○Results of Radioactive Material Monitoring of Aquatic Organisms (Location N along the Ukedo River)

<Location N along the Ukedo River: Samples collected>

Items / Locations	General items		Radioactive materials			
	Water	Sediment	Water (Cs)	Water (Sr)	Sediment (Cs)	Sediment (Sr)
N-1	○	○	○	○	○	○
N-2	○	○	○	-	○	-
N-3	○	○	○	-	○	-

<Location N along the Ukedo 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	Contaminants	Water depth (m)	Transparency (cm)
N-1	37.4998°	140.9835°	2022/12/5	08:07	08:15	8.7	9.9	Sand gravel	7.5Y5/3	Plant pieces	0.30	>100
N-2	37.5070°	140.9456°		09:53	09:53	5.6	8.8	Sand	7.5Y6/3	Plant pieces	0.30	>100
N-3	37.4754°	140.9598°		11:57	12:05	6.3	7.7	Sand	7.5Y6/3	Plant pieces	0.40	>100

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

Items / Locations	Latitude and longitude of the location		Survey date and time		pH	BOD	COD	DO	Electric conductivity	Salinity	TOC	SS	Turbidity	Cs-134	Cs-137	Sr-90
	Latitude	Longitude	Date	Time (water)		(mg/L)	(mg/L)	(mg/L)	(mS/m)		(mg/L)	(mg/L)	(FNU)	(Bq/L)	(Bq/L)	(Bq/L)
N-1	37.4998°	140.9835°	2022/12/5	08:07	7.1	1.1	2.3	11.1	9.2	0.05	1.5	<1	0.6	0.0025	0.058	0.0020
N-2	37.5070°	140.9456°		09:53	7.3	<0.5	1.8	11.6	7.5	0.04	0.8	<1	0.4	0.0019	0.066	-
N-3	37.4754°	140.9598°		11:57	7.4	0.6	1.8	11.9	7.6	0.04	0.6	2	1.3	N.D.(0.0015)	0.020	-

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

<Location N along the Ukedo 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_{NHE}	Water content	IL	TOC	Soil particle density	Grain size distribution								Cs-134	Cs-137	Sr-90
	Latitude	Longitude	Date	Time (sediment)		(mV)	(%)	(%)	(mg/g-dry)	(g/cm^3)	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)	(Bq/kg-dry)	(Bq/kg-dry)	(Bq/kg-dry)
N-1	37.4998°	140.9835°	2022/12/5	08:15	7.0	325	18.5	0.9	1.9	2.630	25.6	27.5	32.5	7.5	2.9	4.0	0.93	19	37	1500	N.D.(0.13)
N-2	37.5070°	140.9456°		09:53	7.2	488	22.7	1.1	1.8	2.650	6.0	16.1	40.4	33.0	1.8	2.7	0.34	4.8	100	4000	-
N-3	37.4754°	140.9598°		12:05	7.4	486	13.9	0.9	1.5	2.640	0.0	8.8	74.8	9.5	4.0	2.9	0.50	2.0	27	1000	-

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

<Location N along the Ukedo River: Analysis items Aquatic organisms>

Locations	Sampling point	Latitude and longitude of the location		Sampling date	Division	Class	Order	Family	Scientific name	English name	Population	Sample weight (kg-wet)	Note			Radioactive cesium (Bq/kg-wet)			Sr-90
		Latitude	Longitude										Growth stage	Stomach contents	Measurement site	Total	Cs-134	Cs-137	(Bq/kg-wet)
N-1	The main stream of the Ukedo River	37.4998°	140.9835°	2022/12/5	Algae/plant	-	-	-	-	Riverbed Deposits (Include algae)	-	0.021	-	-	-	190	N.D.(9.8)	190	-
					Arthropoda	Insecta	Plecoptera	Perlidae	*Kamimuria tibialis*	*Kamimura tibialis*	260	0.018	Larva	-	-	12	N.D.(2.8)	12	-
					Arthropoda	Insecta	Trichoptera	Stenopsychidae	*Stenopsyche marmorata*	*Stenopsyche marmorata*	121	0.033	Larva	-	-	200	N.D.(7.5)	200	-
					Vertebrata	Osteichthyes	Anguilliformes	Anguillidae	*Anguilla japonica*	Japanese eel	1	0.46	Mature fish	Common prawn	Viscera removed	308.3	8.3	300	-
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	*Tribolodon hakonensis*	Japanese dace	28	1.2	Immature fish, Mature fish	Obscure digesta	Viscera removed	132.6	2.6	130	1.0
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	*Cyprinus carpio*	Common carp	2	0.24	Immature fish	Obscure digesta	Viscera removed	9.7	N.D.(1.3)	9.7	-
					Vertebrata	Osteichthyes	Salmoniformes	Osmeridae	*Plecoglossus altivelis altivelis*	Sweetfish	16	0.17	Immature fish	-	-	216.0	6.0	210	-
					Vertebrata	Osteichthyes	Siluriformes	Siluridae	*Silurus asotus*	Amur catfish	1	0.29	Mature fish	Empty stomach	Viscera removed	234.6	4.6	230	-
					Coarse Particulate Organic Matter	-	-	-	-	Bottom fallen leaves	-	0.24	-	-	-	164.3	4.3	160	-
N-2	The main stream of the Ukedo River	37.5070°	140.9456°	2022/12/5	Algae/plant	-	-	-	-	Riverbed Deposits (Include algae)	-	0.036	-	-	-	176.9	6.9	170	-
					Arthropoda	Insecta	Plecoptera	Perlidae	*Kamimuria uenoi*	*Kamimuria uenoi*	232	0.011	Larva	-	-	30	N.D.(3.5)	30	-
					Arthropoda	Insecta	Plecoptera	Perlidae	*Kamimuria tibialis*	*Kamimura tibialis*									
					Arthropoda	Insecta	Plecoptera	Perlidae	*Paragnetina* sp.	Paragnetina									
					Arthropoda	Insecta	Trichoptera	Stenopsychidae	*Stenopsyche marmorata*	*Stenopsyche marmorata*	206	0.048	Larva	-	-	278.5	8.5	270	-
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	*Tribolodon hakonensis*	Japanese dace	9	0.25	Immature fish, Mature fish	-	-	184.0	4.0	180	-
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	*Carassius auratus langsdorfii*	*Carassius auratus langsdorfii*	1	0.094	Mature fish	Obscure digesta	Viscera removed	100	N.D.(3.2)	100	-
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	*Cyprinus carpio*	Common carp	1	0.085	Immature fish	Obscure digesta	Viscera removed	89	N.D.(2.8)	89	-
					Vertebrata	Osteichthyes	Siluriformes	Siluridae	*Silurus asotus*	Amur catfish	1	0.93	Mature fish	Stone loach	Viscera removed	1433	33	1400	-
					Coarse Particulate Organic Matter	-	-	-	-	Bottom fallen leaves	-	0.22	-	-	-	93	N.D.(1.8)	93	-
N-3	The main stream of the Takase River	37.4754°	140.9598°	2022/12/5	Algae/plant	-	-	-	-	Riverbed Deposits (Include algae)	-	0.011	-	-	-	150	N.D.(12)	150	-
					Arthropoda	Insecta	Plecoptera	Perlidae	*Kamimuria tibialis*	*Kamimura tibialis*	365	0.020	Larva	-	-	7.6	N.D.(2.2)	7.6	-
					Arthropoda	Insecta	Trichoptera	Stenopsychidae	*Stenopsyche marmorata*	*Stenopsyche marmorata*	478	0.10	Larva	-	-	123.7	3.7	120	-
					Vertebrata	Osteichthyes	Perciformes	Gobiidae	*Rhinogobius nagoyae*	*Rhinogobius nagoyae*	5	0.010	Mature fish	-	-	37	N.D.(8.9)	37	-
					Coarse Particulate Organic Matter	-	-	-	-	Bottom fallen leaves	-	0.21	-	-	-	98.8	2.8	96	-

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

*6: 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.

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

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