

○ Results of Radioactive Material Monitoring of Aquatic Organisms (Location H along the 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°	2013/8/22	10:45	11:00	25.2	9.7	Ooze	5Y5/2	Faint hydrogen sulfide	Plant	12.0	4.0
H-2	37.661550°	140.122550°		11:10	11:10	—	13.2	Ooze	5Y5/2	Faint hydrogen sulfide	Plant	6.2	3.8
H-3	37.665333°	140.132933°		9:49	10:30	23.9	10.7	Ooze	7.5Y4/2	Faint hydrogen sulfide	Plant	17.0	4.9
H-4	37.655067°	140.118050°		—	11:20	—	21.5	Ooze	5Y4/1	Faint hydrogen sulfide	Plant	3.2	3.2
H-5	37.652333°	140.156833°		9:15	9:30	24.0	21.2	Sand/sediment	7.5Y5/1	None	Plant	4.9	4.2

< 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°	2013/8/22	10:45	7.5	<0.5	2.9	8.9	5.7	0.04	1.4	1	1.3	0.012	0.027	—
H-1 (Deep layer)	37.661550°	140.122550°		11:10	7.0	0.7	3.4	7.1	5.0	0.03	1.7	2	1.2	0.0077	0.019	—
H-3 (Surface layer)	37.665333°	140.132933°		9:49	7.5	0.8	3.5	8.8	5.7	0.03	1.5	2	1.7	0.012	0.027	—
H-3 (Deep layer)	37.665333°	140.132933°		9:49	6.7	0.7	3.2	6.4	4.7	0.03	1.4	4	1.5	0.0083	0.019	0.0013
H-5 (Surface layer)	37.652333°	140.156833°		9:15	7.4	0.6	3.4	8.6	5.7	0.04	1.9	2	1.1	0.010	0.023	—
H-5 (Deep layer)	37.652333°	140.156833°	9:15	7.5	1.0	3.2	8.7	6.0	0.03	1.5	2	1.3	0.012	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 _h (mV)	Water content (%)	IL (%)	TOC (mg/g-dry)	Soil particle density (g/cm ³)	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°	2013/8/22	11:00	6.5	68	64.8	8.8	18	2.567	21.9	0	0.1	0.8	28.3	48.9	0.0058	19	200	470	—
H-2	37.661550°	140.122550°		11:10	6.4	145	77.0	12.7	30	2.528	2.1	1.2	1.5	1.6	46.1	47.5	0.0057	4.75	390	860	—
H-3	37.665333°	140.132933°		10:30	6.4	40	66.2	11.1	25	2.575	0	0.1	0.1	2.7	53.0	44.1	0.0068	2	350	770	1.6
H-4	37.655067°	140.118050°		11:20	6.6	91	65.3	8.5	27	2.547	0	1.3	1.6	6.9	31.1	59.1	0.0019	2	240	550	—
H-5	37.652333°	140.156833°		9:30	6.7	22	53.1	6.2	16	2.668	0	0.3	4.4	39.3	23.9	32.1	0.050	2	350	770	—

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° 37.661550° 37.665333°	140.126433° 140.122550° 140.132933°	2013/8/22	Algae/plant	—	—	—	—	Floating algae	—	0.046	—	—	11	25	—	
				Streptophyta	Zygnematophyceae	Zygnematales	Zygnemataceae	<i>Spirogyra sp.</i>	Spirogyra	—	0.030	—	—	—	24	54	—
				Angiospermae	Monocotyledoneae	Hydrocharitales	Hydrocharitaceae	<i>Elodea nuttallii</i>	Western Waterweed	—	0.13	—	—	—	5.9	13	—
				Mollusca	Gastropoda	Sorbeoconcha	Pleuroceridae	<i>Semisulcospira libertina</i>	Semisulcospira libertina	44	0.035	Imago	—	—	53	110	—
				Vertebrata	Osteichthyes	Cypriniformes	Balitoridae	<i>Lefua echigonia</i>	Lefua echigonia	45	0.024	Mature fish	—	—	2.9	6.8	—
				Vertebrata	Osteichthyes	Scorpaeniformes	Cottidae	<i>Cottus pollux</i>	Japanese fluvial sculpin	22	0.15	1-year-old fish	—	—	15	30	—
				Vertebrata	Amphibia	Anura	Bufoinidae	<i>Bufo japonicus formosus</i>	Japanese toad	1	0.087	Imago	—	—	11	21	—
				Vertebrata	Amphibia	Anura	—	—	Tadpole	42	0.033	Larva	—	—	110	230	—
				Vertebrata	Amphibia	Caudata	Salamandridae	<i>Cynops pyrrhogaster</i>	Cynops pyrrhogaster	9	0.056	Imago	—	—	5.9	13	—
				Coarse particulate organic matters (CPOMs)	—	—	—	—	CPOMs(fallen leaves)	—	0.29	—	—	—	12	25	—
	2013/8/23	37.657533° 37.661550° 37.665333°	140.126433° 140.122550° 140.132933°	2013/8/23	Vertebrata	Osteichthyes	Osmeriformes	Osmeridae	<i>Hypomesus nipponensis</i>	Japanese smelt	173	0.70	Mature fish	—	9.0	20	—
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Carassius auratus</i>	Carassius auratus langsdorffii	16	2.3	5-year-old fish	Some (details unknown)	28	68	—
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Hemibarbus barbus</i>	Hemibarbus barbus	10	0.42	4-year-old fish	Some (details unknown)	20	48	—
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon hakonensis</i>	Japanese dace (small)	16	0.92	3-year-old fish	—	57	130	—
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon hakonensis</i>	Japanese dace (large)	1	0.23	4-year-old fish	Some (details unknown)	37	86	—
					Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	<i>Oncorhynchus masou</i>	Yamame trout	1	0.36	2-year-old fish	None	21	51	—
					Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	<i>Salvelinus leucomaenis</i>	Char (large)	2	0.60	3-year-old fish	Small fish	39	86	—
					Vertebrata	Osteichthyes	Perciformes	Centrarchidae	<i>Micropterus dolomieu</i>	Small mouth bass (small)	6	0.32	3-year-old fish	None	33	73	—
					Vertebrata	Osteichthyes	Perciformes	Centrarchidae	<i>Micropterus dolomieu</i>	Small mouth bass (large)	4	1.6	3-year-old fish	Some (details unknown)	47	100	1.0
					Arthropod	Malacostraca	Decapoda	Astacidae	<i>Pacifastacus leniusculus trowbridgii</i>	Signal crayfish	25	1.8	Imago	—	29	62	11
2013/9/20	37.657533° 37.661550° 37.665333°	140.126433° 140.122550° 140.132933°	2013/9/20	Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Cyprinus carpio</i>	Common carp	1	3.0	6-year-old fish	Some (details unknown)	14	33	0.99	
				Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	<i>Salvelinus leucomaenis</i>	Char (small)	1	0.091	2-year-old fish	None	27	56	—	

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.