

**Table 4-10**

**Chemicals Detected in Whole-Body Fish Tissue (Tilapia) Samples from Waimanalo Stream**

*Bellows OU1 EE/CA, Bellows AFS, Hawaii*

Sample ID	Upstream Locations				Downstream Locations					
	WSU-TS001W	WSU-TS002W	WS-TS001W	WS-TS002W	WS-TS003W	WS-TS004W	WS-TS005W			
Sampling Date	11/19/98	11/19/98	11/19/98	11/18/98	11/18/98	11/16/98	11/16/98			
Location ID	WSU-001	WSU-002	WS-001	WS-002	WS-003	WS-004	WS-005			
Sample Type	Whole Fish	Whole Fish	Whole Fish	Whole Fish	Whole Fish	Whole Fish	Whole Fish			
Depth (cm)	0-1.5	0-1	0-4	0-4	0-4	0-5	0-3			
Chemical Group	Chemical	CAS	Units							
PEST	4,4'-DDE	72-55-9	mg/kg, WET	0.00153	0.00384	0.01414	0.00912 J	0.01052	0.00485	0.0044
PEST	4,4'-DDT	50-29-3	mg/kg, WET	ND	ND	0.00291	0.00208 J	0.00203 J	0.00085 J	ND
PEST	Dieldrin	60-57-1	mg/kg, WET	0.00719	0.03022 J	0.02249	0.0111 J	0.01498	0.00449	0.00703
PEST	Endosulfan I	959-98-8	mg/kg, WET	ND	0.00058 J	ND	R	ND	ND	ND
PEST	Endosulfan II	33213-65-9	mg/kg, WET	ND	0.0009 J	0.00145 J	R	0.00098 J	ND	ND
PEST	Endosulfan Sulfate	1031-07-8	mg/kg, WET	ND	0.00063 J	0.00058 J	0.00044 J	0.0006 J	ND	ND
PEST	Endrin	72-20-8	mg/kg, WET	ND	ND	0.0008 J	R	0.00053 J	ND	ND
PEST	Endrin Aldehyde	7421-93-4	mg/kg, WET	ND	0.00136 J	ND	R	ND	ND	ND
PEST	Heptachlor	76-44-8	mg/kg, WET	ND	ND	ND	0.00024 J	ND	ND	0.00016
PEST	Heptachlor Epoxide	1024-57-3	mg/kg, WET	0.00062 J	0.00193 J	0.00176 J	0.00097 J	0.00127 J	ND	0.00064 J
PEST	Methoxychlor	72-43-5	mg/kg, WET	ND	ND	0.00109 J	0.00122 J	0.00212	ND	ND
PEST	a-BHC	319-84-6	mg/kg, WET	0.00041 J	0.00049 J	ND	0.00042 J	0.00118 J	0.00055 J	0.00049 J
PEST	a-Chlordane	5103-71-9	mg/kg, WET	ND	0.00148 J	0.00234 J	0.00147 J	ND	ND	ND
PEST	b-BHC	319-85-7	mg/kg, WET	0.00051 J	ND	ND	R	ND	ND	ND
PEST	d-BHC	319-86-8	mg/kg, WET	ND	ND	ND	R	0.00081 J	0.00049 J	0.00074
PEST	g-BHC (Lindane)	58-89-9	mg/kg, WET	0.00024 J	ND	0.00111 J	R	ND	ND	ND
PEST	g-Chlordane	5103-74-2	mg/kg, WET	ND	ND	0.00083 J	0.00063 J	ND	ND	ND
PCB	PCB-1260	11096-82-5	mg/kg, WET	ND	0.0138 J	0.0274	0.0315 J	0.0278 J	0.017 J	R
METALS	Aluminum	7429-90-5	mg/kg, DRY	1570 J	3290 J	3670 J	5060 J	4280 J	2230 J	1170 J
METALS	Antimony	7440-36-0	mg/kg, DRY	0.03283 B	0.05527 B	0.04438 B	0.04749 B	0.06788 B	0.04367 B	0.03114 B
METALS	Arsenic	7440-38-2	mg/kg, DRY	0.7628 B	1.337 B	2.402 B	2.635 B	2.573 B	2.835 B	2.134 B
METALS	Barium	7440-39-3	mg/kg, DRY	14.25 B	13.44 B	4.157 B	9.388 B	4.35 B	7.555 B	5.486 B
METALS	Beryllium	7440-41-7	mg/kg, DRY	0.3818 J	0.3623 J	0.4667 J	0.4697 J	0.512 J	0.3713 J	R
METALS	Cadmium	7440-43-9	mg/kg, DRY	0.1331 B	0.1804 B	0.212 B	0.1062 B	0.1017 B	0.08646 B	0.0386 B
METALS	Chromium	7440-47-3	mg/kg, DRY	5.257 J	11.18 J	12.57 J	17.11 J	14.99 J	7.441 J	4.187 J
METALS	Cobalt	7440-48-4	mg/kg, DRY	1.752	2.863	2.865	2.739	2.613	1.64	0.9604
METALS	Copper	7440-50-8	mg/kg, DRY	57.07 B	72.19 B	245.1 B	89.6 B	79.47 B	91.49 B	13.26 B
METALS	Lead	7439-92-1	mg/kg, DRY	0.6252 B	1.806 B	1.388 B	1.747 B	2.869 B	1.162 B	0.6187 B
METALS	Manganese	7439-96-5	mg/kg, DRY	135.7	178.8	113.9	116.6	100.5	165.5	129.6
METALS	Mercury	7439-97-6	mg/kg, DRY	0.0601 B	0.0435 B	0.0753 B	0.0501 B	0.0452 B	0.0568 B	0.0425 B
METALS	Molybdenum	7439-98-7	mg/kg, DRY	0.2525 B	0.2939 B	0.26 B	0.2627 B	0.2675 B	0.3049 B	0.2294 B
METALS	Nickel	7440-02-0	mg/kg, DRY	5.606 J	9.681 J	8.902 J	12.52 J	11.08 J	6.029 J	4.185 J
METALS	Selenium	7782-49-2	mg/kg, DRY	3.787 B	10.83	6.559	3.071 B	3.151 B	3.112 B	1.393 B

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<b>Chemical Group</b>	<b>Chemical</b>	<b>CAS</b>	<b>Units</b>							
METALS	Silver	7440-22-4	mg/kg, DRY	0.08659 B	0.1373 B	0.3941 B	0.1436 B	0.1633 B	0.1033 B	0.04501 B
METALS	Thallium	7440-28-0	mg/kg, DRY	0.02256 B	0.02351 B	0.02153 B	0.01999 B	0.02278 B	0.01972 B	0.01166 B
METALS	Vanadium	7440-62-2	mg/kg, DRY	9.412	11.09	12.16	22.17	13.2	13.19	4.411
METALS	Zinc	7440-66-6	mg/kg, DRY	117.1	121.1	138.1	114.8	100.2	106.5	91.36

**Notes:**

Chemical Groups

PEST = pesticides  
 PCB = polychlorinated biphenyls

Data Qualifiers

J The analyte was positively identified; the quantitation is an estimation.  
 R The data are unusable because of deficiencies in the ability to analyze the sample and meet QC criteria.  
 B The analyte was detected in an associated blank, as well as in the sample.  
 M A matrix effect was present.  
 ND The analyte was not detected. The associated numerical value is at or below the method detection limit (MDL).

Abbreviations

mg/kg = milligrams per kilogram