[Pb] - AREA A.

018726

ALL AREA A

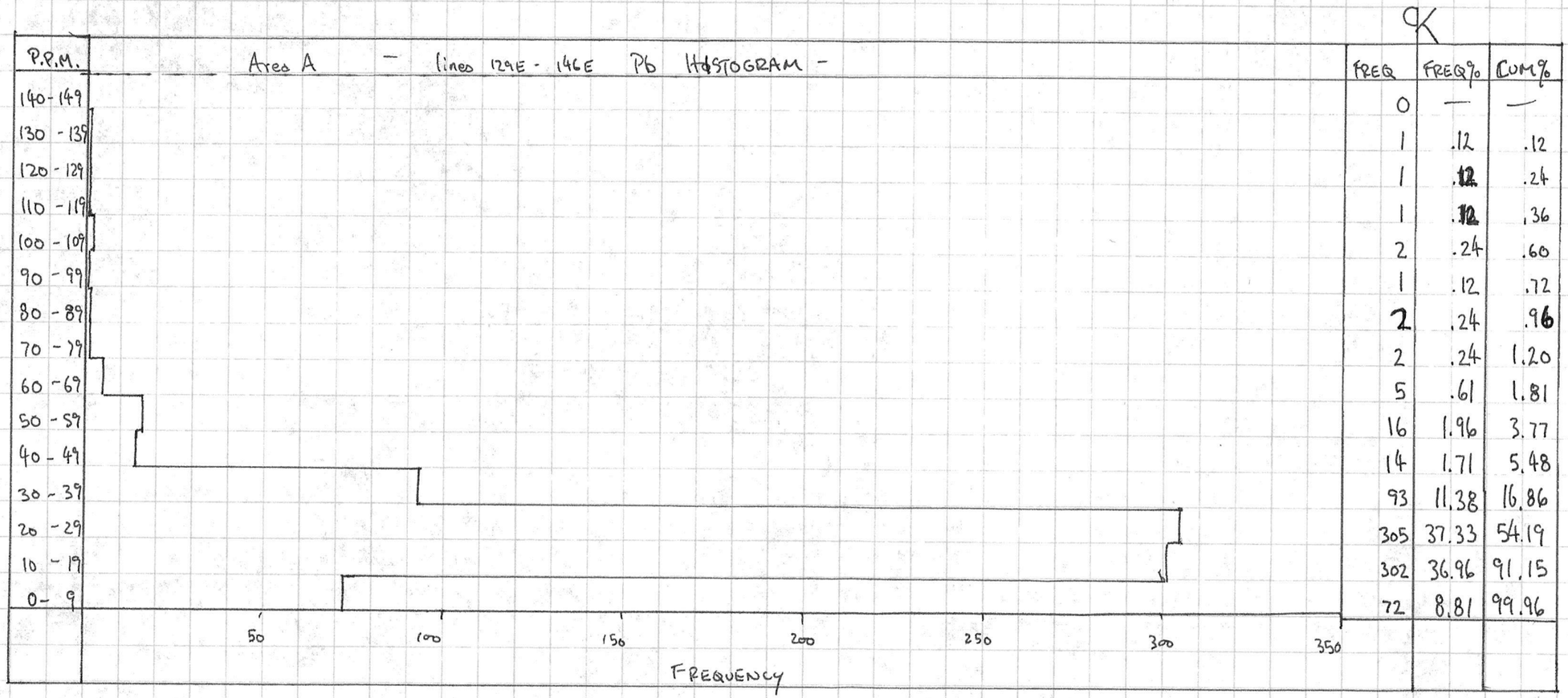
| | b | USE b+1SD | b+2SD | b+3SD |
|---|---|---|---|---|
| | 20 | 30 | 60 | 135 |
| 129 - 146 | 23 | 30 | 50 | 70 |

ALL AREA A

| | threshold | +1SD | +2SD | +3SD |
|---|---|---|---|---|
| | 45 | 100 | 150 | 200 |

start with this

# AREA A Pb lines 129E - 146E dec/81 CK



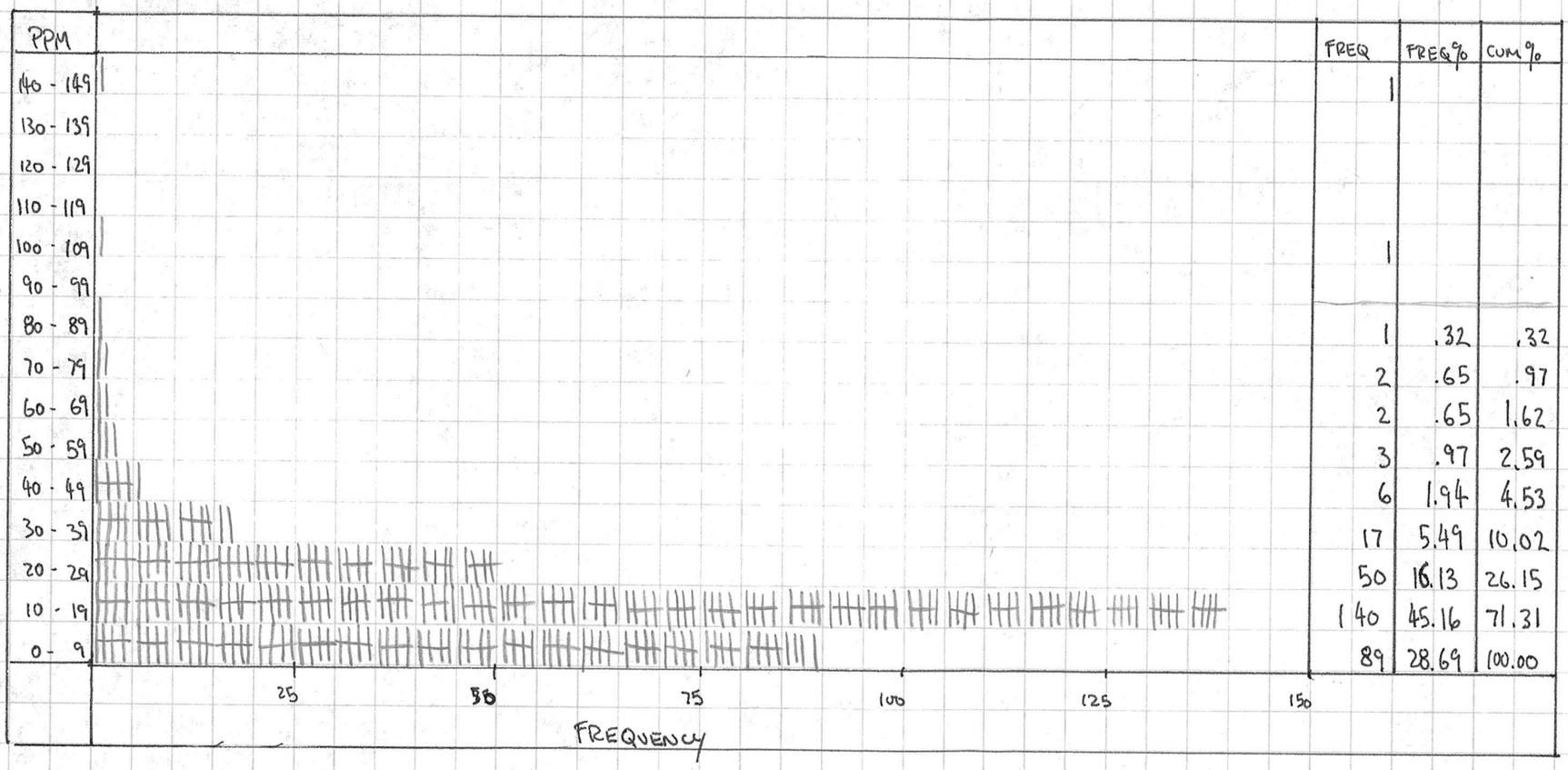

CK

| FREQ | FREQ% | CUM% |
|---|---|---|
| 0 | — | — |
| 1 | .12 | .12 |
| 1 | .12 | .24 |
| 1 | .12 | .36 |
| 2 | .24 | .60 |
| 1 | .12 | .72 |
| 2 | .24 | .96 |
| 2 | .24 | 1.20 |
| 5 | .61 | 1.81 |
| 16 | 1.96 | 3.77 |
| 14 | 1.71 | 5.48 |
| 93 | 11.38 | 16.86 |
| 305 | 37.33 | 54.19 |
| 302 | 36.96 | 91.15 |
| 72 | 8.81 | 99.96 |

TOTAL - 817

# ANERD GRID Pb

dec 81 9k




| PPM | FREQ | FREQ% | CUM% |
|---|---|---|---|
| 140 - 149 | 1 | | |
| 130 - 139 | | | |
| 120 - 129 | | | |
| 110 - 119 | | | |
| 100 - 109 | 1 | | |
| 90 - 99 | | | |
| 80 - 89 | 1 | .32 | .32 |
| 70 - 79 | 2 | .65 | .97 |
| 60 - 69 | 2 | .65 | 1.62 |
| 50 - 59 | 3 | .97 | 2.59 |
| 40 - 49 | 6 | 1.94 | 4.53 |
| 30 - 39 | 17 | 5.49 | 10.02 |
| 20 - 29 | 50 | 16.13 | 26.15 |
| 10 - 19 | 140 | 45.16 | 71.31 |
| 0 - 9 | 89 | 28.69 | 100.00 |

OVER 1

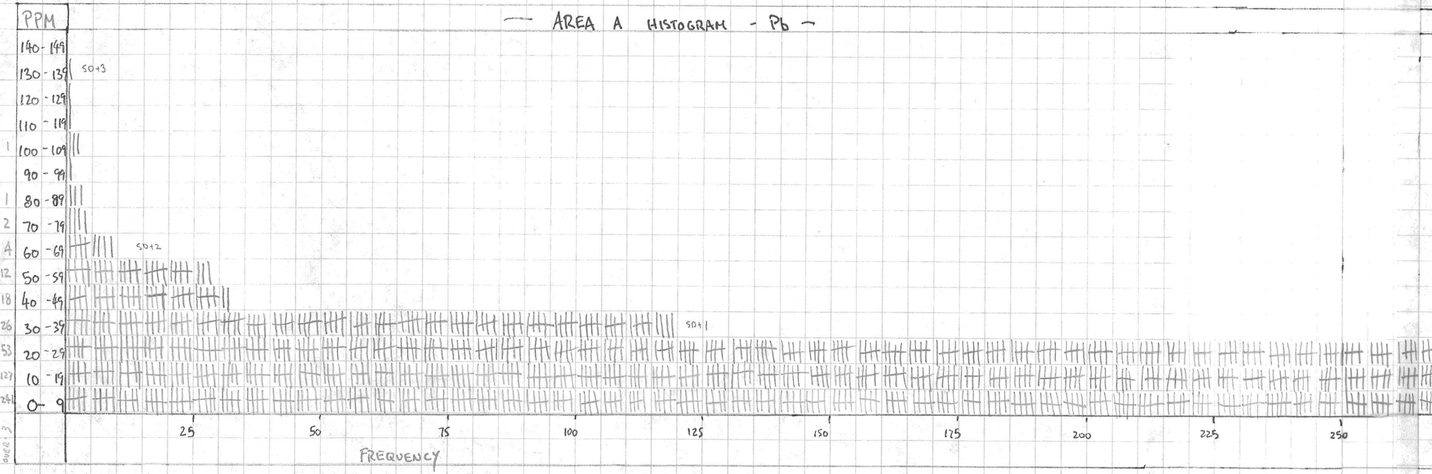
TOTAL - 310 ( 89 P.P.M cutoff)

# AREA A Pb.

(EXCLUDING ANERD Grid.)

dec/81 K

— AREA A HISTOGRAM - Pb —



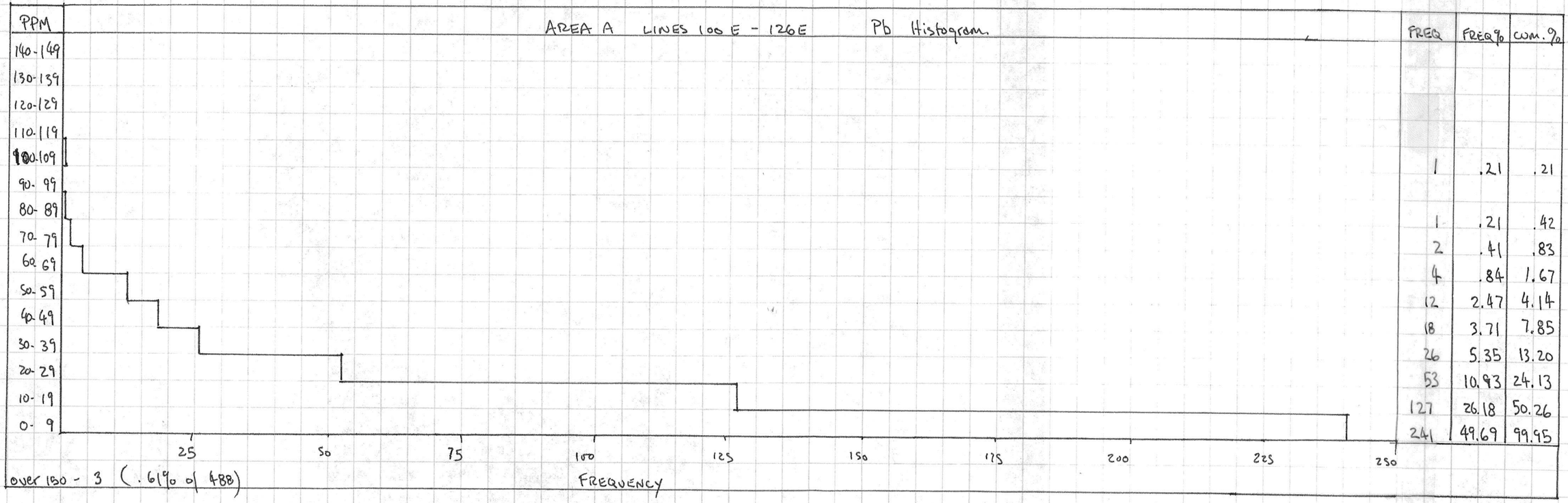

| PPM | FREQ | FREQ% | cum.% |
|---|---|---|---|
| 140 - 149 | 0 | — | .00 |
| 130 - 139 | 1 | .08 | .08 |
| 120 - 129 | 1 | .08 | .16 |
| 110 - 119 | 1 | .08 | .24 |
| 100 - 109 | 3 | .23 | .47 |
| 90 - 99 | 1 | .08 | .55 |
| 80 - 89 | 3 | .23 | .78 |
| 70 - 79 | 4 | .31 | 1.09 |
| 60 - 69 | 9 | .69 | 1.78 |
| 50 - 59 | 28 | 2.14 | 3.92 |
| 40 - 49 | 32 | 2.46 | 6.38 |
| 30 - 39 | 119 | 9.14 | 15.52 |
| 20 - 29 | 358 | 27.50 | 43.02 |
| 10 - 19 | 429 | 32.95 | 75.97 |
| 0 - 9 | 313 | 24.04 | 100.01 |

OVER 150 - 10 (.76% of 1312)

TOTAL - 1302

# AREA A Pb dec/81 4K

lines 100E - 126E
total samples ~~485~~




| PPM | FREQ | FREQ% | cum.% |
|---|---|---|---|
| 140-149 | | | |
| 130-139 | | | |
| 120-129 | | | |
| 110-119 | | | |
| 100-109 | 1 | .21 | .21 |
| 90-99 | | | |
| 80-89 | 1 | .21 | .42 |
| 70-79 | 2 | .41 | .83 |
| 60-69 | 4 | .84 | 1.67 |
| 50-59 | 12 | 2.47 | 4.14 |
| 40-49 | 18 | 3.71 | 7.85 |
| 30-39 | 26 | 5.35 | 13.20 |
| 20-29 | 53 | 10.93 | 24.13 |
| 10-19 | 127 | 26.18 | 50.26 |
| 0-9 | 241 | 49.69 | 99.95 |

over 150 - 3 (.61% of 488)

# AREA A Pb inclusive:

| PPM | FREQ | FREQ% | Cum.% |
|---|---|---|---|
| 140 - 149 | 1 | .06 | .06 |
| 130 - 139 | 1 | .06 | .12 |
| 120 - 129 | 1 | .06 | .18 |
| 110 - 119 | 1 | .06 | .24 |
| 100 - 109 | 4 | .25 | .49 |
| 90 - 99 | 1 | .06 | .55 |
| 80 - 89 | 4 | .25 | .86 |
| 70 - 79 | 6 | .37 | 1.17 |
| 60 - 69 | 19 | .68 | 1.85 |
| 50 - 59 | 31 | 1.92 | 3.77 |
| 40 - 49 | 38 | 2.35 | 6.12 |
| 30 - 39 | 136 | 8.43 | 14.55 |
| 20 - 29 | 408 | 25.28 | 39.83 |
| 10 - 19 | 569 | 35.25 | 75.08 |
| 0 - 9 | 402 | 24.90 | 99.98 |

TOTAL - 1614

lines 100E - 146E, ANERD GRID.

lines 100E - 126E : SD+1 Cu Pb 29 Zn — SD+2 Cu Pb 54 Zn — SD+3 Cu Pb 120 Zn

lines 129E - 146E SD+1 Cu Pb 35 32 ZN — SD+2 Cu Pb 55 ZN — SD+3 Cu Pb 135 Zn.

Anerd Grid : SD+1 - Cu - Pb 25 - Zn — SD+2 - Cu - Pb 50 - Zn — SD+3 - Cu - Pb 96 - Zn.

AREA A : SD+1 Cu Pb 30 Zn. — SD+2 Cu Pb 55 Zn — SD+3 Cu Pb 135 Zn

THUS FOR AREA A INCLUSIVE

WOULD SUGGEST FROM PARTITIONING TO USE 45 as a Threshold.

Thus 5% of values are going to be anomalous.

| Thresh | +1SD | +2SD | +3SD | |
|---|---|---|---|---|
| 45 | 97 | 140 | 200 | – this may be good values. |

Comments

| | | b | b+1SD | b+2SD | b+3SD |
|---|---|---|---|---|---|
| One population. | AREA A(100-120) | 9 | 29 | 52 | 115 |
| two pop, (excess of high values) | AREA A(128-146) | 23 | 32 | 55 | 140 |
| eliminating high. | | 23 | 32 | 44 | 65 |
| low value excess. | ANERD | 10 | 28 | 51 | 100 |
| eliminating lows. | | 10 | 28 | 51 | 123 |

Combinations.

mixed pop.

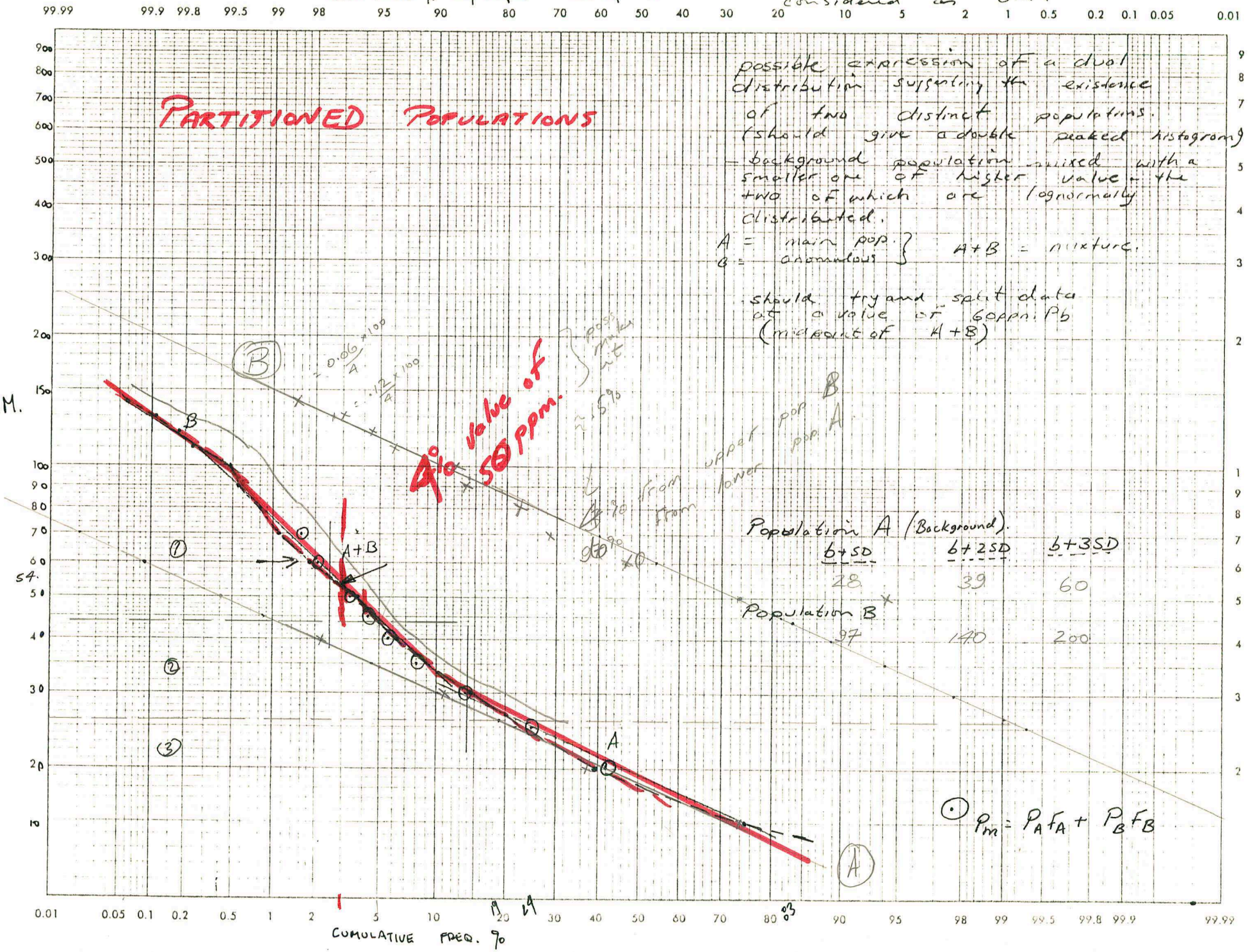
| | | | | |
|---|---|---|---|---|
| | 19 | 30 | 57 | 134 |
| pop A (background) | | 28 | 39 | 60 |
| pop B (anomalous) * | ~~65~~ | 97 | 140 | 200 * |

anything above "60 ppm is high priority."

# AREA A Pb. INCLUSIVE

CUM. FREQ. % Log Graph dec 81 | QK

This and (AREA A exclusive of 4L ANEXO grid) are very similar so one thus and considered as one.




P.M.

54.

AREA A Pb

lines 129E - 146E Pb. Cum. Freq. % Log Graph.

P.P.M.

Cum. Freq. %

possibly an excess of high values at break in slope.

thus.

| SD+1 | SD+2 | SD+3 |
|---|---|---|
| 32 ppm | 55 | 140 |

Becomes this

| SD+1 | | |
|---|---|---|
| 32 | 44 | 65 |

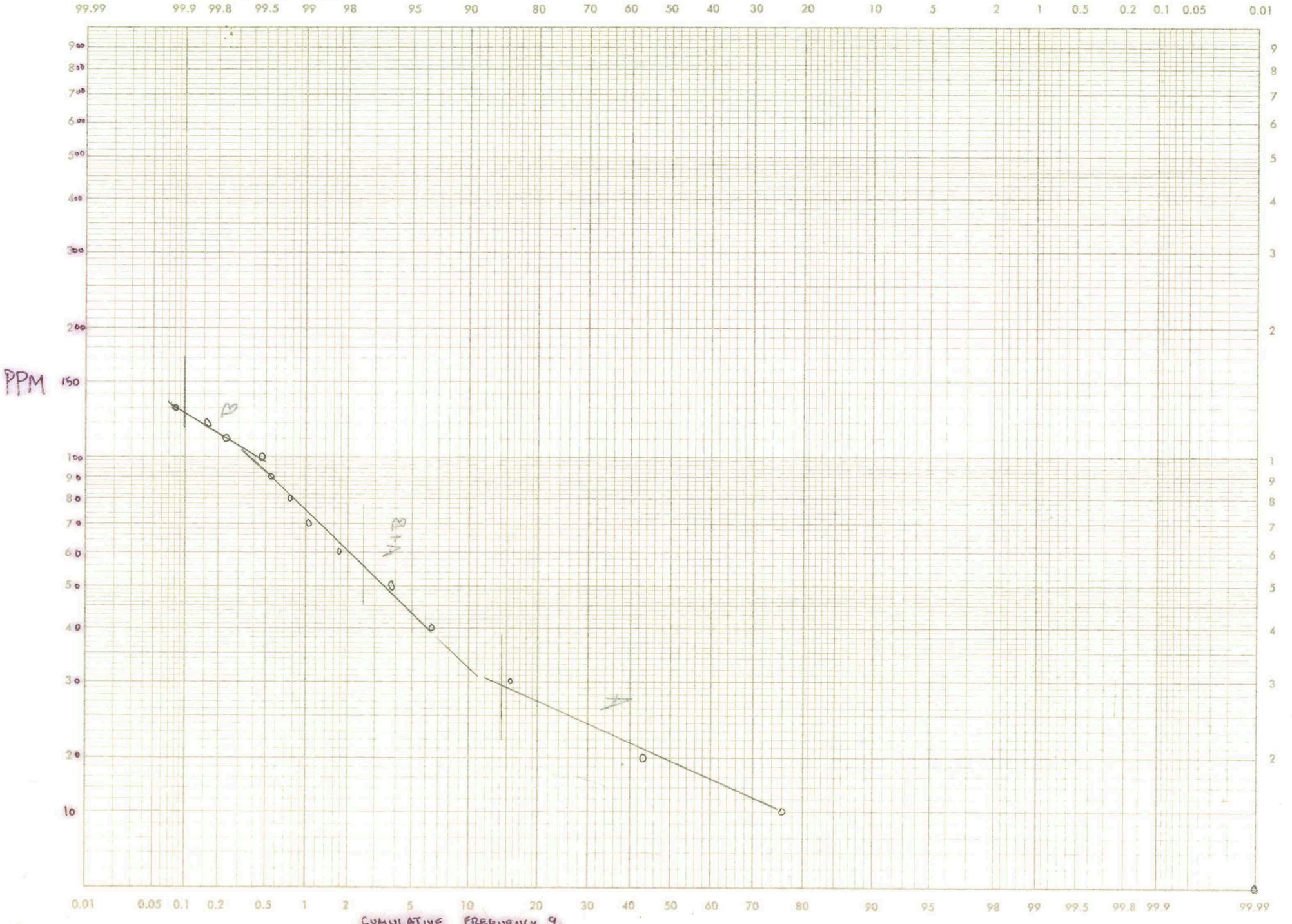
this tends to eliminate excess of high values from overweighing towards high end member.

there may be mix of two pop.

# AREA A - Pb - CUMULATIVE FREQUENCY % LOG GRAPH

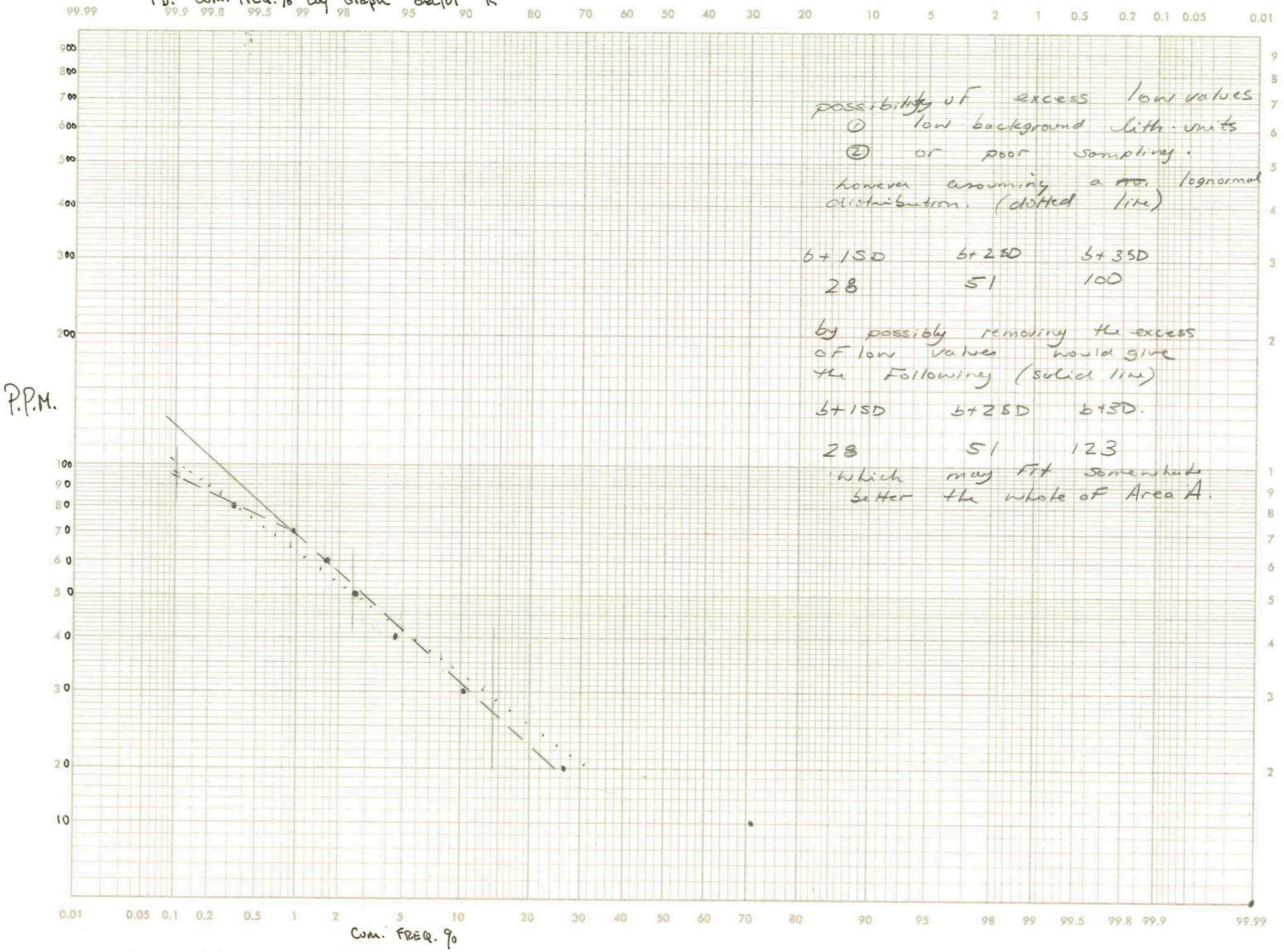
EXCLUDING ANERD GRID.

dEL/81 CK



ANERD GRID

Pb. Cum. Freq. % Log Graph dec/81 GK




possibility of excess low values
① low background lith. units
② or poor sampling.
however assuming a ~~log~~ lognormal distribution. (dotted line)

| b+1SD | b+2SD | b+3SD |
|---|---|---|
| 28 | 51 | 100 |

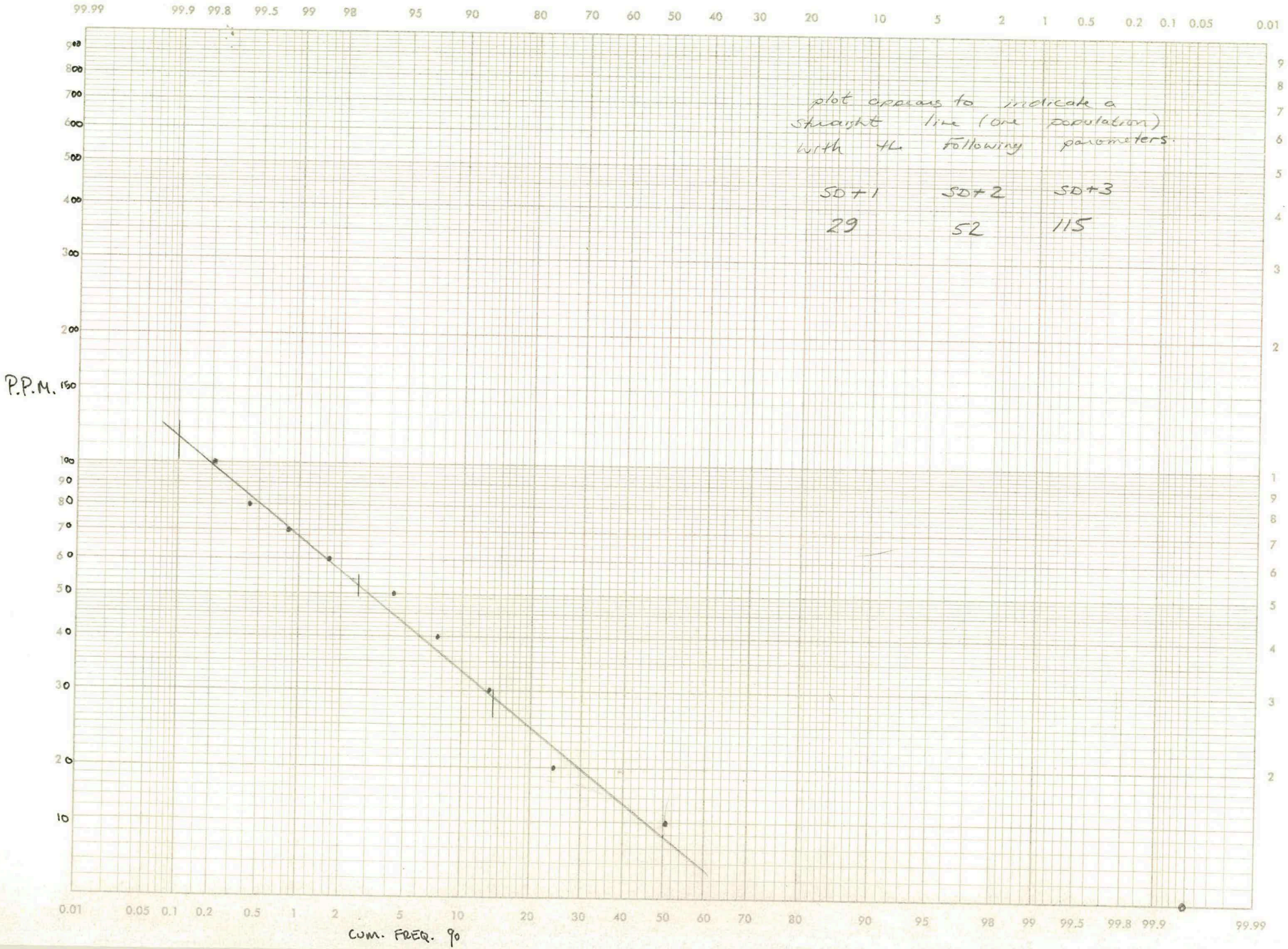
by possibly removing the excess of low values would give the following (solid line)

| b+1SD | b+2SD | b+3D. |
|---|---|---|
| 28 | 51 | 123 |

which may fit somewhat better the whole of Area A.

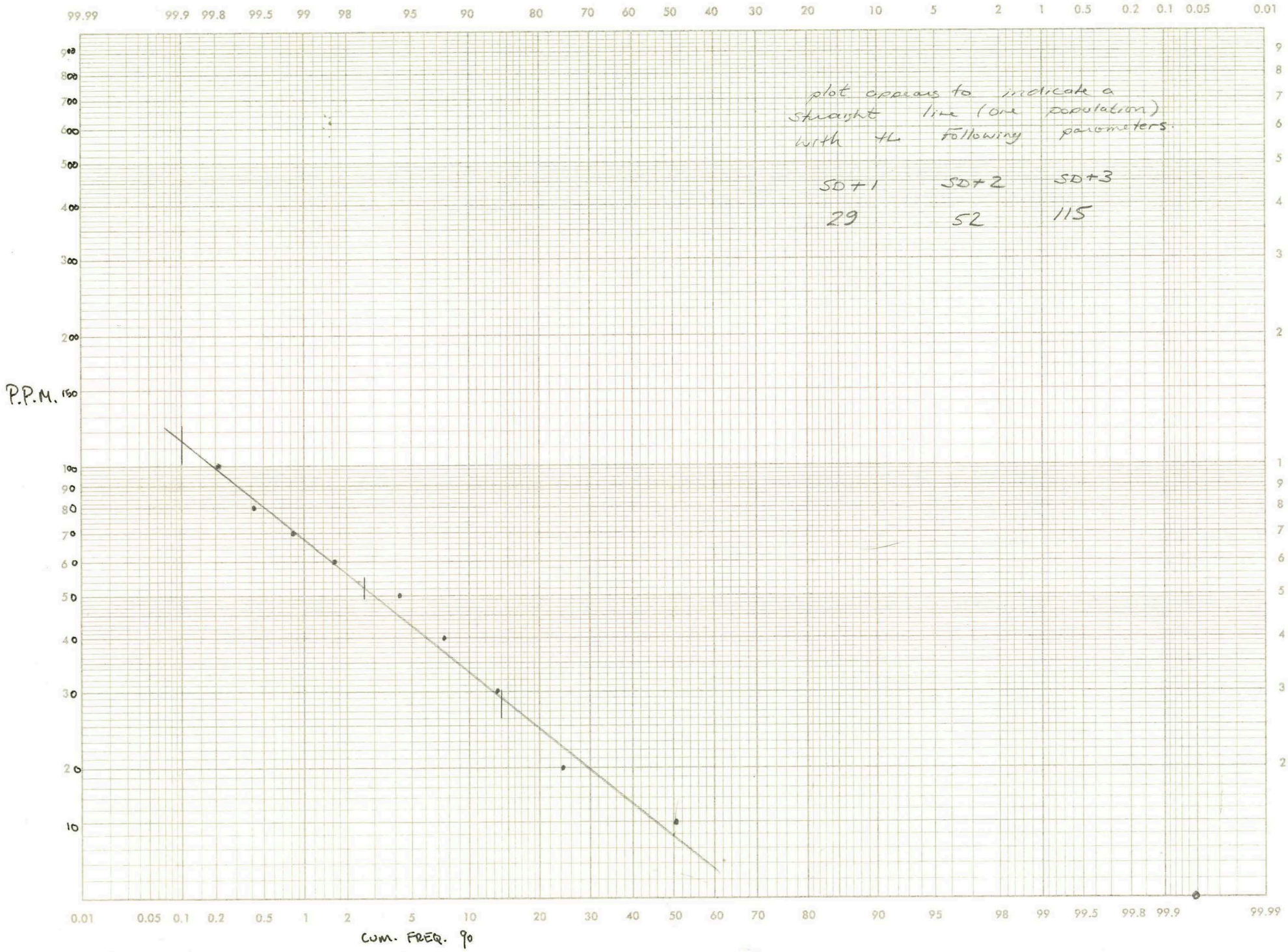
AREA A LINES 100E - 126E

Pb Cum. Freq. % Log Graph dec/81 gc



AREA A LINES 100E - 126E

Pb Cum. Freq. % Log Graph dec/81 gc



B/A 4/96

99(B) = 26 ppm.
1 (A) = 44 ppm.

99, 1

B

| | TOTAL | | A | | B | |
|---|---|---|---|---|---|---|
| | % | Value. | % | Value | % | Value |
| GROUP 1 | 5 | 44 | 83 | | 1 | |
| GROUP 2 | 19 | | 16 | | 80 | |
| GROUP 3 | ~~24~~ 26 | | 1 | | 19 | |
| | 76 | | | | | |

high priority.

1/1.25

16% ~~for~~ of data above 7σ

15:1

$x \times 16 \times .76 = 15.2$

at 99 Σ %

$x = 1.25$

mean plus two standard dev = 54 ppm.

of 16 samples.

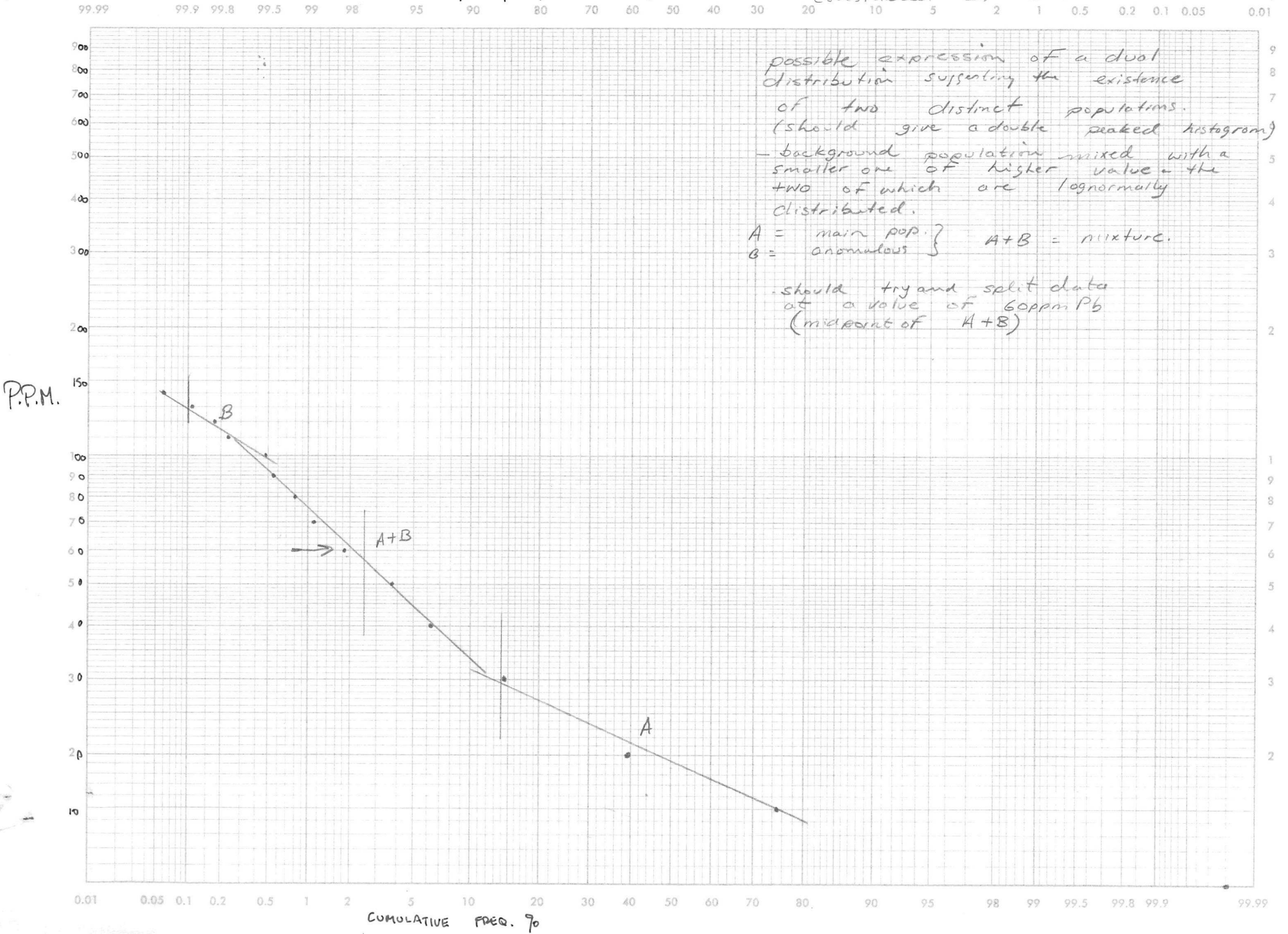
76% pop A
1% pop B

77%

# AREA A Pb. INCLUSIVE

CUM. FREQ. % Log Graph dec 81 QK

This and (AREA A exclusive of 4L ANEXO grid) are very similar ~~to~~ and thus are considered as one.




possible expression of a dual distribution suggesting the existence of two distinct populations. (should give a double peaked histogram)
- background population mixed with a smaller one of higher value - the two of which are lognormally distributed.

A = main pop. } A+B = mixture.
B = anomalous }

- should try and split data at a value of 60ppm Pb (midpoint of A+B)