

OResults of Radioactive Material Monitoring of Aquatic Organisms (Location L off Soma City)

< Location L off Soma City: Samples collected >

Items	General items		Radioactive materials			
	Water	Sediment	Water (Cs)	Water (Sr)	Sediment (Cs)	Sediment (Sr)
L-1	—	○	—	—	○	—
L-2	○	○	○	○	○	○
L-3	○	○	○	—	○	—

< Location L off Soma City: Site measurement item >

Items	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	Contaminants	Water depth (m)	Secchi disk depth (m)
L-1	37.8211°	140.9608°	2014/12/10	—	9:48	—	10.0	Gravel with silt	10Y3/2	Shell fragments	—	—
L-2	37.8155°	140.9764°		9:03	9:15	10.9	10.9	Fine sand	5Y3/2	Shell fragments	1.7	1.7 (Drifting to the bottom)
L-3	37.8217°	140.9765°		8:29	9:35	10.3	10.0	Fine sand	5Y3/1	Shell fragments	1.6	1.6 (Drifting to the bottom)

< Location L off Soma City: General survey items/Analysis of radioactive materials Water >

Items	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												
L-2	37.8155°	140.9764°	2014/12/10	9:03	8.1	<0.5	1.3	9.0	5,090	32.51	<1	2	0.7	0.0044	0.014	0.0011
L-3	37.8217°	140.9765°		8:29	8.1	<0.5	1.6	9.1	5,110	32.62	1	4	1.5	0.0055	0.017	—

< Location L off Soma City: General survey items/Analysis of radioactive materials Sediment >

Items	Latitude and longitude of the location		Survey date and time		pH	Redox potential E _{NHE} (mV)	Water content (%)	IL (%)	TOC (mg/g-dry)	Soil particle density (g/cm ³)	Grain size distribution							Cs-134 (Bq/kg-dry)	Cs-137 (Bq/kg-dry)	Sr-90 (Bq/kg-dry)	
	Latitude	Longitude	Date	Time							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) (%)	Median grain diameter (mm)				Maximum grain diameter (mm)
L-1	37.8211°	140.9608°	2014/12/10	9:48	7.5	64	39.6	5.1	10.4	2.668	0.9	0.9	6.5	46.1	17.7	27.9	0.098	4.75	65	230	—
L-2	37.8155°	140.9764°		9:15	7.6	184	19.9	1.0	0.9	2.737	0.0	0.7	58.8	36.6	0.1	3.8	0.27	2	2.6	8.9	N.D.(0.19)
L-3	37.8217°	140.9765°		9:35	7.9	84	21.0	1.3	1.1	2.731	0.0	0.8	54.6	38.9	1.8	3.9	0.27	2	5.4	17	—

Note) N.D. means to be below the detection limit and figures in parentheses show the detection limit.

< Location L off Soma City: 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	Measurement site						
L-1 L-2 L-3	Matsukawaura	37.8211° 37.8155° 37.8217°	140.9608° 140.9764° 140.9765°	2014/12/10	Algae/plant	—	—	—	—	Plankton(singular plankter)	Considerable number	0.013	—	—	—	2.9	9.4	—		
					Angiospermae	Monocotyledoneae	Najadales	Zosteraceae	<i>Zostera marina</i>	Eel grass	Considerable number	0.28	—	—	—	—	N.D.(0.36)	N.D.(0.32)	—	
					Chlorophyta	Ulvophyceae	Ulvales	Ulvaceae	<i>Ulva pertusa</i>	Ulva pertusa	Considerable number	0.32	—	—	—	—	0.33	0.47	—	
					Arthropoda	Malacostraca	Mysida	Mysidae	<i>Neomysis intermedia</i>	Neomysis	Considerable number	0.059	Imago	—	—	—	—	N.D.(0.68)	1.6	—
					Arthropod	Malacostraca	Decapoda	Alpheidae	<i>Alpheus brevicristatus</i>	Alpheidae	12	0.012	Imago	—	—	—	—	N.D.(2.9)	3.1	—
					Arthropoda	Malacostraca	Decapoda	Palaemonidae	<i>Palaemonidae</i>	Macrobrachium	102	0.047	Imago	—	—	—	—	N.D.(0.85)	1.5	—
					Arthropoda	Malacostraca	Decapoda	Varunidae	<i>Hemigrapsus sp.</i>	Hemigrapsus	210	0.37	Imago	—	—	—	—	2.5	8.1	—
					Annelida	Polychaeta	Phyllodocta	Nereididae	<i>Hediste sp.</i>	Hediste	83	0.034	Imago	—	—	—	—	7.4	22	—
					Mollusca	Bivalvia	Pterioida	Ostreidae	<i>Crassostrea gigas</i>	Japanese oyster	76	4.9	Imago	—	—	—	Molluscan body	0.45	2.0	—
					Mollusca	Bivalvia	Veneridae	Veneridae	<i>Ruditapes philippinarum</i>	Japanese littleneck	79	2.3	Imago	—	—	—	Molluscan body	0.67	1.2	—
					Vertebrata	Osteichthyes	Perciformes	Pholidae	<i>Pholis crassispina</i>	Tidepool gunnel	12	0.031	Mature fish	—	—	—	—	N.D.(2.1)	N.D.(1.7)	—
					Vertebrata	Osteichthyes	Perciformes	Gobiidae	<i>Acanthogobius flavimanus</i>	Yellowfin Goby	3	0.26	Mature fish	—	—	—	—	1.1	3.3	—
					Vertebrata	Osteichthyes	Mugiliformes	Mugilidae	<i>Mugil cephalus</i>	Flathead mullet	1	0.023	Immature fish	—	—	—	—	5.2	15	—

*1: Organisms were collected in or around the targeted water areas.

*2: When multiple types of aquatic organisms were collected, a sample was prepared by mixing them.

*3: For a sample made of multiple types of aquatic organisms, the name of the dominant one largest in number is underlined.

*4: Basically, measurement was conducted for all organism samples. Viscera (stomach and bowels) were removed for the measurement when possible so that undigested food and sediments, etc. in the digestive system would be excluded.

*5: A statement in red in the "Growth stage" column shows the age assessed based on squama or otolith

*6: Plankton (suspended algae) is the residue remaining after the filtration of lake water or seawater with a plankton net (40µm-mesh).

*7: River bottom materials (incl. algae) are algae, etc. that were scratched off stones with a brush, etc. and may include very fine particles such as inorganic silt and clay.

*8: N.D. means to be below the detection limit and figures in parentheses show the detection limit.

*9: Activity concentrations include counting errors, but the details are omitted here.