

○ Results of Radioactive Material Monitoring of Aquatic Organisms (Location H in Lake Akimoto)

< Location H in Lake Akimoto: Samples collected >

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

< Location H in Lake Akimoto: 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	Odor	Contaminants	Water depth (m)	Secchi disk depth (m)	
H-1	37.657533°	140.126433°	2013/12/3	9:35	9:48	5.8	5.8	Ooze	7.5Y4/1	Faint hydrogen sulfide	Plant	12.8	2.8	
H-2	37.661550°	140.122550°		10:37	10:37	5.9	5.9	Ooze	7.5Y5.2	Faint hydrogen sulfide	Plant	5.2	3.8	
H-3	37.665333°	140.132933°		9:57	10:23	5.8	6.1	Ooze	7.5Y4/2	Faint hydrogen sulfide	Plant	6.5	2.8	
H-4	37.655067°	140.118050°		10:47	10:47	5.7	5.7	Ooze	7.5Y5/1	Faint hydrogen sulfide	Plant	3.7	3.7	
H-5	37.652333°	140.156833°		8:25	9:08	6.1	6.5	Ooze	7.5Y4/1	Faint hydrogen sulfide	Plant	14.5	3.3	

< Location H in Lake Akimoto: 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												
H-1 (Surface layer)	37.657533°	140.126433°	2013/12/3	9:35	7.2	<0.5	3.5	10.2	5.3	0.03	1.8	2	1.9	0.0079	0.017	—
H-1 (Deep layer)					7.2	0.7	3.6	10.2	5.2	1.4	3	2.1	0.0098	0.021	—	
H-3 (Surface layer)					7.2	0.5	3.6	9.9	5.2	1.6	2	2.2	0.0070	0.017	—	
H-3 (Deep layer)					7.2	0.5	3.8	10.5	5.2	1.4	3	2.2	0.029	0.059	0.0015	
H-5 (Surface layer)					7.2	<0.5	3.2	10.5	5.4	1.4	3	1.6	0.011	0.029	—	
H-5 (Deep layer)	7.3	0.9	3.6	10.8	5.4	1.5	3	1.9	0.015	0.035	—					

< Location H in Lake Akimoto: General survey items/Analysis of radioactive materials Sediment >

Items	Latitude and longitude of the location		Survey date and time		pH	Redox potential E <sub>NHE</sub> (mV)	Water content (%)	IL (%)	TOC (mg/g-dry)	Soil particle density (g/cm <sup>3</sup> )	Gravel					Median grain diameter (mm)	Maximum grain diameter (mm)	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) (%)	
H-1	37.657533°	140.126433°	2013/12/3	9:48	6.9	-11	66.7	8.4	21	2.609	0	0.2	0	1.2	54.9	43.7	0.0063	2	71	210	—	
H-2	37.661550°	140.122550°			10:37	6.9	16	77.4	11.7	43	2.516	0	1.0	1.0	1.5	55.4	41.1	0.0088	2	350	900	—
H-3	37.665333°	140.132933°			10:23	6.7	-15	72.3	15.3	46	2.508	0	0.3	0.1	13.6	48.8	37.2	0.011	2	970	2,300	2.2
H-4	37.655067°	140.118050°			10:47	6.8	8	71.8	8.3	21	2.573	2.2	1.5	2.2	5.7	43.4	45.0	0.0069	9.5	550	1,300	—
H-5	37.652333°	140.156833°			9:08	6.6	-10	64.9	8.8	30	2.596	0	0.1	0.2	10.8	53.9	35.0	0.012	2	600	1,400	—

Note) N.D. means to be below the detection limit.

< Location H in Lake Akimoto: 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					
H-1 H-2 H-3 H-4 (near the dam)	37.657533° 37.661550° 37.665333° — —	140.126433° 140.122550° 140.132933° — —	2013/12/3	Algae/plant	—	—	—	—	Floating algae	—	0.049	—	—	49	120	—		
				Streptophyta	—	—	—	<i>Spirogyra sp.</i>	Spirogyra	—	0.064	—	—	—	1.2	3.0	—	
				Angiospermae	—	—	—	<i>Elodea nuttallii</i>	Western Waterweed	—	0.22	—	—	—	16	38	—	
				Mollusca	Gastropoda	Sorbocoencha	Pleuroceridae	<i>Semisulcospira libertina</i>	Semisulcospira libertina	52	0.024	Imago	—	—	—	6.8	11	—
				Vertebrata	Osteichthyes	Osmeriformes	Osmeridae	<i>Hypomesus nipponensis</i>	Japanese smelt	57	0.30	Mature fish	—	—	—	15	36	—
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Carassius auratus</i>	Carassius auratus langsdorfi	5	2.2	6-year-old fish	Some (details unknown)	—	—	27	66	—
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Cyprinus carpio</i>	Common carp	1	2.3	7-year-old fish	None	—	—	19	50	1.3
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Hemibarbus barbus</i>	Hemibarbus barbus	6	3.5	4-year-old fish	Some (details unknown)	—	—	23	56	1.4
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon hakonensis</i>	Japanese dace	27	3.4	4-year-old fish	Some (details unknown)	—	—	37	93	0.95
				Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	<i>Oncorhynchus masou</i>	Seena	6	1.8	3-year-old fish	Some (details unknown)	—	—	22	54	0.20
				Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	<i>Salvelinus leucomaenis</i>	Char	8	1.9	4-year-old fish	Aquatic insects	—	—	32	71	0.43
				Vertebrata	Osteichthyes	Perciformes	Centrarchidae	<i>Micropterus dolomieu</i>	Small mouth bass	7	4.2	4-year-old fish	Some (details unknown)	—	—	62	150	0.99
				Vertebrata	Amphibia	Caudata	Salamandridae	<i>Cynops pyrrhogaster</i>	Cynops pyrrhogaster	31	0.19	Imago	—	—	—	6.2	15	—
				Arthropod	Malacostraca	Decapoda	Astacidae	<i>Pacifastacus leniusculus trowbridgii</i>	Signal crayfish	25	2.1	Imago	—	—	—	23	50	9.1

Note 1) When multiple types of aquatic organisms were collected, a sample was prepared by mixing them.

Note 2) For species with stomach contents as indicated in the note column, all stomach contents were removed for conducting the analysis.

Note 3) Underlined names in the English name column indicate species largest in number in the respective samples.

Note 4) A statement in red in the "Growth stage" column shows the age assessed based on squama or otolith.

Note 5) N.D. means to be below the detection limit.