

OResults of Radioactive Material Monitoring of Aquatic Organisms (Location G in Lake Hayama)

< Location G in Lake Hayama: Samples collected >

Locations	General items		Radioactive materials			
	Water	Sediment	Water (Cs)	Water (Sr)	Sediment (Cs)	Sediment (Sr)
G-1	○	○	○	○	○	○
G-2	—	○	—	—	○	—
G-3	○	○	○	—	○	—
G-4	—	○	—	—	○	—
G-5	○	○	○	—	○	—

< Location G in Lake Hayama: Site measurement item >

Locations	Survey date and time			Latitude and longitude of the location		Water						Sediment		Other	
	Date	Time (Water)	Time (Sediment)	Latitude	Longitude	Water temperature (degrees C)	Sediment temperature (degrees C)	Property	Color	Odor	Contaminants	Water depth (m)	Secchi disk depth (m)		
G-1	2012/10/25	11:36	11:58	37.732050°	140.812717°	17.1	17.0	Sand and sediment humus	2.5Y-3/2	None	Plant	6.5	3.5		
G-2	2012/10/25	11:36	10:26	37.726733°	140.822333°	17.3	17.8	Ooze	2.5Y-4/1	None	Plant	7.0	3.9		
G-3	2012/10/25	9:20	9:55	37.730167°	140.830667°	17.2	17.0	Sand/gravel/sediment	2.5Y-3/2	None	Slightly plant piece	3.9	3.9		
G-4	2012/10/24	—	16:20	37.738200°	140.803450°	—	11.2	Sand	2.5Y-3/2	None	None	0.5	>100※		
G-5	2012/10/25	11:02	11:24	37.734117°	140.808833°	17.3	17.1	Sand/sediment	2.5Y-4/3	None	Plant fragments, aquatic plant	1.8	1.8		

※ shows the Transparency (cm).

< Location G in Lake Hayama: General survey items/Analysis of radioactive materials Water >

Locations	Survey date and time		Latitude and longitude of the location		pH	BOD (mg/L)	COD (mg/L)	DO (mg/L)	Electrical conductivity (mS/m)	Salinity	TOC (mg/L)	SS (mg/L)	Turbidity (FNU)	Cs-134 (Bq/L)	Cs-137 (Bq/L)	Sr-90 (Bq/L)
	Date	Time	Latitude	Longitude												
G-1 (Surface layer)	2012/10/25	11:36	37.732050°	140.812717°	7.3	0.6	3.8	8.2	7.2	0.05	1.7	2	1.6	0.071	0.12	—
G-1 (Deep layer)	2012/10/25	11:36	37.732050°	140.812717°	7.3	0.7	4.0	8.5	7.1	0.05	1.8	2	1.8	0.075	0.12	0.0024
G-3 (Surface layer)	2012/10/25	9:20	37.730167°	140.830667°	7.3	0.6	3.9	8.2	7.1	0.04	1.8	1	1.2	0.077	0.13	—
G-3 (Deep layer)	2012/10/25	9:20	37.730167°	140.830667°	7.3	0.7	3.8	8.2	7.0	0.05	1.8	1	1.3	0.076	0.13	—
G-5 (Surface layer)	2012/10/25	11:02	37.734117°	140.808833°	7.2	0.6	3.7	8.6	7.1	0.06	2.0	2	1.6	0.087	0.14	—
G-5 (Deep layer)	2012/10/25	11:02	37.734117°	140.808833°	7.4	<0.5	3.7	8.4	7.0	0.04	1.8	2	1.6	0.084	0.14	—

< Location G in Lake Hayama: General survey items/Analysis of radioactive materials Sediment >

Locations	Survey date and time		Latitude and longitude of the location		pH	Redox potential E _{HHE} (mV)	Water content (%)	IL (%)	TOC mg/g-dry	Soil particle density (g/cm ³)	Grain size distribution						Median grain diameter (mm)	Maximum grain diameter (mm)	Cs-134 (Bq/kg-dry)	Cs-137 (Bq/kg-dry)	Sr-90 (Bq/kg-dry)
	Date	Time	Latitude	Longitude							Gravel (2-75mm) (%)	Coarse sand (0.85-2mm) (%)	Medium sand (0.25-0.85mm) (%)	Fine sand (0.075-0.25mm) (%)	Silt (0.005-0.075mm) (%)	Clay (Less than 0.005mm) (%)					
G-1	2012/10/25	11:58	37.732050°	140.812717°	6.7	134	69.6	35.1	70	2.455	—	0.4	2.2	22.5	32.6	42.3	0.010	2.00	14,000	24,000	8.1
G-2	2012/10/25	10:26	37.726733°	140.822333°	6.6	94	33.8	12.0	52	2.551	22.0	5.1	7.5	10.2	19.2	36.0	0.037	9.50	6,000	9,900	—
G-3	2012/10/25	9:55	37.730167°	140.830667°	6.8	87	48.8	7.3	17	2.623	20.0	8.1	15.0	13.5	19.8	23.6	0.150	19.00	2,000	3,100	—
G-4	2012/10/24	16:20	37.738200°	140.803450°	7.2	267	24.7	2.3	1	2.692	12.1	23.2	53.0	8.5	1.0	2.2	0.640	19.00	2,100	3,500	—
G-5	2012/10/25	11:24	37.734117°	140.808833°	6.8	292	54.9	10.4	26	2.628	0.1	0.2	7.0	38.1	27.8	26.8	0.042	4.75	5,500	9,400	—

< Location G in Lake Hayama: Analysis items Aquatic organisms >

Location	Sampling Date	Latitude and longitude of the location		Division	Class	Order	Family	Species name	English name	Population	Sample weight (kg-wet)	Cs-134 (Bq/kg-wet)	Cs-137 (Bq/kg-wet)	Sr-90 (Bq/kg-wet)	Note	
		Latitude	Longitude												Growth stage	Stomach contents
G-1 G-2 G-3	2012/11/15	37.732050°	140.812717°	Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<u>Carassius auratus</u>	Carassius auratus langsdorfi	2	2.3	300	510	1.2	Mature fish	Some (details unknown)
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<u>Cyprinus carpio</u>	Common carp	1	1.2	73	120	—	Mature fish	Some (details unknown)
				Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	<u>Oncorhynchus masou</u>	Seema	3	1.3	300	490	—	Mature fish	Some (details unknown)
				Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	<u>Oncorhynchus mykiss</u>	Rainbow trout	1	3.0	1,100	1,900	0.40	Mature fish	Some (details unknown)
				Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	<u>Salvelinus leucomaenis</u>	Char	1	2.5	2,000	3,400	0.90	Mature fish	Some (details unknown)
				Vertebrata	Osteichthyes	Perciformes	Centrarchidae	<u>Micropterus dolomieu</u>	Small mouth bass	2	1.2	650	1,100	—	Mature fish	Some (details unknown)
G-4	2012/10/24	37.738200°	140.803450°	Vertebrata	Osteichthyes	Siluriformes	Siluridae	<u>Silurus asotus</u>	Amur catfish	1	1.4	790	1,300	—	Mature fish	Some (details unknown)
				Streptophyta	Zygnematales	Zygnemataceae	<u>Spirogyra</u> sp.	Spirogyra	—	0.18	160	260	—	—	—	
				Arthropod	Insecta	Trichoptera	Stenopsychidae	<u>Stenopsyche marmorata</u>	Stenopsyche marmorata	252	0.036	410	690	—	Larva	—
				Arthropod	Insecta	Trichoptera	Stenopsychidae	<u>Stenopsyche sauteri</u>	Parastenopsyche sauteri	—	—	—	—	—	—	—
				Arthropod	Insecta	Megaloptera	Corydalidae	<u>Protoperla grandis</u>	Protoperla grandis	77	0.022	33	59	—	Larva	—
Vertebrata	Osteichthyes	Perciformes	Gobiidae	<u>Rhinogobius</u> sp.	Rhinogobius	17	0.019	100	170	—	Immature fish/mature fish	—				
—	—	—	—	—	—	—	—	—	—	—	0.96	120	200	—	—	—

Note) The Japanese name of the underlined, indicating that in the sample is the most harvested species.