

Soil-IMP calibration problem

No

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E

SOIL/IMP ²⁴¹Am RATIOS FOR ALL
 ENEWETAK ATOLL ISLANDS EXCEPT JANET (ENJEBI)

UNCORRECTED FOR
 BRUSH ATTENUATION

STEM	LEAF
.4	
.5	0
.6	248
.7	089
.8	00888
.9	0356
1.0	034468999
1.1	01445567789
1.2	222345789
1.3	001347899
1.4	014457
1.5	11278
1.6	1136
1.7	0157
1.8	7
1.9	34
2.0	57
2.1	9
2.2	6
2.3	3
2.4	7
2.5	6
2.6	2
2.7	
2.8	2
2.9	6

CORRECTED FOR
 BRUSH ATTENUATION

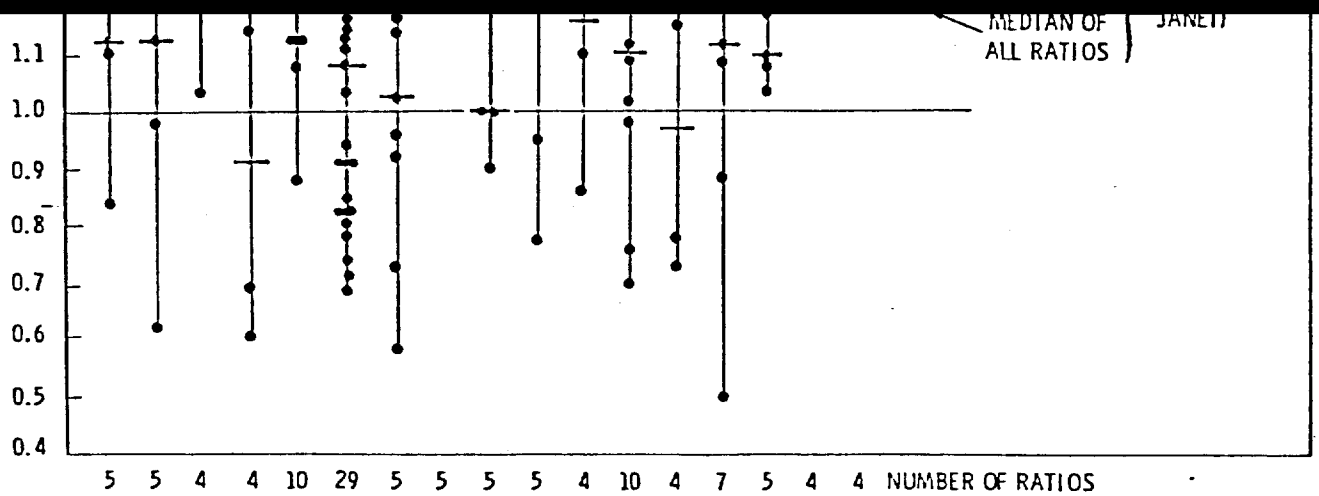
STEM	LEAF
.4	
.5	09
.6	129
.7	03688
.8	4688
.9	05689
1.0	00334488999
1.1	002223334566789
1.2	22236689
1.3	006689
1.4	1257
1.5	0004589
1.6	118
1.7	001
1.8	
1.9	
2.0	0578
2.1	9
2.2	
2.3	
2.4	07
2.5	8
2.6	9
2.7	
2.8	2
2.9	

(Example of how to read:
 the row 1.6|118 above
 represents three ratios
 whose last digits are
 1, 1 and 8; i.e., the
 three ratios are 1.61,
 1.61, and 1.68.)

SUMMARY

	UNCORRECTED*	CORRECTED*
n	86	86
MEDIAN RATIO	1.28	1.18
MEAN RATIO	1.40	1.30

*EXCLUDES JANET



- ++ IMP values below detection limits.
- ** No brush present when IMP readings taken.
- * Average of A and B soil composites.

FIGURE 1. Soil*/IMP ²⁴¹Am ratios on Enewetak Atoll Islands after correction for brush attenuation.

Use IIR data and correction
for ground attenuation
⇒ SOIL IIR ratio is change

Soil Imp DATA

LOCATION	A comp ^{soil} IIR	B comp ^{soil} IIR	Imp VALUE	#	Is. note
NE 14-2	11.3 0.87	18.2 1.40	13.0	2	Enjeki 1.1
NE 14-10	2.1 1.11	2.62 1.38	11.9	"	
SE 2-8	10.9 0.82	14.1 1.06	13.3	"	0.9
SW 4-14	1.37 0.91	1.14 0.76	1.5	"	0.8
SE 4-22	1.12 1.02	2.1 1.91	1.1	3	1.4
SE 6-1	23.1 1.38	21.3 1.28	16.7	(4.6)?	1.3
SE 6-8	8.78 0.80	8.91 0.81	11.0	3	.8
SE 6-14	12.5 0.84	12.4 0.84	14.8	"	.8
SE 12-14	3.28 0.64	3.99 0.78	5.1	"	.7
SE 14-6	2.93 0.64	3.46 0.75	4.6	"	.6
NW 2-14	12.8 0.87	19.9 1.35	14.7	"	1.1
NW 6-8	4.24 1.78	1.7 0.71	2.4	2	1.2
NW 2-8	1.28 1.60	1.2 1.50	.8	2	1.5
NE 6-16	12.7 0.85	14.8 0.99	14.9	2	.9
NE 6-24	4.06 0.33	13.6 1.11	12.2	"	.9
NE 10-8	22.0 1.33	18.6 1.12	16.6	"	1.2
NE 10-22	17.2 1.87	16.2 1.76	9.2	"	1.2
NW 21-7	1.51 1.68	1.36 1.51	.9	"	1.5
NW 21-7	3.03 1.12	2.51 0.93	2.7	"	1.0
WB 22-0	.89 0.42	2.63 1.25	2.1	"	.8
SW 14-2	3.2 2.67	4.33 5.90	4.8	"	.7
NW 11-8	6.25 1.18	6.64 1.25	5.3	"	1.2
EB 10-0	24.5 1.42	12.9 0.75	17.2	"	1.0
EB 3-0	4.37 1.12	4.52 1.16	3.9	"	1.1
WB 6-0	5.25 1.35	3.73 0.96	3.9	"	1.1
NE 14-18	2.19 0.78	2.95 1.05	2.8	"	0.9
SE 12-24	16.1 1.20	8.51 0.64	13.4	"	0.9

State... IIR...
IIR

Location	A comp $\frac{SO_4}{TMC}$	B comp $\frac{SO_4}{TMC}$	Imp VALUE	i #	Island
SE 12-30	2.54 0.71	2.81 0.78	3.6	3	Enjchi 0.74
SW 10-6	1.17 1.67	1.01 1.44	7	2	" 1.56
9-S-2	10.9 1.40	11.7 1.50	7.8	3	Lujor
11-S-5	3.29 1.73	1.66 0.87	1.9	"	"
5-N-1	9.98 0.58	20.1 1.18	17.3	"	"
5-S-3	47.4 1.32	65.7 1.82	35.9	"	"
1-S-1	21.5 1.62	10.0 0.75	13.3	"	"
S-B-0	18.3 1.27	21.8 1.51	14.4	"	"
1-N-1	23.0 0.65	33.5 0.95	35.2	"	"
3-S-1	28.2 2.09	6.34 0.47	13.5	"	"
6-S-1	18.7 1.26	15.3 1.03	14.8	"	"
8-S-4	3.99 1.25	3.85 1.20 SD = 0.429 $\mu = 1.22$	3.2	"	"
3-B-0	2.39 1.14	2.83 1.35	2.1	1	IRENE
7-S-3	1.57 0.87	4.55 2.53	1.8	1	"
8-N-1	4.46 1.44	4.1 1.32	3.1	1	"
10-S-4	1.92 1.37	1.69 1.21	1.4	3	"
13-N-2	3.35 0.61	6.31 1.15	5.5	1	"
1-BL-0	1.20 1.20	1.30 1.30	1.0	1	"
5-N-1	3.07 1.62	2.93 1.54	1.9	1	"
6-N-1	3.64 1.10	3.72 1.13	3.3	1	"
10-N-2	2.78 2.78	3.15 3.15	1.0	1	"
8-S-1	4.10 1.32	9.49 3.06 $\mu = 1.56$	3.1	1	"

10

10



1.926	26-N-12	84.3	68.2	2.12	100.4	3.13	32.1	1.507	1 (G)	Atomon
.570	28-S-2	3.15	2.10	0.50	5.33	1.27	4.2	0.6232	3	"
1.049	14-S-10	11.19	16.45	1.70	5.93	6.61	9.7	.9565	1(G)	"
.0509	24-N-10	.830	.28	0.70	1.38	3.45	.4	-.3999	1(G)	"
-1.0	2-N-2	.10	.11	0.55	.09	0.45	.2	-.699	1(G)	"
	12-S-4		<LLD		<LLD		NO DATA			"
	14-S-8		<LLD		<LLD		0	(G)		"
.842	18-N-1	1.745	.76	0.60	2.53	1.58	5.4	1.6, 2.0	1(G)	"
1.556	20-S-1	0.14	.53	1.77	.35	1.17	.3	-.523	3	"
					$\mu = 1.4$				7	↑ good with on IMP
2	BL C		20.38 (CHEM)	2.91	2.22 (CHEM)	0.32	7.0		1(B)	Lucy
0	E 4		4.27	2.14	2.82	1.41	2.0		"	"
6	W 2		18.36	1.62	19.20	1.70	11.3		"	"
6	E 2		47.74	3.10	24.07	1.56	15.4		"	"
3	S W 6		7.86	1.23	14.55	1.79	8.0		"	"
					$\mu = 1.78$					

1-S-1	4.84	1.31 ✓	7.20	1.55	3.7	3	Clara
4-S-3	15.43	1.77	8.96	1.03 ✓	8.7	"	"
8-S-5	13.61	1.33 ✓	14.37	1.41 ✓	10.2	"	"
10-S-6	6.14	.43 ✓	24.91	1.75 ✓	14.2	"	"
			$\mu = 1.37$				
4-N-2	21.19	1.08 ✓	18.01	0.92 ✓	19.6	1(G)	Kate
0-BL-0	2.65	0.62 ✓	2.67	0.62 ✓	4.3	1(G)	"
4-S-2	9.01	1.23	8.44	1.16 ✓	7.3	"	"
8-S-2	13.81	0.82 ✓	23.30	1.38 ✓	16.9	"	"
8-S-8	4.76	0.78 ✓	10.14	1.66	6.1	"	"
			$\mu = 1.03$				
2 BL 0	2.87	1.25	3.16	1.37	2.2	3	Daisy
10 BL 0	4.54	0.34	14.16	1.07	13.2	"	"
3 E 8	1.33	0.35	3.53	0.92	3.3	"	"
2 E 0	12.70	1.19	14.58	1.36	10.7	"	"
			$\mu = 0.98$				

24-N-13	18.45	10.90	8.9	Common-additive samples before any soil removal
26-N-9	3.05	2.59	1.5	
26-N-11	21.03	18.55	19.5	
25-N-14	47.42	18.85	26.3 (near perimeter)	Common-additive after crush removal only
25-N-14	47.42		26.3	
26-N-11	37.92	43.31	35.0	
26.5-N-13	48.29	39.23	31.4	

HOMON TRICKAPOO AREA

(all samples taken 22 MAR 78)

LOCATION/DEPTH	²³⁸ Pu	^{239,240} Pu	²⁴¹ Am	GAMMA	CHEM
11-N-5 (A) 0	5.02 ± 7.2%	31.76 ± 5.3%	4.17 ± 11%	4.34 ± 12%	
(B) 0	5.50 ± 6.7%	34.24 ± 5.0%	3.84 ± 7.6%		
(A) 10	1.48 ± 10%	11.94 ± 5.7%	1.45 ± 12%		
(B) 10			2.14 ± 28%		
(A) 20	0.77 ± 13%	6.87 ± 5.9%	1.11 ± 41%		
(B) 20	2.69 ± 7.5%	17.10 ± 4.9%	2.24 ± 9.7%		
Faint					
13N5 (A) 0	5.11 ± 6.6%	28.96 ± 5.0%	3.73 ± 21%	3.53 ± 12%	
(B) 0	9.19 ± 14%	52.96 ± 12%	6.43 ± 5.4%		
(A) 10			3.72 ± 7.6%		
(B) 10			3.05 ± 21%		
(A) 20	3.97 ± 6.7%	23.96 ± 4.8%	3.38 ± 19%		
(B) 20	4.22 ± 7.4%	26.00 ± 5.3%	3.18 ± 3.2%		
17N7 (A) 0			1.04 ± 35%	1.30 ± 18%	
(B) 0	0.22 ± 24%	3.48 ± 7.5%	0.81 ± 15%		
(A) 10			0.7 ± 18%		
(B) 10			0.92 ± 38%		
(A) 20	0.22 ± 22%	3.09 ± 7.2%	0.37 ± 96%		
(B) 20	0.21 ± 26%	2.98 ± 8.3%	<MDA		

5 loc... (1" next to boundary) }
 11AP... }
 wrap on 6-2 (removed... well mixed)

REPOSITORY PNNL
COLLECTION Marshall Islands
BOX No. 5686
FOLDER Miscellaneous Information

DOCUMENT DOES NOT CONTAIN ECI

Reviewed by R. Schuelte Date 5/1/97