

○ Results of Radioactive Material Monitoring of Aquatic Organisms (Location F along the Ota River)

< Location F along the Ota River: Samples collected >

Items Locations	General items		Radioactive materials			
	Water	Sediment	Water (Cs)	Water (Sr)	Sediment (Cs)	Sediment (Sr)
F-1	○	○	○	○	○	○
F-2	○	○	○	○	○	○
F-3	○	○	○	—	○	—
F-4	○	○	○	—	○	—
F-5	○	○	○	—	○	—
F-6	○	—	○	—	—	—

< Location F along the Ota River: Site measurement item >

Items Locations	Latitude and longitude of the location		Survey date and time			Water		Sediment				Other	
	Latitude	Longitude	Date	Time (water)	Time (sediment)	Water temperature (degrees C)	Sediment temperature (degrees C)	Property	Color	Odor	Contaminants	Water depth (m)	Transparency (cm)
F-1	37.597483°	140.925117°	2013/7/13	8:37	8:42	20.6	20.7	Sand/sediment	2.5Y4/1	Sediment smel	Pebbles	0.15	>50.0
F-2	37.601483°	140.943650°	2013/7/13	9:50	9:54	19.7	19.9	Sand gravel	2.5Y4/2	None	Pebbles	0.31	>50.0
F-3	37.604483°	140.964250°	2013/7/13	10:56	11:02	21.8	21.6	Sand gravel	2.5Y4/4	None	Pebbles	0.25	>50.0
F-4	37.606983°	140.972000°	2013/7/13	12:52	12:54	16.0	16.5	Sand gravel	2.5Y4/3	None	Pebbles	0.24	>50.0
F-5	37.602250°	140.987317°	2013/7/13	13:46	13:51	18.5	19.1	Sand gravel	2.5Y4/2	Sediment smel	Pebbles	0.15	>50.0
F-6	37.595117°	141.012617°	2013/7/13	14:45	—	21.2	—	—	—	—	—	0.67	>50.0

< Location F along the Ota River: General survey items/Analysis of radioactive materials Water >

Items Locations	Latitude and longitude of the location		Survey date and time		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)
	Latitude	Longitude	Date	Time												
F-1	37.597483°	140.925117°	2013/7/13	8:37	7.2	0.7	2.8	9.1	6.5	0.04	1.4	2	0.7	0.26	0.53	—
F-2	37.601483°	140.943650°	2013/7/13	9:50	7.0	0.5	2.9	8.3	7.8	0.04	1.3	2	0.7	0.22	0.44	0.0051
F-3	37.604483°	140.964250°	2013/7/13	10:56	7.3	0.8	3.0	8.6	7.6	0.04	1.3	3	1.4	0.31	0.64	—
F-4	37.606983°	140.972000°	2013/7/13	12:52	6.6	<0.5	1.4	9.0	8.1	0.05	0.6	<1	0.5	0.083	0.17	—
F-5	37.602250°	140.987317°	2013/7/13	13:46	6.9	0.7	2.9	9.1	9.3	0.05	1.0	4	1.8	0.13	0.28	—
F-6	37.595117°	141.012617°	2013/7/13	14:45	6.9	0.9	4.9	7.9	199	1.07	2.2	6	3.5	0.14	0.28	—

< Location F along the Ota River: General survey items/Analysis of radioactive materials Sediment >

Items Locations	Latitude and longitude of the location		Survey date and time		pH	Redox potential E <sub>NHLE</sub> (mV)	Water content (%)	IL (%)	TOC (mg/g-dry)	Soil particle density (g/cm <sup>3</sup> )	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)	
	Latitude	Longitude	Date	Time							Gravel	Coarse sand	Medium sand	Fine sand	Silt						Clay
											(2-75mm) (%)	(0.85-2mm) (%)	(0.25-0.85mm) (%)	(0.075-0.25mm) (%)	(0.005-0.075mm) (%)						(Less than 0.005mm) (%)
F-1	37.597483°	140.925117°	2013/7/13	8:42	7.4	397	30.8	3.2	<1	2.690	3.3	24.4	39.5	15.5	7.7	9.6	0.48	19	1,400	2,900	—
F-2	37.601483°	140.943650°	2013/7/13	9:54	7.4	401	13.8	1.0	<1	2.661	59.9	26.7	10.6	1.2	0.7	0.9	2.8	19	2,500	5,200	0.59
F-3	37.604483°	140.964250°	2013/7/13	11:02	7.4	426	14.8	1.2	2	2.670	54.1	28.0	12.2	2.5	1.3	1.9	2.3	19	2,700	5,700	—
F-4	37.606983°	140.972000°	2013/7/13	12:54	7.2	409	13.8	0.6	<1	2.686	42.9	32.3	19.5	3.5	0.8	1.0	1.7	19	500	1,100	—
F-5	37.602250°	140.987317°	2013/7/13	13:51	7.2	322	16.4	0.8	<1	2.703	40.8	23.3	28.1	5.0	1.5	1.3	1.4	19	560	1,100	—

< Location F along the Ota River: Survey items Aquatic organisms >

Location	Latitude and longitude of the location		Sampling Date	Division	Class	Order	Family	Species name	English name	Population	Sample weight (kg-wet)	Note		Cs-134 (Bq/kg-wet)	Cs-137 (Bq/kg-wet)	Sr-90 (Bq/kg-wet)	
	Latitude	Longitude										Growth stage	Stomach contents				
F-1	37.597483°	140.925117°	2013/7/15	Algae/plant	—	—	—	—	Attached algae	—	0.090	—	—	2,500	5,500	—	
				Streptophyta	Zygnemataphyce	Zygnematales	Zygnemataceae	<i>Spirogyra sp.</i>	Spirogyra	—	0.030	—	—	—	49	110	—
				Bryopsida	Sphagnopsida	Sphagnales	Sphagnaceae	<i>Sphagnum sp.</i>	Sphagnum	—	0.074	—	—	—	130	260	—
				Angiospermae	Monocotyledon	Najadales	Potamogetonaceae	<i>Potamogeton pusillus</i>	Small pondweed	—	0.13	—	—	—	21	49	—
				Arthropod	Insecta	Trichoptera	Stenopsychidae	<i>Stenopsyche marmorata</i>	<u>Stenopsyche marmorata</u>	63	0.011	Larva	—	—	280	560	—
				Arthropod	Insecta	Trichoptera	Stenopsychidae	<i>Stenopsyche sauteri</i>	Parastenopsyche sauteri	—	—	—	—	—	—	—	—
				Arthropod	Insecta	Megaloptera	Corydalidae	<i>Parachauliodes continentalis</i>	Parachauliodes continentalis Weele	54	0.030	Larva	—	—	100	210	—
				Arthropod	Insecta	Megaloptera	Corydalidae	<i>Protohermes grandis</i>	<u>Protohermes grandis</u>	—	—	—	—	—	—	—	—
				Arthropod	Insecta	Odonata	Corduliidae	<i>Macromia amphigena amphigena</i>	<u>Macromia amphigena</u>	—	—	—	—	—	—	—	—
				Arthropod	Insecta	Odonata	Cordulegastriidae	<i>Anotogaster sieboldii</i>	Anotogaster sieboldii	—	—	—	—	—	—	—	—
				Arthropod	Insecta	Odonata	Gomphidae	<i>Anisogomphus maacki</i>	Anisogomphus maacki	—	—	—	—	—	—	—	—
				Arthropod	Insecta	Odonata	Gomphidae	<i>Asiagomphus melaenops</i>	Asiagomphus melaenops	—	—	—	—	—	—	—	—
				Arthropod	Insecta	Odonata	Gomphidae	<i>Davidius nanus</i>	Davidius nanus	—	—	—	—	—	—	—	—
				Arthropod	Insecta	Odonata	Gomphidae	<i>Davidius sp.</i>	Davidius	199	0.046	Larva	—	—	180	370	—
				Arthropod	Insecta	Odonata	Gomphidae	<i>Nihonogomphus viridis</i>	Nihonogomphus viridis	—	—	—	—	—	—	—	—
				Arthropod	Insecta	Odonata	Gomphidae	<i>Onychogomphus viridicostus</i>	Onychogomphus viridicostus	—	—	—	—	—	—	—	—
				Arthropod	Insecta	Odonata	Gomphidae	<i>Sieboldius albardae</i>	<u>Sieboldius albardae</u>	—	—	—	—	—	—	—	—
				Arthropod	Insecta	Odonata	Gomphidae	<i>Stylogomphus suzukii</i>	Stylogomphus suzukii	—	—	—	—	—	—	—	—
				Arthropod	Insecta	Odonata	Aeshnidae	<i>Boyeria maclachlani</i>	Boyeria maclachlani	—	—	—	—	—	—	—	—
				Arthropod	Insecta	Odonata	Libellulidae	<i>Sympetrum sp.</i>	Sympetrum	—	—	—	—	—	—	—	—
				Arthropod	Malacostraca	Decapoda	Atyidae	<i>Atyidae</i>	Freshwater shrimp	119	0.035	Imago	—	—	460	930	—
				Arthropod	Malacostraca	Decapoda	Procambarus	<i>Procambarus clarkii</i>	Red swamp crawfish	2	0.050	Imago	—	—	310	660	—
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Carassius auratus</i>	Carassius auratus langsdorffii	4	0.26	4-year-old fish	—	—	550	1,200	—
Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon hakonensis</i>	Japanese dace	18	0.091	More than 1 year old	—	—	410	880	—				
Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Zacco platypus</i>	Zacco platypus	7	0.045	More than 1 year old	—	—	360	710	—				
Vertebrata	Osteichthyes	Cypriniformes	Cobitidae	<i>Cobitis biwae</i>	Cobitis biwae	37	0.064	More yearling	—	—	440	920	—				
Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	<i>Oncorhynchus masou</i>	Yamame trout	2	0.026	Yearling fish	—	—	290	630	—				
Vertebrata	Osteichthyes	Perciformes	Gobiidae	<i>Rhinogobius fluviatilis</i>	R. fluviatilis	28	0.099	Mature fish	—	—	950	2,000	—				
				Coarse particulate organic matters	—	—	—	—	CPOMs (fallen leaves)	—	0.48	—	—	1,400	2,900	—	

Note 1) Underlined names in the English name column indicate species largest in number in the respective samples.

Note 2) A statement in red in the "Growth stage" column shows the age assessed based on squama or otolith.