

UNITED STATES
ATOMIC ENERGY COMMISSION
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FOR
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Health and Safety Laboratory
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TELEPHONE NO.:
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November 27, 1956

Dr. Lauren R. Donaldson
Applied Fisheries Laboratory
University of Washington
Seattle 5, Washington

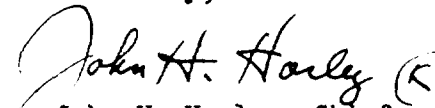
Dear Lauren:

Somehow, under the pressure of producing results for Biology & Medicine, the data on the last survey samples was not forwarded to you. This data has been worked up in Washington, as you probably know. Later results are included in the attached typed sheet.

In the tables we do not have information on the wet weight of the Cenobita samples but everything else was complete. There are certain analyses not yet complete and one or two that are being rechecked. Sr⁹⁰ figures have been obtained at HASL and also at Nuclear Science & Engineering Corp., and at Isotopes, Inc. Another point is the Strontium Units (SU) reported for soil are shown as minimum values. This is because no one can agree on the actual available strontium in a coral soil. Apparently this is very low and the soil SU values are probably two or three orders of magnitude higher than the minimum.

I had a chance to talk to Al at a recent meeting in Washington and it looks like we will have some good communication while he is there. He will certainly have his hands full and I would not be surprised to see him trying to get back on board a survey vessel.

Sincerely,


John H. Harley, Chief
Analytical Branch

Enclosures:

1. Table entitled "UWAFI - Post Redwing Marshall Island Survey Samples"
2. Table entitled "Invertebrates and Fish"

UNAFI - POST READING MARSHALL ISLAND SURVEY SAMPLES

HASF Number	UNAFI Number	Organism	Tissue	Sampling Location	Collection Date	No. Spec	Lab	Total Activity (β)		Sr-90		Ca	S.U.	
								C-Date	d/gk wet	d/gk - wet	g/g - wet			
Invertebrates	4042	I-9	Holothurid stria	gonad	Rongelap	7-23-56	I, Inc.	10-10-56	66	2.7 ± 0.1k	0.00566	210 ± 11		
	4043	I-10	Holothurid stria	gut & content	Rongelap	7-23-56	I, Inc.	10-10-56	31	incomplete	0.155	incomplete		
	4044	I-11	Holothurid stria	integument	Rongelap	7-23-56	I, Inc.	10-10-56	10	incomplete	<0.00101	incomplete		
	4045	I-12	Tridacna gigas	muscle	Kabellie	7-24-56	I, Inc.	10-10-56	2.6	0.030 ± 0.016	<0.00239	± 6		
	4046	I-13	Tridacna gigas	muscle	Kabellie	7-24-56	I, Inc.	10-10-56	1.5	incomplete	0.00400	incomplete		
	4047	I-49a	Cenobita	muscle	Kabellie	7-24-56	RSE					4600 ± 300		
	4048	I-49b	Cenobita	skeleton	Kabellie	7-24-56	RSE					3940 ± 170		
	4049	I-49c	Cenobita	liver	Kabellie	7-24-56	RSE					4600 ± 300		
	4050	I-50a	Cenobita	skeleton	Kabellie	7-24-56	RSE					2190 ± 80		
	4051	I-50b	Cenobita	liver	Kabellie	7-24-56	RSE					2620 ± 130		
	4052	I-50c	Cenobita	muscle	Kabellie	7-24-56	RSE					2660 ± 170		
	4053	I-52	Cenobita	skeleton	Rongelap	7-23-56	RSE					2200 ± 120		
	4054	I-51	Cenobita	skeleton	Kabellie	7-24-56	RSE					3600 ± 150		
	Fish	4035	F-266a	Reef fish	muscle	Rongelap	7-23-56	19	NSE	12	0.036 ± 0.003	0.000808	20 ± 1.9	
		4036	F-266b	Reef fish	bone	Rongelap	7-23-56	19	NSE	31	1.9 ± 0.082	0.0711	12 ± 0.5	
4037		F-266c	Reef fish	liver	Rongelap	7-23-56	19	NSE	230	recheck	0.000990	recheck		
4038		F-311a	Reef fish	muscle	Kabellie	7-24-56	15	I, Inc.	10-10-56	2.9	0.027 ± 0.004	0.00125	9.8 ± 1.6	
4039		F-311b	Reef fish	muscle	Kabellie	7-24-56	15	I, Inc.	10-10-56	0.39	0.401 ± 0.007	0.00104	175 ± 3	
Land Plants	4024	RO-1	Breadfruit	meat	Rongelap	7-23-56		NSE	31	0.26 ± 0.008	0.000447	260 ± 10		
	4025	RO-2	Papaya	seeds	Rongelap	7-23-56		I, Inc.	10-11-56	0.86	0.38 ± 0.01	<0.00208	± 56	
	4026	RO-2	Papaya	seeds	Rongelap	7-23-56		NSE	28	0.38 ± 0.002	0.00237	74 ± 4		
	4027	RO-6	Coconut	meat	Rongelap	7-23-56		I, Inc.	10-10-56	0.36	0.033 ± 0.003	<0.000375	± 41	
	4028	RO-7	Coconut	milk	Rongelap	7-23-56		NSE	664(444)	0.034 ± 0.004(44)	0.000277(gm/ml)	58 ± 7		
	4034	RO-8	Marlins	pulp & seeds	Rongelap	7-23-56		NSE	46	1.4 ± 0.048	0.000659	1000 ± 50		
	4029	RO-12	Arrowroot	corn	Rongelap	7-23-56		I, Inc.	10-10-56	0.16	0.27 ± 0.004	0.000642	190 ± 3	
	4030	RO-16	Pandanus	fruit	Rongelap	7-23-56		NSE	63	1.2 ± 0.041	0.00106	530 ± 20		
	4031	RO-20	Coconut	meat	Kabellie	7-24-56		I, Inc.	10-10-56	0.56	0.15 ± 0.003	<0.000250	± 272	
	4032	RO-21	Coconut	milk	Kabellie	7-24-56		NSE	245	1.9 ± 0.076	0.000474	1720 ± 110		
	4033	RO-22	Papaya	fruit	Rongelap	7-23-56		I, Inc.	10-10-56	0.40	0.37 ± 0.006	0.000636	265 ± 4	
	Water	3814		Cistern		Rongelap	7-27-56							
		3815		Well		Rongelap	7-23-56						7700 ± 300	
	Soil	3802		Kabellie	7-24-56	0-2"	(first set)	HASL	8-4-56	1980 ± 80	150 ± 3.7	0.07	0.29	220 ± 6
		3803		Kabellie	7-24-56	2-4"	(first set)	HASL	8-4-56	406 ± 145	155 ± 4.1		0.31	
3804			Kabellie	7-24-56	4-6"	(first set)	HASL	8-4-56	± 40	40 ± 0.41		0.32	55 ± 0.6	
3807			Kabellie	7-24-56	0-2"	(second set)	HASL	8-4-56	6210 ± 110	250 ± 4.9	0.16	0.37	8.0 ± 0.9	
3806			Kabellie	7-24-56	2-4"	(second set)	HASL	8-4-56	3300 ± 102	58 ± 2.9	0.07	0.35	330 ± 2	
3805			Kabellie	7-24-56	4-6"	(second set)	HASL	8-4-56	1160 ± 62	96 ± 1.7		0.35	125 ± 2	
3808			Rongelap	7-23-56	0-2"	100' fr. lagoon	HASL	8-4-56	266 ± 52	30 ± 0.57	0.08	0.56	40 ± 1.3	
3809			Rongelap	7-23-56	2-4"	village area	HASL	8-4-56	± 39	4.5 ± 0.1		0.34	13 ± 1.4	
3810			Rongelap	7-23-56	4-6"	100' fr. lagoon	HASL	8-4-56	± 45	0.98 ± 0.03		0.35	5.8 ± 0.4	
3813			Rongelap	7-23-56	0-2"	mid island	HASL	8-4-56	1220 ± 58	68 ± 2.8	0.06	0.32	1.4 ± 0.04	
3812			Rongelap	7-23-56	2-4"	mid island	HASL	8-4-56	134 ± 51	31 ± 0.21		0.32	44 ± 0.5	
3811			Rongelap	7-23-56	4-6"	mid island	HASL	8-4-56	± 37	4.0 ± 0.2		0.35	5.2 ± 0.3	
3818			Parry	7-25-56	surface	shore	HASL	8-4-56	17900 ± 203	7.6 ± 2.0	8.7	0.30		
3819			Parry	7-25-56	sub-surface	shore	HASL	8-4-56	103 ± 39					

* As of 9-20-56

Invertebrates and Fish

<u>HASL #</u>	<u>Sr⁹⁰</u> <u>d/m/g - wet</u>	<u>S. U.</u>
4043	1.15 ± 0.029	5.39 ± 0.08
4044	0.27 ± 0.0074	150
4046	0.046	----
4037	0.058 ± 0.029	27 ± 13

Water

<u>HASL #</u>	<u>Sr⁹⁰</u> <u>d/m/Liter</u>
5814	14.7 ± 4.32
5815	77 ± 2.84

Soil

<u>HASL #</u>	<u>Sr⁹⁰</u> <u>d/m/g - wet</u>	<u>S. U.</u>
5810	1.39 ± 0.06	1.20 ± 0.08

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