

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

< Location H in Lake Akimoto : Samples collected >

Items Locations	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 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	Odor	Contaminants	Water depth (m)	Secchi disk depth (m)
H-1	37.657533°	140.126433°	2013/10/9	9:12	9:20	19.6	15.5	Ooze	7.5Y6/1	Faint hydrogen sulfide	None	12.1	4.5
H-2	37.661550°	140.122550°		—	10:12	—	14.3	Ooze	7.5Y5/2	Faint hydrogen sulfide	Plant	6.3	3.8
H-3	37.665333°	140.132933°		9:35	9:50	19.6	7.5	Ooze	7.5Y4/1	None	Plant	11.8	4.2
H-4	37.655067°	140.118050°		—	10:27	—	17.8	Ooze	7.5Y5/1	Faint hydrogen sulfide	Plant	3.8	3.8
H-5	37.652333°	140.156833°		8:40	8:50	19.2	17.1	Ooze	7.5Y5/1	None	Plant	8.5	4.8

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

Items Locations	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°	2013/10/9	9:12	7.2	0.8	4.0	9.8	5.4	0.04	1.7	1	1.1	0.0089	0.020	—
H-1 (Deep layer)					7.0	0.6	3.5	7.7	5.4	0.03	1.6	2	1.8	0.019	0.043	—
H-3 (Surface layer)					7.3	0.8	5.3	9.3	5.4	0.03	2.0	4	1.2	0.0075	0.020	—
H-3 (Deep layer)					7.2	0.7	3.7	9.4	5.5	0.03	1.4	2	1.2	0.0081	0.019	0.0012
H-5 (Surface layer)					7.2	1.3	4.1	9.2	5.6	0.04	1.8	2	1.1	0.010	0.025	—
H-5 (Deep layer)	7.1	0.8	3.5	8.4	5.6	0.03	1.7	2	1.5	0.011	0.024	—				

< Location H in Lake Akimoto: 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>N,H,E</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)
H-1	37.657533°	140.126433°	2013/10/9	9:20	6.8	108	64.2	8.3	22	2.640	0	0.1	0.1	0.2	35.2	64.4	—	2	110	310	—
H-2	37.661550°	140.122550°		10:12	6.7	53	77.6	13.7	37	2.431	0	0.1	0.1	0.1	32.6	67.1	—	2	180	500	—
H-3	37.665333°	140.132933°		9:50	6.6	56	63.5	11.3	34	2.488	0	0.1	0.1	5.1	52.5	42.2	0.0081	2	430	940	1.9
H-4	37.655067°	140.118050°		10:27	6.7	49	67.1	8.4	25	2.528	3.0	1.2	2.5	4.3	27.0	62.0	—	19	220	560	—
H-5	37.652333°	140.156833°		8:50	6.5	50	64.4	8.6	25	2.594	0	0.3	0.3	14.7	51.1	33.6	0.015	2	470	1,000	—

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	37.657533°	140.126433°	2013/10/9	Algae/plant	—	—	—	—	Floating algae	—	0.046	—	—	6.0	16	—			
				Angiospermae	Monocotyledoneae	Hydrocharitales	Hydrocharitaceae	<i>Eloдея nutallii</i>	Western Waterweed	—	0.15	—	—	—	—	3.8	7.7	—	
				Arthropod	Insecta	Trichoptera	Stenopsychidae	<i>Stenopsyche marmorata</i>	Stenopsyche marmorata	87	0.014	Larva	—	—	—	4.3	11	—	
				Arthropod	Insecta	Plecoptera	Perlidae	<i>Acroneuria sp.</i>	Acroneuria	145	0.0099	Larva	—	—	N.D.(<4.8)	N.D.(<5.5)	—		
				Arthropod	Insecta	Plecoptera	Perlidae	<i>Calineuria sp.</i>	Calineuria										
				Arthropod	Insecta	Plecoptera	Perlidae	<i>Kamimuria quadrata</i>	Kamimuria quadrata										
				Vertebrata	Osteichthyes	Scorpaeniformes	Cottidae	<i>Cotus pollux</i>	Japanese fluvial sculpin	39	0.11	1-year-old fish	Some (details unknown)	—	—	8.9	19	—	
				Vertebrata	Osteichthyes	Osmeriformes	Osmeridae	<i>Hypomesus nipponensis</i>	Japanese smelt	133	0.62	Mature fish	None	—	—	13	28	—	
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Carassius auratus</i>	Carassius auratus langsdorffii	9	1.8	5-year-old fish	Some (details unknown)	—	—	27	62	—	
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon hakonensis</i>	Japanese dace	33	2.0	4-year-old fish	Some (details unknown)	—	—	19	46	—	
				Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	<i>Oncorhynchus masou</i>	Yamame trout	1	0.026	1-year-old fish	Insects	—	—	18	43	—	
				Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	<i>Oncorhynchus masou</i>	Seema	2	1.5	3-year-old fish	Some (details unknown)	—	—	23	54	0.33	
				Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	<i>Salvelinus leucomaenis</i>	Char	2	0.50	Mature fish	Some (details unknown)	—	—	15	40	—	
				Vertebrata	Osteichthyes	Perciformes	Centrarchidae	<i>Micropterus dolomieu</i>	Small mouth bass	15	3.6	2-year-old fish	Small fish	—	—	27	66	1.0	
				Vertebrata	Amphibia	Anura	Ranidae	<i>Rana ornativentris</i>	Montane brown frog	5	0.061	Imago	—	—	—	17	41	—	
				Coarse particulate organic matters (CPOMs)	—	—	—	—	—	—	0.61	—	—	—	—	—	6.3	13	—
				H-4(Near the dam)	—	—	2013/11/20	Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Cyprinus carpio</i>	Common carp	1	2.2	7-year-old fish	Some (details unknown)	10	25
			2013/10/9	Arthropod	Malacostraca	Decapoda	Astacidae	<i>Pacifastacus leniusculus trowbridgii</i>	Signal crayfish	55	2.5	Imago	—	17	38	12			

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.