

○ Results of Radioactive Material Monitoring of Aquatic Organisms (Location F along the Ota River)

< Location F along the Ota River: Samples collected >

| Items<br>Locations | General items |          | Radioactive materials |            |               |               |
|--------------------|---------------|----------|-----------------------|------------|---------------|---------------|
|                    | Water         | Sediment | Water (Cs)            | Water (Sr) | Sediment (Cs) | Sediment (Sr) |
| F-1                | ○             | ○        | ○                     | ○          | ○             | ○             |
| F-2                | ○             | ○        | ○                     | ○          | ○             | ○             |
| F-3                | ○             | ○        | ○                     | ○          | ○             | ○             |
| F-4                | ○             | ○        | ○                     | ○          | ○             | ○             |
| F-5                | ○             | ○        | ○                     | ○          | ○             | ○             |
| F-6                | ○             | ○        | ○                     | ○          | ○             | ○             |

< Location F along the Ota River: Site measurement item >

| Items<br>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) | Transparency (cm) |
| F-1                | 37.597500°                             | 140.925083° | 2013/8/24            | 8:05         | 8:14            | 22.0                          | 21.8                             | Sand        | 10YR4/3 | None           | Pebbles                         | 0.39            | >50               |
| F-2                | 37.601500°                             | 140.943633° |                      | 9:48         | 9:58            | 21.4                          | 21.3                             | Sand gravel | 2.5Y4/3 | None           | Pebbles                         | 0.28            | >50               |
| F-3                | 37.604483°                             | 140.964133° |                      | 11:02        | 11:12           | 23.4                          | 23.3                             | Sand gravel | 2.5Y3/3 | Sediment smell | Pebbles, plant fragments, roots | 0.23            | >50               |
| F-4                | 37.607000°                             | 140.972117° |                      | 12:48        | 12:57           | 17.8                          | 17.8                             | Sand        | 2.5Y4/6 | None           | Pebbles, plant fragments, roots | 0.27            | >50               |
| F-5                | 37.602283°                             | 140.987367° |                      | 13:42        | 13:48           | 21.4                          | 21.4                             | Sand gravel | 2.5Y4/6 | None           | Pebbles                         | 0.17            | >50               |
| F-6                | 37.595333°                             | 141.012583° |                      | 14:38        | —               | 23.8                          | —                                | —           | —       | —              | —                               | —               | 0.61              |

< Location F along the Ota River: General survey items/Analysis of radioactive materials Water >

| Items<br>Locations | Latitude and longitude of the location |             | Survey date and time |       | pH  | BOD    | COD    | DO     | Electrical conductivity | Salinity | TOC    | SS     | Turbidity | Cs-134 | Cs-137 | Sr-90  |
|--------------------|--|-------------|----------------------|-------|-----|--------|--------|--------|-------------------------|----------|--------|--------|-----------|--------|--------|--------|
|                    | Latitude                               | Longitude   | Date                 | Time  |     | (mg/L) | (mg/L) | (mg/L) | (mS/cm)                 |          | (mg/L) | (mg/L) | (FNU)     | (Bq/L) | (Bq/L) | (Bq/L) |
| F-1                | 37.597500°                             | 140.925083° | 2013/8/24            | 8:05  | 7.4 | 0.6    | 2.7    | 9.1    | 6.7                     | 0.04     | 1.2    | <1     | 0.7       | 0.24   | 0.52   | —      |
| F-2                | 37.601500°                             | 140.943633° |                      | 9:48  | 7.0 | <0.5   | 2.1    | 8.5    | 8.0                     | 0.05     | 1.0    | <1     | 0.3       | 0.21   | 0.44   | 0.0047 |
| F-3                | 37.604483°                             | 140.964133° |                      | 11:02 | 7.4 | 0.5    | 3.2    | 8.8    | 8.3                     | 0.05     | 1.4    | 3      | 1.3       | 0.29   | 0.62   | —      |
| F-4                | 37.607000°                             | 140.972117° |                      | 12:48 | 6.7 | <0.5   | 1.2    | 8.4    | 9.0                     | 0.05     | 0.6    | <1     | 0.4       | 0.085  | 0.18   | —      |
| F-5                | 37.602283°                             | 140.987367° |                      | 13:42 | 7.1 | 0.6    | 2.8    | 9.1    | 10.3                    | 0.06     | 1.2    | 2      | 1.4       | 0.12   | 0.26   | —      |
| F-6                | 37.595333°                             | 141.012583° |                      | 14:38 | 6.9 | 0.8    | 4.5    | 7.8    | 306                     | 1.71     | 2.1    | 7      | 3.9       | 0.15   | 0.30   | —      |

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

| Items<br>Locations | 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> ) | 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) |   |
| F-1                | 37.597500°                             | 140.925083° | 2013/8/24            | 8:14  | 7.0 | 282                                   | 24.9              | 2.2    | 2              | 2.654                                      | 32.5                    | 28.3                       | 22.8                          | 10.1                         | 2.3                      | 4.0                          | 1.2                | 26.5               | 4,500             | 10,000                     | —                           |   |
| F-2                | 37.601500°                             | 140.943633° |                      | 9:58  | 7.3 | 289                                   | 8.0               | 0.5    | 1              | 2.660                                      | 78.4                    | 18.1                       | 3.0                           | 0.2                          | 0.3                      | 6.1                          | 6.1                | 26.5               | 1,800             | 3,800                      | 0.26                        |   |
| F-3                | 37.604483°                             | 140.964133° |                      | 11:12 | 6.4 | 341                                   | 13.3              | 0.8    | <1             | 2.650                                      | 49.6                    | 7.2                        | 7.2                           | 2.6                          | 0.8                      | 2.0                          | 19                 | 2.0                | 26.5              | 2,600                      | 5,700                       | — |
| F-4                | 37.607000°                             | 140.972117° |                      | 12:57 | 6.5 | 346                                   | 21.1              | 1.0    | 2              | 2.650                                      | 23.7                    | 26.1                       | 39.4                          | 9.4                          | 0.3                      | 1.1                          | 0.85               | 0.85               | 26.5              | 1,700                      | 3,800                       | — |
| F-5                | 37.602283°                             | 140.987367° |                      | 13:48 | 6.6 | 261                                   | 17.1              | 1.0    | <1             | 2.669                                      | 51.6                    | 27.9                       | 15.9                          | 3.0                          | 0.2                      | 1.4                          | 2.1                | 2.1                | 26.5              | 380                        | 790                         | — |

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

< Location F along the Ota River: Survey 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       |                    |                    |                   |       |   |
| F-1      | 37.597500°                             | 140.925083° | 2013/8/26     | Algae/plant  | —            | —              | —                 | —                                   | Attached algae                 | —          | 0.070                  | —                    | —                      | 2,300              | 5,100              | —                 |       |   |
|          |  |             |               | Streptophyta | Zygnematales | Zygnematales   | Zygnemataceae     | <i>Spirogyra sp.</i>                | Spirogyra                      | —          | 0.0096                 | —                    | —                      | —                  | 88                 | 190               | —     |   |
|          |  |             |               | Bryopsida    | Sphagnales   | Sphagnales     | Sphagnaceae       | <i>Sphagnum sp.</i>                 | Sphagnum                       | —          | 0.048                  | —                    | —                      | —                  | 160                | 350               | —     |   |
|          |  |             |               | Arthropod    | Insecta      | Trichoptera    | Stenopsychidae    | <i>Stenopsyche marmorata</i>        | Stenopsyche marmorata          | 33         | 0.0074                 | Larva                | —                      | —                  | —                  | 220               | 440   | — |
|          |  |             |               | Arthropod    | Insecta      | Odonata        | Corduliidae       | <i>Macromia amphigena amphigena</i> | Macromia amphigena             | —          | —                      | —                    | —                      | —                  | —                  | —                 | —     | — |
|          |  |             |               | Arthropod    | Insecta      | Odonata        | Cordulegastriidae | <i>Anotogaster sieboldii</i>        | Anotogaster sieboldii          | —          | —                      | —                    | —                      | —                  | —                  | —                 | —     | — |
|          |  |             |               | Arthropod    | Insecta      | Odonata        | Gomphidae         | <i>Asiagomphus melanoops</i>        | Asiagomphus melanoops          | —          | —                      | —                    | —                      | —                  | —                  | —                 | —     | — |
|          |  |             |               | Arthropod    | Insecta      | Odonata        | Gomphidae         | <i>Davidius nanus</i>               | Davidius nanus                 | —          | —                      | —                    | —                      | —                  | —                  | —                 | —     | — |
|          |  |             |               | Arthropod    | Insecta      | Odonata        | Gomphidae         | <i>Davidius sp.</i>                 | Davidius                       | —          | —                      | —                    | —                      | —                  | —                  | —                 | —     | — |
|          |  |             |               | Arthropod    | Insecta      | Odonata        | Gomphidae         | <i>Nihonogomphus viridis</i>        | Nihonogomphus viridis          | 128        | 0.031                  | Larva                | —                      | —                  | —                  | 150               | 310   | — |
|          |  |             |               | Arthropod    | Insecta      | Odonata        | Gomphidae         | <i>Onychogomphus viridicostus</i>   | Onychogomphus viridicostus     | —          | —                      | —                    | —                      | —                  | —                  | —                 | —     | — |
|          |  |             |               | Arthropod    | Insecta      | Odonata        | Gomphidae         | <i>Sieboldius albardae</i>          | Sieboldius albardae            | —          | —                      | —                    | —                      | —                  | —                  | —                 | —     | — |
|          |  |             |               | Arthropod    | Insecta      | Odonata        | Gomphidae         | <i>Stylogomphus suzukii</i>         | Stylogomphus suzukii           | —          | —                      | —                    | —                      | —                  | —                  | —                 | —     | — |
|          |  |             |               | Arthropod    | Insecta      | Odonata        | Libellulidae      | <i>Sympetrum sp.</i>                | Sympetrum                      | —          | —                      | —                    | —                      | —                  | —                  | —                 | —     | — |
|          |  |             |               | Arthropod    | Insecta      | Odonata        | Aeshnidae         | <i>Boyeria maclachlani</i>          | Boyeria maclachlani            | —          | —                      | —                    | —                      | —                  | —                  | —                 | —     | — |
|          |  |             |               | Arthropod    | Insecta      | Megaloptera    | Corydalidae       | <i>Protohermes grandis</i>          | <u>Protohermes grandis</u>     | 67         | 0.031                  | Larva                | —                      | —                  | —                  | 120               | 270   | — |
|          |  |             |               | Arthropod    | Malacostraca | Decapoda       | Procambarus       | <i>Procambarus clarkii</i>          | Red swamp crawfish             | 3          | 0.0085                 | Immature fish        | —                      | —                  | —                  | 300               | 640   | — |
|          |  |             |               | Arthropod    | Malacostraca | Decapoda       | Atyidae           | <i>Atyidae</i>                      | Freshwater shrimp              | 205        | 0.027                  | Imago                | —                      | —                  | —                  | 230               | 500   | — |
|          |  |             |               | Arthropod    | Malacostraca | Decapoda       | Grapsidae         | <i>Eriocheir japonica</i>           | Japanese mitten crab           | 6          | 0.12                   | Imago                | —                      | —                  | —                  | 440               | 980   | — |
|          |  |             |               | Vertebrata   | Osteichthyes | Cypriniformes  | Cyprinidae        | <i>Carassius auratus</i>            | Carassius auratus langsdorffii | 1          | 0.055                  | 2-year-old fish      | Some (details unknown) | —                  | —                  | 420               | 880   | — |
|          |  |             |               | Vertebrata   | Osteichthyes | Cypriniformes  | Cyprinidae        | <i>Tribolodon hakonensis</i>        | Japanese dace (medium)         | 78         | 0.19                   | 3-year-old fish      | —                      | —                  | —                  | 250               | 520   | — |
|          |  |             |               | Vertebrata   | Osteichthyes | Cypriniformes  | Cobitidae         | <i>Cobitis bivaie</i>               | Cobitis bivaie                 | 10         | 0.017                  | More than 1 year old | —                      | —                  | —                  | 81                | 170   | — |
|          |  |             |               | Vertebrata   | Osteichthyes | Perciformes    | Gobiidae          | <i>Rhinogobius fluviatilis</i>      | R. fluviatilis                 | 28         | 0.10                   | More than 1 year old | —                      | —                  | —                  | 1,300             | 2,800 | — |
|          |  |             | 2013/9/4      | Vertebrata   | Osteichthyes | Cypriniformes  | Cyprinidae        | <i>Tribolodon hakonensis</i>        | Japanese dace (large)          | 10         | 0.41                   | 2-year-old fish      | Some (details unknown) | 13                 | 29                 | —                 |       |   |
|          |  |             |               | Vertebrata   | Osteichthyes | Cypriniformes  | Cyprinidae        | <i>Tribolodon sp.</i>               | Tribolodon (Pacific redfin)    | 2          | 0.54                   | 4-year-old fish      | —                      | 16                 | 36                 | —                 |       |   |
| F-3      | 37.604483°                             | 140.964133° | 2013/9/6      | Vertebrata   | Osteichthyes | Anguilliformes | Anguillidae       | <i>Anguilla japonica</i>            | Japanese eel                   | 3          | 1.5                    | Mature fish          | Procambarus clarkii    | 160                | 350                | 0.29              |       |   |
| F-4      | 37.607000°                             | 140.972117° |               |              |              |                |                   |                                     |                                |            |                        |                      |                        |                    |                    |                   |       |   |
| F-5      | 37.602283°                             | 140.987367° | 2013/9/7      | Vertebrata   | Osteichthyes | Cypriniformes  | Cyprinidae        | <i>Cyprinus carpio</i>              | Common carp                    | 1          | 3.2                    | 3-year-old fish      | Some (details unknown) | 280                | 600                | 2.8               |       |   |

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.