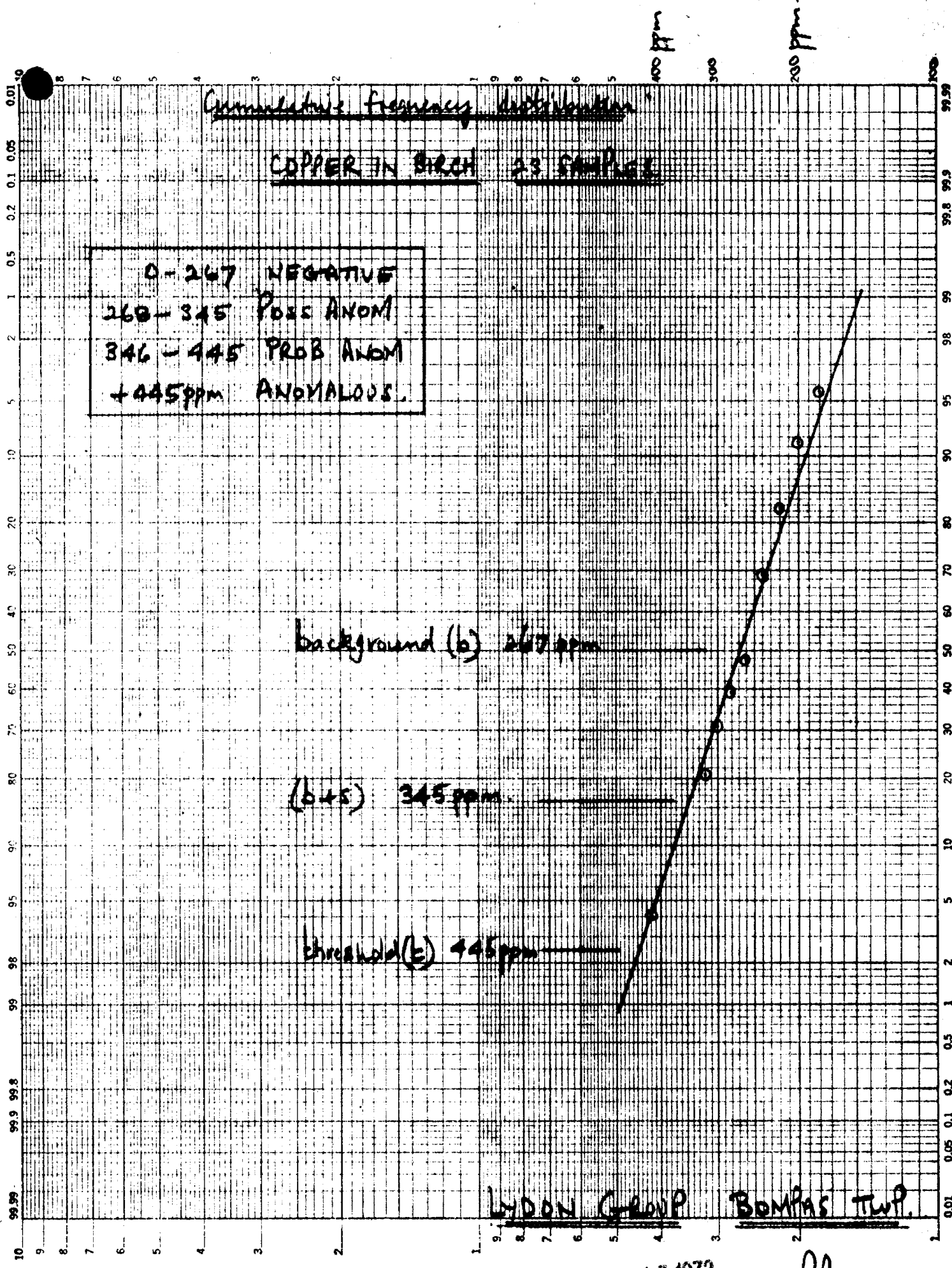
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OCT 13 1972

P.B.

K&E PROBABILITY 46 8043  
X 2 LOG CYCLES  
KEUFFEL & ESSER CO.



OCT 13 1972

P.B.



2.1042

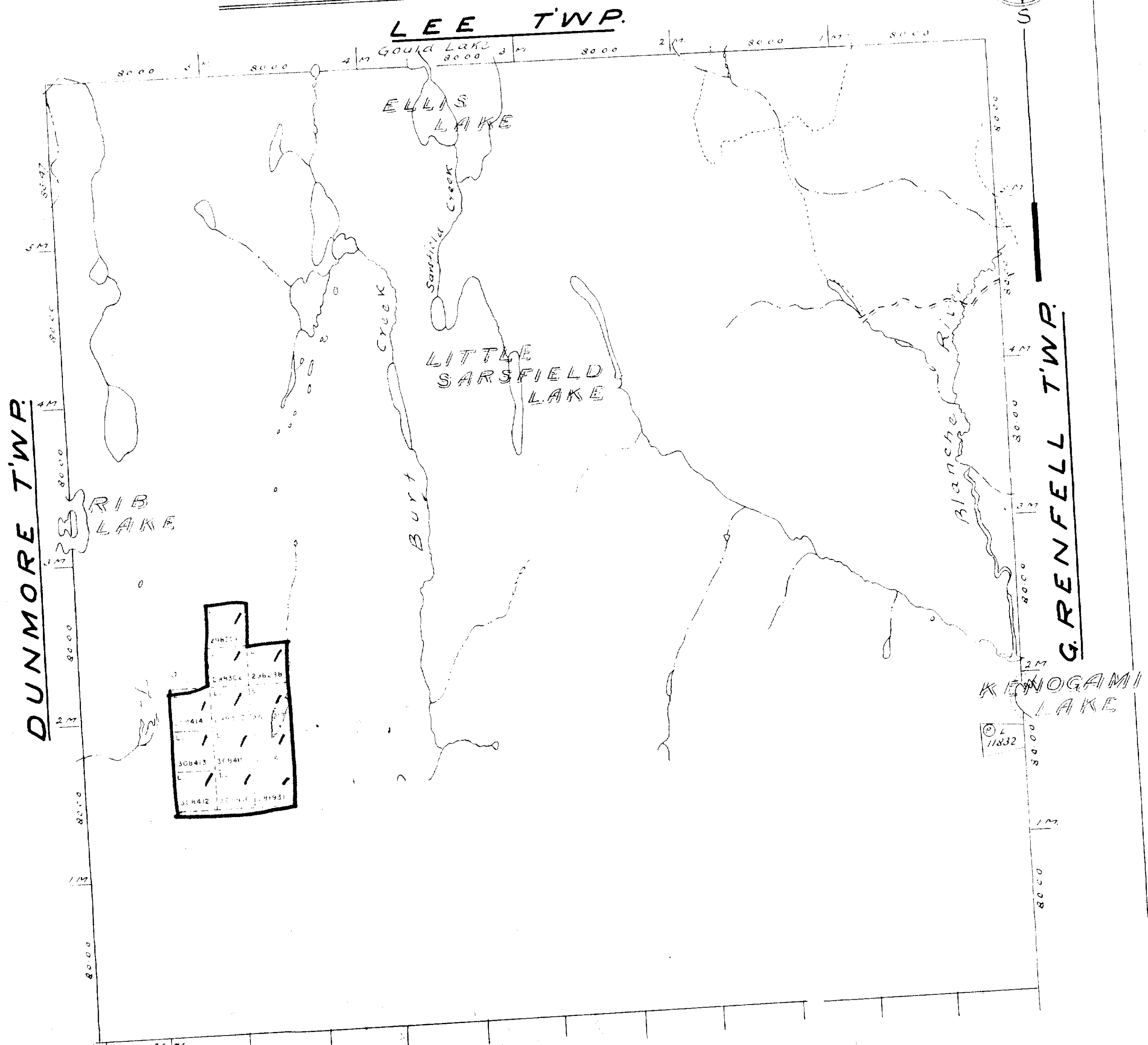
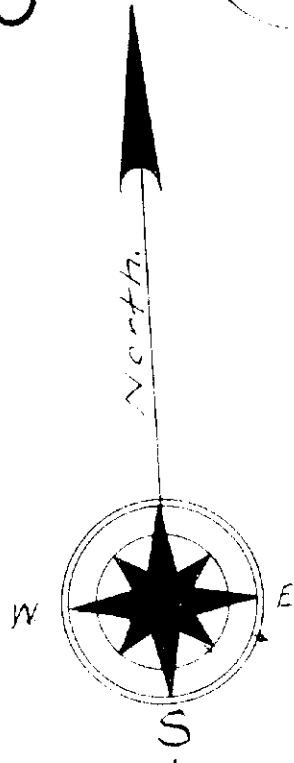
M.330

DATE OF ISSUE

NOV 1 1972

ONT. DEPT. OF MINES  
AND TECHNICAL AFFAIRS

PLAN OF  
**BOMPAS TWP.**  
 LARDER LAKE MINING DIVISION.  
 DISTRICT OF TIMISKAMING  
 - Scale, 40 chains to an inch -



DUNMORE TWP.

LEE TWP.

GRENFELL TWP.

BURT TWP.

Notes

Railways shown  
 Paved Highway  
 Gravel Highway  
 Route No.



Non-perennial streams  
 Bridges  
 Buildings  
 Swamps  
 Great marshes  
 Potential Leases  
 Held under  
 Occupation

CROWN LAND SALE  
 LOCATED LAND  
 MINING RIGHTS ONLY  
 SURFACE RIGHTS ONLY  
 CANCELLED

CS  
 Loc.  
 M.R.O.  
 S.R.O.  
 C.

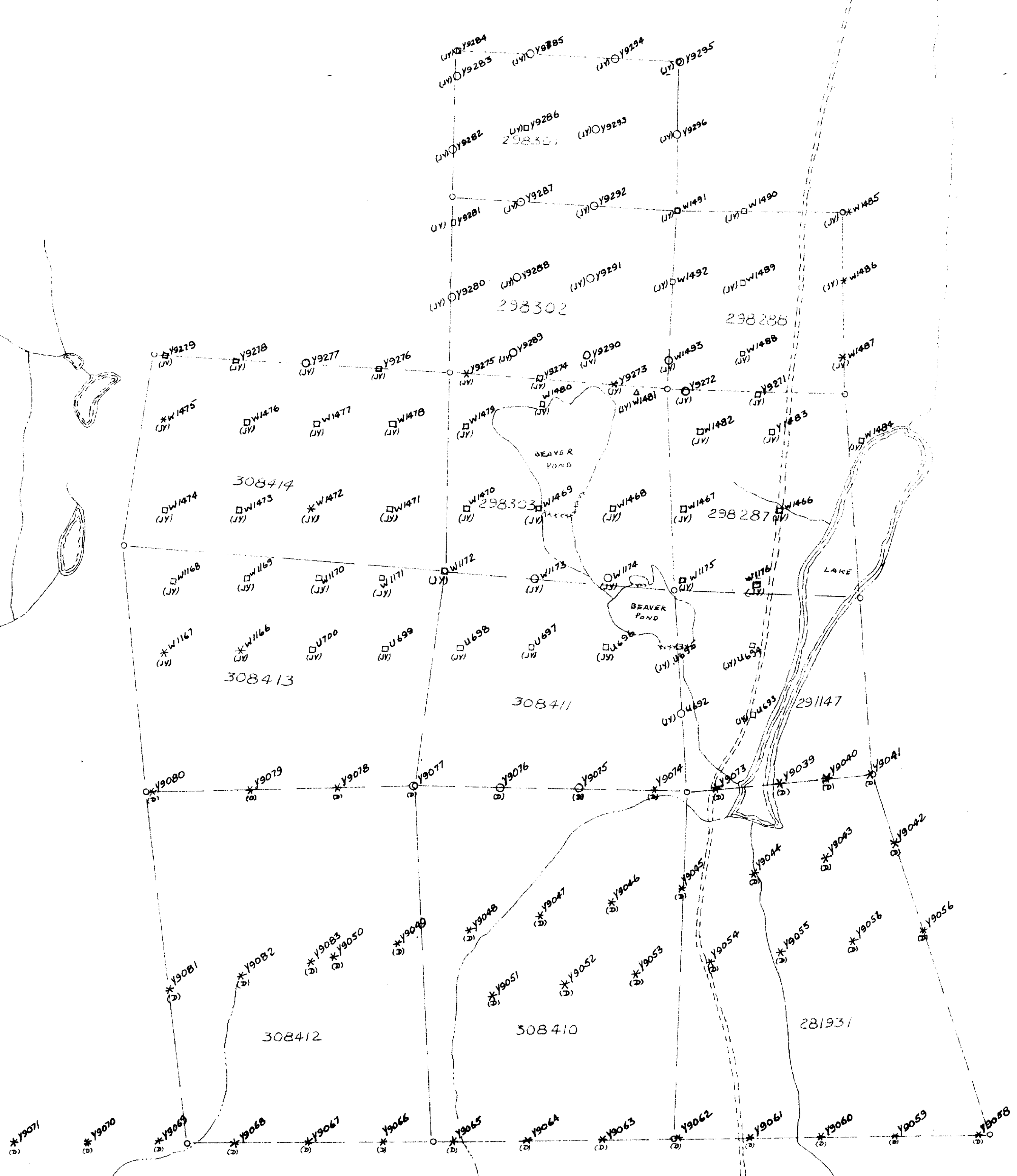


RIB LAKE

ADJOINS SHEET No.

CANADIAN JOHNS MANVILLE CO. LTD. - MATHESON, ONT.

ADJOINS SHEET No.



SAMPLES TAKEN  
 D - DECEMBER  
 JY - JULY

BONDAR CLEGG  
 REPORT NO.  
 16-2  
 696-2

TREE TYPE  
 O - BIRCH  
 \* - SPRUCE  
 Δ - BALSAM  
 □ - ALDERS

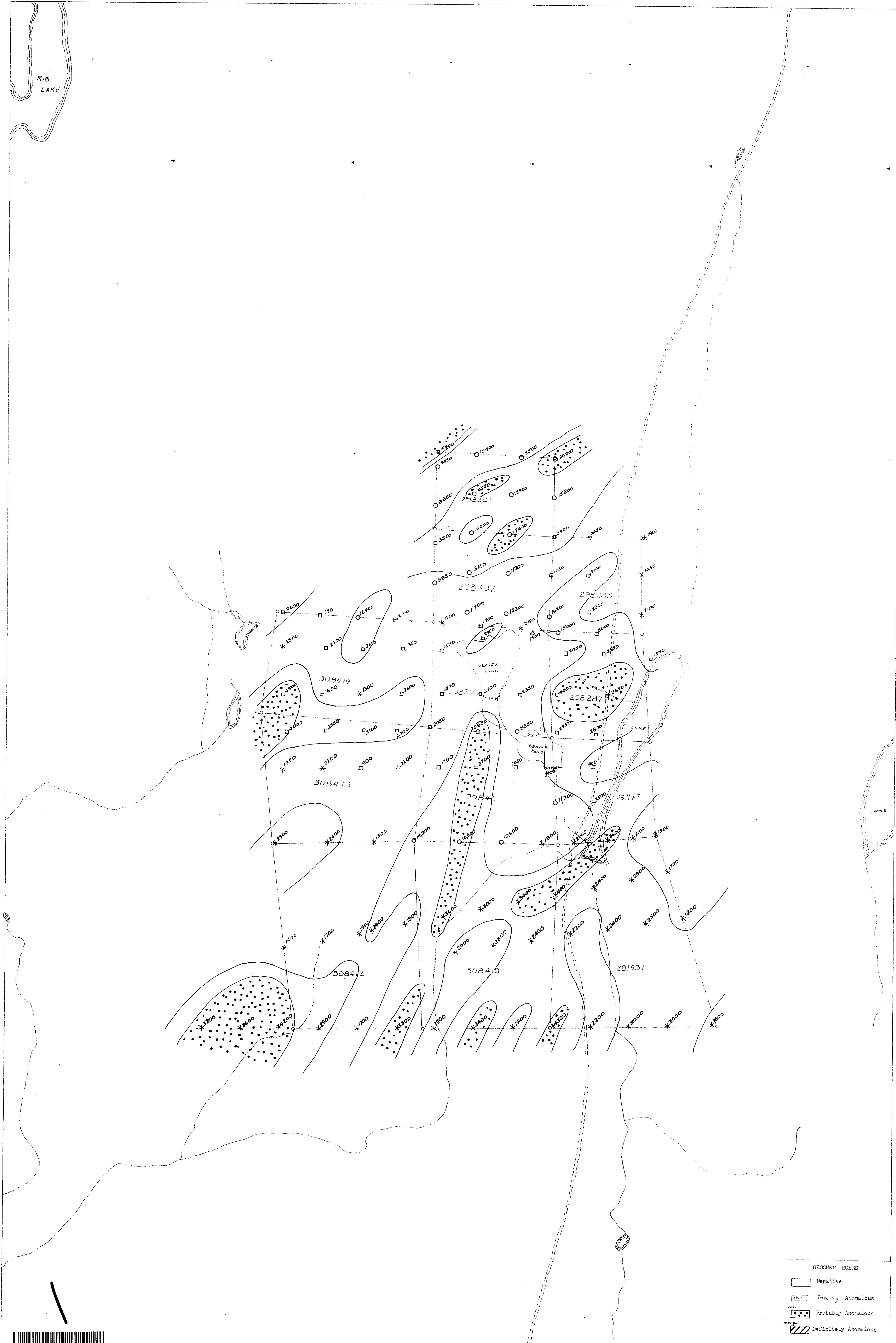


RIB LAKE

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CANADIAN JOHNS MANVILLE CO. LTD. - MATHESON, ONT.

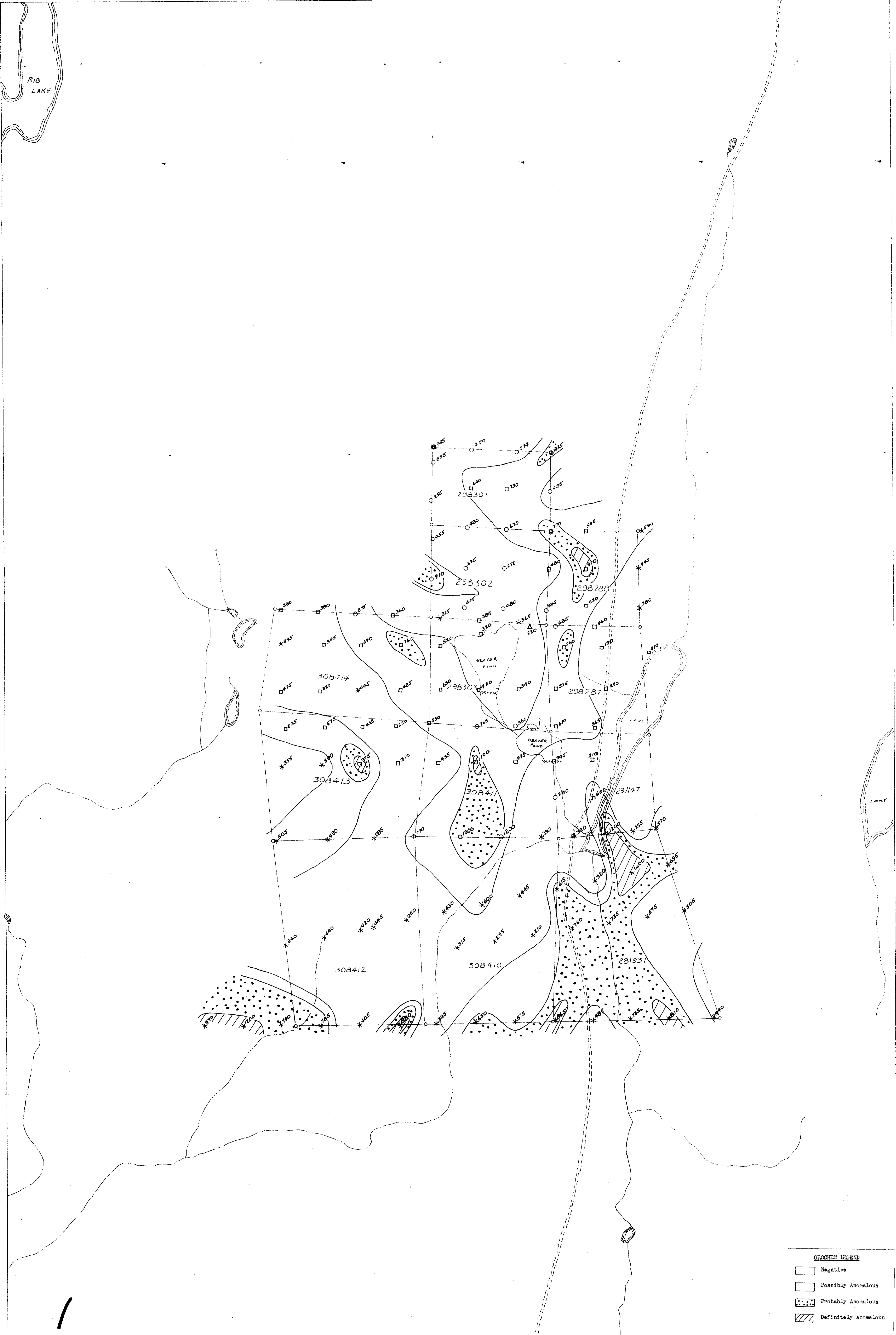
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GEOCHEM LEXEND

	Negative
	Possibly Anomalous
	Probably Anomalous
	Definitely Anomalous





ADJOINS SHEET NO.

CANADIAN JOHN'S MANVILLE CO. LTD. MATHESON, ONT.

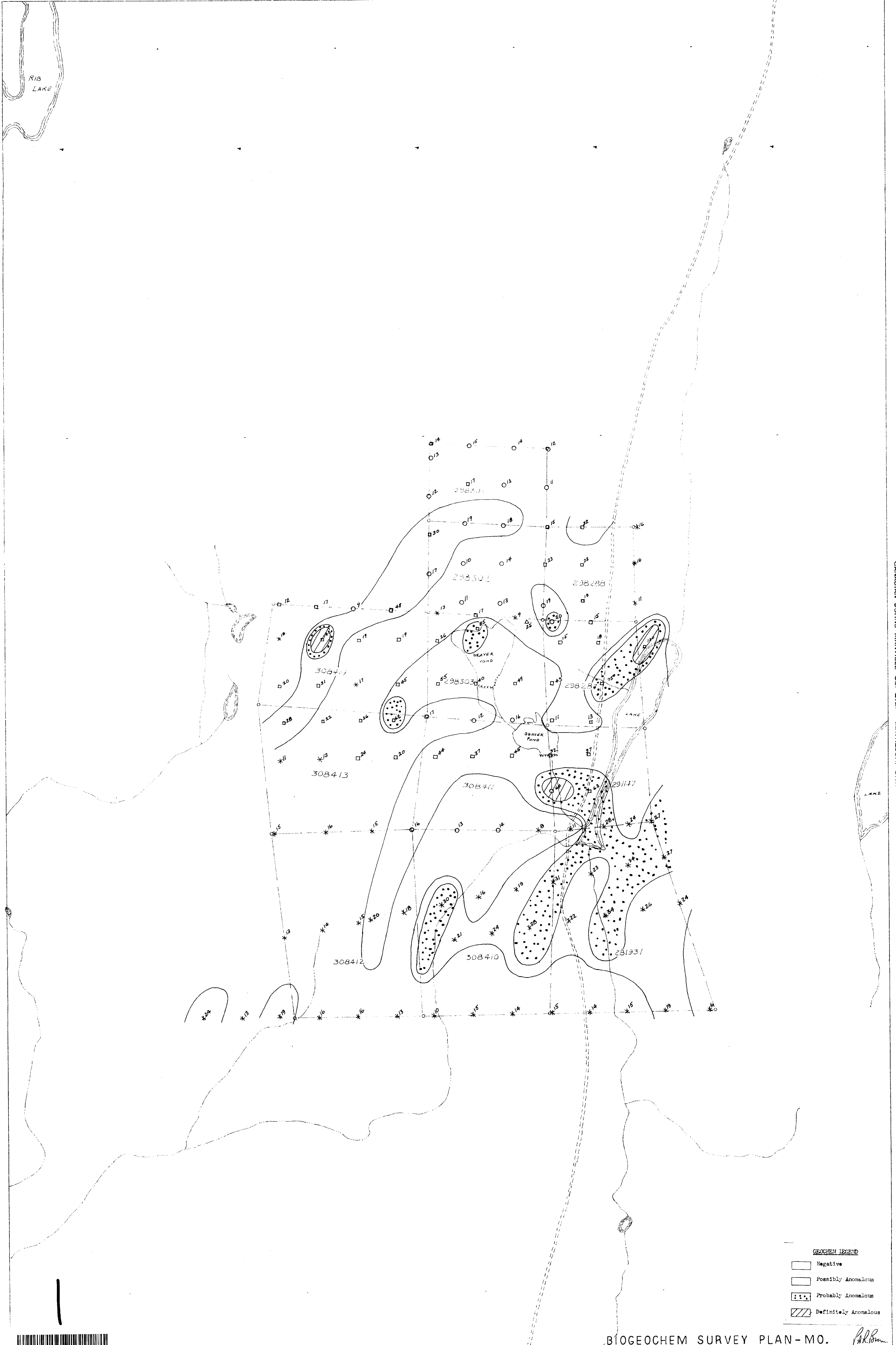
ADJOINS SHEET NO.

**GEOCHEM LEGEND**

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	Possibly Anomalous
	Probably Anomalous
	Definitely Anomalous







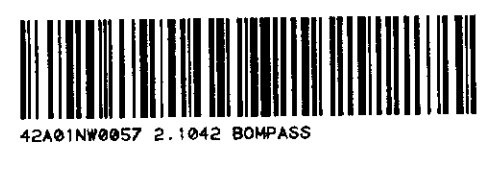
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CANADIAN JOHN'S MANVILLE CO. LTD. - MATHESON, ONT.

ADJOINS SHEET NO.

**GEOCHEM LEGEND**

□	Negative
○	Possibly Anomalous
⊙	Probably Anomalous
▨	Definitely Anomalous

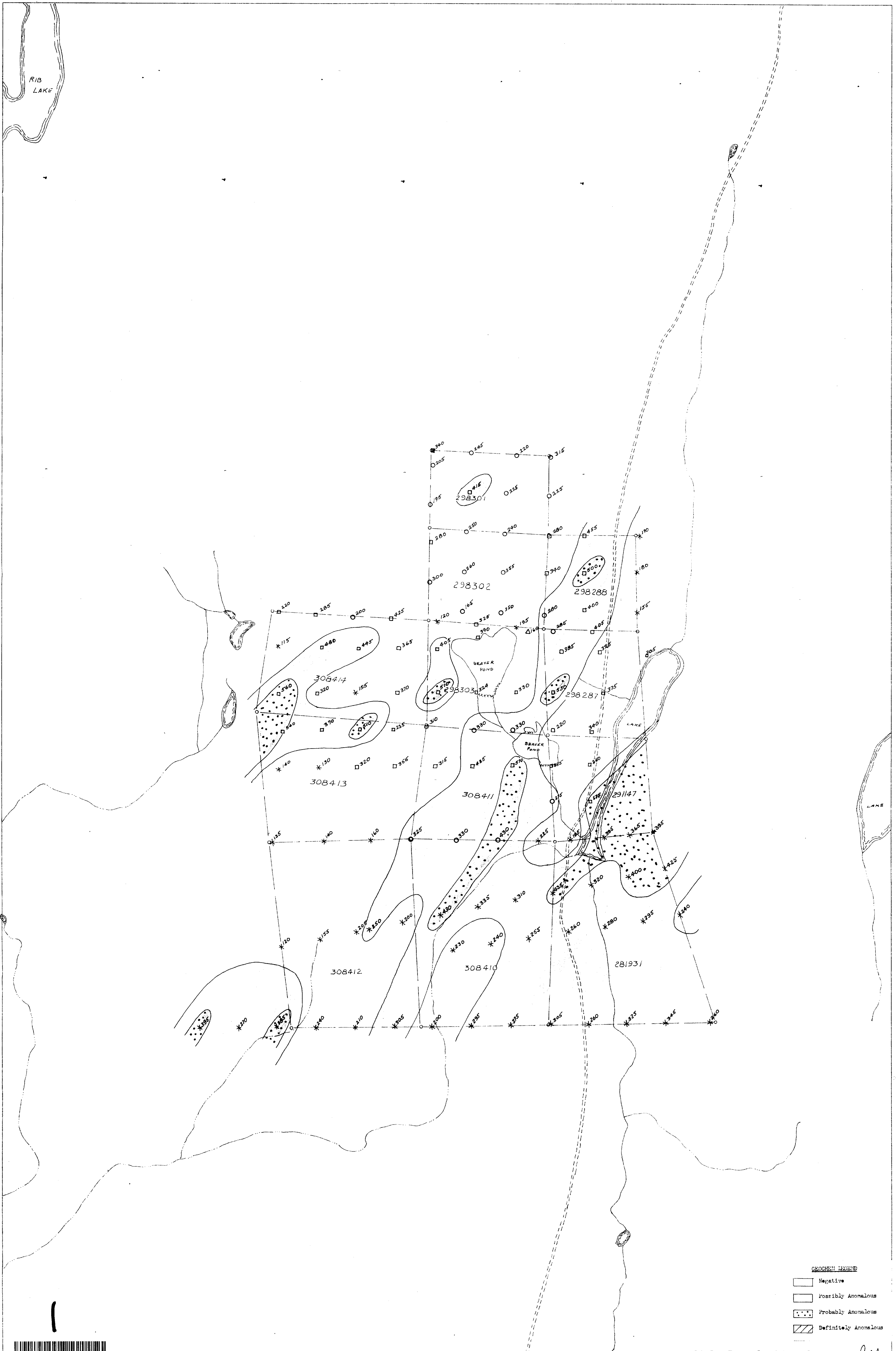


RIB  
LAKE

ADJOINS SHEET NO

CANADIAN JOHN MANVILLE CO. LTD. - MATHESON, ONT.

ADJOINS SHEET NO



GEOCHEM LEGEND

- Negative
- ▨ Possibly Anomalous
- ▩ Probably Anomalous
- ▧ Definitely Anomalous



4240198057 2.1042 COMPASS

250

ADJOINS SHEET NO

BIOGEOCHEM SURVEY PLAN - CU.

ONT. 1 400

OCT 13 1972

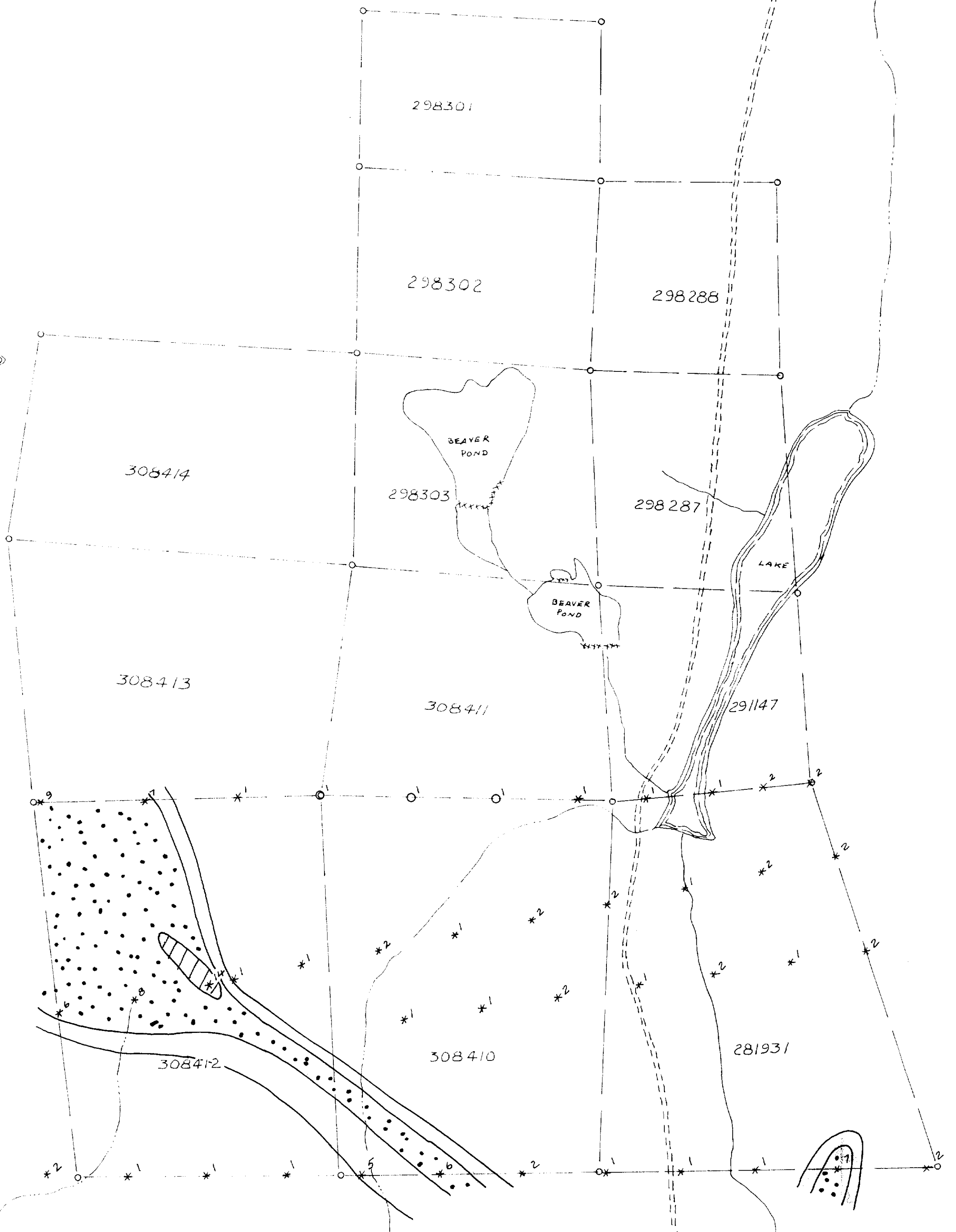
BOMPAS TWP.

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RIB  
LAKE

CANADIAN JOHNS MANVILLE CO. LTD. - MATHESON, ONT.

ADJOINS SHEET NO.



**GEOCHEM LEGEND**

	Possibly Anomalous
	Probably Anomalous
	Definitely Anomalous

BIOGEOCHEM SURVEY PLAN - AG. *R.A. Brown*  
 ONT. 1 400 OCT 13 1972 BOMPAS TWP.

