

Aluminum Ore Company

East St. Louis, Ill.

August 25, 1945

Dr. R. A. Kehoe, Director
Kettering Laboratory of Applied Physiology
University of Cincinnati
College of Medicine, Eden Avenue
Cincinnati 19, Ohio

Dear Dr. Kehoe :

Today we are shipping to you, via parcel post, one specimen each of blood and urine marked [REDACTED] the patient concerned. This patient, [REDACTED], as you will remember is a lead burner who showed high exposure in the analyses made by you four months ago. We mailed this man's work history to you on May 3, 1945. Should you require further information we will be glad to furnish it.

In submitting a bill to cover your expenses, will you kindly mail this in duplicate so that we can reimburse you as quickly as possible.

Very truly yours,

ALUMINUM ORE COMPANY

R. C. Roberts

R. C. Roberts

RCR:AK

CC: Dr. D. A. Irwin - Alcoa Medical Director
Mr. D. H. Tilson - Works Manager, E.St.L.

KE 0005299

Aluminum Ore Company

East St. Louis, Ill.

August 21, 1945

Dr. R. A. Kehoe, Director
Kettering Laboratory of Applied Physiology
University of Cincinnati
College of Medicine, Eden Avenue
Cincinnati, Ohio

Dear Dr. Kehoe:

On May 5, 1945 we received a report from you covering analytical results on lead determination obtained on samples of blood and urine from seven of our workmen. At that time one of our workmen showed dangerous exposure. This man was subsequently removed from that occupation and better ventilation and working conditions were therein established. Several months have now elapsed and we would like to have a set of blood-lead and urine-lead analyses run on this one man.

If you will kindly forward one set of specimen bottles and needles we will return the specimens to you immediately. It is our understanding the former charge of \$10.00 per man involved still applies. Again we appreciate your cooperation in helping us with these analyses.

Very truly yours,

ALUMINUM ORE COMPANY

R. C. Roberts

R. C. Roberts

RCR:AK

CC: Dr. D. A. Irwin - Alcoa Medical Director
Mr. D. H. Tilson - Works Manager, E.St.L.

KE 0005300

N 7305.01

Robert A. Kehoe, M. D.
College of Medicine Eden Avenue
Cincinnati 19, Ohio

September 4, 1945

Aluminum Ore Company,
East St. Louis, Illinois.

Attention: Mr. R. C. Roberts

Analysis of Blood and Urine for Lead

 \$ 10.00

KE 0005301

N 7305.02

Aluminum Ore Company

East St. Louis, Ill.

May 14, 1945

Dr. Robert A. Kehoe, Director
Kettering Laboratory of Applied Physiology
University of Cincinnati
College of Medicine, Eden Avenue
Cincinnati, Ohio

Dear Dr. Kehoe:

Your letter of May 5 enclosing blood-lead and urine analyses and your interpretation thereof is much appreciated. You should receive a check very shortly to cover expenses involved in these analyses.

As you suggest in your letter, we are temporarily removing our only case of lead poisoning from further exposure until his lead excretion and his blood-lead content have reached normal limits. We would like to check this man at about two-month intervals.

We appreciate your cooperation on this problem and trust that we may again have the opportunity of working with you.

Very truly yours,

ALUMINUM ORE COMPANY



R. C. Roberts

RCR:AK

cc: Dr. D. A. Irwin, Alcoa Medical Director

KE 0005302

N 7305.03

15
May 5, 1945

Mr. H. C. Roberts,
Aluminum Ore Company,
East St. Louis, Illinois.

Dear Mr. Roberts:

I am sending you herewith two copies of the analytical results obtained on the samples of blood and urine from your seven workmen. I also enclose a bill to cover the cost of the analyses.

The interpretation of these results on the basis of the information you have provided is fairly simple. First, let me point out that with one exception the results obtained on the urine and blood of the individual cases are in close physiologic agreement, thereby indicating that there was probably no factor of significant contamination of the samples. The exception referred to is that of [REDACTED], in whose case the average of the two results on the blood is higher than would be expected on the basis of the urinary lead concentration. Even in this instance, however, the divergence is not very great, and in my opinion it was probably caused by the fact that the sample of urine was dilute.

In general, six of the results show that the lead exposure on these men has been slight and within safe limits. Actually in three instances, [REDACTED], and [REDACTED] all of the results are within normal limits, thereby indicating that these men have had very little if any occupational lead exposure. In only one instance is the result of both analyses significantly high, namely, that of [REDACTED]. The results here are quite in keeping with expectations based on this man's occupation. In general spray painters with adequate protection can be expected to show little or no evidence of lead absorption in the course of their work. On the other hand, our experience with lead burners in a number of plants, has indicated that these men do have significant exposure and that from time to time, especially following an unusual bad job, they develop active symptomatology of lead intoxication. The results obtained on both the blood and urine of this man give a clear indication that he has had hazardous lead exposure. There is no question that he should be protected against further significant lead exposure at this time. If exposure of comparable magnitude is permitted to continue in his case, it is very likely that he will develop symptoms.

The actual nature of the work on this lead burner is not specific.

RE 0005303

N 7305.04

Mr. F. C. Roberts - (2) - May 5, 1945

Therefore, I cannot give you any information as to what might be done to bring his exposure within safe limits. Nevertheless, regardless of the actual site or type of his work, suitable ventilation should be supplied, if possible, in order to remove the fumes from the breathing zone. If this cannot be done, he should work using an air-line mask or an approved fume-collecting mask. For the present in view of the high results, it is my feeling that he should be removed from all exposure to lead compounds until his lead excretion and the lead content of his blood have reached substantially normal limits. In view of the length of his occupational exposure, this can be expected to require from four to six months.

Very truly yours,

Robert A. Kehoe, M. D.

RAK ef

Enc.

KE

0005304

Material: Blood and urine specimens

Source: Employees of the Aluminum Ore Company, East St. Louis, Missouri

Required: Lead Determinations

Received: May 1, 1945

Name	URINE		BLOOD		
	Analysis Number	Mg. Pb/ Liter	Analysis Number	Spectrographic	
				Grams	Mg. Pb/ 100 g.
[REDACTED]	45A-2724	0.24	45A-2725	12.1	0.085
[REDACTED]	45A-2726	0.08	45A-2727	14.7	0.055
[REDACTED]	45A-2728	0.04	45A-2929	14.0	0.055
[REDACTED]	45A-2730	0.04	45A-2731	10.1	0.03
[REDACTED]	45A-2732	0.04	45A-2733	10.1	0.035
[REDACTED]	45A-2734	0.08	45A-2735	6.2	0.05
[REDACTED]	45A-2736	0.04	45A-2737	6.7	0.07

Samples Reported: May

KE 0005305

N 7205 05

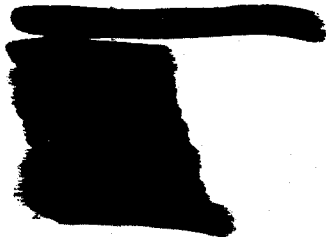
Robert A. Kehoe, M. D.
College of Medicine Eden Avenue,
Cincinnati 19, Ohio

May 5, 1945

Aluminum Ore Company,
East St. Louis,
Illinois.

Attention: Mr. E. C. Roberts

Analysis of Blood and Urine for Lead



\$70.00

KE

0005306

Aluminum Ore Company

East St. Louis, Ill.

May 3, 1945

Dr. Robert A. Kehoe, Director
Kettering Laboratory of Applied Physiology
University of Cincinnati, College of Medicine
Eden Avenue
Cincinnati 19, Ohio

Dear Dr. Kehoe:

On April 28, 1945 we shipped to you, via pre-paid express, seven specimens each of blood and urine to be analyzed for lead. We attach herewith the clinical history and work record for each of the seven patients.

You will note that none of these men have clinical symptoms of lead poisoning when judged by our periodic examinations and stippled red cell counts. As previously indicated, our purpose in asking for these analyses was to check the somewhat questionable stippled cell method of defining plumbosis.

In your letter of April 24, 1945 you indicated that you would consider these results and information as confidential; we appreciate this greatly and request that you do so.

Again, we appreciate your cooperation in helping us with these analyses and we will be glad to furnish any additional information that will aid you in the interpretation of the results.

Very truly yours,

ALUMINUM ORE COMPANY

R. C. Roberts

R. C. Roberts

RCR:AK

CC: Mr. D. H. Tilson - Works Manager
Dr. D. A. Irwin - Alcoa Medical Director

Att.

May 3, 1945

CLINICAL HISTORIES OF PATIENTS INVESTIGATED
FOR LEAD EXPOSURE

[REDACTED] Married, 2 children

Age: 47; Wgt.: 195 lbs.: Hgt.: 5'6½"

Type of Work: Lead burner

Employment: Employed by A.O.Co. as lead burner Oct., 1928
Has worked in this capacity to date.
No lead exposure prior to this employment.

Clinical history: Small circular patch of exzemetoid contact
dermatitis anterior surface rt. wrist.
Arthritis in feet and legs for past 6 months;
takes bi-weekly injections for arthritis
from family physician.
April 3, 1944 off 18 days - bronchitis.

General Notes: Does not change clothes after work.

[REDACTED] Married, 4 children

Age: 31;

Type of Work: Spray Painter

Employment: Employed by A.O.Co. September, 1943. Was
employed as spray painter by others 1933-1938.

Clinical history: No history of any illness. Feels well.
Stippled cell count Negative.

General Notes: Not particularly careful about personal
cleanliness; does not change clothes after work

[REDACTED] Married, 4 children

Age: 30

Type of Work: Spray Painter

Employment: Employed as spray painter by A.O.Co. June, 1944
Previous employment: spray painter - American
Car & Fdy. 1937-1942; spray painter - U.S. Army
Depot 1942-1944.

Clinical history: Jan. 1945 Conjunctivitis both eyes. No history
of other illness, feels well. Stippled cell
count negative.

KE 0005308

N7305.08

[REDACTED] Married, 2 children

Age: 37

Type of Work: Spray Painter

Employment: Painter helper at A.O.Co. May 1937 to Feb. 1943
Spray gun operator Feb. 1943 to date. No lead exposure prior to this employment.

Clinical History: May 1941 - feel tired, no appetite.
Mar. 1942 - Cramps, indigestion.
June 1942 - Pain around heart.
Feb. 1943 - Sick stomach, states he has been sick for months.
A diagnosis of duodenal ulcer just made by family physician.
All stippled cell counts negative.

General Notes: Is clean, changes clothes after work.

[REDACTED] Married, 4 children

Age: 41

Type of Work: Spray Painter

Employment: Employed Oct. 1927 as painter; spray gun from 1935. Painter for Phelan-Faust prior to this employment.

Clinical History: No clinical symptoms of lead. Works steadily.
All 6 months stippled cell counts negative.
Mar. 27, 1945 made first complaint about heart.
Pain in region of heart when stretching arms overhead. Shortness of breath while walking.
Troubled for past two weeks. Heart tones normal.
blood pressure 110/78. Has gas on stomach - belches. Was told heart O.K., no further complaint.

General Notes: Does not change clothes after work.

[REDACTED] Married, 1 child

Age: 33

Type of Work: Spray Painter

Employment: Employed by A.O.Co. Jan. 1941 as helper; spray gun operator Sept. 1943 to date. No previous exposure.

Clinical History: 2-24-41 Sick 2 weeks strep. throat.
7-17-41 Sick 3 days Sore throat
8-21-41 Sick 1 week Intestinal Flu.
12-12-41 Contact dermatitis both legs.
3-13-42 Tonsillectomy Off 1 week
5-8-42 Backache - no injury
10-30-42 Dermatitis, both legs, body
1-11-43 Eruptions on body
7-14-44 Backache, claims old injury

All stippled cell counts negative. No clinical symptoms of exposure.

General Notes: Does not change clothes after work.

Married, no children

Age: 24

Type of Work: Spray painter

Employment: Employed by A.O.Co. November, 1944. Previous employment: spray painter at Todd Shipyard several months in 1944.

Clinical History: No history of any illness. Feel well. Stippled cell count negative.

General Notes: Is clean, changes clothes after work.

Aluminum Ore Company

East St. Louis, Ill.

April 28, 1945

Dr. Robert A. Kehoe, Director
Kettering Laboratory of Applied Physiology
College of Medicine
Eden Avenue
Cincinnati (19) Ohio

Dear Dr. Kehoe:

Today we are shipping to you, via "Prepaid Express - Special Handling", seven specimens each of blood and urine marked with the name of the patient concerned.

Tomorrow we'll forward the clinical histories, nature of work and work record of each of these men. Incidentally, none of these men have any clinical symptoms of lead poisoning but our purpose in asking for the analyses was to check the stippled cell counts that are customarily taken at six-month intervals.

We appreciate your kind offer to run these analyses for us and we, in turn, will endeavor to furnish you with as much information as possible.

Very truly yours,

ALUMINUM ORE COMPANY

R. C. Roberts
R. C. Roberts

RCR:AK

CC: Dr. D. A. Irwin - Pittsburgh Office

KE 0005311