

ational Lead Company
hiladelphia 25, Pennsylvania

KE 0018488

N19677

Source: Employees of National Lead Company, 2607 East Cumberland St.,
Philadelphia 25, Penn.

Material: Urine and Blood

Submitted: 5-26-52 by Dr. L. H. Hergesheimer, Plant Physician

Required: Lead Analyses

Name	URINE			BLOOD				
	Analysis Number	Volume ml.	Mg. Pb/ Liter	Analysis Number	Spectrographic		Dithizone	
					Weight Grams	Mg. Pb/ 100 g.	Weight Grams	Mg. Pb/ 100 g.
[REDACTED]	52A-3848	82	0.17	52A-3849	20.6	0.05	21.5	0.06
[REDACTED]	52A-3850	100	0.23	52A-3851	18.4	0.05	18.8	0.07
[REDACTED]	52A-3852	108	0.23	52A-3853	11.0	0.07	13.3	0.09
[REDACTED]	52A-3854	146	0.04	52A-3855	21.0	0.05	21.9	0.05

Samples Collected: 5-21-52
Samples Received: 5-26-52
Samples Reported: 6-2-52

2E 0018489

If, however, he had not been working for a much longer time - i.e., for a year or somewhat more or less - his exposure may have been quite severe. Only on the basis of a knowledge of these facts can the present results be interpreted.

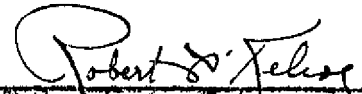
The analytical data on each of the other men has provided some evidence of unusual exposure to lead, the severity of which decreases in the order in which they are named.

[REDACTED] has been subjected recently to an hazardous type of exposure, as shown by the fact that the concentration of lead in his blood is in the dangerous range associated frequently with the symptomatology of lead poisoning. His urinary lead level is elevated but not to quite a corresponding extent. This man should be removed from further significant exposure promptly and should not be returned to work involving further exposure until the lead levels have dropped to normal or near normal.

[REDACTED] has been subjected to exposure to lead, but at present has not reached a dangerous level of lead absorption. Whether or not he is likely to reach a dangerous state in the near future can be determined only by consideration of the details of his recent employment. He would not be expected to develop symptoms without further significant exposure.

[REDACTED] gives no evidence of dangerous absorption of lead. The urinary lead concentration is elevated but little beyond the extreme upper normal limit (for a sample of this volume), while the blood lead concentration is at the upper normal level. These results point to recent exposure, but the absorption up to the present has not exceeded the limits of safety.

Signed:


Robert A. Kehoe, M. D.

Dr. L. H. Hergesheimer
Plant Physician
National Lead Company
2607 E. Cumberland Street
Philadelphia 25, Pennsylvania

Dear Doctor Hergesheimer:

I am sending you herewith the results on the blood and urine
of the following patients, together with an interpretation of
the results and an invoice covering the cost of analysis:



Very truly yours,

E. R. Fortlage, Secretary to
Dr. Kehoe

ef

Enc.

KE 0018491

N19677.02

Physical

Negative.

Laboratory

January 1952, hemoglobin 80%. 22 stippled cells in 30 fields.

April 1952 " 85%. 50 " " " 30 "

Impression

Chronic lead absorbtion.

Treatment

None

Studies Desired

Blood and urine lead levels.

Physical

Negative.

Laboratory

April 1952, hemoglobin 75%.	19 stippled cells in 30 fields.
May 1952 " 80%.	49 " " " 30 "

Impression

Chronic lead absorbtion.

Treatment

None.

Studies Desired

Blood and urine lead levels.

Physical

Negative except for hypertension. Blood pressure 172/100.

Laboratory

January 1952, hemoglobin	80%.	22	stippled	cells	in	30	fields
March 1952	" 78%	7	"	"	"	30	"
April 1952	" 85%	50	"	"	"	30	"

X-ray shows probable pneumoconiosis.

Impression

Chronic lead ingestion.

Treatment

None

Studies Desired

Blood and urine lead levels.

KE 0018494

Physical

confused, mentally sluggish, B. P. 200/100. Enlarged heart. Systolic mitral murmur. Enlarged liver. Neurological examination:

1. Quantitative intellectual deficit with dulling.
2. A left hemiparesis.
3. Marked hyperactivity of the tendon reflexes in both lower extremities and diminution of position sensation.
4. Slow measured gait with some unsteadiness on turning & mildly positive Romberg.

Laboratory

Hemoglobin 8.4 gm. RBC 2.7 million, WBC 5,100. Bone marrow shows many stippled cells and over active granulocytes. Blood sugar 87, urea 70, CO₂ 45%, chlorides 594, protein 6, serum albumen 3.2, serum globulin 2.8, blood calcium 7, blood lead level 0.201 mgm. per 100 gm. of blood. Gastric analysis: Low total acid with no free HCL, x-ray of intestines, chest and skull, negative.

Impression

1. Chronic lead poisoning.
2. Nephritic, chronic, glomerular.
3. Hypertensive cardio-vascular disease.
4. Anemia, severe. Secondary to No. 1 and No. 2.

Treatment

Digitalis, Unicaps, fecsol.

Studies Desired

Blood and urine lead levels.