

June 5, 1958

Dr. Allyn H. Seymour  
 Marine Biologist  
 Division of Biology and Medicine  
 United States Atomic Energy Commission  
 Washington 25, D. C.

Dear Al:

When Dr. Donaldson was in Rochester last month interest was expressed concerning  $Br^{90}$  levels in a pig bone collected at Rongelap Island last March. Here are the results of the analysis Dorothy South completed. A copy of the results of  $Br^{90}$  analyses of rat bones, which you already have seen, is enclosed for comparison.

The pig, believed by Billiet and Magistrate John to have been born in July 1957, was slaughtered at Rongelap Island during the week of March 10, 1958. The bone was received dry and clean after the pig had been roasted.

Gross beta activity =  $200 \pm 45$  d/m/g dry bone

Strontium-90 (duplicate aliquots of 0.903 grams dried sample each were run):

Aliquot No. 1	$97 \pm 7$ d/m/g dry bone
Aliquot No. 2	$97 \pm 7$ "
Av.	97 "

Calcium determination:

Aliquot No. 1	90.3 mg Ca/g dry bone
Aliquot No. 2	93.1 "
Av.	$92.0 \pm 1.1$ "

Sunshine units:

480

43555

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2. - Dr. Seymour from Dr. Held, Univ. of Wash., June 5, 1958.

It should be kept in mind that the pigs are running loose on the island and are eating everything and anything edible. Their diet certainly consists of a larger proportion of locally grown items than that of the Rongelapese.

We are enclosing extra copies so that you may pass them on to those interested at the Division.

Sincerely yours,

Edward E. Held  
Research Assistant Professor

EEH:mc

Enclosures: 2/3

STRONTIUM-90 in BONE SAMPLES FROM RATS COLLECTED AT  
RONGELAP ISLAND, MARCH 1958

Specimen No.	Sr <sup>90</sup> d/m/y	Ca mg/g	Sunshine units
V-1	207 ± 17	181 ± 5	519
V-2	234 ± 19	243 ± 21	551
V-3	102 ± 11	183 ± 0	273
V-4	69 ± 7	99 ± 0	313
V-5	185 ± 12	113 ± 19	619
V-6	200 ± 14	108 ± 10	326
V-7	71 ± 7	104 ± 10	303
V-8	100 ± 10	100 ± 10	300
V-9	110 ± 11	123 ± 10	357
V-10	110 ± 11	157 ± 3	200
V-11	93 ± 9	137 ± 7	343
V-12	104 ± 12	125 ± 10	440
Average	130 ± 64	142 ± 38	443 ± 181

NOTES:

1. 0.65 counting error is given for individual Sr<sup>90</sup> determinations.
2. Standard deviation of duplicate samples is given for Ca determinations.
3. Standard deviation is given for averages.