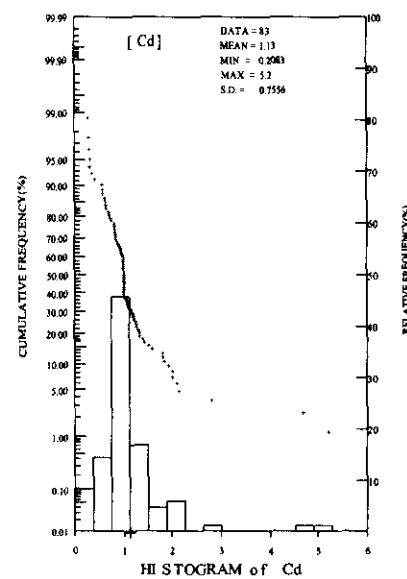
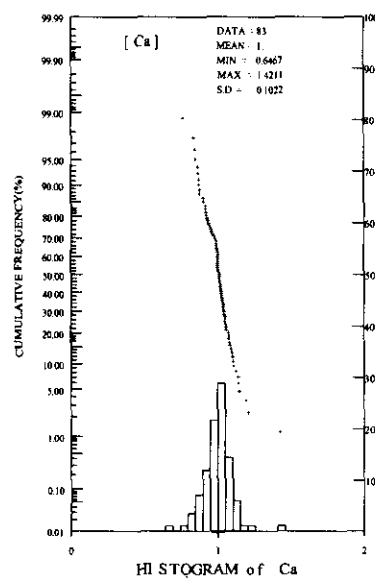
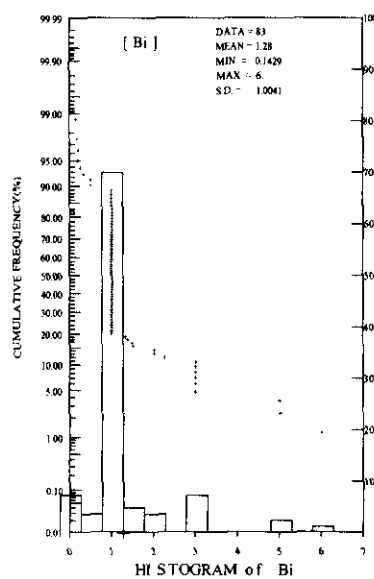
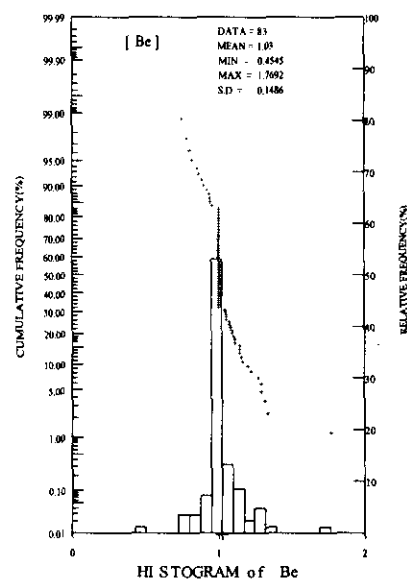
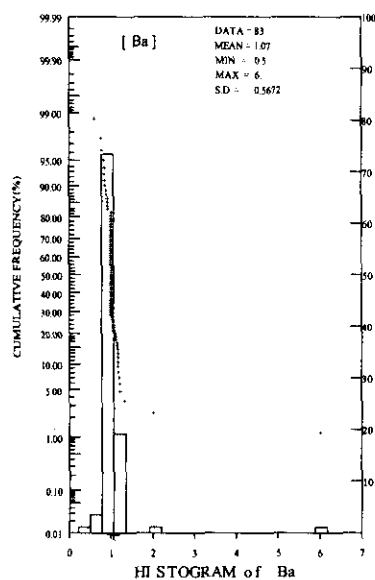
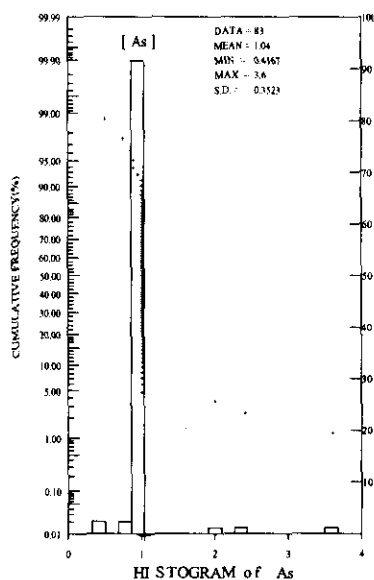
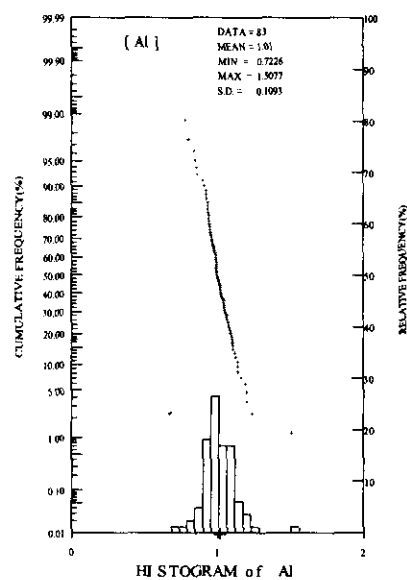
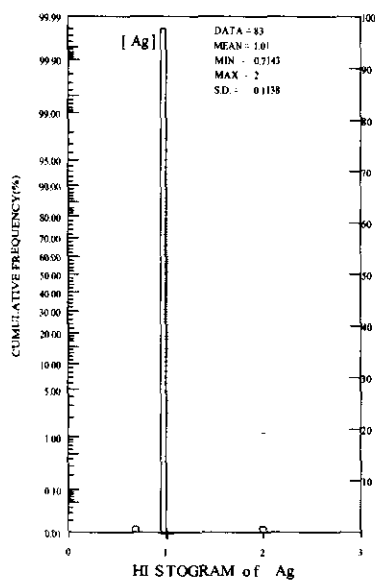
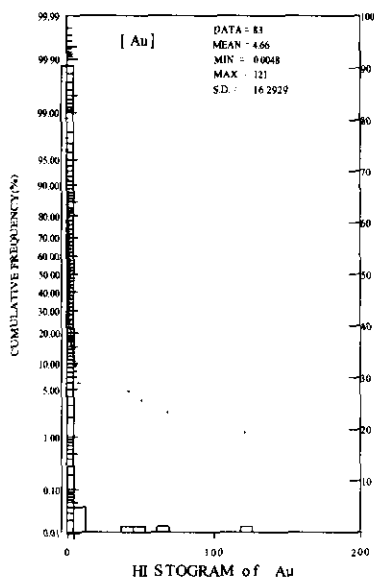


Appendix5 Chemical analysis data of stream sediment samples (4)

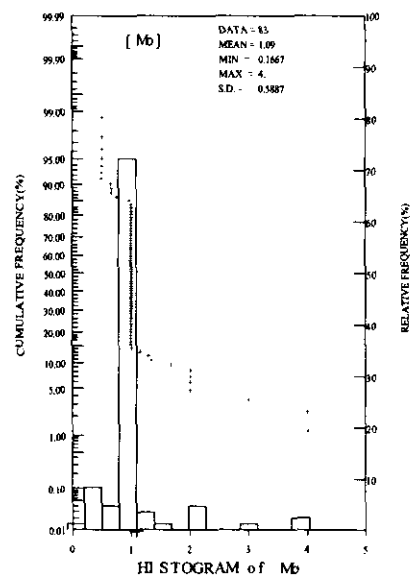
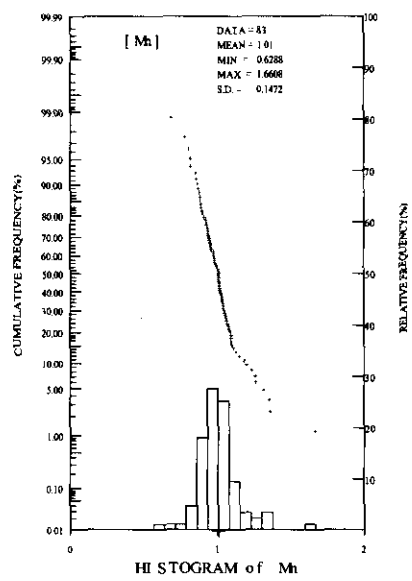
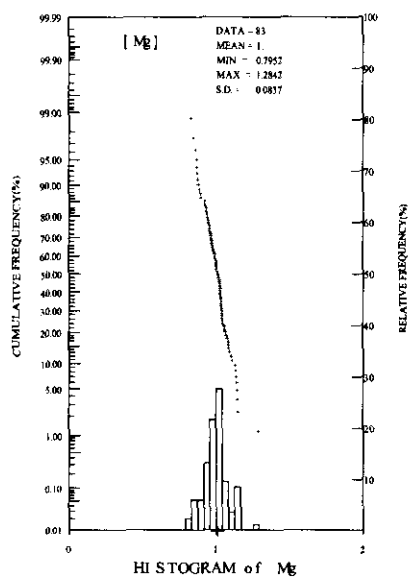
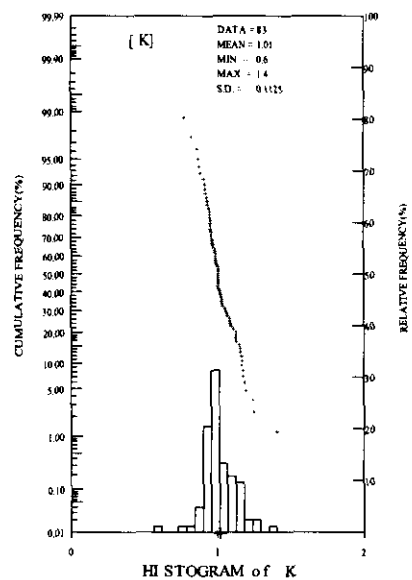
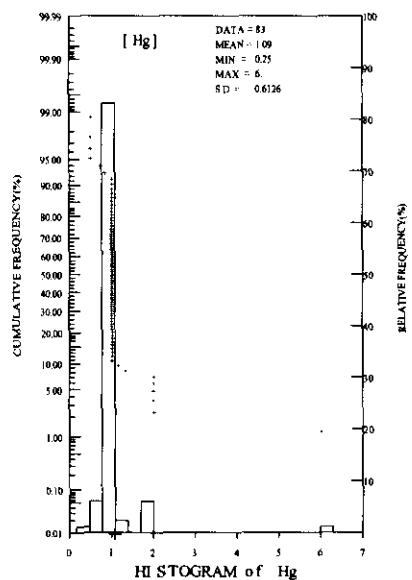
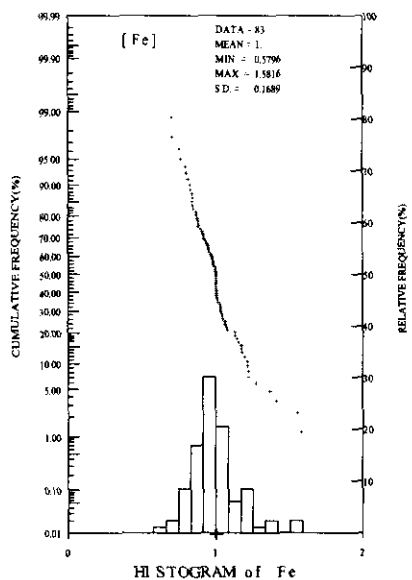
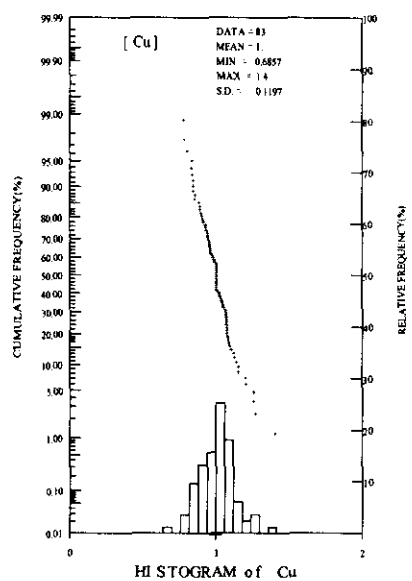
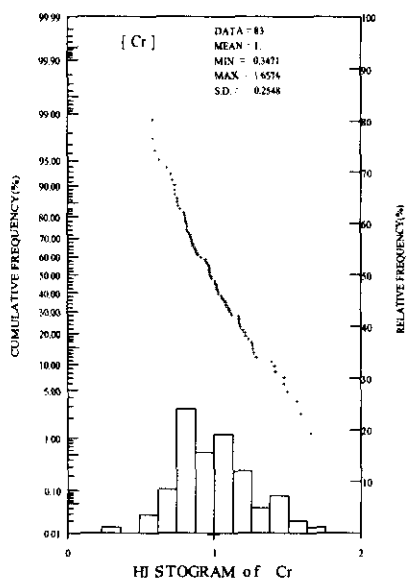
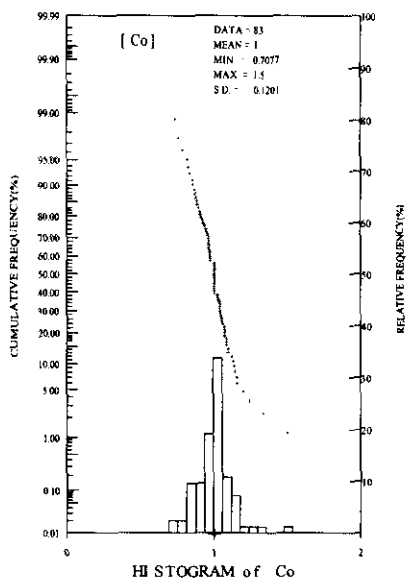
code element	Easting	Northing	system	Au-ICP21	Hg-CV41	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	
SampleNo	unit			ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
RT241	1910220	3894735	SIGATOK	0.001	<0.01	<0.5	5.98	<5	110	1.2	<2	2.45	1	15	96	27	12.1	0.7	1.45	2300	<1	1.66	10	490	11	0.01	10	130	1.05	409	10	184						
RT242	1910234	3893990	SIGATOK	0.002	<0.01	<0.5	5.57	<5	120	1.1	<2	2.33	1.3	23	98	29	15.35	0.59	1.52	2340	2	1.26	13	250	10	0.02	7	82	1.25	772	10	186						
RT243	1910371	3893981	SIGATOK	0.002	<0.01	<0.5	5.42	<5	100	1.2	<2	2.6	1.3	19	61	18	16.15	0.8	1.31	2310	1	1.54	7	580	9	0.03	17	99	1.27	758	10	143						
RT244	1911739	3894076	SIGATOK	0.003	<0.01	<0.5	5.75	<5	170	1	<2	1.92	0.5	11	123	14	6.38	1.29	0.87	1240	<1	1.59	10	210	3	0.02	11	120	0.76	257	<10	72						
RT245	1912046	3894360	SIGATOK	0.002	<0.01	<0.5	5.26	<5	100	1.1	<2	2.14	1.3	20	136	18	16.25	0.54	1.38	2500	<1	1.54	10	500	9	0.04	16	93	1.13	699	10	181						
RT246	1912050	3894335	SIGATOK	<0.001	<0.01	<0.5	4.87	<5	80	1.3	2	2.6	2.3	22	47	16	18.9	0.7	1.38	2600	2	1.39	6	650	11	0.03	12	81	1.48	936	10	163						
RT247	1897546	3900544	SIGATOK	0.003	<0.01	<0.5	6.93	<5	120	1	<2	2.86	<0.5	26	71	25	9.01	0.69	1.37	1255	<1	1.47	18	430	6	0.01	9	209	0.92	412	10	106						
RT248	1897348	3898523	SIGATOK	<0.001	<0.01	<0.5	4.26	<5	60	0.9	<2	1.71	4.4	73	117	36	>25.0	0.24	1.68	2400	4	0.64	28	10	11	<0.01	19	31	1.36	1095	20	278						
RT249	1898347	3898074	SIGATOK	0.003	0.01	<0.5	8.8	<5	130	0.9	<2	2.75	0.7	25	54	40	7.04	0.73	2.17	1140	<1	1.9	22	460	7	0.01	10	197	0.64	258	<10	112						
RT250	1898827	3897815	SIGATOK	0.002	<0.01	<0.5	6.82	<5	110	0.9	<2	2.02	1.1	24	52	23	11.7	0.72	1.46	1850	<1	1.84	12	240	8	0.01	5	162	0.73	257	10	268						
RT250-1	1898827	3897815	SIGATOK	<0.001	<0.01	<0.5	6.26	<5	100	0.9	<2	2.04	1.2	25	81	21	14.9	0.65	1.38	2520	<1	1.7	14	60	6	0.01	5	137	0.68	333	10	403						
RT251	1898583	3896581	SIGATOK	<0.001	<0.01	<0.5	8.44	<5	110	0.7	<2	3.73	0.5	26	49	27	8.62	0.61	1.82	1410	<1	1.55	12	340	4	0.01	<5	232	0.4	207	<10	123						
RT252	1899212	3895238	SIGATOK	0.002	<0.01	<0.5	6.91	<5	110	0.8	<2	1.94	0.9	21	90	19	10.15	0.69	1.42	1980	<1	1.86	12	220	2	<0.01	7	172	0.49	158	10	261						
RT253	1899170	3895193	SIGATOK	<0.001	<0.01	<0.5	8.04	<5	90	1	<2	4.04	1	27	192	38	7.98	0.55	2.69	1235	<1	2.3	44	440	7	0.01	13	183	0.8	343	<10	108						
RT254	1898410	3894630	SIGATOK	0.003	<0.01	<0.5	7.83	<5	60	0.8	<2	3.01	0.8	31	326	36	8.26	0.46	2.83	1570	<1	1.63	54	260	6	0.01	13	184	0.8	204	<10	124						
RT255	1898137	3894455	SIGATOK	0.001	0.01	<0.5	8.06	<5	90	0.8	<2	3.21	<0.5	23	82	32	6.86	0.66	1.93	1115	<1	1.15	17	290	2	0.01	10	254	0.64	254	<10	99						
RT256	1898041	3894055	SIGATOK	0.001	<0.01	<0.5	6.75	<5	80	0.8	<2	3.32	0.7	23	129	30	8.56	0.46	1.83	1165	<1	1.85	22	400	7	0.04	11	151	0.77	353	<10	104						
RT257	1897436	3894052	SIGATOK	0.003	0.01	<0.5	7.33	<5	70	0.5	<2	4.32	1.2	30	104	31	9.54	0.46	2.28	1275	<1	1.1	18	320	5	0.01	10	211	0.41	216	<10	123						
RT258	1896274	3892461	SIGATOK	0.002	<0.01	<0.5	7.04	<5	60	0.8	<2	1.7	<0.5	38	37	32	10.55	0.28	2.31	1390	<1	0.69	10	220	7	<0.01	14	74	0.79	479	10	96						
RT259	1896559	3891984	SIGATOK	0.001	0.01	<0.5	7.33	<5	110	0.8	<2	2.07	0.7	27	97	42	8.09	0.58	2.63	1210	<1	1.82	25	380	10	0.02	8	105	0.68	319	10	146						
RT260	1896527	3891961	SIGATOK	0.009	<0.01	<0.5	6.56	<5	120	0.8	<2	1.82	0.6	21	183	44	7.48	0.57	1.87	1225	<1	1.59	23	310	11	0.03	6	91	0.7	283	<10	182						
RT260-1	1896527	3891961	SIGATOK	0.002	0.01	<0.5	7.49	<5	140	0.8	<2	1.81	1.1	24	147	48	7.36	0.66	2.14	1240	<1	1.82	26	320	6	0.02	5	101	0.52	222	<10	183						
RT261	1896627	3889941	SIGATOK	0.001	0.01	<0.5	7.33	<5	140	1	<2	2.58	0.6	23	234	52	7.99	0.71	2.23	1330	<1	1.74	34	370	10	0.05	14	127	0.77	306	<10	188						
RT262	1896607	3889875	SIGATOK	0.001	<0.01	<0.5	6.82	<5	140	0.9	<2	1.45	0.6	21	122	45	6.91	0.6	1.93	1200	<1	1.72	23	350	9	0.03	10	82	0.65	262	10	181						
RT263	1897231	3887805	SIGATOK	0.004	0.01	<0.5	6.38	<5	210	1	<2	1.35	0.9	18	53	42	7.83	0.75	1.68	947	<1	1.56	17	400	21	0.04	10	51	0.95	374	<10	291						
RT264	1897301	3887592	SIGATOK	0.003	0.01	<0.5	7.05	<5	130	1	<2	1.57	0.9	26	252	53	9.76	0.58	1.97	1790	<1	1.38	25	330	11	0.06	14	66	0.9	341	<10	240						
RT265	1897341	3887604	SIGATOK	<0.001	<0.01	<0.5	7.36	<5	130	0.9	<2	1.89	<0.5	21	231	45	7.61	0.51	2.01	1330	<1	1.94	27	390	13	0.04	11	115	0.67	269	<10	188						
RT266	1896346	3885777	SIGATOK	0.006	0.01	<0.5	6.08	<5	100	0.9	<2	2.81	0.5	25	605	33	7.98	0.52	2.6	1345	<1	1.32	46	290	12	0.02	12	103	0.81	368	<10	179						
RT267	1896336	3885770	SIGATOK	<0.001	0.01	<0.5	7.49	<5	120	0.8	<2	1.14	0.7	28	110	55	10.1	0.62	1.56	1990	<1	1.01	20	300	7	0.02	7	57	0.45	225	10	205						
RT268	1890919	3894192	SIGATOK	<0.001	0.01	<0.5	6.01	<5	130	0.7	<2	3.44	1.9	47	217	27	17.95	0.55	1.73	1945	2	1.18	30	290	6	<0.01	13	219	0.78	650	10	193						
RT269	1891259	3896413	SIGATOK	<0.001	<0.01	<0.5	2.91	<5	40	<0.5	<2	1.34	6.4	76	326	28	>25.0	0.19	1.13	2260	3	0.47	42	10	7	<0.01	13	2	0.77	820	20	330						
RT270	1891044	3891748	SIGATOK	<0.001	<0.01	<0.5	2.1	<5	20	<0.5	<2	1.01	8.6	95	248	38	>25.0	0.07	1.08	2290	6	0.22	60	20	7	<0.01	12	<1	0.88	1020	20	385						
RT270-1	1891044	3891748	SIGATOK	<0.001	<0.01	<0.5	1.99	<5	20	<0.5	<2	0.89	8.9	99	238	38	>25.0	0.07	1.04	2280	3	0.2	62	10	<2	<0.01	8	<1	0.6	789	20	393						
RT271	1891576	3891469	SIGATOK	<0.001	0.01	<0.5	4.9	<																														

Appendix5 Chemical analysis data of stream sediment samples (11)

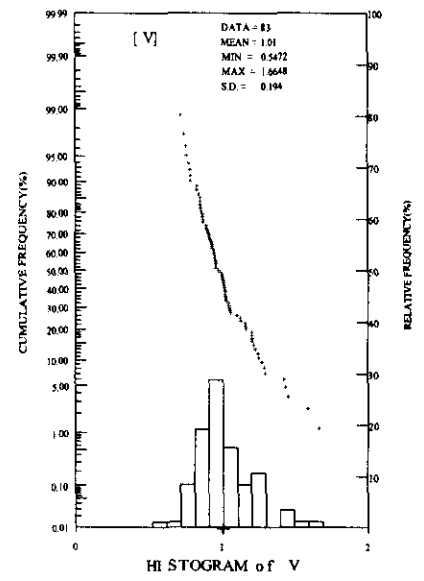
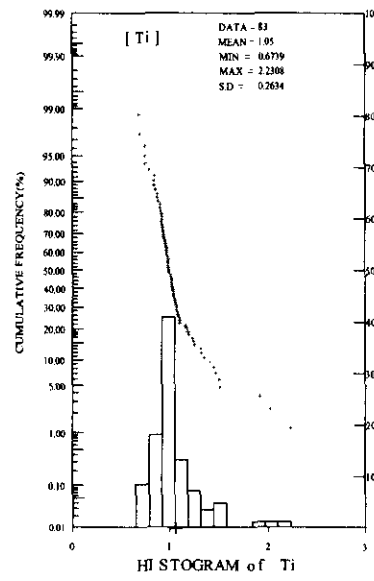
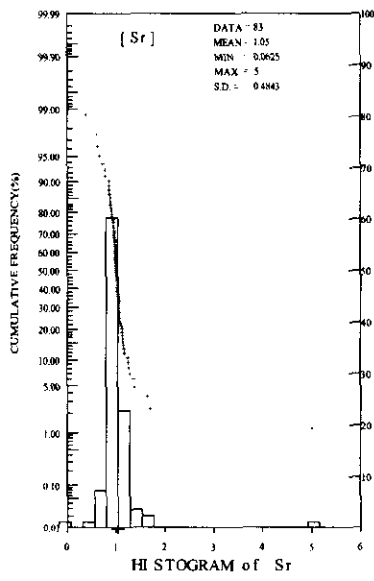
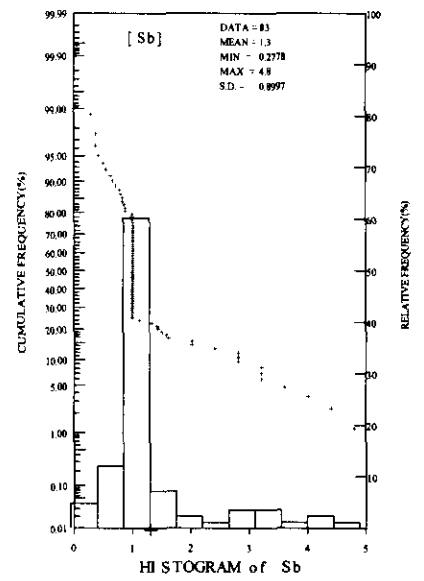
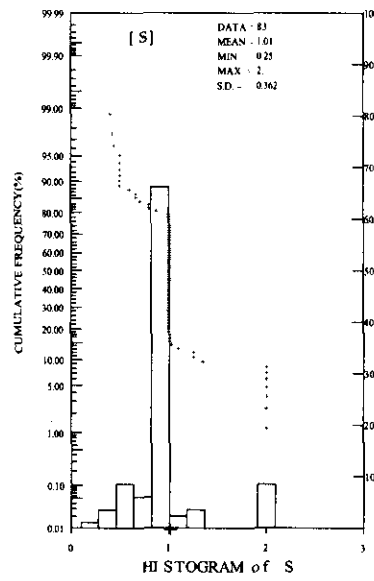
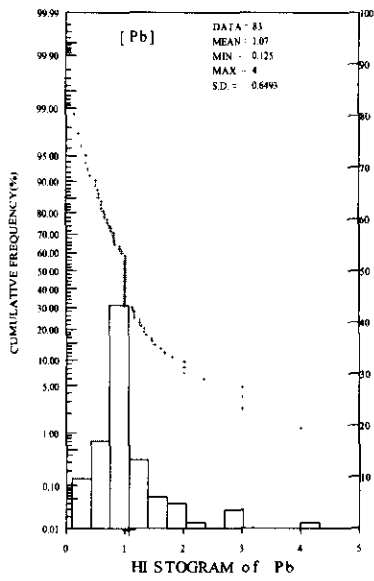
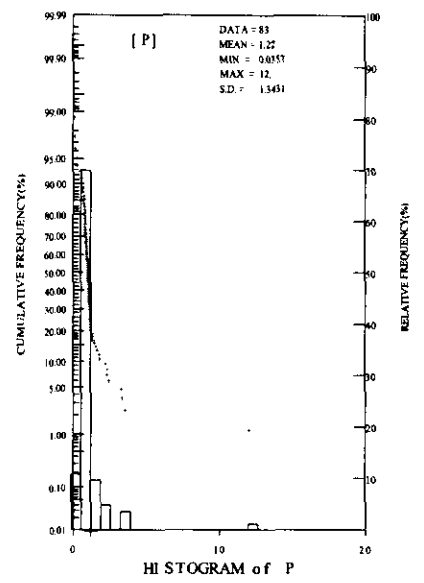
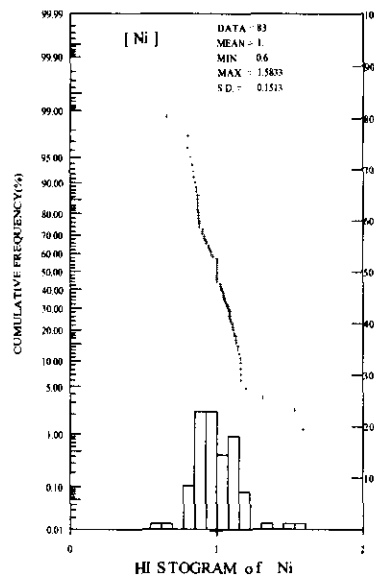
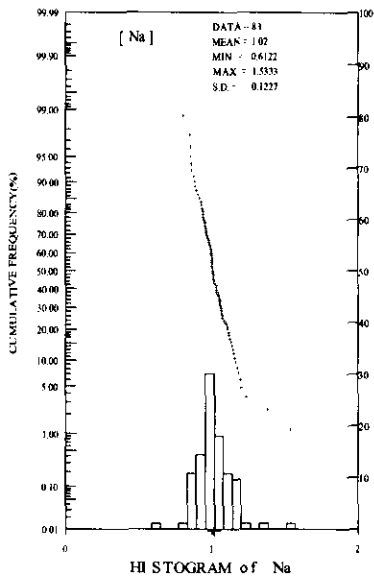
code element	Eastings	Northing	system	Au-ICP21 Au ppm	Hg-CV41 Hg ppm	ME-ICP61 Ag ppm	ME-ICP61 Al %	ME-ICP61 As ppm	ME-ICP61 Ba ppm	ME-ICP61 Be ppm	ME-ICP61 Bi ppm	ME-ICP61 Ca %	ME-ICP61 Cd ppm	ME-ICP61 Co ppm	ME-ICP61 Cr ppm	ME-ICP61 Cu ppm	ME-ICP61 Fe %	ME-ICP61 K %	ME-ICP61 Mg %	ME-ICP61 Mn ppm	ME-ICP61 Mo ppm	ME-ICP61 Na %	ME-ICP61 Ni ppm	ME-ICP61 P ppm	ME-ICP61 Pb ppm	ME-ICP61 S %	ME-ICP61 Sb ppm	ME-ICP61 Sr ppm	ME-ICP61 Ti %	ME-ICP61 V ppm	ME-ICP61 W ppm	ME-ICP61 Zn ppm
RN017	1930982	3882937	Navua	<0.001	0.01	<0.5	6.04	15	240	<0.5	15	2.18	3.8	51	54	132	20.3	0.69	1.86	2010	16	1.12	27	650	29	0.01	20	228	0.98	960	10	271
RN018	1931023	3882799	Navua	<0.001	0.04	<0.5	4.65	18	160	<0.5	17	2.45	5.9	73	83	156	>25.0	0.29	2.92	2800	20	0.88	46	290	31	<0.01	18	180	1.06	1118	10	371
RN019	1929915	3881912	Navua	<0.001	0.04	<0.5	7.16	15	260	0.6	10	3.13	2.6	46	29	100	19.82	0.54	2.15	2690	16	1.61	17	750	29	0.01	19	441	1.16	949	10	329
RN020	1929538	3883413	Navua	<0.001	0.03	<0.5	6.42	12	240	<0.5	6	2.57	3.2	52	63	117	19.78	0.5	1.84	2210	17	1.21	25	470	24	0.01	15	269	0.74	686	10	282
RN021	1928754	3880822	Navua	0.015	0.02	<0.5	8.41	<5	190	0.7	9	2.78	1.2	23	61	35	11.64	0.43	1.44	1765	9	1.72	15	320	22	0.01	12	440	0.68	203	10	182
RN022	1929295	3881667	Navua	0.002	0.05	<0.5	5.24	17	190	<0.5	17	2.62	6.6	64	31	103	>25.0	0.39	1.92	3790	23	1.36	21	690	39	<0.01	22	330	1.27	1198	10	476
RN023	1938626	3877731	Navua	0.01	0.01	<0.5	6.63	13	90	<0.5	6	0.79	2.7	38	33	105	20.1	0.33	1.03	2240	12	0.58	20	130	26	<0.01	15	19	0.74	553	10	394
RN023-1	1938626	3877731	Navua	<0.001	0.01	<0.5	6.59	11	90	<0.5	8	0.79	1.5	28	36	72	15.15	0.36	1.03	1800	9	0.61	16	200	19	<0.01	15	32	0.81	475	<10	283
RN024	1938394	3877300	Navua	0.002	0.01	<0.5	5.24	21	130	<0.5	15	2.25	5.4	79	86	127	>25.0	0.26	2.51	2420	21	0.69	42	130	31	<0.01	19	80	0.82	991	10	361
RN025	1938630	3876603	Navua	0.002	0.01	<0.5	5.63	11	50	<0.5	5	1.21	1.9	25	62	66	17.14	0.2	0.92	2550	9	0.36	14	30	20	<0.01	14	10	0.68	397	<10	297
RN026	1939756	3877822	Navua	0.005	0.01	<0.5	6.5	<5	190	<0.5	7	0.45	<0.5	18	74	66	12.95	0.97	0.81	1165	7	0.66	22	280	22	0.01	17	22	0.88	485	<10	190
RN027	1939812	3877831	Navua	0.388	0.01	<0.5	6.95	8	70	<0.5	6	0.74	0.5	19	105	53	11.1	0.44	1.07	1425	6	0.96	32	260	20	0.01	12	49	0.77	311	<10	215
RN028	1941175	3875304	Coastal	0.002	0.01	<0.5	8.7	<5	60	<0.5	<2	0.91	1.1	26	97	76	11.21	0.32	1.05	1935	7	0.86	33	310	21	0.01	10	39	0.63	361	<10	171
RN029	1941609	3875201	Coastal	0.003	0.01	<0.5	7.19	7	70	<0.5	<2	1.03	0.7	15	46	37	8.08	0.49	0.98	1355	3	0.96	8	320	20	0.01	8	56	0.7	297	<10	150
RN030	1941813	3875084	Coastal	0.001	0.01	<0.5	7.67	<5	60	<0.5	<2	1.02	1	17	43	45	8.47	0.41	0.99	1240	3	0.81	8	390	14	0.02	15	48	0.58	221	<10	145
RN031	1942222	3874600	Coastal	<0.001	0.01	<0.5	7.47	8	60	<0.5	<2	0.46	<0.5	12	26	38	11.19	0.2	0.59	1510	4	0.57	5	300	20	0.01	10	40	0.72	228	<10	197
RN033	1943954	3873381	Coastal	<0.001	0.02	<0.5	8.35	<5	60	<0.5	<2	1.16	0.6	20	55	46	8.21	0.22	1.02	1485	3	0.67	8	290	11	0.02	8	77	0.54	224	<10	134
RN033-1	1943954	3873381	Coastal	0.004	0.02	<0.5	8.32	<5	60	<0.5	<2	1.17	0.9	21	56	43	8.51	0.22	0.97	1625	5	0.64	9	210	15	0.01	9	76	0.45	200	<10	137
RN034	1919410	3877100	Navua	<0.001	0.01	<0.5	4.43	<5	100	0.7	<2	1.39	2.1	55	716	41	17.7	0.4	1.2	1899	<1	0.71	46	80	4	<0.01	8	130	0.64	573	20	223
RN035	1919103	3878008	Navua	0.01	0.01	<0.5	4.6	<5	110	0.7	<2	1.41	2.2	68	663	49	21.7	0.39	1.37	2191	<1	0.63	42	130	6	0.01	8	178	0.74	807	30	264
RN036	1891796	3877232	Navua	<0.001	<0.01	<0.5	8.06	<5	20	0.8	<2	5.39	1.3	33	776	33	11.3	0.09	1.69	2174	<1	2.1	45	210	6	0.04	<5	223	0.49	203	10	120
RN037	1892181	3877281	Navua	<0.001	0.01	<0.5	9.3	<5	70	1.2	<2	2.39	<0.5	37	1650	35	11.45	0.36	1.68	2033	<1	1.77	46	500	11	0.01	<5	132	0.89	382	10	165
RN038	1892869	3877007	Navua	<0.001	0.01	<0.5	8.22	<5	100	1.1	<2	1.44	0.7	35	537	35	11.7	0.72	2	1960	<1	1.53	26	450	10	0.01	7	80	0.8	363	20	194
RN039	1892873	3876776	Navua	0.308	0.01	<0.5	8.32	<5	40	0.9	<2	4.62	<0.5	30	476	40	7.55	0.18	1.76	1313	<1	2.41	47	350	11	0.05	<5	210	0.72	273	10	106
RN040	1894116	3876752	Navua	<0.001	0.01	<0.5	7.54	<5	80	0.9	<2	1.71	<0.5	31	1238	37	10	0.58	1.84	1831	<1	1.37	42	300	6	0.04	7	80	0.5	220	10	195
RN041	1893986	3876731	Navua	<0.001	0.01	<0.5	7.73	<5	50	0.9	<2	3.67	<0.5	29	508	38	8.06	0.24	1.63	1432	<1	1.99	43	320	2	0.02	<5	167	0.8	295	10	127



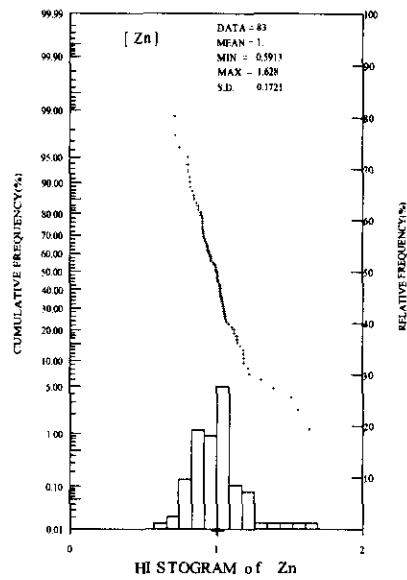
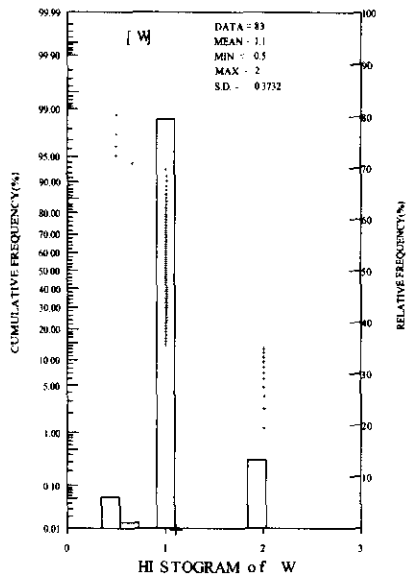
Appendix 6 Evaluation of duplicate stream sediment samples. Each probability plot shows distribution of proportion between stream sediment samples and its duplicate samples (1)



Appendix 6 Evaluation of duplicate stream sediment samples. Each probability plot shows distribution of proportion between stream sediment samples and its duplicate samples (2)



Appendix 6 Evaluation of duplicate stream sediment samples. Each probability plot shows distribution of proportion between stream sediment samples and its duplicate samples (3)



Appendix 6 Evaluation of duplicate stream sediment samples. Each probability plot shows distribution of proportion between stream sediment samples and its duplicate samples (4)

Appendix7 Preliminary list of terrestrial vertebrates of Waivaka-South (1)

Scientific Names	English Names	Fijian Names	Introduced, Endemic, Threat Status	Comments
鳥類(Birds:)				
<i>Egretta sacra</i>	Eastern Reef Heron	Belo		Not recorded. But doubtless a visitor along the creeks from tome to time.
<i>Ardea novaehollandiae</i>	White-faced Heron	Belo matavula		Not recorded but this recently-arrived bird on Viti Levu has been seen in the Rewa delta area and along the Navua River and so may well occur in the area.
<i>Anas superciliosa</i>	Pacific Black Duck	Ganiviti		Singletons or pairs seen several times on the Wainikatama and Waivaka Rivers
<i>Accipiter rufitorques</i>	Fiji Goshawk	Reba	Fiji Endemic	Uncommon only three seen.
<i>Circus approximans</i>	Pacific Harrier	Manu levu		Uncommon several seen over both forest and secondary habitats
<i>Falco peregrinus</i>	Peregrine Falcon	Ganivatu	At Risk in Fiji	Not recorded. A very rare species in Fiji which is known to nest on the cliff faces of the Korobasabasaga range from where they could hunt over the study area. No suitable rock faces were noted in the Waivaka area. Not a globally threatened species.
<i>Porzana cinereus</i>	White-browed Crake		Conservation Concern in Fiji	Not recorded. There would appear to be no suitable habitat in the Waivaka area for this species which inhabits freshwater swamps and ponds. Although threatened in Fiji this is not a globally threatened species.
<i>Porzana tabuensis</i>	Spotless Crake	Mo	Data Deficient in Fiji	Not recorded. There would appear to be no suitable habitat in the Waivaka area for this species which inhabits freshwater swamps ponds and thick wet vegetation. Although probably threatened in Fiji this is not a globally threatened species.
<i>Columba vitiensis</i>	White-throated Pigeon	Soqeloa		Uncommo nonly one seen.

Appendix7 Preliminary list of terrestrial vertebrates of Waivaka-South (2)

Scientific Names	English Names	Fijian Names	Introduced, Endemic, Threat Status	Comments
<i>Streptopelia chinensis</i>	Spotted Dove		Introduced	Not recorded but could be present along roadsides
<i>Gallicolumba stairii</i>	Friendly Ground-dove	Qilu	Vulnerable Endemic to Fiji Samoa and Tonga	Not recorded but may well occur. Uncommon on Viti Levu perhaps because of mongoose predation. Difficult to see but usually calls frequently. The forest appeared to be suitable for this species.
<i>Ducula latrans</i>	Barking Pigeon	Soqe	Endemic to Fiji	Commonly seen and more commonly heard because of its loud and distinctive call.
<i>Ptilinopus perousii</i>	Many-coloured Fruit-dove	Kuluvotu		Uncommon heard twice.
<i>Chrysoenas luteovirens</i>	Golden Dove	Bunako	Endemic to Viti Levu and offshore islands	Common although fewer than expected calling
<i>Phigys solitarius</i>	Collared Lory	Kula	Endemic to Fiji	Common seen or heard on several occasions every day
<i>Charmosyna amabilis</i>	Red-throated Lorikeet	Kulawai	Endangered Endemic to Fiji	Not recorded. A very rare species: none were seen in a dedicated 3-month survey in 2001/2. May be nomadic in response to flowering trees? there were very few suitable trees (eg vuga) in flower during the survey - and it may occur at different times at Waivaka even if not recorded.
<i>Prosopeia personata</i>	Masked Shining Parrot	Kaka	Vulnerable Endemic to Viti Levu	Uncommon one or two heard or seen most days and a group of four observed.
<i>Cacomantis flabelliformis</i>	Fan-tailed Cuckoo	Todi		Uncommon heard once or twice on most days
<i>Eudynamis taitensis</i>	Long-tailed Cuckoo	Migrant		Not recorded. Unlikely to be seen in the area as it is a rare visitor to Viti Levu.
<i>Tyto alba</i>	Barn Owl	Belo		Not recorded. But doubtless present. No night surveys were undertaken.

Appendix7 Preliminary list of terrestrial vertebrates of Waivaka-South (3)

Scientific Names	English Names	Fijian Names	Introduced, Endemic, Threat Status	Comments
<i>Tyto longimembris</i>	Eastern Grass Owl			Not recorded. This is known from only four specimens taken in the nineteenth century but all from south east Viti Levu. It is presumed extinct but the comparatively extensive grasslands at the confluence of the Wainivuga and the Waivaka rivers could be suitable habitat. Further work would be required to confirm this.
<i>Collocalia spodiopygius</i>	White-rumped Swiftlet	Kakabace		Common seen flying over forest and secondary habitats at all times of the day.
<i>Todiramphus chloris</i>	White-collared Kingfisher	Lesi		Common seen or heard several times each day.
<i>Hirundo tahitica</i>	Pacific Swallow			Not recorded. May be found along the larger rivers.
<i>Artamus mentalis</i>	Fiji Woodswallow	Vukase	Endemic to Fiji	Locally fairly common in open areas and forest openings.
<i>Aplonis tabuensis</i>	Polynesian Starling	Vocea		Uncommon or rare seen on only three occasions.
<i>Acridotheres tristis</i>	House Mynah	Maina	Introduced	Not recorded.
<i>Acridotheres fuscus</i>	Jungle Mynah	Maina ni veikau	Introduced	Locally abundant especially near the camps and main road and where cattle were present.
<i>Pycnonotus cafer</i>	Red-vented Bulbul	Ulurua	Introduced	Abundant around the camps and fairly common along drilling access roads and the open area on the Waivaka River.
<i>Turdus poliocephalus</i>	Island Thrush	Tola		Uncommon Only a few heard singing each day and so uncommonly encountered but more likely to have been revealed by more walks through the forest rather than on roads and drilling access tracks.

Appendix7 Preliminary list of terrestrial vertebrates of Waivaka-South (4)

Scientific Names	English Names	Fijian Names	Introduced, Endemic, Threat Status	Comments
<i>Trichocichla rufa</i>	Long-legged Warbler		Data Deficient Endemic to Fiji	Not recorded. A rare species which is very difficult to see although it has a distinctive song. Its habitat requirements are poorly known but there was some forest at Waivaka that was believed to be suitable. Areas of suitable habitat such as this should be surveyed at dawn ideally using tape recordings of the species.
<i>Cettia ruficapilla</i>	Fiji Bush-warbler	Manu	Endemic to Fiji	Commonly heard but rarely seen.
<i>Petroica multicolor</i>	Scarlet Robin	Diriqwala		Common many fledglings recorded.
<i>Rhipidura spilodera</i>	Streaked Fantail	Sasaira		Common
<i>Mayrornis lessoni</i>	Slaty Monarch	Sasaira	Endemic to Fiji	Common but less common than in many forest areas.
<i>Clytorhynchus vitiensis</i>	Lesser Shrikebill	Digisau		Common
<i>Clytorhynchus nigrogularis</i>	Black-faced Shrikebill	Kiro	Vulnerable Endemic to Fiji	Uncommon. A vociferous pair at the Wainikatama camp; two others heard calling and one seen.
<i>Myiagra vanikorensis</i>	Vanikoro Broadbill	Matayalo		Common more common than expected although mostly seen along roads and around openings
<i>Myiagra azureocapilla</i>	Blue-crested Broadbill	Batidamu	Endemic to Fiji	Common
<i>Pachycephala pectoralis</i>	Golden Whistler	Ketedromo		Common
<i>Lalage maculosa</i>	Polynesian Triller	Manusa		Common
<i>Zosterops explorer</i>	Fiji White-eye	Qiqi	Endemic to Fiji	Abundant throughout forest areas.

Appendix7 Preliminary list of terrestrial vertebrates of Waivaka-South (5)

Scientific Names	English Names	Fijian Names	Introduced, Endemic, Threat Status	Comments
<i>Zosterops lateralis</i>	Silvereye	Qiqi		Uncommon except in more open habitats - roadsides and along the Waivaka River.
<i>Erythrura pealii</i>	Fiji Parrotfinch	Qiqikula	Endemic to Fiji	Common
<i>Erythrura kleinschmidti</i>	Pink-billed Parrotfinch	Sitibatitabua	Endangered Endemic to Viti Levu	Uncommon One or two seen on three occasions and singles heard or seen flying overhead on eight occasions; all within 500m of camp. More research is needed to clarify its habitat preferences; birds were seen both in old-growth forest and roadside bushes.
<i>Amandava amandava</i>	Red Avadavat	Siti	Introduced	Not recorded. Inhabits grasslands and not likely to be present.
<i>Padda oryzivora</i>	Java Rice Sparrow	Manumanu ni Raisi	Vulnerable Introduced	Not recorded. Inhabits grasslands and not likely to be present.
<i>Myzomela jugularis</i>	Orange-breasted Myzomela	Delakula	Endemic to Fiji	Common
<i>Foulehaio carunculata</i>	Wattled Honeyeater	Kikau		Abundant
<i>Gymnomyza viridis</i>	Giant Forest Honeyeater	Sovau	Vulnerable Endemic to Fiji	Commonly heard although overall density difficult to assess because of the strength of their call.
爬虫類(Reptiles)				
<i>Brachylophus fasciatus</i>	Banded Iguana	Vokai	Endangered	Not encountered or reported but probably occurs at very low density because of predation by the Mongoose and feral cats.
<i>Candoia bibronii</i>	Pacific Boa	Gata		Not encountered but reported by landowners. As elsewhere on Viti Levu probably occurs at a low density because of predation by the Mongoose and feral cats.
<i>Ogmodon vitiensis</i>	Fiji Burrowing Snake	Bolo	Endemic to Viti Levu Vulnerable	Not encountered but reported by landowners. The Namosi area is the only place where this species appears to persist at a reasonable density.
<i>Gehyra vorax</i>	Giant Forest Gecko			Not encountered. A very secretive species and difficult to find.

Appendix7 Preliminary list of terrestrial vertebrates of Waivaka-South (6)

Scientific Names	English Names	Fijian Names	Introduced, Endemic, Threat Status	Comments
<i>Gehyra oceanica</i>	Oceanic Gecko		?Introduced	Not encountered but almost certainly occurs. Usually a common forest gecko.
<i>Gehyra mutilata</i>	Stump-toed Gecko		Introduced	Not encountered. A recently introduced species confined to buildings or their near vicinity.
<i>Lepidodactylus lugubris</i>	Mourning or Pacific Gecko		Introduced	Not encountered. An introduced species confined to buildings or their near vicinity.
<i>Lepidodactylus manni</i>	Mann's Forest Gecko		Endemic	Not encountered but probably occurs. Usually a rare forest gecko.
<i>Hemiphyllodactylus typus</i>	Tree Gecko			Not encountered. A rare introduced species.
<i>Hemidactylus frenatus</i>	House Gecko		Introduced	Not encountered. An introduced species confined to buildings or their near vicinity.
<i>Hemidactylus garnotti</i>	Fox Gecko			Not encountered but probably occurs. An apparently declining gecko but not confined to forest.
<i>Nactus pelagicus</i>	Slender-toed Gecko			Recorded
<i>Emoia mokosariniveikau</i>	Turquoise Forest Skink		Endemic	Unidentified Skink - Recorded. This tree skink was seen on three occasions a voucher specimen was collected. Currently <i>Emoia mokosariniveikau</i> is known only from Vanua Levu and so if the identification is confirmed it will be a new record for Viti Levu. If this is not <i>Emoia mokosariniveikau</i> then it will be a new species.
<i>Emoia campbelli</i>	Campbell's Skink		Endemic to Viti Levu	Not encountered. Currently only known from higher altitudes (Monasavu) and not yet recorded in the Namosi area.

Appendix7 Preliminary list of terrestrial vertebrates of Waivaka-South (7)

Scientific Names	English Names	Fijian Names	Introduced, Endemic, Threat Status	Comments
<i>Emoia concolor</i>	Green tree Skink		Endemic	Not encountered. Usually a common tree skink but found mainly in disturbed habitats.
<i>Emoia impar</i>	Blue-tailed Copper-striped Skink			Not encountered a ground skink which is unlikely to occur in upland forested areas.
<i>Emoia cyanura</i>	Brown-tailed Copper-striped Skink			Not encountered a ground skink which is unlikely to survive in upland forest areas because of predation by the Mongoose and feral cats.
<i>Emoia parkeri</i>	Bronze-headed Skink		Endemic	Recorded. An arboreal skink which was comparatively commonly recorded.
<i>Lipinia noctua</i>	Moth Skink			Not encountered but probably occurs. A secretive but usually quite common skink which is not confined to forest.
<i>Cryptoblepharus eximius</i>	Pacific Snake-eyed Skink		Endemic	Not encountered a ground skink of coastal areas but one which has been found way inland up along major rivers and so may occur.
兩生類(Amphibians)				
<i>Bufo marinus</i>	Cane Toad	Boto	introduced	Common around the camp
<i>Platymantis vitiensis</i>	Fiji Tree Frog	Ula	Endemic	Opportunistic searching revealed the presence on three occasions
哺乳類(Mammals-Native)				
<i>Pteropus tonganus</i>	Pacific Flying Fox	Beka		No day time roosting camps were encountered in the limited area surveyed. This bat was surprisingly uncommon only 10-20 being seen flying around each evening.

Appendix7 Preliminary list of terrestrial vertebrates of Waivaka-South (8)

Scientific Names	English Names	Fijian Names	Introduced, Endemic, Threat Status	Comments
<i>Pteropus samoensis</i>	Samoan Flying Fox	Beka ni Siga	Vulnerable	A few seen flying around the forest each day
<i>Notopteris macdonaldi</i>	Long-tailed Fruit Bat			Not recorded. This is a nocturnal cave-roosting species. No caves were visited during this preliminary survey and no landowner discussions were held to locate the whereabouts of any caves.
<i>Emballonura semicaudata</i>	Sheath-tailed Bat	Bekabeka		Not recorded. This is a nocturnal cave-roosting species. No caves were visited during this preliminary survey and no landowner discussions were held to locate the whereabouts of any caves.
哺乳類(Mammals-Introduced)				
<i>Rattus rattus</i>	Black Rat			6 rats were caught on 146 'corrected trap-nights', providing a standard index of 4.1 . This is a relatively low index.
<i>Herpestes auropunctatus</i>	Mongoose			Observed
<i>Felis domesticus</i>	Feral cat			Not captured in the live traps used.
	Feral pigs			Sign of feral pigs was observed in the forest.

Appendix 8 Assay results of the fish and shellfish samples

No.	Sample No	Items	Locality	Easting(m)	Northing(n)	Ca	Mg	Na	K	Fe	P	Ag	Al	As	Au	Ba	Be	Bi	Cd	Co	Cr	Cu	Hg	Mn	Mo	Ni	Pb	Sb	Sr	Ti	V	W	Zn
1	F001	Fish	Namosi, Lower stream of Waidina	1941300	3888270	20200	1040	2570	9540	1780	13700	<0.05	1250	1.39	<0.05	10.5	<0.05	<0.05	0.62	0.77	2.73	11.7	0.09	24.1	0.28	0.28	0.49	<0.05	44.3	48.3	4.9	<0.05	73.6
2	F002	Fish	Namosi, Waisoi	1940080	3888200	11800	646	2260	7220	475	9600	<0.05	247	0.31	<0.05	10.6	<0.05	<0.05	0.28	0.31	2.53	3.69	0.13	14.3	<0.05	1.51	0.21	<0.05	17	48	<2.5	<0.05	81.1
3	F003	Fish	Namosi, Upper stream of Waidina	1938500	3885170	20900	1020	3030	11100	40	15500	0.06	51	0.3	<0.05	4.71	<0.05	<0.05	0.33	0.39	2.3	2.7	0.12	12	<0.05	0.06	0.18	<0.05	38.6	28.1	<2.5	<0.05	78
4	F004	Fish	Namosi, Waivaka	1940240	3884570	14700	969	2850	11000	246	13300	<0.05	138	0.27	<0.05	3.66	<0.05	<0.05	0.32	0.38	2.74	1.69	0.18	10.4	<0.05	0.06	0.16	<0.05	23.3	39.3	<2.5	<0.05	83.7
5	F005	Fish	Namosi, Wainavuga	1940280	3882440	22500	1180	2590	9780	2890	14500	<0.05	1230	0.56	<0.05	38	<0.05	<0.05	0.59	1.09	3.52	10	0.11	51.6	0.09	0.45	0.66	<0.05	62.7	147	11	<0.05	89.2
6	SF001	Shellfish	Rewa River	1963740	3898560	2430	842	879	1140	2550	7460	<0.05	3040	1.83	<0.05	9.73	<0.05	<0.05	1.85	1.69	5.39	14.4	0.06	75.7	0.2	1.96	0.3	<0.05	11.3	128	7.2	<0.05	84.8
7	SF002	Shellfish	Rewa River	1968520	3894630	2220	829	843	1350	2930	6720	0.06	3300	2.01	<0.05	11.2	<0.05	<0.05	1.49	1.77	4.37	13.2	0.05	87.6	0.2	2.17	0.31	<0.05	10.3	147	8.2	<0.05	78
8	SF003	Shellfish	Rewa River	1975680	3891870	4200	1100	1040	1220	3790	6490	0.08	4880	2.22	<0.05	15.9	0.05	<0.05	2.33	3.57	6.67	20.7	0.1	129	0.34	3.51	0.46	<0.05	20.7	192	10.9	0.06	108
9	SF004	Shellfish	Rewa River	1976350	3885850	1740	796	903	1370	2830	7930	0.07	3490	3.31	<0.05	11.6	<0.05	<0.05	0.82	1.44	3.86	12.8	<0.05	165	0.18	1.57	0.29	<0.05	8.29	151	7.7	<0.05	85.5
10	SF005	Shellfish	Rewa River	1980380	3880170	2810	953	1110	1190	3610	5680	0.07	4850	2.67	<0.05	11.6	<0.05	<0.05	1.62	2.28	4.77	14.5	0.06	93.1	0.27	2.28	0.43	<0.05	14.6	179	10.7	0.05	91
11	SF006	Shellfish	Coastal River	1951400	3873350	1460	616	1130	1090	3050	7370	0.07	2810	3.75	<0.05	3.78	<0.05	<0.05	1.79	2.66	3.42	11.3	0.1	53.7	0.21	0.72	0.26	<0.05	4.62	190	8.6	<0.05	97.9
12	SF007	Shellfish	Coastal River(Nabukabesi)	1946840	3871180	1640	430	1000	874	522	8910	0.06	52.3	2.22	<0.05	1.64	<0.05	<0.05	2.48	2.88	2.48	8.43	0.13	11.5	0.21	0.62	0.33	<0.05	3.75	17.6	<2.5	<0.05	124
13	SF008	Shellfish	Coastal River(Nabukabesi)	1946660	3871760	1610	443	941	1100	1310	9460	0.06	494	2.81	<0.05	1.79	<0.05	<0.05	3.44	2.51	2.41	10.5	0.11	17.5	0.2	0.7	0.19	<0.05	3.32	45.2	<2.5	<0.05	109
14	SF009	Shellfish	Navua River	1937100	3862260	2050	450	1290	777	762	6790	0.05	128	1.96	<0.05	2.59	<0.05	<0.05	3.01	2.83	2.52	10.4	0.15	30.8	0.3	0.79	0.11	<0.05	4.56	17.9	<2.5	<0.05	143
15	SF010	Shellfish	Navua River	1937460	3865160	2160	1280	1450	1620	5290	7280	0.07	7120	2.57	<0.05	9.29	<0.05	<0.05	3.55	3.32	6.31	17.5	0.13	128	0.4	2.94	0.58	<0.05	9.84	337	16.6	<0.05	107
16	SF011	Shellfish	Sigatoka River	1874150	3880280	1680	955	983	1830	2580	9240	0.05	3730	1.97	<0.05	6.75	<0.05	<0.05	1.95	1.49	3.65	12.7	0.06	104	0.29	1.35	0.39	<0.05	8.41	157	7.9	0.06	62.8
17	SF012	Shellfish	Sigatoka River	1874600	3878650	1260	653	606	1310	1140	7600	<0.05	1510	2.14	<0.05	3.51	<0.05	<0.05	1.12	1.01	3.17	10.4	0.06	63.4	0.16	1.05	0.14	<0.05	5.41	82	3.4	<0.05	64.1
18	SF013	Shellfish	Sigatoka River	1872500	3879300	1520	917	868	1970	2250	11700	<0.05	3180	1.83	<0.05	5.39	<0.05	<0.05	1.05	1.35	3.2	8.31	0.05	93.3	0.13	1.03	0.3	<0.05	7.79	127	6.7	<0.05	54.1
19	SF014	Shellfish	Sigatoka River	1872200	3878100	1140	620	756	1460	1370	9710	<0.05	1870	1.98	<0.05	3.46	<0.05	<0.05	0.89	0.91	2.73	7.75	0.06	54	0.16	0.82	0.2	<0.05	5.42	75.8	4.1	<0.05	50
20	SF015	Shellfish	Sigatoka River	1872340	3876460	1820	894	1070	1930	2190	10200	<0.05	3200	2.4	<0.05	6.71	<0.05	<0.05	1.11	1.36	3.9	11.4	<0.05	61.1	0.14	1.13	0.23	<0.05	7.86	157	6.8	<0.05	73
21	SF016	Shellfish	Sigatoka River	1872760	3875220	2470	790	1090	1650	1940	10000	<0.05	2690	2.58	<0.05	5.53	<0.05	<0.05	0.98	1.11	2.98	10.5	0.06	105	0.18	1.1	0.26	<0.05	9.62	107	5.8	<0.05	60.4
22	SF017	Shellfish	Sigatoka River	1871320	3874760	2720	702	1140	1570	1280	8160	0.26	1820	3.7	<0.05	3.77	<0.05	<0.05	0.94	1.15	3.16	9.02	0.07	66.7	0.2	1.16	0.21	<0.05	11.9	70.6	3.8	<0.05	68.9
23	SF018	Shellfish	Sigatoka River	1869850	3874740	2050	814	1320	1960	1890	8920	0.13	2940	4.44	<0.05	6.16	<0.05	<0.05	0.71	1.38	4.69	8.34	<0.05	107	0.15	1.16	0.21	<0.05	12.1	138	5.8	<0.05	78.8
24	SF019	Shellfish	Sigatoka River	1868800	3873580	2070	648	1070	1660	1160	10300	0.08	1600	3.84	<0.05	3.46	<0.05	<0.05	0.93	0.89	2.79	10.9	0.06	62.8	0.19	0.84	0.14	<0.05	9.67	71.6	3.4	<0.05	63.1
25	SF020	Shellfish	Rewa River	1966650	3897000	2280	987	1050	1520	3420	6950	0.08	4410	2.24	<0.05	13.8	<0.05	<0.05	2.52	2.06	5.4	17.1	<0.05	93.9	0.21	2.35	0.36	<0.05	10.6	194	9.5	<0.05	90.3
26	SF021	Shellfish	Rewa River	1969760	3890560	2740	981	1040	1250	2980	5500	0.08	4120	1.8	<0.05	13.9	<0.05	<0.05	2.82	2.38	4.44	22.2	0.09	95.2	0.3	2.43	0.45	<0.05	12.5	152	9.1	0.06	96.6

(LOR; Ca Mg Na K Fe:5mg/kg, P:50mg/kg, Al:2.5mg/kg, Ti:0.1mg/kg, V:2.5mg/kg, Other elements:0.05mg/kg)
 (All Assay Results are shown by mg/kg)

