

Sr - Standards
Marshall
J.

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400244

Ref:ESA:EPH:sm

January 14, 1959

Dr. Allen Seymour, Assistant Director
University of Washington
Laboratory of Radiation Biology
Fisheries Center
Seattle 5, Washington

Dear Dr. Seymour:

We have completed strontium 90 and calcium analyses on the ten interlaboratory check samples which you supplied. Your data and other descriptive information was covered in your letters of October 29th and November 17th, 1958. We appear to agree reasonably well on all of the strontium 90 values. With respect to the Scasvola leaves however, you reported your results in terms of the strontium 90 activity per total sample. We received 42% of the total sample weight which was ten grams and the aliquot was received in solution form. We computed our results on the basis of the strontium 90 activity per gram of dry sample and agree with you if your result is reported in similar units. However, in your letter of November 17th, your data is given in terms of the activity per total sample. Are we in error?

Our calcium results look quite good with respect to yours in the case of the skeleton and the soil, but you will note that there are serious discrepancies in the muscle and Scasvola leaves. Computing your calcium results from the available strontium unit data, you find comparable values for each muscle and each Scasvola sample whereas our results differ markedly. I called your laboratory Monday, January 12 prior to sending you this data to see whether you had done a calcium analysis on each sample or perhaps had used an average value based on your past experience with these matrices. Dr. Held assured me that each sample was separately run for calcium. I had suggested that I give you another call on Monday so we could discuss the results in more detail after you had had a chance to look at them. I will be looking forward to talking to you on the telephone shortly.

Sincerely yours,

Edward P. Hardy, Jr.
Chemist
Analytical Branch

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Enclosure: 1 Table

OFFICE ▶	ESA				
SURNAME ▶	Hardy:sm				
DATE ▶	1-14-59				

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Number Samples from the University of Washington Fisheries Center

Ref: Letter of November 17, 1958 from Dr. Seymour to Dr. Harley

Samples collected during 1958 - Rongelap

Type	Section	Island	Form Received	Ref. #	ppm Sr ⁹⁰ /g dry sample		ppm Sr ⁹⁰ /g sample		ppm Sr ⁹⁰ /g Ca	
					UNFC	EASL	UNFC	EASL	UNFC	EASL
Coconut crab	skeleton	Kabellie	dry	34	2920 ± 53	2352 ± 33	0.0022	0.0003	5667	1233
Coconut crab	skeleton	Rongelap	dry	54	1000 ± 51	861 ± 16	0.0243	0.0000	1551	1539
Coconut crab	skeleton	Kabellie	dry	35	165 ± 8	129.4 ± 1.9	0.0072	0.0118 0.0116	10000	4940
Coconut crab	skeleton	Eniwetok	dry	62	51 ± 3	18.6 ± 1.4	0.0071	0.0039 0.0039	3409	5613
Soil	1'	Kabellie	dry	4b	211 ± 11	192.4 ± 1.6	0.313	0.2106	302	254
Soil	1'	Rongelap	dry	1b	11 ± 2	16.4 ± 0.4	0.330	0.2474	15	21
Scaevola	leaves	Rongelap	wet	28	108 ± 5*	103.0 ± 2.0	0.0102	0.0166 0.0152	1276*	996
Scaevola	leaves	Rongelap	wet	35	20 ± 1*	16.0 ± 0.6	0.0107	0.0082 0.0082	212	879
			Form Received	Ref. #	UNFC	EASL				
Spiked Fish Meal			dry	1	~2770	2849 ± 77				
			dry	2	~5540	5795 ± 105				

* These results represent the mean of two total samples

Note: Error in the above table is ± 1 standard deviation