

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

(Data summarized on August 29)

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 (Approx. 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.)
	Aug 28, 2013 6:45 AM		Aug 28, 2013 5:10 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)	2.7	0.03	ND	-	90

* The density specified by the Reactor Regulation is converted from Bq/cm³ 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. 1.2Bq/L, Cs-134: Approx. 1.3Bq/L, Cs-137: Approx. 1.3Bq/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 < Coast, Fukushima Daiichi Nuclear Power Station, Remeasurement >

(Data summarized on August 29)

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 (Approx. 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 Jul 29, 2013 5:55 AM		Time of Sampling Jul 29, 2013 5:15 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)	0.21	0.00	0.72	0.01	60
Cs-137 (Approx. 30 years)	0.43	0.00	1.4	0.02	90

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

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

(Data summarized on August 29)

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	Jul 30, 2013 10:20 AM	Time of Sampling	Jul 30, 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)	0.090	0.00	0.036	0.00	60
Cs-137 (Approx. 30 years)	0.18	0.00	0.088	0.00	90

* The density specified by the Reactor Regulation is converted from Bq/cm³ 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 Radioactive Materials in the Seawater

(Data summarized on August 29)

Place of Sampling (Place No.)	North of Unit 5-6 Discharge Channel at Fukushima Daiichi NPS (Approx. 30m North of Unit 5-6 Discharge Channel) (T-1)		Around South Discharge Channel of Fukushima Daiichi NPS (Approx. 1.3km South of Unit 1-4 Discharge Channel) (T-2-1)		/		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.)
	Date of Sampling	Jul 15, 2013		Jul 15, 2013		/	
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)	
I-131 (Approx. 8 days)	ND	—	ND	—	/	/	40
Cs-134 (Approx. 2 years)	ND	—	ND	—	/	/	60
Cs-137 (Approx. 30 years)	1.5	0.02	3	0.03	/	/	90
H-3 (approx. 12yrs)	5.5	0.00	ND	—	/	/	60,000
All α	ND	—	ND	—	/	/	—
All β	ND	—	ND	—	/	/	—
Sr-90 (Approx. 29 years)	1.2	0.04	0.67	0.02	/	/	30

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

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

* Nuclide analysis results of I-131, Cs-134, Cs-137 and All β obtained at "Around South Discharge Channel of Fukushima Daiichi NPS " were announced on July 29, 2013.

* When the measurement value is below the detection limit, "ND" is marked. The detection limits are as follows.

I-131: Approx. 1.1Bq/L, Cs-134: Approx. 1.2Bq/L

H-3: Approx. 2.9Bq/L, All α: Approx. 2.6Bq/L, All β: Approx. 22Bq/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 of Sr-89 and Sr-90 were done by Japan Chemical Analysis Center.

(Evaluation)

Although H-3 and Sr-90 were detected supposedly as a result of this accident, they are less than the density limit in the water which is specified by the announcement.

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

(Data summarized on August 29)

Place of Sampling (Place No.)	*1				*1				*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.)
	3km Offshore of Odaka Ward (T-14)		3km Offshore of Odaka Ward (T-14)		3km Offshore of Odaka Ward (T-14)		3km Offshore of Ukedo River (T-D1)		3km Offshore of Ukedo River (T-D1)		3km Offshore of Ukedo River (T-D1)		
Time of Sampling	Upper Layer		Lower Layer		Upper Layer		Lower Layer		Upper Layer		Lower Layer		
	Jul 24, 2013 8:47 AM		Jul 24, 2013 8:47 AM		Jul 30, 2013 8:55 AM		Jul 30, 2013 8:55 AM		Jul 30, 2013 8:38 AM		Jul 30, 2013 8:38 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)	0.0031	0.00	0.0066	0.00	0.0054	0.00	0.0036	0.00	0.0037	0.00	0.0092	0.00	60
Cs-137 (Approx. 30 years)	0.0088	0.00	0.014	0.00	0.017	0.00	0.0096	0.00	0.0099	0.00	0.018	0.00	90

Place of Sampling (Place No.)	*2				*2				*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.)
	3km Offshore of Fukushima Daiichi NPS (T-D5)		3km Offshore of Fukushima Daiichi NPS (T-D5)		3km Offshore of Fukushima Daini NPS (T-D9)		3km Offshore of Fukushima Daini NPS (T-D9)		15km Offshore of Fukushima Daiichi NPS (T-5)		15km Offshore of Fukushima Daiichi NPS (T-5)		
Time of Sampling	Upper Layer		Lower Layer		Upper Layer		Lower Layer		Upper Layer		Lower Layer		
	Jul 30, 2013 8:11 AM		Jul 30, 2013 8:11 AM		Jul 31, 2013 8:57 AM		Jul 31, 2013 8:57 AM		Jul 25, 2013 8:12 AM		Jul 25, 2013 8:12 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)	0.047	0.00	0.024	0.00	0.0047	0.00	0.0075	0.00	ND	-	0.0026	0.00	60
Cs-137 (Approx. 30 years)	0.088	0.00	0.052	0.00	0.011	0.00	0.015	0.00	0.0037	0.00	0.0076	0.00	90

* The density specified by the Reactor Regulation is converted from Bq/cm³ 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.0.0014Bq/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 (Phosphomolybdc 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 2/3 >

(Data summarized on August 29)

Place of Sampling (Place No.)	15km Offshore of Fukushima Daiichi NPS (T-5)				3km Offshore of Iwasawa Shore (T-11)				3km Offshore of Iwasawa Shore (T-11)				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	Jul 31, 2013 8:15 AM		Jul 31, 2013 8:15 AM		Jul 25, 2013 9:26 AM		Jul 25, 2013 9:26 AM		Jul 31, 2013 9:33 AM		Jul 31, 2013 9:33 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)	ND	-	0.013	0.00	0.020	0.00	0.016	0.00	0.016	0.00	0.013	0.00	60
Cs-137 (Approx. 30 years)	0.0026	0.00	0.028	0.00	0.042	0.00	0.035	0.00	0.033	0.00	0.030	0.00	90

Place of Sampling (Place No.)	3km Offshore of Northern Iwaki City (T-12)				1km Offshore of Natsui River (T-17-1)				3km Offshore of Toyoma (T-20)				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	Jul 26, 2013 6:05 AM		Jul 26, 2013 6:05 AM		Jul 26, 2013 6:32 AM		Jul 26, 2013 6:32 AM		Jul 26, 2013 6:59 AM		Jul 26, 2013 6:59 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	0.0065	0.00	0.0088	0.00	0.0049	0.00	0.012	0.00	0.0028	0.00	60
Cs-137 (Approx. 30 years)	0.029	0.00	0.015	0.00	0.021	0.00	0.0093	0.00	0.026	0.00	0.0069	0.00	90

* The density specified by the Reactor Regulation is converted from Bq/cm³ 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.0.0014Bq/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 (Phosphomolybdc acid ammonium adsorption sampling method) are noted.

* Analyzed by: THE GENERAL ENVIRONMENTAL TECHNOS Co., LTD.

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

(Data summarized on August 29)

Place of Sampling (Place No.)	Around 4km Offshore of Kumagawa (T-S8)				Arounmd 15km Offshore of Odaka Ward (T-B1)				Around 18km Offshore of Ukedo River (T-B2)				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	Jul 18, 2013 6:49 AM		Jul 18, 2013 6:49 AM		Jul 23, 2013 5:24 AM		Jul 23, 2013 5:24 AM		Jul 23, 2013 5:53 AM		Jul 23, 2013 5:53 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)	0.011	0.00	0.010	0.00	0.0052	0.00	0.013	0.00	0.011	0.00	0.0040	0.00	60
Cs-137 (Approx. 30 years)	0.024	0.00	0.024	0.00	0.011	0.00	0.028	0.00	0.021	0.00	0.0086	0.00	90

Place of Sampling (Place No.)													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													
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

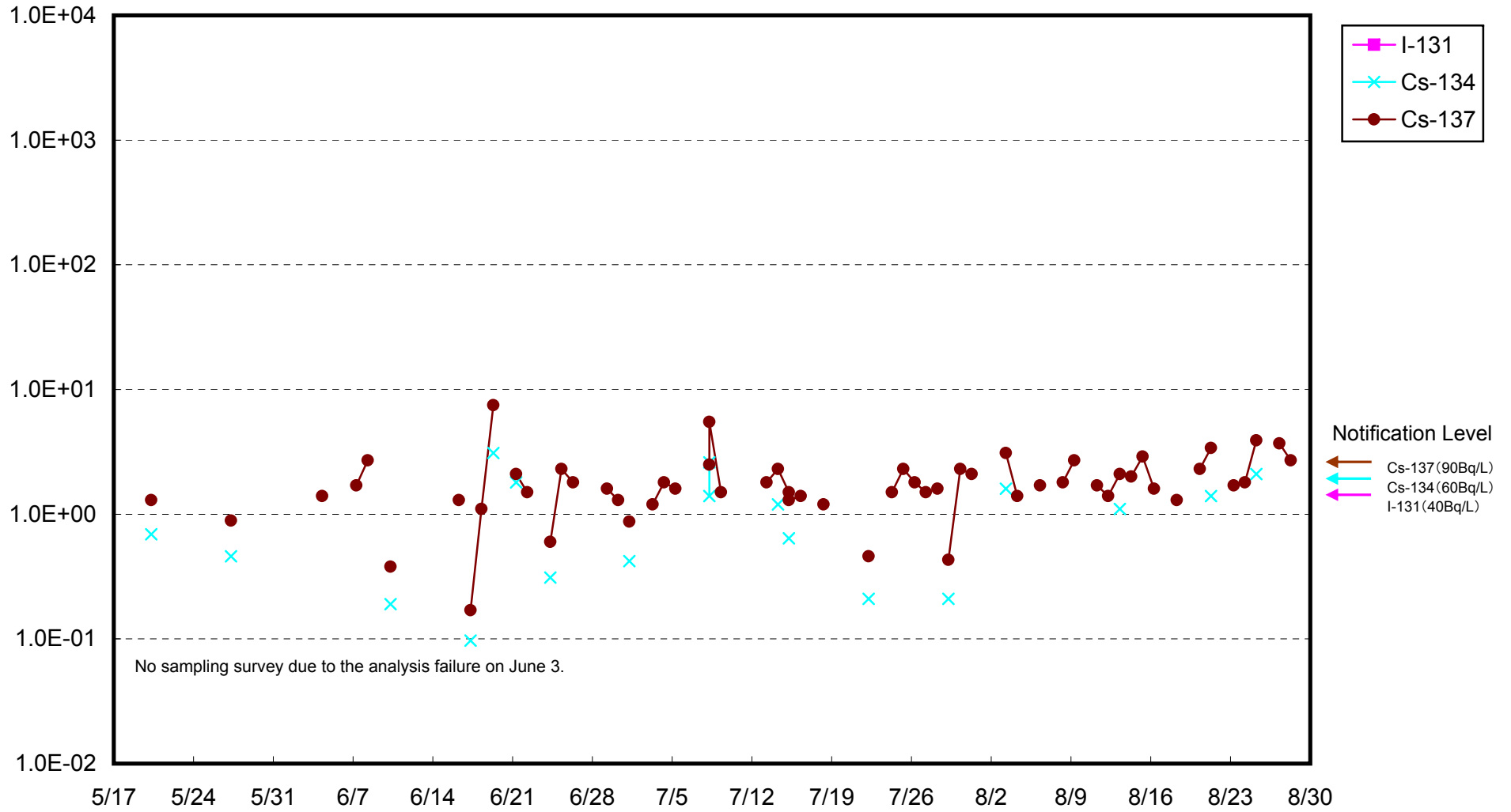
* The density specified by the Reactor Regulation is converted from Bq/cm³ to Bq/L.

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

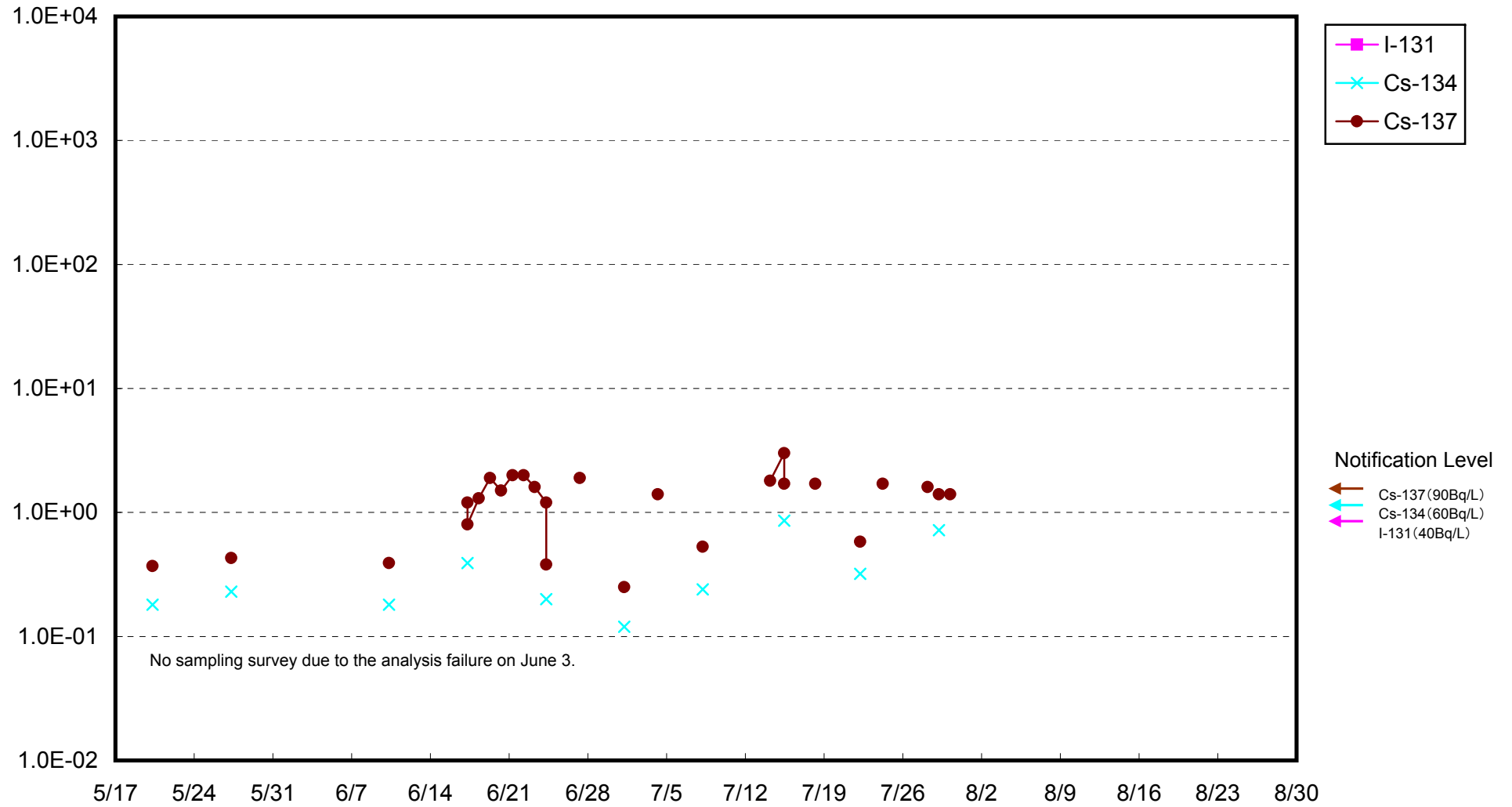
* Analysis results by detail analysis (Phosphomolybdic acid ammonium adsorption sampling method) are noted.

* Analyzed by: THE GENERAL ENVIRONMENTAL TECHNOS Co., LTD.

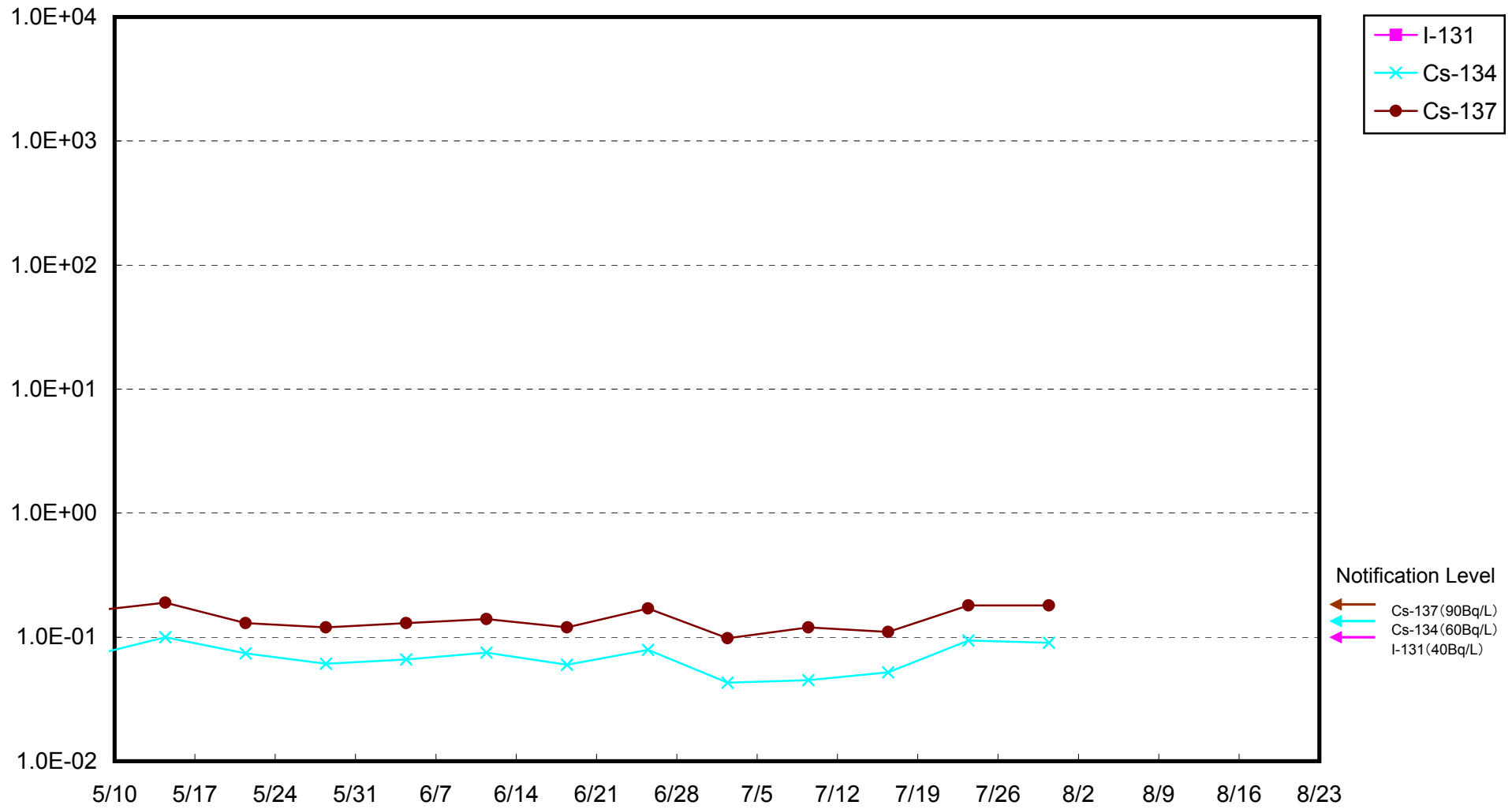
Radioactivity Density of the Seawater at 1F Units 5-6 North Discharge Channel (Bq/L)



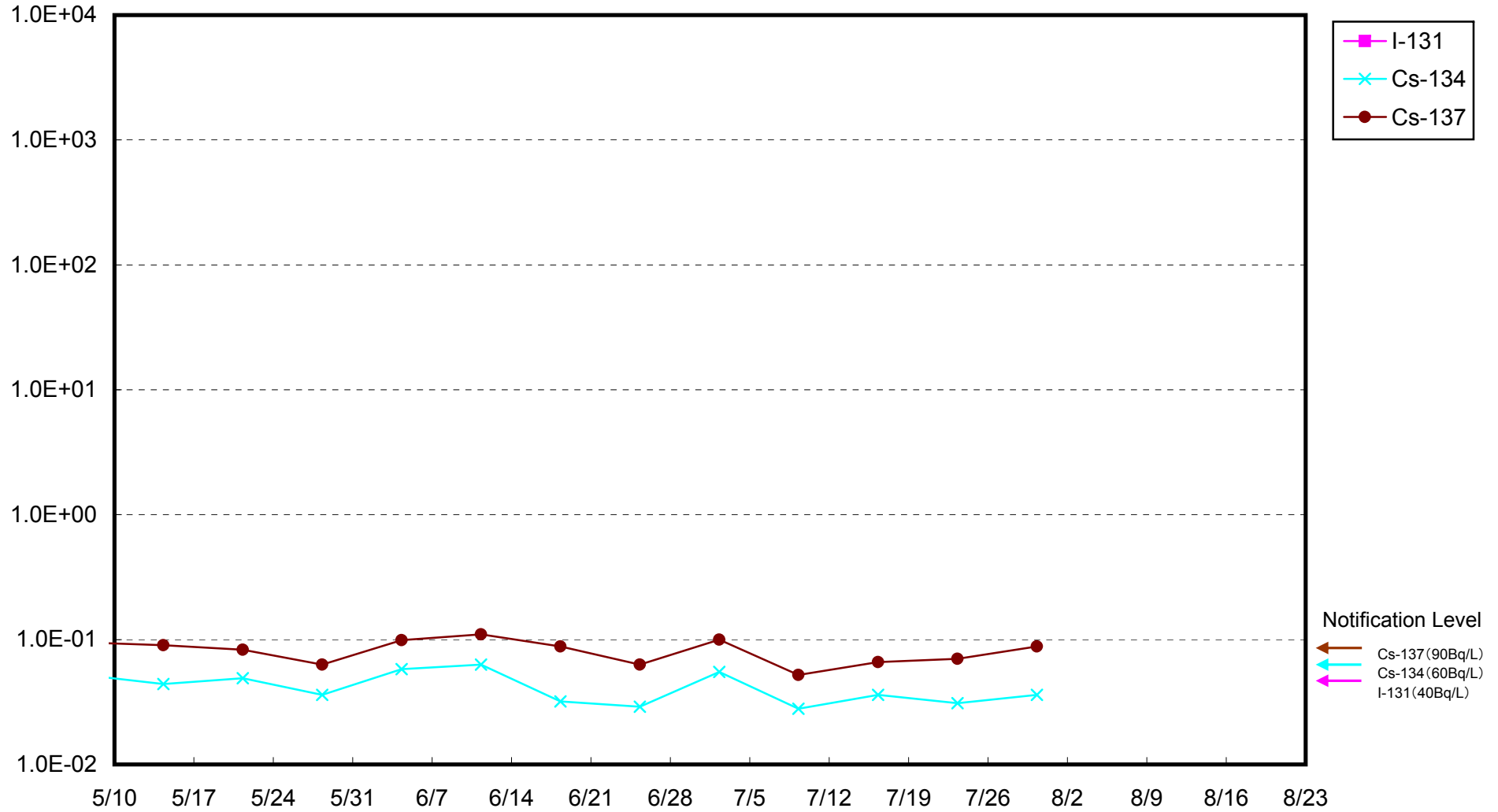
Radioactivity Density of the Seawater at 1F South Discharge Channel (Bq/L)



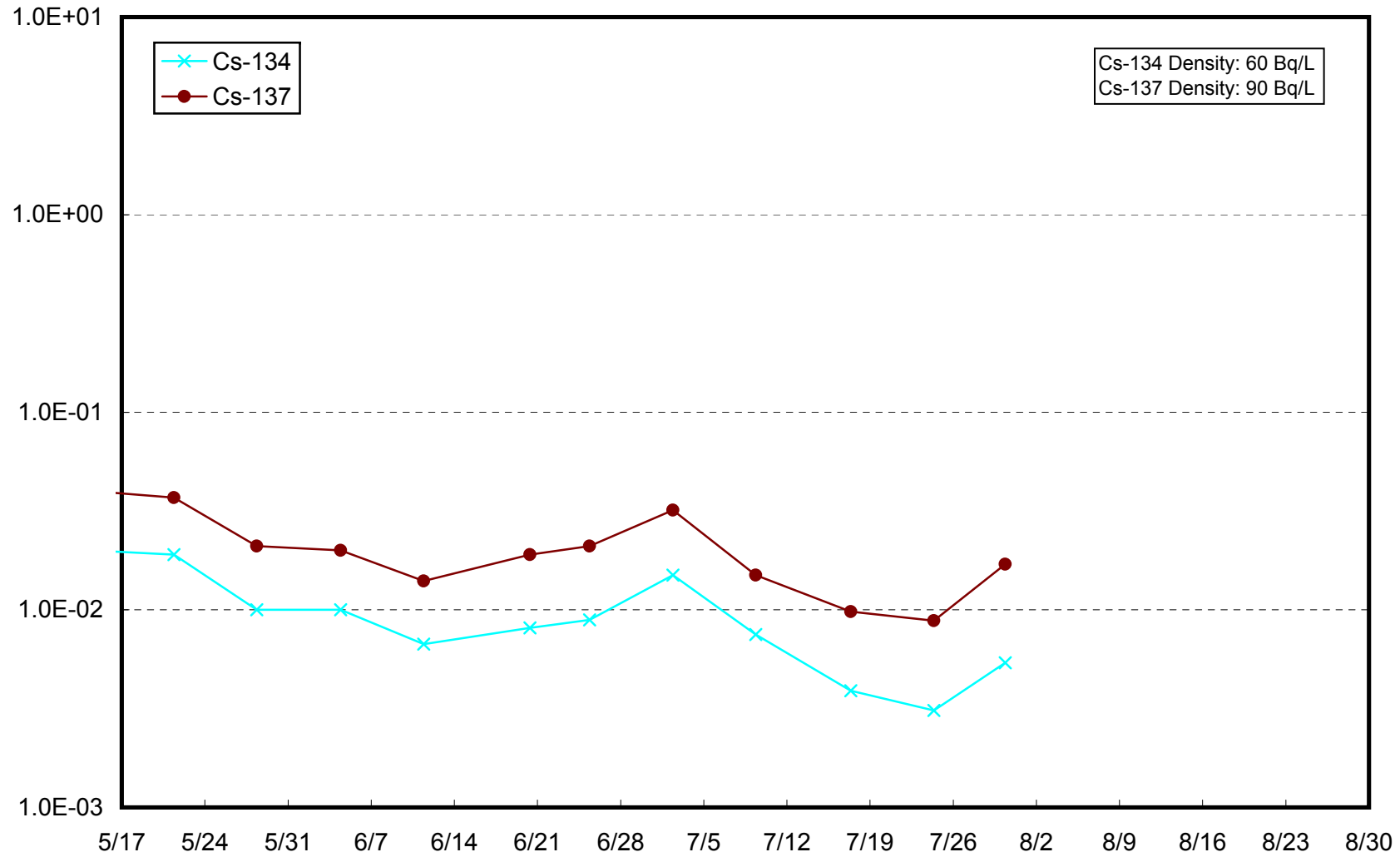
Radioactivity Density of the Seawater at 2F North Discharge Channel (Bq/L)



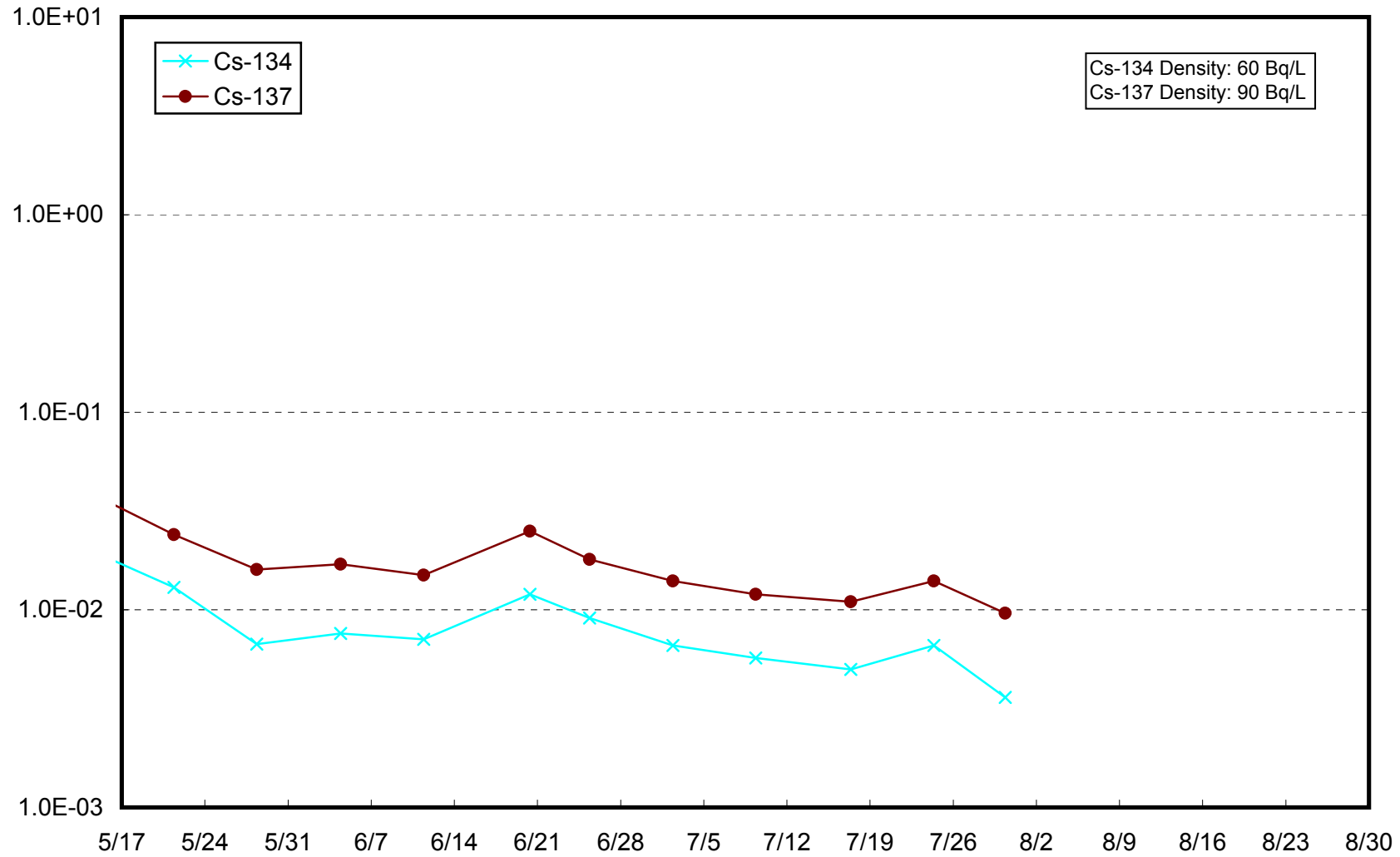
Radioactivity Density of the Seawater Around the South Side of Kitasakogawa (Bq/L)



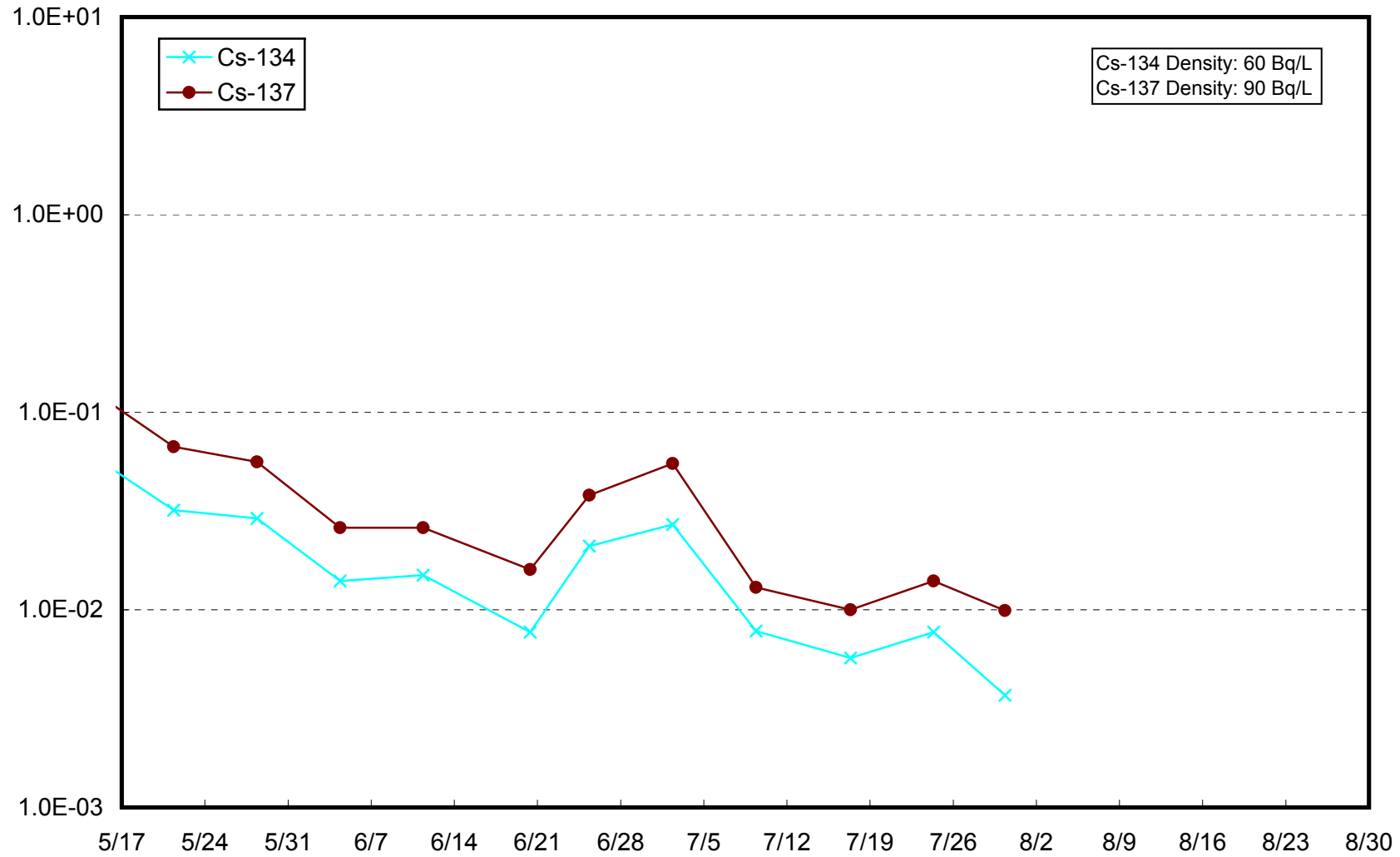
Radioactivity Density of the Seawater at 3km Offshore of Odaka Ward (T-14) Upper Layer (Bq/L)



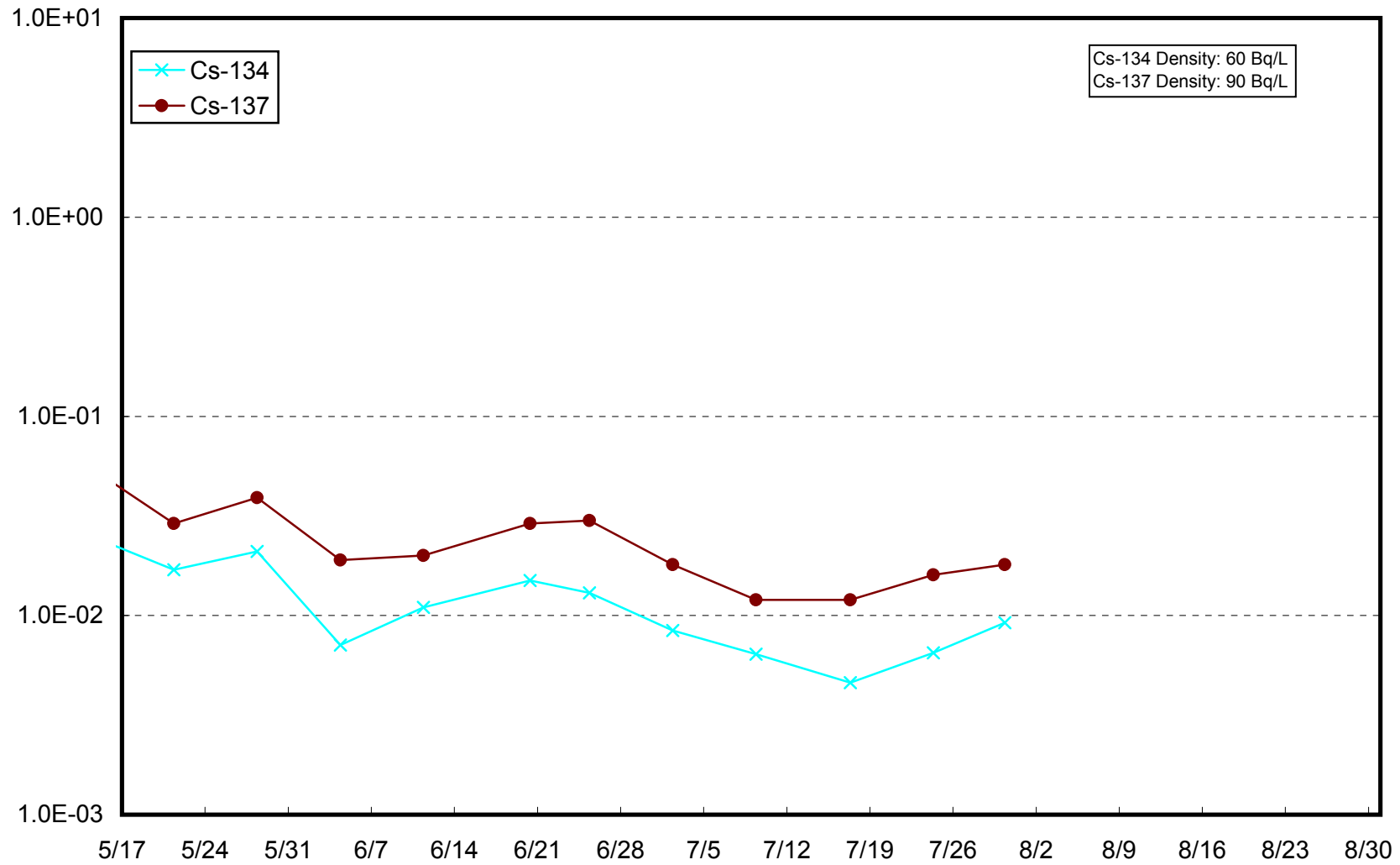
Radioactivity Density of the Seawater at 3km Offshore of Odaka Ward (T-14) Lower Layer (Bq/L)



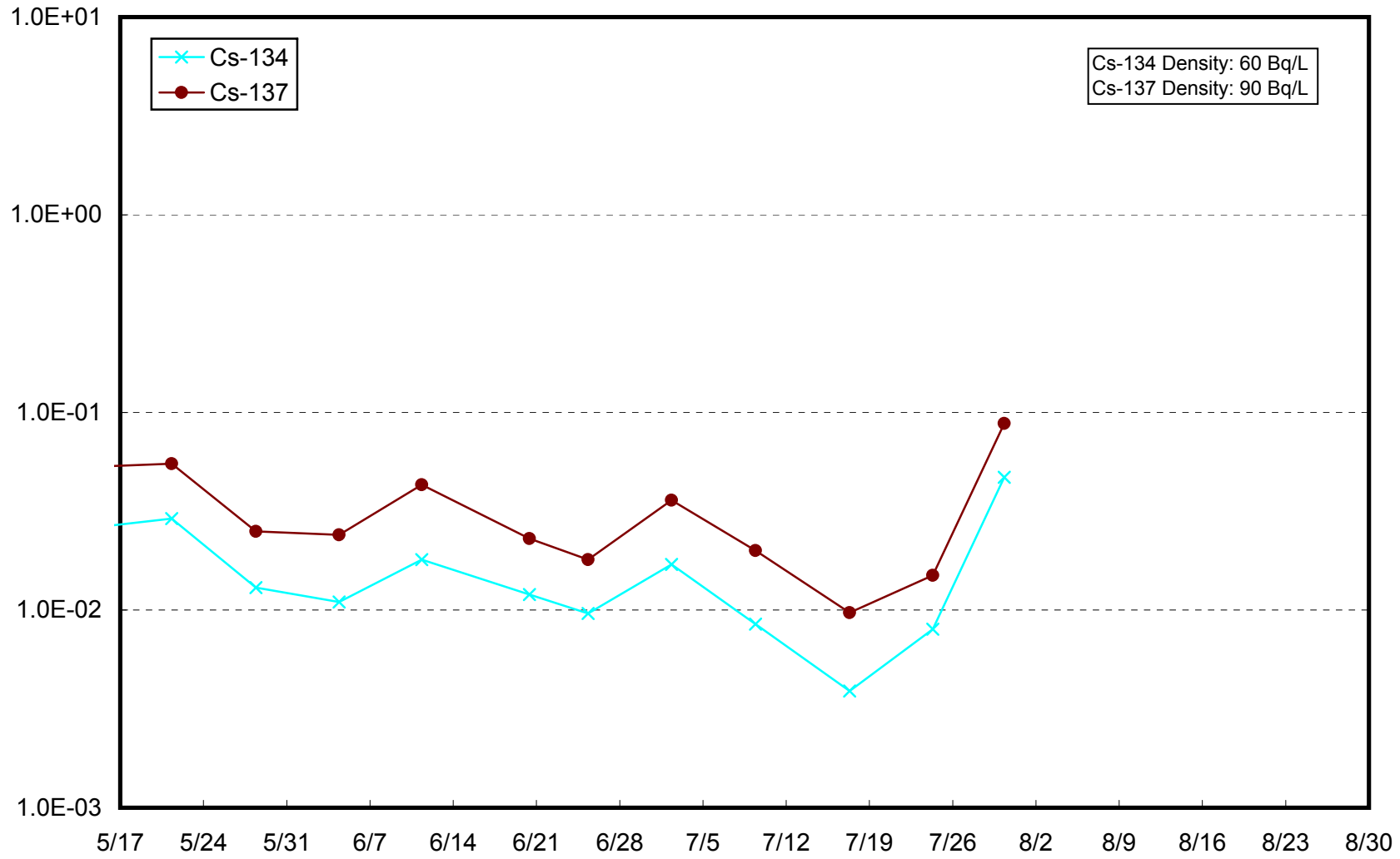
Radioactivity Density of the Seawater at 3km Offshore of Ukedo River (T-D1) Upper Layer (Bq/L)



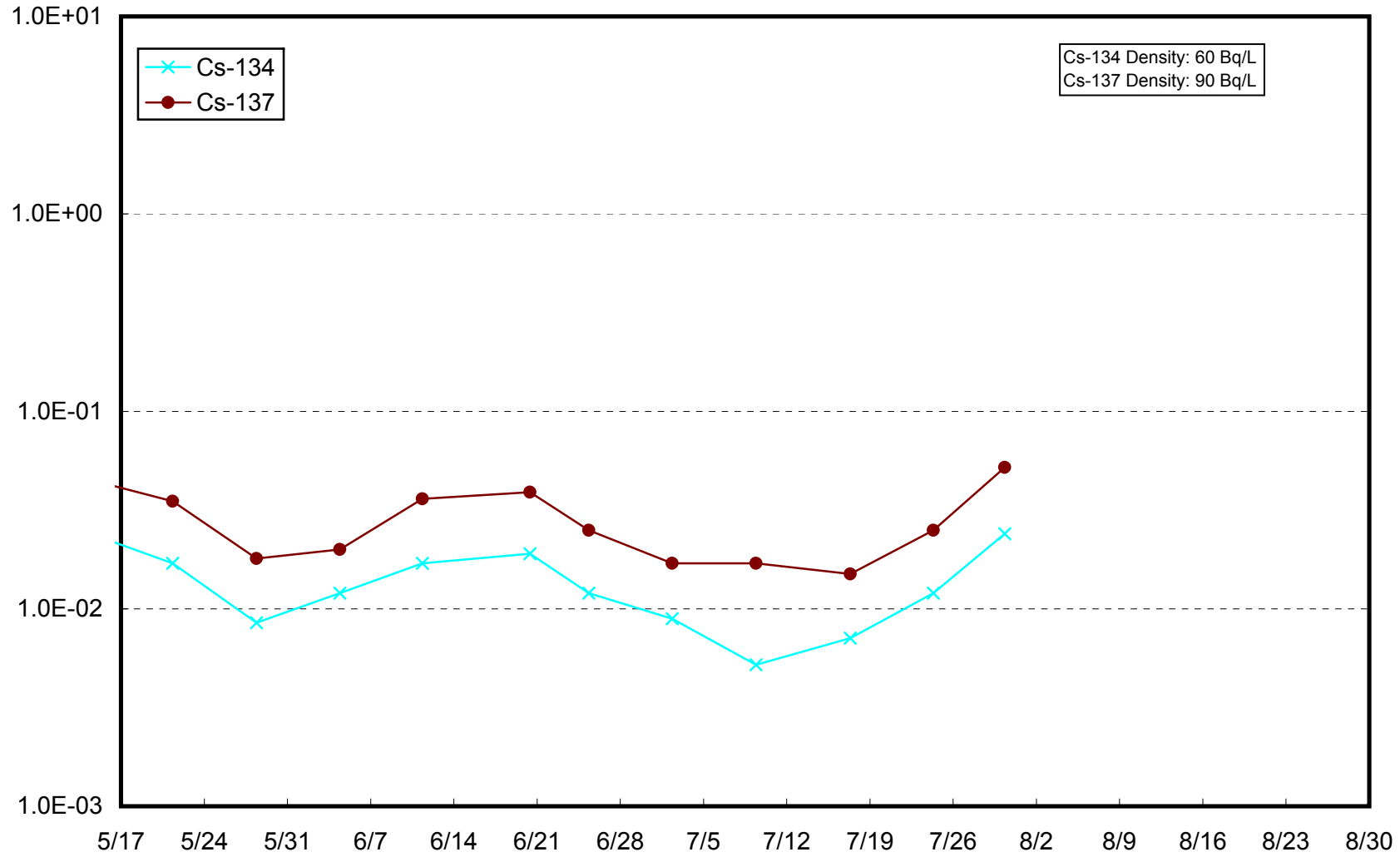
Radioactivity Density of the Seawater at 3km Offshore of Ukedo River (T-D1) Lower Layer (Bq/L)



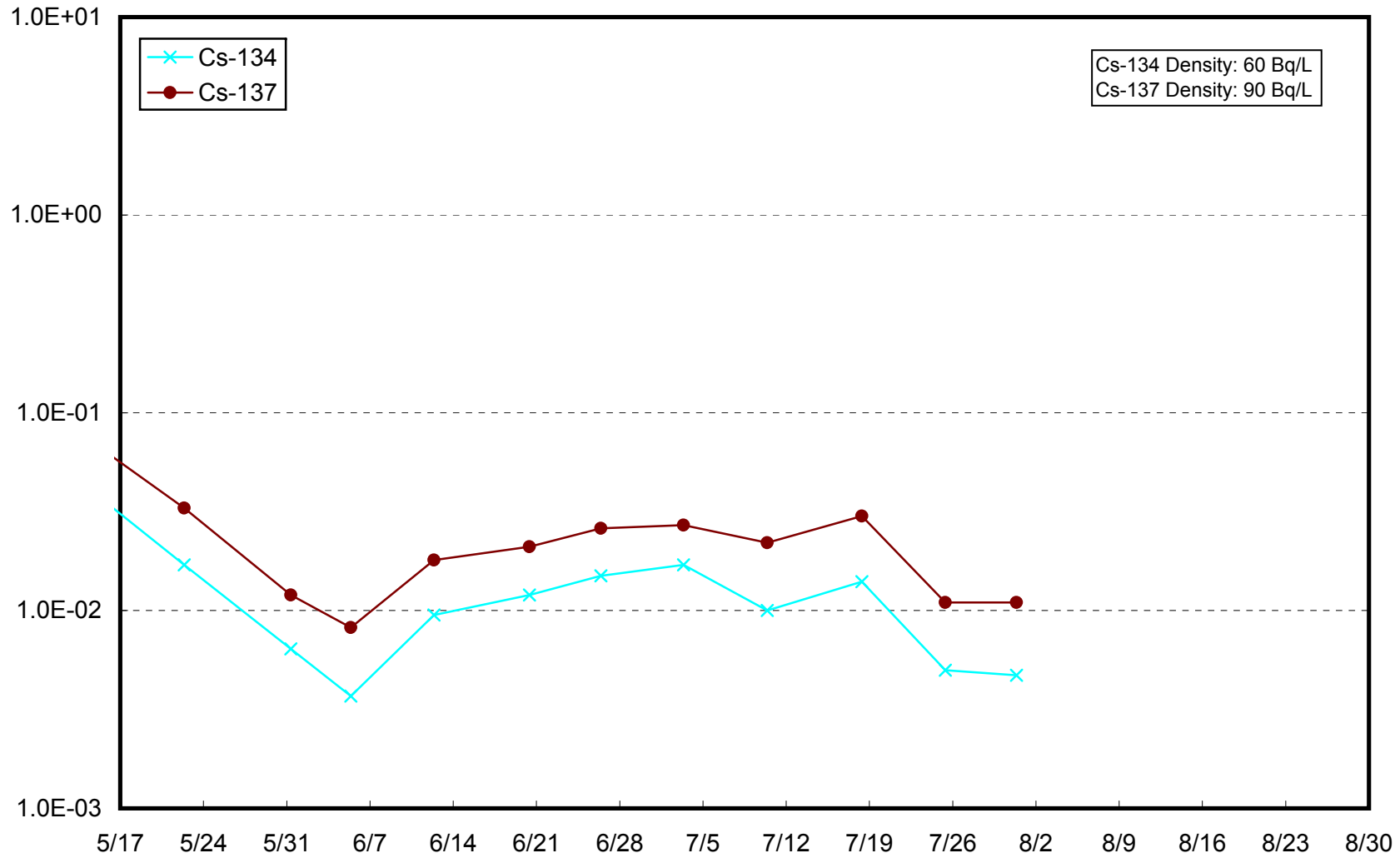
Radioactivity Density of the Seawater at 3km Offshore of Fukushima Daiichi NPS (T-D5) Upper Layer (Bq/L)



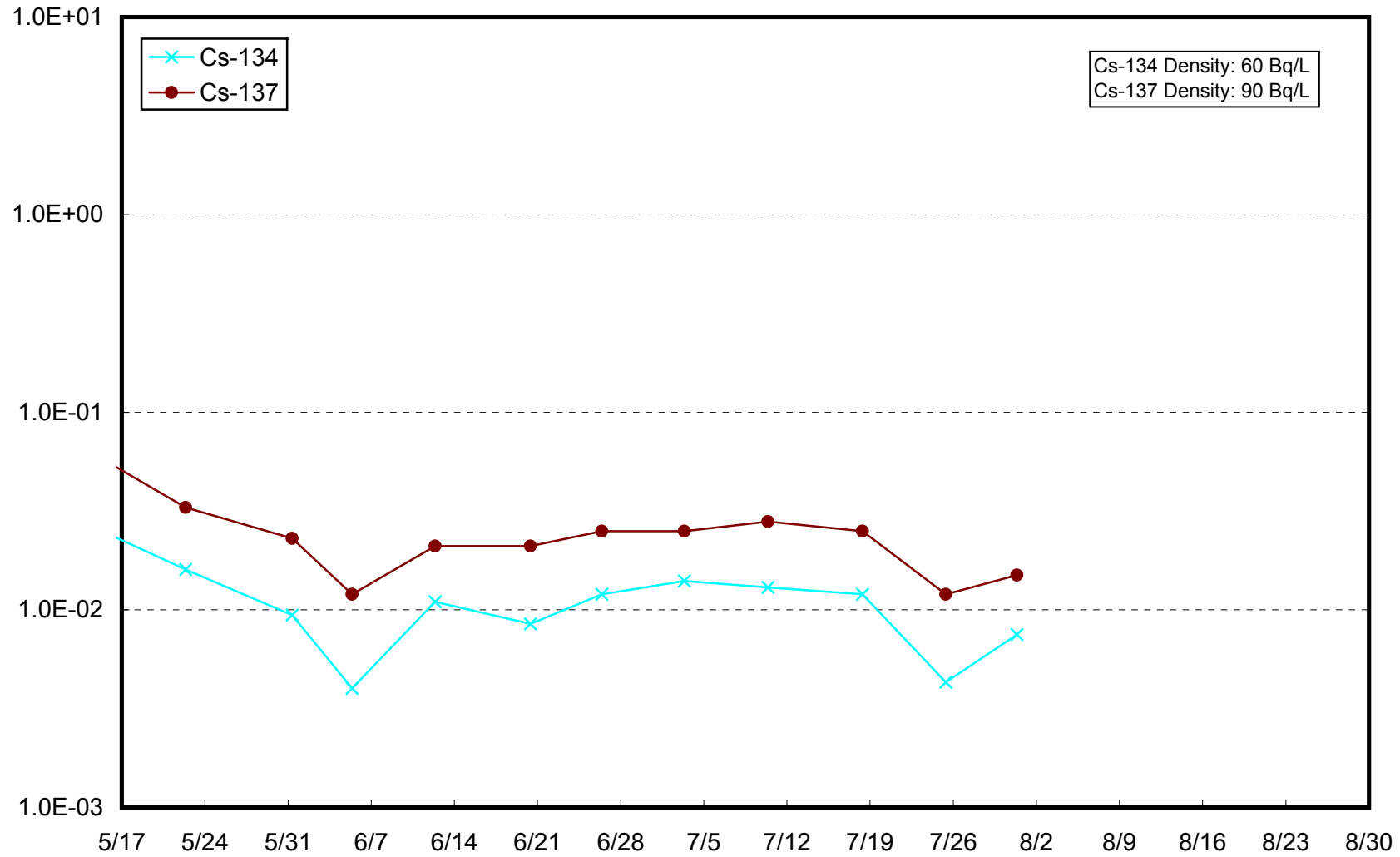
Radioactivity Density of the Seawater at 3km Offshore of Fukushima Daiichi NPS (T-D5) Lower Layer (Bq/L)



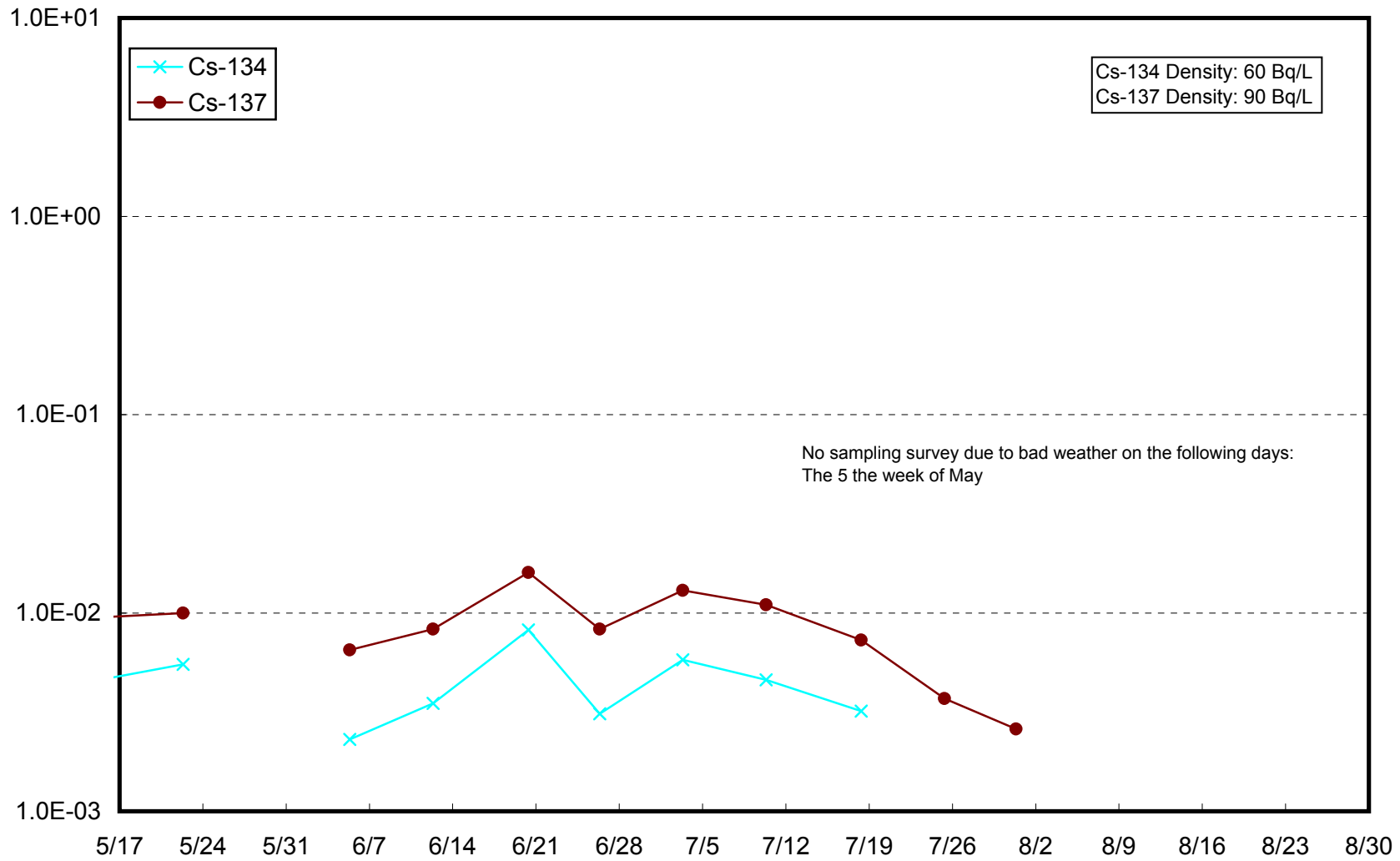
Radioactivity Density of the Seawater at 3km Offshore of Fukushima Daini NPS (T-D9) Upper Layer (Bq/L)



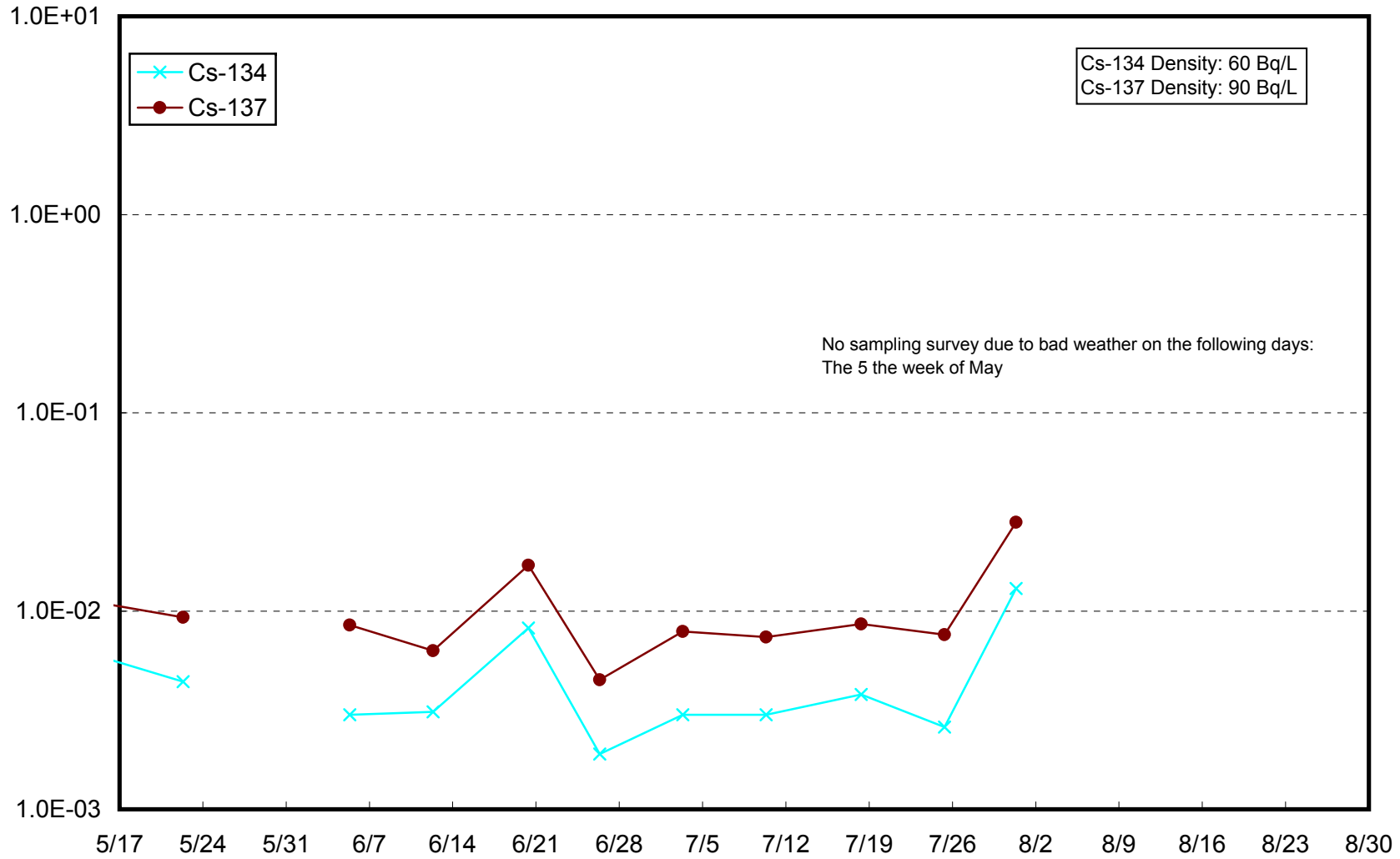
Radioactivity Density of the Seawater at 3km Offshore of Fukushima Daini NPS (T-D9) Lower Layer (Bq/L)



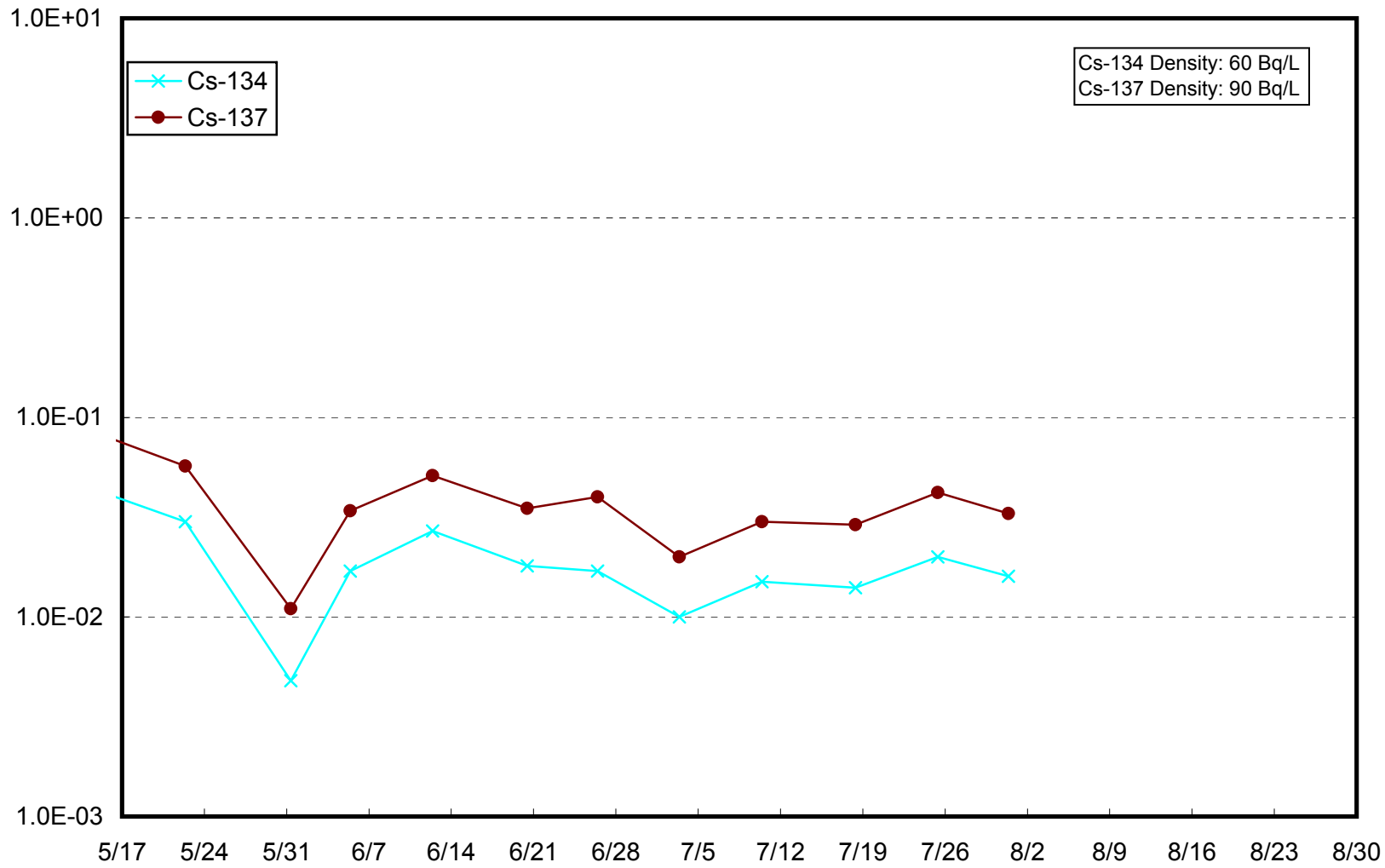
Radioactivity Density of the Seawater at 15km Offshore of Fukushima Daiichi NPS (T-5) Upper Layer (Bq/L)



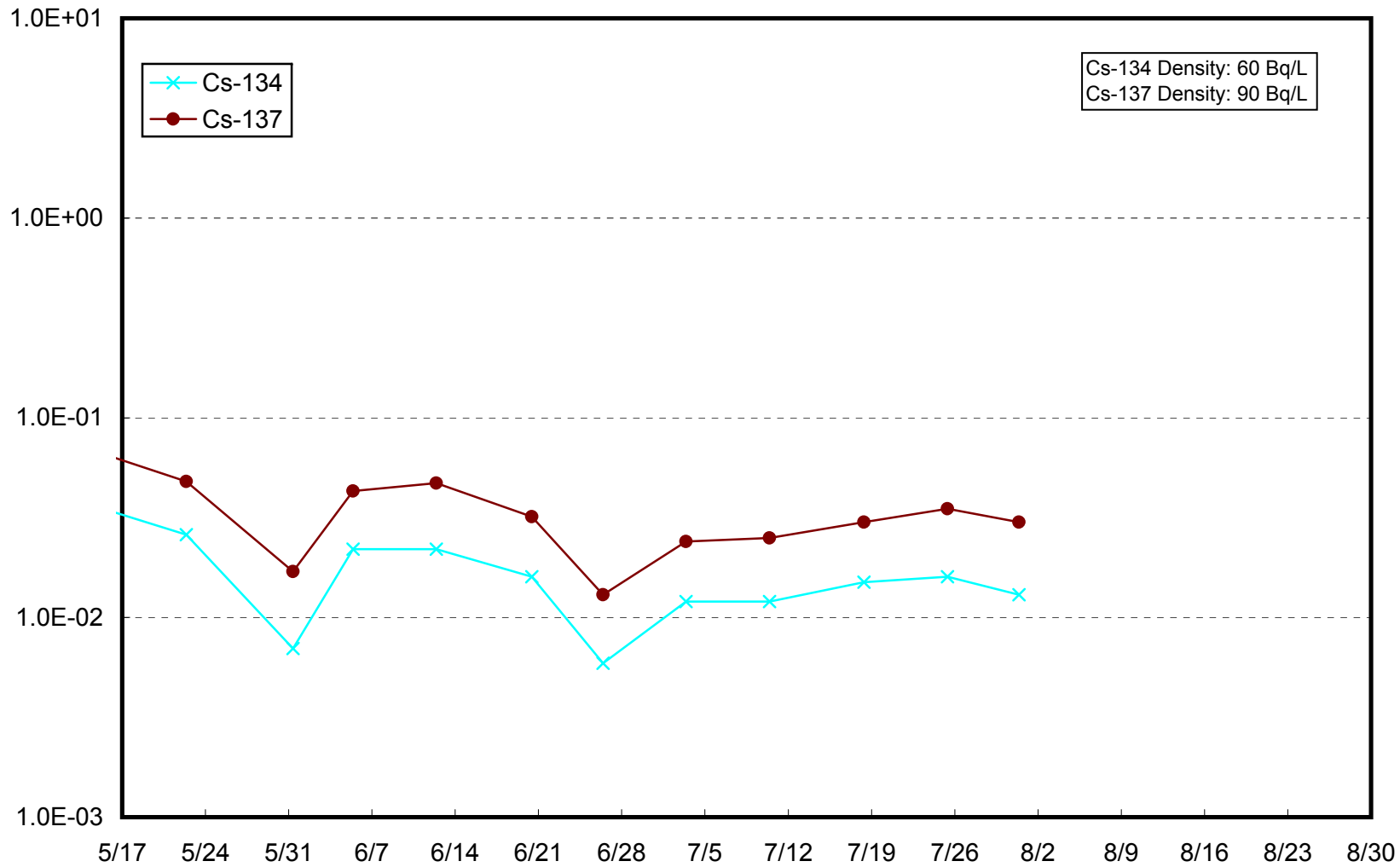
Radioactivity Density of the Seawater at 15km Offshore of Fukushima Daiichi NPS (T-5) Lower Layer (Bq/L)



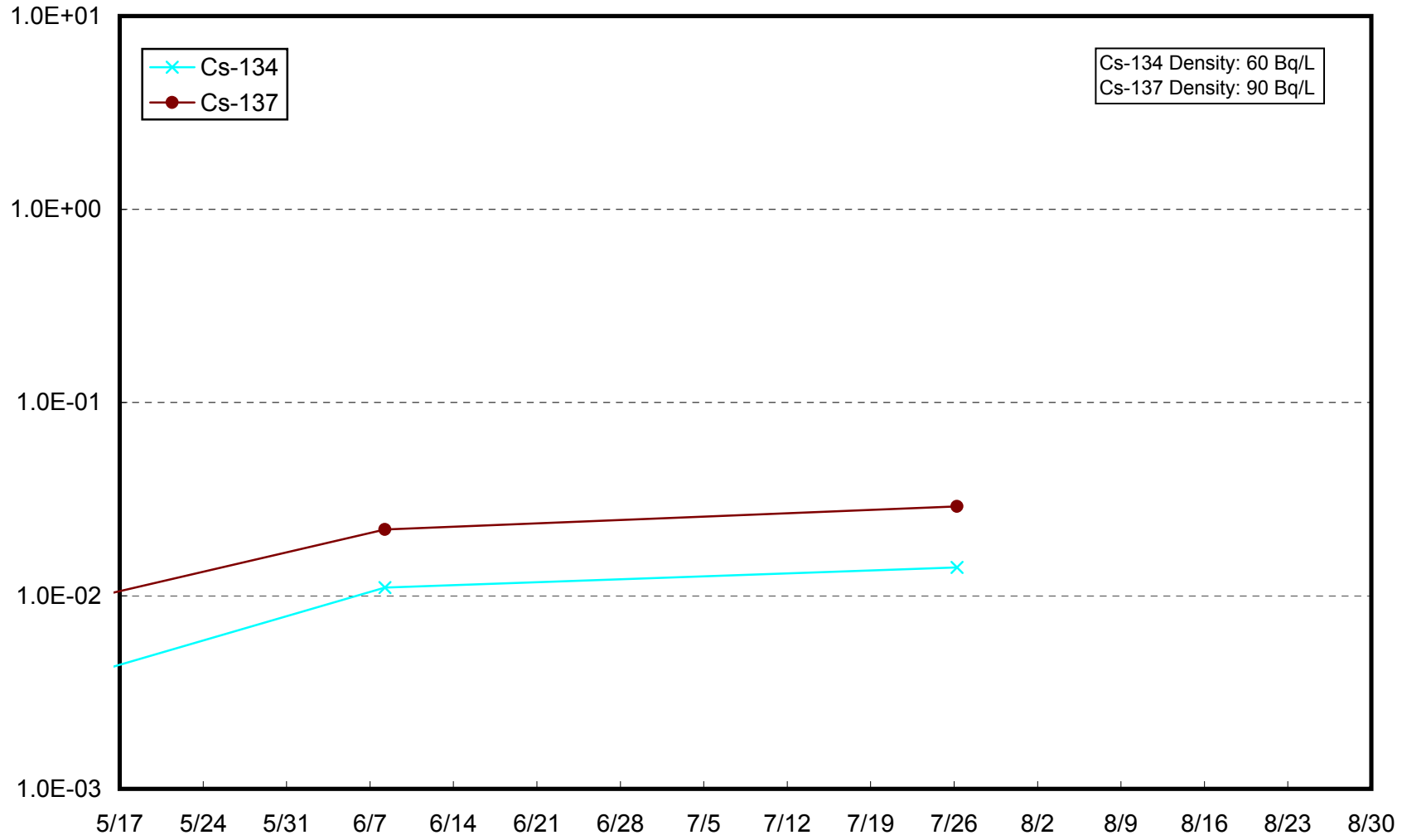
Radioactivity Density of the Seawater at 3km Offshore of Iwasawa Shore (T-11) Upper Layer (Bq/L)



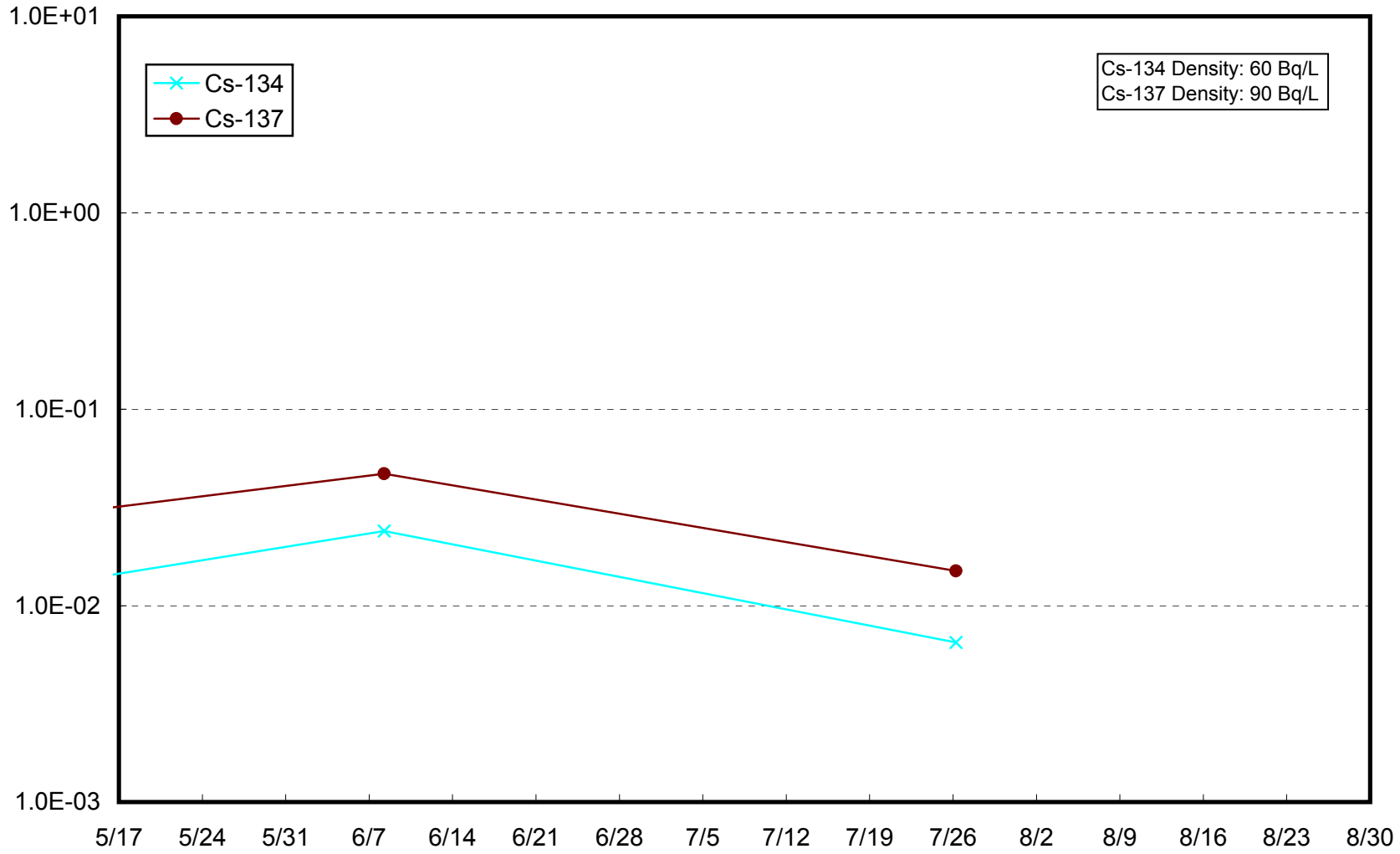
Radioactivity Density of the Seawater at 3km Offshore of Iwasawa Shore (T-11) Lower Layer (Bq/L)



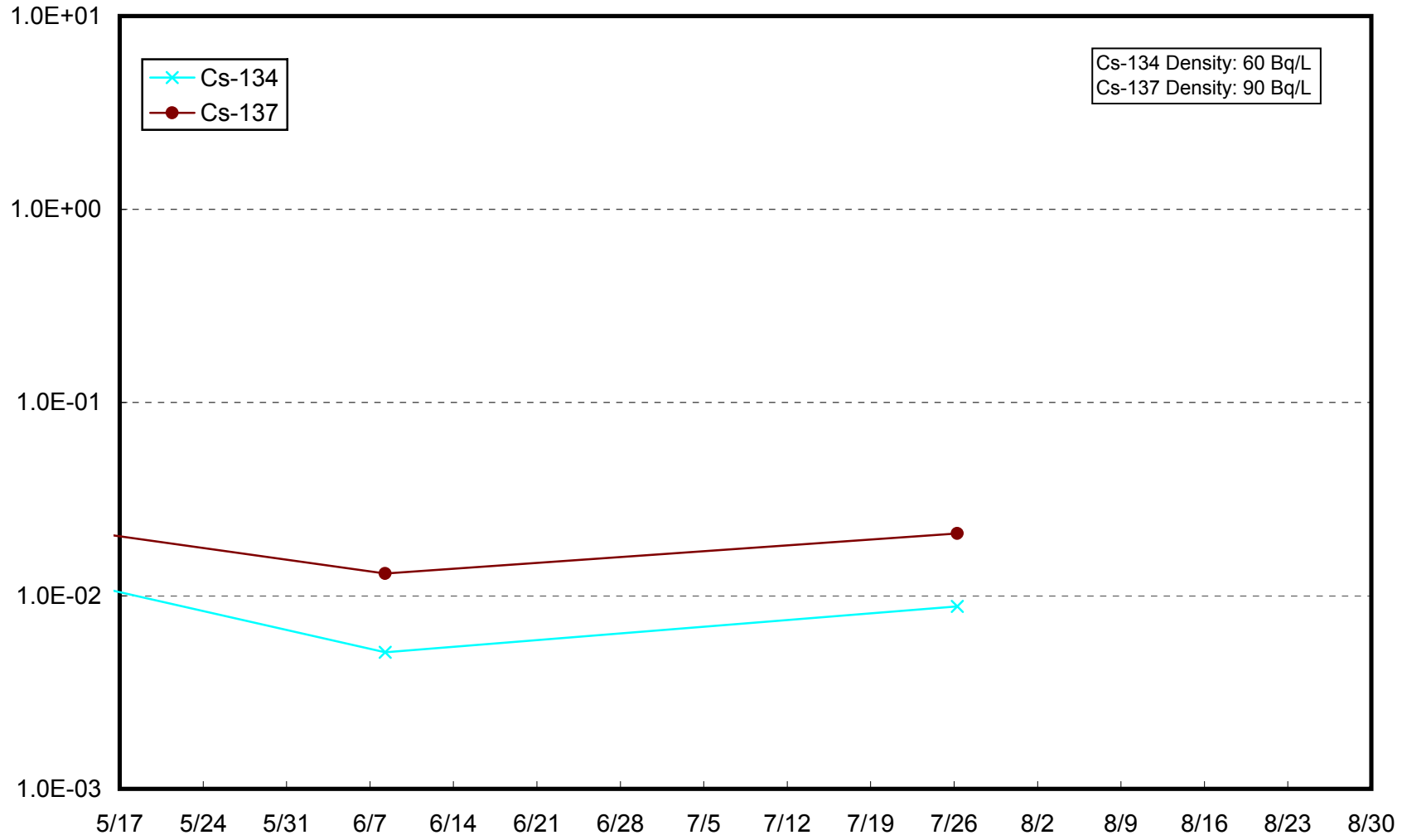
Radioactivity Density of the Seawater at 3km Offshore of North of Iwaki City(T-12) Upper Layer (Bq/L)



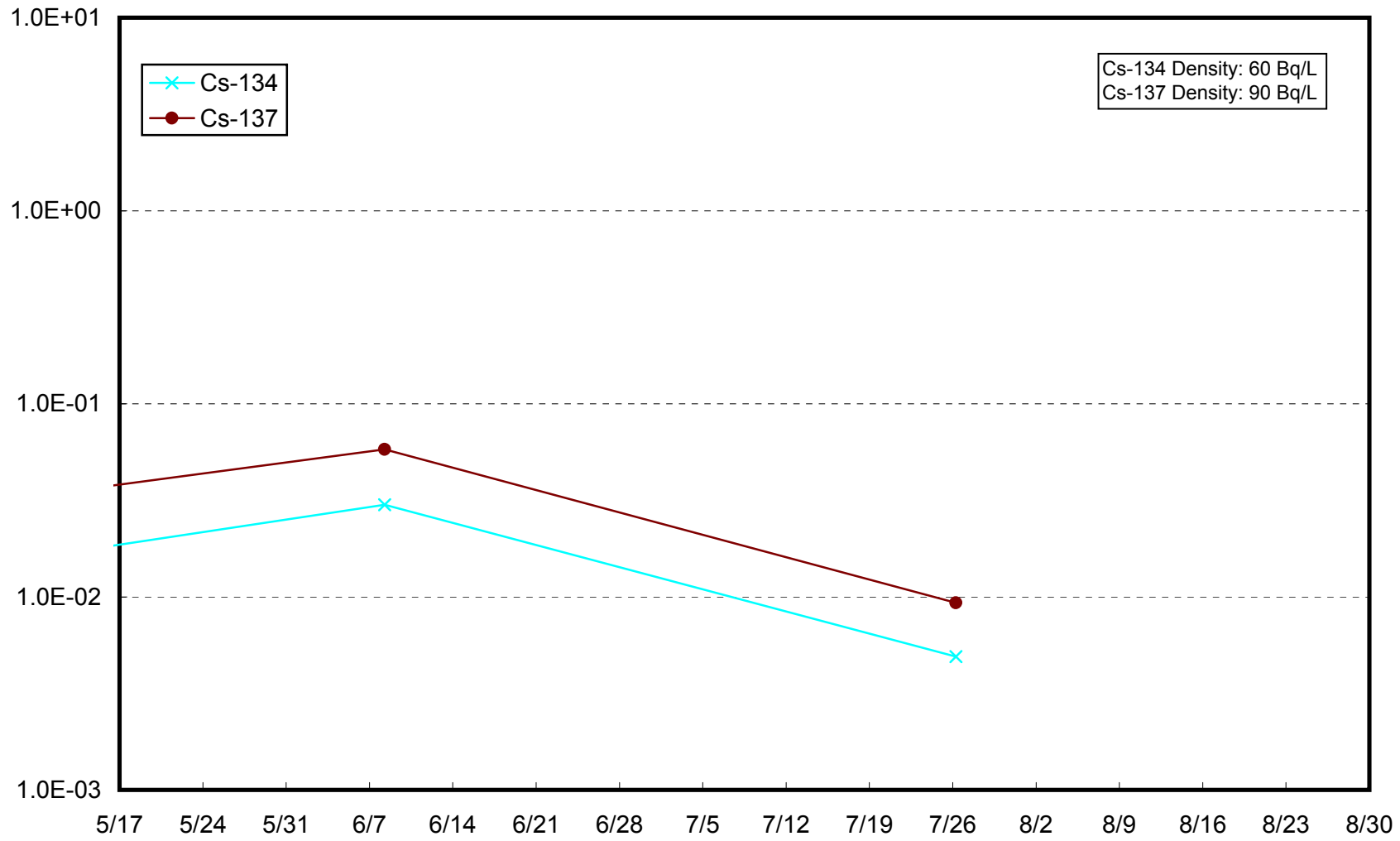
Radioactivity Density of the Seawater at 3km Offshore of North of Iwaki City(T-12) Lower Layer (Bq/L)



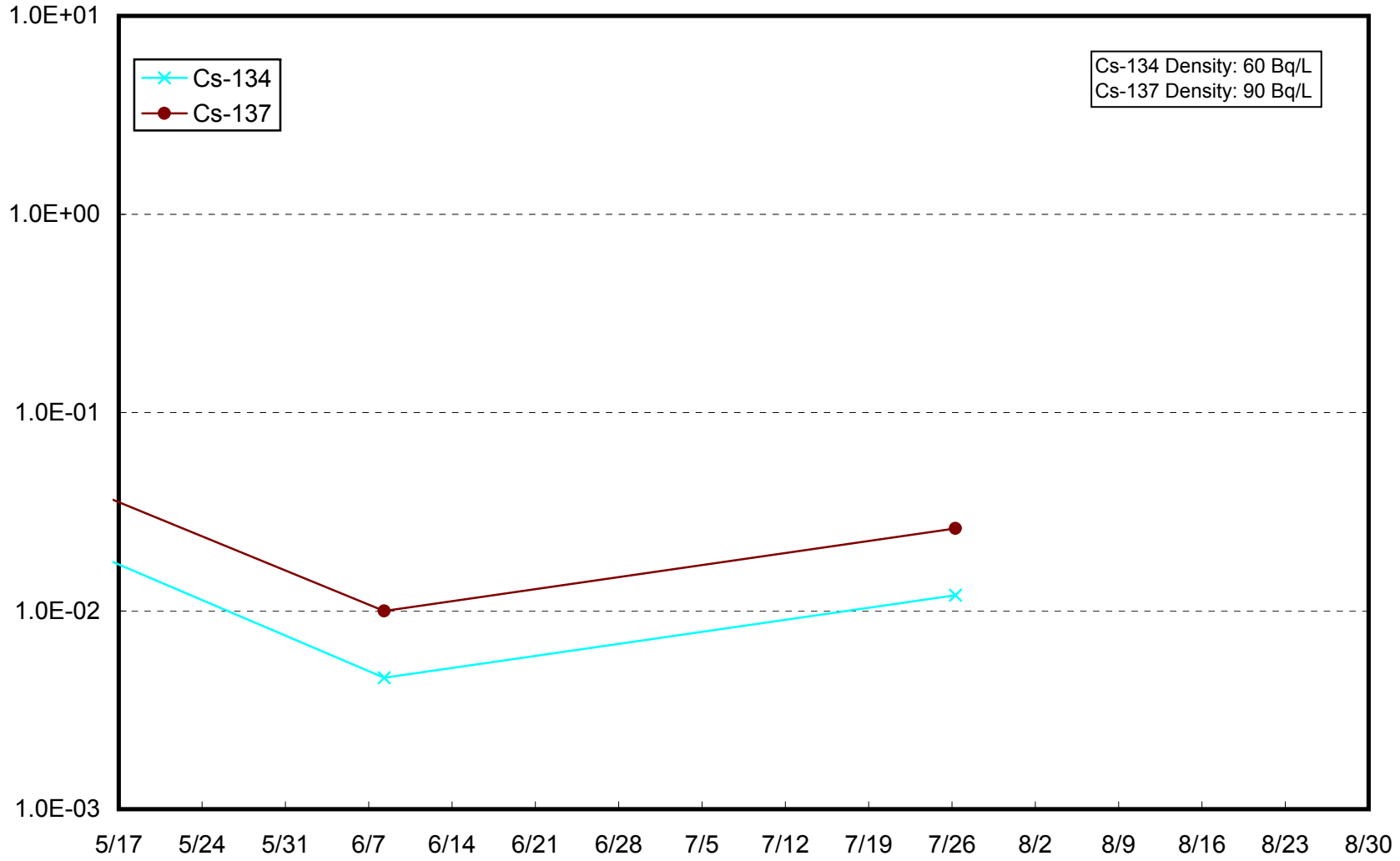
Radioactivity Density of the Seawater at 1km Offshore of Natsui River (T-17-1) Upper Layer (Bq/L)



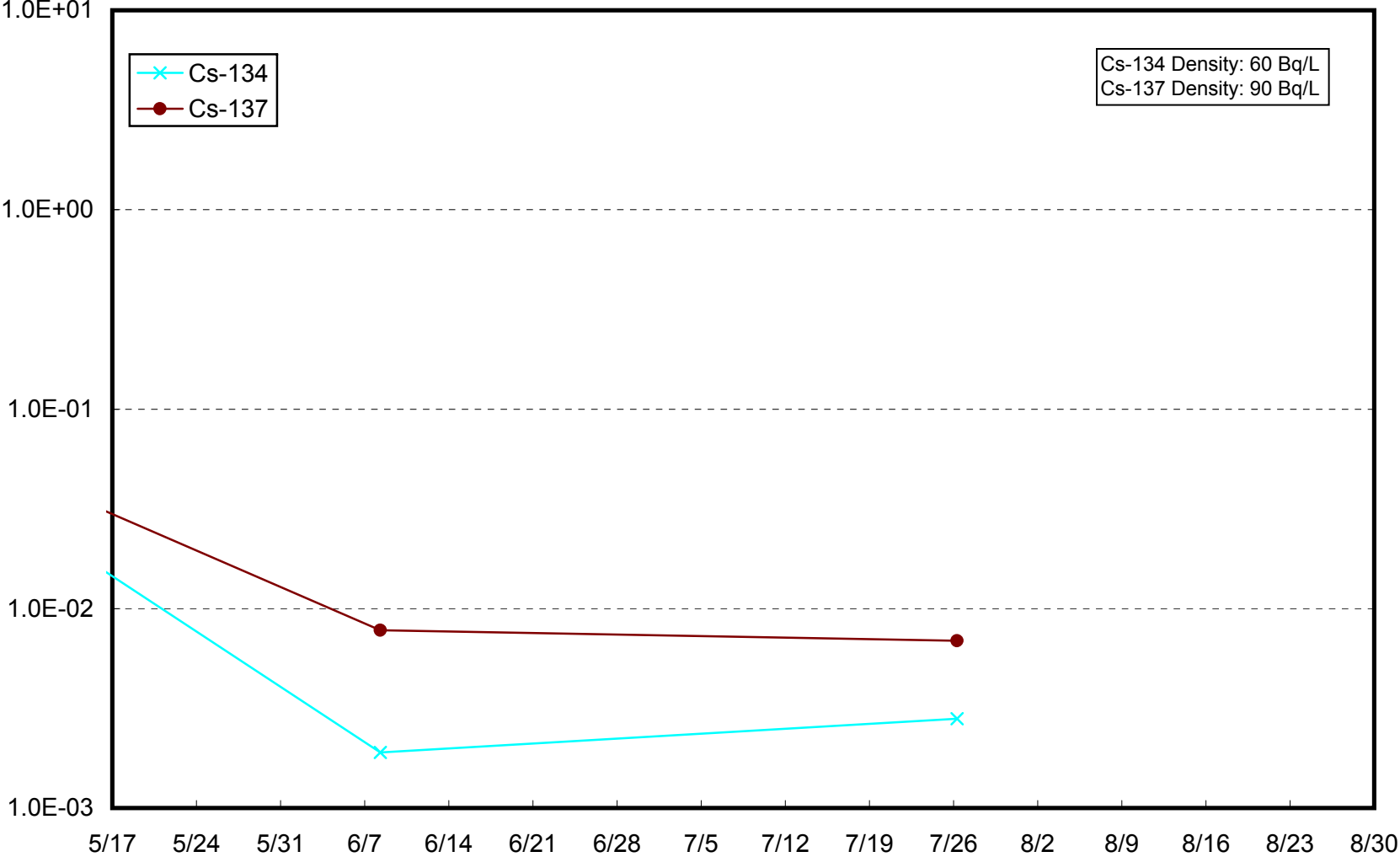
Radioactivity Density of the Seawater at 1km Offshore of Natsui River (T-17-1) Lower Layer (Bq/L)



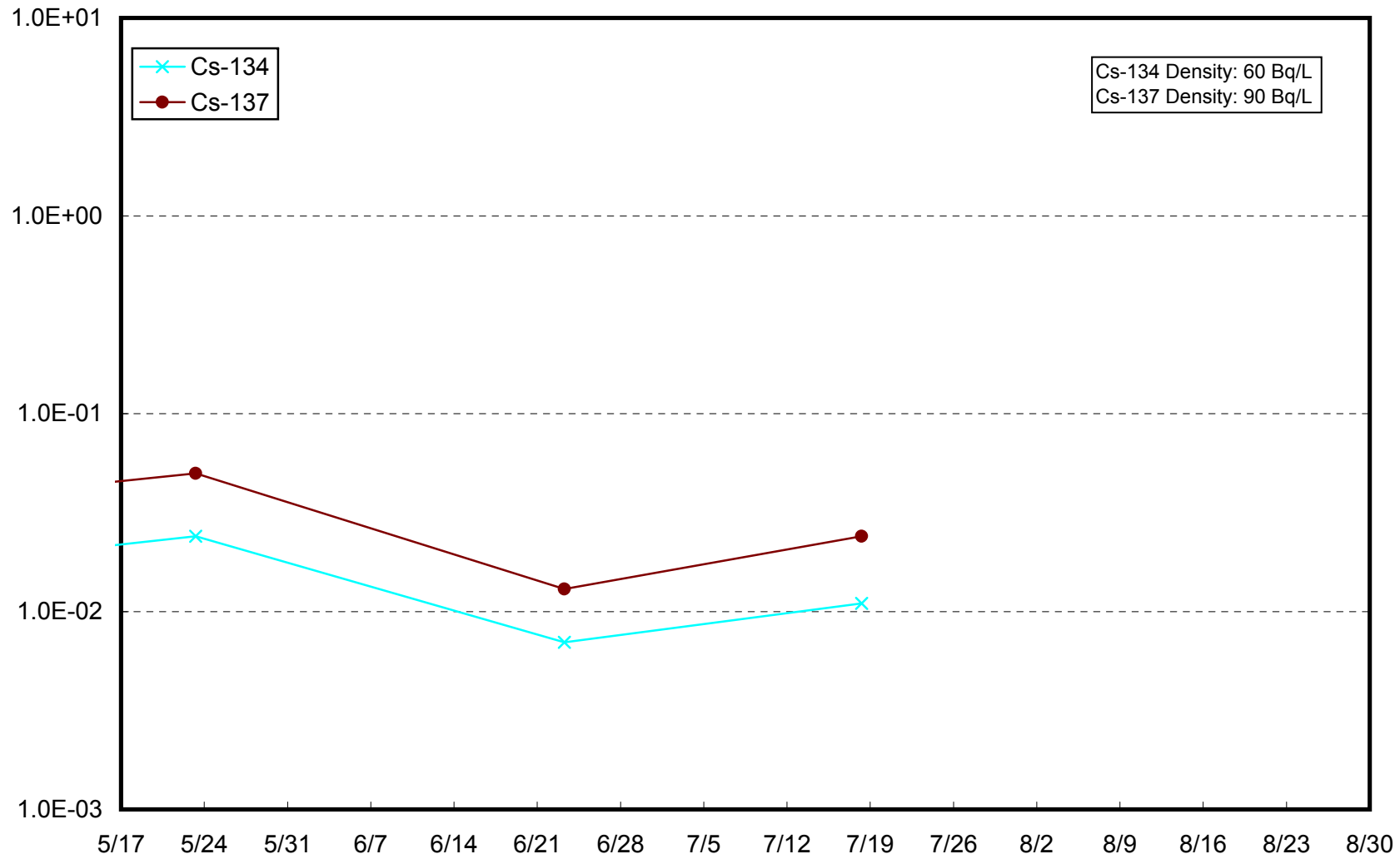
Radioactivity Density of the Seawater at 3km Offshore of Toyoma (T-20) Upper Layer (Bq/L)



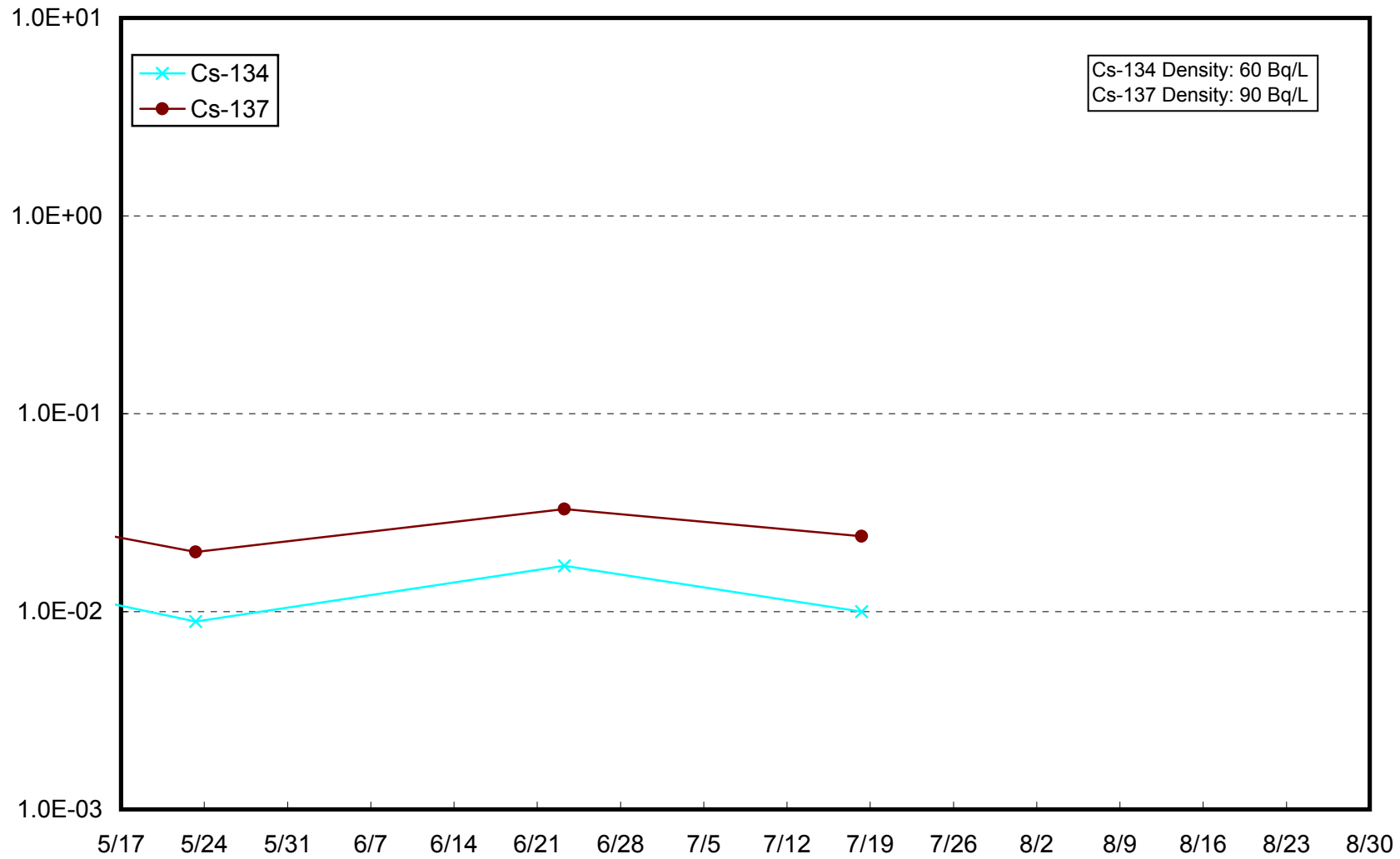
Radioactivity Density of the Seawater at 3km Offshore of Toyoma (T-20) Upper Layer (Bq/L)



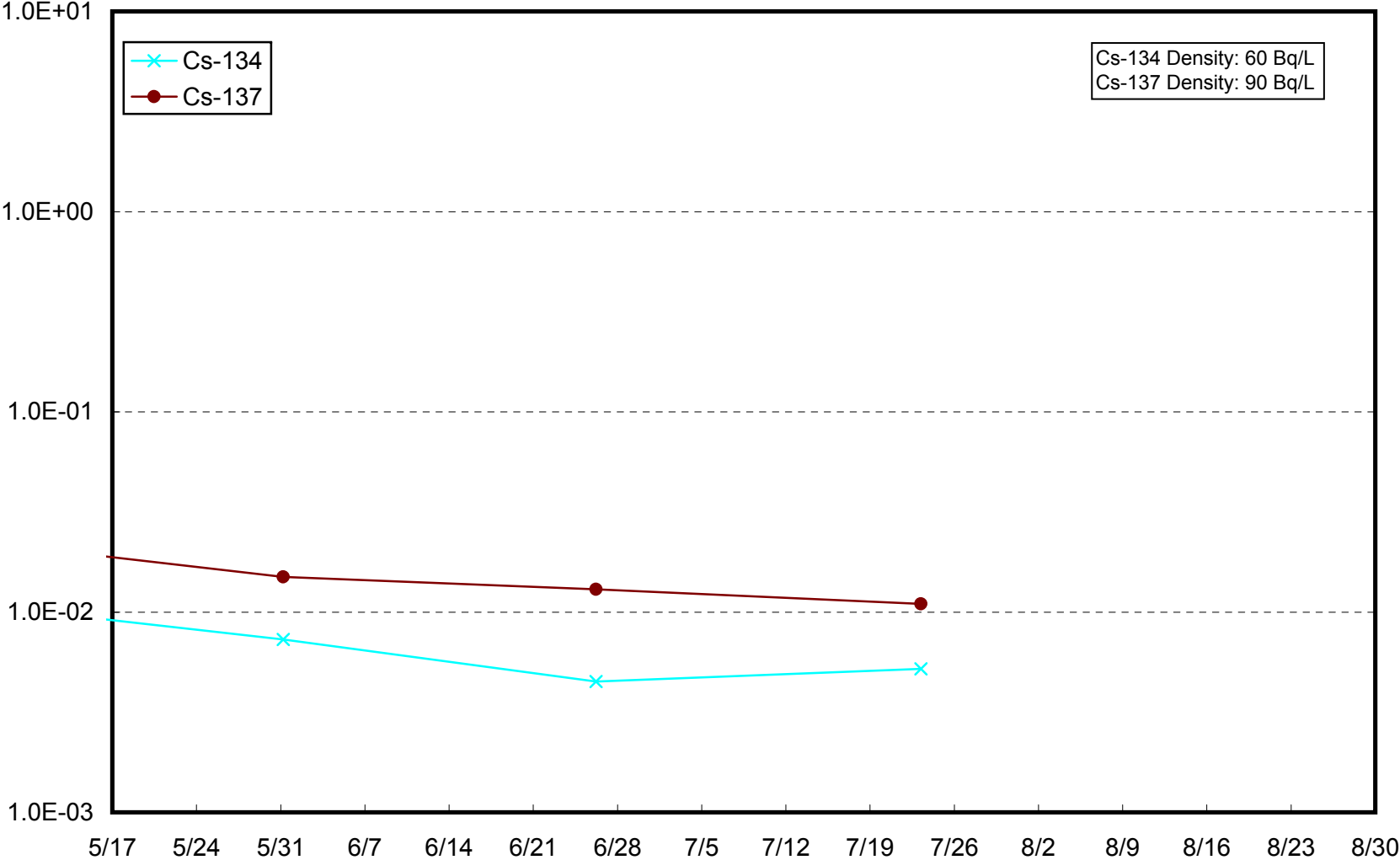
Radioactivity Density of the Seawater Around 4km Offshore of Kumagawa (T-S8) Upper Layer (Bq/L)



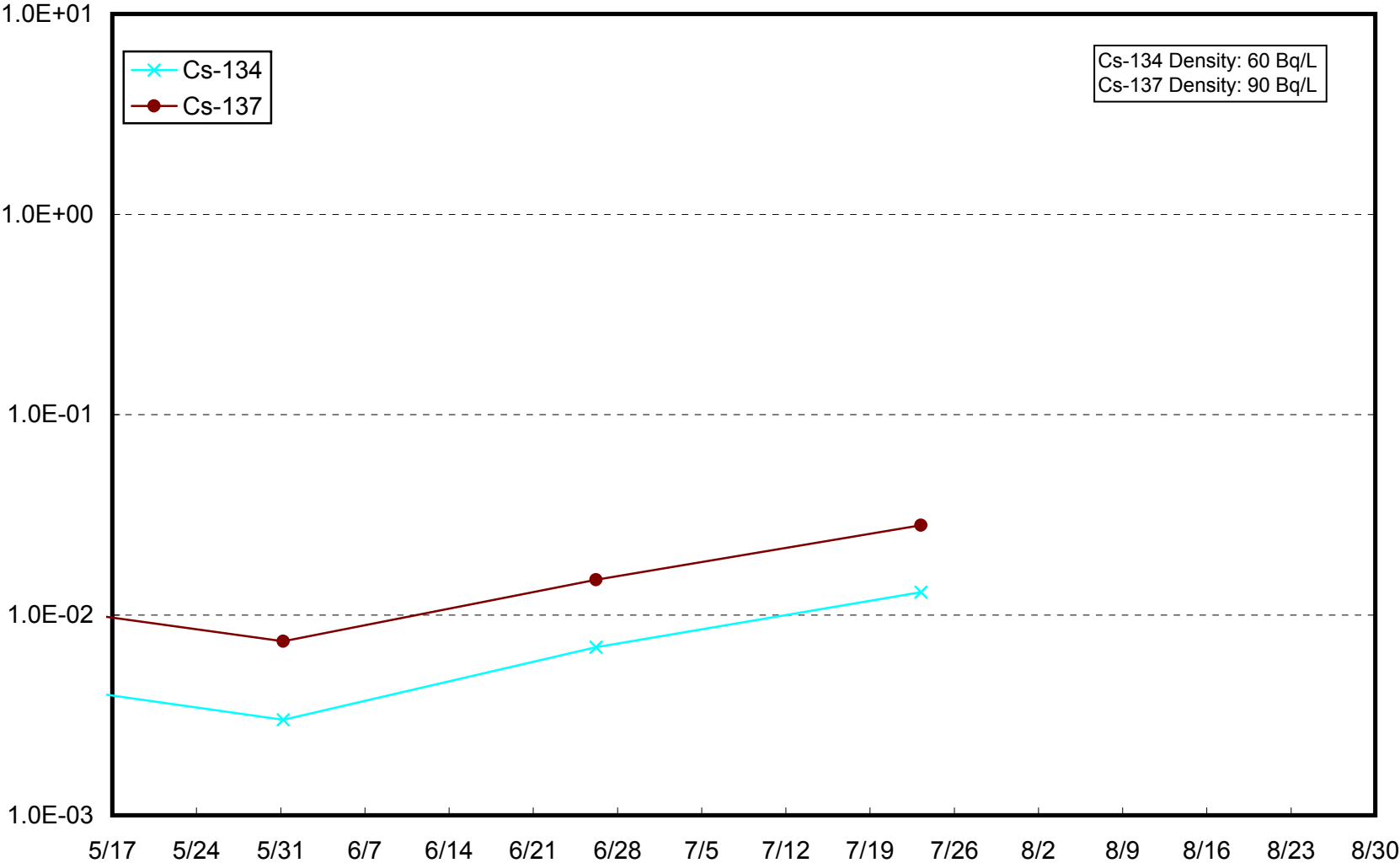
Radioactivity Density of the Seawater Around 4km Offshore of Kumagawa (T-S8) Lower Layer (Bq/L)



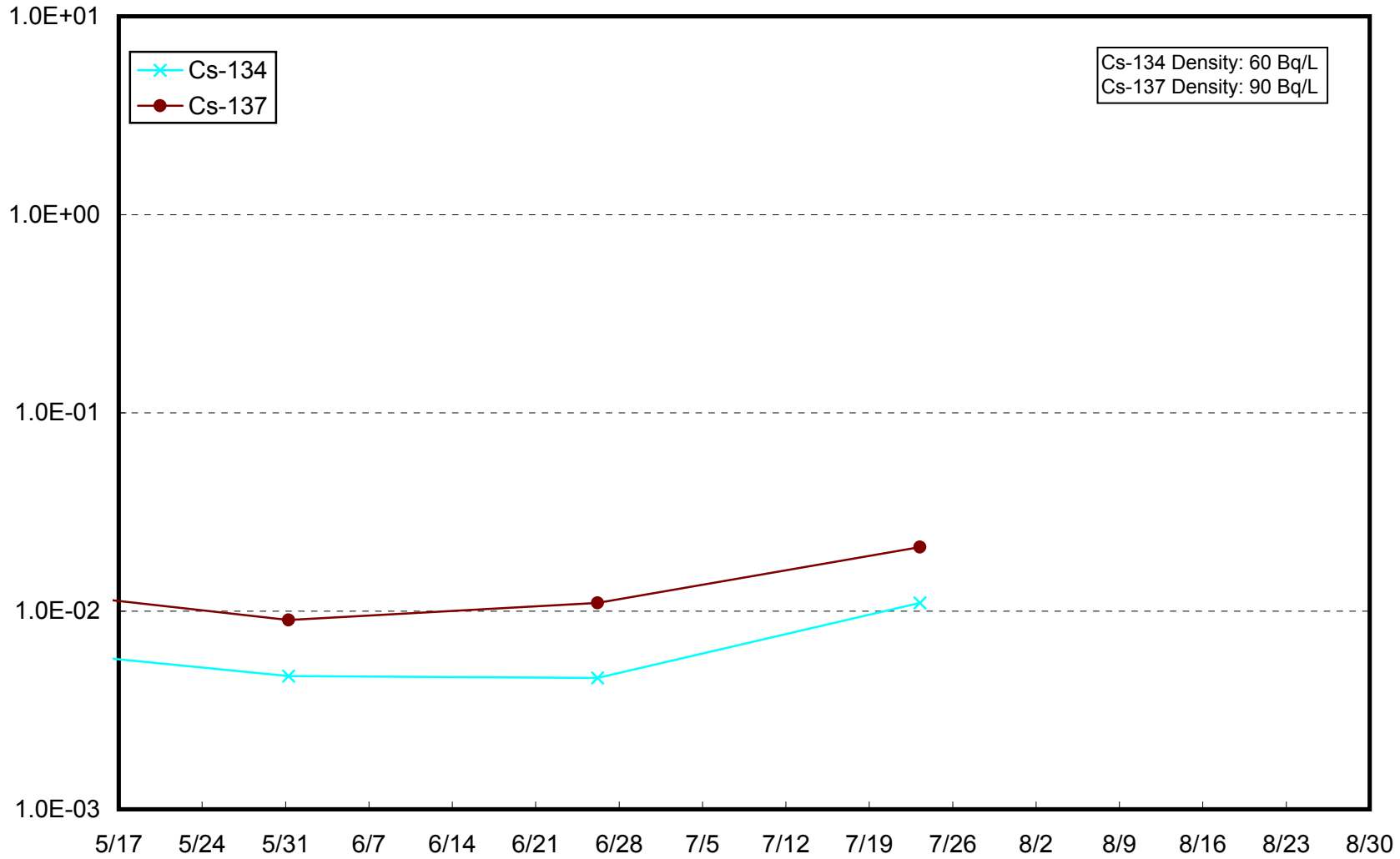
Radioactivity Density of the Seawater at 15km Offshore of Odaka Ward (T-B1) Upper Layer (Bq/L)



Radioactivity Density of the Seawater at 15km Offshore of Odaka Ward (T-B1) Lower Layer (Bq/L)



Radioactivity Density of the Seawater at 18km Offshore of Ukedo River (T-B2) Upper Layer (Bq/L)



Radioactivity Density of the Seawater at 18km Offshore of Ukedo River (T-B2) Lower Layer (Bq/L)

