

Supplement Table 10.

Bone Mineral Analysis at 18 months ( $\mu\text{g/g}$ )

Mineral / Diet group	<u>Male</u>			
	AIN 76A	AIN 76A+ AQ	HFWD	HFWD+ AQ
Fluoride	7.2	7.53	6.13	7.04
Aluminum	<0.5	<0.5	<0.5	<0.5
Antimony	<0.5	<0.5	<0.5	<0.5
Arsenic	<0.5	<0.5	<0.5	<0.5
Barium	3.07	4.07	5.21	2.76
Beryllium	<0.5	<0.5	<0.5	<0.5
Bismuth	<0.5	<0.5	<0.5	<0.5
Boron	<0.5	<0.5	<0.5	<0.5
Calcium	229,100	234100	204800	218600
Cadmium	<0.5	<0.5	<0.5	<0.5
Chromium	<0.5	<0.5	<0.5	<0.5
Cobalt	<0.5	<0.5	<0.5	<0.5
Copper	<0.5	<0.5	<0.5	<0.5
Iron	228	167	327	224
Lanthanum	<0.5	<0.5	<0.5	<0.5
Lead	0.98	1.05	0.62	0.65
Lithium	2.67	1.52	1.16	0.84
Magnesium	3649	3797	3243	3770
Manganese	1.16	0.97	3.56	1.07
Mercury	<0.5	<0.5	<0.5	<0.5
Molybdenum	<0.5	<0.5	<0.5	<0.5
Nickel	<0.5	<0.5	<0.5	<0.5
Niobium	<0.5	<0.5	<0.5	<0.5
Phosphorus	108,300	113200	100700	107000
Potassium	1458	1227	1306	1245
Selenium	<0.5	<0.5	<0.5	<0.5
Silicon	1.76	0.81	1.78	<0.5
Silver	<0.5	<0.5	<0.5	<0.5
Sodium	17180	15280	14690	14970
Strontium	25	237	44	238
Sulfur	3164	3025	3202	3151
Tellurium	<0.5	<0.5	<0.5	<0.5
Thallium	<0.5	<0.5	<0.5	<0.5
Thorium	<0.5	<0.5	<0.5	<0.5
Tin	<0.5	<0.5	<0.5	<0.5
Titanium	<0.5	<0.5	<0.5	<0.5
Tungsten	<0.5	<0.5	<0.5	<0.5
Vanadium	<0.5	<0.5	<0.5	<0.5
Yttrium	<0.5	<0.5	<0.5	<0.5
Zinc	124	138	198	147
Zirconium	<0.5	<0.5	<0.5	<0.5

The long bones (one femur and tibia from each animal in the group) were “pooled” and analyzed for levels of trace metals found in the multi-mineral-rich product to give a single value at each time point. Some of these elements were recorded below detectable levels when their concentration level found below 0.5µg/g. The levels of individual trace elements were determined by Inductively Coupled Plasma Optical Emission Spectrometry (ICP-OES) except Flouride which was done by AOAC 984.37 assay.