○Results of Radioactive Material Monitoring of Aquatic Organisms (Location D along the Mano River)

<Location D along the Mano River: Samples collected>

Items / Locations	General items		Radioactive materials			
	Water	Sediment	Water (Cs)	Water (Sr)	Sediment (Cs)	Sediment (Sr)
D-4 a	○	○	○	○	○	○

<Location D along the Mano 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)
D-4 a	37.7308°	140.9081°	2021/10/21	08:10	08:22	13.7	13.4	Gravel with sand	10YR4/2	None	0.45	>50

<Location D along the Mano 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)
D-4 a	37.7308°	140.9081°	2021/10/21	08:10	7.2	<0.5	2.4	10.6	10.1	0.05	1.1	1	1.2	N.D.(0.0015)	0.0087	0.00098

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

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

Items / Locations	Latitude and longitude of the location		Survey date and time		pH	Redox potential $E_{N.H.E}$	Water content	IL	TOC	Soil particle density	Grain size distribution								Cs-134	Cs-137	Sr-90
											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	Maximum grain diameter			
	Latitude	Longitude	Date	Time (sediment)		(mV)	(%)	(%)	(mg/g-dry)	(g/cm^3)	(%)	(%)	(%)	(%)	(%)	(%)	(mm)	(mm)	(Bq/kg-dry)	(Bq/kg-dry)	(Bq/kg-dry)
D-4 a	37.7308°	140.9081°	2021/10/21	08:22	7.6	411	19.5	2.1	2.6	2.698	28.8	36.0	23.9	4.0	4.7	2.6	1.2	9.5	6.5	140	0.72

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

<Location D along the Mano 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)
D-3	The main stream of the Mano River	37.7051°	140.9623°	2021/10/20	Arthropoda	Malacostraca	Decapoda	Cambaridae	*Procambarus clarkii*	Red swamp crawfish	2	0.018	Imago	-	-	7.8	N.D.(2.5)	7.8	-
					Vertebrata	Osteichthyes	Scorpaeniformes	Cottidae	*Cottus reinii*	Sculpin	1	0.025	Immature fish	-	-	5.3	N.D.(2.9)	5.3	-
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	*Cyprinus carpio*	Common carp	1	0.033	Immature fish	-	-	2.5	N.D.(1.4)	2.5	-
					Vertebrata	Osteichthyes	Salmoniformes	Osmeridae	*Plecoglossus altivelis altivelis*	Sweetfish	3	0.073	Immature fish,Mature fish	-	-	18	N.D.(2.1)	18	-
					Vertebrata	Amphibia	Anura	Lithobates	*Lithobates catesbeianus*	American bullfrog	2	0.020	Larva(Tadpole)	-	-	50	N.D.(2.3)	50	-
D-4 b	The main stream of the Mano River	37.7312°	140.9096°	2021/10/20	Algae/plant	-	-	-	-	Riverbed Deposits (Include algae)	-	0.0037	-	-	-	200	N.D.(11)	200	-
					Arthropoda	Insecta	Megaloptera	Corydalidae	*Parachauliodes sp.*	Parachauliodes	41	0.019	Larva	-	-	4.5	N.D.(2.0)	4.5	-
					Arthropoda	Insecta	Megaloptera	Corydalidae	*Protohermes grandis*	Protohermes grandis									
					Arthropoda	Malacostraca	Decapoda	Palaemonidae	*Palaemon paucidens*	Common prawn	7	0.017	Imago	-	-	10	N.D.(2.2)	10	-
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	*Tribolodon hakonensis*	Japanese dace	17	0.38	Immature fish,Mature fish	-	-	9.9	N.D.(1.3)	9.9	-
					Vertebrata	Osteichthyes	Perciformes	Centrarchidae	*Micropterus dolomieu*	Small mouth bass	6	0.33	Immature fish	Fish	Viscera removed	8.3	N.D.(1.2)	8.3	-
					Vertebrata	Osteichthyes	Perciformes	Gobiidae	*Rhinogobius fluviatilis*	Rhinogobius fluviatilis	7	0.023	Immature fish,Mature fish	-	-	10	N.D.(2.8)	10	-
					Vertebrata	Osteichthyes	Perciformes	Gobiidae	*Rhinogobius nagoyae*	Rhinogobius nagoyae									
					Vertebrata	Osteichthyes	Perciformes	Gobiidae	*Rhinogobius kurodai*	Rhinogobius kurodai									
D-5	The main stream of the Mano River	37.7214°	140.8889°	2021/10/20	Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	*Tribolodon hakonensis*	Japanese dace	105	1.1	Immature fish	-	-	9.2	N.D.(0.87)	9.2	0.17
					Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	*Oncorhynchus masou*	Yamame trout	2	0.030	Immature fish	-	-	5.3	N.D.(2.6)	5.3	-

*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.