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

＜Location L off Soma City: Samples collected＞

Items	General items		Radioactive materials			
Locations	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	
Locations	Scheduled latitude	Scheduled longitude	Date	Time (water)	Time (sediment)	Water temperature (degrees C)	Sediment temperature (degrees C)	Property	Color	Contaminants	Water depth (m)	Transparency (m)
L-1	37.8210°	140.9610°	2015/6/22	-	9:23	-	20.1	Sand with silt	5Y3/1	None	-	-
L-2	37.8155°	140.9763°		8:05	8:48	18.5	18.6	Fine sand	5Y3/2	None	1.78	>1.78
L-3	37.8217°	140.9765°		7:40	9:02	18.6	18.7	Sand with silt	5Y3/2	Shell	1.93	>1.93

＜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	COD	DO	Electrical conductivity	Salinity	TOC	SS	Turbidity	Cs-134	Cs-137	Sr-90
Locations	Scheduled latitude	Scheduled longitude	Date	Time (water)		(mg/L)	(mg/L)	(mg/L)	(mS/m)		(mg/L)	(mg/L)	(FNU)	(Bq/L)	(Bq/L)	(Bq/L)
L-2	37.8155°	140.9763°	2015/6/22	8:05	8	0.5	2.5	7.5	4820	30.89	1.3	5	1.6	0.0057	0.020	0.0011
L-3	37.8217°	140.9765°		7:40	8	<0.5	2.3	7.4	4930	31.36	1.3	7	1.9	0.0054	0.019	-

＜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 EN.H.E (mV)	Water content (%)	IL (%)	TOC (mg/g-dry)	Soil particle density (g/cm3)	Grain size distribution								Cs-134 (Bq/kg-dry)	Cs-137 (Bq/kg-dry)	Sr-90 (Bq/kg-dry)
Locations	Scheduled latitude	Scheduled longitude	Date	Time (sediment)							Gravel (2-75mm) (%)	Coarse sand (0.85-2mm) (%)	Medium sand (0.25-0.85mm) (%)	Fine sand (0.075-0.25mm) (%)	Silt (0.005-0.0075mm) (%)	Clay (Less than 0.005mm) (%)	Median grain diameter	Maximum grain diameter			
L-1	37.8210°	140.9610°	2015/6/22	9:23	7.5	124	26.2	2.3	3.1	2.662	10.3	15.5	41	18.1	7.4	7.7	0.42	19	30	120	-
L-2	37.8155°	140.9763°		8:48	7.5	139	21.9	1.3	1.1	2.665	0.1	0.3	48.9	46.3	2	2.4	0.25	9.5	6.4	32	N.D. (0.15)
L-3	37.8217°	140.9765°		9:02	7.5	16	20.7	1.1	1.1	2.693	0.1	0.6	59	36.8	1.5	2	0.28	4.75	4.8	20	-

＜Location L off Soma City: Survey items Aquatic organisms＞

Location	Sampling point	Latitude and longitude of the location		Sampling Date	Division	Class	Order	Family	Species name	English name	Population	Sample weight (kg-wet)	Note			Radioactive cesium (Bq/kg-wet)		Sr-90 (Bq/kg-wet)
		Latitude	Longitude										Growth stage	Stomach contents	Measurement site	Cs-134	Cs-137	
L-1 L-2 L-3	Matsukawaura	37.8210° 37.8155° 37.8217°	140.9610° 140.9763° 140.9765°	2015/6/22	Phycophyta	-	-	-	-	Plankton (Planktonic algae)	-	0.003	-	-	-	N.D. (9.0)	34	-
					Chlorophyta	Ulvophyceae	Ulvales	Ulvaceae	*Ulva pertusa*	Ulva pertusa	-	0.17	-	-	-	2.1	6.8	-
					Angiospermae	Monocotyledoneae	Najadales	Zosteraceae	*Zostera marina*	eel grass	-	0.27	-	-	-	N.D. (0.4)	0.47	-
					Mollusca	Bivalvia	Ostreoida	Ostreidae	*Crassostrea gigas*	Oyster	22	0.56	-	-	Molluscan body	0.53	1.5	-
					Mollusca	Bivalvia	Veneroida	Veneridae	*Ruditapes philippinarum*	Japanese littleneck	53	0.49	Imago	-	Molluscan body	N.D. (0.4)	0.80	-
					Arthropod	Malacostraca	Decapoda	Palaemonidae	-	Palaemon	19	0.011	Imago	-	-	N.D. (4.5)	N.D. (3.6)	-
					Arthropod	Malacostraca	Decapoda	Portunidae	*Portunus trituberculatus*	Japanese blue crab	3	0.05	Imago	-	-	N.D. (1.5)	N.D. (1.2)	-
					Arthropod	Malacostraca	Decapoda	Varunidae	-	Hemigrapsus	75	0.21	Imago	-	-	0.86	2.8	-
					Vertebrata	Osteichthyes	Scorpaeniformes	Hexagrammidae	*Hexagrammos otakii*	Fat greenling	1	0.23	Mature fish (3-year-old)	Shore crab	Viscera removed	0.39	1.7	-
					Vertebrata	Osteichthyes	Scorpaeniformes	Scorpaenidae	*Sebastes cheni*	Rockfish	1	0.059	Mature fish (2-year-old)	Obscure digesta	Viscera removed	N.D. (0.8)	N.D. (0.7)	-
					Vertebrata	Osteichthyes	Scorpaeniformes	Platycephalidae	*Platycephalus sp.2*	Flathead	1	0.013	Mature fish (1-year-old)	Empty stomach	Viscera removed	N.D. (2.7)	N.D. (2.4)	-
					Vertebrata	Osteichthyes	Pleuronectiformes	Pleuronectidae	-	Pleuronectidae	2	0.0095	Immature fish (0-year-old)	-	-	N.D. (3.8)	3.7	-
					Vertebrata	Osteichthyes	Mugiliformes	Mugilidae	*Mugil cephalus cephalus*	Flathead mullet	97	0.28	Immature fish (0-year-old)	-	-	0.62	2.7	-
					Vertebrata	Osteichthyes	Perciformes	Gobiidae	*Gymnogobius breunigii*	Chestnut goby	26	0.052	Mature fish	-	-	N.D. (1.2)	N.D. (1.1)	-
					Vertebrata	Osteichthyes	Clupeiformes	Clupeidae	*Sardinella zunasi*	Japanese shad	2	0.046	Mature fish (1.4-year-old)	Empty stomach	Viscera removed	N.D. (1.5)	1.8	-
					Vertebrata	Osteichthyes	Tetraodontiformes	Tetraodontidae	*Takifugu niphobles*	Kusafugu	3	0.16	Mature fish	Empty stomach	Viscera removed	0.48	2.1	-

*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.