Reference

Nuclides Analysis Result of the Radioactive Materials in the Seawater
< Coast, Fukushima Daiichi Nuclear Power Station, Within 20km Radius >

(Data summarized on October 23)

Place of Sampling	South side of the Ukedo Port (Approx. 5.5km north of Unit 5-6 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	Aug 13, 2013 10:20 AM				
Detected Nuclides (Half-life)	①Density of Sample (Bq/L)	Scaling Factor (①/②)	①Density of Sample (Bq/L)	Scaling Factor (①/②)	
Cs-134 (Approx. 2 years)	0.020	0.00			60
Cs-137 (Approx. 30 years)	0.052	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.
* Analysis results by detail analysis (Phosphomolybdic acid ammonium adsorption sampling method) are noted.
* Analysis was performed by Tokyo Power Technology Ltd.

Reference

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

(Data summarized on October 23)

Place of Sampling	North of Unit 5-6 Discharge Channel at Fukushima Daiichi NPS (Approx. 30m North of Unit 5-6 Discharge Channel)		Around South Discharge Channel of Fukushima Daiichi NPS (Appox. 1.3km 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	Oct 22, 2013 7:10 AM		Oct 22, 2013 5:05 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. 1.8Bq/L, Cs-134: Approx. 1.5Bq/L, Cs-137: Approx. 1.4Bq/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 Daiichi Nuclear Power Station, Remeasurement >

(Data summarized on October 23)

Place of Sampling	North of Unit 5-6 Discharge Channel at Fukushima Daiichi NPS (Approx. 30m North of Unit 5-6 Discharge Channel)		Around South Discharge Channel of Fukushima Daiichi NPS (Appox. 1.3km 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	Sep 9, 2013 6:05 AM		Sep 9, 2013 5:20 AM		
Detected Nuclides (Half-life)	①Density of Sample (Bq/L)	Scaling Factor (①/②)	①Density of Sample (Bq/L)	Scaling Factor (①/②)	
Cs-134 (Approx. 2 years)	0.24	0.00	0.15	0.00	60
Cs-137 (Approx. 30 years)	0.48	0.01	0.30	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.
* Analysis results by detail analysis (Phosphomolybdic acid ammonium adsorption sampling method) are noted.
* Analyzed by: Tokyo Power Tecnology Ltd.

Reference

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

(Data summarized on October 23)

Place of Sampling	2F Around the North Discharge Channel (Around Unit 3-4 Discharge Channel) (Approx. 10km from 1F)		Around the North Side of Asamigawa (Approx. 11km South of Unit 1 & 2 Discharge Channel) (Approx. 23km from 1F)		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	Sep 10, 2013 10:00 AM		Sep 10, 2013 7:25 AM		
Detected Nuclides (Half-life)	①Density of Sample (Bq/L)	Scaling Factor (①/②)	①Density of Sample (Bq/L)	Scaling Factor (①/②)	
Cs-134 (Approx. 2 years)	0.067	0.00	0.033	0.00	60
Cs-137 (Approx. 30 years)	0.12	0.00	0.074	0.00	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.
* Analysis results by detail analysis (Phosphomolybdic acid ammonium adsorption sampling method) are noted.
  Analyzed by Tokyo Power Technology Ltd.

Nuclides Analysis Result of the Radioactive Materials in the Seawater < Offshore 1/2 >

(Data summarized on October 23)

Place of Sampling (Place No.)	3km Offshore of Odaka Ward (T-14) *1				3km Offshore of Odaka Ward (T-14) *1				3km Offshore of Odaka Ward (T-14) *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	Aug 6, 2013 8:48 AM		Aug 6, 2013 8:48 AM		Aug 14, 2013 9:27 AM		Aug 14, 2013 9:27 AM		Aug 21, 2013 9:12 AM		Aug 21, 2013 9:12 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)	0.0027	0.00	0.0074	0.00	0.0047	0.00	0.0042	0.00	0.0023	0.00	0.0037	0.00	60
Cs-137 (Approx. 30 years)	0.0083	0.00	0.022	0.00	0.012	0.00	0.012	0.00	0.0060	0.00	0.0093	0.00	90

Place of Sampling (Place No.)	3km Offshore of Odaka Ward (T-14) *1				3km Offshore of Ukedo River (T-D1) *2				3km Offshore of Fukushima Daiichi NPS (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	Aug 27, 2013 9:18 AM		Aug 27, 2013 9:18 AM		Sep 3, 2013 9:00 AM		Sep 3, 2013 9:00 AM		Sep 3, 2013 8:09 AM		Sep 3, 2013 8:09 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)	0.0027	0.00	0.0036	0.00	0.0020	0.00	0.0036	0.00	0.0052	0.00	0.0080	0.00	60
Cs-137 (Approx. 30 years)	0.0093	0.00	0.0090	0.00	0.0073	0.00	0.011	0.00	0.012	0.00	0.014	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.

* Analysis results by detail analysis (Phosphomolybdic acid ammonium adsorption sampling method) are noted.

* Analyzed by: *1 THE GENERAL ENVIRONMENTAL TECHNOS Co., LTD., *2 Tokyo Power Technology Ltd.

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

(Data summarized on October 23)

Place of Sampling (Place No.)	3km Offshore of Fukushima Daini NPS (T-D9) *2				15km Offshore of Fukushima Daiichi NPS (T-5) *1				3km Offshore of Iwasawa Shore (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	Sep 6, 2013 10:09 AM		Sep 6, 2013 10:09 AM		Sep 6, 2013 9:28 AM		Sep 6, 2013 9:28 AM		Aug 7, 2013 9:35 AM		Aug 7, 2013 9:35 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)	0.010	0.00	0.018	0.00	ND	-	0.0025	0.00	0.014	0.00	0.024	0.00	60
Cs-137 (Approx. 30 years)	0.022	0.00	0.049	0.00	0.0027	0.00	0.0052	0.00	0.034	0.00	0.052	0.00	90

Place of Sampling (Place No.)	3km Offshore of Iwasawa Shore (T-11) *1				3km Offshore of Iwasawa Shore (T-11) *1				3km Offshore of Iwasawa Shore (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	Aug 15, 2013 9:29 AM		Aug 15, 2013 9:29 AM		Aug 22, 2013 9:29 AM		Aug 22, 2013 9:29 AM		Aug 29, 2013 9:22 AM		Aug 29, 2013 9:22 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)	0.014	0.00	0.0054	0.00	0.0053	0.00	0.011	0.00	0.0022	0.00	0.0044	0.00	60
Cs-137 (Approx. 30 years)	0.026	0.00	0.016	0.00	0.013	0.00	0.024	0.00	0.0063	0.00	0.011	0.00	90

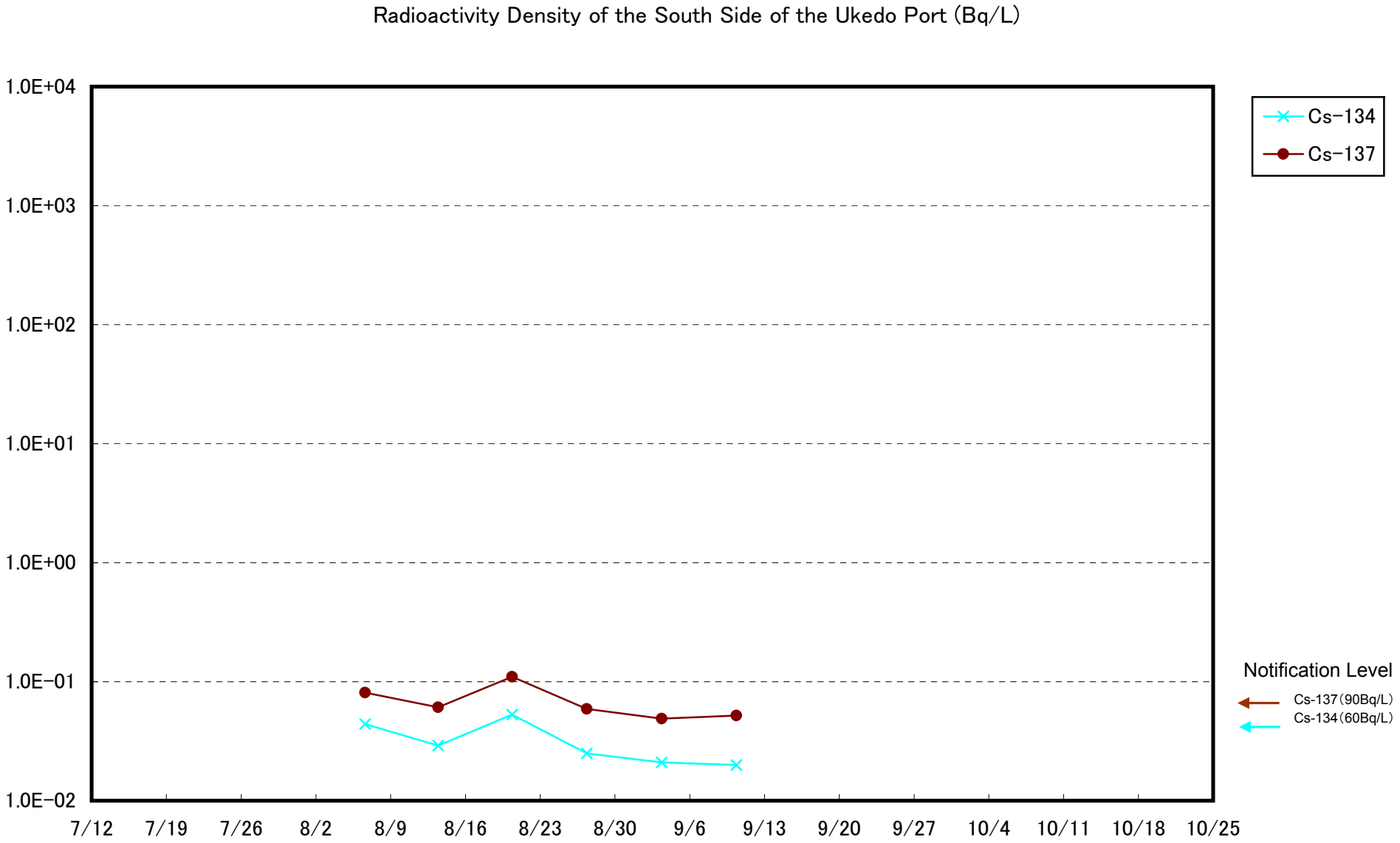
* The density specified by the Reactor Regulation is converted from Bq/cm^3 to Bq/L.

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

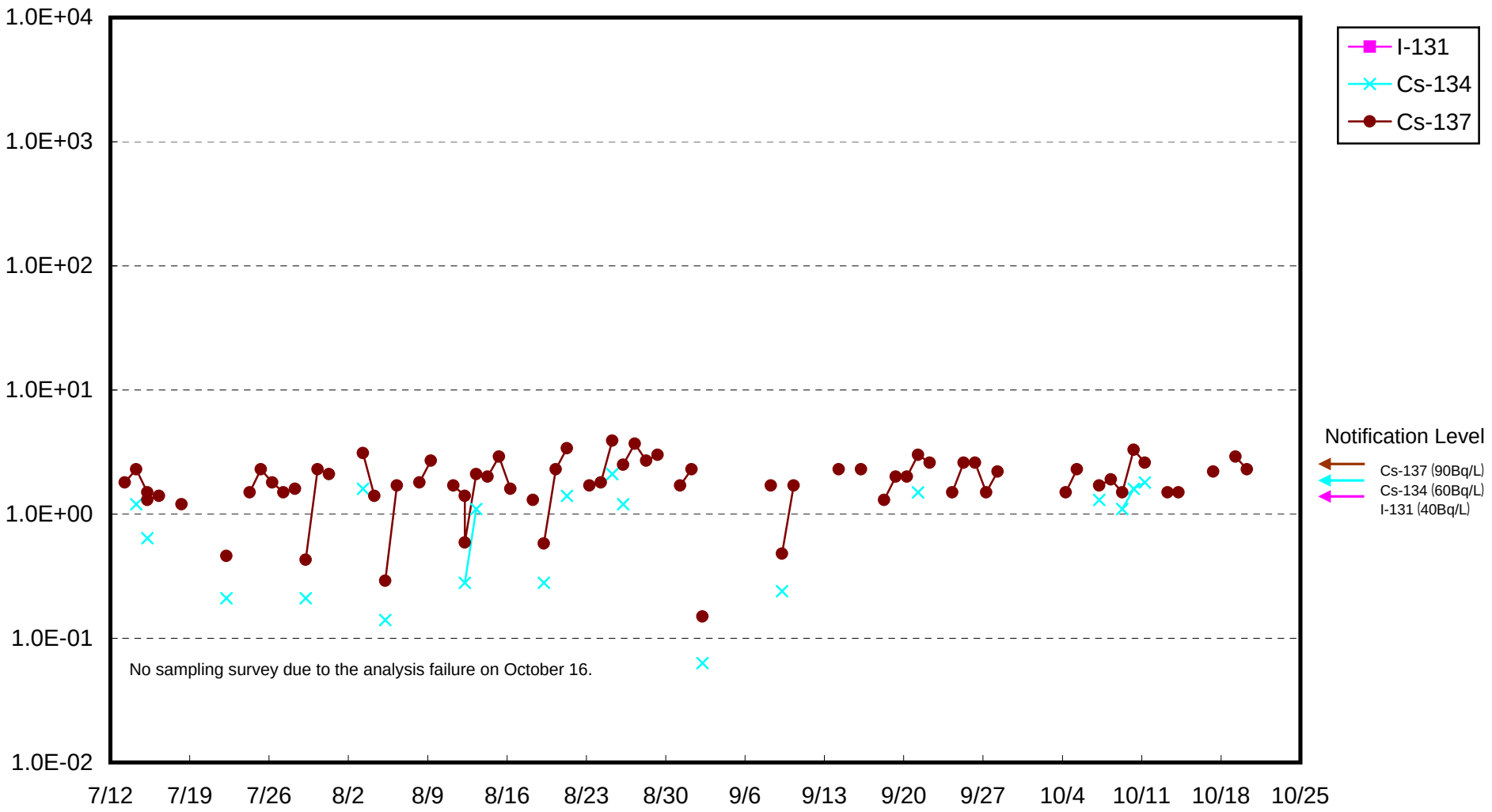
* "ND" indicates that the measurement result is below the detection limit.
Cs-134: Approx.0.0010Bq/L As the detection limit may vary depending on the detectors and sample properties, there are cases where nuclides below the detection limit are detected.

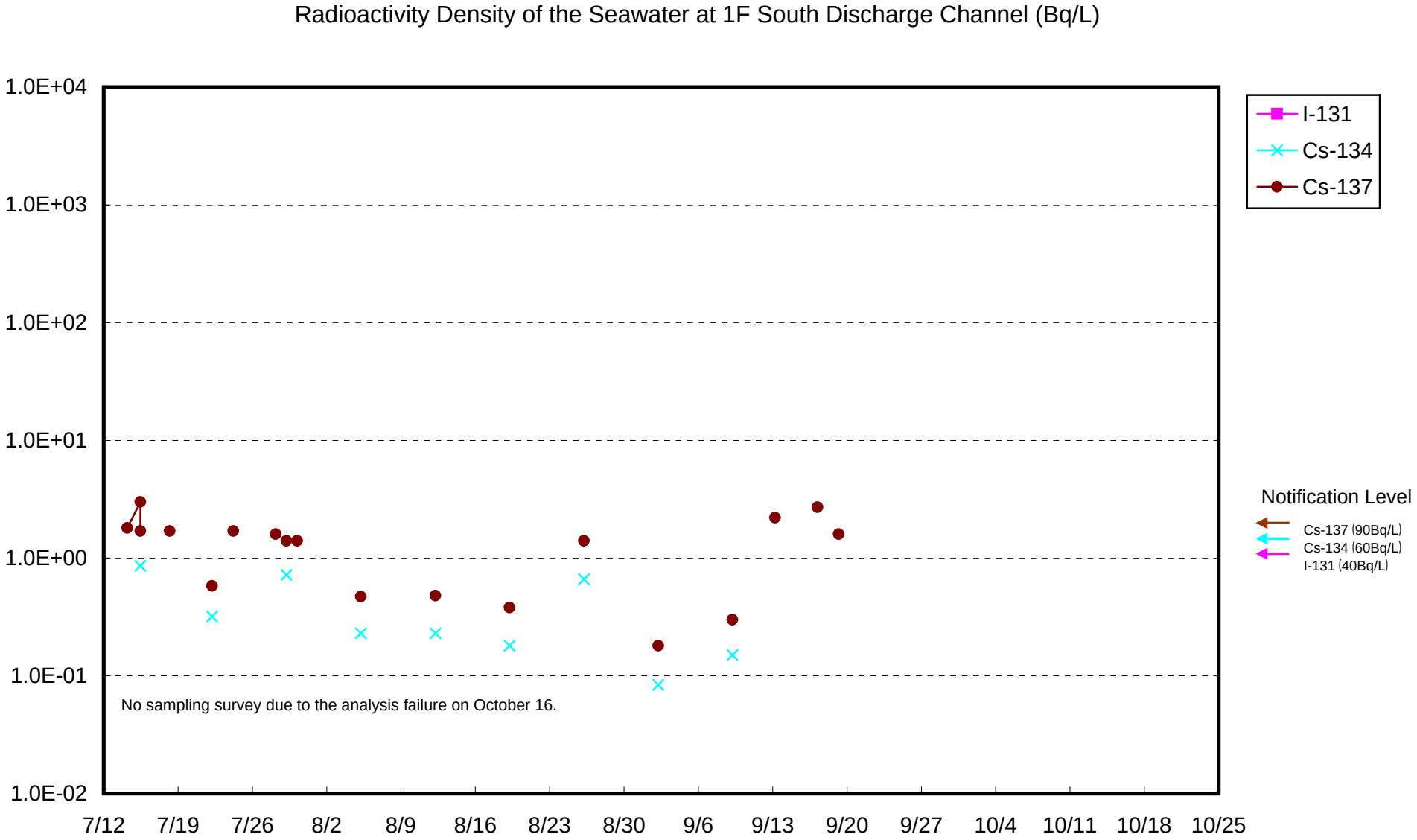
* Analysis results by detail analysis (Phosphomolybdic acid ammonium adsorption sampling method) are noted.

* Analyzed by: *1 THE GENERAL ENVIRONMENTAL TECHNOS Co., LTD., *2 Tokyo Power Technology Ltd.

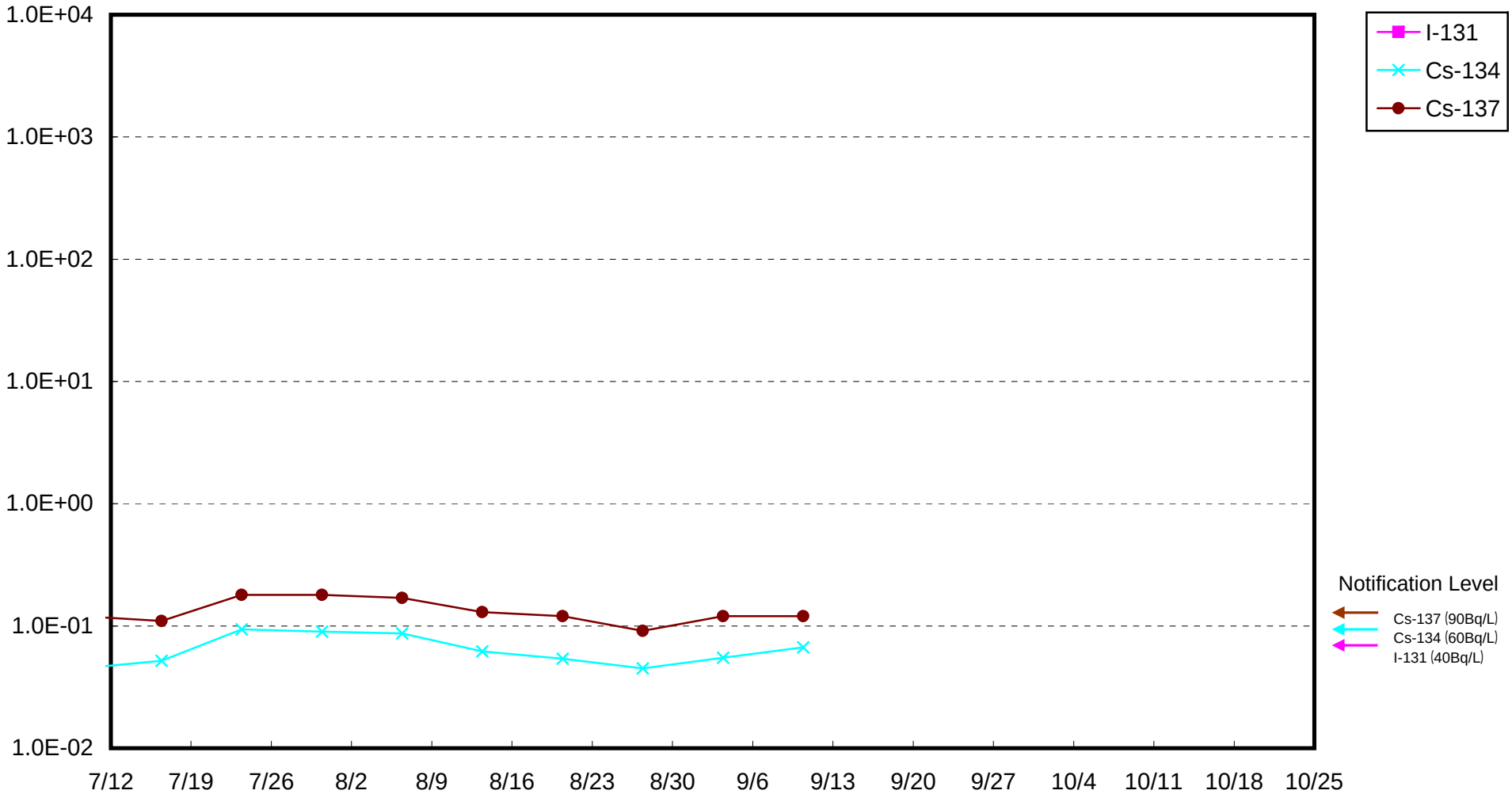

Radioactivity Density of the South Side of the Ukedo Port (Bq/L)
1.0E+04
1.0E+03
1.0E+02
1.0E+01
1.0E+00
1.0E-01
1.0E-02
7/12
7/19
7/26
8/2
8/9
8/16
8/23
8/30
9/6
9/13
9/20
9/27
10/4
10/11
10/18
10/25
Cs-134
Cs-137
Notification Level
Cs-137(90Bq/L)
Cs-134(60Bq/L)

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

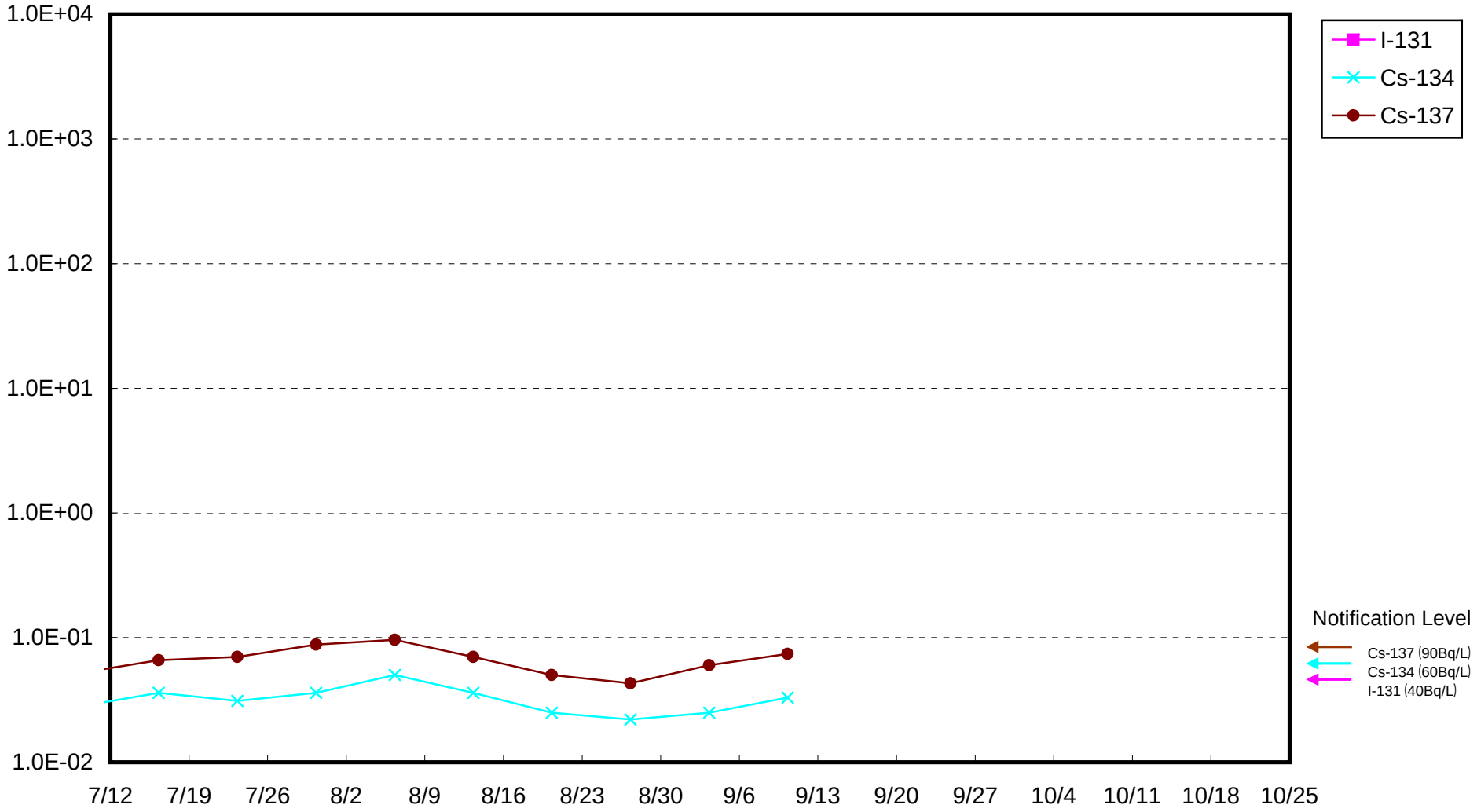



Radioactivity Density of the Seawater at 1F South Discharge Channel (Bq/L)
1.0E+04
1.0E+03
1.0E+02
1.0E+01
1.0E+00
1.0E-01
1.0E-02
7/12
7/19
7/26
8/2
8/9
8/16
8/23
8/30
9/6
9/13
9/20
9/27
10/4
10/11
10/18
10/25
I-131
Cs-134
Cs-137
Notification Level
Cs-137 (90Bq/L)
Cs-134 (60Bq/L)
I-131 (40Bq/L)
No sampling survey due to the analysis failure on October 16.

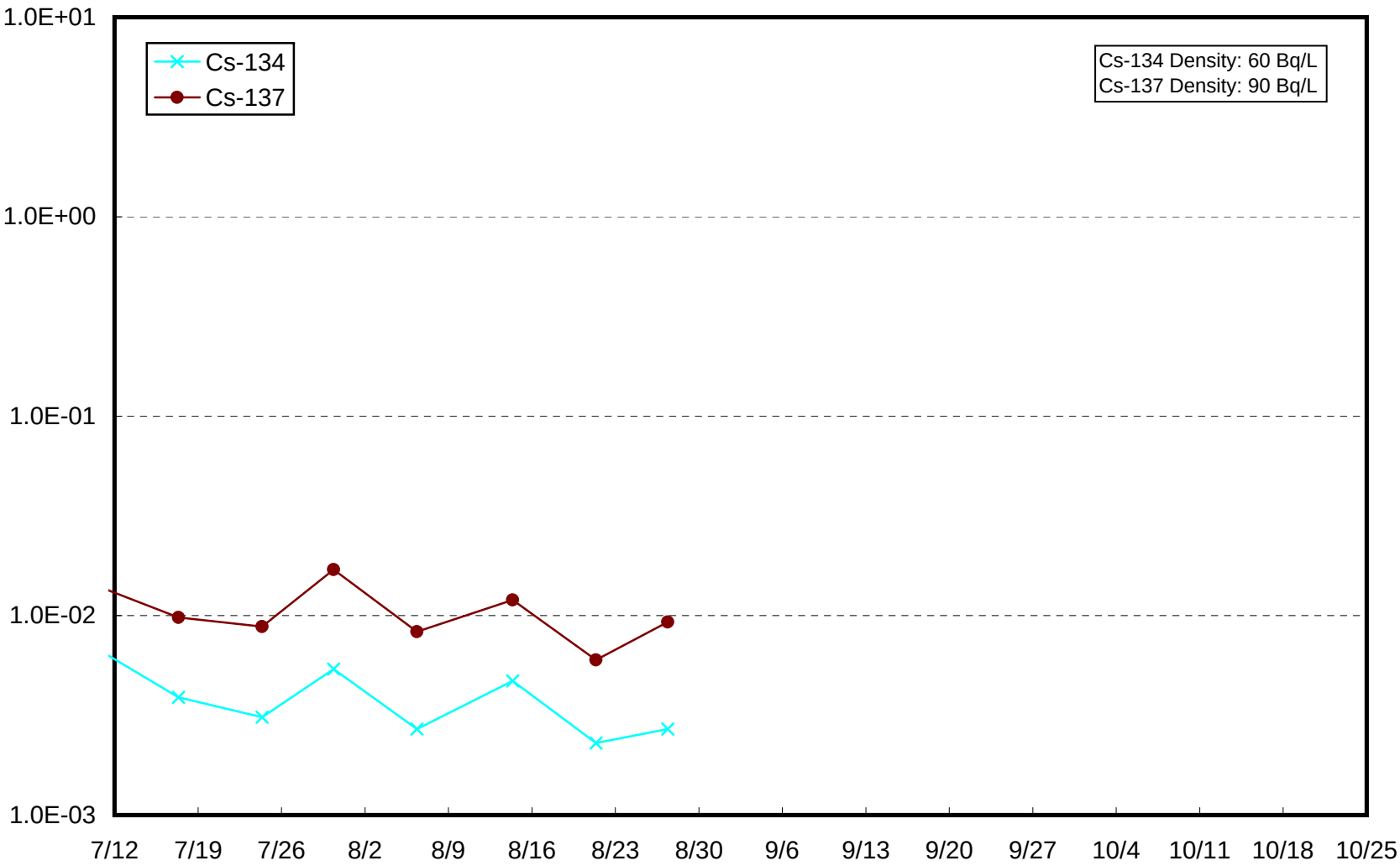
Radioactivity Density of the Seawater at 2F North Discharge Channel (Bq/L)



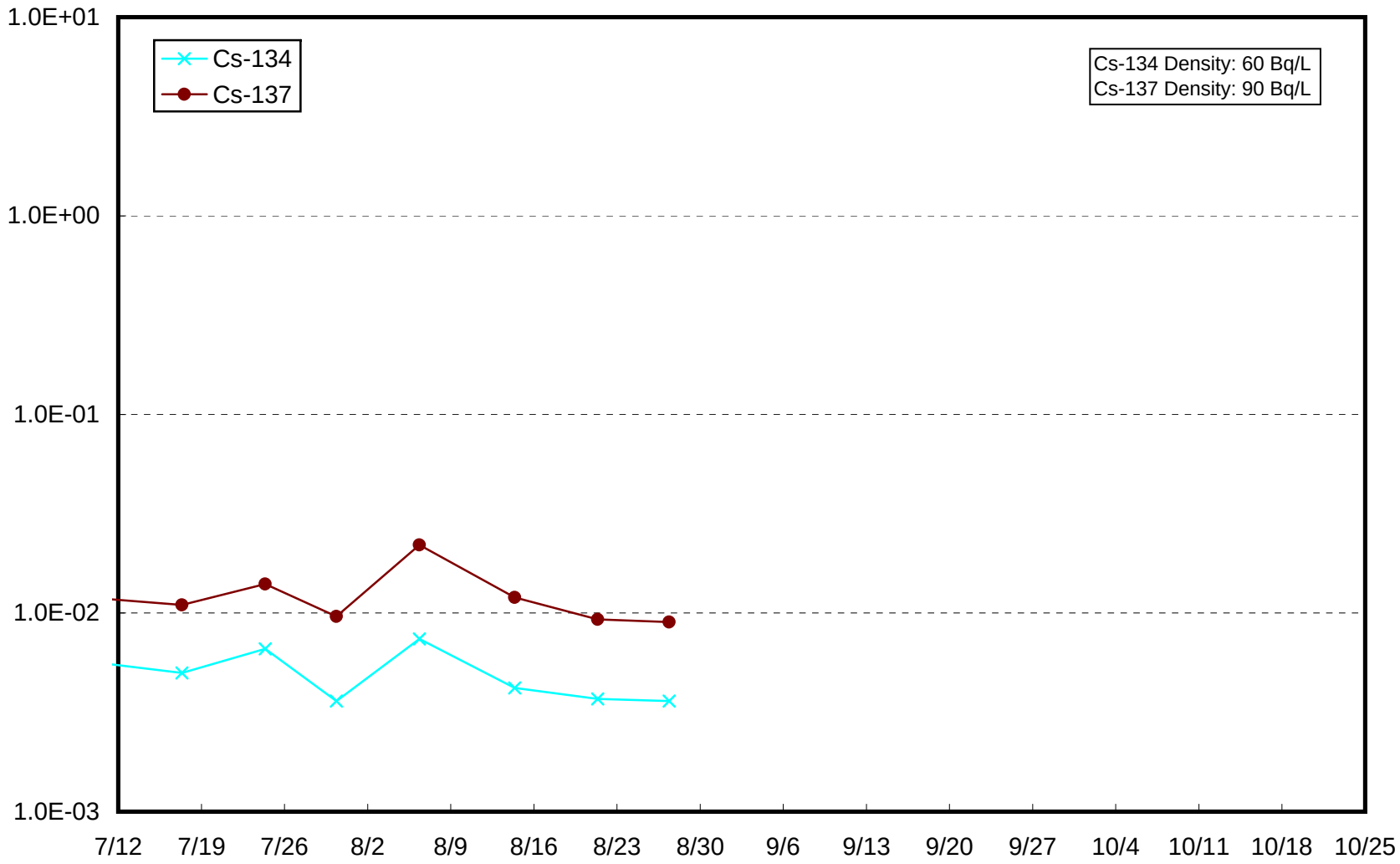
Radioactivity Density of the Seawater Around the South Side of Kitasakogawa (Bq/L)



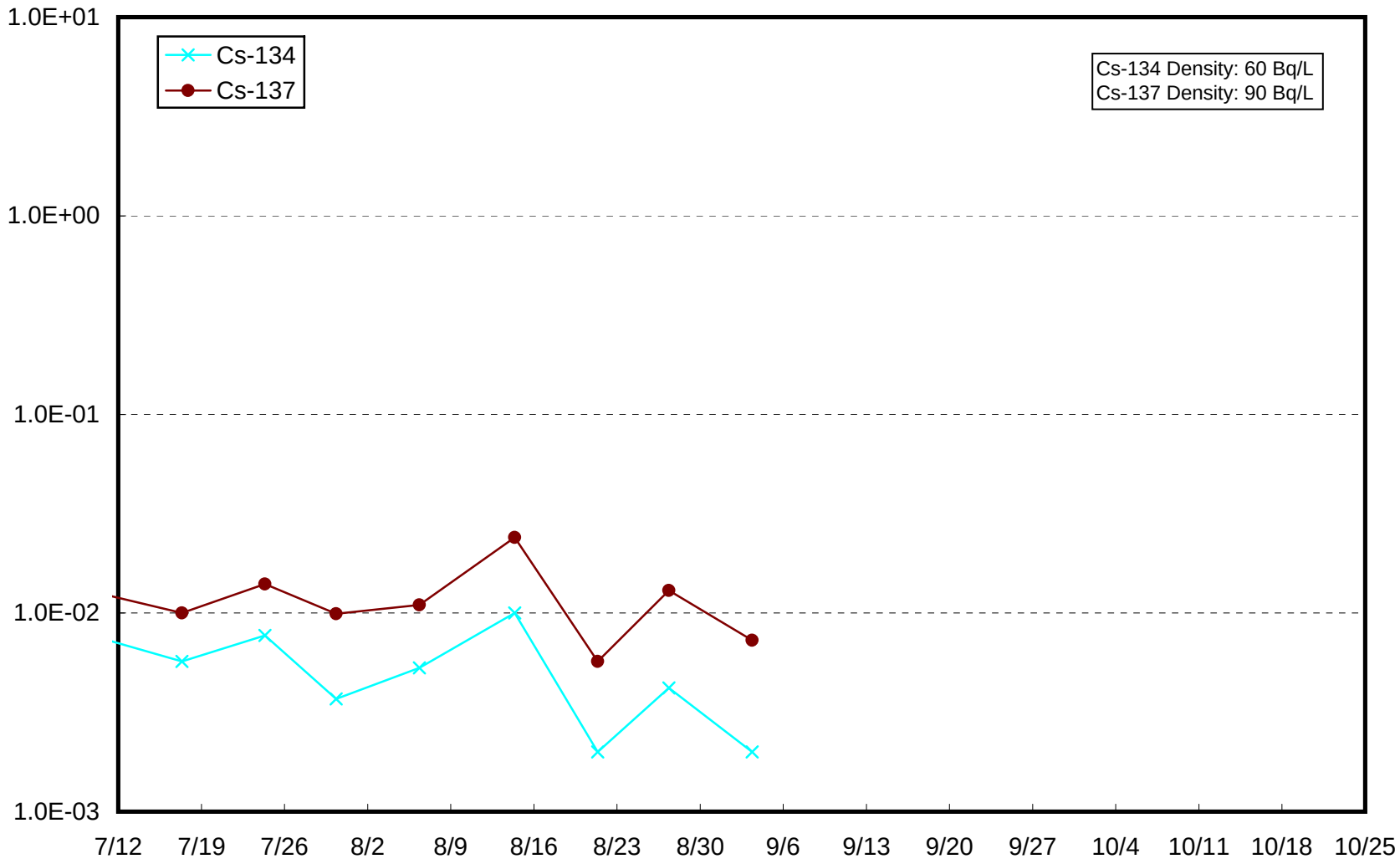
Radioactivity Density of the Seawater at 3km Offshore of Odaka Ward (T-14) Upper Layer (Bq/L)



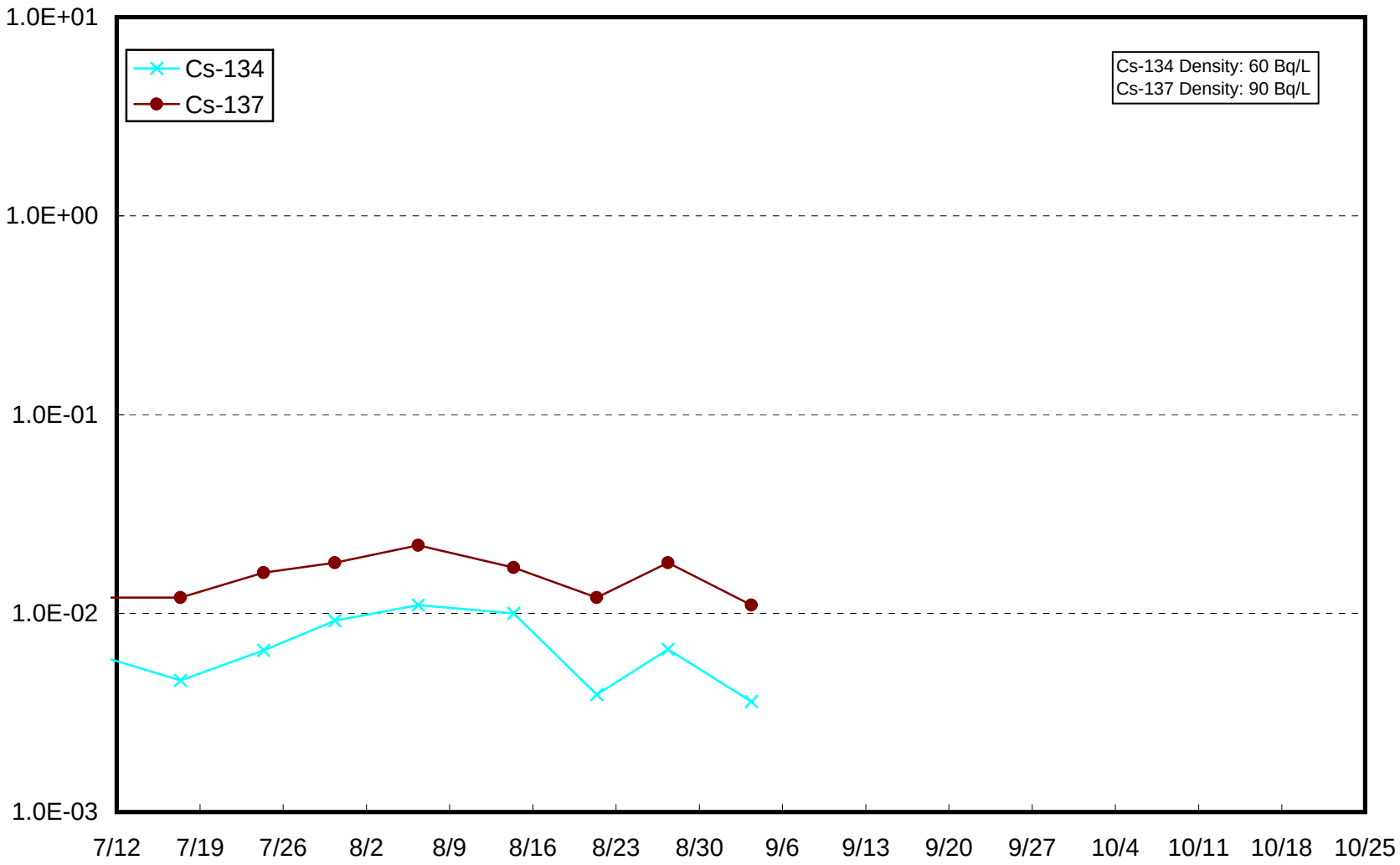
Radioactivity Density of the Seawater at 3km Offshore of Odaka Ward (T-14) Lower Layer (Bq/L)



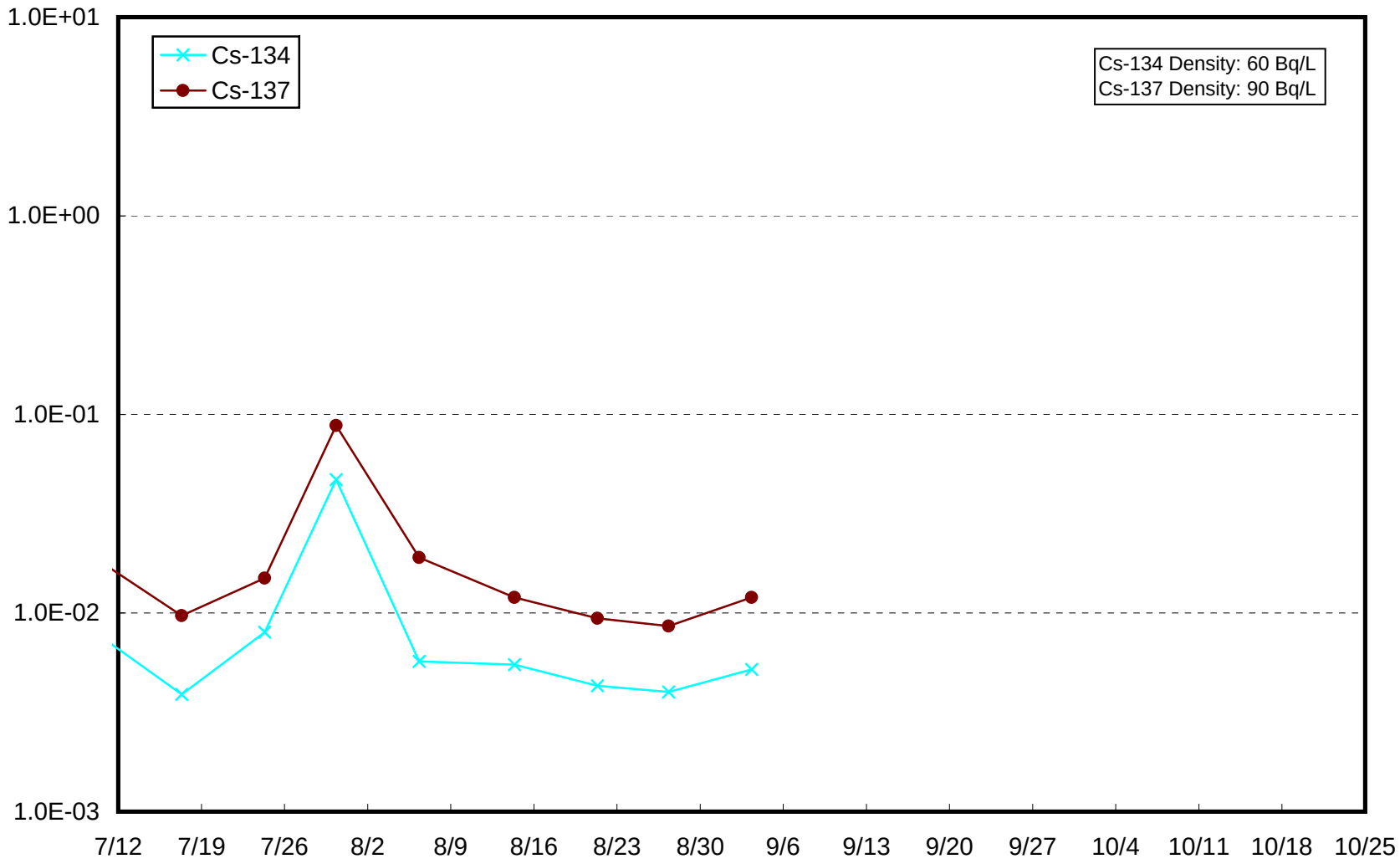
Radioactivity Density of the Seawater at 3km Offshore of Ukedo River (T-D1) Upper Layer (Bq/L)



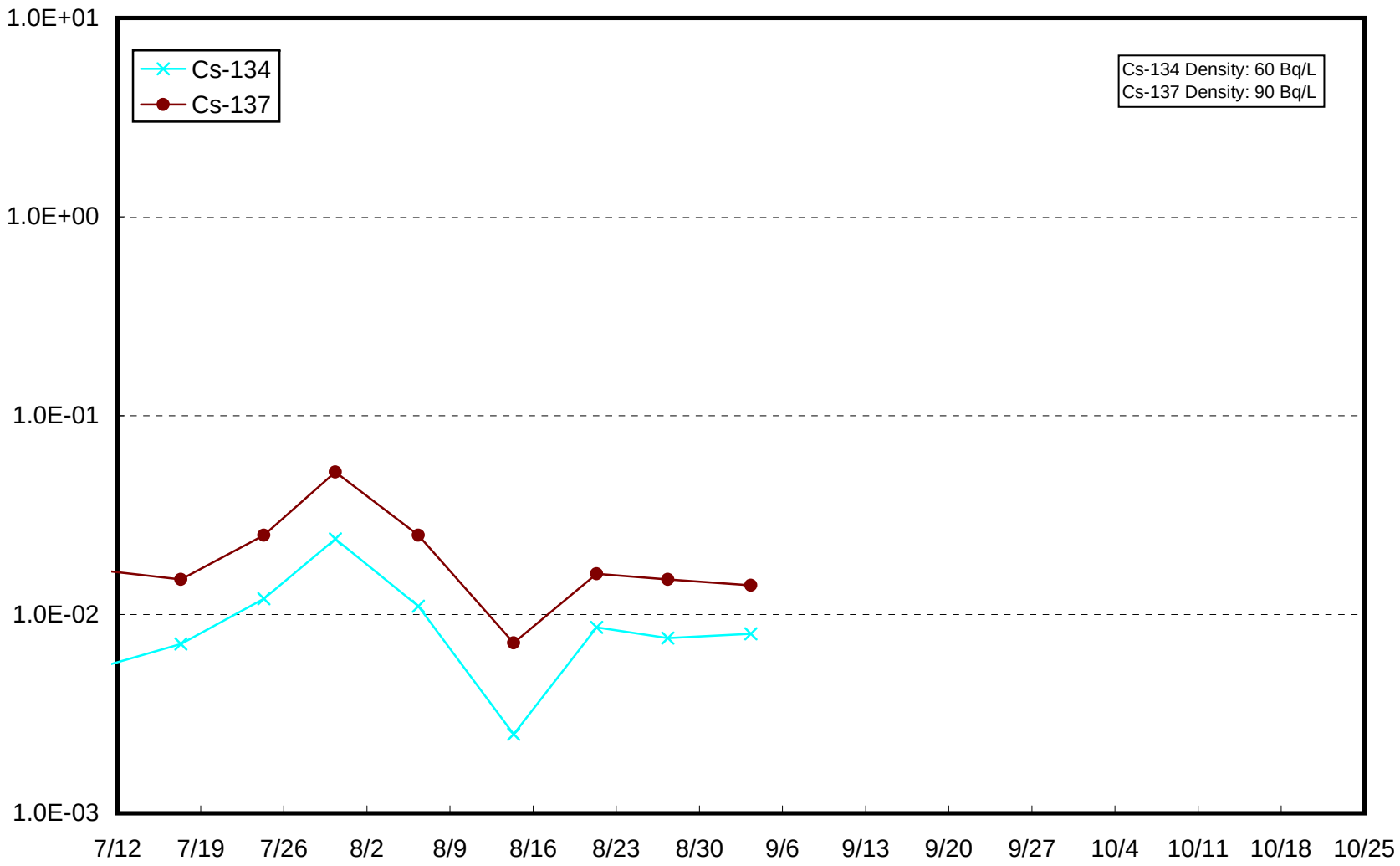
Radioactivity Density of the Seawater at 3km Offshore of Ukedo River (T-D1) Lower Layer (Bq/L)



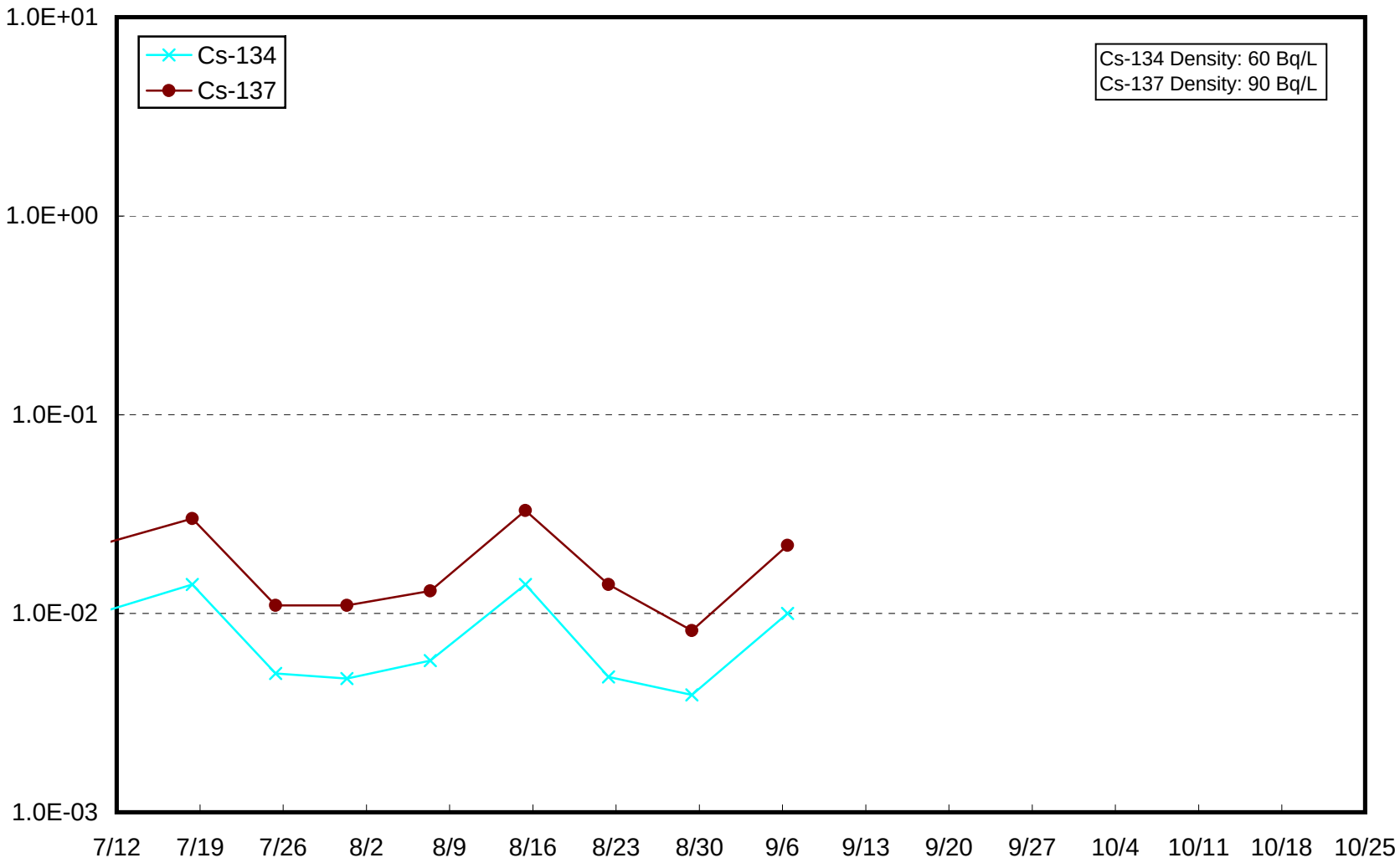
Radioactivity Density of the Seawater at 3km Offshore of Fukushima Daiichi NPS (T-D5) Upper Layer (Bq/L)



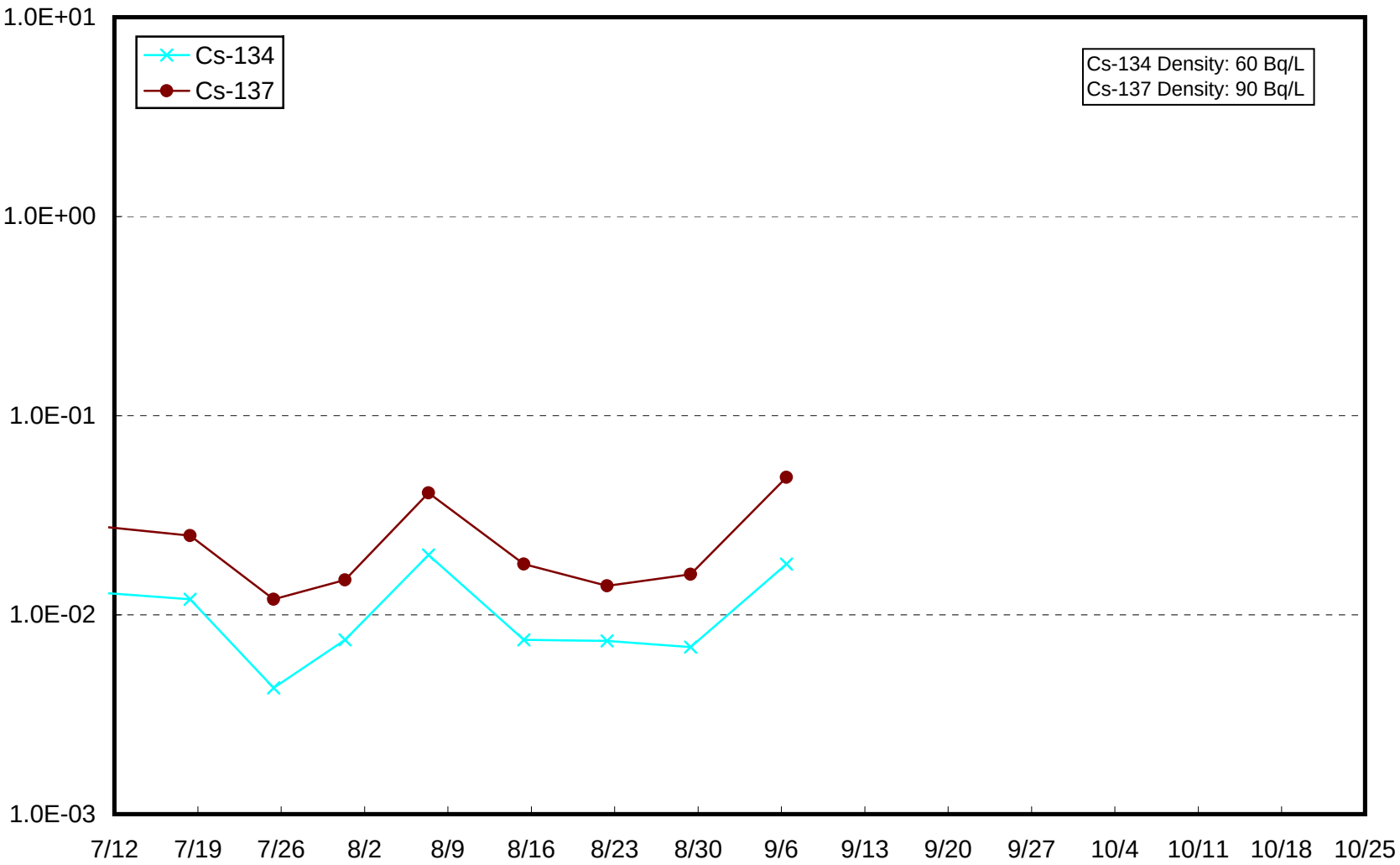
Radioactivity Density of the Seawater at 3km Offshore of Fukushima Daiichi NPS (T-D5) Lower Layer (Bq/L)



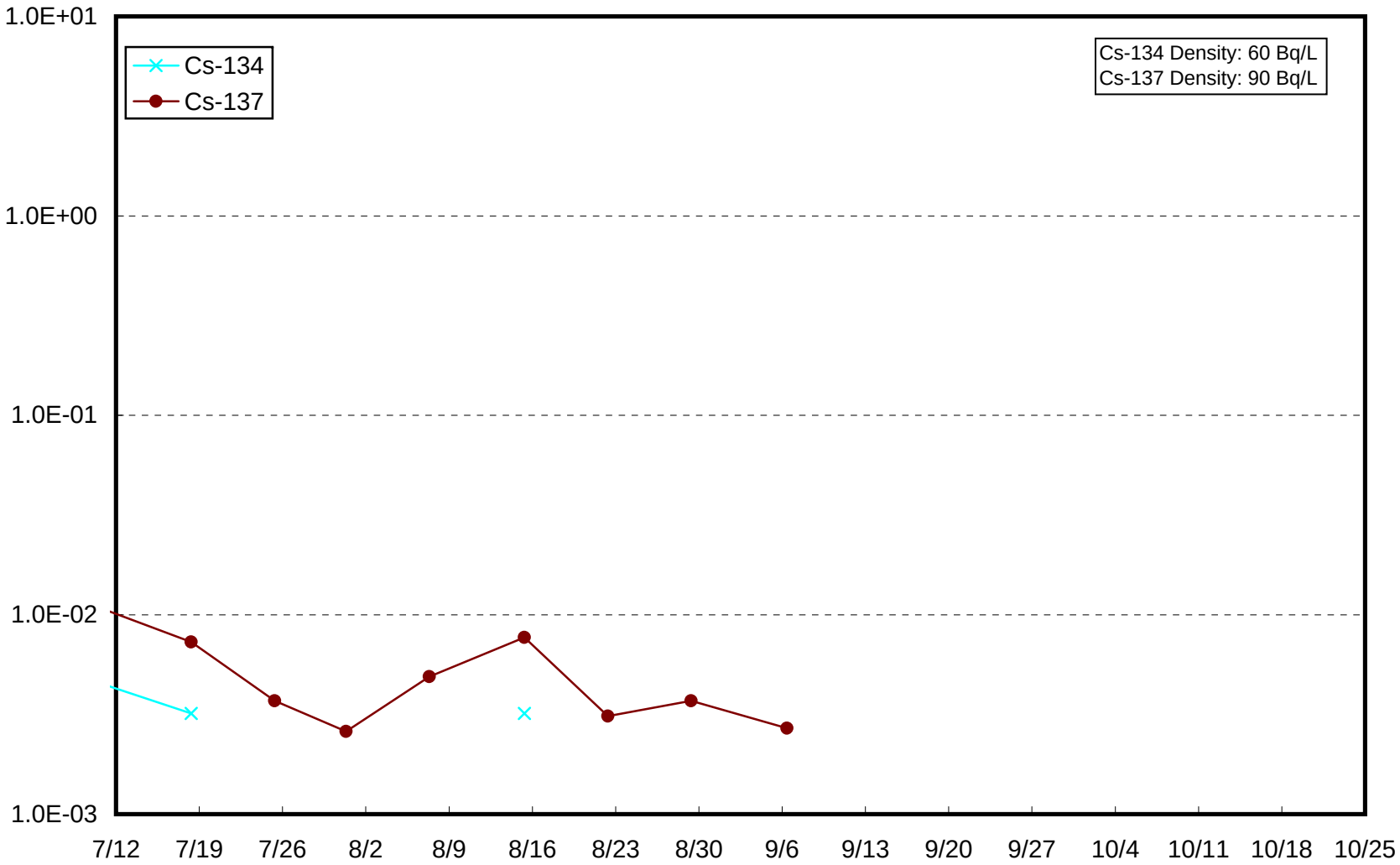
Radioactivity Density of the Seawater at 3km Offshore of Fukushima Daini NPS (T-D9) Upper Layer (Bq/L)



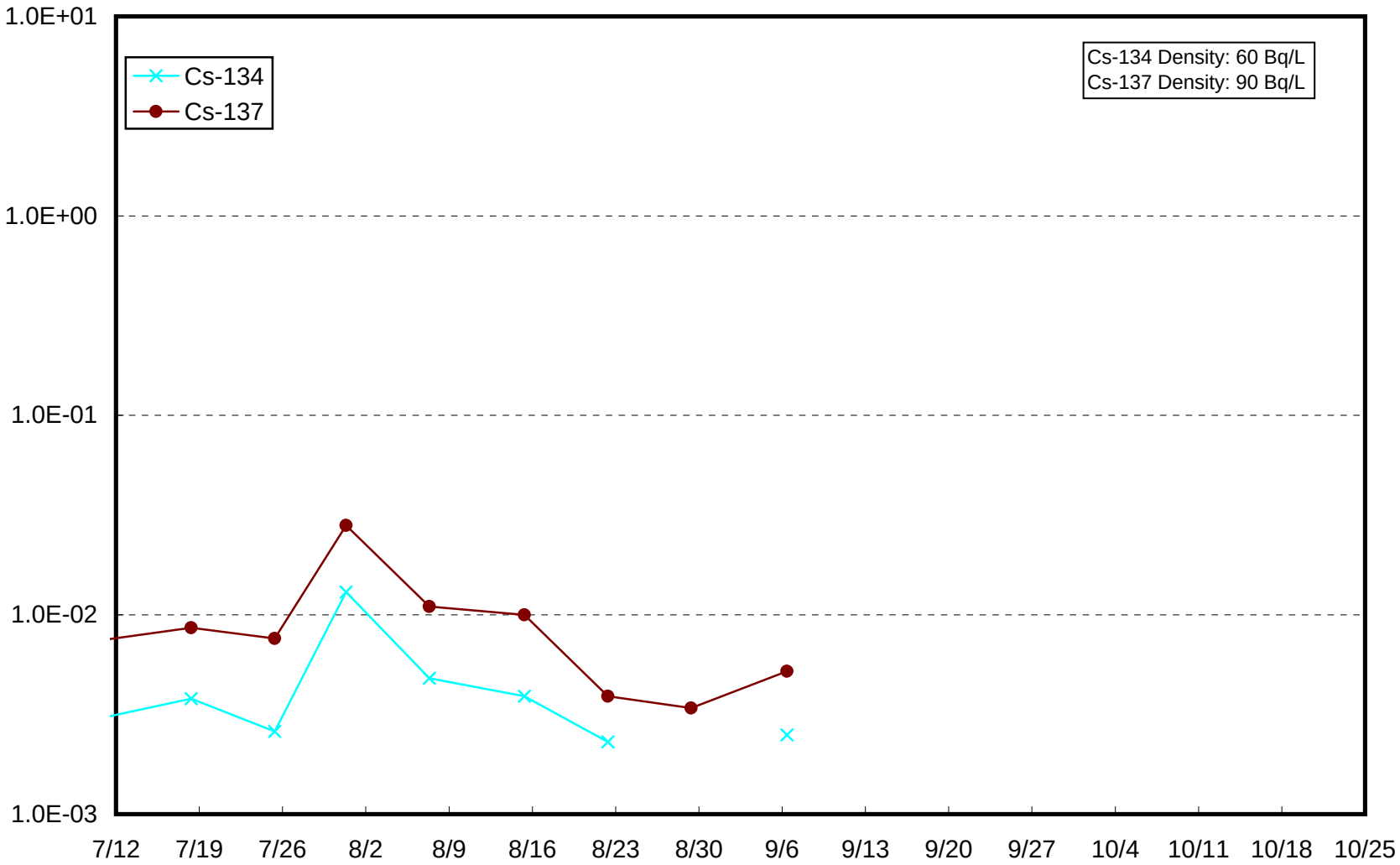
Radioactivity Density of the Seawater at 3km Offshore of Fukushima Daini NPS (T-D9) Lower Layer (Bq/L)



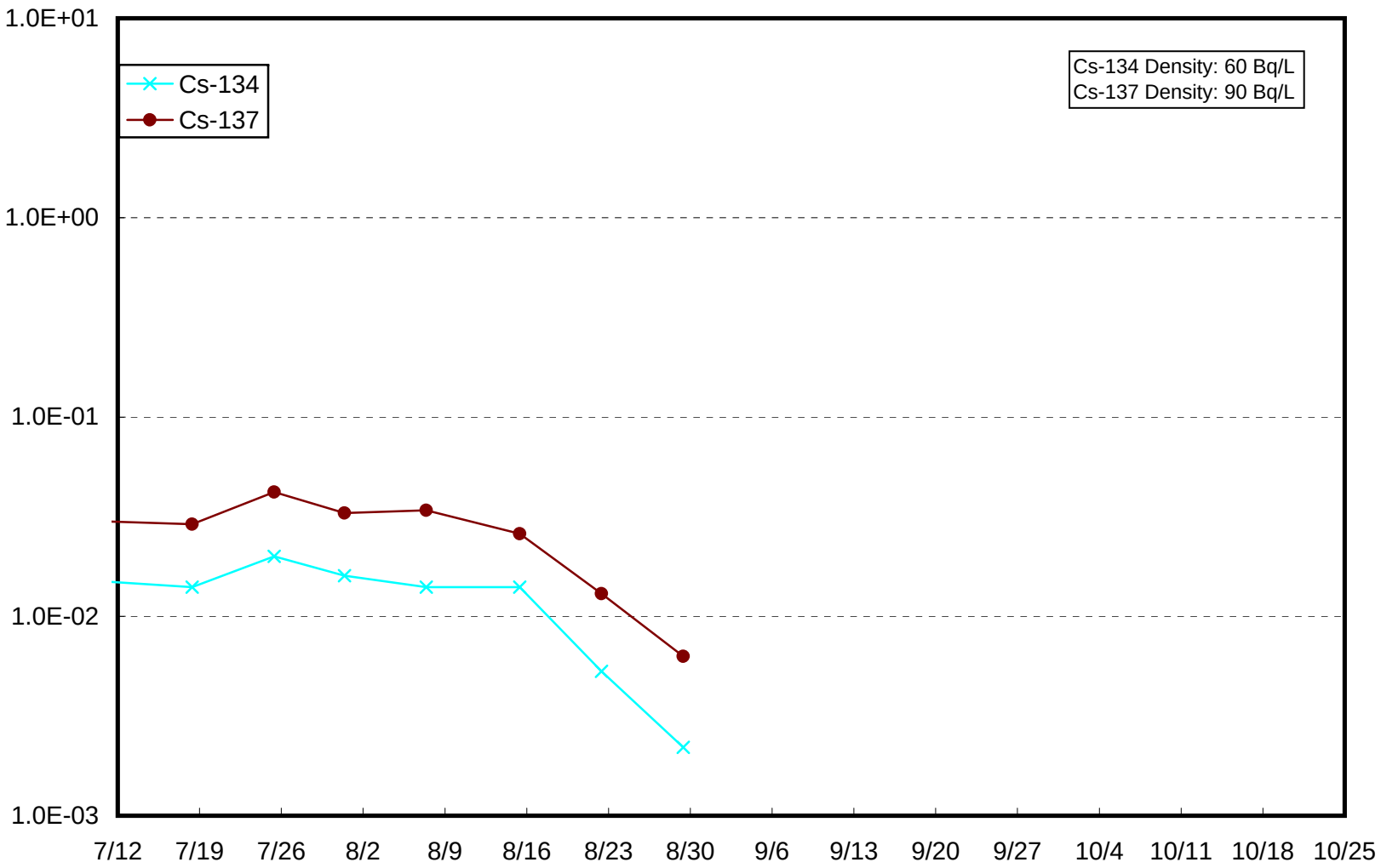
Radioactivity Density of the Seawater at 15km Offshore of Fukushima Daiichi NPS (T-5) Upper Layer (Bq/L)



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) Lower Layer (Bq/L)