

•Results of Radioactive Material Monitoring of Aquatic Organisms (Location G in Lake Hayama)

<Location G in Lake Hayama: Samples collected >

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

<Location G in Lake Hayama: 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)		
G-1	37.73430°	140.80997°	2014/9/4	11:56	12:10	24.1	21.0	Ooze	7.5V4/2	Plant	5.5	1.9		
G-2	37.72572°	140.82113°			10:35	18.2	18.2	Ooze	7.5V4/2	Plant	—	—		
G-3	37.72917°	140.83155°			9:42	10:05	23.8	20.9	Ooze with gravel	7.5V4/1	Plant	6.3	3.0	
G-4	37.73810°	140.80412°			—	12:00	—	19.8	Sediment with gravel	7.5V4/1	Plant	—	—	
G-5	37.73383°	140.80872°			11:30	11:46	23.4	21.1	Ooze	7.5V3/2	Plant	6.5	2.1	

Items Locations	Latitude and longitude of the location		Survey date and time		pH	BOD (mg/L)	COD (mg/L)	DO (mg/L)	Electrical conductivity (nS/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													
G-1 (Surface layer)	37.73430°	140.80997°	2014/9/4	11:56	7.3	1.3	4.6	9.7	7.1	0.04	1.9	3.4	0.021	0.061	—		
G-1 (Deep layer)	37.73430°	140.80997°			7.4	1.0	4.0	7.3	6.9	0.04	2.1	3	4.2	0.044	0.12	0.0012	
G-3 (Surface layer)	37.72917°	140.83155°			9:42	7.6	1.4	4.3	9.5	7.1	0.04	2.3	2	2.0	0.018	0.053	—
G-3 (Deep layer)	37.72917°	140.83155°				7.4	0.9	4.0	5.0	8.5	0.05	2.4	3	2.5	0.019	0.050	—
G-5 (Surface layer)	37.73383°	140.80872°			11:30	7.8	0.9	4.3	9.5	6.6	0.04	1.9	3	2.9	0.022	0.059	—
G-5 (Deep layer)	37.73383°	140.80872°	7.5	0.9		4.2	7.7	7.1	0.04	1.8	9	5.0	0.12	0.33	—		

<Location G in Lake Hayama: 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>H</sub> (mV)	Water content (%)	IL (%)	TOC (mg/g-dry)	Soil particle density (g/cm <sup>3</sup> )	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)
G-1	37.73430°	140.80997°	2014/9/4	12:10	6.6	177	83.0	24.4	81.4	2.352	0.0	—	0.1	7.5	39.1	53.3	0.0024	0.850	3,700	11,000	6.5
G-2	37.72572°	140.82113°		10:35	6.7	167	76.1	16.2	44.1	2.506	0.0	0.1	0.2	0.6	35.1	64.0	—	2	1,900	5,900	—
G-3	37.72917°	140.83155°		10:05	6.9	118	44.9	5.3	12.7	2.645	14.0	18.9	21.6	11.9	12.6	21.0	0.34	9.5	630	1,900	—
G-4	37.73810°	140.80412°		12:00	7.2	161	63.1	5.2	11.4	2.616	22.1	20.4	31.4	5.3	9.9	10.7	0.70	19	1,600	4,600	—
G-5	37.73383°	140.80872°		11:46	7.8	137	73.0	19.2	54.7	2.425	0.0	—	6.5	16.3	20.1	57.1	0.0010	0.850	6,200	18,000	—

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

<Location G in Lake Hayama:Analysis 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					
G-4	37.73810°	140.80412°	2014/9/1	Algae/plant	—	—	—	—	Plankton(singular plankter)	Considerable number	0.035	—	—	—	6.4	21	—		
				Algae/plant	—	—	—	—	—	River bottom materials (incl. algae)	Considerable number	0.069	—	—	—	—	380	1,100	—
				Arthropod	Insecta	Odonata	Cordulidae	<i>Macromia amphigena</i>	Macromia amphigena	240	0.035	Larva (dragonfly larva)	—	—	—	—	21	53	—
				Arthropod	Insecta	Odonata	Cordulegastridae	<i>Anotogaster sieboldii</i>	Anotogaster sieboldii										
				Arthropod	Insecta	Odonata	Gomphidae	<i>Davidius fujiana</i>	Davidius fujiana										
				Arthropod	Insecta	Odonata	Gomphidae	<i>Davidius nanus</i>	Davidius nanus										
				Arthropod	Insecta	Odonata	Gomphidae	<i>Davidius sp.</i>	<i>Davidius</i>										
				Arthropod	Insecta	Odonata	Gomphidae	<i>Onychogomphus viridicosus</i>	Onychogomphus viridicosus										
				Arthropod	Insecta	Odonata	Gomphidae	<i>Sieboldius albardae</i>	albardae										
				Arthropod	Insecta	Odonata	Gomphidae	<i>Sinogomphus flavolimbatus</i>	Sinogomphus flavolimbatus										
				Arthropod	Insecta	Odonata	Gomphidae	<i>Stylogomphus suzuki</i>	Stylogomphus suzuki										
				Arthropod	Insecta	Odonata	Aeshnidae	<i>Planaeschna milnei</i>	Planaeschna milnei										
				Arthropod	Insecta	Megaloptera	Corydalidae	<i>Protohermes grandis</i>	Protohermes grandis	40	0.020	Larva	—	—	—	15	38	—	
				Arthropoda	Malacostraca	Decapoda	Atyidae	<i>Paratya improvisa</i>	Freshwater shrimp	89	0.017	Imago	—	—	—	40	120	—	
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon hakonensis</i>	Japanese dace	2	0.047	Mature fish (2-year-old)	Many unknown content	Viscera removed	8.9	29	—		
Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	<i>Oncorhynchus masou</i>	Yamame trout	2	0.021	Immature fish (under 1-year-old)	Many unknown content	Viscera removed	18	54	—						
				Coarse particulate organic matters (CPOMs)	—	—	—	—	—	Considerable number	0.49	—	—	—	210	600	—		
G-1, 2, 3	37.73430° 37.72572° 37.72917°	140.80997° 140.82113° 140.83155°	2014/9/2	Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Carassius auratus</i>	Carassius auratus langsdorffii	1	0.42	Mature fish (6-year-old)	Many unknown content	Viscera removed	32	87	—		
				Vertebrata	Osteichthyes	Perciformes	Centrarchidae	<i>Micropterus dolomieu</i>	Small mouth bass	1	0.16	Immature fish (1-year-old)	Little	Viscera removed	37	110	—		

\*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 organisms 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.