Reference

# Nuclides Analysis Result of the Radioactive Materials in the Seawater
## < Coast, Fukushima Daiichi Nuclear Power Station >

(Data summarized on May 25)

| Place of Sampling | North of Unit 5-6 Discharge Channel at 1F (Approx. 30m North of Unit 5-6 Discharge Channel) | | Around 1F South Discharge Channel of 1F (Appox. 330m South of Unit 1-4 Discharge Channel) | | ② Density Limit Specified by the Reactor Regulation (Bq/L) (The density limit in the water outside the surrounding monitored areas is provided in section 6 of Appendix 2.) |
|---|---|---|---|---|---|
| Time of Sampling | May 24, 2012 8:40 AM | | May 24, 2012 8:20 AM | | |
| Detected Nuclides (Half-life) | ①Density of Sample (Bq/L) | Scaling Factor (①/②) | ①Density of Sample (Bq/L) | Scaling Factor (①/②) | |
| I-131 (approx. 8 days) | ND | - | ND | - | 40 |
| Cs-134 (approx. 2 years) | ND | - | ND | - | 60 |
| Cs-137 (approx. 30 years) | ND | - | ND | - | 90 |

* The density specified by the Reactor Regulation is converted from $Bq/cm^3$ to Bq/L.
* Data of other nuclides is under evaluation.
* In the case of more than 2 nuclides, the sum of scaling factors to density limits is compared to 1.
* "ND" indicates that the measurement result is below the detection limit.
I-131: approx. 0.48Bq/L, Cs-134: approx. 1.3Bq/L, Cs-137: approx. 1.6Bq/L
As the detection limit may vary depending on the detectors and sample properties, there are cases where nuclides below the detection limit are detected.

Reference

# Nuclides Analysis Result of the Radioactive Materials in the Seawater
# <Coast, Fukushima Daini Nuclear Power Station >

(Data summarized on May 25)

| Place of Sampling | 2F Around the North Discharge Channel (Around Unit 3-4 Discharge Channel) (Approx. 10km from 1F) | | 2F Iwasawa Shore (Approx. 7km South of Unit 1-2 Discharge Channel) (Approx. 16km from Fukushima Daiichi NPS) | | ② Density Limit Specified by the Reactor Regulation (Bq/L) (The density limit in the water outside the surrounding monitored areas is provided in section 6 of Appendix 2.) |
|---|---|---|---|---|---|
| Time of Sampling | May 22, 2012 8:20 AM | | May 22, 2012 8:00 AM | | |
| Detected Nuclides (Half-life) | ①Density of Sample (Bq/L) | Scaling Factor (①/②) | ①Density of Sample (Bq/L) | Scaling Factor (①/②) | |
| I-131 (approx. 8 days) | ND | - | ND | - | 40 |
| Cs-134 (approx. 2 years) | 0.42 | 0.01 | ND | - | 60 |
| Cs-137 (approx. 30 years) | 0.46 | 0.01 | ND | - | 90 |

* The density specified by the Reactor Regulation is converted from Bq/cm3 to Bq/L.

* Data of other nuclides is under evaluation.

* The density specified by the Reactor Regulation is converted from $Bq/cm^3$ to Bq/L.

* "ND" indicates that the measurement result is below the detection limit.
I-131: approx. 0.15Bq/L, Cs-134: approx. 0.24Bq/L, Cs-137: approx. 0.29Bq/L
As the detection limit may vary depending on the detectors and sample properties, there are cases where nuclides below the detection limit are detected.

# Nuclides Analysis Result of the Radioactive Materials in the Seawater < Offshore 1/3 >

(Data summarized on May 25)

| Place of Sampling | 3km Offshore of Odaka Ward (T-14) *1 | | | | 3km Offshore of Ukedo River (T-D1) *2 | | | | 3km Offshore of 1F (T-D5) *2 | | | | ② Density Limit Specified by the Reactor Regulation (Bq/L) (The density limit in the water outside the surrounding monitored areas is provided in section 6 of Appendix 2.) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Upper Layer | | Lower Layer | | Upper Layer | | Lower Layer | | Upper Layer | | Lower Layer | | |
| Time of Sampling | Apr 21, 2012 10:20 AM | | Apr 21, 2012 10:20 AM | | Apr 25, 2012 9:40 AM | | Apr 25, 2012 9:40 AM | | Apr 25, 2012 8:40 AM | | Apr 25, 2012 8:40 AM | | |
| Detected Nuclides (Half-life) | ①Density of Sample (Bq/L) | Scaling Factor (①/②) | ①Density of Sample (Bq/L) | Scaling Factor (①/②) | ①Density of Sample (Bq/L) | Scaling Factor (①/②) | ①Density of Sample (Bq/L) | Scaling Factor (①/②) | ①Density of Sample (Bq/L) | Scaling Factor (①/②) | ①Density of Sample (Bq/L) | Scaling Factor (①/②) | |
| Cs-134 (approx. 2 years) | 0.024 | 0.00 | 0.014 | 0.00 | 0.090 | 0.00 | 0.064 | 0.00 | 0.13 | 0.00 | 0.083 | 0.00 | 60 |
| Cs-137 (approx. 30 years) | 0.036 | 0.00 | 0.021 | 0.00 | 0.13 | 0.00 | 0.095 | 0.00 | 0.19 | 0.00 | 0.11 | 0.00 | 90 |

| Place of Sampling | 3km Offshore of 2F (T-D9) *2 | | | | 15km Offshore of 1F (T-5) *1 | | | | Iwasawa Seashoreoffshore3km (T-11) *1 | | | | ② Density Limit Specified by the Reactor Regulation (Bq/L) (The density limit in the water outside the surrounding monitored areas is provided in section 6 of Appendix 2.) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Upper Layer | | Lower Layer | | Upper Layer | | Lower Layer | | Upper Layer | | Lower Layer | | |
| Time of Sampling | Apr 26, 2012 8:30 AM | | Apr 26, 2012 8:30 AM | | Apr 21, 2012 8:35 AM | | Apr 21, 2012 8:35 AM | | Apr 21, 2012 8:00 AM | | Apr 21, 2012 8:00 AM | | |
| Detected Nuclides (Half-life) | ①Density of Sample (Bq/L) | Scaling Factor (①/②) | ①Density of Sample (Bq/L) | Scaling Factor (①/②) | ①Density of Sample (Bq/L) | Scaling Factor (①/②) | ①Density of Sample (Bq/L) | Scaling Factor (①/②) | ①Density of Sample (Bq/L) | Scaling Factor (①/②) | ①Density of Sample (Bq/L) | Scaling Factor (①/②) | |
| Cs-134 (approx. 2 years) | 0.080 | 0.00 | 0.062 | 0.00 | 0.019 | 0.00 | 0.022 | 0.00 | 0.11 | 0.00 | 0.23 | 0.00 | 60 |
| Cs-137 (approx. 30 years) | 0.11 | 0.00 | 0.085 | 0.00 | 0.024 | 0.00 | 0.032 | 0.00 | 0.16 | 0.00 | 0.32 | 0.00 | 90 |

* The density specified by the Reactor Regulation is converted from Bq/cm$^3$ to Bq/L.

* In the case of more than 2 nuclides, the sum of scaling factors to density limits is compared to 1.

* Analyzed by: *1 THE GENERAL ENVIRONMENTAL TECHNOS Co., LTD., *2 Tokyo Electric Power Environmental Engineering Co., Inc.

# Nuclides Analysis Result of the Radioactive Materials in the Seawater < Offshore 2/3 >

(Data summarized on May 25)

| Place of Sampling | 1km Offshore of Niida River (T-13-1) | | | | 3km Offshore of Soma (T-22) | | | | 5km Offshore of Kashima (T-MA) | | | | ② Density Limit Specified by the Reactor Regulation (Bq/L) (The density limit in the water outside the surrounding monitored areas is provided in section 6 of Appendix 2.) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Upper Layer | | Lower Layer | | Upper Layer | | Lower Layer | | Upper Layer | | Lower Layer | | |
| Time of Sampling | Apr 18, 2012 7:40 AM | | Apr 18, 2012 7:40 AM | | Apr 18, 2012 6:15 AM | | Apr 18, 2012 6:15 AM | | Apr 18, 2012 6:50 AM | | Apr 18, 2012 6:50 AM | | |
| Detected Nuclides (Half-life) | ①Density of Sample (Bq/L) | Scaling Factor (①/②) | ①Density of Sample (Bq/L) | Scaling Factor (①/②) | ①Density of Sample (Bq/L) | Scaling Factor (①/②) | ①Density of Sample (Bq/L) | Scaling Factor (①/②) | ①Density of Sample (Bq/L) | Scaling Factor (①/②) | ①Density of Sample (Bq/L) | Scaling Factor (①/②) | |
| Cs-134 (approx. 2 years) | 0.064 | 0.00 | 0.056 | 0.00 | 0.019 | 0.00 | 0.076 | 0.00 | 0.020 | 0.00 | 0.040 | 0.00 | 60 |
| Cs-137 (approx. 30 years) | 0.089 | 0.00 | 0.077 | 0.00 | 0.027 | 0.00 | 0.11 | 0.00 | 0.028 | 0.00 | 0.056 | 0.00 | 90 |

| Place of Sampling | | | | | | | | | | | | | ② Density Limit Specified by the Reactor Regulation (Bq/L) (The density limit in the water outside the surrounding monitored areas is provided in section 6 of Appendix 2.) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Time of Sampling | | | | | | | | | | | | | |
| Detected Nuclides (Half-life) | ①Density of Sample (Bq/L) | Scaling Factor (①/②) | ①Density of Sample (Bq/L) | Scaling Factor (①/②) | ①Density of Sample (Bq/L) | Scaling Factor (①/②) | ①Density of Sample (Bq/L) | Scaling Factor (①/②) | ①Density of Sample (Bq/L) | Scaling Factor (①/②) | ①Density of Sample (Bq/L) | Scaling Factor (①/②) | |
| Cs-134 (approx. 2 years) | | | | | | | | | | | | | 60 |
| Cs-137 (approx. 30 years) | | | | | | | | | | | | | 90 |

* The density specified by the Reactor Regulation is converted from Bq/cm$^3$ to Bq/L.
* In the case of more than 2 nuclides, the sum of scaling factors to density limits is compared to 1.
* Analyzed by: THE GENERAL ENVIRONMENTAL TECHNOS Co., LTD.

# Nuclides Analysis Result of the Radioactive Materials in the Seawater < Offshore 3/3 >

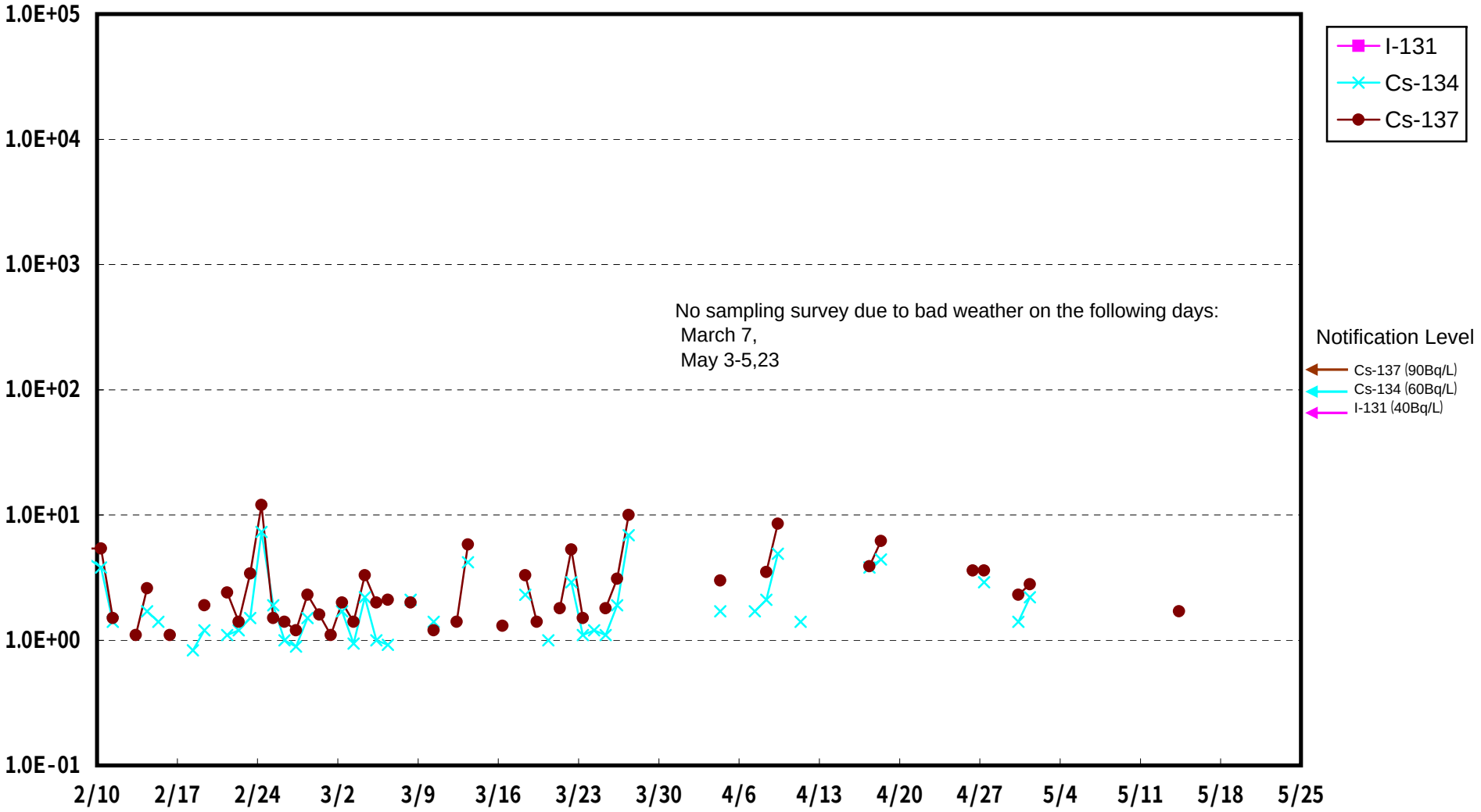
(Data summarized on May 25)

| Place of Sampling | 1km Offshore of 1F (T-E1) Upper Layer | | | | | | | | | | | | ② Density Limit Specified by the Reactor Regulation (Bq/L) (The density limit in the water outside the surrounding monitored areas is provided in section 6 of Appendix 2.) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Time of Sampling | Apr 25, 2012 10:31 AM | | | | | | | | | | | | |
| Detected Nuclides (Half-life) | ①Density of Sample (Bq/L) | Scaling Factor (①/②) | ①Density of Sample (Bq/L) | Scaling Factor (①/②) | ①Density of Sample (Bq/L) | Scaling Factor (①/②) | ①Density of Sample (Bq/L) | Scaling Factor (①/②) | ①Density of Sample (Bq/L) | Scaling Factor (①/②) | ①Density of Sample (Bq/L) | Scaling Factor (①/②) | |
| Cs-134 (approx. 2 years) | 0.13 | 0.00 | | | | | | | | | | | 60 |
| Cs-137 (approx. 30 years) | 0.17 | 0.00 | | | | | | | | | | | 90 |

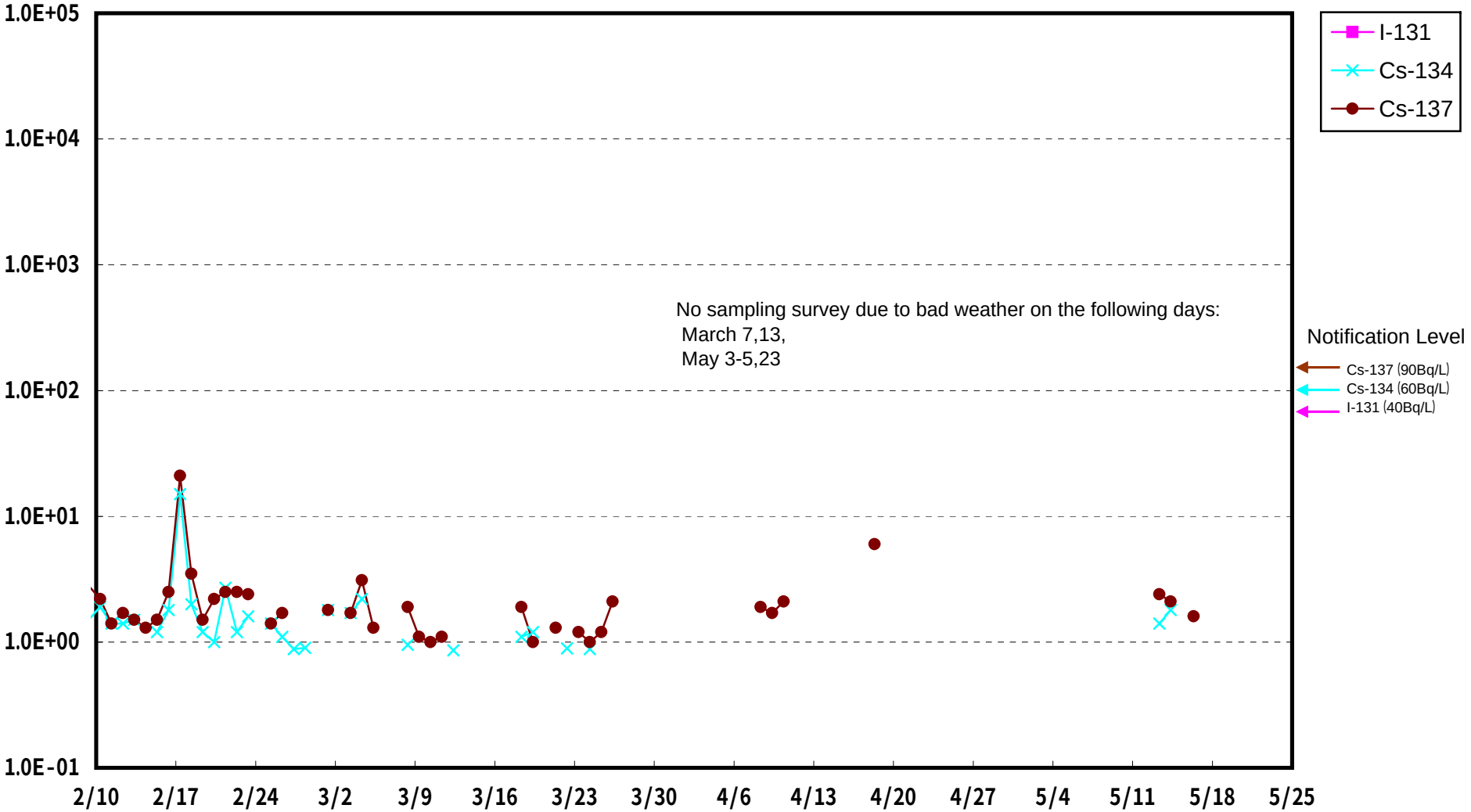
| Place of Sampling | Upper Layer | | Upper Layer | | Upper Layer | | Upper Layer | | Upper Layer | | Upper Layer | | ② Density Limit Specified by the Reactor Regulation (Bq/L) (The density limit in the water outside the surrounding monitored areas is provided in section 6 of Appendix 2.) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Time of Sampling | | | | | | | | | | | | | |
| Detected Nuclides (Half-life) | ①Density of Sample (Bq/L) | Scaling Factor (①/②) | ①Density of Sample (Bq/L) | Scaling Factor (①/②) | ①Density of Sample (Bq/L) | Scaling Factor (①/②) | ①Density of Sample (Bq/L) | Scaling Factor (①/②) | ①Density of Sample (Bq/L) | Scaling Factor (①/②) | ①Density of Sample (Bq/L) | Scaling Factor (①/②) | |
| Cs-134 (approx. 2 years) | | | | | | | | | | | | | 60 |
| Cs-137 (approx. 30 years) | | | | | | | | | | | | | 90 |

* The density specified by the Reactor Regulation is converted from Bq/cm$^3$ to Bq/L.
* In the case of more than 2 nuclides, the sum of scaling factors to density limits is compared to 1.
* Analyzed by Tokyo Electric Power Environmental Engineering Co., Inc.

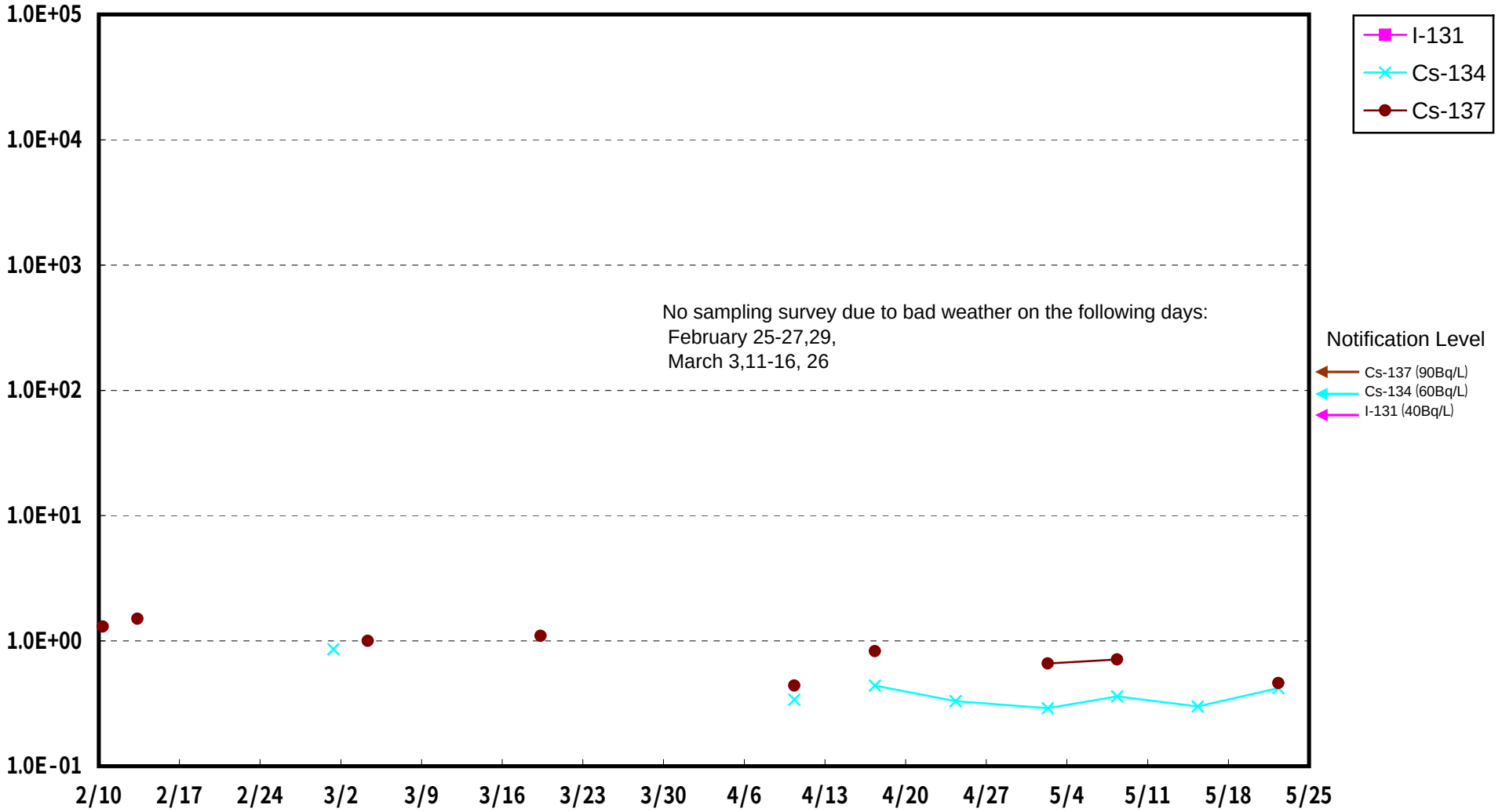
Radioactivity Density of the Seawater at the North of 1F Unit 5-6 Discharge Channel (Bq/L)



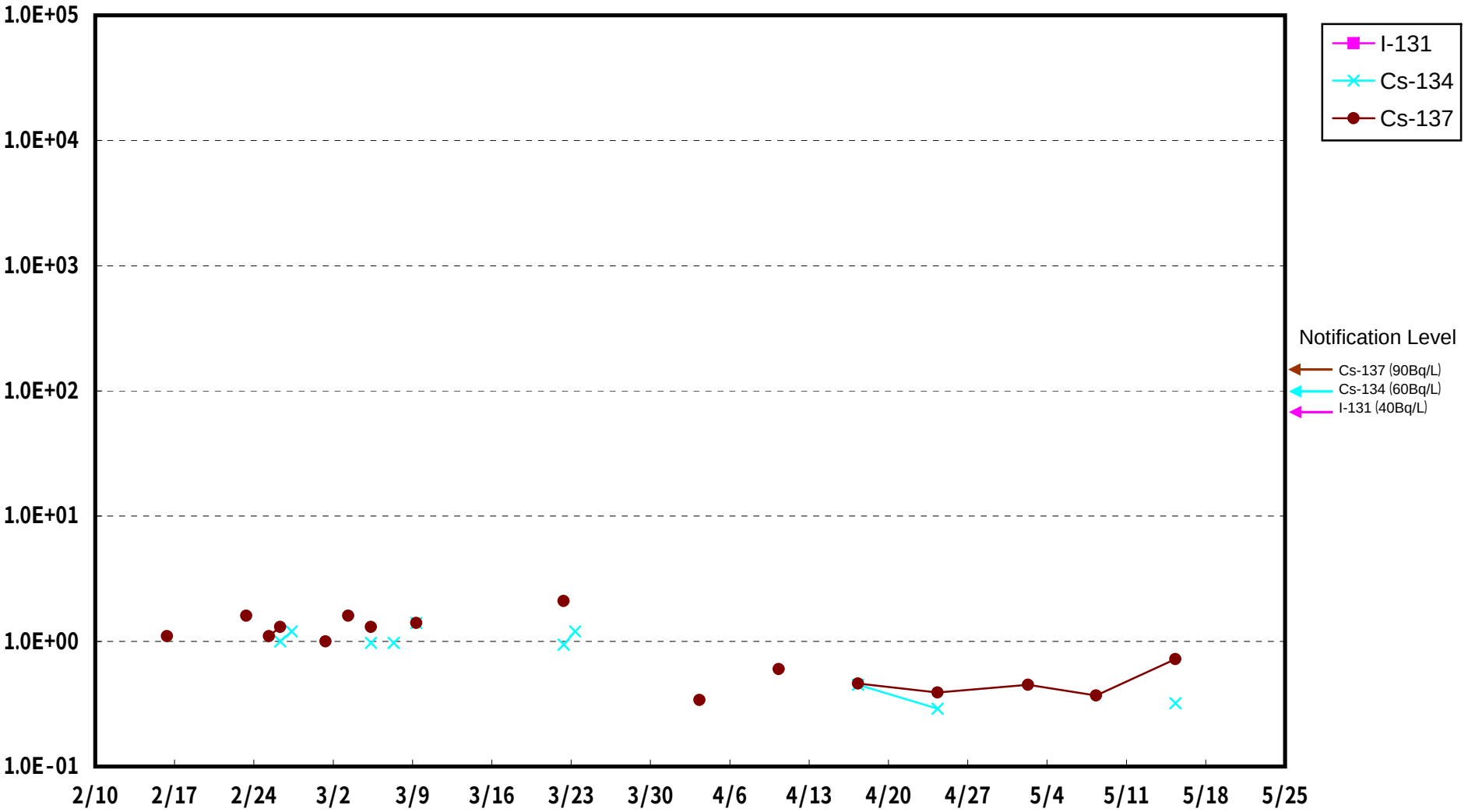
Radioactivity Density of the Seawater at 1F South Discharge Channel (Bq/L)



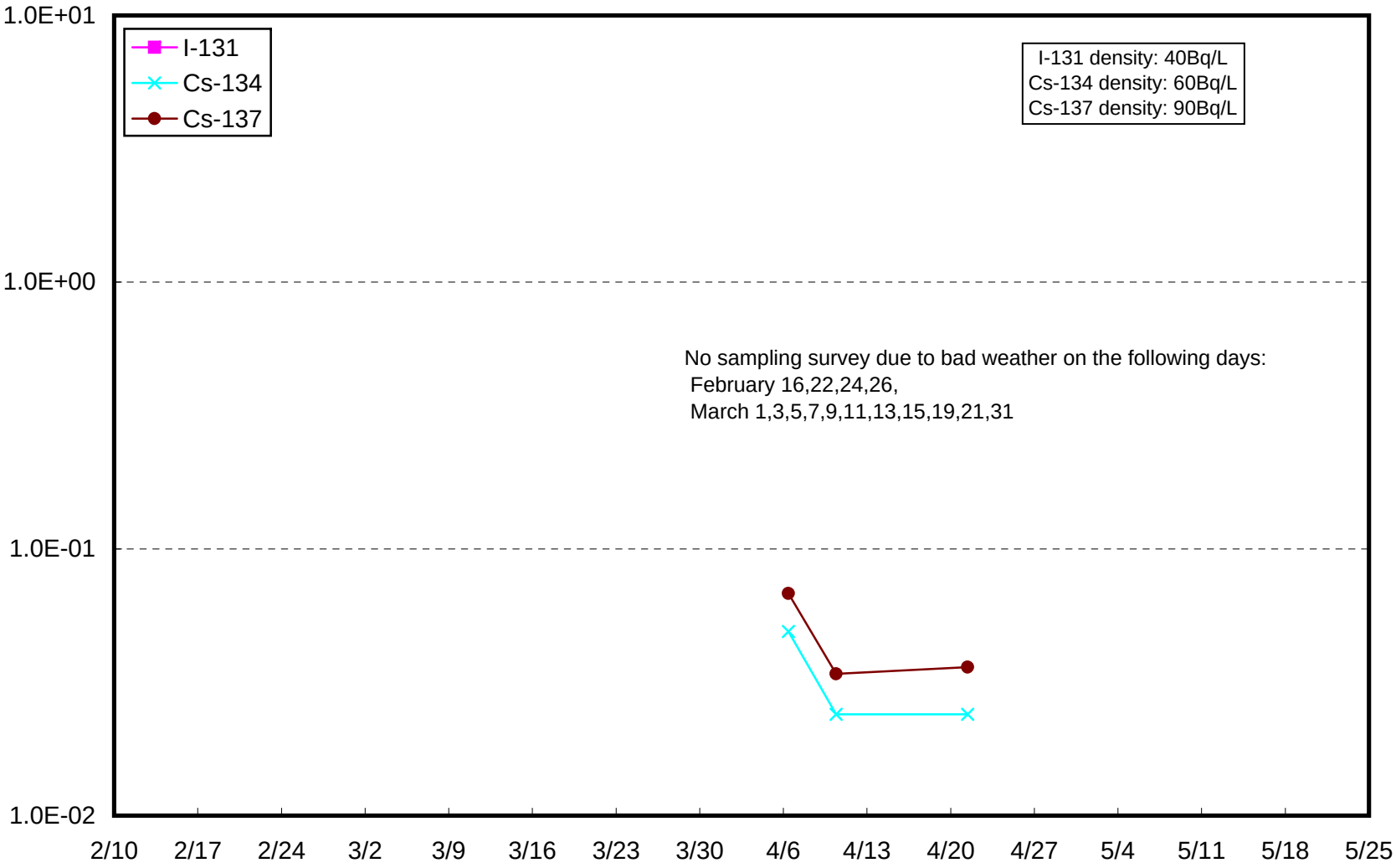
Radioactivity Density of the Seawater at 2F North Discharge Channel (Bq/L)



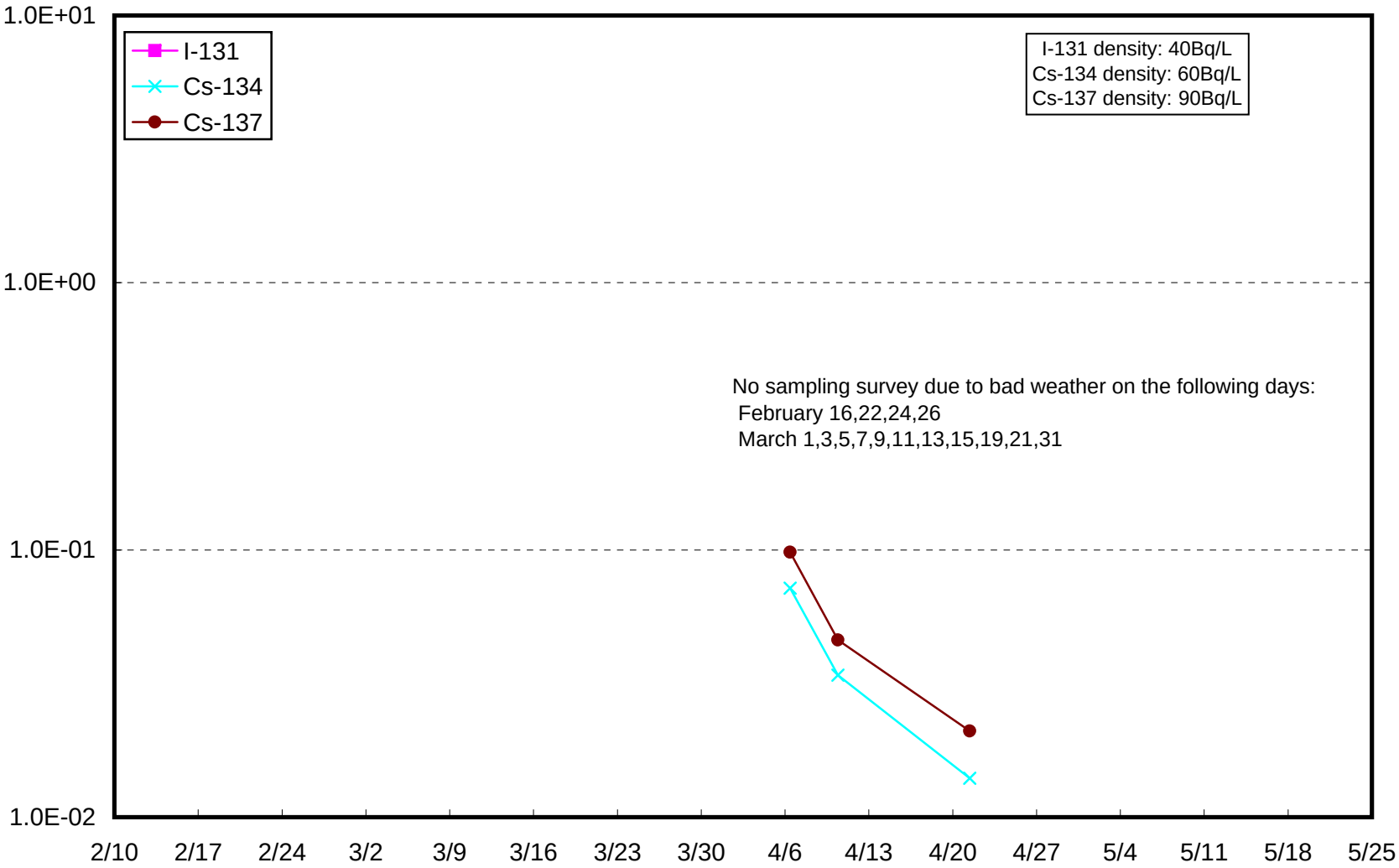
Radioactivity Density of the Seawater at Iwasawa Shore at 2F (Bq/L)



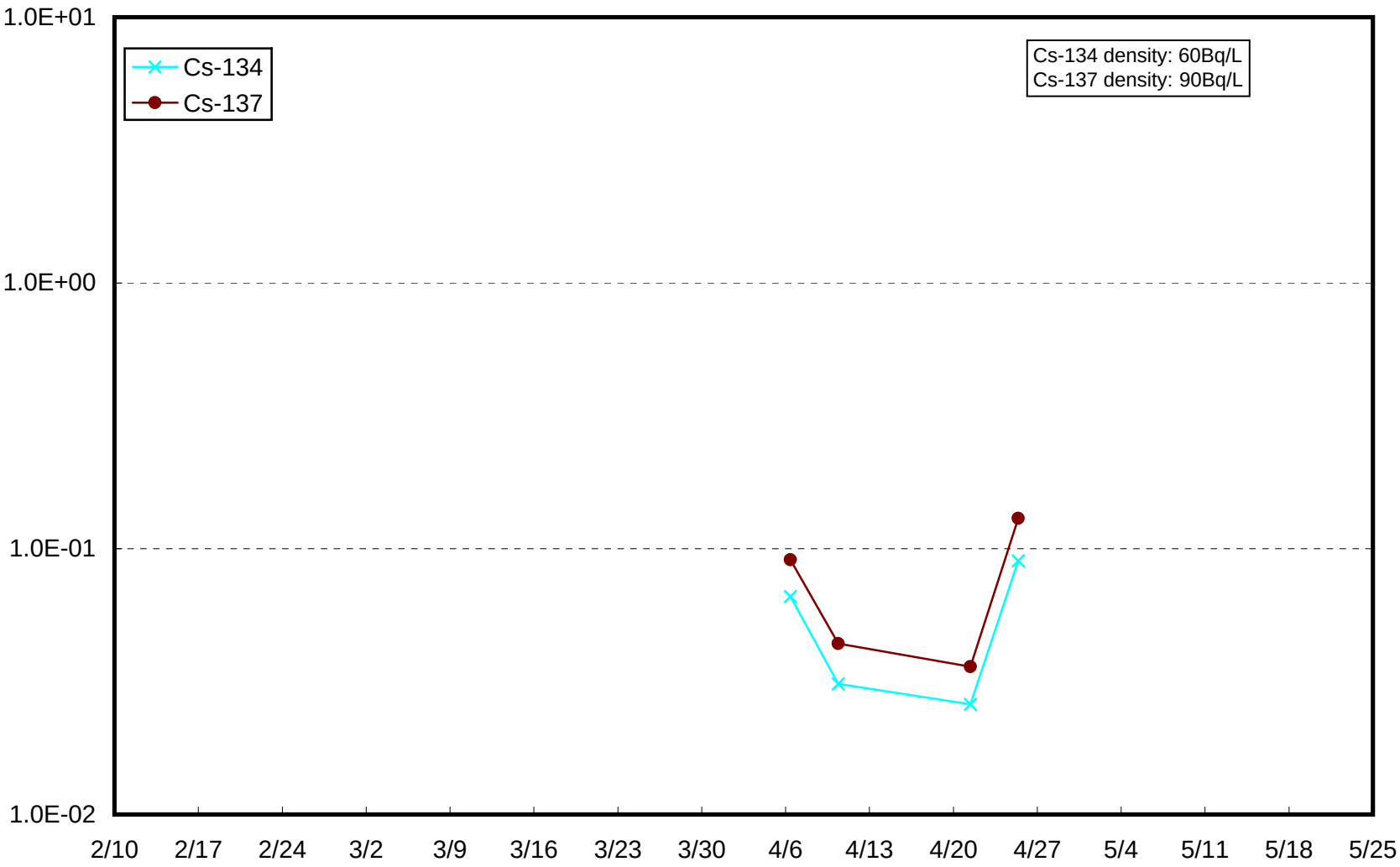
Radioactivity Density of the Seawater at 3km Offshore of Odaka Ward (T-14) Upper Layer (Bq/L)



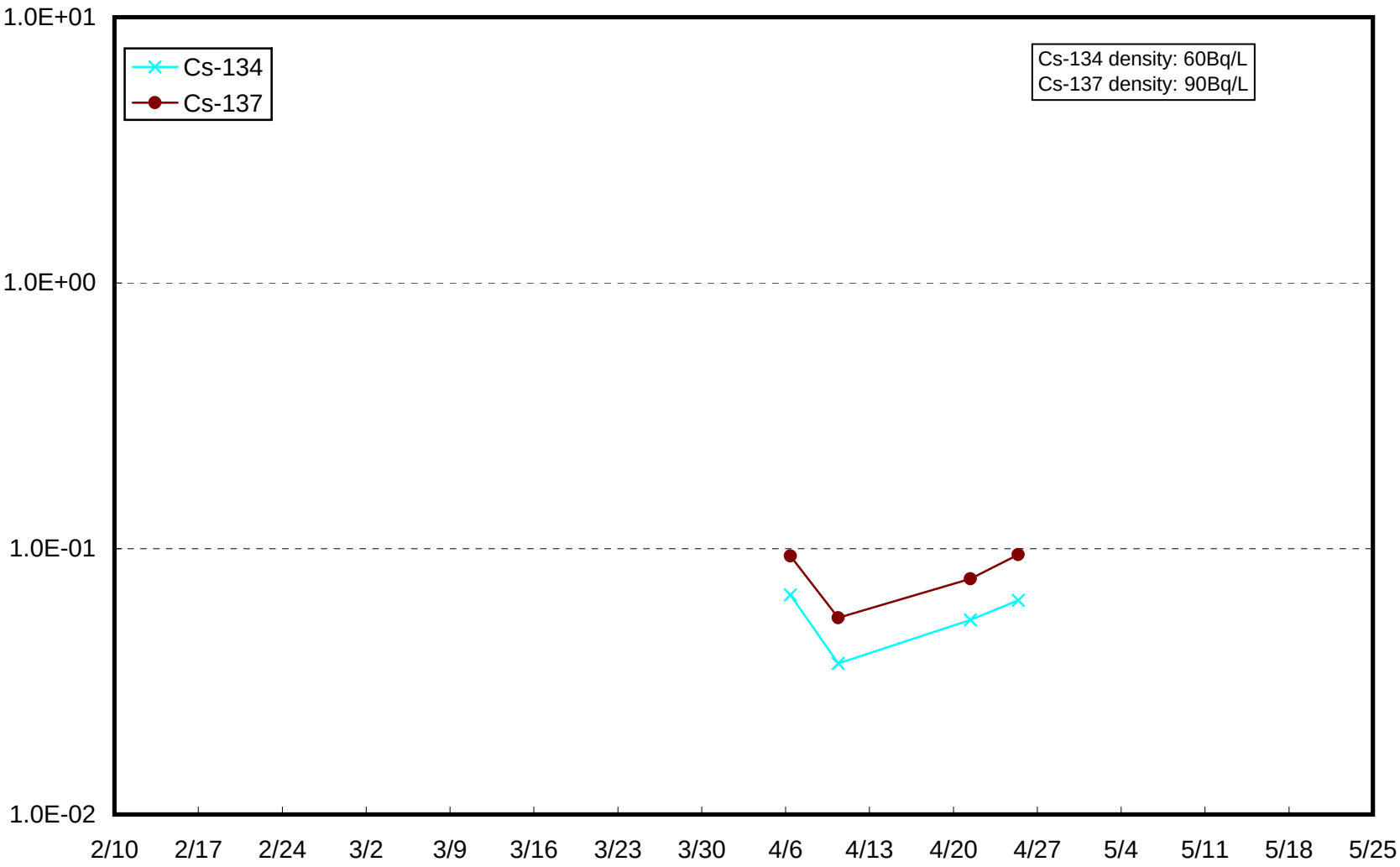
Radioactivity Density of the Seawater at 3km Offshore of Odaka Ward (T-14) Lower Layer (Bq/L)



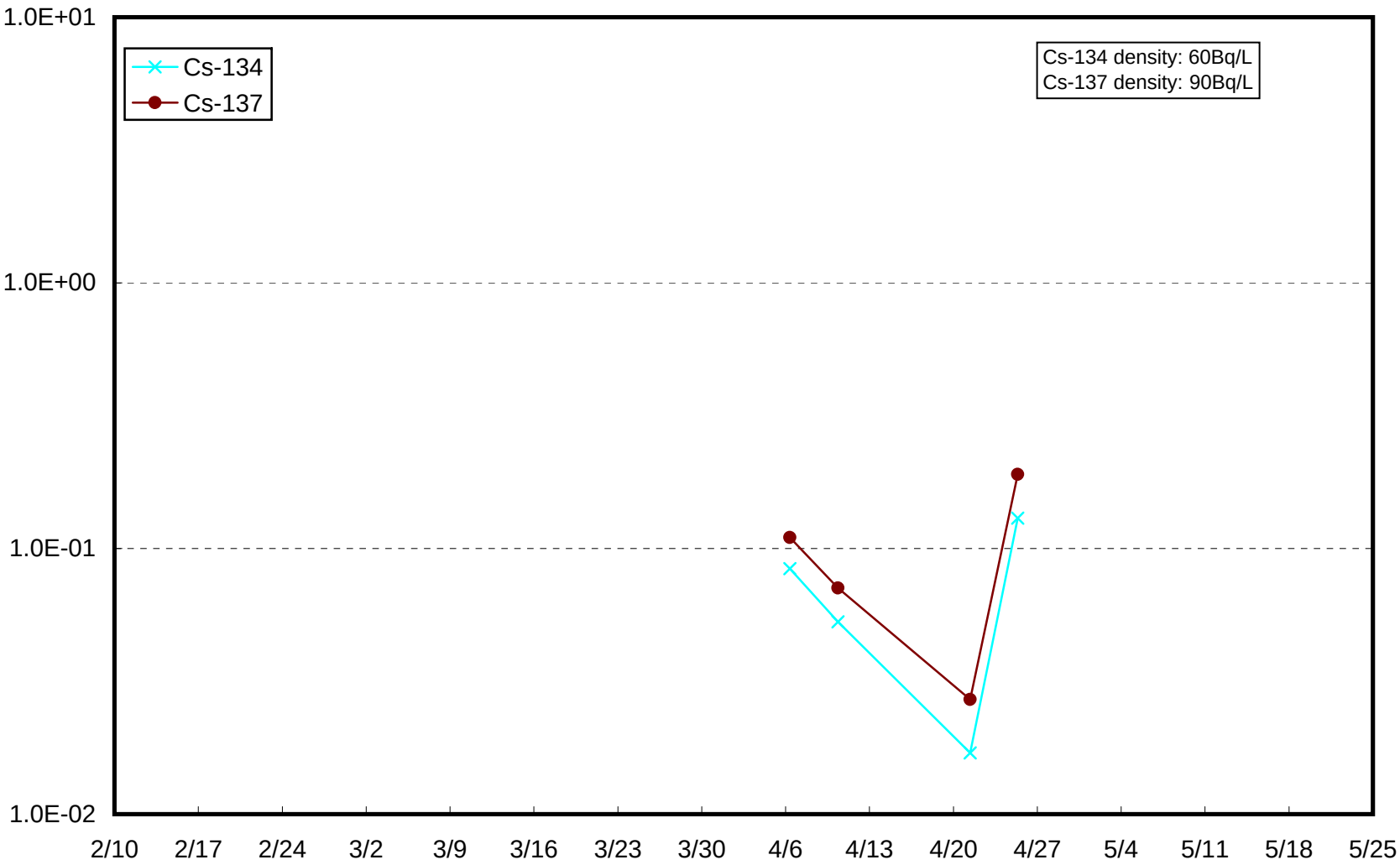
Radioactivity Density of the Seawater at 3km Offshore of Ukedo River (T-D1) Upper Layer (Bq/L)



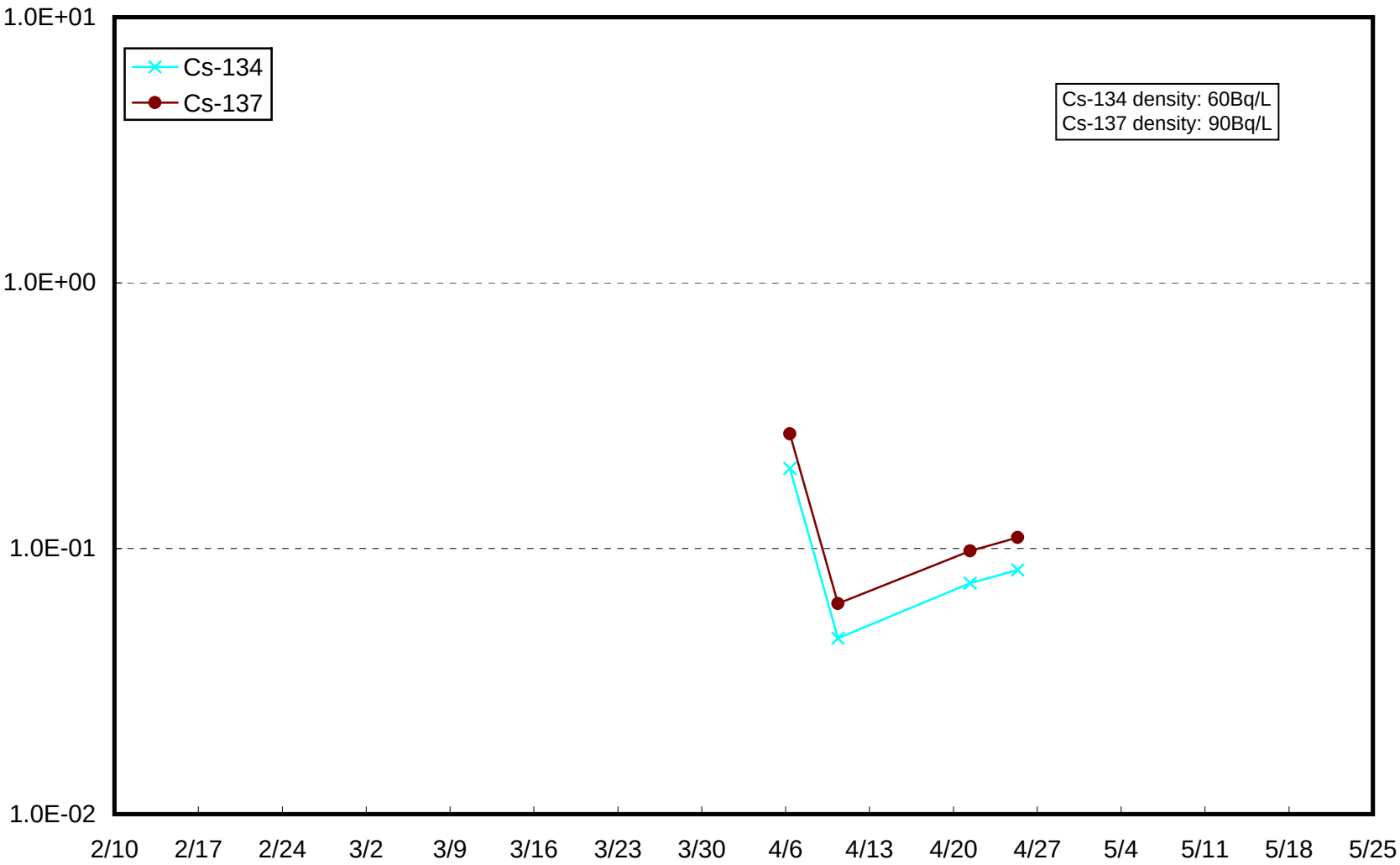
Radioactivity Density of the Seawater at 3km Offshore of Ukedo River (T-D1) Lower Layer (Bq/L)



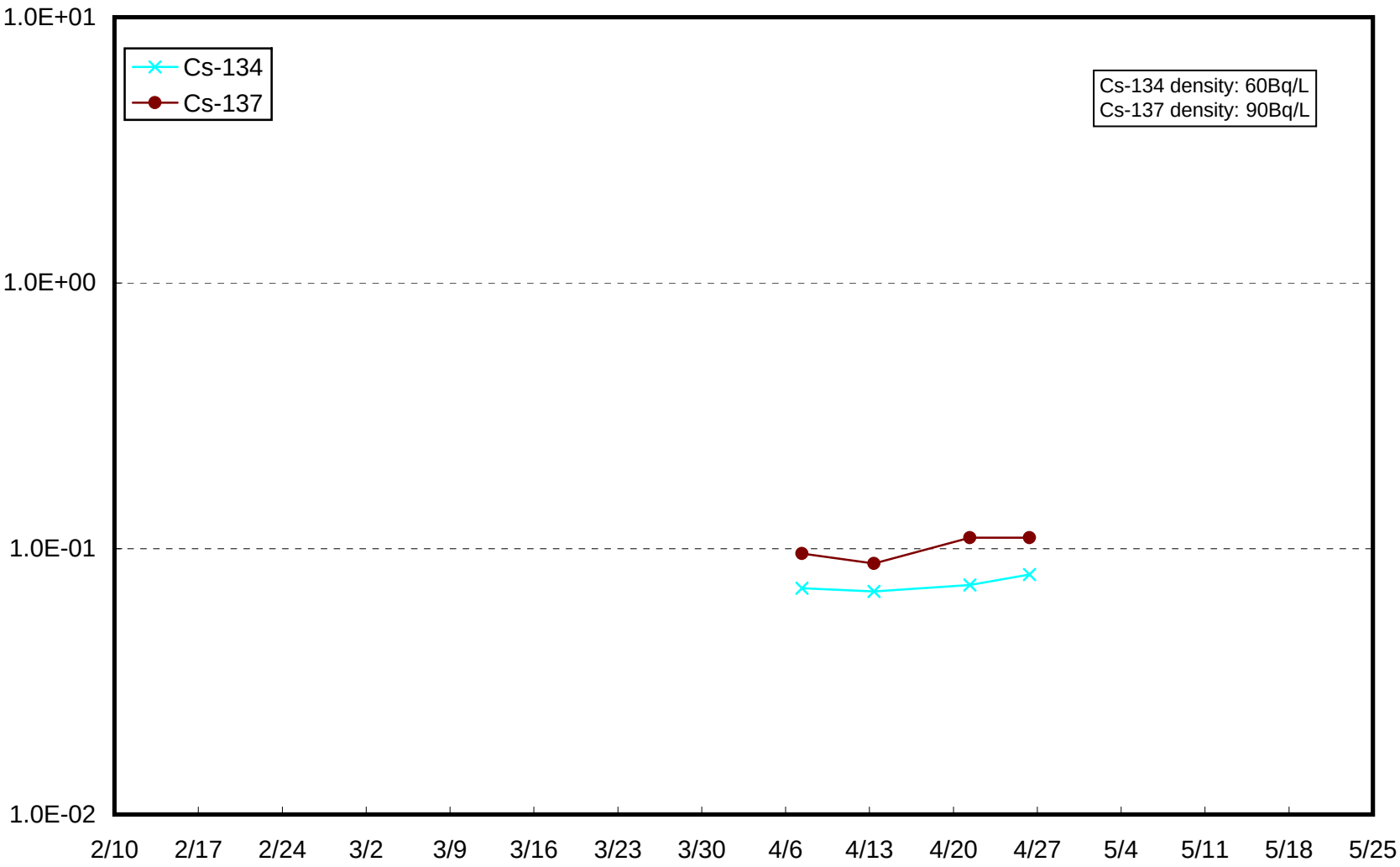
Radioactivity Density of the Seawater at 3km Offshore of Fukushima Daiichi NPS (T-D5) Upper Layer (Bq/L)



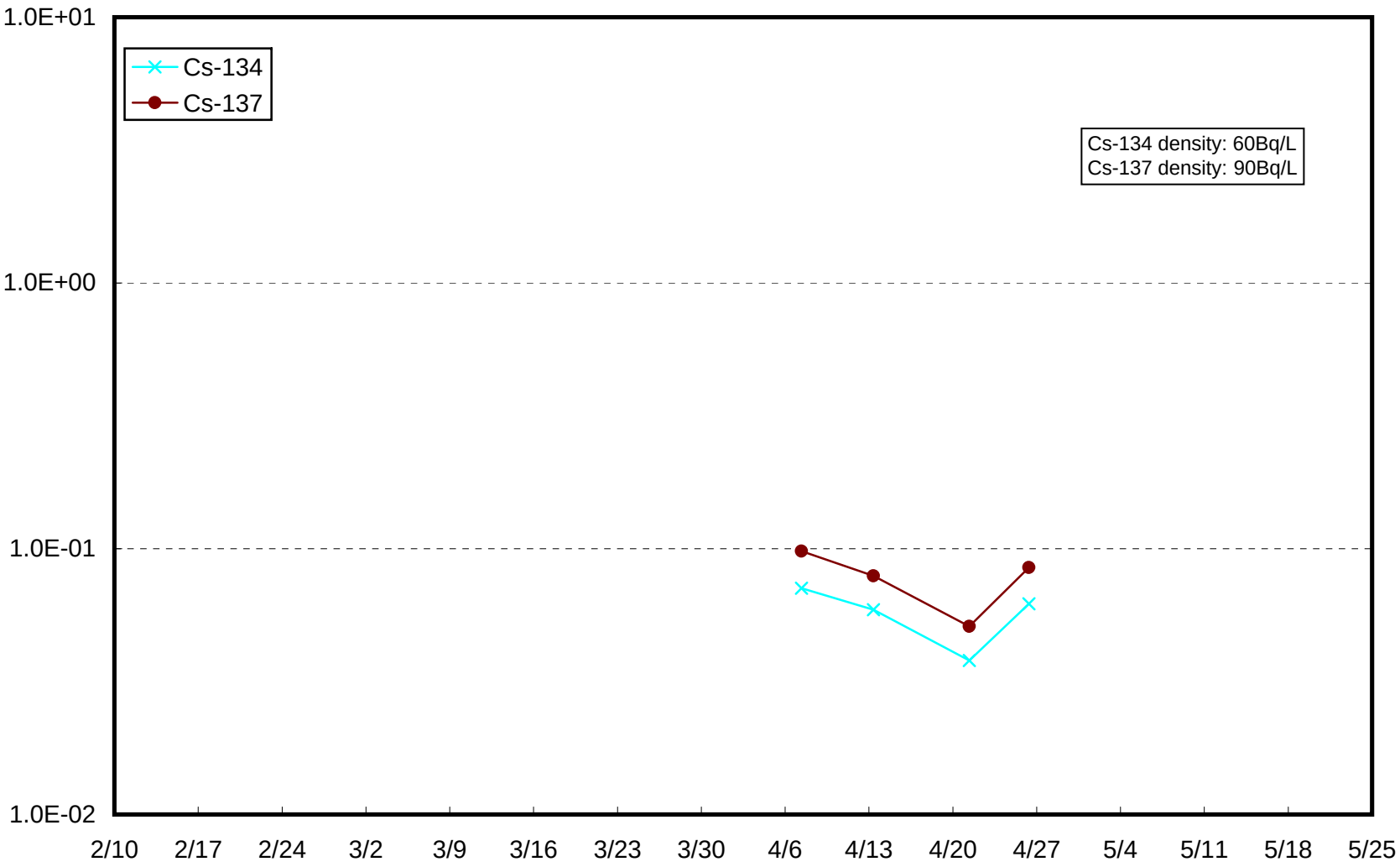
Radioactivity Density of the Seawater at 3km Offshore of Fukushima Daiichi NPS (T-D5) Lower Layer (Bq/L)



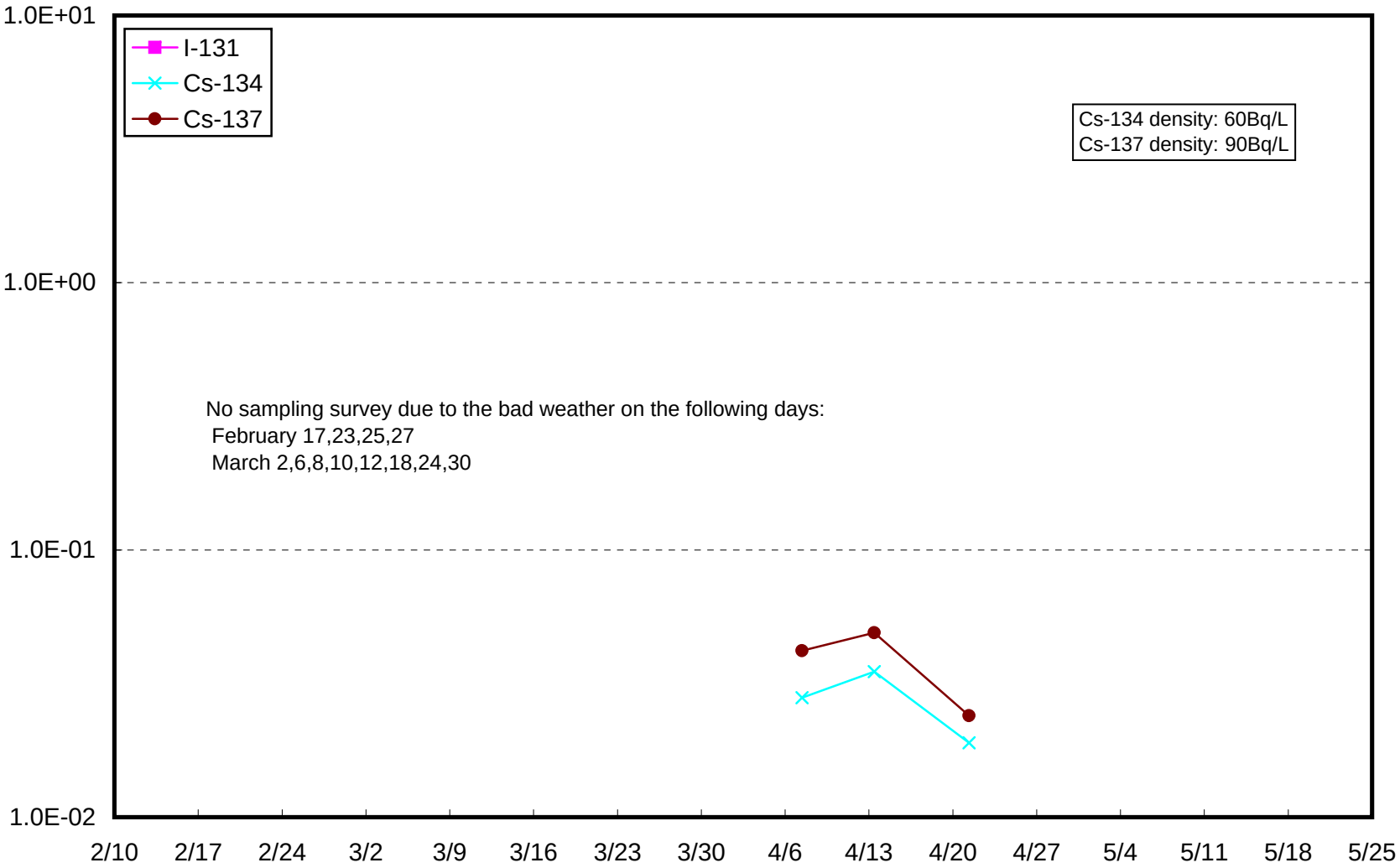
Radioactivity Density of the Seawater at 3km Offshore of Fukushima Daini NPS (T-D9) Upper Layer (Bq/L)



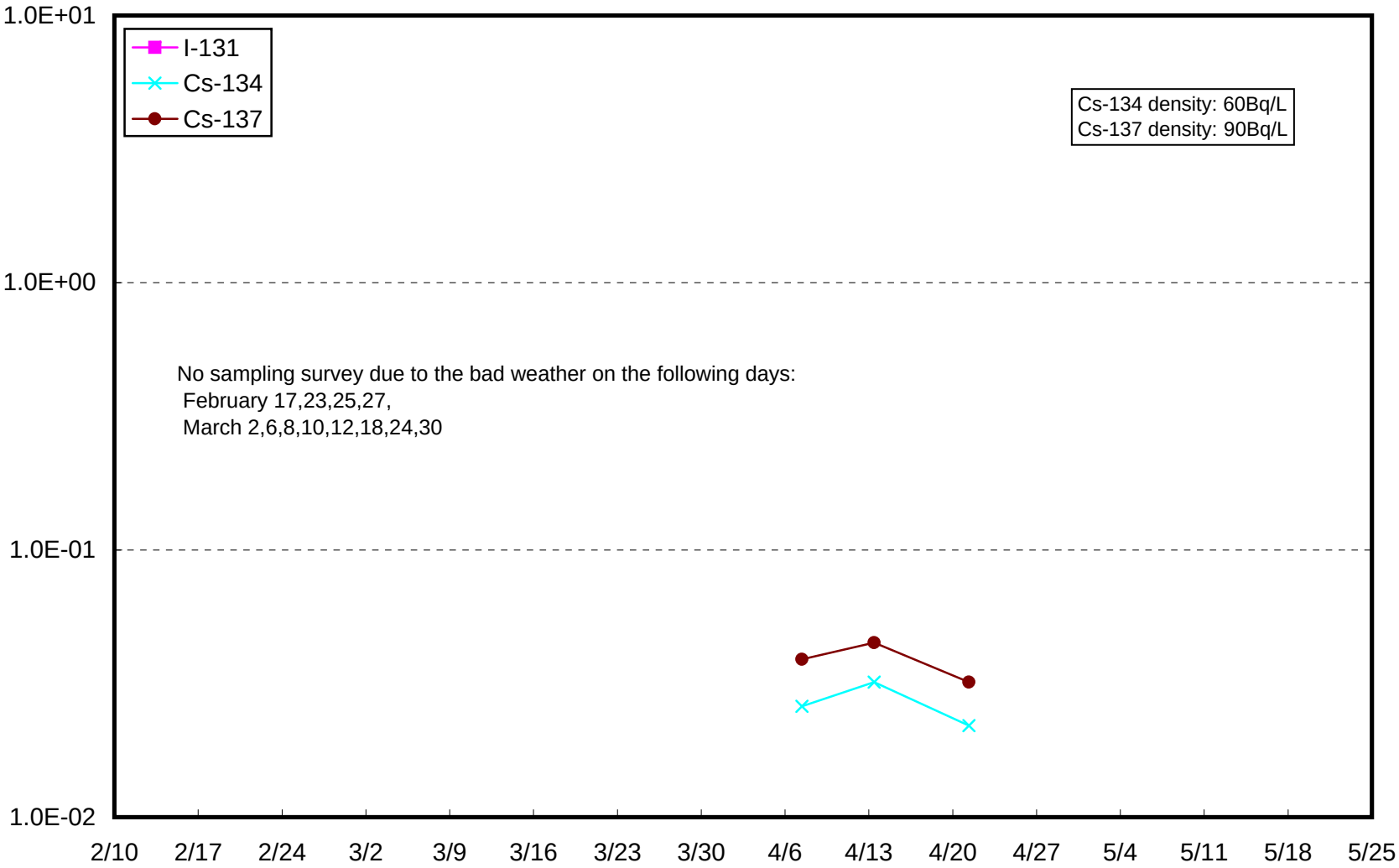
Radioactivity Density of the Seawater at 3km Offshore of Fukushima Daini NPS (T-D9) Lower Layer (Bq/L)



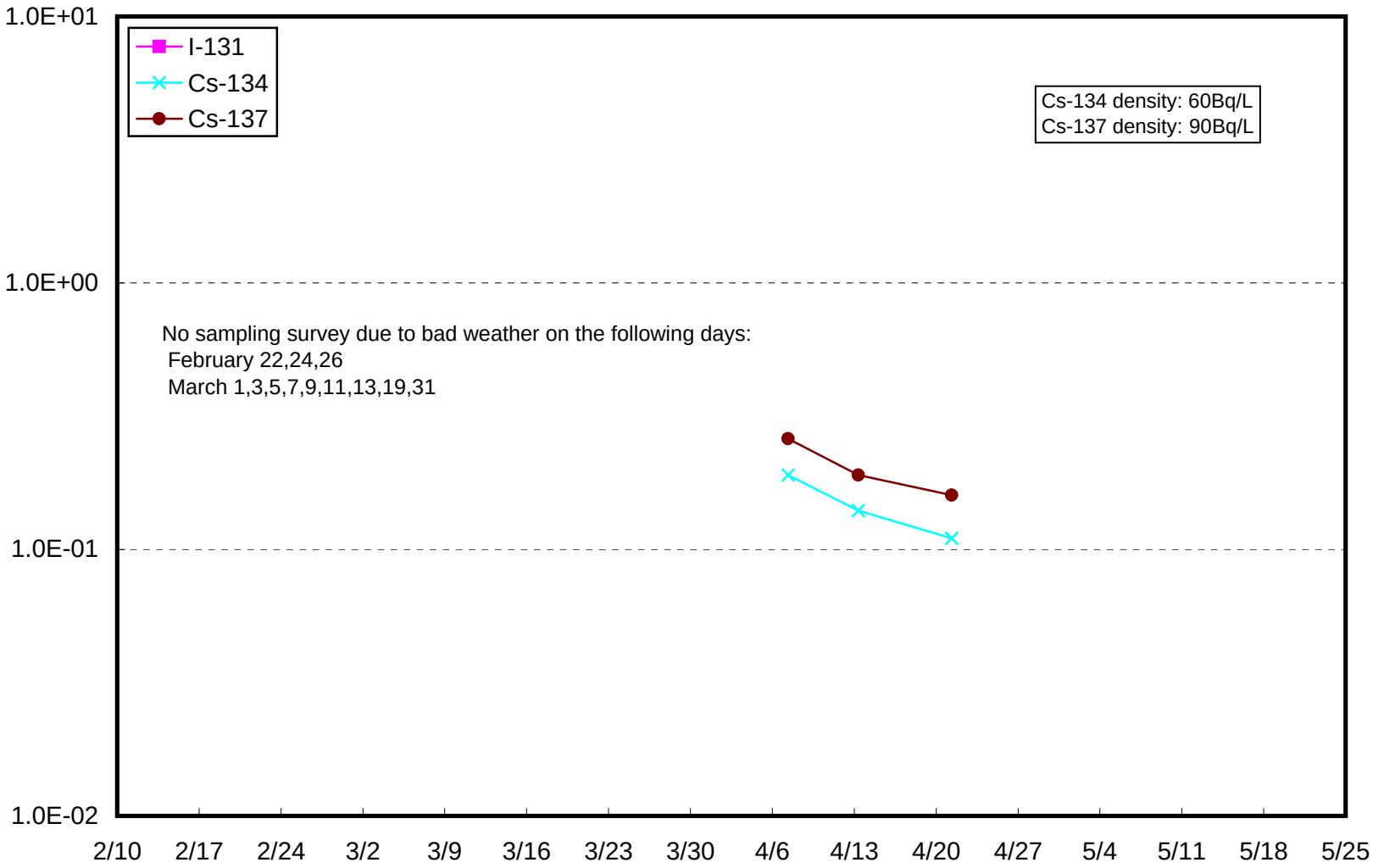
Radioactivity Density of the Seawater at 15km Offshore of Fukushima Daiichi NPS (T-5) Upper Layer (Bq/L)



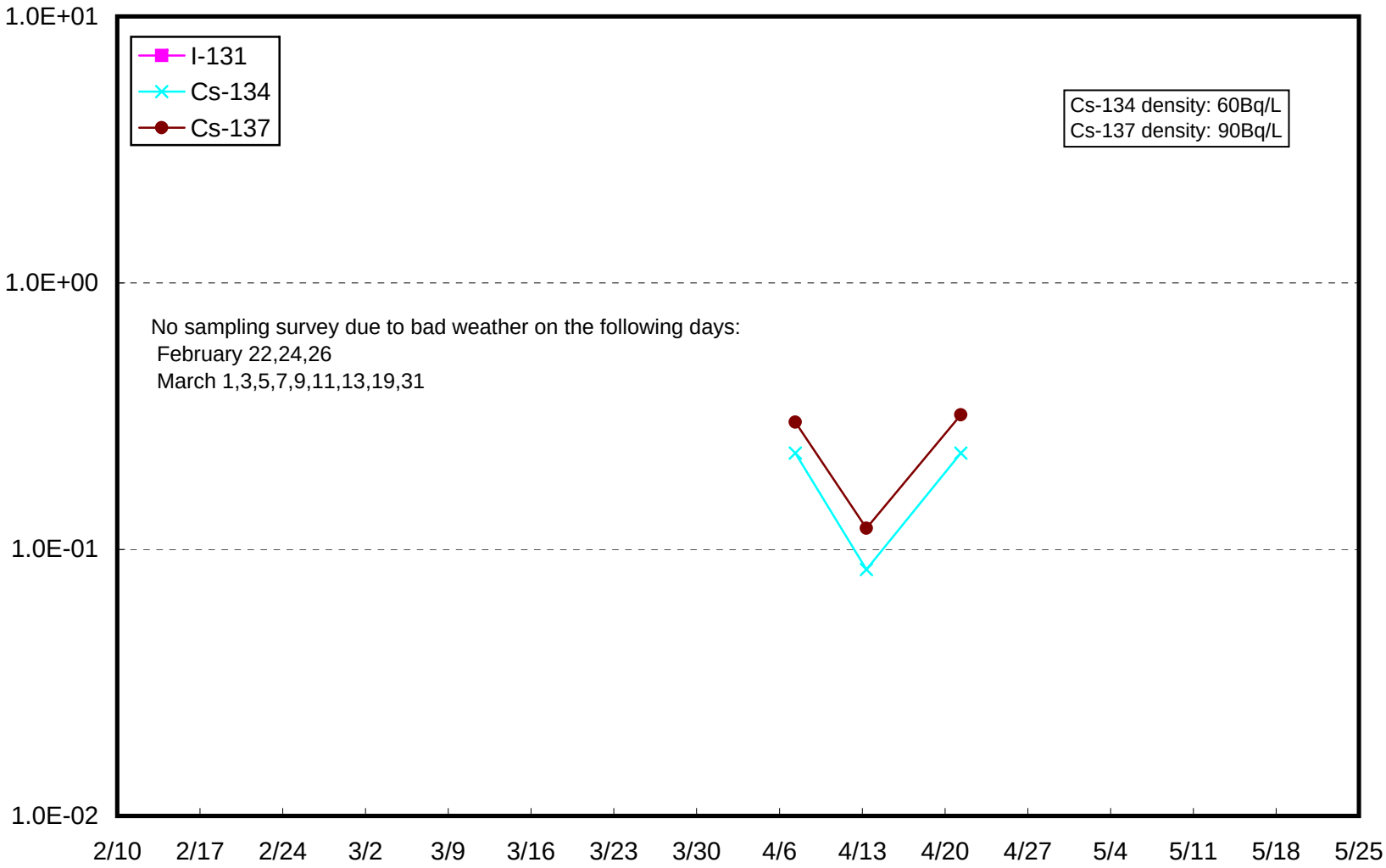
Radioactivity Density of the Seawater at 15km Offshore of Fukushima Daiichi NPS (T-5) Lower Layer (Bq/L)



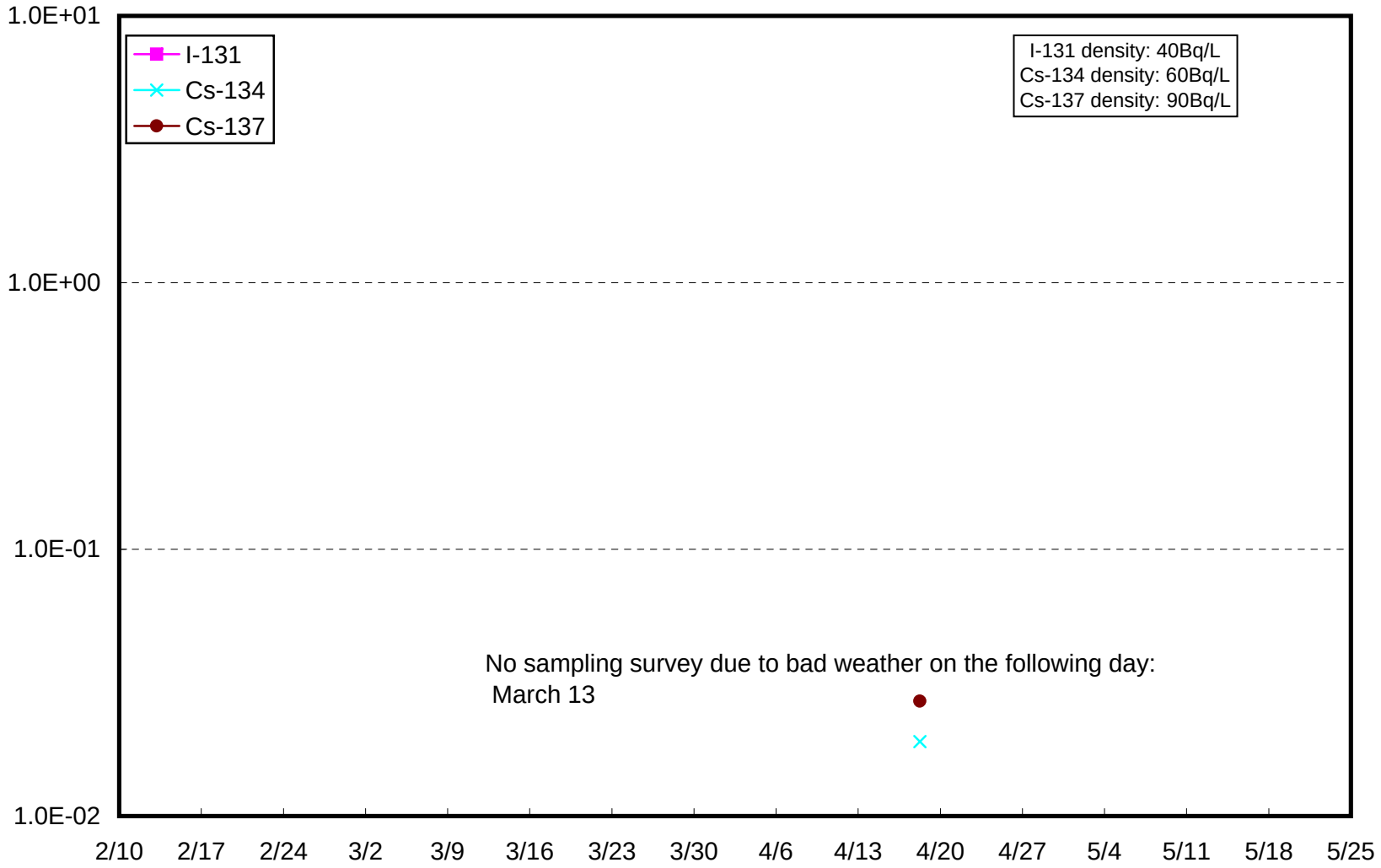
Radioactivity Density of the Seawater at 3km Offshore of Iwasawa Shore (T-11) Upper Layer (Bq/L)



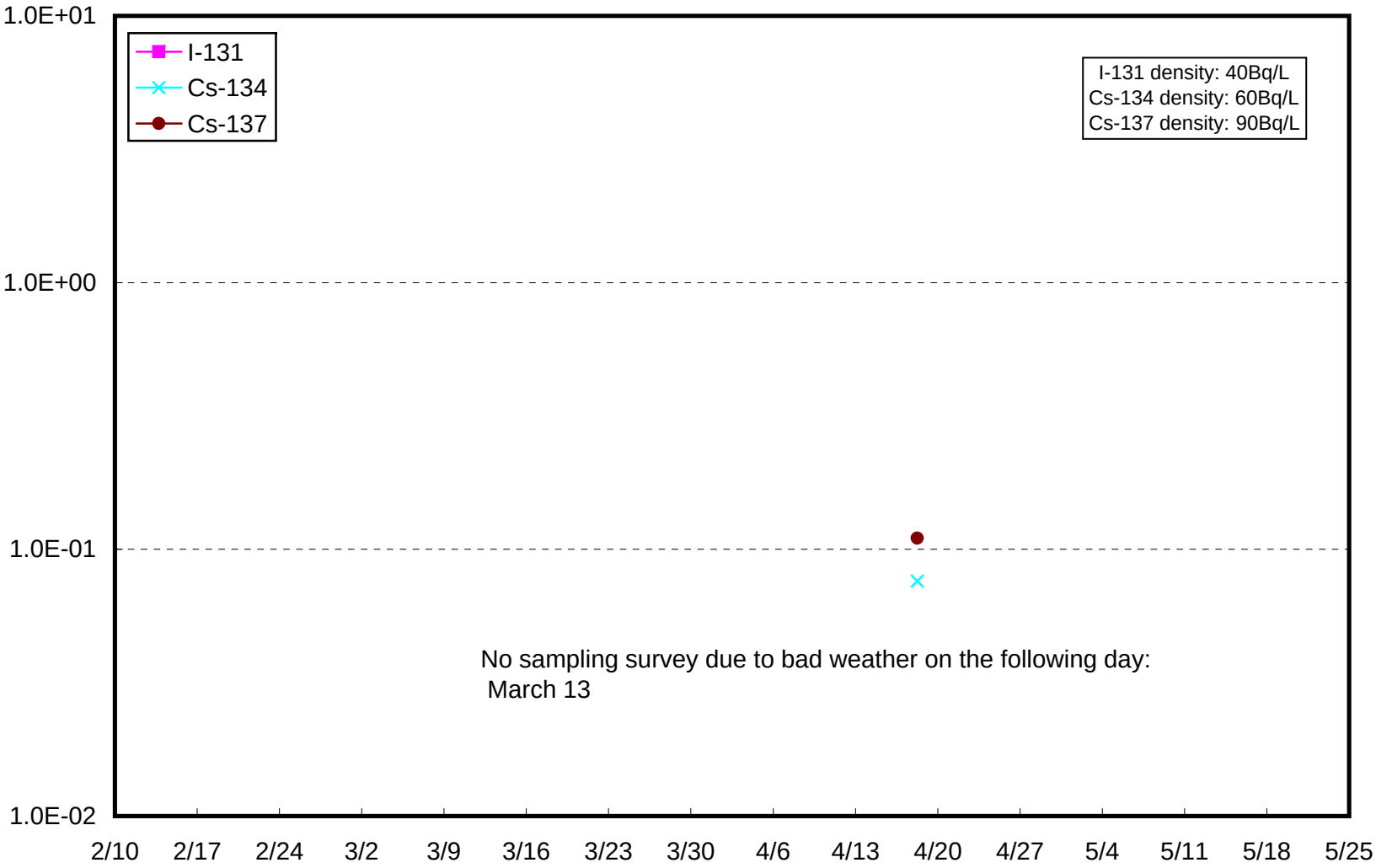
Radioactivity Density of the Seawater at 3km Offshore of Iwasawa Shore (T-11) Upper Layer (Bq/L)



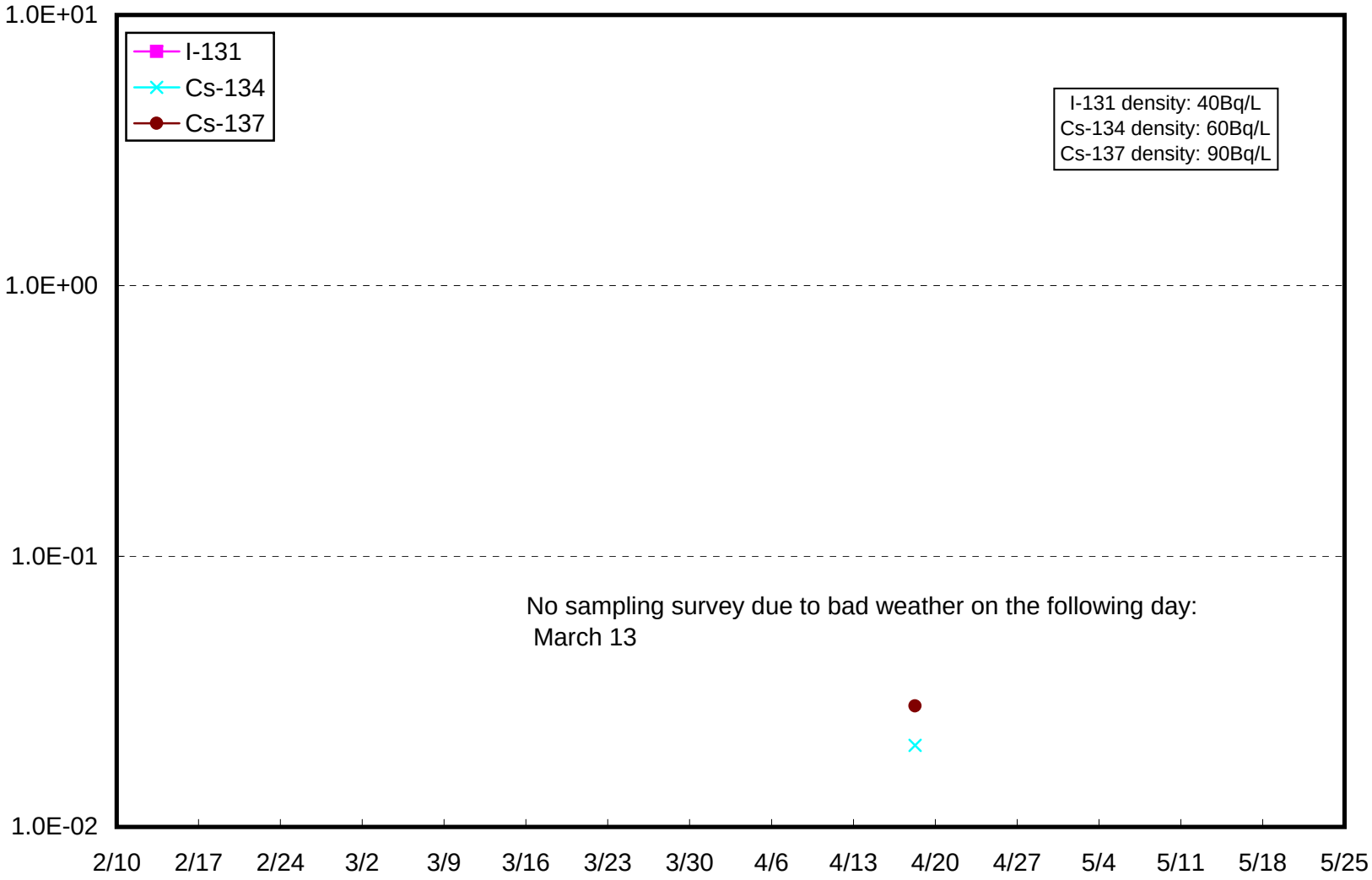
Radioactivity Density of the Seawater at 3km Offshore of Soma (T-22) Upper Layer (Bq/L)



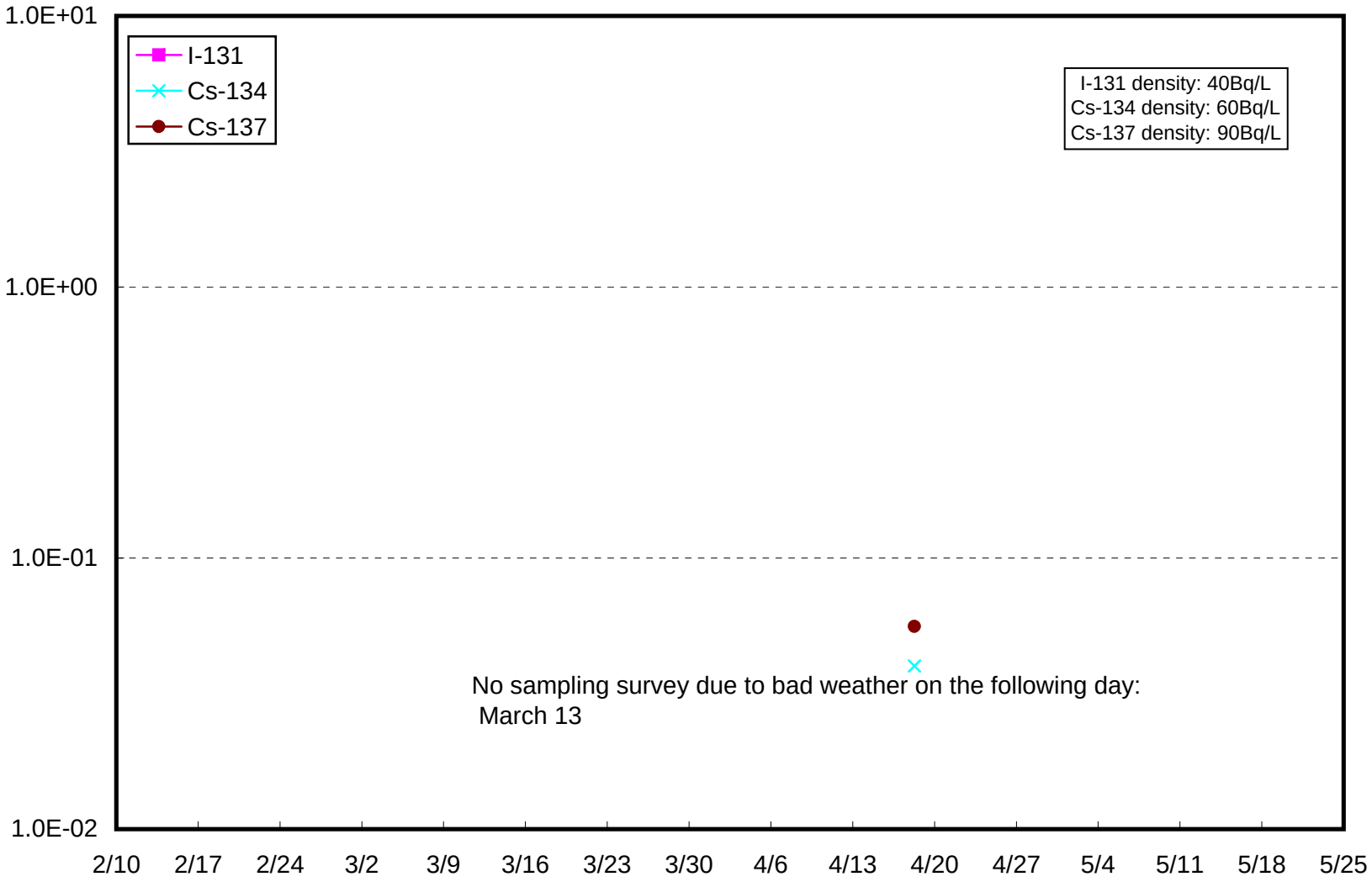
Radioactivity Density of the Seawater at 3km Offshore of Soma (T-22) Upper Layer (Bq/L)



Radioactivity Density of the Seawater at 5km Offshore of Kashima (T-MA) Upper Layer (Bq/L)



Radioactivity Density of the Seawater at 5km Offshore of Kashima (T-MA) Lower Layer (Bq/L)



Radioactivity Density of the Seawater at 1km Offshore of 1F (T-E1) Upper Layer