Nuclide Analysis Results of Radioactive Materials in Seawater <Coast>

Reference

(Data summarized on February 22)

Place of Sampling	North of Discharge Channel of 5-6u of 1F (approx. 30m north of 5-6u discharge channel)		Around South Discharge Channel of 1F (appox. 330m south of 1-4u Discharge Channel)		Around North Discharge Channel of 2F (Around 3,4u Discharge Channel) (approx. 10 km from 1F)		Around Iwasawa Shore of 2F (appox. 7 km south of 1,2u Discharge Channel) (appox. 16 km from 1F)		② Density limit by the announcement of Reactor Regulation (Bq/L) (the density limit in the water outside of surrounding monitored areas in the section 6 of the appendix 2)
Time of Sampling	Feb 21, 2012 08:40 am		Feb 21, 2012 08:20 am		Feb 21, 2012 08:30 am		Feb 21, 2012 08:05 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)	
I-131 (about 8 days)	ND	-	ND	-	ND	-	ND	-	40
Cs-134 (about 2 years)	1.1	0.02	2.7	0.05	ND	-	ND	-	60
Cs-137 (about 30 years)	2.4	0.03	2.5	0.03	ND	-	ND	-	90

* Density by the announcement of Reactor Regulation is stated with an amount converted from Bq/cm3 to Bq/L.

* Data of other nuclides are under evaluation.

* In the case that two or more kinds of nuclides exist, sum of each scaling factor to the density limit is compared with 1.

* "ND" means the sampled data is below measurable limit.
I-131: approx. 0.71Bq/L, Cs-134: approx. 0.88Bq/L, Cs-137: approx. 1.0Bq/L
Please note that these nuclides are sometimes detected even when they are below the limits, contingent on the detector or samples.

Nuclide Analysis Results of Radioactive Materials in Seawater <Offshore 1/2>

Reference

(Data summarized on February 22)

Place of Sampling	3 km offshore of Haramachi Ward Upper Layer		3 km offshore of Haramachi Ward Lower Layer		3 km offshore of Odaka Ward Upper Layer		3 km offshore of Odaka Ward Lower Layer		3 km offshore of Iwasawa shore Upper Layer		3 km offshore of Iwasawa shore Lower Layer		② Density limit by the announcement of Reactor Regulation (Bq/L) (the density limit in the water outside of surrounding monitored areas in the section 6 of the appendix 2)
Time of Sampling	Feb 20, 2012 10:05 am		Feb 20, 2012 10:05 am		Feb 20, 2012 09:45 am		Feb 20, 2012 09:45 am		Feb 20, 2012 07:45 am		Feb 20, 2012 07:45 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)	
I-131 (about 8 days)	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	40
Cs-134 (about 2 years)	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	60
Cs-137 (about 30 years)	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	90

Place of Sampling	8 km offshore of Odaka Ward Upper Layer		8 km offshore of Odaka Ward Lower Layer		8 km offshore of Iwasawa shore Upper Layer		8 km offshore of Iwasawa shore Lower Layer						② Density limit by the announcement of Reactor Regulation (Bq/L) (the density limit in the water outside of surrounding monitored areas in the section 6 of the appendix 2)
Time of Sampling	Feb 20, 2012 09:25 am		Feb 20, 2012 09:25 am		Feb 20, 2012 08:10 am		Feb 20, 2012 08:10 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)	
I-131 (about 8 days)	ND	-	ND	-	ND	-	ND	-					40
Cs-134 (about 2 years)	ND	-	ND	-	ND	-	ND	-					60
Cs-137 (about 30 years)	ND	-	ND	-	ND	-	ND	-					90

* Density by the announcement of Reactor Regulation is stated with an amount converted from Bq/cm3 to Bq/L.

* Data of other nuclides are under evaluation.

* In the case that two or more kinds of nuclides exist, sum of each scaling factor to the density limit is compared with 1.

* "ND" means the sampled data is below measurable limit.
I-131: approx. 0.64Bq/L, Cs-134: approx. 0.95Bq/L, Cs-137: approx. 1.1Bq/L
Please note that these nuclides are sometimes detected even when they are below the limits, contingent on the detector or samples.

Nuclide Analysis Results of Radioactive Materials in Seawater <Offshore 2/2>

Reference

(Data summarized on February 22)

Place of Sampling	3 km offshore of North of Iwaki Upper Layer		3 km offshore of North of Iwaki Lower Layer		3 km offshore of Natsui river Upper Layer		3 km offshore of Natsui river Lower Layer		3 km offshore of Onahama port Upper Layer		3 km offshore of Onahama port Lower Layer		② Density limit by the announcement of Reactor Regulation (Bq/L) (the density limit in the water outside of surrounding monitored areas in the section 6 of the appendix 2)
Time of Sampling	Feb 20, 2012 06:35 am		Feb 20, 2012 06:35 am		Feb 20, 2012 07:00 am		Feb 20, 2012 07:00 am		N/A		N/A		
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)	
I-131 (about 8 days)	ND	-	ND	-	ND	-	ND	-	-	-	-	-	40
Cs-134 (about 2 years)	ND	-	ND	-	ND	-	ND	-	-	-	-	-	60
Cs-137 (about 30 years)	ND	-	ND	-	ND	-	ND	-	-	-	-	-	90

Place of Sampling	3 km offshore of Ena Upper Layer		3 km offshore of Ena Lower Layer		3 km offshore of Numanouchi Upper Layer		3 km offshore of Numanouchi Lower Layer		3 km offshore of Toyoma Upper Layer		3 km offshore of Toyoma Lower Layer		② Density limit by the announcement of Reactor Regulation (Bq/L) (the density limit in the water outside of surrounding monitored areas in the section 6 of the appendix 2)
Time of Sampling	N/A		N/A		Feb 20, 2012 07:10 am		Feb 20, 2012 07:10 am		Feb 20, 2012 07:20 am		Feb 20, 2012 07:20 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)	
I-131 (about 8 days)	-	-	-	-	ND	-	ND	-	ND	-	ND	-	40
Cs-134 (about 2 years)	-	-	-	-	ND	-	ND	-	ND	-	ND	-	60
Cs-137 (about 30 years)	-	-	-	-	ND	-	ND	-	ND	-	ND	-	90

* Density by the announcement of Reactor Regulation is stated with an amount converted from Bq/cm3 to Bq/L.

* Data of other nuclides are under evaluation.

* In the case that two or more kinds of nuclides exist, sum of each scaling factor to the density limit is compared with 1.

* "ND" means the sampled data is below measurable limit.

I-131: approx. 1.1Bq/L, Cs-134: approx. 0.92Bq/L, Cs-137: approx. 1.1Bq/L

Please note that these nuclides are sometimes detected even when they are below the limits, contingent on the detector or samples.

Nuclide Analysis Results of Radioactive Materials in Seawater＜offshore Unmanned Survey Ship＞

Reference

(Data summarized on February 22)

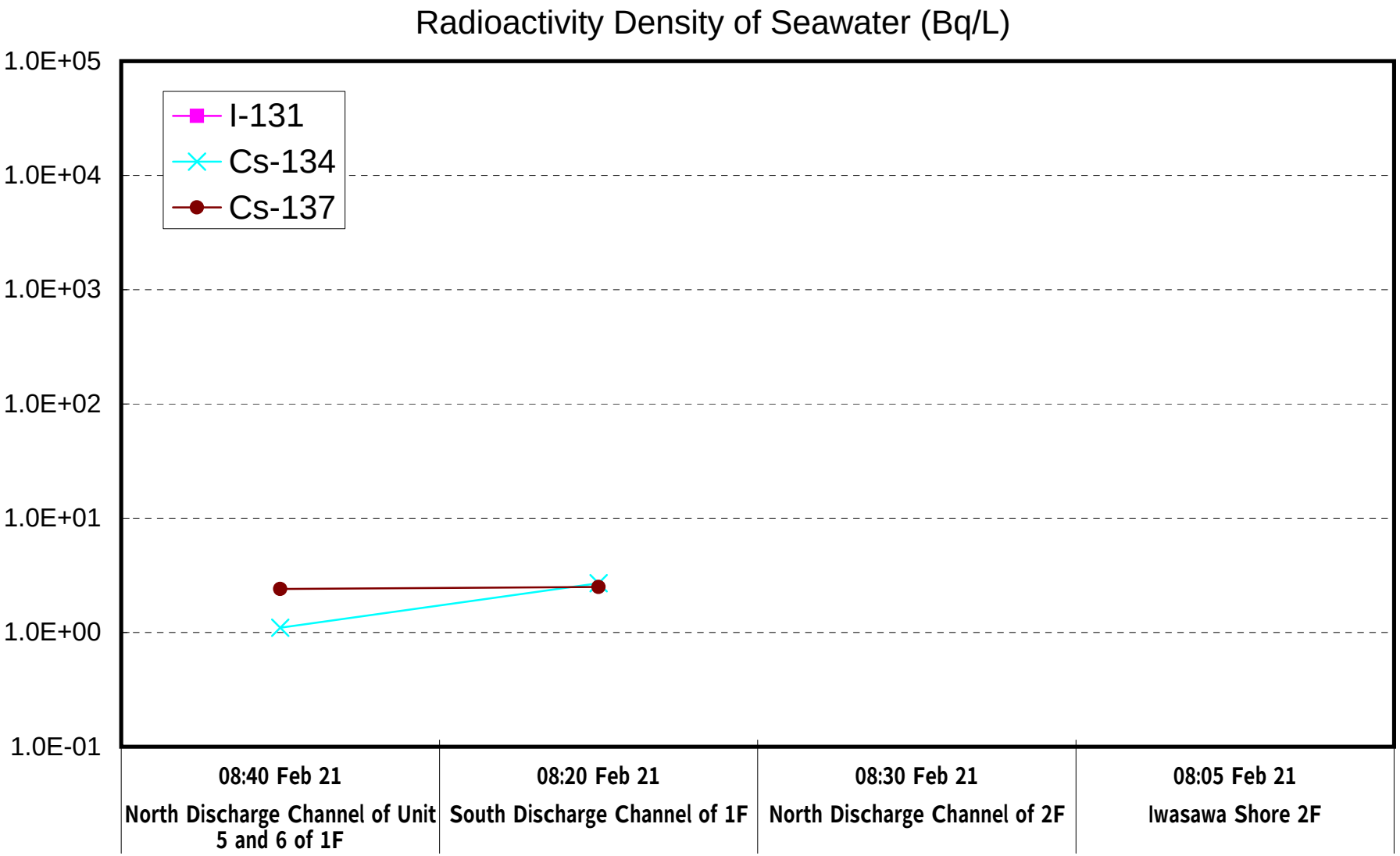
Place of Sampling	50 m from the center of the north side seawall, Fukushima Daiichi		50 m from the center of the south side seawall, Fukushima Daiichi										② Density limit by the announcement of Reactor Regulation (Bq/L) (the density limit in the water outside of surrounding monitored areas in the section 6 of the appendix 2)
Time of Sampling	Feb 20, 2012 12:43 pm		Feb 20, 2012 01:02 pm										
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)	
I-131 (about 8 days)	ND	-	ND	-									40
Cs-134 (about 2 years)	1.1	0.02	0.85	0.01									60
Cs-137 (about 30 years)	2.0	0.02	1.2	0.01									90

* Density by the announcement of Reactor Regulation is stated with an amount converted from Bq/cm3 to Bq/L.

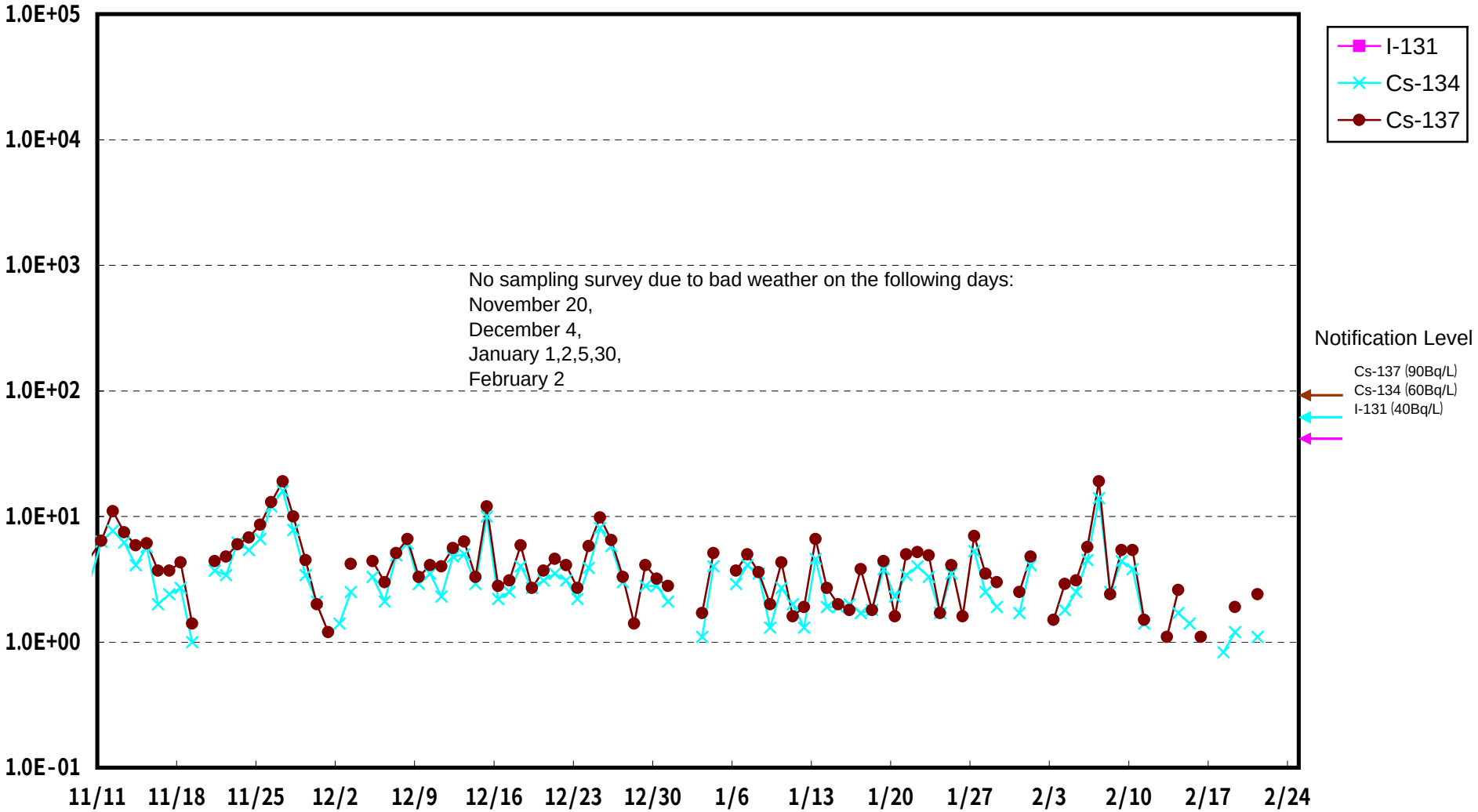
* Data of other nuclides are under evaluation.

* In the case that two or more kinds of nuclides exist, sum of each scaling factor to the density limit is compared with 1.

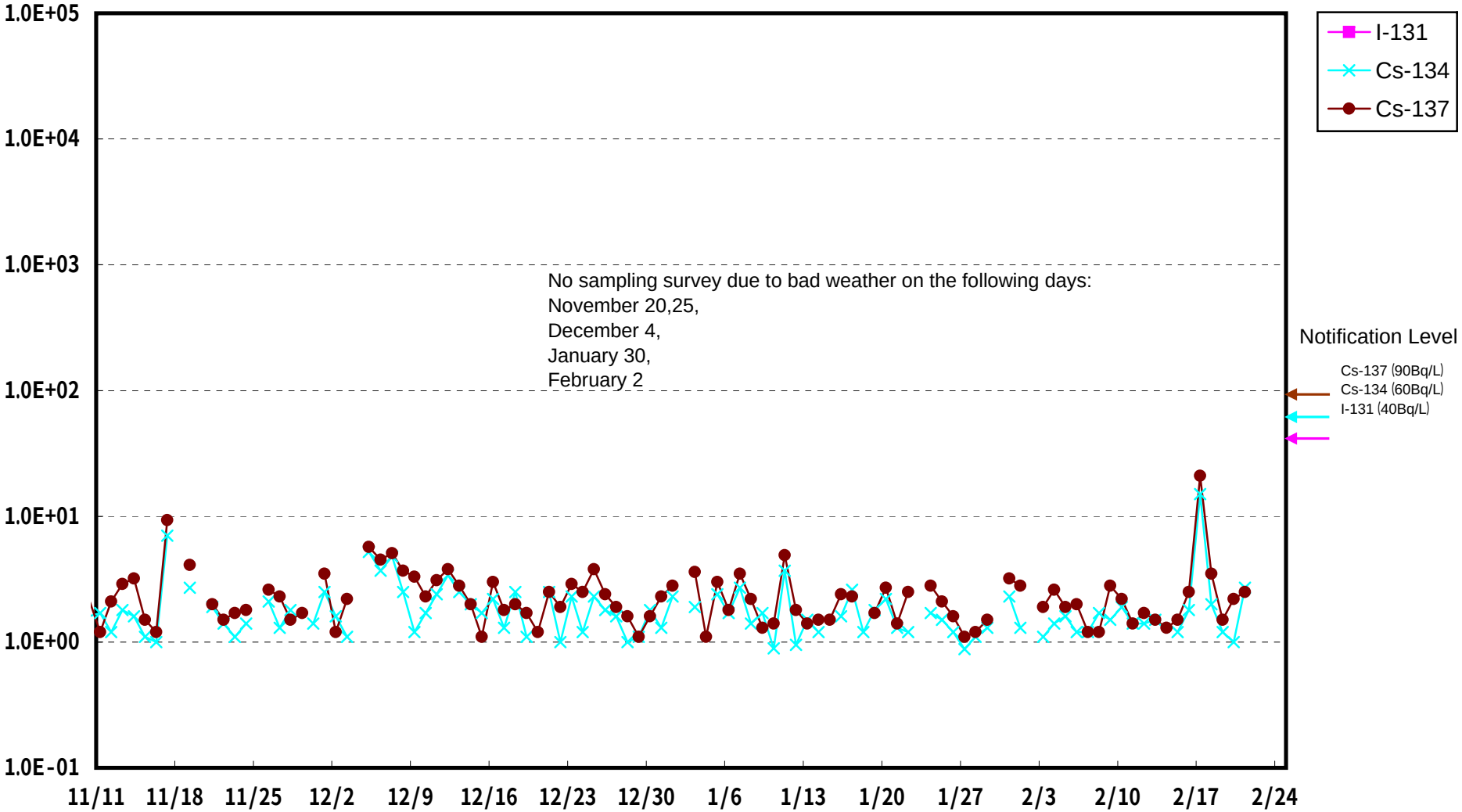
* "ND" means the sampled data is below measurable limit. I-131: approx. 0.64Bq/L Please note that these nuclides are sometimes detected even when they are below the limits, contingent on the detector or samples.


Radioactivity Density of Seawater (Bq/L)
1.0E+05
1.0E+04
1.0E+03
1.0E+02
1.0E+01
1.0E+00
1.0E-01
I-131
Cs-134
Cs-137
08:40 Feb 21
North Discharge Channel of Unit 5 and 6 of 1F
08:20 Feb 21
South Discharge Channel of 1F
08:30 Feb 21
North Discharge Channel of 2F
08:05 Feb 21
Iwasawa Shore 2F

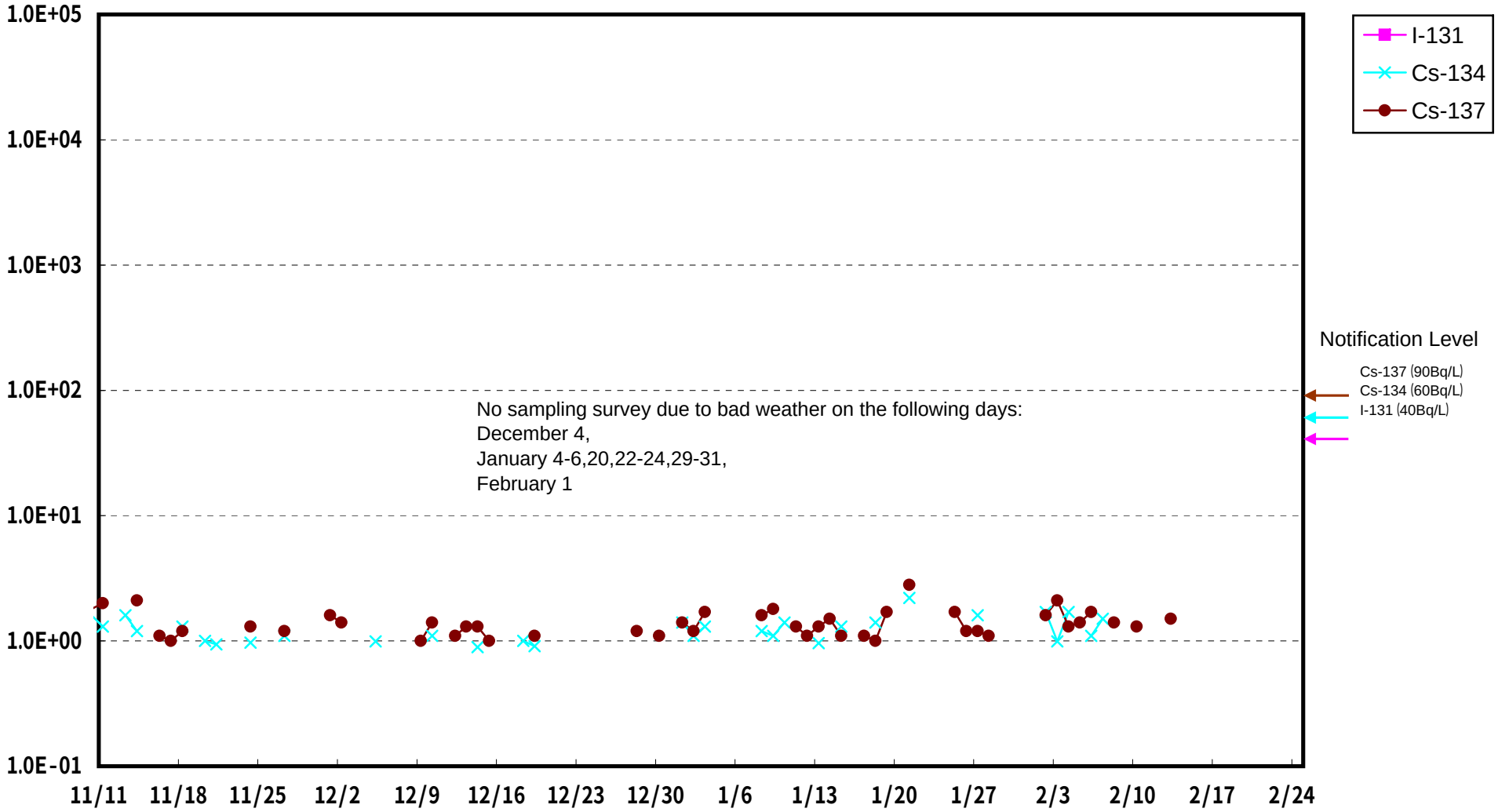
Radioactivity Density of Seawater at North of 1F5-6 Discharge Channel (Bq/L)



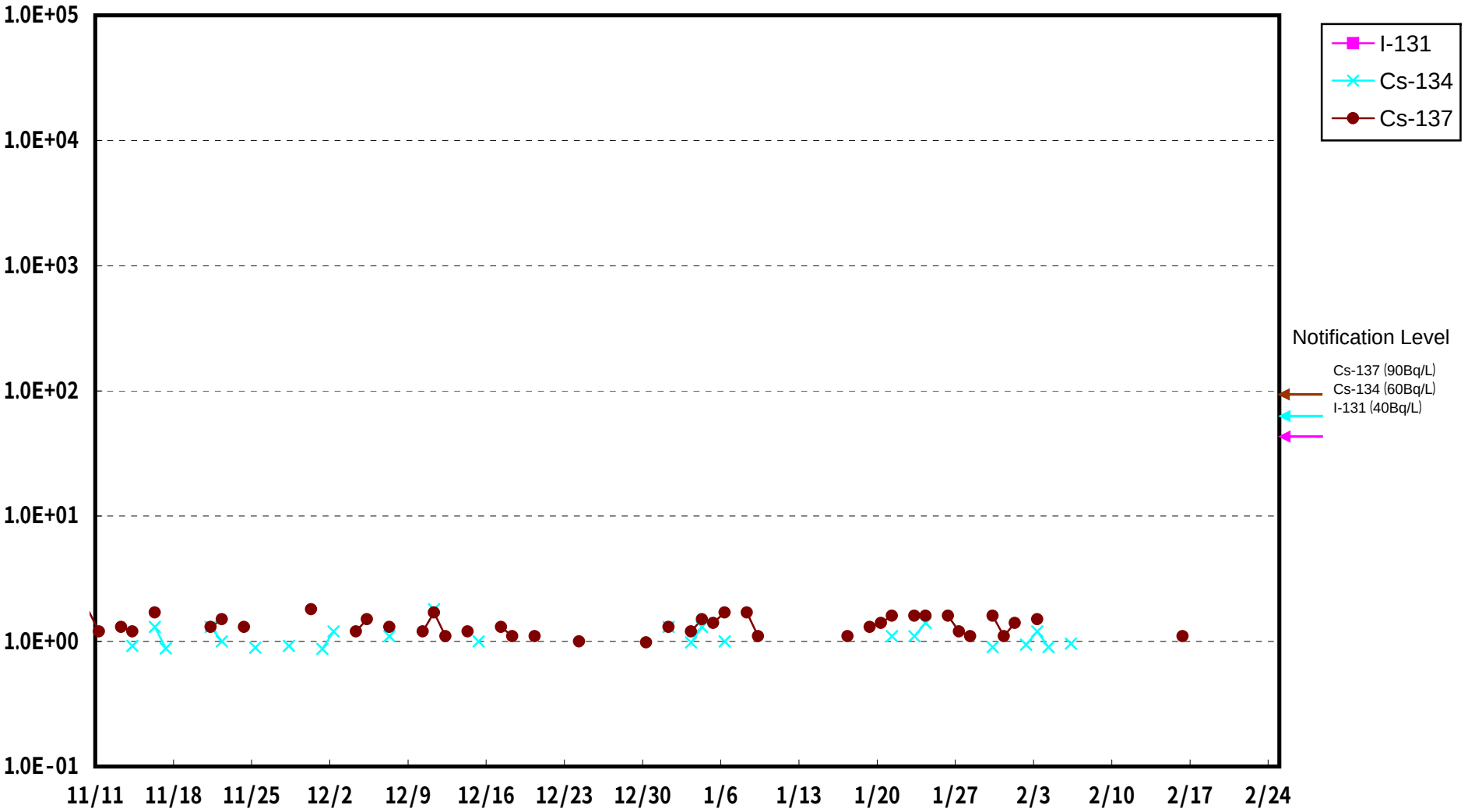
Radioactivity Density of Seawater at South Discharge Channel of 1F (Bq/L)

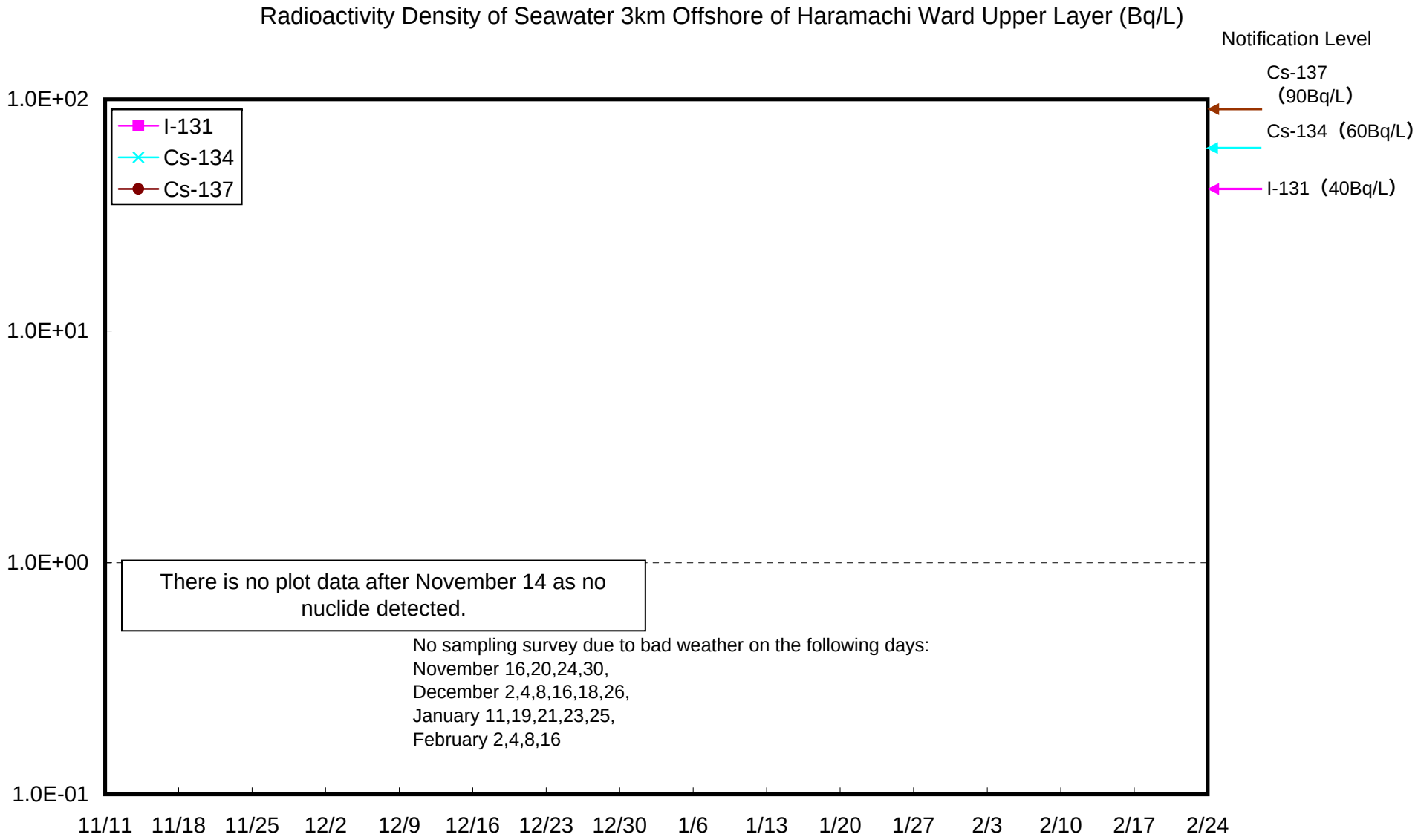


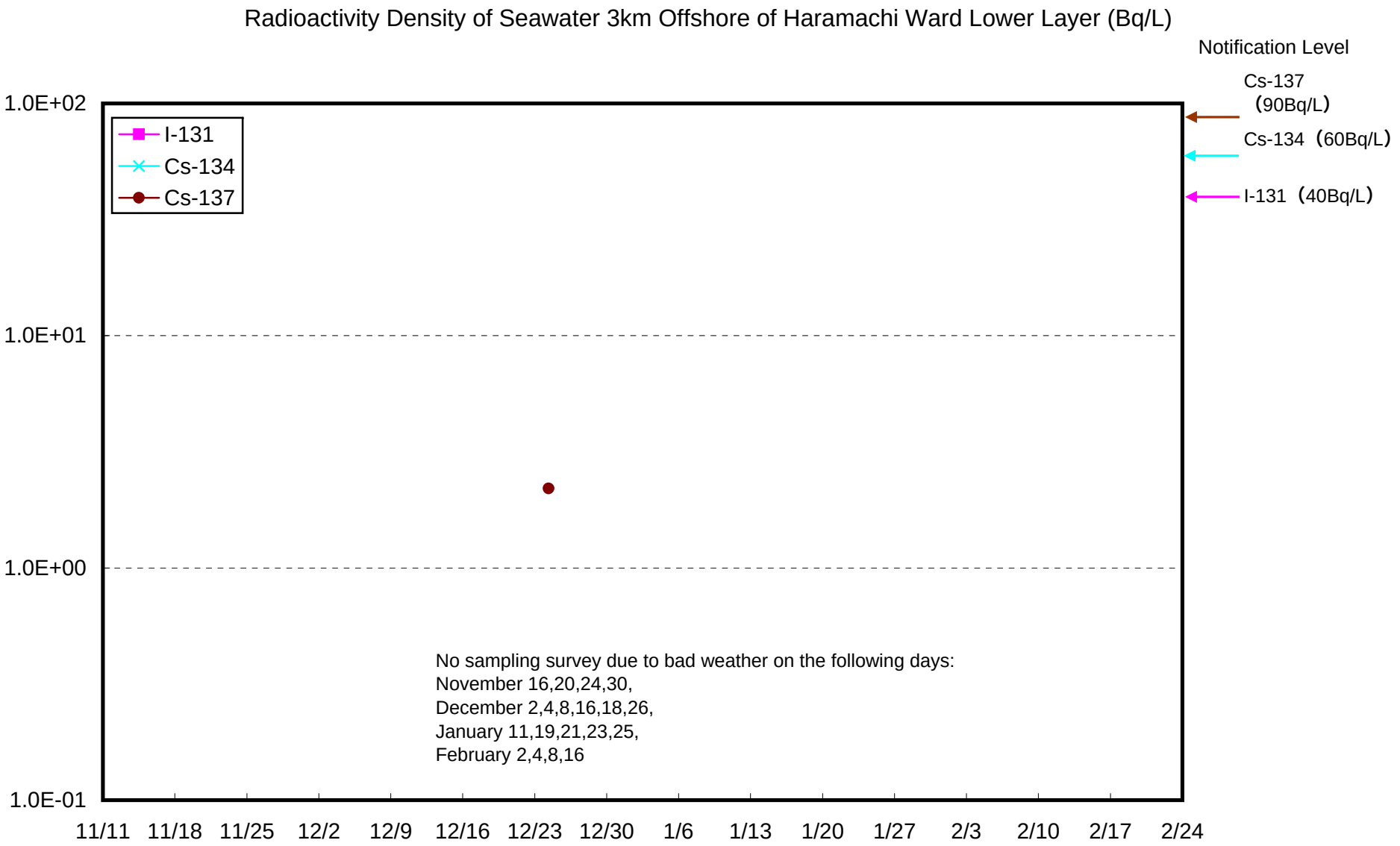
Radioactivity Density of Seawater at North Discharge Channel of 2F (Bq/L)



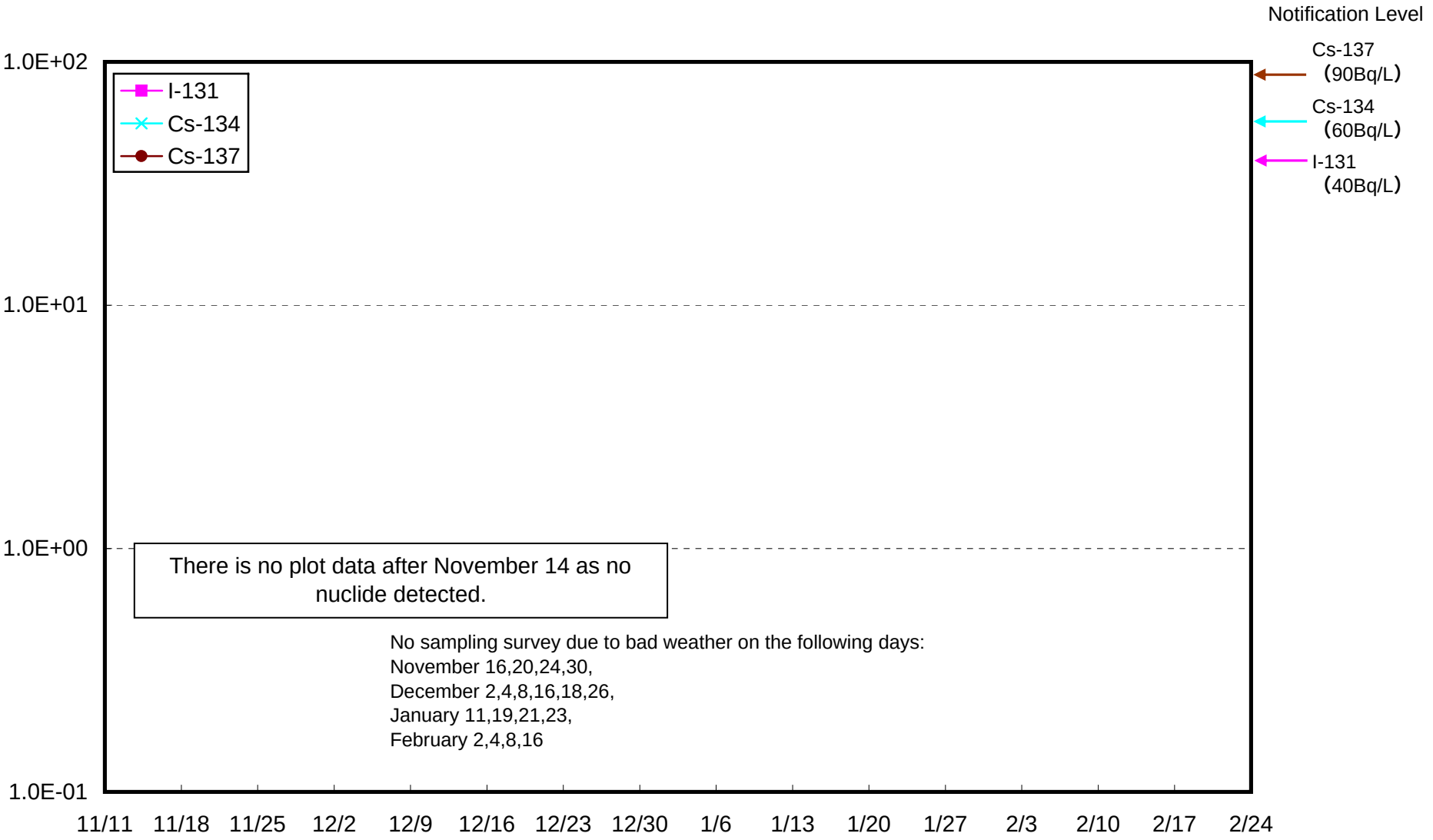
Radioactivity Density of Seawater at Iwasawa Shore 2F (Bq/L)

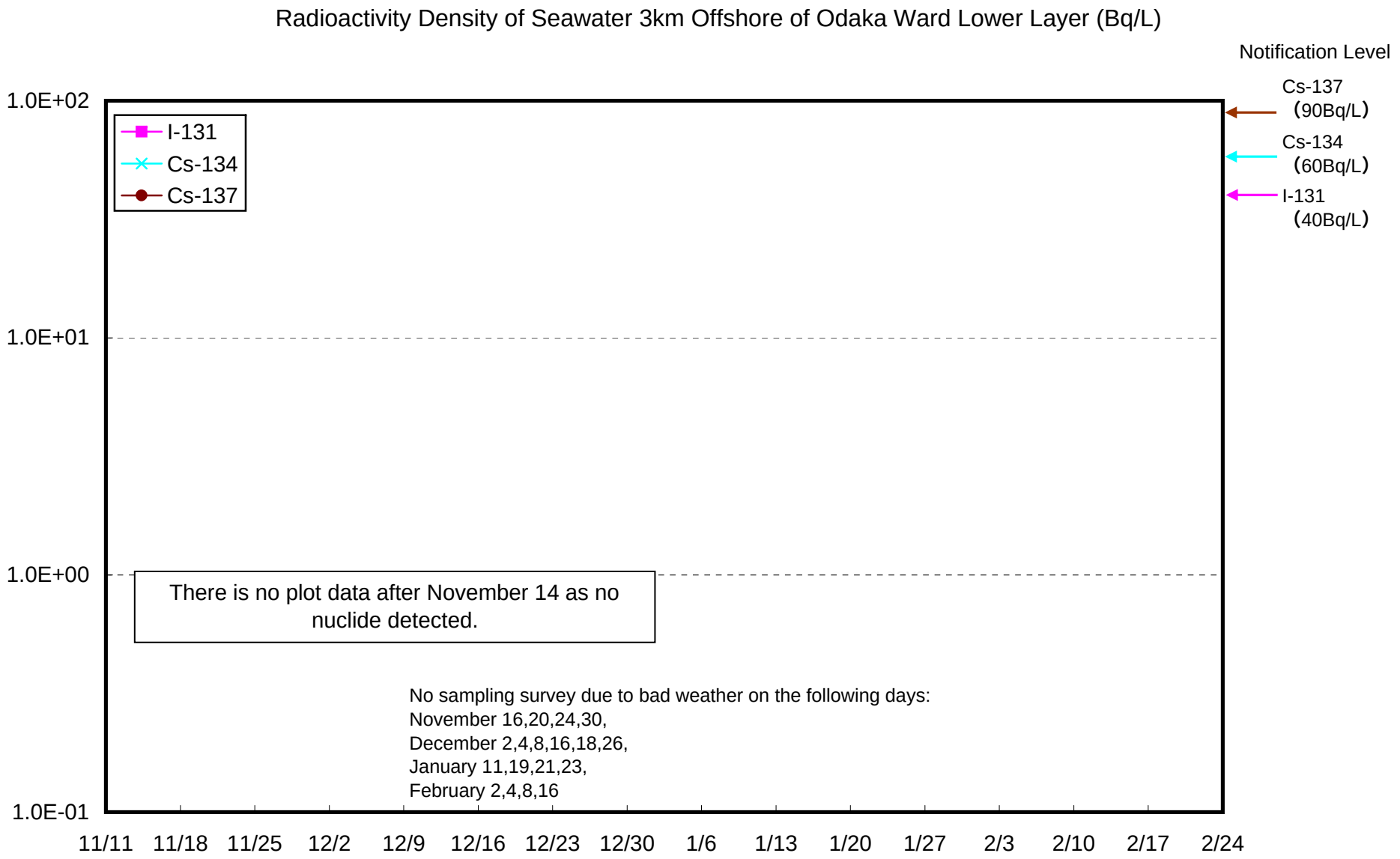


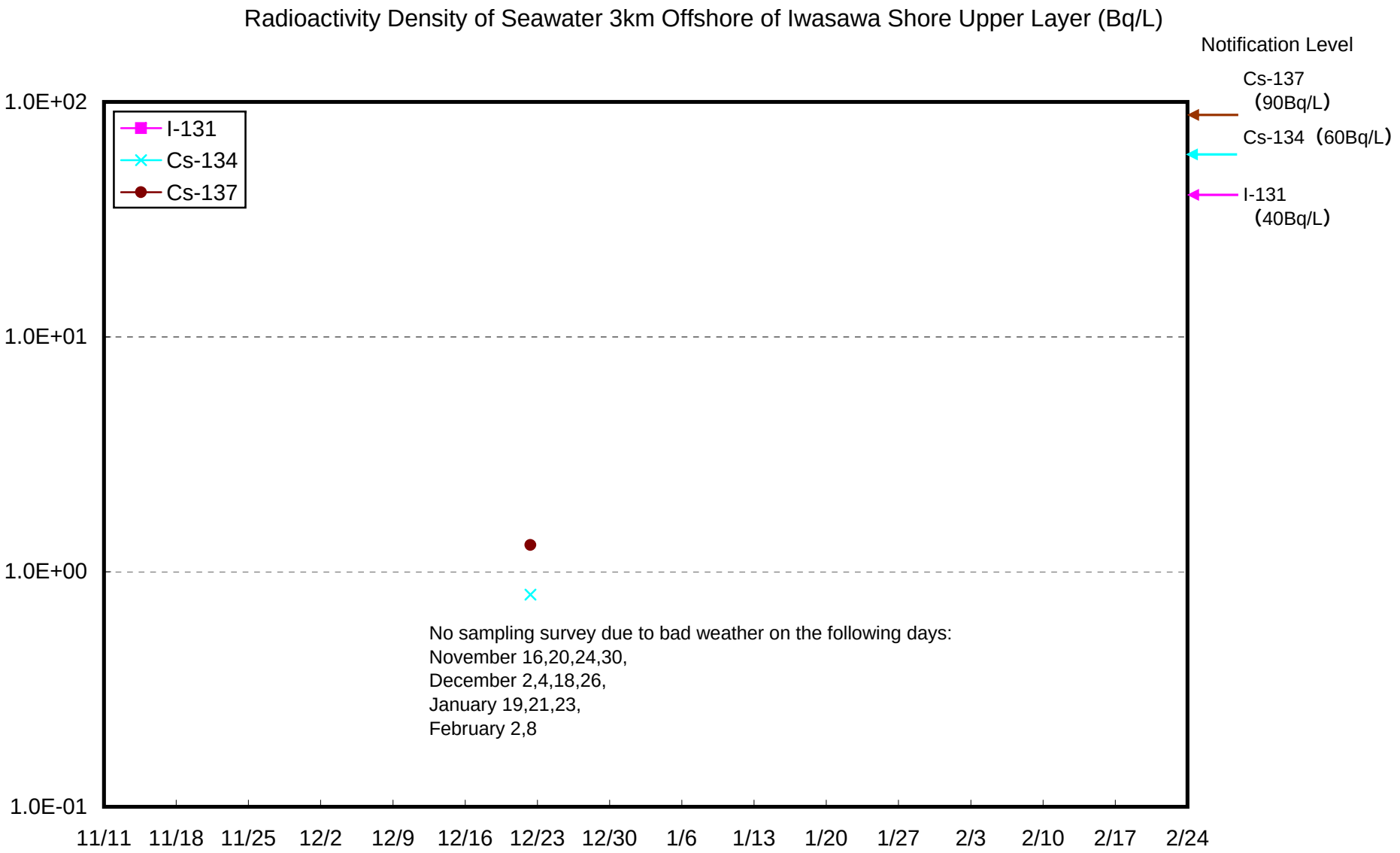

Radioactivity Density of Seawater 3km Offshore of Haramachi Ward Upper Layer (Bq/L)
Notification Level
Cs-137
（90Bq/L）
Cs-134（60Bq/L）
I-131（40Bq/L）
1.0E+02
1.0E+01
1.0E+00
1.0E-01
I-131
Cs-134
Cs-137
There is no plot data after November 14 as no nuclide detected.
No sampling survey due to bad weather on the following days:
November 16,20,24,30,
December 2,4,8,16,18,26,
January 11,19,21,23,25,
February 2,4,8,16
11/11
11/18
11/25
12/2
12/9
12/16
12/23
12/30
1/6
1/13
1/20
1/27
2/3
2/10
2/17
2/24

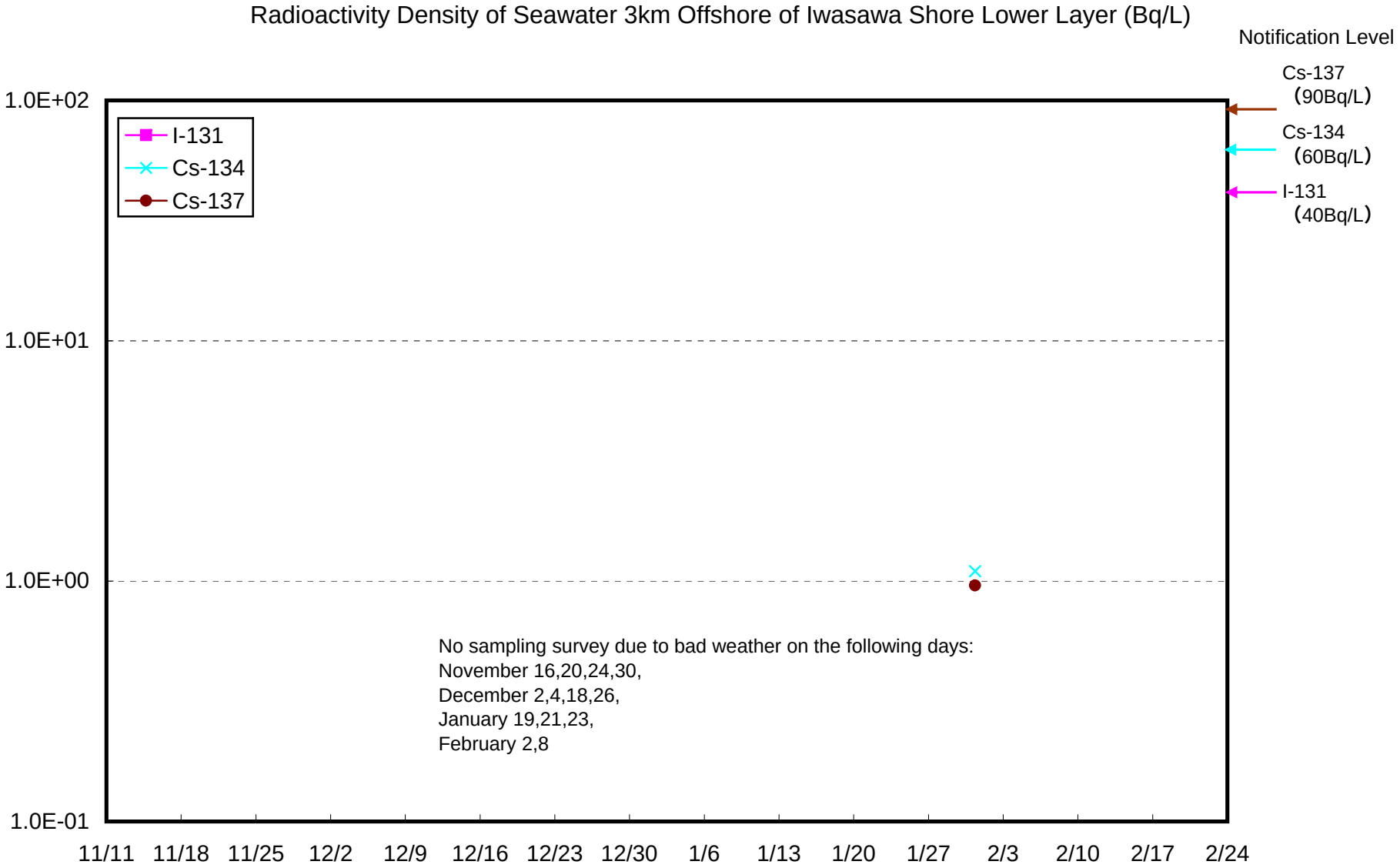

Radioactivity Density of Seawater 3km Offshore of Haramachi Ward Lower Layer (Bq/L)
Notification Level
Cs-137
（90Bq/L）
Cs-134（60Bq/L）
I-131（40Bq/L）
I-131
Cs-134
Cs-137
1.0E+02
1.0E+01
1.0E+00
1.0E-01
No sampling survey due to bad weather on the following days:
November 16,20,24,30,
December 2,4,8,16,18,26,
January 11,19,21,23,25,
February 2,4,8,16
11/11
11/18
11/25
12/2
12/9
12/16
12/23
12/30
1/6
1/13
1/20
1/27
2/3
2/10
2/17
2/24

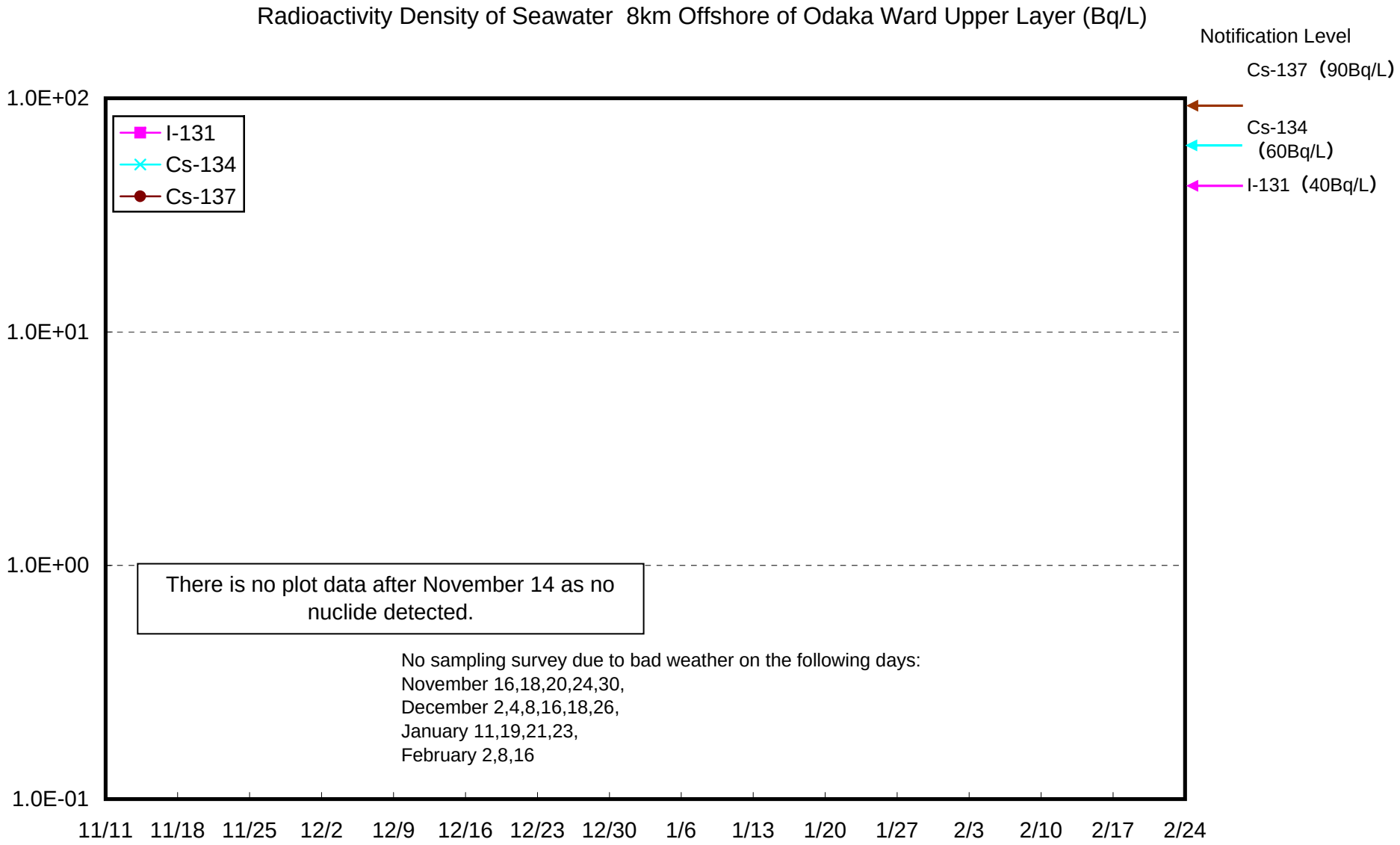
Radioactivity Density of Seawater 3km Offshore of Odaka Ward Upper Layer (Bq/L)

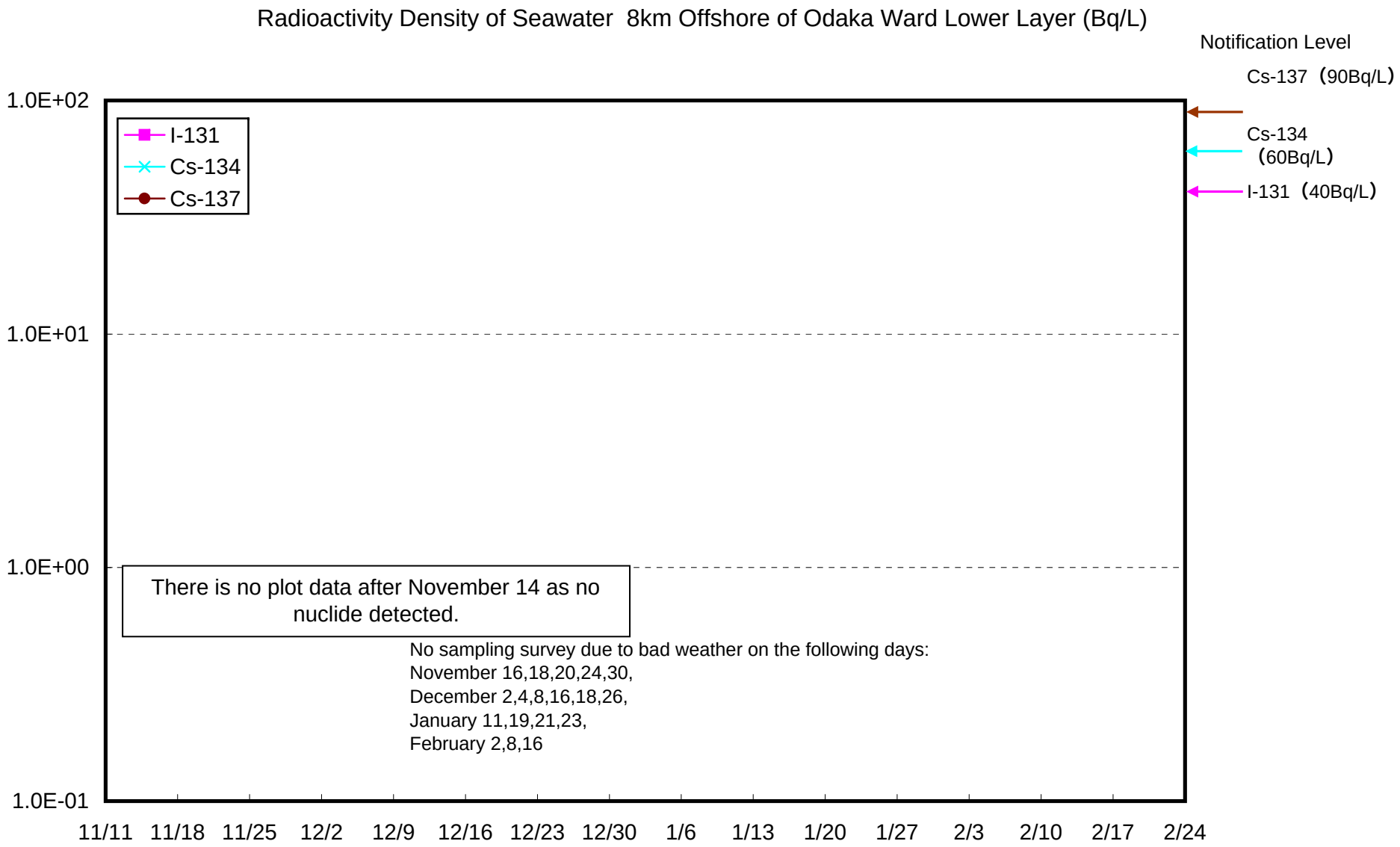


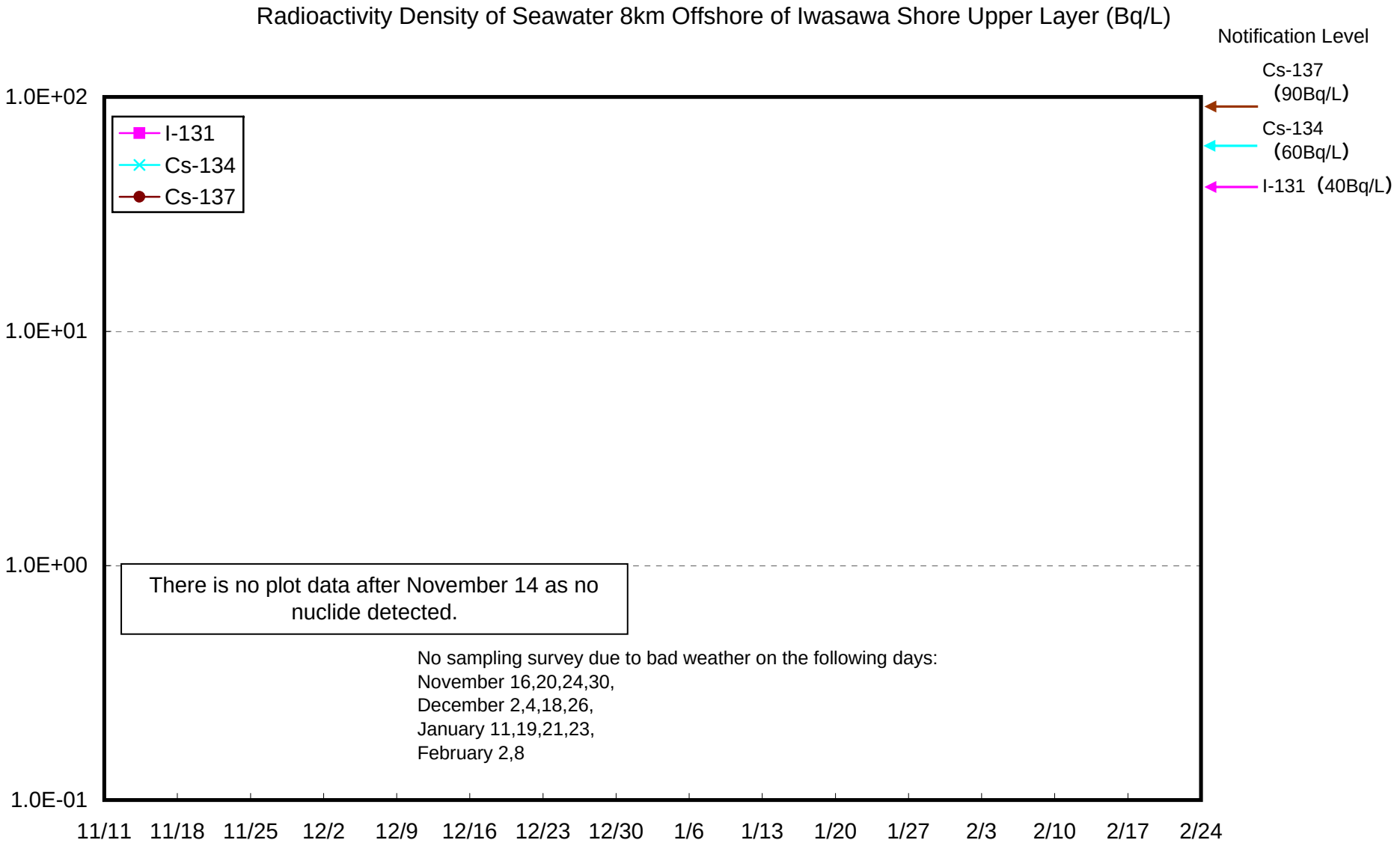

Radioactivity Density of Seawater 3km Offshore of Odaka Ward Lower Layer (Bq/L)
Notification Level
Cs-137
(90Bq/L)
Cs-134
(60Bq/L)
I-131
(40Bq/L)
1.0E+02
1.0E+01
1.0E+00
1.0E-01
I-131
Cs-134
Cs-137
There is no plot data after November 14 as no nuclide detected.
No sampling survey due to bad weather on the following days:
November 16,20,24,30,
December 2,4,8,16,18,26,
January 11,19,21,23,
February 2,4,8,16
11/11
11/18
11/25
12/2
12/9
12/16
12/23
12/30
1/6
1/13
1/20
1/27
2/3
2/10
2/17
2/24

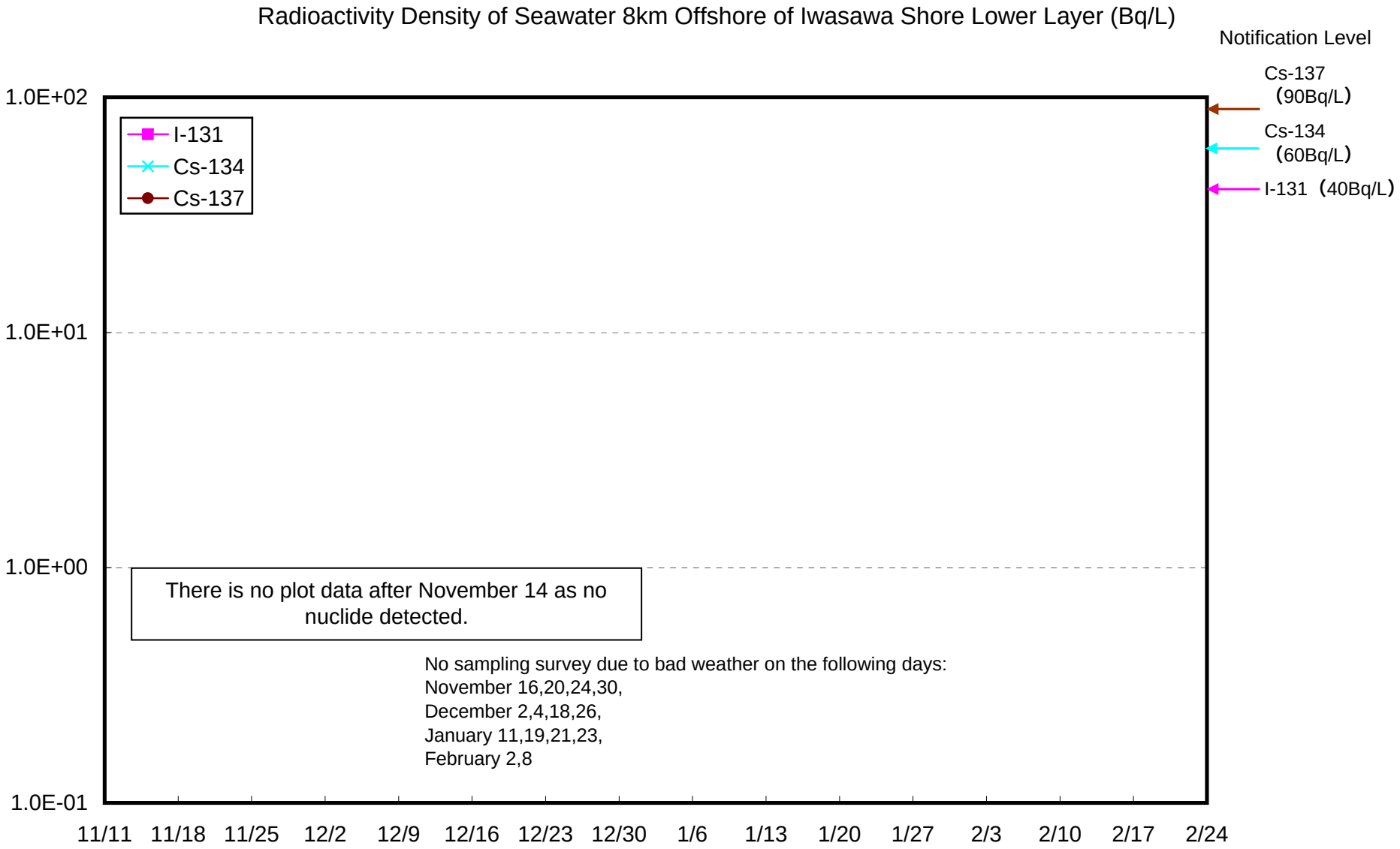

Radioactivity Density of Seawater 3km Offshore of Iwasawa Shore Upper Layer (Bq/L)
Notification Level
Cs-137
（90Bq/L）
Cs-134（60Bq/L）
I-131
（40Bq/L）
I-131
Cs-134
Cs-137
1.0E+02
1.0E+01
1.0E+00
1.0E-01
No sampling survey due to bad weather on the following days:
November 16,20,24,30,
December 2,4,18,26,
January 19,21,23,
February 2,8
11/11
11/18
11/25
12/2
12/9
12/16
12/23
12/30
1/6
1/13
1/20
1/27
2/3
2/10
2/17
2/24

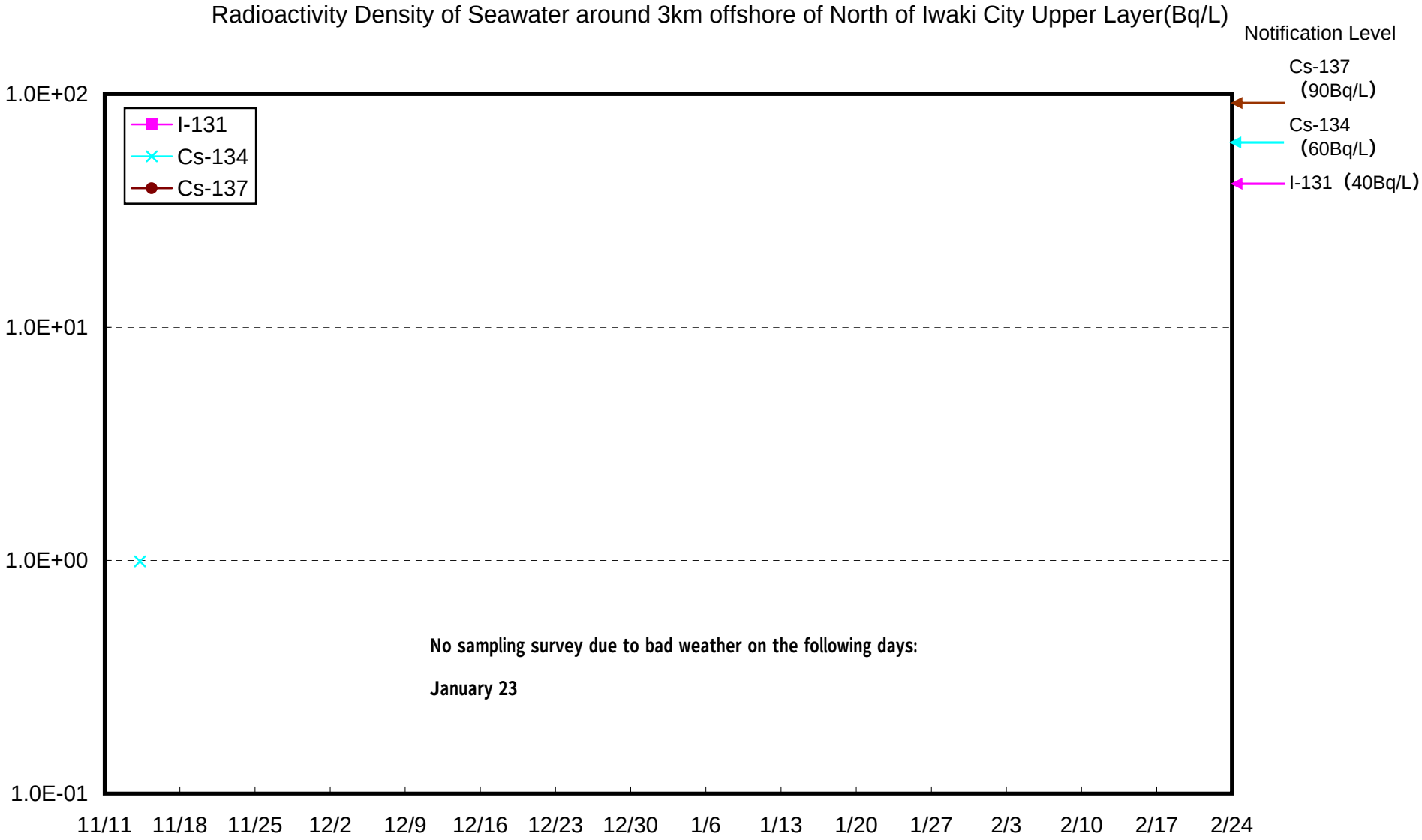

Radioactivity Density of Seawater 3km Offshore of Iwasawa Shore Lower Layer (Bq/L)
Notification Level
Cs-137
(90Bq/L)
Cs-134
(60Bq/L)
I-131
(40Bq/L)
I-131
Cs-134
Cs-137
1.0E+02
1.0E+01
1.0E+00
1.0E-01
No sampling survey due to bad weather on the following days:
November 16,20,24,30,
December 2,4,18,26,
January 19,21,23,
February 2,8
11/11
11/18
11/25
12/2
12/9
12/16
12/23
12/30
1/6
1/13
1/20
1/27
2/3
2/10
2/17
2/24


Radioactivity Density of Seawater 8km Offshore of Odaka Ward Upper Layer (Bq/L)
Notification Level
Cs-137（90Bq/L）
Cs-134
（60Bq/L）
I-131（40Bq/L）
I-131
Cs-134
Cs-137
1.0E+02
1.0E+01
1.0E+00
1.0E-01
There is no plot data after November 14 as no nuclide detected.
No sampling survey due to bad weather on the following days:
November 16,18,20,24,30,
December 2,4,8,16,18,26,
January 11,19,21,23,
February 2,8,16
11/11
11/18
11/25
12/2
12/9
12/16
12/23
12/30
1/6
1/13
1/20
1/27
2/3
2/10
2/17
2/24

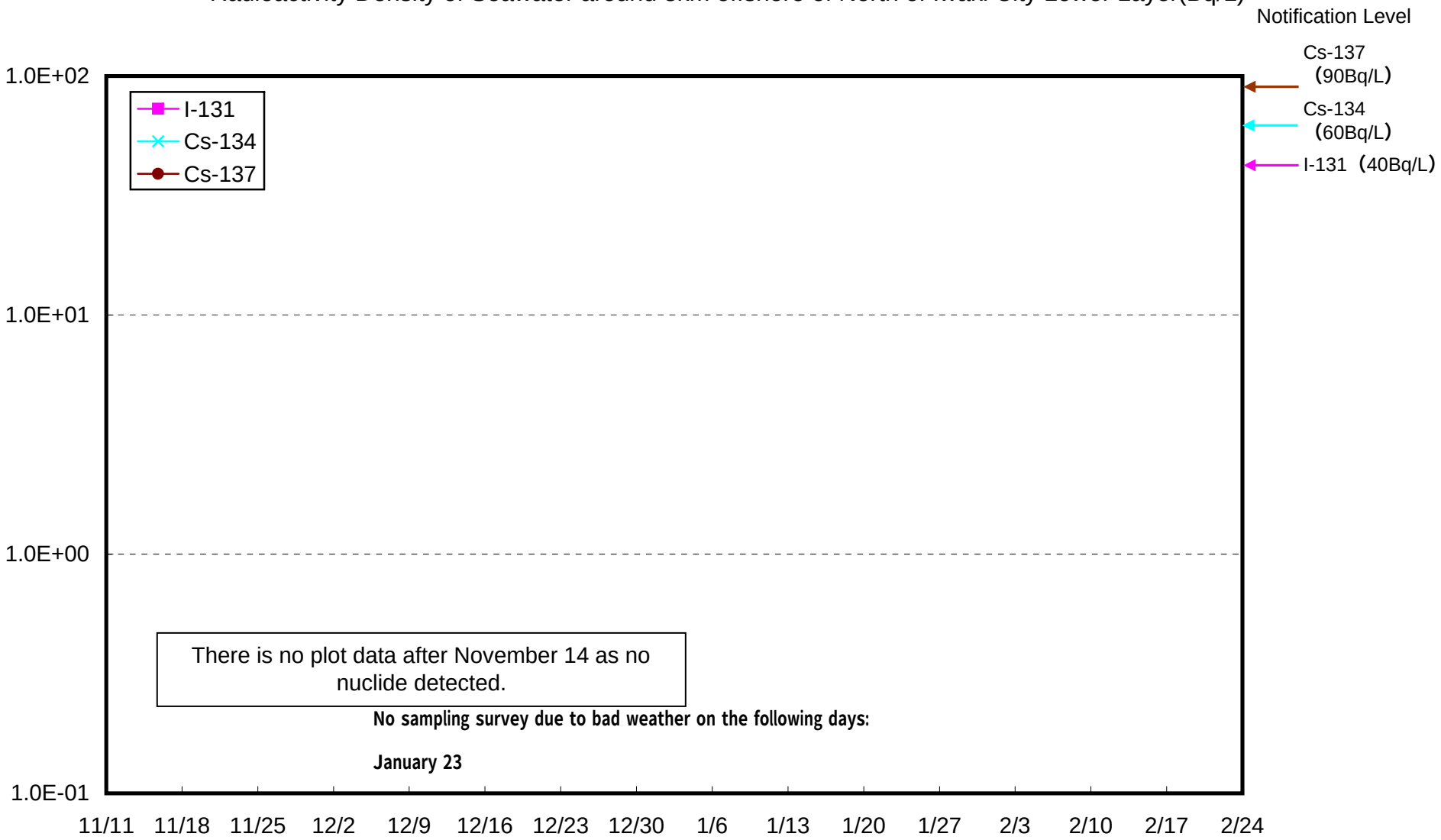

Radioactivity Density of Seawater 8km Offshore of Odaka Ward Lower Layer (Bq/L)
Notification Level
Cs-137（90Bq/L）
Cs-134
（60Bq/L）
I-131（40Bq/L）
1.0E+02
1.0E+01
1.0E+00
1.0E-01
I-131
Cs-134
Cs-137
There is no plot data after November 14 as no nuclide detected.
No sampling survey due to bad weather on the following days:
November 16,18,20,24,30,
December 2,4,8,16,18,26,
January 11,19,21,23,
February 2,8,16
11/11
11/18
11/25
12/2
12/9
12/16
12/23
12/30
1/6
1/13
1/20
1/27
2/3
2/10
2/17
2/24

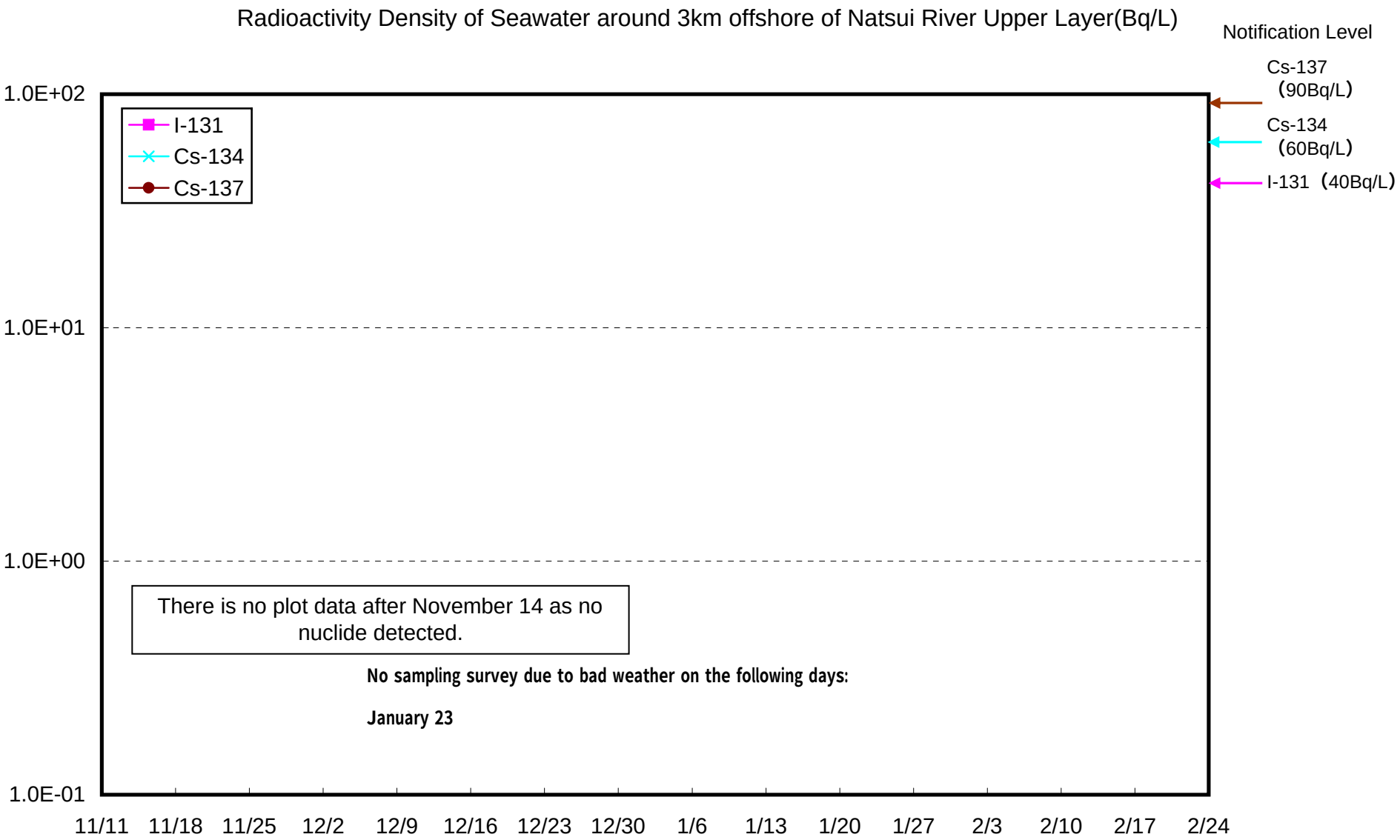

Radioactivity Density of Seawater 8km Offshore of Iwasawa Shore Upper Layer (Bq/L)
Notification Level
Cs-137
（90Bq/L）
Cs-134
（60Bq/L）
I-131（40Bq/L）
1.0E+02
1.0E+01
1.0E+00
1.0E-01
I-131
Cs-134
Cs-137
There is no plot data after November 14 as no nuclide detected.
No sampling survey due to bad weather on the following days:
November 16,20,24,30,
December 2,4,18,26,
January 11,19,21,23,
February 2,8
11/11
11/18
11/25
12/2
12/9
12/16
12/23
12/30
1/6
1/13
1/20
1/27
2/3
2/10
2/17
2/24

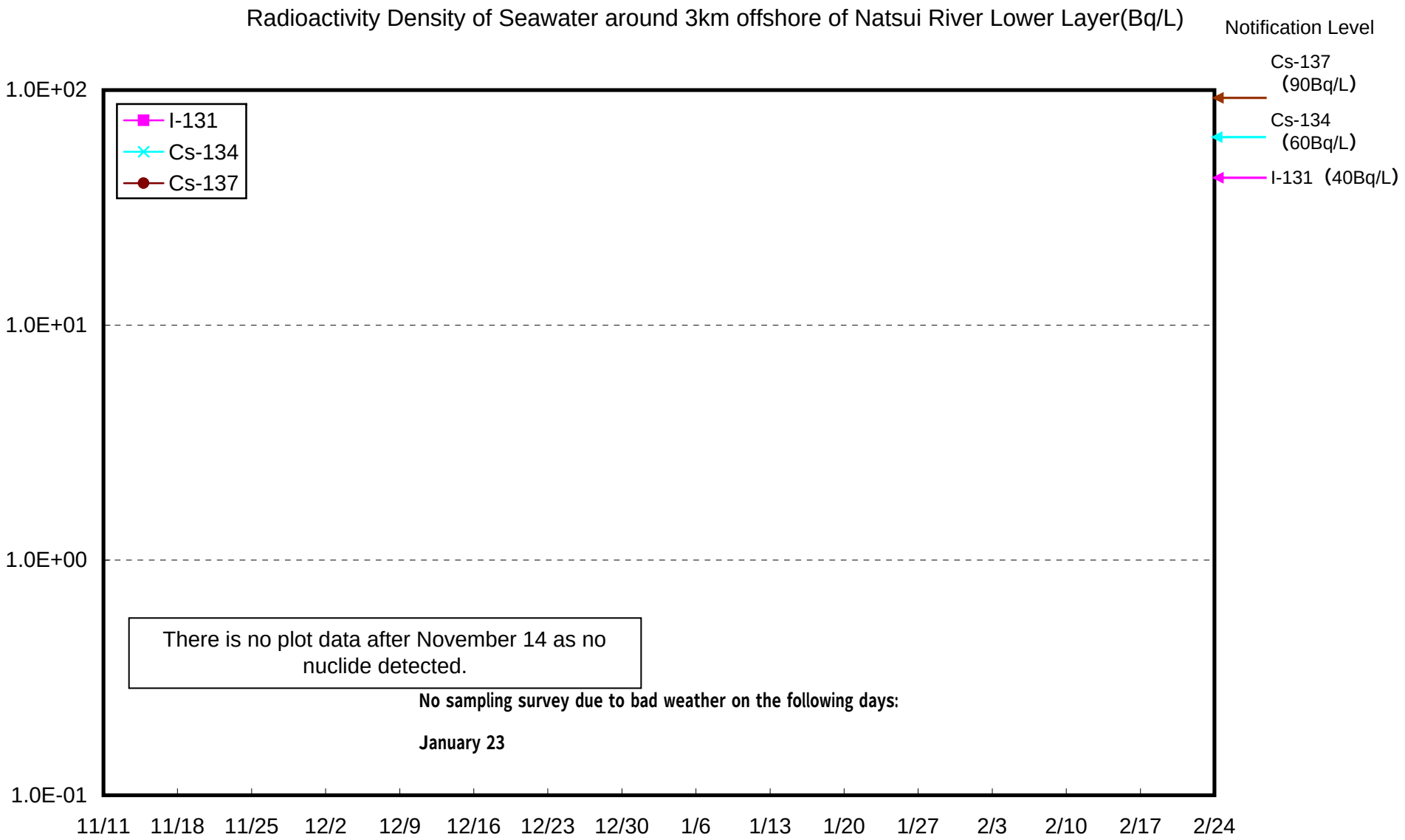

Radioactivity Density of Seawater 8km Offshore of Iwasawa Shore Lower Layer (Bq/L)
Notification Level
Cs-137 (90Bq/L)
Cs-134 (60Bq/L)
I-131 (40Bq/L)
1.0E+02
1.0E+01
1.0E+00
1.0E-01
I-131
Cs-134
Cs-137
There is no plot data after November 14 as no nuclide detected.
No sampling survey due to bad weather on the following days:
November 16,20,24,30,
December 2,4,18,26,
January 11,19,21,23,
February 2,8
11/11
11/18
11/25
12/2
12/9
12/16
12/23
12/30
1/6
1/13
1/20
1/27
2/3
2/10
2/17
2/24

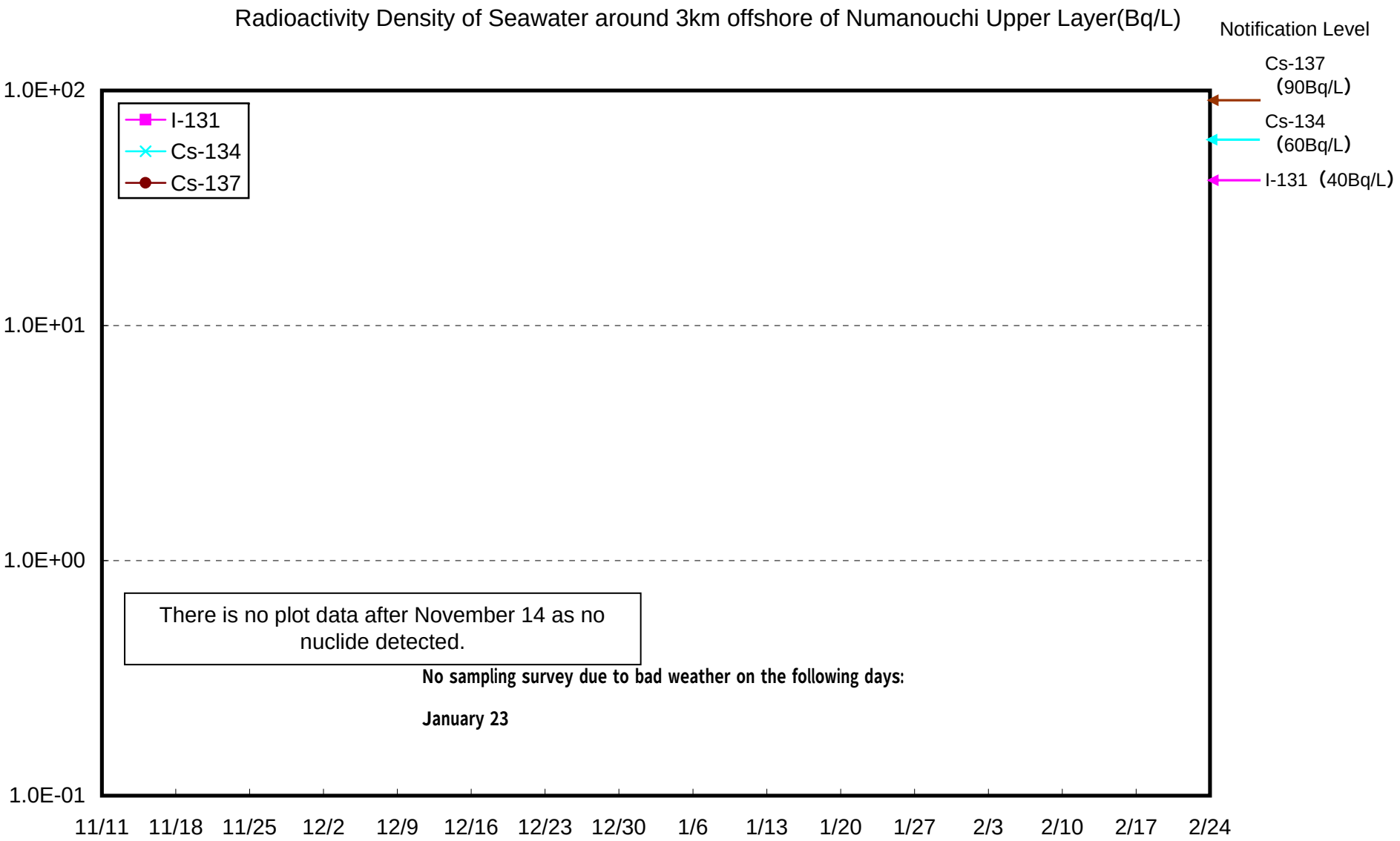

Radioactivity Density of Seawater around 3km offshore of North of Iwaki City Upper Layer(Bq/L)
Notification Level
Cs-137
（90Bq/L）
Cs-134
（60Bq/L）
I-131（40Bq/L）
I-131
Cs-134
Cs-137
1.0E+02
1.0E+01
1.0E+00
1.0E-01
No sampling survey due to bad weather on the following days:
January 23
11/11
11/18
11/25
12/2
12/9
12/16
12/23
12/30
1/6
1/13
1/20
1/27
2/3
2/10
2/17
2/24

Radioactivity Density of Seawater around 3km offshore of North of Iwaki City Lower Layer(Bq/L)

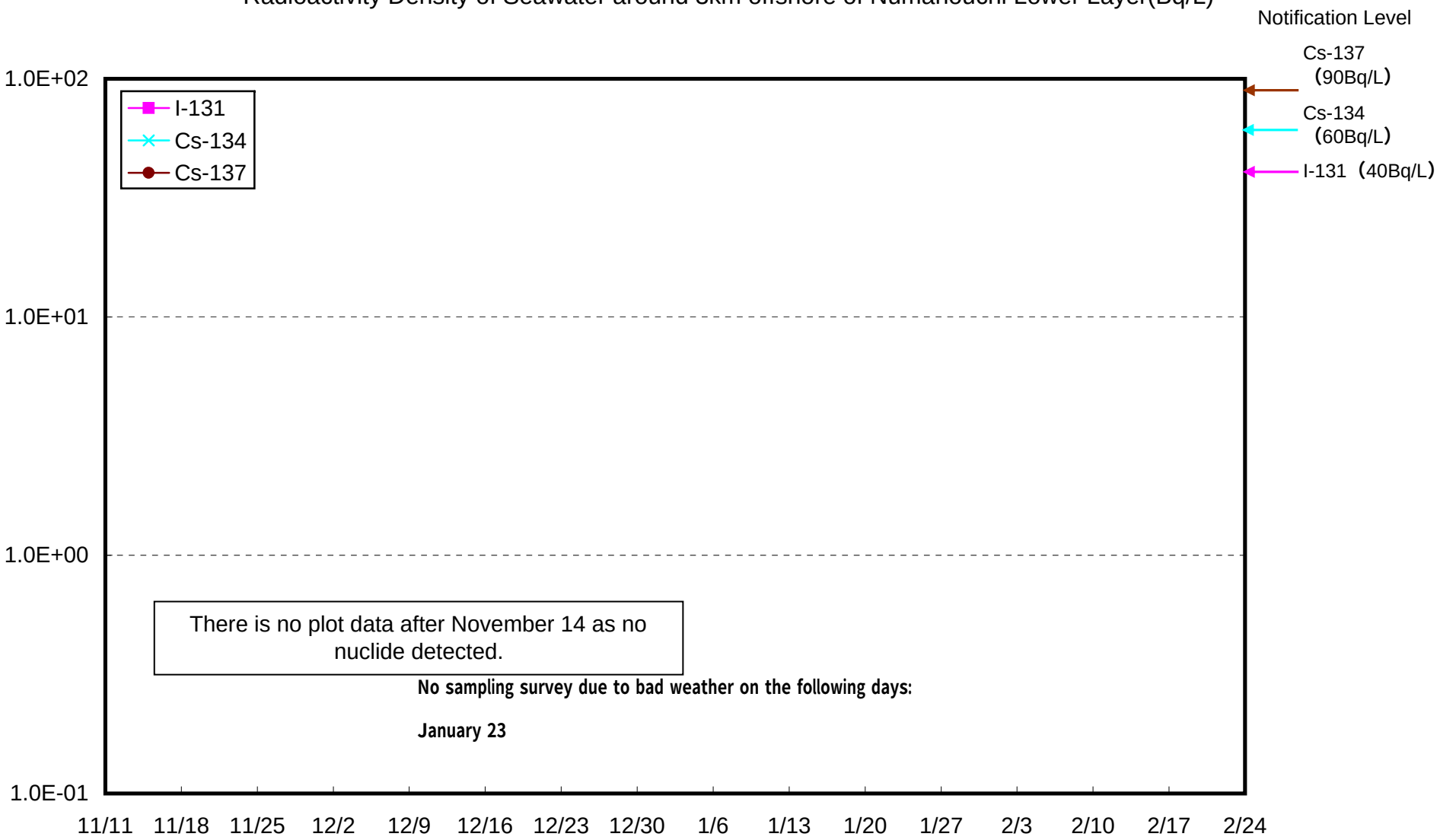


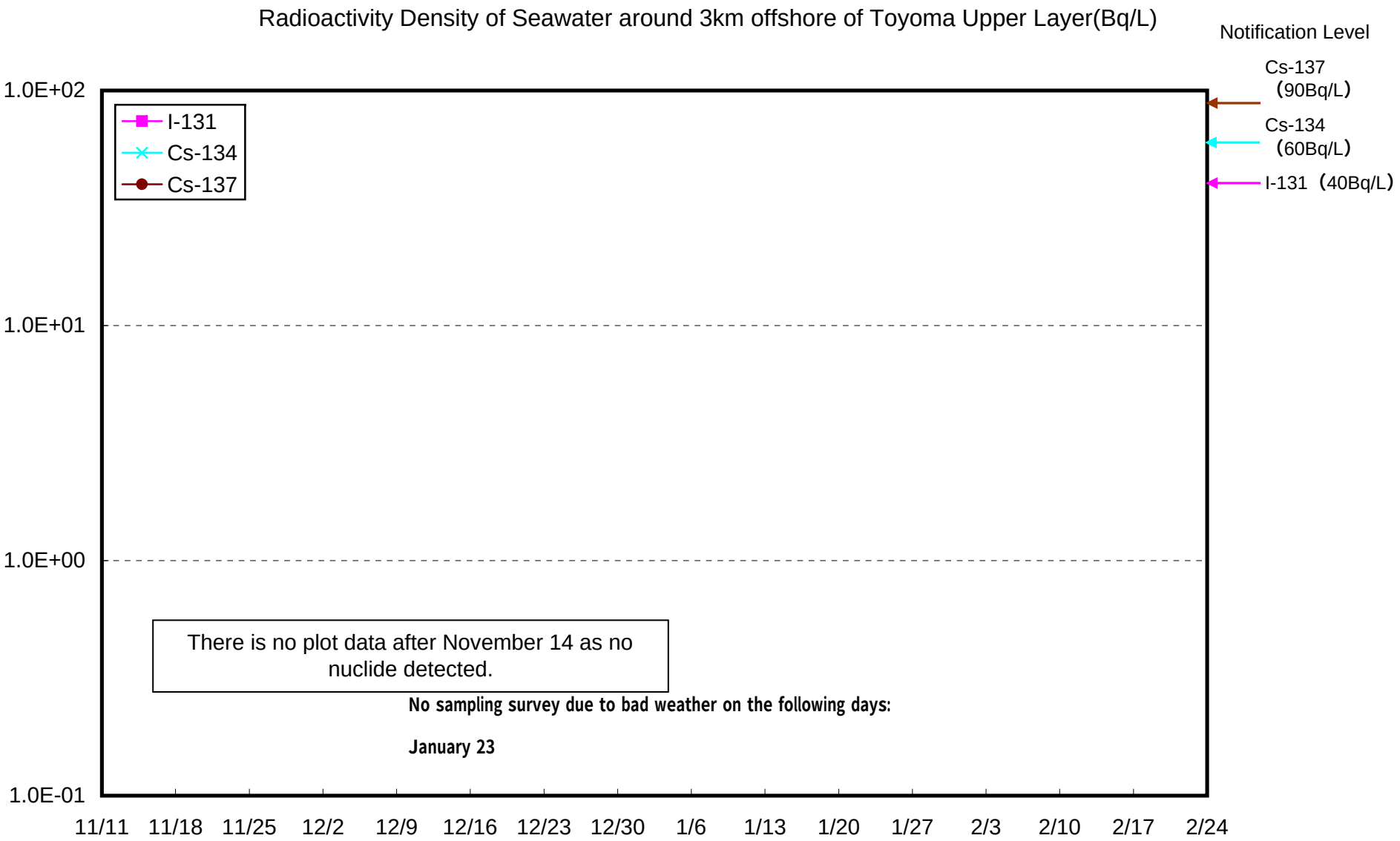

Radioactivity Density of Seawater around 3km offshore of Natsui River Upper Layer(Bq/L)
Notification Level
Cs-137 (90Bq/L)
Cs-134 (60Bq/L)
I-131 (40Bq/L)
I-131
Cs-134
Cs-137
1.0E+02
1.0E+01
1.0E+00
1.0E-01
There is no plot data after November 14 as no nuclide detected.
No sampling survey due to bad weather on the following days:
January 23
11/11
11/18
11/25
12/2
12/9
12/16
12/23
12/30
1/6
1/13
1/20
1/27
2/3
2/10
2/17
2/24

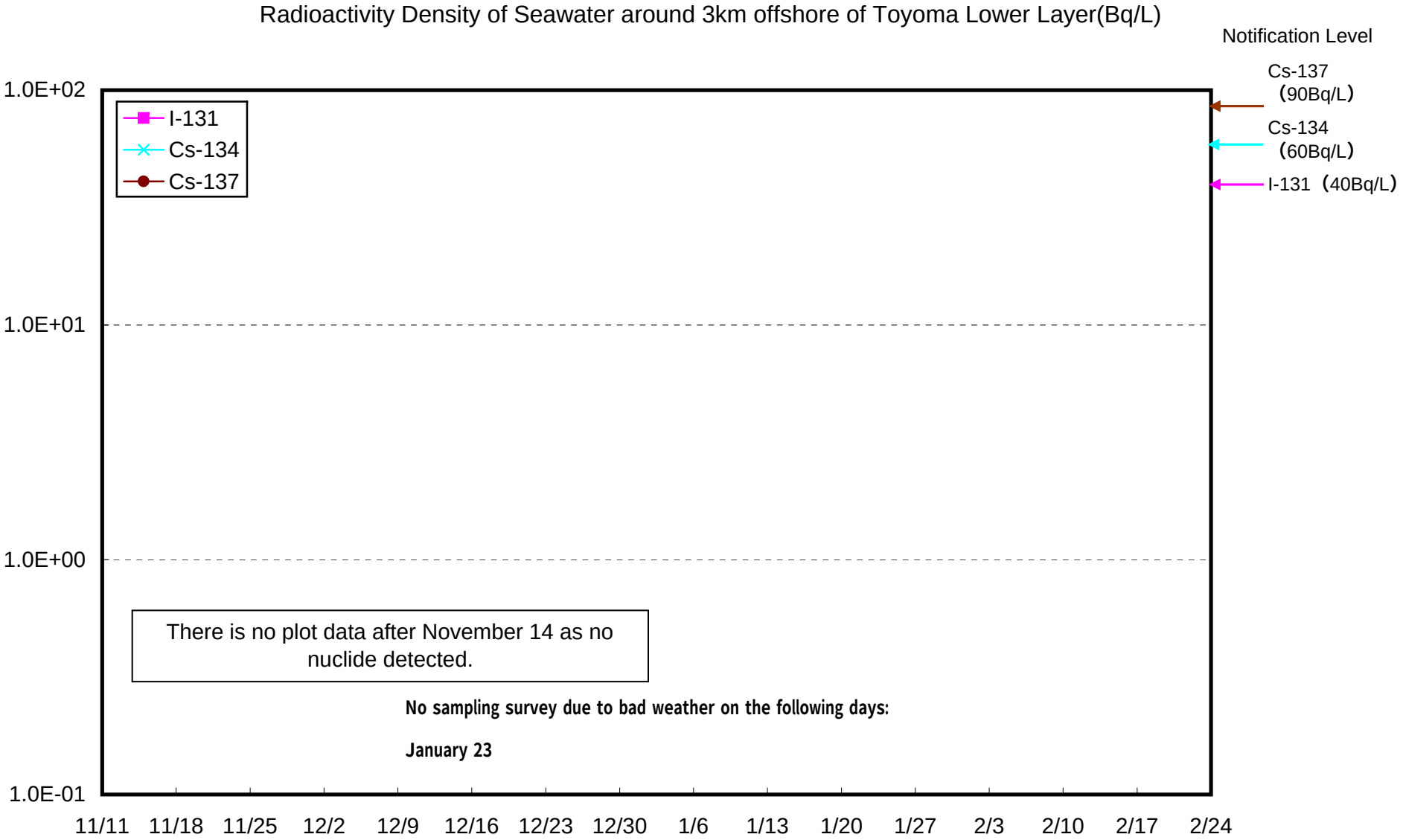

Radioactivity Density of Seawater around 3km offshore of Natsui River Lower Layer(Bq/L)
Notification Level
Cs-137 (90Bq/L)
Cs-134 (60Bq/L)
I-131 (40Bq/L)
I-131
Cs-134
Cs-137
1.0E+02
1.0E+01
1.0E+00
1.0E-01
There is no plot data after November 14 as no nuclide detected.
No sampling survey due to bad weather on the following days:
January 23
11/11
11/18
11/25
12/2
12/9
12/16
12/23
12/30
1/6
1/13
1/20
1/27
2/3
2/10
2/17
2/24


Radioactivity Density of Seawater around 3km offshore of Numanouchi Upper Layer(Bq/L)
Notification Level
Cs-137 (90Bq/L)
Cs-134 (60Bq/L)
I-131 (40Bq/L)
1.0E+02
1.0E+01
1.0E+00
1.0E-01
I-131
Cs-134
Cs-137
There is no plot data after November 14 as no nuclide detected.
No sampling survey due to bad weather on the following days:
January 23
11/11
11/18
11/25
12/2
12/9
12/16
12/23
12/30
1/6
1/13
1/20
1/27
2/3
2/10
2/17
2/24

Radioactivity Density of Seawater around 3km offshore of Numanouchi Lower Layer(Bq/L)




Radioactivity Density of Seawater around 3km offshore of Toyoma Upper Layer(Bq/L)
Notification Level
Cs-137
（90Bq/L）
Cs-134
（60Bq/L）
I-131（40Bq/L）
1.0E+02
1.0E+01
1.0E+00
1.0E-01
I-131
Cs-134
Cs-137
There is no plot data after November 14 as no nuclide detected.
No sampling survey due to bad weather on the following days:
January 23
11/11
11/18
11/25
12/2
12/9
12/16
12/23
12/30
1/6
1/13
1/20
1/27
2/3
2/10
2/17
2/24


Radioactivity Density of Seawater around 3km offshore of Toyoma Lower Layer(Bq/L)
Notification Level
Cs-137 (90Bq/L)
Cs-134 (60Bq/L)
I-131 (40Bq/L)
I-131
Cs-134
Cs-137
1.0E+02
1.0E+01
1.0E+00
1.0E-01
There is no plot data after November 14 as no nuclide detected.
No sampling survey due to bad weather on the following days:
January 23
11/11
11/18
11/25
12/2
12/9
12/16
12/23
12/30
1/6
1/13
1/20
1/27
2/3
2/10
2/17
2/24