Table J-9: Comparison of the Trace Element Composition of Sediments from Various Areas															
Samples	**Fe**	**Ca**	**Mg**	**As**	**Cd**	**Co**	**Cr**	**Cu**	**Ni**	**Pb**	**Sr**	**Ti**	**V**	**Zn**	**Reference**
	(wt %)	(wt %)	(wt %)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	
NOAA Ordnance Reef study															
Minimum	0.03	7.54	0.30	0.0	0.0	0.2	2.4	0.3	0.8	0.0	807	67	0.9	1.5	
Maximum	3.34	35.30	2.78	29.4	0.56	23.0	157.9	2147	211.1	61.7	3422	5559	91.6	161.6	
Average	0.34	24.49	1.38	10.3	0.23	2.6	19.1	56.4	10.4	6.7	2310	551	10.7	25.0	
St Dev	0.42	6.13	0.42	4.6	0.10	3.3	21.9	258	26.2	10.3	568	737	12.6	31.6	
Ala Wai															De Carlo and Spencer (1995)
Minimum	3.20	0.93	0.64	6.2	0.08	12.8	86.0	40	47.0	0.1			70.0	35.0	De Carlo and Spencer (1997)
Maximum	17.50	26.40	3.41	30.1	2.20	138.0	506.0	291	340.0	759			254.0	711.0	De Carlo and Anthony (2002)
Pearl Harbor SE															Naval Civil Engineering Laboratory (1973) cited i
Minimum					1.04		64.0	110	57.0	82.0				172.0	
Maximum					1.38		76.0	146	68.0	110.0				223.0	
Average					1.20		70.0	127	62.0	95.0				196.0	
Pearl Harbor NW															Naval Civil Engineering Laboratory (1973) cited i
Minimum					0.42		91.0	57	106.0	20.0				122.0	
Maximum					0.57		116.0	74	149.0	24.0				148.0	
Average					0.49		103.0	65	126.0	22.0				135.0	
Kahana Bay, NE O'ahu															Water resources research Center (1973) cited in
Minimum					1.52		13.0	7	33.0	24.0				10.0	
Maximum					1.78		17.0	9	39.0	27.0				13.0	
Average					1.64		15.0	8	36.0	26.0				11.0	
Waikiki Beach (Mamala Bay)															Water resources research Center (1973) cited in
Minimum					0.59		15.0	3	36.0	35.0				5.4	
Maximum					0.71		17.0	4	40.0	38.0				6.6	
Average					0.65		16.0	4	38.0	37.0				6.0	
Hawai'I Kai (Maunalua Bay)															Water resources research Center (1973) cited in
Minimum					1.58		35.0	26	88.0	30.0				39.0	
Maximum					2.09		43.0	35	103.0	33.0				49.0	
Average					1.82		39.0	30	95.0	32.0				44.0	
Sand Island								8		90.0				25.0	City and County of Honolulu (1971) cited in Mc M
Upper Laguna Madre, SE Texas															Sharma et al. (1999)
Minimum								0.6	3.0	7.5				4.1	
Maximum								18.5	24.5	27.5				69.8	
Average								3.1	8.1	80.5				21.4	
Gulf of Mexico estuaries and bays								12		18.0				75.0	Presley (1994)
Mississipi bight															Presley et al. (1992)
Minimum								1	1.0	0.1				2.0	
Maximum								25	43.0	40.0				154.0	
Average								9.3	14.6	13.6				56.0	
Campeche Sound, Gulf of Mexico															Vazquez and Sharma (2004)
Minimum								4	68.0	0.1				47.0	
Maximum								27	126.0	19.0				111.0	
Average								18.8	104.0	11.1				75.2	
Tampa Bay, W Florida															Cantillo et al. (1999)
Minimum							22.6	0	0.0	0.0				0.0	
Maximum							45.3	10	10.0	20.0				19.9	
Flamingo, Florida															Cantillo et al. (1999)
Minimum							45.3	10	0.0	5.0				19.9	
Maximum							67.8	20	10.0	10.0				39.9	
Joe Bay, Florida															Cantillo et al. (1999)
Minimum							22.6	0	0.0	0.0				0.0	
Maximum							45.3	10	10.0	5.0				19.9	
Taylor Slought (Everglades)															Gough et al. (1996)
Minimum	0.42		0.15				5.7	1.97	3.0	6.0			2.0	5.0	

Samples	Fe	Ca	Mg	As	Cd	Co	Cr	Cu	Ni	Pb	Sr	Ti	V	Zn	Reference
	(wt %)	(wt %)	(wt %)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	
Maximum	1.30		4.88				47.6	14.0	14.0	51.8			37.0	47.0	
Bahamas	0.01		0.35				2.6	0.30	0.4	0.4			1.3	0.5	Gonzalez-Caccia (2002)
Florida Bay		26.36													Gonzalez-Caccia (2002)
Zones as defined by V.G. Caccia		37.00													
Maximum [c] zone Min	0.14		0.97			0.2	7.8	0.95	1.2	1.7			2.1	1.7	
Max	0.35		1.60			0.6	18.0	2.03	3.2	3.3			5.6	2.0	
Minimum [c] zone Min	0.03		0.34			0.0	3.1	0.44	0.3	0.6			1.7	0.4	
Max	0.11		0.85			0.2	6.8	0.79	0.9	1.2			5.1	1.6	
Average	0.18		0.95			0.3	8.4	0.95	1.2	1.7			5.8	1.1	
Miami River & Biscayne Bay, FL															Schropp et al. (1990)
Minimum										500					
Maximum					3.50			300	10.0	600				500.0	
Galveston Bay, Texas															Trefry and Presley. (1976)
Minimum					0.20				0.6	5.0				9.8	
Maximum					4.90			35156	58.0	50.0				141.0	
Gulf of Cadiz							11.9	158	25.8						Palanques et al. (1995)
Mississippi Bight							87.8	24.8	42.8					154.3	Presley et al. (1992)
Llobregat continental shelf, Spain							166.7	82.0	54.0					277.9	Puig et al. (1999)
Ultramafic rocks															Kabata-Pendias (1991)
Minimum	9.40			0.5	0.03	100.0	1600.0	10	1400.0	0.1	2	300	40.0	40.0	
Maximum	10.00			1.0	0.05	200.0	3400.0	40	2000.0	10.0	20	3000	100.0	60.0	
Mafic rocks															Kabata-Pendias (2000)
Minimum	5.60			0.6	0.13	35.0	170.0	60	130.0	3.0	140	9000	200.0	80.0	
Maximum	8.70			2.0	0.22	50.0	200.0	120	160.0	8.0	460	13800	250.0	120.0	
Limestone															Kabata-Pendias2000)
Minimum	0.40			1.0		0.1	5.0	2	7.0	3.0	450	300	10.0	10.0	
Maximum	1.00			2.4	0.04	3.0	16.0	10	20.0	10.0	600	400	45.0	25.0	
Carbonate	0.38	30.23	4.70	1.0	0.04	0.1	11.0	4	20.0	9.0	610	400	20.0	20.0	Carbonates: Mineralogy and Chemistry, Ed. Ribl
Deep Sea carbonates	0.90	31.24	0.40	1.0	0.0x	7.0	11.0	30	30.0	9.0	2000	770	20.0	35.0	Carbonates: Mineralogy and Chemistry, Ed. Ribl
Shales	4.72	2.21	1.50	13.0	0.30	19.0	90.0	45	68.0	20.0	300	4600	130.0	95.0	Carbonates: Mineralogy and Chemistry, Ed. Ribl
Deep sea Clay	6.50	2.90	2.10	13.0	0.42	74.0	90.0	250	225.0	80.0	180	4600	120.0	165.0	Carbonates: Mineralogy and Chemistry, Ed. Ribl