

Standard Oil Co. of California,
El Segundo, California



Reorder No. 912-1/3

PARK BRAND FOLDER
MEDIUM HEAVY WEIGHT

October 5, 1946

Dr. H. W. Prince,
Standard Oil Company of California,
El Segundo, Calif.

Dear Dr. Prince:

I am sending you herewith analytical reports on the samples of blood and urine from the group of men referred to in your letter of September 18. A bit of interpretation may well be useful to you in connection with these results. First let me say that there is somewhat more innate variation in results obtained on small samples of urine than would be the case if we had dealt with samples of large volumes. Actually we find that the variation in the rate of water excretion is an important factor in the lead concentration. Consequently spot samples obtained from normal individuals range from 0.01 to 0.12 mgs. per liter. This makes it a little difficult to differentiate normal from abnormal samples. It is for this reason that we make use of blood samples in conjunction with spot urine samples, for the variability of the blood samples is considerably less, the normal range extending from 0.01 to 0.05 mgs. per 100 grams. With these points in mind you will see that all of these individuals show some evidence of occupational lead absorption, although in the case of Todtman the values in both blood and urine are within substantially normal limits. In the case of [redacted] the blood value is normal, but the urinary value is just a little elevated. [redacted] and [redacted] give evidence of elevated lead concentration in their blood, while the urinary values are within normal limits.

The meaning of these data taken together seem to me to be quite clear. These men are having some slight, and probably intermittent lead exposure in connection with their work, but the order of severity of this exposure has been so slight during recent months that it cannot be regarded as actually hazardous. Certainly it is not to be anticipated that men excreting lead in these quantities would be likely to develop lead intoxication.

Our experience with lead burners in recent years has demonstrated that they may be exposed to hazardous amounts of lead. This is particularly true when they work continuously at repair and maintenance jobs. On the other hand, if their exposure is intermittent, or if the jobs performed vary considerably in severity, lead poisoning is rare in its occurrence. If all of the jobs are conducted with care against exposure, poisoning can be avoided completely.

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I am not sending you any bill for these analyses, since after talking with Dr. Schradin, I feel that we are very happy to be of this service to you. On the other hand, if you should desire the repetition of these analyses at intervals, it would be only fair to make a charge which would reimburse us for the cost of the analytical work.

Very truly yours,

Robert A. Kehoe, M.D.
Enc. RAK ef

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